



# DEP Green Infrastructure Program

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January 3, 2013

# GI Program Overview



**Overview:** \$192 million is budgeted for green infrastructure in combined sewer areas through 2015, including EBP Funds.

## **1. Area-Wide Contracts:**

- ROWB; area-wide design and construction

## **2. Neighborhood Demonstration Areas:**

- 26 Ward/Jamaica Bay
- Newtown Creek
- Hutchinson River

## **3. On-site Retrofits**

## **4. Green Infrastructure Grant Program:**

- \$3.4 million committed for 2011
- \$4.2 million committed for 2012
- \$6 million available for 2013

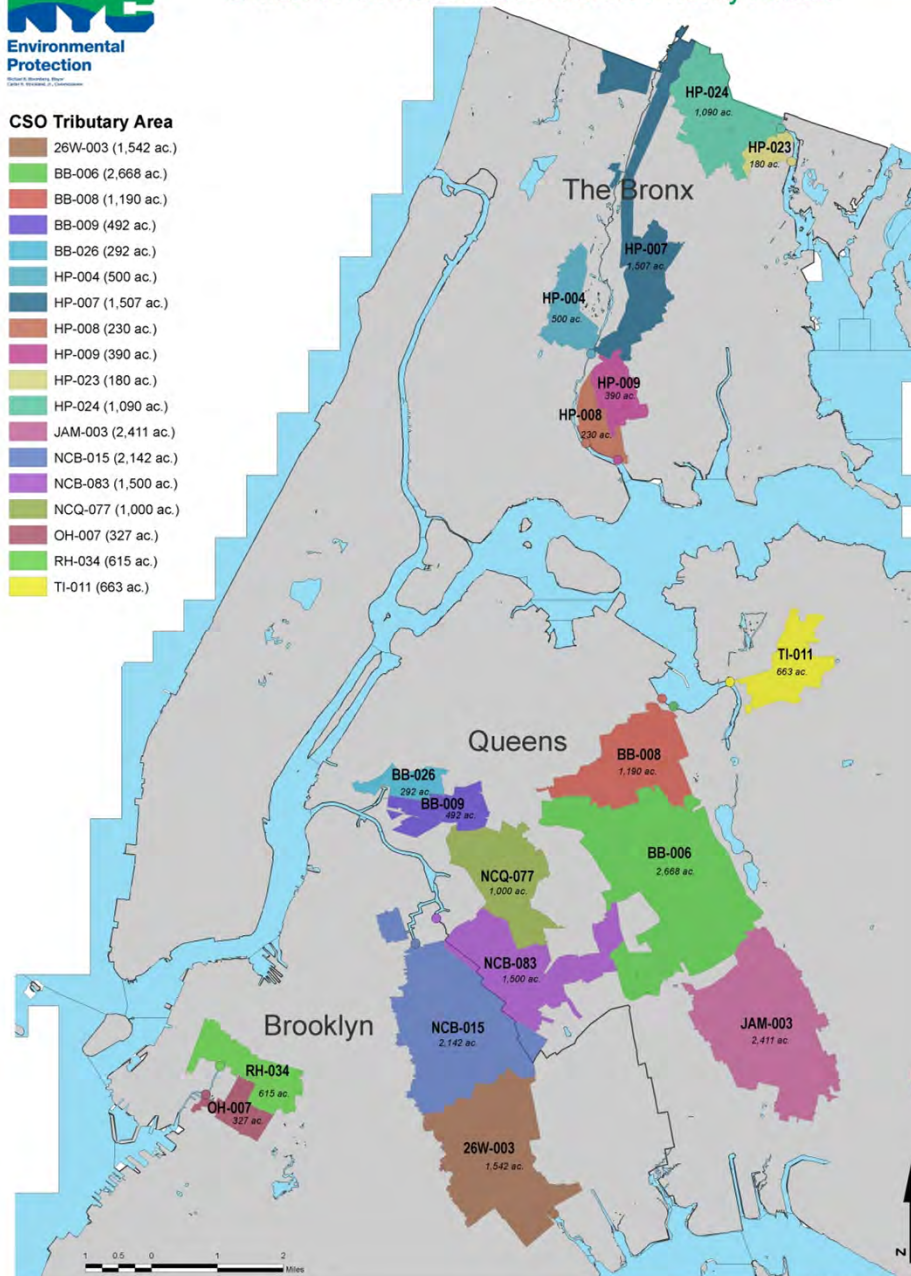
# OGI's Area-Wide Approach



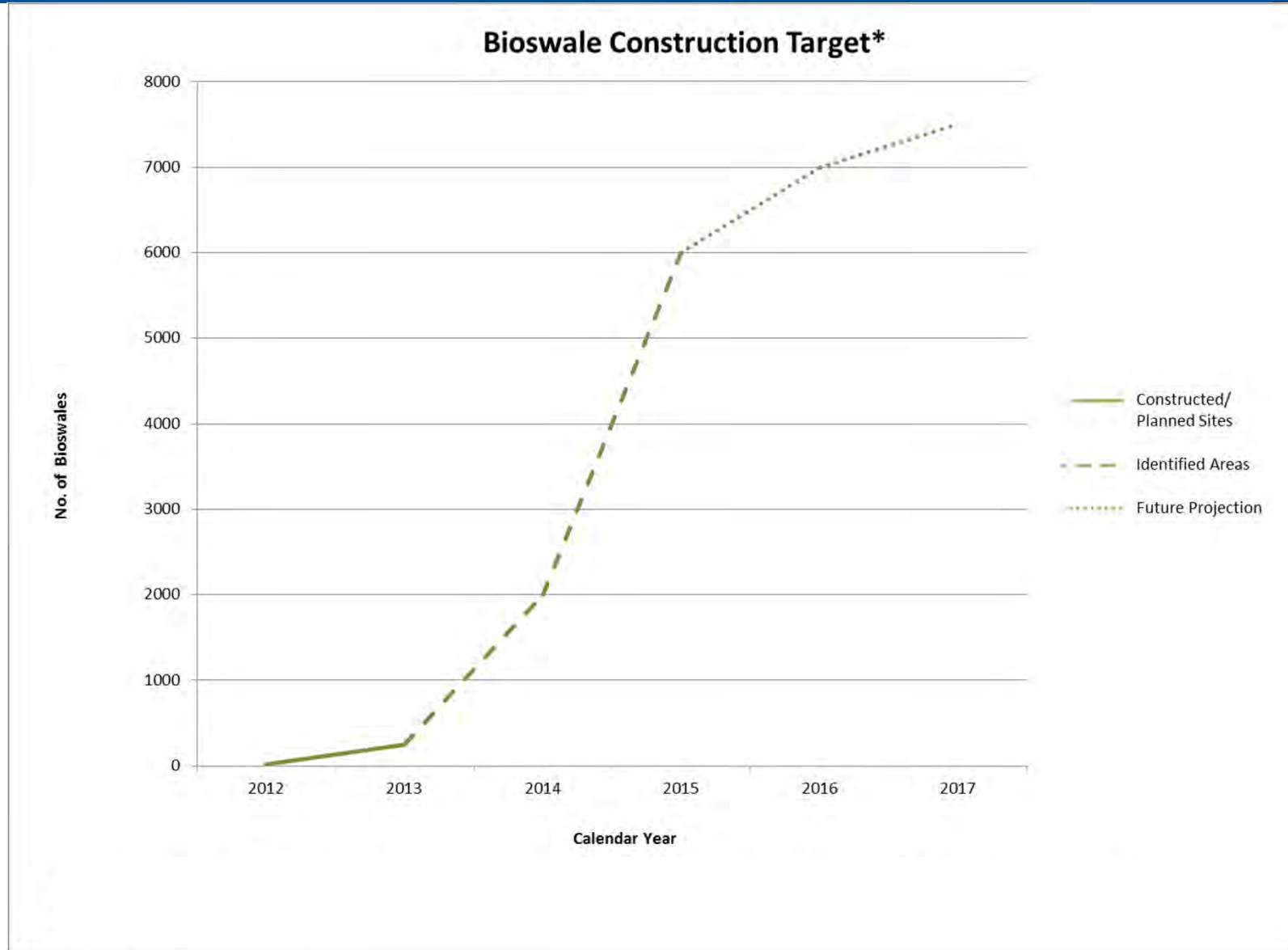
## Office of Green Infrastructure Priority Areas

### CSO Tributary Area

- 26W-003 (1,542 ac.)
- BB-006 (2,668 ac.)
- BB-008 (1,190 ac.)
- BB-009 (492 ac.)
- BB-026 (292 ac.)
- HP-004 (500 ac.)
- HP-007 (1,507 ac.)
- HP-008 (230 ac.)
- HP-009 (390 ac.)
- HP-023 (180 ac.)
- HP-024 (1,090 ac.)
- JAM-003 (2,411 ac.)
- NCB-015 (2,142 ac.)
- NCB-083 (1,500 ac.)
- NCQ-077 (1,000 ac.)
- OH-007 (327 ac.)
- RH-034 (615 ac.)
- TI-011 (663 ac.)

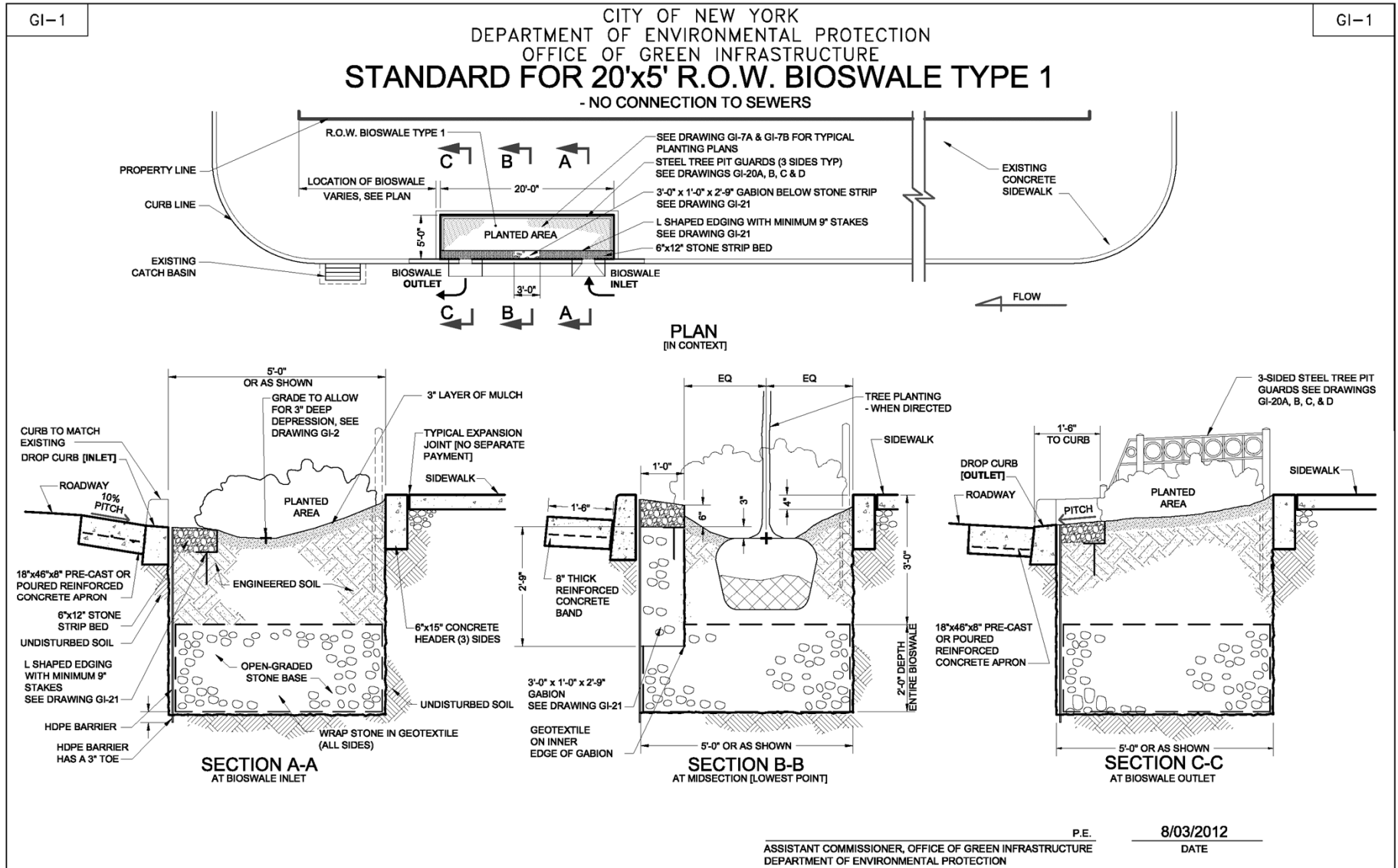


# Bioswale Construction Targets

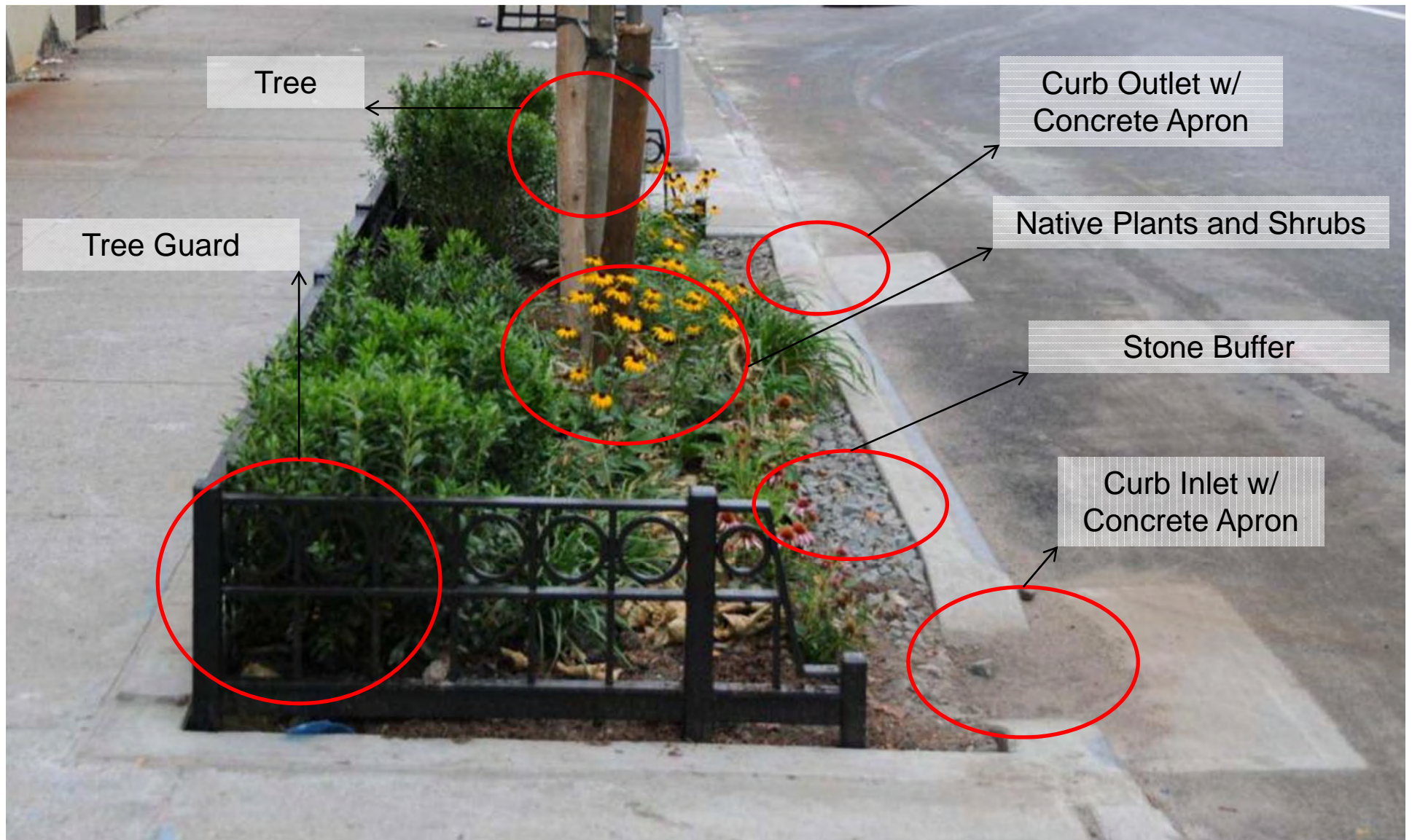


\*In partnership with EDC, DDC, DPR other agency partners, and on its own, DEP's Office of Green Infrastructure has initiated many area-wide GI projects in priority CSO tributary areas. The final number of ROWBs to be constructed under these contracts is contingent upon the meeting of OGI standards, specifications and siting criteria.

# Right of Way Bioswale (ROWB) Standards



# Standard ROWB Components



# ROW Bioswale



# ROWB Statistics

Average Volume Capacity	300 CF (2250 gal.)
Average Impervious Area Managed	3,600 SF
Average Design Costs per ROWB	\$6,000-\$8,000/bioswale (includes Design, Geotechnical, & Survey)
Average Construction Costs per ROWB (depending on allowances)	\$15,000-\$25,000

\*OGI expects the Total Cost of ROWB to come down in the Area-Wide GI Contracts as a result of relaxing the up-front requirements.



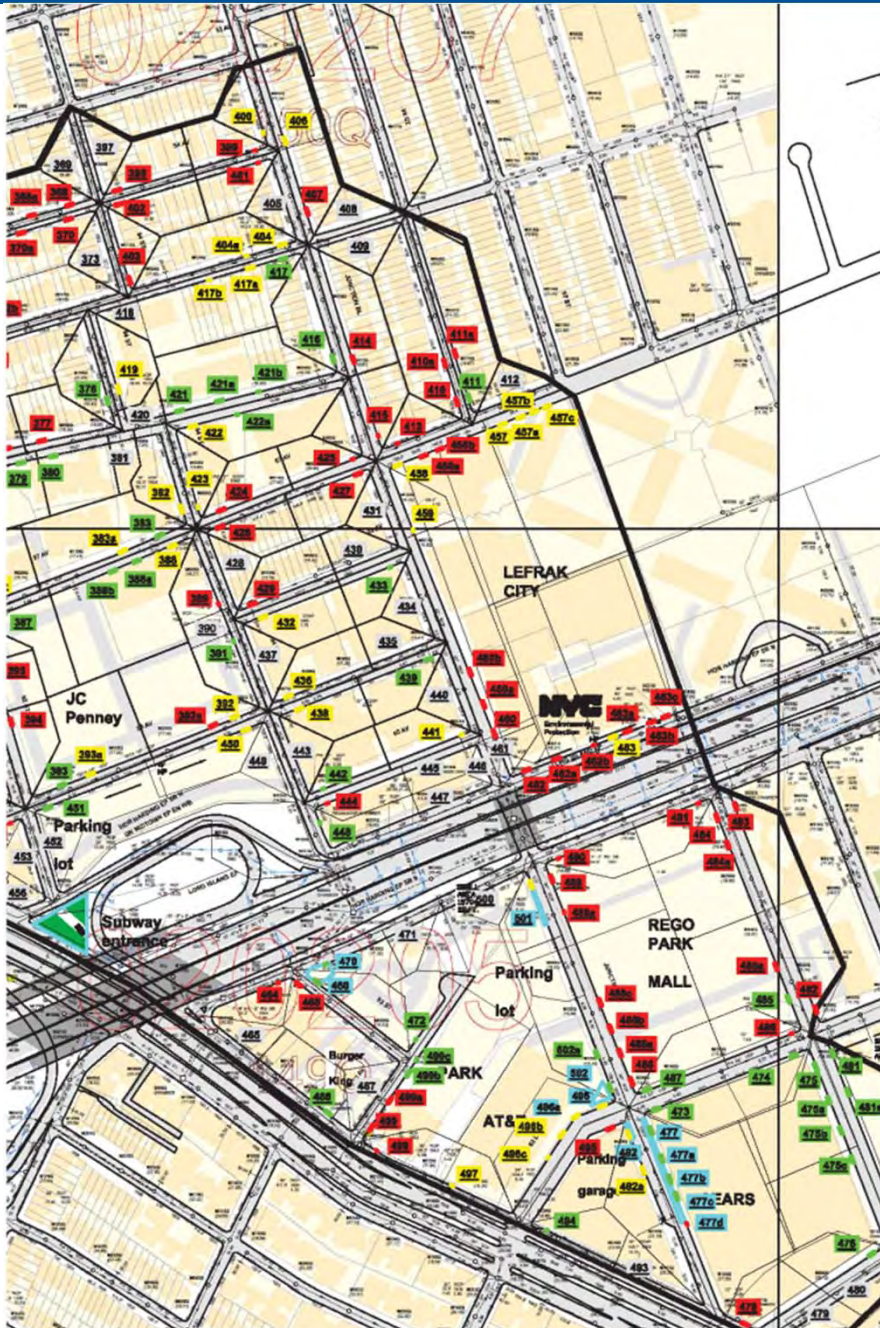
# Stormwater Greenstreets

Greenstreets: Citywide Right-of-Way Beautification Program began in 1996

- DEP and DPR coordination on stormwater greenstreets began after the release of the *NYC Green Infrastructure Plan*
- DOT/DPR/DEP approval process for all stormwater greenstreets
- 24 stormwater greenstreets planned to date



# ROW Siting Process Example: Flushing Bay-Phase 1



## 1. Potential –

- Desktop Analysis

## 2. Preliminary –

- Walkthrough
- Survey
- Geotechnical Investigation

## 3. Final –

- Approved sites included in contract plans

Red = Eliminated Potential Sites

Yellow = Pending DOT Approval

Green = Final

Blue = Proposed SW Greenstreet