CONSTRUCTION SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE WILL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE.

CONSTRUCTION WILL BEGIN UPON RECEIPT OF ALL REQUIRED PERMITS FROM THE TOWNSHIP, PENNDOT, PA DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND THE CONSERVATION DISTRICT.

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LAND OWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE FROM THE CHESTER COUNTY CONSERVATION DISTRICT TO SCHEDULE A PRE-CONSTRUCTION MEETING.

AT LEAST 3 WORKING DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 FOR BURIED UTILITY LOCATIONS.

BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT.

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. AND 287.1 et seq.

THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE CONSERVATION DISTRICT AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL PROPOSED SOIL/ROCK SPOIL AND BORROW AREAS ON OR OFFSITE.

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. (PLEASE NOTE THAT HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES). HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.

AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE , THEY MUST BE STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

1. PRIOR TO PROCEEDING WITH CONSTRUCTION, CONFIRM THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES. MAINTAIN AND PROTECT ALL EXISTING UTILITIES TO REMAIN AT ALL TIMES. REFER TO THE EXISTING FEATURES/ DEMOLITION PLAN.
2. INSTALL ROCK CONSTRUCTION ENTRANCE #1 AND #2 AS SHOWN ON THE APPROVED PLAN. ALL CONSTRUCTION VEHICLES SHALL ENTER AND/OR EXIT THE SITE THROUGH THIS ENTRANCE DURING THE CONSTRUCTION OF THIS ENTRANCE.
3. DELINEATE LIMITS OF DISTURBANCE AS OUTLINED ON THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN WITH ORANGE CONSTRUCTION FENCING. CONTRACTOR SHALL NOT PERFORM ANY OTHER WORK OUTSIDE OF THE APPROVED LIMITS OF DISTURBANCE.
4. INSTALL TREE PROTECTION AND COMPOST FILTER SOCKS AT LOCATIONS NOTED ON THE APPROVED PLANS. THE COMPOST FILTER SOCKS SHALL BE INSTALLED BY AN APPROVED CONTRACTOR FAMILIAR WITH THE INSTALLATION PROCEDURES. CONTRACTOR SHALL INSPECT THE COMPOST FILTER SOCKS ON A WEEKLY BASIS AND AFTER EVERY RUNOFF EVENT. NECESSARY REPAIRS SHALL BE PERFORMED IMMEDIATELY, AND ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN REACHING HALF THE HEIGHT OF THE COMPOST FILTER SOCKS. CONTRACTOR TO INSTALL STAGING AREA AS DEPICTED ON APPROVED PLANS.
5. BEGIN CONSTRUCTION OF THE PROPOSED SEDIMENT BASIN #1 AS FOLLOWS:
   a. CLEAR AND GRUB VEGETATION IN THE AREA OF SEDIMENT BASIN #1.
   b. STRIP AND STORE TOPSOIL IN THE AREA OF SEDIMENT BASIN #1. TOPSOIL SHALL BE STOCKPILED AT LOCATIONS NOTED ON THE APPROVED PLAN.
   c. BEGIN EXCAVATION FOR THE PROPOSED SEDIMENT BASIN AND CONSTRUCT PROPOSED BERM.
   d. CONCURRENTLY WITH THE CONSTRUCTION OF THE BERM, THE BASIN OUTLET PIPE, OUTLET STRUCTURE AND ENDWALL SHALL BE CONSTRUCTED.
   e. IMMEDIATELY SEED AND STABILIZE ALL BASIN SLOPES AS NOTED ON THE APPROVED PLANS. INSTALL TEMPORARY SCOPE PROTECTION ON BASIN SIDE SLOPES AS SPECIFIED.
   f. INSTALL TEMPORARY SKIMMER.
   g. THE BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER EARTH DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASIN RISER(S), AN IMMEDIATE INSPECTION OF THE RISER(S) SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE CHESTER COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER RISER IS INSTALLED AND SEALED, PER PLAN.
6. INSTALL TEMPORARY DIVERSION CHANNEL (DC-1) AT THE LOCATIONS SHOWN ON THE APPROVED PLANS AND ACCORDING TO THE DETAILS. IMMEDIATELY STABILIZE WITH SEED AND CHANNEL PROTECTION.
7. BEGIN CONSTRUCTION ON MUM LOT AS FOLLOWS:
   a. CLEAR AND GRUB VEGETATION IN THE AREA OF MUM LOT.
   b. STRIP AND STORE TOPSOIL IN THE AREA OF SEDIMENT BASIN #1. TOPSOIL SHALL BE STOCKPILED AT LOCATIONS NOTED ON THE APPROVED PLAN.
   c. ROUGH GRADE IN THE AREA OF THE MUM LOT.
   d. INSTALL IRRIGATION AND STONE AS SPECIFIED ON PLANS AND DETAILS.
8. CONCURRENTLY WITH CONSTRUCTION OF THE MUM LOT, INSTALL STORM SEWER PIPE FROM TEMPORARY FES #1 TO MH-1.01 TO I-1.16 AND FROM MH-1.03 TO I-1.12. CONSTRUCTION SHALL PROCEED FROM DOWNSTREAM TO UPSTREAM, AND CONTRACTOR SHALL ONLY EXCAVATE TRENCH FOR THAT AMOUNT OF PIPE THAT CAN BE INSTALLED, BACKFILLED, AND STABILIZED WITHIN ONE WORKING DAY.
9. BEGIN CONSTRUCTION OF THE PROPOSED COMPOST FILTER SEDIMENT TRAP #1 AS FOLLOWS:
   a. INSTALL COMPOST FILTER SOCK BERMS ACCORDING TO THE DETAIL.
   b. CLEAR AND GRUB AREA OF COMPOST FILTER SOCK TRAP.
   c. STRIP AND STORE TOPSOIL IN THE AREA OF SEDIMENT BASIN #1. TOPSOIL SHALL BE STOCKPILED AT LOCATIONS NOTED ON THE APPROVED PLAN.
   d. EXCAVATE 1 FOOT OF SOIL ON THE UPSLOPE SIDE OF THE COMPOST FILTER SOCKS TO PROVIDE ADDITIONAL STORAGE VOLUME FOR SEDIMENT IN ACCORDANCE WITH THE DETAILS.
   e. THE TRAP IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER EARTH DISTURBANCE ACTIVITIES.
10. INSTALL TEMPORARY DIVERSION SOCKS DS-1, DS-2, DS-3 AND DS-4 AT THE LOCATIONS SHOWN ON THE APPROVED PLANS AND ACCORDING TO THE DETAILS.
11. CLEAR AND GRUB VEGETATION IN THE AREA OF THE NEW DRIVE AND BUILDING PAD. STRIP AND STORE TOPSOIL IN THE AREA OF SEDIMENT BASIN #1. TOPSOIL SHALL BE STOCKPILED AT LOCATIONS NOTED ON THE APPROVED PLAN.
12. BEGIN EXCAVATION AND ROUGH GRADING OF THE NEW DRIVE AND BUILDING PAD.
13. BEGIN INSTALLATION OF STORM SEWERS.
14. CONCURRENTLY INSTALL ALL UTILITIES INCLUDING WATER, SANITARY, ELECTRIC TELECOMMUNICATION, AND GAS. CONSTRUCTION SHALL BEGIN FROM THE DOWNSTREAM END AND PROCEED UPSTREAM.
15. INSTALL CURB, STONE BASE COURSE,AND BINDER COURSE FOR ALL NEW DRIVEWAY.
16. INSTALL STORM SEWER SYSTEM FROM MH-1.03 TO INLET I-1.16 AND MH-1.03 TO INLET I-1.12. CONSTRUCTION SHALL PROCEED FROM DOWNSTREAM END AND PROCEED UPSTREAM.
17. ONCE DRAINAGE AREA TO TO COMPOST FILTER SEDIMENT TRAP IS 70% UNIFORMLY STABILIZED AND STORM SEWERS ARE INSTALLED, COMPOST FILTER SEDIMENT TRAP CAN BE REMOVED.
18. BEGIN BUILDING CONSTRUCTION.
19. **CRITICAL STAGE**: ONCE AREA AROUND BUILDING PAD AND MUM LOT ARE 70% UNIFORMLY STABILIZED WITH STONE OR VEGETATION, BEGIN CONSTRUCTION OF BASINS 2, 3, AND 4. ACCORDING TO THE APPROVED BMP-SPECIFIC CONSTRUCTION SEQUENCE LOCATED ON THIS SHEET, AND ACCORDING TO THE APPROVED PLANS AND DETAILS.
20. **CRITICAL STAGE**: ONCE THE CONTRIBUTING DRAINAGE AREA TO SEDIMENT BASIN #1 IS 70% UNIFORMLY STABILIZED, THE SEDIMENT BASIN CAN BE CONVERTED TO THE PERMANENT BIO-RETENTION BASIN #1 ACCORDING TO THE APPROVED BMP-SPECIFIC CONSTRUCTION SEQUENCE LOCATED ON THIS SHEET, AND ACCORDING TO THE APPROVED PLANS AND DETAILS
    20.1. PRIOR TO REMOVAL OR CONVERSION OF SEDIMENT BASIN, AN INSPECTION SHALL BE CONDUCTED BY THE CHESTER COUNTY CONSERVATION DISTRICT. DEWATER SEDIMENT BASIN THROUGH A PUMPED WATER FILTER BAG OR APPROVED METHOD. CONTACT DESIGN ENGINEER TO CONDUCT PERCOLATION TEST PRIOR TO PROCEEDING WITH CONVERSION.
    20.2. REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT IN ACCORDANCE WITH PA DEP REGULATIONS.
    20.3. OVER EXCAVATE BASIN BOTTOM TO INSTALL AMENDED SOIL AND STONE TRENCH / UNDER DRAIN SYSTEM.
    20.4. REMOVE TEMPORARY RISER AND SKIMMER.
    20.5. STABILIZE ALL DISTURBED AREAS IMMEDIATELY.
    20.6. REMOVE ANY TEMPORARY BLOCKAGES OF PERMANENT RISER AND ENSURE RISER MEETS PCSM DESIGN.

3. **CRITICAL STAGE:** SPECIFIC AREAS OF THE SITE ARE TO BE PLANTED WITH A MEADOW SEED MIXTURE AS SPECIFIED ON APPROVED LANDSCAPE PLANS. THESE AREAS SHALL BE PLANTED IN ACCORDANCE WITH THE BMP-SPECIFIC CONSTRUCTION SEQUENCE LOCATED ON THIS SHEET.

4. ONCE THE CONSTRUCTION ACTIVITIES NO LONGER REQUIRE HEAVY EQUIPMENT FOR ITS CONSTRUCTION, THE CONTRACTOR SHALL SWEEP ALL PAVEMENT AREAS AND INSTALL FINAL WEARING COURSE. PERFORM PAVEMENT LINE STRIPING AS INDICATED ON THE APPROVED PLANS. REMOVE ALL REMAINING ACCESS BARRIERS.

3. ONCE THE SITE HAS ACHIEVED A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION, REMOVE TEMPORARY EROSION AND SEDIMENTATION BMP'S INCLUDING ALL COMPOST FILTER SOCKS. ANY AREA DISTURBED DURING THE REMOVAL OF A TEMPORARY BMP SHALL BE IMMEDIATELY STABILIZED WITH SEEDING AND STRAW MULCH.

4. UPON PERMANENT STABILIZATION UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. REFER TO "TERMINATION OF COVERAGE" AND " COMPLETION CERTIFICATE AND FINAL PLANS" NOTES ON THIS SHEET FOR ADDITIONAL INFORMATION.

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PA. ACT 287 OF 1974 REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL OR BLAST PENNSYLVANIA ONE-CALL SYSTEM, INC.

SERIAL NUMBER: 20181103305-000

CONSTRUCTION SEQUENCE - BIO-RETENTION BASINS #2, #3, AND #4

1. CRITICAL STAGE: BIO-RETENTION FACILITY CONSTRUCTION SHALL PROCEED ACCORDING TO THE APPROVED PLANS AND DETAILS. AN AS-BUILT PLAN OF THE STORMWATER FACILITY IS REQUIRED TO CLOSE OUT THE NPDES PERMIT AT THE END OF CONSTRUCTION. A LICENSED SURVEYOR WILL NEED TO SIGN/SEAL THIS PLAN. A SURVEY CREW SHOULD BE RETAINED TO FIELD SURVEY CRITICAL ASPECTS OF THE CONSTRUCTION (I.E. BASIN BOTTOM, PIPE INVERTS, ETC). A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER SHALL BE ON-SITE TO MONITOR THE FOLLOWING STAGES OF THE CONSTRUCTION OF THE BIO-RETENTION FACILITY.
   a. INSPECT BOTTOM OF BMP PRIOR TO BACKFILLING WITH AMENDED SOIL. BOTTOM SHALL BE UNCOMPACTED SUBGRADE.
   b. INSPECT THE AMENDED SOIL PRIOR TO PLACEMENT TO ENSURE IT MEETS THE DESIGN REQUIREMENTS.
   c. INSPECT THE OUTLET TO ENSURE CONSTRUCTION IS PER THE APPROVED PLANS AND DETAILS.
   d. INSPECT THE VEGETATION AFTER PLANTING.
2. ONCE THE DRAINAGE AREA TO THE BIO-RETENTION BASIN HAS ACHIEVED A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA, THE CONSTRUCTION OF THE BIO-RETENTION BASINS MAY BEGIN.
3. TO BEGIN, THE CONTRIBUTING STORM SEWER SYSTEM SHOULD BE FLUSHED OF ACCUMULATED SEDIMENTS.
4. FOR BIO-RETENTION BASINS BEING CONVERTED FROM SEDIMENT TRAPS:
   4.1. THE IMPOUNDMENT MUST BE DEWATERED.
   4.2. ACCUMULATED SEDIMENT MUST BE PROPERLY DISPOSED OF.
   4.3. ALL TEMPORARY FACILITIES, INCLUDING, BUT NOT LIMITED TO BAFFLES, CLEANOUT STAKES, ETC MUST BE REMOVED.
5. EXCAVATE SOIL TO THE DEPTH SPECIFIED, PLACING SOIL IN STOCKPILE. SPECIAL CARE SHOULD BE TAKEN TO ENSURE THAT THE AREA WITHIN THE BIO-RETENTION FACILITIES ARE NOT COMPACTED.
6. SCARIFY BOTTOM AND ALL SIDES OF EXCAVATION.
7. FOR BIO-RETENTION AREAS WITH A STONE TRENCH, PLACE GEOTEXTILE ON THE BOTTOM AND SIDES OF STONE TRENCH AS INDICATED ON THE CONSTRUCTION DETAIL, ENSURING THAT NO SEDIMENT OR SOIL ENTERS THE TRENCH AREA.
8. BEGIN PLACEMENT OF STONE IN A MAXIMUM LOOSE LIFT THICKNESS OF 12-INCHES (12") ENSURING THAT NO SEDIMENT OR SOIL ENTER THE STONE.
9. INSTALL OUTLET STRUCTURE AS SHOWN ON DETAIL. INSTALLATION OF OUTLET STRUCTURE SHOULD BE PERFORMED CONCURRENTLY WITH THE PLACEMENT OF STONE AGGREGATE. COMPLETE PLACEMENT OF STONE AND WRAP GEOTEXTILE AROUND TOP OF STONE AS SHOWN ON DETAIL.
10. BEGIN PLACEMENT OF AMENDED SOIL MIXTURE AND GRADE AREA AS SHOWN ON PLAN.
11. INSTALL RIVER ROCK AT LOCATION SHOWN ON PLAN.
12. INSTALL PERMANENT VEGETATION AND IMMEDIATELY STABILIZE WITH TEMPORARY STABILIZATION.

CONSTRUCTION SEQUENCE - BIO-RETENTION BASIN #1

1. CRITICAL STAGE: BIO-RETENTION FACILITY CONSTRUCTION SHALL PROCEED ACCORDING TO THE APPROVED PLANS AND DETAILS. AN AS-BUILT PLAN OF THE STORMWATER FACILITY IS REQUIRED TO CLOSE OUT THE NPDES PERMIT AT THE END OF CONSTRUCTION. A LICENSED SURVEYOR WILL NEED TO SIGN/SEAL THIS PLAN. A SURVEY CREW SHOULD BE RETAINED TO FIELD SURVEY CRITICAL ASPECTS OF THE CONSTRUCTION (I.E. BASIN BOTTOM, PIPE INVERTS, ETC). A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER SHALL BE ON-SITE TO MONITOR THE FOLLOWING STAGES OF THE CONSTRUCTION OF THE BIO-RETENTION FACILITY.
   a. INSPECT BOTTOM OF BMP PRIOR TO BACKFILLING WITH STONE. BOTTOM SHALL BE UNCOMPACTED SUBGRADE.
   b. INSPECT AND VERYIFY THAT THE STONE IS CLEAN.
   c. INSPECT THAT THE GEO-TEXTILE FABRIC IS INSTALLED AS SHOWN ON DETAILS.
   d. INSPECT TOP OF STONE BEFORE COVERING WITH GEOTEXTILE
   e. INSPECT THE AMENDED SOIL PRIOR TO PLACEMENT TO ENSURE IT MEETS THE DESIGN REQUIREMENTS.
   f. INSPECT THE OUTLET STRUCTURE TO ENSURE CONSTRUCTION IS PER THE APPROVED PLANS AND DETAILS.
   g. INSPECT THE VEGETATION AFTER PLANTING.
2. PRIOR TO CONVERSION OF SEDIMENT BASIN #1 TO PERMANENT STORMWATER BASIN #1, A MINIMUM OF TWO(2) INFILTRATION TESTS SHALL BE PERFORMED. RESULTS SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER
3. ONCE THE DRAINAGE AREA TO THE BIO-RETENTION BASIN HAS ACHIEVED A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA, THE CONSTRUCTION OF THE BIO-RETENTION BASINS MAY BEGIN.
4. TO BEGIN, THE CONTRIBUTING STORM SEWER SYSTEM SHOULD BE FLUSHED OF ACCUMULATED SEDIMENTS.
5. FOR BIO-RETENTION BASINS BEING CONVERTED FROM SEDIMENT TRAPS:
   5.1. THE IMPOUNDMENT MUST BE DEWATERED.
   5.2. ACCUMULATED SEDIMENT MUST BE PROPERLY DISPOSED OF.
   5.3. ALL TEMPORARY FACILITIES, INCLUDING, BUT NOT LIMITED TO BAFFLES, CLEANOUT STAKES, ETC MUST BE REMOVED.
6. EXCAVATE SOIL TO THE DEPTH SPECIFIED, PLACING SOIL IN STOCKPILE. SPECIAL CARE SHOULD BE TAKEN TO ENSURE THAT THE AREA WITHIN THE BIO-RETENTION FACILITIES ARE NOT COMPACTED.
7. SCARIFY BOTTOM AND ALL SIDES OF EXCAVATION.
8. FOR BIO-RETENTION AREAS WITH A STONE TRENCH, PLACE GEOTEXTILE ON THE BOTTOM AND SIDES OF STONE TRENCH AS INDICATED ON THE CONSTRUCTION DETAIL, ENSURING THAT NO SEDIMENT OR SOIL ENTERS THE TRENCH AREA.
9. BEGIN PLACEMENT OF STONE IN A MAXIMUM LOOSE LIFT THICKNESS OF 12-INCHES (12") ENSURING THAT NO SEDIMENT OR SOIL ENTER THE STONE.
10. INSTALL OUTLET STRUCTURE AS SHOWN ON DETAIL. INSTALLATION OF OUTLET STRUCTURE SHOULD BE PERFORMED CONCURRENTLY WITH THE PLACEMENT OF STONE AGGREGATE. COMPLETE PLACEMENT OF STONE AND WRAP GEOTEXTILE AROUND TOP OF STONE AS SHOWN ON DETAIL.
11. BEGIN PLACEMENT OF AMENDED SOIL MIXTURE AND GRADE AREA AS SHOWN ON PLAN.
12. INSTALL RIVER ROCK AT LOCATION SHOWN ON PLAN.
13. INSTALL PERMANENT VEGETATION AND IMMEDIATELY STABILIZE WITH TEMPORARY STABILIZATION.

CONSTRUCTION SEQUENCE - MEADOW GRASSES

1. CRITICAL STAGE: MEADOW GRASS INSTALLATION SHALL PROCEED ACCORDING TO THE APPROVED PLANS AND DETAILS. AN AS-BUILT PLAN OF THE STORMWATER FACILITY IS REQUIRED TO CLOSE OUT THE NPDES PERMIT AT THE END OF CONSTRUCTION. A LICENSED SURVEYOR WILL NEED TO SIGN/SEAL THIS PLAN. A SURVEY CREW SHOULD BE RETAINED TO FIELD SURVEY CRITICAL ASPECTS OF THE CONSTRUCTION (I.E. BASIN BOTTOM, PIPE INVERTS, ETC). A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER SHALL BE ON-SITE TO MONITOR THE FOLLOWING STAGES OF THE CONSTRUCTION OF THE MEADOW GRASSES.
   a. INSPECT SEED MIXTURE FOR CONSISTENCY WITH APPROVED PLANS.
   b. INSPECT THE VEGETATION AFTER PLANTING.
2. ROUGH GRADE THE MEADOW GRASS AREAS. EQUIPMENT SHALL AVOID EXCESSIVE COMPACTION AND/OR LAND DISTURBANCE. IN THE EVENT AREAS ARE COMPACTED, CONTRACTOR TO SCARIFY AREAS IN ACCORDANCE WITH THE RECOMMENDATIONS ON LANDSCAPE PLANS.
3. FINE GRADE AND TOPSOIL MEADOW GRASS AREAS.
4. SEED, VEGETATE AND INSTALL PROTECTIVE LINING (AS NEEDED) AS SHOWN ON PLANS. PLANT THE MEADOW SEED MIXTURE AT A TIME OF YEAR WHEN SUCCESSFUL ESTABLISHMENT WITHOUT IRRIGATION IS MOST LIKELY. TEMPORARY IRRIGATION MAY BE NEEDED IN PERIODS OF LITTLE RAIN OR DROUGHT. VEGETATION SHOULD BE ESTABLISHED AS SOON AS POSSIBLE TO PREVENT EROSION AND SCOUR.

PCSM LONGTERM OPERATION & MAINTENANCE NOTES

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPS ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

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

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

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

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

INSPECTIONS SHALL BE PERFORMED AS NOTED FOR EACH BMP AND ANNUALLY. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES SHALL BE PROVIDED ANNUALLY.

STORMWATER BMP FAILURE

A STORMWATER BMP FAILURE FOR THIS SITE IS DEFINED AS:
1. THE SUBSURFACE DETETENTION BASIN NOT DEWATERING WITHIN 72-HOURS. IN THE EVENT THAT THIS OCCURS, THE DESIGN ENGINEER SHOULD BE CONTACTED TO INVESTIGATE THE CAUSE OF THE FAILURE. IF THE BMP HAS NOT DEWATERED WITHIN 72-HOURS AND A PRECIPITATION EVENT IS FORECASTED THE FACILITY SHOULD BE DEWATERED PRIOR TO THE PRECIPITATION EVENT.

STRUCTURAL BMP 6.4.5 - RAIN GARDEN/BIO-RETENTION

INSPECTION SCHEDULE:

PERIODIC INSPECTION OF THE BIO-RETENTION FACILITIES IS NECESSARY TO ENSURE ITS PROPER FUNCTIONING. THESE FACILITIES SHALL BE INSPECTED AS FOLLOWS:

1. DURING THE FIRST GROWING SEASON FOLLOWING CONSTRUCTION OF THE BIO-RETENTION FACILITY OR UNTIL ESTABLISHED, THE NEWLY-PLANTED VEGETATION SHOULD BE INSPECTED EVERY TWO (2) TO THREE (3) WEEKS.
2. THE BIO-RETENTION FACILITIES SHOULD BE INSPECTED WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (>1 INCH RAINFALL DEPTH) TO EVALUATE THE DEWATERING AND INSPECT FOR EROSION. AS PART OF THIS EVALUATION, THE INSPECTOR SHALL OPEN THE MONITORING WELL OF EACH BIO-RETENTION FACILITY TO CONFIRM THAT THE WATER ELEVATION IS NOT ABOVE THE BASIN BOTTOM.
3. THE BIO-RETENTION FACILITY SHOULD HAVE A GENERAL INSPECTION AT LEAST TWO (2) TIMES PER YEAR. THE GENERAL INSPECTION SHOULD ASSESS THE HEALTH OF VEGETATION, SOIL EROSION, FLOW CHANNELIZATION, BANK STABILITY, CLOGGING OF INLETS OR OUTLETS, AND SEDIMENT/DEBRIS ACCUMULATION.
4. A WRITTEN INSPECTION REPORT SHOULD BE FILED IN THE INSPECTION AND MAINTENANCE LOG OF THE OWNER OF RECORD OR AND MADE AVAILABLE UPON REQUEST TO GOVERNMENTAL AUTHORITIES.

OPERATION & MAINTENANCE:

MAINTENANCE OF THE BIO-RETENTION FACILITIES IS NECESSARY TO ENSURE THE PROPER FUNCTIONALITY OF THE FACILITY. THESE FACILITIES SHALL BE MAINTAINED ON AN ANNUAL BASIS AS FOLLOWS:

1. THE OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE BIO-RETENTION FACILITIES AND MAINTAINING A LOG OF ALL WRITTEN REPORTS DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
2. THE BIO-RETENTION FACILITIES VEGETATION MAY NEED ADDITIONAL SUPPORT (E.G., WATERING, WEEDING, MULCHING, REPLANTING,) DURING THE FIRST YEAR.
3. VEHICLES SHOULD NOT BE PARKED ON OR DRIVEN OVER THE BIO-RETENTION FACILITY BOTTOM AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.
4. MAINTENANCE ACTIVITIES TO BE DONE WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (> 1 INCH RAINFALL DEPTH):
   a. VEGETATED AREAS SHOULD BE INSPECTED FOR EROSION.
   b. EVALUATE THE DRAIN-DOWN TIME OF THE BIO-RETENTION FACILITIES TO ENSURE THE MAXIMUM TIME OF 48-HOURS AFTER THE STORM EVENT HAS ENDED IS NOT BEING EXCEEDED. IF DRAIN-DOWN TIMES ARE EXCEEDING THE MAXIMUM TIME, DRAIN THE BIO-RETENTION FACILITIES BY OPENING THE DRAIN VALVE LOCATED IN THE OUTLET STRUCTURE OR VIA PUMPING. ONCE FULLY DRAINED THE VALVE SHALL BE CLOSED.
5. MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY:
   a. MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM. MEADOW GRASSES SHOULD BE MOWED ANNUALLY. MOWING SHOULD BE DONE DURING THE SUMMER TO ENSURE ADEQUATE REGROWTH OF VEGETATION PRIOR TO WINTER. SPECIAL CARE SHOULD BE TAKEN TO MINIMIZE DISTURBANCE ASSOCIATED WITH THE MOWING OF THE MEADOW GRASSES.
   b. DETRITUS SHOULD BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON.
   c. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION AND UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES. VEGETATION SHOULD BE MAINTAINED TO AT LEAST 85% COVER. BARE SPOTS SHALL BE RE-SEEDED IMMEDIATELY UPON DISCOVERY.
   d. EXCESSIVE BUILD-UP OF SEDIMENT SHALL BE REMOVED. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BIO-RETENTION FACILITIES IS COMPLETELY DRY. SEDIMENT SHOULD BE DISPOSED OF PROPERLY AND ONCE SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND VEGETATED.
6. MAINTENANCE ACTIVITIES AS NEEDED:
   a. INLETS UPSTREAM OF THE BIO-RETENTION FACILITIES SHOULD BE INSPECTED AND CLEANED AT LEAST TWO (2) TIMES PER YEAR AND AFTER RUNOFF EVENTS GREATER THAN 1-INCH.
   b. TREES AND SHRUBS SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH.
   c. MULCH SHOULD BE RE-SPREAD WHEN EROSION IS EVIDENT AND BE REPLENISHED AS NEEDED. ONCE EVERY TWO (2) TO THREE (3) YEARS THE ENTIRE AREA MAY REQUIRE MULCH REPLACEMENT.
   d. DURING PERIODS OF EXTENDED DROUGHT, THE BIO-RETENTION FACILITIES MAY REQUIRE WATERING.
7. WINTER MAINTENANCE:
   a. ABRASIVES SUCH AS SAND OR CINDERS SHOULD NOT BE APPLIED ON OR ADJACENT TO THE PERMEABLE PAVEMENT AREAS.
   b. SALT IS AN ACCEPTABLE DEICER AND CAN BE USED ON PERMEABLE PAVEMENT AREAS.

STRUCTURAL BMP - STORM SEWERS

INSPECTION SCHEDULE:

PERIODIC INSPECTION OF THE STORM SEWER SYSTEM IS NECESSARY TO ENSURE THE PROPER FUNCTIONALITY OF THE FACILITY. THESE FACILITIES SHALL BE INSPECTED AS FOLLOWS:

1. THE STORM SEWER SYSTEM SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR TO EVALUATE CLOGGING OF INLET GRATES AND SEDIMENT/DEBRIS BUILD-UP WITHIN INLET BOXES.

OPERATION & MAINTENANCE:

MAINTENANCE OF THE STORM SEWER SYSTEM IS NECESSARY TO ENSURE THE PROPER FUNCTIONALITY OF THE FACILITY. THESE FACILITIES SHALL BE MAINTAINED ON AN ANNUAL BASIS AS FOLLOWS:

1. THE OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORM SEWER SYSTEM, INCLUDING INLETS, PIPING AND ENDWALLS. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
2. MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY:
   a. EXCESSIVE BUILD-UP OF DEBRIS AND SEDIMENT SHALL BE REMOVED FROM INLET GRATES AND INLET BOXES. DEBRIS AND SEDIMENT SHOULD BE DISPOSED OF PROPERLY.

STRUCTURAL BMP 6.4.8 - VEGETATED SWALE

INSPECTION SCHEDULE:

PERIODIC INSPECTION OF THE VEGETATED CHANNEL FACILITIES IS NECESSARY TO ENSURE ITS PROPER FUNCTIONING. THESE FACILITIES SHALL BE INSPECTED AS FOLLOWS:

1. DURING THE FIRST GROWING SEASON FOLLOWING CONSTRUCTION OF THE VEGETATED CHANNELS OR UNTIL ESTABLISHED, THE NEWLY-PLANTED VEGETATION SHOULD BE INSPECTED EVERY TWO (2) TO THREE (3) WEEKS.
2. THE VEGETATED CHANNELS SHOULD BE INSPECTED WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (>1 INCH RAINFALL DEPTH) TO EVALUATE THE CHANNELS FOR EROSION.
3. THE VEGETATED CHANNELS SHOULD HAVE A GENERAL INSPECTION AT LEAST TWO (2) TIMES PER YEAR. THE GENERAL INSPECTION SHOULD ASSESS THE HEALTH OF VEGETATION, SOIL EROSION, FLOW CHANNELIZATION, BANK STABILITY, CLOGGING OF INLETS OR OUTLETS, AND SEDIMENT/DEBRIS ACCUMULATION.
4. A WRITTEN INSPECTION REPORT SHOULD BE FILED IN THE INSPECTION AND MAINTENANCE LOG OF THE OWNER OF RECORD OR AND MADE AVAILABLE UPON REQUEST TO GOVERNMENTAL AUTHORITIES.

OPERATION & MAINTENANCE:

MAINTENANCE OF THE VEGETATED CHANNELS IS NECESSARY TO ENSURE THE PROPER FUNCTIONALITY OF THE FACILITY. THESE FACILITIES SHALL BE MAINTAINED ON AN ANNUAL BASIS AS FOLLOWS:

1. THE OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE VEGETATED CHANNELS AND PROVIDING A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
2. THE VEGETATION WITHIN THE CHANNEL MAY NEED SUPPORT (WATERING, WEEDING, MULCHING, REPLANTING, ETC) DURING THE FIRST YEAR.
3. MAINTENANCE ACTIVITIES TO BE DONE WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (> 1 INCH RAINFALL DEPTH):
   a. VEGETATED AREAS SHOULD BE INSPECTED FOR EROSION.
4. MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY:
   a. MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM. MEADOW GRASSES SHOULD BE MOWED ANNUALLY. MOWING SHOULD BE DONE DURING THE SUMMER TO ENSURE ADEQUATE REGROWTH OF VEGETATION PRIOR TO WINTER. SPECIAL CARE SHOULD BE TAKEN TO MINIMIZE DISTURBANCE ASSOCIATED WITH THE MOWING OF THE MEADOW GRASSES.
   b. DETRITUS SHOULD BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON.
   c. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION AND UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES. VEGETATION SHOULD BE MAINTAINED TO AT LEAST 85% COVER. BARE SPOTS SHALL BE RE-SEEDED IMMEDIATELY UPON DISCOVERY.
   d. EXCESSIVE BUILD-UP OF SEDIMENT SHALL BE REMOVED. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE VEGETATED CHANNELS ARE COMPLETELY DRY. SEDIMENT SHOULD BE DISPOSED OF PROPERLY AND ONCE SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND VEGETATED.

STRUCTURAL BMP CREDIT 6.7.2 - LANDSCAPE RESTORATION

AREAS OF THE SITE HAVE BEEN DESIGNED TO BE PLANTED WITH A MEADOW GRASS MIXTURE WHICH WILL REDUCE THE RATE AND VOLUME OF STORMWATER RUNOFF FROM THE SITE. THESE AREAS WILL ALSO PROVIDE NATURAL HABITAT FOR WILDLIFE.

OPERATION & MAINTENANCE:

1. THE LOT OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE MEADOW AREAS AND PROVIDING A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
2. MAINTENANCE ACTIVITIES AS NEEDED:
   A. PLANT ALTERNATIVE GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT.
   B. RESEED BARE AREAS; INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING.
   C. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION AND UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES. VEGETATION SHOULD BE MAINTAINED TO AT LEAST 85% COVER.
   D. MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY.
   E. MEADOW GRASSES SHOULD BE MOWED ANNUALLY. MOWING SHOULD BE DONE DURING THE SUMMER TO ENSURE ADEQUATE REGROWTH OF VEGETATION PRIOR TO WINTER. SPECIAL CARE SHOULD BE TAKEN TO MINIMIZE DISTURBANCE ASSOCIATED WITH THE MOWING OF THE MEADOW GRASSES.

INSPECTION SCHEDULE:

VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR AREAS OF EROSION AND WEED/INVASIVE SPECIES.

RECYCLE & DISPOSAL OF MATERIALS

1. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET DEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
2. AT ANY TIME DURING THE CONSTRUCTION SHOULD EVIDENCE OF A POSSIBLE SINKHOLE BE ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DESIGN ENGINEER AND A LICENSED GEOTECHNICAL ENGINEER TO PERFORM A SITE VISIT AND DETERMINE THE PROPER REMEDIATION ACTIVITY.

UNFORESEEN EROSIVE CONDITIONS

1. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE, AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

MEADOW SEED MIX:

SEED MIX 'B' UPL MEADOW MIX (ERNMX-250-1) - **MODIFIED TO ELIMINATE BIG BLUESTEM** OR LONGWOOD GARDENS APPROVED EQUAL

20%	ELYMUS VIRGINICUS, PA ECOTYPE (VIRGINIA WILDRYE, PA ECOTYPE)
19%	SORGHASTRUM NUTANS, PA ECOTYPE (INDIANGRASS, PA ECOTYPE)
18%	SCHIZACHYRIUM SCOPARIUM, FORT INDIANTOWN GAP-PA ECOTYPE (LITTLE BLUESTEM, FORT INDIANTOWN GAP-PA ECOTYPE)
9%	TRIDENS FLAVUS (PURPLETOP)
5%	ANDROPOGON GERARDII, 'NIAGARA' (BIG BLUESTEM, 'NIAGARA')
5%	PENSTEMON DIGITALIS, PA ECOTYPE (TALL WHITE BEARDTONGUE, PA ECOTYPE)
4%	CHAMAECRISTA FASCICULATA (CASSIA F.), PA ECOTYPE (PARTRIDGE PEA, PA ECOTYPE)
3%	RUDBECKIA HIRTA (BLACKEYED SUSAN)
2%	ASTER NOVAE-ANGLIAE (SYMPHYOTRICHUM N.) (NEW ENGLAND ASTER)
2%	HELIOPSIS HELIANTHOIDES, PA ECOTYPE (OXEYE SUNFLOWER, PA ECOTYPE)
2%	LIATRIS SPICATA, PA ECOTYPE (MARSH (DENSE) BLAZING STAR (SPIKED GAYFEATHER), PA ECOTYPE)
2%	MONARDA FISTULOSA, PA ECOTYPE (WILD BERGAMOT, PA ECOTYPE)
2%	SENNA HEBECARPA (CASSIA H.), VA & WV ECOTYPE (WILD SENNA, VA & WV ECOTYPE)
1%	ASCLEPIAS SYRIACA, PA ECOTYPE (COMMON MILKWEED, PA ECOTYPE)
1%	ASTER LAEVIS (SYMPHYOTRICHUM LAEVE), MN ECOTYPE (SMOOTH BLUE ASTER, MN ECOTYPE)
1%	ASTER SAGITTIFOLIUS (A. UROPHYLLUS) (SYMPHYOTRICHUM UROPHYLLUM), PA ECOTYPE (ARROWLEAF (SAGITTATE) ASTER, PA ECOTYPE)
1%	GEUM CANADENSE, PA ECOTYPE (WHITE AVENS, PA ECOTYPE)
1%	LESPEDEZA CAPITATA, PA ECOTYPE (ROUNDHEAD LESPEDEZA, PA ECOTYPE)
1%	LESPEDEZA VIRGINICA, VA ECOTYPE (SLENDER BUSHCLOVER, VA ECOTYPE)
1%	SOLIDAGO JUNCEA, PA ECOTYPE (EARLY GOLDENROD, PA ECOTYPE)

100.00% (SEEDING RATE: 20 LB PER ACRE OR 0.46 LB PER 1,000 SQ FT)

* DO NOT USE FERTILIZER WHERE 'MEADOW AND 'NATIVE HABITAT' SEED MIX IS PLANTED. NO COMPOST OR FERTILIZER SHOULD BE ADDED AS SOIL AMENDMENTS.

STORMWATER BASIN SEED MIX:

RAIN GARDEN MIX - ERNMX-180 OR LONGWOOD GARDENS APPROVED EQUAL

20.0%	PANICUM RIGIDULUM (PA ECOTYPEREDTOP PANIC GRASS, PA ECOTYPE)
20.0%	SCHIZACHYRIUM SCOPARIUM (EASTERN ECOTYPELITTLE BLUESTEM, EASTERN ECOTYPE)
10.0%	ELYMUS VIRGINICUS (VIRGINIA WILD RYE)
5.00%	CAREX VULPINOIDEA (FOX SEDGE)
5.00%	CHASMANTHIUM LATIFOLIUM (RIVER OATS)
5.00%	ECHINACEA PURPUREA, PURPLE CONEFLOWER
5.00%	LIATRIS SPICATA (MARSH (DENSE) BLAZING STAR, SPIKED GAYFEATHER)
5.00%	RUDBECKIA HIRTA (BLACK EYED SUSAN)
3.00%	MONARDA FISTULOSA (WILD BERGAMOT)
3.00%	PENSTEMON DIGITALIS (TALL WHITE BEARD TONGUE)
2.00%	ANDROPOGON GERARDII ('WI ECOTYPE'' WI ECOTYPE' BIG BLUESTEM)
2.00%	ASCLEPIAS INCARNATA (SWAMP MILKWEED)
2.00%	ASTER NOVAE-ANGLIAE (NEW ENGLAND ASTER)
2.00%	BAPTISIA AUSTRALIS (BLUE FALSE INDIGO)
2.00%	GEUM LACINIATUM (ROUGH AVENS)
2.00%	SENNA HEBECARPA (WILD SENNA)
2.00%	TRADESCANTIA OHIENSIS (OHIO SPIDERWORT)
2.00%	VERBENA HASTATA (BLUE VERVAIN)
2.00%	ZIZIA AUREA (GOLDEN ALEXANDERS)
1.00%	AGROSTIS PERENNANS (AUTUMN BENTGRASS)

100.00% (SEEDING RATE: 15 LB PER ACRE OR 1/2 LB PER 1,000 SQ FT)

*DO NOT USE FERTILIZER WHERE 'RAIN GARDEN' SEED MIX IS PLANTED.

PRELIMINARY NOT FOR CONSTRUCTION 11/19/18

PENNONI ASSOCIATES INC.
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PRJ #	REV	COMPANY	INITIALS	DATE	DESCRIPTION
	6	PENNONI	AT	11/19/18	REVISED PER TWP COMMENTS
	5	PENNONI	AT	10/26/18	ISSUED 90% DD REVIEW
	4	PENNONI	AT	10/22/18	REVISED PER TWP COMMENTS
	3	PENNONI	AT	10/01/18	ISSUED 50% DD REVIEW
	2	PENNONI	AT	09/21/18	ISSUED FOR BID
	1	PENNONI	AT	08/31/18	REVISED PER TWP COMMENTS

LONGWOOD GARDENS NURSERY GREENHOUSE

LONGWOOD GARDENS

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POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

DRAWING ORIGINATOR:
PENNONI ASSOCIATES INC.
ONE SOUTH CHURCH STREET, 2ND FLOOR
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DRAWN BY:	CHECKED BY:	DRAWING NUMBER:
AT	CRP	NURSGRNH041
DATE: 2018-06-08	SCALE: N.T.S.	SHEET #: CS9501

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER ROBERT POTERJOY No. PE083518

North