



EMILY COURIC CLINICAL CANCER CENTER

**FACILITIES PLANNING
& CONSTRUCTION**
2010-2011 ANNUAL REPORT

**Facilities Planning and Construction
Annual Report
2010-2011**

(July 1, 2010 – June 30, 2011)

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Facilities Planning and Construction

Foreword

The Facilities Planning and Construction (FP&C) organization is responsible for the execution of the University's Capital Project Program. As such we provide management of all design and engineering services, management of all construction services, and contract administration for all construction contracts and design/engineering services contracts to the University community. Facilities Planning and Construction accomplishes this mission in close coordination and cooperation with the Office of the Architect for the University. Our goal is to be the benchmark institution for higher education capital project execution.

Major responsibilities include:

- Manage projects from inception to occupancy on time and within budget, while assuring appropriate design and construction standards and criteria established by the University, the state, or other appropriate agencies are followed.
- Provide assistance and guidance to the University community in the development of projects for planning and construction.
- Manage the professional and construction services procurement processes to assure conformance to the requirements of the University's restructuring and construction procurement procedures. Conduct all fee negotiations.
- Identify and implement opportunities for reduction of costs through value engineering and other cost reduction initiatives.
- Maintain current project information on line to include budget and project progress status.
- Maintain in house architectural design services in support of the University's various renovation programs.
- Encourage the full participation of all stakeholders in the project management process.
- Encourage diversity in all procurement actions.

The work is accomplished through three production units. Appendix A illustrates the organization of Facilities Planning and Construction.

1. Academic
2. Health System
3. Engineering & Design

They are supported by a Contract Administration Division and an Administration Division.



C. A. "Sack" Johannesmeyer, P.E., VCCO
Director, Facilities Planning and Construction

Facilities Planning and Construction

Overview

This 2010-2011 Annual Report for the Facilities Planning and Construction Department highlights many accomplishments including:

- Completed and occupied several new major facilities. These are highlighted in the Division sections of this report and total \$307,250,263.
- Awarded 83 construction contracts totaling \$100,998,080.
- Processed 333 professional service contracts and service orders totaling \$14,571,144.
- Put in place construction with a value of \$219,500,000.
- Design and construction continues on major new facilities. These are highlighted in the Division sections of this report and total \$1,029,254,000. Additionally see each Division section for a summary of major projects.

Academic Division:

Studies and Reports:

- Gilmer Hall and Chemistry Renewal
- JAG School Addition
- Wise Health and Wellness

Planning:

- Baseball / Softball Stadium Expansion
 - FM / SEAS Shop Building
 - Historic Preservation Master Plan
 - Indoor Football Practice Structure
 - Miller Center Addition
 - Wise Library
-
- 7 capital projects in design for a total of \$142,875,000.
 - 16 capital projects in construction for a total of \$427,529,000.
 - 6 capital projects completed for a total of \$165,020,000.

Capital Projects in Design	Capital Projects in Construction	Capital Projects Completed
Blandy Farm Research Building	Alderman Road Residences Phase II	Alderman Phase III Utilities
Cemetery Expansion	Alderman Road Residences Phase III	Bavaro Hall
Edgemont Utilities	Alderman Road Residences Phase IV	Information Technology and Communication Data Center
FM / SEAS Shop Building	CAS: Physical and Life Sciences Research Building	Medium Temperature Hot Water System Upgrade Phase II
New Cabell Hall Renovation	Garrett Hall Renovation	New Cabell Hall South Entrance
Ruffner Hall Renewal	Hunter Smith Band Building	South Lawn
College at Wise: New Library	Newcomb Hall Dining Expansion	
	Newcomb Hall Renovation	
	Pavilion IX Renovation	
	Rice Hall: Information Technology and Engineering Building	
	Thrust Theatre	
	Track & Field Facility Improvements Phase I	
	University Bookstore Expansion	
	College at Wise: Accessibility	
	College at Wise: Multi-Purpose Facility	
	College at Wise: Smiddy Hall Renovation / IT Wing	

Academic Division Major Commissions

Alderman Road Phase III Utilities

Maupin House previously served as the mechanical hub for the conversion of steam to heating hot water and domestic hot water, which was then distributed to seven other residence halls in the Alderman Road Housing area. As a part of the Alderman Road Residences Phase III project, Maupin House and three other dormitories are being demolished to make way for the new residence halls. This utility project moved the existing utility hub from Maupin House to a newly constructed space in Woody House to allow demolition of Maupin House without disruption of utility services in the other remaining dorms. Additional utility upgrades were included in this project to provide capacity for future construction, minimizing future disruption to students living in this area.

The project included construction of a new underground mechanical vault connected to Woody House, new mechanical equipment to convert MTHW to LTHW and domestic hot water, connection of Woody House to the University's central heating and cooling systems, connection of Cauthen House to the University's central cooling system, and converting Gooch-Dillard from Dominion Virginia Power to University Power. Doing this required installation of a 1,025 linear feet (lf) utility tunnel in Alderman Road to carry new 10" medium temperature hot water (MTHW) piping; over 500 lf of box conduit near Woody and Cauthen Houses with 330 lf of 6" MTHW piping in the box conduits as well as 650 lf of low temperature hot water (LTHW) piping in box conduit and direct buried. Also provided were 425 lf of 8" and 4" chilled water lines, 720 lf of 4-way and 8-way electrical duct bank, along with domestic hot water service and domestic water lines.

The engineering firm responsible for the project design is Dewberry and Davis, Inc. of Glen Allen, Virginia, and the construction contractor is Daniel & Company, Inc. of Richmond, Virginia. The project was completed in February 2011, at a project cost of \$8,500,000.



Alderman Road Residences – Phase II

The second phase of a four-phase master plan to replace, improve and expand first year housing facilities in the Alderman Road area, this project will build on the precedent of Kellogg House to provide two new residence halls and a commons building to support increasing enrollments and expectations of the first year residential experience. These new facilities will be constructed on the former sites of the aging Balz, Dobie and Watson Houses, which were demolished in the summer of 2009 to make way for the new construction.

Situated on a steeply sloping site, the buildings will create courtyards and new open space in the former footprint of Balz House while preserving the wooded area at the center of the precinct. An accessible route will connect the buildings to Kellogg House with a new ramp, and is designed to connect to future accessible connections to the Observatory Hill Dining Facility. Intended primarily for pedestrian use, this route will be opened to vehicles for move-in days. Limited parking and drives will be provided between McCormick Road and the Commons for accessible spaces and fire and service vehicle access to the buildings. Native and adapted plantings will be used to stabilize slopes and further enhance the precinct.

The residence halls will house 440 first year students and 10 to 20 resident advisors in student rooms in the five upper floors of these six-story buildings. A one-bedroom apartment with private exterior entrance will be located on the first floor of each building to house the area coordinators. The residential community structure will be reinforced with common lounges, quiet study areas, and bathrooms dedicated to each individual 24-student community within the building. First floor spaces including the lobby with casual seating, multi-purpose rooms and a central laundry will further enhance the student experience and encourage interaction with other students. The Commons Building will provide a location for assemblies of residents of nearby halls for events programmed by Student Affairs. It will include a catering kitchen and AV facilities to support seated dinners for 240, presentations by guest speakers and movie nights.

Ayers / Saint / Gross Architects + Planners of Baltimore, Maryland prepared bridging documents for the project. W.M. Jordan Company of Norfolk, Virginia and Clark Nexsen Architects of Charlotte, North Carolina is the design/build team.

The project budget for Phase II is \$44,100,000, of which \$40,200,000 million is associated with the two residence halls. The University has accelerated the project schedule to capitalize on advantageous construction market conditions and expects to occupy all buildings in August 2011, allowing construction of Phase III to begin one year early.



Alderman Road Residences – Phase III

The third phase of a four-phase master plan to replace, improve, and expand first year housing facilities in the Alderman Road area, this project will provide two new residence halls (Buildings 3 and 4) to support increasing enrollments and expectations of the first year residential experience. These new facilities will be constructed on the former sites of the aging Webb and Maupin Houses, which are being demolished to make way for the new construction.

Situated at the foot of a steeply sloping site, the buildings will create a gateway to Kellogg House and the Phase II Residence Halls and complete the courtyards begun in that phase, while preserving the wooded area at the center of the precinct. An accessible ramp will connect the buildings to the Observatory Hill Dining Facility and to the new accessible route to Kellogg House created in Phase II. The residence halls will be five stories in height to negotiate the difference in scale between the Phase II buildings and the Observatory Hill Dining Facility. They will house 356 first year students and 10 to 20 resident advisors in student rooms in their four upper floors. A one-bedroom apartment with private exterior entrance will be located on the first floor of each building to house the area coordinators. The residential community structure will be reinforced with common lounges, quiet study areas, and bathrooms dedicated to each individual 24-student community within the building. First floor spaces including the lobby with casual seating, multi-purpose rooms and a central laundry will further enhance the student experience and encourage interaction with other students.

Ayers / Saint / Gross Architects + Planners of Baltimore, Maryland prepared bridging documents for the project. W.M. Jordan Company of Norfolk, Virginia and Clark Nexsen Architects of Charlotte, North Carolina, the design/build team for Phase II, comprise the design/build team for this phase as well. The project budget for Phase III is \$52,500,000, of which \$6,000,000 is dedicated to a utilities infrastructure project to support the remaining and future residence halls with medium temperature hot water after the demolition of the antiquated hot water plant in Maupin House. These residence halls will house students in the 2013 fall semester. The University has accelerated the project schedule for this phase of the master plan to capitalize on advantageous construction market conditions to occupy building 5 in fall 2013, concurrent with buildings 3 and 4.



Alderman Road Residences – Phase IV

The fourth phase of a four-phase master plan to replace, improve, and expand first year housing facilities in the Alderman Road area, this project will build on the precedent of Kellogg House to provide one new residence hall to support increasing enrollments and expectations of the first year residential experience. The new facility (building 5) will be constructed on the former sites of Lile House and Tuttle House, which are being demolished to make way for the new construction.

Situated at the foot of a steeply sloping site at the former building footprints of Lile House and Tuttle House, building 5 will create a courtyard with Cauthen House and building 4 and will continue the use of native and adaptive plantings, further stabilizing slopes and enhancing the overall site. Accessible routes will connect building 5 to adjacent buildings and Alderman Road. Intended primarily for pedestrian use, designated routes will be opened to vehicles for move-in days. Treehouse Drive will be realigned horizontally and vertically to improve access and connection to Alderman Road.

The residence hall will house 192 first year students and eight resident advisors in student rooms in the five upper floors of this six-story building. An one-bedroom apartment with private exterior entrance will be located on the first floor to house one area coordinator. The residential community structure will be reinforced with common lounges, quiet study areas, and bathrooms dedicated to each individual 24-student community within the building. First floor spaces include a lobby with casual seating, a multi-purpose room, and a central laundry, further enhancing the student experience by encouraging interaction with other students. The first floor will also include classroom spaces and a post office for this precinct.

Ayers / Saint / Gross Architects + Planners of Baltimore, Maryland prepared bridging documents for the project. W.M. Jordan Company of Norfolk, Virginia and Clark Nexsen Architects of Charlotte, North Carolina, the design/build team for Phase II and III, has been retained for this phase as well. The project budget is \$30,000,000. The University has accelerated the project schedule for this phase of the master plan to capitalize on advantageous construction market conditions to occupy building 5 in fall 2013, concurrent with buildings 3 and 4.



Bavaro Hall

Construction was completed in July 2010 for the new Curry School of Education building, Bavaro Hall, which provides the School with approximately 65,000 gsf of new faculty office and clinical/research spaces. It is a four-story building with the west side connected to Ruffner Hall by way of two arcades and a courtyard central to both buildings. The building is bounded by McCormick Road to the south, the Dell area to the north, and Emmet Street to the east.

The Curry School of Education facilities had previously been scattered throughout a number of buildings, and lacked required office and clinical spaces that are now centrally provided in Bavaro Hall. Providing these new amenities and helping to consolidate the Curry School, enables the currently subdivided classrooms in Ruffner Hall to convert back to much needed larger classrooms as part of future planned renovations.

Bavaro Hall achieved LEED Gold certification through its sustainable building and landscape design and construction. The building is a steel frame system with masonry exterior walls. The exterior façade consists of brick, stone and glass to resemble and respect the general characteristics of the surrounding buildings. The greenscape provides a pleasant pedestrian experience around the building. Plant materials were selected as sustainable design elements and are intended to visually enhance the structure naturally.

The project was designed by Robert A.M. Stern of New York, New York and the construction was managed by Donley's LLC of Richmond, Virginia successfully within the project budget of \$37,400,000.



Blandy Farm Research Building

The three ecosystems of Virginia are represented by the three field labs affiliated with the University's Department of Environmental Sciences. The Mountain Lake Biological station representing the Appalachian Mountains, and the Anheuser-Busch Coastal Research Center representing Tidewater and Coastal regions have recently had capital upgrades. With the addition of the Blandy Experimental Farm Field Lab, the Piedmont region joins the club. Blandy Experimental Farm has operated as a biological and environmental sciences field station since 1927. Blandy also hosts the State Arboretum of Virginia. At peak demand the research community numbers over 30.

The Blandy Field Lab will provide approximately 3,900 gsf of simple, flexible, and efficient field lab space. The proposed laboratory building will include two controlled environmental rooms, a fume hood room, outdoor processing areas, an equipment room, write up areas, a large shared laboratory and two private laboratories, a conference room, and basic support spaces. It will accommodate up to six principal investigators, twenty graduate students, twenty undergraduate students, six technicians, and three permanent Blandy staff principal investigators. The building is similarly simple, flexible and efficient. The design is in keeping with vernacular farm buildings typical of the area. A one story, slab on grade, stick built frame, prefabricated wood truss, seam metal roofing, with a hardiplank exterior. The large shared lab and the conference room will have storefront glazing. The mechanical systems will support one fume hood on start up with the potential to add another. The building will run on high efficiency split system heat pumps for heating and cooling. One-pass air has been limited to the fume hood room to keep the building energy use and costs lower. The project is designed to achieve LEED Silver.

The project is supported by the College of Arts and Sciences and a grant from the National Science Foundation. It was designed by Train & Partners of Charlottesville, VA. The project budget is \$1,400,000. Construction has just begun and occupancy is scheduled for May 2012.



College of Arts and Sciences (CAS) Physical and Life Sciences Research Building

The College of Arts and Sciences Physical and Life Sciences Research Building will provide additional space required to support research in physical and life sciences, primarily in chemistry and biology. The CAS Research Building is also intended to provide modern research laboratory facilities that will attract and retain faculty and students and relieve the increasing shortage of reliable laboratory space on grounds. The project consists of a five-story, 105,000 gsf building, plus an accompanying mechanical penthouse. This new research facility will feature modern looking architecture and finishes. The building will be connected to the existing Chemistry and Chemistry Addition buildings, with pedestrian traffic among the three buildings on all floors, except on the basement level of the Chemistry building. The building will contain laboratories, laboratory support areas, administrative office space, and conference rooms on all five floors. The mechanical and electrical systems for the main building are contained primarily in the basement and the mechanical penthouse floor located above the five research levels.

The project was designed by Bohlin Cywinski Jackson Architects of Pittsburgh, Pennsylvania and the construction is being managed by W.M. Jordan of Richmond, Virginia. The project budget is \$88,900,000 and construction is scheduled for completion in August 2011.



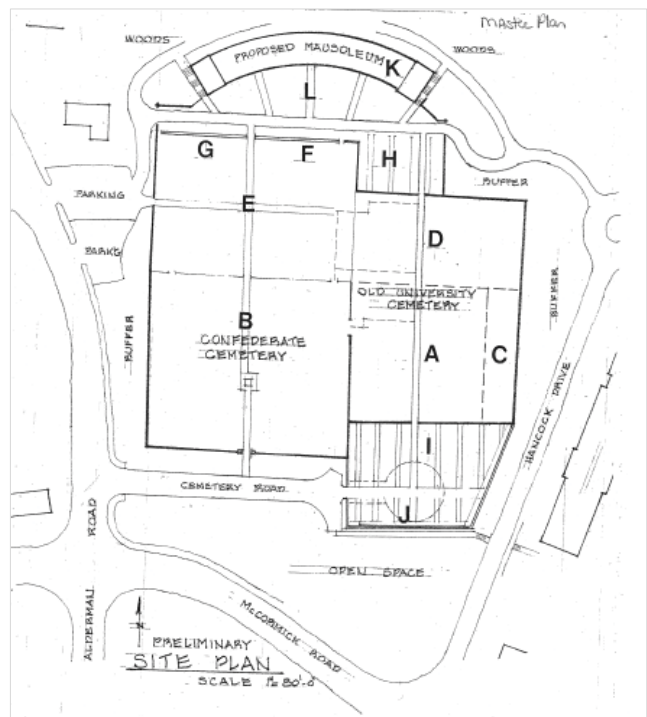
Photo by Dan Addison

Cemetery Expansion

The Cemetery Expansion Phase III project is the first addition to in ground burial plots since the 1940s. Expansions I and II in 1990 and 2003 respectively were columbarium wall installations along the north side. The current project conforms to the master plan that was commissioned by the University Cemetery Committee in 2004. The University Cemetery dates to 1828. It is a sacred burial space, an ad hoc history of our institution, and a peaceful refuge on Grounds.

The current expansion will accommodate 132 columbarium niches and 84 double height crypts. 12 of these will be reserved for presidents of the University. The columbarium wall will continue along the north edge of the cemetery. It will be faced with Shenandoah field stone. The area slopes steeply toward the dell in this area. The columbarium wall and the wall enclosing the presidential area will be retaining walls easing the natural grade in this portion of the cemetery. The project will reuse spoils on site to regrade an adjacent service road.

The project is designed by TEC, Inc. The project is scheduled for completion in spring of 2012. The project budget is \$900,000.



FM / SEAS Building - School of Engineering and Applied Sciences, Student Projects and Facilities Management Shop Building

Facilities Management is excited to collaborate with the School of Engineering on a four story building designed to give each department its own work space, and encourage sharing of ideas and tools. The SEAS/FM building provides approximately 20,000 gsf. Each department will occupy two floors. One floor will be standard height the other will be high bay or open to the attic.

The project will provide a masonry core and shell building with standing metal seam roof. Each department will provide its own fit out. The site allows for separate and convenient access. The building's third floor entrance on Edgemont Road will be used by SEAS. The ground floor opens into the Facilities Management yard.

The Design/Build team of Barton Malow and SHW Group will start construction in fall of 2011 and construction will be complete in summer of 2012. The project budget is \$4,200,000.



Garrett Hall Renovation

The Frank Batten School of Leadership and Public Policy will move into its new home in Garrett Hall in early August 2011. Originally called The Commons, Garrett Hall was completed in 1908 as the University's first large dining hall. Designed by the nation's preeminent architectural firm of McKim Mead and White, the historic three-story, 16,760 gsf building remained in use as a dining hall until the completion of Newcomb Hall in 1958, at which time it was converted to offices for the registrar and bursar and renamed after the University's first bursar. The 8,640 gsf underground annex on the east side was added in 1970.

These renovations will create offices and assembly spaces to support the activities and programs of the students, faculty, and staff of the Batten School. The scope of work includes corrections to structural issues in the main building, replacement of HVAC, electrical and plumbing systems, and implementation of code and ADA compliance requirements. It also addresses exterior repairs, restoration of the original main dining room and two-story entry, reconfiguration of other interior spaces to accommodate the new program and elevator, and improvements to the interior of the annex. The project complies with the University's sustainability program and follows University and state guidelines for historic preservation.

Architectural Resources Group, Inc., located in San Francisco, California, teamed with Frazier Associates in Staunton, Virginia to design the project. The Christman Company of Alexandria, Virginia is the construction management firm. Construction began in November 2009. The project budget was \$12,240,000.



Hunter Smith Band Building

The building is a two-story structure on a site bounded by Culbreth Road and the Buckingham Branch Railroad. It is adjacent to the recently completed Ruffin Hall, and the Culbreth Road Parking Garage, located to the immediate west. The new facility contains a 4,000 square foot rehearsal room and an additional 1,800 square feet of multi-purpose practice and teaching areas. Instrument storage and administrative space make up the balance of this 17,898 square foot project.

The exterior façade of the building is brick and curtainwall, resembling the appearance of Ruffin Hall and the existing Culbreth Theatre. Copper-clad roof elements are reminiscent of the pitched skylight elements utilized on Ruffin Hall. Landscaping is part of the project's overall scope and a small, finely detailed plaza adorns the building's entry. The building anchors the eastern boundary of the Arts Grounds Landscape Master Plan Project, currently in planning stages of development.

The Cavalier Marching Band had occupied temporary spaces in University Hall and is now in the process of occupying the new facility. The new building now provides the marching band with indoor practice space and a permanent home within walking distance of the Carr's Hill practice field and Band Storage Facility. The new facility provides a unique combination of spaces that can accommodate the entire band, smaller instrument section rehearsals, or host band ensemble practice. As the marching band's new home, the building will also serve as a unique gathering space for family, friends, and alumni during the very active football and basketball seasons.

The project was designed by William Rawn Architects of Boston, Massachusetts and the construction is being managed by DPR Construction of Falls Church, Virginia. The project budget is \$12,700,000 and construction for the Hunter Smith Band Building began in December 2009 and will be completed in July 2011.



Information Technology and Communication Data Center, 2476 Old Ivy Road

The 12,500 gsf data center is located approximately 1.5 miles west of the Academical Village between Printing and Copying Services at 2474 Old Ivy Road and Ivy Road (Route 250). The building is a two-story, concrete block structure with masonry and metal panel exterior walls and a large equipment yard screened with metal panel walls. It was designed to accommodate both the current and foreseeable computing needs of the University.

The Data Center houses a 5,500 gsf computer server room, as well as mechanical and electrical equipment support spaces, a shipping/receiving area, a telecommunications rooms, a work room, and one restroom. Office space will not be required as full-time staff will not occupy this facility. Site-related programmatic elements include an equipment yard and a service drive. The equipment yard contains a cooling tower, two air-cooled chillers, a generator, and a transformer and switchgear. The service drive provides access for equipment delivery and maintenance. Parking is located to the east of the building, near the Fontana Food Services building.

The Data Center design responds to the context of neighboring buildings, in particular the nearby Printing and Copying Services building and recent addition. The simple brick exterior mass is distinguished with metal panel, glazed block, and translucent panel accent walls. The roof is flat with parapet walls and no rooftop mechanical equipment. The large equipment yard is screened with a metal panel wall system. The existing sloped site allows for entrance at both the lower and upper levels. Access to the building is from Old Ivy Road, via a recently constructed loop drive. Plantings around the building are low-maintenance but ornamental.

TEC of Charlottesville, Virginia and Hypertect, Inc. of Roseville, Minnesota provided architectural and engineering design services. The project started construction in April 2010 and was completed in February 2011, 3 months ahead of schedule. The project budget was \$14,800,000.



Medium Temperature Hot Water (MTHW) Phase II

This second phase to the system upgrades increased utility capacity on West Grounds, providing for the new science buildings along Whitehead Road and residence halls on Alderman Road, through replacement and construction of new medium temperature hot water, steam, condensate, and domestic water piping near Thornton Hall.

This project involved replacing approximately 1,100 linear feet (lf) of 10" MTHW service and return piping with 18" piping in an existing utility tunnel under Engineer's Way. Additionally, about 300 lf of new utility tunnel from the east side of Emmet Street, up the grassy bank to Cabell Drive, and along Cabell Drive to McCormick Road was installed. This new utility tunnel connected 18" MTHW service and return piping, 12" steam piping, and 6" condensate piping into an existing tunnel under Emmet Street and along Thornton Hall. Also, a new 12" domestic water line was directionally drilled under Emmet Street. All of this work was coordinated to allow Emmet Street to remain open to traffic.

The engineering firm responsible for the project design was Dewberry and Davis, Inc. of Glen Allen, Virginia, and the construction contractor was Waco, Inc. of Sandston, Virginia. The project was completed in November 2010 at a project cost \$4,820,000.



New Cabell Hall Renovation

Built in 1952, New Cabell Hall is the workhorse of the College of Arts and Sciences with 50 classrooms and 390 faculty offices. The six-story, 150,000 gsf brick building will be completely modernized with new heating, plumbing and electrical systems, as well as the introduction of air conditioning and fire suppression systems. Handicapped accessibility to the building will be improved, elevator cabs will be replaced, hazardous materials will be abated, and telephone and data distribution systems will be replaced. Additionally, interior finishes are to be replaced and upgraded, including walls, floors, and ceilings. A new lighting system will also be installed. Classrooms in this historic building will receive state of the art teaching aids equal to that installed in the new South Lawn buildings.

On the exterior, the enclosed courtyard between New and Old Cabell Halls will be landscaped and directly connected to the surrounding buildings to enhance and encourage usage. On the primary south elevation, a significant, accessible connection with the new South Lawn plaza will be constructed. Following complete modernization of New Cabell Hall, the mission of teaching and departmental quarters will continue and the general layout and mix of classroom space in the building will not significantly change.

The architect of record is Goody Clancy of Boston, Massachusetts and the construction is being managed by Barton Malow of Charlottesville, Virginia. The project budget is \$64,500,000 with construction scheduled to occur between September 2011 and fall 2014.



New Cabell Hall South Entrance

The New Cabell Hall South Entrance work was completed in August 2010. This project is a bold new architectural statement that completely changed the dated south entrances to the 1950's New Cabell Hall structure, and compliments the new Terrace Crossing over Jefferson Park Avenue from the South Lawn project. The main entrance was moved from the first floor to the second floor level, creating a new lighted grand stair to that level. The original first floor entrance also remains as a secondary entrance into New Cabell Hall.

This project was an interim step to the renovation of the entire New Cabell Hall building, which will begin in September 2011. The project increased the size of the basement mechanical room and added a new configuration to the existing entrance and use for the space on level one.

The project budget is \$5,500,000 and was designed by Moore Ruble Yudell of Santa Monica, California, and the construction manager was Barton Malow of Charlottesville, Virginia.



Newcomb Hall Dining Expansion

The Newcomb Hall Dining Expansion project will accommodate an increased demand for dining space at Newcomb Hall, as well as enhance the dining experience with a more open, light, and revitalized space for dining and food service functions.

The project will include a new 16,000 gsf, two-story addition to the west side of Newcomb Hall and 32,000 gsf of renovations to existing dining spaces on the first and second floors. Approximately 500 new seats will be added to the second floor residential dining and retail space and the first floor "Pavilion XI" dining space. Improvements to the mechanical infrastructure and food service equipment will increase functional versatility as well as operational and energy efficiency, providing greater opportunity for creating contemporary menus and improving food preparation methods.

Additional improvements will include a lobby and information center, a nearby relocated post office and convenience store, and new restrooms. Sitework at the Newcomb plaza will include new utilities, existing utility relocation and associated plaza restoration at areas located immediately adjacent to the new addition.

In addition to improving the aesthetic appearance and functionality of Newcomb Hall and the dining spaces located therein, the expansion project and other building renovations currently underway will address some of the larger pedestrian circulation issues to improve way-finding and to create a unified identity that reflects the values and history of the University.

Construction began in March 2011 and completion is scheduled for November 2012. The architect is Cole & Denny, Inc., of Alexandria, Virginia and the construction manager is R.E. Lee & Son, Inc. of Charlottesville, Virginia. The project budget is \$18,000,000.



Newcomb Hall Renovations

Newcomb Hall serves as a significant central hub of activity for the University, accommodating students, faculty and staff throughout the calendar year. The building serves as a gateway to visitors due to its function and location within the University Central Grounds precinct. The building has received several renovations since the original completion in 1958, with a current total of over one hundred sixty thousand square feet on six levels. Meeting spaces including a large ballroom, lounge and art gallery, dining facilities, a theater and various offices and support spaces are located throughout the building.

The Newcomb Hall Renovations project will respond to an increased demand for diverse programs and activities, while improving the facility's function and its supporting infrastructure. Aesthetic improvements throughout the building will create a fresh, inviting, and more unified atmosphere while preserving traditional elements of the architecture and surrounding landscape. Mechanical and electrical upgrades will provide increased energy and operational efficiency, as well as improved comfort and life safety for its occupants. Maintenance and repair to existing building items and infrastructure will also be included to ensure continued use of the existing structure. Restoration of the exterior terraces will enhance the visitor experience by creating inviting and memorable spaces surrounding the east side of Newcomb Hall.

Phases 1 and 2 of the Newcomb Hall Renovations project are now under construction, with completion of Phase 3 scheduled for November 2012. The architect is Cole & Denny, Inc., of Alexandria, Virginia and the construction manager is R.E. Lee & Son, Inc. of Charlottesville, Virginia. The project budget is \$15,200,000.



Pavilion IX Renovation

Pavilion IX was constructed from 1820 to 1822 as part of Thomas Jefferson's Academical Village, and was last renovated in 1983. The primary focus of the renovation is a systems upgrade including replacement of all of the existing electrical and plumbing, as well as removal of radiators and window unit air conditioners to make way for a new HVAC system. A new fire suppression system will be installed, along with a fire detection system that will be constantly monitored by UVA's System Control Department. Part of this project includes the re-routing of trunk utility lines exposed in the basement, out and around the building through a process of directional boring under the back patio of the building. This will allow for the installation of the new systems, and a much more pleasant living space.

Architectural improvements will include a completely upgraded kitchen, with a new double-window facing out into the pavilion garden. New fixtures will be installed in all of the bathrooms, and the original front and rear doors will be restored by a graining process to return them to their Jeffersonian faux-mahogany appearance. One unique architectural feature will be the restoration of the west window to the original classroom. This window was removed at some point in the building's history, but the original architraves were stored in the attic. The project will replicate missing pieces, and restore the window to its original location.

The systems design was completed by the engineering firm of Obenchain, Linkous, Daniels, and Sowick of Richmond, Virginia, and the architectural design was completed by UVA. The General Contractor for the project is UVA's Project Services Department. The project has a budget of \$2,100,000 and is funded through private donations to the UVA Historic Preservation Endowment. Construction is scheduled for completion August 1, 2011.



Rice Hall: Information Technology and Engineering Building

The Information Technology and Engineering Building (Rice Hall) will provide much needed space for teaching, computational research, and student projects for the School of Engineering and Applied Science. Rice Hall is one of several new buildings that are part of the University's science initiative focused on sustaining the ongoing work of existing faculty and attracting new researchers. The building occupies a prominent location at the corner of Whitehead Road and Stadium Road just behind Olsson Hall. Designed by the Pittsburgh, Pennsylvania office of Bohlin Cywinski Jackson Architects, the project consists of a five story, 100,000 gsf building with a basement and penthouse mechanical space.

This new research facility will feature modern architectural features and will help to define the south entrance to the science and engineering precinct. The main entrance to the building will be on Engineer's Way and will be connected to Olsson Hall at the basement level. The focus of the building will be information technology and will provide new space for classroom laboratories, research laboratories, departmental and faculty offices, and a 150 seat auditorium. Rice Hall will feature a flexible and robust infrastructure that will permit the collection of building systems data for use in the School's curriculum. This "Living Laboratory" will showcase the University's commitment to responsible energy management and building systems research.

Construction commenced in November 2008. Construction management services are being provided by W.M. Jordan of Richmond, Virginia. Rice Hall is being designed and constructed concurrently with the College of Arts and Sciences Physical and Life Science Research Building and is to be delivered on a fast-track schedule. Occupancy of the new facility will be in the late summer of 2011 for use in the fall semester. The total project budget is \$76,300,000.



Photo by Dan Addison

Ruffner Hall Renovation

Planning is underway for the renovation of Ruffner Hall. Ruffner was built in 1973 and has since been home to the Curry School of Education. Over thirty years later, the school has outgrown the 85,000 square foot building, and expanded into on and off-grounds leased space. The construction of Bavaro Hall, in front of Ruffner, will provide relief to the School's expansion as well as swing space for some occupants during the renovation. The renovation work includes, but is not limited to, the replacement or repair of major building systems including HVAC, electrical, and plumbing, management of hazardous material removal, roof repairs, structural infrastructure repairs, an elevator upgrade, and general building improvements to achieve ADA compliance. Work will be carefully coordinated while Ruffner is expected to be partially occupied during the renovation.

Schematic Design was completed June 2010. Due to the recent infusion of University funding, preliminary Design has resumed and will be completed December 2011. Pending the release of State funding to complete design and begin construction, completion is anticipated for late summer/early fall of 2014. The project budget is \$23,717,000.



South Lawn

The recently completed South Lawn Project, the most ambitious undertaking on the University of Virginia's Central Grounds in a century, is designed to accommodate the contemporary program requirements of the College and Graduate School of Arts & Sciences, while paying respect to the Jeffersonian architecture in the nearby Academical Village.

12,000 students use the facility every day. It features a 95-foot-wide terrace across Jefferson Park Avenue that connects the South Lawn Project with the Central Grounds. At the south end of the terrace is a circular plaza that sits atop a Commons Building, with an exterior stair leading to the garden areas below. An extensive landscape design creates a park-like feel, while educating students about storm water management.

The Foster Site is also celebrated in the landscape, giving recognition to the home of Kitty Foster, a free Black Woman, who provided laundry services for the University in the mid 1800's.

The South Lawn project is composed of two 4 and 5 story buildings and a Commons Building, totaling 114,000 gsf. The budget for this project is \$102,500,000 and was completed in planned phases. The two main buildings were completed and occupied by students and faculty in January 2010, and the Commons Building and Terrace Crossing were completed by August 2010.

The project was designed by Moore Ruble Yudell of Santa Monica, California and the construction was managed by Barton Malow of Charlottesville, Virginia.



Thrust Theatre

This project is the first of a two phase expansion to the existing Drama Building on Culbreth Road. The new two story Theater will be partially below grade in the steep hillside due East of the existing Drama Building and adjacent to Culbreth Road Parking Garage and Ruffin Hall. The project will be connected to the existing Culbreth Theatre lobby and ticketing area.

The program includes approximately 4,000 gsf of much needed renovation to the existing lobby and adjacent ticketing areas currently serving the Culbreth Theatre. The addition will contain a 7,000 gsf multi-purpose performance and film theatre. Performance and stage support, storage, and restrooms make up the balance of this 20,540 gsf project. The building will utilize load bearing concrete and masonry as its principal structural system. The exposed Northern façade of the Theatre will consist primarily of structural curtainwall to maximize daylight and aesthetics associated with its unique site constraints.

Construction began on the Early Site Utility portion of the Ruth Caplin Theatre in May 2011 and the final 100% design is nearly complete. The project is being designed by William Rawn Architects of Boston, Massachusetts and the construction is being managed by Nielsen Construction from Harrisonburg, Va. The project budget is \$13,500,000 and will achieve LEED Certification status.



Track & Field Facility Improvements

The Track & Field Facility Improvements project is a phased effort. Phase I replaces the existing track with a new layout based on a wider turning radius making a faster track, which will also reduce strain on joints and ligaments. The wider track provides a larger infield, allowing for a more efficient and safe layout for field and throwing events. This phase also adds sports lighting, and upgrades the site and utilities to support the final build-out, including stormwater, electric, and domestic water services. A key feature of the new track will be a new 13mm polyurethane based competitive sports surface. The infield will be sodded with a Bermuda cultivar sod. The track will be circled by a low fence with a 3' sidewalk running the length of the straightaway. This phase also includes a new ticket booth and reconfigures the sidewalk plaza and entry area.

Phase II envisions a 1,500 spectator grandstand with team facilities, concessions, a press box, and meet booth. It includes a colonnade along the first turn, which is reminiscent of other University athletics venues such as Lambeth Field and John Paul Jones Arena. A new scoreboard, a measured running path, and landscape improvements along Copeley Road complete the current master plan for Lannigan Field.

The project was designed by VMDO, Architects and the construction is being managed by Barton Malow; both of Charlottesville, VA. The track is scheduled to be reopened by December 2011. Phase I construction will be done in time for the University to host the 2012 ACC Spring Championships. Phase II is pending funding. The Phase I project budget is \$7,000,000.



University Bookstore Addition

The existing University of Virginia Bookstore is a financially self-supporting, non-profit organization that is owned and operated by the University. It is dedicated to supporting academic programs and student life at the University by providing students, faculty, and the University community with excellent customer service, convenient location and hours of operation, and a wide range of competitively priced merchandise. Built in 1994, the University of Virginia Bookstore is located on the 4th level of the Central Grounds Parking Garage, across from Newcomb Hall on the University of Virginia Grounds. The existing two-level space has over 45,000 square feet with 34,500 square feet on the first level and 10,500 square feet on the mezzanine.

Increasing demand has caused over-crowding of the existing facilities and prevents the Bookstore from maximizing its retail potential with an appropriate mix of goods and services. The expansion significantly improves the function and usefulness of the facility. This capital project extended the main level of the existing Bookstore westward by building approximately 16,500 gsf atop the existing 3rd level of the Central Grounds Parking Garage. The expansion contains open spaces for retail, and necessary tie-ins of systems and finishes at the western wall. The existing two-level Bookstore and the Parking Garage have both remained in use throughout construction.

Bowie Gridley Architects of Washington, DC is the architect of record, and W.M. Jordan of Richmond, Virginia is the construction manager for the project. Construction commenced in the summer of 2010 and received temporary occupancy in the summer of 2011 to allow the relocated Cavalier Computers to open in time for new student orientation. The entire project will be completed in the fall of 2011. The project budget is \$10,631,000.

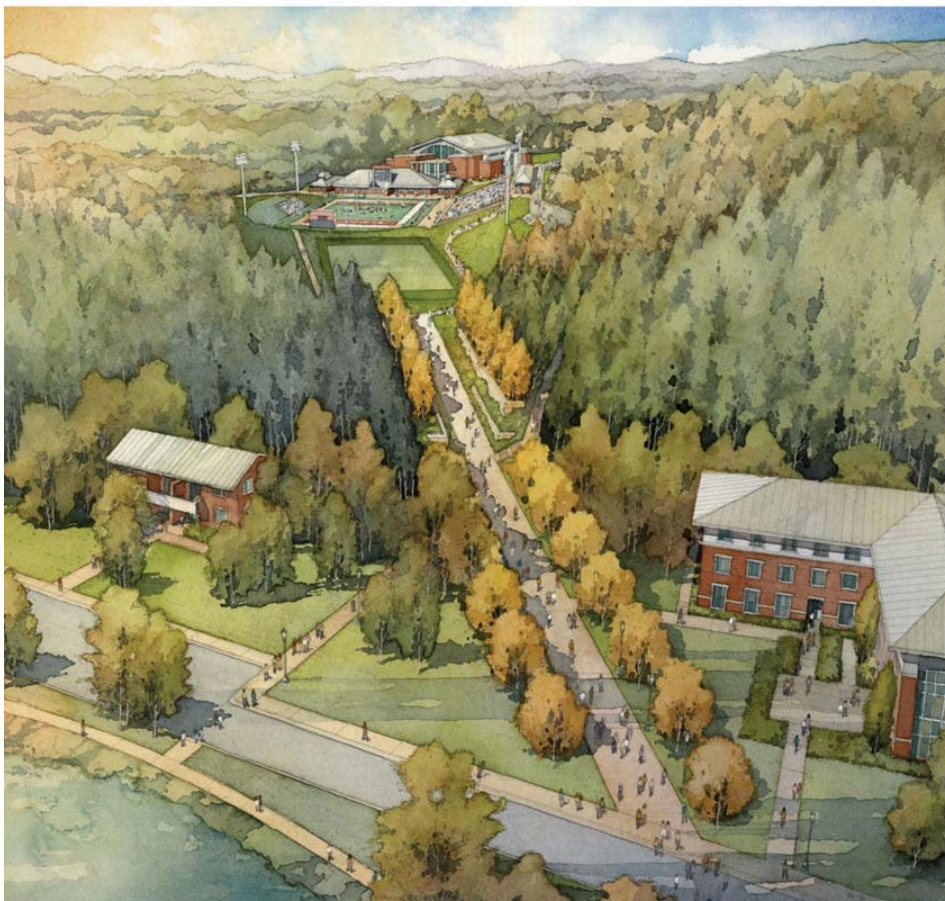


College at Wise: Accessibility Walkway

This project seeks to provide an accessible connection between the College's Athletic Precinct and the main campus Residential Precinct. Currently the only way to traverse between the two precincts is to climb a long flight of stairs or to drive out of the main campus onto a public highway to the Athletic Precinct. In addition to providing a truly accessible pathway, the project will also provide a convenient daily walkway for students, faculty and visitors alike. In order to construct the walkway, it has been necessary to cut through a forested ridge that separated the two precincts both physically and visually.

The project consists of a landscaped concrete sidewalk, approximately 1,400 linear feet in length, requiring the removal of about 10,800 cubic yards of soil and rock. The walkway will be lighted by decorative post fixtures. It links the main campus residential area with the football stadium, the intramural practice field, and the newly constructed Multipurpose Center Arena, as well as student parking.

The project was designed by Thompson and Litton of Wise, Virginia and the construction is being managed by Quesenberry's Inc. of Big Stone Gap, Virginia. The project budget is \$1,062,000.



College at Wise: New Library

The University of Virginia's College at Wise proposes to build a new library facility in a highly prominent location at the main entrance to the campus. The new library addresses the core of the College's educational mission by providing academic support for students and faculty. The library will be located in the center of the campus and will serve as the new heart of academic life. Its proposed site also allows the building to serve as a critical 24 hour-a-day study center and a much-needed vertical link between the upper and lower campuses for all faculty, staff, and students, including the disabled. The building will house the College's collection and will provide study, instructional, and multimedia resources to accommodate the College's needs for up to 3,000 students. The new library is also needed to maintain the College's accreditation since the present library is at capacity.

The biggest contributors to the library's space needs are its collections, the number of students that are anticipated to use the facility, and the need to construct an accessible, 24 hour vertical link between the upper and lower campuses. The enclosed lobbies on multiple floors will be open extended hours and will feature café tables, access to group study rooms and informal lounge seating so that students can collaborate, interact, socialize, study and gather informally throughout the day and evening. The lobbies will also serve as a direct point of entry to the multimedia learning labs.

The proposed design for the new Library is a five story, 66,000 gsf structure consisting of space for general collections, special collections, multi-media labs, classroom space, study areas, offices, and a café. The project budget is \$47,500,000.

The College at Wise New Library project is currently in the design phase. Construction is planned to begin in the summer of 2012, with completion expected in summer of 2015. Cannon Design of Arlington, Virginia is the architect of record. The contract manager will be selected fall of 2011.



College at Wise: Multi-Purpose Center

The University of Virginia's College at Wise is building a new Multi-Purpose Center in the campus' emerging athletics zone, directly adjacent to the existing football field and field-house. The new Multi-Purpose Center will function as the College's primary intercollegiate basketball and volleyball athletic facilities and will serve the greater Wise community as a venue for hosting community events, such as concerts, civic functions, trade shows, athletic tournaments, and graduations.

Sized to accommodate the increasing growth of the College's athletic programs and planned increases to student enrollment, the Multi-Purpose facility will be designed as a flexible venue, accommodating a variety of programs, functions, and attendance levels. The College's current facility, Greear Gymnasium, has limited capabilities to function in this capacity. The new Multi-Purpose Center is required to serve the growing demands of the College's athletic programs and the community's desire for a facility that can benefit the entertainment needs of the region and serve as a driver of future economic vitality and development.

The Multi-Purpose Center will consist of approximately 79,000 gsf of multi-purpose space. The building will include a multi-tiered arena that will accommodate a seating capacity of 3,000 fixed/semi-fixed seats. Additional seating capacity of 500+ seats will be available as removable floor seating. The facility will house the athletic offices and support facilities for the men's and women's intercollegiate basketball programs and the women's intercollegiate volleyball program. Additionally, the Multi-Purpose Center will provide space for a training room, food prep and catering, ticketing, concessions, retail operations, and meeting space. Total project budget for the Wise Multi-Purpose Center is \$29,600,000.

Construction on the Multi-Purpose Center began in June 2009, with substantial completion expected in August 2011. The architect of record is VMDO of Charlottesville, Virginia. Quesenberry's Inc., of Big Stone Gap, Virginia is the construction manager.



College at Wise: Smiddy Hall & New IT Wing

The Smiddy Hall Renovations and Information Technology (IT) Wing Project includes renovations to the existing Smiddy Hall structure and the addition of a new IT Wing of approximately 6,000 gsf. The total project square footage is approximately 30,500 gsf. The renovation work will include replacement of all windows, interior finishes, HVAC, fire protection (sprinkler and alarm), electrical, and plumbing systems. The existing lobby and west portion of the building was demolished, with a replacement addition for administrative offices and a double height main entry that can also be used as an informal meeting space.

The new IT wing, completed in December 2009, is a two story addition located on the east side of Smiddy Hall. The IT Wing houses the new campus data center, faculty & staff offices, and support space. Primary power is supported by a back-up generator power source, to ensure continuous operations of all mission critical IT systems.

Smiddy Hall is located in a prominent location at the new entry to the College. The renovations to the Smiddy Hall exterior will make the building better conform to the College's design guidelines and harmonize with other nearby, recent building designs. All proposed additions are to be modest in scale, so as not to dominate the site and the landscape into which they will be placed. Smiddy Hall is adjacent to the Front Entry project and south of the Bascom Slemple Student Center. The project is pursuing LEED certification.

The project was designed by Train & Partners Architects in Charlottesville, Virginia and is now substantially complete, with occupancy planned for August 1, 2011. Construction management is being performed by Rentenbach Constructors of Knoxville, Tennessee. The project budget is \$13,696,000.



Health System:

The Health System Division responded to 23 new requests for services, contributing to a total workload of 60 active projects, including projects that have reached Construction Completion in the last year. Using the HECOM threshold of \$1,000,000 for a Capital Outlay project, these active projects included:

- 10 projects in startup / request phase, budget / scope not yet developed.
- 27 small non-capital projects with an average size of \$210,114 for a total of \$5,673,070.
- 3 large non-capital projects with an average size of \$847,638 for a total of \$2,542,915.
- 11 small capital projects with an average size of \$2,551,015 for a total of \$28,061,168.
- 18 large capital projects with an average size of \$31,834,341 for a total of \$573,018,141.
- 4 capital projects in design for a total of \$52,810,000.
- 14 capital projects in construction for a total of \$406,039,046.
- 11 capital projects completed for a total of \$142,230,263.

Capital Projects In Design	Capital Projects In Construction	Capital Projects Completed
East Chiller Plant / Lee Street Realignment	Battle Building at Children's Hospital	415 R. C. Hunt Spine, Head & Radiology Renovation / 3 rd Floor
MTHW Conversion MHP	Lee Street Entry and Connective Elements	Emily Couric Clinical Cancer Center
Outpatient Surgery Modular Unit Improvements	LiSA Yeager Electron Microscope Renovation	LiSA Cyclotron Renovation
Primary Care Center Gamma Knife Renovation / 1 st Floor	McLeod Hall Renovation Phase I	Old Medical School Ophthalmology Renovation / 1 st Floor
Suhling Microsurgery Renovation / 2 nd Floor	Old Jordan Hall 4 th Floor Rooms 4067-4084 Refurbishment	South Chiller Plant Expansion Chiller #3
University Hospital Digestive Health Procedure Room Renovations / Level 1	Old Jordan Hall HVAC Infrastructure Replacement	University Hospital Ancillary Projects / Level 0
University Hospital Helipad Rooftop Expansion	University Hospital Bed Expansion	University Hospital Emergency Power Upgrade Phase II
University Hospital NICU Renovation / Level 7	University Hospital Fire Alarm Replacement	University Hospital HVAC Upgrades Phase I
University Hospital Radiology Sonata Equipment Upgrade / Level 1	University Hospital Heart Center Renovation / Level 2	UVA Hospital In-Patient Psychiatric Bed Consolidation / Level 5
University Hospital Bone Marrow Transplant Renovation / Level 8	University Hospital Radiology Master Plan – Remaining Phases / Level 1	University Hospital Intra-Operative MRI ORS (27 & 28) / Level 2
University Hospital Roof Replacement Project		University Hospital On-Call Suite Consolidation / Level 0
		University Hospital Radiology Master Plan Phase 3A Ultrasound Suite / Level 1
		University Hospital Radiology Master Plan Phase ID: Patient Prep & Hold Unit & Waiting Rm / Level 1
		University Hospital Surgical Path Renovation OR's 29 and 30 / Level 2

Health System Major Commissions

415 Ray C Hunt Dr. Spine, Hand and Radiology Renovation / 3rd Floor

The Hand and Spine Centers were completed and began seeing patients last year. Both Centers provide patient access to multiple services under one roof. Four x-ray rooms were included to serve both Centers.

The remaining shell space will be fit out to provide 7 additional exam rooms, a subwaiting room, team work room, and support space for the Neurosurgery Clinic.

The selected finishes will match the adjacent Spine Center, which achieved LEED Silver Certification. All finishes are approved by the Health System Finishes Committee and match existing finishes throughout the Health System in regard to quality.

An emergency generator will be provided in the adjacent parking lot to service the elevators. The future generator has been reviewed and approved by the UVa Foundation as well as the Buildings & Grounds subcommittee of the BOV.

Design Services are being provided by Daggett + Grigg Architects PC of Charlottesville, Virginia. Construction management services are being provided by DPR Construction of Newport Beach, California.

Construction began in August and the space will be complete in December 2011.



Department of Radiology Master Plan Renovations

In 2005, the Radiology Department identified the need to modernize and update their entire department located on the first floor of University Hospital, in order to incorporate new technologies and protocols to enhance patient care and revenue generating areas. A study was produced in late 2006 recommending and detailing 11 sequential renovation projects over a five year period. Three of these phased projects have been completed and two additional phases will be under construction by mid-2009 and completed by December 2010. The remaining six phased projects encompass approximately 37,500 gsf and are to begin phased construction in October 2010. The renovations will address the following requirements:

- a. Better define Radiology and adjacent Departments' circulation within Level 1 of the Hospital in order to improve staff and patient functions and way-finding.
- b. Improve patient preparation and holding / PACU functions to improve efficiency and privacy, and correct patient holding that currently occurs in open circulation corridors.
- c. Make the front door to the department more user friendly and hospitable to patients and family, and improve the functionality for the staff.
- d. Provide more efficient reading workspace for staff and improve the quality of spaces for consultation.

The designer for all phases of the project is Perkins Eastman Architects. DPR Construction will provide construction management services through design, procurement, and construction of the remaining eight phases. Construction began late in 2007 and will be completed 2013. The total project cost is \$21,212,000.



East Chiller Plant/Lee Street Realignment

A study of the Health System Chiller Plant System completed in January 2010 reviewed chilled water demand and system capacity for the next 20 years. The study provided recommendations for existing chiller replacements as well as capacity increases. The East Chiller Plant project is a result of that study and also includes the realignment of Lee Street to Roosevelt Brown Boulevard in order to best accommodate the new chiller plant site, and streamline traffic flow to the Health System facilities and parking structures.

Currently, there is a need to replace five 1,200 ton chillers (6,000 total tons) in the North Chiller Plant that are at the end of their useful life. The new East Chiller plant will provide a building shell for a 10,000 ton plant with 6,000 tons of initial installed capacity in the form of three, 2,000 ton chillers.

The Lee Street realignment package will start construction in August 2011 and the chiller plant site development will start in January 2012. Completion of the plant is scheduled for May 2013.

Affiliated Engineers, Inc is the design firm and HOK is the Architectural consultant. Gilbane is the CM at Risk contractor.



Emily Couric Clinical Cancer Center

The completed Emily Couric Clinical Cancer Center building is a full service ambulatory care facility for the diagnosis and treatment of cancer in all of its forms. The special nature of the center and its programs includes the detection and prevention of cancer in the population.

The Clinical Cancer Center building consolidates oncology treatment and diagnostic services currently located on various floors and buildings in the West Complex and in the University Hospital. The consolidation of services includes radiology oncology treatment, diagnostic imaging, clinics, infusion center, clinical labs, and pharmacy. In addition to treatment services, it includes family/patient amenities, clinical trials, and a public space front door with a central access hub. The new structure is approximately 150,000 gsf, including a shelled, 5th floor for future expansion.

The building is located at the corner of Lee Street and Jefferson Park Avenue. Zimmer, Gunsul, Frasca, Partnership (ZGF) of Washington, DC were the project architects that lead the design process, along with the University Architect, and the Medical Center Steering Committee.

The project's groundbreaking ceremony was held on April 12, 2008 and it opened for patients on April 4, 2011. Gilbane Construction Co. was the construction management firm overseeing the construction. The total project budget was \$74,000,000.



Lee Street Connective Elements

This project includes an expanded front entry to University Hospital, a new plaza/traffic oval centered on the hospital entrance, a new bridge over Lee Street between the hospital and the Lee Street Parking Garage, and a new vertical circulation tower that joins the Lee Street Garage with the bridge to the 11th Street Garage on the other side of the railroad tracks.

The Emily Couric Clinical Cancer Center and the Hospital Bed Expansion have been designed to complement each other and will change the public face of the Health System at its front door - Lee Street. The Lee Street Connective Elements project will tie them together, allowing a unified sense of place and a new point of arrival. The plaza/traffic oval will provide for better vehicular flow and control the increased usage that will result from the completion of these projects. The first phase of construction is to build the new circulation tower next to the Lee Street Garage, and is nearly completed. Once this is complete and open for use, the existing brick stair tower will be demolished. The next phase is to erect the new bridge over Lee Street. Then the expansion of the hospital lobby can be built, with its new curved glass front, and the new hospital entry and plaza can be completed. Additional work in the Hospital Lobby includes new information desks, a new gift shop, and a new coffee shop. This project uses the same architect that designed the cancer center, Zimmer-Gunsul-Frasca Partnership of Washington, DC, to ensure design continuity. All three projects will share a new vocabulary of patterned glass curtainwall modulated by the rhythm of vertical mullions and columns. New sidewalks and street trees will create visual continuity from the plaza out to Jefferson Park Avenue. Construction management services are being provided by Gilbane Building Company of Laurel, MD. The total project budget is \$29,216,500, and construction began in May 2010.



McLeod Hall Renovation

McLeod Hall was the central facility for the School of Nursing until the opening of the Claude Moore Nursing Education Building (CMNEB) in 2008. McLeod is now nearly forty years old and has had no building-wide renovations or infrastructure upgrades until now. Beyond the bare facility needs, the School also wishes for McLeod to approach the aesthetic quality of CMNEB. This renovation project will address these needs in two phases. McLeod consists of five core floors of offices and classrooms, two underground parking levels, and an auditorium. (The area of each core floor is 10,000 gsf.) The scope of this project includes the five core floors only. The goal is to renovate these floors in two phases. Phase I will renovate the first, fourth and fifth floors; Phase II will renovate the second and third floors. The phasing is based on the priorities of the school and on the funding currently available.

All construction for Phase I is now complete: The first floor in August 2010; the fourth floor in February 2011; and the fifth floor in August 2011. The schedule for phase II has not been determined, as it is contingent on the School's ability to raise additional funds. The total project budget for phase I is \$6,075,000. The project architect is Bowie Gridley Architects of Washington, DC. Construction was done by in-house forces from the Project Services group of Facilities Management.



Medium Temperature Hot Water – Central Grounds

Medium Temperature Hot Water (MTHW) is generated in the Main Heating Plant and used to heat the buildings on grounds, as well as create domestic hot water. Increasing the capacity of the system is part of the 50 year plan for the University. A computer model was developed to confirm existing system capabilities and to project the University's growth for the next ten years. The model has identified the need to increase the size of the heat exchangers that convert steam to hot water, as well as increasing the capacity of the pumps to deliver this through a piping system that extends from the heating plant to Runk Hall. The work will include minor piping modifications to eliminate flow restrictions, as well as improved control to the various buildings and dormitories. This upgrade is to be operational in time for the fall 2011 heating season.

Ross Infrastructure is providing the design services for this upgrade. The Energy and Utilities Department of UVA is self-executing the construction work. A project budget is \$3,100,000.



Old Jordan Hall 4th Floor Rooms 4067 through 4084 Renovation

This project will renovate 4,000 gsf of space in Old Jordan Hall to provide a new laboratory for the Chair of the Department of Microbiology in the School of Medicine. The project architect is Nalls Architecture of Philadelphia, Pennsylvania. The general contractor is Woodland Construction of Richmond, Virginia. Project budget is \$1,300,000. Construction will be complete by December 2011.



Old Jordan Hall HVAC Replacement Project

The original portion of Old Jordan Hall is a seven story building that opened in 1971. An addition providing laboratory, office, and classroom space was opened in December 1995. This HVAC replacement is for the original building and does not include the addition.

The first floor of Jordan Hall contains two lecture halls, each seating 152 students, as well as a smaller seminar room and anatomy laboratories. The majority of the first and second year lectures are given here. The second floor houses additional student laboratories designed for both individual exercises in histology and pathology, as well as group experiments and teaching sessions in microbiology. The rest of the second floor contains basic science research laboratories. The academic offices and research laboratories of the Department of Anatomy, Physiology, Pharmacology, Biochemistry, and Microbiology occupy floors three through seven.

In June 1999, the University completed an exhaustive study of the HVAC infrastructure of Old Jordan Hall. The major findings of the study are as follows: 1) nearly all of the HVAC infrastructure equipment is as old as the building, and thus it is well beyond anticipated life expectancy and in dire need of replacement; 2) distribution components (ductwork and piping) are obstructed and/or overloaded; 3) controls are functional but are outmoded, limit flexibility, and include only minimal interface with the central campus system; 4) provisions for energy reclaim, system redundancy, and adaptability to change are minimal to nonexistent; 5) space capacity exists for heating only, which in fact wastes energy; 6) there is no smoke evacuation or stairway pressurization, which is noncompliant with current code; and 7) the HVAC infrastructure concepts are no longer commensurate with modern research laboratory facilities. Also, the study concluded that the emergency power system is marginal and will not support necessary HVAC upgrades. This remains an essentially accurate assessment of the system with the following exceptions: 1) in the intervening eleven years the system has continued to deteriorate; 2) the building is now on central chilled water, the original chillers and one of the original cooling towers have already been removed; and 3) the air handler serving the basement floor has been replaced.

RMF Engineering Inc. of Charlottesville, VA has completed the design/construction documents and is providing construction administration. DPR Construction Inc. of Falls Church, VA is providing construction management services. The construction began in August of 2010 and is scheduled for completion in the spring of 2013. The total project budget is \$33,000,000.



Ophthalmology Clinic

The Ophthalmology Clinic Project provided 8 additional exam rooms and 3 diagnostic rooms for the department. They are located under the stairs of the Old Medical School building. It was completed in July of 2011.

The exam rooms were carefully planned and constructed to serve as a prototype for any future exam rooms that may be provided for the Ophthalmology Department. A new dimmable to 1% fluorescent light fixture is being introduced.

Existing windows are utilized to provide natural lighting in the waiting room. One original window was salvaged and remains in use.

The finishes match existing finishes throughout the Health System in regard to quality. All finish selections were approved by the Health System finishes committee and contributes to LEED credits.

The project is tracking to achieve LEED Silver Certification.

Design services were provided by Nalls Architecture, Inc. of Narberth, Pennsylvania. Construction was performed by Facilities Management's Project Services group.

Photos: Exam room without light, with light and salvaged original window.



Outpatient Surgery Modular Unit Improvements Project

To meet the demand for operating rooms at the UVa Outpatient Surgery Center (OPSC) and allow capacity to grow in advance of the Battle Building Outpatient ORs, two modular operating rooms will be added to the OPSC. The Project will include the area where the modular ORs will be located, utility interconnections, emergency power, medical gas storage, a link from the ORs to the OPSC (including support spaces), a new entry canopy, and a screening wall surrounding the modules. The total project cost, excluding the modules and medical equipment, is \$3,000,000. Baskervill, Valley and Pinnacle form the A/E Team.



Primary Care Center Gamma Knife Renovation

The Primary Care Center was built in 1979. The Gamma Knife addition was constructed in 1989. It contains a control room, several offices, and the treatment room. Since then, the area has been aesthetically updated but no major renovations have occurred. The space needs renovation to meet the latest requirements to treat Gamma Knife patients.

The renovation project has been divided into three phases. Phase I entails renovating the control room and offices, which are adjacent to the treatment room. This will allow the doctors to utilize the latest technology. Phase II involves the renovation of the current file storage and administrative area into a patient waiting room. Currently, there are no patient waiting areas except for the alcove in the corridor of the control room. The new space will be able to handle four patients at a time. One of the bays will also allow for private consultations. Phase III will renovate the x-ray storage area and reading room. The existing shelving will be removed and replaced with a compact shelving system that will create needed storage space. The film reading room will be updated to handle the latest audio visual technology.

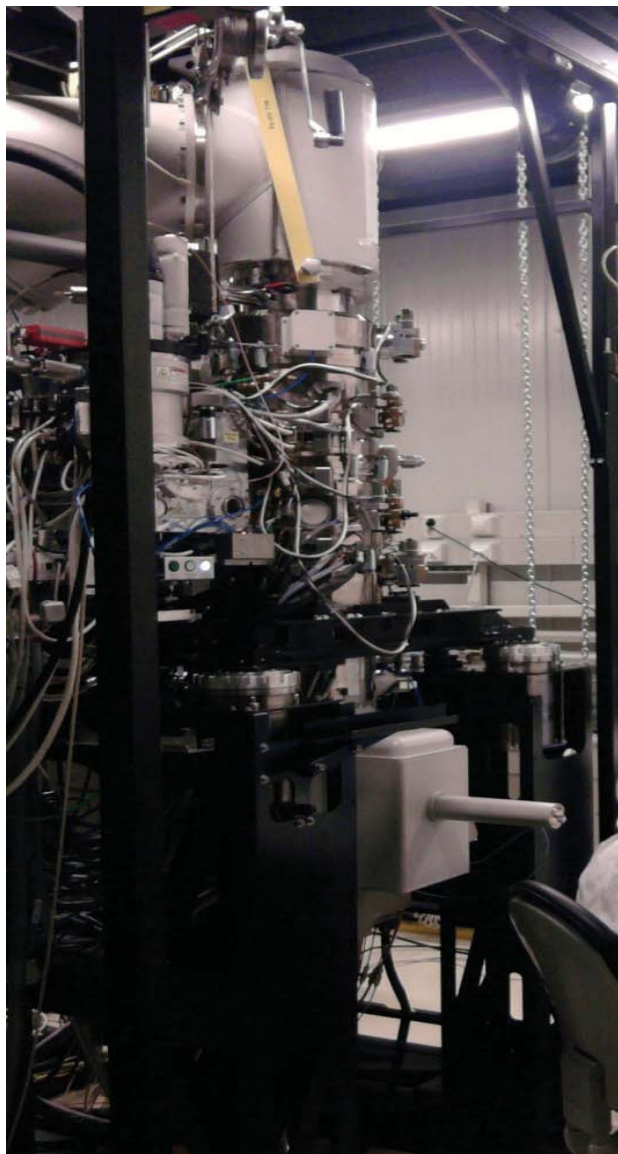
Facilities Management's Design Services Department has completed the design/construction documents and will provide construction administration as needed. The University Building Official issued the building permit. Facilities Management's Project Services Department is providing the construction services. The construction of Phase I started in March. Phase II construction started in June, and Phase III is scheduled for completion in October of 2011. While initial cost estimates were about \$1,500,000, using in-house forces reduced the total project costs to \$802,435.

Below is a photo of the completed control area and the patient waiting area under construction.



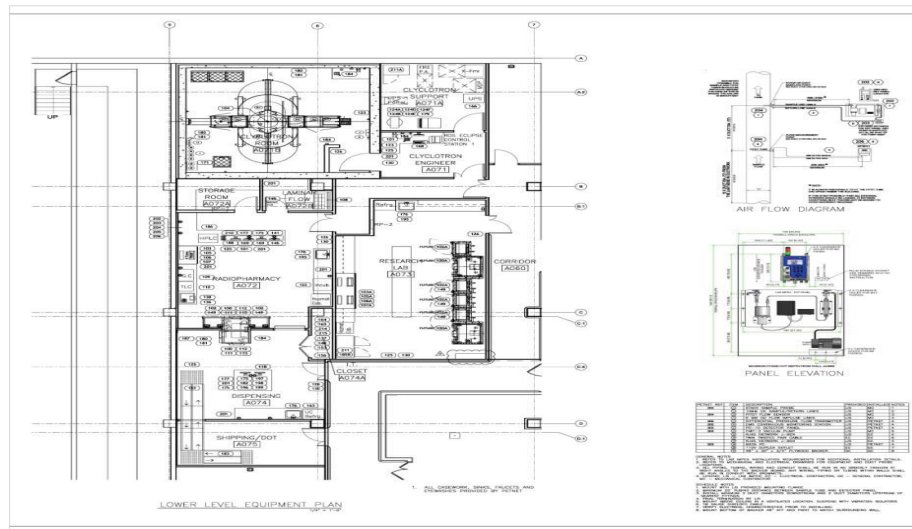
School of Medicine Center for Molecular Electron Microscopy

This project will construct a suite of rooms (3,400 gsf) in the Life Sciences Annex at the Sheridan G. Snyder building to accommodate the new Center for Molecular Electron Microscopy (CMEM). CMEM will house two highly advanced electron microscopes for use in basic research. It will be utilized by researchers throughout the University, though primarily by the Department of Molecular Physics and Biophysics in the School of Medicine. The construction is being funded by a grant by the National Institutes of Health using ARRA (American Recovery and Reinvestment Act) funds. The project architect is Perkins & Will of Washington, DC. The general contractor is Crenshaw Construction of Culpeper, Virginia. Project budget is \$2,460,000. Construction will be completed in October 2011.



School of Medicine Cyclotron Facility

The goal of this project is to construct space (3,000 gsf) within the Life Sciences Annex at the Sheridan G. Snyder building to house the new Cyclotron (A cyclotron is a device used to produce radioisotopes for use in medical imaging) and Biomarker Core Facility. This Facility is the result of an agreement between the University and an independent company named PETNET, a commercial entity that is a subsidiary of Siemens. According to this agreement, the University has provided space for PETNET to operate a commercial radiopharmacy in exchange for PETNET's operating the cyclotron and providing novel radioisotopes to the Department of Radiology for research. The project architect is Perkins & Will of Washington, DC. The general contractor is Crenshaw Construction of Culpeper, Virginia. Project budget is \$2,710,000. Construction will be complete in August 2011.



South Chiller Plant Expansion Chiller #3

Chilled Water is used throughout the University for building cooling. The Health System Chilled Water Precinct includes two plants, a north and south, to provide chilled water and cooling to educational, research, clinical facilities, and the hospital.

This project installs the last chiller in an open bay in the South Chiller Plant and emergency power generators for cooling the critical patient care areas of the hospital. The chiller installation consists of a chiller, cooling tower, pumps, piping, and the systems to control these. The chiller provides N+2 capacity for the Health System, to assure that even if two chillers were out of service, there is capacity to cool all space within the system.

During a power outage at the health system, life safety needs are provided by emergency generators for each of the facilities. There is also a need to provide cooling for critical patient care areas within the hospital during such an event. Two 2,500 kW generators and the controlling switchgear have been installed in a new generator farm located between the Lee and 11th street garages.

Engineering for this project was provided by Affiliated Engineers, Inc of Chapel Hill, NC. The construction general contract was awarded to Design Electric, Inc. of Charlottesville, VA. Systems were operational in June of 2011 for a total project budget of \$13,700,000.



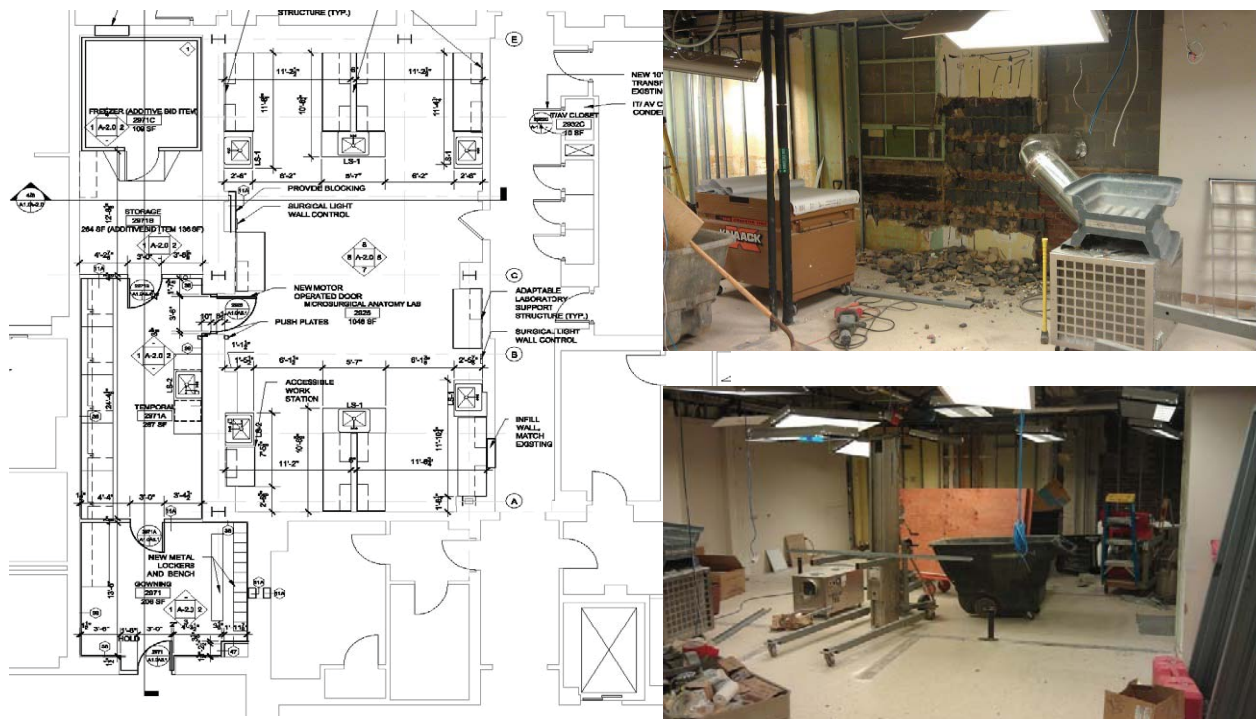
Suhling Wing Microsurgery Renovation

Currently the Microsurgery lab in the Shuling Wing of the West Complex is used for teaching and practicing endoscopy and microscopy techniques for the Otolaryngology Department. They have recently teamed up with the Neurosurgery Department to create a lab that will also include skull base surgery creating a need for a renovation.

The current space has one section for bone drilling and another section for sinus surgery, with storage space separating them. The lab has only individual work stations, with no dedicated teaching area, thus it does not meet the department's teaching needs. The renovation will provide a dedicated gowning area, a larger storage space, a separate bone drilling room, and a teaching laboratory for up to 15 people with a central teaching station. Each station will have the capability to project their work onto monitors for everyone to observe. The teaching station will also have the capability to project images across the corridor to the Riggs Auditorium, which will allow for live demonstrations during seminars.

Nalls Architects, based out of Narberth Pennsylvania, has completed the design/construction documents, and will provide construction administration. The University Building Official has issued the building permit. Facilities Management's Project Services Department is providing construction services. Construction will begin in July and is scheduled for completion in January of 2012. The total project cost is \$1,149,597.

Below is the new floor plan of laboratory.



University Hospital Ancillary Projects / Level 0

Relocation of medical storeroom and staff functions to other facilities provided the opportunity to reorganize and consolidate multiple support functions on the zero level of the hospital, ahead of the increased demand for services that will result from completion of the Hospital Bed Expansion. Functions that were reorganized or consolidated include patient transportation, equipment storage, staff locker rooms, bathrooms, conference rooms, Hyperbaric Medicine, and Respiratory Therapy Administration. To allow enough space for these areas, a large percentage of the warehouse was relocated to an offsite facility.

The 8,000 square foot renovation, consisting of office space, storage areas, and treatment space, commenced in November of 2009 and Final Occupancy was completed early this year.

The architect was Baskerville & Son, P.C. of Richmond, Virginia and the general contractor was SRC, Inc. of Richmond, Virginia. The project cost was \$2,700,000.



University Hospital Bed Expansion

The Hospital Bed Expansion (HBE) will add 72 acuity adaptable patient rooms to the University Hospital. The project consists of 12 private room nursing units located on each of floors 3 through 8. The patient rooms are designed to be critical care capable with a full bathroom. This design allows the rooms to be used for critical care, step-down care, or acute care. This project will provide much needed bed capacity to the Hospital while providing maximum flexibility.

Designed by SmithGroup, Inc. in Washington, DC, the project is a six story, 61,000 gsf addition to the north façade of the Hospital's Central Bed Tower. The HBE bears on a truss structure constructed over the second story roof of the Hospital Lobby. An expanded mechanical penthouse is included to house new air handling equipment to serve the HBE. The project also involves 62,000 gsf of renovation to create the adjacent nursing units on each of the six patient care floors. Gilbane Building Company, in association with H.J. Russell & Company, is providing Construction Manager-as-Agent services through the design, procurement, and construction phases of this project.

The design of the exterior of the HBE was influenced, in large part, by the design of the Emily Couric Clinical Cancer Center (ECCCC). The University Hospital Bed Towers are oriented to face the ECCCC building site. The HBE facade is a unitized factory-glazed curtainwall system. On the interior, the patient rooms are oriented to fully utilize this system to provide wall-to-wall and floor-to-ceiling glass. This maximizes the use of natural light in the patient rooms while taking advantage of the northern exposure.

The HBE began construction in October of 2008, with completion scheduled for early 2012. By combining several trade packages with the ECCCC project, high trade interest in this project, and a favorable bidding climate, excellent construction pricing was achieved, resulting in a buy-out savings of \$13 million from the original project budget. The total project budget is now \$77,772,000.



University Hospital Bone Marrow Transplant Unit/ Level 8

Bone Marrow Transplant Unit: This project will create a 6,000 SF Bone Marrow Transplant Unit complete with a Cell Processing Lab, an Apheresis Room, and 8 patient rooms. Currently the University Hospital does not have a Transplant Unit and many patients in Virginia are referred out of state. The Unit will allow the University Hospital to provide this medical care much closer to the patient's family support base.

Design services are being provided by Nalls Architecture Inc. of Charlottesville, VA. Construction management services are being provided by SRC Inc. of Richmond, VA. Construction will start in August 2011 and will be substantially complete in January 2012. The budget for this project is \$1,610,000.



University Hospital Emergency Power Upgrade Phase 2

Emergency Power Upgrade Phase 2 was substantially completed in January 2011. The project installed a new 1150kw generator in the East Garage, ran a new 5,000amp bus duct from the East Garage to the Hospital emergency switch gear room, and installed a new emergency switchgear system. This additional emergency power will meet the added load requirements of the Bed Tower Expansion project. Also under this project is the conceptual design for Phase 3, which will add additional capacity to the Hospital's emergency power system to handle future upgrades to the air handler units, the new electronic medical records, and fire alarm upgrades.

Design services are being provided by AKF Inc. of Arlington, VA. Construction management is being handled by the Gilbane Building Company of Laurel, MD with Design Electric, Inc. of Charlottesville, VA as the major trade contractor. Construction started in March of 2010 and was substantially completed by January of 2011. Total project cost is \$4,222,500.



University Hospital Fire Alarm Replacement

The Hospital fire alarm replacement will provide a completely supervised and addressable fire detection system throughout the facility. This upgrade will include the infrastructure to support expansion of the system as required for future Hospital renovations and additions.

The project scope includes construction of a new fire control room for system monitoring that will also serve as a base of operations for the Charlottesville Fire Department and University fire protection personnel during emergency situations. Throughout the hospital, the new infrastructure will connect to new initiating and existing alarm devices. This new addressable system will identify the specific locations of devices in alarm, replacing the existing system that only displays the zone from which the alarm originated from. The entire system will be monitored by Systems Control through new radio transceiver equipment. A digital voice alarm system will also be provided throughout the entire hospital.

Additional life safety emergency power distribution within the hospital will also be constructed under this project. Emergency power circuits dedicated to life safety functions are currently at their limit. This project will add enough circuits to not only supply the new fire alarm system, but also create spare circuits for future projects that require dedicated life safety power (e.g., medical gas alarm panels).

The project was designed under contract with Smith Group of Washington, DC. Protective Engineering Group, Inc. of Chantilly, VA was the Fire Alarm design consultant. The construction contract was awarded to Communications Specialists, Inc. of Mechanicsville, VA (CSI) in January 2011. The new system will be commissioned by zones with final completion scheduled for May 2012. The total project budget is \$6,450,000.

Below: Network Control Annunciator (left) and Voice Command Panel (right)



University Hospital Heart Center Renovation / Level 2

This project has completely renovated all 21,600 square feet of the east end of the second floor into the new invasive wing of the Heart Center. This project consists of a new hybrid cath lab, four new electro physiology labs, support offices, supply rooms, and locker rooms. The five new procedure rooms are being added to the existing four rooms to give a total of nine procedure rooms available to the Heart Center. The corridor system within the Heart Center is also being renovated to meet semi-sterile standards and will be closed to the public.

One of the most complex components of this project was the construction of a floor in the two-story space above the emergency room public entrance. This was built while the emergency room entrance remained open, which required an elaborate temporary pedestrian tunnel to keep the entrance safe.

Construction is projected to be completed in October of 2011, with the administrative offices, F Lab, C Lab (the Hybrid Cath Lab), and the renovation of the existing corridors already complete. G Lab and H Lab will be finished by September of 2011, and I Lab completed by the end of October.

Construction of this project has been relatively complex, because the four existing procedure labs and temporary offices had to remain open while the new labs were being built.

Perkins Eastman of Charlotte, NC provided design services, and DPR Construction, Inc. of Falls Church, VA is the general contractor for the project. The total project cost is \$14,692,000.



University Hospital Helipad Rooftop Expansion

The Health System continues to expand. One of the projects programed for construction in the spring of 2012 is a chiller plant adjacent to the existing garage on the eastern edge of the Health System. This building will negatively impact the flight paths associated with the existing ground-based helipad. By raising the helipad to the roof of the Main Hospital, this potential conflict for construction of the East Chiller Plant and a proposed Emergency Department Expansion will be avoided. The new Helipad will function as the main landing pad for Helicopters arriving at the Hospital.

The project will include the extension of two hospital service elevators in the East Elevator Bank, walkways and safety nets to the pad location from the extended east elevator bank, as well as column upgrades to support the helipad loads. The Helipad will be a 46 foot square aluminum pad above the existing roof. The helipad system will be designed with provisions for snow melt systems, all required FAA lighting and wind indicators, and any required filtration to protect the penthouse air intakes for the hospital HVAC systems.

Smith Group Inc. of Washington, DC is completing the design, and Gilbane Building Company of Laurel, MD is the construction manager for the project. Construction will begin in fall of 2011. The project budget is \$6,700,000.



University Hospital In-Patient Psychiatric Bed Consolidation / Level 5

This project made finish upgrades and added new patient safety features, a laundry room, and two consult rooms, in order to meet the new Psychiatric Care standards. It also converted several offices into two new patient rooms in order to accommodate patients from the remote Psych clinic that was recently closed.

Design services are being provided by Perkins Eastman of New York, NY. Construction management services are being provided by Crenshaw Construction Inc. of Culpeper, VA. Construction started in April 2011 and was substantially completed by June 2011 in time for the closing of the remote clinic. The project was completed under the \$1,500,000 budget.



Casework Before



Casework After



Old Dangerous Faucets



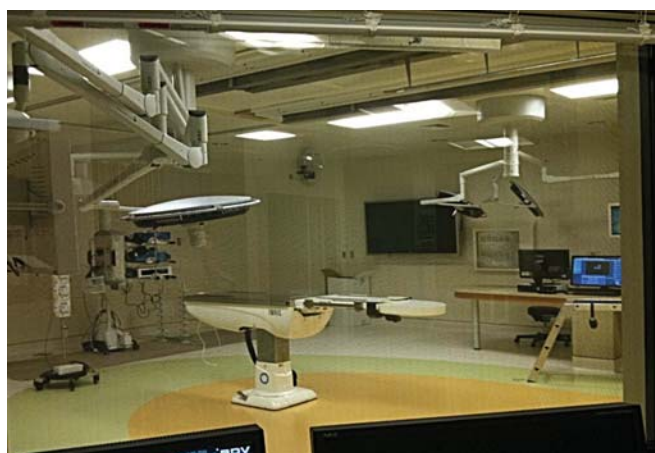
New Anti-ligature Faucet

University Hospital Intra-Operative MRI ORS (27 & 28) / Level 2

This project will add two new operating rooms with MRI capabilities to the second floor operating room complex. The operating rooms will increase the hospital's ability to meet its increasing surgical load, and also allow the hospital to offer advanced surgical procedures, incorporating surgery and MRI imaging in one procedure. The magnet will move between the two operating rooms and will provide the surgeon the ability to evaluate the results of the operation prior to completing the procedure, ensuring a more successful outcome. One of the two operating rooms will also have a bi-plane x-ray system, which will be used for treating difficult cardiac conditions, including rhythm disorders, heart failure, and coronary artery disease.

Construction was completed at the end of June 2011, equipment was installed during the month of July, staff training is scheduled for August, and the first procedures are projected for early in September.

HKS, Inc. of Richmond, VA provided the design services, and DPR Construction, Inc. of Falls Church, VA is the general contractor for the project. The total project cost is \$14,294,000.



University Hospital On-Call Suite Consolidation / Level 0

To provide replacement physician sleep rooms for those displaced by the Hospital Bed Expansion construction, a consolidated on-call suite was designed and built on the zero level of the hospital. This consolidation also allowed for additional sleep rooms to meet newer Graduate Medical Education (GME) guidelines.

The 10,000 square foot renovation consisted of constructing sixty-five private sleep rooms, a lounge break area, and a fitness area along with separate bathrooms and showers. The construction commenced in October, 2009 and Final Occupancy was early this year.

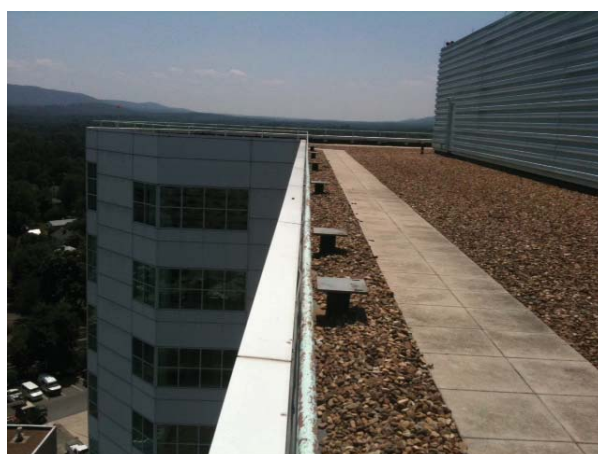
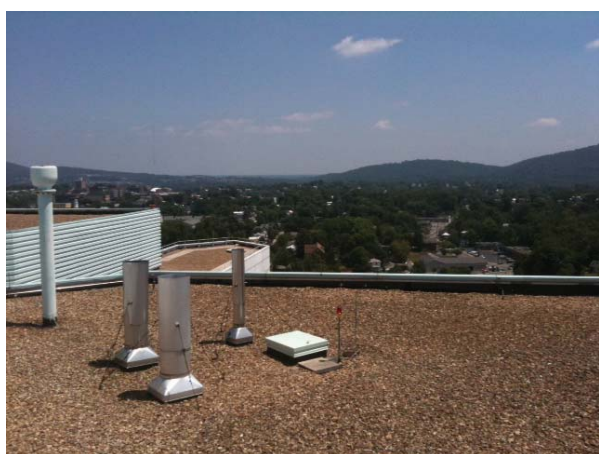
The architect was HKS, Inc of Richmond, Virginia and the general contractor was Barton Malow Company of Charlottesville, Virginia. The project cost was \$2,500,000.



University Hospital Roof Replacement Project

The University Hospital, which currently consists of a 608-bed academic medical center with a Level 1 Trauma Center, was completed in 1989. Due to the age of the existing roof and the maintenance costs to keep it repaired, a replacement roof is required. The replacement roof will consist of a thermoplastic polyolefin (TPO) roof that will be installed on all the upper roofs and some lower roofs and a green roof that will be on the lower roof only.

The TPO roof is being designed by Heyward Boyd Architects, PC of Charlottesville, VA and construction will start in the fall of 2011. The design of the green roof, which will consist of vegetation and a growing medium planted over a waterproofing membrane, will be installed on the lower roof above the hospital lobby and design will commence this year. Project budget is \$6,700,000.



University Hospital Surgical Pathology Renovation / Relocations / Simulation Center / ORs 29 & 30 / Level 2

This new state of the art 3,700 SF lab was substantially completed in November 2010. The new lab has provided a significant increase in the ability of the Medical Center staff to process the increased number of Pathology specimens created in the increased number of OR's. It was completed on time and under budget. The total cost for this phase was \$4,014,715.

Design services are being provided by HKS Inc. of Richmond, VA. Construction management at risk is being provided by DPR Inc. of Falls Church, VA.

The plan for the Simulation Center Renovation is to create two new general surgery operating rooms in anticipation of future increased demand for operating rooms. Each room will be approximately 600 square feet in area and will support the latest operating room procedures. Because the operating rooms are being built to meet future needs, they will be used as simulation operating rooms for doctor and staff training until they are needed as ORs. The estimated project cost is \$2,566,535 and it is currently on hold.



Engineering and Design:

Engineering and Design is composed of two work centers, the Design Group (CC 07) and the Project Management Group (CC 78). Engineering and Design was active in the design and/or execution of over 100 individual projects and other activities in support of University facilities throughout fiscal year 2010-2011 and executed approximately \$9,900,000 in project and technical support activities.

Project Management Group

<u>In Design</u>	<u>In Construction</u>	<u>Completed</u>
Alderman Road Dorms Concrete Inspections 2011	Carr's Hill Chilled Water Optimization Measures	Alderman Road Dorms Concrete Repairs
Albert H. Small 106 Fire Suppression Sprinkler System	Chemistry Exhaust Infrastructure Upgrades	Bayly Terrace Modifications
Aquatics and Fitness Center (AFC) HVAC System Upgrades	Clemons Library Elevator Modernization	Bice House Elevator Modernization
Dorm Waterproofing – McCormick Rd, Copeley, UGradens, Rown College	Darden Terrace Expansion Joint Corrections	Brooks Hall Fire Escape Repair
Fire Alarm Upgrades – Copeley, Lambeth, McCormick Rd Dorms	Gilmer Hall Addition Elevator Modernization	Campbell Hall CNC Router & Dust Collection System Installation
Hospital Expansion Level 2ME – IT Closet Backup Cooling	Ivy Stacks Retrofit	Carruthers Hall ITC Server Room Cooling
Law School Faculty Meeting Room Renovations	Lambeth Field Apartments – Interior Renovation Phase 4	Chemistry Addition Elevator Modernization
Lee Street Major Garage Repairs	Randall Hall Roof Replacement	Chemistry Building Condensate Drain System
Madison Hall Elevator Modernization	Withers Brown AHU Replacement	Clark Hall Acid Wash Rooms Remediation Study
McLeod Hall Major Garage Repairs		Connection Infrastructure for Temporary Emergency Generators at Four Intramural & Rec Sports Facilities
Millmont Conservator Labs Study		Fire Alarm Monitoring (Grounds-Wide)
Observatory Mountain Engineering and Research Facility (OMERF) – SEAS Plasma Arc Spray Facility		Gilmer Hall – Main Steam Service Equipment Upgrade
O-Hill Water Tank Inspections and Repairs		Gilmer Hall West Section Roof Replacement
Old West End Substation Upgrade		Gooch-Dillard Exterior Repairs Study
Olsson Hall Renovations		Lambeth Field Apartments – Interior Renovation Phase 3
Slaughter Hall Renovations		Lambeth Field Pedestrian Bridge Replacement
Special Collections Humidification Study		Massie Road Chilled Water System Optimization (Study)
Continued:		

<u>In Design</u>	<u>In Construction</u>	<u>Completed</u>
Student Activities Roof Replacement		McCormick Observatory Fire Alarm System
Thornton Hall C-Wing Fire Supp. Sprinkler Water Line Study		Millmont Conservator Labs – Study
		Sand Volleyball Courts
		Stacey Hall Fire Suppression & HVAC Upgrades

Design Group

<u>In Design</u>	<u>In Construction</u>	<u>Completed</u>
1224 JPA, Renovate Offices for PM/CAMs	Brooks Hall 103 Classroom Improvements	ABCRC Dock Improvements
Alderman Dorm Mailroom Relocation	EVP / COO Offices Suite Renovation	Alderman Library Loading Dock Roof
Chemistry Room 411 Renovations	Fitzhugh / Housing Mail Room	Campbell Hall / Fiske Kimball Library Roof Replacement
Clark Hall Roof Repairs	Gamma Knife Renovations	Clark Hall 107 HVAC Replacement
Culbreath Theater Renovations	Handrails, Old Cabell Hall Auditorium	Clinical Department Wing Roof Replacement
Darden Library Renovations	JAG Exterior Masonry Wall Replacement	Cocke Hall Door Operators
FM Shops Master Planning	JAG Lodging Rooms Fan Coil Replacement	Darden – CDC / Admissions Bathroom Renovations
Harmon, Grainger / Keller, & Kucenas Lab Renovations	JAG Lodging Rooms Renovation	Darden – Learning Team Rooms Renovation Phase II
JAG School Roof Replacement	Lawn / Range Bathroom Ren.	Halsey Hall Handrails
Lambeth Residences Roof Replacement	Randall Hall Reroofing	Hoxton – Lewis Gutter and Fascia Replacement
Minor Hall Partial Roof Replacement		JAG Office / Bathroom Remodeling, Rooms 112 & 112A
Olsson Hall Renovation for SIE		Lambeth Commons Interior Renovation
Physics Door Operators		Lambeth Commons Roof Replacement & Exterior Upgrade
Physics Rooms 204 Seating Replacement		Maury Hall Handrails
Ruffner Hall Renovations		Mechanical Engineering Prototyping Lab
Scott Stadium Replay Booth Enclosure		Replace Low Slope Roofs Sponsors Hall
University Bookstore Roof Replacement		Scott Stadium Coaches Box Upgrades
		Special Materials Handling Facility Roof Replacement
		UVA Police Station Roof Replacement

Engineering and Design Major Commissions

Bayly Terrace Modifications

The University of Virginia undertook a construction project to modify the historic landscape setting of the Thomas H. Bayly Memorial Building to increase visibility for the University Art Museum and provide a permanent location for public art installations. Built in 1935, the building and its landscape were designed by Architects Edmund Campbell and R.E. Lee Taylor. As part of this construction effort, the lower terrace was paved to serve as a base for installation of rotating art exhibits, LED light fixtures were installed to highlight the sculpture, and new plantings were installed. The first sculpture displayed is “Seated Woman” (1958-59) by artist Henry Moore. The sculpture is on loan to the University from the Henry Moore Foundation. The project budget was \$280,000 and completed in February 2011.



Carr's Hill Chilled Water System Optimization

Optimization of the Carr's Hill Chilled Water System was undertaken as the first phase of an Energy and Utilities Department initiative to evaluate and optimize its central chilled water systems across Grounds. The optimization measures being undertaken in the Carr's Hill CWS include the conversion of the system to variable primary pumping as well as the installation of a new MultiStack 300 ton flooded chiller in the central plant located in Campbell Hall.

Conversion of the Carr's Hill CWS to variable primary pumping will result in the primary CW pumps and the building pumps being bypassed. The existing variable speed secondary pumps will be used to circulate water through the system. This will result in significant efficiency improvements in pumping energy requirements.

The installation of the new 300 ton chiller will enable significant turndown of the system for low chilled water demand while maintaining unusually high efficiency in system electricity use. This will be accomplished through the use of an extremely efficient chiller technology utilizing staged multiple compressors with magnetic bearings (oil free). The installation of this 300T chiller will provide for much more efficient operation of the system for shoulder season cooling (non-peak summer months) and light winter cooling that is required in this precinct for the Bayly Museum.

WM Group of New York, NY is the engineer of record for both the initial system evaluation and the design of the optimization measures undertaken. Full operational status of the installed optimization measures is expected to be achieved in October of 2011.



Ivy Stacks Retrofit

The Ivy Stacks building, located at 2450 Old Ivy Road, was retrofitted this past year with a new high-bay mobile storage system that doubles the storage capacity for the Library. The new Xtend shelving system offered by Spacesaver Corporation stretches almost two-hundred feet in length and soars thirty feet in the air capitalizing on the existing footprint of the building.

Building infrastructure upgrades performed included a new Early Suppression Fire Response (ESFR) fire suppression system supported by a diesel engine fire pump, new lighting on occupancy sensors, a new fire alarm panel, and new supply ductwork.

Decanting the building started in the fall of 2010 and involved moving approximately 50,000 boxes to three off-site storage facilities. The library is currently reprocessing the materials, an effort that will take approximately six to twelve months to complete. Construction was procured through competitive negotiation and Martin Horn of Charlottesville, VA was the successful firm. The project budget is \$4,800,000 and will be completed in July 2011.

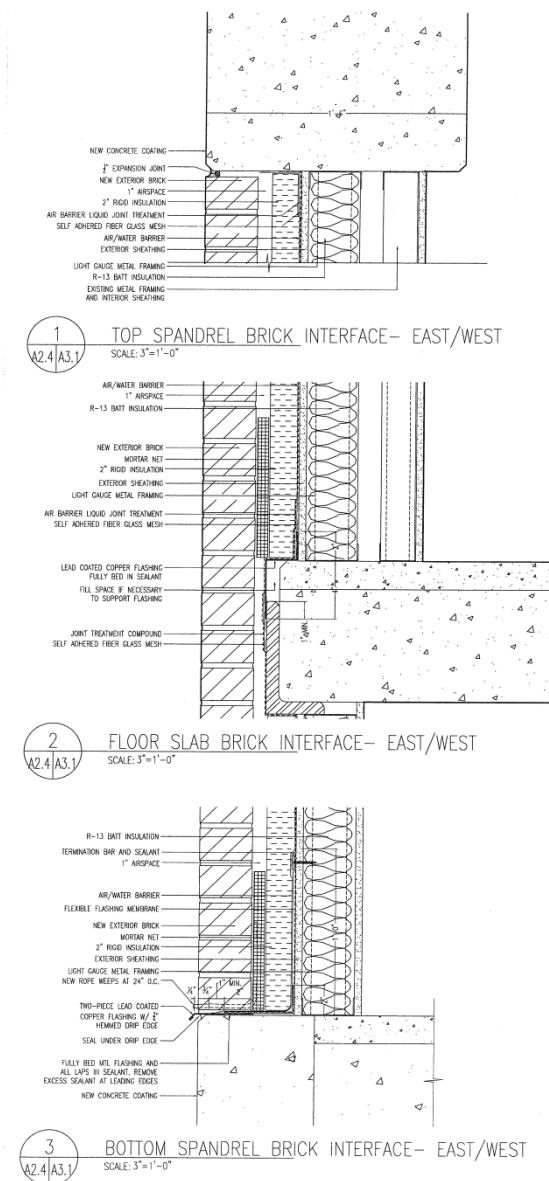


Photo by Dan Addison

Judge Advocate General's Legal Center & School, Building Envelope and Structural Repairs

This project consists of building envelope and structural repairs to the third and fourth floors of the Judge Advocate General's Legal Center and School. Remedial work is required to repair and replace deficient building elements discovered during demolition for interior renovation of the lodging rooms at this facility. The exterior brick veneer walls are being removed and replaced in their entirety, including framing, sheathing, insulation, flashing, and air/water barriers. Additionally, structural repairs are being affected on 40 concrete beams. The work as a whole will provide improved envelope performance, including thermal efficiency and weather resistance.

Whitlock Dalrymple Poston & Associates of Charlottesville, VA is the A/E for the project. Management of design and quality control is being performed by Facilities Management's Engineering & Design. Facilities Management's Project Services is responsible for construction and construction project management of the project. Total project budget for both projects combined is \$1,911,300. Project completion is scheduled for October 2011.



Lambeth Field Apartments & Commons

A number of projects in fiscal year 2011 address improvements and renovations at the Lambeth Field Apartments and the Lambeth Field Commons Building. The Lambeth Footbridge replacement was completed in January 2010, at a total project cost of \$168,000. Dewberry Davis was the A/E for the project; construction was procured and managed by Project Services.

Exterior renovations to Lambeth Commons were completed in November 2010. Scope of work included full system replacement of the low-slope roof, and replacement of asbestos-containing exterior wall panels with synthetic stucco panels. This project was designed and managed by the FP&C Design Group; the general contractor was R.E. Lee & Son, Inc; total project cost was \$164,000.

Interior renovations to Lambeth Commons were completed in 2010; scope of work was a complete interior renovation to all student activity spaces; approximately 6,000 square feet total. Renovations included a main common space, full restroom renovations, student offices, conference room, and mail room. This effort was managed and constructed by Project Services, with the FP&C Design Group as architect. Dewberry Davis was the consulting engineer for M/E/P work.

Construction began on the fourth phase of apartment renovations in summer 2011; with completion in August 2011. The architect is Heyward Boyd Architects, PC of Charlottesville, VA; the general contractor is Harrisonburg Construction of Harrisonburg, VA. The project budget for this phase of work is \$1,512,500.



Lambeth Footbridge



Lambeth Commons Exterior Renovations



Lambeth Apartment Renovations



Lambeth Commons Interior Renovations

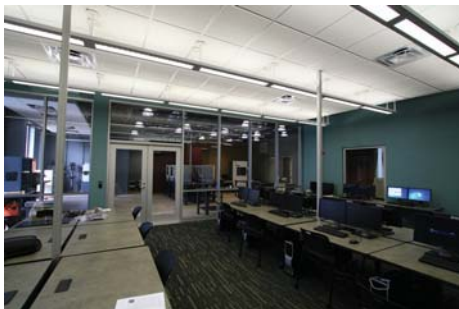
Mechanical Engineering Prototyping Lab

The Mechanical Engineering Department was given a grant by Rolls Royce to create a prototyping lab. These machines “print” working parts designed using 3D computer software. The new space showcases the process and the work that is created in the Lab. The lab has become a larger part of the engineering program for The School of Engineering and Applied Sciences (SEAS).

These renovations redefined three existing classrooms. The corridor wall was reconfigured to announce the space as something special. Windows were installed in the new corridor wall allowing a visitor to view the pieces being created by the machines. Glass storefront has been installed between the printing area and the computer area, allowing one to see the “printers” creating the parts as design work is being done on the computers. Adjacent to the computer area and within the same open space is a student lounge which encourages collaborative participation between students.

The construction work was executed by Facilities Management Project Services. The design of the new space is by the Facilities Management Design Group.

The project budget was \$596,974 and was completed in December of 2010.



Randall Hall Roof Replacement

The original slate roof on Randall Hall was installed in 1898-1899 and had reached the end of its service life. The roof replacement project encompassed removal of the existing slate, associated metal flashing materials, and the built-in gutter linings, along with inspection and repair of existing substrates.

The 112 year old roof was replaced with approximately 5,000 SF of unfading blue-black, Buckingham slate to match the original slate. Each slate was hand-rung before installation to ensure that no flaws existed. The new metal flashings and gutter liners were constructed of tern-coated stainless steel.

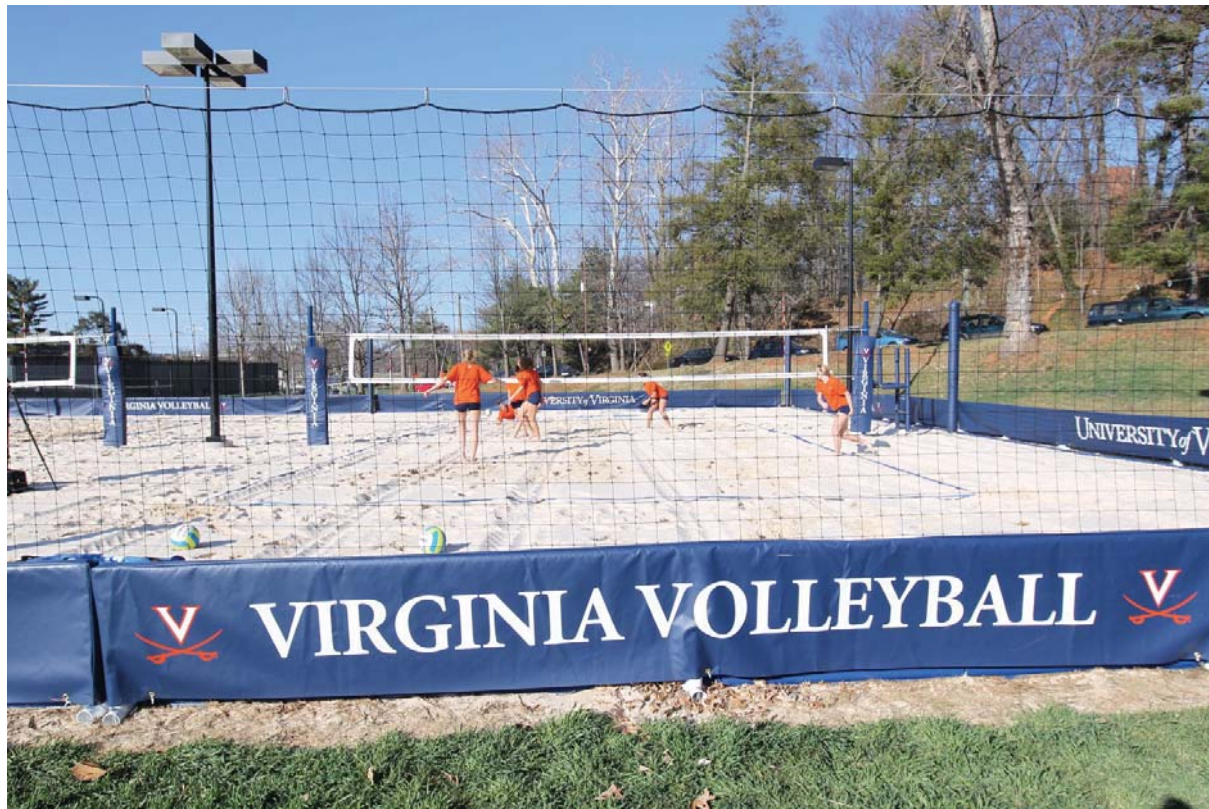
The project was designed by the Facilities Management Design Group and constructed by Baker Roofing of Harrisonburg, Virginia. Construction began in June 2011 and will be completed in July with a total project budget of \$370,000.



Sand Volleyball Courts

Two sand volleyball courts measuring 84'x100' were installed in the summer of 2010 on Nameless Field. The courts are oriented north to south adjacent to the existing Lady Astor Tennis Courts. New sidewalks were extended to provide access to the courts and lights were provided to facilitate night play. Court accessories including nets were provided by Athletics. The courts accommodate the volleyball team for conditioning and team practice as well as use by students and club sports.

The engineer of record was Dewberry Davis in Glen Allen, Virginia. Construction was managed by Facilities Management's Project Services and the project budget was \$250,000.



School of Law Faculty Meeting Room Renovation

Founded by Thomas Jefferson in 1819, the School of Law at the University of Virginia is world-renowned for its faculty of nationally acclaimed experts in their fields and outstanding teachers. Increased growth of Virginia Law faculty and the need to host frequent meetings and seminars prompted a renovation to the existing Faculty Meeting Room. The renovation focused on creating a new break room that adequately serves the faculty and staff, architectural enhancements including cherry wall paneling, a new ceiling system maximizing the volume of the space, a new storefront, and replacement windows.

The architect of record is Train & Partners Architects of Charlottesville, Virginia. Construction was managed by Martin Horn of Charlottesville, VA. The project budget is \$886,000 and will be completed in August 2011.



Scott Stadium Instant Replay Booth Enclosure

The University Athletics Department requested that an open-air press box used by ACC officials for reviewing instant replays be enclosed with a hard ceiling and glass walls to form a booth to protect electronic equipment and provide a measure of isolation for those officials.

The Facilities Management Design Group developed a design to meet those requirements. The enclosure encompassed a suspended structural frame to support the roof, as well as lighting, ventilation, fire suppression, and a virtual glass wall system.

Construction execution was coordinated by Facilities Management Project Services with primary fabrication, erection, and construction services provided by Industrial Fabricators of Fishersville, VA. Construction completion anticipated for August 2011. The project budget is \$50,000.



Support Divisions

Contract Administration:

The number of contracts processed was fairly stable as compared to the previous year. The Office of Contract Administration managed the procurement processes for and made awards on a total of 416 contracts in the 2010-2011 fiscal year (FY11) compared to 439 the previous year.

Professional services contracts (architectural, engineering, and consulting), and service orders on consulting term contracts, numbered 333 for a total of \$14,571,144, compared to 345 contracts the previous year totaling \$18,680,971. There were 83 change orders processed with an additive value of \$2,359,798 and a deductive value of \$20,000 for a net additive value of \$2,339,798.

The construction side of the office handled 83 procurements for a total of \$100,998,080 in a very favorable bid market, compared to 94 procurements the previous year totaling \$169,838,188. There were 414 associated construction change orders processed with a net value of \$34,032,207 compared to 342 change orders the previous year totaling \$24,074,538. Major change orders included in this total were the Medium Temperature Hot Water Upgrade Phase II valued at \$1,095,597, the Newcomb Hall Renovations valued at \$1,234,794, and Old Jordan Hall HVAC Replacement valued at \$3,894,420.

During the year the office issued a total of 12 requests for proposals (RFPs). The number of professional services RFPs executed was 6, and construction RFPs totaled 6. This compared to 23 RFPs the previous year.

We continue to team with Supplier Diversity to strategize and plan for increased diversity in Prime and Trade Contractor spending through recruitment of small, women, and minority-owned (SWaM) firms. In addition the following SWaM initiatives continued in FY11:

- 1) Contract Administration participated in Professional Services Education Series put on by Supplier Diversity to meet and assist SWaM firms.
- 2) An emphasis on SWaM participation in Facilities Management's procurements over the last few years, under the guidance of the recently departed Director of Supplier Diversity, has led to the accomplishment of the overall aspirational goal of 40% for SWaM spending for the University's 207 and 209 agencies. Special efforts are continuing to work with the women and minority firm component of SWaM to improve their representation in the overall total of spending.
- 3) Our Senior Contract Administrator for Health System Construction continues to take the lead in promoting SWaM participation in our procurements and he participated in the National Minority Supplier Development Council (NMSDC) seminar again this past year. He also participated in the Bluebook Network – GC Showcase in Roanoke in April 2011.
- 4) Members of the Office of Contract Administration staffed a booth at the excellently attended SWaM Fest VI in Short Pump in October 2010 and participated in various SWaM outreach meetings.

The University of Virginia Higher Education Capital Outlay Manual (HECOM) was updated to transfer Chapter 7 (Engineering & Technical Criteria) to the University Facility Design Guidelines. This and other updates and revisions of this 257 page manual involve many hours of editing by our Office to implement the steady flow of

suggestions for improvement. The electronic document is now fully linked with our web site content for ease of reference.

The Office continues to spearhead efforts to enhance, expand, and update the Contract Administration web site, the “Links and Forms” web page, and the “Desktop” computer resource as a service to and as professional tools for the FP&C Staff, and University Consultants and Contractors. The continuous improvement effort is contributing to enhanced Consultant and Contractor participation and pricing and increased FP&C efficiency and consistency. Significant updates, modifications, and additions have been made and we are continuing to incorporate process and document improvements as we work in conjunction with the Associate General Counsel and Special Assistant Attorney General for the University. Work is in progress to further define and refine the more commonly used and more complex construction procurement options. Specific web sections have been created for Professional Services, Construction Administration, and Contracting Options, and existing web pages and templates including the UVA HECO/CO/DGS Forms page continue to be updated. New forms and templates are created and posted as needs are identified.

As part of our ongoing effort to improve the capital project execution process, a Building Information Modeling (BIM) Committee was established within FP&C that has reviewed literature, interviewed A/Es and CMs that use aspects of BIM on UVA projects, and discussed best practices with representatives of other universities. An Integrated Project Delivery (IPD) Trade/Subcontractor Committee was also established to explore contracting options to allow Trade/Subcontractor design phase services that will meet the UVA Procurement Rules requirements for competitive pricing. The BIM & IPD Committee have made recommendations for implementation at UVA. Preliminary draft procedures and contract documents for use in procuring A/E and CM services to implement BIM as a design collaboration tool and for contracting with major Trade/Subcontractors early in the design process as part of a customized IPD methodology have been developed and additional documents are in development as the process is reviewed and refined. We plan to offer our A/E and CM firms the opportunity to review and comment on the documents later this year.

The Office consistently promotes and encourages professional involvement, certification, and training. Members of the Office, with the support of the Director of FP&C, attended the Virginia COAA semi-annual workshops and the annual meeting for the national organization. In addition the Office Director served as the COAA Virginia Chapter Treasurer again this past year and UVA hosted the March 2011 Virginia COAA workshop with 110 people registered representing facility owners from around Virginia. The workshop included sessions on Modular and Lean Construction, and a tour of the new Cancer Center. In addition, one of our Contract Administrators for Academic Construction earned his Graduate Certificate of Achievement in Procurement and Contracts Management in December 2010. Contract Administration staff also participated in and helped lead FP&C training sessions that were held for all staff and participated in numerous other training opportunities.

Administrative Division:

The mission of the Administrative Division of Facilities Planning and Construction comprised of the Support Staff, Resource Center, and Finance Services Office is to provide a variety of administrative, technical and financial support functions to personnel in the Facilities Planning and Construction operational divisions.

The Administrative Division & IT Manager continued to manage the Administrative Division staff, coordinate all FP&C Department Information Technology issues and serve as the department Webmaster, overseeing the FP&C Department website, the FP&C Desktop website and the FP&C SharePoint sites. The FP&C IT Associate continues to be an asset to the department, assisting with a multitude of routine IT related duties and responsibilities while focusing on both life-cycle computer system replacements and the development and deployment of Microsoft SharePoint 2010. The use of SharePoint continues to prove beneficial in facilitating collaboration and the exchange of information between FP&C staff and construction and professional services personnel on over twenty construction project team sites, as well as the use of Workflow features for the electronic routing of HECO and other forms. The IT Associate has developed numerous customized web pages utilizing various Web Parts to provide filtered content to users based on their Login, along with a redesign of the top banner to facilitate ease of use while minimizing clutter.

The Administrative/IT Manager and the IT Associate have had an IT Intern assigned through the Piedmont Virginia Community College (PVCC) degree completion program for most of this reporting period and he has proven to be a valuable asset to both the FP&C Department and Facilities Management. During a five month period when the Helpdesk Staff was reduced due to turnover he, along with the IT Manager and Associate, responded to routine computer Helpdesk calls, with the Intern answering Facilities Management wide calls in addition to FP&C. The IT Associate identified and initiated specifications to replace twenty-seven staff computers based on our life-cycle replacement policy, with many of these being notebooks to aid senior and project management staff to work more productively while away from the office. We continue to increase the use of smartphones and other mobile devices with the department now supporting 43 iPhones, 8 iPod Touches – three Android units and one Windows OS-based device. These smart mobile devices allow department staff to optimize their time away from the office by easily and quickly handling e-mail, accessing web applications and updating their calendars. The Administrative/IT Manager and his telecommuting wage IT assistant continued to maintain both of the standard websites, which included assisting the Construction Services & Contract Administration Director with his efforts to update and reorganize department web pages to better assist project managers, construction administration managers, project teams and other staff with user-friendly updated forms and document templates. Both the Administrative/IT Manager and the IT Associate completed the requisite training to receive the University's "LSP-Pro" certification, which was presented to them by the Vice President & Chief Human Resources Officer at the April 6, 2011 Spring LSP Conference in Alumni Hall.

The **Support Staff** continues to expand and leverage its use of the departmental SharePoint system. Utilizing SharePoint's workflow capabilities the Support Staff is routing key HECO forms for approvals resulting in quicker response times, increased document tracking and visibility. Additionally, the Support Staff was involved in designing a data entry form to simplify and automate the logging and automatic notification to UBO of new project reviews directly into the UBO SharePoint Site.

The **Resource Center** continued its mission to acquire, archive and distribute design and construction data in support of FP&C projects, FM staff and the University's planned growth. The collection grew by 500 new sets of drawings (containing a total of 4,853 sheets) and 307 new specifications and reports. We added 27.4 GB of new digitally archived operation and maintenance manuals, submittals, and shop drawings. More than 850 information requests were filled, supplying 64 GB of data (an increase of 14.5 %) through our FTP server.

We continue to work with IT staff to improve the search tools used to search our database by FM trades working in the field. Training sessions for FM staff in the use of these resources will begin sometime next year.

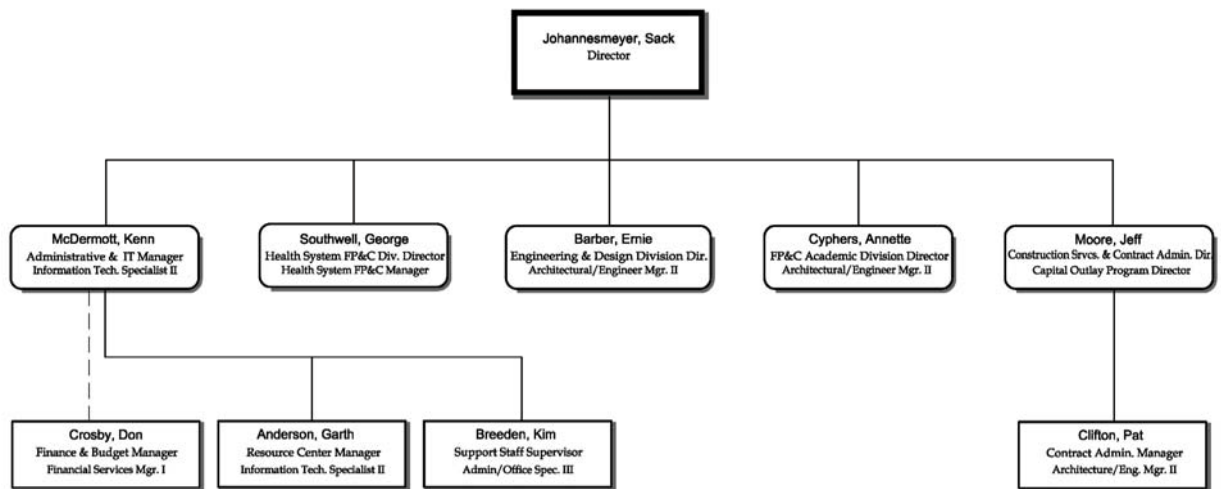
Resource Center staff have contributed to the revision of the Design Guidelines and HECO Manual. In both documents, we modified text to clearly require that delivery of all project documentation in digital format is required by firms under contract with the University. This serves to streamline the acquisition of all of our permanent documents, and also significantly reduces the number of printed copies of O&M manuals, shop drawings and submittals required.

With the assistance of the University Records Officer, we have developed a comprehensive and systematic management plan for both permanent and temporary construction records in both digital and paper formats. The plan begins with the organization of documents still in use and continues through their addition to the permanent collection or temporary storage and destruction. The Resource Center Staff has begun to work with Health System Team Leaders and individual Project Managers to promote the use of best management practices for organization and storage of digital and print files associated with project management.

The Office of Records Management has issued an RFP for climate controlled storage and automated destruction of all University records. In order to make use of this storage facility in the future, we must destroy all of our expired records in Fontana. We have worked toward this goal since 2009. In the past year we have reduced the contents of the storage unit by 480 linear feet of documents. Currently, all new FP&C boxes which are sent to Fontana are free of permanent records, marked with an ID number in the University Records Management Application (URMA) and assigned a destruction date in conformance with the laws of the State of Virginia.

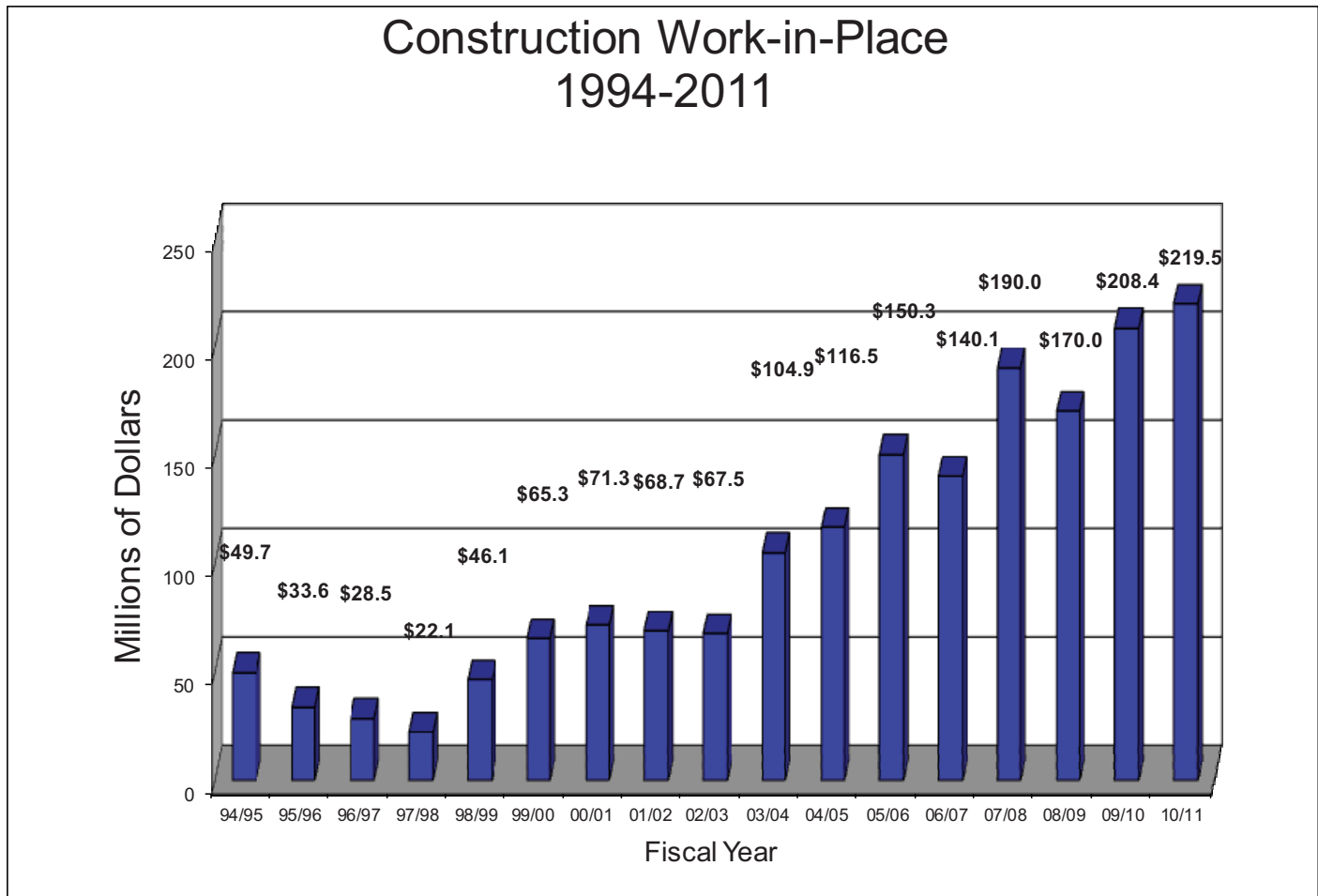
Three newly revised positions have been assigned, Ruta Vasiukevicius is now the Senior Facility Information Analyst; two new staff members have joined the Resource Center as Facility Information Analysts: Sarita Herman, a recent graduate of the University's Masters of Architectural History program and Joseph Gitz, a student of Structural Engineering through Old Dominion University.

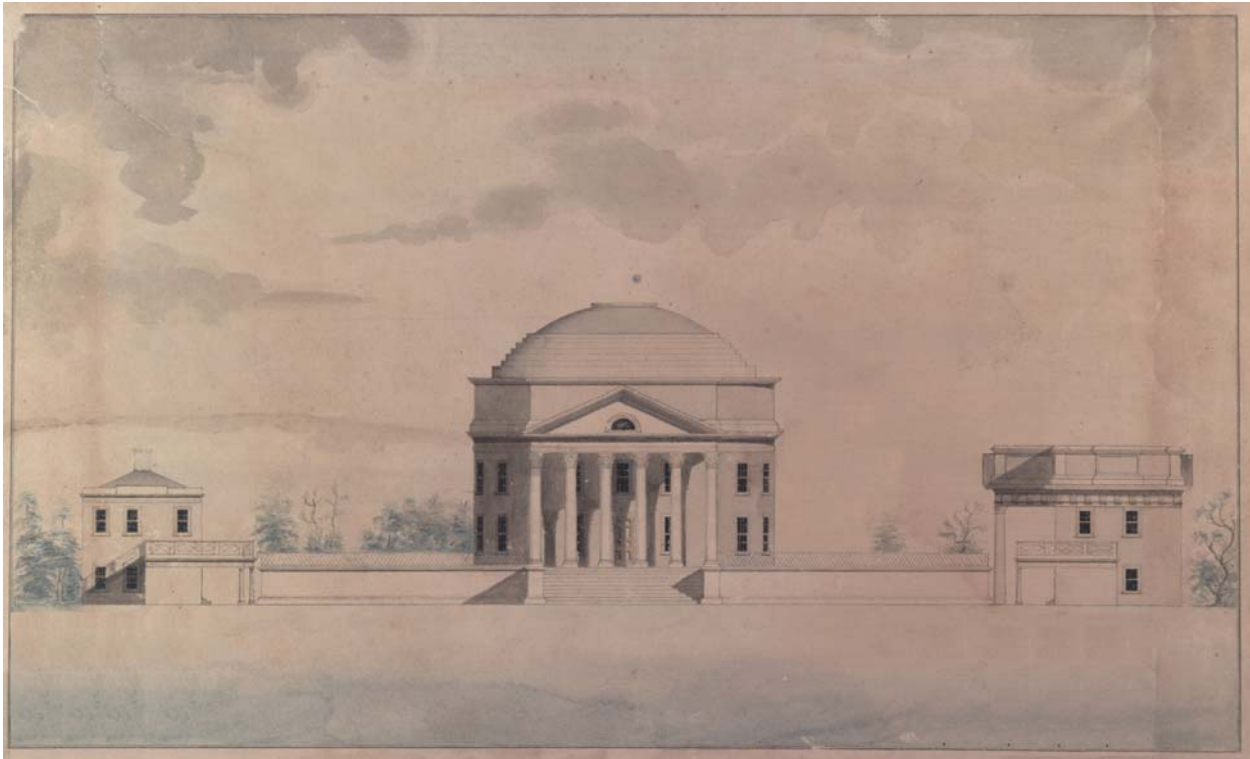
Facilities Planning and Construction
July 1, 2010- June 30, 2011



Appendix B

Facilities construction completed during the year represented a contract construction work in place volume of \$219.6 million.





Neilson's view of the Rotunda with Pavilions IX and X,
Special Collections, University of Virginia Library

We are about to establish a College near Charlottesville on the lands formerly Col. Monroe's, a mile above the town. we do not propose to erect a single grand building, but to form a square of perhaps 200 yards, and to arrange around that pavilions of about 24. by 36. f. [feet] one for every professorship & his school. they are to be of various forms, models of chaste architecture, as examples for the school of architecture to be formed on. we shall build one only in the latter end of this year, and go on with the others year after year,..."

Thomas Jefferson

Letter to John Dinsmore

April 13, 1817