

**APPLICATION FOR
URBAN DESIGN COMMISSION
REVIEW AND APPROVAL**

AGENDA ITEM # _____
Project # _____

DATE SUBMITTED: <u>12/9/09</u>	Action Requested
UDC MEETING DATE: <u>12/16/09</u>	<input checked="" type="checkbox"/> Informational Presentation
	<input type="checkbox"/> Initial Approval and/or Recommendation
	<input type="checkbox"/> Final Approval and/or Recommendation

PROJECT ADDRESS: 1552 UNIVERSITY AVENUE

ALDERMANIC DISTRICT: 5

OWNER/DEVELOPER (Partners and/or Principals) ARCHITECT/DESIGNER/OR AGENT:
BOARDS OF REGENTS POTTER LAWSON INC.
STATE OF WISCONSIN

CONTACT PERSON: GARY BROWN
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TYPE OF PROJECT:

(See Section A for:)

- Planned Unit Development (PUD)
- General Development Plan (GDP)
- Specific Implementation Plan (SIP)
- Planned Community Development (PCD)
- General Development Plan (GDP)
- Specific Implementation Plan (SIP)
- Planned Residential Development (PRD)
- New Construction or Exterior Remodeling in an Urban Design District * (A public hearing is required as well as a fee)
- School, Public Building or Space (Fee may be required)
- New Construction or Addition to or Remodeling of a Retail, Hotel or Motel Building Exceeding 40,000 Sq. Ft.
- Planned Commercial Site

(See Section B for:)

- New Construction or Exterior Remodeling in C4 District (Fee required)

(See Section C for:)

- R.P.S.M. Parking Variance (Fee required)

(See Section D for:)

- Comprehensive Design Review* (Fee required)
- Street Graphics Variance* (Fee required)
- Other _____

*Public Hearing Required (Submission Deadline 3 Weeks in Advance of Meeting Date)

Where fees are required (as noted above) they apply with the first submittal for either initial or final approval of a project.

The Wisconsin Energy Institute, located on the University of Wisconsin campus, is envisioned as a leading research facility in the ongoing pursuit to develop the potentials of sustainable fuel sources. The project has a highly visible location on the western side of campus on the intersection of University Ave. and Campus Dr. This new laboratory building has evolved from a combination of program requirements, user goals and objectives, site factors, existing conditions, regulatory requirements, the University of Wisconsin- Madison design guidelines, and DSF regulations.

The building will replace former Health Services/ current Union West in Phase one. Additional building footprint to allow for the Phase two will be attained by replacing the Naval ROTC facility immediately to the west of the Phase one site. The building will ultimately be bounded by the Enzyme Institute to the west, Campus Drive to the north, and University Ave. to the south. The project calls for minimal on site parking. Building visitors and occupants are assumed to be primarily pedestrian, bicyclists, or parking in nearby current parking

Site Development

The site development is organized around an east/west extension of the "street" in the form of a greensward reaching out to the intersection of University Ave. and Campus Drive. The intent of this space is two fold; first, the expression will draw views as well as visitors into the "street" via a generous walkway ascending up from the intersection. Second, the space provides a setting for events and gatherings to occur as well as a dining terrace near the food court area. At the end of the greensward near the intersection, building identification is located in the form of a sign wall identifying the Institute. North of the greensward, two curving stone walls express the dynamic architectural form of the glass wall in front of the featured green wall. The stone walls are intended to tie the building to the site as well as act as a backdrop for the planting in the bio-swale that they sit in. Storm water is intended to be collected from the building roof and discharged through the bio-swale to a rain garden at the east end of the bio-swale.

Along University Ave. two portals are provided into the main east and west building entries from the public sidewalk. An urban edge is created by a continuous shrub hedge planted as a separation between the public realm and the undulating building form. facilities.

To accommodate grade change along Campus Drive, a retaining wall is required to provide a level surface for the dock apron as well as the dock and storage/holding portions of the building. The grade gradually traverses from low to high as one travels eastward on Campus Drive. The wall should be constructed from a plantable precast concrete retaining wall system

Landscape

All plant material to be installed on the project should be native to the regional ecotone. A formal planting of native street trees along University Ave. should match existing street trees already in existence west of the project site. Smaller canopy trees are proposed in the public right of way of Campus Drive north of the bio-swale to buffer the building while still allowing views of the building expression of the eastern façade. Understory planting shall consist of native low to medium height shrub masses and perennial groundcover planted near the

building on the north, south and west. The remainder of the site groundcover shall consist of sodded lawn consistent with the type found throughout the remainder of the campus.

Within the bio-swale, water tolerant perennial plants shall be planted that will be adept to periods of inundation while the rain garden planting should include species that can withstand longer periods of inundation.

Site Lighting

Site lighting should be pedestrian in nature along the greensward and the dining terrace and shall be sufficient to provide higher levels of footcandles on these surfaces. At the entry portals into the east and west entries, similar pedestrian lighting should be used as well. The remainder of the site will have minimal site lighting with the exception of the dock area that can be flood lit from the building or by fixture mounted on poles on the site. Existing street and roadway lighting along University Ave. and Campus Drive shall match existing conditions and shall be approved by the University and local street jurisdictions.

Paving

Enhanced paving in the form of stone unit pavers and precast unit pavers at the Dining Terrace and the walks along the greensward and at the east and west entry portals should be used. The remainder of the site pedestrian paving shall be reinforced cast-in-place sidewalk. All pedestrian paving design shall meet University standards for structural requirements. The access drive and dock apron shall be reinforced cast-in-place concrete designed to withstand heavy loads from trash, fire and delivery vehicles.

Storm Water Management

Storm water management on the site shall conform with local jurisdictional requirements for retention/detention. To assist in meeting the requirements, the site design calls for a bio-swale and rain garden to assist in storm water quality as well as management. The rain garden is intended to meet design storm requirements for retention/detention on the site.

Exterior Massing

The building has been planned as a 5 story building, additionally including a basement level and a large mechanical enclosure over the laboratory mass. Typical floor to floor height will be 16 feet with the lobby being the exception at 20 feet. The planning basis is two bars running east to west separated by a light well. The north bar houses the laboratories and associated support spaces as well as the conferencing areas on each floor. The south bar is the location for the private offices, associated work-stations, distributed functions, and restrooms.

The massing is indicative of the difference in functionality of these two bars. The office mass to the south is lower and very sleek and thin. There is no need for the large mechanical space here. The top office floor has a lower floor to floor height of 12 feet in effort to keep the south mass as low as possible. This will bring down the physical scale of the building along University Avenue helping WEI better respond to the scale of the surrounding neighborhood. Additionally, the south bar holds the coffee bar out to the east edge. This element is a glassy enclosure that allows the office mass above to float overhead and provide views through back to the campus from Breese Terrace.

The North Bar is more massive in its stature. It sits atop a plinth at level 2 and continues as a singular expression to the top of the mechanical enclosure. This mass is the anchor to the site and sits prominently across Campus drive from the main campus. It also is highly viewable from the pedestrian bridge to the west.

The central lightwell reveals itself not only on top of the building, but on both the east and west elevations. This space is tapered from a narrow condition at the east end to a wider aperture at the west end. This movement creates a view corridor both into and out of the building focused down the approach on University Avenue. This feature serves as an attractor for people looking west toward WEI and serves to activate the east façade. This lightwell, in conjunction with the thin office bar and the north facing lab bar, is designed to fully distribute natural daylighting to all major areas in an effort to provide an enhanced environment for the building's occupants.

The east façade will frame another prominent architectural feature as well. This is envisioned to be an "Energy Wall." The purpose of this wall is to be a showcase for one or more than one technologies being explored by the research occupants of the facility. This creates a tangible display for people inside the building and passers by which highlights the ongoing mission of WEI. This display area may be realized as a chassis that allows continual upgrade and improvement of the featured technology.

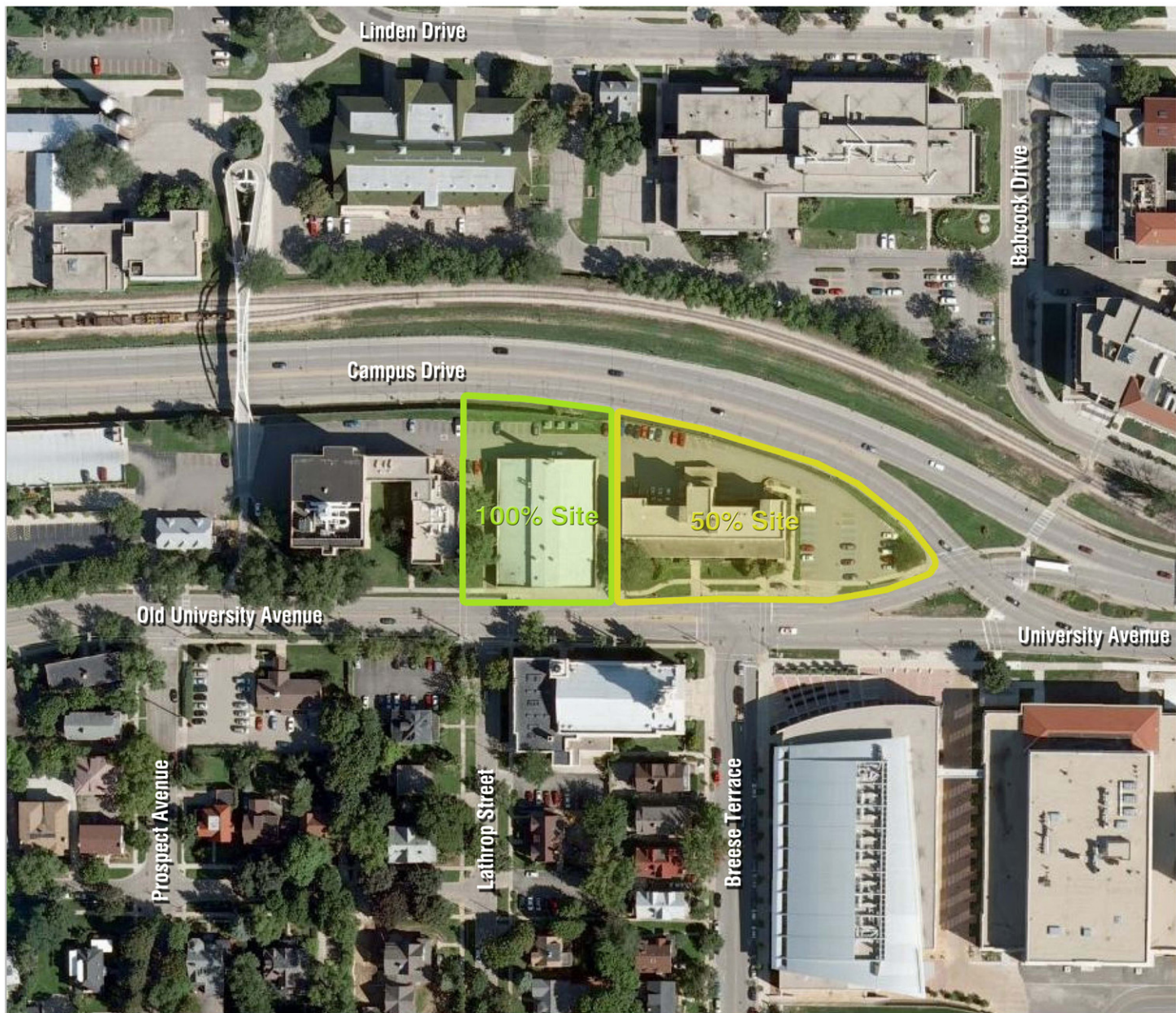
Both the north and south facades have continuous cantilevers along the elevation. These create areas of shelter as well as prime locations for covered bicycle storage and building entries. Secondary fenestration patterns are being developed based on an ongoing analysis by the daylighting consultant to help optimize energy usage and sustainability.

Interior Planning

Both the offices and the laboratories are centered around the central lightwell. This space is intended to encourage collaboration and visual contact across research groups, even when located on different floors. The private offices and workstations have a very close proximity to the labs and are separated by all glass interior partition walls allowing uninterrupted views across the central space. One crosses this zone via bridges at either end and in the middle of the plan. Additionally, there exists central ceremonial public stairs and banks of elevators further exhibiting the vertical movement of building occupants.

The lobby level of the project is multi-functional. The 50% building contains, coffee shop, video conferencing facilities, Education and Outreach department, high bay research lab, loading dock and storage, and back of house service elements. The 100% building adds a 100 person lecture hall, demonstration lab, additional administration offices, and an a second high bay lab as well as relocates the loading dock.

The basement level is primarily mechanical support spaces for the building. The exception being the NMR, IIT Servers, and the Seed Sample preparation areas in the first 50%. In the 100% building, additional program for Seed Storage and general storage is added.



**SITE
LOCATOR**

Wisconsin Energy Institute

University of Wisconsin - Madison
December 16, 2009





Biochemistry



UW Foundation



Mechanical Engineering



Babcock Hall



Engineering Centers



First Congregational Church



Enzyme Institute



Materials Science and Research

SITE CONTEXT

Wisconsin Energy Institute

University of Wisconsin - Madison
December 16, 2009

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Success by Design





Wisconsin Energy Institute

University of Wisconsin - Madison
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LEVEL 4 Department Legend

- Circulation
- Conference/ Seminar
- Distributed Functions
- GLBRC
- Laboratory Research
- Laboratory Support
- Office/Support
- Shaft



Wisconsin Energy Institute

University of Wisconsin - Madison
December 16, 2009



360 DEGREE VIEWS



Wisconsin Energy Institute

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UNIVERSITY AVENUE APPROACH SEQUENCE



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