

REQUEST FOR QUALIFICATIONS - COMMISSIONING SERVICES

August 7, 2024

Re: Windham Raymond Middle School

Commissioning Agents:

Lavallee Brensinger Architects is requesting qualifications for Commissioning Services related to the above referenced project. Please review the Project information provided and submit a qualifications package (Digital PDF) via email on or before **Friday August 23, 2024 at 5:00pm**.

Questions and qualifications shall be forwarded to:
Lavallee Brensinger Architects
305 Commercial Street
Portland, Maine 04101
(207) 558-7200
Attn: Lance Whitehead
Lance.Whitehead@lbpa.com

THE PROJECT

Windham Raymond Middle School will be a new free-standing Middle School (approximately 262,000 square feet) on a new site (71 Windham Center Road, Windham, ME). The project includes education areas associated with a typical Middle School serving 1200 students in grades 5-8, as well as a 600 seat auditorium with balcony and an elevated running track in the gym. The project is a State Funded project. The total construction value is approximately \$130M (\$115M Building, \$15M Site).

The Project Schedule milestone are as follows:

| | |
|-----------------|---|
| August 9, 2024 | 50% Construction Documents Issued |
| November 2024 | 95% Construction Documents Issued |
| December 2024 | Bidding (Building Only – Site Bidding Complete) |
| February 2025 | Start New Building Construction (Site starts August 2024) |
| July 2027: | Install FFE and Complete Commissioning |
| August 2027: | Complete Construction |
| September 2027: | New School opens |

Design Development Documents can be downloaded here:

| | | | |
|---|-----------|---------|------------|
| RSU-14 WRMS 100DD Dwgs Vol 1 062124.pdf | 6/21/2024 | 4:31 PM | 137,865 KB |
| RSU-14 WRMS 100DD Dwgs Vol 2 062124.pdf | 6/21/2024 | 3:55 PM | 114,070 KB |
| RSU-14 100DD Specifications and Outline Spec 062124.pdf | 6/21/2024 | 4:04 PM | 47,222 KB |

SCOPE OF SERVICES

The basis of design for the HVAC system utilizes a four-pipe, Storage Source Heat Pump (SSHP) System. The SSHP system leverages Thermal Energy Storage (TES) and Chiller-Heaters (C-H). At its core, it is a four-pipe hydronic cooling and heating system that provides conditioned fluid to coils or other loads within a building. It uses conventionally designed variable flow cooling and heating distribution loops. For more information, see linked design development drawings.

1. Pre-Bid / Design Phase CxA services shall include:
 - a. Attend three (3) pre-bid / document review Owner meetings to review the proposed Systems and Building Automation System. The meeting will review the system and set

operational expectations with specific documentation (drawings and specification) language.

- b. 50% and 95% Construction Document review with the Basis of Design and Owner's Project Requirements. A report will be required for submission to the Owner and Design team. This requires two (2) reviews and two (2) reports.
 - c. Review and comment on the Commissioning Specification Section for inclusion in the Bid Documents.
2. Post-Bid / Construction Phase CxA services shall include:
- a. Attend one (1) pre-submittal Owner meeting to review the proposed Building Automation System. The meeting will review the system and set operational expectations.
 - b. Develop and distribute the commissioning plan for the construction phase, organize the commissioning process components, and present the commissioning plan at a commissioning kick-off meeting where the commissioning process requirements are reviewed with the project team (Owner, Architect, General Contractor (GC), and related sub-contractors).
 - c. Coordinate and direct commissioning activities in a logical, sequential and efficient manner using consistent protocols, clear and regular communications and consultations with all necessary parties, frequently updated timelines, schedules, and technical expertise.
 - d. Perform site visits, as necessary, to observe component and system installations. Accomplish a statistical review of construction focusing on the owner's design intent and the quality process. Attend selected planning and job-site meetings to obtain information on construction progress.
 - e. Review pre-functional test documentation and start up reports developed by the installing contractors.
 - f. Review submittals related to systems listed within your scope.
 - g. With necessary assistance and review from installing contractors, write functional test procedures for installed systems and equipment.
 - h. Provide General Contractor with directions for appropriate sub-contractors to execute the tests.
 - i. Coordinate, witness, and document execution for functional test procedures for systems and equipment as performed by installing contractors. Coordinate retesting as necessary until satisfactory performance is achieved.
 - j. Perform and document calibration checks for sensors throughout.
 - k. Maintain a master deficiency log and a separate testing record to track identified deficiencies throughout the commissioning process. Provide to the GC, owner, and architect written progress reports and test results with recommended actions.
 - l. Document the correction and retesting of non-compliance items by the contractor.

3. CxA Authority shall include:
 - a. The CxA is not responsible for design concept, design criteria, compliance with codes, design or general construction scheduling, cost estimating, contractor quality control, safety, or construction management. The CxA may assist with problem-solving non-conformance or deficiencies, but ultimately that responsibility resides with the general contractor and the A/E Design team. The primary role of the CxA is to develop and coordinate the execution of a testing plan, observe and document performance; defined as which systems are functioning in accordance with the documented design intent and in accordance with the Contract Documents. The General Contractor and related sub-contractors will provide all tools or the use of tools to start, checkout and functionally test equipment and systems.
 - b. Coordinate the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties, frequently updated timelines and schedules and technical expertise.
 - c. Cooperate and work with the GC according to established protocols to schedule the commissioning activities. The GC will integrate all commissioning activities into the master schedule.
 - d. Commissioning during construction begins with a scoping meeting conducted by the CxA where the commissioning process is reviewed with the commissioning team members.
 - e. Request and review information required to perform commissioning tasks, including O&M materials, contractor start-up and checkout procedures. Request submittals over and above what is specified to the extent necessary for document the pre-functional and functional testing requirements of each piece of equipment, as dictated by the equipment manufacturer.
 - f. Before startup, gather and review the current control sequences and interlocks and work with contractors and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.
 - g. Meetings will be attended, scheduled by the CxA with necessary parties attending, to plan, scope, coordinate, schedule future activities and resolve problems. Perform site visits, as necessary, to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress. Review construction meeting-minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.
 - h. Approve systems startup by reviewing start-up reports and by selected site observation.
 - i. Oversee sufficient functional testing of the control system and approve it to be used for TAB, before TAB is executed.
 - j. Oversee the TAB procedure, performed by a Balancing Technician, to the extent deemed necessary to insure that the design intent is met.
 - k. With necessary assistance and review from installing contractors, define the functional performance test procedures for equipment and systems.
 - l. Analyze operation of the temperature controls systems to verify performance.

- m. Witness and approve manual functional performance tests performed by installing contractors. Coordinate retesting as necessary until satisfactory performance is achieved.
 - n. Maintain a master deficiency and resolution log and a separate testing record. Provide the Owner with written progress reports and test results with recommended actions.
 - o. Compile and maintain a commissioning record.
 - p. Provide a final commissioning report. This report shall include recommendations for addressing outstanding deficiencies within the first year of occupancy.
4. Systems to be Commissioned:

HVAC SYSTEMS

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- Storage Source Heat Pump System: Boilers, Air-Water Heat Pumps, Thermal (Ice) Storage, Chiller-Heaters, Control Valves (100% Sampling Rate)
- Heat Exchangers (100% Sampling Rate)
- Circulating Pumps (100% Sampling Rate)
- Air Handling Units (100% Sampling Rate)
- Fans (100% Sampling Rate)
- Exhaust Capture Systems (100% Sampling Rate)
- Make-up air Units (100% Sampling Rate)
- Kitchen Hoods (100% Sampling Rate)
- Glycol Feed Systems (100% Sampling Rate)
- Fancoil Units (25% Sampling Rate)
- Unit Heaters (25% Sampling Rate)
- VFDs (100% Sampling Rate)
- Snowmelt System (100% Sampling Rate)
- VAV Terminal Units (25% Sampling Rate)
- Duct Smoke Dampers (100% Sampling Rate)
- Gas Detectors (100% Sampling Rate)
- BAS Interface for dust/fume collection systems (100% Sampling Rate)

BUILDING AUTOMATION SYSTEMS

- Controls for HVAC Systems (sampling rate as per equipment listed)
- Pressure Sensors and Controllers (100% Sampling Rate)
- Economizers, Demand Control Ventilation Systems, Variable Volume Systems (100% Sampling Rate)
- Room Temperature and/or CO2 Sensors (25% Sampling Rate)
- Hydronic System Controls (25% Sampling Rate)
- Valve and Damper Actuators (25% Sampling Rate)

PLUMBING

- Domestic Water Heating (100% Sampling Rate)
- Trap Primers (25% Sampling Rate)
- Digital Mixing Valves (100% Sampling Rate)
- Athletic Field Irrigation System (100% Sampling Rate)

ELECTRICAL SYSTEMS

- Lighting Controls (75% Sampling Rate)

EXTERIOR AIR BARRIER ENVELOPE SYSTEMS

- Continuous fluid applied membrane with self-adhered sealed transition membrane behind masonry veneer, metal panel systems, and composite siding and trim.
- Complete ICC G4-2012 6.2 (602) Check List as it applies to the Air Barrier.

5. Miscellaneous Services:

- a. The CxA shall attend meetings with the Architect, Owner, and General Contractor as required for the proper execution and coordination of the Work during the Construction Phase.
- b. It shall be understood that the Owner/Architect retain the right to accept, reject, modify or negotiate any proposal.

6. Each Qualification shall be submitted in writing, and shall include the following:

- a. Proposer's name and address.
- b. Identification and qualifications of each key member of the Project team. It is required that the team be established at the outset of the Project, and remain intact throughout the duration of the Project.
- c. A written approach to Commissioning specific to this project. Include identification of all qualifications, variations, or exceptions you may wish to make regarding the Scope of Services, or working relationships related to this Project.
- d. Work examples of past projects.
- e. Project References for key individuals.

- f. Desired Qualifications: It is the owner's desire for the person(s) designated as the site commissioning authority (CxA) to satisfy as many of the following requirements as possible:
- Acted as the principal commissioning authority for at least three projects of comparable size, type and scope.
 - Extensive experience in the operation and troubleshooting of HVAC systems and energy management control systems.
 - Extensive field experience. A minimum of five full years in this type of work is required.
 - Knowledgeable in building operation and maintenance and O&M training.
 - Knowledgeable in national building & fire codes as well as water-based fire extinguishing systems, detection systems and alarms systems.
 - Knowledgeable in test and balance of both air and water systems.
 - Experienced in energy-efficient equipment design and control strategy optimization.
 - Demonstrated experience with total building commissioning approach including building envelope, data and communication systems and other specialty systems.
 - Direct experience in monitoring and analyzing system operation using energy management control system trending and stand-alone data logging equipment.
 - Excellent verbal and writing communication skills. Highly organized and able to work with both management and trade contractors.
 - Experienced in writing commissioning specifications.
 - A bachelor's degree in mechanical or electrical engineering is strongly preferred, and P.E. license is desired. However, other technical training, past commissioning, and field experience may be considered as a substitute.
 - Membership and certification as a Certified Commissioning Professional with the Building Commissioning Association is desired but not required.

The required expertise for this project will be based on the skill and experience set of the full team making the proposal. A member of the prime firm will be the designated commissioning authority who is the member of the team that will coordinate the commissioning activities from the technical perspective. This party may not necessarily be the team's overall project or contract manager. The commissioning authority must have significant in-building commissioning experience, including technical and management expertise on projects of similar scope. If the commissioning authority or prime firm does not have sufficient skills to commission a specific system, the prime firm shall subcontract with a qualified party to do so. Subcontractor qualifications shall be included and clearly designated in the response to this scope of work.

SELECTION PROCESS

The Owner, the State, and the Architect shall review all proposals and select and rank the most qualified consultants and may perform interviews with select consultants. The selection and ranking shall be based on the following criteria:

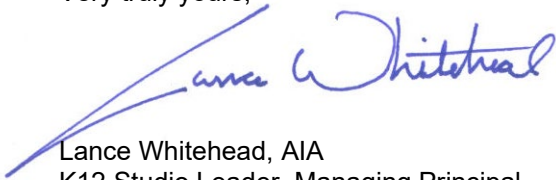
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|---|-----------|
| <input type="checkbox"/> Key individual experience | 20 points |
| <input type="checkbox"/> Past experience in performing similar projects | 20 points |
| <input type="checkbox"/> Expertise of the team in performing the services required by the project | 15 points |
| <input type="checkbox"/> Management approach | 20 points |
| <input type="checkbox"/> Work examples | 10 points |

The owner will negotiate/interview with the highest ranked consultant on the tasks, staffing, schedule, and fee proposal. Negotiations may be formally terminated if they fail to result in a contract within a reasonable

time period. Negotiations will then ensue with the second ranked consultant, and if necessary, the third ranked consultant.

Thank you for your interest in this most important Project. Please contact me if you have any questions.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Lance Whitehead". The signature is written in a cursive style and is positioned above the typed name.

Lance Whitehead, AIA
K12 Studio Leader, Managing Principal
Lavallee Brensinger PLLC (dba Lavallee Brensinger Architects)