**GOVERNMENT OF THE DISTRICT OF COLUMBIA**
**Department of Real Estate Services**

# REQUEST FOR QUALIFICATION STATEMENTS FOR DESIGN OF CONSTRUCTION DOCUMENTS SUITABLE FOR A STREAM RESORATION PROJECT DOWNSTREAM OF THE NASH RUN SEWER OUTFALL, A STREAM THAT DISCHARGES INTO THE ANACOSTIA RIVER ANNOUNCEMENT NO.: DCKG-2011-R-0121

## 1.0 Background Information

The Government of the District of Columbia, Department of Real Estate Services, Contracting and Procurement is requesting on behalf of The District Department of the Environment (DDOE), technical proposals from selected architect and engineer (A/E) firms to design construction documents suitable for a stream restoration project downstream of the Nash Run sewer outfall, a stream that discharges into the Anacostia River in Washington, DC in accordance with the Scope of Work in **Attachment A**.

## 2.0 Evaluation and the Selection Process

Following submission of the technical proposals, the District will evaluate the information using specified evaluation criteria and will rank the firms from the most qualified to the least qualified to perform the work and begin contract price negotiations with the firm ranked the highest. Should the District and the highest ranked firm fail to successfully reach agreement through negotiations in a reasonable period of time, the District retains the unilateral right to cease negotiations and to immediately commence negotiations with the next highest ranked firm.

## 3.0 Technical Proposal Evaluation

The following evaluation criteria, listed in descending order of importance, will be used to evaluate technical proposals:

**a.** **Professional qualifications** necessary for satisfactory performance of the required services. **20 points**

**b.** **Specialized experience and technical competence** including familiarity with and experience of designs and installation of low impact development strategies (LID), preferably strategies installed in the street/sidewalk. Please reference the number of related LID installations your firm has been involved in the design and installation of and provide references. **20 points**

**c.** **Key Personnel** shall be senior personnel who have experience in designing and constructing projects requiring similar scope and budget. Availability and

experience of the key individuals assigned to this project will be evaluated. **20 points**

**d.** **Past performance on contracts** with the District, other government entities, and private industry in terms of cost control, quality of work and compliance with performance schedules. **15 points**

**e.** **Proposed management plan** to include an organized chart and addresses management approach, team organization, quality control procedures, cost control mechanisms, "in-house" disciplines, specialty consultants and subcontractors, the percentage of time each individual will devote to the project, customer servicing, technological support mechanism (CADD, Project Management software, etc.), and as well as the coordination of all resources to achieve project objectives. **10 points**

**f.** **Experience in obtaining permits** as well as the firm's general approach to, and relationship with "external input" to the design process, DC agencies, and other outside organizations should be addressed. Direct experience dealing with DCRA, DDOT and DC Water are of particular interest. **10 points**

**g.** **Design and construction schedule** should be prepared and should fit the schedule outlined in the primary solicitation document. The proportionality between design, permitting and construction time frames should be reflected in the schedule. **5 points**

**4.0 Legal/Compliance Requirements:**

a. This architect-engineer selection shall be in accordance with the provisions of 27 DCMR, Chapter 26.

b. Firms are referred to the D.C. Code that specifies legal requirements pertaining to providing professional engineering services in the District of Columbia. Refer to Chapter 6, "District of Columbia Professional Corporation Act" and Chapter 23 "Professional Engineer's Registration Act" of the D.C. Code.

c. Contracts to be awarded as a result of this Request will include the requirements contained in the Mayor's Order 92-138 that sets goals for service contractor's employments of District of Columbia residents, and sanctions for failure to achieve those goals. Responding firms should assure themselves that they are fully aware of the requirements of the Mayor's Order 92-138.

d. Prior to entering into a contract with the District of Columbia as a result of this Request, firm(s) selected for contract award shall assure the District by submitting duly sign company's EEO policy statement that they are an Equal Opportunity Employer as defined by Federal and District of Columbia Laws.

e. If Offeror plans to subcontract any portion of this work to other firms, at least 35% of the dollar volume of the work shall be subcontracted to firms that are

Small Business Enterprises (SBE) certified by the Department of Small and Local Business Development (DSLBD) under the provisions of the "Small, Local and Disadvantaged Business Enterprise Development and Assistance Act of 2005" (the Act), Title II, Subtitle N, of the "Fiscal Year 2006 Budget Support Act of 2005", as amended. If there are insufficient qualified SBE that are certified to completely fulfill this requirement, then the subcontracting requirement may be satisfied by subcontracting 35% of the dollar volume to any certified business enterprise provided however, that all reasonable efforts shall be made to ensure that qualified SBE's are significant participants in the overall subcontracting work. **Approval of the firm's subcontracting plan by the Contracting Officer is a necessary condition for contract award.**

**5.0 Technical and Fee Proposal Submission Requirements:**

Offerors shall include the following in their technical submittals:

a. GSA Standard Form 330 Parts 1&2 listing three (3) projects performed within the last five years that are relevant to the requirements of this Request with verifiable references including up-to-date names and phone numbers of contacts of those projects.

b. Summary qualifications and experience of staff members who would be assigned to the project including proposed subcontracts, teaming arrangements, etc.

c. Narrative and illustrative materials necessary to adequately address the evaluation criteria.

The total amount of material submitted should not exceed 7, two-sided, 8 1/2" x 11" pages, or 15 surfaces, letters, illustrative materials and other supplemental information included. No fold-out sheets.

Offerors shall also submit a fee proposal.

Offerors shall submit an original and 3 copies of the technical proposal and an original copy of the price proposal to:

**Department of Public Works (DPW)**
2000 14th Street, NW 3th Floor Bid Room
Washington, D.C. 20009

Each proposal shall be submitted in a sealed envelope conspicuously marked on the outside:

**Proposal in Response to: Announcement No. DCKG-2011-R-0121**
**"Design of Construction Documents Suitable for a Stream Restoration Project Down Stream of the Nash Run Sewer Outfall, a Stream that Discharges into the Anacostia River"**

These materials must be submitted by **2:00 p.m. local time on March 16, 2011**, for consideration. Documents received after this time will not be considered. Absolutely no electronic submissions will be accepted. However, firms may be asked to provide electronic copies of their proposals in PDF format subsequent to the formal submission. For technical questions or clarification, please contact Josh Burch at (202) 535-2247. For contractual questions or clarification, please contact Tonya Mills at (202) 671-2255 or email at tonya.mills@dc.gov.

Sincerely,

Diane Wooden

Diane Wooden
Contracting Officer

cc: Josh Burch (DDOE)

# ATTACHMENT A

# SCOPE OF WORK

DISTRICT DEPARTMENT OF THE ENVIRONMENT
WATERSHED PROTECTION DIVISION

**SCOPE OF WORK FOR 100% DESIGNS FOR A TRASH AND SEDIMENT REDUCTION SYSTEM FOR THE RESTORATION OF NASH RUN, A TRIBUTARY OF THE ANACOSTIA RIVER**

The purpose of this project is to prepare contract documents (100% designs and construction specifications) suitable for obtaining bids for the construction of an end of pipe Best Management Practice (BMP) and stream restoration project downstream of the Nash Run storm sewer outfall, a stream that discharges into the Anacostia River.

## Nash Run Restoration Project

### PROJECT OVERVIEW

The Watershed Protection Division of the District Department of the Environment (DDOE), in cooperation with the Stormwater Management Division of DDOE, will coordinate the design, construction, and installation of a trash and sediment BMP in addition to a stream restoration project. The project is located on Nash Run, a tributary of the Anacostia River, with the trash and sediment BMP located at the separate storm sewer outfall and stream restoration taking place downstream of the outfall. DDOE is looking for an integrated design that maximizes removal of trash and sediment from stormwater, increases the ecological function of Nash Run, and minimizes stream bank erosion. This Scope of Work (SOW) is to develop 100% designs and bid ready construction specifications for both a trash and sediment BMP and an 800 linear foot stream restoration project. All property is located on land owned by the District of Columbia (District), with some work to be performed on or near storm sewer pipes which are property of the District Water and Sewer Authority (DCWASA). The project area is located west of Kenilworth Ave. NE, between Douglass St. to the north and Ord St. to the south. Once the designs have been approved and permitted and the construction and bid specifications completed, if sufficient funds exist, the District will solicit bids for the implementation of the project and contract a firm for the installation of either one component of the project, either the BMP or stream restoration, or both at the same time.

### BACKGROUND

Located in northeast Washington, DC, Nash Run is a first-order tributary of the Anacostia River. The headwaters of the stream are located in Prince George's County, Maryland, but 75% of the watershed is within the borders of the District. The stream is piped beginning in Prince George's County and outfalls east of Kenilworth Avenue in North East DC. The Nash Run sewer shed encompasses a 229-acre area in the District, 112 acres (49%) of which is impervious. The stream has an estimated normal flow of two cubic feet per second.

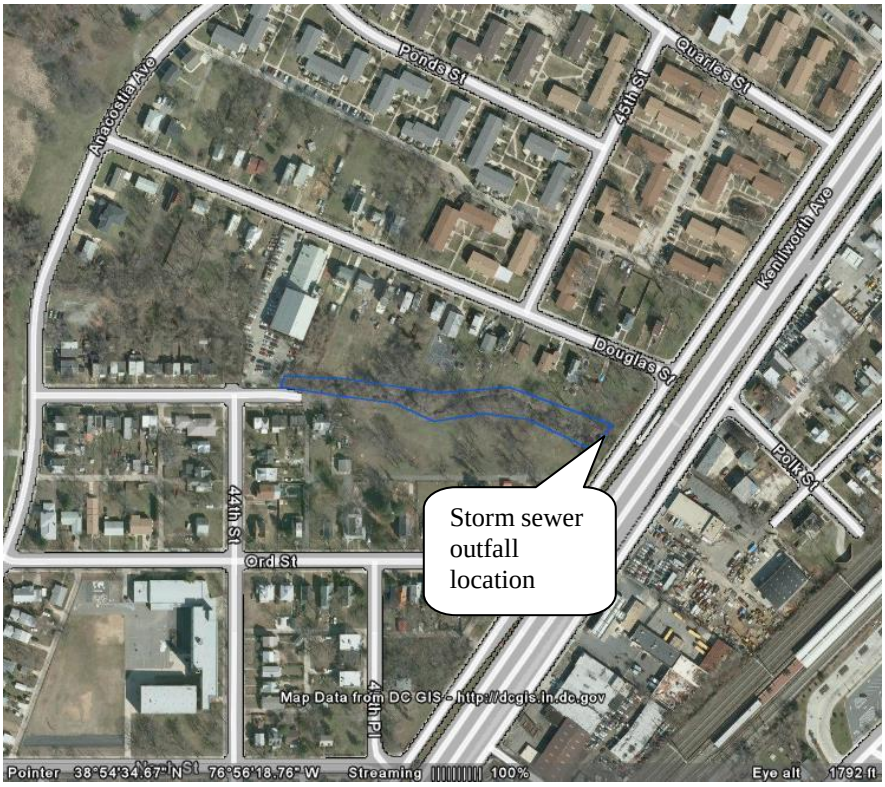
The heavily urbanized character of the Nash Run watershed, and its consequent imperviousness, produce conditions for flashy and intense stream channel flows, even during the most moderate of storm events. Considerable amounts of trash and debris wash out of the storm sewer system during rain events, choking portions of the stream and causing areas for ponding and mosquito breeding. The resulting hydrologic alterations to natural stream equilibrium have deteriorated the water quality of Nash Run and degraded natural habitat downstream of the outfall. A study on trash in the Anacostia River estimated that Nash Run produces approximately 3% of the total trash from the District that washes into the Anacostia River. This scope of work aims to develop a set of designs for a system to capture trash and sediment at the end of the storm sewer system in an effort to reduce these loads on the Anacostia River.

Installing the end of pipe BMP coupled with stream restoration at Nash Run will improve water quality in the stream, reducing sediment and floatable pollution. DDOE encourages the use of environmentally friendly and sound engineering techniques in the design and installation of the trash and sediment capturing system.

The agency directing this project is DDOE. As appropriate the Contractor and DDOE will consult with DCWASA, DC Parks and Recreation, and the District Department of Transportation. This scope of work covers the planning, development, and permitted designs for a trash and sediment

capture and reduction system as well as the installation of native plant landscaping around the site.

**Project Work Area:**




**PROJECT GOALS**

- **To design an end of pipe BMP on Nash Run Storm Sewer outfall capable of removing over 80% of the net annual total suspended solid (TSS) load based on a 20-micron particle size (ie. $D_{50}$ for Sil-Co-Sil 106Sil).**
- **To design a trash collection system that maximizes the collection of trash from the storm sewer system**
- **To design a stream system that minimizes erosive forces, catches and filters sediments, and improves riparian and habitat conditions along the 800 foot stretch of stream**
- **To design a combined BMP system and stream restoration project that does not increase the DC 100 year floodplain (Special Floodplain Hazard Area) on the adjacent properties.**

**PROJECT TASKS**

**Task 1- Preliminary Site Plan/Ten (10) Percent (Conceptual) Designs**

The Contractor will develop 10 percent design plans for the proposed systems that will capture floatable trash, sediment, and reduce erosive forces while improving riparian conditions.

### Task 1.1- Preliminary Site Plan

The Contractor will develop a preliminary site plan that will include:

- A site plan of how the BMP and stream restoration will be located and operate as a complimentary system
- Estimated pollutant load reductions for the proposed BMP system
- Estimated pollutant load reductions from the proposed stream restoration work
- Examples of similar applications of the proposed BMP and stream restoration applications
- Hand-drawn concept plans to demonstrate location of system and potential post-project aesthetics of the project
- A brief summary of the long term maintenance requirement for the proposed systems

Once the preliminary site plan has been submitted to DDOE there will be a review period for DDOE staff followed by a meeting with the Contractor to discuss the preliminary site plans. Upon approval of the site plans by DDOE, the Contractor will proceed to developing the 30% Designs in Task 2.

### Task 2 – Thirty (30) Percent (Conceptual) Design

The Contractor will develop 30 percent design plans for the selected systems and prepare a Conceptual Design Report. The conceptual design will demonstrate that the selected BMP and stream restoration concepts meet the restoration objectives and are feasible to implement at the project site. The Contractor will also provide estimates for the estimated pollutant load reductions achieved individually and combined from the BMP and stream restoration components.

*Task 2.1 – Permit Preparation*

In preparation for the project permit process, the Partners will coordinate with the Contractor to complete the following tasks:

- Identify and conduct any resource and/or historical inventory (e.g., wetland delineation, forest stand delineation, and historical structure assessment) necessary for the project permits
- Identify the required permits, appropriate regulatory agencies, and other project stakeholders
- Discuss any other special conditions that may influence permitting of the project
- Discuss any preliminary meetings that either party has held with permitting agencies
- Prepare a schedule for the tasks necessary to acquire all the project permits

The Contractor will consider conducting a meeting with the Partners and regulatory agencies to discuss the necessary project permits, permit process, and permit schedule. If there is a potential for the project to have historical, archeological, and/or rare, threatened and endangered species issues, the Contractor will submit an information request letter to the appropriate regulatory agency.

The BMP and stream designs will require DDOE/WPD plan review process and completion of any necessary permit applications required for all applicable federal, state and local agencies (see DCWASA's Project Design Manual, Volume 6, Local Codes and Permitting Guidelines). **DDOE**

**will not waive permits but will provide assistance in obtaining permits. However, obtaining the permits and all fees and associated costs are the sole responsibility of the Contractor.**

*Task 2.2 – Conceptual Design Report*

The report will provide a detailed summary of the previous watershed, stream or field assessments and/or investigations related to known pollutants in the Nash Run tributary and storm sewer system. The report will clearly identify existing problems related to the storm sewer system and their impacts on the stream downstream of the outfall at Kenilworth Ave. NE. The Contractor will explain how the proposed project approach will address the causes of the stream and water quality problems.

The Contractor will provide sufficient information to allow DDOE and permit regulators to conduct an accurate evaluation of the system design without having access to any of the original assessment or investigations. Specific items that will be included in the Conceptual Report are:

*A. Site Information*

- Provide a general assessment of the storm sewer system and the impact storm water flows have on the downstream area from the outfall
- Review of as-built designs for catch basins in the storm sewershed and field verification at 4 catch basins to confirm the validity of the as-built plans
- Provide a general site map showing stream location and upstream drainage basin and drainage area
- Provide a detailed, scaled site map showing limits of study area and major features (roadways, streams, building footprints, etc.)
- Describe the project area noting the presence of wetlands (e.g., type, quality, and location), riparian buffer and trees (e.g., type, condition, size), and presence of stream/infrastructure, etc.
- Provide a map of natural resources that includes forest resources, jurisdictional and non-jurisdictional wetlands, waters of the U.S., and other environmentally sensitive features;
- Locate and describe any stormwater infrastructure within and/or near the project area. The 30 percent design plans will show the location of any outfalls, stormwater management facilities, inlets, etc.
- Locate and describe any overhead and buried utilities within and/or near the project area. The 30 percent design plans will show the locations of any utility within and/or near the project area
- Locate and describe the benchmark controls for the restoration project

*B. Stream and Watershed Assessments*

- Provide a summary of the stream and watershed assessments for the project area including, at a minimum:
    - Stream and watershed assessment methods
    - Assessment of Rosgen stream type and Rosgen valley type
    - Existing bankfull channel dimensions
    - Existing planform and profile dimensions
    - Summary of departure from potential analysis
    - Listing of stream problems
    - Problem analysis identifying relationship between causes and effects

- Provide stream assessment data including, at a minimum:
    - Cross section plots
    - Map of cross section locations
    - Longitudinal profile of facet stream features for the existing channel bottom, water surface, bankfull elevation, and low top of bank
    - Methods used to identify bankfull stage and bankfull stage indicators
    - Bankfull discharge including discussion on how the Contractor determined and validated the bankfull discharge
    - Average surveyed water surface slope, estimated average bankfull water surface slope, and valley slope
    - Summary of bed materials (substrate) and methods used to investigate bed materials

*C. Hydrologic and Hydraulic Analysis*

Using standard modeling techniques (e.g., HydroCAD, WinTR-55), develop the 2-, 5-, 10-, 15-, 50-, and 100-year flows developed from Nash Run hydrologic analysis and conduct existing and proposed hydraulic analyses for Nash Run. The hydrologic analysis will include discussion of hydrologic modeling methods used and model calibration. Traditional methods including HEC-RAS will be used to approximate and model existing and proposed water surfaces and hydraulic parameters associated with these flow events. The hydraulic analysis will include a summary of any floodplain studies including FEMA mapping and modeling; FEMA existing water surface profiles and mapping; a review of floodplain limits and adjacent properties; and identification of structures/infrastructures that are subject to flooding.

*Task 2.3 Conceptual Design Plans*

The Contractor will prepare a set of conceptual design plans prepared using AutoCAD or similar software. The plans will include:

- A general location map showing the restoration location and adjacent roadways that will be used to access the site during construction
- Scaled map(s) of the restoration reach showing existing conditions, utilities, delineated wetlands, existing 100-year FEMA floodplain boundary (may be provided in the hydrologic and hydraulic analysis), waters of the U.S., and major topographic features such as roads, bridges, etc.
- Scaled map(s) of the restoration reach showing proposed conditions including BMP location, the stream alignment, proposed bankfull width, and type and location of instream structures
- Longitudinal profile of existing and proposed conditions showing channel thalweg and bankfull stage
- Typical design cross sections

The scaled map(s) will be developed from a topographic basemap and survey data provided by DDOE. Additional survey may be required.

*Task 2.4 Conceptual Construction Cost Estimate*

The conceptual construction cost estimates will be for the proposed time of construction and consider potential factors that may influence the cost of materials and construction. During subsequent design phases, the Contractor will refine the construction cost estimate. The accuracy of the cost estimate will be within 35 percent of the actual construction cost. Any significant cost changes in subsequent design phases will require a written justification submitted to DDOE. The Contractor will prepare a conceptual level construction cost estimate that will provide an estimate of material quantities and unit price costs. The contractor will also provide phased cost estimates, breaking out construction costs for the installation of the BMP and stream restoration.

*Task 2.5 Conceptual Design Submission Package*

The Contractor will submit six (6) hard copies of the draft Concept Design Report and six (6) full-sized (i.e., 24 x 36 inches) hardcopies of the conceptual design plans to DDOE for review. After receiving written comments from DDOE, the Contractor will address the comments and finalize the report. The Contractor will provide DDOE with six (6) hardcopies and a PDF file of the final Conceptual Design Report.

After receiving written comments and/or mark-ups of the conceptual design plans from DDOE, the Contractor will provide a written response to DDOE discussing how the Contractor will address the comments on the conceptual design plans and incorporate the conceptual design comments/revisions into the 60 percent design plans.

**Task 3 – Sixty (60) Percent Design**

The purpose of the 60 percent design plans is to update design plans to address conceptual design comments provided by DDOE. The 60 percent design plans will build on the conceptual designs and include the alignment geometry, proposed grading, revised longitudinal profile, detailed cross sections (i.e., cut sheets), structure details, erosion and sediment control plan, and planting plan. The 60 percent design submission will include the Hydrologic and Hydraulic Study Report with the results of the flood modeling and sediment transport analysis, the construction specifications, the revised cost estimates, and the 60 percent design plans.

*Task 3.1 Permit Preparation*

Prior to the 60 percent design, the Contractor will complete any necessary resource and/or historical inventory (e.g., wetland delineation, forest stand delineation, and historical structure assessment). During the 60 percent design, the Contractor will coordinate with regulatory agencies to ensure that all necessary regulatory reviews (e.g., jurisdictional determination) are completed for the resource and/or historical inventories.

To facilitate the permit review process, the Contractor will schedule a pre-application meeting with the regulatory agencies to review the 60 percent design plans. The Contractor will submit written responses to the regulatory agencies' comments/revisions to the 60 percent design plans. The Contractor will also submit the written responses and documentations of any plan changes to DDOE.

Stream restoration and BMP designs will require DDOE/WPD plan review process and completion of any necessary permit applications required for all applicable federal, state and local agencies (see DCWASA's Project Design Manual, Volume 6, Local Codes and Permitting

Guidelines). **DDOE will not waive permits but will provide assistance in obtaining permits. However, obtaining the permits and all fees and associated costs are the sole responsibility of the Contractor.**

*Task 3.2 Hydrologic and Hydraulic Analysis Report*

The Contractor will include a Hydrologic and Hydraulic Analysis Report with the 60 percent design submission. The hydrologic and hydraulic analysis will evaluate flood stages, stream velocity, shear stress, and stream power, and compare existing and proposed flood conditions. The analysis will also evaluate and compare existing and proposed sediment transport, both competency (i.e., size) and capacity (i.e., load). The Contractor must state which method it used for analyzing sediment transport and why it selected that particular method. In addition, the hydrologic and hydraulic analysis will, at a minimum:

- Document that the proposed project creates no grade-line increase in water elevation in the upstream storm sewer system
- Model the sewer system upstream of the outfall to verify no back-ups would occur during a 15 year storm event
- Review existing FEMA floodplain studies and include a discussion of existing floodplain model and discharges used to develop existing floodplain limits
- Document the development of a revised existing floodplain model and any revised discharges, if the existing FEMA floodplain delineation is inaccurate
- Document the proposed floodplain model
- Prepare water surface profiles for the existing floodplain model, revised existing floodplain model, and proposed floodplain model
    - Profiles and data will be consistent with floodplain management requirements
    - Profiles will be included in the hydrologic and hydraulic analysis or on the 60 percent design plans (if a hydrologic and hydraulic analysis is not done)
- Prepare a tractive force analysis that evaluates boundary shear stress for existing and proposed conditions
    - Compare existing and proposed shear stress
    - Compare existing and proposed stream power and stage or discharge
    - Determine the appropriate sediment transport capacity and competence for the stream
    - Document that the proposed design will provide the correct sediment transport capacity and competence

*Task 3.3 Sixty (60) Percent Design Plans*

The 60 percent design plans are a refinement of the 30 percent design plans. The 60 percent design plans will include:

- Revised scaled map of the restoration reach showing existing conditions, utilities, property ownership, delineated wetlands, waters of the U.S., existing FEMA 100-year floodplain boundary (may be provided in the hydrologic and hydraulic analysis), and other major topographic features such as roads, bridges, etc.
- Revised scaled map of the restoration reach showing proposed conditions including BMP location, stream alignment, proposed bankfull width, detailed grading, type and location of instream structures, and location of existing and proposed FEMA 100-year floodplain boundaries (may be provided in the hydrologic and hydraulic analysis)

- Revised longitudinal profile of existing and proposed conditions showing channel thalweg, bankfull stage, utility, bridge low cord, and instream structure locations
- Alignment geometry with stakeout chart
- Typical design cross sections
- Design cross sections with existing topography and proposed grading
- Standard structure details
- Sequence of construction

*Task 3.4 Erosion and Sediment Control*

The erosion and sediment control (ESC) plans are not a separate set of plans and will be included in the project design plans as part of 60 percent design. The ESC plans will include, at a minimum:

- ESC cover sheet providing 2003 District of Columbia Standards and Specifications for Soil Erosion and Sediment Control language and legend
- ESC plan views for each phase of construction
- ESC standard detail sheets and notes taken from 2003 District of Columbia Standards and Specifications for Soil Erosion and Sediment Control guidelines
- Detailed narrative describing intent of project (or site information) and sequence of construction

The Contractor will refer to 21 DCMR § 538 for complete guidelines for ESC, which can be found at http://os.dc.gov/os/frames.asp?doc=/os/lib/os/info/odai/title_21/title21_chapter5.pdf

It is suggested that the Contractor completes the ESC plans prior to the pre-application meeting with the regulatory agencies, because the meeting is an excellent opportunity to ask or respond to specific questions and obtain immediate feedback.

*Task 3.5 Construction Cost Estimate*

The Contractor will update the construction cost estimate and provide written justifications for any significant changes to the cost estimate provided in the 30 percent design submission.

*Task 3.6 Construction Specifications*

The Contractor will submit draft construction specifications with the 60 percent design plans. DDOE will provide the Contractor with the specification standards and guidelines necessary to prepare the construction specifications.

*Task 3.7 Maintenance Specifications*

The Contractor will submit a draft plan for the requirements to properly maintain the proposed system which will include but not be limited to a timeline of maintenance activities, equipment requirements, and estimated costs for yearly maintenance activities.

*Task 3.8 Sixty (60) Percent Design Submission Package*

The Contractor will submit six (6) hard copies of the draft Hydrologic and Hydraulic Analysis Report, draft specifications, revised cost estimates, and six (6) full-sized (i.e., 24 x 36 inches)

hardcopies of the 60 percent design plans to DDOE for review. After receiving written comments from DDOE, the Contractor will address them and finalize the report. The Contractor will provide DDOE with three hardcopies and PDF files of the final Hydrologic and Hydraulic Analysis Report, draft specifications, and revised cost estimates.

After receiving written comments and/or mark-ups of the 60 percent design plans from DDOE, the Contractor will provide a written response discussing how it will address the comments on the 60 percent design plans and incorporate the 60 percent design comments/revisions into the 90 percent design plans.

**Task 4 – Ninety (90) Percent Design**

The purpose of the 90 percent design plans is to update the 60 percent design plans to address agency comments and to submit ESC plans for permitting, if one was not already submitted to the regulatory agency. The 90 percent design submission will include the revised construction specifications, the revised cost estimate, and the 90 percent design plans.

*Task 4.1 Permit Preparation*

To facilitate the permit review process, the Contractor will consider scheduling another pre-application meeting with the regulatory agencies to review the 90 percent design plans, especially if the ESC plans were not included in the 60 percent design plans.

If another pre-application meeting occurs, the Contractor will submit written responses to the regulatory agencies' comments/revisions to the 90 percent design plans. The Contractor will also submit the written responses and documentations of any plan changes to DDOE.

BMP and stream restoration designs will require DDOE/WPD plan review process and completion of any necessary permit applications required for all applicable federal, state and local agencies. **DDOE will not waive permits but will provide assistance in obtaining permits. However, obtaining the permits and all fees and associated costs are the sole responsibility of the Contractor.**

*Task 4.2 Ninety (90) Percent Design Plans*

The 90 percent design plans are a refinement of the 60 percent design plans. The 90 percent design plans will include:

- Detailed plans showing location of BMP and stream restoration efforts
- Itemized time schedule for construction (e.g., mobilization, ESC installation)
- Updated estimated pollution load reductions
- Revised scaled map of restoration reach showing existing conditions, utilities, delineated wetlands, waters of the U.S., existing FEMA 100-year floodplain boundary (may be provided in the hydrologic and hydraulic analysis), and other major topographic features such as roads, bridges, etc.
- Revised scale map of restoration reach showing proposed conditions including stream alignment, proposed bankfull width, detailed grading, type and location of instream structures, and location of existing and proposed FEMA 100-year floodplain boundaries (may be provided in the hydrologic and hydraulic analysis)

- Revised longitudinal profile of existing and proposed conditions showing channel thalweg, bankfull stage, utility, bridge low cord, and instream structure locations
- Longitudinal profile summary table with relevant cross section channel elevations (e.g., active channel toe, bankfull, top of bank)
- Revised alignment geometry with stakeout table
- Revised design cross sections with existing topography and proposed grading
- Revised ESC plans
- Structure (e.g., cross vane, step-pool) tables with relevant structure elevations
- Construction access locations and details
- Planting plan (see footnote on page 1 of this scope of work)
    - Planting zones
    - Upland, riparian, and temporary seed mix
    - Planting standard details
    - Plant species, size and quantity chart
- A detailed hydrologic and hydraulic reporting demonstrating a no grade-line increase in the Nash Run storm sewer system as a result of the project

*Task 4.3 Construction Specifications and Construction Cost Estimate*

The Contractor will update the construction specifications and construction cost estimates, and provide written justifications for any significant changes to the cost estimate provided in the 60 percent design submission. Estimates and constructions specifications will be developed so that they can be bid as either individual projects or one combined project.

*Task 4.4 Maintenance Plan*

An updated maintenance plan if more accurate information is available for timeline of maintenance, equipment requirements, and costs.

*Task 4.5 Ninety (90) Percent Design Submission Package*

The Contractor will submit six (6) copies of the revised construction specifications and revised cost estimates, and six (6) full-sized (i.e. 24 x 36 inches) hardcopies of the 90 percent design plans to DDOE for review. After receiving written comments from DDOE, the Contractor will address the comments and finalize the revised specifications and revised cost estimates. The Contractor will provide DDOE with six (6) hardcopies and PDF files of the final revised specifications and revised cost estimates. After receiving written comments and/or mark-ups of the 90 percent design plans from DDOE, the Contractor will provide a written response discussing how it will address the comments on the 90 percent design plans and incorporate the 90 percent design comments/revisions into the 100 percent design plans.

**Task 5 – One Hundred (100) Percent Design**

The 100 percent design plans are a refinement of the 90 percent design plans. The Contractor should be aware that it might be required to make additional revisions to the 100 percent design plans and supporting documents by DDOE and the regulatory agencies during their project review. The 100 percent design plans will require the signature and stamp of a professional engineer licensed by the District of Columbia prior to the joint Federal/State permit application and 100 percent design submission to DDOE.

*Task 5.1 Permit Application(s)*

Prior to submitting the joint Federal/State permit (joint permit) application, the Contractor will obtain any necessary approvals for the resource inventories conducted during the restoration project from the regulatory agencies (e.g., wetland jurisdictional determination for the wetland delineation). The Contractor will schedule a permit application meeting with the regulatory agencies to review the joint permit application and 100 percent design plans. The Contractor will submit written responses to the regulatory agencies' comments/revisions to the 100 percent design plans. The Contractor will also submit the written responses and documentations of any plan changes to DDOE. The Contractor will prepare and submit the joint permit application on behalf of DDOE. The Contractor will submit six (6) copies of the cover letter, joint permit application, full-sized (i.e., 24 x 36 inches) hardcopies of the 100 percent design plans, and any other relevant supporting documentation to DDOE. DDOE will identify all the relevant permits for the restoration project. The Contractor will also prepare and submit any other relevant permits on behalf of DDOE. If there are regulatory agencies' comments/revisions following the submission of the permit application(s), the Contractor will submit written responses to the regulatory agencies' comments/revisions to the permit application(s) and 100 percent design plans. The Contractor will also submit the written responses and documentations of any plan changes to DDOE.

BMP and stream restoration designs will require DDOE/WPD plan review process and completion of any necessary permit applications required for all applicable federal, state and local agencies (see DCWASA's Project Design Manual, Volume 6, Local Codes and Permitting Guidelines). **DDOE will not waive permits but will provide assistance in obtaining permits. However, obtaining the permits and all fees and associated costs are the sole responsibility of the Contractor.**

*Task 5.2 One Hundred (100) Percent Design Plans*

If there are substantial comments on the 90 percent design plans, the Contractor may want to submit three (3) pre-final proof sets of the 100 percent design plans as a final check before submitting final plans. Any changes that occur because of comments on 90 percent design plans will be discussed with DDOE prior to submission of 100 percent design plans.

*Task 5.3 Construction Specifications and Construction Cost Estimate*

The Contractor will update the construction specifications and construction cost estimate, and provide written justifications for any significant changes to the cost estimate provided in the 90 percent design submission.

*Task 5.4 Maintenance Plan*

The Contractor will provide an updated maintenance plan with timeline, equipment requirements, and cost estimates.

*Task 5.5 One Hundred (100) Percent Design Submission Package*

The Contractor will submit six (6) copies and PDF files of final construction specifications and final cost estimates, and two full-sized (i.e. 24 x 36 inches) hardcopies and one (1) set of mylars of the 100 percent design plans that are signed and stamped by a professional engineer licensed in

the District of Columbia to DDOE. The page size for the 100 percent design plans PDF file(s) will be 24 x 36 inches.

**Task 6 – Prepare Construction Bid Packages**

The Contractor will prepare construction bid packages with design documents for the trash and sediment reduction system. The design documents will include:

- Base maps from surveys and background information
- Contract plans and specifications including an operations plan for construction of both the BMP and the stream restoration
- Stream alignment based on the selected design alternative
- Identification of the locations and requirements for Contractor storage/lay down areas, access roads, and limits of construction;
- All necessary permits from government agencies, which will be the responsibility of the design Contractor
- A detailed planting plan for stream restoration work
- Traffic control plans as specified by DDOT, if required

A comprehensive operations plan will be developed by the Contractor. The operations plan will include an erosion and sediment control plan, tree protection specifications, an access road plan, identification of the Contractor lay down area(s), specified work zone limits, and safety regulations. The operations plan will address prevention of damage to lands outside of the accepted limits of disturbance.

The operations plan will also address the timing of each phase of construction, and specify the size and type of materials and machinery needed for the restoration work. To the extent possible, any specific methodologies required to reduce the environmental impact of the restoration work will be provided, e.g., using rubber-tracked vehicles or placing materials to reinforce land to be driven on by heavy machinery. Access points must be approved by all agencies involved.

**Task 7 – Progress Meetings**

As a part of the development of the BMP and stream restoration designs, the Contractor will meet with the DDOE/WPD project manager on a monthly basis to review the status of the design work and address any issues that have arisen since previous meetings. Minutes of each meeting will be prepared and circulated. DDOE project manager will gather all stakeholder comments for contractor to review after each submittal has been reviewed by appropriate agencies. DDOE project manager will also arrange for stakeholder meetings for contractor to present designs at each submittal phase.

The Contractor will need to provide six (6) submittals at the schedule listed below and with the quantities listed below. All agencies shall have sufficient time and number of copies to review and comment based on their appropriate area of authority as outlined in the MOU. The Contractor will hold progress meetings every other month with all agencies involved or as necessary to complete the work.

| | | |
|---|---|---|
| Project Work Plan | 2 weeks after Notice to Proceed (NTP) | 6 copies |
| 10% Design Submittal | 1 month after NTP | 6 copies |
| 30% Design Submittal | 3 months after NTP | 6 copies |

| | | |
|---|---|---|
| 60% Design Submittal | 5 months after NTP | 6 copies |
| 90% Design Submittal | 7 months after NTP | 6 copies |
| Final Design Submittal | After all permits approved* | 6 copies |

*Note: The 30% Design Submittal will include an artistic rendering of the concept for presentation to District Government Agencies, community groups, and other regulatory agencies as necessary.*

*All permits include local permits through the District Department of Consumer and Regulatory Affairs (DCRA) including but not limited to structural permits, sediment and erosion control permits, stormwater management permits, and public space permits. In addition, to local permits the necessary federal permits include but are not limited to the U.S. Army Corps of Engineers 404(d) Nationwide Permit with accompanying DDOE Water Quality Certification and FEMA's Conditional Letter of Map Revision (if applicable).