REQUEST FOR PROPOSAL

FOR

INDEPENDENT COMMISSIONING SERVICES

New Residence Hall

Project Number: (WP-16-01-99CS)

WILLIAM PATERSON UNIVERSITY OF NEW JERSEY
300 POMPTON ROAD
WAYNE, NEW JERSEY 07470

Response to this Independent Commissioning Services Request is to be submitted by 4:30 p.m. on Wednesday, March 21, 2018 to the **Office of Capital Planning, Design and Construction at William Paterson University of New Jersey,** to the attention of:

Mr. Kevin Garvey
Associate Vice President of Administration
William Paterson University of New Jersey
358 Hamburg Turnpike
Wayne, New Jersey 07470

Date of issue: February 14, 2018

REQUEST FOR PROPOSAL

For

INDEPENDENT COMMISSIONING (Cx) SERVICES

The Commissioning Agent (CxA) awarded this contract is excluded from directly or indirectly providing any other types of services on this project. The Consultant cannot be an employee of the University or design firm, nor be an employee or hold a contract with other firms contracted to provide services on this project. The CxA must remain independent of the work of design and construction.

The William Paterson University of New Jersey (University) is requesting proposals to secure Cx services for a New Residence Hall located on the main campus in Wayne, New Jersey. The University is committed to commissioning this facility to ensure that all systems are well designed, complete and functioning properly upon occupancy, so that the University's staff has adequate system documentation, training, and when appropriate, LEED certification is received for projects. The University may also utilize the services of the consultant on other campus renovation projects for the next three years.

Background

The University is seeking the services of a qualified Independent Commissioning Agent for new construction and other campus renovation projects. The New Residence Hall is a residential complex of approximately 89,500 GSF. The intent is to complete construction of the New Residence Hall by April 2019. The current project budget is $40 million. The abovementioned building is identified on the campus map, which is included in the proposal documents. The University has also included a $75,000 allowance on the proposal form for the selected firm to participate on smaller renovation projects on the campus during the timeframe of the New Residence Hall. The initial contract period will be one (1) year with the option to include two (2) additional one (1) year terms, to be exercised at the discretion of William Paterson University, But Not to exceed June 30, 2021.

The New Residence Hall project is in the construction phase with the architect, Clarke Caton Hintz of Trenton, NJ and Partner Engineering is the MEP Engineer. Langan is the site Engineer. A current project schedule is attached (Attachment 2). Construction on the New Residence Hall began in Nov 2017 and is expected to be completed by April 2019.

Schedule Summary (estimated):

New Residence Hall Construction:	Through April 2019
Miscellaneous Small Projects (allowance):	May 2018 – June 30, 2021

Objectives

The objective of commissioning is to provide documented confirmation that the facilities fulfill the functional and performance requirements of the University, the occupants, and the operators. Fundamental Commissioning of Building Energy Systems should be assumed in the proposal for the New Residence Hall. The University does not intend to seek LEED Certification on any renovation/repair project.

To accomplish these goals, the commissioning process must establish and document the University's criteria for all systems' function, performance, and maintainability (the Design Intent); and verify and document compliance with these criteria throughout design, construction, start-up, and the initial period of operation. In addition, the Commissioning Agent is to provide a full review and acceptance of all systems for complete operation and maintenance, obtain all O&M manuals, and train the building operators on the systems operation to ensure the building is operating as intended.

The Commissioning Agent is to be involved throughout renovation/repair projects from the design development phase through the warranty period. The primary role of the Commissioning Agent during the overall design phase is to develop detailed commissioning specifications and to review the design to ensure it meets the University's documented objectives. During construction, the Commissioning Agent develops and coordinates the execution of a testing plan, which includes observing and documenting all systems' performance to ensure that the systems are functioning in accordance with the University's Design Intent requirements and the contract documents. The Commissioning Agent is not responsible for design or general construction scheduling, cost estimating, or construction management, but may assist with problem-solving or resolving non-conformance issues or deficiencies.

Scope of Work

The Commissioning Agent shall be responsible for carrying out the following tasks. Prospective proposers are free to suggest changes and improvements to the following task list. For this proposal, it is assumed by the University that all of these tasks will be completed, unless any proposed changes to the following task list are "clearly" highlighted and noted in the respondent's proposal. For this proposal, services are requested for the design development phase, the contract document phase, the bidding phase, the construction phase and the warranty phase.

Description of Proposed Work

The work will consist of complete Commissioning Services as required to ensure that identified systems are well designed, complete and functioning properly upon occupancy, and that WPU's staff have adequate system documentation, and training. The work includes Cx for all Heating, Ventilating, and Air Conditioning (HVAC) systems as well as for all Automatic Temperature Control/Building Management Systems (ATC/BMS), electrical and emergency power systems.

Specifically, the following systems shall be commissioned for each Project listed:

1. Central ATC/BMS system
2. All equipment of the HVAC system
3. Refrigeration systems
4. Portions of life safety systems that directly affect or tie into any system listed above (fire alarm, stairwell pressurization, smoke purge system)
5. Electrical distribution from tie-in point on campus to point of distribution of 120/240/277 voltage, including transformers, automatic switches, switchgear, etc.
6. Emergency generator, including generator and automatic transfer switching
7. Emergency power systems and circuits, including lighting, signage, and outlets
8. Lighting controls including dimming and occupancy sensors.
9. Domestic Hot Water System

Commissioning provider (CxA) will be considered a team member of the project team, which will be comprised of:

1. Member(s) of the University's Departments of Capital Planning, Design and Construction, Physical Plant Operations, College of Science and Health, Information Technology and others.
2. CxA
3. Construction Manager
4. Architect
5. Engineering Consultants

The Construction Manager, who does not hold the trade contracts with contractors, shall coordinate the CxA consultant's activities for the project, however the CxA is responsible for directly coordinating and scheduling all activities that require electrical, mechanical or other trade sub-contractors directly with those parties or the general contractor. Other contractors or equipment manufacturers may be brought into the process if need be.

Scope of Services

Delivery Method/Form of Agreement

The work will proceed under the terms and conditions of the standard University form of Consultant Agreement, which has been included as a reference document.

Required Services

The required Services associated with the Pre-Design Phase of the project include, but are not limited to, the following:

1. Develop a draft design-phase commissioning plan.
2. Attend commissioning meetings as needed with project team.
3. Develop the written Owner Objectives for the mechanical systems (HVAC and ATC/BMS), energy consumption, commissioning, and budget. Develop the written Owner Objectives for the electrical systems (normal and emergency), commissioning, and budget. This will be accomplished by the CxA conducting interviews with representatives of Capital Planning and Physical Plant Operations. The Owner Objectives will be general in nature, but include specific performance criteria for some concepts.

The required Services associated with the Design Phase of the project include, but are not limited to, the following:

1. Coordinate the commissioning work during design.

2. Develop the design phase commissioning plan.

3. Perform focused reviews of the design drawings and specifications at various stages of development (during design development and construction document phases), as described.

4. Assist, review and approve the development and updating of the Design Record documentation by design team members (Owner Objectives, Design Narrative; Design Basis).

5. Develop a draft construction phase commissioning plan.

6. Develop full commissioning specifications for all commissioned equipment.

7. Coordinate with and integrate into the specifications of the architect and engineers.

8. One or more of the following documents can be used as a guide for content, rigor and format:

    a. Model Commissioning Plan and Guide Specifications, USDOE/FEMP; Portland Energy Conservation, Inc. (PECI),

    b. *The HVAC Commissioning Process,* ASHRAE Guideline 1-2005

    c. LEED Standards as developed by USGBC

    d. New Jersey Higher Education Partnership for Sustainability Standards

The commissioning specification must include a detailed description of the responsibilities of all parties, details of the commissioning process; reporting and documentation requirements, including formats; alerts to coordination issues, deficiency resolution; construction checklist and startup requirements; the functional testing process; specific functional test requirements, including testing conditions and acceptance criteria for each piece of equipment being commissioned.

1. Coordinate a controls integration meeting where the electrical and mechanical engineers and the Commissioning Provider discuss integration issues between equipment, systems and disciplines to ensure that integration issues and responsibilities are clearly described in the specifications.

2. Review design logic for HVAC system controls to ensure that the building control system capabilities are not exceeded. Coordinate as required.

3. Review HVAC system for good design practice, code compliance and economical operation. Insure all HVAC system requirements for heating and cooling are in concert with WPU Physical Plant's summer and winter production operations, for steam, hot water and chilled water.

4. Review electrical system design to verify good design practice, code compliance and insure the needs of WPU are met with respect to the end users and Physical Plant.

5. Other services described in the CxP’s Technical Proposal but not explicitly listed herein.

The required Services associated with the bidding, included in the Design Phase, of the project include, but are not limited to, the following:

1. Provide written responses to questions submitted by CM, A/E, and/or Owner.

2. Other services described in the CxA's Technical Proposal but not explicitly listed herein.

The required Services associated with the Construction Phase of the Project include, but are not limited to, the following:

1. Perform the tasks and functions in the specifications developed as described in Section 6.2.1 of this RFP.

2. Coordinate and direct 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.

3. Coordinate the commissioning work and, with the construction manager (CM), ensure that commissioning activities are being scheduled into the master schedule.

4. Revise, as necessary, the construction phase commissioning plan developed during design, including scope and schedule.
5. Plan, conduct, commissioning meetings as needed and distribute minutes.

6. Request and review additional information required to perform commissioning tasks, including O&M materials, contractor start-up and checkout procedures. 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.

7. Review and approve normal Contractor submittals applicable to systems being commissioned for compliance with commissioning needs, concurrent with the A/E reviews.

8. Review requests for information and change orders for impact on commissioning and owner's objectives.

9. Review coordination drawings to ensure that trades are making a reasonable effort to coordinate.

10. Write and distribute construction checklists for commissioned equipment.

11. Develop an enhanced start-up and initial systems checkout plan with contractors for selected equipment.

12. Perform site visits, as necessary, to observe component and system installations.

13. Attend selected planning and job-site meetings to obtain information on construction progress.

14. Review construction meeting minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.

15. Coordinate controls integration meetings where the electrical and mechanical engineers, the University's representative, contractors, and the Commissioning Agent. Discuss integration issues between equipment, systems, and disciplines to ensure that integration issues and responsibilities are clearly described in the specifications.

16. Witness HVAC piping pressure test and flushing, sufficient to be confident that proper procedures were followed. Include testing documentation in the Commissioning Record.

17. Witness any ductwork testing and cleaning sufficient to be confident that proper procedures were followed. Include documentation in the Commissioning Record.

18. Confirm independent testing of high voltage feeders, transformers and switchgear to verify correct configuration and labeling as designed and installed.

19. Witness electrical systems testing and labeling sufficient to be confident that proper procedures were followed. Include testing documentation in the Commissioning Record.

20. Document construction checklist completion by reviewing completed construction checklists and by selected site observation.

21. Document systems startup by reviewing start-up reports and by selected site observation.

22. Approve air and water systems balancing by spot testing and by reviewing completed reports and by selected site observation.

23. With necessary assistance and review from installing contractors, write the functional performance test procedures for equipment and systems. This will include manual functional testing, energy management control system trending and may include stand-alone data-logger monitoring. Submit to CM for review and approval if required.

24. Analyze functional performance trend logs and monitoring data to verify performance.

25. Coordinate, witness and document manual functional performance tests performed by installing contractors. Coordinate retesting as necessary until satisfactory performance is achieved. The functional testing shall include operating the system and components through each of the written sequences of operation, and other significant modes and sequences, including startup, shutdown, unoccupied mode, manual mode, staging, miscellaneous alarms, power failure, security alarm when impacted and interlocks with other systems or equipment. Sensors and actuators shall be calibrated during construction check listing by the installing contractors, and spot-checked by the commissioning provider during functional testing.

26. Tests on respective HVAC equipment shall be executed, if possible, during both the heating and cooling season. However, some overwriting of control values to simulate conditions shall be allowed. Functional testing shall be done using conventional manual methods, control system trend logs, and read-outs or stand-alone data loggers, to provide a high level of confidence in proper system function, as deemed appropriate by the commissioning provider and the Owner.

27. Prepare test plans for, assist with execution of, and document tests of commissioned equipment overseen by regulatory authorities and ensure that such tests meet the testing rigor desired by the Owner.

28. Maintain a master issues log and a separate record of functional testing. Report all issues as they occur directly to the CM. Provide directly to the CM written progress reports and test results with recommended actions.

29. Review equipment warranties to ensure that the Owner's responsibilities are clearly defined.

30. Oversee and approve the training of the Owner's operating personnel.

31. Review and approve the preparation of the O&M manuals for commissioned equipment.

Compile a Commissioning Record, which shall include:
A brief summary report that includes a list of participants and roles, brief building description, overview of commissioning and testing scope, and a general description of testing and verification methods. For each piece of commissioned equipment, the report should contain the disposition of the commissioning provider regarding the adequacy of the equipment, documentation and training meeting the contract documents in the following areas:

1. Equipment meeting the equipment specifications,
2. Equipment installation,
3. Functional performance and efficiency,
4. Equipment documentation and Operator training.
5. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented.
6. Also included in the Commissioning Record shall be the issues log, commissioning plan, progress reports, submittal and O&M manual reviews, training record, test schedules, construction checklists, start-up reports, functional tests, and trend log analysis.
7. Other services described in the CxA's Technical Proposal but not explicitly listed herein.

The required Services associated with the Warranty Phase of the project include, but are not limited to, the following:

1. Coordinate and supervise required opposite season or deferred testing and deficiency corrections and provide the final testing documentation for the Commissioning Record and O&M manuals.
2. Return to the site at three (3) and ten (10) months into the 12 month warranty period and review with facility staff the current building operation and the condition of outstanding issues related to the original and seasonal commissioning.
3. Also interview facility staff and identify problems or concerns they have with operating the building as originally intended. Make suggestions for improvements and for recording these changes in the O&M manuals. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports and documents and requests for services to remedy outstanding problems.
4. Other services described in the CxA's Technical Proposal but not explicitly listed herein.

Desired Qualifications

It is the University's desire for the person(s) designated as the site Commissioning Agents to meet the following requirements:

1. Has acted as the principal Commissioning Agent for at least three (3) projects and/or certification as a commissioning agent by the BCA or AEE.

2. Has a minimum of five (5) years experience in the operation and troubleshooting of HVAC systems, energy management control systems.

3. Has a minimum of five (5) years field experience.

4. Has knowledge in building operations, maintenance and O&M training.

5. Has knowledge in test and balance of both air and water systems.

6. Has experienced in energy-efficient equipment design and control strategy optimization.

7. Has experience in monitoring and analyzing system operation using energy management control system trending and stand-alone data-logging equipment.

8. Has excellent verbal and writing communication skills, is highly organized, and able to work with both management and trade contractors.

9. Has a minimum of five (5) years experienced in writing commissioning specifications.

10. A bachelor's degree in mechanical or electrical engineering is strongly preferred, with a P.E. License in New Jersey is desired. However, other technical training, past commissioning, and field experience will be considered in lieu of a degree and License.

11. Membership with the Building Commissioning Association (BCA) will be considered an advantage.

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 Agent who is the member of the team that will coordinate the commissioning activities from the technical perspective. This person may not necessarily be the team's overall project or contract manager. The Commissioning Agent must have significant in-building commissioning experience for new and renovated buildings, including technical and management expertise on projects of similar scope. If the Commissioning Agent does not have sufficient skills to

commission a specific system, the Commissioning Agent shall subcontract with a qualified party to do so. Subcontractor qualifications shall be included and clearly designated in the response to this RFP.

Pre-Proposal Meeting

A mandatory pre-proposal meeting will be held on Thursday, March 1, 2018 at 10:30 a.m., William Paterson University of New Jersey, College Hall Boardroom Room 202 (Building #35 on the Campus Map), 358 Hamburg Turnpike, Wayne, New Jersey to answer questions and clarify any project issue.

Proposal

Proposals need not be voluminous, but shall provide sufficient information to allow the University to evaluate the Consultant's approach, experience, staff and availability.

The proposal shall include the following:

1. Limit the proposal to not more than fifteen (40) single-sided pages or 20 double sided, including graphics. The letter of introduction, section dividers, and required forms, including the proposal are not included in this limit.

2. The proposal is to be signed by an officer of the proposing firm with the authority to commit the firm.

3. A detailed description of 5 recent relevant projects undertaken by the firm. A list of clients served and the individuals who can be contacted as references for each of the above projects

4. Provide an Organization Chart for managing and executing this contract.

5. List the individual(s) who will serve as the Lead Commissioning Agent for the design phase and for the construction phase of the contract (they may be different people). Provide resumes for key staff and sub-consultants. The resumes shall include specific information about expertise in commissioning tasks, (e.g. design reviews, specification writing, commissioning management, troubleshooting, test writing, test execution, energy management, sustainable design, etc.). The resumes should describe the "relevant" experience of the proposed team in the following areas.

   a) Projects similar to this one

   b) O&M experience

c) Energy-efficient equipment design and control strategy optimization experience

d) Project and construction management experience

e) System design experience (specify)

f) Troubleshooting experience

g) Commissioning experience

6. This project will be procured on a negotiated scope and lump sum fee basis. In addition to the qualification package, provide both an hourly rate for each team member to be utilized for additional services if required. All fees (travel, tolls, copying, meetings, communications, mailing, etc.) are to be included in the lump sum line items on the proposal form.

7. For planning purposes, the proposal must also include the estimated hours

8. Insurance requirements are included in Article 16 of the standard form of agreement included in the proposal documents:

9. Proof of this insurance will be required prior to the award of this contract to the winning proposal.

10. The respondent must submit five (5) copies of the proposal, each signed by an authorized representative of the firm.

Selection Criteria

The selection and ranking shall be based on the following criteria:

1. Past experience in performing similar projects

2. Individuals experience on similar projects

3. Experience with LEED Certified projects

4. Demonstrated Understanding of Project.

5. Fee Proposal

6. The firm must demonstrate effective means of communication with the University's project team, the Steering Committee, users, and the University Community as a whole.

7. Commitment to provide a team of skilled, staff, and professionals who reflect the rich diversity and demographics of the William Paterson University community and the State of New Jersey

After review of all proposals, the University may establish a short-list for final interviews.

FEE

New Residence Hall:

Construction Phase: $_____

Warranty Phase: $_____

Subtotal: $_____

Allowance for Misc. Renovation Projects: $75,000

Total (New Residence Hall & Misc. Renovation Projects): $_____

Change in Personnel

If the commissioning firm's personnel or sub-consultants change for this project, the University must review and approve the replacement personnel, in advance. The replacement personnel shall have, at minimum, equivalent qualifications as the original personnel.

Submission Instructions

Along with the proposal form and staffing plan, the submissions should address the aforementioned selection criteria and include resumes of key proposed project personnel. Bidders should submit a qualification package with applicable projects and contact information for owner references. RFP submissions are to be submitted electronically via e-mail to: capitalplanning@wpunj.edu no later than the date and time specified. A limit of 25Mb exists for attachments to e-mailed submissions. It is the responsibility of the vendor to confirm receipt of the RFP by WPU. Submission should include the subject heading: WP-16-01-99-CS Comissioning Agent RFP – New Residence Hall.

All inquiries should be emailed to capitalplanning@wpunj.edu prior to the due date with a subject heading of Commissioning Agent RFP – New Residence Hall (WP-16-01-99-CS). Telephone inquiries will not be entertained.