All Agency Project Request

2013 - 2015 Biennium

Agency	Institution	Building No.	Building Name
University of Wisconsin	Madison	285-0A-9920	Utility - Site Mechanical

Project No. 16E1D **Project Title** Johnson St. Steam/Condensate Renovation

Project Intent

This project provides investigation and research, pre-design, and design services to renovate high pressure steam (HPS), low pressure steam (LPS), pumped condensate return (PCR), and compressed air (CA) utilities from the southeast corner of Charter Street and Johnson Street, crossing Johnson Street north toward University Avenue along Charter Street. The utilities distribution will be evaluated to identify deficiencies, develop design solution alternatives, and recommend appropriate corrective measures.

Project Description

Project work includes replacing steam pit 18/11 and approx. 230 LF of concrete box conduit with an accessible utility tunnel from steam pit 18/11 to the north terminating at a location suitable for connection to the future Chemistry Instructional Facility. The utility tunnel work includes replacement of the 18-inch HPS, 20-inch LPS, 8-inch PCR, and 3-inch CA piping, insulation, and support systems. The 18-inch HPS will be increased in size to 20-inch HPS. Adjacent to the box conduit, signal pit 7S03 will be demolished and replaced.

Miscellaneous project scope items include detailed traffic controls phasing drawings, utility relocates, asbestos abatement of the steam pit and box conduit piping insulation (as required), and complete restoration of the site to pre-construction conditions, including roadways and gutters, pedestrian walkways, landscaping features, and site structures.

Project Justification

The steam distribution system in the scope of this project was installed when the Charter Street Heating Plant (CSHP) was constructed in 1958. This is one of three primary services of HPS and the only primary service of LPS to the campus from CSHP. There have been several recent condensate leaks along this section of the distribution system.

The concrete ceiling of steam pit 18/11, located primarily under the Johnson Street and Charter Street intersection, has begun to delaminate exposing the structural steel rebar of the roof system. The poor structural condition of this steam pit is a cause for concern due to traffic on Johnson Street and should be replaced.

In addition, this project will provide LPS, PCR, and CA utility connections for the future Chemistry Instructional Facility.

A/E Consultant Requirements

☑ A/E Selection Required?

Consultants should have specific expertise and experience in the design and coordination of underground utility systems including steam pits, concrete box conduits, and utility tunnels as part of a design team. Work includes site surveys, acquiring field data, and verifying as-built conditions to assure accurate development of design and bidding documents, and production of necessary design and bidding documents. Consultants should indicate specific projects from past experience (including size, cost, and completion date) in their letter of interest and when known, include proposed consulting partners and specialty consultants.

In addition, the A/E will need to perform a detailed land survey of the project area including soil borings and several utility locates to determine the location of existing utilities, extent of construction and options for design of soil retention systems.

The consultant will verify project scope, schedule, and budget estimates, and recommend modifications as required to complete the specified project intent. The consultant will prepare a pre-design document to establish an appropriate project scope, budget, and schedule prior to

Commissioning

☑ Level 1

☐ Level 2

the university seeking authority to construct from the Board of Regents and State Building Commission.

Project Budget			Funding Source(s)	Total
Construction Cost:		$	GFSB - []	$0
Haz Mats:		$	PRSB - []	$0
Construction Total:		$	Agency/Institution Cash [AGF0]	$302,000
Contingency:	15%	$	Gifts	$0
A/E Design Fees:	8%	$	Grants	$0
DFD Mgmt Fees:	4%	$	Building Trust Funds [BTF]	$0
Other:		$	Other Funding Source	$0
		$4,811,000		**$302,000**

Project Schedule

SBC Approval:	12/2016
A/E Selection:	06/2016
Bid Opening:	02/2017
Construction Start:	05/2017
Substantial Completion:	11/2017
Project Close Out:	05/2018

Project Contact

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Project Scope Consideration Checklist

		y	N
1.	Will the building or area impacted by the project be occupied during construction? If yes, explain how the occupants will be accommodated during construction. *All project work will be coordinated through campus physical plant staff to minimize disruptions to daily operations and activities.*	☑	☐
2.	Is the project an extension of another authorized project? If so, provide the project #...	☐	☑
3.	Are hazardous materials involved? If yes, what materials are involved and how will they be handled? *Required hazardous materials abatement has been included in the estimated project schedule and project budget.*	☑	☐
4.	Will the project impact the utility systems in the building and cause disruptions? If yes, to what extent?	☐	☑
5.	Will the project impact the heating plant, primary electrical system, or utility capacities supplying the building? If yes, to what extent?	☐	☑
6.	Are other projects or work occurring within this project's work area? If yes, provide the project # and/or description of the other work in the project scope.	☐	☑
7.	Have you identified the WEPA designation of the project...Type I, Type II, or Type III?	☑	☐

Type III.

8. Is the facility listed on a historic register (federal or state), or is the facility listed by the Wisconsin Historical Society as a building of potential historic significance? If yes, describe here. ☐ ☑

9. Are there any other issues affecting the cost or status of this project? ☐ ☑

10. Will the construction work be limited to a particular season or window of opportunity? If yes, explain the limitations and provide proposed solution. ☑ ☐

    Construction should occur in the summer months when the heating loads and traffic along Johnson Street are at their lowest.

11. Will the project improve, decrease, or increase the function and costs of facilities operational and maintenance budget and the work load? If yes, to what extent? ☑ ☐

    Completion of this project will decrease utility distribution operational and maintenance costs.

12. Are there known code or health and safety concerns? If yes, identify and indicate if the correction or compliance measure was included in the budget estimate, or indicate plans for correcting the issue(s). ☐ ☑

13. Are there potential energy or water usages reduction grants, rebates, or incentives for which the project may qualify (i.e. Focus on Energy <http://www.focusonenergy.com> or the local utility provider)? If yes, describe here. ☐ ☑

14. If this is an energy project, indicate and describe the simple payback on state funding sources in years and the expected energy reduction here. ☐ ☑