

University Of Washington
Faculty Council on University Facilities and Services
10:00 a.m. – 11:30 a.m., March 8, 2012
26 Gerberding Hall

Meeting Synopsis:

1. Call to Order
 2. Approval of Minutes for February 9, 2012 Meeting
 3. Smart Grid Update
 4. Transportation/Parking Systems Update
 5. Adjournment
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1. Call to Order

The meeting was called to order at 10:03 a.m. by Chair Bill Rorabaugh.

2. Approval of Minutes for February 9, 2012 Meeting

The minutes from the February 9th meeting were approved without revisions.

3. Smart Grid Update

John Chapman, Executive Director of Campus Engineering and Operations, in Facilities Services introduced himself to the Council. He gave a background regarding of the Smartgrid Demonstration project, providing benefits to the facilities and university infrastructure, while also providing research opportunities for Engineering and other departments on this grid. Chapman provided the funding information for the grant; the total project is around \$10 million, half from the UW and other business partners, and the other half were Federal ARRA dollars. Bonneville Power Administration is the lead agency, but Batelle is administering the project. This is a 5 year project, installation of equipment will be completed during the summer, followed by a two year test phase.

Chapman discussed the past process of measuring electricity usage on campus, which in the past did not have building by building metering. Metering infrastructure is put into place by this project and every main building will have smart meters. Every five minutes, data is captured by the system. He briefly discussed the storage and security necessary for such data, physically locked so only authorized personnel have visibility of the system.

A Data Flow sheet was provided to councilmembers. Chapman explained the flow of data, eventually to Battelle's data server. He noted that Batelle is interested in a demand response strategy; a two-way control system, they'll adjust the system to save electricity and then (will be testing algorithms) save the university money. The University will also be able to optimize use of its power generator, will raise or lower production in accordance to the control signals broadcast by Battelle. For more modern buildings with more remote access to electricity and heating, we will take the signal and change usage. It was noted that Seattle City Light does not offer much benefits for such efforts, though flexible billing may occur in the future and save the University money; the main benefit of this project is installing the infrastructure. Questions

were posed whether the outside temperature would be available within this data. Chapman provided an example of the dashboard for Bagley Hall and discussed capacity for between building comparisons. McKinstry has been the Energy Services Contractor of Record for UW, and served to assist with the project. They are installing the data, scrubbing it, installing dashboards, interfaces with the HVAC controls.

Further granularity of power usage with Smartgrid was discussed. McCarty Hall will have room-by-room monitoring, and Chapman noted that concerns had been raised regarding privacy issues due to the visibility of electric usage. Paccar and Poplar Halls will have this data visible in order to have competitions to decrease electricity usage, but Chapman was unsure about what research will be done with this data. Department of Energy (DOE) is interested in the cost savings aspect of creating these systems. UW's commitment is within the monitoring and having visibility from the Dashboard; it was unsure whether active use of data such as allowing active controls within buildings would be continued. Council members briefly alluded to potential use of such measurements in Activity Based Budgeting.

Council members expressed that this project will have high visibility, and will be very important to saving money in electric usage. Such a tool will assist building managers and students working to establish good behavior practices, and financial incentives could serve to establish baselines and inform people about electricity usage and savings. Chapman informed that UW is considering a resource conservation manager, to identify the most financially viable savings (water, carbon, electricity) on campus. Further submetering was noted to be viable after the grid is in place.

4. Transportation/Parking Systems Update

Josh Kavanagh, Director, Transportation Services, was introduced to the Council. He mentioned three different projects he wanted to discuss with the council in regards to transportation: shared lane markings, Burke-Gilman Improvement project, and bicycle parking.

Shared lane markings

Kavanagh noted benefits of shared lane markings, providing visibility of value of bikers, reminding drivers to share the road, and providing guidance of where a cyclist should ride. A map was provided of the locations where shared lane markings will be placed. Council members asked if dangerous areas (holes, misaligned sewer grates) are identified, and Kavanagh requested that they inform his office should they know of any such areas.

Burke-Gilman Improvement project

The Burke-Gilman trail is currently experiencing capacity issues, due to different crossings between foot traffic, bicycles, and cars, such as a crossing on Pend Orielle and a bridge across to Hec Edmundson Pavilion. Kavanagh said that recently the condition of the trail was evaluated to low "E" and "F" ratings, and between this and the projection of steadily increased traffic over the next 20 years, action must be taken. He discussed the need to separate modes of transportation on the trail, between bicycles and pedestrians, which could raise the ratings of the trail to an "A" and "C" ratings, for pedestrians and bicycles, respectively. Kavanagh proceeded to indicate some of the potential ways to improve the trail:

- Increasing signaling and signage, rather than seeking out to enforce rules
- Horizontal separation: Construction of a median to avoid the 'weaving' across to the different modal trail

- Vertical separation: Separation of different lanes through height
- Addressing crossing conflicts between different modes of transportation

Kavanagh can provide a study for the Council regarding these conclusions. The need to improve conditions by 2016 was emphasized as the Sound Transit facility will be completed and extra traffic will be an issue. The Hec Edmundson Pavilion and Pend Orielle crossings still pose problems. A solution for the Pend Orielle crossing would be to create an underpass with a broad opening, not a dark tunnel, for security. Hec Edmundson's bridge crossing is too low as trucks have struck the bridge. The City of Seattle owns the overpass, and Washington State Department of Transportation would like to demolish it. Not having an overpass is not an option, as 7,000 pedestrians cross it daily, without games.

Kavanagh informed that locations are being sought for a new bridge and funding is being pursued. He is seeking Puget Sound Regional Council grant to finish design work and construction for one segment. His office is seeking TIGER 5 federal grants of \$30 million project to take on the whole corridor. Kavanagh emphasized the responsibility of maintaining institutional infrastructure, but within the current environment gaining such funds would be difficult. Thus, he is working to build a catalyst for funding by creating bonds from Parking Fines for the next 30 years to create a trust fund of \$7 million, serving as a quarter of needed funding. Kavanagh will also seek private funding, such as Children Hospital, Microsoft and other possible stakeholders in this project. He noted that once 45% of funds are reached, State-administered and Federal-administered federal funding becomes a possibility.

Bicycle Parking

Kavanagh discussed bicycle usage on campus, noting that though currently reaching 9% of all modes of transportation, the aspirational goal was set for 20% (39% are coming by bus, 21% drive). In order to stimulate further increases in bicycle commuters, there is a need to create secure, weather protected parking spaces closer to buildings. This will be done by a series of weather protected open shelters and shared, limited access enclosures. These will be modular spaces, which will be pre-fabricated with the campus aesthetic. It was mentioned that University Landscape Architect Kristine Kenney and University Architect Rebecca Barnes are part of the guiding group for these efforts, working with Alta Planning and Schemata Workshop.¹ These modular spaces will be able to change with demand, with the same structure for enclosures and shelters, allowing for mixed sites. A heat map of demand will be shared during the March meeting of the University Transportation Committee (UTC), and Kavanagh noted an open faculty position on the UTC, and requested for faculty to serve on the committee.

A bike station is being envisioned at the T Overpass, near the School of Nursing and Health Sciences to accommodate 700 bicycles in a secure and weather protected enclosure. It was noted that such a project would be well suited for Architecture students for collaboration, as sensing for ticketing and measuring data on the Burke Gilman trail would be a possibility for Engineering students.

Kavanagh noted that UTC has been having a discussion with the ongoing process to replace the primary data management systems for parking on campus. Two additional items which have been discussed at UTC: retiree parking and hourly parking fees. Kavanagh noted that the UTC

¹ Website for the workshop: <http://www.schemataworkshop.com/portfolio/on-the-boards/uw-bikes/>

was recommending that retirees have the same level of parking access and pricing available to current faculty and staff (substantially less than the public rate but greater than the current retiree rate of 0-40% of the faculty/staff rate.) Rorabaugh discussed the origins of free retiree parking, to stimulate retirees to return to campus, and development office was cultivating donations. Kavanagh suggested that these costs could perhaps be borne by the beneficiaries of retirees' return to campus – whether their home departments or the development office. For parking fees, there was noted to be a shift away from annual contracts and towards daily fees. Kavanagh discussed a potential elimination of a \$15 entry fee, rather that motorists would pay for time parked. His office is investigating both a license plate reading system and a text message system to improve the implementation of such a plan.

5. Adjournment

The meeting was adjourned at 11:35 a.m. by Chair Rorabaugh.

Minutes by Jay Freistadt, Faculty Council Support Analyst. jayf@u.washington.edu

Present: **Faculty:** Rorabaugh (Chair), Treser, Balick
 Ex-Officio Reps: Zuchowski, Coslett, Goldblatt
 Guests: John Chapman, Josh Kavanagh

Absent: **Faculty:** Ozubko, Gates, Proksch
 President's Designee: Kennedy
 Ex Officio Rep: Kamkar, Byrne