



DEPARTMENT OF PUBLIC WORKS DIRECTOR / CITY ENGINEER

CITY OF MIDDLETON
7426 HUBBARD AVENUE
MIDDLETON, WI 53562-3118

PH 608.821.8381 FAX 608.827.1080
E-MAIL: sstauske@cityofmiddleton.us
WEB: www.CityofMiddleton.us

October 2, 2018

«CompanyName»
ATTN: «Contact»
«POAddress»
«CompanyCity», «CompanyState» «CompanyZip»

**Subject: Request for Proposal for Engineering Consulting Services for Project 18-125a,
Pheasant Branch Creek: Toe Protection Downstream of Park St.**

Dear «ContactFirst»:

BACKGROUND

In the flood event of August 20-21, 2018, the water level in Pheasant Branch Creek rose to a very high level, causing damage in much of the creek corridor. One of the areas with notable damage was the loss of toe protection at the north bank slope just downstream of the Park St. crossing. The resulting erosion caused a shift in the creek bank location and left a very steep bank of sand. The City of Middleton desires to stabilize the toe and re-grade the slope to prevent further erosion. The City desires to complete in 2018 the design and permitting of this work, and to solicit bids and begin construction as soon thereafter as feasible. The City will apply for FEMA reimbursement of design and construction costs.

SOLICITATION

The City of Middleton is hereby requesting proposals for comprehensive engineering consulting services for the design, permitting, bidding and construction administration of toe protection and slope stabilization of Pheasant Branch Creek immediately downstream of Park St. The proposal should include, as a minimum, the items listed under "Elements of Proposal." A Preliminary Scope of Services is included herein for descriptive purposes, but it is not intended to limit the creative response of the consultant.

DISCUSSION

Pheasant Branch Creek was slightly re-aligned, and twin 14' diameter structural plate pipe culverts were installed in 1962 to allow construction of Park St. as a north-south connector in a growing city. Plan drawings from that project (City Proj. 62-101) show the intention of placing heavy riprap along the banks for a length of about 150' downstream of the culvert discharge endwalls.

Subsequent to the culvert construction project, a wall of gabion baskets was constructed along the north creek bank, though City staff hasn't yet been able to locate a plan drawing or details of that construction. During the recent flood event, the north bank of the creek was significantly eroded, and any toe protection measures that had been in place are no longer present.

To remove hazard trees from the creek and bank edges, a City contractor leveled some sand to construct a temporary haul road along the north creek bank for equipment access. There is currently no known protection along the creek bank or toe of slope in this area.

The current creek bank conditions appear unstable. To prevent further erosion, the City is seeking engineering services to investigate and evaluate potential measures to protect the creek bank and stabilize the toe of slope. Evaluation of alternatives should be summarized in a design report, including consideration of the site conditions, design rationale for each alternative, scour analysis, ecological impacts, and life-cycle costs. After an alternative is selected by the City, the Consultant will need to complete final design drawings, secure necessary permits for construction, bid the project, and provide construction administration services.

City staff will be available for consultation as needed during all phases of this project. **However, the selected consultant will be expected to assume responsibility for the vast majority of required administration and coordination needed to accomplish the project. This may include communication and coordination with regulatory agencies, utility companies and technical service providers such as soils exploration and material testing firms hired by the City, and attendance at public meetings related to the project.**

All products and data produced for a City project belong to the City. No data or products shall be supplied to any third party unless permission in writing is obtained from the City. Unless otherwise specified, all products will be delivered to the City of Middleton Public Works Department.

Proposals will be evaluated on relevant experience (25%), project understanding and approach (45%), proposed project schedule (15%), and overall cost (15%).

The City uses a standard boilerplate agreement form (attached) for all of its engineering agreements. No modifications to this template will be considered other than as prompted by the template.

ELEMENTS OF PROPOSAL

- Provide a statement of understanding of the project.
- Provide description of the proposed project approach.
- Provide anticipated **cost of engineering services** in the format of a grid showing each project team member's hours and costs by major task. The total cost of services should be stated as an amount not to be exceeded, including expenses to be billed at cost, and reference an attached **fee schedule** for hourly or other unit rates of costs.
- Provide anticipated **time schedule** for engineering design, bidding and construction administration services.
- Provide unit cost for additional meetings.
- Identify the Project Team and provide **resumes** of key personnel, highlighting experience on similar projects (no more than 2 pages per person).
- Itemize deliverable **products**.

- State date beyond which the terms of the proposal will need to be renegotiated.

PLEASE NOTE: Proposals should be submitted in **word-searchable PDF format only** (via electronic delivery such as e-mail, download site, or flash drive). The City requests that proposals be submitted without extraneous marketing materials.

PRELIMINARY SCOPE OF SERVICES

The engineering design work will be completed under the direction of the city's project manager and will include the following:

Phase A

Preliminary Investigation

- ♦ Review available existing record drawings, soil borings, LIDAR survey data, studies and other available, relevant data.
- ♦ Contact Digger's Hotline to mark locations of underground utility facilities. Coordinate with utility companies for relocation(s) that may be necessary to facilitate construction.
- ♦ Review with City staff known conditions and problems.
- ♦ Review as needed design parameters and scopes of any concurrent nearby projects with respective project engineers.
- ♦ Verify existing field conditions, improvements and topography.
- ♦ Identify the need and locations for soil borings and soil testing to be done by the City's testing consultant. Soil exploration to be coordinated by Consultant, but paid as a direct City expense.

Preliminary Design

- ♦ Supplement the available City information with additional **on-site surveys and soils exploration** as needed to design an appropriate solution to stabilize the creek banks and slopes downstream of the Park St. culverts. Perform **hydraulic computations** of proposed improved channel responses to three flow events (low, high and pipe full), with the flow rates in CFS for each to be provided by the City as part of the preliminary investigation.
- ♦ Provide preliminary design of **three alternative systems**, including at least one soft and one hard reinforcement approach, that could feasibly meet the desired goal of toe protection and slope stabilization for the noted creek flow conditions.
- ♦ Provide a preliminary opinion of **construction cost** for each alternative.
- ♦ Provide a **design report** to summarize evaluation of alternatives to include consideration of the site conditions, design rationale, scour analysis, ecological impacts, and life-cycle costs.
- ♦ Attend up to **three meetings** with the project management team, committees and/or the public to review the project during the preliminary design phase.
- ♦ Identify and evaluate **potential impacts** to other concurrent or proposed projects, as applicable.
- ♦ Provide estimate of **project schedule** including completion of final design, and commencement and duration of construction.

- ◆ Provide to City for review a PDF of each iteration of **preliminary design drawings**, formatted to print on 11"x17" paper. Assume two iterations of preliminary design drawings will be required.

Phase B – Final Design & Bidding

- ◆ Complete any **additional topographic and control surveys**, as required.
- ◆ Identify the need for, and coordinate completion of, **additional soil borings** to be done by the City's testing consultant.
- ◆ **Design improvements** consistent with the approved preliminary design alternative. Include cross-sections at 50' intervals.
- ◆ Coordinate **utility relocation(s)** that may be necessary to facilitate construction.
- ◆ Prepare an **Erosion Control Plan**, and submit the plan to the Dane County Land & Water Resources Department for review prior to incorporating into final plan drawings.
- ◆ Review with the City Forester the existing **public and private trees** within the project limits with respect to proposed construction activities, and incorporate into the project drawings and/or specifications any tree protective measures or removals recommended by the City Forester.
- ◆ Provide **project manual**, including front-end documents and specifications for bidding. Project manual should incorporate the City's standard specifications and standard detail drawings where appropriate.
- ◆ Update opinion of probable **construction cost**.
- ◆ Update **project schedule**.
- ◆ Apply for and obtain all **required permits and agency approvals** for construction, other than the City's erosion control permit which will be required of the contractor.
- ◆ Attend up to **three meetings** with staff, committees and public, as needed.
- ◆ Provide to City a PDF of the **bidding documents** including project manual and final plan drawings, with drawing sheets formatted to print on 11"x17" paper. Assume one iteration of final design drawings will be required, subject to revisions per staff review.
- ◆ **Post bid documents** to City's project advertising and plan delivery service (QuestCDN) in a format that allows for electronic bidding. See City staff for instructions, if needed.
- ◆ Respond to **bidder requests for information** (RFI) during the bidding process.
- ◆ Attend **bid** opening, download bid tab, and prepare memo with a recommendation for award of bid.
- ◆ Make recommendations for possible **follow-up studies or projects**, if appropriate.

Phase C – Construction Engineering and Project Management

- ◆ Following award of contract by City, **secure** from Contractor the **completed contract documents**, including agreement, bonds, insurance certificates, etc.
- ◆ Schedule and conduct a **preconstruction conference** with Contractor, City, utility representatives, and permitting agency representatives.
- ◆ Provide **staking** of horizontal alignment and vertical control for line and grade of improvements to be constructed. Re-staking required due to Contractor disturbance of stakes will be at Contractor expense.

- ♦ Review and recommend to City appropriate actions for Contractor submittals of **shop drawings**, samples and other required pre-construction submittals.
- ♦ Coordinate with soil consultant to perform **material testing** during construction to ensure proper compaction. Geotechnical services will be contracted directly with the City.
- ♦ Conduct **construction observation and contract administration** activities needed to determine construction conformance with the contract documents. Advise City project manager of any work not in conformance with contract documents. Observation is typically needed full-time for work that will be buried, and part-time for work that will remain accessible.
- ♦ Review and recommend to City appropriate action for Contractor submitted **change order** requests and **progress payment** requests. Review lien waivers from Contractor and all applicable subcontractors and suppliers prior to recommending progress pay requests.
- ♦ Advise City project manager of **construction progress**, and of major issues in need of decisions or other action to maintain progress.
- ♦ Conduct **final inspection** of project work with City and Contractor. Prepare **final punch list**, if necessary, and coordinate with Contractor for completion of the project for final payment.
- ♦ Prepare and submit to City **record drawings** of the constructed improvements, showing as appropriate any changes from the plan drawings.

CITY OBLIGATIONS

The City of Middleton will provide:

- ♦ Definition of project limits.
- ♦ Copies of available record drawings, plats, certified survey maps, easements, studies, soil boring logs, City utility information, benchmarks on City datum, and other relevant data.
- ♦ Copies of AutoCAD drawings showing rights-of-way, property lines and addresses based on the City's best available information. Note: 2017 aerial photography and one-foot contour data is available from the County at no charge upon signing of license agreement.
- ♦ Flow rates in CFS to be used in hydraulic calculations.
- ♦ Assistance with coordination of needed utility relocation(s).
- ♦ Permit application fees for all necessary permits to be secured by Consultant.
- ♦ Payment for geotechnical consulting services needed to support design and ensure satisfactory construction compaction.

Phase A will be considered complete upon submittal to the City of preliminary design alternative(s) for selection, and approval by Water Resources Management Commission and the Conservancy Lands Committee of a selected design alternative.

Phase B will be considered complete upon submittal to and acceptance by the City of the completed final design drawings and specifications, bidding of the project and presentation to the Water Resources Management Commission and the Conservancy Lands Committee of a bid tab with recommendation of award of bid.

Phase C will be considered complete upon submittal to and acceptance by the City project manager of record drawings, edited to accurately show actual locations and configurations of constructed improvements.

Thank you for your interest in this project. Proposal should be submitted to my attention at the City of Middleton Public Works Department by October 15, 2018 for consideration by staff and presentation to the Water Resources Management Commission and the Conservancy Lands Committee on October 17 and October 24, 2018, respectively. Questions concerning this request for a proposal or the project itself should be directed to me at (608) 821-8381.

Sincerely,



Shawn Stauske
Dir. Public Works / City Engineer

encl: Project Location Sketch
Site Photos (current conditions)
Standard Agreement Template