



NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF GREEN INFRASTRUCTURE



PROCEDURE GOVERNING

LIMITED SURVEY

FOR

RIGHT-OF-WAY BIOSWALES,

RIGHT-OF-WAY RAIN GARDENS AND

RIGHT-OF-WAY STORMWATER GREENSTREETS

February 2015

Table of Contents

1	General	1
2	Limits of Survey	1
3	Required Survey Information	2
3.1	Topographic Information	2
3.2	Surface Features	2
3.3	Sub-surface Features and Utilities	3
3.4	Vaults	3
4	Requirement for GI Survey Drawings.....	3

Appendix A: ROWB and ROWRG Limits of Survey

Appendix B: GI Drawing Legend

Limited Survey

1 General

The New York City Department of Environmental Protection (DEP) Office of Green Infrastructure (OGI), in partnership with other city agencies, is currently implementing the Mayoral PlaNYC Green Infrastructure (GI) Program. The scope of this program includes the construction of Right-of-way (ROW) GI practices such as Bioswales (ROWBs), Rain Gardens (ROWRGs) and Stormwater Greenstreets (ROWSGSs) throughout combined sewer areas citywide.

Prior to commencing design for ROWBs, ROWRGs or ROWSGS, a Limited ROW GI Survey (GI Survey) is required to gather information on topography, surface/subsurface features, trees, utilities, and vaults within the defined survey area.

A licensed New York State Land Surveyor shall carry out the GI Survey and prepare, stamp, and sign the GI Survey Drawings for submittal to OGI.

2 Limits of Survey

GI Survey limits are defined by the following guidelines:

For ROWBs and ROWRGs:

The survey area extends 10 horizontal feet in all directions beyond the perimeter of each ROW Practice (see Appendix A: ROWB and ROWRG Limits of Survey).

For ROWSGSs:

The survey area will be determined on a site-specific basis. The surveyor must coordinate with OGI, DPR, and DOT to establish the boundaries for the GI Survey.

All GI Surveys must also show the following which may be outside of the survey area defined above:

- Distance from the nearest property line to the ROW Practice limits.
- Distance from the building line adjacent to the ROW Practice limits, if any, including locations of all entrances (e.g. doors and gates) that fall within the projection of the survey of the ROW Practice (see Appendix A).
- Street width (property line to property line).
- Roadway width (curb line to curb line).

3 Required Survey Information

3.1 Topographic Information

The GI Survey must collect and show the required following information:

- All existing elevations, including high and low points, within the defined survey area (as per **Section 2**). All elevations shall be shown in feet (ft) and referenced as per **Section 4 Requirement for GI Survey Drawings**.
- Contours lines, drawn at 0.5 ft-intervals
- Northing and Easting coordinates at the upstream curb-side corner of each ROW Practice

3.2 Surface Features

The GI Survey will identify and show the following features within the survey area (defined in **Section 2**):

- North direction
- Street names
- Legal right-of-way width of the street
- Roadway width (curb to curb)
- Elevations and Street Grades
- Distances to intersections
- Common surface features:
 - Utility castings and overhead utility lines (including but not limited to manholes, fire hydrants, catch basins, etc.)
 - Curb reveal (top of curb/bottom of curb elevations)
 - Curb material
 - Curb condition
 - Existing street furniture (including but not limited to fences, sign poles, traffic signals, light and utility poles, guy wires, muni meters, bike racks, newsstands, etc.)
 - Tree centerline, diameter at breast height (DBH) and drip line locations
 - Tree stump centerline and diameter
 - Tree pit extents
 - Driveways, curb cuts, crosswalks, ramps, and stairwells
 - Existing buildings and structures
 - Building doors, doorways, gates, and building/property entrances
 - Bus stops, bus stop shelters and signs
 - Subway entrances and exits
 - Sidewalk and roadway surface materials
 - Pavement markings

3.3 Sub-surface Features and Utilities

The GI Survey will provide sub-surface information to the maximum extent practicable. This information includes vertical alignment, horizontal alignment, dimensions, type, and cover for utilities, including but not limited to gas lines, electric lines, material communication lines, etc.

Water service tap cards and sewer house connections cards must be requested from the appropriate agency. These records are to be provided to the construction contractors.

3.4 Vaults

A vault or protruded basement investigation shall include the locations and limits of vaults or protruded basements within the survey area. Sub-surface vaults may include utility vaults, basements, basement extensions, etc.

For ROW GI practices sited 7 ft - 10 ft from a building, a vault investigation must be performed. Vault investigation shall consist of a visual inspection and at a minimum captures the following information:

- Basement information (width, depth of slab below street or sidewalk grade, extension into sidewalk beyond building line, etc.).
- Visual signs on walls and slab of existing water damage (especially on the wall adjacent to the street/sidewalk).
- Note regarding presence of and location of a sump pump.
- Location of where service lines enter/exit (includes but not limited to water service, house connection, gas, electrical, etc.).

4 Requirement for GI Survey Drawings

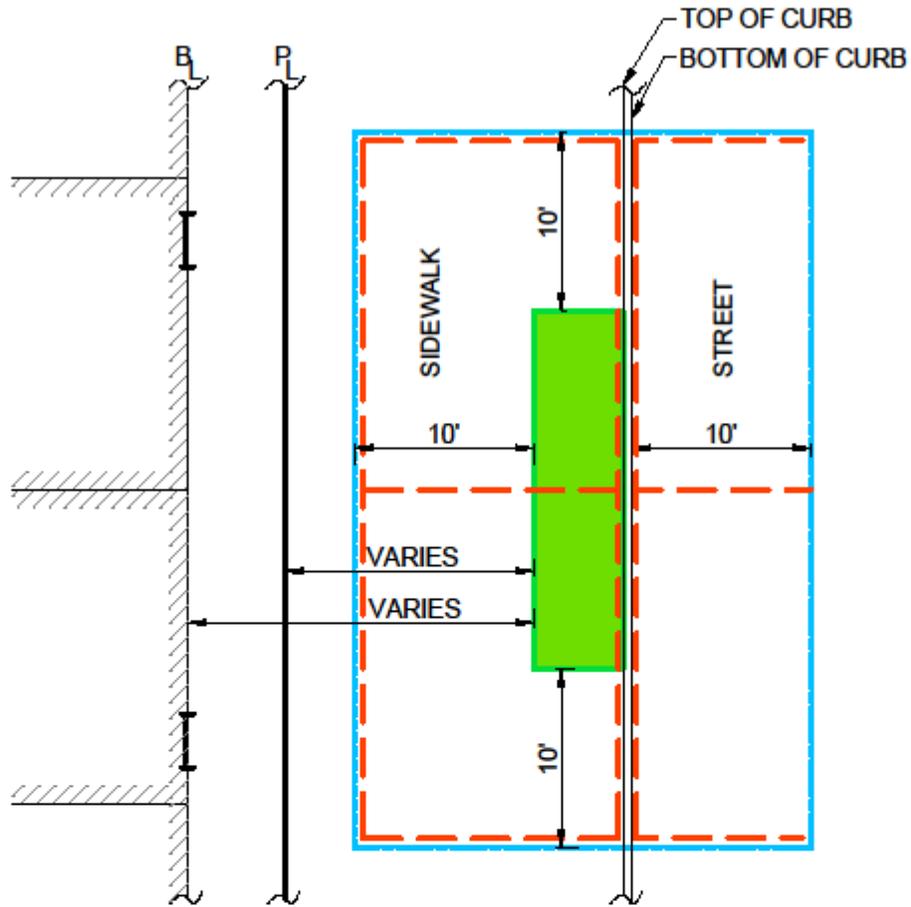
The GI Survey drawings must:

- Include all information from **Section 3**
- Display all information using the symbols in Appendix B: GI Drawing Legend
- Use North America Vertical Datum of 1988 (NAVD 88) for vertical data
- Use NAD 1983 State Plane New York, Long Island FIPS 3104 Feet for horizontal data
- Clearly indicate the datum used and provide a conversion to the local Borough Sewer datum on the contract plans.

All survey drawings must be stamped and signed by a licensed New York State Land Surveyor and submitted to OGI in the two following formats:

- AutoCAD 2008 or higher
- 22" x 34" Mylar (3 mil thick)

Appendix A: ROWB and ROWRG Limits of Survey



LEGEND

-  LIMITS OF SURVEY
-  ROWB OR ROWRG
-  SPOT ELEVATION TRACK LINES
-  PROPERTY LINE
-  BUILDING LINE
-  ENTRANCE

Appendix B: GI Drawing Legend

