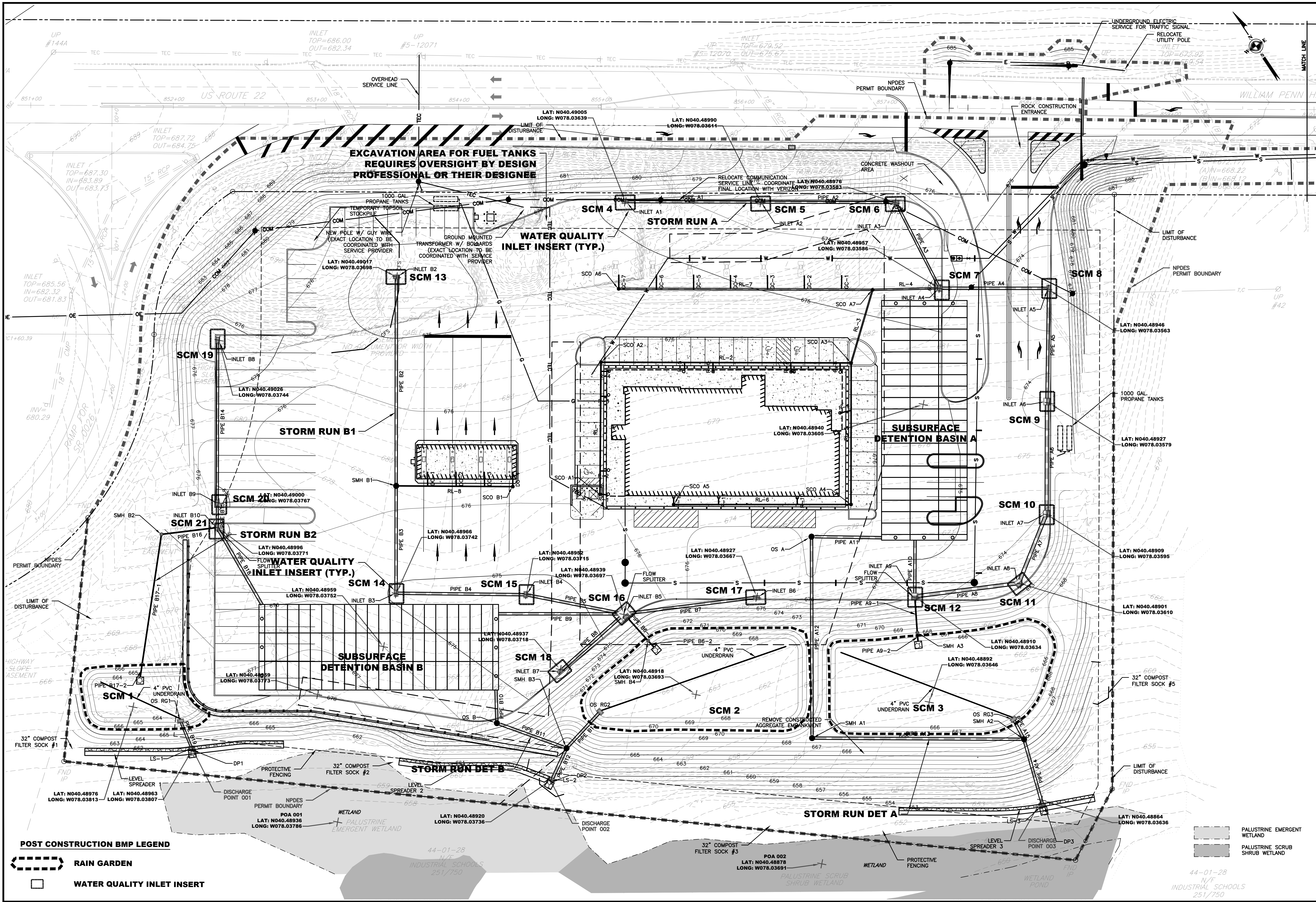




POST CONSTRUCTION BMP LEGEND

- RAIN GARDEN
- WATER QUALITY INLET INSERT

- PALUSTRINE EMERGENT WETLAND
- PALUSTRINE SCRUB SHRUB WETLAND

420 Allegheny Street
Holidaysburg, PA 16648
P(814) 686-7430
www.keller-engineers.com

KELLER ENGINEERS
CIVIL • STRUCTURAL • SURVEY

REGISTERED PROFESSIONAL ENGINEER
BENJAMIN STULTZ P.E.
F008344
PENNSYLVANIA

DATE	INITIALS	NPDES MAJOR MODIFICATION	REVISION DESCRIPTION
04/15/26 BSP			

SCALE: 1"=30'

0' 30'

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

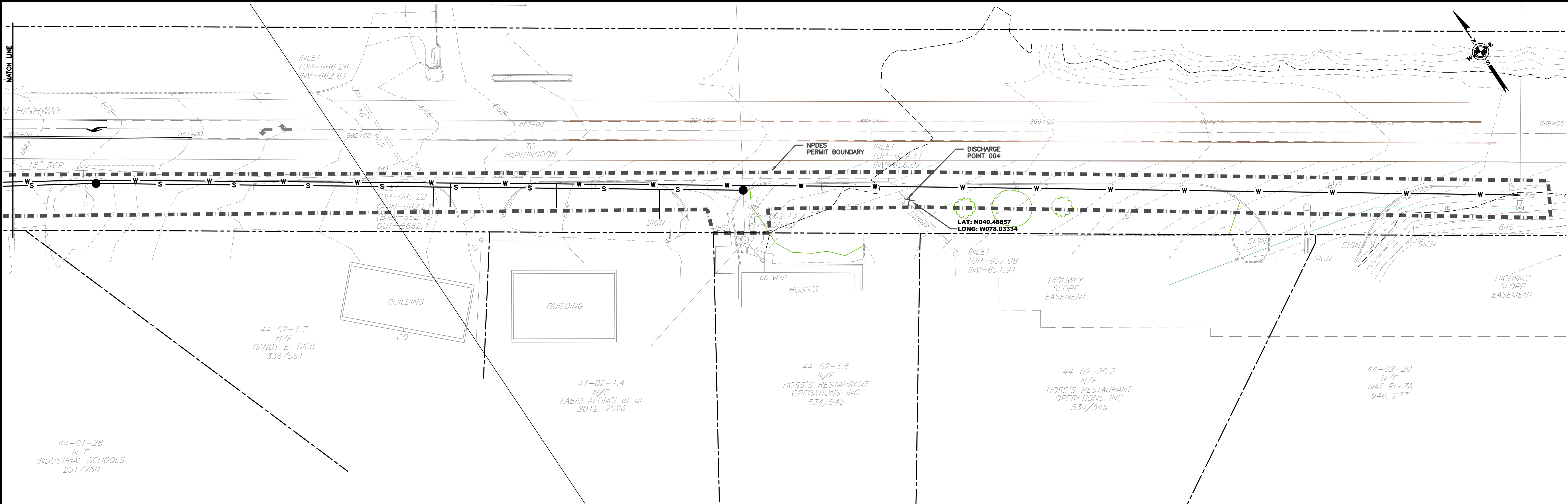
HUNTINGDON RUTTER'S STORE #83

SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY
PENNSYLVANIA

PROJECT NO.: 3748-S
FILE NAME: PCSM1.DWG
DATE: 6/6/24
DESIGNED BY: BSP
DRAWN BY: BSP
CHECKED BY: ---

KELLER ENGINEERS, INC.
EXPRESSLY RESERVES ITS
RIGHTS IN ALL RIGHTS
CONTAINED IN THESE PLANS
AND DESIGNS. THEY ARE
NOT TO BE REPRODUCED, COPIED,
CHANGED, ALTERED OR
COPIED IN ANY FORM OR
MANNER, NOR ARE THEY TO
BE USED FOR ANY PURPOSE
WITHOUT THE WRITTEN
CONSENT OF
KELLER ENGINEERS, INC.

PCSM1



STORMWATER FACILITIES MAINTENANCE AGREEMENT

1. THE MAINTENANCE OF ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, THEIR HEIRS, ASSIGNS OR SUCCESSORS IN TITLE. MAINTENANCE SHALL INCLUDE BUT, NOT BE LIMITED TO NORMAL MAINTENANCE AS WELL AS REPAIR OF STRUCTURAL DAMAGE OR DETERIORATION OF ANY KIND, INCLUDING THAT CAUSED BY SINKHOLES OR OTHER EVENTS. THE TOWNSHIP SHALL HAVE THE RIGHT, BUT NOT THE DUTY, OF ACCESS AT ANY TIME TO INSPECT AND MAINTAIN THE FACILITY AT THE PROPERTY OWNER'S EXPENSE IF THE OWNER SHALL FAIL TO PROPERLY MAINTAIN THE FACILITY. THE TOWNSHIP SHALL HAVE THE RIGHT TO SECURE RECOVERY OF SUCH COSTS BY FILING A MUNICIPAL LIEN AGAINST THE PROPERTY.
2. STORMWATER FACILITIES ASSOCIATED WITH THIS MAINTENANCE AGREEMENT INCLUDE, BUT ARE NOT LIMITED TO, STORMWATER INLETS, STORM WATER QUALITY UNITS, INFILTRATION BEDS, STORM PIPES, DOWNSPOUTS, ROOF DRAINS.
3. GENERAL OBJECTIVES OF MAINTENANCE ARE TO PREVENT CLOGGING OF STORM SEWERS FACILITIES AS WELL AS PREVENTING THE RELEASE OF TRASH, DEBRIS, OILS, GREASE, GRIT, ETC TO REGULATED WATERS OF THE COMMONWEALTH.
4. REQUIRED MAINTENANCE SHALL CONSIST OF INSPECTING AND CLEANING THE STORM WATER FACILITIES TO ENSURE THEY ARE IN PROPER WORKING ORDER. MAINTENANCE SHALL ALSO INCLUDE IMMEDIATELY REPAIRING OR REPLACING FACILITY COMPONENTS THAT ARE NOT WORKING PROPERLY. STORM SEWER FACILITIES SHALL BE INSPECTED QUARTERLY AND AFTER MAJOR STORMS. DETAILED INSPECTIONS BY A QUALIFIED INSPECTOR SHALL OCCUR AS NOTED BELOW TO ENSURE THAT THE FACILITIES ARE OPERATING AS DESIGNED AND TO SCHEDULE MAINTENANCE THAT THE FACILITIES MAY REQUIRE. IN ADDITION TO REGULARLY SCHEDULED INSPECTIONS, DEFICIENCIES SHOULD BE NOTED DURING ANY VISIT BY MAINTENANCE PERSONNEL. ANY TRASH, DEBRIS, OILS, GREASE, GRIT, ETC THAT HAS COLLECTED SHALL BE REMOVED AND DISPOSED OF IMMEDIATELY IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
5. LAWN SHALL NOT BE TREATED WITH FERTILIZERS - EXCEPT WHEN REESTABLISHING LAWN DUE TO DISTURBANCE.
6. THE POINT OF CONTACT FOR MAINTENANCE, INSPECTION, RECORDS, OR EMERGENCY SHALL BE:
CHR CORP. (CONTACT: ADAM BISKER, DIRECTOR OF MAINTENANCE)
2295 SUSQUEHANNA TRAIL, SUITE C
YORK, PA 17404
717-771-5908
7. MAINTENANCE OF SAID STORMWATER FACILITIES SHALL CONSIST OF:
INSPECTION - STORMWATER FACILITIES SHALL BE INSPECTED QUARTERLY AND AFTER MEASURABLE RAINFALL EVENTS (GREATER THAN 1"). REPAIRS, IF ANY, SHALL BE MADE IMMEDIATELY. THESE INSPECTIONS DO NOT NEED TO BE PERFORMED BY A QUALIFIED INSPECTOR. A MAINTENANCE/INSPECTION LOG AND WRITTEN REPORT SHALL BE KEPT OF ALL INSPECTIONS, REPAIRS, AND MAINTENANCE ACTIVITIES.

IN ADDITION TO SOMEONE PERFORMING THE ABOVE INSPECTIONS, A QUALIFIED INSPECTOR SHALL PERFORM INSPECTIONS OF THE STORMWATER FACILITIES ANNUALLY FOR THE FIRST FIVE (5) YEARS. AFTER FIVE YEARS OF ANNUAL INSPECTIONS, INSPECTIONS THEREON SHALL BE PERFORMED EVERY THREE (3) YEARS. INSPECTIONS BY A QUALIFIED INSPECTOR ARE ALSO REQUIRED DURING OR IMMEDIATELY AFTER THE SECESSION OF A 10 YEAR OR GREATER STORM (EQUATING TO AT LEAST 4.5 INCHES OF RAINFALL IN A 24-HOUR PERIOD). SAID RECORDS SHALL BE KEPT ON SITE, ACCESSIBLE AND OPENED TO THE STORMWATER OFFICER UPON REQUEST SO THAT HE OR SHE MAY VERIFY THAT MAINTENANCE IS PROCEEDING AS APPROVED. THE ENTITY CONDUCTING THE INSPECTION SHALL SUBMIT A WRITTEN REPORT TO THE OWNER AND MUNICIPALITY REGARDING ANY MAINTENANCE / REPAIRS PERFORMED WITHIN THE PREVIOUS YEAR, THE CONDITIONS OF THE BMP'S, ANY RECOMMENDED REPAIRS, IF NEEDED, AND A SCHEDULE FOR COMPLETION OF SUCH REPAIRS. THE OWNER SHALL IMPLEMENT ALL NECESSARY REPAIRS IN ACCORDANCE WITH THE SUBMITTED SCHEDULE.

DEBRIS AND LITTER CONTROL - STORMWATER MANAGEMENT FACILITIES SHALL BE KEPT IN FUNCTIONING ORDER FREE OF DEBRIS AND LITTER.

MAINTENANCE RECORD - THE LOT OWNER IS TO KEEP A WRITTEN RECORD OF ALL INSPECTIONS, REPAIRS, AND CLEANINGS. THE MAINTENANCE RECORD SHALL BE KEPT CURRENT AND PROVIDED TO THE MUNICIPALITY AS NOTED ABOVE.

UNDERGROUND DETENTION BASIN - STORMWATER FACILITIES SHALL BE INSPECTED QUARTERLY AND AFTER MEASURABLE RAINFALL EVENTS (GREATER THAN 1"). THESE INSPECTIONS DO NOT NEED TO BE PERFORMED BY A QUALIFIED INSPECTOR, AND WRITTEN REPORTS ARE NOT REQUIRED. THE OUTLET STRUCTURES SHALL BE INSPECTED YEARLY. PLEASE SEE THE "INSPECTION" SECTION FOR MORE DETAILS ON INSPECTIONS. IF ANY REPAIRS ARE REQUIRED, THEY SHALL BE MADE IMMEDIATELY. IF SEDIMENT ACCUMULATES TO A DEPTH GREATER THAN 4", SEDIMENT SHALL BE REMOVED VIA A VACUUM TRUCK. DEBRIS SHALL BE REMOVED FROM THE OUTLET STRUCTURES. DEFORMATION TO THE PAVEMENT ABOVE THE TERREARCH BASIN, CHANGES IN GRADE ACROSS THE BASIN, AND/OR POTHOLES IN THE STONE BASIN BOTTOM, COULD ALL BE INDICATIONS THAT A SINKHOLE OR OTHER KARST FEATURE HAS DEVELOPED UNDER THE BASIN(S). CHR CORP SHALL BE CONSULTED IMMEDIATELY IF ANY OF THESE ITEMS ARE NOTICED. PARTIAL OR FULL REPLACEMENT OF THE BASIN(S) MAY BE REQUIRED. THE TERREARCH UNITS AND/OR PIPING WOULD NEED TO BE REMOVED, THE SINKHOLE WOULD NEED TO BE FILLED/STABILIZED, AND THE BASIN(S) WOULD NEED TO BE REINSTALLED PER THE INSTALLATION DETAIL(S). THIS WORK SHALL BE DONE WHEN NO RAIN IS IN THE FORECAST.
ACCESS: VIA ACCESS MANHOLES

NATIVE TREE PLANTINGS - WHILE TREES ARE BEING ESTABLISHED, PRUNING MAY BE REQUIRED. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. STONE BASE COVER SHOULD BE RE-SPREAD WHEN LOSS OF STONE IS EVIDENT AND SHALL BE REPLENISHED AS NEEDED. DURING PERIODS OF EXTENDED DROUGHT, NATIVE PLANTINGS MAY REQUIRE WATERING. TREES SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH. ANY DEAD TREES SHALL BE REPLANTED. IF NATIVE TREE REPLACEMENT IS NEEDED; TREE AND STONE SHALL BE REMOVED AND REPLACED. INSTALL THE NEW NATIVE TREE(S) PER THE LANDSCAPING NOTES, TREE PLANTING DETAIL, AND PER THE PLAN.
ACCESS: VIA PARKING LOT

PROJECT NO.: 3748-03
FILE NAME: PCSM2.DWG
DATE: 6/6/24
DESIGNED BY: BSP
DRAWN BY: BSP
CHECKED BY: ---

PCSM2

POST CONSTRUCTION
STORMWATER MANAGEMENT PLAN

HUNTINGDON RUTTER'S STORE #93

SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY
PENNSYLVANIA

KELLER ENGINEERS, INC.
EXPRESSLY RESERVES ITS
RIGHTS IN ALL RIGHTS
CONTAINED IN THESE PLANS
AND DESIGNS. THEY ARE
NOT TO BE COPIED, REPRODUCED,
CHANGED, ALTERED OR
COPIED IN ANY FORM OR BY
ANY MEANS, WITHOUT THE
WRITTEN PERMISSION AND
CONSENT OF
KELLER ENGINEERS, INC.

3748-03
PCSM2.DWG
6/6/24
BSP
BSP

420 Allegheny Street
Holidaysburg, PA 16648
P: (814) 686-7430
www.keller-engineers.com

KELLER ENGINEERS
CIVIL • STRUCTURAL • SURVEY

REGISTERED PROFESSIONAL ENGINEER
BENJAMIN STULTZ PIPER
NO. 100834
PENNSYLVANIA

PROJECT DESCRIPTION/SITE CHARACTERISTICS
LAND USE PAST FARMLAND PRESENT VACANT/IDLE LAND PROPOSED CONVENIENCE STORE WITH FUELING ISLANDS
RECEIVING WATERS ADJACENT WETLANDS

CONSTRUCTION NOTES
SEQUENCE OF INSTALLATION OF PCSM SCM'S
NOTE: CRITICAL STAGE REQUIRING OVERSIGHT BY LICENSED PROFESSIONAL
1. WHEN ALL SURFACES TRIBUTARY TO THE PCSM SCM'S, RAIN GARDENS, VEGETATED SWALE, VOLUME STORAGE SCM'S, AND LANDSCAPE RESTORATION AREAS, 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 SCM; SUCH AS, PAVEMENT FOR STREETS AND SIDEWALKS, THE PCSM SCM'S CAN BE CONSTRUCTED ACCORDING TO THE FOLLOWING SEQUENCE:
SUBSURFACE DETENTION BASIN PCSM SCM'S
2. EXCAVATE SCM'S TO THE DEPTH NEEDED TO ADD THE CLAY LINING AND ROCK LAYERS AND TERRE ARCH STRUCTURES TO THE REQUIRED FINAL DEPTH.
3. OUTFALL DEVICES, SUCH AS, PIPES AND RISERS, CAN NOW BE INSTALLED AND BECOME OPERATIONAL.
4. BACKFILL AREA WITH STONE AS REQUIRED BY MANUFACTURERS SPECIFICATIONS.
5. COMPLETE FINAL LEVELING TO ACHIEVE PROPOSED DESIGN ELEVATIONS.
6. STABILIZE ALL SURROUNDING DISTURBED SOIL SURFACES BY SEEDING AND MULCHING
7. ADDITIONAL SITE LANDSCAPE PLANTINGS CAN TAKE PLACE AT THIS TIME OR IN THE NEAR FUTURE.

RECYCLING & DISPOSAL OF WASTE MATERIALS
• UPON COMPLETION OF CONSTRUCTION THE OWNER IS RESPONSIBLE TO ASSURE WASTES THAT RESULT FROM NORMAL MAINTENANCE OF THE PCSM SCM'S ARE PROPERLY DISPOSED. LITTER AND TRASH THAT COULD ACCUMULATE IN DRAINAGE FACILITIES MUST BE REMOVED DURING MAINTENANCE AND PROPERLY DISPOSED ACCORDING TO DEP REGULATORY REQUIREMENTS, SEE BELOW. DEAD OR DYING VEGETATION OR GRASS CLIPPINGS MUST BE DISPOSED AT AN APPROVED YARD WASTE RECYCLING FACILITY. ACCUMULATED SEDIMENT THAT IS REMOVED DURING REPAIR AND MAINTENANCE MUST BE PLACED IN AN UPLAND LOCATION OR REMOVED FROM THE PROPERTY AND IMMEDIATELY STABILIZED WITH SEED AND MULCH.
• ALL 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.
• SHOULD SHALE BEDROCK BE EXPOSED DURING EXCAVATION THE FOLLOWING STEPS MUST BE TAKEN: NOTIFY THE GEOTECHNICAL ENGINEER-OF-RECORD (GER) IMMEDIATELY IF DECOMPOSED, WEATHERED AND/OR INTACT SHALE BEDROCK IS ENCOUNTERED. THE GER SHALL VISIT THE SITE WITHIN 24 HOURS TO DETERMINE IF ADDITIONAL LABORATORY TESTING (TOTAL SULFUR AND NEUTRALIZATION POTENTIAL) IS WARRANTED. 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

LICENSED PROFESSIONAL MUST OVERSEE IMPLEMENTATION OF ALL PCSM SCM'S

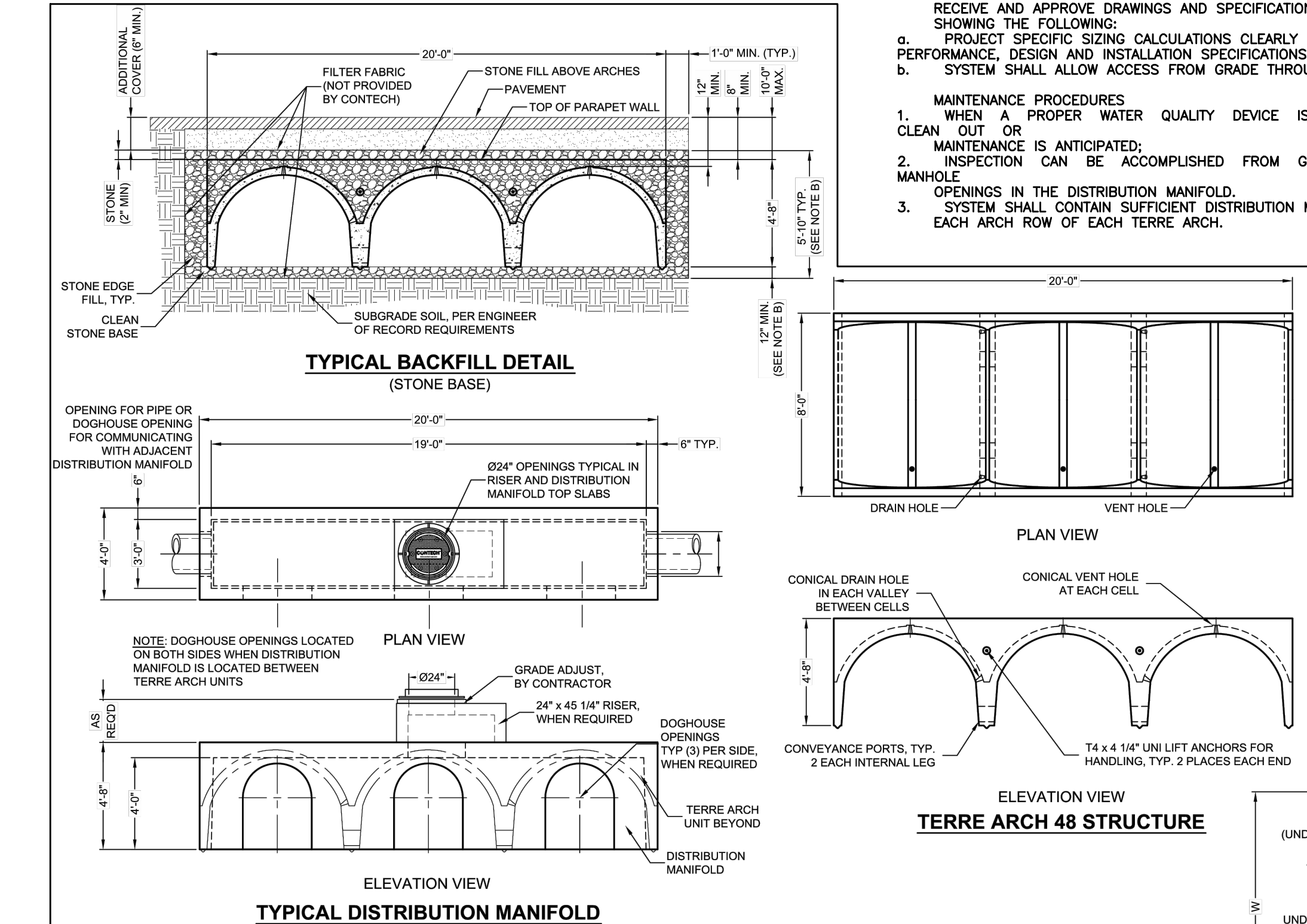
SUBSURFACE DETENTION BASIN SCM'S
THIS INVOLVES INSTALLATION OF A PROPRIETARY SUBSURFACE STORMWATER STORAGE SYSTEM, TERRE ARCH PROVIDED BY CONTECH. CONTRACTOR IS RESPONSIBLE FOR OBTAINING INSTALLATION AND MAINTENANCE SPECIFICATIONS FROM CONTECH TO ASSURE PROPER IMPLEMENTATION OF THESE SCM'S.

EXCAVATION OF THE FUEL STORAGE TANK AREA SHALL BE CONSIDERED A CRITICAL STAGE. A DESIGN PROFESSIONAL OR THEIR DESIGNEE SHALL BE ONSITE TO OBSERVE AND PROVIDE DIRECTION SHOULD PYRITIC SHALE BE UNCOVERED.

MAINTENANCE NOTES
REGULAR MAINTENANCE IS NEEDED INITIALLY AFTER CONSTRUCTION AND CONTINUING INSPECTION AND MAINTENANCE IS REQUIRED TO ASSURE PROPER OPERATION OF ALL SCM'S. THE CONTRACTOR MUST MAINTAIN A WRITTEN REPORT ON THE PROJECT SITE DOCUMENTING EACH INSPECTION AND ALL REPAIR OR REPLACEMENTS AND MAINTENANCE ACTIVITIES.

SHOULD ROUTINE INSPECTION REVEAL THAT A PCSM SCM IS NOT FUNCTIONING AS DESIGNED, THE OWNER MUST IMMEDIATELY TAKE ACTION TO CORRECT THE PROBLEM. STRUCTURAL FAILURES SUCH AS, BROKEN OR CLOGGED PIPES CAN BE RESOLVED BY REPLACING AND REPAIRING THE SCM TO THE ORIGINAL DESIGN (SEE PCSM SCM MAINTENANCE GUIDELINES FOR THIS PROJECT'S SPECIFIC SCM'S SHOWN BELOW). SHOULD A PCSM SCM CONSTRUCTED TO THE ORIGINAL DESIGN SPECIFICATIONS FAIL TO FUNCTION, THE OWNER MUST IMMEDIATELY CONTACT A STORMWATER DESIGN ENGINEER/PROFESSIONAL TO EVALUATE THE PROBLEM AND RECOMMEND CORRECTIONS. ANY MODIFICATION PROPOSED TO ADDRESS THE PROBLEM MUST BE SUBMITTED TO THE HUNTINGDON COUNTY CONSERVATION DISTRICT AND DEP FOR REVIEW AND APPROVAL PRIOR TO INITIATING IMPLEMENTATION OF CORRECTIVE ACTIONS.

IN ACCORDANCE WITH PERMIT CONDITIONS,, WHERE PCSM SCM'S ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING



GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
3. TERRE ARCH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. STRUCTURE SHALL MEET AASHTO HS25 LOAD RATING, ASSUMING EARTH COVER OF 1' - 10' ABOVE TOP OF ARCH.
5. FILTER FABRIC OR GEOTEXTILE IS RECOMMENDED WHERE SILT MIGRATION FROM THE SIDES OR TOP INTO THE VOID SPACE OF THE STONE IS POSSIBLE

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE TERRE ARCH AND ASSOCIATED STRUCTURES (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL TERRE ARCH STRUCTURES, DISTRIBUTION MANIFOLDS AND CAPPING SLAB SECTIONS
D. CONTRACTOR TO INSTALL TWO STRAP CONNECTIONS (PROVIDED BY CONTECH) AT EACH CAPPING SLAB.
E. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH ALL PIPE INVERTS WITH FINAL CONTECH CONTRACT DRAWINGS.
F. 1" MINIMUM EARTH COVER ABOVE TOP OF ARCH. CONTECH RECOMMENDS STONE FOR THE FIRST 6" OF COVER.

AN INSPECTION OR ANY OTHER TIME THE PERMITTEE BECOMES AWARE OF ANY INCIDENT CAUSING OR THREATENING POLLUTION AS DESCRIBED IN TITLE 25 PA CODE § 91.33, AS REQUIRED IN TITLE 25 PA CODE § 92A.41(B), THE PERMITTEE AND CO-PERMITTEE SHALL WITHIN 24 HOURS CONTACT THE DEPARTMENT OR AUTHORIZED COUNTY CONSERVATION DISTRICT BY PHONE OR PERSONAL CONTACT, FOLLOWED BY SUBMISSION OF A WRITTEN REPORT WITHIN FIVE (5) DAYS OF THE INITIAL CONTACT.

IN ACCORDANCE WITH THE PNDI AVOIDANCE MEASURE, NO TREES MAY BE CUT BETWEEN MAY 15TH THROUGH AUGUST 15TH.

SUBSURFACE DETENTION BASIN SCM'S
MANUFACTURER SPECIFIED MAINTENANCE PROGRAM MUST BE IMPLEMENTED FOR THIS SCM.

PROFESSIONAL CERTIFICATION:
UPON COMPLETION OF THE PROJECT AND SUBMISSION OF THE REQUIRED NOTICE OF TERMINATION (NOT) THE RECORD DRAWINGS SHALL INCLUDE THE FOLLOWING EXECUTED CERTIFICATION, WITH THE PROFESSIONAL'S SEAL:

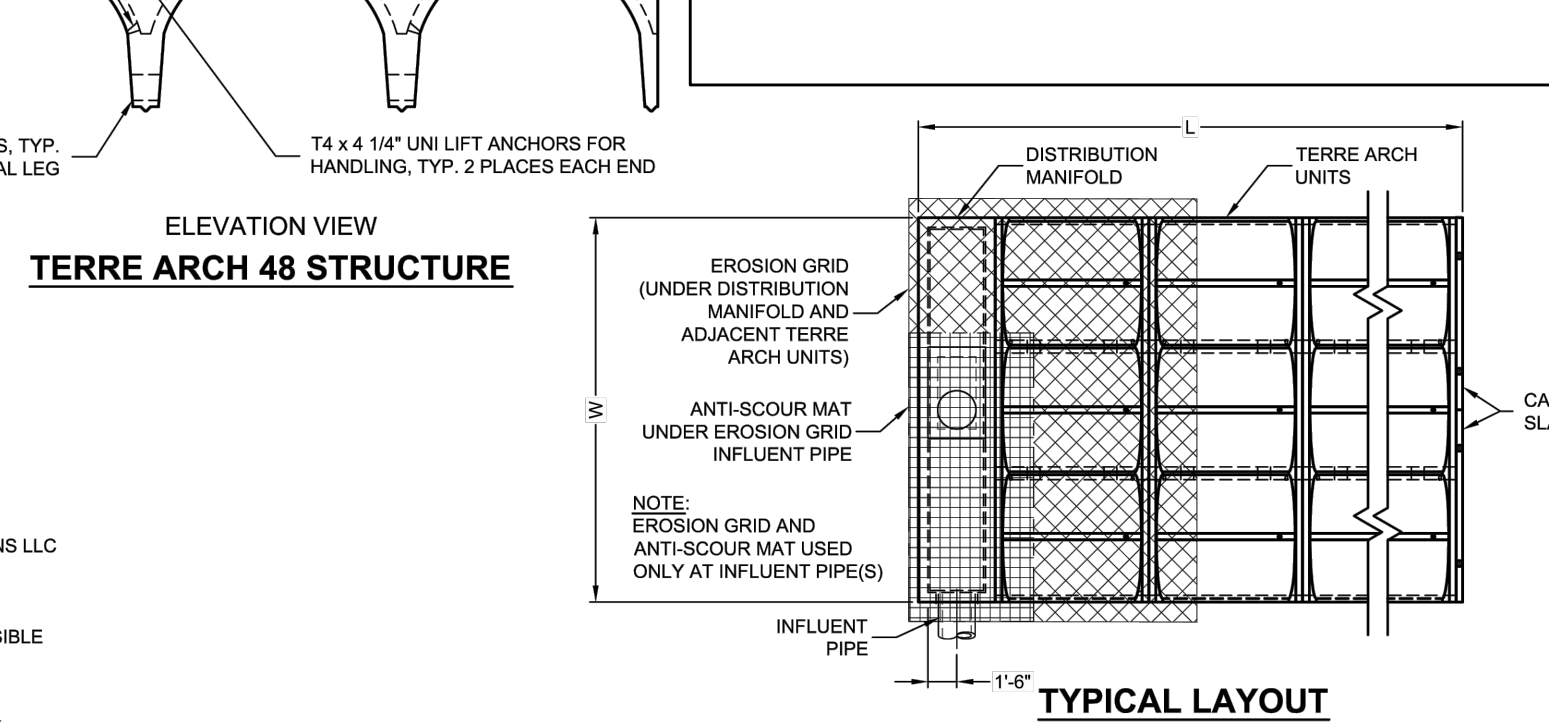
"I, (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 P.A.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS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

OWNERSHIP/OPERATION/MAINTENANCE:
M&G REALTY/RUTTERS, AS THE OWNER OF THIS DEVELOPMENT, WILL BE RESPONSIBLE FOR THE DAY TO DAY OPERATION AND MAINTENANCE OF THE PERMANENT FACILITIES AND WILL BE ULTIMATELY RESPONSIBLE FOR LONG-TERM MAINTENANCE OF THE PERMANENT STORMWATER SCM'S. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF THE PERMANENT VEGETATION, THE BIO-RETENTION AREAS SHALL BE INSPECTED BE INSPECTED AND REPAIRED AS NEEDED ACCORDING TO THE ABOVE NOTES. A WRITTEN REPORT WILL BE MAINTAINED AT THE SITE DOCUMENTING ALL INSPECTION AND MAINTENANCE ACTIVITIES.

TERRE ARCH 48
PERFORMANCE, DESIGN & INSTALLATION SPECIFICATIONS
THE TERRE ARCH 48 IS A PRECAST CONCRETE MODULAR ROMAN ARCH STRUCTURE WITH 5000PSI COMPRESSIVE STRENGTH CONSISTING OF THREE CONNECTED PARALLEL VAULTS FOR SUBSURFACE STORAGE OF STORMWATER.
1. INFILTRATION TO RECHARGE THE GROUND WATER; DETENTION WHERE SITE CONDITIONS REQUIRE
2. HS-25 LOAD RATING ON THE CROWN OF THE ARCH; NO MINIMUM COVER OR FILL REQUIREMENTS; NO REQUIREMENT FOR STONE BETWEEN THE ARCHES OR ABOVE THE STRUCTURE; DIRECT ACCESS FOR HEAVY INSTALLATION EQUIPMENT.
(PERIMETER STONE FILL IS REQUIRED PRIOR TO INSTALLATION EQUIPMENT ACCESS);
3. MINIMUM STONE SUB-BASE DEPTH OF SIX (6) INCH WITH A MINIMUM SUBSURFACE BEARING CAPACITY OF 3000 PSF. STONE BASE MAY BE INCREASED BY ENGINEER, IF REQUIRED TO BALANCE LOADS;
4. MAXIMUM COVER UP TO 20 FT. (VERIFY SUB-BASE DEPTH AND SOIL BEARING CAPACITY);
5. A WATER QUALITY TREATMENT DEVICE, SUCH AS TERRE KLEEN, SHOULD BE PLACED UPSTREAM FROM THE TERRE ARCH TO PREVENT ENTRY OF SEDIMENT, OIL, GREASE, LITTER, AND DEBRIS INTO TERRE ARCH
6. 160 FT 2 (8 FEET BY 20 FEET) INFILTRATION SURFACE PER STRUCTURE;
7. 638 FT 3 (5.32FT 3 /FT 2) OF IN CUSTOMARY INSTALLATION (I.E. 6" STONE BED (5" #8 AND 1" #5 STONE) AND VALLEYS
8. BETWEEN ARCHES FILLED WITH 4" OF STONE TO THE TOP OF THE BUTTRESSES & 6" OF STONE COVER);
9. TERRE ARCH 48 WEIGHS 15,700 LBS.; PLACEMENT FROM TRUCK INTO THE PREPARED EXCAVATION BY CRANE;
10. VENT AND DRAIN HOLES CAST AT THE TOP OF THE ARCH AND IN THE VALLEY AREAS OF THE TERRE ARCH;
11. DISTRIBUTION HOLES ARE CAST INTO THE LEGS OF THE ARCHES TO ALLOW FLOW BETWEEN ALL SECTIONS;
12. THE ANTI-SCOUR AND EROSION MAT REQUIRED UNDER MANIFOLD AND TERRE ARCH WHERE INFLOW OCCURS;
13. NO GRADE SUBSIDENCE OR MISALIGNMENT WITH PROPER INSTALLATION;
14. NO REQUIREMENT FOR SPACING OR BACKFILLING BETWEEN EACH STRUCTURE;
15. NO REQUIREMENT FOR GEOTEXTILE SEPARATION LAYER BELOW. USE FILTER FABRIC OR GEOTEXTILE WHERE SILT MIGRATION FROM THE SIDES OR TOP INTO THE STONE'S VOID SPACE IS POSSIBLE
16. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND SUCH OTHER INFORMATION REQUESTED BY ENGINEER;
17. EACH TERRE ARCH SHALL HAVE FOUR (4) LIFTING POINTS WITH UNI-LIFT PINS. CONTRACTOR SHALL PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING CAPACITY TO UNLOAD AND SET THE TERRE ARCH;
18. CONTRACTOR SHALL EXCAVATE, Dewater AND SHORE AS REQUIRED BY ENGINEER OR SAFETY REGULATIONS;
19. TERRE ARCH DISTRIBUTION BOX SHALL INCLUDE RISER SECTIONS THAT EXTEND TO GRADE WITH MANHOLE ACCESS INTO ENTIRE TERRE ARCH SYSTEM.
20. WARRANTY: 4 YEARS FROM DATE OF SUBSTANTIAL COMPLETION FOR LABOR AND MATERIAL IN THE EVENT THAT THE MATERIAL SUPPLIED IS NOT FREE FROM DEFECTS; STRUCTURE SHALL BE INSTALLED ONLY FOR THE PARTICULAR APPLICATION FOR WHICH IT WAS SPECIFICALLY MANUFACTURED;
21. TERRE ARCH INSTALLATION MAY REQUIRE DISTRIBUTION BOX(ES) AND END CAPS AS SHOWN ON THE DRAWINGS.

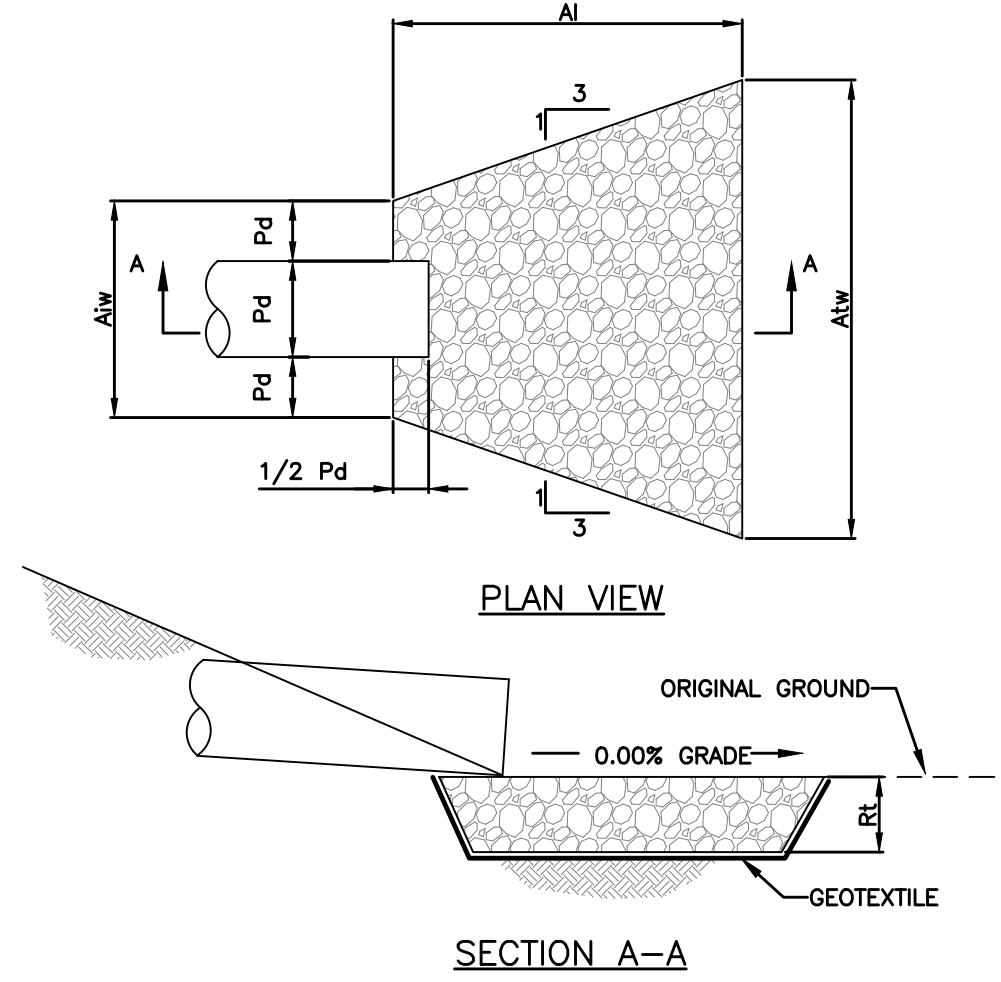
PRODUCT SUBSTITUTION PROCEDURES
1. NO SUBSTITUTE SYSTEM SHALL BE APPROVED AS EQUIVALENT TO TERRE ARCH SYSTEM UNLESS THE ENGINEER SHALL RECEIVE AND APPROVE DRAWINGS AND SPECIFICATIONS STAMPED AND SEALED BY A PROFESSIONAL ENGINEER SHOWING THE FOLLOWING:
a. PROJECT SPECIFIC SIZING CALCULATIONS CLEARLY SHOWING THAT THE UNIT MEETS OR EXCEEDS THE PERFORMANCE, DESIGN AND INSTALLATION SPECIFICATIONS OF THE TERRE ARCH.
b. SYSTEM SHALL ALLOW ACCESS FROM GRADE THROUGH MANHOLE INTO THE ENTIRE UNDERGROUND SYSTEM
MAINTENANCE PROCEDURES
1. WHEN A PROPER WATER QUALITY DEVICE IS PLACED IN FRONT OF THE TERRE ARCH SYSTEM NO CLEAN OUT OR
2. MAINTENANCE IS ANTICIPATED;
3. INSPECTION CAN BE ACCOMPLISHED FROM GRADE WITH PROPER EQUIPMENT, BY ENTRY THROUGH THE MANHOLE
OPENINGS IN THE DISTRIBUTION MANIFOLD.
4. SYSTEM SHALL CONTAIN SUFFICIENT DISTRIBUTION MANIFOLDS TO ALLOW ENTRY FOR INSPECTION AND MAINTENANCE INTO EACH ARCH ROW OF EACH TERRE ARCH.

SUBSURFACE DETENTION BASIN SCHEDULE:		
AREA	A	B
TERRE ARCH 48 UNITS	60	60
PONDING DEPTH (PD)	4.67 FT	4.67 FT
FOUNDATION STONE DEPTH (SD)	1.0'	1.0'
COVER STONE DEPTH (SD)	0.5'	0.5'
OUTLET STRUCTURE TYPE	ORIFICE PLATE	ORIFICE PLATE
ORIFICE DIAMETER	3"	4"
OUTLET STRUCTURE ORIFICE ELEV.	661.25	663.90
100 YR WATER SURFACE ELEV.	666.39	669.30
2 YR WATER SURFACE ELEV.	663.22	665.66
BOTTOM ELEV.	661.50	664.00
FLOOR ELEV.	662.50	665.00
STRUCTURE TOP ELEV.	667.17	669.67
DISCHARGE PIPE INV.	661.50	664.00
DISCHARGE PIPE OUTLET INV.	661.25	663.90
DISCHARGE PIPE	PIPE A11	PIPE B10



SUBSURFACE DETENTION BASIN

NOTE:
A LICENSED PROFESSIONAL SHALL OVERSEE CONSTRUCTION OF THIS BMP.



OUTLET NO.	PIPE NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R--	THICK. Rt (IN)	LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Aiw (FT)
1	LS-1	15	3	18	5	5	5
2	LS-2	18	3	18	5	5	5
3	LS-3	18	3	18	5	5	5
4	B17-2	6	3	18	5	5	5
5	B6-2	6	3	18	5	5	5
6	A9-2	6	3	18	5	5	5

NOTES:

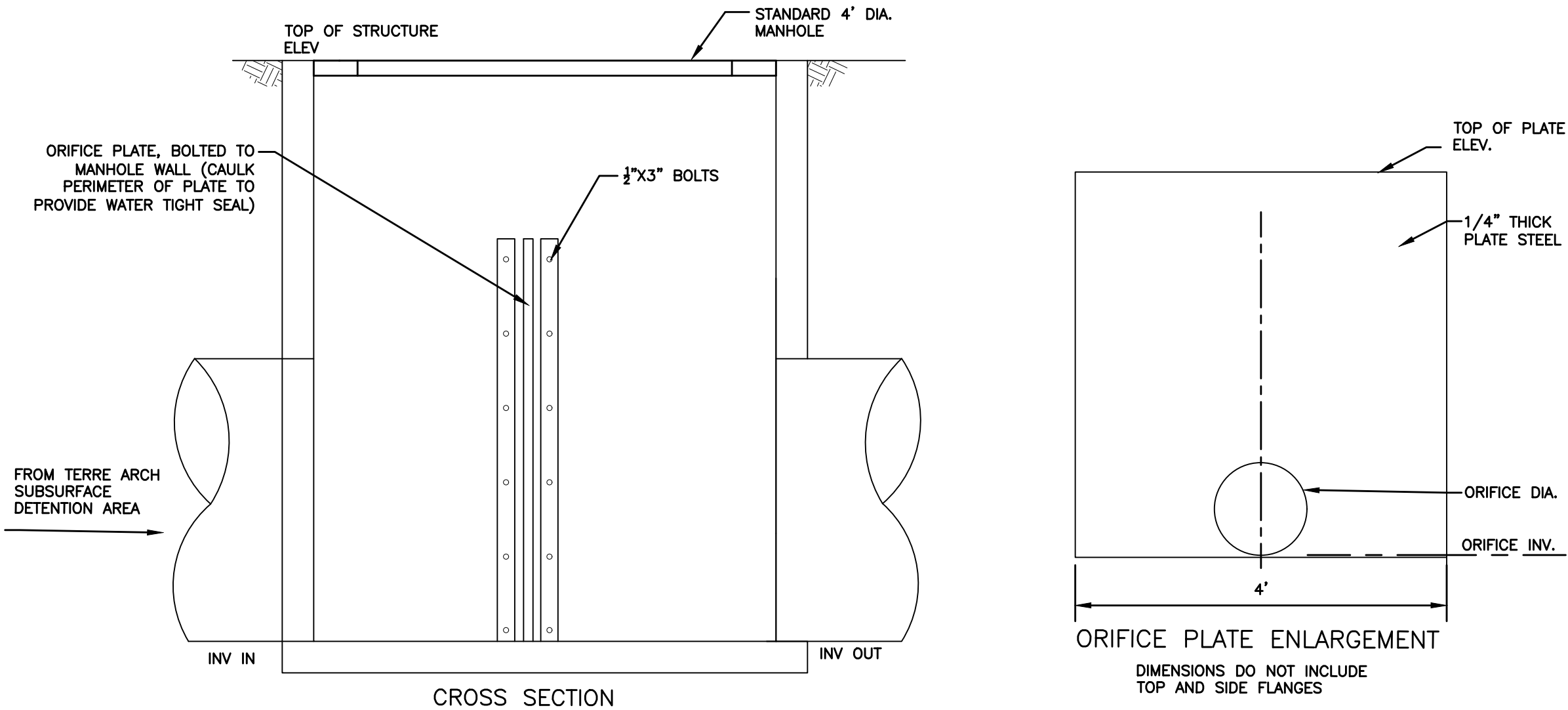
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

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



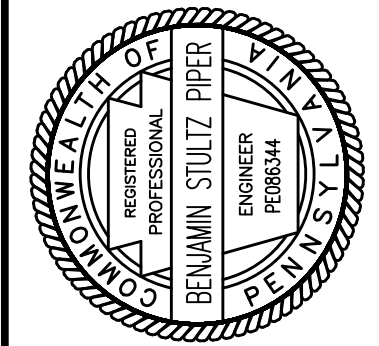
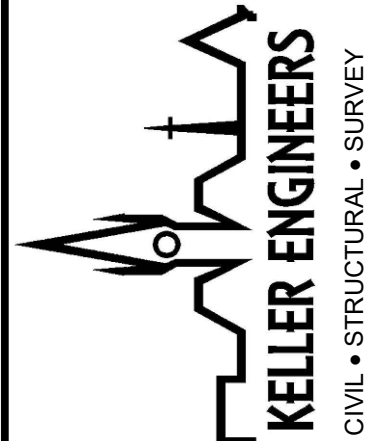
TERRE ARCH SCOUR PROTECTION NOTES:

- SCOUR PROTECTION MATS ARE SPECIFIED AND FURNISHED BY THE TERRE ARCH SUPPLIER, CONTECH ENGINEERED SOLUTIONS.
- SCOUR PROTECTION MATTING IS TO BE PLACED AT ALL INFLUENT PIPE LOCATIONS.
- ANTI SCOUR MATS ARE TO BE PLACED ON THE STONE BASE AND COVERED WITH THE EROSION MATS AS SHOWN PRIOR TO INSTALLING THE TERRE ARCH UNITS.
- EROSION MAT:
SIZE: 15'x22'
TYPE: SYNTEN SF 12 GEOGRID
- ANTI SCOUR MAT:
SIZE: 6'-6"x15'
TYPE: TENCATE WOVEN FILTRATION MEDIA WHITE HONEYCOMB FILTER

OUTLET STRUCTURE SCHEDULE:		
SUBSURFACE DETENTION AREA	A	B
OUTLET PIPE	PIPE A12	PIPE B11
OUTLET PIPE DIA.	18"	18"
INV. OUT	661.15	663.80
INV. IN	661.25	663.90
OUTLET STRUCTURE TOP ELEV.	676.10	675.50
STRUCTURE TYPE	4' DIA. MH	4' DIA. MH
TOP OF PLATE ELEV.	666.50	669.50
ORIFICE DIA.	3"	4"
ORIFICE INV.	661.25	663.90

SUBSURFACE DETENTION OUTLET STRUCTURE

420 Allegheny Street
Holidaysburg, PA 16648
P:(814) 686-7430
www.keller-engineers.com

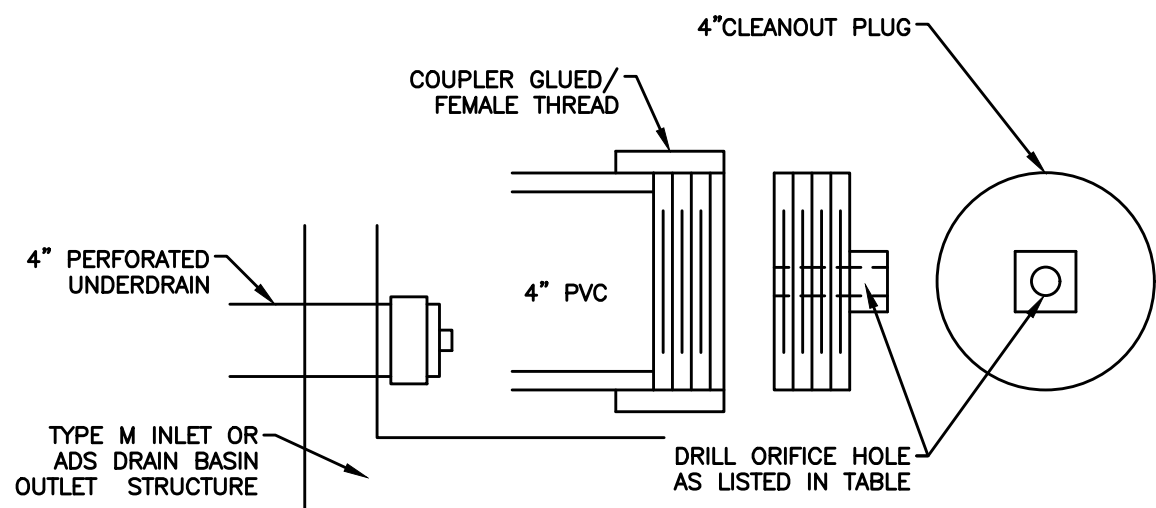


DATE & INITIALS	REVISION DESCRIPTION	SCALE: 1"=30'
04/16/26 BSP	NPDES MAJOR MODIFICATION	30'

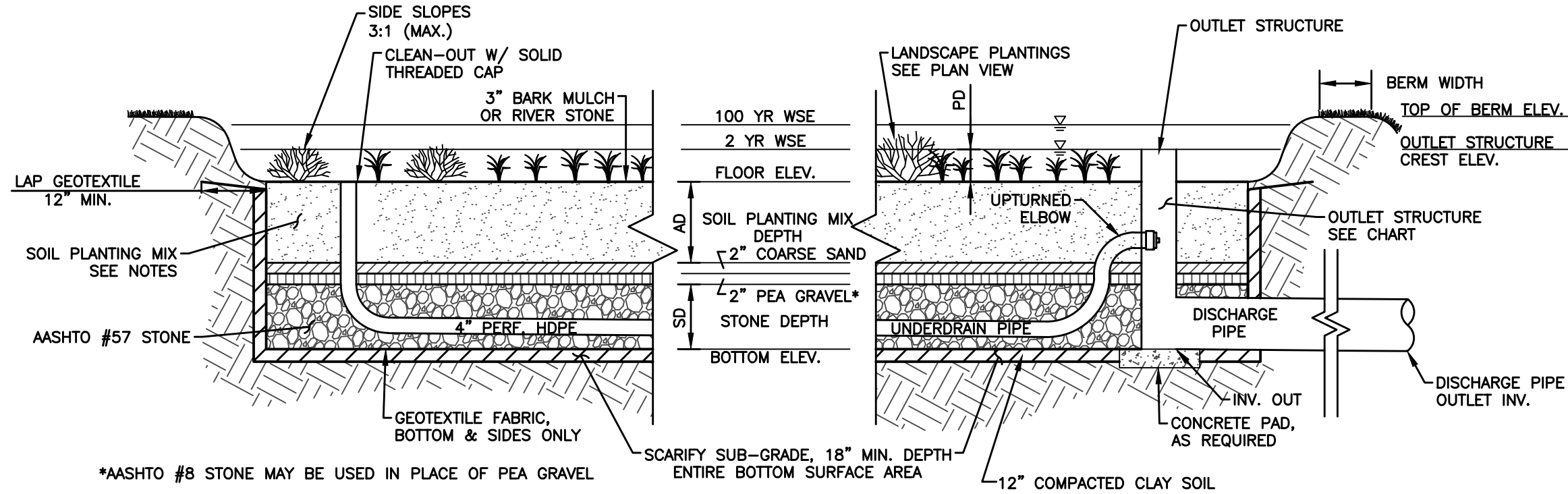
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HUNTINGDON RUTER'S STORE #93

KELLER ENGINEERS, INC. EXPRESSLY RESERVES ITS RIGHT TO MAKE ANY CHANGES AND OTHER RIGHTS CONTAINED IN THESE PLANS AND DESIGNS. THEY ARE NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION AND CONSENT OF KELLER ENGINEERS, INC.

PROJECT NO.: 3746-S
FILE NAME: PCSM10W3
DATE: 6/6/24
DESIGNED BY: BSP
DRAWN BY: BSP
CHECKED BY: ---
PCSM3



UNDERDRAIN ORIFICE



*AASHTO #8 STONE MAY BE USED IN PLACE OF PEA GRAVEL

NOTE:
A LICENSED PROFESSIONAL SHALL OVERSEE CONSTRUCTION OF THE RAIN GARDENS INCLUDING PLACEMENT OF SOIL PLANTING MIX

"RAIN GARDEN" SCHEDULE:

AREA	1	2	3
TOP OF BERM	666.00	670.00	668.00
BERM TOP WIDTH	3.0'	5.0'	5.0'
PONDING DEPTH (PD)	1" MAX.	1" MAX.	1" MAX.
SOIL PLANTING MIX DEPTH (AD)	1.5'	1.5'	1.5'
STONE DEPTH (SD)	0.5'	0.5'	0.5'
OUTLET STRUCTURE TOP UNIT	M TOP	M TOP	M TOP
OUTLET STRUCTURE TYPE	STANDARD INLET	STANDARD INLET	STANDARD INLET
OUTLET STRUCTURE CREST ELEV.	665.00	669.00	667.00
100 YR WATER SURFACE ELEV.	664.17	668.30	666.21
2 YR WATER SURFACE ELEV.	664.26	668.30	666.22
FLOOR ELEV.	664.00	668.00	666.00
BOTTOM ELEV.	662.00	666.00	664.00
UNDERDRAIN PIPE	4" HDPE	4" HDPE	4" HDPE
UPTURNED ELBOW INV. ELEV.	663.00	667.00	665.00
UNDERDRAIN ORIFICE DIA.	1/16"	1/8"	1/8"
INV. OUT - DISCHARGE PIPE	662.00	666.00	662.00
DISCHARGE PIPE	B19	B13	A15
DISCHARGE PIPE OUTLET INV.	661.50	660.10	654.40

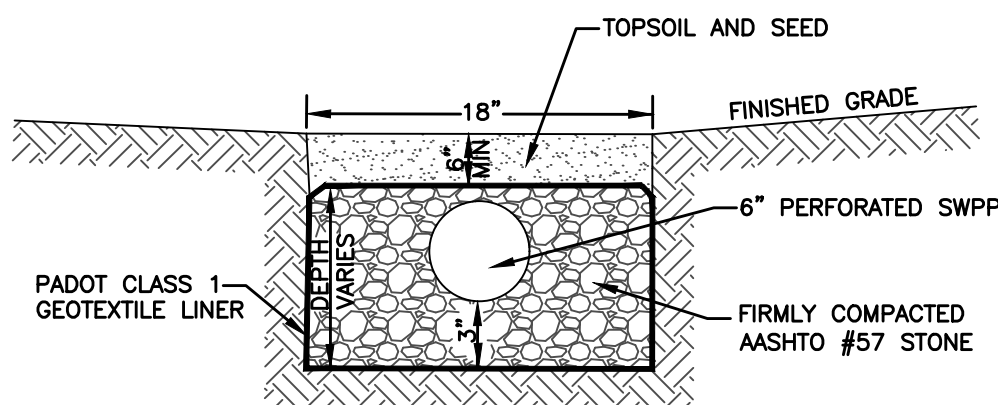
SOIL PLANTING MIX NOTES:

- SOIL PLANTING MIX TO GENERALLY CONSIST OF:
 - 20% GOOD QUALITY TOPSOIL. UNSATISFACTORY TOPSOIL MATERIALS ARE DEFINED AS THOSE CONTAINING HIGH CLAY COMPOSITION, TRASH, DEBRIS, ROCKS, OR FROZEN MATERIAL. GOOD QUALITY TOPSOIL MAY OR MAY NOT BE AVAILABLE ON SITE.
 - 30% GOOD QUALITY COMPOST. THE PURPOSE OF THE COMPOST COMPONENT IS TO INCREASE ORGANIC CONTENT OF THE SOIL PLANTING MIX MIXTURE TO PROMOTE PLANT MATERIAL GROWTH UPON THE BASIN BOTTOM. DO NOT USE BIO-SOLID COMPOST MIXTURE SOURCES; DO NOT USE COMPOST SOURCES WITH HIGH CLAY CONTENT OR PARTICULATES.
 - 50% CLEAN WASHED SAND. THE PURPOSE OF THE SAND COMPONENT IS TO LOOSEN THE OVERALL SOIL PLANTING MIX MIX TO PROMOTE INFILTRATION.
- FINAL SOIL PLANTING MIX MIXTURE COMPONENTS AND COMPOSITION SHALL BE DETERMINED BY PROJECT SOIL SCIENTIST BASED ON ON-SITE TEST MIXTURE PREPARATION AND INFILTRATION TESTING.
- PROCURE, MIX, STORE, AND PLACE SOIL PLANTING MIX IN ACCORDANCE WITH POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.
- PLACE SOIL PLANTING MIX LOOSE IN 8" LIFTS ON BASIN SUBGRADE, STARTING AT LOWEST END OF BASIN. DO NOT PLACE SOIL PLANTING MIX IN STANDING WATER. DO NOT COMPACT. AVOID RUNNING EQUIPMENT ON COMPLETED BASIN BOTTOM.

OPTIONAL SOIL PLANTING MIX NOTES:

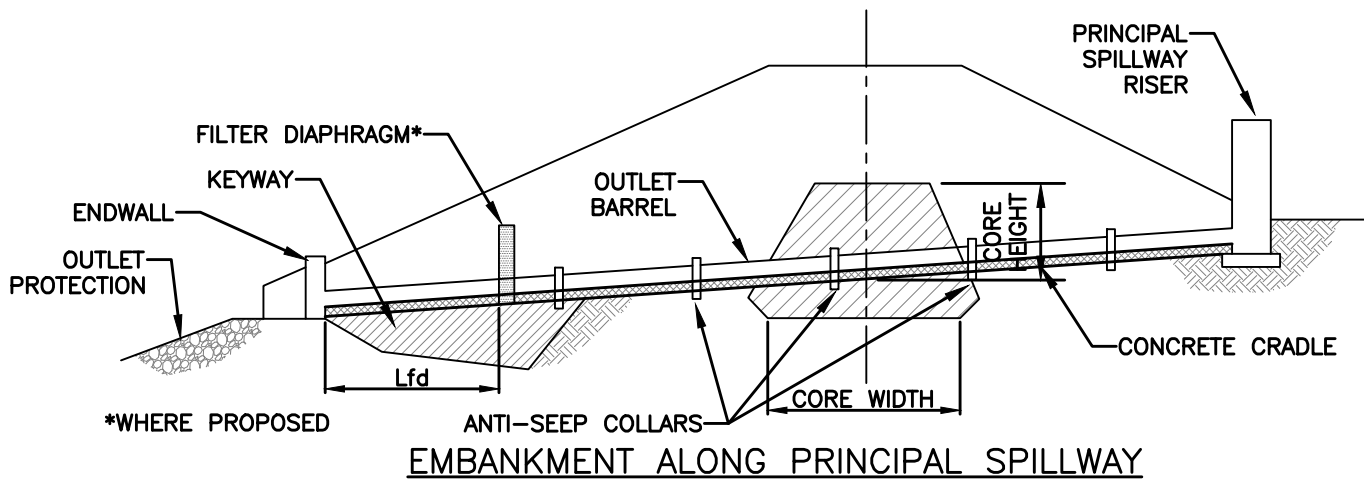
- FINAL SOIL PLANTING MIXTURE COMPONENTS AND COMPOSITION SHALL BE DETERMINED BY PROJECT SOIL SCIENTIST BASED ON ON-SITE TEST MIXTURE PREPARATION AND INFILTRATION TESTING.
- PROCURE, MIX, STORE, AND PLACE SOIL PLANTING MIX IN ACCORDANCE WITH POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.
- PROJECT GEOTECHNICAL ENGINEER MUST INSPECT AND TEST SOIL PLANTING MIX FOREIGN BORROW MATERIAL SOURCES PRIOR TO DELIVERY TO PROJECT SITE, REVIEW MATERIAL CERTIFICATIONS (SAND), AND APPROVE COMPOST SOURCES. MATERIALS THAT HAVE NOT BEEN PRE-APPROVED BY PROJECT SOIL SCIENTIST SHALL BE REMOVED FROM SITE.
- THE PROJECT SOIL SCIENTIST MUST INSPECT THE EXPOSED BASIN SUBGRADE AND PROVIDE MITIGATION RECOMMENDATIONS PRIOR TO PLACEMENT OF SOIL PLANTING MIX MIXTURE. SUCH RECOMMENDATIONS COULD INCLUDE FURTHER UNDERCUT TO REMOVE OBJECTIONABLE SUBGRADE MATERIAL SUCH AS CLAY, FURTHER UNDERCUT TO EXPOSE ROCK PLANE IF PROXIMATE TO FINAL BASIN SUBGRADE ELEVATION, AND SCARIFICATION OR CHISEL PLOWING OF BASIN SUBGRADE MATERIAL TO PROMOTE INFILTRATION.
- THE PROJECT SOIL SCIENTIST SHALL BE PRESENT DURING SOIL PLANTING MIX MIXTURE PREPARATION AND PLACEMENT PROCESS TO PROVIDE QUALITY ASSURANCE AND CONTROL.
- PLACE SOIL PLANTING MIX LOOSE IN 8" LIFTS ON BASIN SUBGRADE, STARTING AT LOWEST END OF BASIN. DO NOT PLACE SOIL PLANTING MIX IN STANDING WATER. DO NOT COMPACT. AVOID RUNNING EQUIPMENT ON COMPLETED BASIN BOTTOM.

MRC RAIN GARDEN
WITH RISER OUTLET STRUCTURE
& PERFORATED UNDERDRAIN

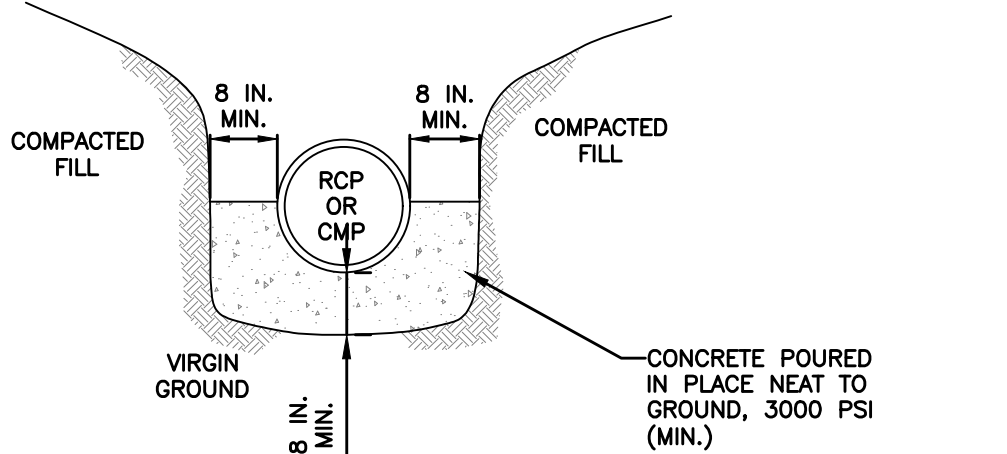


- NOTES:
- GROUNDWATER SEEPS UNCOVERED DURING EXCAVATION SHALL BE DIRECTED TO THE NEAREST WETLAND.
 - SLOPE PIPE AT A MINIMUM 0.25% TO DAYLIGHT.
 - COMPLETELY WRAP STONE IN GEOTEXTILE MATERIAL.

GROUNDWATER REMEDIATION-PERFORATED DRAIN



EMBANKMENT ALONG PRINCIPAL SPILLWAY

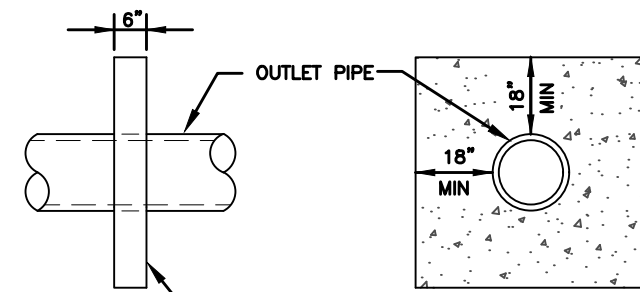


CROSS-SECTION AT OUTLET BARREL

NOTES:

A CONCRETE CRADLE MAY BE USED IN CONJUNCTION WITH ANTI-SEEP COLLARS AND/OR FILTER DIAPHRAGM. ANTI-SEEP COLLAR NUMBER, SIZE AND SPACING SHALL BE AS SHOWN ELSEWHERE IN PLAN. FILTER DIAPHRAGM LOCATION (Lfd) SHALL BE AS SHOWN IN FIGURE 7.8 OF THE PA DEP EROSION CONTROL MANUAL.

STANDARD CONSTRUCTION DETAIL #7-17
CONCRETE CRADLE FOR BASIN OR TRAP OUTLET BARREL
NOT TO SCALE



PADOT CLASS A CONCRETE

NOTE:
IN LIEU OF CONCRETE COLLAR, A HIGH DENSITY POLYETHYLENE PLASTIC ANTI-SEEP COLLAR MAY BE USED. POLYETHYLENE PLASTIC ANTI-SEEP COLLAR MUST BE BY "SCHEIB DRAINAGE PRODUCTS" OR APPROVED EQUAL.

ANTI-SEEP COLLAR

WATER QUALITY INLET INSERT

RECOMMENDED FREQUENCY OF SERVICE:

DRAINAGE PROTECTION SYSTEMS (DPS) RECOMMENDS THAT INSTALLED FLOGARD+PLUS CATCH BASIN INSERT FILTERS BE SERVICED ON A RECURRING BASIS. EACH INSTALLATION BE SERVICED A MINIMUM OF THREE TIMES PER YEAR, WITH A CHANGE OF FILTER MEDIUM ONCE PER YEAR. DPS TECHNICIANS ARE AVAILABLE TO DO AN ON-SITE EVALUATION, UPON REQUEST.

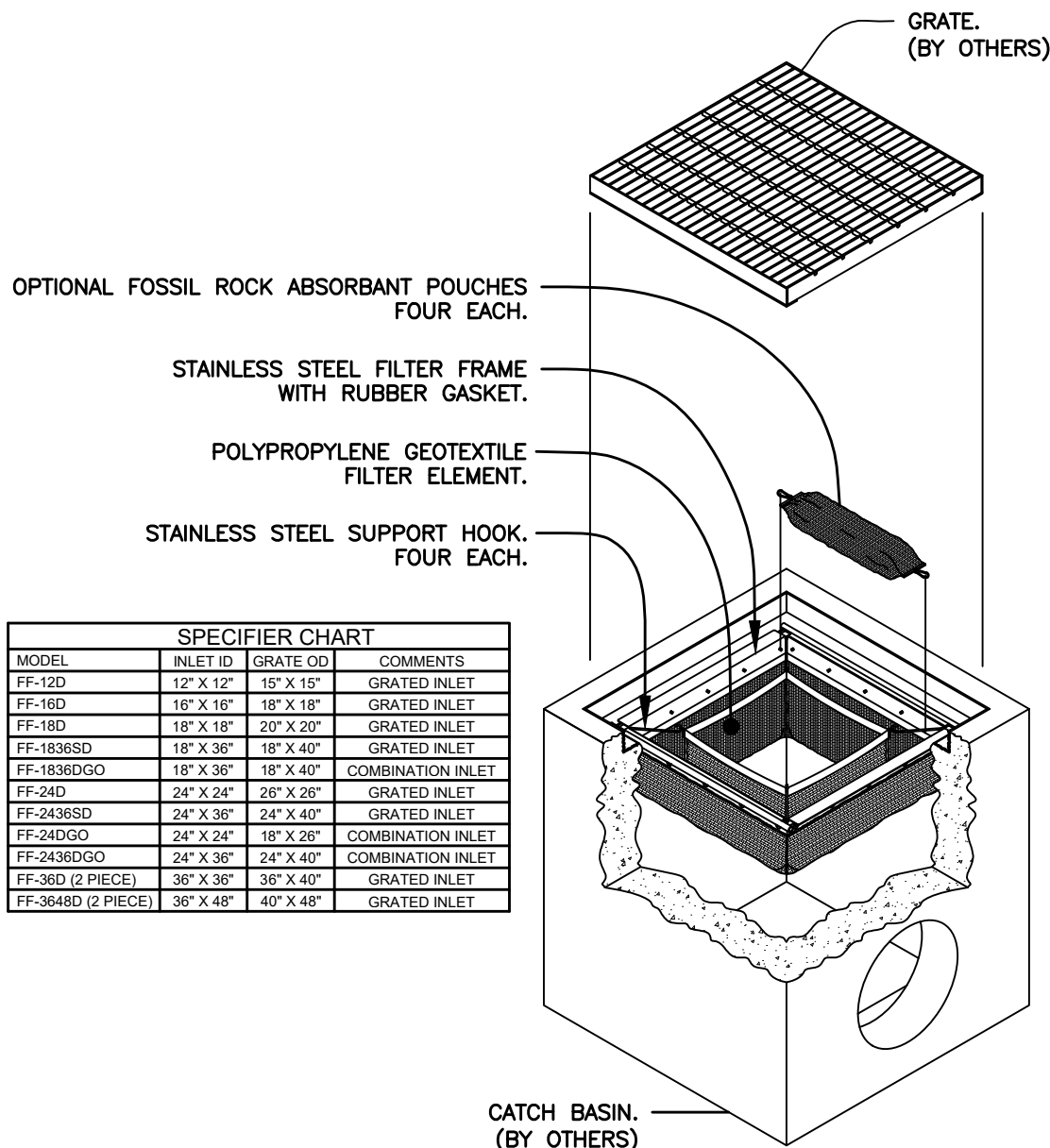
RECOMMENDED TIMING OF SERVICE:

DPS GUIDELINES FOR THE TIMING OF SERVICE ARE AS FOLLOWS:

- FOR AREAS WITH A DEFINITE RAINY SEASON: PRIOR TO, DURING AND FOLLOWING THE RAINY SEASON.
- FOR AREAS SUBJECT TO YEAR-ROUND RAINFALL: ON A RECURRING BASIS (AT LEAST THREE TIMES PER YEAR).
- FOR AREAS WITH WINTER SNOW AND SUMMER RAIN: PRIOR TO AND JUST AFTER THE SNOW SEASON AND DURING THE SUMMER RAIN SEASON.
- FOR INSTALLED DEVICES NOT SUBJECT TO THE ELEMENTS (WASH RACKS, PARKING GARAGES, ETC.): ON A RECURRING BASIS (NO LESS THAN THREE TIMES PER YEAR).

SERVICE PROCEDURES:

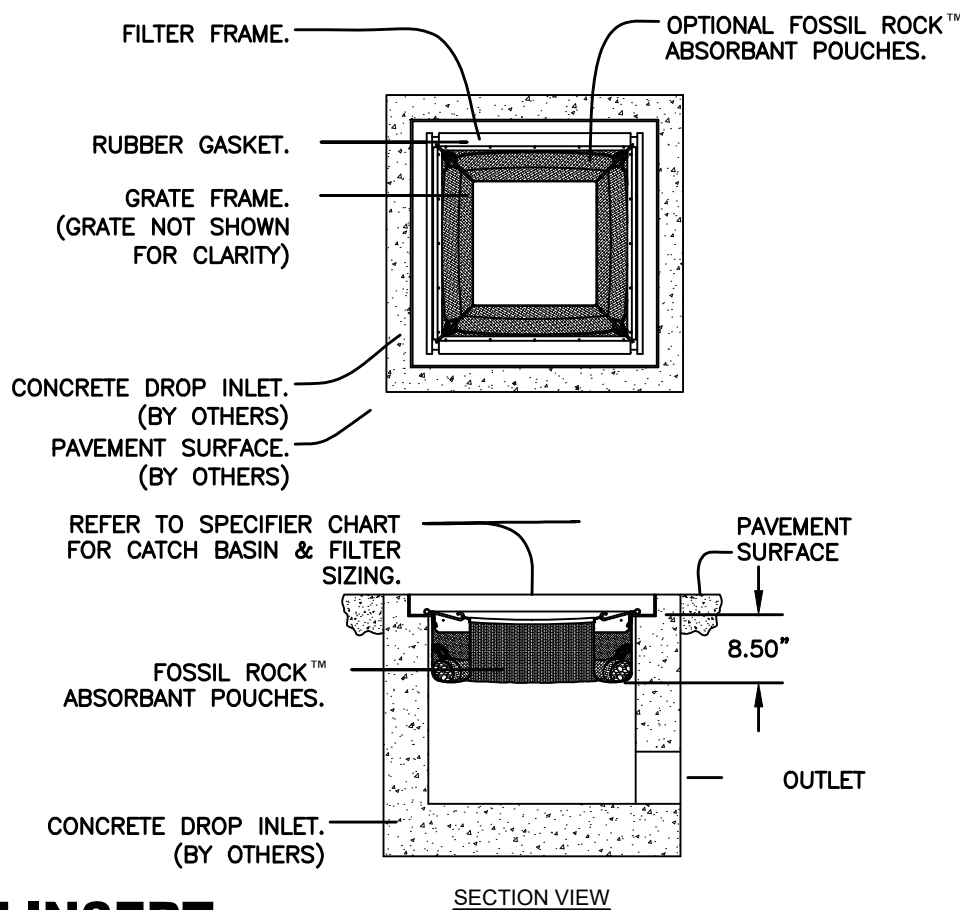
- THE CATCH BASIN GRATE SHALL BE REMOVED AND SET TO ONE SIDE. THE CATCH BASIN SHALL BE VISUALLY INSPECTED FOR DEFECTS AND POSSIBLE ILLEGAL DUMPING. IF ILLEGAL DUMPING HAS OCCURRED, THE PROPER AUTHORITIES AND PROPERTY OWNER REPRESENTATIVE SHALL BE NOTIFIED AS SOON AS PRACTICABLE.
- USING AN INDUSTRIAL VACUUM, THE COLLECTED MATERIALS SHALL BE REMOVED FROM THE LINER. (NOTE: DPS USES A TRUCK-MOUNTED VACUUM FOR SERVICING FLOGARD+PLUS CATCH BASIN INSERTS).
- WHEN ALL OF THE COLLECTED MATERIALS HAVE BEEN REMOVED, THE FILTER MEDIUM POUCHES SHALL BE REMOVED BY UNSNAPPING THE TETHER FROM THE D-RING AND SET TO ONE SIDE. THE FILTER LINER, GASKETS, STAINLESS STEEL FRAME AND MOUNTING BRACKETS, ETC., SHALL BE INSPECTED FOR CONTINUED SERVICEABILITY. MINOR DAMAGE OR DEFECTS FOUND SHALL BE CORRECTED ON-THE-SPOT AND A NOTATION MADE ON THE MAINTENANCE RECORD. MORE EXTENSIVE DEFICIENCIES THAT AFFECT THE EFFICIENCY OF THE FILTER (TORN LINER, ETC.), IF APPROVED BY THE CUSTOMER REPRESENTATIVE, WILL BE CORRECTED AND AN INVOICE SUBMITTED TO THE REPRESENTATIVE ALONG WITH THE MAINTENANCE RECORD.
- THE FILTER MEDIUM POUCHES SHALL BE INSPECTED FOR DEFECTS AND CONTINUED SERVICEABILITY AND REPLACED AS NECESSARY, AND THE POUCH TETHERS RE-ATTACHED TO THE LINER'S D-RING.
- THE GRATE AND REPLACEMENT AND DISPOSAL OF EXPOSED FILTER MEDIUM AND COLLECTED DEBRIS THE FREQUENCY OF FILTER MEDIUM EXCHANGE WILL BE IN ACCORDANCE WITH THE EXISTING DPS-CUSTOMER MAINTENANCE CONTRACT. DPS RECOMMENDS THAT THE MEDIUM BE CHANGED AT LEAST ONCE PER YEAR, DURING THE APPROPRIATE SERVICE, OR IF SO DETERMINED BY THE SERVICE TECHNICIAN DURING A NON-SCHEDULED SERVICE, THE FILTER MEDIUM WILL BE REPLACED WITH NEW MATERIAL. ONCE THE EXPOSED POUCHES AND DEBRIS HAVE BEEN REMOVED, DPS HAS POSSESSION AND MUST DISPOSE OF IT IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL AGENCY REQUIREMENTS.



MODEL	INLET Ø (GRATE Ø)	COMMENTS
FF-12D	12" X 12"	15" X 15" GRATED INLET
FF-16D	16" X 16"	18" X 18" GRATED INLET
FF-18D	18" X 18"	22" X 22" GRATED INLET
FF-1836SD	18" X 36"	18" X 40" GRATED INLET
FF-1836DGO	18" X 36"	18" X 40" COMBINATION INLET
FF-24D	24" X 24"	26" X 26" GRATED INLET
FF-2436SD	24" X 36"	24" X 40" GRATED INLET
FF-24DGO	24" X 24"	18" X 26" COMBINATION INLET
FF-2436DGO	24" X 36"	24" X 40" COMBINATION INLET
FF-36D (2 PIECE)	36" X 36"	36" X 40" GRATED INLET
FF-3648D (2 PIECE)	36" X 48"	40" X 48" GRATED INLET

NOTES:

- FILTER INSERT SHALL HAVE A HIGH FLOW BYPASS FEATURE.
- FILTER SUPPORT FRAME SHALL BE CONSTRUCTED FROM STAINLESS STEEL TYPE 304.
- FILTER MEDIUM SHALL BE FOSSIL ROCK™, INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
- STORAGE CAPACITY REFLECTS 80% OF MAXIMUM SOLIDS COLLECTION PRIOR TO IMPEDING FILTERING BYPASS.



POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

HUNTINGDON RUTTER'S STORE #93

SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY
PENNSYLVANIA

KELLER ENGINEERS, INC.
EXPRESSLY RESERVES ITS
RIGHT
AND OTHER RIGHTS
CONTAINED IN THESE PLANS
AND DESIGNS. THEY ARE
NOT TO BE REPRODUCED, COPIED,
CHANGED, ALTERED OR
COPIED IN ANY FORM OR
MANNER, NOR ARE THEY TO
BE USED FOR ANY PURPOSE
WITHOUT THE WRITTEN PERMISSION AND
CONSENT OF
KELLER ENGINEERS, INC.

PROJECT NO.: 3746-S

FILE NAME: PCSM4.DWG

DATE: 6/6/24

DESIGNED BY: BSP

DRAWN BY: BSP

CHECKED BY: ---

PCSM4

420 Allegheny Street
Holidaysburg, PA 16648
P: (814) 696-7430
www.keller-engineers.com

KELLER ENGINEERS
CIVIL • STRUCTURAL • SURVEY

