UNIVERSITY OF VIRGINIA BOARD OF VISITORS

Meeting of the Buildings and Grounds Committee

March 5, 2021

BUILDINGS AND GROUNDS COMMITTEE

Friday, March 5, 2021 8:00 – 8:45 a.m. Electronic Meeting

Committee Members:	
Robert D. Hardie, Chair	Barbara J. Fried
Whittington W. Clement, Vice Chair	Louis S. Haddad
Robert M. Blue	C. Evans Poston Jr.
Mark T. Bowles	James V. Reyes
Elizabeth M. Cranwell	James B. Murray Jr., Ex-officio
Thomas A. DePasquale	Mazzen S. Shalaby, Student Member

AGENDA

I.	REM	MARKS BY THE CHAIR	1
II.	ACT	TION ITEMS	
	A.	Schematic Design Approvals (Ms. Raucher)	
		 UVA Hotel and Conference Center 	2
		2. Athletics Complex	6
	B.	Major Capital Project: Lambeth Field Apartments	10
		HVAC Improvements (Ms. Sheehy)	
III.	COM	IMITTEE DISCUSSION (Ms. Sheehy)	
	A.	Revisions to the 2020 Major Capital Plan	11
	B.	Report on the Major Capital Projects Cost Review/Assessment	16
IV.	WR	ITTEN REPORTS	
	A.	Sustainability Report	18
	B.	Proposed Revisions to the Major Capital Plan	20

BOARD MEETING: March 5, 2021

COMMITTEE: Buildings and Grounds

AGENDA ITEM: I. Remarks by the Chair

ACTION REQUIRED: None

BACKGROUND: The Committee Chair will provide introductory remarks.

BOARD MEETING: March 5, 2021

COMMITTEE: Buildings and Grounds

AGENDA ITEM: II.A.1. Schematic Design Approval: UVA Hotel and Conference

Center

PROJECT BUDGET: \$130.5M

BACKGROUND: A hotel with a state-of-the-art conference center geared towards University events and gatherings will be one of the key anchoring places along the Ivy Corridor. A mixed-use hospitality, convening, and social destination in this central location will provide a catalyst to achieve these strategic goals set by the President's Emmet Ivy Task Force:

- Create and ensure a welcoming, inviting, and inclusive place where local residents, visitors, and the University community interact.
- Gather a community around a shared commitment to creativity, discovery, curiosity, and service at the intersection of the arts and sciences, technology and practice, scholarship, and policy.
- Support the University's aspirations for existing democracy and global studies research initiatives affording new opportunities for exchange and influence.

The 223,000 GSF UVA Hotel and Conference Center will be sited along the southwest corner of the existing Emmet/Ivy parking garage and will define the northern edge of the Ivy Corridor. This hotel and conference center will be open to the public, but its proximity to planned academic and arts programs amplifies the potential impact of the hotel. Available to all units at the University, the 215-room hotel with more than 28,000 SF of conference center space will provide UVA with central and convenient accommodations for visiting scholars and lecturers, prospective faculty and students, returning alumni, career recruiters, fans of athletics teams, and attendees at special events, among many others. The adjacency to the existing parking structure will maximize the shared-use potential of the garage. The communal spaces will encourage visitors to learn more about the University and its programs.

<u>**DISCUSSION**</u>: At the September 2020 meeting, the Buildings and Grounds Committee reviewed the schematic design for the UVA Hotel and Conference Center that was developed by the design team, led by Deborah Berke Partners & Hanbury in collaboration with representatives of the Office of the Architect for the University, the University of Virginia Foundation, and Facilities Management.

ACTION REQUIRED: Approval by the Buildings and Grounds Committee

SCHEMATIC DESIGN FOR THE UVA HOTEL AND CONFERENCE CENTER

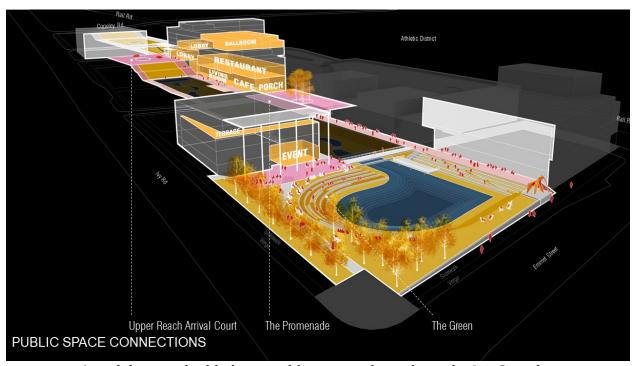
RESOLVED, the schematic design for the UVA Hotel and Conference Center, prepared by Deborah Berke Partners & Hanbury in collaboration with representatives of the Office of the Architect for the University, the University of Virginia Foundation, and Facilities Management, is approved for further development and construction.



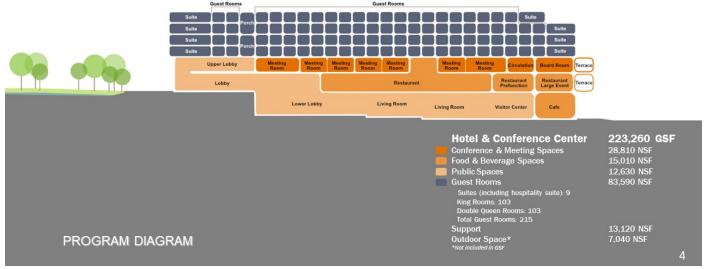
Site Plan



Aerial view of the UVA Hotel and Conference Center in context of the Ivy Corridor



Aerial diagram highlighting public spaces throughout the Ivy Corridor



Program Diagram for the UVA Hotel and Conference Center



Rendering of the main entry to the proposed UVA Hotel and Conference Center looking northwest across the stream corridor



Rendering of the pedestrian promenade along the UVA Hotel and Conference Center looking west

BOARD MEETING: March 5, 2021

COMMITTEE: Buildings and Grounds

AGENDA ITEM: II.A.2. Schematic Design Approval: Athletics Complex

PROJECT BUDGET: \$95M

BACKGROUND: The Athletics Complex will redefine how UVA educates student-athletes by improving the facilities and support provided for students to achieve academic excellence, develop the necessary skills to become citizen leaders for tomorrow, and train to compete for championships. The Athletics Complex project includes construction of a Football Operations Center and an Olympic Sports Center designed to provide support to all 750 student-athletes competing in 27 varsity sports; and the renovation of the McCue Center which currently serves as the home of Virginia Football and the primary office building for athletics administration and a majority of coaches.

The new state-of-the art facilities will be designed to reflect UVA's sports culture and values through a contextual design expression focusing on fostering collegiality and integrating academics and athletics. Given the proximity to Central Grounds, North Grounds, the Ivy Corridor, and various athletic event venues, the Athletics Complex provides a unique opportunity to bring student athletes, other UVA students, coaches, staff, faculty, and the broader community together. The new buildings will enhance the sense of accomplishment and pride in being part of the UVA community while emphasizing interdisciplinary collaboration between athletic and academic uses. The building program includes Football and Olympic Sports training and performance areas, locker rooms, sports medicine and hydrotherapy pool areas, work environments for staff, conference and meeting rooms, sports nutrition, and building support spaces comprising a total square footage of approximately 160,000 GSF.

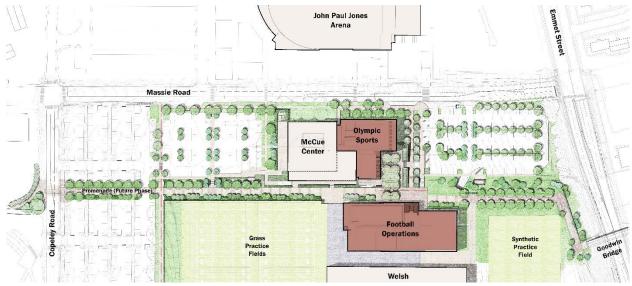
The project site sits along Massie Road, adjacent to the existing Dr. Frank C. McCue Center, the George Welsh Indoor Football Practice Facility, and the new football outdoor grass practice fields.

<u>DISCUSSION</u>: At the December 2020 meeting, the Buildings and Grounds Committee reviewed the schematic design for the Athletics Complex that was developed by the design team, led by ZGF Architects in collaboration with representatives of the Office of the Architect for the University, the Athletics Department, and Facilities Management.

ACTION REQUIRED: Approval by the Buildings and Grounds Committee

SCHEMATIC DESIGN FOR THE ATHLETICS COMPLEX

RESOLVED, the schematic design for the Athletics Complex, prepared by ZGF Architects in collaboration with representatives of the Office of the Architect for the University, the Athletics Department, and Facilities Management, is approved for further development and construction.



Site Plan



Aerial view of the Athletics Complex



Proposed east elevation



Proposed west elevation



Rendering of the main entry to Football Operations looking south



Rendering of Olympic Sports looking south towards entry to Football Operations

BOARD MEETING: March 5, 2021

COMMITTEE: Buildings and Grounds

AGENDA ITEM: II.B. Major Capital Project: Lambeth Field Apartments HVAC

Improvements

BACKGROUND: The Buildings and Grounds Committee determines whether a project should be added to the Major Capital Plan, and the Finance Committee evaluates whether there is a sound financing plan to pay for the estimated project cost and additional operating costs expected once a project is complete.

<u>DISCUSSION</u>: Lambeth Field Apartments, an upper-class housing facility, was built in the 1970s with package thermal air conditioning (PTAC) through-wall heating and cooling units as part of the original construction design. Over the years, the PTAC system has resulted in negative building pressure, causing significant and repeated humidity issues inside the units. The Lambeth Field Apartments HVAC Improvements project will address the negative pressure and humidity issues by installing a dedicated outside air system (DOAS) and replacing the outdated PTAC units with more energy-efficient units. To minimize disruption to students, the project will be phased over the summer of 2021 and summer 2022 and will begin in May 2021 as soon as residents move out at the conclusion of the spring semester. The estimated project budget is \$14.5M and will be funded via debt that will be repaid by endowment earnings.

ACTION REQUIRED: Approval by the Buildings and Grounds Committee and by the Board of Visitors

LAMBETH FIELD APARTMENTS HVAC IMPROVEMENTS

WHEREAS, the University recommends the approval of the Lambeth Field Apartments HVAC Improvements project;

RESOLVED, the Board of Visitors approves the Lambeth Field Apartments HVAC Improvements project at an estimated cost of \$14.5M.

BOARD MEETING: March 5, 2021

COMMITTEE: Buildings and Grounds

AGENDA ITEM: III.A. Revisions to the 2020 Major Capital Plan

ACTION REQUIRED: None

BACKGROUND: The revised multi-year major capital plan is presented annually to the Board of Visitors for review in March and approval in June. The Buildings and Grounds Committee determines whether a project should be added to the Major Capital Plan, and the Finance Committee evaluates whether there is a sound financing plan to pay for the estimated project cost and additional operating costs expected once a project is complete.

In June 2020, the Board of Visitors approved the 2020 Major Capital Plan for the Academic Division, UVA Health, and College at Wise. In accordance with the University's capital planning process, the University updates the Capital Plan annually to add new projects, remove projects that are no longer a priority, and evaluate/prioritize projects based on the following criteria:

- Aligns with institutional priorities/strategy and supports the University's longterm mission;
- Responds to a legal, compliance, or regulatory mandate;
- Addresses a life-safety risk;
- Addresses more than one school, unit, or function;
- Provides value and benefit and minimizes potential risk to the University and the community;
- Improves current conditions;
- Presents a viable funding plan for both construction and ongoing expenses;
- Is flexible to adapt to changing needs and/or can be repurposed for other University needs; and
- Has considered a plan for engaging and communicating with stakeholders.

The proposed revisions to the major capital plan have been reviewed with the Space Leadership Committee (SLC) and executive leadership to ensure alignment with institutional priorities and the 2030 Strategic Plan.

<u>**DISCUSSION**</u>: The proposed 2021 Major Capital Plan, as shown on the following pages, revises the plan approved by the Board in June 2020 to include current cost estimates, add new projects, and remove projects no longer planned within the next six years.

Two additional projects are proposed to be added to the 2021 Major Capital Plan:

- Tech Talent Investment Program Phase I
- Massie Road Utility Extension

Three projects previously approved by the Board of Visitors are proposed to be removed from the 2021 Major Capital Plan:

- Alderman Road Residence Hall Building 7
- Pinn Hall Nobel Laureate Gallery
- Eye Center

In addition, the University is engaged currently in, or will be initiating, several strategic planning and space needs studies that will inform future capital projects:

- Athletics/North Grounds Parking Garage
- Grounds Plan Update
- Tech Talent Investment Program (Phases II and III)
- Utility/Infrastructure Studies
 - o Chemistry Addition Chillers Replacement
 - o Massie Road Utility Plant Expansion
 - Strategic Thermal Energy
- UVA Health Clinical Lab Building
- University Hospital Building Envelope Replacement

Ms. Sheehy will report on the major capital plan development process and review proposed revisions to the Major Capital Plan. Write-ups describing the proposed additions to the Capital Program are included in the written reports.

UVA PROPOSED 2021 MAJOR CAPITAL PLAN

Project (\$ in millions)		Budget	State GF	Gifts	Debt	Cash
Academic Division						
Projects under construction						
Alderman Library Renewal	\$	152.50	\$ 132.50	\$ 20.00		
Gilmer Hall and Chemistry Building Renovation	\$	197.03	\$ 146.70		\$ 42.53	\$ 7.80
Inn at Darden	\$	135.00		\$ 30.00	\$ 91.50	\$ 13.50
Ivy Corridor Landscape & Infrastructure Phase I	\$	60.00			\$ 56.00	\$ 4.00
Low Temperature Hot Water Conversion	\$	35.00			\$ 35.00	
North Grounds Mechanical Plant & Infrastructure	\$	13.00				\$ 13.00
Pavilion VIII Renovation	\$	4.75		\$ 4.75		
Pinn Hall Building Envelope	\$	22.00				\$ 22.00
Student Health and Wellness Center	\$	100.00		\$ 70.00	\$ 30.00	
West Grounds Chilled Water Capacity	\$	8.00			\$ 8.00	
Projects in planning/design approved to complete constru	ction doci	ıments				
Gift-funded projects may proceed to construction only whe	n have (1)	100% enfor	ceable pledges and (2) 50% cash in hand	!	
Brandon Avenue Upper-Class Residence Hall	\$	114.00			\$ 96.00	\$ 18.00
Chemistry Building Fume Exhaust Renewal	\$	8.50				\$ 8.50
Contemplative Sciences Center	\$	60.00		\$ 45.00		\$ 15.00
McIntire Academic Facility	\$	101.00			\$ 101.00	
Physics Building Renewal	\$	58.20	\$ 58.20			
School of Data Science	\$	48.00		\$ 5.50	\$ 42.50	
Smith Hall Renovation (Darden)	\$	14.00		\$ 7.20	\$ 6.80	
UVA Hotel & Conference Center	\$	130.50			\$ 110.50	\$ 20.00
Projects in planning/design approved to complete schema	tic design	(reevaluate f	unding plan for feas	ibility of continuing	to construction docu	ıments)
Athletics Complex Phase II (S/D for Phases III & IV)	\$	6.00			\$ 6.00	
Athletics Complex Phase III (Football Building)	\$	47.00		\$ 47.00		
Athletics Complex Phase IV (Olympic Sports/McCue)	\$	42.00		\$ 42.00		
Proposed new projects						
Lambeth Field Apartments HVAC Improvements	\$	14.50			\$ 14.50	
Massie Road Utility Extension	\$	11.00			\$ 6.00	\$ 5.00
Tech Talent Investment Program Phase I	\$	3.00	\$ 3.00			

Project (\$ in millions)	Budg	et	State GF	Gifts		Debt	Cash
Academic Division continued							
Programming/planning studies (will inform future capital	projects)						
Athletics/North Grounds Parking Garage	\$	0.20					\$ 0.20
Chemistry Addition Chillers Replacement	\$	0.50					\$ 0.50
Grounds Plan Update	\$	0.35					\$ 0.35
Massie Road Utility Plant Expansion	\$	0.50					\$ 0.50
Strategic Thermal Energy	\$	0.75					\$ 0.75
Tech Talent Investment Program Phases II and III	\$	0.05					\$ 0.05
Defer/do not proceed without prior approval by executive le	eadership				•		
Center for the Arts (planning)	\$	16.00		\$ 16.00			
Fontaine Infrastructure & Parking Garage	\$	87.00			\$	87.00	
Interdisciplinary Research Buildings - 2030 Plan (planning)	\$	1.00					\$ 1.00
Batten School Academic Building	\$	60.00		\$ 60.00			
Environmental Health & Safety Facility	\$	28.00		\$ -	\$	28.00	
Old Cabell Hall Renewal	\$	60.00	\$ 45.00	\$ 15.00			
Pinn Hall Renovation Phase II	\$	38.00			\$	38.00	
UVA Museum (planning)	\$	3.00		\$ 3.00			
Center for Politics	\$	14.00		\$ 14.00			
Darden Academic Building	\$	85.00		\$ 85.00			
Fontaine Central Energy Plant & Utilities	\$	35.00			\$	35.00	
Student Activities Building	\$	17.00			\$	17.00	
***** ** 1.1							
UVA Health							
Projects under construction							
Ivy Mountain Musculoskeletal Center	\$	174.70			\$	17.70	\$ 157.00
University Hospital Expansion	\$	391.60			\$	376.04	\$ 15.56
Complete design and hold (do not proceed to construction)							
Cancer Center - MRI LINAC	\$	8.00					\$ 8.00
Proposed new studies (will inform future capital projects)							
UVA Health Clinic Lab Building	\$	0.53					\$ 0.53
UVA Hospital Façade Replacement	\$	1.35					\$ 1.35
Defer/do not proceed without prior approval by executive le	eadership						
Consumer Ambulatory Clinic (tenant fit-out)	\$	15.00					\$ 15.00
Focused Ultrasound Expansion	\$	16.50					\$ 16.50
Data Center	\$	23.00					\$ 23.00
Multi-Disciplinary Ambulatory Clinic Building	\$	155.00			\$	77.50	\$ 77.50

Project (\$ in millions)	F	Budget		State GF	Gifts		Debt	Cash
College at Wise								
Project in planning/design (proceed to construction when	n design con	nplete)						
Wyllie Library Renovation and Conversion	\$	13.55	\$	13.55				
Defer/do not proceed without prior approval by executiv	e leadership)						
Darden Hall Renovation	\$	24.70	\$	24.70				
Sandridge Science Center Lab Wing Renovation	\$	39.10	\$	39.10				
Athletic Building	\$	24.70			\$	24.70		
Bowers-Sturgill Hall Renovation	\$	5.90	\$	5.90				
Campus Welcome/Public Safety Facility	\$	5.60	\$	5.60				
Music Education Center	\$	45.20	\$	22.60	\$	22.60		
Technology Classroom Building	\$	44.40	\$	44.40				
Zehmer Hall Renovation	\$	23.10	\$	23.10				

BOARD MEETING: March 5, 2021

COMMITTEE: Buildings and Grounds

AGENDA ITEM: III.B. Report on the Major Capital Projects Cost

Review/Assessment

ACTION REQUIRED: None

Ms. Sheehy will update the Committee on the consultant selection, current status and anticipated timeline for the review/assessment of the cost of major capital projects.

WRITTEN REPORTS

Buildings and Grounds Committee University of Virginia

March 5, 2021

2030 UVA SUSTAINABILITY PLAN GOALS





















UVA SUSTAINABILITY HIGHLIGHTS: MARCH 2021

UVA Sustainability continues to expand interdisciplinary strategic partnerships that strengthen its interconnected steward, discover, engage approach, particularly in relation to climate action and equity. These partnerships extend across the University, the region, the commonwealth, and the nation.

Climate Justice Mapping

The UVA Equity Center and UVA Sustainability have partnered to identify specific climate justice and equity actions to advance the UVA 2020-2030 Sustainability Plan goal to "partner with our community to accelerate collaborative initiatives to advance sustainable, equitable, and healthy places for all," which aligns with the good neighbor program in the University's 2030 strategic plan.

The primary goal of the Climate Justice Mapping project is to build platforms for the collaborative identification, collection, and dissemination of information about the disproportionate harm of adverse environmental impacts on communities of color through a series of accessible, interactive climate justice maps and graphics. These tools will visually explore local connections between systemic racism, environmental justice, and the local disparate effects of climate change. This work will be used to raise awareness in equitable decision-making and to identify specific opportunities for equitable climate planning.

The Equity Center is working with Cultivate Charlottesville, the UVA Office of Sustainability, the Committee on Sustainability, and key players from the City and County to ensure equitable decision-making in climate action planning and associated efforts and center the voices of disproportionately impacted residents. Involving youth as key knowledge producers and disseminators will be a critical aspect of all phases of this work. Building on the early successes of the process underway in the Albemarle/Charlottesville region, the Equity Center is also working with the Environmental Resilience Institute to implement a parallel process with their partners on the Eastern Shore.

Sustainable Food Collaborative

The <u>UVA Sustainable Food Collaborative</u> bridges a diverse array of organizations within UVA and the surrounding community to further food sustainability, food justice, and food equity at the University and in Charlottesville. The Collaborative also participates in Virginia Farm to University initiatives, as universities in Virginia are seeking to increase the sustainability of their food supply chain and broaden their supply chain to Virginia's farmers with a specific interest in creating access for Virginia's Black and Brown farmers. In February, the Collaborative helped lead a Virginia Farm to University Equitable Pathways virtual meeting, which built upon prior annual gatherings held at Morven and monthly Farm to University workgroup meetings begun in Spring 2020. The goals are to "1) build understanding across silos about the challenges associated with expanding Virginia's university food supply chain to Virginia farmers; and 2) identify specific pathways for beginning the long-term process of achieving a more Virginia-based and diverse university supply chain that reflects equitable access for Virginia's Black and Brown farmers." (source: Virginia Farm to University Equitable Pathways webinar)



Climate Action Together

City, County, and UVA sustainability staff continue to coordinate on climate action outreach and planning efforts and are participating in a national Forest & Trees Carbon Accounting Training Cohort program. This structured technical assistance program is guiding the team through the process of assessing carbon emissions and removal through forestry and urban tree management based on the U.S. Community Protocol for GHG Emissions Inventories. This is the first such effort undertaken by City, County, and UVA staff, and participating collectively allows the members to compare data results regionally as well as individually. The training cohort is led by staff from Local Governments for Sustainability, with guest forestry experts from Woods Hole Research Center and World Resources Institute. At the conclusion of the cohort session, participating communities will gain an understanding of the impact of the Agriculture, Forestry, and Land Use (AFOLU) sector of their community-wide greenhouse gas emissions inventory.

Additionally, the County has completed an initial climate action plan, and the City is in the process of developing a plan. UVA staff have been actively involved via participation in City and County-led committees.

UVA + William & Mary Carbon Neutrality by 2030

In December 2019, the University of Virginia and William & Mary formed a partnership to advance each institution's goal of achieving carbon neutrality by 2030. Benefits of the partnership include accelerated climate action via the potential to replicate and amplify impacts beyond the two schools through shared resources and knowledge and specific project implementation.

A W&M+UVA Climate Action 2030 Committee consisting of staff, faculty, and students from each institution has been meeting regularly. The charge of the Committee is to identify commonalities and projects moving forward that benefit both universities' progress toward 2030 neutrality and connect area experts to explore and implement action. The Committee is focused on the operational aspects of the carbon neutrality goal with strong connections to engagement, curriculum, and research opportunities. Members have selected renewable energy, capital projects, and fleet management as initial areas for collaboration.

Ivy Plus-Listening Post Sustainability Collaborative

"This collaborative includes 27 sustainability offices across leading U.S. research institutions with a shared objective to convey strategically important collective impact data and best practices to executive leadership. This collaborative includes institutions that participate in the Ivy+ Sustainability Consortium and Listening Post, which is a peer-to-peer sharing group of executive business officers. The intent is to inform pressing institutional strategic decisions through collective timely reporting."

UVA is active in the Collaborative's working groups on Carbon Neutrality; Carbon Pricing; and Justice, Equity, Diversity, and Inclusion. In Fall 2020, the Collaborative produced a report for executive leadership, "Climate Action for Healthy Communities," in which UVA is included as a best practice case study. (source: Climate Action for Healthy Communities report)

www.sustainability.virginia.edu





University of Virginia

LAMBETH FIELD APARTMENTS HVAC IMPROVEMENTS

Executive Summary

Lambeth Field is an upper-class housing facility built in the 1970s with package thermal air conditioning (PTAC) through-wall heating and cooling units as part of the original construction design. Over the years, the PTAC system has resulted in negative building pressure, which causes significant and repeated humidity issues. The Lambeth Field Apartments HVAC Improvements project will address the negative pressure and humidity issues through installing a dedicated outside air system (DOAS) and more energy-efficient PTAC units. This project, phased over two summers, will reduce deferred maintenance and significantly improve the residential experience.

Project Background

The current system creates negative building pressure which increases the level of humidity in the apartments due to the infiltration of outside air. This has been an ongoing issue, resulting in resident complaints and decreased occupancy in this residential area. In the original design, every apartment has one bedroom with no PTAC unit. That bedroom is fed through a ground-level grate from an adjacent room with no way to force air into the room without a PTAC unit.

Based on the recommendations of a study completed by Burns and McDonnell Engineering in 2018, a noncapital PTAC replacement project was planned to begin in Summer 2020, but was postponed due to the financial impacts of the pandemic. The main building electrical panels were upgraded in summer 2020 in support of a future HVAC replacement project. Due to increased environmental issues in the complex and concerns expressed by residents in summer and fall 2020, Facilities Management and 2RW Engineering reevaluated the HVAC systems and concluded that a DOAS system with new PTACs in each apartment would address the negative building pressure and humidity issues.

Proposed Time Frames

Planning/Design: Spring 2021 Construction: May 2021 Expected Completion: Phase 1-August 2021 Phase 2-August 2022

Financial Information

Estimated Project Cost: \$13.5-\$14.5M

Funding Source: Debt (repaid by endowment income)





University of Virginia MASSIE ROAD UTILITY EXTENSION

Executive Summary

The Massie Road Utility Extension project will support the redevelopment of the Ivy Corridor and properties along Emmet Street by extending the utilities infrastructure from the Massie Road energy plant and the Alderman Road substation to Ivy Road, ensuring there is adequate capacity to support all potential future growth along Emmet Street and the Ivy Corridor site.

are also able to support a larger footprint at the Ivy Corridor redevelopment site. At full capacity, the larger infrastructure will be capable of serving over 2 million GSF of new space.

Project Background

UVA is built on a district energy model, which provides energy from efficient central plants and eliminates the need for multiple stand-alone boilers and chillers in buildings. This project will extend heating and cooling energy from the existing Massie Road Plant and electrical power from the existing Alderman Road substation to provide more capacity to serve redevelopment along Emmet Street and the Ivy Road Corridor. The scope includes approximately 2250 linear feet each of underground chilled and heating water supply and return pipe, a condensate recovery pipe, and approximately 500 linear feet of 13kV electrical duct bank.

Extending and expanding the utility infrastructure will provide additional capacity to serve planned and future redevelopment along Emmet Street between Massie Road and Ivy Road including the Athletics Precinct -- Football Operations Building and Olympic Sports Facility -- on the west side of Emmet Street, as well as the potential redevelopment of housing sites on the east side of Emmet Street. In addition to increasing infrastructure to support the sites on Emmet Street, the proposed project will ensure that upsized utilities

Proposed Time Frames

Planning/Design: Spring/Summer 2021

Construction: Summer 2021

Expected Completion: December 2022

Financial Information

Estimated Project Cost: \$11M

Funding Sources: Debt (\$6M) and Cash (\$5M)
Debt service and cash provided by the
Utility Infrastructure Account





University of Virginia

TECH TALENT INVESTMENT PROGRAM PHASE I

Executive Summary

Through the Virginia Tech Talent Investment Program (TTIP), the Commonwealth is providing \$33M in support to UVA over 20 years, with the aim of dramatically increasing degrees in Computer Science, Computer Engineering, and Computer Software Engineering programs. From a 2019 baseline of 239 graduates, UVA has committed to graduating 457 students per year in these fields by 2030, a 91% increase, without growing the overall undergraduate population across the University. Of the total allocation, \$8M is capital support that will be awarded across FY2021-22 and FY2022-23. In fall 2020, a programming study validated space needs, and recommended a phased approach to meeting these needs through renovation of existing space and new construction.

Project Background

UVA needs an estimated 30,390 assignable square feet of instructional, research, and faculty office space to fully meet the goals of the TTIP agreement with the Commonwealth. The programming study recommended a phased approach to align the availability of capital resources with increased enrollments, new faculty hires, and expanded faculty research programs. The effort will use a mix of space and scheduling optimization, renovation, and strategic new construction.

Phase I involves renovating old, inefficient areas of Thornton Hall to increase capacity. Building shape and available space in these areas preclude creating large instructional rooms, but offer a cost-efficient means of adding faculty office capacity quickly. Additional study/planning will continue at the conclusion of Phase I to develop recommendations for potential subsequent phases.

Proposed Time Frames

Phase I Planning/Design: September 2021

Phase I Construction: January 2022

Phase I Expected Completion: September 2022

Financial Information

Phase I Estimated Project Cost: \$3M

Phase I Funding Source: State General Funds





University of Virginia UNA HEALTH CLINICAL LAB BUILDING STUDY

With the growth in patient volume and advancements in the number and complexity of clinical lab testing protocols available to clinicians, existing UVA clinical lab facility assets have reached and exceeded their operating capacities and need replacing and/or expanding. UVA clinical labs are housed in various locations in the West Complex and the Core Lab Building on West Main Street. Constructed in 2005, the Core Lab Building was intended to be an interim location for clinical lab functions with remaining labs continuing to be housed in the West Complex. The Core Lab Building was also intended as a bridge to the long-term solution of co-locating all clinical labs in one location. The originally intended location was the current Cancer Center, but this plan was abandoned and the labs have remained in their interim locations.

Over the last decade, at least three program/planning studies have found that the current clinical lab platform is at or near maximum capacity in terms of throughput and turnaround time (TAT); the West Complex lacks the demanding infrastructure required to support new testing equipment; and HVAC capacity in the Core Lab Building exceeds designed loads. High demands on existing electrical and HVAC systems in the Core Lab Building are a result of evolving technology, increased efficiency, and enhanced throughput over the last several years. In response to the added mechanical loads, several tactical infrastructure upgrades have been made to try to meet increased demand including replacing chillers, expanding electrical capacity, and upgrading air handler and humidification systems. While beneficial, these upgrades have been just enough to keep the building functional. This study will develop recommendations for the future of UVA Health's clinical lab functions.





University of Virginia UNIVERSITY HOSPITAL BUILDING ENVELOPE REPLACEMENT STUDY

The University Hospital was designed and constructed in the late 1980s and houses many of the inpatient beds, procedural and operating room capacity, specialized diagnostic services, and a myriad of support functions. During the last ten years, the UVA Medical Center has made major investments in critical infrastructure systems supporting the UVA Hospital including emergency power; heating, cooling, and ventilation mechanical systems; fire alarms; and building automation systems. Many of these critical patient care functions require specialized enclosures to provide appropriate conditions including temperature, relative humidity and differential pressure. These enclosures require focused design consideration to ensure maintenance of these operating conditions and avoid negative effects in recent years, the UVA Hospital has experienced significant environmental issues with water, air, and insect infiltration into the patient care environment, and deterioration of the exterior metal panels that form the primary barrier to the outside environment.

The white exterior metal panel building system is not unique to UVA and was a popular building envelope system throughout the 1980s and 1990s. These systems are failing in varying degrees and have been replaced on numerous buildings throughout the country. A forensic study that investigated the condition of the building's exterior envelope and explored the source of water and air intrusion into the patient care environment concluded that cold air infiltration through the building façade and window perimeters was the primary factor. Interim sealing and remedial measures were subsequently employed with limited success, but water infiltration and condensation issues continue.

Effective and durable long-term wall repairs that can be performed from the outside with limited impact on operations include removing the metal panels, existing insulation, and interior vapor barrier; installing an air, water, and vapor barrier over the sheathing; and replacing the metal panel system. The proposed study will engage a consultant team to develop a phased plan to address the replacement of the major exterior envelope components of the University Hospital.