



INTEGRATED SOLUTIONS CONSTRUCTION (ISC) GRANT REQUIRED DOCUMENTATION GUIDANCE

Revised Engineering Report

Applicants are required to submit sufficient information to demonstrate that the proposed green infrastructure (GI) components are feasible to construct as a functional and integrated element of the base program Clean Water State Revolving Fund (CWSRF) project.

If your base project is listed on the Annual List of the current Intended Use Plan (IUP), a revised project Engineering Report, signed and stamped by a Professional Engineer who is registered to practice in New York State must be submitted to Environmental Facilities Corporation (EFC). EFC will review the submitted information and score the project for ISC Grant consideration. Sufficient information should be provided for EFC to evaluate the project as described below.

The following items related to the GI must be adequately addressed when preparing your Revised Engineering Report. (Note: many of these items may have already been required for an approvable engineering report):

- I. **Existing Conditions:** Evaluate the proposed project site and discuss the feasibility of the proposed GI practice in regard to the following elements:
 - a. Current land use (including underground utilities)
 - b. Depth to bedrock at GI practice location(s)
 - c. Depth to water table at GI practice location(s), if tidal or level fluctuates, depth to high water elevation
 - d. USGS soil classification at GI practice location(s) ([USDA Web Soil Survey](#))
 - e. Results of boring logs, infiltration tests, or other subsurface investigations
 - i. Investigations should be performed at the location where GI will be installed
 - ii. Infiltration tests (as defined in [Appendix D](#) of the NYS DEC Stormwater Design Manual) must be conducted at the bottom depth of the proposed practices- where stormwater would enter the natural soil.
 - f. Other site considerations: wetlands, flood plain elevations, site contamination, brownfield remediation, historic significance, threatened or endangered species, or other potential design concerns

Please cite the source of all information presented and provide copy of results. Information obtained based on field reconnaissance (e.g. boring logs, infiltration testing) will score higher than data obtained by desktop analysis.

II. Project Description

- a. Provide a narrative that explains the incorporation of GI practices into the base CWSRF project and why those specific practices were selected. Include a discussion on the benefits of incorporating GI and the impact the project will have on water



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quality. Discuss any changes made to the base CWSRF project due to the incorporation of the GI.

- b. Provide an estimate of the water quality volume (WQv) that the GI practice(s) will manage through infiltration, evapotranspiration, and/or use on site. The [NYSDEC Runoff Reduction Worksheets](#) must be used to document that at least 25% of the WQv from the practice's contributing drainage area is being treated by each practice.

This Engineering Report should provide an estimate of the WQv based on the preliminary design. EFC anticipates that this number will be refined during the design development process. At final design projects **must** be able to document that each GI practice manages a minimum of the 25% WQv from the contributing drainage area. Projects that document management of more than 25% of the WQv will be viewed more favorably.

- III. **Updated Project Schedule**, if applicable, to reflect the addition of GI to the base CWSRF project
- IV. **Update of Project Cost Estimate**: Revised to reflect GI costs for construction, engineering, equipment, legal, administrative force account, technical force account, contingency, as well as operations & maintenance costs. All costs should be in current year dollars. The costs associated with the ISC grant *must* be clearly broken out for award and tracking in the contracts and cost documentation.
- V. **Update of Anticipated Regulatory Approval and Permits**: List all that will apply; such as a stormwater pollution prevention plan (SWPPP) or other stormwater permits as required.
- VI. **State Environmental Quality Review (SEQR)**: Must be reviewed to determine if existing SEQR review adequately covers the addition of green infrastructure and, if not, then a revised SEQR review must be completed.
- VII. **State Historic Preservation Office (SHPO)**: Must be reviewed to determine if existing SHPO review adequately cover the addition of green infrastructure and, if not, then a revised SHPO review must be completed.

Green Infrastructure Graphics

- I. **Concept Site Plan**: A plan or diagram of the project's conceptual design is required. It must include:
 - a. Project title/name, plan sheet date
 - b. Location, north arrow/legend & graphical scale
 - c. Site features (wetlands, nearest waterbody, streets, buildings, etc.)
 - d. Proposed green infrastructure practice location(s)
 - e. Location of gray infrastructure project
 - f. Stormwater flowpath (arrows)
 - g. Estimated drainage areas (which correspond to WQv calculations referenced above)
 - h. Site grading (proposed conditions)
 - i. Location of boring logs, infiltration tests, or other subsurface investigations
- II. **Site Photographs**: Must be representative of existing site conditions in locations proposed for green infrastructure practices.