

REQUEST FOR COMMISSIONING SERVICES

Interdisciplinary Research Complex (IRC) University of Wisconsin-Milwaukee Milwaukee, Wisconsin

January 2011

DSF Project No. 10D2Q

FOR THE STATE OF WISCONSIN
DEPARTMENT OF ADMINISTRATION, DIVISION OF STATE FACILITIES
STATE ADMINISTRATION BUILDING, 101 EAST WILSON STREET, 7^T FLOOR
MADISON, WISCONSIN 53707

PROJECT INFORMATION

This project will construct a 92,859 asf / 152,500 gsf new building on the Kenwood Campus of the University of Wisconsin campus in Milwaukee, Wisconsin. Located on Maryland Avenue, this project will provide new office, collaboration, research labs, instructional spaces, and research core facilities.

The owner's project requirements are generally described in the Agency's "Request for Architectural/Engineering Planning and Design Services".

Special commissioning requirements: LEED Silver certification.

Project Budget:

The construction estimate is approximately \$58,000,000 and the total project cost is \$75,000,000.

Proposed Schedule:

Start of Design:	February 2011
Start of Construction	April 2012
Substantial Completion	August 2014

Project Design Team:

Prime AE design team:	Flad Architects, Madison
Site/Civil:	Bloom Consultants, Milwaukee
Structural:	Flad Architects, Madison
Mechanical/Electrical:	AEI, Madison
Plumbing/FP:	PSJ Engineering, Milwaukee
Construction Manager:	TBD

SERVICES REQUIRED:

1. COMMISSIONING

Commissioning services will be in accordance with DSF Level 2 commissioning as described in the DSF [A/E and Consultant Policy and Procedure Manual Section Two](#). The intent is to verify that building systems and equipment are installed and perform according to the owner's project requirements, basis of design, and construction documents.

The commissioning services provider (CxP) will be independent of the design team and will report directly to DSF. DSF expects commissioning services to commence at the start of the Design Phase. Scope of commissioning activities and commissioned systems will be as indicated in the below two attached tables.

PROJECT COMMISSIONING DELIVERABLES:

Deliver all required submittals in electronic form, either in source or PDF form, in formats compatible with DSF's computer equipment and software. In addition, provide two hard copies.

LETTER OF INTEREST

Proposed commissioning team: Identify who will be providing commissioning services and any sub consultants.

Qualifications: Provide documentation of expertise, qualifications and descriptions of relevant past projects for the consulting firm and for the individual(s) who will be performing the services. A well qualified commissioning agent will have the following:

- Experience commissioning a higher education laboratory building of at least \$25,000,000 within the last three years.
- CCP Certified MEP personnel from the Building Commissioning Association or similar certification from other commissioning associations.
- Project manager having led the commissioning services and completed related documentation for at least one LEED Silver certified Higher Education Facility.

Contact: Jon Jenson, AIA, LEED AP, Project Manager. Project Delivery Section, Bureau of Architecture and Engineering, Division of State Facilities (608) 267-7985; jon.jenson@wisconsin.gov

For technical problems or questions on how to submit a letter of interest click on the WISBUILD HELP DESK link on the DSF website.

COMMISSIONING ACTIVITIES / SERVICES

The following activities correspond to DSF’s Commissioning policy and procedures that can be found in Section Two of the [A/E and Consultant Policy and Procedure Manual](#). Reference the manual for a more detailed description of the required services.

Commissioning Requirement		Cx Policy Reference	Table 2.1 & 2.2 Ref.
Design Phase			
<input checked="" type="checkbox"/>	Review Basis of Design/Design Concept to evaluate if construction documents meets Owner’s Project Requirements and DSF standards.	2.E.2.a	4.
<input checked="" type="checkbox"/>	Provide input to A/E for inclusion of verification check lists and functional performance test forms into the construction specifications.	2.E.2.b	5.
<input checked="" type="checkbox"/>	Review Preliminary Design documents to evaluate and comment on the design meeting the Owner’s Project Requirements and project goals.	2.E.2.b	5.
<input checked="" type="checkbox"/>	Review Final Design documents to ensure incorporation of preliminary review comments, constructability, elimination of construction ambiguities and format of verification check lists and functional performance test forms.	2.E.2.b	5.
<input checked="" type="checkbox"/>	Review Bid documents for inclusion of DSF, UW, & CxP comments.	2.E.2.b	5.
<input checked="" type="checkbox"/>	Develop a Commissioning Plan including commissioning team, procedures, system tests, test sampling, milestones and responsibilities.	2.E.2.c	8.
Construction Phase			
<input checked="" type="checkbox"/>	Provide Commissioning Plan overview at the Pre-construction Meeting and attend all (estimated Construction Progress Meetings and	2.E.3.a	10.
<input checked="" type="checkbox"/>	Review Contractor’s Quality Control Plan for incorporation into the Commissioning plan.	2.E.3.a	9.
<input checked="" type="checkbox"/>	Conduct regularly scheduled Commissioning Meetings and provide updated commissioning plan tracking status and responsibilities.	2.E.3.d	9.
<input checked="" type="checkbox"/>	Maintain an Issues tracking and resolution list including commissioning, test and balance issues, deficiencies, non-conformance items and responsibilities.	2.E.3.e	11.
<input checked="" type="checkbox"/>	Perform field checks of the contractor completed Construction Verification check lists. If more than 10% deficiencies and recheck is required it is the contractor’s responsibility for the CxP’s time and material..	2.E.3.f	12.
<input checked="" type="checkbox"/>	Establish sampling protocol for Functional Performance Testing and witness and document Functional Performance Testing and report deficiencies on the issues list.	2.E.3.g	13.
<input checked="" type="checkbox"/>	Review Construction Verification, Functional Performance Testing and HVAC testing and balancing and report deficiencies on the issues list including tracking responsibilities and resolution.	2.E.3.h	14.
<input checked="" type="checkbox"/>	Review Operations and Maintenance Manuals for inclusion of the Cx comments into the A/E’s review.	2.E.3.i	16.
<input checked="" type="checkbox"/>	Attend agency training sessions, collect attendee training and evaluate and review for adequate training.	2.E.3.k	19.
<input checked="" type="checkbox"/>	Manage contractors’ closeout requirements		
Post Construction Phase			
<input checked="" type="checkbox"/>	Develop and distribute commissioning report with draft submitted upon substantial completion.	2.E.4.a	21.
<input checked="" type="checkbox"/>	Within 10 months of substantial completion coordinate and facilitate a substantial completion review meeting and document findings to complete the final commissioning report.	2.E.4.b	22.
<input checked="" type="checkbox"/>	Witness the Seasonal Functional Performance Testing and document the results	2.E.4.c	23.
Optional Commissioning Activities/Services			
<input type="checkbox"/>			
<input type="checkbox"/>			

COMMISSIONED SYSTEMS

The following systems will be commissioned:

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input checked="" type="checkbox"/> | General Construction | <input checked="" type="checkbox"/> | Electrical |
| <input type="checkbox"/> | Concrete | <input checked="" type="checkbox"/> | Lighting and Daylighting Controls |
| <input type="checkbox"/> | Masonry | <input type="checkbox"/> | Conductors, Conduit, Raceway and Cable Tray |
| <input type="checkbox"/> | Waterproofing | <input type="checkbox"/> | Grounding and Bonding |
| <input type="checkbox"/> | Roofing | <input type="checkbox"/> | Substations |
| <input type="checkbox"/> | Doors and Windows | <input type="checkbox"/> | Transformers |
| <input type="checkbox"/> | Division 11 Equipment | <input checked="" type="checkbox"/> | Switchgear, Switches and Circuit Breakers |
| <input checked="" type="checkbox"/> | Elevators | <input checked="" type="checkbox"/> | Motor Control Centers and Motor Starters |
| <input type="checkbox"/> | Exterior Cladding | <input checked="" type="checkbox"/> | Panelboards |
| <input type="checkbox"/> | BSL Laboratory | <input checked="" type="checkbox"/> | Lighting and Lighting Contactors |
| <input checked="" type="checkbox"/> | Site Utilities | <input checked="" type="checkbox"/> | Communications Systems |
| <input checked="" type="checkbox"/> | Water Distribution Systems | <input checked="" type="checkbox"/> | Fire Alarm Systems |
| <input checked="" type="checkbox"/> | Sanitary Sewer and Storm Drainage Systems | <input checked="" type="checkbox"/> | Generators and Transfer Switches |
| <input checked="" type="checkbox"/> | Steam and Condensate Systems | <input type="checkbox"/> | Transient Voltage Suppression |
| <input checked="" type="checkbox"/> | Chilled Water Systems | <input checked="" type="checkbox"/> | Access Control Systems |
| <input checked="" type="checkbox"/> | Compressed Air Systems | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | Electrical Power Distribution Systems | <input type="checkbox"/> | Renewable Energy Systems |
| <input checked="" type="checkbox"/> | Communications Systems | <input checked="" type="checkbox"/> | To be determined.. |
| <input type="checkbox"/> | Fuel Storage and Distribution Systems | <input type="checkbox"/> | |
| <input type="checkbox"/> | | <input checked="" type="checkbox"/> | Fire Protection |
| <input type="checkbox"/> | | <input checked="" type="checkbox"/> | Sprinkler and Standpipe Systems |
| <input checked="" type="checkbox"/> | HVAC | <input checked="" type="checkbox"/> | Fire Pumps and Controls |
| <input checked="" type="checkbox"/> | Temp. Control and Building Automation Systems | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | Testing and Balancing | <input checked="" type="checkbox"/> | Plumbing |
| <input checked="" type="checkbox"/> | Variable Frequency Drives | <input checked="" type="checkbox"/> | Domestic Water Systems |
| <input checked="" type="checkbox"/> | Piping Systems, Valves and Specialties | <input checked="" type="checkbox"/> | Domestic Hot Water Systems |
| <input checked="" type="checkbox"/> | Ductwork and Casing Systems | <input checked="" type="checkbox"/> | Plumbing Equipment |
| <input checked="" type="checkbox"/> | Pumps | <input type="checkbox"/> | Plumbing Fixtures |
| <input checked="" type="checkbox"/> | Coils and Heat Exchangers | <input type="checkbox"/> | Laboratory Gas and Vacuum Systems |
| <input checked="" type="checkbox"/> | Fans and Air Handlers | <input type="checkbox"/> | Laboratory Pure Water Systems |
| <input checked="" type="checkbox"/> | Compressors and Condensing Units | <input type="checkbox"/> | Fuel Piping Systems |
| <input type="checkbox"/> | Chillers and Cooling Towers | <input type="checkbox"/> | |
| <input type="checkbox"/> | Dry Coolers and Heat Rejection Equipment | <input type="checkbox"/> | |
| <input type="checkbox"/> | Boilers and Fuel Fired Equipment | <input type="checkbox"/> | |
| <input type="checkbox"/> | Boiler Feedwater and Blowdown Systems | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | Terminal Units | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | Fan Coils, Unit Ventilators, Unit Heaters | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | Heat Recovery Systems | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | Humidifiers | <input type="checkbox"/> | |
| <input type="checkbox"/> | Laboratory Systems | <input type="checkbox"/> | |
| <input type="checkbox"/> | Smoke Control Systems | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | Heat Rejection System | <input type="checkbox"/> | |
| <input type="checkbox"/> | | <input type="checkbox"/> | |
| <input type="checkbox"/> | | <input type="checkbox"/> | |