

JB-2N 2'x4' TYPE M INLET, TYPE 4 BOX (PLACE GRATE OVER BAFFLE)

INV. OUT 362.56 SUMP INV. 361.06

FILL PLACED BETWEEN INFILTRATION BED TRENCHES SHAL BE WELL-COMPACTED TO THE MAXIMUM EXTENT POSSIBLE

12" PERF. CPP PIPE INV. 362.33

UNCOMPACTED SHALY FILL FROM EXCAVATION OF BALANCE OF TRENCH (TYP.)

IF FILL IS REQUIRED TO BE PLACED UNDER LEVELING BED, IT SHALL B

INSTALL PIPE BOOT -

STD. 2'x4' TYPE M INLET W/ 8" TOP UNIT (4' SIDE PARALLEL TO FACILITY PIPES

- BATTEN GEOTEXTILE TO STRUCTURE (TYP.)

TIER NO. 1: (NV. AT INNER WALL OF PIPE 364.33 TIER NO. 2: (NV. AT INNER WALL OF PIPE 362.33

TIER NO. 1: BOTTOM ELEV. 364.00 TIER NO. 2: BOTTOM ELEV. 362.00

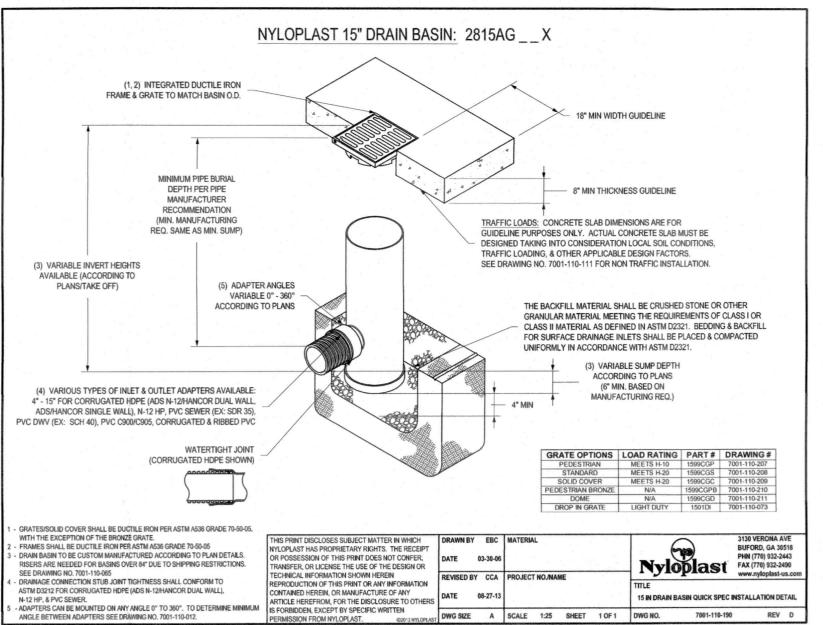
INV. IN 362.33 (NORTH, EAST AND SOUTH SIDES)

24"W x 6'H RECTANGULAR OPENING -

TAPER GEOTEXTILE BACK IN ORDER TO PROVIDE 12" OF COVER OVER TOP OF BED DUE TO EXPOSED WESTERN FACE OF BOX. —
(BATTEN TO SIDES OF STRUCTURE)

PROPOSED GRADE -

BOTTOM ELEV. 362.00



I-1N STD. 2'x4' TYPEM INLET

TOP ELEV. 365.92

PIPE INV. 364.33 BOTTOM ELEV. 364.00

PROPOSED GRADE -

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TIER NO. 1

(SAME DIMENSIONS AS TIER NO. 2)

7" MIN. DEPTH (OR AS RECOMMENDED BY MANUFACTURER)

SHTO NO. 57 OR 67 AGGREGATE LEVELING BED

THIS DETAIL TAKEN FROM PREVIOUSLY APPROVED PCSM PLANS PREPARED BY

STACKHOUSE BENSIGNER, INC., ABD RECORDED IN THE BERKS COUNTY RECORDER

SECTION A-A

INFILTRATION BED NO. 2

OF DEEDS OFFICE AS INSTRUMENT NO. 2015109249.

OPTIONAL HAUNCHING WITH AASHTO NO. 57 STONE (TYP.)-

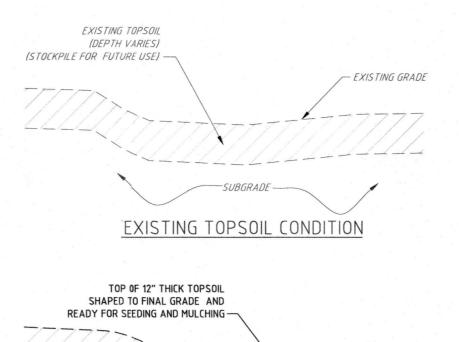
TIER NO. 1: TOP ELEV. 365,92 TIER NO. 2: TOP ELEV. 363,92

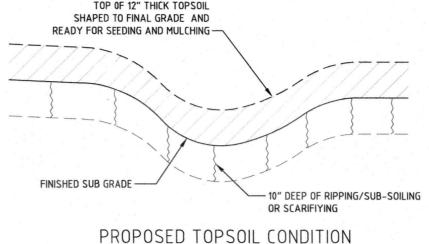
30" RCP BARREL

CONCRETE 12" THICK (MIN) -

ANTI-SEEP COLLAR

- BATTEN GEOTEXTILE TO STRUCTURE (TYP.)





SOIL AMENDMENT DETAILS

FOR AREAS CLASSIFIED AS SOIL AMENDMENT AREAS:

- PRIOR TO TOPSOILING, SCARIFY OR RIP SOIL TO A DEPTH OF 10".
- RIPPING OR SCARIFICATION METHOD SHALL BE A SOLID SHANK RIPPER USING MULTIPLE PASSES TO ACHIEVE THE SPECIFIED DEPTH FOR RELIEF OF SOIL COMPACTION.
- SOIL AMENDMENT MIXTURE AS FOLLOWS: 50% SITE TOPSOIL
- 10% SAND PASSING #8 SIEVE PLACE SOIL AMENDMENT MIXTURE TO A DEPTH OF 12"

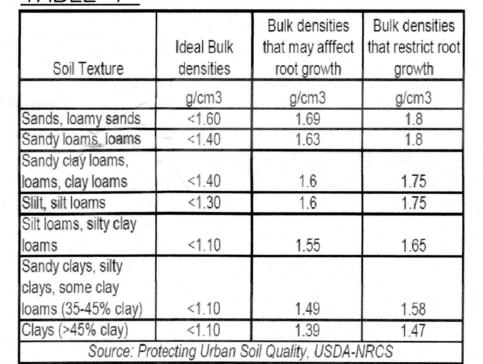
40% COMPOST *

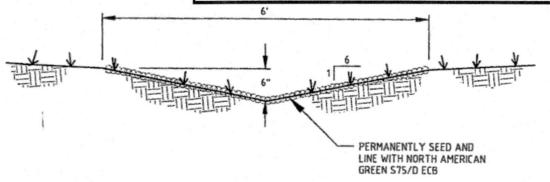
- 5. USE OF HEAVY MACHINERY IS PROHIBITED DURING SOIL AMENDMENT PHASE OF CONSTRUCTION.
- SOIL AMENDMENTS TO BE PERFORMED AFTER CONSTRUCTION IS COMPLETED AND HEAVY MACHINERY WILL NOT TRAVERSE THE SOIL AMENDMENT AREAS.

* COMPOST REQUIREMENTS

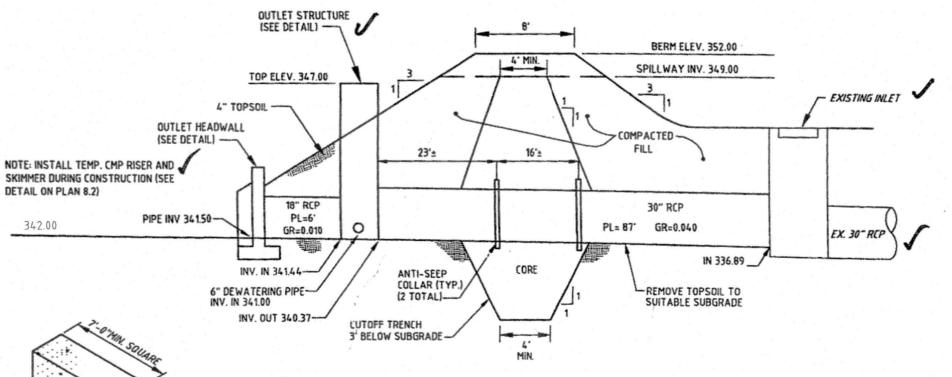
- COMPOST PRODUCTS SPECIFIED FOR USE IN THIS APPLICATION ARE DESCRIBED IN TABLE 1 BELOW. THE PRODUCT'S PARAMETERS WILL VARY BASED ON WHETHER VEGETATION WILL BE ESTABLISHED ON THE TREATED SLOPE. B. ONLY COMPOST PRODUCTS THAT MEET ALL APPLICABLE STATE AND FEDERAL REGULATIONS PERTAINING TO ITS PRODUCTION AND DISTRIBUTION MAY BE USED IN THIS APPLICATION. APPROVED COMPOST PRODUCTS MUST MEET RELATED STATE AND FEDERAL CHEMICAL CONTAMINANT (E.G., HEAVY METALS, PESTICIDES, ETC.) AND PATHOGEN
 - LIMIT STANDARDS PERTAINING TO THE FEEDSTOCKS (SOURCE MATERIALS) IN WHICH IT IS DERIVED. C. VERY COARSE COMPOST SHOULD BE AVOIDED FOR SOIL AMENDMENT AS IT WILL MAKE PLANTING AND CROP ESTABLISHMENT MORE DIFFICULT.
- D. THE USE OF COMPOST PRODUCTS THAT ARE CERTIFIED BY THE U.S. COMPOSTING COUNCIL'S SEAL OF TESTING (STA) PROGRAM (WWW.COMPOSTINGCOUNCIL.ORG) ARE REQUIRED.

TABLE





TYPICAL DETENTION BASIN LOW FLOW CHANNEL



- 1. EMBANKMENT MATERIAL SHALL CONSIST OF SUITABLE MATERIAL FREE OF ALL RODTS, SOD, FROZEN SOIL, ROCK OVER 4" IN DIAMETER. AND ANY OTHER MATERIAL NOT APPROVED BY THE ENGINEER. FILL SHALL BE COMPACTED IN 8" LIFTS TO AT LEAST 95% OF STANDARD MAXIMUM DRY DENSITY PER ASTM D698, STANDARD PROCTOR. PRIOR TO PLACEMENT OF A NEW LIFT, THE TOP 3" OF THE PREVIOUS
- 2. CORE MATERIAL TO BE CLAYEY SOIL (UNIFIED CLASS ML OR CL-ML) COMPACTED TO 98% MAXIMUM DRY DENSITY. DO NOT PROVIDE STONE BEDDING OR BACKFILL AROUND THE OUTLET PIPE
- 4. CONSTRUCT THE EMERGENCY SPILLWAY AND TOP OF BERM AT LEAST 6" ABOVE THEIR DESIGN ELEVATION TO ALLOW FOR SETTIENT. 5. BASIN BOTTOM AND EMBANKMENT TO BE TOPSOILED AND PERMANENTLY SEEDED AND MULCHED PER SEEDING AND MULCHING
- 6. THE OWNER SHALL BE RESPONSIBLE FOR THE STRUCTURAL STABILITY OF SEDIMENT BASINS AND TRAPS AND FOR THEIR PROTECTION AGAINST UNAUTHORIZED ACTS OF THIRD PARTIES.

DETENTION BASIN CROSS-SECTION

THE CONTRACTOR SHALL NOTIFY THE BERKS COUNTY CONSERVATION DISTRICT AT LEAST 7 DAYS PRIOR TO THE START OF EARTHMOVING ACTIVITIES.

- 2. ALL EARTHMOVING CONTRACTORS MUST BE ADDED AS CO-PERMITTEES TO THE NPDES PERMIT AFTER ALL EARTHMOVING ACTIVITY HAS CEASED AND THE ENTIRE PERMITTED AREA IS PERMANENTLY STABILIZED, THE PERMITTEE(S) MUST SUBMIT A NOTICE OF TERMINATION FORM TO THE BERKS COUNTY CONSERVATION DISTRICT TO CLOSE OUT THE NPDES PERMIT.
- 3. THE PERMITTEE AND CO-PERMITTEE(S) SHALL COMPLY WITH ALL OF THE MONITORING AND REPORTING REQUIREMENTS, AS OUTLINED IN PART A.2 OF THE NPDES PERMIT. THE PERMITTEE AND CO-PERMITTEE(S) SHALL ENSURE THAT SITE INSPECTIONS ARE CONDUCTED AT LEAST WEEKLY AND AFTER EACH MEASURABLE PRECIPITATION EVENT BY QUALIFIED PERSONNEL
- TRAINED AND EXPERIENCED IN E&SC PRACTICES TO ASCERTAIN THAT THE E&SC BMPS ARE OPERATIONAL AND EFFECTIVE. A WRITTEN REPORT SHALL BE KEPT FOR EACH INSPECTION, IN ACCORDANCE WITH THE REQUIREMENTS OF PART A.2.A.
- THIS PLAN IS FOR THE IMPLEMENTATION OF E&SC MEASURES ONLY. THIS PLAN SHOULD NOT BE
- USED FOR THE CONSTRUCTION OF NON-E&SC MEASURES.
- THE CONTRACTOR SHALL COMPLY WITH ALL SOIL CONSTRUCTION LIMITATIONS NOTED ON THIS
- IN NON-STRUCTURAL FILL AREAS, COMPACT FILL IN 12" LIFTS TO 90% COMPACTION. CONSTRUCT AN 12' DIAMETER AREA SURROUNDED BY SILTSOXX. ALL CONCRETE TRUCK WASH WATER WILL BE DISCHARGED TO THIS AREA SO THE CONCRETE FINES CAN BE FILTERED OUT BEFORE THE WATER IS DISCHARGED FROM THE SITE. AFTER CONSTRUCTION THE SILTSOXX AND CONTAMINATED SOIL WILL BE DISPOSED OF IN AN APPROVED MANNER.
- 9. BEFORE INITIATING ANY REVISION TO THE APPROVED FROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S PLAN, THE OPERATOR MUST RECEIVE DIRECT APPROVAL OF THE REVISIONS FROM THE BERKS COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORSEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BES
- POLLUTION. 10. ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER

MANAGE PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT

- NON-DISTURBED AREAS. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
- 12. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. ADDITIONALLY, THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED. AND HAS BEEN APPROVED BY THE BERKS COUNTY CONSERVATION DISTRICT AND/OR LOCAL MUNICIPALITY IN COMPLIANCE WITH CHAPTER 102 RULES & REGULATIONS, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFF SITE SOIL AND/OR ROCK SPOIL AND/OR BORROW AREAS.
- THERE ARE NO GEOLOGIC CONDITIONS PRESENT THAT WILL CONTAMINATE THE SITE OR RECEIVING WATERSHED.

SOILS CONSTRUCTION LIMITATIONS:

FOR PERMANENT STABILIZATION.

- CUT BANKS SUSCEPTIBLE TO CAVING -- BERKS-WEIKERT, COMLY AND WEIKERT-BERKS --APPROPRIATE PRECAUTIONS MUST BE TAKEN TO SAFEGUARD WORKERS DURING ALL TRENCHING AND EXCAVATION OPERATIONS. ALL APPLICABLE OSHA STANDARDS AND REGULATIONS MUST BE IMPLEMENTED AT ALL TIMES.
- DEPTH TO SATURATED ZONE, SEASONAL HIGH WATER TABLE. -- COMLY -- IF GROUNDWATER IS ENCOUNTERED, THE WATER WILL BE PUMPED TO A SEDIMENT REMOVAL DEVICE (I.E. DIRTBAG●
- EASILY ERODIBLE -- COMLY -- LIMIT DURATION OF EXPOSURE OF GRADED AREAS, PARTICULARLY ON STEEPER SLOPES, BY BRINGING SMALLER SECTIONS OF GRADED AREAS TO FINISHED GRADE
- LOW PH -- BERKS-WEIKERT, CALVIN-KLINESVILLE, COMLY AND WEIKERT-BERKS -- ACCORDING TO THE SOIL SURVEY THESE SOILS ARE CHARACTERIZED BY LOW PH; CONSEQUENTLY, PRIOR TO PERMANENT STABILIZATION, THE OPTIMUM LIMING RATE SHALL BE ESTABLISHED BY REPRESENTATIVE SOIL TESTING.
- POOR SOURCE OF TOPSOIL -- BERKS-WEIKERT, COMLY AND WEIKERT-BERKS -- USE BEST TOPSOIL STRIPPED FROM THE SITE. CARE SHALL BE TAKEN TO PREVENT MIXING OF TOPSOIL AND SUBSOIL DURING STRIPPING OPERATIONS. APPLY LIME AND FERTILIZER IN ACCORDANCE WITH RECOMMENDATIONS, FROM REPRESENTATIVE SOIL TESTING OF ALL SOURCES OF TOPSOIL.
- UNSUITABILITY FOR WINTER GRADING AND FROST ACTION -- CALVIN-KLINESVILLE, COMLY AND WEIKERT BERKS -- IF GRADING ACTIVITIES TAKE PLACE DURING THE WINTER MONTHS. EARTHWORK SHALL BE RESTRICTED TO PERIODS WHEN THE AIR TEMPERATURE IS ABOVE FREEZING, AND WET OR FROZEN SOIL SHALL NOT BE USED FOR BULK FILL OR TRENCH BACKFILL.

SCHEDULE OF INSPECTION FOR CRITICAL STAGES OF BMP INSTALLATION:

- PROFESSIONAL INSPECTION STAFF SHALL BE PRESENT DURING:. CONSTRUCTION INFILTRATION BED NO. 1 AND NO. 2
- CONSTRUCTION OF INDIVIDUAL LOT INFILTRATION TRENCHS:
- DURING THE EXCAVATION OF THE LAST FOOT OF NATIVE MATERIAL JUST ABOVE THE GRAVEL IN THE BASIN INVERT.
- •• PLACEMENT OF THE FILTER FABRIC AND GRAVEL IN THE BED INVERT PLACEMENT OF THE BED INFILTRATION INLETS AND ASSOCIATED FILTER FABRIC AND
- AGGREGATE FILTER. INSTALLATION OF SOIL AMENDMENTS.
- CONVERSION OF SEDIMENT BASIN TO PCSM CONDITIONS. (SEE PROCEDURE BELOW)
- INSPECTION OF ALL BMPS TO TAKE PLACE ON A WEEKLY BASIS AND AFTER EVERY RAIN EVENT SEDIMENT INSPECTION AND REMOVA 1. ALL SEDIMENT REMOVAL DEVICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF
- EVENT. ALL SEDIMENT COLLECTED SHALL BE REMOVED. ANY DAMAGED EROSION AND SEDIMENTATION CONTROLS SHOULD BE REPLACED IMMEDIATELY. 2. THE SEDIMENT COLLECTED IN THE SEDIMENT CONTROL BASIN WHEN IT REACHES THE CLEANOUT
- 3. ANY DAMAGE TO STRUCTURES OCCURRING DURING SEDIMENT REMOVAL SHALL BE REPLACED TO AND WITH ORIGINAL MATERIAL TO THE ORIGINAL FACILITY CAPACITY. WHERE EROSION HAS

OCCURRED IT MAY BE CORRECTED BY PLACEMENT OF RIPRAP. THE RIP RAP SHALL BE AT LEAST R-4

- 4. SEDIMENT REMOVED FROM FACILITIES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED. 5. PROCEDURE FOR CONVERTING SEDIMENT BASIN TO PCSM CONDITION:
- a. REMOVE ACCUMULATED SEDIMENT, REPAIR THE CLAY LINER AS NECESSARY, AND SPREAD TOPSOIL ON THE BASIN BOTTOM (PER THE PERMANENT GRADING PLAN) AND INTERIOR SLOPES BELOW THE CLEANOUT ELEVATION.
- b. PERMANENTLY STABILIZE ALL TOPSOILED OR DISTURBED AREAS.
- c. REMOVE THE OUTLET STRUCTURE TRASH RACK.
- INSTALL THE INLET GRATE.
- e. REMOVE THE SKIMMER AFTER THE INTERIOR OF THE DETENTION BASIN ACHIEVES PERMANENT STABILIZATION AND INSTALL THE PERMANENT ORIFICE PLATE ON THE OUTLET HEADWALL.
- SITE DRAINS TO NORTHKILL CREEK AND IS LOCATED IN THE SCHUYLKILL RIVER WATERSHED. CHAPTER 93 DESIGNATED WATER USE IS COLD WATER FISH (CWF) AND MIGRATORY FISHES (MF) RESPONSIBILITIES FOR FILL MATERIALS:
- IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE GENERAL CONTRACTOR.
- 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. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
- ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART O 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 27: MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT <u>WWW.PACODE.COM</u>. REGULATED FILL SHALL NOT BE USED ON THIS SITE. **CLEAN FILL NOTES:**

THERE WILL BE NO FILL EXPORTED FROM THE SITE. THEREFORE A CLEAN FILL DETERMINATION IS NOT REQUIRED.

THE AREA SHOWN AS THE LIMIT OF CONSTRUCTION ON THIS PLAN SHALL BE DELINEATED IN THE FIELD BY ORANGE CONSTRUCTION FENCING OR STAKES AND ROPE TO PREVENT ANY DISTURBANCE OUTSIDE THIS AREA. ANY DELINEATING DEVICES USED THAT ARE KNOCKED DOWN BY CONSTRUCTION EQUIPMENT SHALL BE IMMEDIATELY RESTORED AND REPLACED AS NECESSARY. DISTURBANCE OUTSIDE THIS AREA IS PROHIBITED.

SEQUENCE OF PCSM BMP IMPLEMENTATION IN RELATION TO EARTH DISTURBANCE:

- PCSM BMP IMPLEMENTATION IS TO COINCIDE WITH THE CONSTRUCTION SEQUENCE AS SHOWN IN THE EROSION AND SEDIMENT CONTROL NARRATIVE AND ON THE EROSION AND SEDIMENT CONTROL NOTES.
- CONSTRUCTION OF THE DETENTION BASIN EMBANKMENTS IS TO COINCIDE WITH STEP 5 OF THE CONSTRUCTION
- SEQUENCE. 2. CONSTRUCTION OF THE PAVEMENT IS TO COINCIDE WITH STEP 13 OF THE CONSTRUCTION SEQUENCE.

ALL LIMITATIONS NOTED IN THE E&SC NARRATIVE AND ON THE PLANS REGARDING STABILIZATION OF TIMING OF INSTALLATION OF BMP FACILITIES ARE TO BE FOLLOWED.

STORM WATER BMP NOTES:

AREAS ARE TO BE INSPECTED IN SPRING AND FALL TO ASSURE GOOD VEGETATIVE GROWTH AND TO RESEED BARE SPOTS, AS NEEDED. AMENDED SOIL AREAS ARE TO BE INSPECTED AFTER RAINFALL OF 1/2" IN 24 HOURS TO CORRECT EROSION DAMAGE, IF REQUIRED. AMENDED SOIL AREAS ARE TO BE MOWED AS NEEDED.

INFILTRATION BEDS ARE TO BE INSPECTED QUARTERLY. INSPECT BED AND BED COMPONENTS TO DETERMINE BED

DAMAGE WHICH WOULD PREVENT PROPER OPERATION. CORRECT ANY DAMAGED ITEMS.

ALL INSPECTIONS ARE TO BE CONDUCTED BY THE PROPERTY OWNER AND ANY DAMAGE IS TO BE CORRECTED IMMEDIATELY, A RECORD OF DAMAGE AND CORRECTIVE ACTION MADE, AND RETAINED FOR A PERIOD OF TWO YEARS.

SEDIMENT INSPECTION AND REMOVAL:

- ALL SEDIMENT REMOVAL DEVICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF EVENT. ALL SEDIMENT COLLECTED SHALL BE REMOVED. ANY DAMAGED EROSION AND SEDIMENTATION CONTROLS SHOULD BE REPLACED IMMEDIATELY.
- 2. ANY DAMAGE TO STRUCTURES OCCURRING DURING SEDIMENT REMOVAL SHALL BE REPLACED TO AND WITH ORIGINAL MATERIAL TO THE ORIGINAL FACILITY CAPACITY. WHERE EROSION HAS OCCURRED IT MAY BE
- CORRECTED BY PLACEMENT OF RIPRAP. THE RIP RAP SHALL BE AT LEAST R-4 SIZE SEDIMENT REMOVED FROM E & S CONTROLS AND FACILITIES SHALL BE DISPOSED OF IN LANDSCAPED AREAS
- OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, PLACED ON TOPSOIL STOCKPILES. OR HAULED OFF-SITE TO A PERMITTED CONSTRUCTION OR STORAGE SITE.
- 4. SEDIMENT SHALL BE REMOVED FROM FOREBAYS WHEN FOREBAY IS AT HALF CAPACITY AS SHOWN BY THE SEDIMENT MEASURING DEVICE TO BE PLACED IN EACH FOREBAY AT THE LOCATION SHOWN ON THIS PLAN.

CONSTRUCTION SEQUENCE FOR BMP'S

- 1. INSTALL LIMIT OF DISTURBANCE FENCING.
- 2. GRUBBING MAY NOT PROCEED UNTIL SEDIMENT BASIN AND SWALES TRIBUTARY TO THE SEDIMENT BASIN HAVE BEEN CONSTRUCTED AND SEEDED AND/OR MULCHED.
- a. CONSTRUCT AND STABILIZE SWALES TRIBUTARY TO THE SEDIMENT BASIN PROCEEDING UPSLOPE FROM DOWNSTREAM LIMITS PRIOR TO REMAINDER OF SITE DISTURBANCE TO ENSURE SEDIMENT LADEN WATER IS
- 4. INSTALL SOIL AMENDMENTS AND TREES AFTER ALL OTHER AREAS ARE STABILIZED.

5. CONVERT SEDIMENT BASIN TO FINAL CONFIGURATION. INSTALL SOIL AMENDMENTS IN BASIN BOTTOM.

BMP MAINTENANCE NOTES AND REQUIREMENTS:

DIRECTED TO THE SEDIMENT BASIN.

THE SOIL RESTORATION PROCESS MAY NEED TO BE REPEATED OVER TIME, DUE TO COMPACTION BY USE AND/OR SETTLING. ALL AREAS TO BE WELL MAINTAINED WITH STABILIZED VEGETATIVE COVER. WASHOUT AREAS OR BARE AREAS ARE TO BE REPLANTED AND/OR STABILIZED AT ONCE.

INFILTRATION BEDS

AT 6 MONTH INTERVAL AND AFTER EACH 1 INCH OR MORE RAINFALL EVENT.

TEMPERATURES, PRIOR TO REACHING SURFACE WATERS.

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL DEMOLITION WASTES, EXCESS BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE, ANY CONTAMINATED MATERIALS ENCOUNTERED MUST BE STORED ONSITE. IMMEDIATELY NOTIFY PADEP SOUTH CENTRAL REGION OFFICE AT 866-825-0208 TO REPORT THE ENCOUNTERED MATERIALS AND RECEIVE SPECIFIC INSTRUCTION ON HANDLING TH MATERIALS ONSITE. CONTAMINATED MATERIALS ARE NOT TO LEAVE THE SITE UNTIL PROPERLY MANAGED PER CHAPTER 245 REQUIREMENTS.

POTENTIAL THERMAL IMPACTS TO SURFACE WATERS OF THE COMMONWEALTH INCLUDE THE FOLLOWING ACTIVITIES: 1. EXPOSURE OF STORMWATER TO SURFACES, SPECIFICALLY PAVEMENT AND ROOFTOPS, WITH ELEVATED

BMPS AND/OR CONSTRUCTION PRACTICES USED TO AVOID, MINIMIZE OR MITIGATE POTENTIAL FOR THERMAL

- 1. THE "FIRST FLUSH" (INITIAL 1/2" OF STORM RUNOFF) CONTAINING THE MAJORITY OF HIGH TEMPERATURE RUNOFF FROM IMPERVIOUS SURFACES SUCH AS ROADS WILL BE COLLECTED AND CONVEYED TO THE REGIONAL INFILTRATION BED WHICH WILL ALLOW FOR INFILTRATION OF THE HIGH TEMPERATURE RUNOFF, ADDITIONALLY HIGH TEMPERATURE RUNOFF FROM IMPERVIOUS SURFACES SUCH AS ROADS WILL BE COLLECTED AND CONVEYED TO THE DETENTION BASIN WHICH WILL ALLOW FOR INFILTRATION OF THE HIGH TEMPERATURE RUNOFF IN THE
- AMENDED SOIL ON THE BASIN BOTTOM. 2. THE "FIRST FLUSH" (INITIAL 1/2" OF STORM RUNOFF) CONTAINING THE MAJORITY OF HIGH TEMPERATURE ROOF RUNOFF WILL BE COLLECTED AND INFILTRATED AND/OR STORED IN ON-LOT UNDERGROUND INFILTRATION

INFILTRATION BED MODIFICATION PROCEDURE

D. Inspect vegetated areas for erosion.

Inspect vegetated areas for unwanted/invasive species

INITIAL INFILTRATION TESTING HAS DETERMINED THE INFILTRATION RATE WILL BE IN EXCESS OF 10"/HR. THE MAXIMUM DESIRED RATE OF INFILTRATION, BASED ON PROTOCOL 2 IN APPENDIX C OF THE PA BMP STORMWATER MANUAL, FOR LOW POLLUTANT RISK AREAS, IS 10"/HR.

PER THE PA BMP STORMWATER MANUAL, A LAYER OF MODIFIED SOIL, INCLUDING AN ORGANIC LAYER, MAY BE PLACED UNDER THE BED TO BUFFER THE INFILTRATING WATER. THIS SOLUTION REQUIRES NO FURTHER TESTING. ALTERNATIVELY, AS DETAILED BELOW, THE SOIL MAY BE COMPACTED TO ACHIEVE A RATE WITHIN THE ACCEPTABLE

AS AN OPTION TO PLACING ORGANICALLY MODIFIED SOIL, COMPACTION OF IN-SITU SOILS MAY BE PERFORMED ON AN 18" THICK LAYER OF SOIL UNDER THE AFFECTED BEDS TO ACHIEVE AN INFILTRATION RATE BETWEEN 0.5"/HR AND 10"/HR. THIS SOIL IS TO BE TESTED AFTER COMPACTION TO DETERMINE THE MODIFIED INFILTRATION RATE. THE INFILTRATION RATE WILL BE TESTED AT THE BOTTOM OF BED ELEVATION AS NOTED.

THE POST-COMPACTION INFILTRATION TEST SHALL UTILIZE THE DOUBLE-RING INFILTROMETER TEST PROCEDURE DETAILED IN APPENDIX C OF THE PA BMP STORMWATER MANUAL. EACH BED SHALL HAVE TWO POST-COMPACTION NFILTRATION TESTS. SHOULD RE-COMPACTION BE REQUIRED, RETESTING SHALL BE PERFORMED NO CLOSER THAN 10' FROM A PREVIOUS TEST. AFTER THE DESIRED INFILTRATION RATE IS VERIFIED, HEAVE EQUIPMENT WILL BE EXCLUDED FROM THE AREA TO PREVENT OVER COMPACTION.

A REPORT OF ALL THE VARIOUS LEVELS OF COMPACTIVE EFFORT EXPENDED, AND THE INFILTRATION RATES OBTAINED, INCLUDING ANY UNACCEPTABLE RESULTS, SHALL BE PROVIDED TO THE CERTIFYING AND DESIGN ENGINEERS. THIS REPORT WILL INCLUDE WEATHER CONDITIONS, THE SIZE AND TYPE OF COMPACTOR USED AND THE

CONSTRUCTION OF THE BED MAY PROCEED AFTER TESTING HAS BEEN CERTIFIED BY A PA REGISTERED ENGINEER AND THE RESULTS HAVE BEEN APPROVED BY THE CONSERVATION DISTRICT.

BMP OPERATION MAINTENANCE RECOMMENDATIONS

BMP AND REQUIREMENT	Inspection	Inspection	
	Frequency	Completed	In Compliano
Soil Amendment			
Debris and Sediment	en de la composition	independent i propositione soci	Contestioners transmission reports but
 Contributing area clean of debris and sediment 	2 times per year	Yes/No	Yes/No
B. Drainage Area Stabilization			
 Contributing area stabilized, no erosion evident 	2 times per year	Yes/No	Yes/No
C. Oil and Grease	and the second s		
 Activities in drainage areas minimize oil and 	The second secon	Lancard Tay Submitted	
grease contamination potential.	Ongoing	Yes/No	Yes/No
D. Vegetative Cover	**************************************		Photo and Administration of the control of the cont
 Vegetation covers entire area to required density 	4 times per year	Yes/No	Yes/No
Vegetation is in good condition, no evidence of	The state of the s		The second second second second
weeds or invasive plants	4 times per year	Yes/No	Yes/No
2. Sumped Inlets			
Contributing area clean of debris & sediment	2 times per year	Yes/No	Yes/No
B. Contributing area stabilized	2 times per year	Yes/No	Yes/No
C. Grates and Inlet screens unobstructed	2 times per year	Yes/No	Yes/No
Inlets and outlets free of debris	4 times per year	Yes/No	Yes/No
Clear of floating debvris	4 times per year	Yes/No	Yes/No
F. Sediment at least 6" below outlet	4 times per year	Yes/No	Yes/No
3. Infiltration Beds			
A. Contributing pavement free of oil, grease & debris.	Ongoing	Yes/No	Yes/No
B. Inlets and outlets free of debris	2 times per year	Yes/No	Yes/No
C. Draining rapidly and freely.	Ongoing	Yes/No	Yes/No
 D. No construction staging, soil/mulch storage, etc on 			2 2 7
unprotected pavement surface	Ongoing	Yes/No	Yes/No
Individual On-Lot Infiltration Trenches			
Roof gutters and downspouts clear of debris	Ongoing	Yes/No	Yes/No
B. Roof gutters and downspouts in good repair and function	Ongoing	Yes/No	Yes/No
C. Draining rapidly and freely.	Ongoing	Yes/No	Yes/No
Overflow pipe free and clear of debris	Ongoing	Yes/No	Yes/No
5. Detention Basin			
A. Area receiving debris & sediment clear and clean.	4 times per year	Yes/No	Yes/No
B. Removal of sediment when basin is dry.	4 times per year	Yes/No	Yes/No
C. Mowing and trimming of vegetation.	Ongoing	Yes/No	Yes/No

1 time per year Yes/No

1 time per year Yes/No Yes/No

LICENSIA THE TOTAL PROPERTY. GREGG A. BOGIA ENGINEER 44503-E

FALLA DEVELOPMENT, 105 LAKEVIEW [HARLEYSVILLE, P JOB: PENN HILLS PHASES 3 &

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