# HILLSBOROUGH PLAZA **GREEN INFRASTRUCTURE IMPLEMENTATION PROJECT** 256 US-206, HILLSBOROUGH TOWNSHIP SOMERSET COUNTY, NEW JERSEY

# **PROJECT DESCRIPTION:**

GREEN INFRASTRUCTURE DEMONSTRATION PROJECTS WILL BE INSTALLED IN 256 US-206 PLAZA.

1. BIORETENTION BASINS WILL BE INSTALLED IN THE GRASS AREA AROUND THE PLAZA, TO CAPTURE AND INFILTRATE THE STORMWATER RUNOFF FROM THE ROAD.

2. UNDERGROUND STORAGE SYSTEMS WILL BE INSTALLED UNDER THE PARKING LOT TO CREATE LARGE AREAS FOR STORAGE OF STORMWATER



SHEET NAME	TITLE
COVER	COVER SHEET
P-1	EXISTING CONDITIONS AND DEMOLITION PLAN
P-2	PROPOSED SITE PLAN
DT-1	BIORETENTION BASIN DETAILS
DT-2	UNDERGROUND STORAGE DETAILS
DT-3	PERMEABLE PAVEMENT DETAILS

# GENERAL NOTES:

1. ELEVATION DATA OBTAINED FROM NOAA DIGITAL COASTAL LIDAR]. ELEVATION ARE HEIGHT ABOVE MEAN SEA LEVEL SET BY NAVD 1988. 2. EXISTING SOILS ARE PENN SILT LOAM WHICH ARE CLASSIFIED AS HYDROLOGIC SOIL GROUP C WHICH HAVE LOW 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
<u> </u>	EXISTING CENTERLINE
~~~~~~	EXISTING TREELINE
	EXISTING PARCELS
•	EXISTING TREE/SHRUB
	EXISTING BUILDING
>\	EXISTING LIGHT POLE
	AREA TO BE DEPAVED
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	PROPOSED GREEN INFRASTRUCTURE
	PROPOSED POROUS ASPHALT
<b>— ТОВ</b> ТОВ	PROPOSED TOP OF BERM

PLAN REVISIONS						
REV. DATE	REV. SUMMARY	REV. SHEETS				





















STORMWATER PLANTER CROSS SECTION (LONGITUDINAL) [B-B] N.T.S.

DT-4/

# COVER MEDIA LAYER (VARIES) "ISTORMTECH CHAMBER 6" PERFORATED HDPE PIPE (@ 0.5% MIN SLOPE) 36.00

### EXCAVATION ELEVATION (SEE SITE PLAN)

— 18" STONE

- GEOTEXTILE FABRIC

- INLET MANIFOLD

- EMBEDMENT STONE

#### **GENERAL CONSTRUCTION NOTES:**

1. REFER TO SITE PLAN FOR ALL ELEVATIONS, INVERTS, DIMENSIONS, AND SHAPE OF THE PROJECT.

- 3. THE APPROVAL OF MATERIALS SHALL BE DONE BY THE PROJECT ENGINEER/LANDSCAPE ARCHITECT.
- 50 % OF THE HYDRAULIC CONDUCTIVITY (D3385).

- VERSION.
- MUST BE COORDINATED WITH THE PROPERTY OWNER.
- ENGINEER.

- EROSION OR POTENTIAL PONDING SHALL BE REGRADED BEFORE SUBBASE INSTALLATION.

#### STORMWATER PLANTER CONSTRUCTION NOTES:

- ALTERNATIVE, A FENCE (MIN 18" HIGH) MAY BE INSTALLED AROUND THE PLANTER.
- SEPARATION FABRIC SHALL BE LAID PRIOR TO BACKFILLING STORMWATER PLANTER.
- 5. CHOKER COURSE SHALL BE COMPRISED OF 3/8" PEA GRAVEL.
- 2019 OR LATEST VERSION.
- 7. THE CONTRACTOR SHALL ONLY USE CONCRETE WITH 4,500 PSI STRENGTH.
- 9. STONE PROTECTION SHALL SLOPE TO PLANTER BASE.
- 10. INLET AND OUTLET PROTECTION SHALL BE UNDERLAIN WITH GEOTEXTILE FABRIC. 11. INLETS AND OUTLETS SHALL NOT INHIBIT THE FLOW OF WATER.
- 12. PLANTER SHALL BE CONSTRUCTED TO DIMENSIONS INDICATED ON THE SITE PLAN.
- 13. MAX COVER OVER TOP OF PIPES IF PRESENT IS 4 FT. UNLESS APPROVED BY ENGINEER.
- 14. NON-DYED, TRIPLE-SHREDDED HARDWOOD MULCH OR APPROVED ALTERNATIVE SHALL BE USED.
- 15. THE CONTRACTOR SHALL EXCAVATE TO THE EXCAVATION DEPTH SHOWN ON THE SITE PLANS.
- WEIGHT.
- AVAILABLE.
- 20. CONTRACTOR SHALL OBTAIN ENGINEER APPROVAL PRIOR TO BACKFILLING WITH BIORETENTION MEDIA.
- PERMITTED TO CROSS EXCAVATED SECTIONS.
- STORMTECH CHAMBER CONSTRUCTION NOTES:
- 1. STORMTECH SC-740 CHAMBER OR APPROVED EQUIVALENT.
- 2. FOLLOW ALL INSTALLATION GUIDANCE PROVIDED BY STORMTECH OR APPROVED EQUIVALENT VENDOR.





POROUS ASPHALT CROSS-SECTION N.T.S.

	TABLE 901.03–1 STANDARD SIZES OF COARSE AGGREGATE															
		AMOUNTS FINER THAN EACH LABORATORY SIEVE, % BY WEIGHT														
No.	NOMINAL SIZE	4"	3 ½"	3"	2 ½"	2"	1 ½"	1"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 16	No. 50	No. 100
1	3 ½" – 1 ½"	100	90-100		25-60		0-15		0-5		1	I			1	
2	2 ½" – 1 ½"			100	90-100	35 -70	0-15		0-5							
3	2" – 1"				100	90-100	35-70	0-15		0-5						
4	1 ½" – ¾"					100	90-100	20-55	0-15		0-5					
5	1" – ½"						100	90-100	20-55	0-10	0-5					
57	1"-No. 4						100	95- 100		25-60		0-10	0-5			
67	¾" − No. 4							100	90-100		20-55	0-10	0-5			
7	½" – No. 4								100	90-100	40-70	0-15	0-5			
8	¾" − No. 8									100	85-100	10-30	0-10	0-5		
9	No. 4 - No. 16										100	85-100	10-40	0-10	0-5	
10	No. 4 - No. 200										100	85-100				10-30



## NJDOT STANDARD SPECIFICATIONS FOR AGGREGATE

POROUS ASPHALT PAVING

- PONDING ELEVATION

#### GENERAL CONSTRUCTION NOTES:

- 50 % OF THE HYDRAULIC CONDUCTIVITY (D3385).
- VERSION.
- MUST BE COORDINATED WITH THE PROPERTY OWNER.
- ENGINEER. EROSION OR POTENTIAL PONDING SHALL BE REGRADED BEFORE SUBBASE INSTALLATION.

#### PERMEABLE PAVEMENT CONSTRUCTION NOTES:

- EDGES UNLESS AN UNDERDRAIN IS PRESENT.

- OVER SUBBBASE COURSE MATERIALS DURING COMPACTION.
- LAYERS ARE SMOOTH.
- STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. 2019 OR LATEST VERSION.
- VERSION.
- PROPERLY. ALL ELEVATIONS MUST BE WITHIN 0.1 FT.

POROUS ASPHALT MIX DESIGN CRITERIA:

SIEVE SIZE (INCH/MM)	PERCENT
0.75/19	100
0.50/12.5	85-
0.375/9.5	55-
No.4/4.75	10-2
No.8/2.36	5-10
No.200/0.075 (#200)	2-4

BINDER CONTENT (AASHTO T164) 6-6.5%

64-22 BINDER PERFORMANCE GRADE FIBER CONTENT BY TOTAL MIXTURE MASS 0.3% CELLULOSE OR 0.4% MINERAL RUBBER SOLIDS (SBR) CONTENT BY WEIGHT OF THE BITUMEN 1.5-3% or TBD AIR VOID CONTENT (ASTMD6752/AASHTO T275) DRAINDOWN (ASTM D6390)\* < 0.%

RETAINED TENSILE STRENGTH (AASHTO 283)\*\* > 80% CANTABRO ABRASION TEST ENGAED SAMPLES (ASTM D7064-04) < 20% CANTABRO ABRASION TEST ON 7 DAY AGED SAMPLES < 30%

\*CELLULOSE OR MINERAL FIBERS MAY BE USED TO REDUCE DRAINDOWN.



SHEET NAME

4

DT-3