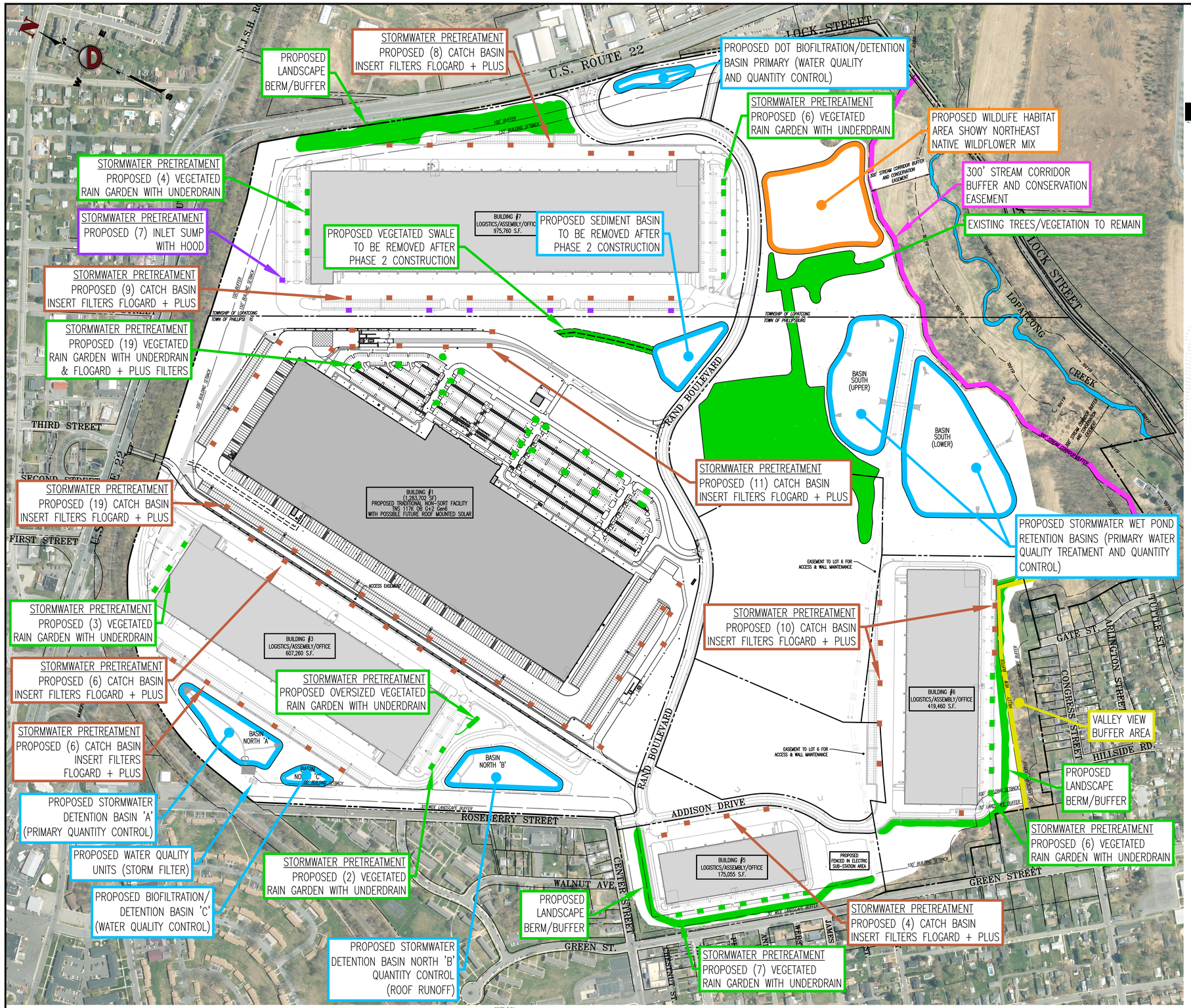
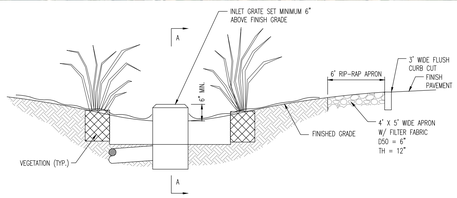
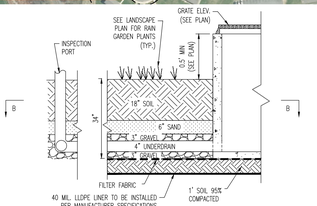




SECTION B-B



"RAIN GARDEN" STORMWATER BMP DETAIL

RAIN GARDEN GENERAL NOTES:

1. SOIL BED MUST BE A MINIMUM OF 18 INCHES IN DEPTH AND CONSISTS OF THE FOLLOWING MIX, BY WEIGHT:
   - 85 TO 95% SAND, WITH NO MORE THAN 25% OF SAND AS FINE OR VERY FINE SANDS.
   - NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT.
   - ENTIRE MIX MUST THEN BE AMENDED WITH 3 TO 7% ORGANICS BY WEIGHT.
   - MINIMUM PERMEABILITY OF SOIL BED 8 INCHES/HR (4 IN/HR DESIGN).
2. PRE-MIXED SOIL MUST BE CERTIFIED BY VENDOR OR PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY TO MEET THE REQUIREMENTS ON NOTE 1 ABOVE.
3. THE PH OF THE SOIL BED MATERIAL MUST RANGE FROM 5.5 TO 6.5.
4. MATERIAL MUST BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES. ADDITIONAL MATERIAL MAY BE REQUIRED TO ACCOUNT FOR SETTLING OVER TIME.
5. FILTER FABRIC IS REQUIRED ALONG THE SIDES AND THE BOTTOM. ADDITIONAL LOCATIONS MAY BE REQUIRED BASED ON DETAIL.
6. SAND LAYER MUST BE 6 INCHES IN DEPTH AND MUST CONSIST OF CLEAN MEDIUM – AGGREGATE CONCRETE SAND (AASHTO M-6/ASTM C-33). MINIMUM PERMEABILITY RATE SHOULD BE TWICE THE DESIGN PERMEABILITY RATE OF SOIL BED.
7. GRAVEL LAYER MUST CONSIST OF 0.5 TO 1.5 INCHES CLEAN, BROKEN STONE OR PEA GRAVEL (AASHTO M-43) PERMEABILITY RATE SHOULD BE TWICE THE DESIGN PERMEABILITY RATE OF SAND LAYER.
8. INSPECTION PORTS MUST BE LOCATED AT UPSTREAM ENDS OF THE PERFORATED UNDERDRAIN.

WILDLIFE HABITAT AREA SHOWY NORTHEAST NATIVE WILDFLOWER & GRASS MIX

MIX COMPOSITION:

39.5% SCHIZACHYRIUM SCOPARIUM, FORT INDIANTOWN GAP–PA ECOTYPE (LITTLE BLUESTEM, FORT INDIANTOWN GAP–PA ECOTYPE)
23.1% BOUTELOUA CURTIPENDULA, 'BUTTE' (SIDEOATS GRAMA, 'BUTTE')
14.0% ELYMUS VIRGINICUS, PA ECOTYPE (VIRGINIA WILDRYE, PA ECOTYPE)
3.5% ECHINACEA PURPUREA (PURPLE CONEFLOWER)
3.0% CHAMAECRISTA FASCICULATA, PA ECOTYPE (PARTRIDGE PEA, PA ECOTYPE)
3.0% COREOPSIS LANCEOLATA (LANCELEAF COREOPSIS)
3.0% RUDBECKIA HIRTA (BLACKEYED SUSAN)
2.0% ASCLEPIAS TUBEROSA (BUTTERFLY MILKWEED)
2.0% PENSTEMON DIGITALIS, PA ECOTYPE (TALL WHITE BEARDTONGUE, PA ECOTYPE)
1.5% LIATRIS SPICATA (MARSH (DENSE) BLAZING STAR (SPIKED GAYFEATHER))
1.0% ASTER LAEVIS, NY ECOTYPE (SMOOTH BLUE ASTER, NY ECOTYPE)
0.5% RUDBEKIA FULGIDA VAR. FULGIDA, NORTHERN VA ECOTYPE (ORANGE CONEFLOWER, NORTHERN VA ECOTYPE)
0.5% TRADESCANTIA OHIENSIS, PA ECOTYPE (OHIO SPIDERWORT, PA ECOTYPE)
0.5% ZIZIA AUREA, PA ECOTYPE (GOLDEN ALEXANDERS, PA ECOTYPE)
0.4% ASTER NOVAE-ANGLIAE (SYMPHYOTRICHUM N.), PA ECOTYPE (NEW ENGLAND ASTER, PA ECOTYPE)
0.4% ASTER OBLONGIFOLIUS, PA ECOTYPE (AROMATIC ASTER, PA ECOTYPE)
0.4% MONARDA FISTULOSA, FORT INDIANTOWN GAP–PA ECOTYPE (WILD BERGAMOT, FORT INDIANTOWN GAP–PA ECOTYPE)
0.4% SENNA HEBECARPA, VA & WV ECOTYPE (WILD SENNA, VA & WV ECOTYPE)
0.3% PYCNANTHEMUM TENUIFOLIUM (NARROWLEAF MOUNTAINMINT)
0.3% SOLIDAGO NEMORALIS, PA ECOTYPE (GRAY GOLDENROD, PA ECOTYPE)
0.2% ASTER PRENANTHOIDES, PA ECOTYPE (CROOK ASTER, PA ECOTYPE)
0.2% SOLIDAGO JUNCEA, PA ECOTYPE (EARLY GOLDENROD, PA ECOTYPE)
0.1% BAPTISIA TINCTORIA, PA ECOTYPE (YELLOW FALSE INDIGO (HORSEFLYWEED), PA ECOTYPE)
0.1% PENSTEMON HIRSUTUS (HAIRY BEARDTONGUE)
0.1% SENNA MARILANDICA (MARYLAND SENNA)

FLOGARD +PLUS® CATCH BASIN INSERT FILTER — Inlet Filtration

Removes pollutants from runoff at the source

FloGard +Plus is a catch basin insert filter designed to remove sediment, gross solids, trash, and petroleum hydrocarbons from stormwater runoff. FloGard +Plus is ideally suited for removal of primary pollutants from paved surfaces in commercial and residential areas. Rated filter flow capacities are designed to exceed the required "first flush" treatment flow rate, and the unique dual-bypass design typically exceeds catch basin inlet capacity.

Economical Treatment
Quick, easy, and cost-effective to install, inspect, and maintain.

Efficient Performance
Removes pollutants at the inlet where they are easiest to catch.

Versatile Applications
Appropriate and easy to use on new construction or retrofit projects.

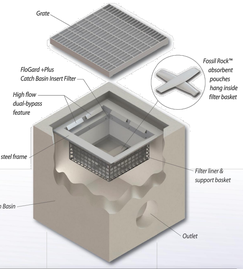
Flexible Design
Available in a wide variety of sizes and configurations, including custom options.

Durable Construction
Built to last and withstand the loads from captured pollutants.

Environmentally Friendly
No standing water minimizes vector, bacteria, and odor problems.

Proven Performance
Field and laboratory tested with up to 86%[1] removal of TSS and 80%[2] removal of oils and grease.

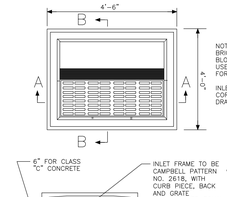
1. University of Auckland laboratory testing of local street sweep material.
2. UCLA laboratory study.

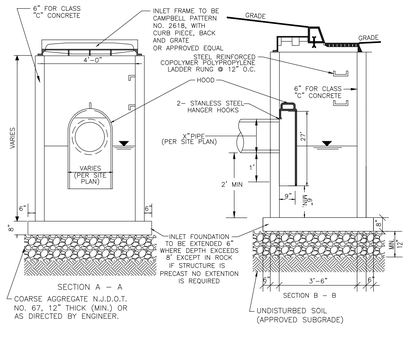


How It Works:
Flows entering the unit pass through the filter liner basket for removal of sediment, trash, and debris. Optional Fossil Rock™ sorbent pouches installed in the basket effect hydrocarbon capture. As the storm flow exceeds the treatment flow rate, treatment will continue and excess flows will pass through the dual-bypass openings near the top of the unit.

Oldcastle Stormwater Solutions

NOTE:
ALL INLETS THAT COLLECT RUN OFF FROM TRUCK LOADING AREA AND DRIVEWAYS TO TRUCK LOADING AREAS SHALL HAVE INLET FILTERS WITH HYDROCARBON TREATMENT INSTALL.





NOTES:
1. HOOD TO BE MOUNTED ON INLET WALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. CONSTRUCTION SHALL BE 8" SOLID PRECAST CONCRETE STRUCTURE.
3. ALL CONCRETE SHALL BE A AIR ENTRAINED 4,500 PSI UNLESS NOTED OTHERWISE.
4. EXCAVATION SHALL BE A MINIMUM OF 2' AROUND ENTIRE OUTER PERIMETER OF THE STRUCTURE.
5. SUBGRADE TO BE COMPACTED TO 95%

TYPE 'B' INLET SUMP W/HOOD
NOT TO SCALE

NOTE:
GREEN SPACE ELEMENTS DETAILED ON BUILDING SPECIFIC SITE PLANS (TYP.)

GRAPHIC SCALE
-200 0 100 200 400 800
(IN FEET)
1 INCH = 200 FT.

DYNAMIC ENGINEERING • SURVEY • TRAFFIC

BY	COMMENTS	DATE	REV.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JDC | DESIGN BY: WB | DESIGN BY: WB | DESIGN BY: - |

PROJECT: **PR BRIDGE I78 PHASE II OWNER URBAN RENEWAL, LLC**
PROPOSED BRIDGE POINT 78
TOWN OF PHILLIPSBURG & TOWNSHIP OF LOPATCONG
WARREN COUNTY, NEW JERSEY

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JOSEPH G. JAWORSKI
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 36618

TITLE: GREEN SPACE PLAN

SCALE: (H) 1"=200' (V) | DATE: 06/09/2021
PROJECT No: 1313-99-026

SHEET No: 1 OF 1 | Rev. #: 0

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Plotted: 06/09/21 – 8:38 PM By: jjordes
File: P:\DESPC PROJECTS\1313 Bridge Development Partners, LLC\99-026 Phillipsburg– Rond Blvd\Dwg\Site Plans Amended\D1313990265D50.dwg, ----> 37 GREEN SPACE PLAN