

The University of North Carolina at Charlotte

Capital Projects

Facilities Management

9201 University City Blvd.

Charlotte, N.C. 28223-0001

TEL: 704/687-0615

**PROJECT: UNC Charlotte
Science Building
Green Globes™ Building Enclosure Commissioning Services
Code 46626, Item 301**

This is a second advertisement for the above referenced services and project. Submittals received on October 3, 2017 did not sufficiently demonstrate the desired experience level with higher education science laboratory buildings. If you have previously submitted you may submit again, but you must meet the qualifications requested below to be considered. Previous submittals delivered by October 3, 2017 will not be considered for this selection.

Thank you for your interest in the subject project. This information is being provided to all firms which express an interest in the building enclosure commissioning of the project. Limit the size of your submittal document to no greater than forty (40) pages, 12½ inches in height and 9½ inches in width. Submittals are due in this office by **2:00 p.m., February 15, 2018. Do not transmit any submittal information via email.**

The University is seeking an engineering firm which is capable of reviewing design documents, preparing building enclosure commissioning specifications, and providing construction inspection services during construction to ensure proper roof and building enclosures are provided in accordance with the documents. The selected firm will coordinate building enclosure commissioning efforts with the project architect, Clark Nexsen, the Science Building Design Architect, Payette, the MEP engineering consultants Vanderweil , and the CM@R firm, Balfour Beatty.

Submittals are to include the attached cover sheet and the standard 330 Form along with any additional information considered appropriate. Please deliver five (5) hard copies of the submittal to my office at the address noted above along with one (1) digital submission (on CD, DVD, thumb-drive, etc).

In your submittal, please emphasize the achievements and qualifications of those persons who would be working on our project. When presenting information on previous projects, include complete descriptions of how each of your team members participated on those projects. **The BECx Agent must be a licensed engineer in the State of North Carolina prior to responding to this advertisement.**

The preliminary evaluation process will be complete within 14 days following the submittal due date and firms winnowed for interviews, will be notified by this office. From that group of firms, the interview committee will select and rank three finalist firms.

Please deliver all submittals to me at the address written above.

Sincerely,

Joyce Clay

The University of North Carolina at Charlotte Science Building Building Enclosure Commissioning Services

PROJECT DESCRIPTION

The project is for the construction an interdisciplinary Science Building of approximately 114,000 gross square feet with wet labs for Chemistry and Biology Teaching, Physics teaching labs, research labs for Scientists in the disciplines of Chemistry, Biology, and Physics, office and administrative space, student resource rooms and common areas, as well as a small food service venue. The project will also provide a regional utility plant and a data center in a separate building on the same site.

The architect for this building is Clark Nexsen of 1523 Elizabeth Avenue #300, Charlotte, NC. The project is currently in the Design Development phase. The selected building enclosure commissioning firm members will be active advisors to the Project Team.

SCOPE OF SERVICES

1. The Building Envelope Commission Agent will be responsible for commissioning the building enclosure to validate that the enclosure meets the design intent requirements set forth by the design team and the University, and to help the project comply with the Sustainable, Energy Efficient Buildings' requirements for public buildings mandated per North Carolina GS 143 – 135.35 through 40.

The Building Enclosure Commissioning Agent will be contractually obligated to the Owner and will become a member of the Project Team. The Building Enclosure Commission Agent will perform “3rd party” services to the Owner, so no conflict of interest shall exist between the BECx Agent and other members of the Project Team.

SYSTEMS TO COMMISSION

Systems to be commissioned include the roof, the exterior building walls, and all lab spaces to assure labs are under negative pressure relative to hallways and adjacent space inside the building and under positive pressure towards the exterior. Mechanical, electrical and plumbing equipment will be commissioned separately by a separate CxA under separate contract and are not part of the consideration for this service. However, the enclosure commissioning agent will have to work closely with the mechanical engineer and the CxA to work through issues that may potentially impact proper building and envelope pressurization.

EXPERIENCE AND QUALIFICATIONS

The University expects the Building Enclosure Commissioning Agent (BECxA) to have demonstrated experience in providing enclosure commissioning services on large higher education science buildings. The BECx should have the following experience and qualifications:

1. The BECx firm and assigned lead BECx shall have acted as the principal BECx for at least three similar building projects over 100,000 square feet and have a minimum of five years field experience for this type work.
2. The Commissioning team members shall have experience with science building enclosures.

3. Team members shall have experience in energy-efficient enclosure design.
4. **Functional building air leakage testing to comply with ASTM E779 will have to be specified, implemented, and observed by the Building Envelope Commissioning Agent. Team members shall have prior experience with specifying, implementing, and observing this test.**

Previous experience with Building Enclosure Commissioning Services for higher education science facilities specifically with wet labs and fume hoods is required for selection. The pressurization requirements for laboratory buildings with large numbers of fume hoods are unlike the requirements for most buildings and previous experience with this building type preferably in a higher education setting will weigh heavily in the selection of the successful firm.

SUBMITTALS

The submittal should contain sufficient information for the evaluation of the qualifications of all members of the proposed team. The submittal shall include the following:

1. Firm Cover Sheet (optional)
2. Mandatory Cover Sheet (attached to this Request for Qualifications)
3. Cover Letter (optional)
4. Table of Contents
5. SF 330 Parts I and II. Both parts must be fully completed. (Form can be downloaded at the following link:
<https://www.gsa.gov/portal/forms/download/116486>)
 - a. A separate SF 330 Part I, Section E, Resume shall be submitted for each proposed team member.
 - b. A separate SF 330 Part I, Section F, Projects, shall be submitted for up to (10) ten projects to be showcased. Showcased projects shall be similar to this project, preferable higher education science facilities.. Showcased projects should be projects where proposed team members performed actual BECxA services. Firm experience that is not team member experience will be given limited consideration.

Page Limit Clarification:

1. 40 page limit (20 double sided pages).
2. Page limit includes all printed pages, but not covers, tabs, clear covers, blank pages, cardstock backs, etc. The optional Firm Cover Sheet is exempt from the page count, the optional cover letter will be included in the page count.
3. Page count will be derived from the digital copy submitted. Firms shall omit all blank pages from the digital copy.

Questions and Updates:

Questions shall be e-mailed to Donia Schauble at dschauble@uncc.edu no later than February 6, 2018. If an addendum or any further information needs to be made available it will be posted at facilities.uncc.edu/advertisements . Please check this link for updates.

COMMISSIONING TASKS

The Building Enlosure Commissioning Agent (BECxA) shall complete the following tasks during the Design, Construction, Acceptance, and Occupancy/Operations Phases of the project.

Design Phase:

The BECxA shall work with the Owner, Designer, and Construction Manager to develop the Owner's Project Requirements Document (OPR) for the Building Enclosure. Commissioning during the Design Phase shall ensure that the OPR for air, thermal, vapor, and moisture control barriers, hereafter called the Control Barriers, are documented and captured within the Bid Documents. The BECxA shall complete the following:

1. Coordinate with the Owner's Representative, designer and construction manager to provide review and building envelope commissioning comments for design development and construction documents.
2. Perform quality control design review of the Design Development Drawings and Specifications and the Construction Documents, focusing on the continuity, constructability, and sequencing of Control Barriers. Refer to ASTM E2813 for expected standard of care. Include the following, as applicable:
 - a. Verify compliance with the OPR.
 - b. Verify complete and detailed Air, Vapor, Thermal, and Moisture Barriers.
 - c. Recommendations regarding mockup(s) of specific materials, systems and assemblies. Recommendations shall include testing requirements.
 - d. Recommendations for making building operations and maintenance easier.
3. Perform quality reviews at the following benchmarks: .
 - a. Final Design Development Documents.
 - b. Final Construction Documents.
4. Participate in the following design review meetings. The primary function of the BECxA is to note deviations and conflicts between the OPR, UNC Charlotte Design Standards and Procedures, and industry best practices.
 - a. Final Design Development Documents Review.
 - b. Final Construction Documents Review.
5. The building enclosure commissioning specifications shall be transmitted to the Designer in electronic form and shall include review of the following:
 - a. List of systems and assemblies included in the commissioning scope of work. Include sampling rates.
 - b. Cross references to all applicable and related specification sections.
 - c. References for inclusion into individual equipment and systems specification sections.
 - d. Pre-installation meeting requirements.
 - e. Acceptance testing criteria, including testing agent requirements.
 - f. Deferred testing requirements.
6. Provide sample Construction Checklist and Functional Performance scripts for issue with Bid Documents.
7. Develop a project specific Testing Matrix for inclusion into the Design Documents. Matrix to include the following:
 - a. Required types and sampling rates of testing for mockup(s) and installed materials, systems and assemblies.
 - b. ASTM, AAMA, or other standardized test protocol for each test.
 - c. Who is to perform each test.
 - d. When each test will be performed.
 - e. Criteria for test acceptance.
 - f. How tests are to be documented and who is to receive documentation.
 - g. Estimate of cost for proposed testing scope.
8. Identify Commissioning activities for inclusion into the project schedule.

Systems to be Commissioned and Sampling Rate:

1. General Systems: Continuity and compatibility of systems, protection from physical and UV damage
 - a. Air barrier
 - b. Thermal barrier
 - c. Vapor barrier
 - d. Moisture barrier
2. Specific Architectural Systems including, but not limited to:
 - a. Roof systems
 - b. Flashing, trim, and roof penetrations
 - c. Exterior walls
 - d. Windows and glazing
 - e. Doors, including overhead and specialty doors
 - f. Louvers
 - g. Sealants and expansion joints
 - h. Control joints
 - i. Curtain walls, window walls, storefronts
 - j. Plaza decks
 - k. Below grade waterproofing

BUDGET

The construction budget is approximately \$79,000,000.

This sheet is to be the cover sheet for the submittal. If the submittal is bound in a binder, this will be the top sheet visible upon opening the binder cover.

SUBMITTAL COVER SHEET

BUILDING ENCLOSURE COMMISSIONING SERVICES

Science Building

Building Enclosure Commissioning Firm

Engineer of Record

Other Firm

Other Engineer or Consultant

Other Firm

Other Engineer or Consultant