



City of Racine, Wisconsin
Agenda BRIEFING MEMORADUM

AGENDA DATE: 5/10/2021

SUBJECT: Communication sponsored by Alder Taft, requesting permission to enter into a sole source professional services agreement with SmithGroup for design and analysis services associated with the Coastal Resiliency and Improvements project development.

DEPARTMENT: Parks, Recreation and Cultural Services (PRCS)

PREPARED BY: Tom Molbeck, Director of PRCS

EXECUTIVE SUMMARY: The Racine Coastal Resiliency Project consists of two unique, but interconnected projects:

- 1) Coastal resilient shoreline stabilization and ecological improvements, and
- 2) Shoreland infrastructure and enhancements that include the integration of green infrastructure and recreation features along the City of Racine (herein referred to as City or Owner) lakefront.

These projects are driven by a need to respond to wave impact and overtopping damage resulting from the extended period of high water in Lake Michigan.

Wave action continues to break down the riprap and concrete rubble previously placed along the shoreline as well as damage the critical infrastructure and recreational trails created in recent years. The City has implemented emergency, short-term measures to mitigate issues and cleanup damaged areas while design of a long-term solution is completed and additional funds to construct both shoreline and shoreland improvements are secured. The community, as well as a multitude of project partners, have engaged with the City to help advance this important project. Current and potential future funding partners include Federal Emergency Management Agency (FEMA), Wisconsin Emergency Management (WEM), and the Fund for Lake Michigan. The Project is to engage key stakeholders, rapidly advance the final design and permitting of the improvement, and to assist the community secure additional grant funds to construct the long-term solution.

Why The SmithGroup: The Parks, Recreational and Cultural Service is currently using them to complete FEMA requirements and they have worked on other lakefront projects in City of Racine in the past, such as the Fifth Street Boat Launch. The SmithGroup's background include; planning, specs and engineering for lakefront projects.

BACKGROUND & ANALYSIS:

The SmithGroup team will analyze the coastal conditions considering the range of probabilistic storm events, water levels, and ice. This analysis will consider both historic records and future statistically probable projections and be used to inform design decisions for planned improvements both along the shoreline and shoreland areas.

The shoreline improvements need to be considered as whole due to the nature of sediment transport and the effects that possible solutions might cause on the neighboring shorelines.

The analysis will be numerically modeled for the length of the shoreline as shown on the attached map of the project area. Each of the identified project sites will be considered in further detail to assess the wave runup, local wave heights, and currents to inform the design of the structures to protect the shoreline from further damage and erosion. The numeric model will consist of a large spectral model of the full shoreline with nested models at each of the project sites. The Sbeach model will be used to determine wave climate and run-up along

the shoreline for determination of final stone sizing, revetment sections, elevations of protection measures, and setbacks for infrastructure and ecological systems.

BUDGETARY IMPACT:

The City of Racine shall compensate SmithGroup for the scope of services outlined above a fixed fee lump sum as outlined in the below table by Task, including reimbursable cash charges.

Task	Description		Compensation
One	Project Initiation & Coastal Condition Analysis		
	Project Initiation		\$5,200
	Coastal Condition Analysis		\$27,300
Two	Site Investigations (Allowance)		\$75,000
Three	Design Review and Objective Confirmation		\$18,800
Four	Shoop Park Bluff and Shoreline	Area 1	\$48,500
Five	Shoop Park Access Drive and Parking Lot	Area 2	\$108,400
Six	Lakefront Park/Zoo Embankment & Trail	Area 3	\$164,700
Seven	Stormwater BMP + Outfall at English Street	Area 4	\$21,600
Eight	Pershing Drive Revetment	Area 5	\$117,100
Nine	Samuel Myers Park	Area 6	\$32,600
Ten	Carre-Hogle Park	Area 7	\$48,200

Task One totaling \$32,500 to be completed in 2021

Then Tasks will be prioritized as follows:

1. Task Eight, Area 5 Pershing Drive Revetment
2. Task Six, Area 3 Lakefront Park/Zoo Embankment & Trail

Other areas will be prioritized at a later date, possibly into next year and the following years.

Fiscal Note: Total cost of \$670,000 is budgeted in the 2021 capital plan under 45050 57110.

RECOMMENDED ACTION: The Mayor and City Clerk be authorized to execute and sign the professional services agreement with SmithGroup for design and analysis services associated with the Coastal Resiliency and Improvements project development.