

SCOPE OF SERVICES FOR DESIGN SERVICES

RFP TITLE: CONTRACT # - GI-PSE 1, GI-PSE 2 and GI-PSE 3 for the Rotational Task Order Contract for Design Services for Green Infrastructure in New York City Parks and City-owned Street Ends

PIN: 82627P0002

I. GENERAL REQUIREMENTS:

1. The intent of this procurement is to provide design services to support the **GI-PSE 1, 2 and 3: Rotational Task Order Contract for Design Services for Green Infrastructure in New York City Parks (DPR) and City-owned Street Ends** Project. For the purposes of this contract, “Green Infrastructure” shall be defined as follows: Within the context of stormwater management, the term green infrastructure includes a wide array of practices at multiple scales to manage and/or treat stormwater, maintain and restore natural hydrology (including restoration of historic stream beds and ravines associated with reconnecting previously existing stormwater hydrology) and ecological function by infiltration, evapotranspiration, capture and reuse of stormwater, filtration, and detention. On a larger scale, green infrastructure includes, but is not limited to, ecological systems (e.g., wetlands), both natural and engineered, and protection and enhancement of riparian buffers and floodplains. On the local scale green infrastructure consists of site-specific practices, including cloudburst management. Such practices essentially result in runoff reduction, peak flow reduction through slow-release orifice controls where necessary, and/or establishment of habitat areas with significant utilization of soils, vegetation, and engineered media. Pertinent data which describes the Project, and which states various parameters pertaining to the work to be performed at the Project site, are listed herein and in the attached documents.
2. It is the purpose of this RFP to present a coordinated effort for the **GI-PSE 1, 2 and 3: Rotational Task Order Contract for Design Services for Green Infrastructure in New York City Parks and City-owned Street Ends** and to define and outline the major issues and proposed solutions to such issues involved.
3. At the completion of the 30% Conceptual, 75%, 90%, and 100% Design, DEP will determine whether to allow the Consultant to proceed to the next Interval. In no event shall the Consultant proceed to Construction Phase Services until written authorization is received from DEP.

The following scope of services provides a basic framework to meet DEP’s capital contract delivery program objectives and performance goals.

- A. The Consultant shall submit all plans, reports, and memoranda required in this Scope of Services in draft and final form, including the incorporation of all finalized stakeholder comments.

- B. DEP will provide comments to the Consultant on all deliverables within 45 calendar days of submission, except where an alternate timeframe is provided by DEP.
- C. The Consultant shall provide meeting agenda, materials, attendance sheets, and meeting minutes of all meetings, workshops, and conferences. The minutes will focus on decisions made and open action items. Minutes will be concise and delivered to DEP within three (3) business days of the meeting.
- D. The Consultant shall provide sufficient and well-organized personnel to manage the Project throughout the entire period of this Contract, consistent with industry practices as defined by the Project Management Institute. All Project Management Services shall be budgeted in the Project Phase where these services are anticipated to be provided. The corresponding project management tasks for each Phases are:

Task	Phase
Task 1.1 Project Management	Project Planning/Site Analysis
Task 2.1 Project Management	Design
Task 3.1 Project Management	Construction Procurement
Task 4.1 Project Management	Design Services During Construction
Task 5.1 Project Management	Construction Close-Out

- E. Monthly Invoices - For those portions of the Services that are compensated on the basis of Cost Plus, the Consultant shall prepare a monthly invoice, as instructed, that includes a full accounting of all labor, Project Management, ODC (inclusive of allowances) costs organized by Phase and Task.

For those portions of the services that are compensated on the basis of lump sum payments, the Consultant shall prepare a document detailing the percentage of the lump sum payment that is being invoiced by the Consultant, and the corresponding portions of the services that were performed by the Consultant and each subconsultant. An acceptance letter, signed by DEP, must accompany each lump sum item billed from DEP.

Upon DEP's request, the Consultant shall submit all documentation and justification in support of lump sum expenditures or fees, which include but is not limited to timesheets, material and supplies invoices, travel receipts and other proof of lump sum work.

The Consultant shall invoice for services performed and shall provide, in its monthly report to DEP, an accounting and a forecast of all costs at the Subtask level. The Consultant shall collect costs and maintain forecasts to the lowest level of the Scope of Services (Task, Subtask, or Sub-subtask Level) and shall provide this information when requested by DEP.

Note: The Consultant shall not invoice DEP for any efforts associated with the preparation of monthly invoices.

- F. The Consultant shall provide all Project Management Services associated with these General Requirements and the sub-Tasks (Task 1.1, 2.1, 3.1, 4.1, and 5.1) below on a Cost-Plus basis, capped at 10% of the total maximum contract value (excluding the Project Management Tasks).

The total cost of Project Management Services shall not exceed ten (10%) of the total cost of the Design, Construction Procurement, Construction. These Project Management Tasks (Task 1.1, 2.1, 3.1, 4.1, and 5.1) require DEP approval, as applicable, of each deliverable prior to payment. The total cost for the Project Management Services is capped and will not increase during the term of the Contract.

- G. The Consultant shall develop the design in accordance with DEP's most current EHS requirements set forth by Occupational Safety and Health Administration ("OSHA"), Environmental Protection Agency ("EPA"), New York State Department of Environmental Conservation ("DEC"), and any other applicable Law considering environmental impacts, construction workers' and DEP Operating Bureaus' workers' safety following the American National Standards Institute ("ANSI")/American Society of Safety Engineers ("ASSE") Z590.3 Prevention Through Design Guidelines to identify and eliminate and/or minimize hazards to operations and construction. In addition, the Consultant shall develop the designs in accordance with the most current Unified Stormwater Rule requirements, including all applicable Stormwater Pollution Prevention Plan (SWPPP) requirements.

II. TASKS:

TASK 1. PROJECT PLANNING SERVICES

Task 1.1 Project Management

The Consultant shall include in this task all Project Management Services that will occur in the Project Planning Phase. The Consultant shall prepare an initial PMP and other plans as required below that are specific to the Project Planning Phase.

Task 1.1.a. Project Kick-off Meeting

Prior to the Project Kick-Off Meeting, the Consultant shall submit a draft of its PMP for DEP review. The purpose of the Project Kick-Off Meeting is to create alignment among the stakeholders regarding the Project delivery plan, goals, objectives, expectations of all stakeholders, and measurements of success. The Consultant shall hold the Project Kick-Off Meeting prior to the start of the Design Phase. Approximately two weeks prior to the Project Kick-Off Meeting, the Consultant shall cause its project manager and document controls manager to schedule and attend a "Pre-Project Kick-Off Meeting" to review the draft PMP (including all required plans), draft Kick-Off Meeting agenda, and draft Kick-Off Meeting handouts. Appropriate DEP Project Managers, New York City Parks and Recreation (NYC Parks) Project Managers, New York City Department of Transportation and other staff as deemed necessary will attend this meeting.

Deliverables:

- 1.1.a.1. Pre-Project Kick-off Meeting
- 1.1.a.2. Project Kick-off Meeting

Task 1.1.b. Monthly Progress Reports and Progress Meetings

The Consultant shall prepare and submit a monthly progress report from the start of Pre-Project Kickoff Meeting until completion of the Project Planning Phase.

The Consultant shall cause a representative(s) who is/are intimately involved in the project to attend monthly progress meetings on direction from DEP. In each monthly progress meeting, the Consultant shall discuss items requiring feedback, review the list of outstanding issues requiring resolution, review the status of the Project's scope, review the Project's schedule and budget, and review the risk register (see Task 1.4 below). The Consultant shall be prepared to discuss and provide the status of all design deliverables and be able to provide clear and definitive direction to the project team for the timely resolution of design-related issues that may affect the Project budget and/or schedule.

The Project Manager will attend meetings only as directed by DEP.

The Consultant shall attend up to 60 monthly Progress Meetings.

Deliverables:

- 1.1.b.1. Design – Up to 60 Monthly Progress Reports and attendance at up to 60 Monthly Progress Meetings, including meeting minutes, during Planning Phase

Task 1.1.c. Monthly Invoices

The Consultant shall prepare a monthly invoice that includes a full accounting of all of the Consultant's and Subconsultants' employees performing Services under the Contract, the number of hours each worked, a breakdown of their hourly rates (broken down by salary, overhead rate, overhead factor, profit, overtime multiplier, as applicable), and ODCs organized by the individual Project Service Order Request. Prior to submitting each invoice, the Consultant shall obtain signatures from the Department acknowledging that the Department has reviewed and approved the hours invoiced. The Department will not compensate the Consultant for its efforts in developing or reviewing invoices.

Task 1.2. Public Outreach Coordination

The Consultant shall provide technical support to DEP in preparing for public stakeholder meetings at least two (2) weeks prior to scheduled public meetings to allow ample time for DEP review and modification of materials. Upon direction from DEP, the Consultant shall attend a "dry run" preparatory meeting with DEP staff. The Consultant shall prepare materials for and attend up to six (6) public stakeholder meetings under this Task.

Deliverables:

1.2.1. Public Outreach Planning Phase – Six (6) Meetings

Task 1.3. Interagency and Utility Coordination

The Department will provide any necessary procedures and guidance on how to work with the Department of Parks and Recreation (“DPR”), Department of Transportation, and other agencies and utilities as necessary in order to successfully implement GI Designs.

Task 1.4. Permitting and Regulatory Agency Approvals

If permits are required, the Consultant shall be responsible for acquiring all permits necessary to deliver the project and to support the Department in preparing and securing the requisite approvals and permits in a timely manner so as not to impact on the project schedule. This must include any required submittal to, and approvals from, the City’s Public Design Commission (“PDC”). The Consultant shall amend any permit applications as required by the permitting and regulatory agencies to obtain and maintain project permits.

Task 1.5. Existing Conditions Assessment

The Consultant shall review the Department’s GIS Sewer Maps, NYC Parks Record Drawings and any other existing conditions of the Project Site or Project Area to confirm scope, requirements and extents. The Consultant shall conduct site visits and review as-built drawings, historic borings records, site connection records (perform drain cleaning dye tests if necessary), and existing documentation as well as existing hazardous materials investigations, if necessary. If necessary, the Consultant shall coordinate with DPR for the purpose of identifying conflicts of any kind for any proposed GI project locations.

Task 1.5.a. Conduct Site Visits to Verify Existing Record or As-Built Drawings and Prepare Photographic Inventory

The Consultant shall review record drawings and/or as-built drawings and conduct site visits to verify as-built drawings and record existing conditions. The Consultant shall conduct site visits to assess and document the overall condition of the equipment, buildings, road, and infrastructure at the preliminary locations (additional locations will be added during duration of contract) provided with this RFP and associated facilities that may be impacted by the construction of the Project. In conducting these site visits, the Consultant shall inspect all facilities that will be impacted by construction with the goal of minimizing the need for field condition construction contract change orders. The inspection of the visible infrastructure must focus on physical conditions, expected life, and obvious code violations.

The Consultant shall consult with the Department to identify where existing records are inconclusive, and in such cases, the Consultant shall recommend appropriate testing or resolution. The Department will approve the testing or resolution plan, and the Consultant shall carry out the plan and report on the results. Existing conditions assessments may include but are not limited to drain cleaning, dye testing, site drainage analysis, structural analysis, and utility plan review.

For exposed physical features, the Consultant shall prepare a photographic log with detailed descriptions, accompanied by a photo-location map with photo number and direction facing.

Prior to concluding on-site investigations, the Consultant shall coordinate an Initial Findings Meeting with the Department to discuss significant findings and describe the investigation's next steps and intended direction, and to solicit DEP's feedback and comments.

The Consultant shall provide a memorandum documenting all observations during the site visits and highlighting deficiencies. The memorandum shall include copies of photographs, sketches, field notes, references, and other material documenting the existing conditions or necessary to draw conclusions on the condition of current facilities.

Deliverables:

- 1.5.a.1. Initial Findings Meeting
- 1.5.a.2. Photographic Inventory (limited to areas expected by Consultant to be impacted by scope of construction)
- 1.5.a.3. As-Built and Record Drawing Verification and Observations Memorandum (limited to areas expected by Consultant to be impacted by scope of construction)

Task 1.5.b. Collect Preliminary Geotechnical Information

The Consultant shall collect existing geotechnical information including historical United States Geological Survey ("USGS") data, previous geotechnical investigation reports, and field notes from previous on-site construction. The Consultant shall also conduct geotechnical investigatory services necessary to define the underground conditions necessary to advance the engineering design of the Project. The Consultant shall describe the results of the investigatory services in a Geotechnical Data Report and a Geotechnical Interpretive Report. Although environmental sampling is not recommended during the Project Planning Phase, the existing geotechnical information and results of the preliminary geotechnical investigation, as applicable, shall be reviewed by the Consultant for evidence of potential contamination affecting soil management strategies developed during the Project Planning Phase (e.g., reported spill events, solid waste/debris-containing fill, chemical staining, odor complaints, etc.).

Deliverables:

1.5.b.1. Preliminary Geotechnical Report

Task 1.5.c. Prepare Site Topographic and Underground Utility Survey

The Consultant shall conduct necessary field surveys and topographic and utility mapping for design purposes. The Consultant shall prepare a site topographic map within the Project scope area to support preparation of construction contract documents. The site topographic and utility mapping must include the location of all underground utilities in areas potentially disturbed by construction. The Consultant shall perform field investigatory services that may include potholing and test pits to verify location and size of critical underground infrastructure, as necessary, to conduct alternative analyses and prepare the construction contract documents.

Deliverables:

1.5.c.1. Site Topographic and Underground Utilities Survey Report

Task 1.5.d. Existing Conditions Assessment Report

The Consultant shall incorporate the findings derived from Task 1.5.a through 1.5.c into an Existing Conditions Assessment Report. The report will summarize the findings from site visits, the review of historical data, the review of as-built drawings, and a comparison with current conditions and any physical testing of the facility critical to scope. Additionally, the report must include the results of any physical testing conducted to determine Contract scope in preparation of Design. Any deviations or changed conditions from the historical data and in the as-built records must be noted. The findings must also include a summary of known and potential chemical and physical hazards that may impact the Contract scope.

Deliverables:

1.5.d.1. Existing Conditions Assessment Report

Task 1.6. Basis of Design Workshop

Public Design Commission (“PDC”) Conceptual Review Workshop: If required, the Consultant shall prepare materials to meet the PDC requirements. The Consultant shall incorporate all required design changes resulting from the workshop into the design.

Deliverables:

1.6.a.1. PDC Workshop

TASK 2. DESIGN PHASE SERVICES

The Consultant shall prepare construction contract documents that meet all green infrastructure, Unified Stormwater Rule requirements and all regulatory requirements. During the Design Phase, the Consultant shall implement sound principles of Project delivery, including all PMP requirements.

Task 2.1. Project Management

The Consultant shall include in this task all Project Management Services efforts that will occur in the Design Phase. The Consultant shall update the PMP and other plans developed during Project Planning, as necessary.

Task 2.1.a. Monthly Progress Reports and Meetings

The Consultant shall continue to prepare and submit a monthly progress report as begun at the start of the Project Planning Phase.

The Consultant shall cause a representative(s) who is/are intimately involved in the project to attend monthly progress meetings on direction from DEP. Monthly meetings will be managed as described in the project delivery system. In each monthly progress meeting, the Consultant shall discuss items requiring feedback, review the list of outstanding issues requiring resolution, review the status of the Project's scope, review the Project's schedule and budget, and review the risk register. The Consultant shall be prepared to discuss and provide the status of all design deliverables and be able to provide clear and definitive direction to the project team for the timely resolution of design-related issues that may affect the Project budget and/or schedule.

The Project Manager will attend meetings only as directed by DEP.

The Consultant shall attend up to 60 Monthly Progress Meetings.

Deliverables:

2.1.a.1. DES - Up to 60 Monthly Progress Reports and attendance at up to 60 Monthly Progress Meetings, including meeting minutes, during Design Phase

Task 2.1.b. Project Management Plan

The Consultant shall update Project PMP as necessary to reflect changes in the Project.

Deliverables:

2.1.b.1. PMP Update – Design Phase

Task 2.2. Public Outreach Coordination

The Consultant shall continue to provide technical support to DEP in preparing for public stakeholder meetings. Upon direction from DEP, the Consultant shall attend a “dry run” preparatory meeting with DEP staff. The Consultant shall prepare materials for and attend 10 public stakeholder meetings under this Task.

Deliverables:

2.2.1. PMP Update

2.2.2. Design Phase - 10 Public Meetings

Task 2.3. Permitting and Regulatory Agency Approvals

The Consultant shall finalize the permit requirements necessary to deliver the Project and update the Regulatory Compliance Management Plan at the initiation of the Design Phase to finalize the regulatory compliance roles and responsibilities for the project and finalize the strategies for obtaining all necessary permits and regulatory agency approvals for the project. The Consultant shall amend any permit applications as required by the permitting and regulatory agencies to obtain and maintain project permits.

The Consultant shall:

1. prepare all permit applications and associated material to support DEP in securing the requisite permits in a timely manner so as not to impact the Project schedule.
2. manage all identified permits to report on status of all permit applications and permit compliance tasks monthly.
3. provide a Regulator Compliance Transition Plan at the end of the Design Phase to shift the responsibilities of permit administration to the CM.

Deliverables:

2.3.1. Regulatory Compliance Management Plan – Update

2.3.2. Prepare and submit all permit applications

2.3.3. Monthly Permit Process updates

Task 2.4. Public Design Commission Approval

The Consultant shall comply with Public Design Commission (“PDC”) requirements referenced in the project delivery system and on the PDC’s website. The Consultant must meet with DEP PDC Liaison at the 30%, 75%, and 100% design deliverable

milestones to discuss the preparation and submission of the conceptual, preliminary and final designs for review by the PDC. If critical changes are made at any point during the project, as defined on the PDC website, the Consultant shall notify the DEP Commissioner, Project Manager, and DEP's PDC Liaison within 10 calendar days of the change to obtain PDC approval of the change.

Deliverables:

- 2.4.1. Material preparation and submission of the conceptual designs for PDC review
- 2.4.2. Material preparation and submission of design milestones for PDC review

Task 2.5. Technical Investigations and Reports

The Consultant shall conduct technical investigations and document findings as described below to support the construction contract documents and in compliance with the Department's most current "**LIMITED GEOTECHNICAL INVESTIGATION PROCEDURES FOR ON-SITE GREEN INFRASTRUCTURE PRACTICES**" (latest version).

Task 2.5.a. Final Geotechnical Investigations, Data Report and Interpretive Report

The Consultant shall conduct all the necessary geotechnical investigatory services, as approved by DEP, to define the underground conditions necessary to advance the engineering design of the Contract. The Consultant shall describe the results of the investigatory services in a Geotechnical Data Report and a Geotechnical Interpretive Report.

Deliverables:

- 2.5.a.1. Geotechnical Data Report and Interpretive Report- Final

Task 2.6. 30% Conceptual Design

Task 2.6.a. 30% Conceptual Design Construction Contract Documents

The Consultant shall develop construction contract documents that meet regulatory and legal requirements including, but not limited to, the New York State Wicks Law, if applicable, with a focus on minimizing construction contract change orders during the construction phase of the Project. NOTE: If a project labor agreement ("PLA") covering the Project is in place at the time of design, construction contract documents shall be prepared for a single prime contractor. If the Project is not covered by a PLA, the Consultant is not required to prepare multiple prime contract documents absent an amendment to the contract. The Consultant shall log and track all comments received from stakeholders on each deliverable. The Consultant shall address and "close out" all stakeholder comments.

The Consultant shall provide 30% Conceptual design deliverables including drawings and specifications for major items that represent all of the major Project concepts. The 30% Conceptual design must reflect the fundamental design elements (e.g., a minimum of 2" capture from tributary area) that will be incorporated into the final design.

The 30% Conceptual design deliverables include:

1. a draft list of the final drawings and specifications and corresponding table of contents;
2. Name of Project
3. Property Block and Lot Number;
4. Site vegetation survey and slopes;
5. Utility coordination, if necessary, (DEP's Bureau of Water and Sewer Operations, ConEd, National Grid, Verizon, etc.);
6. Property Size;
7. Proposed Green Infrastructure Type(s);
8. Licensed Surveyor delineation (including size) of on-Site and off-Site (e.g., street) tributary drainage basin characteristics and flow patterns and paths. Complete Flow Calculation Summary Form (Appendix A.10);
9. Boring and Permeability test results and dimensioned locations of each;
10. Existing and proposed land uses within the tributary drainage basin, if known;
11. Existing conveyance facilities that will be incorporated or modified into the design of Green Infrastructure facilities;
12. To the greatest extent possible, rough construction estimate of proposed GI features (including unit items and quantity);
13. Stormwater capture volume per green infrastructure practice per drainage area size;
14. Summary of operational considerations;
15. Critical path method ("CPM") construction schedule;
16. Photographs of the site and of the proposed GI practice locations.
17. comment tracking log worksheet consolidating and responding to all stakeholder comments for reconciliation at the comments review and scope freeze workshop;

Deliverables:

3.11.a.1 30% Conceptual Design Deliverables

Task 2.6.b. 30% Conceptual Design Workshops and Meetings

The Consultant shall conduct workshops to facilitate review of design progress by DEP and review and respond to comments. The Consultant shall schedule and attend workshops on the same day as the monthly progress meetings, to the extent practicable.

At the completion of the 30% Conceptual design documents, the Consultant shall conduct 30% Conceptual design workshops, which will consist of the following:

1. a 30% Conceptual design presentation workshop, wherein components of the Project scope, schedule, and budget are presented to DEP. The Consultant shall be responsible for noting comments provided during the meeting and preparing responses;
2. a 30% Conceptual submission comments review workshop;
3. If required, a 30% Conceptual Design PDC Design Liaison Meeting

Deliverables:

- 2.6.b.1. 30% Conceptual Design Presentation Workshop
- 2.6.b.2. 30% Conceptual Design Comment Review Workshop
- 2.6.b.3. 30% Design PDC Design Liaison Meeting (if required)

Task 2.7. 75% Design

Task 2.7.a. 75% Design Construction Contract Documents

The 75% design consists of a progress set of drawings and specifications between the 30% Conceptual and 90% designs. The Consultant shall attend design coordination meetings after the advanced schematic and 75% design phases, and as may be requested by the Department, to facilitate review of design progress and respond to partnering agency comments. Additional workshops may be necessary to review specific critical issues needing broad stakeholder review or maintenance alignment. The Consultant shall identify additional meetings necessary to meet project objectives and goals, as identified in the PMP.

The 75% design deliverables include the following:

1. Detailed Schematic review comments that were sent to the Designer have been addressed in the 75% plan (including written response to DEP's comments);
2. Provide boring log and permeability information and locations. A list of any additional design criteria not already included in the advanced Schematic submittal;

3. Overall Site dimensions;
4. Adjoining streets and property lines;
5. Overall plan, orientation, and location of existing and proposed work; location to be shown by dimensions from existing reference points;
6. Contours (existing and proposed), including final grade elevations at all GI facilities, drainage infrastructures, grading plan, etc;
7. Sections and profiles, details and detail sections;
8. Elevations of proposed and existing GI practices;
9. Walkways, driveways, or other features relative to the work including slopes and cross-slopes of accessible routes;
10. Location and critical elevations of utilities, wells, drainage pipes, etc;
11. Benchmark(s);
12. Estimated cost, including proposed items and quantities;
13. Soil investigation data (separate presentation of data may be referred to on site plan);
14. Documents the design criteria, methodology, drainage areas/treatment areas, calculated volumes/flows, BMP selection, and maintenance requirements, drainage report, etc.;
15. Draft Critical Path Method (CPM) construction schedule;
16. Draft a maintenance manual;
17. Fill out DEP Hydrologic Calculation spreadsheet;
18. Total tributary drainage area (square feet) for each GI practice;
19. Total impervious tributary area within the total tributary drainage area (square feet) for each installation if more than one, and the stormwater capture volume capacity for each.

Deliverables:

2.7.a.1. 75% Design Deliverables

Task 2.8. **90% Design**

Task 2.8.a. 90% Design Construction Contract Documents

The 90% design must consist of the Consultant's completed drawings and specifications including resolution and incorporation of all comments submitted during the 30% and 60% design reviews.

The 90% design deliverables include the following:

1. Design drawings (all sheets for all disciplines);
2. Detailed narrative describing any design changes between the 60% and 90% submissions and justification for such changes;
3. Final calculations for all project elements;
4. Final maintenance manual;
5. Final engineer's estimate, including proposed items and quantities.

Deliverables:

2.8.a.1. 90% Design Draft Deliverables

Task 2.9. 100% Design

The Consultant shall submit a set of 100% Design Construction Contract Documents to DEP consisting of all drawings and specification sections necessary to solicit competitive bids for the construction of the Project. The Consultant shall address all of DEP's, the NYC Corporation Counsel's, Regulatory and Permitting Agency's comments, and other Stakeholders' comments in this set and resolve all disagreements and open issues prior to submittal. The Consultant shall submit final biddable documents representing 100% completion to DEP. DEP's acceptance of the 100% complete design documents constitutes the conclusion of the design phase of the Project.

The 100% Design Construction Contract Documents update shall be Signed and Sealed by the Engineer of Record.

Deliverables:

2.9.1. 100% Design – Final Specifications and Drawings

TASK 3. CONSTRUCTION PROCUREMENT PHASE SERVICES

The Consultant shall support DEP as required below during the Project's Construction Procurement Phase.

Task 3.1. Project Management

The Consultant shall include in this task all Project Management Services efforts that will occur in the Construction Procurement Phase, as necessary.

Task 3.1.a. Monthly Progress Reports and Meetings

The Consultant shall continue to prepare and submit a monthly progress report as begun at the start of Project Planning Phase.

No Design Progress Meetings will be scheduled during the Construction Contract Procurement Phase of the Project.

The Consultant shall submit up to 10 monthly Progress Reports.

Deliverables:

3.1.a.1. PRO – Up to 10 Monthly Progress Reports during Procurement Phase

Task 3.2. Public Outreach Coordination

The Consultant shall continue to provide technical support to DEP in preparing for public stakeholder meetings. Upon direction from DEP, the Consultant shall attend a “dry run” preparatory meeting with DEP staff. The Consultant shall prepare materials for and attend 6 public stakeholder meetings under this Task.

Deliverables:

3.2.1. 6 Public Meetings

Task 3.3. Consultant Construction Procurement Phase Services

Task 3.3.a. Pre-Bid Conference

The Consultant shall cause a representative to participate in the pre-bid conference and 3 site visits and be available to answer questions, as necessary.

Deliverables:

3.3.a.1. Pre-Bid conference presentation

3.3.a.2. Pre-Bid conference

Task 3.3.b. Addendum Preparation

The Consultant shall assist DEP with responding to all questions from prospective bidders and developing, printing, and distributing all required responses and addenda. Changes to the contract documents, as required, whether to support the responses to the questions or to correct errors or omissions shall be made by the issuance of addenda to the Construction Contract Documents by DEP. The Consultant shall also provide associated updates to the construction cost estimate. The Consultant shall not invoice DEP for any efforts associated with the preparation and issuance of Addenda due to errors or omissions in the construction contract Documents.

Deliverables:

- 3.3.b.1. Addenda (as required)

Task 3.3.c. Bid Evaluation Assistance

After DEP opens the bids for each construction contract, DEP will evaluate the bids to determine if the bids are balanced, reasonable, and responsive.

As directed by DEP, the Consultant shall be required to explain the basis of its cost estimate to assist DEP in determining if the apparent low bidder's Lump Sum and unit cost items and equipment cost items are bid appropriately.

Additionally, if directed by DEP, the Consultant shall participate in a pre-award meeting with DEP, a negotiation meeting with the apparent low bidder, and an award meeting with the Contractor.

Deliverables:

- 3.3.c.1. Bid evaluation assistance
- 3.3.c.2. Pre-Award meeting with DEP
- 3.3.c.3. Negotiation meeting with ACCO, BEPA and Contractor (if required by DEP)
- 3.3.c.4. Award meeting with ACCO, BEPA, and Contractor

Task 3.3.d. Evaluation of Construction Contractor Proposed Substitutions

The Consultant shall review any requested substitution of an "or equal" for the product of a named vendor submitted as part of the apparent low bidder's bid. Upon submission of a complete substitution request package as defined in the construction contract documents, the Consultant shall evaluate the proposed substitution against the requirements in the construction contract documents and advise the Commissioner.

Deliverables:

- 3.3.d.1. Evaluation letter recommending acceptance or rejection of proposed substitutions

Task 3.3.e. Conformed Construction Specifications and Drawings

Upon conclusion of the bid period, the Consultant shall incorporate all modifications from any addenda into a conformed copy of the construction contract documents. The Consultant shall mark all changes in the construction contract documents with a notation of the source of the change. The resulting set of documents will be known as the "Conformed Set." The Consultant shall provide an electronic copy of the "Conformed Set". The Consultant shall also provide the Construction Contract drawings in AutoCAD by Autodesk (or other format) format to the construction contractor for its use in shop drawing submittal preparation.

Deliverables:

- 3.3.e.1. Conformed Construction Specifications and Drawings

Task 3.3.f. Submittal Log Reconciliation

The Consultant shall meet with the CM prior to registration of the construction contract and reconcile each entity's version of the Submittal Log. The Consultant will review the reconciled Submittal Log with DEP.

Deliverables:

- 3.3.f.1. Submittal Log Reconciliation Meeting

Task 3.4. Permitting and Regulatory Agency Approvals

The Consultant shall continue to advance preparation and approvals of permits not secured during the design phase and facilitate the transition of the regulatory Permit Management Plan to the CM for the project. Additionally, the Consultant shall amend any permit applications as required by the permitting and regulatory agencies to obtain and maintain project permits. The Consultant shall amend any permit applications as required by the permitting and regulatory agencies to obtain and maintain project permits.

Deliverables:

- 3.4.1. Permit Management Transition Plan to CM and Approved and Amended Permits

TASK 4. DESIGN SERVICES DURING CONSTRUCTION

Task 4.1. Design Services

The Consultant shall include in this task all Design-related Services efforts that will occur during construction.

Item 4.1.a Site Visits

The Consultant shall attend the pre-construction meeting with the Construction Manager to communicate key aspects of the design and installation and conduct periodic Site visits to ensure that the work is progressing in accordance with the construction contract documents and design intent.

The Consultant shall cause a qualified representative with the appropriate technical expertise to conduct periodic site visits as directed by DEP and at DEP discretion. The Consultant's site representative shall assist DEP and CM staff in expediting the completion of the work and to ensure that the work is progressing in accordance with the design intent. The representative shall also be capable of assisting in, and identifying and resolving issues

in the field, and have the authority to make decisions on the Consultant's behalf to maintain the progress of the work.

The site representative shall also observe "high-risk" work that would benefit from additional visual observation by a technically proficient engineer and coordinate with the CM to notify DEP in advance of such work.

The site representative shall also confirm the as-built conditions on the red-line marks-ups being provided by the CM where questions may arise.

The site representative shall prepare daily notes after each site visit. These notes must include observations regarding the quality of progressed work, identifying any aspects of the work that require closer oversight attention, identify upcoming work that requires specific instructions, and highlight potential issues. These notes shall be transmitted to DEP and CM within three days of the site visit and be included with any Payment Requisitions related to any such site representation.

Deliverables:

4.1a.1 Summary of pre-construction assessment.

Item 4.1.b Review of Contract Drawings

The Consultant shall review all Contract Drawings submitted by the construction contractors to ensure compliance with the construction contract documents within 14 consecutive calendar days. The Consultant shall return all drawings to the construction contractors as "Furnish as Corrected" or "Furnish as Submitted" within no more than two submittal rounds. If the Consultant identifies issues with the quality of the drawings, the Consultant shall bring it to the Department's attention to take corrective action with the construction contractors.

The Consultant shall review the Final Copy Working Drawings ("FCWDs") from the construction contractor for conformance and compliance with the comments from the latest submitted shop drawings (including all issued construction contract change orders). If the Consultant identifies problems with the quality of the FCWDs and the second round submittal cannot be approved, the Consultant shall bring such issues to the attention of DEP for corrective action with the construction contractor.

The Consultant shall coordinate with the CM and provide As-Built Drawings for the construction contract based on the "Red-Line" mark-up drawings provided by the CM. The As-built Contract drawings shall also be conformed to all construction contract addenda, change orders, RFIs, RFDs, field orders, field modifications, approved FCWDs, etc. to match the final constructed project.

The As-Built Drawings shall be Signed and Sealed by the Engineer of Record and designated as "As-Built". The Consultant shall also provide these drawings in electronic format for future use by DEP.

Deliverables:

4.1b.1 Review Contractor submittals and return to Contractor with appropriate and clear responses.

4.1b.2 As-Built Drawings

Item 4.1.c Evaluation of Contractor Initiated Deviations

On occasion, the construction contractors may propose an item that is materially different from what is required in the construction contract documents. The Consultant shall evaluate construction contractor-initiated deviations. The evaluation must consider compliance with design objectives, cost, and technical feasibility. If the substitution is considered acceptable, the Consultant shall prepare a cost estimate for the substitution. The Consultant shall respond to all substitution requests no later than 30 calendar days from the date of receipt by the Department.

Deliverables:

4.1c.1 Evaluate contractor-initiated deviations and prepare cost estimate for substitution.

Item 4.1.d Request for Information/Clarification

The Consultant shall evaluate and respond to the Requests for Information (“RFI”) within 14 consecutive calendar days unless it is a particularly complex issue, as determined in the sole discretion of the Department, requiring additional examination.

Deliverables:

4.1d.1 Evaluate contractor-initiated RFI’s within time allotted.

Item 4.1.e OSHA Compliance and EHS 1910 Review

The Consultant shall conduct all studies necessary to comply with OSHA requirements. In addition, the Consultant shall participate in a Site visit with the DEP Bureau of Sustainability’s EHS Director to ensure EHS compliance with all relevant OSHA regulations. The Consultant shall review findings and prepare responses and design-related construction contract change orders as necessary to address findings from the Site visit.

Deliverables:

4.1e.1 Ensure OSHA compliance, submit review of findings and prepare responses and design-related construction contract change orders as necessary to address findings from the Site visit.

Item 4.1.f Maintenance Manuals, Training, and Specifications

The Consultant shall update any existing manuals, or in the case of new types of green

infrastructure, develop new Maintenance Manuals. These documents shall compliment, not duplicate, any vendor supplied manuals (such as synthetic turf) installations), and will focus on overall system function, GI practice schematics, trouble shooting, and process and GI design criteria. Upon instruction by the Department, the Consultant shall provide “non-technical” manuals specific to a site that is directed to site managers, superintendents, and horticultural staff. These non-technical manuals should use layman terminology and contain clear graphics, instructions, and frequencies for specific tasks. The Consultant shall coordinate review of these Manuals documents with the maintaining entity and/or DPR if directed by the Department. The Consultant shall also assist the Department in developing and refining, as necessary, any Standard Operating Procedures (“SOPs”) for existing and new GI practices. The Consultant shall coordinate and monitor all instruction provided to the Department or any City agency to operate and maintain the GI installed. The Consultant shall submit the lesson plans and training format to the Department for approval and ensure that they are followed and that the instructors are effectively conveying the subject information. The Consultant shall document and make provisions to correct instructional deficiencies.

Deliverables:

4.1f.1 Submit site specific green infrastructure maintenance manuals, training documents as necessary specifications.

Item 4.1.g Construction Project Meetings

The Consultant shall cause a representative(s) who is/are intimately involved in the project to participate in construction progress meetings to support coordination with Stakeholders on direction from DEP. The Consultant shall be prepared to discuss and provide the status of all deliverables (e.g. submittals, RFIs, construction contract change orders, etc.) and be able to provide clear and definitive directions to the project team for the timely resolution of design-related issues that may affect the Project budget and/or schedule.

The Project Manager will attend meetings only as directed by DEP.

The Consultant shall attend up to 48 monthly Construction Progress Meetings.

Deliverables:

4.1g.1 Attendance at construction project meetings.

Item 4.1.h Preparation of Design-Related Construction Contract Change Orders

In the event of a contract change (non-material scope, administrative, a field conditions change, or a NMSC attributable to the acceptance of a VE change) that requires Consultant input to the construction contract, a construction contract change order must be processed. The Consultant shall evaluate and prepare all necessary design-related technical documents for construction contract change orders. For complex construction contract change orders that benefit from collaboration prior to scope finalization, the Consultant shall participate

in a scoping meeting with the CM and construction contractor. In some cases, the Consultant may be asked to support negotiation of the final construction contract change order between the CM and construction contractor.

For each construction contract change order the Consultant shall track all engineering costs (including all project management, administration, design, and change order form preparation costs) in a separate change order-specific billing cost code. The Consultant shall be responsible for all costs associated with changes to the construction contract documents due to design errors or omissions by the Consultant.

The Consultant shall prepare up to 5 design-related Change Orders.

Deliverables:

4.1.h.1 Preparation of Design-Related Construction Contract Change Orders

Task 4.2. Permitting and Regulatory Agency Approvals

The Consultant shall amend any permit applications as required by the permitting and regulatory agencies to obtain and maintain project permits. The Consultant shall amend any permit applications as required by the permitting and regulatory agencies to obtain and maintain project permits.

Deliverables:

4.2.1. Approved and amended permits

TASK 5. CONSTRUCTION CLOSE-OUT

Task 5.1. Project Management

The Consultant shall include in this task all Project Management Services efforts that will occur in the closeout phase.

Task 5.1.a. Monthly Progress Reports and Meetings

The Consultant shall continue to prepare and submit a monthly progress report as begun at the start of Project Planning Phase.

No Design Progress Meeting will be scheduled during the Construction Closeout Phase of the Project.

The Consultant shall submit up to 5 monthly Progress Reports.

Deliverables:

5.1.a.1. CO – Up to 5 Monthly Progress Reports during Procurement Phase

Task 5.2. Construction Contract Close-out Administration

The Consultant shall assist the DEP and the CM in closing out the construction contract(s). Upon substantial completion, the Consultant shall transfer all documents prepared and/or maintained by the Consultant to the CM and DEP. These documents include but are not limited to Original Contract Drawings, Original Contract Specifications, Original Addenda, Shop Drawing Logs, RFI/RFC Logs.

The Consultant shall also assist in preparing Construction Contract Close-out Reports including a list of all deliverables and tasks completed in accordance with the terms of the construction contract. The Closeout Report should include a Project Background, Contract Summary, Summary of Change Orders, Contract Duration, Summary of Project Budget, construction contract Status, and status of all construction contract deliverables.

Deliverables:

5.2.1. Close-out Administration Assistance

Task 5.3. Permitting and Regulatory Agency Approvals

The Consultant shall provide support for the close-out of all design-related permits required for the construction contract. The Consultant shall review the permit requirements with DEP and coordinate with the CM staff to gather information to prepare close-out applications and submittals to complete all obligations under the permit and Regulatory Agency approval conditions.

Additionally, the Consultant shall prepare and submit all required permit modifications, certifications, post-approval amendments, etc. as required to close-out all permits.

Deliverables:

5.3.1. Permit Management and Closeout Assistance