DRAFT STATEMENT OF WORK
09HQSS0031

SECTION B – SUPPLIES AND SERVICES AND PRICES

The Contractor shall provide Architectural and Engineering services to the U.S. Geological Survey in accordance with all terms and conditions of this contract as specified in individual Task Orders at the prices listed below:

Base Period – Date of Award through 12 months

CLIN	Description	Unit	Unit Price
0001	*Architectural*		
	0001A Principal in Charge	hour	$_____
	0001B Senior Registered Architect	hour	$_____
	0001C Registered Architect	hour	$_____
	0001D Code Specialist	hour	$_____
	0001E Senior CADD Technician (Arch in Training)	hour	$_____
	0001F CADD Technician	hour	$_____
	0001G Cost Estimating Leadership	hour	$_____
0002	*Structural*		
	0002A Senior Registered Structural Engineer	hour	$_____
	0002B Registered Structural Engineer	hour	$_____
	0002C Senior CADD Technician (Arch in Training)	hour	$_____
	0002D CADD Technician	hour	$_____
	0002E Roofing and Diagnostics	hour	$_____
0003	*Mechanical – Includes Plumbing, HVAC and Fire Sprinkler*		
	0003A Senior Registered Mechanical Engineer	hour	$_____
	0003B Registered Mechanical Engineer	hour	$_____
	0003C Senior CADD Technician (Arch in Training)	hour	$_____
	0003D CADD Technician	hour	$_____
0004	*Electrical – Includes Power, Lighting and LAN*		
	0004A Senior Registered Electrical Engineer	hour	$_____
	0004B Registered Electrical Engineer	hour	$_____
	0004C Senior CADD Technician (Arch in Training)	hour	$_____
	0004D CADD Technician	hour	$_____
0005	*Civil and Site*		
	0005A Project Engineer	hour	$_____
	0005B Senior Registered Civil Engineer	hour	$_____

CLIN	Description		Unit	Unit Price
	0005C Registered Civil Engineer		hour	$_____
	0005D CADD Technician		hour	$_____
	0005E Senior Registered Landscape Architect Designer		hour	$_____
	0005F Landscape Architect		hour	$_____
	0005G Landscape Production		hour	$_____
	0005H Land Surveyor		hour	$_____
0006	*Other Support Activities*			
	0006A Registered Environmental Engineer		hour	$_____
	0006B Industrial Hygiene Engineer		hour	$_____
	0006C Registered Value Engineer		hour	$_____
	0006D Inspector (General Construction Specialist)		hour	$_____
	0006E Energy Conservation & Studies		hour	$_____
	0006F Recycling/Greening Specialist		hour	$_____
	0006G Typist/Graphics/Administration		hour	$_____
0007	Reimbursable Travel	Not-To-Exceed	To be funded on a task order basis	

-- End of Base Year --

Option Year 1 – a 12 month period following the base year:

CLIN	Description	Unit	Unit Price
1001	*Architectural*		
	1001A Principal in Charge	hour	$_____
	1001B Senior Registered Architect	hour	$_____
	1001C Registered Architect	hour	$_____
	1001D Code Specialist	hour	$_____
	1001E Senior CADD Technician (Arch in Training)	hour	$_____
	1001F CADD Technician	hour	$_____
	1001G Cost Estimating Leadership	hour	$_____
1002	*Structural*		
	1002A Senior Registered Structural Engineer	hour	$_____
	1002B Registered Structural Engineer	hour	$_____
	1002C Senior CADD Technician (Arch in Training)	hour	$_____
	1002D CADD Technician	hour	$_____
	1002E Roofing and Diagnostics	hour	$_____
1003	*Mechanical – Includes Plumbing, HVAC and Fire Sprinkler*		
	1003A Senior Registered Mechanical Engineer	hour	$_____
	1003B Registered Mechanical Engineer	hour	$_____
	1003C Senior CADD Technician (Arch in Training)	hour	$_____
	1003D CADD Technician	hour	$_____
1004	*Electrical – Includes Power, Lighting and LAN*		
	1004A Senior Registered Electrical Engineer	hour	$_____
	1004B Registered Electrical Engineer	hour	$_____
	1004C Senior CADD Technician (Arch in Training)	hour	$_____
	1004D CADD Technician	hour	$_____
1005	*Civil and Site*		
	1005A Project Engineer	hour	$_____
	1005B Senior Registered Civil Engineer	hour	$_____
	1005C Registered Civil Engineer	hour	$_____
	1005D CADD Technician	hour	$_____
	1005E Senior Registered Landscape Architect Designer	hour	$_____
	1005F Landscape Architect	hour	$_____

CLIN	Description		Unit	Unit Price
	1005G Landscape Production		hour	$_____
	1005H Land Surveyor		hour	$_____
1006	*Other Support Activities*			
	1006A Registered Environmental Engineer		hour	$_____
	1006B Industrial Hygiene Engineer		hour	$_____
	1006C Registered Value Engineer		hour	$_____
	1006D Inspector (General Construction Specialist)		hour	$_____
	1006E Energy Conservation & Studies		hour	$_____
	1006F Recycling/Greening Specialist		hour	$_____
	1006G Typist/Graphics/Administration		hour	$_____
1007	Reimbursable Travel	Not-To-Exceed	To be funded on a task order basis	

-- End of Option Year 1 --

Option Year 2 – a 12 month period following Option Year 1:

CLIN	Description	Unit	Unit Price
2001	*Architectural*		
	2001A Principal in Charge	hour	$_____
	2001B Senior Registered Architect	hour	$_____
	2001C Registered Architect	hour	$_____
	2001D Code Specialist	hour	$_____
	2001E Senior CADD Technician (Arch in Training)	hour	$_____
	2001F CADD Technician	hour	$_____
	2001G Cost Estimating Leadership	hour	$_____
2002	*Structural*		
	2002A Senior Registered Structural Engineer	hour	$_____
	2002B Registered Structural Engineer	hour	$_____
	2002C Senior CADD Technician (Arch in Training)	hour	$_____
	2002D CADD Technician	hour	$_____
	2002E Roofing and Diagnostics	hour	$_____
2003	*Mechanical – Includes Plumbing, HVAC and Fire Sprinkler*		
	2003A Senior Registered Mechanical Engineer	hour	$_____
	2003B Registered Mechanical Engineer	hour	$_____
	2003C Senior CADD Technician (Arch in Training)	hour	$_____
	2003D CADD Technician	hour	$_____
2004	*Electrical – Includes Power, Lighting and LAN*		
	2004A Senior Registered Electrical Engineer	hour	$_____
	2004B Registered Electrical Engineer	hour	$_____
	2004C Senior CADD Technician (Arch in Training)	hour	$_____
	2004D CADD Technician	hour	$_____
2005	*Civil and Site*		
	2005A Project Engineer	hour	$_____
	2005B Senior Registered Civil Engineer	hour	$_____
	2005C Registered Civil Engineer	hour	$_____
	2005D CADD Technician	hour	$_____
	2005E Senior Registered Landscape Architect Designer	hour	$_____
	2005F Landscape Architect	hour	$_____

CLIN	Description		Unit	Unit Price
	2005G Landscape Production		hour	$_____
	2005H Land Surveyor		hour	$_____
2006	*Other Support Activities*			
	2006A Registered Environmental Engineer		hour	$_____
	2006B Industrial Hygiene Engineer		hour	$_____
	2006C Registered Value Engineer		hour	$_____
	2006D Inspector (General Construction Specialist)		hour	$_____
	2006E Energy Conservation & Studies		hour	$_____
	2006F Recycling/Greening Specialist		hour	$_____
	2006G Typist/Graphics/Administration		hour	$_____
2007	Reimbursable Travel	Not-To-Exceed	To be funded on a task order basis	

-- End of Option Year 2 --

Option Year 3– a 12 month period following Option Year 2:

CLIN	Description	Unit	Unit Price
3001	*Architectural*		
	3001A Principal in Charge	hour	$_____
	3001B Senior Registered Architect	hour	$_____
	3001C Registered Architect	hour	$_____
	3001D Code Specialist	hour	$_____
	3001E Senior CADD Technician (Arch in Training)	hour	$_____
	3001F CADD Technician	hour	$_____
	3001G Cost Estimating Leadership	hour	$_____
3002	*Structural*		
	3002A Senior Registered Structural Engineer	hour	$_____
	3002B Registered Structural Engineer	hour	$_____
	3002C Senior CADD Technician (Arch in Training)	hour	$_____
	3002D CADD Technician	hour	$_____
	3002E Roofing and Diagnostics	hour	$_____
3003	*Mechanical – Includes Plumbing, HVAC and Fire Sprinkler*		
	3003A Senior Registered Mechanical Engineer	hour	$_____
	3003B Registered Mechanical Engineer	hour	$_____
	3003C Senior CADD Technician (Arch in Training)	hour	$_____
	3003D CADD Technician	hour	$_____
3004	*Electrical – Includes Power, Lighting and LAN*		
	3004A Senior Registered Electrical Engineer	hour	$_____
	3004B Registered Electrical Engineer	hour	$_____
	3004C Senior CADD Technician (Arch in Training)	hour	$_____
	3004D CADD Technician	hour	$_____
3005	*Civil and Site*		
	3005A Project Engineer	hour	$_____
	3005B Senior Registered Civil Engineer	hour	$_____
	3005C Registered Civil Engineer	hour	$_____
	3005D CADD Technician	hour	$_____
	3005E Senior Registered Landscape Architect Designer	hour	$_____
	3005F Landscape Architect	hour	$_____

CLIN	Description		Unit	Unit Price
	3005G Landscape Production		hour	$_____
	3005H Land Surveyor		hour	$_____
3006	*Other Support Activities*			
	3006A Registered Environmental Engineer		hour	$_____
	3006B Industrial Hygiene Engineer		hour	$_____
	3006C Registered Value Engineer		hour	$_____
	3006D Inspector (General Construction Specialist)		hour	$_____
	3006E Energy Conservation & Studies		hour	$_____
	3006F Recycling/Greening Specialist		hour	$_____
	3006G Typist/Graphics/Administration		hour	$_____
3007	Reimbursable Travel	Not-To-Exceed	To be funded on a task order basis	

-- End of Option Year 3 --

Option Year 4 – a 12 month period following Option Year 3:

CLIN	Description	Unit	Unit Price
4001	*Architectural*		
	4001A Principal in Charge	hour	$_____
	4001B Senior Registered Architect	hour	$_____
	4001C Registered Architect	hour	$_____
	4001D Code Specialist	hour	$_____
	4001E Senior CADD Technician (Arch in Training)	hour	$_____
	4001F CADD Technician	hour	$_____
	4001G Cost Estimating Leadership	hour	$_____
4002	*Structural*		
	4002A Senior Registered Structural Engineer	hour	$_____
	4002B Registered Structural Engineer	hour	$_____
	4002C Senior CADD Technician (Arch in Training)	hour	$_____
	4002D CADD Technician	hour	$_____
	4002E Roofing and Diagnostics	hour	$_____
4003	*Mechanical – Includes Plumbing, HVAC and Fire Sprinkler*		
	4003A Senior Registered Mechanical Engineer	hour	$_____
	4003B Registered Mechanical Engineer	hour	$_____
	4003C Senior CADD Technician (Arch in Training)	hour	$_____
	4003D CADD Technician	hour	$_____
4004	*Electrical – Includes Power, Lighting and LAN*		
	4004A Senior Registered Electrical Engineer	hour	$_____
	4004B Registered Electrical Engineer	hour	$_____
	4004C Senior CADD Technician (Arch in Training)	hour	$_____
	4004D CADD Technician	hour	$_____
4005	*Civil and Site*		
	4005A Project Engineer	hour	$_____
	4005B Senior Registered Civil Engineer	hour	$_____
	4005C Registered Civil Engineer	hour	$_____
	4005D CADD Technician	hour	$_____
	4005E Senior Registered Landscape Architect Designer	hour	$_____
	4005F Landscape Architect	hour	$_____

CLIN	Description		Unit	Unit Price
	4005G Landscape Production		hour	$_____
	4005H Land Surveyor		hour	$_____
4006	*Other Support Activities*			
	4006A Registered Environmental Engineer		hour	$_____
	4006B Industrial Hygiene Engineer		hour	$_____
	4006C Registered Value Engineer		hour	$_____
	4006D Inspector (General Construction Specialist)		hour	$_____
	4006E Energy Conservation & Studies		hour	$_____
	4006F Recycling/Greening Specialist		hour	$_____
	4006G Typist/Graphics/Administration		hour	$_____
4007	Reimbursable Travel	Not-To-Exceed	To be funded on a task order basis	

-- End of Option Year 4 --

-- END OF SECTION B --

Section C – Description/Specification/Work Statement

C.1 Background

The Design and Construction Section of the U.S. Geological Survey (USGS) has responsibility for the USGS facilities programs which include, planning, design, construction, contracting, rehabilitation and repair, operations and maintenance, value engineering, safety, security, and training. The purpose of this contract is to augment the technical capabilities of the Design and Construction Section and the engineering staffs of the Regional offices of the USGS. A recurring need for architectural-engineering services is anticipated, however, the precise quantities and specific services cannot be predetermined.

The goal of this contract is to ensure that resources and expertise are available to provide technical oversight and general direction leading to functional improvement through system, business practices or procedural changes.

The objectives of this contract are to improve the quality and effectiveness of all aspects and areas of the USGS facilities operation and management program; to improve and expand the use of value engineering, sustainable practices, and green acquisitions in project planning and design; to improve facility planning, project development and project cost estimating and control; to improve the facility deferred maintenance and capital improvement programs, as well as the facility maintenance and asset management systems); and to improve the design and construction management of capital improvement and major rehabilitation and repair projects.

C.2 Scope of Work

The technical services provided in support of the Design and Construction Section (DCS) and regional will be on an as-needed basis. Definitive statements of work will be developed by the DCS and regional based on need and issued via Task Orders (see Section (to be completed.) The types of services required under any specific Task Order will include those services normally provided by an architectural-engineering firms such as, but not limited to, (a) project specifications and drawings; (b) project cost estimates; (c) design and engineering reviews; (d) program evaluations; (e) feasibility studies; (f) value/analyzes engineering studies and reports; (g) project management and inspection; (h) comprehensive conditions assessments; (i) energy audits; and (j) research vessel condition assessments (k) project data sheets (l) environmental/historic evaluations (m) sustainability (n) facility and special studies.

C.3 Types of Work

The A&E shall furnish, but is not limited to, the technical services described in the following sections when the DCS determines that outsourcing the requirement is necessary for obtaining unique capabilities, workload leveling, or customer need. However, the DCS reserves the right to assign work outside of this Indefinite Delivery, Indefinite Quantity (IDIQ) contract.

(a) **Project Specification and Drawings**

The Contractor shall develop project specifications and drawings, review, and verify and/or adjust existing project specifications and drawings documents developed by Government personnel or by architectural-engineering firms under contract to the Government. In the development of the specifications and drawings, the Contractor shall consider sustainability, environmental impact and archaeological conditions at the site, the complexity of the design and difficulty of construction.

(1) *Specifications*

The Contractor shall develop, review, and update specifications for new construction and/or repair and improvement projects. These specifications shall be based upon specific Task Order requirements and site visits.

(2) *Drawings*

The Contractor shall develop review, and update drawings for new construction and/or repair and improvement projects. These specifications shall be based upon specific Task Order requirements and site visits. Upon completion of the construction, the contractor shall be required to provide a full set of as-built drawings to the Design Contractor. The Design Contractor shall then incorporate any changes that were made to the final drawings into a set of drawings titled "FINAL AS-BUILT DRAWINGS". Final as-build drawing shall be submitted within 90 days after project completion.

NOTE: The Contractor is hereby put on notice that provision of services under this subtask will preclude the contractor from award of a resulting construction contract.

(b) **Project Cost Estimating**

The Contractor shall prepare project cost estimates, review and verify, or adjust existing project cost estimates and provide all necessary backup material in support of such estimate(s). In the development of the estimates, the Contractor shall consider not only labor and material costs, but also sustainability, environmental and archaeological conditions at the site; location of labor market and major material centers; transportation of materials and construction equipment; the complexity of design and difficulty of construction; and any anticipated escalation costs to the time of construction. The contractor shall provide an estimate that will reflect a 5 year escalation cost from the date of the original estimate. Backup data to the estimate shall be developed in that degree of detail normally required of the industry for the following levels of design and construction.

(1) *Estimating*

The Contractor shall develop or review and update project cost estimates for new construction and/or repair and improvement projects. The construction cost estimate at this level will be based upon descriptive material (program of requirements) and/or concept sketches or design development drawings and outline specifications. Estimates at this level, in most cases, will be a square foot or square meter cost basis.

(2) *Construction*

The Contractor shall develop or review and update construction cost estimates for new construction and/or repair and improvement projects. The estimates at this level will be based upon working drawings and specifications and, in most cases, will be a quantity take-off by trade basis.

The Contractor shall perform cost estimating services during and after construction period of a new construction and/or repair and improvement project. The service shall include, but not be limited to, development of cost estimates for negotiating change orders or as reference data used by the Contracting Officer when issuing final decisions or as backup material leading to resolution of construction contractor claims against the Government. The estimates for this level will be line item breakdown of quantities and cost of both materials and labor suitable for use in negotiations or as reference data in a legal brief.

(c) **Design and Engineering Review**

The Contractor shall perform an in-depth review of project design documents developed by Government personnel or by architectural-engineering firms under contract to the Government. The review shall consider compliance with the program space requirements, value engineering assessments, building code requirements, fire and life safety requirements, barrier-free requirements, environmental and health requirements, and any specific use of function design requirements. The review shall also consider material compatibility, exactness of engineering calculations, and constructability of the design and coordination of the various design disciplines within the total project. Reviews will normally take place in the offices of the Contractor or in Government offices. However, circumstances may require the reviews to be held at the offices of the design architect or the project site location.

The Contractor shall provide all technical personnel required to review concept sketches or design development documents. This review is to center around functional layout, adherence to scope of work, compatibility with the site, material selection, and compliance with established design standards.

(d) **Program Evaluations**

The Contractor shall conduct evaluation and reviews of specific facility related programs to include but not be limited to energy programs, Leadership in Energy Environment Design (LEED) certifications, “Greening” programs, and recycling efforts, facility maintenance business practices. The Contractor shall provide all technical personnel required to effectively provide the Government with reports and completed evaluation documents of the specific programs along with recommendations to enhance, expand or curtail the program efforts and detail the budgetary affect to the mission of the program and facility.

(e) **Feasibility Studies**

The Contractor shall perform a feasibility study and/or business case analysis study that will provide an overview of the primary issues related to a conceptual project. The purpose of this study is to identify any “make or break” issues that will prevent the Government from proceeding with proposed projects and will be an integral part of review for an internal government Investment Review Board.

(f) **Value/Analyzes Engineering Studies and Reports**

The Contractor shall perform value engineering studies, analysis, and training for USGS construction and non-construction programs. Services required under this contract include: (1) development and presentation of value methodology training courses, seminars or instruction; (2) conduct value methodology studies and analysis of construction project plans and designs; (3) conduct value methodology studies and analysis of non-construction projects, programs, or procurement; (4) assembling value engineering multi-disciplinary study teams; (5) preparation and presentation of oral and written reports, conceptual sketches/drawings; (6) development of capital and life-cycle costs estimates, projected savings, and project costs models; and (7) review of planning or design documents for consideration of appropriate sustainable design features and potential alternative green acquisition materials.

The value engineering studies shall be performed by multi-disciplinary teams depending on the size and complexity of the project or program to be studied. The team configuration shall be adjusted at the discretion of the USGS or one of its Regional offices, and may require that a member or several members of its staff serve as team members. Any Contractor personnel participating in Task Order value engineering work shall be those identified in the original Task Order proposal, otherwise any Contractor personnel substitutions must be reviewed and approved by the COR (see Section (to be completed).

The Contractor may be required to make preliminary site visits to review site conditions/constraints and become familiar with the functional requirements of the facility.

(g) **Project Management and Inspection**

The Contractor shall provide project management and inspections to include periodic site visits and inspections as required. The Contractor shall provide all necessary technical support to assist Government personnel in overseeing new construction and/or repair and improvement projects. The inspections and site visits are to ensure that the construction Contractor's performance is in adherence to the specifications and meets all local, state, and federal code. The Contractor shall also assist in clarifying any technical questions or discrepancies within the specifications, drawings and submittals. The Contractor shall, for new construction only, enter all collection and generated data into a format easily imported (MS Access) into the USGS Facility Maintenance Management System (FMMS). Issuance of a Project Management and Inspection Task Order may be considered a logical follow-on requirement as set forth in to be completed.

(h) **Comprehensive Condition Assessments**

The Contractor shall provide all labor, travel, and materials to provide a comprehensive condition assessment (CA) of all buildings, grounds, vessels and existing building support systems. The objectives are as follows: (1) perform a complete and comprehensive on-site inspection of each identified asset; (2) document asset deficiencies; (3) provide a component renewal plan for this facility through life cycle assessments of the major asset components; (4) generate cost estimates for correcting or abating the deficiencies and replacing systems for each asset or equipment; (5) calculate the current replacement value (CRV) for each asset; and (6) validate the existing real property inventory and associated attributes.

(i) **Energy Audits**

The Contractor shall identify energy and water reduction measures at installations. This includes calculating the cost associated with the measures and potential savings.

The Contractor shall examine the operation of buildings and systems, condition of building envelope (i.e., complete building structural knowledge from top to bottom), all energy consuming equipment, utility systems, purchased fuels, and metered data. The audit includes assessing and determining the feasibility or potential for energy and water conservation and renewable energy measures that are life-cycle cost effective.

(j) **Lake Laboratories Condition Assessments (vessels)**

The lake laboratory condition assessments are to include all lake vessel machinery, hull and hull penetrations, superstructures, decks, interior tanks, voids and all other spaces aboard the vessel including any accessible equipment and material within, all navigational equipment and aids, communications, lifesaving and fire fighting equipments.

The vessel shall also be assessed underway in an operational environment. This assessment will include an operational performance of the vessel's deck and navigational equipment and machinery, as well as propulsion power performance tests. The assessment will serve to provide a uniform assessment program for Ship's Operator/Captain use in pursuing a uniform maintenance objective.

(k) **Project Data Sheets**

The contractor shall write project descriptions in accordance with DOI guidelines for completing a Project Data Sheet for a deferred maintenance or capital improvement project. The contractor shall following the DOI Annual Budget Guidance (see Section (to be completed) for this work. Any changes within the Guidance will be given to the contractor in a timely manner.

(l) **Environmental/Historic Elevations**

On projects with disposal and or/surplus of real property and/or "breaking ground" for new construction, the A&E shall provide a Comprehensive Environment Impact Statement (EIS) as outlined in the National Environmental Policy Act (NEPA) 40 CFR 1502.10. The A&E shall coordinate the compiling of the EIS with General Services Administration (GSA) NEPA Officers, USGS Project Managers, and other participating Agencies involved with the preparation of the EIS. The A&E shall conduct historical evaluations of USGS facilities to determine eligibility into the National Register of Historic Places and for data reporting into the Federal Real Property and Profile (FRPP).

(m) **Sustainability**

The contractor shall follow Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management." The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, renewable energy, sustainable buildings, electronics stewardship, fleets, and water conservation. In addition, the order requires more widespread use of Environmental Management Systems as the framework in which to manage and continually improve these sustainable practices.

Constructing and operating buildings requires enormous amounts of energy, water and materials, and creates large amounts of waste. Where and how they are built affects the ecosystems around us in countless ways. And the buildings themselves create new indoor environments that present new environmental problems and challenges. As the environmental impact of buildings becomes more apparent, a growing field called sustainable design is leading the way to reduce that impact at the source. Sustainable design is the practice of creating healthier and more resource efficient models of construction, renovation, operation, maintenance, and demolition.

The five Guiding Principles address:

- Employing integrated design
- Optimizing energy performance
- Protecting and conserving water
- Enhancing indoor environmental quality
- Reducing the environmental impact of materials

(n) **Facility and Special Studies**

The Contractor shall provide specialized services such as, but not limited to, structural engineering analysis, asbestos assessments, landscape planning indigenous to the project area and have the capability to provide digitized building plans, maps, surveys and construction estimates.