

University of Wisconsin  
**Eau Claire**

**REQUEST FOR ARCHITECTURAL and ENGINEERING  
DESIGN SERVICES**

**FEASIBILITY STUDY FOR SCIENCE PROGRAMS  
AT UW EAU CLAIRE**

**August 2017**

**Project No. 17H1Q**

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**Project Intent**

This project provides investigation, research, and pre-design services to determine the most feasible way of accommodating science, nursing, and pre-professional health science programs on the UW Eau Claire (UWEC) campus. Options to be considered include: re-use of existing space; construction of new space; and a combination of new space and re-use of existing space. The results of this study will serve as the basis for future capital budget requests that re-align, re-stack, expand, or optimize, the classroom, lab, and support spaces for science disciplines at UWEC. The goal is to improve the quality of instruction in the sciences, nursing, and emerging health science programs.

**Project Background and Purpose**

The 2010 Campus Master Plan, by SmithgroupJJR, included a space needs analysis prepared by their sub-consultant Facilities Programming and Consulting. The analysis demonstrated a need for additional laboratory space for science disciplines at UWEC.

Since 2011, UWEC has seen an increase in the demand for pre-professional health sciences programs. The university must ascertain size, quantity, and quality of spaces needed to meet the deficit cited in the master plan, and how that aligns with the current demand for science-based programs on campus.

The size of most laboratories on campus is based upon lab student station sizes typical of the 1960s and 1970s, which result in an overall average of 24 stations per lab. As previously stated, demand for laboratory sections has increased and is projected to continue. With stagnant or declining operating budgets, section sizes must increase in order to meet the projected demand. Many labs will need to be upgraded to modern station layouts and accommodate 30 to 36 students, however, spatial geometry and building mechanical, electrical and plumbing systems may not meet the needs of the increased class sizes. These existing laboratories need to be analyzed to determine if remodeling is a viable option.

Phillips Hall (192,250 GSF) was built in two phases, completed in 1963 and 1968 respectively. The existing 5-story Phillips Hall currently houses the physical sciences, including biology, chemistry, physics, astronomy, geology, geography, anthropology, computer sciences, a bird museum, green houses, a planetarium, general assignment classrooms and computer labs. As the primary science facility on campus, this building has undergone renovation several times in an effort to keep its laboratories and classrooms current with the needs of the continuously evolving science disciplines. Although some limited upgrades were completed as recently as 2003, continued investment in laboratory and research space is essential to ensure the campus portfolio can support the academic programs.

Hibbard Hall (161,677 GSF) was completed in 1973 and along with other humanities disciplines, it houses psychology and mathematics. Previous studies of the science disciplines recommend co-locating compatible science departments with mathematics. The feasibility of this pairing needs to be investigated as part of this study.

Nursing Hall (46,929) was originally built in 1968, and an addition was added in 1984. Support of the nursing program and its alignment with the emerging pre-professional health science programs needs to be evaluated during this study.

UWEC has already invested in other projects that will keep the university's academic and student life programs current.

## **UWEC Science Programs Feasibility Study RFQ – August 2017**

- A Physical Condition Assessment is underway as a separate project to evaluate Phillips, Hibbard, and Nursing halls and the feasibility of remodeling or repurposing these buildings. This assessment will be available as a reference document for this study.
- Centennial Hall, a new academic classroom building, was completed in 2014. This building supports all disciplines and provides spaces that permit classes to be taught using active learning pedagogy.
- The 2010 master plan calls for the removal of two, small residence halls (Thompson and Putnum) on the lower campus. The land occupied by these halls has been earmarked in the master plan as a potential site for additional science/laboratory buildings should the need arise. The beds lost by the removal of these halls have already been accounted for in projects occurring on the upper campus. A housing study is not necessary as part of this project.

### **Project Description and Scope**

This project Work includes:

- Space needs assessment for current and future programs offered by: biology, chemistry, physics, astronomy, geology, geography, anthropology, mathematics, computer sciences, nursing, psychology, and health science departments;
- Building construction options including:
  - Space plans
  - Concept level architectural plans
  - Concept level site plans for new construction
  - Cost analyses and comparisons
  - Constructability Issues Report including impact on current building occupants
- Perform a space needs analysis and develop recommendations based on scheduling/ utilization data, program delivery, enrollment trends, and appropriate benchmarks.
- For areas proposed for new construction, perform a preliminary assessment of foundation and footing requirements. The need for soil borings is not anticipated. A full geotechnical report is not needed. A review by a structural engineer of existing subsurface conditions (e.g., soil boring information from adjacent buildings and projects) will be needed.
- Document the Feasibility Study including the following components:
  - Space tabulations
  - Adjacency analysis of functions
  - Building code, historical, and zoning analysis
  - Conceptual site and floor plans for new construction
  - Conceptual space plans for remodeled space
  - Conceptual budget and budget options
  - Conceptual schedule and options
  - Preliminary analysis and recommendation for footings and foundation systems for new construction
  - Analysis of phasing options
  - Concept level Sustainable Facilities Checklist
  - Incorporation of the Physical Condition Assessment findings and recommendations

## **UWEC Science Programs Feasibility Study RFQ – August 2017**

UWEC is prepared to provide the selected consultant team with the following information and data:

- 2017 Physical Conditions Assessment
- 2010 Campus Master Plan, including analysis of science programs
- Enrollment data for campus, programs, and majors
- Desired program delivery changes, including forecasts of future degree programs
- Building floor plans and overall campus base drawings in CAD
- Subsurface information
- Space records of existing spaces including square footages and space use codes
- Class registration and scheduling data
- Classroom Demand Analysis (UWSA format)
- Building Facility Condition Assessments

### **Project Deliverables**

- Space needs assessments for physical sciences, including biology, chemistry, physics, astronomy, geology, geography, and anthropology, as well as mathematics, computer sciences, nursing, psychology, and health science departments
- Facility alternatives (remodeling, new construction, and combinations thereof)
- Space plan diagrams for existing building space
- Concept level architectural plans for new construction
- Concept level site plans for new construction
- Project scope and budget alternatives
- A pros and cons analysis of project scope and budget alternatives
- Analysis of construction issues for potential remodeling scope, including impact on current building occupants

Requirements for all deliverables:

- The deliverables will be the property of the Board of Regents of the University of Wisconsin, and the State of Wisconsin. The State will reserve the right to modify and update the feasibility study for future use.
- The final documents should be appropriate for use in the public domain.
- The final documents should be clear, concise and forward-focused.
- The final master plan document should have a professional published appearance and format. Graphics should be readable in either color or black and white printed formats. The document should be letter size, either portrait or landscape, but may contain tabloid size fold-outs.
- All deliverables should also be provided in Adobe Acrobat (PDF) format.
- All final site plans and floor plans shall be delivered in AutoCAD 2013 format or higher, with site plans geo-referenced for incorporation into G.I.S.

The resulting report that the consultant produces will be used by the university to document the project scope (program, concept, budget, and schedule) and to seek funding. After funding is obtained, the document will be used as a basis to design the project and implement construction. The resulting information may also be used to coordinate other projects that could be affected by this project, or to request and implement other projects that may be necessary to support this project.

**Consultant Qualifications**

The consultant should have experience conducting and completing master plans or feasibility studies for colleges or universities similar in size to UW Eau Claire.

Well-qualified teams will have been either the prime consultant or a sub-consultant with the following specific design experience:

- Space planning for colleges and universities similar in profile to UW Eau Claire, with expertise in analysis of data, knowledge of current trends and best practices in higher-education program delivery and evolving technologies, and knowledge of appropriate space benchmarks
- Utilities assessment and planning
- Higher education science pedagogy
- Architectural programming, design and budgeting of similar science and health science projects
- Building code analysis
- Structural engineering

The selected firm should be familiar with the requirements for “Pre-design” in the DFD Policy and Procedure Manual for Architects/Engineers and Consultants.

**Letter of Interest Submittal Requirements**

The letter-of-interest submitted by the consultant team should include the following information:

- A listing of all firms who will be sub-consultants to the prime consultant and services that each sub-consultant will provide
- A listing of key staffers for the consultant and sub-consultants, roles of each key staffer
- A listing of project experience similar to that required for this project

**Contacts**

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**Preliminary Project Budget Summary**

The budget for the feasibility study is \$125,000.

**Project Schedule Summary**

A/E Team Selection	September 2017
Begin Feasibility Study	December 2017
Preliminary Findings Submittal	March 2018
Draft Program Statement Submittal	May 2018
Final Program Statement Complete	August 2018

## **Additional Information and Documents**

### Historical Conditions and Issues

Phillips hall is listed as historically significant. cursory investigation and acknowledgement of this listing is all that is expected.

### Supporting documentation

- Campus Master Plan 2010-2030, <http://www.uwec.edu/facprojects/masterplan.htm> The campus master plan contains a space analysis for the science programs.
- Physical Condition Assessment 2017 – will be made available to the selected team.
- Campus Academic Master Plan 2016, <http://www.uwec.edu/AcadAff/academic-master-plan/>