PINELANDS COMMISSION **GREEN INFRASTRUCTURE IMPLEMENTATION PROJECT 15 SPRINGFIELD ROAD, PEMBERTON BOROUGH BURLINGTON COUNTY, NEW JERSEY** BLOCK: 846 LOTS: 1.01 & 1.02

PROJECT DESCRIPTION:

A RAIN GARDEN (325 S.F.) WAS INSTALLED SOUTHEAST OF THE BUILDING TO CAPTURE, TREAT, AND INFILTRATE THE STORMWATER RUNOFF FROM THE ROOFTOP (2,475 S.F.). TO AVOID EROSION AN ATRIUM WILL BE USED IN CONJUCTION WITH AN EROSION CONTROL APRON FOR EXCESS STORMWATER FROM MORE INTENSE STORMS. THE ATRIUM WILL LEAD TO A PIPE UNDERNEATH THE SIDEWALK AND DISCHARGE INTO THE STORMWATER BASIN WITH A ROCK APRON TO DISSIPATE THE EXTRA RUNOFF.

LIST OF DRAWINGS:

SHEET NAME	TITLE
COVER	COVER SHEET
P-1	EXSTING CONDITIONS AND DEMOLITION PLAN
P-2	PROPOSED SITE PLAN
P-3	PLANTING PLAN
DT-1	RAIN GARDEN DETAILS
DT-2	PLANTING AND LANDSCAPING DETAILS

GENERAL NOTES:

- 1. SURVEY CONDUCTED BY RUTGERS COOPERATIVE EXTENSION WATER RESOURCES PROGRAM. ALL ELEVATIONS ARE RELATIVE TO THE 100.00' BENCHMARK POINT.
- 2. EXISTING SOILS ARE WESTPHALIA LOAMY FINE SAND WHICH ARE CLASSIFIED AS HYDROLOGIC SOIL GROUP B WHICH HAVE MODERATE INFILTRATION RATES BASED ON THE NRCS WEB SOIL SURVEY (websoilsurvey.sc.egov.usda.gov).
- 3. ANY OVERHEAD AND UNDERGROUND UTILITIES SHOWN ARE FROM FIELD OBSERVATIONS AND ARE NOT A COMPLETE REPRESENTATION. A UTILITY MARKOUT NEEDS TO BE CONDUCTED PRIOR TO MOBILIZATION BY THOSE RESPONSIBLE FOR EXCAVATION. NJ ONE CALL: 811 OR 800-272-1000

LOCATION MAP (N.T.S):



LEGEND:

EXISTING DRAINAGE AREA
——— EDGE OF PAVEMENT
EXISTING CENTERLINE
EXISTING TREELINE
• EXISTING TREE/SHRUB
EXISTING BUILDING
\oplus EXISTING UTILITY POLE
答 EXISTING LIGHT POLE
EXISTING CATCH BASIN
EXISTING CONTOURS
+100.00 EXISTING SPOT ELEVATIONS
SPOT ELEVATION CODES:BL - BUILDING LINEGS - GROUND SHOTCB - CATCH BASINMH - MANHOLEEP - EDGE OF PAVEMENTSW - SIDEWALKF -FENCEUP - UTILITY POLE
PROPOSED GREEN INFRASTRUCTURE
PROPOSED CONTOURS

	PLAN REVISIONS	
REV. DATE	REV. SUMMARY	REV. SHEETS
3/25/2022	ADDED UNDERDRAIN, REVISED PLANT LIST	P-1, P-2, P-3, DT-1, DT-2
4/11/2022	ADDED POLLUTANT REMOVAL TABLES	DT-1
4/22/2022	REVISED PLANT LIST	P-3, DT-2
6/14/2022	EDITED CONSTRUCTION NOTES	P-1, DT-1
7/11/2022	EDITED TO AS-BUILT CONDITIONS	ALL

			11/11/11	(Matthe CUM)	DATE VIII1122	DRAWN CHECKED APPROVED DATE	REV. 07/11/22
PLAN REVISIONS	No. DATE DESCRIPTION	1 7/11/2022 EDITED TO AS-BUILT CONDITIONS					
PINEL ANDS COMMISSION			15 SPRINGFIELD ROAD, PEMBERTON BOROUGH	BURLINGTON COUNTY, NJ			COVER SHEET
						1	
				Now lorcow Arricultural		EXPERIMENT STATION	



PLAN NOTES:









N.	TING SCHEDULE		
	COMMON NAME	QUANTITY	SIZE
R/	AIN GARDEN		
	NEW YORK ASTER	10	#1 CONT.
	SLENDER BLUE FLAG	4	#1 CONT.
	NARROW LEAF SUNFLOWER	8	#1 CONT.
	LITTLE BLUESTEM	8	#1 CONT.
	GRASS-LEAF BLAZING STAR	12	#1 CONT.
	YELLOW WILD INDIGO	5	#1 CONT.
	MEADOW BEAUTY	12	#1 CONT.
	EASTERN SHOWY ASTER	8	#1 CONT.
	MARYLAND GOLDEN-ASTER	12	#1 CONT.



SHEET NAME

P-3





- PLANTING.

- CROSS THE RAIN GARDEN.

- VERSION.

RE-CONS	TRUCTION QUANTITY	/COST ESTIM	AT	ES
Rain	Garden	Quantity		Cost
Excava	ation <i>(CY)</i>	22	\$	880.00
ion Soil	Concrete Sand (CY)	5	\$	235.00
1011 3011	Compost (CY)	2	\$	60.00
Mul	ch <i>(CY)</i>	5	\$	150.00
5" River	Stone (Tons)	1.5	\$	75.00
andscap	e Fabric <i>(SF)</i>	45	\$	11.25
te	Perennials	58	\$	464.00
15	Shrubs	16	\$	128.00
Pipe an	nd Fittings <i>(Feet)</i>	56	\$	280.00
Remova	I & Replacement (SF)	15	\$	250.00
	Total Cost		\$	2,533.25



	TOTAL PHOSPHURUS (LB/YR)	TOTAL NITROGEN (LB/YR)	TOTAL SUSPE SOLIDS REM (LB/YR)
TOTAL POLLUTANT LOADING	0.12	1.25	11.36
RAIN GARDEN POLLUTANT REMOVALS	0.07	0.38	10.23
INFILTRATION BASIN POLLUTANT REMOVALS	0.03	0.44	0.90
TOTAL POLLUTANT REMOVALS	0.10	0.82	11.13

TO GET TOTAL POLLUTANT REMOVALS USE EQUATION:

	STORMWATER CALCULATIONS								
IZE (SF)	STORAGE VOLUME (CF)	TOTAL IMPERVOUS DRAINAGE AREA (SF)	STORM TYPE	MANAGED IMPERVIOUS DRAINAGE AREA MANAGED (SF)	TOTAL AREA MANAGED INCLUDING BMP (SF)	PEAK RUNOFF REDUCTION (CFS)	RUNOFF VOLUME MANAGED (GAL)	ANNUAL RUNOFF VOLUME MANAGED (GAL/YR)	
305	257	2 475	WQ	2,475	2,800	0.16	1,593	53 278	
525	237	2,475	2-YR	1,465	1,790	0.05	2,917	55,278	

SHEET NAME

SHRUB SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.

THIN BRANCHES AND FOLIAGE (NOT ALL END TIPS) BY ½ RETAINING NORMAL PLANT SHAPE.

CUT & REMOVE ALL BURLAP -FROM BALL



X

X

X

X

— 1 QUART OR PLUG (TYP.)

X

X

 \mathfrak{K}

X

X

BIORETENTION MEDIA

MULCH (3" DEPTH)

HERBACEOUS PLUG PLANTING DETAIL N.T.S.



00 — SHREDDED BARK MULCH - SAUCER AROUND SHRUB JOR FOL - LIMIT OF BARE ROOT SPREAD - TOPSOIL SCARIFY SUBSOIL TO MIN. 4" DEPTH

NOTES: 1. DEER PROTECTION REQUIRED AROUND SHRUB PLANTINGS.

SHRUB PLANTING DETAIL

- INSTALL AT A RATE OF 350 LBS. PER ACRE PER MANUFACTURERS SPECIFICATIONS.

- APPLIED AT A RATE OF 3 LBS. PER 1000 SQ. FT.
- COULTER IMPLEMENT, OR BY STAPLING BIODEGRADABLE NETTING TO THE SURFACE.
- 35 LBS/ACRE (PURE LIVE SEED) PLUS PERENNIAL RYEGRASS AT 15 LBS/ACRE (PURE LIVE SEED).
- MIXTURE SPECIFIED IN TABLE.
- 8. SEE TABLES FOR SEED SPECIES MIXTURE AND APPLICATION RATES.

- FOR CORRECTIVE ACTION

- DRAWINGS.
- TOPSOIL

		PLAN	TING SCHEDULE	_	
	PLANT SPECIES				917E
TYPE	KEY	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	SNb	Symphyotrichum novi-belgii	NEW YORK ASTER	10	#1 CONT.
	IP	Iris prismatica	SLENDER BLUE FLAG	4	#1 CONT.
H S	HA	Helianthus angustifolius	NARROW LEAF SUNFLOWER	8	#1 CONT.
	SS	Schizachyrium scoparium	LITTLE BLUESTEM	8	#1 CONT.
PERENNIALS	LG	Liatris graminifolia	GRASS-LEAF BLAZING STAR	12	#1 CONT.
	вт	Baptisia tinctoria	YELLOW WILD INDIGO	5	#1 CONT.
	RV	Rhexia virginica	MEADOW BEAUTY	12	#1 CONT.
	ES	Eurybia spectabilis	EASTERN SHOWY ASTER	8	#1 CONT.
	СМ	Chrysopsis mariana	MARYLAND GOLDEN-ASTER	12	#1 CONT.

<u>OPEN LAWN AND TURF AREAS</u>

1. SEED ALL REMAINING PARK AREAS WITH TURF TYPE FALL FESCUE AND PERENNIAL RYEGRASS BLEND (LOFTS – SUMMER STRESS MIX II OR APPROVED EQUIVALENT).

TOPSOILING, SEEDING AND MULCHING NOTES

1. ANY UNDISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 10 DAYS MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE REQUIRED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR SHALL BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE SEEDED AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH.

2. DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS, AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY.

3. GRADED AREAS SHALL BE TEMPORARILY SEEDED AND MULCHED IMMEDIATELY FOLLOWING EARTH MOVING PROCEDURES. TEMPORARY SEED SHALL BE ANNUAL RYE GRASS

4. AFTER SEEDING, HAY OR STRAW MULCH MUST BE APPLIED AT A RATE OF AT LEAST 3.0 TONS PER ACRE. MULCH SHALL BE ANCHORED BY EITHER CRIMPING WITH A

5. SITE PREPARATION TO UPLAND AREAS: APPLY 1 TON OF AGRICULTURAL-GRADE LIMESTONE PER ACRE PLUS 10-20-10 FERTILIZER AT THE RATE OF 500 LB. PER ACRE. WORK IN WHERE POSSIBLE. SEEDING OF DISTURBED UPLAND AREAS (BEYOND LIMITS OF RIPARIAN ENHANCEMENT AREA) TO BE DONE USING MIX OF FINE FESCUE AT

6. TOPSOIL SHALL BE A CLEAN FRIABLE LOAM WITH SUFFICIENT ORGANIC CONTENT (2.75%) TO PROMOTE PLANT VIGOR. AMENDMENTS SHALL BE ADDED AS NEEDED TO IMPROVE DEFICIENT SOILS. TOPSOIL SHALL BE RETURNED AT A LOOSE DEPTH OF FIVE INCHES TO ALLOW FOR SETTLEMENT.

7. ESTABLISH PERMANENT SEEDING AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETE. UNLESS OTHERWISE INDICATED, PERMANENT SEEDING SHALL BE SEED

9. NATIVE SHRUBS AND HERBACEOUS PLANTS ARE AVAILABLE AT PINELANDS NURSERY AND SUPPLY, PLEASANT RUN NURSERY, OR PREFERRED SUPPLIER.

GENERAL LANDSCAPING NOTES

1. ALL PLANT MATERIALS SHALL CONFIRM TO THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD FOR NURSERY STOCK (LATEST EDITION)

2. ALL PLANT MATERIALS SHALL CONFIRM TO QUALITY GUIDELINES SET IN FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS (LATEST EDITION).

3. INSPECTION OF PLANTING BEDS - THE LANDSCAPE ARCHITECT SHALL INSPECT ALL PLANTING AREAS BEFORE ANY TOPSOILING OR PLANTING IS BEGUN TO ENSURE THAT ADEQUATE DRAINAGE EXISTS. IF ANY AREAS TO BE LANDSCAPED SHOW EVIDENCE OF POOR DRAINAGE, THE LANDSCAPE ARCHITECT SHALL NOTIFY THE OWNER IMMEDIATELY

4. THE LANDSCAPE ARCHITECT SHALL APPROVE ALL PLANT MATERIAL AND STAKED PLANT LOCATIONS PRIOR TO INSTALLATION.

5. ALL TREES, SHRUBS, AND GROUNDCOVER SHALL BE PLACED IN CONTINUOUS MULCHED BEDS 4" IN DEPTH. MULCH SHALL BE TRIPLE SHREDDED HARDWOOD.

6. ALL TREES, SHRUBS, AND GROUNDCOVER SHALL BE AS SPECIFIED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS AND COMMENTS NOTED ON THE

6. TOPSOIL SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR FOR PLANTING ACCORDING TO THE PLANS AND DETAILS.

7. PREPARED TOPSOIL FOR BACKFILLING AROUND TREE BALLS SHALL BE A MIXTURE OF VOLUME OF THE FOLLOWING MATERIALS IN QUANTITIES SPECIFIED: 1/3 COMPOST, 1/3

8. ALL HERBACEOUS PLUG PLANTINGS SHALL BE MINIMUM 3 INCH DEPTH. PLUGS SHALL BE PLANTED 1 FOOT O.C. AS INDICATED ON PLAN.

	PROFESSIONAL FNGINEER - NULLICENSE # 37532		11/11/11	Marter & USI	DATE UTITIZUZZ	DRAWN CHECKED APPROVED DATE	NAL CCO 03/19/20/2
PLAN REVISIONS	No. DATE DESCRIPTION	1 3/25/2022 REVISED PLANT SCHEDULE	2 4/22/2022 REVISED PLANT SCHEDULE	3 7/11/2022 EDITED TO AS-BUILT CONDITIONS			
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