



# Precinct Planning Update Meetings

**MEETING NOTES - November 11, 2010**

Office of the Architect for the University

## Constituent Invitees:

**Richard Myers**

Senior Associate Dean for Administration and Planning, School of Arts and Sciences

**Anna Towns**

Director of Space Planning and Management, School of Arts and Sciences

**Elizabeth Meyer**

Associate Professor of Landscape Architecture, School of Architecture

**Beth Turner**

Vice Provost for the Arts

**Harry Harding**

Dean of the Frank Batten School of Leadership and Public Policy

**Gerald Starsia**

Associate Dean for Administration of the School of Commerce

**Richard Allen**

Director of Space Management of the School of Medicine

**Elyta Koh**

Associate Dean for Administration of the School of Nursing

**Kevin Fox**

Administrator, Medical Center Facilities Planning & Capital Development

**Bill Ashby**

Assistant Vice President for Student Affairs/Associate Dean of Students

**Diane Walker**

Deputy University Librarian

**Wynne Stuart**

Associate Provost for Academic Support and Classroom Management

**Craig K. Littlepage**

Director of Athletic Programs

**Ed Rivers**

Director Intermural Sports

**Rich Kovatch**

Associate Vice President for Business Operations

## Summary: Central Grounds Precinct Planning Update

### Meeting Agenda

- Introduction and Objectives, by Julia Monteith, Senior Land Use Planner, Office of the Architect
- Current Projects/Capital Planning by noted constituents of the Central Grounds Precinct
- Review of the Grounds Plan, Precinct Planning, Infrastructure Planning, and Transportation Demand Management by Julia Monteith, Senior Land Use Planner, Cheryl Gomez, Director of Energy and Utilities and Rebecca White, Director of Transportation and Parking
- Overview of Sustainability Efforts Related to Central Grounds by Andrew Greene, Sustainability Planner, Office of the Architect

### Presentation Summaries

#### Introduction and Objectives, by Julia Monteith, Senior Land Use Planner

Ms. Monteith began the meeting with general introductions followed by a short overview of recent planning efforts for UVA. She stated that this is the third and final of the three precinct planning updates that the Office of the Architect has held in 2010. In January a similar meeting was held for the North Grounds precinct and in May, the precinct meeting for West Grounds was held. The precinct planning report developed by Office of the Architect will be available on the OAU website in January of 2011.

#### Current Projects/Capital Planning in the Central Grounds Precinct

A representative from each constituent group in the Central Grounds provided a presentation on their current projects and facility planning currently underway.

**Harry Harding**, Dean of the Frank Batten School of Leadership and Public Policy was the first to present. The presentation gave an overview of Garrett Hall, which is currently being renovated to house the Batten School of Public Policy. The renovation encompasses the main building and the underground annex of Garrett Hall. The Dean gave a short history of Garrett Hall, from its original use as a dining commons at the turn of the 19th century, to its function as the Bursar's office, the underground addition and its most recent use for student affairs and ITC functions.

The renovation of the building will largely return both the interior and exterior to its original design. This will include removing interior spaces that had covered up the original double height entrance and commons room. In addition, the floor plan is being reconfigured to accommodate office, meeting,



Garrett Hall, early 1900s

### Technical Invitees:

Donald E. Sundgren  
Chief Facilities Officer

Cheryl Gomez  
Director of Energy and Utilities  
Facilities Management

Rebecca White  
Director of Transportation and Parking

Richard Minturn  
Senior Academic Facility Planner, Provost's  
Office

Julia Monteith, AICP, LEED AP  
Senior Land Use Planner

Luis Carrazana, LEED AP  
Senior Facility Planner/Architect

Brian Hogg, LEED AP  
Senior Preservation Planner

Andrew Greene, LEED AP  
Sustainability Planner

Bill Palmer, LEED AP  
GIS Planner

lounge, breakout rooms and a psychology lab. The annex renovation will include the installation of skylights, a student lounge, conference rooms, and the admissions/external affairs office. The exterior of the building will not change, with the exception of awnings and iron grilles on the windows, both of which were part of the original design, but had been removed over the years. The underground annex roof will be landscaped to create two useable spaces that interconnect.

As with all new construction and major renovation projects developed on Grounds, the project will achieve LEED certification, and is on track for LEED Silver. The project is using sustainable construction materials, low VOC paints and coatings, enhanced building systems commissioning, 14% improved energy efficiency, water conserving technologies including a cistern for landscaping, and recycling over 90% of the construction waste it generates. An additional benefit is the renovation of an existing building rather than new construction. The project is planned to be complete in the Summer of 2011.

**Richard Myers**, Senior Associate Dean for Administration and Planning and **Anna Towns**, Director of Space Planning & Management, presented for the College of Arts and Sciences. Mr. Myers stated that 10 years ago there was both a quantity and quality problem with space for the College of Arts and Sciences. Today, after many renovations and several new construction projects the situation is much better, and once New Cabell Hall is renovated, the space availability will be at an equilibrium. Nonetheless, the College still needs to plan today for the future growth in students, faculty and staff. With the current growth rate, available space will be used in 4 years. If growth accelerates, as anticipated, 90-95 new faculty will be needed. The space needed for this amount of faculty is equivalent to one wing of the South Lawn project.

Anna Towns gave an overview of capital projects the College will attempt to accomplish over the next 10 years. The list of projects consists mostly of renewal/renovation projects of existing buildings, with one new construction project. Recent renovations of buildings like Cocke and Monroe Halls and the construction of Nau and Gibson Halls have allowed departments to be closer to each other which is more desirable than being scattered between buildings. The opening of South Lawn has allowed the College to vacate Randall Hall, Levering Hall and Hotel F. These buildings will undergo renewal and then will be used as swing space for the New Cabell Hall renovation, which is expected to begin in the next two years. Following New Cabell Hall, Wilson Hall will be renewed and is expected to house emerging programs like global media and women's studies in the future. Shifting focus to the Arts Grounds, the College expects to construct a new music building, allowing Old Cabell Hall to return to its original use as an academic building. Finally, there has been a long-standing need to renew Brooks Hall. When this renewal occurs, the Anthropology Department may move to Old Cabell Hall.

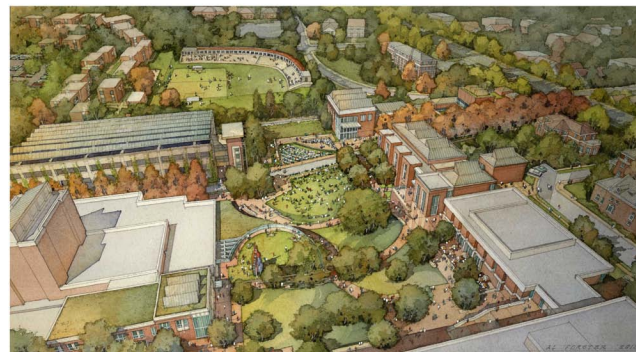


September 9, 2009  
NEW CABELL HALL RENOVATION • UNIVERSITY OF VIRGINIA  
Goody Clancy  
6  
New Cabell Hall, Interior Courtyard and Façade

Ms. Towns concluded her presentation by focusing on the largest of the projects the College will undertake in the near future: New Cabell Hall. When planning for the South Lawn project began, it was originally intended that New Cabell Hall would be demolished and a new building or buildings would be constructed in its place. This proved to be too costly and not sustainable, so Goody Clancy Architects was selected to renovate the building. Some of the highlights of the project include an improved south entrance on the second floor, higher ceilings and more daylight throughout the building, an improved, more elegant central stairway, landscape in the central courtyard and updated mechanical systems. When completed, New Cabell Hall will retain its use as the primary classroom building on Grounds, and will also house the language departments and Dean of the College of Arts and Sciences.



**Beth Turner**, Vice-Provost for the Arts gave a presentation on behalf of the stakeholders in the Arts Grounds. This includes Architecture, the Fine Arts Library, Studio Art, Drama, the marching band, the UVa Art Museum and Parking and Transportation. In 2005, a master plan was completed for the Arts Grounds that provided for a studio art building, a music building, an addition to the drama building, a parking garage, a realigned Culbreth Road, and a landscaped quadrangle sloping down from Campbell Hall toward the Lambeth Colonnade. Today, the vision of that plan has not been fully realized, but many components have, including the studio art building (Ruffin Hall), a music building (Band Rehearsal Hall) and the parking garage (Culbreth Road Parking Garage). With these projects



Arts Commons, 2010

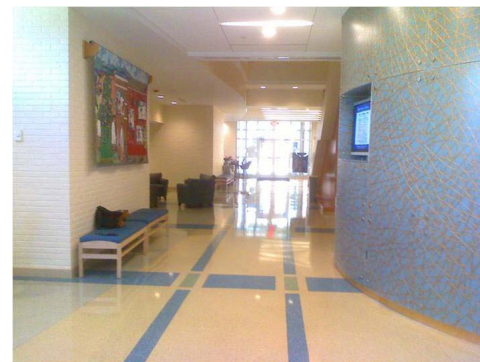
complete, the desired program for the Arts Grounds has changed, in part because the Arts Gateway project was never realized. Thus, some of the components originally envisioned for the Arts Gateway are now seen as being located in the Arts Grounds. Because of these changes, the Arts Grounds Master Plan has been updated in 2010. The update has focused on fostering an enhanced sense of collaboration in the arts at UVa. The multi-disciplined program committee for the Plan worked together to create a improved series of facilities for the Arts Grounds. These include the Band Rehearsal Hall, the Thrust Theatre, the Art Museum expansion; the Fine Arts Library expansion and an expansion of the Drama Building, and a new Music Building. Also important to the committee and integrated into the plan was a desire for enhanced outdoor arts activities. The 2010 Arts Grounds Master Plan map locates these projects around the central green space that was a component of the 2005 Plan. The major change to the green space is the introduction of the Thrust Theatre to this area. The Theatre will be built into the hillside and will act as a link between the higher and lower portions of the Arts Grounds. The Theatre will also be designed to integrate into the Drama Building and will feature a curved glass entryway that will allow access to all three theaters in the complex (Helms, Culbreth and Thrust). The green roof of the Thrust Theatre will be accessible from the Campbell Hall Terrace and will be designed to act as a sculpture garden. A staircase will provide access to the lower part of the Arts Grounds green space. The lower space will be used for outdoor performances, cinema and events. Future development shown in the master plan includes an addition to the Drama Building that will provide dance space, a Music Building that will connect with the Band Rehearsal Hall and will allow the Music Department to join the other Arts in this area, an expansion and renovation of the Art Museum and a subterranean expansion of the Fine Arts Library. The Plan emphasizes connections between disciplines, buildings and circulation throughout the day and night.

**Richard Allen**, Director of Space Management, School of Medicine gave an update on the Claude Moore Medical Education Building. This building was opened in August of 2010. It is 58,500 GSF and was designed by CO Architects. Located on the corner of Jeanette Lancaster Way and Lane Road, the building contains the clinical skills center in the basement, the medical simulation center on the ground floor, the Technology Enabled Active Learning (TEAL) studio on the first floor, and a traditional lecture hall and a student lounge on the second and third floors. In addition the building contains administrative/academic support offices, and an outdoor terrace. By design, the barrel of the building is similar in footprint to the Rotunda and is targeting a LEED Silver accreditation from the USGBC.



Claude Moore Medical Education Building

**Elyta Koh**, Associate Dean for Administration, School of Nursing provided the group with an overview of the ongoing and future renovation of McLeod Hall. This building has been home to the School of Nursing since it opened in the 1970s. With the opening in 2008 of the Claude Moore Nursing Education building, there is an opportunity to renovate much of the 62,000 GSF McLeod Hall. The renovation project has been planned for two phases. Phase I will renovate floors 1, 4 and 5, while phase II will renovate the 2nd and 3rd floors. Phase I is fully underway. The renovations of the 1st floor are complete and include the addition of a café, interior renovation, and upgraded technology in the classrooms. The 4th floor (interior renovation and technology upgrades) will be complete

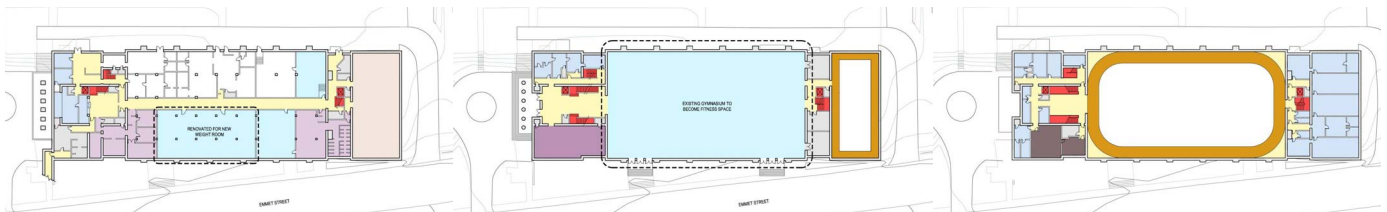


McLeod Hall, Renovated Interior

in January 2011, and the 5th floor is planned to be complete by August 2011. Phase I will cost approximately \$6.8 million dollars to complete. Phase II will begin sometime following August 2011 with a planned cost of \$8.0 million dollars, and will require further fundraising in order to complete. Further complicating Phase II will be the timing of other projects in the area, especially the New Cabell Hall renovation, since personnel and classrooms will have to be temporarily relocated for both of those projects. The renovation project is hoping to achieve LEED-CI certification through the use of low VOC coatings, recycled content materials, enhancing natural light and water reduction strategies.

A grounds improvement fund (GIF) project is also underway to create an improved design for the courtyard between McLeod Hall and Medical Research Building 5. The plan will improve space utilization, upgrade furniture and add plantings to the space. In addition to the building, the parking garage underneath the building will be renovated in the next 6-9 months.

**Ed Rivers**, Director of Intramural Sports gave an update of current plans to renovate and expand the recreational facilities. Mr. Rivers focused on the redevelopment plan for Memorial Gym and a new facility planned for the Health System. Beginning in August 2009, IM-Rec worked with The Office of the Architect and Cannon Design to assess the need and program for new recreation facilities. Their surveys showed that half of all students, faculty and staff do not regularly use IM-Rec facilities. Coupled with this was a determination that there are two areas of deficiency in the current portfolio of IM-Rec facilities. The study found that weight and fitness space and lap swimming space was lacking. The study also found that weight and fitness space needs to be proximate to parking for patrons to use it. Initially, it was thought that the solution to the study's findings was to build a large new facility, but led to the development of a plan to renovate and expand existing facilities and create one smaller facility in the Health System. The consultant has proposed a phased expansion and renovation starting with North Grounds Recreation Center, then moving on to Slaughter and Memorial Gym. The Memorial Gym project will repurpose existing gymnasium into a new fitness, strength and conditioning space, including a weight area dedicated to power lifting. The new fitness and conditioning space will come at the expense of the existing basketball/volleyball courts and would require the movement of varsity volleyball and wrestling to an alternate facility. The elevated running track is a historically significant and rare asset and would be retained and protected in any renovation. This project will not occur in the near term.



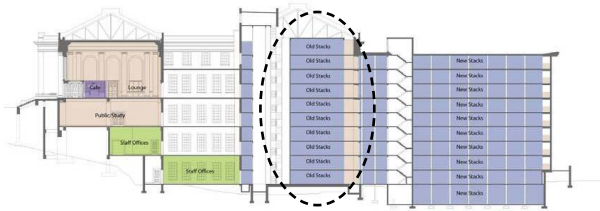
Memorial Gym, Proposed Interior Renovations

The IM-Rec usage study identified a gap in services for the Health System. This need, coupled with the need for rehabilitation and adaptive physical therapy space by the hospital, has led to a proposal for a joint use facility to be located in the Health System. Still in planning, the current preferred site for the facility is between the 11th Street parking garage and the railroad tracks. This site offers proximity to parking and the forthcoming Battle Building, which will house outpatient services for children and surgery. This project is currently not funded and is challenged by the lack of available building sites in the core of the Health System.

**Rich Kovatch**, Associate Vice President for Business Operations began with a summary of recent and on-going interior renovations to the Lambeth Apartments. This was followed by an in-depth presentation about planned renovations and expansion of Newcomb Hall. There are two separate projects at Newcomb Hall. The first is underway and is a \$15 million interior renovation of the building sponsored by Student Affairs. Still in the design phase is an \$18 million expansion and renovation of the dining facilities there. The project will also affect other portions of the building such as the post office, the exterior courtyards on the south and west of the building, the Ballroom, and provide a 15,000 GSF addition to the west side of the building. The west facade would become a more inviting and emphatic entrance to the building and to the Central Grounds beyond. This is important because many first time visitors to UVa park in the Central Grounds Garage and then have to find their way up to the admissions tour and/or the Lawn. The new entrance would clarify the path and would provide a welcome area just inside the addition. The two-story addition would add 300 seats to the contract dining located on the second floor and would add 450 seats to the retail dining area on the ground floor. The design for the contract dining area would be focused on an open kitchen concept with a variety of themed stations. In Pavilion XI, the seating area will be better separated from the retail dining locations, so that events could be held in the seating area when the dining







Section of Alderman Library

The final presentation was provided by **Diane Walker**, Deputy University Librarian. Within Central Grounds, there are plans for renovating Alderman Library and expanding the Fiske Kimball Fine Arts Library. The common goal of both projects is to increase the shelving economy and allow an increase in the amount of student seating available. Both projects are in the formulation stage.

Alderman Library receives more than 2,000 visits a day, violates fire, safety, egress, and accessibility codes and has not received a wholesale renovation since opening. The building contains dated systems that are inefficient, unsafe, and difficult to distribute, service and control. The project would 1) renew all systems and remove original stacks that are fire hazards and cannot be brought up to code, 2) replace 10 “old stack” floors with a compact shelving system plus two floors of student and faculty study spaces and staff offices, and 3) would not change the exterior footprint of the building. The Alderman Library project is particularly challenging because the Old Stacks cannot be easily brought up to modern fire and safety code without totally removing the old shelving in the building.

Fiske Kimball Fine Arts library receives heavy use due to its location within the Arts Grounds and the demand for its collections. This library serves 80,000 visitors a year and fails to meet accessibility, safety, and energy efficiency standards, and has inadequate study and collections space. The Fine Arts Library renewal project will 1) replace major systems (e.g., plumbing, HVAC, electrical) and asbestos remediation, 2) build a below-ground addition to the east side of the building with compact shelving and appropriate egress, and 3) refurbish the current space to increase seating capacity. There will be no visible exterior change in the footprint of the building.

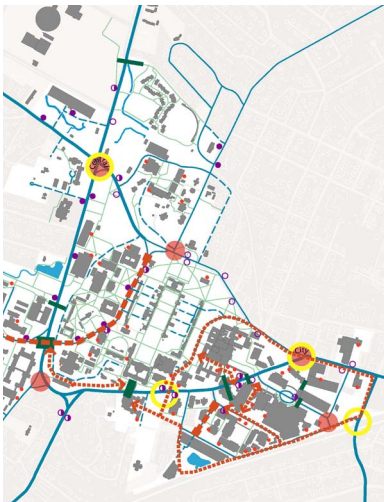
**Review of the 2008 Grounds Plan, Precinct Planning, Infrastructure Planning and Transportation Planning by Julia Monteith, Senior Land Use Planner, Cheryl Gomez, Director Energy and Utilities and Rebecca White, Director of Parking and Transportation.** The 2008 Grounds Plan established a planning framework for the University over the long range planning horizons of 2015 and 2025. The Plan channels future growth into ‘redevelopment zones’ that were established and evaluated during the course of the Plan’s development. The zones were developed to promote infill development and allow the University to grow in a **sustainable** manner. The Plan focuses on five principles of sustainability that inherently support the University: Preservation, Community Context, Multi-Disciplinary Learning, Connectivity and Environment. Also defined in the Grounds Plan are **precincts** of the University Grounds: Central, West and North Grounds. The precincts are defined geographically and acknowledge the variation in academic and other functions. Both academic and residential redevelopment zones were established for each precinct. The redevelopment zones have been tested to ensure that they provide adequate space for the University to grow within its current developed boundaries of Grounds.

Under the umbrella of the 2008 Grounds Plan, the precinct plans for Central, West and North Grounds provide for more detailed physical planning for these areas. The precinct plans are a holistic approach to address the current and future physical form of each precinct, including addressing building form, views, circulation, green space, servicing, parking and other aspects of built form. The fieldwork for the precinct plans was completed by interns (from the Planning Department of the Architecture School) over the course of the last year and a half.

The precinct plans apply a form-based planning approach to the Grounds Plan redevelopment zones. This is a departure from traditional campus planning, where sites are often designated for specific uses. In the case of form-based planning, the desired building envelope, related open space and circulation within the redevelopment zone are established, while the exact use and footprint are left open. This approach allows for flexibility of use in the face of changing future academic needs.

For each of the three precincts, a set of six maps has been created to convey the information developed in the precinct planning. The first three of these maps, Natural Systems, Linkages, and Green Space, document existing conditions in each precinct and are the result of extensive fieldwork and GIS analysis. The final three maps, Proposed Green Space, Proposed Linkages and Development Volumes, define the physical character of future development within the precincts.

The intent of these maps is to identify key defining characteristics and the quality of space to be retained or achieved within the redevelopment zones. They provide guidance on a number of basic but important matters, such as the location of primary building facades and service areas. They also address how a building should respond to



Precinct Planning Proposed Linkages



Precinct Planning Proposed Greenspace



Precinct Planning Development Volumes

its context in regard to green space, circulation and views. Reinforcing the principles of the Grounds Plan, buildings of historic significance are identified and protected due to their distinguished character and contribution to the campus at-large. The proposed condition maps illustrate the interrelationship of proposed landscape and circulation initiatives to building development within the precincts.

These maps form the basis of the precinct plan reports. The report contains a set of composite maps that show all three precincts to provide an overview of the ideas and concepts of the precinct plans. Following the composite maps, each precinct is presented individually and the unique opportunities and constraints in each precinct are highlighted. The last section of the precinct plans provides examples of enhanced visualization for the planned redevelopment zones. Using GIS and Sketchup software, a selection of redevelopment zones are visualized in 3-D, showing their existing conditions and the proposed future conditions. The 3-D visualization of Alderman Road Housing Area and Whitehead Road are highlighted to show how the areas might look in the future as the general recommendations for the precinct plans are implemented.

Much development and construction has occurred in the Central Grounds precinct in the last 5 years. In fact, each school in the precinct has had at least one recent or current construction project. This includes the Architecture School additions to Campbell Hall, Rouss/Robertson Hall for the McIntire School of Commerce, South Lawn and Ruffin Hall for the College of Arts and Sciences, the Claude Moore Nursing Education Building for the Nursing School, the Claude Moore Medical Education Building for the School of Medicine, and Garrett Hall for the Frank Batten School of Leadership and Public Policy. Additional projects in the precinct have included two new parking garages, and a medical research building.

There have been a large number of recent landscape projects in Central Grounds that range in size from the Foster Memorial Site and associated South Lawn landscape, to the design and installation of fixed bicycle parking on the lower lawn in front of New Cabell Hall. Other landscape projects of note are the Clemons Library Terrace renovation and the greenspace quad in the middle of the medical research area. Some of the smaller landscape projects in the precinct are the accessibility improvements to the Chapel and improvements made to the McIntire Amphitheater. These last two projects were completed using Grounds Improvement Funds (GIF), which is a recent program at the University that helps to pay for smaller landscape and public amenity projects across Grounds.

**Cheryl Gomez** gave a brief report on the status of the infrastructure systems in the Central Grounds precinct. Infrastructure consists of central energy generation and distribution systems such as the heating and chiller plants and electrical substations as well as utilities such as water, sewer and storm systems. The Main Heat Plant serves Central Grounds, electricity for Central Grounds is provided from the Cavalier Substation and cooling is provided by several large chiller plants in the precinct, as well as window units, heat pumps and stand alone chillers for buildings not served by the cooling loop system. Major infrastructure projects proposed for the precinct through 2022 include:

South Chiller Plant Addition Chiller #3 & Emergency Power Generation  
 East Chiller Plant and Lee Street Realignment

Newcomb Road Chiller Plant: Alderman/Clemons Chillers/Newcomb Chiller #1 Replacements -- There is no clear location for this plant - the most likely spot is the existing cooling towers next to the Central Grounds Garage



Cavalier Substation Upgrade  
 Steam Tunnel Repairs (2012-14 and 2016-18)  
 Health System Steam Pipe Upgrade  
 Main Heat Plant Biomass Conversion  
 Combined Heat and Power Facility  
 Health System Chiller Plant Replacement/Expansion  
 Bryan Hall Chiller

Proposed projects address growth and deferred maintenance needs and reliability and sustainability goals.

The list of proposed infrastructure projects equates to more than \$300 million. More than half of this cost is associated with the proposed combined heat and power plant that would allow UVA to generate its own electricity and use the waste heat from this process to heat water. This plant would be a sustainable, reliable and efficient way to meet the University's energy needs.

**Rebecca White** followed with a summary of the University's transportation demand management (TDM) efforts. TDM planning began at the University in 2007 in conjunction with the Grounds Plan, when Phase I of the TDM program was completed by Vanasse Hangen Brustlin. The Phase 1 program provided a matrix of TDM program components that were, or could be implemented by the University in order to achieve its TDM goals. The matrix included 24 TDM program measures developed for the unique needs of UVA, and 13 of the 24 TDM measures have implemented.

In order to rationalize the proposed Phase II TDM strategy, considerable effort was made to characterize the current UVA commuting population, project its growth over the next 10 years, and calculate the added cost to the University of absorbing a growing number of commuters. In addition to adding to the carbon footprint of UVA, greater numbers of single occupancy vehicles (SOV) commuters would generate the need for additional parking structures at a significant cost to the University, in addition to impacting land use. For this reason, any effort to reduce the demand for parking at UVA will have the effect of delaying the need for additional parking structures, and encourage the highest and best use of University land.

To figure out the costs associated with future parking demand, it was necessary to characterize the present parking situation. There is currently a surplus of parking on Grounds. Part of this surplus is a buffer that allows for UVA's flexibility to manage parking capacity on Grounds in support of event parking, parking availability, and operations. As such, the surplus buffer is not distributed equally across Grounds. North Grounds has a 1,000 space buffer at JPJ/U-Hall to provide a buffer for event parking and to avoid additional transit costs associated with increased use. Central Grounds, which includes the Health System, operates with a 5% surplus buffer (approximately 276 spaces), so that patrons can find a parking space. Similarly, West Grounds also operates with a 5% surplus buffer (121 spaces). Both population growth and Capital projects impact parking. For this reason, the 10-year capital plan was used to estimate the loss (or gain) of parking due to future construction. It was estimated that North Grounds will see the addition of 41 spaces, while Central Grounds will lose 120 spaces and West Grounds will lose 467 spaces due to new development.

With the baseline calculation of parking established, the next step in the analysis was to estimate the mode-split of commuters to UVA. Using a number of data points that included surveys and employee address geocoding, it was estimated that currently 78.1% drive alone to the University, 10% carpool and 11.9% use an alternative mode

of transportation. The Phase II TDM strategy is designed to reduce the percentage of commuters that drive alone to **70.4% in 2015 and to 64% in 2020**. The number commuters that carpool will increase to 17.7% in 2015 and 25% in 2020. These mode-split changes equate to an annual reduction of 1.3% among drive alone commuters and an increase of 1.3% per year for carpoolers.

The analysis showed that a considerable decline in surplus of parking will occur on Grounds if the TDM program is not implemented. The surplus parking currently in West Grounds will be utilized by 2012 and will be at a deficit of approximately 700 spots by 2020. Similarly, the surplus parking currently in the Central Grounds will be utilized by 2015 and



Parking Availability Projections



will be at a deficit of approximately 600-700 spots by 2020. Finally, the surplus parking currently in North Grounds will continue, though it will drop to approximately 250 in 2020. Implementing the TDM program will lessen the deficit of parking considerably. West Grounds will have a deficit of less than 600 parking spots, Central Grounds will have a slight surplus of parking and North Grounds will continue to have a surplus of greater than 300 spaces. In total, by 2020, there will be a parking deficit on Grounds of nearly 300 parking spaces with the TDM program, but without TDM, the deficit would be nearly 1,100 spaces. The reduction in the parking deficit means that fewer new parking spaces are needed and their need is delayed resulting in considerable cost savings.

To conclude, it was emphasized that the Phase 2 TDM implementation plan is funded for the next five years, but the overall plan is a 10-year process. The projections and analysis show that TDM extends the availability of parking and reduces the amount of inventory shortfalls. Finally, while the TDM implementation is funded for 5 years, the University should be prepared to commit to another 5 years in 2015.

**Overview of Sustainability and UVA's Environmental Footprint Reduction Plan by Andrew Greene, Sustainability Planner, Office of the Architect**

Mr. Greene began the presentation with a short overview and time line of sustainability initiatives at UVA since 2005. These include the 2006 Sustainability Assessment, the adoption by the BOV in 2007 of a commitment to Leadership in Energy and Environmental Design (LEED) Green Building Rating System certification for all new and renovation building projects, the creation of Sustainability Advisory Panel, the completion of a greenhouse gas emissions inventory at UVA, the creation of the Presidential Committee on Sustainability and the current development of the Environmental Footprint Reduction Plan, Parts 1-4.

The President's Committee on Sustainability was created in Fall 2008 to advise President Casteen and Executive Vice President and Chief Operating Officer Sandridge on all matters related to the overall quality, diligence, and progress of the University's commitment to sustainability. The committee consists of 18 members. These 18 members also sit on subcommittees that focus on 1) School and Department Initiatives, 2) Policies and Procedures, 3) Community Outreach and Communications, and 4) Environmental Impacts. Each of these sub-committees plays an important role in achieving the overall goals of the Committee on Sustainability.

The draft Environmental Footprint Reduction Plan (EFRP), under development by the President's Committee on Sustainability, seeks to establish carbon, water, waste and nitrogen reduction goals for University and outline a path for achieving these goals. The draft EFRP has three main objectives: 1) to show UVA leadership in sustainability 2) to define realistic goals for the University and 3) Detail specific strategies for meeting the defined goals. The plan is divided into four areas of resource use that require reduction. They are 1: Greenhouse Gas Emissions (GHG), 2: Water, 3: Waste, and 4: Nitrogen.

In developing the EFRP plan, GHG emissions from University operations have been categorized into one of three scopes. Scope 1 emissions include direct emissions generated by University-owned equipment and activities. Examples include the heat plant, fleet, University Transit Service, UVA jet, fertilizer application and refrigerants. Scope 2 emissions are generated by the electricity purchased by the University; and Scope 3 emissions are created by UVA related activities such as commuting to and from work and as-yet unquantified activities like air travel, procured goods and services and construction activities.

The EFRP proposes 3 strategies for reducing GHGs: 1) Minimize and mitigate emission's growth from new construction 2) Catalyze efficiency and conservation efforts and 3) Increase renewable energy generation and use.

Using a combination of these three strategies, the proposed University goal will be to reduce GHG emissions to 20% less than the 2008 level by the year 2020.

The 2007 requirement that all new construction projects and major renovation projects achieve LEED certification has been very successful across Grounds. Currently there are 28 projects registered in the LEED system. Of these, 2 projects have achieved LEED Silver designation and it is anticipated that 12 more projects will reach LEED Silver and 10 more will reach LEED Gold status.

