STANDARD DESIGNS AND GUIDELINES FOR GREEN INFRASTRUCTURE PRACTICES
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SHEET</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOC-01</td>
<td>TABLE OF CONTENTS</td>
</tr>
<tr>
<td>TOC-02</td>
<td>TABLE OF CONTENTS (CONT.)</td>
</tr>
</tbody>
</table>

## GI-100 STANDARDS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES

| GI-101 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1 |
| GI-102 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1 |
| GI-103 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1A - WITH STONE COLUMNS |
| GI-104 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1A - WITH STONE COLUMNS |
| GI-105 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1B - WITH STORMWATER INLET |
| GI-106 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1B - WITH STORMWATER INLET |
| GI-107 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1C - WITH STORMWATER CHAMBER |
| GI-108 | STANDARD FOR 20’X5’ R.O.W. BIOROWALE TYPE 1C - WITH STORMWATER CHAMBER |
| GI-109 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2 |
| GI-110 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2 |
| GI-111 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2A - WITH STONE COLUMNS |
| GI-112 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2A - WITH STONE COLUMNS |
| GI-113 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2B - WITH STORMWATER INLET |
| GI-114 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2B - WITH STORMWATER INLET |
| GI-115 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2C - WITH STORMWATER CHAMBER |
| GI-116 | STANDARD FOR 15’X5’ R.O.W. BIOROWALE TYPE 2C - WITH STORMWATER CHAMBER |
| GI-117 | STANDARD FOR 10’X5’ R.O.W. BIOROWALE TYPE 3 |
| GI-118 | STANDARD FOR 10’X5’ R.O.W. BIOROWALE TYPE 3 |
| GI-119 | STANDARD FOR 10’X5’ R.O.W. BIOROWALE TYPE 3A - WITH STONE COLUMN |
| GI-120 | STANDARD FOR 10’X5’ R.O.W. BIOROWALE TYPE 3A - WITH STONE COLUMN |
| GI-121 | STANDARD FOR R.O.W. RAIN GARDEN TYPE 1, TYPE 2, AND TYPE 3 |
| GI-122 | DIMENSION SCHEDULE FOR VARIABLE SIZE R.O.W. BIOROWALE AND R.O.W. RAIN GARDEN |
| GI-123 | STONE COLUMN SCHEDULE FOR VARIABLE SIZE R.O.W. BIOROWALE |
| GI-124 | SURFACE GRADING PLANS FOR R.O.W. BIOROWALES AND R.O.W. RAIN GARDENS |
| GI-125 | STANDARD FOR HYDRAULICALLY CONNECTED R.O.W. BIOROWALE - PERFORATED PIPE |
| GI-126 | STANDARD FOR 20’X3’-6” R.O.W. GREENSTRIP TYPE 1 |
| GI-127 | STANDARD FOR 20’X3’-6” R.O.W. GREENSTRIP TYPE 1 |
| GI-128 | STANDARD FOR 15’X3’-6” R.O.W. GREENSTRIP TYPE 2 |
| GI-129 | STANDARD FOR 15’X3’-6” R.O.W. GREENSTRIP TYPE 2 |
| GI-130 | STANDARD FOR 10’X3’-6” R.O.W. GREENSTRIP TYPE 3 |
| GI-131 | STANDARD FOR 10’X3’-6” R.O.W. GREENSTRIP TYPE 3 |
| GI-132 | SURFACE GRADING & DIMENSION SCHEDULE PLANS FOR R.O.W. GREENSTRIPS |
| GI-133 | STANDARD FOR HYDRAULICALLY CONNECTED R.O.W. GREENSTRIPS |
| GI-134 | STANDARD FOR R.O.W. PRECAST POROUS CONCRETE PAVEMENT |
| GI-135 | STANDARD FOR R.O.W. STORMWATER SEEPAGE BASIN WITH TYPE 2 CATCH BASIN |

## GI-139 STANDARDS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES

| GI-139 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 1 |
| GI-140 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 1 |
| GI-141 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 1A - WITH STONE COLUMNS |
| GI-142 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 2 |
| GI-143 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 2 |
| GI-144 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 2A - WITH STONE COLUMNS |
| GI-145 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 2A - WITH STONE COLUMNS |
| GI-146 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 2C - WITH STORMWATER CHAMBER |
| GI-147 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 2C - WITH STORMWATER CHAMBER |
| GI-148 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 3 |
| GI-149 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 3 |
| GI-150 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 3A - WITH STONE COLUMNS |
| GI-151 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with concrete top TYPE 3A - WITH STONE COLUMNS |
| GI-152 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 1 |
| GI-153 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 1 |
| GI-154 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 1A - WITH STONE COLUMNS |
| GI-155 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 1A - WITH STONE COLUMNS |
| GI-156 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 1C - WITH STORMWATER CHAMBER |
| GI-157 | STANDARD FOR 20’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 1C - WITH STORMWATER CHAMBER |
| GI-158 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 2 |
| GI-159 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 2 |
| GI-160 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 2A - WITH STONE COLUMNS |
| GI-161 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 2A - WITH STONE COLUMNS |
| GI-162 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 2C - WITH STORMWATER CHAMBER |
| GI-163 | STANDARD FOR 15’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 2C - WITH STORMWATER CHAMBER |
| GI-164 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 3 |
| GI-165 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 3 |
| GI-166 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 3A - WITH STONE COLUMNS |
| GI-167 | STANDARD FOR 10’X5’ R.O.W. INfiltration BasIN with GRASS top TYPE 3A - WITH STONE COLUMNS |
| GI-168 | DIMENSION SCHEDULE FOR VARIABLE SIZE R.O.W. INfiltration BasINS |
| GI-169 | STANDARD FOR R.O.W. INfiltration BasIN with combination of concrete & GRASS top |
| GI-170 | STANDARD FOR R.O.W. INfiltration BasIN with combination of concrete & GRASS top |

## GI-200 MISCELLANEOUS DETAILS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES

| GI-201 | STANDARD ROWB/ROWGS/ROWRG INLET WITH PRECAST CONCRETE SEDIMENT PAD |
| GI-202 | STANDARD FOR STORMWATER INLET |
| GI-203 | STANDARD FOR PRECAST STORMWATER INLET |
| GI-204 | STANDARD R.O.W. SECTIONS AND DETAILS |
| GI-205 | STANDARD DETAILS FOR R.O.W. STORMWATER INFILTRATION BASIN |
| GI-206 | STANDARD R.O.W. SECTIONS AND DETAILS |
| GI-207 | STANDARD FOR ROW INFILTRATION BASIN INLET WITH PRECAST CONCRETE CHAMBER |

**UPDATED:** JULY 19, 2017
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SHEET</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI-300</td>
<td>SUGGESTED GUIDELINES FOR RIGHT-OF-WAY STORMWATER GREENSTREETS LAYOUTS</td>
</tr>
<tr>
<td>GI-301</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 1 LAYOUT</td>
</tr>
<tr>
<td>GI-302</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 1 LAYOUT</td>
</tr>
<tr>
<td>GI-303</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 1A-WITH STONE COLUMNS LAYOUT</td>
</tr>
<tr>
<td>GI-304</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 2 LAYOUT</td>
</tr>
<tr>
<td>GI-305</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 2 LAYOUT</td>
</tr>
<tr>
<td>GI-306</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 2 LAYOUT</td>
</tr>
<tr>
<td>GI-307</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 2A-WITH STONE COLUMNS LAYOUT</td>
</tr>
<tr>
<td>GI-308</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 2A-WITH STONE COLUMNS LAYOUT</td>
</tr>
<tr>
<td>GI-309</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) TYPE 3 LAYOUT</td>
</tr>
<tr>
<td>GI-310</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) BIOFILTER INLET LAYOUT</td>
</tr>
<tr>
<td>GI-311</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) BIOFILTER INLET</td>
</tr>
<tr>
<td>GI-312</td>
<td>SUGGESTED GUIDELINES FOR R.O.W. STORMWATER GREENSTREET (ROWSGS) CONCRETE AND GRAT PEDESTRIAN PATHWAYS</td>
</tr>
<tr>
<td>GI-400</td>
<td>INTENTIONALLY LEFT BLANK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SHEET</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI-500</td>
<td>PLANTING PLANS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES</td>
</tr>
<tr>
<td>GI-501A</td>
<td>STANDARD PLANTING PLANS FOR TYPE 1 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-501B</td>
<td>STANDARD PLANTING PLANS FOR TYPE 1 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-501C</td>
<td>STANDARD PLANTING PLANS FOR TYPE 1 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-501D</td>
<td>STANDARD PLANTING PLANS FOR TYPE 1 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-502A</td>
<td>STANDARD PLANTING PLANS FOR TYPE 2 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-502B</td>
<td>STANDARD PLANTING PLANS FOR TYPE 2 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-502C</td>
<td>STANDARD PLANTING PLANS FOR TYPE 2 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-502D</td>
<td>STANDARD PLANTING PLANS FOR TYPE 2 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-503A</td>
<td>STANDARD PLANTING PLANS FOR TYPE 3 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-503B</td>
<td>STANDARD PLANTING PLANS FOR TYPE 3 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-503C</td>
<td>STANDARD PLANTING PLANS FOR TYPE 3 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-503D</td>
<td>STANDARD PLANTING PLANS FOR TYPE 3 R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS</td>
</tr>
<tr>
<td>GI-504A</td>
<td>STANDARD PLANTING PLANS FOR TYPE 1 &amp; TYPE 2 R.O.W. GREENSTRIPS</td>
</tr>
<tr>
<td>GI-504B</td>
<td>STANDARD PLANTING PLANS FOR TYPE 1 &amp; TYPE 2 R.O.W. GREENSTRIPS</td>
</tr>
<tr>
<td>GI-504C</td>
<td>STANDARD PLANTING PLANS FOR TYPE 1 &amp; TYPE 2 R.O.W. GREENSTRIPS</td>
</tr>
<tr>
<td>GI-600</td>
<td>STEEL GUARDS STANDARDS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES</td>
</tr>
<tr>
<td>GI-601A</td>
<td>STANDARD FOR R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS - TYPE 'A' STEEL GUARD</td>
</tr>
<tr>
<td>GI-601B</td>
<td>STANDARD FOR R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS - TYPE 'B' STEEL GUARD</td>
</tr>
<tr>
<td>GI-601C</td>
<td>STANDARD FOR R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS - TYPE 'C' STEEL GUARD</td>
</tr>
<tr>
<td>GI-601D</td>
<td>STANDARD FOR R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS - TYPE 'D' STEEL GUARD</td>
</tr>
<tr>
<td>GI-602A</td>
<td>STANDARD FOR R.O.W. BIOSWALES - TYPE 'B-1' STEEL GUARD WITH BOLTED PANELS</td>
</tr>
<tr>
<td>GI-602A-1</td>
<td>STANDARD DETAILS FOR R.O.W. BIOSWALES - TYPE 'B-1' STEEL GUARD WITH BOLTED PANELS</td>
</tr>
</tbody>
</table>
GI-100
STANDARDS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.

P.E.

07-19-2017

DATE

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE

DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

9. 14" DIAMETER CASING TO BE AUGERED TO DEPTH AS DIRECTED BY ENGINEER. 12" DIAMETER PEFCRATED PVC PIPE WRAPPED ALL AROUND WITH GEOFABRIC INSERTED IN THE 14" CASING.

10. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36".

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE, ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE N.Y.C. DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS). UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRIERS, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE

STANDARD FOR 20'x5' R.O.W. BIOSWALE TYPE 1C - WITH STORMWATER CHAMBER
- NO CONNECTION TO SEWERS

PLAN

SECTION A-A
AT BIOSWALE INLET

SECTION B-B
AT MIDSECTION (LOWEST POINT)

SECTION C-C
AT BIOSWALE OUTLET

PROPERTY LINE
CURB LINE
EXISTING CATCH BASIN

LOCATION OF BIOSWALE

FLOW

EXISTING CONCRETE SIDEWALK

P.E.
07-19-2017

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

5"-THICK PRECAST CONCRETE STRIP (TYP.), SEE DRAWING GI-206
8"-THICK REINFORCED CONCRETE GUTTER
L-SHAPED EDGING WITH MINIMUM 9" STAKES
SEE DRAWING GI-204
5"-THICK PRECAST CONCRETE STRIP (TYP.), SEE DRAWING GI-206

18"x46"x8" PRECAST OR POURED REINFORCED CONCRETE APRON

SECTION 2.15 (TYP.)
WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

STORMWATER CHAMBER CAPPED AT BOTH ENDS; SEE DRAWING GI-204
4" MINIMUM STONE COVER

STEEL SPIKE IN 4" DIA. CONCRETE ENCASEMENT PLACED IN ENGINEERED SOIL (TYP.)
UNDISTURBED SOIL

STEEL TREE PIT GUARDS (3 SIDES TYP.)
SEE DRAWINGS GI-601A, B, C, D & GI-602A

8"-THICK REINFORCED CONCRETE GUTTER
L-SHAPED EDGING WITH MINIMUM 9" STAKES
SEE DRAWING GI-204
5"-THICK PRECAST CONCRETE STRIP (TYP.), SEE DRAWING GI-206

18"x46"x8" PRECAST OR POURED REINFORCED CONCRETE APRON

ROADWAY
ROADWAY
ROADWAY

PLANTED AREA
ENGINEERED SOIL
ENGINEERED SOIL
ENGINEERED SOIL

OPEN-GRADED STONE BASE

JUTE MESH

CONCRETE HEADER (3 SIDES)

12"x5" PRECAST CONCRETE STRIP
3"-THICK LEVELING COURSE (TYP.)

8" REINFORCED CONCRETE GUTTER
L-SHAPED EDGING WITH MINIMUM 9" STAKES, SEE DRAWING GI-204
1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

ENGINEERED SOIL

OPEN-GRADED STONE BASE

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

10% PITCH

UNDISTURBED SOIL

1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

CURB LINE

BIOSWALE OUTLET

BIOSWALE INLET

PLANTED AREA

LOW POINT

DROP CURB [OUTLET]
1'-6" TO CURB

SIDEWALK

SIDEWALK

SIDEWALK

DRIVE CURB [INLET]

1'-3" TO LOW POINT

SIDEWALK

SIDEWALK

SIDEWALK

UNPAVED AREA

PLANTED AREA, SEE PLANTING PLANS (NO TREE PERMITTED)

AT MIDSECTION [LOWEST POINT]

PLANTED AREA

5'-0" OR AS SHOWN

5'-0" OR AS SHOWN

1'-0"

5" MINIMUM BEDDING

9"

1'-3"

1'-6"

6"

8" REINFORCED CONCRETE GUTTER
12"x5" PRECAST CONCRETE STRIP
3"-THICK LEVELING COURSE (TYP.)

ROADWAY
ROADWAY
ROADWAY

PLANTED AREA
ENGINEERED SOIL
ENGINEERED SOIL
ENGINEERED SOIL

OPEN-GRADED STONE BASE

JUTE MESH

CONCRETE HEADER (3 SIDES)

12"x5" PRECAST CONCRETE STRIP
3"-THICK LEVELING COURSE (TYP.)

8" REINFORCED CONCRETE GUTTER
L-SHAPED EDGING WITH MINIMUM 9" STAKES, SEE DRAWING GI-204
1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

ENGINEERED SOIL

OPEN-GRADED STONE BASE

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

10% PITCH

UNDISTURBED SOIL

1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

CURB LINE

BIOSWALE OUTLET

BIOSWALE INLET

PLANTED AREA

LOW POINT

DROP CURB [OUTLET]
1'-6" TO CURB

SIDEWALK

SIDEWALK

SIDEWALK

UNPAVED AREA

PLANTED AREA

5'-0" OR AS SHOWN

5'-0" OR AS SHOWN

1'-0"

5" MINIMUM BEDDING

9"

1'-3"

1'-6"

6"

8" REINFORCED CONCRETE GUTTER
12"x5" PRECAST CONCRETE STRIP
3"-THICK LEVELING COURSE (TYP.)

ROADWAY
ROADWAY
ROADWAY

PLANTED AREA
ENGINEERED SOIL
ENGINEERED SOIL
ENGINEERED SOIL

OPEN-GRADED STONE BASE

JUTE MESH

CONCRETE HEADER (3 SIDES)

12"x5" PRECAST CONCRETE STRIP
3"-THICK LEVELING COURSE (TYP.)

8" REINFORCED CONCRETE GUTTER
L-SHAPED EDGING WITH MINIMUM 9" STAKES, SEE DRAWING GI-204
1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

ENGINEERED SOIL

OPEN-GRADED STONE BASE

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

10% PITCH

UNDISTURBED SOIL

1" W x 1"-6" H GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEX...
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FULL SIDEWALK FLAGS ADJACENT TO GI RETAINING WALLS SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPTARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRIERS, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE
STANDARD FOR 15'x5' R.O.W. BIOSWALE TYPE 2
- NO CONNECTION TO SEWERS

SECTION A-A
AT BIOSWALE INLET

SECTION B-B
AT MIDSECTION (LOWEST POINT)

SECTION C-C
AT BIOSWALE OUTLET

SEE DRAWINGS GI-602A, B, C & D FOR TYPICAL PLANTING PLANS
STREET TREE PIT GUARDS (3 SIDES TYP.)
SEE DRAWINGS GI-601A, B, C & D GI-602A
8"-THICK REINFORCED CONCRETE GUTTER
L-SHAPED EDGING WITH MINIMUM 9" STAKES
SEE DRAWING GI-204
3"-THICK PRECAST CONCRETE STRIP (TYP.), SEE GI-206

PLANTING AREA

L-SHAPED EDGING WITH MINIMUM 9" STAKES, SEE DRAWING GI-204
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE

ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)
ENGINEERED SOIL

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE
18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL
3"-THICK LEVELING COURSE
ROADWAY
12" WIDE GABION WALL FILLED WITH OPEN-GR
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, RIPPERS, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
STANDARD FOR 15'X5' R.O.W. BIOSWALE TYPE 2A - WITH STONE COLUMNS
- NO CONNECTION TO SEWERS

LOCATION OF BIOSWALE

EXISTING CONCRETE SIDEWALK

STEEL TREE PIT GUARDS (3 SIDES TYP.)
SEE DRAWINGS GI-601A, B, C, D & GI-602A
SEE DRAWINGS GI-502A, B, C & D FOR TYPICAL PLANTING PLANS

5'-THICK PRECAST CONCRETE STRIP (TYP.), SEE GI-206
5'-THICK REINFORCED CONCRETE GUTTER

18"x34"x8" PRECAST OR POURED REINFORCED CONCRETE APRON

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

OPEN-BOTTOM (TYP.)

PERMEABLE SOIL LAYER

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

STUCCO COLUMN CAP SHALL BE PERFORATED AND PlACED UNDER THE GEOTEXTILE FABRIC (TYP.)

UNDISTURBED SOIL

STONE COLUMN CAP SHALL BE PERFORATED AND PLACED UNDER THE GEOTEXTILE FABRIC (TYP.)

JUTE MESH
GRADE TO ALLOW FOR 1"-3" DEEP DEPRESSION, SEE DRAWING GI-124

WWM 6x6 - W8xW8
18"X34"X8" PRECAST OR POURED REINFORCED CONCRETE APRON
UNDISTURBED SOIL

OPEN-GRADED STONE BASE WRAPPED WITH GEOTEXTILE, TOP AND SIDES ONLY

PERMEABLE SOIL LAYER

14" DIAMETER CASING TO MINIMUM 5" AUGERED INTO PERMEABLE LAYER

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER

OPEN-GRADED STONE

BOTTOM OF COLUMN TO BE OPEN

PERMEABLE SOIL LAYER

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

PERMEABLE SOIL LAYER

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

PERMEABLE SOIL LAYER

OPEN-BOTTOM (TYP.)

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

PERMEABLE SOIL LAYER

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

PERMEABLE SOIL LAYER

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

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STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEX...
1. **NOTES:**

   1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

   2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

   3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

   4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

   5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

   6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

   7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

   8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

   9. 14" DIAMETER CASING TO BE AUGERED TO DEPTH AS DIRECTED BY ENGINEER. 12" DIAMETER PERFORATED PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC INSERTED IN THE 14" CASING.

   10. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEViate FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE

STANDARD FOR 15'X5' R.O.W. BIOSWALE TYPE 2B - WITH STORMWATER INLET
- NO CONNECTION TO SEWERS

SECTION A-A

NOTE: NO STAKE SHALL BE DRIVEN INTO HDPE DUAL WALL PIPE

SECTION B-B

1' W x 3' H GABION WALL FILLED WITH OPEN-GRADING STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

SECTION C-C

CONCRETE HEADER (3 SIDES)

UNDISTURBED SOIL
ENGINEERED SOIL
8" DIA. SOLID HDPE PIPE
8" DIA. PERFORATED HDPE PIPE WRAPPED WITH GEOTEXTILE

PLANTED AREA, SEE PLANTING PLANS (NO TREE PERMITTED)

CRETE HEADER (3 SIDES)

18"x46"x8" PRECAST OR POURED REINFORCED CONCRETE APRON
1' x 3' H GABION WALL FILLED WITH OPEN-GRADING STONE
WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

1' W x 3' H GABION WALL FILLED WITH OPEN-GRADING STONE

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.E. 07-19-2017
SOLID PIPE TO STORMWATER INLET, SEE PLANS AND DETAILS REFER TO DETAIL GI-204

LOW POINT SET 1"-3" BELOW OUTLET INVERT

PLAN

EXISTING CURB TO REMAIN
NEW CURB TYPE TO MATCH CONTRACT PLANS

FLOW

PRECAST OR Poured REINFORCED CONCRETE APRON

SECTION D-D

NOTE:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 18". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2") FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.

P.E. 07-19-2017
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE
STANDARD FOR 15'x5' R.O.W. BIOSWALE TYPE 2C - WITH STORMWATER CHAMBER
- NO CONNECTION TO SEWERS

P.E. 07-19-2017
DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OUTLET INVERT 13'-0" L x 47" W x 26.5" H
STORMWATER CHAMBER CAPPED AT BOTH ENDS; SEE DRAWING GI-204

LOW POINT + SET 1"-3" BELOW OUTLET INVERT

EXISTING CURB TO REMAIN

NEW CURB TYPE TO MATCH CONTRACT PLANS

PRECAST OR POURED REINFORCED CONCRETE APRON

PRECAST OR POURED REINFORCED CONCRETE APRON

10" 14" 2'-10"

EXPANSION JOINT (TYP.)
13'-0" L x 47" W x 25.5" H
STORMWATER CHAMBER CAPPED AT BOTH ENDS; SEE DRAWING GI-204

SURFACE GRADING AS PER DRAWING GI-124

CONCRETE HEADER

STEEL TREE PIT GUARDS (3-SIDES TYP.) SEE DRAWING GI-601A, B, C, D & GI-602A

L-SHAPED EDGING WITH MINIMUM 9" STAKES SEE DRAWING GI-204

SEE GI-201 FOR SEDIMENT PAD DETAILS

EXPANSION JOINT

SIDEWALK

GABION WALL BELOW PRECAST CONCRETE STRIP, SEE GI-206

PRECAST CONCRETE TAPER TO FOLLOW CURB LINE (TYP.)

NEW CURB TYPE TO MATCH CONTRACT PLANS

EXISTING CURB TO REMAIN

PLACE EXPANSION JOINT AT MID-SPAN

SEE NOTES BELOW FOR DEVIATION IN DIMENSIONS FROM GI STANDARDS

SECTION D-D

PLAN

NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTS SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEP坣TABLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.

8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE
STANDARD FOR 10'x5' R.O.W. BIOSWALE TYPE 3
- NO CONNECTION TO SEWERS

SECTIONS A-A, B-B, C-C

LOCATION OF BIOSWALE
VARIES

EXISTING CATCH BASIN

EXISTING CONCRETE SIDEWALK

PROPERTY LINE

CURB LINE

DEPHT SCHEDULE

ROW WITH TREE: 5'-0" 2'-0"

ROW NO TREE: 3'-0" 1'-6"

1'-3"

1'-0"

8"

2"

1/2" EXPANSION JOINT AND FILLER PER NYC DOT HIGHWAY SPEC. SECTION 2.15 (TYP.) SIDEWALK

12"x5" PRECAST CONCRETE STRIP (TYP.)

5"-THICK PRECAST CONCRETE STRIP (TYP.) SEE GI-206

8"-THICK REINFORCED CONCRETE GUTTER

L-SHAPED EDGING WITH MINIMUM 9" STAKES

SEE DRAWINGS GI-601A, B, C, D & GI-602A

SEE DRAWINGS GI-603A, B, C & D FOR TYPICAL PLANTING PLANS

L-SHAPED EDGING WITH MINIMUM 9" STAKES, SEE DRAWING GI-204

3"-THICK LEVELING COURSE (TYP.)

12"x6" PRECAST CONCRETE STRIP

12"x5" PRECAST CONCRETE STRIP OR Poured REINFORCED CONCRETE APRON

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

3"-THICK LEVELING COURSE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

12"x5" PRECAST CONCRETE

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

12" REINFORCED CONCRETE GUTTER

10% PLANTED AREA

12"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

12"x5" PRECAST CONCRETE STRIP OR Poured REINFORCED CONCRETE APRON

UNDERGROUND PIPE 5'-0" OR AS SHOWN

ENGINEERED SOIL

OPEN-GRADED STONE BASE

OPEN-GRADED STONE BASE

ENGINEERED SOIL

STANDARD FOR 10'x5' R.O.W. BIOSWALE TYPE 3 - NO CONNECTION TO SEWERS

SECTION A-A
AT BIOSWALE INLET

SECTION B-B
AT MIDSECTION [LOWEST POINT]

SECTION C-C
AT BIOSWALE OUTLET

10% Pitch

JUTE MESH

CONCRETE HEADER (3) SIDES

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

ENGINEERED SOIL

OPEN-GRADED STONE BASE

OPEN-GRADED STONE BASE

ENGINEERED SOIL

STANDARD FOR 10'x5' R.O.W. BIOSWALE TYPE 3 - NO CONNECTION TO SEWERS

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.E.
07-19-2017
NEW CURB TYPE TO MATCH CONTRACT PLANS
LOW POINT TO MATCH CONTRACT PLANS
OUTLET INVERT + 1'-3" BELOW OUTLET INVERT
D INLET
FLOW
D OUTLET
FLOW
1'-6" NEW CURB TYPE TO MATCH CONTRACT PLANS
8"-THICK CONCRETE GUTTER
5"-THICK PRECAST CONCRETE STRIP

EXPANSION JOINT (TYP.)
SURFACE GRADING AS PER DRAWING GI-124
CONCRETE HEADER
STEEL TREE PIT GUARDS (3-SIDES TYP.) SEE DRAWING GI-601A, B, C, D & GI-602A
L-SHAPED EDGING WITH MINIMUM 9" STAKES SEE DRAWING GI-204
SEE GI-201 FOR SEDIMENT PAD DETAILS

9" OFFSET OF CURB TO REMAIN
LIMIT OF NEW CURB TO EXTEND BEYOND THE ROWB AS DETERMINED BY FIELD CONDITIONS AND SITE ENGINEER

SIDEWALK
LOW POINT + SET 1'-3" BELOW OUTLET INVERT
9" GABION WALL BELOW PRECAST CONCRETE STRIP, SEE GI-206
NEW CURB TYPE TO MATCH CONTRACT PLANS
EXISTING CURB TO REMAIN

8"-THICK REINFORCED CONCRETE APRON
12" PRECAST OR POURED REINFORCED CONCRETE APRON
1'-6" CONCRETE HEADER
1'-2" EXPANSION JOINT

FLOW
EXISTING CURB TO REMAIN

SECTION D-D

NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CURB APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY CERTIFIED ARBORISTS.
4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.
5. TREES SHALL BE STAKED AS PER DOT STANDARD DETAILS OF CONSTRUCTION. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.
6. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.
7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. BIOSWALE.
8. REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.
9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
STANDARD FOR 10'X5' R.O.W. BIOSWALE TYPE 3A - WITH STONE COLUMN
- NO CONNECTION TO SEWERS

**PLAN**

- Existing concrete sidewalk
- Location of bioswale
- Stone column
- Flow
- Drop curb
- 1/2" expansion joint and filler per NYC DOT Highway Spec. Section 2.15 (Typ.)

**SECTION A-A**

- Open-graded stone base wrapped in geotextile (top and sides only)
- Undisturbed soil
- Stone filled perforated 12" diameter PVC pipe wrapped all around with geotextile fabric (Typ.)
- Open bottom (Typ.)
- Undisturbed soil layer

**SECTION B-B**

- Open-graded stone base wrapped in geotextile (top and sides only)
- Undisturbed soil
- Stone filled perforated 12" diameter PVC pipe wrapped all around with geotextile fabric (Typ.)
- Open bottom (Typ.)
- Undisturbed soil layer

**NOTE:**

- No connection to sewers
- Existing concrete sidewalk
- Stone filled perforated 12" diameter PVC pipe wrapped all around with geotextile fabric (Typ.)
- Open bottom (Typ.)
- Undisturbed soil layer

---

**Drawings:**

- GI-201 for Sediment Pad Details
- GI-204 for Contract Plans
- GI-503A, B, C & D for Typical Planting Plans
- GI-206 for Precast Concrete Strip (Typ.)
- GI-601A, B, C, D & GI-602A for Steel Tree Pit Guards

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** размеры документа:**

- 792.0x1224.0

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**директор ин-хаус дизайн и прав-о-уэй зеленая инфраструктура:**

- Date: 07-19-2017
- P.E.: 07-19-2017
NOTES:

1. The Contractor shall be required to remove and replace all existing full sidewalk flags adjacent to the GI practice with a minimum width of 36". Any additional flags disturbed by this replacement shall also be replaced. The Contractor shall replace the sidewalk in full compliance with the applicable sections of the Standard Highway Specifications.

2. The Contractor shall remove and restore one-and-a-half (1 1/2') foot width of the wearing course and one-and-a-half (1 1/2') foot width of roadway concrete pavement base along the curb line and adjacent to the concrete aprons, where required. All work must be completed in full compliance with the applicable sections of the Standard Highway Specifications.

3. The Contractor shall obtain the necessary tree planting permit from the NYC Department of Parks and Recreation (DPR) prior to the start of work. All necessary tree planting shall be supervised by certified arborists.

4. No tree shall be removed by the Contractor until specifically ordered in writing to do so by the Engineer and with approval from DPR.

5. Trees shall be staked as per DOT standard details of construction. Tree stakes are to be removed by the Contractor not less than one year after planting.

6. The Contractor shall not be permitted to operate auxiliary equipment which generates exhaust or other heat upward (e.g., generators and compressors), under the branches of trees where the branches are less than 25' above the ground, unless approved by the Engineer in consultation with the certified arborist.

7. The Contractor shall not be permitted to store, stockpile, or lay down, any construction material including, but not limited to, lumber, fuel, and oil containers, pipes, and/or pipe fittings, barricades, hand tools, hoses, receptacles, and asphalt within any existing tree pit or ROW.

8. Replacement trees shall be planted within the project as directed by the Engineer in accordance with Standard Highway Specifications.

9. 14" diameter casing to be augered to depth as directed by Engineer. 12" diameter perforated PVC pipe wrapped all around with geotextile fabric inserted in the 14" casing.

10. For ROW GI practices with dimensions that deviate from the GI Standards as shown on contract plans due to field conditions, refer to the dimension schedule on GI-122 and specifications.
R.O.W. RAIN GARDEN DETAILS

<table>
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<tr>
<th>LENGTH (L), 1FT INCREMENT</th>
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<td>4'-6&quot; TO 6'-0&quot;</td>
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<tr>
<td>13' S L 6' 16&quot;</td>
<td>4'-6&quot; TO 6'-0&quot;</td>
<td>TYPE 2</td>
</tr>
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<td>10' S L 6' 12&quot;</td>
<td>4'-6&quot; TO 6'-0&quot;</td>
<td>TYPE 3</td>
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NOTE: PLAN LAYOUT DIMENSIONS AND PLANTING PLAN AS PER GI-122 FOR THE R.O.W. RAIN GARDEN TYPE SPECIFIED.

SECTION A-A AT R.O.W. INLET

SECTION B-B AT MIDSECTION [LOWEST POINT]

SECTION C-C AT R.O.W. OUTLET

REGISTERED PROFESSIONAL ENGINEER 07-19-2017
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE
DIMENSION SCHEDULE FOR VARIABLE SIZE R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS
- NO CONNECTION TO SEWERS

LOW POINT
SET 1'-3" BELOW OUTLET INVERT

SURFACE GRADING AS PER DRAWING GI-124

R.O.W. BIOSWALE OR RAIN GARDEN DETAILS

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<td>GI-502A-D</td>
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<tr>
<td>TYPE 3</td>
<td>GI-503A-D</td>
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INLET/OUTLET DIMENSIONS

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<tr>
<td>13' ≤ L ≤ 16'</td>
<td>4'-0&quot; TO 6'-0&quot;</td>
<td>TYPE 2</td>
<td>10&quot; 14&quot; 2'-10&quot;</td>
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<tr>
<td>10' ≤ L ≤ 12'</td>
<td>4'-0&quot; TO 6'-0&quot;</td>
<td>TYPE 3</td>
<td>9&quot; 12&quot; 2'-6&quot;</td>
</tr>
</tbody>
</table>

PLANTING PLAN

1. STANDARD CROSS-SECTIONAL DETAILS AND NOTES AS PER THE R.O.W. BIOSWALE OR R.O.W. RAIN GARDEN TYPE SPECIFIED.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR WILL CONFIRM THE LEVELS OF THE R.O.W. BIOSWALE OR R.O.W. RAIN GARDEN TO PREVENT FLOODING.
3. DOT APPROVAL REQUIRED FOR ALL WIDTHS GREATER THAN 5'.
4. PLANTING QUANTITIES AND PLANS FOR VARIABLE WIDTH R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS AS PER THE PAGE NUMBERS SPECIFIED, DISTRIBUTED EVENLY.
5. TREES SPECIES AS DIRECTED BY DPR. TREES ARE ONLY PERMITTED IN R.O.W. BIOSWALES WITH AN ENGINEERED SOIL LAYER 24" DEEP.

NOTES:

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
07-19-2017
STONE COLUMN SCHEDULE FOR VARIABLE SIZE R.O.W. BIOSWALE

- NO CONNECTION TO SEWERS

R.O.W. BIOSWALE OR RAIN GARDEN DETAILS

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<td>4'-0&quot; TO 6'-0&quot;</td>
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<td>3</td>
</tr>
<tr>
<td>13' ≤ L ≤ 16'</td>
<td>4'-0&quot; TO 6'-0&quot;</td>
<td>TYPE 2</td>
<td>2</td>
</tr>
<tr>
<td>10' ≤ L ≤ 12'</td>
<td>4'-0&quot; TO 6'-0&quot;</td>
<td>TYPE 3</td>
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</tbody>
</table>

STONE COLUMN DETAILS

NOTE:
1. STANDARD STONE COLUMN CROSS SECTIONAL DETAILS AS SPECIFIED.
2. THIRD COLUMN LOCATED IN CENTER OF ROW.
3. ROWS WITH THREE COLUMNS WILL NOT CONTAIN A TREE.
4. TOP OF STONE COLUMN COVER BELOW INTERFACE OF ENGINEERED SOIL AND STONE BASE

DIMENSION SCHEDULE

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW

LOW POINT SET 1'-3" BELOW OUTLET INVERT
THIRD COLUMN (IF SPECIFIED)

FLOW
EXISTING CURB TO REMAIN
EXISTING ASPHALT PAVEMENT
EXISTING CURB TO REMAIN
FLOW
1. *All surface grading to taper towards the low point.*

2. *Contour lines shown on this drawing are schematic only and depend on the street grade.*

**NOTES:**

**GRADING PLAN 1**

- For all ROW with L = 13' or greater

**GRADING PLAN 2**

- For ROW without stone column and L = less than 13'

**SURFACE GRADING PLANS FOR R.O.W. BIOSWALES AND R.O.W. RAIN GARDENS**

- No connection to sewers

**DIR. OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE**

**DEPT. OF ENVIRONMENTAL PROTECTION**

**07-19-2017**
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE
STANDARD FOR HYDRAULICALLY CONNECTED R.O.W.B. - PERFORATED PIPE
- NO CONNECTION TO SEWERS

NOTE: USE SMALLER SIZE STORMWATER CHAMBER AS SHOWN ON GI-204 WHEN REQUIRED
SECTION D-D

14"

BOTTOM OF CURB
8"

EXTENT OF NEW CURB VARIES PER FIELD CONDITIONS

HEIGHT OF ADJACENT ASPHALT PAVEMENT

FLOW

EXPANSION JOINT (TYP.)

SURFACE GRADING AS PER DRAWING GI-133

CONCRETE HEADER

STEEL TREE PIT GUARDS

(3 SIDES TYP.) SEE DRAWING GI-807A, B, C, D & GI-802A

L-SHAPED EDGING WITH MINIMUM 9" STAKES SEE DRAWING GI-204;

SEE GI-201 FOR SEDIMENT PAD DETAILS

NEW CURB TYPE TO MATCH CONTRACT PLANS

NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE THE ADJACENT EXISTING SIDEWALK FLAG TO NEAREST SIDEWALK JOINT BEYOND THE LIMITS OF THE BIOSWALE. THE CONTRACTOR SHALL REPLACE THAT SIDEWALK IN KIND IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF STANDARD HIGHWAY SPECIFICATION.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRON, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PLANTING PERMITS FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) AND NYC DEPARTMENT OF TRANSPORTATION (DOT) PRIOR TO THE START OF WORK.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNLESS SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING R.O.W. GREEN INFRASTRUCTURE PRACTICE.

7. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-133 AND SPECIFICATIONS.
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE
STANDARD FOR 15’x3’-6” R.O.W. GREENSTRIP TYPE 2
- NO CONNECTION TO SEWERS

NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE THE ADJACENT EXISTING SIDEWALK FLAG TO NEAREST SIDEWALK JOINT BEYOND THE LIMITS OF THE BIOSWALE. THE CONTRACTOR SHALL REPLACE THAT SIDEWALK IN KIND IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF STANDARD HIGHWAY SPECIFICATION.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2’) FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2’) FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PLANTING PERMITS FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) AND NYC DEPARTMENT OF TRANSPORTATION (DOT) PRIOR TO THE START OF WORK.

4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25’ ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOPIE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING R.O.W. GREEN INFRASTRUCTURE PRACTICE.

7. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-133 AND SPECIFICATIONS.

P.E. 07-19-2017
DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
EXISTING CONCRETE SIDEWALK

EXISTING CATCH BASIN

LOCATION OF GREEN STRIP

VARIES SEE DRAWINGS GI-504C FOR TYPICAL PLANTING PLANS

OR AS SHOWN

12" WIDE GABION WALL UNDER A 5"-THICK PRECAST CONCRETE STRIP

L-SHAPED EDGING WITH MINIMUM 9" STAKES SEE DRAWING GI-204

PRECAST CONCRETE SEDIMENT PAD

8"-THICK REINFORCED CONCRETE GUTTER

SEE DRAWINGS GI-504C FOR TYPICAL PLANTING PLANS

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

SIDEWALK

SECTION A-A

AT GREEN STRIP INLET

LOW POINT

1'-6" 12"x5" PRECAST CONCRETE

ROADWAY

PLANTED AREA

ENGINEERED SOIL

OPEN-GRADED STONE BASE

CONCRETE HEADER (3 SIDES)

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

JUTE MESH

3'-6" OR AS SHOWN

SECTION B-B

AT MIDSECTION (LOWEST POINT)

12"x6" PRECAST CONCRETE ROADWAY

L-SHAPED EDGING WITH MINIMUM 9" STAKES, SEE DRAWING GI-204

WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

3'-6" OR AS SHOWN

SECTION C-C

AT GREEN STRIP OUTLET

1'-6"

12" WIDE GABION WALL FILLED WITH OPEN-GRADED STONE

WRAP GABION WALL IN GEOTEXTILE (TOP AND SIDES ONLY)

3'-6" OR AS SHOWN

STANDARD FOR 10'x3'-6" R.O.W. GREENSTRIP TYPE 3

- NO CONNECTION TO SEWERS

P.E.

07-19-2017

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE

DEPARTMENT OF ENVIRONMENTAL PROTECTION
LOW POINT
SET 1"-3" BELOW
OUTLET INVERT
OUTLET INVERT
EXPANSION JOINT - LIMIT OF NEW CURB TO EXTEND BEYOND THE ROWB AS DETERMINED BY FIELD CONDITIONS AND SITE ENGINEER PLAN
EXISTING CURB TO REMAIN L-SHAPED EDGING WITH MINIMUM 9" STAKES SEE DRAWING GI-204 CONCRETE HEADER
EXISTING CURB TO REMAIN
PRECAST OR POURED REINFORCED CONCRETE APRON
SECTION D-D
EXISTING CURB TO REMAIN
PRECAST OR POURED REINFORCED CONCRETE APRON
GABION WALL BELOW PRECAST CONCRETE STRIP, SEE GI-206
SIDEWALK PRECAST CONCRETE TAPER TO FOLLOW CURB LINE (TYP.)
EXISTING CURB TO REMAIN
CONCRETE HEADER
EXPANSION JOINT - LIMIT OF NEW CURB TO EXTEND BEYOND THE ROWB AS DETERMINED BY FIELD CONDITIONS AND SITE ENGINEER
EXISTING CURB TO REMAIN

NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE THE ADJACENT EXISTING SIDEWALK FLAG TO NEAREST SIDEWALK JOINT BEYOND THE LIMITS OF THE BIOSWALE. THE CONTRACTOR SHALL REPLACE THAT SIDEWALK IN KIND IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF STANDARD HIGHWAY SPECIFICATION.
2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PLANTING PERMITS FROM THE NYC DEPARTMENT OF PARKS AND RECREATION (DPR) AND NYC DEPARTMENT OF TRANSPORTATION (DOT) PRIOR TO THE START OF WORK.
4. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.
5. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.
6. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING R.O.W. GREEN INFRASTRUCTURE PRACTICE.
7. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-133 AND SPECIFICATIONS.

GI-131
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE
STANDARD FOR 10'x3'-6" R.O.W. GREENSTRIP TYPE 3
- NO CONNECTION TO SEWERS

P.E.
07-19-2017
DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
**Low Point 1'-1/2" Below Outlet Invert Grading (Typ.)**

**Retention Area Extends Even with Inside Edge of Inlet Apron.**

**Grading Notes:**
1. All surface grading to taper towards the low point.
2. Contour lines shown on this drawing are schematic only and depend on the street grade.

**Type 1 & Type 2 Grading Plan**

**Retention Area Extends to Match Outlet Invert.**

**Type 3 Grading Plan**

**Dimension and Planting Plan Schedule**

**Dimension and Planting Notes:**
1. Standard cross-sectional details and notes as per the R.O.W. greenstrip type specified.
2. Prior to construction, the contractor will confirm the levels of the R.O.W. greenstrip to prevent flooding.

**R.O.W. Green Strip**

<table>
<thead>
<tr>
<th>Length (L), 1ft. Increment</th>
<th>Width (W), 6 in. Increment</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Type / Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>17&quot; ≤ L ≤ 20&quot;</td>
<td>3'-0&quot; to 3'-6&quot;</td>
<td>Type 1</td>
<td>14&quot;</td>
<td>18&quot;</td>
<td>3'-10&quot;</td>
<td>GI-504A &amp; B</td>
</tr>
<tr>
<td>13&quot; ≤ L ≤ 16&quot;</td>
<td></td>
<td>Type 2</td>
<td>10&quot;</td>
<td>14&quot;</td>
<td>2'-10&quot;</td>
<td>GI-504A &amp; B</td>
</tr>
<tr>
<td>10&quot; ≤ L ≤ 12&quot;</td>
<td></td>
<td>Type 3</td>
<td>9&quot;</td>
<td>12&quot;</td>
<td>2'-6&quot;</td>
<td>504C</td>
</tr>
</tbody>
</table>

**Notes:**
- No connection to sewers.
PLAN

EXISTING CONCRETE SIDEWALK

PROPERTY LINE

Curb Line

EXISTING CATCH BASIN

LOCATION VARIES

FLO\n
FLOW

OUTLET (TYP.)

INLET (TYP.)

INLET (TYP.)

OUTLET (TYP.)

POURED OR PRECAST CONCRETE WALKWAY

STEEL TREE PIT GUARD (3 SIDES TYP.)

8"-THICK PRECAST CONCRETE STRIP (TYP.)

PRECAST CONCRETE STRIP

SEDIMENT PAD, SEE GI-201

CONCRETE APRON (TYP.)

8'-0" CLEAR SPACE

5'-0"

CLEAR SPACE

SECTION A-A

3-SIDED STEEL TREE PIT GUARDS

SIDEWALK

3'-6" OR AS SHOWN

Poured or precast concrete walkway

Steel tree pit guard (3 sides typ.)

Precast concrete strip

Sediment pad, see GI-201

Concrete apron (typ.)

5'-0"

SECTION B-B

AT PEDESTRIAN PATHWAY

3'-6" OR AS SHOWN

4'-THICK PRECAST COVER

EXPANSION JOINT (TYP.)

SIDEWALK

3'-THICK LEVELING COURSE

REINFORCED CONCRETE COULVERT

IMPERMEABLE MEMBRANE

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

CONCRETE HEADER (3)

SIDES

ROWGS - SIZE VARIES

PLANTED AREA

PITCH

SIDEWALK

3'-6" OR AS SHOWN

5'-0"

5'-0"

3'-THICK LEVELING COURSE

REINFORCED CONCRETE COULVERT

IMPERMEABLE MEMBRANE

OPEN-GRATED STONE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)

SIDEWALK

3-SIDED STEEL TREE PIT GUARDS

OPEN GRATED STONE BASE

8'-THICK REINFORCED CONCRETE BAND LEVELING COURSE

GABION WALL

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017

P.E.

DATE

DEPARTMENT OF ENVIRONMENTAL PROTECTION
EXISTING CATCH BASIN

Curb Line

Property Line

EXISTING ROADWAY

PLAN

FLOW

TYPICAL CAST IN PLACE CONCRETE AT PIEZOMETER PART PLAN

SECTION A-A

SECTION B-B

SECTION C-C

NOTES:
1. MAXIMUM JOINT SPACE IS 1".
2. CONTRACTOR SHALL TRIM (VIA SAWCUT) POROUS CONCRETE PANELS TO NO MORE THAN 6" ON ANY END.
3. NO POROUS CONCRETE PANEL SHALL BE LESS THAN 4FT IN LENGTH WITHOUT THE ENGINEER'S APPROVAL.
4. ADJUST THE LIMIT OF WORK TO AVOID END PANELS LESS THAN 4' IN LENGTH.
5. CONTRACTOR SHALL INSTALL 3/4" STONE IN LIFTS OF 12" (MAX) AND SHALL MAKE TWO PASSES OF A PLATE COMPACTOR (200 LBS MIN.) OVER EACH LIFT PRIOR TO INSTALLATION OF 3/8" LEVELING COURSE.
6. AT THE DIRECTION OF THE ENGINEER, CONTRACTOR TO REPLACE ANY CURB OR DRIVEWAY APRON THAT IS DAMAGED DURING CONSTRUCTION AS PER NYCDOT STANDARDS.
7. SEAL EDGES OF ANY SAWCUTS IN THE WEARING COURSE WITH LIQUID ASPHALT CEMENT AS PER TITLE 34 NYCDOT HIGHWAY RULES (PAGE 71, SECTION 2-11(E)(VIII)).
8. CAST IN PLACE CONCRETE TO BE INSTALLED TO A DEPTH OF 9" IF THE EXISTING PAVEMENT BASE IS ASPHALT AND TO A DEPTH OF 12" IF THE EXISTING BASE IS CONCRETE.
NOTES:
1. THE LOCATION OF THE ROW SEEPAGE BASIN SHALL BE SUCH THAT THE OPENING IN THE TOP SLAB TOGETHER WITH FRAME AND COVER SHALL BE ENTIRELY IN THE ROADWAY AREA OR ENTIRELY IN THE SIDEWALK AREA.
2. ALL SLABS AND RINGS SHALL BE PLACED ON A ONE HALF (1/2) INCH THICK FULL BED OF FRESH MORTAR.
3. SEEPAGE BASIN SOLID RING AND SEEPAGE RING REINFORCING COMPLIES WITH AREA REQUIREMENTS OF ASTM C478. EXCEPT THAT ALL WALL SECTIONS SHALL BE REINFORCED WITH WWM 6x12 W0.8xW0.4 PLACED IN CENTER OF WALL. IN SOLID RING 1-#4 HOOP SHALL BE PLACED AROUND ALL CAST PIPE OPENINGS. (THE 1-#4 HOOP WILL BE REQUIRED AT CORED OPENINGS FOR BASIN CONNECTIONS IN SOLID RINGS.) (ALL VALUES OF AREA OF STEEL (AS) ARE IN SQUARE INCHES AND ARE A MINIMUM.)
4. PRECAST PIPE OPENINGS AND CORED OPENINGS FOR CATCH BASIN CONNECTION WILL BE PLACED IN SOLID RING ONLY. NO CORED OPENING WILL BE ALLOWED IN SEEPAGE RINGS.
5. CORED OPENINGS IN SOLID RING WILL BE PERMITTED FOR UP TO 12" DIA. DUCTILE IRON CATCH BASIN CONNECTION ONLY.
6. PIPE OPENINGS WILL NOT BE PERMITTED THROUGH JOINTS. DISTANCE FROM TOP OR BOTTOM OF ANY SOLID RING SECTION SHALL BE A MINIMUM OF 6" FOR CORED OPENINGS FOR BASIN CONNECTIONS.
7. CONCRETE DESIGN MIX = 5,000 PSI (MIN. 28 DAY STRENGTH=4,000 PSI; MAX. W/C=0.47); REBARS - FS = 60,000 PSI. WWM - FS=65,000 PSI.
8. OPENINGS FOR SPACING AND HANDLING WILL BE ALLOWED IN UPPER PORTION OF SOLID RING. HOWEVER, THE CONTRACTOR SHALL FILL ALL SUCH OPENINGS WITH NON SHRINK GROUT IMMEDIATELY AFTER INSTALLATION.
9. IN NO CASE SHALL THE AREA OF THE DRAIN OPENING BE LESS THAN 3.0 SQ. IN.
STANDARD FOR 20'x5' R.O.W. INFILTRATION BASIN WITH CONCRETE TOP TYPE 1
- NO CONNECTION TO SEWERS

NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNLESS SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.
4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.
5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.
6. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.
7. CAST IN PLACE CONCRETE TOP REQUIRES AN IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.
8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.
UNDISTURBED SOIL

SECTION B-B

MIN 5'-0" PENETRATION INTO PERMEABLE SOIL LAYER

PERMEABLE SOIL LAYER

CLEAN OUT, SEE GI-204

8" DIA. SLOTTED HDPE PIPE WRAPPED IN GEOTEXTILE

STEEL GRATE

PERFORATED COVER

DROP CURB (INLET)

STEEL FACING CURB OPENING, SEE GI-168

ROADWAY

1/2" PITCH

1.5% SLOPE

1'-0"

1'-0"

6" DIA. SLOTTED HDPE PIPE WRAPPED IN GEOTEXTILE, MAINTAIN 2% SLOPE

TOP OF STEEL GRATE FLUSH WITH TOP OF SURFACE

PERFORATED COVER (TYP.)

OPENING FOR 8" DIA. SLOTTED PIPE SIDEWALK

3'-6"

3.5"

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)

OPEN BOTTOM (TYP.)

TOP OF STEEL GRATE FLUSH WITH TOP OF SURFACE

PERFORATED COVER (TYP.)

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC

OPEN BOTTOM (TYP.)

PERMEABLE SOIL LAYER

OPEN-GRADED STONE BASE WRAPPED WITH GEOTEXTILE (TOP AND SIDES ONLY)

STANDARD FOR 20'X5' R.O.W. INFILTRATION BASIN WITH CONCRETE TOP

TYPE 1A - WITH STONE COLUMNS

- NO CONNECTION TO SEWERS
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36".

2. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

3. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.

4. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

5. CAST IN PLACE CONCRETE TOP REQUIRES AN IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.

6. TYPE 1A - WITH STONE COLUMNS

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. IMPERMEABLE MEMBRANE

9. 3'-6" OPEN GRADED STONE

10. 8" DIAMETER SLOTTED PIPE WRAPPED IN GEOTEXTILE

11. 1'-6" OPEN GRADED STONE

12. 5'-6" CONCRETE CHAMBER

13. GI 168

14. GI 122

15. GI 161
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPCTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

6. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

7. CAST IN PLACE CONCRETE TOP REQUIRES AN IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.

8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM \"WIDTH OF 36\";
ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRENS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS) UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. CAST IN PLACE CONCRETE TOP Requires AN IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.
STANDARD FOR 15'X5' R.O.W. INFILTRATION BASIN WITH CONCRETE TOP
TYPE 2A - WITH STONE COLUMNS
- NO CONNECTION TO SEWERS

**SECTION A-A**

**SECTION B-B**

**PLANT**

- 8" DIAMETER SLOWED PIPE WRAPPED IN GEOTEXTILE
- CONCRETE HEADER (TOP AND SIDES)
- PERMEABLE SOIL LAYER
- OPEN-GRADED STONE BASE WRAPPED WITH GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TOP AND SIDES ONLY)
- FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
- OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

**TOP OF STEEL GRATE FLUSH WITH TOP OF SURFACE**

**PERF. COVER**

- OPEN-END PLUG (TYP.)
- WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**PRECAST CONCRETE TRENCH**

- WMM 6x6-W8xW8
- 1'-6'
- 8" DIAMETER SLOTTED HDPE PIPE WRAPPED IN GEOTEXTILE
- STEEL GRATE
- PERFORATED COVER
- DROP CURB (INLET)
- STEEL FACED CURB OPENING, SEE GI-168
- ROADWAY
- 1%-SLOPE

**CONCRETE HEADER**

- (3) SIDES
- 10% PITCH
- 3'-THICK LEVELING COURSE
- PERFORATED COVER (TYP.)
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY
- PERMEABLE SOIL
- 14" DIAMETER CASING TO MINIMUM 2'-0" AUGERED INTO PERMEABLE LAYER
- FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
- OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

**ROADWAY**

- PITCH
- 1'-3"
- PRECAST CONCRETE CHAMBER
- 3'-THICK LEVELING COURSE
- STONE COLUMN CAP TO BE PERF.ATED

**LOCATION VARIES**

- 10'-0" AS SHOWN
- 12" EXPANSION JOINT AND FILLER PER NYC DOT HIGHWAY SPEC. SECTION 2.15 (TYP.)
- SIDEWALK

**EXISTING CONCRETE CURB LINE**

- PROPERTY LINE
- LOCATION VARIES
- PRECAST CONCRETE TRENCH
- OPENING FOR 8" DIAMETER SLOTTED PIPE (TYP.)
- SIDEWALK

**EXISTING CATCH BASIN**

- UNDISTURBED SOIL
- OPEN-GRADED STONE BASE WITH CLEAN OUTS BEYOND
- PRECAST CONCRETE TRENCH WMM 6x6-W8xW8
- 8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**INLET**

- 3'-6"
- OR AS SHOWN
- EXISTING CATCH BASIN CURB LINE
- OPEN-GRADED STONE BASE WRAPPED WITH GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TOP AND SIDES ONLY)
- FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
- OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

**OUTLET**

- 3'-6"
- OR AS SHOWN
- EXISTING CATCH BASIN CURB LINE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TOP AND SIDES ONLY)
- FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
- OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

**SECTION B-B**

- 8" DIAMETER SLOTTED PIPE WRAPPED IN GEOTEXTILE
- STEEL GRATE
- PERFORATED COVER
- DROP CURB (INLET)
- STEEL FACED CURB OPENING, SEE GI-168
- ROADWAY
- 1%-SLOPE

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**EXISTING CONCRETE CURB LINE**

- PROPERTY LINE
- LOCATION VARIES
- PRECAST CONCRETE TRENCH
- OPENING FOR 8" DIAMETER SLOTTED PIPE (TYP.)
- SIDEWALK

**EXISTING CATCH BASIN**

- UNDISTURBED SOIL
- OPEN-GRADED STONE BASE WITH CLEAN OUTS BEYOND
- PRECAST CONCRETE TRENCH WMM 6x6-W8xW8
- 8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TOP AND SIDES ONLY)
- FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
- OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

**SECTION B-B**

- 8" DIAMETER SLOTTED PIPE WRAPPED IN GEOTEXTILE
- STEEL GRATE
- PERFORATED COVER
- DROP CURB (INLET)
- STEEL FACED CURB OPENING, SEE GI-168
- ROADWAY
- 1%-SLOPE

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**EXISTING CONCRETE CURB LINE**

- PROPERTY LINE
- LOCATION VARIES
- PRECAST CONCRETE TRENCH
- OPENING FOR 8" DIAMETER SLOTTED PIPE (TYP.)
- SIDEWALK

**EXISTING CATCH BASIN**

- UNDISTURBED SOIL
- OPEN-GRADED STONE BASE WITH CLEAN OUTS BEYOND
- PRECAST CONCRETE TRENCH WMM 6x6-W8xW8
- 8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TOP AND SIDES ONLY)
- FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
- OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

**SECTION A-A**

- 18"x42"x8" PRECAST OR Poured REINFORCED CONCRETE APRON
- PERFORATED END PLUG (TYP.)
- WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**OPEN-GRADED STONE BASE WRAPPED WITH GEOTEXTILE (TOP AND SIDES ONLY)**

- 8" DIAMETER SLOTTED PIPE WRAPPED IN GEOTEXTILE
- STEEL GRATE
- PERFORATED COVER
- DROP CURB (INLET)
- STEEL FACED CURB OPENING, SEE GI-168
- ROADWAY
- 1%-SLOPE

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**EXISTING CONCRETE CURB LINE**

- PROPERTY LINE
- LOCATION VARIES
- PRECAST CONCRETE TRENCH
- OPENING FOR 8" DIAMETER SLOTTED PIPE (TYP.)
- SIDEWALK

**EXISTING CATCH BASIN**

- UNDISTURBED SOIL
- OPEN-GRADED STONE BASE WITH CLEAN OUTS BEYOND
- PRECAST CONCRETE TRENCH WMM 6x6-W8xW8
- 8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**EXISTING CONCRETE CURB LINE**

- PROPERTY LINE
- LOCATION VARIES
- PRECAST CONCRETE TRENCH
- OPENING FOR 8" DIAMETER SLOTTED PIPE (TYP.)
- SIDEWALK

**EXISTING CATCH BASIN**

- UNDISTURBED SOIL
- OPEN-GRADED STONE BASE WITH CLEAN OUTS BEYOND
- PRECAST CONCRETE TRENCH WMM 6x6-W8xW8
- 8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

**EXISTING CONCRETE CURB LINE**

- PROPERTY LINE
- LOCATION VARIES
- PRECAST CONCRETE TRENCH
- OPENING FOR 8" DIAMETER SLOTTED PIPE (TYP.)
- SIDEWALK

**EXISTING CATCH BASIN**

- UNDISTURBED SOIL
- OPEN-GRADED STONE BASE WITH CLEAN OUTS BEYOND
- PRECAST CONCRETE TRENCH WMM 6x6-W8xW8
- 8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

**NEW STEEL FACED CURB**

- 5'-0"
- OR AS SHOWN
- STEEL GRATE
- OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)
- STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.
NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

6. 14" DIAMETER CASING TO BE AUGERED TO DEPTH AS DIRECTED BY ENGINEER. 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC INSERTED IN THE 14" CASING.

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. CAST IN PLACE CONCRETE TOP REQUIRE IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

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6. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

7. CAST IN PLACE CONCRETE TOP Requires AN IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.

8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.
EXISTING CONCRETE SIDEWALK

EXISTING CATCH BASIN INLET CURB LINE PROPERTY LINE

LOCATION VARIES

CONCRETE HEADER PRECAST CONCRETE TRENCH CONCRETE TRENCH COVER

NEW STEEL FACED CURB

FLOW

18"x42"x8" PRECAST OR POURED REINFORCED CONCRETE APRON WMM 6x6-W8xW8

5'-0" OR AS SHOWN

PERFORATED COVER FOR 4" DIA. OPENING (TYP.)
5'-THICK PRECAST OR CAST IN PLACE CONCRETE TOP/3"-THICK LEVELING COURSE IMPERMEABLE MEMBRANE

3"-THICK LEVELING COURSE OPEN-GRATED STONE

SECTION D-D

STEEL FACING CURB OPENING, SEE GI-168

D

SIDEWALK

8" SOLID HDPE PIPE

CLEAN OUT - TOP OF COVER FLUSHED WITH TOP OF SURFACE

SIDEWALK

STANDARD FOR 10'X5' R.O.W. INFILTRATION BASIN WITH CONCRETE TOP TYPE 3

- NO CONNECTION TO SEWERS

SECTION A-A AT INLET

SECTION B-B AT MIDSECTION

SECTION C-C AT OUTLET

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE

P.E.

DATE 07-19-2017
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE

STANDARD FOR 10'X5' R.O.W. INFILTRATION BASIN WITH CONCRETE TOP
TYPE 3A - WITH STONE COLUMNS
- NO CONNECTION TO SEWERS

INLET
FLOW
CONCRETE SURFACE
CONCRETE HEADER
A
EXISTING CONCRETE SIDEWALK
B
EXISTING CATCH BASIN CURB LINE

LOCATION VARIES

NEW STEEL FACED CURB
FLOW
OUTLET

PLAN

3'-6"
SIDEWALK
PRECAST CONCRETE TRENCH
PERFORATED COVER (TYP.)
TOP OF STEEL GRATE FLUSH WITH TOP OF SURFACE
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

TOP OF STEEL GRATE FLUSH WITH TOP OF SURFACE
PERFORATED COVER (TYP.)
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

3'-THICK LEVELING COURSE
UNDISTURBED SOIL
OPEN-GRADED STONE BASE WRAPPED WITH GEOTEXTILE (TOP AND SIDES ONLY)
PERMEABLE SOIL LAYER
STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED AROUND WITH GEOTEXTILE FABRIC (TYP.)
OPEN BOTTOM

SECTION B-B

SECTION A-A
AT INFILTRATION BASIN VERTICAL DRAIN

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017
P.E.
NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36".
   ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
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5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.
6. 14" DIAMETER CASING TO BE AUGERED TO DEPTH AS DIRECTED BY ENGINEER. 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC INSERTED IN THE 14" CASING.
7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.
8. CAST IN PLACE CONCRETE TOP REQUIRES AN IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.
9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE
STANDARD FOR 10'X5' R.O.W. INFILTRATION BASIN WITH CONCRETE TOP
TYPE 3A - WITH STONE COLUMNS
- NO CONNECTION TO SEWERS

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017
EXISTING CONCRETE SIDEWALK

EXISTING CATCH BASIN

PROPERTY LINE

CURB LINE

LOW KEE ON DRAWING

LOCATION VARIES

EXISTING CONCRETE TRENCH

CONCRETE HEADER

GRASS SURFACE

PRECAST CONCRETE TRENCH

STEEL GRATE

20'-0"

OUTLET

INLET

FLOW

TOP OF STEEL GRATE

FLUSH WITH TOP OF SURFACE

SIDWALK

PRECAST CONCRETE CHAMBER

GRASS SURFACE

PERFORATED COVER FOR 4" DIA. OPENING (TYP.)

OPEN-GRADED STONE

WWM 6x6-W8xW8

3" THICK LEVELING COURSE

PRECAST CONCRETE CHAMBER

WWM 6x6-W8xW8

3" THICK LEVELING COURSE

TOP SOIL

SIDEWALK

8" DIAMETER SLOTTED PIPE

WRAPPED IN GEOTEXTILE

PERFORATED COVER

STEEL GRATE

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

D" DIAMETER SLOTTED HDPE PIPE WRAPPED WITH GEOTEXTILE, BOTTOM HALF OF PIPE TO BE SOLID (TYP.)

TOP SOIL

SIDEWALK

GRASS

TOP SOIL

8" DIAMETER SLOTTED HDPE PIPE

WRAPPED IN GEOTEXTILE, BOTTOM HALF OF PIPE TO BE SOLID (TYP.)

GRASS" TOP SOIL

8" SOLID HDPE PIPE

CLEAN OUT - TOP OF COVER FLUSHED WITH TOP OF SURFACE

STEEL FACING CURB OPENING, SEE GI-168

8" SOLID HDPE PIPE

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRADED STONE BASE

18"x30"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

STEEL FACING CURB OPENING, SEE GI-168

PRECAST CONCRETE CHAMBER

PERFORATED COVER

WWM 6x6-W8xW8

WRAP STONE IN GEOTEX
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPHAND (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRIACADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.
UNDISTURBED SOIL
SECTION B-B
MIN 5'-0" PENETRATION INTO PERMEABLE SOIL LAYER

PERMEABLE SOIL LAYER
CLEAN OUT, SEE GI-204
8" DIA. SLOTTED HDPE PIPE WRAPPED IN GEOTEXTILE. MAINTAIN 2% SLOPE
1'-6" 1'-6"

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE (TOP AND SIDES ONLY)

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)
OPEN BOTTOM (TYP.)

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

PERMEABLE SOIL LAYER

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

PRECAST CONCRETE TRENCH WWM 6x6-WXW8
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

3'-0" 3'-0" 3'-0"

8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

PRECAST CONCRETE TRENCH WWM 6x6-WXW8
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

3'-0" 3'-0" 3'-0"

8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

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OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

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8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

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PRECAST CONCRETE TRENCH WWM 6x6-WXW8
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

3'-0" 3'-0" 3'-0"

8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

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3'-0" 3'-0" 3'-0"

8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

PRECAST CONCRETE TRENCH WWM 6x6-WXW8
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

3'-0" 3'-0" 3'-0"

8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

PRECAST CONCRETE TRENCH WWM 6x6-WXW8
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

3'-0" 3'-0" 3'-0"

8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.

PRECAST CONCRETE TRENCH WWM 6x6-WXW8
OPENING FOR 8" DIAMETER SLOTTED PIPE SIDEWALK

3'-0" 3'-0" 3'-0"

8" DIAMETER PIPE WITH CLEAN OUTS BEYOND

PERFORATED END PLUG (TYP.)

CONCRETE HEADER (3) SIDES

3"-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED

OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY

14" DIAMETER CASING TO MINIMUM 5'-0" AUGERED INTO PERMEABLE LAYER

PERMEABLE SOIL

FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36" ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

6. 14" DIAMETER CASING TO BE AUGERED TO DEPTH AS DIRECTED BY ENGINEER. 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC INSERTED IN THE 14" CASING

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS.
STANDARD FOR 20'X5' R.O.W. INFILTRATION BASIN WITH GRASS TOP
TYPE 1C - WITH STORMWATER CHAMBER
- NO CONNECTION TO SEWERS

NOTE:
1. USE SMALLEST STORMWATER CHAMBER SIZE SHOWN ON GI-204
2. OPEN GRADED STONE AROUND THE STORMWATER CHAMBER TO BE HAND
COMPACTION TO A DEPTH OF 1'-0" FROM THE BASE OF INFILTRATION BASIN

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DATE 07-19-2017
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36" ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST-be COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.

10. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

11. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

12. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

13. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

14. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.
EXISTING CONCRETE SIDEWALK

EXISTING CATCH BASIN

PROPERTY LINE

CURB LINE

LOCATION VARIES

EXISTING CONCRETE SIDEWALK

FLOW

EXISTING CONCRETE SIDEWALK

TOP OF STEEL GRATE

FLUSH WITH TOP OF SURFACE

SECTION D-D

TOP OF STEEL GRATE

FLUSH WITH TOP OF SURFACE

SECTION C-C

TOP OF STEEL GRATE

FLUSH WITH TOP OF SURFACE

SECTION B-B

TOP OF STEEL GRATE

FLUSH WITH TOP OF SURFACE

SECTION A-A

TOP OF STEEL GRATE

FLUSH WITH TOP OF SURFACE

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE

STANDARD FOR 15'X5' R.O.W. INFILTRATION BASIN WITH GRASS TOP TYPE 2
- NO CONNECTION TO SEWERS

1' - 3" PITCH

2'- 6" OPEN-GRADED STONE BASE

4" OPEN-GRADED STONE BASE

3" THICK LEVELING COURSE

3" REINFORCED CONCRETE APRON

WWM 6x6-W8xW8

4" DIA. REINFORCED CONCRETE GUTTER

PERFORATED END PLUG (TYP.)

TOP SOIL

UNDISTURBED SOIL

6" DIAMETER SLOTTED HDPE PIPE WRAPPED WITH GEOTEXTILE, BOTTOM HALF OF PIPE TO BE SOLID (TYP.)

8" DIAMETER SLOTTED PIPE WRAPPED IN GEOTEXTILE

PERFORATED COVER FOR 4" DIA. OPENING (TYP.)

PRECAST CONCRETE CHAMBER

WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

SECTION D-D

SECTION C-C

SECTION B-B

SECTION A-A

WWM 6x6-W8xW8

18"@42"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

18"@42"x8" PRECAST OR Poured REINFORCED CONCRETE APRON

OPEN-GRADED STONE BASE

OPEN-GRADED STONE BASE

OPEN-GRADED STONE BASE

DIR. IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM 'WIDTH OF 36" ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS. WHERE REQUIRED, ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.
INLET FLOW PLAN

LOCATION VARIES

EXISTING CONCRETE SIDEWALK

EXISTING CATCH CURB LINE

OUTLET

8" DIAMETER SLOTTED HDPE PIPE WRAPPED IN GEOTEXTILE
STEEL GRATE
PERFORATED COVER
DROP CURB
STEEL FACING CURB OPENING, SEE GI-168
ROADWAY
10% PITCH

18"x42"x8" PRECAST OR POURED REINFORCED CONCRETE APRON

8" DIAMETER SLOTTED PIPE WRAPPED IN GEOTEXTILE
MAINTAIN 2% SLOPE
OPEN BOTTOM (TYP.)

PERFORATED END PLUG (TYP.)

STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)
OPEN BOTTOM (TYP.)

STANDARD FOR 15'X5' R.O.W. INFILTRATION BASIN WITH GRASS TOP
TYPE 2A - WITH STONE COLUMNS
- NO CONNECTION TO SEWERS

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE

STANDARD FOR 15'X5' R.O.W. INFILTRATION BASIN WITH GRASS TOP
TYPE 2A - WITH STONE COLUMNS
- NO CONNECTION TO SEWERS

15'-0" OR AS SHOWN

PLAN

NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

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8. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-122 AND SPECIFICATIONS

DATE: 07-19-2017

P.E.
DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTE:
1. USE SMALLEST STORMWATER CHAMBER SIZE SHOWN ON GI-204
2. OPEN GRADED STONE AROUND THE STORMWATER CHAMBER TO BE HAND COMPACTED AT A DEPTH OF 1'-0" FROM THE BASE OF INFILTRATION BASIN
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- NO CONNECTION TO SEWERS

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STANDARD FOR 10'X5' R.O.W. INFILTRATION BASIN WITH PRECAST CONCRETE TOP
TYPE 3A - WITH STONE COLUMNS
- NO CONNECTION TO SEwers

LOCATION VARIES
EXISTING CONCRETE SIDEWALK
EXISTING CATCH CURB LINE
LOCATION VARIES
EXISTING CONCRETE SIDEWALK

SECTION A-A
AT INFILTRATION BASIN VERTICAL DRAIN
12" EXPANSION JOINT AND FILLER PER NYC DOT HIGHWAY SPEC. SECTION 2.15 (TYP.)
SIDEWALK
18"x42"x8" PRECAST OR Poured REINFORCED CONCRETE APRON
WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)
OPEN BOTTOM (TYP.)
12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.
OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE TOP AND SIDES ONLY
PERMEABLE SOIL
14" DIAMETER CASING TO MINIMUM 6'-0" AUGERED INTO PERMEABLE LAYER
FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

SECTION B-B
STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC.
OPEN BOTTOM (TYP.)
PERMEABLE SOIL LAYER
STONE FILLED PERFORATED 12" DIAMETER PVC PIPE WRAPPED ALL AROUND WITH GEOTEXTILE FABRIC (TYP.)
OPEN-GRADED STONE BASE WRAPPED IN GEOTEXTILE, TOP AND SIDES ONLY
PERMEABLE SOIL
14" DIAMETER CASING TO MINIMUM 6'-0" AUGERED INTO PERMEABLE LAYER
FINAL DEPTH OF PVC PIPE TO BE DETERMINED BY ENGINEER
OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

8" DIAMETER SLOTTED HDPE PIPE WRAPPED IN GEOTEXTILE STEEL GRATE PERFORATED COVER DROP CURB [INLET] STEEL FACING CURB OPENING, SEE GI-168 ROADWAY SIDEWALK 10% PITCH
PRECAST CONCRETE CHAMBER 3'-THICK LEVELING COURSE STONE COLUMN CAP TO BE PERFORATED
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PERMEABLE SOIL
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OPEN-GRADED STONE BOTTOM OF COLUMN TO BE OPEN

8" DIAMETER SLOTTED PIPE WRAPPED IN GEOTEXTILE. MAINTAIN 2% SLOPE CLEAN OUT, SEE GI-204 ROADWAY SIDEWALK
ROADWAY

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EXISTING ASPHALT PAVEMENT

SIDEWALK

EXISTING CURB TO REMAIN

FLOW

EXISTING CURB TO REMAIN

FLOW

NEW STEEL FACING CURB WITH 4" MIN. REVEAL

SURFACE TYPE PER CONTRACT PLANS

DIMENSION SCHEDULE FOR VARIABLE SIZE R.O.W. INFILTRATION BASINS

- NO CONNECTION TO SEWERS

NOTES:
1. STANDARD CROSS-SECTIONAL DETAILS AND NOTES AS PER THE R.O.W. INFILTRATION BASIN TYPE SPECIFIED.
2. DOT APPROVAL REQUIRED FOR ALL WIDTHS GREATER THAN 5'.

R.O.W. INFILTRATION BASIN DIMENSIONS

<table>
<thead>
<tr>
<th>LENGTH (L), 1FT. INCREMENT</th>
<th>WIDTH (W), 6 IN. INCREMENT</th>
<th>TYPE</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>17' ≤ L ≤ 20'</td>
<td>4'-0&quot; TO 6'-0&quot;</td>
<td>TYPE 1</td>
<td>14&quot;</td>
<td>18&quot;</td>
<td>3'-6&quot;</td>
</tr>
<tr>
<td>13' ≤ L ≤ 16'</td>
<td>4'-0&quot; TO 6'-0&quot;</td>
<td>TYPE 2</td>
<td>12&quot;</td>
<td>14&quot;</td>
<td>3'-6&quot;</td>
</tr>
<tr>
<td>10' ≤ L ≤ 12'</td>
<td>4'-0&quot; TO 6'-0&quot;</td>
<td>TYPE 3</td>
<td>12&quot;</td>
<td>14&quot;</td>
<td>3'-6&quot;</td>
</tr>
</tbody>
</table>

DIMENSIONS SCHEDULE

HEIGHT OF ADJACENT ASPHALT PAVEMENT FLUSH WITH CONCRETE APRON

BOTTOM OF STEEL FACE

8"-THICK PRECAST OR Poured REINFORCED CONCRETE APRON

SECTION A-A

STEEL FACE OPENING

8" THICK CONCRETE GUTTER (TYP.)

PRECAST OR Poured REINFORCED CONCRETE APRON

WWM 6x6 - W8xW8 (TYP)

DIMENSIONS SCHEDULE

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE
STANDARD FOR R.O.W. INFILTRATION BASIN
WITH COMBINATION OF CONCRETE & GRASS TOP
- NO CONNECTION TO SEWERS

PLAN

SECTION A-A
AT INLET

EXISTING CONCRETE SIDEWALK

LOCATION VARIES

8'-THICK REINFORCED CONCRETE GUTTER
CONCRETE HEADER
CONCRETE SURFACE
GRASS SURFACE
STEEL GRATE
PRECAST CONCRETE TRENCH

AS SHOWN ON PLANS

FLOW

SECTION B-B

8" DIAMETER SLOTTED PIPE
WRAPPED IN GEOTEXTILE
STEEL GRATE

PERFORATED COVER
DROP CURB [INLET]

STEEL FACING CURB
OPENING SEE GI-168
ROADWAY

10% SLOPE

1'-2" DROP CURB

[OUTLET]

CONCRETE HEADER (3) SIDES
PERFORATED END PLUG (TYP.)
BOTTOM HALF OF PIPE TO BE SOLID (TYP.)
WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

5'-8" OR AS SHOWN

OPEN-GRATED STONE BASE

5'-0" OR AS SHOWN

4" CONCRETE APRON

PERFORATED COVER FOR 4" DIA. OPENING (TYP.)

WWM 6x6-W8xW8

CONCRETE PANEL
LEVELING COURSE
WWM 6x6-W8xW8 Varies

#4 REBAR LONGITUDINAL (TYP.)

CLEAN OUT

GRASS TOP SOIL

ROADWAY

1'-8"

2'-3"

SECTION D-D

5'-0" OR AS SHOWN

CONCRETE HEADER (3) SIDES
PERFORATED END PLUG (TYP.)
BOTTOM HALF OF PIPE TO BE SOLID (TYP.)
WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRATED STONE BASE

WWM 6x6-W8xW8

CONCRETE PANEL
LEVELING COURSE
WWM 6x6-W8xW8 Varies

#4 REBAR LONGITUDINAL (TYP.)

CONCRETE SURFACE
GRASS SURFACE
STEEL GRATE
PRECAST CONCRETE TRENCH

AS SHOWN ON PLANS

FLOW

SECTION C-C
AT INLET

5'-0" OR AS SHOWN

CONCRETE HEADER (3) SIDES
PERFORATED END PLUG (TYP.)
BOTTOM HALF OF PIPE TO BE SOLID (TYP.)
WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

OPEN-GRATED STONE BASE

WWM 6x6-W8xW8

CONCRETE PANEL
LEVELING COURSE
WWM 6x6-W8xW8 Varies

#4 REBAR LONGITUDINAL (TYP.)

CONCRETE SURFACE
GRASS SURFACE
STEEL GRATE
PRECAST CONCRETE TRENCH

AS SHOWN ON PLANS

FLOW

P.E. 07-19-2017

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017

WITH COMBINATION OF CONCRETE  & GRASS TOP
- NO CONNECTION TO SEWERS
NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE GI PRACTICE WITH A MINIMUM WIDTH OF 36". ANY ADDITIONAL FLAGS DISTURBED BY THIS REPLACEMENT SHALL ALSO BE REPLACED. THE CONTRACTOR SHALL REPLACE THE SIDEWALK IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

2. THE CONTRACTOR SHALL REMOVE AND RESTORE ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF THE WEARING COURSE AND ONE-AND-A-HALF (1 1/2') FOOT WIDTH OF ROADWAY CONCRETE PAVEMENT BASE ALONG THE CURB LINE AND ADJACENT TO THE CONCRETE APRONS, WHERE REQUIRED. ALL WORK MUST BE COMPLETED IN FULL COMPLIANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD HIGHWAY SPECIFICATIONS.

3. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM DPR.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G., GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN 25' ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE CERTIFIED ARBORIST.

5. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT OR R.O.W. GI PRACTICE.

7. THE CONTRACTOR SHALL HAND-COMPACT 1'-0" IN DEPTH OF OPEN GRADED STONE STARTING AT THE BASE OF THE INFILTRATION BASIN PRIOR TO ADDING ADDITIONAL OPEN GRADED STONE.

8. CAST IN PLACE CONCRETE TOP MUST BE AN IMPERMEABLE MEMBRANE. SEE SPECIFICATIONS FOR IMPERMEABLE MEMBRANE REQUIREMENTS.

9. FOR R.O.W. GI PRACTICES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE ON GI-168 AND SPECIFICATIONS.
GI-200
MISCELLANEOUS DETAILS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES
STANDARD FOR ROWB/ROWGS/ROWRG INLET WITH PRECAST CONCRETE SEDIMENT PAD

LOW POINT
SET 1'-3" BELOW OUTLET INVERT

PRECAST CONCRETE STRIP (TYP.)
GABION WALL BELOW PRECAST CONCRETE SEDIMENT PAD
LOW POINT
SET 1'-3" BELOW OUTLET INVERT

GABION WALL FILLED WITH OPEN-GRADED STONE
ENGINEERED SOIL
CONCRETE HEADER (3) SIDES
CONCRETE APRON
CONCRETE GUTTER (TYP.)
EXPANSION JOINT (TYP.)
NEW CURB (TYP.)
PRECAST CONCRETE STRIP (TYP.)
L-SHAPED EDGING (TYP.)
CONCRETE SEDIMENT PAD DEPRESSED 5" FROM INLET
JUTE MESH

1/2" EXPANSION JOINT AND FILLER PER NYC DOT HIGHWAY SPEC. SECTION 2.15
SIDEWALK

PLAN
NEW CURB (TYP.)
PRECAST CONCRETE STRIP (TYP.)
L-SHAPED EDGING (TYP.)
BOTTOM OF NOTCHES EVEN WITH ROWB/ROWGS/ROWRG SURFACE GRADE
HEADER (TYP.)
CONCRETE SEDIMENT PAD DEPRESSED 5" FROM INLET

ISOMETRIC VIEW
3"W x 2"H NOTCH AT CENTER
2"W x 2"H NOTCH AT ENDS

SECTION A-A
AT BOSPHALE INLET

ENGINEERED SOIL
PRECAST OR POURED REINFORCED CONCRETE APRON
OPEN-GRADED STONE BASE
GABION WALL FILLED WITH OPEN-GRADED STONE
GEOTEXTILE WRAPPED AROUND GABION

SECTION A-A
AT BOSPHALE INLET

JUTE MESH
PLANTED AREA
ROADWAY
1% PITCH
DROP CURB INLET ELEVATION

DIMENSION SCHEDULE
ROWB LENGTH
2'-17" 4'-6"
SHEET METAL LENGTH (L)
3'-6" 5'-0"

DATE 07-19-2017
P.E.
NOTES:
(1) LOCATION OF CURB SHALL BE AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
(2) LOCATION AND ANGLE OF 8" PVC OUTLET PIPE MAY BE VARIED TO SUIT FIELD CONDITIONS.
(3) KEYED CONSTRUCTION JOINTS ARE REQUIRED BETWEEN ANY SUCCESSIVE POURS.
(4) CONCRETE IS TO BE CLASS 40. REBARS-GRADE 60.
NOTE:
1. LOCATION OF OPENING SHALL BE DETERMINED PRIOR TO THE MANUFACTURING OF BASIN BY FIELD MEASUREMENTS.
2. LOCATION OF CURB SHALL BE AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. LOCATION AND ANGLE OF 8" PVC OUTLET PIPE MAY BE VARIED TO SUIT FIELD CONDITIONS.
4. LIFTING HOOKS SHALL BE LOCATED IN THE SECTION AS PER MANUFACTURERS RECOMMENDATIONS AND GROUTED PRIOR TO BACKFILLING. (FOUR (4) LIFTING HOOKS SHALL BE PROVIDED FOR EACH SECTION AND SHALL BE PLACED SYMMETRICALLY AND IN SUCH A MANNER AS TO PROVIDE FOR THE EVEN LIFTING OF THE SECTION.)
5. LIFTING BAR TO BE CUT FLUSH TO SURFACE AFTER PLACEMENT OF PRECAST TYPE 2 SLAB.
6. CONCRETE IS TO BE CLASS 40 AND 5% AIR ENTRAINED. REBARS-GRADE 60. WWM-F 65,000 PSI.
7. MODIFY STANDARD CAST IRON HOOD AND HOOKS (SE60) AS PER DRAWING

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STORMWATER CHAMBER

NOTE: CHAMBER ONLY INSTALLED IN ROWS WITH NO TREE

ROW GI WIDTH W H
≥ 5' 47" 26.5"
1.3'6" AND ≤ 4'6" 36" 20.5"

DIMENSION SCHEDULE

CROSS-SECTION AT MIDSECTION (LOWEST POINT)

HDPE BARRIER DETAILS AGAINST SIDEWALK (ONLY IF DIRECTED)

NOTE: ANY SEAMS IN THE HDPE BARRIER MUST HAVE A 1'-0" OVERLAP AND BE SEALED WITH WATERTIGHT SEALANT

NOTE: STONE SEAMS IN THE HDPE BARRIER MUST HAVE A 1'-0"

OVERLAP AND BE SEALED WITH WATERTIGHT SEALANT

STORMWATER CHAMBER

SIDE VIEW

END VIEW

CROSS-SECTION AT MIDSECTION (LOWEST POINT)

HDPE BARRIER DETAILS AGAINST SIDEWALK (ONLY IF DIRECTED)

NOTE: ANY SEAMS IN THE HDPE BARRIER MUST HAVE A 1'-0"

OVERLAP AND BE SEALED WITH WATERTIGHT SEALANT

NOTE: STONE SEAMS IN THE HDPE BARRIER MUST HAVE A 1'-0"

OVERLAP AND BE SEALED WITH WATERTIGHT SEALANT
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION - GREEN INFRASTRUCTURE

STANDARD DETAILS FOR R.O.W. STORMWATER SEEPAGE BASIN

CIRCULAR REINFORCED CONCRETE SLAB AND FOOTING

---

**SECTION IN CIRCULAR SLAB**

- **PLAN OF CIRCULAR SLAB**
  - **LIFTING BAR DETAIL**
    - MIN. 6" (12 MAX)
    - VARYING "D" O.D.
    - #5@6" BOTH WAYS
    - #6@3" (TYP.)
    - 3-#6@4" BOTH WAYS

**SECTION IN PRECAST CIRCULAR FOOTING RING**

- **PLAN OF PRECAST CIRCULAR FOOTING RING**
  - **LIFTING BAR DETAIL**
    - MIN. 6" (12 MAX)
    - VARYING "D" O.D.
    - #5@6" BOTH WAYS
    - #6@3" (TYP.)
    - 3-#6@4" BOTH WAYS

**PRECAST SEEPAGE BASIN SCHEDULE**

- **PRECAST RING TYPE**
- **HEIGHT**
- **VOLUME, CF**
- **VOLUME, GAL**
- **IN. IN**

<table>
<thead>
<tr>
<th>PreCast Ring Type</th>
<th>Height</th>
<th>Volume, CF</th>
<th>Volume, Gal</th>
<th>In. In</th>
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<td>SOLID</td>
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<td>17.4</td>
<td>130</td>
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<tr>
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<tr>
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<td>496</td>
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* REFER TO THE MANUFACTURER’S SPECIFICATIONS FOR OPENING DETAILS

**PRECAST SEEPAGE BASIN SCHEDULE**

- **PRECAST CIRCULAR SLAB (FT)**
- **PRECAST CIRCULAR FOOTING RING (FT)**
- **THICKNESS (IN)**

<table>
<thead>
<tr>
<th>Precast Circular Slab (FT)</th>
<th>Precast Circular Footing Ring (FT)</th>
<th>Thickness (IN)</th>
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<td>6'-0&quot;</td>
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<td>10&quot;</td>
</tr>
<tr>
<td>8'-0&quot;</td>
<td>8'-0&quot;</td>
<td>10&quot;</td>
</tr>
</tbody>
</table>

**NOTE: IN NO CASE SHALL "D" BE LESS THAN THE OUTSIDE DIAMETER OF THE INFILTRATION BASIN**

**CIRCULAR SLAB AND FOOTING SCHEDULE**

---

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.E. 07-19-2017
NOTE:
CONCRETE PIER PLACEMENT SHALL BE AS FOLLOWS:
TYPE 1 - 3 EQUAL SPACES
TYPE 2 - 2 EQUAL SPACES
TYPE 3 - 1 SPACE

PRECAST CONCRETE STRIP OUTLET
GABION WALL BELOW PRECAST CONCRETE STRIP
OPEN GRADED STONE

SECTION A-A
TYPICAL GABION WALL

NOTE:
GABION & CONCRETE PIER PLACEMENT WHEN UTILITY CROSSINGS ARE PRESENT

3"-THICK LEVELING STONE
SEDIMENT PAD
GABION WALL PLACED BELOW SEDIMENT PAD FOR SUPPORT
LEVELING STONE
GABION WALL PLACED BELOW SEDIMENT PAD FOR SUPPORT

SECTION B-B

1" x 3/8" CROSS BAR
STEEL ANGLE

METAL BAR GRATE BRACING DETAILS

8" THICK CONCRETE GUTTER (TYP.)
PRECAST OR Poured REINFORCED CONCRETE APRON
WWM 6x6 - W8xW8 (TYP.)

PRECAST CONCRETE STRIP OUTLET
GABION WALL BELOW PRECAST CONCRETE STRIP
OPEN GRADED STONE

SECTION A-A

TOP OF PRECAST CONCRETE STRIP FLUSH WITH CURB TAPER

PLAN

PITCH TO MATCH EXISTING ROADWAY

10% PITCH
SECTION A-A
AT INLET

EXISTING ASPHALT PAVEMENT

OUTLET INVERT

5'-6" THICK CAST IN PLACE OR PRECAST CONCRETE SURFACE

5'-THICK CAST IN PLACE OR PRECAST CONCRETE

1'-8" 1'-8" 2'-6" 2'-1"

OUTLET INVERT

PITCH

LIMITED FOR ROW INFILTRATION BASIN INLET WITH PRECAST CONCRETE CHAMBER

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE

DEPARTMENT OF ENVIRONMENTAL PROTECTION
GI-300
STORMWATER GREENSTREETS
SUGGESTED LAYOUT GUIDELINES FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES
1. Depth of soil and stone shall be dimensioned in accordance with Stormwater Greenstreet calculations.
2. Engineered soil depth to be 18", and 24" if tree is present. Stone depth varies; total depth not to exceed 60".
3. Depth and materials may change due to field conditions under the direction of the engineer.
4. If deeper low point (LP) is required, DEP approval will be required.
5. Pedestrian pathway when required.
6. Where (EL___) is indicated, elevation to be shown in contract plans.
7. Header notches are placed equally spaced 4' to 7' apart.
NOTES:
1. DEPTH OF SOIL AND STONE SHALL BE DIMENSIONED IN ACCORDANCE WITH STORMWATER GREENSTREET CALCULATIONS.
2. IMPERVIOUS ROW AREA IS CALCULATED IN TDA ANALYSIS SPREADSHEET.
3. ENGINEERED SOIL DEPTH TO BE 18", AND 24" IF TREE IS PRESENT. STONE DEPTH VARIES. TOTAL DEPTH NOT TO EXCEED 60".
4. DEPTH AND MATERIALS MAY CHANGE DUE TO FIELD CONDITIONS UNDER THE DIRECTION OF THE ENGINEER.
5. IF DEEPER LOW POINT (LP) IS REQUIRED, DEP APPROVAL WILL BE REQUIRED.
6. PEDESTRIAN PATHWAY WHEN REQUIRED.
7. WHERE (EL___) IS INDICATED, ELEVATION TO BE SHOWN IN CONTRACT PLANS.
8. PEDESTRIAN PATHWAY CULVERT COVER TO BE CONCRETE WHEN ELEVATION AT SIDEWALK CURB IS HIGHER THAN ELEVATION AT ROADWAY CURB; OTHERWISE, CULVERT COVER TO BE METAL GRATED WITH PATHWAY SLOPING TOWARDS GRATING ON EITHER SIDE.
NOTES:
1. DEPTH OF SOIL AND STONE SHALL BE DIMENSIONED IN ACCORDANCE WITH STORMWATER GREENSTREET CALCULATIONS.
2. ENGINEERED SOIL DEPTH TO BE 18" AND 24" IF TREE IS PRESENT. STONE DEPTH VARIES. TOTAL DEPTH NOT TO EXCEED 60".
3. DEPTH AND MATERIALS MAY CHANGE DUE TO FIELD CONDITIONS UNDER THE DIRECTION OF THE ENGINEER.
4. IF DEEPER LOW POINT (LP) IS REQUIRED, DEP APPROVAL WILL BE REQUIRED.
5. STONE COLUMN AND/OR PEDESTRIAN PATHWAY WHEN REQUIRED.
6. WHERE (EL___) IS INDICATED, ELEVATION TO BE SHOWN IN CONTRACT PLANS.
7. HEADER NOTCHES ARE PLACED EQUALLY SPACED 4" TO 7" APART.
8. 5' (MIN.) DISTANCE BETWEEN STONE COLUMNS; NUMBER OF STONE COLUMNS AS REQUIRED BY DEP.
NOTES:
1. DEPTH OF SOIL AND STONE SHALL BE DIMENSIONED IN ACCORDANCE WITH STORMWATER GREENSTREET CALCULATIONS.
2. IMPERVIOUS ROW AREA IS CALCULATED IN TDA ANALYSIS SPREADSHEET.
3. ENGINEERED SOIL DEPTH TO BE 18", AND 24" IF TREE IS PRESENT. STONE DEPTH VARIES. TOTAL DEPTH NOT TO EXCEED 60".
4. DEPTH AND MATERIALS MAY CHANGE DUE TO FIELD CONDITIONS UNDER THE DIRECTION OF THE ENGINEER.
5. IF DEEPER LOW POINT (LP) IS REQUIRED, DEP APPROVAL WILL BE REQUIRED.
6. STONE COLUMN AND/OR PEDESTRIAN PATHWAY WHEN REQUIRED.
7. WHERE (EL__) IS INDICATED. ELEVATION TO BE SHOWN IN CONTRACT PLANS.
8. PEDESTRIAN PATHWAY CULVERT COVER TO BE CONCRETE WHEN ELEVATION AT SIDEWALK CURB IS HIGHER THAN ELEVATION AT ROADWAY CURB; OTHERWISE, CULVERT COVER TO BE METAL GRATED WITH PATHWAY SLOPING TOWARDS GRATING ON EITHER SIDE.
NOTES:
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5. PEDESTRIAN PATHWAY WHEN REQUIRED.
6. WHERE (EL__) IS INDICATED, ELEVATION TO BE SHOWN IN CONTRACT PLANS.
7. HEADER NOTCHES ARE PLACED EQUALLY SPACED 4' TO 7' APART.
NOTES:

1. DEPTH OF SOIL AND STONE SHALL BE DIMENSIONED IN ACCORDANCE WITH STORMWATER GREENSTREET CALCULATIONS.
2. IMPERVIOUS ROW AREA IS CALCULATED IN TDA ANALYSIS SPREADSHEET.
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NOTES:
1. DEPTH OF SOIL AND STONE SHALL BE DIMENSIONED IN ACCORDANCE WITH STORMWATER GREENSTREET CALCULATIONS.
2. ENGINEERED SOIL DEPTH TO BE 18", AND 24" IF TREE IS PRESENT. STONE DEPTH VARIES. TOTAL DEPTH NOT TO EXCEED 60".
3. DEPTH AND MATERIALS MAY CHANGE DUE TO FIELD CONDITIONS UNDER THE DIRECTION OF THE ENGINEER.
4. IF DEEPER LOW POINT (LP) IS REQUIRED, DEP APPROVAL WILL BE REQUIRED.
5. STONE COLUMN AND/OR PEDESTRIAN PATHWAY WHEN REQUIRED.
6. WHERE (EL___) IS INDICATED, ELEVATION TO BE SHOWN IN CONTRACT PLANS.
7. HEADER NOTCHES ARE PLACED EQUALLY SPACED 4' TO 7' APART.
8. 5' (MIN.) DISTANCE BETWEEN STONE COLUMNS; NUMBER OF STONE COLUMNS AS REQUIRED BY DEP.
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE
R.O.W. STORMWATER GREEN STREET (ROWSGS) TYPE 2A-WITH STONE COLUMNS
LAYOUT GUIDELINES
- NO CONNECTION TO SEWERS

NOTES:
1. DEPTH OF SOIL AND STONE SHALL BE DIMENSIONED IN ACCORDANCE WITH STORMWATER GREEN STREET CALCULATIONS.
2. IMPERVIOUS ROW AREA IS CALCULATED IN TDA ANALYSIS SPREADSHEET.
3. ENGINEERED SOIL DEPTH TO BE 18", AND 24" IF TREE IS PRESENT. STONE DEPTH VARIES. TOTAL DEPTH NOT TO EXCEED 60".
4. DEPTH AND MATERIALS MAY CHANGE DUE TO FIELD CONDITIONS UNDER THE DIRECTION OF THE ENGINEER.
5. IF DEEPER LOW POINT (LP) IS REQUIRED, DEP APPROVAL WILL BE REQUIRED.
6. STONE COLUMN AND/OR PEDESTRIAN PATHWAY WHEN REQUIRED.
7. WHERE (EL___) IS INDICATED. ELEVATION TO BE SHOWN IN CONTRACT PLANS.
8. PEDESTRIAN PATHWAY CULVERT COVER TO BE CONCRETE WHEN ELEVATION AT SIDEWALK CURB IS HIGHER THAN ELEVATION AT ROADWAY CURB. OTHERWISE, CULVERT COVER TO BE METAL GRATED WITH PATHWAY SLOPING TOWARDS GRATING ON EITHER SIDE.
NOTES:
1. DEPTH OF SOIL AND STONE SHALL BE DIMENSIONED IN ACCORDANCE WITH STORMWATER GREENSTREET CALCULATIONS.
2. ENGINEERED SOIL DEPTH TO BE 18", AND 24" IF TREE IS PRESENT. STONE DEPTH VARIES. TOTAL DEPTH NOT TO EXCEED 60".
3. DEPTH AND MATERIALS MAY CHANGE DUE TO FIELD CONDITIONS UNDER THE DIRECTION OF THE ENGINEER.
4. IF DEEPER LOW POINT (LP) IS REQUIRED, DEP APPROVAL WILL BE REQUIRED.
5. PEDESTRIAN PATHWAY WHEN REQUIRED.
6. WHERE (EL___) IS INDICATED. ELEVATION TO BE SHOWN IN CONTRACT PLANS.
NOTES:
1. NUMBER OF BROKEN STONE BERMS MAY VARY AS REQUIRED BY DEP.
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE
R.O.W. STORMWATER GREENSTREET (ROWSGS) MEDIAN BIOFILTER INLET
- NO CONNECTION TO SEWERS

NOTES:
1. NUMBER OF BROKEN STONE BERMS MAY VARY AS REQUIRED BY DEP.
GALVANIZED D STEEL BAR GRATE, BAR SIZE SHALL BE 1" x 3/16" EDGE OF PLATE FLUSH AND TRUE

EXPANSION JOINT WITH JOINT SEALER
NEW CONCRETE SIDEWALK
3'-0"

OPEN GRADED STONE BASE
LEVELING COURSE
6" THICK LEVELING COURSE

STEEL TREE PIT GUARD - SEE DRAWING GI-601B
2" x 2" x 1/4" STEEL ANGLE WITH GRATING FASTENERS

#3 REINFORCEMENT SPACED EVENLY WITH 2" CLEARANCE ON ALL SIDES
ENGINEERED SOIL WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

PRECAST POROUS CONCRETE PATHWAY - NO CONNECTION TO SEWERS
CONCRETE AND GRADED PEDESTRIAN PATHWAYS

CONCRETE CURB - SEE DRAWING GI-204
LEVELING COURSE 6"
ENGINEERED SOIL

STEEL TREE PIT GUARD - SEE DRAWING GI-601B
2" x 2" x 1/4" STEEL ANGLE WITH GRATING FASTENERS

#3 REINFORCEMENT SPACED EVENLY WITH 2" CLEARANCE ON ALL SIDES
ENGINEERED SOIL WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

PRECAST POROUS CONCRETE PATHWAY - NO CONNECTION TO SEWERS
CONCRETE AND GRADED PEDESTRIAN PATHWAYS

CONCRETE CURB - SEE DRAWING GI-204
LEVELING COURSE 6"
ENGINEERED SOIL

STEEL TREE PIT GUARD - SEE DRAWING GI-601B
2" x 2" x 1/4" STEEL ANGLE WITH GRATING FASTENERS

#3 REINFORCEMENT SPACED EVENLY WITH 2" CLEARANCE ON ALL SIDES
ENGINEERED SOIL WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)

PITCH TO DRAIN PER PLAN

STAINLESS STEEL FLAT HEAD 1/4" TAP INTO SUPPORT BAR
2" x 2" x 1/4" STEEL ANGLE WITH GRATING FASTENERS
EXPANSION JOINT WITH JOINT SEALER
STEEL TREE PIT GUARD - SEE DRAWING GI-601B
NEW CONCRETE SIDEWALK

GALVANIZED STEEL GRATING FASTENERS
LEVELING COURSE
OPEN GRADED STONE BASE

OPEN GRADED STONE BASE
LEVELING COURSE 6"
ENGINEERED SOIL

STEEL TREE PIT GUARD - SEE DRAWING GI-601B
2" x 2" x 1/4" STEEL ANGLE WITH GRATING FASTENERS

#3 REINFORCEMENT SPACED EVENLY WITH 2" CLEARANCE ON ALL SIDES
ENGINEERED SOIL WRAP STONE IN GEOTEXTILE (TOP AND SIDES ONLY)
GI-500
PLANTING PLANS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES
RESIDENTIAL PLAN 1 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>How</th>
<th>Type</th>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Size</th>
<th>Spacing</th>
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<tr>
<td>8</td>
<td>A</td>
<td>B</td>
<td>SHRUB</td>
<td>ILLEX GLABRA 'SHAMROCK'</td>
<td>SHAMROCK ELM</td>
<td>#5 CONT. OR B&amp;B</td>
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<td>22</td>
<td>B</td>
<td>C</td>
<td>PERENNIAL</td>
<td>COREOPSIS REDSHIFT</td>
<td>COREOPSIS</td>
<td>#2 CONT.</td>
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<td>GROUNDCOVER</td>
<td>LIRIOPE MUSCARI 'MONROE WHITE'</td>
<td>LILY TURF</td>
<td>#1 CONT.</td>
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<tr>
<td>5</td>
<td>D</td>
<td>B</td>
<td>GRASSES</td>
<td>ACORUS CALAMUS 'VARIEGATUS'</td>
<td>SWEETFLAG</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
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**Notes:**
1. Planting locations are specific to the inlet and outlet orientation shown. If the inlet and outlet orientation is reversed, the planting locations must be mirrored.
2. Trees to be included in planting plans upon direction of DPR.
3. The area directly above the tree rootball is not to be planted with shrubs, perennials, or grasses.
4. Planting plans for variable size R.O.W. bioswales and R.O.W. rain gardens are determined as per the schedule on GI-122.

RESIDENTIAL PLAN 2 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>How</th>
<th>Type</th>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Size</th>
<th>Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>A</td>
<td>A</td>
<td>SHRUB</td>
<td>ILLEX GLABRA 'SHAMROCK'</td>
<td>SHAMROCK ELM</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>A</td>
<td>ROSE</td>
<td>ROSA PALUSTER</td>
<td>SWAMP ROSE</td>
<td>#2 CONT.</td>
<td>10' O.C.</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>B</td>
<td>GROUNDCOVER</td>
<td>LIRIOPE MUSCARI 'MONROE WHITE'</td>
<td>LILY TURF</td>
<td>#1 CONT.</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

**Notes:**
1. Planting locations are specific to the inlet and outlet orientation shown. If the inlet and outlet orientation is reversed, the planting locations must be mirrored.
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4. Planting plans for variable size R.O.W. bioswales and R.O.W. rain gardens are determined as per the schedule on GI-122.

**Alternate Plant Replacement**

<table>
<thead>
<tr>
<th>Species to Replace</th>
<th>Replace With</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alchemilla mollis</td>
<td>Pycnanthemum muticum</td>
</tr>
<tr>
<td>Agastache 'Cotton Candy'</td>
<td>Visions in Red</td>
</tr>
<tr>
<td>Astilbe chinensis 'Visions in Red'</td>
<td>Visions in Red 'Glow'</td>
</tr>
<tr>
<td>Astilbe 'Deutschland'</td>
<td>Visions in Red 'Glow'</td>
</tr>
<tr>
<td>Brunnera macrophylla 'Jack Frost'</td>
<td>'Reblooming False Daisy'</td>
</tr>
<tr>
<td>Coreopsis 'Redshift'</td>
<td>Ageratum 'Flame's Favorite'</td>
</tr>
<tr>
<td>Echinacea 'Crazy Ears'</td>
<td>Lupinus perennis</td>
</tr>
<tr>
<td>Eryngium 'Shamrock'</td>
<td>Centaurea cyanus</td>
</tr>
<tr>
<td>Liriope muscari 'Monroe White'</td>
<td>Carex pennantvice</td>
</tr>
<tr>
<td>Liriope spicata</td>
<td>Carex amphiola</td>
</tr>
<tr>
<td>Penstemon 'Metallic Heather'</td>
<td>Penstemon 'Metallic Heather'</td>
</tr>
</tbody>
</table>

**Residential Plan 1**

Rows in Residential Neighborhoods with Low Volume Circulation

**Residential Plan 2**

Rows in Residential Neighborhoods with Low Volume Circulation

**Notes:**
1. PLANTING LOCATIONS ARE SPECIFIC TO THE INLET AND OUTLET ORIENTATION SHOWN. IF THE INLET AND OUTLET ORIENTATION IS REVERSED, THE PLANTING LOCATIONS MUST BE MIRRORED.
2. TREES TO BE INCLUDED IN PLANTING PLANS UPON DIRECTION OF DPR.
3. THE AREA DIRECTLY ABOVE THE TREE ROOTBALL IS NOT TO BE PLANTED WITH SHRUBS, PERENNIALS, OR GRASSES.
URBAN PLAN 1 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>A</td>
<td>A</td>
<td>ROSE</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>PLANT</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>B</td>
<td>ROSE</td>
<td>ROSA PALustris</td>
<td>ROSE</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>48</td>
<td>C</td>
<td>A</td>
<td>GRASSES</td>
<td>PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'</td>
<td>FOUNTAIN GRASS</td>
<td>12' O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>GRASSES</td>
<td>CAREX ICE DANCE</td>
<td>SEDGE</td>
<td>90 CONT.</td>
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</table>

URBAN PLAN 2 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>A</td>
<td>A</td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>INKBERRY</td>
<td>96 CONT.</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>B</td>
<td>SHRUB</td>
<td>ROSE PALustris</td>
<td>SWAMP ROSE</td>
<td>90 CONT.</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>A</td>
<td>PERENNIAL</td>
<td>PENNISETUM ALOPECUROIDES</td>
<td>FOUNTAIN GRASS</td>
<td>12' O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>PERENNIAL</td>
<td>PENNISETUM ALOPECUROIDES</td>
<td>SEDGE</td>
<td>90 CONT.</td>
</tr>
</tbody>
</table>

NOTES:
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URBAN PLAN 3 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>A</td>
<td>PERENNIAL</td>
<td>COREOPSIS 'REDSHIFT'</td>
<td>TICKSEED</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>B</td>
<td>PERENNIAL</td>
<td>RUDBECKIA FLUGIDA 'SOLSTICEMAN'</td>
<td>BLACK-EYED SUSAN</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>C</td>
<td>GRASSES</td>
<td>PHILADELPHUS 'SCARLET CORONET'</td>
<td>DAYLILY</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
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</tr>
<tr>
<td>12</td>
<td>D</td>
<td>GRASSES</td>
<td>PANICUM VIGRANTUM 'SHENANDOAH'</td>
<td>SWITCH GRASS</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
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SHADY PLAN PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
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<th>TYPE</th>
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<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>A</td>
<td>SHRUB</td>
<td>HIBISCUS NITENS 'VIVID'</td>
<td>HIBISCUS</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>B</td>
<td>SHRUB</td>
<td>KALEIUM 'MINUTE'</td>
<td>ALL-LOVED</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>GRASSES</td>
<td>CAREX 'ICE DANCE'</td>
<td>SEDGE</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>D</td>
<td>GROUNDCOVER</td>
<td>AGA HABITANS 'CATLIN'S GIANT'</td>
<td>BULBILIZED</td>
<td>#1 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
</tr>
</tbody>
</table>

ESPECIALLY SHADY PLAN

ROWBS WITH PARTLY SUNNY OR SHADY LIGHT CONDITIONS

NOTES:
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DIRECTOR OF GREEN INFRASTRUCTURE
DEPARTMENT OF PARKS AND RECREATION

03-07-2016

R.L.A., LEED AP

DATE

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

07-19-2017

P.E.
DRY PLAN PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>TYPE</th>
<th>PLAN VERSION</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>A</td>
<td>GRASSES</td>
<td>PENNISETUM ALOPECURIODES 'HAMELN'</td>
<td>FOUNTAIN GRASS</td>
<td>PENNISETUM ALOPECURIODES 'HAMELN'</td>
<td>18&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>B</td>
<td>GRASSES</td>
<td>PENNISETUM ALOPECURIODES 'HAMELN'</td>
<td>FOUNTAIN GRASS</td>
<td>PENNISETUM ALOPECURIODES 'HAMELN'</td>
<td>18&quot; O.C.</td>
<td></td>
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</tbody>
</table>

WET PLAN PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>TYPE</th>
<th>PLAN VERSION</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>A</td>
<td>PERENNIAL</td>
<td>BRUNNERA MACROPHYLLA 'SILK FROST'</td>
<td>SIBERIAN BUGLOSS</td>
<td>PENNISETUM ALOPECURIODES 'HAMELN'</td>
<td>18&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>B</td>
<td>PERENNIAL</td>
<td>HELICOTRICHON SEMPERVIRENS</td>
<td>BLUE OAT GRASS</td>
<td>PENNISETUM ALOPECURIODES 'HAMELN'</td>
<td>18&quot; O.C.</td>
<td></td>
</tr>
</tbody>
</table>

ALTERNATE PLANT REPLACEMENT

<table>
<thead>
<tr>
<th>SPECIES TO REPLACE</th>
<th>REPLACE WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alchemilla mollis</td>
<td>Pyrethrum mucum</td>
</tr>
<tr>
<td>Agastache 'Catharina'</td>
<td>Viola 'Silver Satin'</td>
</tr>
<tr>
<td>Astrantia 'Visions in Red'</td>
<td>Vernonia 'Samo Royal Candles'</td>
</tr>
<tr>
<td>Asters 'Deutschland'</td>
<td>Vernonia 'Samo Royal Candles'</td>
</tr>
<tr>
<td>Brunnera macrophylla 'Jack Frost'</td>
<td>Stenogyne 'Little Rascal'</td>
</tr>
<tr>
<td>Coreopsis 'Bouquet'</td>
<td>Aster oblongifolius 'Yellow's Favorite'</td>
</tr>
<tr>
<td>Heliotrope 'Vera James'</td>
<td>Lupinus perennis</td>
</tr>
<tr>
<td>Salvia 'Shamrock'</td>
<td>Comptonia peregrina</td>
</tr>
<tr>
<td>Digitalis 'Mexican Whirl'</td>
<td>C one persicaria</td>
</tr>
<tr>
<td>Erica 'Summerhill'</td>
<td>Carex echinata</td>
</tr>
<tr>
<td>Euphorbia 'Fireglow'</td>
<td>Euphorbia 'Sensation'</td>
</tr>
</tbody>
</table>

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ESPECIALLY DRY PLAN
ROWBS WITH LESS THAN 15% STORMWATER RUNOFF MANAGED

ESPECIALLY WET PLAN
ROWBS WITH GREATER THAN 30% STORMWATER RUNOFF MANAGED

DIRECTOR OF GREEN INFRASTRUCTURE
DEPARTMENT OF PARKS AND RECREATION

R.L.A., LEED AP

03-07-2016

P.E.

07-19-2017

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
RESIDENTIAL PLAN 1 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>A</td>
<td></td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>INKBERG</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>27</td>
<td>B</td>
<td></td>
<td>ROSE</td>
<td>ROA 'RADRAZZ' KNOCK OUT</td>
<td>USHIBU ROSE</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>CORNUS 'REDSHIFT' JUGATEK</td>
<td>TRACEDRO</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>19</td>
<td>C</td>
<td></td>
<td>PERENNIAL</td>
<td>LIRIOD END 'LOW' CATMINT</td>
<td>HARRY DREAD</td>
<td>#1 CONT.</td>
<td>18' O.C.</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td></td>
<td>PERENNIAL</td>
<td>LIRIOD END 'HUMMINGBIRD'</td>
<td>ROSE</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

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RESIDENTIAL PLAN 2 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>A</td>
<td></td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>INKBERG</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td></td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>INKBERG</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ROSE</td>
<td>ROA 'RADRAZZ' KNOCK OUT</td>
<td>USHIBU ROSE</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td></td>
<td>ROSE</td>
<td>ROA 'RADRAZZ' KNOCK OUT</td>
<td>SHAMROCK</td>
<td>#2 CONT.</td>
<td>18' O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>VIBURNUM 'STUMIR'</td>
<td>CATMINT</td>
<td>#1 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>7</td>
<td>C</td>
<td></td>
<td>PERENNIAL</td>
<td>ECHINACEA PURPUREA 'KIM'S NEESE'</td>
<td>PURPLE CONE FLOWER</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>RUDBECKIA SUBTOMENTOSA 'HENRY EILERS'</td>
<td>TIKTSEED</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td></td>
<td>GRASSES</td>
<td>ACORUS CALAMUS 'VAREGATO'</td>
<td>SWEETFLAG</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>GRASSES</td>
<td>ACORUS CALAMUS 'VAREGATO'</td>
<td>SWEETFLAG</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>SHRUB</td>
<td>Ilex glabra 'Shamrock'</td>
<td>INKBERRY</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>11</td>
<td>B</td>
<td>PERENNIAL</td>
<td>Hibiscus moscheutos 'Sun Pink'</td>
<td>SWAMP ROSE</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>38</td>
<td>C</td>
<td>GRASSES</td>
<td>Pennisetum alopecuroides 'Little Bunny'</td>
<td>FOUNTAIN GRASS</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

ONLY PLANTED IN R.O.W. RAIN GARDEN OR R.O.W. BIOSWALES WITH TREE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
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<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>C</td>
<td>GRASSES</td>
<td>Pennisetum alopecuroides 'Little Bunny'</td>
<td>FOUNTAIN GRASS</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
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</table>

URBAN PLAN 2 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
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</thead>
<tbody>
<tr>
<td>15</td>
<td>A</td>
<td>SHRUB</td>
<td>Ilex glabra 'Shamrock'</td>
<td>INKBERRY</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
<td>SHRUB</td>
<td>Ilex glabra 'Shamrock'</td>
<td>INKBERRY</td>
<td>#5 CONT. OR B&amp;B</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>8</td>
<td>C</td>
<td>GRASSES</td>
<td>Persicaria affinis 'Tilden'</td>
<td>FOUNTAIN GRASS</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>6</td>
<td>D</td>
<td>GRASSES</td>
<td>Chasmanthium latifolium</td>
<td>NORTHERN SEA OATS</td>
<td>#2 CONT.</td>
<td>18' O.C.</td>
</tr>
<tr>
<td>1</td>
<td>D</td>
<td>GRASSES</td>
<td>Panicum virgatum 'Heavy Metal'</td>
<td>SWITCH GRASS</td>
<td>#2 CONT.</td>
<td>18' O.C.</td>
</tr>
</tbody>
</table>

ONLY PLANTED IN R.O.W. RAIN GARDEN OR R.O.W. BIOSWALES WITH TREE

NOTES:
1. PLANTING LOCATIONS ARE SPECIFIC TO THE INLET AND OUTLET ORIENTATION SHOWN. IF THE INLET AND OUTLET ORIENTATION IS REVERSED, THE PLANTING LOCATIONS MUST BE MIRRORED.
2. TREES TO BE INCLUDED IN PLANTING PLANS UPON DIRECTION OF DPR.
3. THE AREA DIRECTLY ABOVE THE TREE ROOTBALL IS NOT TO BE PLANTED WITH SHRUBS, PERENNIALS, OR GRASSES.
INLET
OUTLET

URBAN PLAN 3 ROWBS IN COMMERCIAL AND INDUSTRIAL AREAS WITH HIGHER VOLUME CIRCULATION

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN</th>
<th>VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>A</td>
<td>PERENNIAL</td>
<td>COREOPSIS TIDDLYWINK</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>B</td>
<td>PERENNIAL</td>
<td>RUDBECKIA 'GOLDSTORM'</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>C</td>
<td>PERENNIAL</td>
<td>ASTILBE 'DEUTSCHLAND'</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
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<tr>
<td>8</td>
<td>D</td>
<td>GRASSES</td>
<td>CHASMANTHUM LATIFOLIUM</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
<td></td>
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</tr>
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</table>

NOTES:
1. PLANTING LOCATIONS ARE SPECIFIC TO THE INLET AND OUTLET ORIENTATION SHOWN. IF THE INLET AND OUTLET ORIENTATION IS REVERSED, THE PLANTING LOCATIONS MUST BE MIRRORED.
2. TREES TO BE INCLUDED IN PLANTING PLANS UPON DIRECTION OF DPR.
3. THE AREA DIRECTLY ABOVE THE TREE ROOTBALL IS NOT TO BE PLANTED WITH SHRUBS, PERENNIALS, OR GRASSES.

ESPECIALLY SHADY PLAN ROWBS WITH PARTLY SUNNY OR SHADY LIGHT CONDITIONS

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN</th>
<th>VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>GRASSES</td>
<td>CAREX 'ICE DANCE'</td>
<td>#1 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>D</td>
<td>GRASSES</td>
<td>AJUGA REPTANS 'CATLIN'S GIANT'</td>
<td>#1 CONT.</td>
<td>12&quot; O.C.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ALTERNATE PLANT REPLACEMENT

<table>
<thead>
<tr>
<th>SPECIES TO REPLACE</th>
<th>REPLACE WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alchemilla mollis</td>
<td>Pycnanthemum muticum</td>
</tr>
<tr>
<td>Ajuga reptans 'Catlin's Giant'</td>
<td>Viola 'Silver Gem'</td>
</tr>
<tr>
<td>Astilbe chinensis 'Vision in Red'</td>
<td>Veronica spicata 'Worl' Royal Candles</td>
</tr>
<tr>
<td>Astilbe 'Deutschland'</td>
<td>Veronica spicata 'Worl' Royal Candles</td>
</tr>
<tr>
<td>Brunnera macrophylla 'Jack Frost'</td>
<td>Eupatorium alpinum 'Little Mouse'</td>
</tr>
<tr>
<td>Carex 'Red Baron'</td>
<td>Astilbe chinensis 'Vision in Red'</td>
</tr>
<tr>
<td>Hakonechloa 'Vera Jameson'</td>
<td>Lysimachia perennis</td>
</tr>
<tr>
<td>Kira globia 'Sh九龙'</td>
<td>Comptonia perigina</td>
</tr>
<tr>
<td>Liriope muscata Monrovia 'White'</td>
<td>Carex pensylvanica</td>
</tr>
<tr>
<td>Liriope spicata</td>
<td>Carex amphiobila</td>
</tr>
<tr>
<td>Veronica alpestris 'Variegated'</td>
<td>Veronica alpestris 'Variegated'</td>
</tr>
</tbody>
</table>

DIRECTOR OF GREEN INFRASTRUCTURE
DEPARTMENT OF PARKS AND RECREATION

R.L.A., LEED AP

DATE
03-07-2016

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.E.

DATE
07-19-2017
### Dry Plan Plant Schedule

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN DESIGN</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>A</td>
<td>GRASSES</td>
<td>PENNISETUM ALOPECURIODES 'HAMELN'</td>
<td>FOUNTAIN GRASS</td>
<td>#2 CONT</td>
<td>18&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>B</td>
<td>GRASSES</td>
<td>HELICHTRON HEMISPERIODENS</td>
<td>BLUE OAT GRASS</td>
<td>#2 CONT</td>
<td>18&quot; O.C.</td>
<td></td>
</tr>
</tbody>
</table>

### Wet Plan Plant Schedule

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN DESIGN</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>A</td>
<td>PERENNIAL</td>
<td>BRUNNERA MACROPHYLLA 'JACK FROST'</td>
<td>SIBERIAN BUGLOSS</td>
<td>#2 CONT</td>
<td>12&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>B</td>
<td>PERENNIAL</td>
<td>ASTILBE 'EUSKIRCHEN'</td>
<td>LADY'S MANTLE</td>
<td>#2 CONT</td>
<td>18&quot; O.C.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>C</td>
<td>GRASSES</td>
<td>PANICUM VIRGATUM 'SHENANDOAH'</td>
<td>SWITCH GRASS</td>
<td>#2 CONT</td>
<td>12&quot; O.C.</td>
<td></td>
</tr>
</tbody>
</table>

### Alternate Plant Replacement

<table>
<thead>
<tr>
<th>SPECIES TO REPLACE</th>
<th>REPLACE WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alchemilla mollis</td>
<td>Penstemon muticus</td>
</tr>
<tr>
<td>Ajuga reptans 'Catlin's Giant'</td>
<td>Viola walteri 'Silver Gem'</td>
</tr>
<tr>
<td>Astilbe chinensis 'Vision in Red'</td>
<td>Veronica spicata 'Moor' Royal Candles</td>
</tr>
<tr>
<td>Astilbe 'Deutscland'</td>
<td>Veronica spicata 'Moor' Royal Candles</td>
</tr>
<tr>
<td>Brunnera macrophylla 'Jack Frost'</td>
<td>Euphorium alpinum 'Little Fuzzy'</td>
</tr>
<tr>
<td>Carex 'Red Strait'</td>
<td>Avena 'Red' Crimson Sedges 'Red'</td>
</tr>
<tr>
<td>Eryngium 'Vera Jameson'</td>
<td>Lupinus perennis</td>
</tr>
<tr>
<td>Eryngium 'Sashiko'</td>
<td>Comptonia perrenalis</td>
</tr>
<tr>
<td>Euphorium 'Moon White'</td>
<td>Carex pendula var. pendula</td>
</tr>
<tr>
<td>Euphorium 'Sapphire'</td>
<td>Carex inundata</td>
</tr>
</tbody>
</table>

### Notes:
1. Planting locations are specific to the inlet and outlet orientation shown. If the inlet and outlet orientation is reversed, the planting locations must be mirrored.
2. Trees to be included in planting plans upon direction of DPR.
3. The area directly above the tree rootball is not to be planted with shrubs, perennials, or grasses.
4. Planting plans for variable size R.O.W. bioswales and R.O.W. rain gardens are determined as per the schedule on GI-122.
RESIDENTIAL PLAN 1 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUANT</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A</td>
<td></td>
<td></td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>INKBERRY</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>13 B</td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>COREOPSIS 'REDSHIFT'</td>
<td>TICKSEED</td>
<td>#2 CONT</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>12 C</td>
<td></td>
<td></td>
<td>GROUNDCOVER</td>
<td>LIRIOPE SPICATA</td>
<td>ULY TURF</td>
<td>#1 CONT</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

ONLY PLANTED IN R.O.W. BIOMASS WITH NO TREE

<table>
<thead>
<tr>
<th>QUANT</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 B</td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>COREOPSIS 'REDSHIFT'</td>
<td>TICKSEED</td>
<td>#2 CONT</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>2 C</td>
<td></td>
<td></td>
<td>GROUNDCOVER</td>
<td>LIRIOPE SPICATA</td>
<td>ULY TURF</td>
<td>#1 CONT</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

RESIDENTIAL PLAN 2 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUANT</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 A</td>
<td></td>
<td></td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>INKBERRY</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>4 B</td>
<td></td>
<td></td>
<td>SHRUB</td>
<td>ROSE PALUSTRIS</td>
<td>SWAMP ROSE</td>
<td>#5 CONT</td>
<td>18' O.C.</td>
</tr>
<tr>
<td>12 C</td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>ECHINACEA PURPUREA 'KNEE HIGH'</td>
<td>PURPLE CORE FLOWER</td>
<td>#2 CONT</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>5 D</td>
<td></td>
<td></td>
<td>GRASSES</td>
<td>ACORUS CALAMUS 'VARIEGATUS'</td>
<td>SWEETFLAG</td>
<td>#2 CONT</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

ONLY PLANTED IN R.O.W. BIOMASS WITH NO TREE

<table>
<thead>
<tr>
<th>QUANT</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 B</td>
<td></td>
<td></td>
<td>ROSE</td>
<td>ROSE PALUSTRIS</td>
<td>SWAMP ROSE</td>
<td>#5 CONT</td>
<td>18' O.C.</td>
</tr>
<tr>
<td>2 C</td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>ECHINACEA PURPUREA 'KNEE HIGH'</td>
<td>PURPLE CORE FLOWER</td>
<td>#2 CONT</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

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### Urban Plan 1 Plant Schedule

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>A</td>
<td></td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>SHAMROCK</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td></td>
<td>ROSE</td>
<td>ROUSSEAU FORMALIS</td>
<td>HARDY ROSE</td>
<td>ALUM CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>28</td>
<td>C</td>
<td></td>
<td>GRASSES</td>
<td>PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'</td>
<td>FOUNTAIN GRASS</td>
<td>CONT.</td>
<td>12&quot; O.C.</td>
</tr>
</tbody>
</table>

### Urban Plan 2 Plant Schedule

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>A</td>
<td></td>
<td>SHRUB</td>
<td>ILEX GLABRA 'SHAMROCK'</td>
<td>SHAMROCK</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td></td>
<td>ROSE</td>
<td>ROA PALUSTRIS</td>
<td>SWAMP ROSE</td>
<td>#2/#3 CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td></td>
<td>PERENNIAL</td>
<td>HIBISCUS 'LUNA PINK'</td>
<td>HARDY HIBISCUS</td>
<td>CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>28</td>
<td>D</td>
<td></td>
<td>GRASSES</td>
<td>PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'</td>
<td>FOUNTAIN GRASS</td>
<td>CONT.</td>
<td>12&quot; O.C.</td>
</tr>
</tbody>
</table>

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**Alternates for Plant Replacement**

<table>
<thead>
<tr>
<th>SPECIES TO REPLACE</th>
<th>REPLACE WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alchemilla mollis</td>
<td>Plectranthum mcrium</td>
</tr>
<tr>
<td>Aucuba japonica 'Crocare'</td>
<td>Viburnum x 'Green Globe'</td>
</tr>
<tr>
<td>Astilbe chinensis 'Visions in Red'</td>
<td>Veronicaspica 'Ravender' Royal Candles</td>
</tr>
<tr>
<td>Astilbe 'Duchess'</td>
<td>Veronica spicata 'Scopia' Royal Candles</td>
</tr>
<tr>
<td>Brunnera macrophylla 'Jack Frost'</td>
<td>Eryngium aleru 'Little Mouse'</td>
</tr>
<tr>
<td>Carex 'Redthread'</td>
<td>Eriophorum angustifolium 'Ravender's Favorite'</td>
</tr>
<tr>
<td>Hydrangea 'Verecundus'</td>
<td>Lysimachia perennis</td>
</tr>
<tr>
<td>Box glabra 'Shamrock'</td>
<td>Comptonia perigene</td>
</tr>
<tr>
<td>Liriope muscari 'Monae White'</td>
<td>Carex 'Redthread'</td>
</tr>
<tr>
<td>Liriope spicata</td>
<td>Carex 'Redthread'</td>
</tr>
<tr>
<td>Phlomis coronaria 'henryi white'</td>
<td>Phlomis coronaria 'henryi white'</td>
</tr>
</tbody>
</table>

**签字**

R.L.A. LEED AP 03-07-2016

DIRECTOR OF GREEN INFRASTRUCTURE
DEPARTMENT OF PARKS AND RECREATION

P.E. 07-19-2017

DIRECTOR OF IN-HOUSE DESIGN & RIGHT-OF-WAY GREEN INFRASTRUCTURE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
## URBAN PLAN 3 PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>YEAR</th>
<th>VERSION</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
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</thead>
<tbody>
<tr>
<td>16</td>
<td>A</td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>COREOPSIS 'REDSHIFT'</td>
<td>TICKSEED</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>15</td>
<td>B</td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>RUDBECKIA FULGIDA 'SOLOSTURMY'</td>
<td>BLACK-EYED SUSAN</td>
<td>#2 CONT.</td>
<td>13&quot; O.C.</td>
</tr>
<tr>
<td>7</td>
<td>C</td>
<td></td>
<td></td>
<td>PERENNIAL</td>
<td>HYLOTELEPHIUM 'VERA JAMESON'</td>
<td>STONECROP</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td></td>
<td></td>
<td>GRASSES</td>
<td>HELIOTRICHON SEPTEMFLORENS</td>
<td>BLUE OAT GRASS</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GRASSES</td>
<td>CHASMANTHIUM LATIFOLIUM</td>
<td>NORTHERN SEA OATS</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
</tr>
</tbody>
</table>

**NOTES:**

1. PLANTING LOCATIONS ARE SPECIFIC TO THE INLET AND OUTLET ORIENTATION SHOWN. IF THE INLET AND OUTLET ORIENTATION IS REVERSED, THE PLANTING LOCATIONS MUST BE MIRRORED.

2. TREES TO BE INCLUDED IN PLANTING PLANS UPON DIRECTION OF DPR.

3. THE AREA DIRECTLY ABOVE THE TREE ROOTBALL IS NOT TO BE PLANTED WITH SHRUBS, PERENNIALS, OR GRASSES.

### Shady Plan Plant Schedule

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>A</td>
<td>A</td>
<td>SHRUB</td>
<td>Itea virginica 'Little Henry'</td>
<td>VIRGINIA SWEETSPIRE</td>
<td>#5 CONT. OR B&amp;B</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>19</td>
<td>B</td>
<td>A</td>
<td>GRASSES</td>
<td>Caryopteris x clandonensis 'HEDGE'</td>
<td>BLUEBELLS</td>
<td>#2 CONT.</td>
<td>1' O.C.</td>
</tr>
<tr>
<td>4</td>
<td>C</td>
<td>A</td>
<td>PERENNIAL</td>
<td>Astilbe 'Deutschland'</td>
<td>ASTILBE</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>12</td>
<td>D</td>
<td>A</td>
<td>GROUNDCOVER</td>
<td>Ajuga reptans 'Catlin's Giant'</td>
<td>BUGLEWEED</td>
<td>#1 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>5</td>
<td>D</td>
<td>A</td>
<td>GROUNDCOVER</td>
<td>Ajuga reptans 'Catlin's Giant'</td>
<td>BUGLEWEED</td>
<td>#1 CONT.</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

### Especially Shady Plan

Rows with partly sunny or shady light conditions

### Dry Plan Plant Schedule

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>A</td>
<td>A</td>
<td>GRASSES</td>
<td>Pensetum alopecuroides 'Hamein'</td>
<td>FOUNTAIN GRASS</td>
<td>#2 CONT.</td>
<td>18' O.C.</td>
</tr>
<tr>
<td>9</td>
<td>B</td>
<td>A</td>
<td>GRASSES</td>
<td>Panicum virgatum 'Shenandoah'</td>
<td>SWITCHGRASS</td>
<td>#2 CONT.</td>
<td>18' O.C.</td>
</tr>
</tbody>
</table>

### Especially Dry Plan

Rows with less than 15% stormwater runoff managed

### Wet Plan Plant Schedule

<table>
<thead>
<tr>
<th>QUAN</th>
<th>KEY</th>
<th>PLAN</th>
<th>TYPE</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>A</td>
<td>A</td>
<td>PERENNIAL</td>
<td>Brunnera macrophylla 'Jack Frost'</td>
<td>SIBERIAN BUGLOSS</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>A</td>
<td>PERENNIAL</td>
<td>Achemilla mollis</td>
<td>LADY'S MANTLE</td>
<td>#2 CONT.</td>
<td>18' O.C.</td>
</tr>
<tr>
<td>15</td>
<td>C</td>
<td>A</td>
<td>PERENNIAL</td>
<td>Acorus calamus 'Variegatus'</td>
<td>SWEETFLAG</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>A</td>
<td>PERENNIAL</td>
<td>Acorus calamus 'Variegatus'</td>
<td>SWEETFLAG</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

### Especially Wet Plan

Rows with greater than 30% stormwater runoff managed

### Notes:

1. Planting locations are specific to the inlet and outlet orientation shown. If the inlet and outlet orientation is reversed, the planting locations must be mirrored.

2. Trees to be included in planting plans upon direction of DPR.

3. The area directly above the tree rootball is not to be planted with shrubs, perennials, or grasses.

4. Planting plans for variable size R.O.W. bioswales and R.O.W. rain gardens are determined as per the schedule on GI-122.

---

**Dates:**

- Director of Green Infrastructure: 03-07-2016
- Director of In-House Design & Right-Of-Way Green Infrastructure: 07-19-2017
Notices:
1. Planting locations are specific to the inlet and outlet orientation shown. If the inlet and outlet orientation is reversed, the planting locations must be mirrored.
2. Planting plans for variable size R.O.W. green strips determined as per the schedule on GI-132.

**Full Sun Plant Schedule**

<table>
<thead>
<tr>
<th>QTY</th>
<th>KEY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ST</td>
<td>SPHREA TOMENTOSA</td>
<td>MEADOW SWEET</td>
<td>#3 CONT.</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>10</td>
<td>ES</td>
<td>ERAGROTIS SPECTABILIS</td>
<td>PURPLE LOVEGRASS</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>12</td>
<td>AT</td>
<td>ASCLEPIAS TUBEROA</td>
<td>BUTTERFLY WEED</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
<tr>
<td>12</td>
<td>EP</td>
<td>ECHINACEA PURPUREA</td>
<td>PURPLE CONEFLOWER</td>
<td>#2 CONT.</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

**SUN/Part Shade Plant Schedule**

<table>
<thead>
<tr>
<th>QTY</th>
<th>KEY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CA</td>
<td>CEANOTHUS AMERICANUS</td>
<td>NEW JERSEY TEA</td>
<td>#3 CONT.</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>2</td>
<td>DL</td>
<td>DIERVILLA LONICERA</td>
<td>DWARF BUSH HONEYSUCKLE</td>
<td>#3 CONT.</td>
<td>2' O.C.</td>
</tr>
<tr>
<td>8</td>
<td>PD</td>
<td>PENSTEMON DIGITATUS</td>
<td>WHITE BEARD TONGUE</td>
<td>PLUGS</td>
<td>12' O.C.</td>
</tr>
</tbody>
</table>

**Full Sun Plan 1**

**Sun/Shade Plan 1**
NOTES:
1. PLANTING LOCATIONS ARE SPECIFIC TO THE INLET AND OUTLET ORIENTATION SHOWN. IF THE INLET AND OUTLET ORIENTATION IS REVERSED, THE PLANTING LOCATIONS MUST BE MIRRORED.
2. PLANTING PLANS FOR VARIABLE SIZE R.O.W. GREEN STRIPS DETERMINED AS PER THE SCHEDULE ON GI-132.
3. * AROUND THE PERIMETER ON SLOPE.
4. ** EVENLY SPACED IN THE LOWEST, FLAT PORTION OF GREEN STRIP.

### FULL SUN PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QTY.</th>
<th>KEY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>LM</td>
<td>LIRIOPE MUSCARI &quot;BIG BLUE&quot;</td>
<td>BIG BLUE LILY TURF</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>6</td>
<td>HM</td>
<td>Hibiscus moscheutos 'SOUTHERN BELLE'</td>
<td>SWAMP ROSE MALLOWS</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
</tr>
</tbody>
</table>

### SUN/PART SHADE PLANT SCHEDULE

<table>
<thead>
<tr>
<th>QTY.</th>
<th>KEY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>TV</td>
<td>TRADESCANTIA VIRGINIANA</td>
<td>VIRGINIA SPIDERWORT</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>13</td>
<td>IV</td>
<td>Iris versicolor</td>
<td>BLUE FLAG</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
</tr>
</tbody>
</table>

### RESIDENTIAL PLAN, WET, SUN TO PART SHADE

<table>
<thead>
<tr>
<th>QTY.</th>
<th>KEY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>MP</td>
<td>Monarda didyma 'PARDON MY PURPLE'</td>
<td>PARDON MY PURPLE - BEE SALM</td>
<td>#2 CONT.</td>
<td>12&quot; O.C.</td>
</tr>
<tr>
<td>4</td>
<td>VB</td>
<td>Vernonia lettermannii 1/8&quot; BUTTERFLY</td>
<td>NARROWLEAF IRONWEED</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
</tr>
<tr>
<td>9</td>
<td>CV</td>
<td>Carex vulpinoidea</td>
<td>FOX SEDGE</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
</tr>
</tbody>
</table>

### RESIDENTIAL PLAN, WET, SUN TO PART SHADE

<table>
<thead>
<tr>
<th>QTY.</th>
<th>KEY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>CV</td>
<td>Carex vulpinoidea</td>
<td>FOX SEDGE</td>
<td>#2 CONT.</td>
<td>18&quot; O.C.</td>
</tr>
</tbody>
</table>

### SUN/PART SHADE PLAN 2

### FULL SUN PLAN 2

### RESIDENTIAL PLAN, WET, SUN TO PART SHADE

### RESIDENTIAL PLAN, WET, SUN TO PART SHADE

### RESIDENTIAL PLAN, WET, SUN TO PART SHADE
NOTES:
1. PLANTING LOCATIONS ARE SPECIFIC TO THE INLET AND OUTLET ORIENTATION SHOWN. IF THE INLET AND OUTLET ORIENTATION IS REVERSED, THE PLANTING LOCATIONS MUST BE MIRRORED.
2. PLANTING PLANS FOR VARIABLE SIZE R.O.W. GREEN STRIPS DETERMINED AS PER THE SCHEDULE ON GI-132.
GI-600
STEEL GUARDS STANDARDS FOR RIGHT-OF-WAY GREEN INFRASTRUCTURE PRACTICES
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION – GREEN INFRASTRUCTURE
STANDARD FOR R.O.W. BIOSWALES - TYPE 'A' WELDED STEEL GUARD

**NOTES:**

- **FINAL DESIGN OF GUARDS TO BE SELECTED BY DPR/DOT UPON REVIEW OF NEIGHBORHOOD’S CONTEXT**
- 1. FIELD MEASUREMENTS MUST BE TAKEN PRIOR TO FABRICATION.
- 2. ALL STEEL SHALL CONFORM TO SPECIFICATION C1015 OF THE A.I.S.I.
- 3. ALL JOINTS TO BE WELDED UNLESS NOTED OTHERWISE.
- 4. ALL STEEL TO BE PAINTED WITH ONE (1) SHOP COAT OF PRIMER AND ONE (1) SHOP COAT OF INTERMEDIATE AND ONE (1) SHOP COAT (OR ROLLED FIELD COAT) OF FINISH TOP COAT IN COMPLIANCE WITH THE REQUIREMENTS OF SUBSECTION 2.13.4 OF THE NYC DOT STANDARD HIGHWAY SPECIFICATIONS. THE COLOR OF TOP COAT SHALL BE BLACK.
- 5. RAILS TO FOLLOW LINE OF GRADE.
- 6. ALL STEEL TO BE SOLID STEEL.
- 7. ALL SPIKES OF TREE GUARD TO BE EMBEDDED IN CONCRETE PIERS AS PER STANDARD DRAWINGS
NOTES:
** FINAL DESIGN OF GUARDS TO BE SELECTED BY DPR/DOT UPON REVIEW OF NEIGHBORHOOD'S CONTEXT
1. FIELD MEASUREMENTS MUST BE TAKEN PRIOR TO FABRICATION.
2. ALL STEEL SHALL CONFORM TO SPECIFICATION C1015 OF THE A.I.S.I.
3. ALL JOINTS TO BE WELDED UNLESS NOTED OTHERWISE.
4. ALL STEEL TO BE PAINTED WITH ONE (1) SHOP COAT OF PRIMER AND ONE (1) SHOP COAT OF INTERMEDIATE AND ONE (1) SHOP COAT (OR ROLLED FIELD COAT) OF FINISH TOP COAT IN COMPLIANCE WITH THE REQUIREMENTS OF SUBSECTION 2.13.4 OF THE NYC DOT STANDARD HIGHWAY SPECIFICATIONS. THE COLOR OF TOP COAT SHALL BE BLACK.
5. RAILS TO FOLLOW LINE OF GRADE.
6. ALL STEEL TO BE SOLID STEEL.
7. ALL SPIKES OF TREE GUARD TO BE EMBEDDED IN CONCRETE PIERS AS PER STANDARD DRAWINGS
NOTES:
**FINAL DESIGN OF GUARDS TO BE SELECTED BY DPR/DO TRANSFER REVIEW OF NEIGHBORHOOD'S CONTEXT**
1. FIELD MEASUREMENTS MUST BE TAKEN PRIOR TO FABRICATION.
2. ALL STEEL SHALL CONFORM TO SPECIFICATION C1015 OF THE A.I.S.I.
3. ALL JOINTS TO BE WELDED UNLESS NOTED OTHERWISE.
4. ALL STEEL TO BE PAINTED WITH ONE (1) SHOP COAT OF PRIMER AND ONE (1) SHOP COAT OF INTERMEDIATE AND ONE (1) SHOP COAT OF FINISH TOP COAT IN COMPLIANCE WITH THE REQUIREMENTS OF SUBSECTION 2.13.4 OF THE NYC DOT STANDARD HIGHWAY SPECIFICATIONS. THE COLOR OF TOP COAT SHALL BE BLACK.
5. RAILS TO FOLLOW LINE OF GRADE.
6. ALL STEEL TO BE SOLID STEEL.
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5. RAILS TO FOLLOW LINE OF GRADE.
6. ALL STEEL TO BE SOLID STEEL.
7. ALL SPIKES OF TREE GUARD TO BE EMBEDDED IN CONCRETE PIERS AS PER STANDARD DRAWINGS

DATE:
07-19-2017
NOTES:
** FINAL DESIGN OF GUARDS TO BE SELECTED BY DPR/DOT UPON REVIEW OF NEIGHBORHOOD'S CONTEXT

1. FIELD MEASUREMENTS MUST BE TAKEN PRIOR TO FABRICATION.
2. ALL STEEL SHALL CONFORM TO ASTM - A36 SPECIFICATION
3. ALL JOINTS TO BE WELDED UNLESS NOTED OTHERWISE.
4. ALL POST AND GROOVE CONNECTIONS TO BE BOLTED.
5. ALL VISIBLE BOLTS TO BE COUNTERSUNK AND FLUSHED WITH THE POSTS
6. ALL STEEL TO BE PAINTED WITH ONE (1) SHOP COAT OF PRIMER AND ONE (1) SHOP COAT OF INTERMEDIATE AND ONE (1) SHOP COAT (OR ROLLED FIELD COAT) OF FINISH TOP COAT IN COMPLIANCE WITH THE REQUIREMENTS OF SUBSECTION 2.13.4 OF THE NYC DOT STANDARD HIGHWAY SPECIFICATIONS. THE COLOR OF TOP COAT SHALL BE BLACK.
7. RAILS TO FOLLOW LINE OF GRADE.
8. ALL SPIKES OF TREE GUARD TO BE EMBEDDED IN CONCRETE PIERS AS PER STANDARD DRAWINGS

ENGINEERED SOIL

CONCRETE ENCASMENT PLACED ON OPEN-GRADED STONE BASE

12" WIDE CONCRETE STRIP

UNDISTURBED SOIL

SIDE ELEVATION

NOTE: MIRROR CONNECTION POST FOR OPPOSITE END OF ROW