

WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REG

#11a

Date: March 16th, 2016

Weekly Agenda Date: March 22nd, 2016

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Kenny Schmitz; Building Services Director

SUBJECT: Courthouse Hydronic System/ Steam Traps

ACTION REQUIRED:

Approve Ordinance

Approve Resolution

Approve Motion

Give Direction

Other: Informational

Attachments

WORDING FOR AGENDA ITEM: Hydronic System Steam Trap Study

EXECUTIVE SUMMARY: An identification study is necessary to determine steam trap locations.

BACKGROUND: The Woodbury County Courthouse has been experiencing an excessive amount of steam heating loss for several years due to extensive steam trap failures. The failures are so great that in past years a plan was devised to route escaping live steam directly out of the building. An unheard of procedure resulting in massive energy loss, large water & chemical consumption, & inability to control office space temperatures.

FINANCIAL IMPACT: Initial Study \$20,000 – Funding Identified in the 2016 CIP

RECOMMENDATION: Move forward with study to identify all steam trap locations, Types, Models, & sizes.

ACTION REQUIRED / PROPOSED MOTION: Motion to approve Study as outlined by Resource Consulting Engineers.

February 15, 2016



RESOURCE
CONSULTING
ENGINEERS LLC

Kenny Schmitz

Woodbury County
620 Douglas Street
Sioux City, IA 51101

Re: Woodbury County Courthouse – Steam System Documentation

Dear Kenny,

I am pleased to present you with a proposal to provide Engineering Analysis and Documentation Services for Steam System Documentation at the Woodbury County Courthouse. I appreciate the opportunity to provide this proposal, and look forward to helping Woodbury County with this process.

Based on preliminary discussions with representatives of The Baker Group, we understand that the scope of the project is generally to survey and document components of the existing steam system serving the Woodbury county courthouse. The documentation produced can be utilized for future work necessary to address existing issues with the existing mechanical systems, and primarily the steam heating system components, including the development of budget pricing for any required work.

Scope of services:

Services to be provided:

- Mechanical and Electrical Survey and Documentation Services, including:
 - Review of existing space mechanical systems, including layout, capacities, etc.
 - Development of floor plan drawings showing current building layout with walls, doors and windows located (documents to be suitable for use as backgrounds for mechanical and electrical drawings – no detailed architectural drawings such as sections, elevations, door and window schedules, etc. will be provided)

- Development of mechanical and electrical record floor plan drawings for the following systems:
 - HVAC Systems including steam heating system, ventilation systems, and cooling systems, as well as existing system control components
 - Electrical power distribution system components serving mechanical system (location of main service, electrical panels and motor loads related to mechanical system)
- Development of additional mechanical and electrical drawings, to include:
 - Mechanical system flow diagrams
 - Mechanical system schedules (where information can be obtained – schedules will identify gaps where information cannot be obtained)
 - Electrical system one line riser diagram(s)
 - Electrical system panel schedules (based on available information for existing panels including panel schedules or existing drawings)
- Review of documents with Woodbury County personnel and Baker Group personnel as appropriate
- Production of record drawings to include:
 - Drawings as described above

Not included (available upon request):

- Design of modifications to existing building systems (it is understood that this may follow the work of producing record documents, but it is not included as part of this proposal)
- Record documents for systems not identified above, including:
 - Plumbing systems
 - Fire protection systems
 - Lighting
 - Fire alarm
 - Telecommunications or other low-voltage electrical systems
- Detailed electrical survey of power distribution systems requiring testing of circuits to create panel schedules
- Energy modeling or analysis of existing building systems/components
- Analysis of potential hazardous materials (e.g. asbestos containing materials)
- Code analysis of existing building components or systems

- Analysis or documentation of building structural components

Deliverables:

- Record Documents to include:
 - Mechanical and electrical record documents in electronic format with current architectural backgrounds

Schedule

It is understood that the work of this project must be completed in a timely fashion. We will work with Woodbury County and Baker Group to develop a detailed schedule for completion of documents once we have received a notice to proceed.

Consultants

It is our intent to provide Woodbury County a design team with capabilities to meet the needs of the project. With that in mind, an architectural firm may be retained as a sub-consultant to assist with the development of backgrounds for the record mechanical and electrical drawings. If a firm is to be brought on, a short list of proposed firms will be presented to the county for review prior to a firm being selected to join the team.

Basic Services

We propose to provide the survey and documentation services outlined above for a fixed fee of \$20,000. Additional services outside the scope defined in this proposal will be provided on an hourly basis. The hourly rates for staff expected to work on this project are as follows:

- Mechanical Engineer/Project Manager - \$130/hour
- Electrical Engineer - \$130/hour
- Engineering Intern or Designer - \$80/hour
- Clerical - \$40/hour

Summary

I appreciate the opportunity to provide this proposal to provide survey and documentation services for mechanical and electrical systems at the Woodbury County Courthouse. If you have questions or comments regarding this proposal, please do not hesitate to share them with me. I would be happy to review scope and fees in detail if it is helpful. I look forward to working together on this project. Thank you.

Respectfully,

A handwritten signature in black ink, appearing to read 'C. Metzger', with a long horizontal line extending to the right.

Corey B. Metzger, PE
Principal
Resource Consulting Engineers, LLC