Damariscotta Downtown Flood Protection and Municipal Parking Lot Improvement Project

Evaluation, Design and Environmental Permitting Services

EDA Grant No. 01-79-14942

REQUEST FOR PROPOSALS
6-8-2020

The Town of Damariscotta, Maine, is located on the easterly side of the tidal Damariscotta River in Lincoln County, Maine. Damariscotta is a designated service center serving seven communities in coastal Lincoln County. While year-round population is just over two thousand individuals, seasonal residents and visitors expand the population served by Damariscotta businesses to fifteen thousand or more with a downtown employment base in excess of five hundred. Many of these businesses and local institutions, including the historic Lincoln Theater, Skidompha Library, Renys Department Store, several banks and a number of shops and restaurants are within the downtown Damariscotta National Historic District, which consists of many 19th century multi-story brick buildings. Portions of downtown are also within a FEMA AE Flood Zone and are projected to be subject to increasing flooding associated with sea level rise as depicted on the following graphic.

The Town received a Coastal Community Grant in 2013 from the Maine Coastal Program to investigate the potential impact of sea level rise on its downtown. Milone and MacBroom, Inc. (MM), was retained to complete the Adaptation Planning Study for the Downtown Waterfront Area in 2014. The report and appendices are available at https://www.damariscottame.com/home/pages/town-projects.

Preliminary recommendations from MM included raising the parking lot, which is located between Main Street and the river, and installing a flood wall to provide flood protection to 12' NAVD88, or about 4 feet above its existing elevation (the existing 1% storm elevation is 10.0 NAVD88). This was considered a potentially viable alternative because, concurrent with the MM study, Town officials were evaluating needed improvements to the municipal parking lot. These include upgrading sanitary sewer and storm sewer facilities, replacement of poor quality subsurface materials that have led to settling and surface deterioration, new pavement, construction of a public restroom building and improvements to pedestrian amenities.

Wright-Pierce Engineers, Inc. (WP) was retained to evaluate parking lot, underground utility and storm drainage conditions and complete a geotechnical investigation. Due to limited availability of funds, the Town decided to pursue all aspects of the project except flood protection and commissioned WP to prepare required construction drawings and specifications based on maintaining the approximate existing elevation of the parking lot. Construction drawings and specifications are available at

https://www.damariscottame.com/home/pages/town-projects.

Prior to bidding out the project, the Town was notified of a Financial Assistance Award from the U.S. Economic Development Administration (EDA) for assistance with the construction of the proposed improvements, including flood damage repairs and mitigation. The award was funded under EDA's FY 2018 Disaster Supplemental through the Supplemental Appropriations for Disaster Relief Act, FY2018. The Town subsequently decided to expand the project to include the flood resiliency component (the public restroom is currently out to bid and will be constructed separately from the project envisioned in this RFP).

Concurrent with Damariscotta's ongoing waterfront resiliency project, the Maine Silver Jackets Team has initiated a project to provide Damariscotta with future dynamic floodplain maps that include sea level rise. It is the Town's intention to work with the Team to ensure that, where possible, the Maine Silver Jackets modeling effort informs the Town's engineering consulting activities (or vice versa) depending on the respective projects' timelines. This product is very much needed – Maine created a sea level rise viewer which incorporates potential sea level rise scenarios from NOAA et al. (2017). However, this viewer is a bathtub model for "static" sea level rise and doesn't account for waves, wave run-up, or how mapped floodplains might change as a result of higher water levels. The proposed Silver Jackets project will result in a much more detailed coastal flood model of Damariscotta which incorporates sea level rise and potential changes to floodplains. The model will be utilized to produce future floodplain maps to be overlain with building and infrastructure footprints to facilitate climate-resilient planning in Damariscotta. The Town will work with the Silver Jackets Team on interpreting model outcomes and integrating outcomes into local planning efforts.

The Town seeks qualified consultants or consultant teams to perform planning, design and environmental review services for its Downtown Flood Protection and Municipal Parking Lot Improvement Project. Qualified consultants should have demonstrated, verifiable experience in flood control engineering, structural design, hydraulic modeling, geotechnical engineering, project management, preparing environmental impact reports, construction plans and specifications, and securing required regulatory permits.

There are two phases of work under this contract:

1) Evaluation, geotechnical investigations, and feasibility studies, as necessary, and
2) Design and regulatory permitting.

This Project has multiple objectives. The Town seeks to construct new flood protection facilities that consider the current 100-year tidal floodplain and potential Sea Level Rise scenarios over a 50-year period. In addition, the Project will include a reconstructed parking lot, above- and below-ground infrastructure including coordination with utilities and installation of Wi-Fi or broadband service, pedestrian access, redeveloped waterfront park, an informational kiosk and wayfinding signs. The project shall result in bidding documents for the combined flood resilience work as well as needed infrastructure work included in the WP work to date. It is up to the applicant to decide on the ultimate way to accomplish this.

The Town's preferred flood resiliency approach consists of four components:

1. Design and install passive flood protection for the parking lot, the boat ramp and a substantial portion of the downtown. The design should account for the existing 100-year floodplain in addition to a selected sea level rise scenario over the next 50 years with the goal of providing flood protection to elevation 12 feet or 13 feet NAVD88 depending on the results of the Phase I work. As possible, consideration should be given for the incorporation of green infrastructure into any potential flood protection design.
2. Design flood protection along the river north of Courtyard Street while accommodating carry-in canoe access (note – construction of such improvements is not considered part of the project at this time)
3. Procure a Conditional Letter of Map Revision (CLOMR) to remove the area protected by components 1, 2 and 3 from the FEMA AE Flood Zone
4. Design and install pedestrian and recreational amenities in the area occupied by the riverfront park

PROPOSALS MUST BE RECEIVED BY:

July 16, 2020 4:00 p.m. local time, delivered to:

Rebecca Bartolotta, Town Clerk
Town of Damariscotta
35 School Street

Damariscotta, Maine 04543

Please include one electronic copy on a CD and six hard copies of the proposal, limited to 30 pages, font size 11, including any supporting materials. Questions regarding this RFP will be answered at a pre-proposal workshop on June 29, 2020 at 11:00 a.m. (location to be announced at damariscottame.com). Additionally, questions submitted before July 2, 2020 at 5:00 p.m. by e-mail to mlutkus@damariscottame.com with the subject line "Flood Project" will be answered in an FAQ document posted on this website on July 7, 2020.

Project Schedule:
This project will begin with contract execution on ***approximately September 15***, ***2020***. Phase 1 is expected to be completed by December 15, 2020 and Phase 2 is expected to be completed by May 15, 2021.

Project Budget
All tasks described within the enclosed Scope of Work shall be included within a proposal's fee schedule and itemized according to required and optional tasks.

Proposal Requirements:
Each proposal should contain the following:
- cover letter with contact information;
- title page and table of contents;
- organizational chart of the project team;
- statement of approach to the project, management plan and any suggested modifications to the Project Tasks;
- project schedule and work plan;
- itemized fee schedule including reimbursables;
- list of team members who will be assigned to the project, their role on the project, and experience relevant to their role;
- description of previously completed projects of similar scope, and two references (per individual) regarding those experiences; and
- list of any subcontractors, their role, and personnel assigned to the project.

This project will be partially funded with Federal funds from the United States Department of Commerce, Economic Development Administration and therefore is subject to the Federal laws and regulations associated with that program.

Town staff and others will evaluate the proposals provided in response to this RFP based on the following criteria:
- quality and completeness of proposal;
- quality and creativity of the proposed approach to achieving project goals
- quality of products and/or services to be provided;
- experience, including the experience of staff to be assigned to the project, the engagements of similar scope and complexity;

- project cost to the Town;
- ability to perform the work within the time specified;
- proposer's record of compliance with applicable laws, regulations, policies, guidelines and orders governing prior or existing contracts performed by the contractor.

Potential applicants should consider their ability to comply with the provisions contained within the Engineers Joint Contract Documents Committee (EJCDC) E-500 Agreement Between Owner and Engineer for Professional Service.

Anticipated Selection Process Timeline:
RFP issuance June 8, 2020
Pre-proposal workshop June 29, 2020
FAQ published at damariscottame.com July 7, 2020

Proposals due July 16, 2020
Interviews Late Early August, 2020
Consultant selection Early Mid-August, 2020
Contract negotiations Late August, 2020
Pre-contract meeting Early September, 2020
Contract execution September 15, 2020

SCOPE

The Town is the lead agency for the Project and will administer this contract.

General Project Deliverables:
- Feasibility study report detailing preliminary field investigation, conceptual alternatives based on flood protection to elevation 12 feet or 13 feet NAVD88, construction phasing and engineering and construction cost estimates;
- A bid-ready set of construction documents for all civil improvements and tidal flood protection improvements that incorporate forward-thinking design and emerging techniques that minimize construction costs and maximize opportunities for ecosystem and recreational/connectivity enhancements. This project will be constructed in phases, which must be coordinated with infrastructure design;
- Regulatory permit applications and acquisition assistance;
- Construction RFP, bidding and construction support services;
- Preparation of Conditional Letter of Map Revision (CLOMR) for submittal to FEMA upon completion of final project design, and a Letter of Map Revision (LOMR) for submittal after completion of construction;
- Quarterly progress reports consistent in format and detail with the EDA; and
- Submission of all project files in formats to be specified.

The Town will make all background information and reports in its possession available to the contracted Consultant, and will request similar information from additional agencies.

A preliminary scope of services for the proposed work is detailed below. The scope has been separated into two phases, as described above. Consistent with the Project objectives and deliverables discussed above, the Consultant will be asked to recommend changes to the Scope that improve efficiency, cut costs, and produce a better product.

Phase 1:

Task 1: Project Management

The Consultant shall:

- Supervise, coordinate and monitor field investigations for conformance with standard engineering practices and other governing agency requirements;
- Coordinate with local utilities;
- Notify the Town of any changes in scope or budget as soon as possible and propose actions if necessary to correct these changes;
- Maintain communication by phone or e-mail and respond in a timely fashion;
- Participate in public meetings;
- Prepare monthly progress reports and invoices showing budgeted and actual costs versus work progress status and the projected spending versus progress; and
- Maintain project files, prepare correspondences and memos, and perform other project management activities necessary to keep the project on schedule.

Task 2: Identify Potential Flood Control Features

The Town has identified two alternatives to providing passive flood protection for the parking lot. The first alternative would consist of a flood wall that is built to an elevation that is 4 to 5 five feet above existing grade depending on the results of the Phase 1 recommendation with fill built up to within 2 to 3 feet of the top of wall. The second alternative would be to leave the grade as is and construct a flood wall, the upper 2 to 4 feet of which, again depending on the Phase 1 recommendation, would be made of transparent materials to reduce the visual impact of a solid visual barrier to the river. Each alternative must incorporate provisions for extending the height of the flood wall in the future. The boat ramp will require separate provisions for passive flood protection.

The Consultant will work collaboratively with the Town to identify the range of flood wall products, including transparent flood walls, and automatic flood gates (for the boat ramp) , where such products have been installed, case studies or other information documenting their performance and their engineering characteristics; establish criteria for evaluating the alternatives; and propose recommended products for the parking lot, boat ramp and the north side of the downtown considering existing conditions, opportunities, constraints and their ability to accommodate implementation over two construction seasons.

Task 3: Preliminary Engineering Evaluations

3.1 Surveying – The Consultant shall coordinate with survey information previously developed by WP and provide services required to augment existing topography at key locations and ground-verify existing topography data derived from existing LiDAR (utility locations were field checked at ground penetrations and tied into topographic maps and property corners and easements were researched and located as part of the WP civil and utility designs previously completed).

3.2 Geotechnical Evaluation and Investigations – The Consultant shall evaluate existing boring information and conduct any additional investigations needed to develop the geotechnical parameters for the design of various project elements including the suitability of subsurface soils for the deposition of additional fill and seawall construction (a geotechnical investigation was undertaken as part of the WP civil and utility designs previously completed). Consultant shall prepare a Draft and a Final Geotechnical Report that are technical and include the following:

- Table of Contents
- Introduction including site location, description and purpose of investigation
- Field investigation and laboratory work
- Subsurface conditions and geology
- Analysis and recommendations
- Site location map
- Test boring location plan
- Test boring logs
- Laboratory data including methods and calculations
- Field methods and equipment, and any additional documentation including site visits and meetings.

3.3 Seepage Calculations – The Consultant will prepare calculations needed to inform design and compaction of the proposed flood protection features needed to accommodate anticipated Sea Level Rise during the life of the Project, which is expected to be at least 50 years.

3.4 Coastal Hydraulics – The Consultant will identify coastal hydraulic criteria affecting floodwall and slope geometry and armoring against wave-induced erosion, including required freeboard, to be used for preliminary design. Consultant shall utilize studies of tides and flooding produced by other agencies and research institutions and data available from the Maine Silver Bullets project previously described. Additional analysis may be required to develop hydraulic criteria consistent with FEMA base flood elevations, which are expected to be higher than those depicted on the current FEMA maps, which may be updated during the Project and the impact of redirecting flood-associated water volumes and wave force from the areas to be flood-protected to adjacent properties, including Schooner Landing. Also, the effects of relative Sea Level Rise will be considered, following the most recent guidance by the USACE. This Task includes communications with staff from FEMA, USACE, NOAA and others in order to understand the latest guidance available.

3.5 Drainage Hydrology – The Consultant will evaluate drainage to assess the potential for flooding from interior. The assessment will be derived from review of all record drawings (stamped and signed by a Professional Engineer), site visit results, and other drainage infrastructure information provided by public agencies and include an assessment of the need, if any, for pumping and backup power generation.

3.6 – Living Shoreline – The Consultant will evaluate the feasibility and suitability of integrating living shoreline components into the final project design.

3.7 Park Improvements – The Consultant will evaluate the feasibility and suitability of alternative improvements for the linear park that exists between the parking lot and the river including replacement of existing fencing.

3.8 Additional Considerations – The Consultant will evaluate the feasibility and suitability of installing underground power and public Wi-Fi or broadband, changes/upgrades to parking lot lighting and the need, if any, for ADA-compliant building entryways as a result of changes in parking lot elevation.

Task 4: Feasibility Assessment and Cost Estimates

The Consultant will conduct a feasibility assessment that includes conceptual project alternatives, engineer's cost estimates, and potential construction phasing of flood control facilities in the project area.

4.1 Project Alignments – The Consultant will conduct a feasibility assessment of the flood resilience components determined in Task 2. In addition to the considerations described above, they should take into account the existing conditions, opportunities and constraints associated with the ecosystem habitat of adjacent lands and potential impacts on adjacent properties.

4.2 Mitigation and Permitting – The new facilities may impact existing wetlands. These impacts will be mitigated, if necessary, by the conversion of the riprap retaining wall to a living shoreline. The Consultant will develop the mitigation approach in cooperation with the USACE, MDEP and other agencies.

4.3 Cost Estimate - The Consultant will develop an initial opinion of probable construction quantities and costs that includes a description of cost assumptions.

4.4 **Conditional Letter of Map Revision -** The Consultant shall prepare a Conditional Letter of Map Revision (CLOMR) for submittal to FEMA upon completion of final project design in order to secure FEMA's conditional approval for removing properties from the Special Flood Hazard Area when Project construction is complete.

Phase 2:

Task 5: Project Management

The Consultant shall:

- Supervise, coordinate and monitor design for conformance with standard engineering practices and other governing agency requirements;
- Notify the Town of any changes in scope or budget as soon as possible and propose actions if necessary to correct these changes;
- Maintain communication by being available by phone or e-mail and responding in a timely fashion.
- Maintain project files;
- Prepare monthly progress reports and invoices showing budgeted and actual costs versus work progress status and the projected spending versus progress; and
- Prepare correspondences and memos, and perform other project management activities necessary to keep the project on schedule.

Task 6: 30% Plans, Specifications and Estimates (PS&E)

The 30% Submittal will initiate the process of representing the preferred alternative that enhances flood protection, parking lot and utility improvements, ecosystems and recreation in sufficient detail to guide construction. It will consist of grading plans, landscape drawings, and design drawings all created using appropriate digital format, e.g. CAD or GIS format.

- **Grading Plans -** The Consultant will develop grading plans showing plan and profile of the flood protection components and detailed construction sections including foundations or other flood protection features.
- **Landscape Drawings -**The Consultant will prepare plans for the living shoreline and park improvements.
- **Design Drawings -** A preliminary list of drawings, including all infrastructure work per WP plans, will be prepared to illustrate the basic scope and approach for final design. Drawings will be prepared in AutoCAD following agreed upon drafting standards. Technical specifications will be prepared in an agreed upon standard format. Reporting for 30% will include an outline of specifications and a preliminary bid schedule. Each progress submittal will also include an updated engineer's estimate of probable quantities and costs and an estimated construction schedule.

Task 7: 60% PSE

The Consultant will revise the 30% Submittal to create a 60% Submittal. Reporting for 60% will include a revised outline of specifications and a preliminary bid schedule.

Task 8: 90% PS&E

The Consultant will revise the 60% Submittal to create a 90% Submittal. Draft technical specifications and bid schedule at the 90% complete submittal will be provided.

Task 9: Final PS&E

The Consultant will revise the 90% Submittal to create Final Design Documents – drawings, cost estimate, specifications, construction RFP and bid schedule.

Task 10: Certification Reports

The following project reports and calculations will be developed:

- Engineer's Report
- Hydraulic Calculations
- Final Geotechnical Report
- Soils Sources Report
- Operations and Maintenance Plan

Task 11: Conditional Letter of Map Revision

The Consultant shall prepare a Conditional Letter of Map Revision (CLOMR) for submittal to FEMA upon completion of final project design in order to secure FEMA's conditional approval for removing properties from the Special Flood Hazard Area when Project construction is complete.

Task 12: Environmental Review

The Consultant shall prepare the appropriate NEPA documents for the project, if required.

Task 13: Mitigation and Monitoring Plan

The project may need to include mitigation for wetland impacts. If required, the Consultant shall prepare a Mitigation and Monitoring Plan (MMP) in accordance with the requirements of the USACE and MDEP for project impacts to regulated habitats.

Task 14: Regulatory Permit Acquisition

The consultant shall assist the Town in preparation of regulatory permit applications and acquisition of permits needed to construct the project.

Task 15: Bidding and Construction Support Services

The Consultant shall assist the Town during the bidding period as required. While the project is being advertised for bids, all questions concerning the intent to bid shall be referred to the Town for resolution. The Consultant shall provide consultation to the Town in the interpretation of the contract documents. The interpretation of these items shall be analyzed for a decision by the Town as to the proper procedure required. Corrective action shall either be in the form of an addendum or letter of clarification prepared by the Consultant and issued by the Town, or by a covering change order after the award of the construction contract. Consultant shall perform the following tasks associated with project construction:

- Attend pre-construction conference;
- Attend resolution meetings;
- Assist the Town in providing responses to inquiries, change orders, Requests for Information (RFIs), and/or re-design work addenda, and letters of clarifications;

- Provide clarifications/interpretations of plans and specifications;
- Perform shop drawing review and submittal reviews as requested;
- Assist the Town or a designated construction manager with the preparation of contract change orders;
- Perform periodic site visitations and review of construction activities as requested;
- Provide recommendations for changes required by design discrepancies, utility conflicts, or other unforeseen circumstances, which may develop during construction; and
- Provide assistance to final walk-through inspection.

Task 16: Letter of Map Revision

The Consultant shall assist the Town in preparation of a Letter of Map Revision for submittal to FEMA after completion of project construction in order to secure FEMA approval for removing protected properties from the Special Flood Hazard Area.