SCOPE OF SERVICES

Solicitation Number: CLMP173
Project Name: 2015 Stream Restoration & Stormwater Treatment Eng Svcs RL

PROJECT FOR:

CITY OF AUSTIN, WATERSHED PROTECTION DEPARTMENT, THROUGH ITS CONTRACT MANAGEMENT DEPARTMENT

PROJECT TITLE:

2015 STREAM RESTORATION AND STORMWATER TREATMENT ENGINEERING SERVICES ROTATION LIST

OBJECTIVES OF THE PROJECT:

The City of Austin (City) Watershed Protection Department (WPD) is seeking qualified firms that have demonstrated experience in the fields of stream restoration and stormwater treatment to assist in the planning, design, bid and construction of engineered solutions that restore and protect Austin's waterways. The City desires that the professional firms on this rotation list be discipline experts and have demonstrated exemplary service in delivery of related projects within the City. It is expected that qualified firms will have demonstrated experience and qualifications in stream geomorphology, surface water hydrology, hydraulic engineering, channel stability, bank stabilization, floodplain impact analysis, riparian restoration, landscape architecture, aquatic chemistry and stormwater treatment processes. The City anticipates contracting with up to three (3) firms for approximately five (5) years.

BACKGROUND:

The City's WPD provides services in its three primary missions of the watershed management program: water-quality protection, flood mitigation and stream erosion. The Environmental Resource Management (ERM) Division includes the Stream Restoration and Stormwater Treatment (SRSWT) Section that implements engineered solutions to creek erosion and storm water pollution problems. The section strives to implement cost-effective sustainable solutions that utilize natural materials and processes to the extent practical. The section is nationally recognized in the development and implementation of innovative approaches including bioengineering, natural channel design, and stormwater treatment. The section also serves an active role in the development and implementation of the City's Land Development Code and Criteria related to the erosion and water quality service missions. The SRSWT Section is comprised of a team of engineers, engineering associates and landscape architects that manage both in-house and Capital Improvement Program (CIP) projects. Annual CIP budgets for engineering and construction services approximate $5 million. The section requires professional engineering services to assist in the execution CIP projects, development of code/criteria updates and special studies related to stream restoration and stormwater

treatment. Typical project assignments for professional services will range in cost from approximately $100,000 to $500,000.

Specific Project Team Preferred Experience/Qualifications includes:

- Planning, design, bid and construction phase services for implementation of Stream Restoration and Stormwater Treatment projects.
- Geomorphically referenced natural channel design, bioengineering, bank stabilization, stream habitat structures.
- Performing geomorphic assessments and modeling analysis of erosion processes.
- Developing City Land Development Code, Drainage and Environmental Criteria related to open channel design, channel stabilization and stormwater treatment.
- Hydraulic engineering that includes sediment transport, equilibrium channel design (threshold and alluvial), empirical channel stability methods and floodplain impact analysis.
- Designs that use Central Texas native materials to provide channel stability, habitat and stormwater treatment.
- Analyzing relationships between hydrologic, hydraulic, geomorphic and biotic indicators to guide watershed management activities.
- Stormwater design that includes sedimentation/filtration, retention-irrigation, wet ponds, infiltration, extended detention, swales, rain gardens, biofiltration and manufactured treatment devices for use in urban retrofits.
- Use of stochastic, empirical and continuous simulation models for evaluation of SCM performance and effects on receiving water quality and channel erosion (e.g. SWMM, SWAT, WASP).
- Water balance modeling that explicitly accounts for evapotranspiration, infiltration, and depression storage.
- Unit process-based stormwater treatment design and analysis.
- Experience in groundwater movement in karst and porous media aquifers.
- Assessing operation and maintenance (O&M) needs and developing specific O&M plans for stream restoration and stormwater treatment projects.
- Complying with federal, state and local regulations relating to stream restoration and stormwater control measure implementation (e.g. U.S. Army Corps of Engineers, Federal Emergency Management Agency, Texas Commission on Environmental Quality, Texas Parks and Wildlife and City of Austin)

ANTICIPATED SERVICES:

The City anticipates conducting the projects in phases as described below. For small projects, the planning and design phase may be combined. Other projects may have been identified in master planning work or identified through other planning efforts and the consultant's Phase I work may consist of updating project scopes and cost estimates. Some Phase I assignments may only consist of assessments, studies or planning efforts or involve less than the full scope

of services for a phase as described below. The final scope of services for the project assignments will be developed with the selected firms.

Phase I: Preliminary Engineering Studies

The selected firms shall review available data and planning studies on which the project need was established. In addition, the selected firms shall determine and recommend additional data collection necessary to prepare the Preliminary Engineering Report. Data generation, collection, or review requirements may include but will not necessarily be limited to: topographic surveying, geomorphic assessments, soils investigations, geotechnical investigations, hydrologic computer models, hydraulic computer models, storm system computer models, sediment transport models, water quality models, conceptual plans, cost estimates, easement acquisition investigations, environmental considerations, site constraints, safety, alternative construction materials and methods, government-agency permitting requirements, construction costs of the alternatives, and other necessary or related considerations as may be determined during the scope of services refinement. The selected firm shall prepare and submit a Phase I report documenting their evaluations, studies, cost estimates, and recommendations.

Also included in this phase are special studies and assessments that advise the City on regulations related to stormwater quality and channel erosion. This may include performing geomorphic field assessments and hydrologic modeling to determine performance of stormwater control measures. Assistance in development of modifications to City code and criteria may be requested based on the results of these studies.

Phase II: Design Phase

The selected firms shall, upon specific written authorization, conduct or otherwise acquire the necessary field surveys, soils, and peripheral investigations for final design. The selected firms shall prepare final detailed plans, specifications (utilizing Citystandards), contract documents and cost estimates for the construction of project improvements as approved by the Cityat the conclusion of Phase I. The selected firms shall furnish field and surveying services as may be appropriate for the execution of the design and assist the City in applying for and obtaining agency approvals and permits necessary for the construction of the project. As part of the design process the selected firms shall assess operation and maintenance (O&M) needs and develop specific O&M plans for the projects. Engineering design reports and design products shall include a statement from the consultant project officer that the report and associated deliverables have received a quality assurance/quality control review and a description of the QA/QC process.

Phase III: Bid Phase

The selected firm shall also assist the City in advertising the project and developing construction contract(s). This includes coordinating the City's project manager by attending pre-bid conferences, answering questions to bidders and issuing addendum.

Phase IV: Construction Phase

Project construction phase professional services or portions thereof may be provided by the selected firms. The City reserves the option to provide construction phase professional and site-observation services for all or portions of the projects. However, if authorized, the selected firm shall furnish construction phase services. These services are those generally associated with the construction phase and, might include, but not necessarily be limited to all or some of the following: periodic visits to the job site to generally review the progress and character of the work being performed, review period payment estimates of the contractor for complete work, review and approve shop drawings, product submittals, and/or construction surveys, prepare necessary change orders, interpret the plans, specifications, and other contract documents as required, project reviews with the contractor and the City, assistance to the City in negotiating change orders with the contractor, preparation of as-built drawings of the completed facilities (in electronic format with a "hard" copy) , and other necessary and related services associated with the engineer's design as applied to the construction processes. The professional engineering firms may also, upon specific written authorization, provide on-site observation by experienced personnel and soils and material testing.

PROPOSED PROJECT SCHEDULE:

The City anticipates contracting with up to three (3) firms for a period of approximately five (5) years or until the contracting authority is exhausted. Initial project assignments will be based on highest to lowest, maximum cumulative contracted amount in comparison to the estimated budget; firm's qualifications and availability of expertise at time of the project need. The City may, however, select a firm that is felt to be the most qualified for a specific project or most able to meet a project's schedule objectives. Project-specific schedules will be agreed upon at the time professional services are defined.

COST ESTIMATE:

The total contracting authority for this rotation list is $6,000,000. It is anticipated that up to three (3) firms will be selected for this rotation list with a per firm authorization of $2,000,000.

Compensation for individual project assignments will vary depending upon the scope of services required. Funding will come from the individual projects for which the services are provided. The City anticipates developing and executing a professional services agreement with each selected firm.

MAJOR AND OTHER SCOPES OF WORK:

Below is a list of the major scopes of work that the City has identified for this project***. *There must be representation for all major scopes of work listed in the prime's statement of qualifications. The experience of the firms listed to perform the Major Scopes of Work, whether a subconsultant or prime firm, will be evaluated under Consideration Item 6 – Major Scopes of Work – Comparable Project Experience.*** In addition, the City has identified Other Scopes of work that MAY materialize during the course of the project. The City does not guarantee that the scopes listed under Other Scopes of work will materialize on this contract. If the prime consultant intends to enter into a subconsulting agreement on a scope of work not listed below, the prime consultant is required to contact SMBR and request an updated availability list of certified firms in each of the scopes of work for which the prime consultant intends to utilize a subconsultant.

*** Major Scopes of Work**

Civil Engineering
Environmental Engineering
Environmental Consulting (including Sustainability)
Landscape Architecture
Geotechnical – Soils
Structural Engineering
Surveying Services

Other Scopes of Work

Land Development and Planning/Engineering
Geographic Information Systems (GIS)

Notes:

- Construction Inspection and Public Information and Communications are **NOT** a subconsultant opportunity. These services will be performed in-house or under a separate contract, if needed, and will be determined when project assignment is made.

- Participation at the prime or subconsultant level may create a conflict of interest and thus necessitate exclusion from any contracts resulting from the work performed in the design phase.

- If the City determines that a conflict of interest exists at the prime or subconsultant level, the City reserves the right to replace/remove the prime or instruct the prime consultant to remove the subconsultant with the conflict of interest and to instruct the prime consultant to seek a post-award change to the prime consultant's compliance plan as described in City Code § 2-9B-23. Such substitutions will be dealt with on a case-by-case basis and will be considered for approval by Small and Minority Business Resources (SMBR) in the usual

course of business. The City's decision to remove a prime or subconsultant because of a conflict of interest shall be final.

- A consultant performance evaluation will be performed on all professional services contracts. This evaluation will be conducted at the end of each Preliminary, Design and Construction phase, or at assignment completion for those projects with no distinct phases (i.e., surveying, SUE services, etc.).
- For Subproject assignments that include construction activities performed by the CONSULTANT or Subconsultants, workers shall be paid not less than the prevailing wage rates, as referenced in Section 00830. Link: http://www.austintexas.gov/page/bid-docs