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EROSION & SEDIMENTATION CONTROL PLAN

HUNTINGDON RUTTER'S STORE #93

SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY
PENNSYLVANIA

DATE & INITIALS	REVISION DESCRIPTION
12/30/22 BSP	NPDES PERMIT RESUBMISSION
09/08/22 BSP	NPDES PERMIT RESUBMISSION
02/24/22 BSP	NPDES PERMIT SUBMISSION

SCALE: 1"=30' (30' 0' 30')

PROJECT NO.: 3746-5
FILE NAME: E&S.DWG
DATE: 10/21/21
DESIGNED BY: BSP
DRAWN BY: BSP
CHECKED BY: ---

ES1

EROSION CONTROL LEGEND

- LIMIT OF DISTURBANCE
- CFS — COMPOST FILTER SOCK
- PROTECTIVE FENCE
- INLET FILTER BAG
- EROSION CONTROL BLANKET
- ERNMX-122
- PALUSTRINE EMERGENT WETLAND
- PALUSTRINE SCRUB SHRUB WETLAND


MATCH LINE
HIGHWAY
860+00
861+00
862+00
863+00
864+00
865+00
866+00
867+00
868+00
869+00
INLET
TOP=666.26
INV=662.61
18" RCP
TO HUNTINGDON
INLET FILTER BAG (TYP.)
6" DIP
MH 2
8" PVC
SEWER MAIN EXTENSION
INLET
TOP=665.22
(A)IN=662.21
(B)IN=662.10
OUT=±662.1
4" PVC
SEWER SERVICE LATERAL
480LF @ 0.85%
CONTRACTOR TO FIELD VERIFY
CONNECT TO EXISTING SERVICE
COORDINATE WITH MUNICIPALITY
NPDES
PERMIT BOUNDARY
INV=656.07
MH 1
MH
TOP=662.13
INV=655.83
LIMIT OF
DISTURBANCE
INLET
TOP=657.08
INV=651.91
HIGHWAY
SLOPE
EASEMENT
CONNECT TO EXISTING SERVICE LINE
AT THIS APPROXIMATE LOCATION
COORDINATE WITH MUNICIPALITY
SIGN
CO/VENT
HOSS'S
BUILDING
CO
44-02-1.7
N/F
RANDY E. DICK
336/561
44-02-1.4
N/F
FABIO ALONGI et al
2012-7026
44-02-1.6
N/F
HOSS'S RESTAURANT
OPERATIONS INC.
534/545
44-02-20.2
N/F
HOSS'S RESTAURANT
OPERATIONS INC.
534/545
44-02-20
N/F
MAT PLAZA
946/277
44-01-28
N/F
INDUSTRIAL SCHOOLS
251/750

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EROSION & SEDIMENTATION CONTROL PLAN

HUNTINGDON RUTTER'S STORE #93

SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY PENNSYLVANIA

PROJECT NO.:	3746-5
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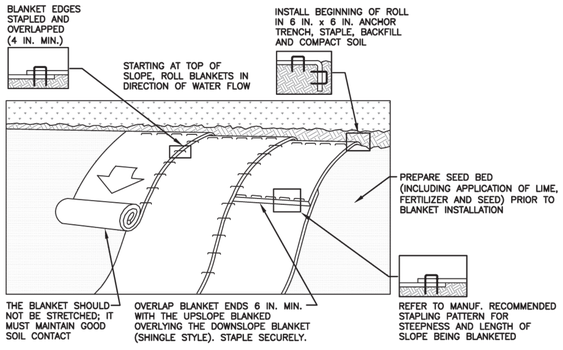
DRAWN BY:	BSP
CHECKED BY:	---

ES2



NOTES:

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

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

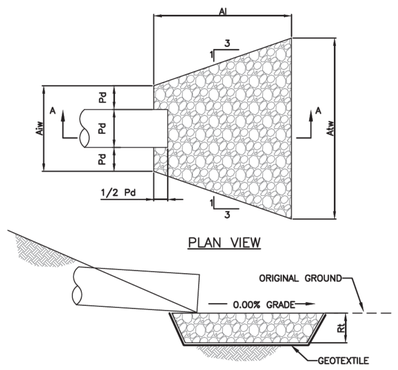
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

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

STANDARD CONSTRUCTION DETAIL #11–1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



OUTLET NO.	PIPE NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R––	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
1	1	24	5	30	18	6.0	24.0
2	19	15	4	18	12	3.75	15.75

NOTES:

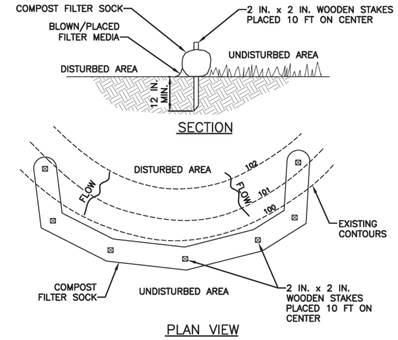
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

STANDARD CONSTRUCTION DETAIL #9–2
RIPRAP APRON AT PIPE OUTLET
NO FLARED ENDWALL

NOT TO SCALE



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

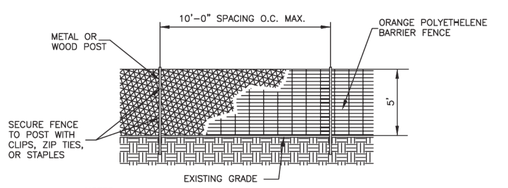
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

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

STANDARD CONSTRUCTION DETAIL #4–1
COMPOST FILTER SOCK (ABACT)

NOT TO SCALE



NOTES:
1. PLACE TREE PROTECTION AROUND PERIMETER OF EXISTING WETLANDS.
2. EARTHWORK FILL, VEHICULAR TRAFFIC, AND MATERIAL STORAGE SHALL BE PROHIBITED INSIDE THE PROTECTION FENCE.
3. REMOVE FENCE WHEN PROJECT IS COMPLETED. RESTORE EXISTING CONDITIONS AS NEEDED.

PROTECTIVE FENCING

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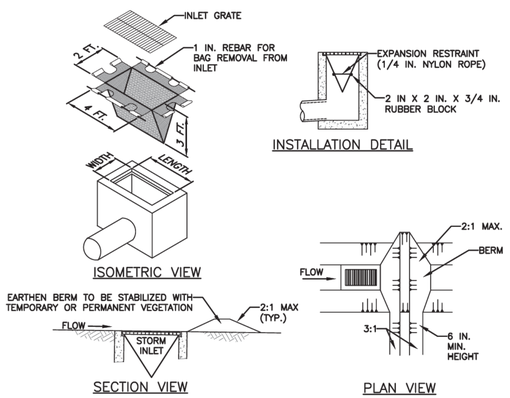


NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

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

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

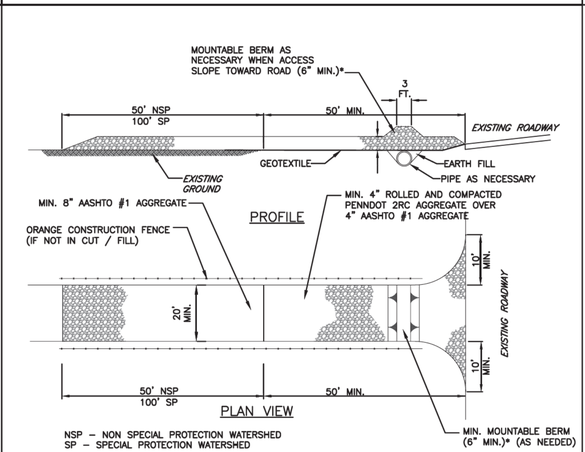
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

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

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

STANDARD CONSTRUCTION DETAIL #4–16
FILTER BAG INLET PROTECTION – TYPE M INLET (ABACT–HQ)

NOT TO SCALE



NSP – NON SPECIAL PROTECTION WATERSHED
SP – SPECIAL PROTECTION WATERSHED

NOTES:

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

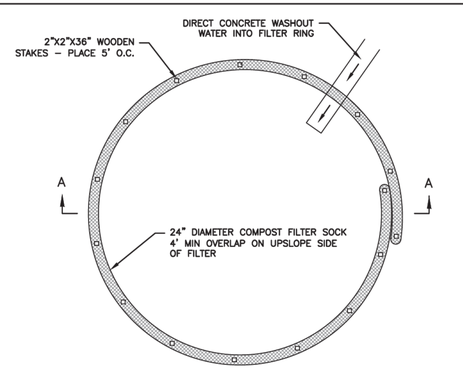
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL
ROCK CONSTRUCTION ENTRANCE (ALTERNATE–ABACT)

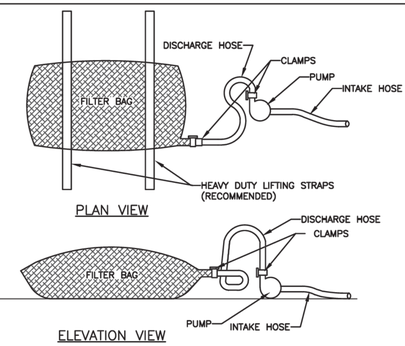
NOT TO SCALE



NOTES:
- 1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
- 2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE
- 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR
- ADDED HEIGHT.
- IMPERVIOUS PLASTIC SHEETING SHOULD BE PLACED AT THE LOCATION OF THE WASHOUT.
- STAKE COMPOST SOCKS AS RECOMMENDED BY THE MANUFACTURER AROUND PERIMETER OF THE PLASTIC SHEETING SO AS TO FORM A RING WITH THE ENDS OF THE SOCK LOCATED AT THE UPSLOPE CORNER.
- ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE PLASTIC SHEETING AT ALL LOCATIONS.
- WHERE NECESSARY, SOCKS MAY BE STACKED AND STAKED SO AS TO FORM A TRIANGULAR CROSS–SECTION.
- PLACE AT A CONVENIENT LOCATION FOR ACCESS BY THE CONCRETE TRUCKS, PREFERABLY NEAR THE PLACE WHERE THE CONCRETE IS BEING POURED, BUT FAR ENOUGH FROM OTHER VEHICULAR TRAFFIC TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL DAMAGE OR SPILLS. WHEREVER POSSIBLE, THEY SHOULD BE LOCATED ON SLOPES NOT EXCEEDING A 2% GRADE.
- THE WASHOUT MUST CLEANED OF ACCUMULATED MATERIAL WHEN FACILITY IS 75% FULL.
- MATERIAL CLEANED OUT OF DEVICE MUST BE PROPERLY DISPOSED. MATERIAL SUITABLE TO MIX WITH TOPSOIL CAN BE DEPOSITED IN/ON THE SITE'S TOPSOIL STOCKPILES WHICH ARE PROTECTED WITH DOWNSLOPE PERIMETER SEDIMENT BARRIERS. WHEN WASHOUT IS NO LONGER NEEDED THE PLASTIC SHEETING AND USED FILTER SOCK MUST BE TAKEN TO A LANDFILL FOR PROPER DISPOSAL.

CONCRETE WASHOUT

NOT TO SCALE



NOTES:

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

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

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

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

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

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

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3–16
PUMPED WATER FILTER BAG

NOT TO SCALE

EROSION & SEDIMENTATION CONTROL NOTES
HUNTINGDON RUTTER'S STORE #93
SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY PENNSYLVANIA

PROJECT NO.:	3746–5
FILE NAME:	E&S DWG
DATE:	10/21/21
DESIGNED BY:	BSP
DRAWN BY:	BSP
CHECKED BY:	---

ES3

EROSION AND SEDIMENT CONTROL NOTES

GENERAL

1. STORMWATER FROM THIS PROJECT WILL FLOW TO ADJACENT WETLANDS THAT ARE TRIBUTARY TO AN UNT TO THE RAYSTOWN BRANCH OF THE JUNIATA RIVER, WWF.
2. TOTAL SITE ACREAGE = 7.41 ACRES / TOTAL ON-SITE DISTURBANCE = 7.03 ACRES
3. THE EROSION AND SEDIMENT CONTROL PLAN NARRATIVE DATED FEBRUARY 2022 IS TO BE CONSIDERED A PART OF THIS CONSTRUCTION SITE PLAN.
4. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
5. CONSTRUCTION SHALL NOT COMMENCE UNTIL THE HUNTINGDON COUNTY CONSERVATION DISTRICT HAS APPROVED THE EROSION AND SEDIMENT CONTROL PLAN.
6. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
9. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW.

DUE DILIGENCE

1. THE PRIMARY CONTRACTOR IS RESPONSIBLE FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE CONCERNING THE USE OF OR DISPOSAL OF CLEAN FILL FROM THIS PROJECT. 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 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 PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION 'S POLICY ENTITLED "MANAGEMENT OF FILL".
2. 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 AND FOLLOW THE GUIDANCE AS SET FORTH IN DEP POLICY "MANAGEMENT OF FILL".
3. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

EARTHWORK

1. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
2. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
3. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES OR IF CONDUCTED, AS RECOMMENDED IN GEOTECHNICAL INVESTIGATION OF PROJECT SITE.
4. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS OR, IF CONDUCTED, IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION OF PROJECT SITE.
5. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
6. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
7. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
8. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
9. 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.
10. SHOULD UNANTICIPATED GEOLOGIC OR SOIL CONDITIONS BE ENCOUNTERED DURING EARTHMOVING THAT PRESENT A CONCERN ABOUT THE POTENTIAL FOR THE PRODUCTION OF POLLUTION, ALL EARTHMOVING ACTIVITIES SHALL CEASE UNTIL A QUALIFIED GEO-TECHNICAL PROFESSIONAL EVALUATES THE SITUATION.
11. BASED ON THE RESULTS OF THE GEOTECHNICAL EXPLORATION INTACT EXPANSIVE BEDROCK WITH THE POTENTIAL FOR PYRITIC MATERIAL IS ONLY ANTICIPATED IN THE FOOTPRINT OF THE UNDERGROUND STORAGE TANKS. IN ORDER TO SEAL THE PYRITIC MATERIALS FROM EXPOSURE TO WATER AND AIR, AN ASPHALT EMULSIFIER (OR SIMILAR BITUMEN SEAL) BE APPLIED TO THE TANK SUBGRADE AND EXCAVATION SIDEWALLS, WITH A CONCRETE "MUD MAT" APPLIED TO THE HORIZONTAL BEARING SURFACES.
12. DURING CONSTRUCTION EXCAVATIONS SHALL BE OBSERVED BY ECS/GEOTECHNICAL ENGINEER OF RECORD (GER) TO EVALUATE THE SOIL CONDITIONS ENCOUNTERED IN THE FIELD AND TO DETERMINE THE NEED FOR ADDITIONAL TESTING FOR PYRITIC MATERIALS. ADDITIONAL COMMUNICATION BETWEEN THE SITE CIVIL ENGINEER, THE GER AND THE PADEP WILL BE REQUIRED TO REVIEW ANY LABORATORY RESULTS AND TO DETERMINE THE MOST APPROPRIATE REMEDIAL PROGRAM, IF WARRANTED.

BMP CONSTRUCTION AND MAINTENANCE

1. THE PRIME SITE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF BOTH TEMPORARY AND PERMANENT BMP'S FOR THE DURATION OF THE CONSTRUCTION EFFORT. THE PRIME SITE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTENANCE OF ALL BMP'S UNTIL STABILIZATION HAS OCCURRED.
2. UPON STABILIZATION, THE PRIME SITE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY BMP'S. BEFORE ANY TEMPORARY EROSION CONTROL STRUCTURES ARE REMOVED, A VEGETATIVE COVERAGE WITH A DENSITY OF 70% ACROSS THE DISTURBED AREAS MUST BE ACHIEVED.. AFTER PROJECT COMPLETION, THE OWNER WILL BE RESPONSIBLE FOR LONG-TERM MAINTENANCE OF ANY PERMANENT BMP'S.
3. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
4. A WRITTEN LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF ANY INSPECTIONS. IT IS RECOMMENDED THAT DEP'S VISUAL INSPECTION REPORT FORM (3150-FM-BWEW0083) BE UTILIZED AS THE LOG TO TRACK AND DOCUMENT REQUIRED MAINTENANCE ACTIVITIES INCLUDING ANY CORRECTIONS AND/OR REPAIRS TO BMP'S.
5. BMP MAINTENANCE WILL BE PERFORMED IN ACCORDANCE WITH THE INDIVIDUAL DEVICE SCHEDULES AS SHOWN IN THE STANDARD CONSTRUCTION DETAILS.
6. THE PRIME SITE CONTRACTOR SHALL INSPECT BOTH TEMPORARY AND PERMANENT BMP'S ON THIS SCHEDULE UNTIL STABILIZATION IS ACHIEVED. AT THIS POINT, THE OWNER SHALL COMMENCE WEEKLY INSPECTIONS OF THE PERMANENT FACILITIES.
7. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
8. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
9. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
10. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
11. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
12. CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
13. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES

THERMAL IMPACTS

THE POTENTIAL FOR CAUSING NEGATIVE THERMAL IMPACTS TO THE RECEIVING SURFACE WATERS DURING CONSTRUCTION ACTIVITIES WILL BE MINIMIZED OR AVOIDED IN THIS MANNER: BY UTILIZING COMPOST FILTER SOCK AS THE PRIMARY SEDIMENT CONTROL BMP, ACCUMULATED WATER WILL SLOWLY FILTER THROUGH. THERMAL IMPACTS WILL ALSO BE MINIMIZED BY IMPLEMENTING PERMANENT OR INTERIM STABILIZATION IMMEDIATELY UPON REACHING FINAL GRADES OR TEMPORARY CESSATION OF WORK.

RECYCLING & DISPOSAL OF WASTE MATERIALS

1. THE PRIMARY SITE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF WASTE FROM THIS PROJECT DURING CONSTRUCTION. CONSTRUCTION WASTES ARE THOSE THAT CAN ADVERSELY IMPACT WATER QUALITY AND INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH-WATER, AND SANITARY WASTES. THE CONTRACTOR WILL INSPECT THE PROJECT AREA WEEKLY AND PROPERLY DISPOSE OF ALL CONSTRUCTION WASTE. LITTERING BY CONSTRUCTION CREWS IS DISCOURAGED; HOUSEKEEPING OF THE SITE AND THE SURROUNDING AREA IS ENCOURAGED. WHENEVER POSSIBLE, REUSABLE WASTES WILL BE SEPARATED FROM OTHER WASTE AND HANDLED FOR RECYCLING.
2. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
3. CONCRETE WASHOUT A SUITABLE WASHOUT FACILITY MUST BE PROVIDED FOR THE CLEANING OF CONCRETE FROM CHUTES, MIXERS, AND HOPPERS OF THE DELIVERY VEHICLES. UNDER NO CIRCUMSTANCES MAY WASH WATER FROM THESE VEHICLES BE ALLOWED TO ENTER ANY SURFACE WATERS. PROPER SIGNAGE MUST BE PROVIDED SO DRIVERS ARE AWARE OF THE PRESENCE OF WASHOUT FACILITIES. A COMPOST FILTER SOCK WASHOUT AS SHOWN ON THE TYPICAL DETAIL DRAWING OR SUITABLE ALTERNATIVE APPROVED BY THE CONSERVATION DISTRICT OR DEPARTMENT MUST BE PROVIDED ON SITE. DO NOT PLACE WASHOUT FACILITIES WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS, INCLUDING WETLANDS.

SOIL LIMITATIONS AND RESOLUTIONS

SOIL NAME, SYMBOL	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE SEASONAL HIGH	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
BUCHANAN, BuC	X	C/S	X	X				X	X		X	X				

LIMITATIONS AND RESOLUTIONS
POOR SOURCE OF TOPSOIL, UNKNOWN SOIL CONDITIONS/DROUGHTY – APPLY ADEQUATE RATES OF LIME AND FERTILIZER FOR USE AS SOIL AMENDMENT. SOIL TESTING IS STRONGLY RECOMMENDED. IRRIGATION MAYBE NEEDED WHEN THIS SOIL IS USED FOR LANDSCAPED AREAS OR PCSM BMP'S

CORROSIVITY, LOW STRENGTH, LANDSLIDE POTENTIAL, WETNESS/DEPTH TO HIGH WATER TABLE, PIPING, FROST ACTION, SHRINK SWELL – CONDUCT GEO-TECHNICAL INVESTIGATION IF THESE SOILS WILL BE IMPACTED. SITE & STRUCTURAL BUILDING DESIGN WILL BE BASED ON RESULTS OF GEO-TECHNICAL INVESTIGATION.

SLOW PERCOLATION/POORLY DRAINED, WETNESS/DEPTH TO HIGH WATER TABLE – CONDUCT INFILTRATION TESTING IF THESE SOILS ARE IMPACTED BY PCSM BMP'S

EROSION HAZARD – MINIMIZE DISTURBED AREA; IMPLEMENT STABILIZATION BMP'S IMMEDIATELY. TEMPORARY STABILIZATION MUST BE IMPLEMENTED IMMEDIATELY IN AREAS WHERE ACTIVITY HAS CEASED FOR FOUR (4) OR MORE DAYS.

STABILIZATION

1. STOCKPILED TOPSOIL SHALL BE UTILIZED ON ALL SURFACE AREAS TO RECEIVE PERMANENT STABILIZATION AND SUPPLEMENTED IF NEEDED.
2. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
3. CUT OR FILL SLOPES WILL BE SEEDED AND MULCHED IN REGULAR VERTICAL INCREMENTS (15' MAX.) AS THE SLOPE IS BEING CONSTRUCTED.
4. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
5. WITHIN FOUR(4) DAYS AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
6. ALL FINAL SLOPES 3:1 OR STEEPER, WITHIN 50 FEET OF A SURFACE WATER, AND/OR ON ANY OTHER DISTURBED AREA SPECIFIED ON THE PLAN DRAWINGS WILL HAVE AN EROSION CONTROL BLANKET INSTALLED IN CONJUNCTION WITH THE PERMANENT VEGETATIVE BMP. NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKET OR EQUIVALENT SHALL BE USED FOR THIS PURPOSE.
7. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
8. TEMPORARY STABILIZATION WILL BE UTILIZED AS NEEDED DURING PLANNED OR UNPLANNED PROJECT SUSPENSION OR IF THE DISTURBED AREA ACHIEVES FINAL GRADE DURING AN UNFAVORABLE GROWING SEASON. DURING THE WINTER, TEMPORARY STABILIZATION CONSISTS OF MULCHING AT THE RATE OF 3 TONS/ACRE. ALL OTHER TIMES UTILIZE TEMPORARY SEED AND MULCH IN ACCORDANCE WITH THE DETAIL SHOWN IN THIS PLAN.

VEGETATIVE STABILIZATION
TEMPORARY STABILIZATION – PENNDOT FORMULA E

SEED MIX/SPECIES	PLS**	RATE OF APPLICATION LBS/AC
ANNUAL RYEGRASS	88%	48

MULCH: STRAW (CLEAN OAT OR WHEAT) OR HAY AT THE RATE OF 3 TONS/ACRE (3 BALES PER 1000 SQUARE FEET) APPLIED WITH NON-ASPHALTIC EMULSION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION
SOIL AMENDMENTS – STANDARD APPLICATION RATE
FERTILIZER 10-20-20 APPLIED AT RATE OF 500LB/AC*
LIME 1 TON/ACRE*
*SOIL TESTING SUGGESTED FOR PROPER RATE OF APPLICATION
RECOMMENDED DATE RANGE FOR APPLICATION: MARCH 15 TO OCT. 15
TEMPORARY STABILIZATION IMPLEMENTED OUTSIDE THIS DATE RANGE CAN BE MULCH (STRAW OR HAY) ALONE AT THE RATE SHOW ABOVE.
**PLS = PERCENT LIVE SEED

NURSE CROP: (PER PSU "EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND")
ONE OF THE FOLLOWING NURSE CROPS MUST BE INCLUDED WITH ANY PERMANENT SEED MIXTURE:

SEED MIX/SPECIES	RATE OF APP. LBS/AC(W/90% + GERM)	RATE OF APP. LBS/AC(W/< 90% GERM)
SPRING OATS	64	80
WINTER WHEAT	690	720
WINTER RYE	56	84

PERMANENT STABILIZATION – PENNDOT FORMULA L
STEEP SLOPES AND OTHER NON-MOWED SURFACES

SEED MIX/SPECIES	PLS**	RATE OF APPLICATION LB/AC
HARD FESCUE MIX	82.45	126.7
CREEPING RED FESCUE	82.45	80.6
ANNUAL RYEGRASS	85.5	23.0

PULVERIZED AGRICULTURAL LIME 800 LB/1000 SY
*FERTILIZER 10-20-20 APPLIED AT RATE OF 140 LB/1000 SY
*FERTILIZER 38-0-0 APPLIED AT RATE OF 50 LB/1000 SY
MULCH: HAY AT THE RATE OF 3 TONS/ACRE (3 BALES PER 1000 SQUARE FEET) APPLIED WITH NON-ASPHALTIC EMULSION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION
RECOMMENDED DATE RANGE FOR APPLICATION: MARCH 15 TO JUNE 1 AND AUG. 1 TO OCT. 15
*SOIL TESTING SUGGESTED FOR PROPER RATE OF APPLICATION

PERMANENT STABILIZATION – PENNDOT FORMULA B
LAWNS OR OTHER MOWED AND MAINTAINED SURFACES

SEED MIX/SPECIES	PLS**	RATE OF APPLICATION LBS/AC
PERENNIAL RYEGRASS	88.2%	19
CREEPING RED OR CHEWING FESCUE 83.3%		29
KENTUCKY BLUEGRASS MIX.	78.4%	53

MULCH CLEAN OAT OR WHEAT STRAW AT THE RATE OF 3 TONS/ACRE (3 BALES PER 1000 SQUARE FEET) APPLIED WITH NON-ASPHALTIC EMULSION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION
SOIL AMENDMENTS – STANDARD APPLICATION RATE
FERTILIZER 10-20-20 APPLIED AT RATE OF 1000 LB/AC*
LIME 6 TON/ACRE*
RECOMMENDED DATE RANGE FOR APPLICATION: MARCH 15 TO JUNE 1 AND AUG. 1 TO OCT. 15
*SOIL TESTING SUGGESTED FOR PROPER RATE OF APPLICATION
**PLS = PERCENT LIVE SEED

**ERNMX-122 FACW WETLAND MEADOW MIX
20 LB PER ACRE, OR 1/2 LB PER 1,000 SQ FT
MUST INCLUDE COVER CROP: USE ONE OF THE FOLLOWING: GRAIN RYE (1 SEP TO 30 APR; 30 LBS/ACRE), JAPANESE MILLET (1 MAY TO 31 AUG; 10 LBS/ACRE), OR BARNYARD GRASS (1 MAY TO 31 AUG; 10 LBS/ACRE).
29.8% FOX SEDGE, PA ECOTYPE (CAREX VULPINOIDEA, PA ECOTYPE)
16.0% VIRGINIA WILDRYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE)
11.0% HOP SEDGE, PA ECOTYPE (CAREX LUPULINA, PA ECOTYPE)
11.0% BLUNT BROOM SEDGE PA ECO TYPE (CAREX SCOPARIA)
8.5% LURID (SHALLOW) SEDGE, PA ECOTYPE (CAREX LURIDA, PA ECOTYPE)
5.2% WOOD REEDGRASS PA ECOTYPE (CINNA ARUNDINACEA, PA ECOTYPE)
4.0% BLUE VERVAIN, PA ECOTYPE (VERBENA HASTATA, PA ECOTYPE)
3.0% SOFT RUSH (JUNCUS EFFUSUS)
2.0% SWAMP MILKWEED, PA ECOTYPE (ASCLEPIAS INCARNATA, PA ECOTYPE)
2.0% OXEYE SUNFLOWER, PA ECOTYPE (HELIOPSIS HELIANTHOIDES, PA ECOTYPE)
1.0% NODDING BUR MARIGOLD
1.0% SENSITIVE FERN (ONOCLEA SENSIBILIS)
0.8% BONESET, PA ECOTYPE (EUPATORIUM PERFOLIATUM, PA ECOTYPE)
0.8% COMMON SNEEZEWEED PA ECOTYPE (HELENIUM AUTUMNALE, PA ECOTYPE)
0.8% BLUE FLAG (IRIS VERSICOLOR)
0.7% GOLDEN ALEXANDER (ZIZIA AUREA)
0.3% NEW ENGLAND ASTER, PA ECOTYPE (ASTER NOVAE-ANGLIAE, PA ECOTYPE)
0.3% ZIGZAG ASTER, PA ECOTYPE (ASTER PRENANTHOIDES, PA ECOTYPE)
0.3% JOE PYE WEED, PA ECOTYPE (EUPATORIUM FISTULOSUM, PA ECOTYPE)
0.3% GREAT BLUE LOBELIA, PA ECOTYPE (LOBELIA SIPHILITICA, PA ECOTYPE)
0.3% WOOLGRASS, PA ECOTYPE (SCIRPUS CYPERINUS, PA ECOTYPE)
0.2% PURPLESTEM ASTER, PA ECOTYPE (ASTER PUNICEUS, PA ECOTYPE)
0.2% FLAT TOPPED WHITE ASTER, PA ECOTYPE (ASTER UMBELLATUS, PA ECOTYPE)
0.2% DITCH STONE CROP, PA ECOTYPE (PENTHORUM SEDOIDES, PA ECOTYPE)
0.2% WRINKLELEAF GOLDENROD, PA ECOTYPE (SOLIDAGO RUGOSA, PA ECOTYPE)
0.1% SQUARE STEMMED MONKEYFLOWER, PA ECOTYPE (MIMULUS RINGENS, PA ECOTYPE)
100%

DESCRIPTION OF PROPOSED BMP'S

THIS PROJECT INVOLVES THE DEVELOPMENT OF A VACANT PARCEL OF LAND. THE PROPERTY HAS BEEN MAINTAINED AS A FARM FIELD FOR CROPPING AND CUTTING HAY FORM MANY YEARS. THE PROJECT SITE SLOPES FROM NORTH TO SOUTH, SIMILAR TO THE ADJACENT PROPERTIES ALSO LOCATED ON THE SOUTH SIDE OF RT. 22. THE PROPERTY SLOPES FROM RT. 22, WHICH PARALLELS THE NORTHERN PROPERTY LINE, TOWARDS THE ADJACENT SOUTHERN LOWER PROPERTY TOWARDS THE ADJACENT WETLAND COMPLEX. THERE IS AN APPROXIMATE 20 FOOT DROP FROM THE HIGHWAY TO THE ADJACENT PROPERTY. RT. 22 CUTS OFF NEARLY ALL OF THE UPSLOPE WATERSHED DRAINING TO THE PROJECT SITE.
PRIMARY SEDIMENT CONTROL WILL PROVIDED WITH THE INSTALLATION OF PERIMETER COMPOST FILTER SOCK, USE OF A ROCK CONSTRUCTION ENTRANCE FOR ALL VEHICLE EXITING THE PROJECT SITE, INSTALLATION OF INLET FILTER BAGS IN ALL INLETS, AND THE IMMEDIATE STABILIZATION OF ALL DISTURBED SURFACES AS FINAL GRADES ARE ACHIEVED OR DURING PERIODS OF WORK CESSATION

IN ADDITION TO THE CONSTRUCTION OF THE CONVENIENCE STORE AND SITE IMPROVEMENTS, THE PROJECT REQUIRES OFF-SITE WORK AREA TO EXTEND PUBLIC UTILITIES. WATER AND SANITARY SEWER WILL BE EXTENDED TO THE NEW DEVELOPMENT FROM THE EAST ALONG THE SOUTH SIDE OF RT. 22.

BMP SEQUENCE OF INSTALLATION AND REMOVAL

1. THE CONTRACTOR SHALL INVITE A REPRESENTATIVE FROM THE HUNTINGDON COUNTY CONSERVATION DISTRICT TO ATTEND THE PRECONSTRUCTION MEETING AND PROVIDE AT LEAST 7 DAYS NOTICE OF THE PRECONSTRUCTION MEETING TO ALL INVITED ATTENDEES. PERMITTEES, CO-PERMITTEES, OPERATORS, AND LICENSED PROFESSIONALS OR DESIGNEES RESPONSIBLE FOR THE EARTH DISTURBANCE ACTIVITY, INCLUDING IMPLEMENTATION OF E&S AND PCSM PLANS AND CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN, SHALL ATTEND A PRECONSTRUCTION MEETING
2. UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE HUNTINGDON COUNTY CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.
5. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE FOLLOWING CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING, AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&SC BMP'S SPECIFIED BY THE SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&SC PLAN.

SITE SPECIFIC SEQUENCE
STAGE 1 – CONVENIENCE STORE DEVELOPMENT SITE
1. FIELD-MARK LIMITS OF DISTURBANCE AND ADJACENT WETLAND RESOURCES ALONG SOUTHERN PROPERTY LINE.
2. INSTALL PROTECTIVE FENCING AND COMPOST FILTER SOCK ABOVE WETLANDS AS SHOWN ON THE E&S PLAN DRAWINGS TO PROTECT WETLAND RESOURCES FROM IMPACT DURING CONSTRUCTION.
3. INSTALL ROCK CONSTRUCTION ENTRANCE. WHEN DRIVEWAY ENTRANCE IS COMPLETED ASSURE THAT AN ADEQUATE ROCK CONSTRUCTION ENTRANCE HAS BEEN RE-INSTALLED AND WILL BE MAINTAINED THROUGH THE PROJECT CONSTRUCTION.
5. E&SC BMP'S SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

STAGE 2 SITE EARTHWORK
1. CLEARING, GRUBBING, AND TOPSOIL STRIPPING CAN NOW BEGIN.
ANY AVAILABLE SUITABLE TOPSOIL WILL BE STOCKPILED AS SHOWN ON THE CONSTRUCTION DRAWINGS AND PROTECTED BY SEEDING AND MULCHING AND THE INSTALLATION OF PERIMETER COMPOST FILTER SOCK AROUND THE STOCKPILE.
2. EXCAVATIONS WITH INCREMENTAL STABILIZATION.
3. CONSTRUCTION OF BUILDINGS, ROADWAYS AND OTHER STRUCTURES.
4. SITE UTILITY AND STORMWATER PIPING NETWORK INSTALLATION. INLET FILTER BAGS WILL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF EACH INLET.
5. PERMANENT STABILIZATION
   a)REPLACEMENT OF TOPSOIL (4 – 6 INCHES)
   b)PERMANENT SEEDING VIA HYDROSEED OPERATION
     (1) SOIL AMENDMENTS
     (2) SEED APPLICATION
     (3) MULCH AND/OR BLANKETING
   c)CRUSHED AGGREGATE SURFACES WILL BE APPLIED AS SOON AS ROAD OR PARKING LOT SURFACES HAVE BEEN GRADED.
   d)COMPLETE PAVEMENT.
3. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE AN INSPECTION PRIOR TO CONVERTING E&SC BMP'S TO PCSM BMP'S OR TO SCHEDULE A FINAL INSPECTION IF THE PROJECT IS COMPLETE.

STAGE 3: OFF-SITE WORK AREAS
UTILITIES
- OFF-SITE UTILITIES WILL BE EXTENDED TO THE DEVELOPMENT SITE VIA UNDERGROUND TRENCHING. PRIOR TO INITIATING TRENCH EXCAVATION, THE CONTRACTOR WILL COORDINATE WORK WITH THE APPROPRIATE UTILITY PROVIDER.
- MATERIAL REMOVED DURING TRENCH EXCAVATION WILL BE IMMEDIATELY REMOVED FROM THE PROJECT AREA AND PROPERLY DISPOSED AT AN ACCEPTABLE UPLAND DISPOSAL SITE, SEE "RECYCLING AND DISPOSAL OF WASTE MATERIAL" PLAN NOTE.
- DAILY TRENCH EXCAVATION WILL BE LIMITED TO THE LENGTH THAT PIPE INSTALLATION CAN BE COMPLETED WITHIN THE SAME WORK DAY.
- IF TRENCH DEWATERING IS NEEDED, IT WILL BE PERFORMED IN ACCORDANCE WITH THE DEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL. WATER WILL BE PUMPED TO A SEDIMENT REMOVAL FACILITY, PUMPED WATER FILTER BAG OR ACCEPTABLE ALTERNATIVE.
- INSTALL PIPE/UTILITY.
- COMPACT AND BACKFILL TRENCH.
- RESTORE DISTURBED AREAS IMMEDIATELY. THE SHOULDER WILL BE IMMEDIATELY RESTORED TO A STABLE GRAVEL SURFACE, ALL PAVEMENT DISTURBANCE WILL BE RE-SURFACED, AND ALL ADJACENT DISTURBED SOIL SURFACES WILL BE SEEDED AND MULCHED.

HIGHWAY IMPROVEMENTS
- NEEDED HIGHWAY IMPROVEMENTS CAN OCCUR FOLLOWING OR SIMULTANEOUS TO STAGES 1 AND 2.
- WORK WILL BE CONDUCTED IN ACCORDANCE WITH PLAN APPROVED BY PENNDOT.
- MATERIAL REMOVED DURING ROADWAY IMPROVEMENT WORK EXCAVATION WILL BE IMMEDIATELY REMOVED FROM THE PROJECT AREA AND PROPERLY DISPOSED AT AN ACCEPTABLE UPLAND DISPOSAL SITE, SEE "RECYCLING AND DISPOSAL OF WASTE MATERIAL" PLAN NOTE.
- IMMEDIATELY UPON ACHIEVED DESIRED IMPROVEMENT, THE AREA MUST BE RESTORED AND STABILIZED, PAVEMENT FROM ROADWAY AND SEEDING AND MULCHING ALL ADJACENT DISTURBED SOIL SURFACES.

FINAL STAGE ALL WORK AREAS:

1. TEMPORARY E&SC BMP'S, COMPOST FILTER SOCK AND INLET FILTER BAGS, WILL BE REMOVED WHEN THE AREAS DRAINING TO THESE BMP'S HAVE ACHIEVED THE REQUIRED LEVEL OF STABILIZATION – DEFINED AS THE ESTABLISHMENT OF A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES OR COVERED WITH AN ACCEPTABLE PERMANENT BMP; SUCH AS, GRAVEL OR PAVEMENT FOR DRIVEWAYS OR SIDEWALKS. STOCKPILED TOPSOIL SHALL BE UTILIZED ON ALL SURFACE AREAS TO RECEIVE PERMANENT STABILIZATION AND SUPPLEMENTED AS NEEDED. PERMANENT VEGETATIVE STABILIZATION SHALL BE DEFINED AS AN ESTABLISHED UNIFORM 70% PERENNIAL VEGETATIVE COVER.

2. AREAS DISTURBED DURING THE REMOVAL OF CONTROLS MUST BE STABILIZED IMMEDIATELY.

STAGE 4: PCSM BMP CONSTRUCTION
NOTE: CRITICAL STAGE REQUIRING OVERSIGHT BY LICENSED PROFESSIONAL
1. WHEN ALL SURFACES TRIBUTARY TO THE PCSM BMP'S HAVE ACHIEVED PERMANENT VEGETATION, DEFINED AS THE ESTABLISHMENT OF A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES OR COVERED WITH AN ACCEPTABLE PERMANENT BMP; SUCH AS, PAVEMENT FOR STREETS AND SIDEWALKS, THE PCSM BMP'S CAN BE CONSTRUCTED ACCORDING TO THE FOLLOWING SEQUENCE:

SUBSURFACE INFILTRATION BED PCSM BMP'S
1. EXCAVATE BMP'S TO THE DEPTH NEEDED TO ADD THE ROCK LAYER AND SOIL PLANTING MEDIUM TO THE REQUIRED FINAL DEPTH. SCARIFY THE BASIN FLOOR TO A MINIMUM DEPTH OF 18 INCHES AND AVOID COMPACTION OF THE BASIN FLOOR.
2. OUTFALL DEVICES; SUCH AS, PIPES AND RISERS, CAN NOW BE INSTALLED AND BECOME OPERATIONAL.
3. STABILIZE ALL SURROUNDING DISTURBED SOIL SURFACES BY SEEDING AND MULCHING
4. ADDITIONAL SITE LANDSCAPE PLANTINGS CAN TAKE PLACE AT THIS TIME OR IN THE NEAR FUTURE.

NOTE:
TEMPORARY SEEDING WILL BE USED AS NEEDED. TEMPORARY SEED AND MULCH (IN ACCORDANCE WITH DETAIL) WILL BE APPLIED IN ALL AREAS WHERE ACTIVITIES CEASE FOR FOUR (4) DAYS OR IF ANY DISTURBED AREA ACHIEVES FINAL GRADE DURING AN UNFAVORABLE SEEDING SEASON.

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DATE & INITIALS	REVISION DESCRIPTION
12/30/22 BSP	NPDES PERMIT RESUBMISSION
09/08/22 BSP	NPDES PERMIT RESUBMISSION
02/24/22 BSP	NPDES PERMIT SUBMISSION

EROSION & SEDIMENTATION CONTROL DETAILS
HUNTINGDON RUTTER'S STORE #93
SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY PENNSYLVANIA

PROJECT NO.:	3746-5
FILE NAME:	E&S.DWG
DATE:	10/21/21
DESIGNED BY:	BSP
DRAWN BY:	BSP
CHECKED BY:	---

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