



Requirements for the Design Report and Plans and Specifications

Design Report

The Design Report contains technical information based on the project's final design. The report must include all required elements of the Feasibility study, noted below in non-bold text, as well as the additional information shown in **bold**.

NOTE: EFC may allow the required elements to be submitted as an amendment or revision to the submitted Feasibility Study or may request a separate complete document.

The Design Report must be signed and stamped by a Qualified Professional licensed or certified to practice in New York State. A qualified professional is an individual who is knowledgeable in the principles and practices of stormwater management and treatment, such as a Professional Engineer or Registered Landscape Architect.

Please note that an **approved** Design Report and a full set of Plans and Specifications are required prior to the release of construction funds.

- I. Cover Page (project title, owner, prepared by, professional's stamp, and date)
- II. Executive Summary (overview of the project's purpose)
- III. Project Objective(s) (Describe goals for Green Infrastructure elements. Indicate whether the green infrastructure elements are a portion of a larger project.)
- IV. Existing Conditions:
 - a. Current Land Use
 - b. Depth to Bedrock
 - c. USGS Soil Classification at green infrastructure practice location(s)
(see [USDA Web Soil Survey mapping tool](#))
 - d. Depth to water table at green infrastructure practice location(s)
 - e. Discussion of any other site considerations
(*wetlands, flood plain elevations, hotspots, brownfield remediation or other potential design issues at the site*)
 - f. Results of any boring logs, infiltration tests, or other subsurface investigations.
- V. Project Description
 - a. Recommended Green Infrastructure Practice(s)
 - i. Feasibility analysis of selected green infrastructure practice(s) and drainage area(s)
 - ii. Site grading
 - iii. Stormwater flowpath (also consider adjacent sites)
 - iv. Design considerations
 - b. Other feasible alternative(s) (to accommodate variables determined by site investigations)
 - c. **Percent (%) Pervious / Impervious Cover Pre & Post Construction**



d. Green Infrastructure Practice Sizing and Water Quality Volume (WQv) Calculations

- i. **Design Calculation Worksheets for each GI Practice ([see DEC Runoff Reduction Worksheets](#)) (if applicable)**
 - ii. **Existing Sub-Catchment Drainage Areas Map**
 - a) **Outfall / Design Point Location(s)**
 - b) **Stormwater Flow Path(s)**
 - c) **Existing Contours**
 - d) **Existing Utilities**
 - iii. **Proposed Conditions with Sub-Catchment Drainage Areas Map**
 - a) **Outfall / Design Point Location (s)**
 - b) **Stormwater Flow Path(s)**
 - c) **Existing and Proposed Contours**
 - d) **Existing and Proposed Utilities**
 - e) **Proposed GI Practices**
 - iv. **Pre- and Post Construction Flows (1, 10 and 100 year storm events for each outfall / design point location) (if applicable)**
- VI. **Calculation(s) from hydroCAD or other software (if applicable)**
- VII. **Operation and Maintenance (O&M) Plan and Costs**
- VIII. **Proposed Project Schedule**
- IX. **Water Quality Monitoring Plan (if applicable)**
- X. **Applicable Regulatory Approval and Permits**
- XI. **Project Cost Estimate (Construction in Current Year Dollars, Engineering, Equipment, Legal, Administrative Force Account, Technical Force Account, and Contingency)**

Full Set of Plans and Specifications:

Updated sizing and Water Quality Volume Calculations (item V.d above) **must** be submitted with a full set of plans and specifications. Typical plan sheet sets should include:

- I. Existing conditions plan (incl. utilities)
- II. Site plan (w/ proposed work)
- III. Grading and drainage plan (w/ existing and proposed contours and direction of stormwater flow)
- IV. Landscape plan (w/ plant schedule)
- V. Construction detail sheets
- VI. Drainage area map(s)

Plan Sheets should contain the following:

- I. Engineer name, date, and project title
- II. Page title and number
- III. North arrow / legend
- IV. Graphical scale (1 " = 10', 20', 30', 40', 50', 60' or 100')
- V. Site features to remain (wetlands, nearest waterbody, streets, buildings, vegetation identified for preservation (as applicable), etc.)
- VI. Property lines (as applicable)