Meeting Minutes

Members Present:
Steve Mouras
Richard Rodrigues
Brandon Hunt
Melissa Elliott
Jennifer Hundley
Samer El-Kadi
Ken Smith
Patrick Miller for Jack Davis

Others Present
Lori Sharp

Administrative:
- Steve Mouras lead meeting on behalf of Jason Soileau, Chair
  And called the meeting to order at 10:31 a.m.
- A motion was unanimous to amend agenda- remove Drillfield Paths item
- Introductions
- Drillfield Paths Committee update was moved to next meeting in March

Sustainability and Energy: (presented by Steve Mouras)
Climate Action Commitment (CAC) goals by reducing, reusing and recycling. Spoke of possible opportunity for platinum LEED building in the future. Energy & Sustainability office has eighteen internships for 2015 and growing. Discussion of Sustainability programs such as Green RFP with proposals submitted by students in October, Student Internships and Green Office Certifications. Events such as, Sustainability Week with Town of Blacksburg in September, Recycle Mania in Feb.-March, Earth Day in April and Ytoss with local YMCA. Energy Management (greenhouse gases) and calculations are managed by Rueben Avagyan.

Bike Parking- MP: (presented by Steve Mouras)
Spoke of balance of aesthetics, amenities and location. Question proposed by Ken Smith of placement of bike racks other than Resident Hall due to faculty using bikes to get around campus.

Closing:
- The meeting was adjourned at 11.27a.m.
- The next Campus Development Committee Meeting is scheduled for Thursday, March 19, 2015 from 10:30 –11:30a.m in 325 Burruss Hall.
Energy & Sustainability
Virginia Tech

Steve Mouras, Dir of Transportation Planning and Sustainability

Ruben Avagyan, Energy Manager
Agenda

- Climate Action Commitment
- Sustainability Initiatives
- Energy Initiatives
- Additional Resources
VT Climate Action Commitment (CAC)

Be a Leader in Campus Sustainability.

• Represent CAC in our Strategic Plan.
• Sets GHG emissions targets.
• Reduce energy, water, and waste.
• Pursue USGBC LEED Silver Certification or higher - new construction & major renovations.
• Create Sustainability Office.
Office of Energy and Sustainability: What We Do

- Oversee implementation of CAC & SP.
- Coordinate outreach programs and communications for campus sustainability.
- Manage Student Internship Program.
- Coordinate with other campus units on sustainability-related activities.
- Membership on the Energy and Sustainability Committee (University Governance).
Programs and Events
Sustainability Programs

- Student Internships
- Green Office Certification
- Assessment
- Green RFP
Sustainability Events

- Sustainability Week
- RecycleMania
- Res. Hall Energy Competition
- America Recycles Day
- Ytoss
- Earth Week
- Green Graduation Pledge & Cord
Energy at Virginia Tech
Energy Manager: What I Do

- Monitor and report energy consumption on campus.
- Develop energy-reduction goals and targets.
- Provide energy data analysis for OES.
- Oversee implementation of energy retrofit projects.
- Verify energy savings.
- Coordinate energy reduction activities with different campus units.
Energy Management:
Consumption and Utility Cost

BTU Breakout by Utility (FY 2014)
- Natural Gas, Buildings 5.1%
- Natural Gas, Power Plant 10.0%
- Fuel Oil, Power Plant 1.1%
- Electric Energy 31.3%
- Coal, Power Plant 52.5%

Cost Breakout by Utility (FY 2014)
- Natural Gas, Buildings 5.7%
- Fuel Oil, Power Plant 1.8%
- Coal, Power Plant 16.8%
- Electric Energy 67.8%
- Water 2.6%
- Sewer 1.9%

FY 14 Total Utility Cost ~ $27,000,000
Energy Management: Completed Projects

• Energy Performance Contract with Pepco (2012-2013):
  • $5.3 million with $711k+ in annual energy cost savings.
  • 18 ECM’s (energy conservation measure) in 5 buildings (Dietrick, Hahn South, McBryde, Cassel Coliseum, Steam Plant)

• Energy projects with Siemens (2013-2014):
  • $316K with $152k+ in annual energy cost savings
  • 6 ECM’s in 2 buildings (Kelly and ICTAS II)

• NCP Chiller Optimization with Trane (2013):
  • $151K with $76k+ in annual energy cost savings
  • Complete overhaul of the cooling tower and chiller programming optimization
Energy Management: Ongoing Projects

- On-going Lighting Upgrades
- Automation and Controls
- Steam Utility Improvements
- Chilled Water Utility Improvements
Energy Management: Future Plans

- Strategic Energy Plan
- Steam and Chilled Water Metering
- Energy Analytics Platform
- Energy Audit Program
- Energy Retrofit Projects
- Energy Education and Training
Other Sustainability Resources
Other Sustainability Resources

Kitty Zeringue
Bike Planner
Alternative Transportation

Rial Carver
Sustainability Coordinator
Dining Services

Rob Lowe
Env. Engineer
Env. Health & Safety
Energy & Sustainability

Questions?
Bike Parking

MASTER PLAN

2014

Steve Mouras; Dir of Transportation

Office of University Planning & Parking and Transportation
Bike Parking Master Plan… So why do we need it?
GOALS OF BIKE PARKING MASTER PLAN

QUANTITY

How many bike racks are needed?

DESIGN STANDARD

Style of bike rack to be used?
Size of typical bike hub?

What aesthetic and amenities are we trying to provide?

LOCATION

Where should the bike racks be located?
1. User Groups = Office Stations, Class/Lab Stations, Residential Stations, Dining Seats.

2. % Bicycle = % of people in the user group expected to arrive by bicycle:
   a. Office Stations: 5% of peak occupancy (PO: 75%)
   b. Class/Lab Stations: 10%
   c. Residential Stations: 20%
   d. Dining Seats: 10%

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<th>#BICYCLES</th>
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<tr>
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How many bike racks are needed?
Zone Analysis

1. Divide campus into 6 Zones.

2. Divide Zones into 49 Districts.

3. Analyze each District based upon population and bike needs.
District Analysis

1. Divide Zones into 49 Districts.

2. Analyze each District based upon population and bike needs.

3. Identify shortfalls between each building need and existing bike loops.

4. Identify total district excess or shortfall.
Design Standards

Bike Rack: Used guidelines from Assoc of Pedestrian & Bicycle Professionals (APBP):

a. Supports bikes from 2 locations
b. Allows use of U-lock to frame & wheels
c. Anchored to ground
d. Allows both front and back-in parking

Voted on two models:

winner
Design Standards

Standard Bike Rack:

Standard Bike Shelter:
Bike Shelter

Bike Rack
Design Standards

Bike Hub (30 or more loops):
BIKE PARKING MASTER PLAN

Implementation:

a. Identify top sites, based on shortfalls, for bike hubs:

   • **District 10**: (Multi-Use) Squires Student Center, Newman Library, Graduate Life Center, University Bookstore (short 97 loops)

   • **District 20**: (Academic) Derring Hall, Hahn Hall North Wing, Hahn Hall South Wing, Pamplin Hall, Robeson Hall (short 104 loops)

   • **District 26**: (Residential) Payne Hall, New Res Hall, O’Shaughnessy Hall, Lee Hall, Pritchard Hall, Peddrew-Yates Hall (short 128 loops)

b. Identify location for additional bike racks based on both demand and master plan sites.

c. Identify location and design of bike hub for the master plan sites.
Proposed first BIKE HUB
Completed first BIKE HUB
Questions & Comments?

Thank You!