

**BOARD OF VISITORS BUILDINGS AND GROUNDS COMMITTEE
MINUTES**

March 22, 2021

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Monday, March 22, 2021, at 7:50 a.m. A quorum of the Buildings and Grounds Committee was present.

Buildings and Grounds Committee Members

Present:

Mr. Horacio Valeiras (Rector)
Ms. Tish Long (Vice Rector)
Mr. C.T. Hill (Committee Chair)
Ms. Sharon Brickhouse Martin
Ms. Shelly Butler Barlow
Mr. Mehul Sanghani

Absent:

Other Board Members Present:

Mr. Preston White

Constituent Representatives Present:

Dr. Eric Kaufman (Faculty Representative)
Ms. Camellia Pastore (Undergraduate Student Representative)
Ms. Sabrina Sturgeon (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Mr. Mac Babb, Mr. Eric Brooks, Mr. Bob Broyden, Ms. Caroline Buscaglia, Mr. David Chinn, Mr. Al Cooper, Mr. Ted Faulkner, Mr. Kevin Foust, Major General Randal Fullhart, Ms. Elaine Gall, Mr. Mark Gess, Dr. Alan Grant, Ms. Wendy Halsey, Mr. Patrick Hilt, Ms. Elizabeth Hooper, Ms. Mary-Ann Ibeziako, Mr. Travis Jessee, Dr. Frances Keene, Mr. Nathan King, Dr. Chris Kiwus, Ms. Jamie Lau, Mr. Ken Miller, Ms. Liza Morris, Dr. Saied Mostaghimi, Mr. Justin Noble, Mr. Paul O'Keefe, Mr. Charlie Phlegar, Dr. Dwayne Pinkney, Dr. John Randolph, Mr. Dwyn Taylor, Mr. Jon Clark Teglas

Open Session

- 1. Tour of the Creativity and Innovation District Living-Learning Community:** The Committee toured the Creativity and Innovation District Living-Learning Community construction site.
- 2. Welcome:** The Committee Chair provided welcoming remarks. The Committee Chair recognized and congratulated Elaine Gall, University Building Official, and

Kevin Foust, Associate Vice President for Safety and Security, on their upcoming retirements from the university.

3. **Consent Agenda:** The Committee approved and accepted the items listed on the Consent Agenda:
 - a. **Approval of the Minutes from the November 15, 2020 Meeting:** The Committee approved the minutes from the November 15, 2020 meeting.
 - * b. **Resolution on Appointment to the New River Valley Emergency Communications Regional Authority:** The Committee reviewed for approval an appointment to the New River Valley Emergency Communications Regional Authority. The Committee recommended the Resolution on Appointment to the New River Valley Emergency Communications Regional Authority to the full Board for approval.
 - c. **Acceptance of the Capital Project Status Report:** The Committee accepted the quarterly capital project status report.
4. **Update on Agricultural Facilities Planning and Construction:** The Committee received an update from Alan Grant, Dean of the College of Agriculture and Life Sciences, on agricultural facilities planning and construction. Dr. Grant was joined by Dr. Michael Schwarz, Director of the Virginia Seafood Agricultural Research and Extension Center, to discuss the impacts of the center and current improvement projects underway.
5. **Design Review for the New Upper Quad Residence Hall:** The Committee approved the design review for the New Upper Quad Residence Hall. Located in the Northeast and Upper Quad District on the corner of Stanger Street and Old Turner Street, the New Upper Quad Residence Hall (NUQRH) will serve to expand the housing capacity for the Virginia Tech Corps of Cadets with the addition of 301 beds.

The 67,876 gross square feet, five-story facility will accommodate a mix of residential rooms and support spaces on the ground floor. The second through fourth floors are residential, and the fifth will be comprised of attic space and mechanical equipment. This project will occupy the current site of Femoyer Hall, an existing facility that will be demolished as a part of this facility's construction. Adjacent to this project's eastern edge is the site of another capital project, the Corps Leadership and Military Science Building (CLMS), which is anticipated to begin construction in summer 2021. These two projects will be constructed concurrently and managed by a single construction manager at risk. The NUQRH is currently in working drawings with construction start and substantial completion to be coordinated with the adjacent CLMS schedule.

The \$40 million project includes debt service to be provided by Residential Programs revenue and includes the \$7 million supplement approved by the Board of Visitors in

November 2020. This project was first proposed as part of the 2018-2024 Capital Outlay Plan.

- 6. Future Agenda Items and Closing Remarks:** The Committee discussed possible topics for future meetings and other topics as needed.

There being no further business, the meeting adjourned at 10:18 a.m.

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The Buildings and Grounds Committee and Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met in Joint Open Session on Monday, March 22, 2021, at 10:45 a.m. A quorum was present.

Joint Committee Members

Present:

Mr. Horacio Valeiras (Rector)
Ms. Tish Long (Vice Rector)
Mr. Ed Baine
Mr. C.T. Hill
Ms. Sharon Brickhouse Martin
Ms. Shelly Butler Barlow
Ms. Anna James
Mr. Mehul Sanghani
Mr. Preston White

Absent:

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Mr. Mac Babb, Ms. Callan Bartel, Mr. Eric Brooks, Mr. Bob Broyden, Ms. Caroline Buscaglia, Mr. Al Cooper, Mr. David Crotts, Mr. John Cusimano, Mr. Kevin Foust, Ms. Elaine Gall, Mr. Mark Gess, Ms. Wendy Halsey, Ms. Kay Heidbreder, Mr. Tim Hodge, Ms. Elizabeth Hooper, Mr. Travis Hundley, Ms. Mary-Ann Ibeziako, Dr. Frances Keene, Ms. Sharon Kurek, Mr. Nathan King, Dr. Chris Kiwus, Ms. Jamie Lau, Mr. Jack Leff, Ms. Nancy Meacham, Mr. Ken Miller, Ms. Liza Morris, Mr. Justin Noble, Mr. Mark Owczarski, Dr. Dwayne Pinkney, Dr. John Randolph, Ms. Rachel Spector, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh

Also present was the following guest:

Mr. Henri Gendreau

Joint Open Session with the Finance and Resource Management Committee

- * **1. Approval of the 2022-2028 Capital Outlay Plan:** The Committees reviewed for approval the 2022-2028 Capital Outlay Plan. The university prepares an updated

Six-Year Capital Outlay Plan every two years as part of its normal planning and budgeting cycle. The Plan is a critical component of positioning the university for state support of major Educational and General projects and for advancing high priority projects that may be funded entirely with nongeneral fund resources. The next state capital outlay plan will be for 2022-2028 and will be established in the 2022 budget development process. Traditionally, the state requires each institution to submit a capital plan in June of the year before a new biennium begins. Based on that timetable, a plan from the university for 2022-2028 will be due to the state in June of 2021.

Preliminary work has been done to identify potential projects for inclusion in the 2022-2028 Capital Outlay Plan in anticipation of future guidance and instructions from the state. These projects are consistent with programmatic needs established for the planning period and with the strategic plan of the university, and they position the university with options to respond to guidance from the state.

Since the submission date for the new Plan may occur before the June 2021 Board of Visitors meeting, the university is requesting the review and approval of the list of potential projects for inclusion in the 2022-2028 Capital Outlay Plan. The university will provide an update to the status of the 2022-2028 Plan at a future Board of Visitors meeting.

The Committees recommended the 2022-2028 Capital Outlay Plan to the full Board for approval.

- 2. Financial Considerations of the Virginia Tech 2020 Climate Action Commitment:** The Committees received a presentation on the financial considerations of the Virginia Tech 2020 Climate Action Commitment. A highly collaborative cross-divisional team worked to identify the financial impacts to achieve each prescribed pathway of the updated commitment. The team analyzed the economic and financial impacts of each initiative in depth.

While detailed and comprehensive, the analysis was based on assumptions regarding technologies, costs, and policies for the future that are dynamic in nature. Current developments and future projections in energy markets and in state and federal energy policy indicate that future values of those assumptions may become more favorable for cost-effective implementation of the updated commitment. These evolving factors will be monitored and incorporated into five-year revisions in 2025 and 2030. In addition, the updated commitment requires an annual report of progress. That annual report will evaluate the assumptions and actual costs and/or savings of the commitment's implementation.

No specific funding decisions are to be made at this time. Funding requests will be incorporated into annual operating and/or capital budgeting processes. All financial needs compete for resources while considering tuition/fee constraints and university debt capacity.

- * 3. **Resolution to Approve the Virginia Tech 2020 Climate Action Commitment:** The Committees reviewed for approval a resolution on the Virginia Tech 2020 Climate Action Commitment. Approved initially in 2009 by the Board of Visitors and revised in 2013, the Virginia Tech Climate Action Commitment serves as the university's guiding framework around sustainability and energy efficiency in campus operations, facilities, curriculum, and research.

In late 2019, President Sands called for its renewal and revision to ensure the most stringent climate and sustainability standards are implemented as the university continues to grow and seeks to be a leader in environmental stewardship. The mission of the revised commitment is to achieve carbon neutrality by changing our physical infrastructure, collective and individual behaviors, and educational mission; to engage everyone in creating a culture of sustainability; and to achieve these objectives through just and equitable means.

A working group of faculty experts, governance representatives, students, operations professionals, and community members led this charge and crafted the revision. Through participation in working group and subcommittee meetings, brainstorming sessions, and community engagement events, students involved in the revision process had countless opportunities to gain practical sustainability experience. Senior Vice President and Chief Business Officer, Dwayne Pinkney, sponsored the initiative. The work group was chaired by John Randolph, professor emeritus of urban affairs and planning, and co-chaired by Todd Schenk, assistant professor of urban affairs and planning and member of the Commission on Faculty Affairs.

On an aggressive timeline, the revision moved through university governance during Fall Semester 2020, receiving approval from the Energy and Sustainability Committee, the Commission on University Support, and the University Council. It was endorsed by the Faculty and Staff Senates, the Student Government Association, and the Graduate Student Assembly. The Board received a preview of the updated Climate Action Commitment at its November 2020 meeting.

The Committees recommended the Virginia Tech 2020 Climate Action Commitment resolution to the full Board for approval.

There being no further business, the meeting adjourned at 11:30 a.m.

Tour

BUILDINGS AND GROUNDS COMMITTEE

March 22, 2021

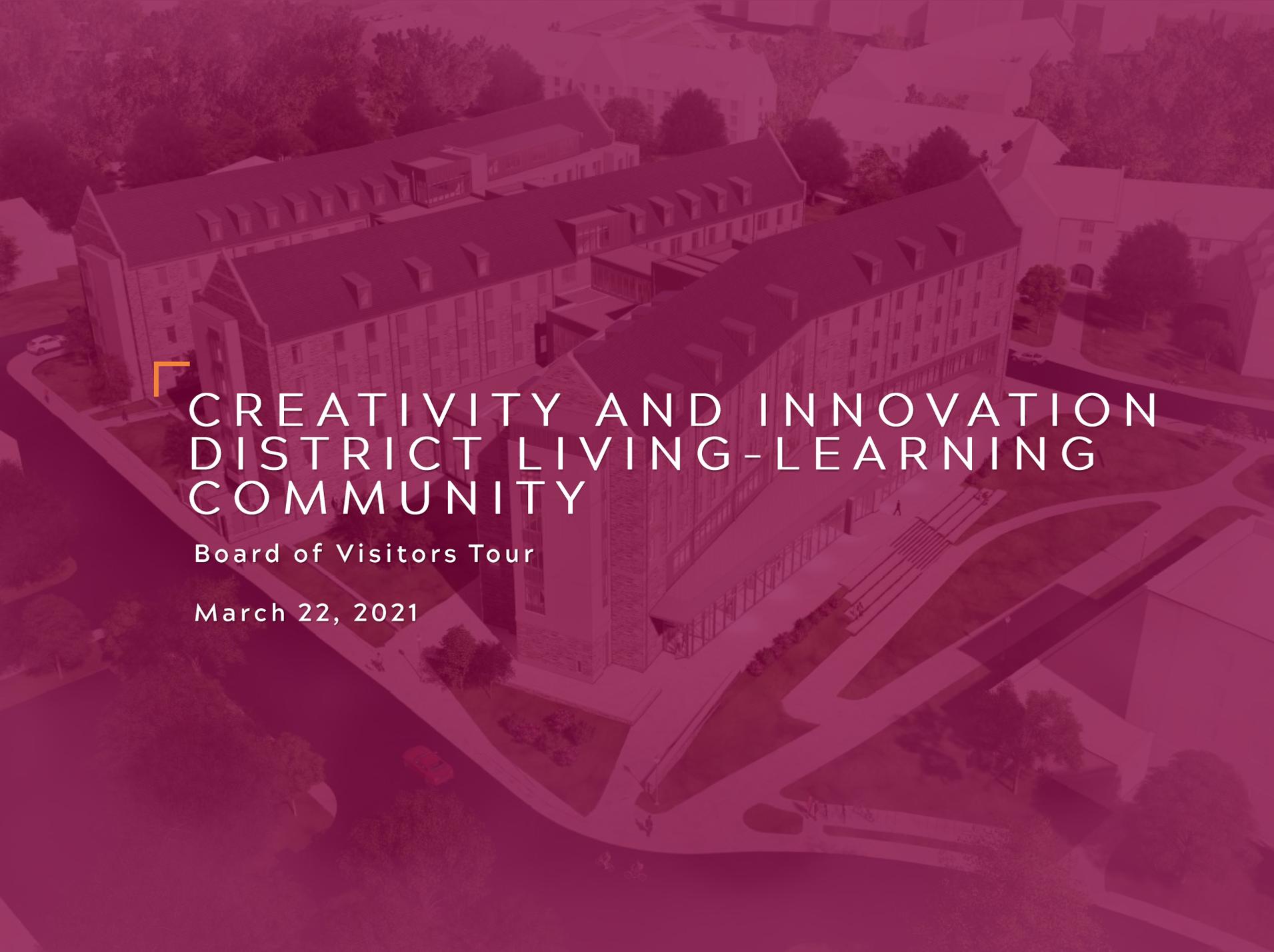
The Buildings and Grounds Committee will tour the Creativity and Innovation District Living-Learning Community construction site.

The Creativity and Innovation District Living-Learning Community is a new residence hall located on the eastern edge of the Blacksburg campus. At approximately 600 beds and 234,000 gross square feet of space, this project helps the institution develop the capacity to meet its enrollment growth goals. In addition, this facility serves an educational as well as a residential function.

Its space program promotes student interaction and transdisciplinary engagement. For project efficiency, the university selected a design-build delivery method. Construction began in spring 2019 with building occupancy targeted and on track for July 2021.

This \$105.5 million project was first proposed as part of the 2018-2024 Capital Outlay Plan. Funding is derived primarily from debt instruments supported by university resources (i.e., auxiliary revenues from the Division of Student Affairs and the Department of Athletics). General education – rather than residential – space in the facility will be occupied under a facility use agreement.

The Buildings and Grounds Committee approved the project's design preview on November 5, 2018 and the design review on June 3, 2019.



CREATIVITY AND INNOVATION
DISTRICT LIVING-LEARNING
COMMUNITY

Board of Visitors Tour

March 22, 2021



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Project Information

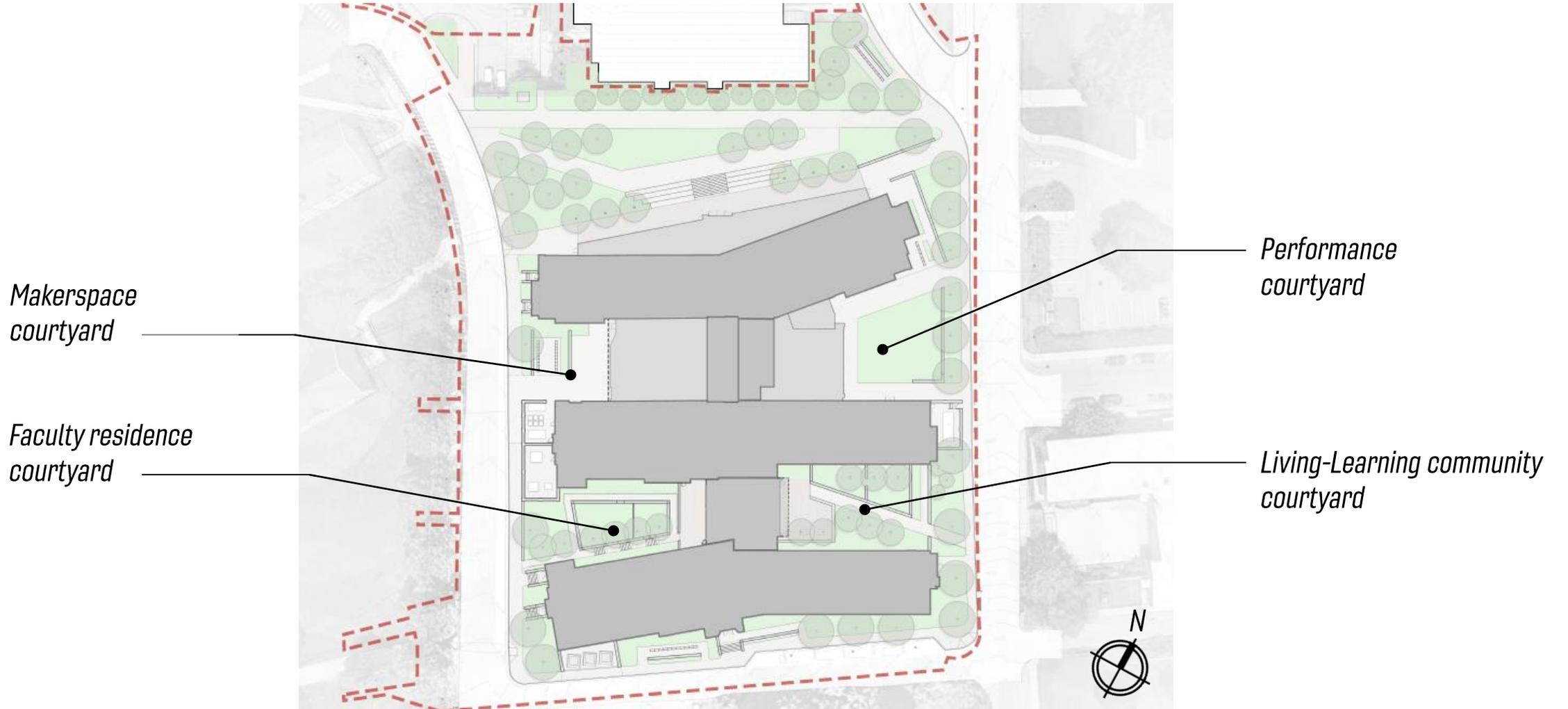


- New Construction: ~ 234,000 GSF
- Delivery Method: Design-Build
- Funding (Max. Authorization): \$105.5 Million
- Targeted Occupancy: July 2021

CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

Site Plan



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Floor Plans

First Floor

Second Floor

Performance space

Makerspace

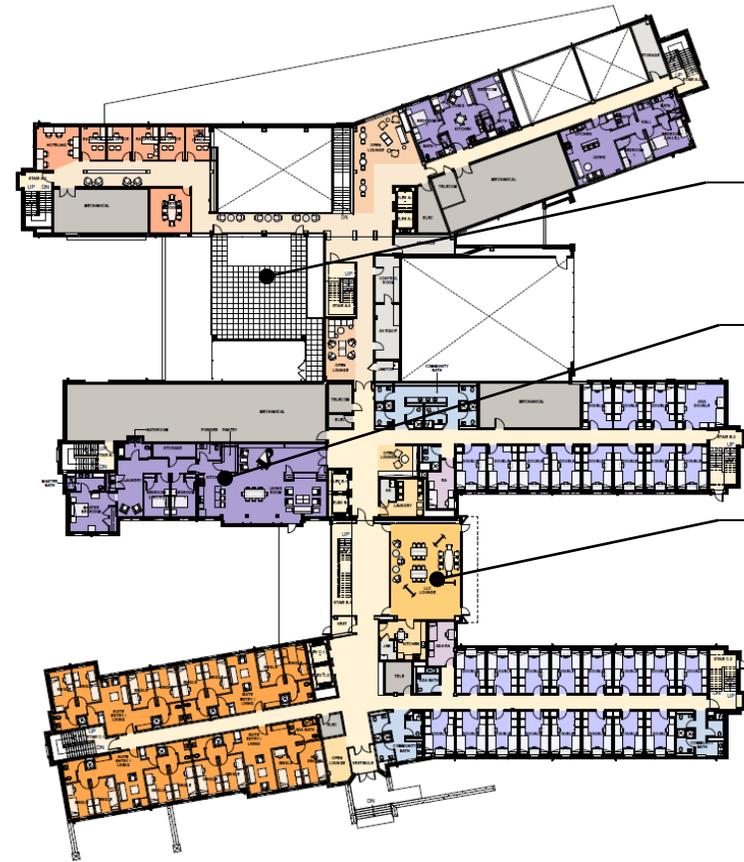
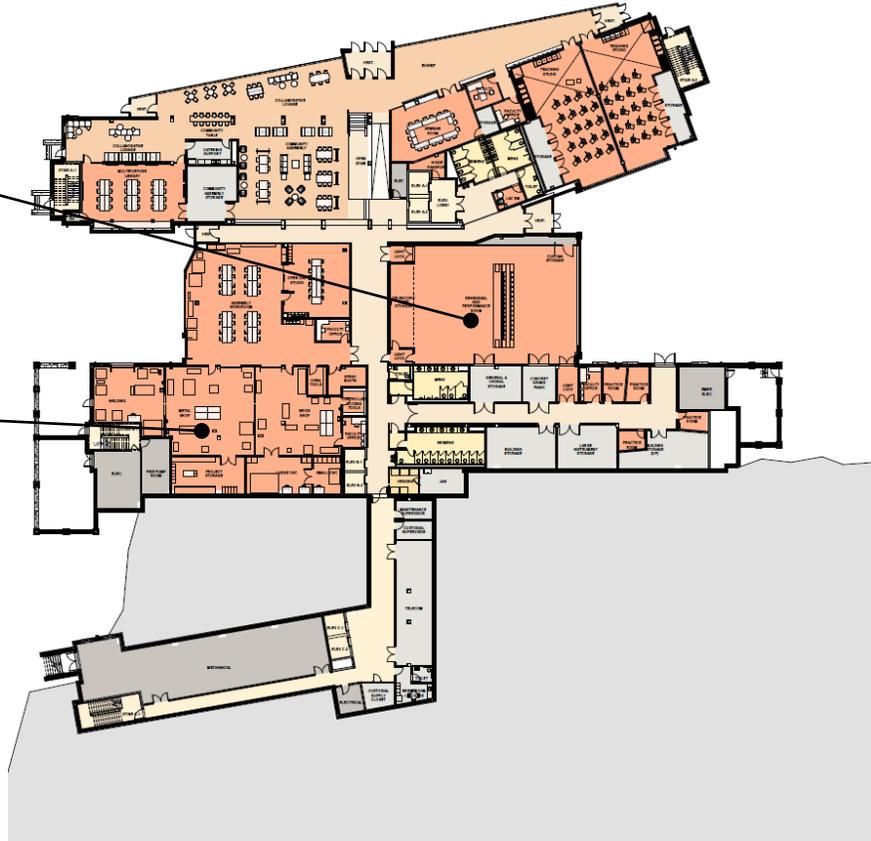
Outdoor classroom

Faculty apartment

LLC lounge

ROOM TYPE LEGEND

- LOUNGE
- STUDY
- MULTI-PURPOSE ROOM
- LAUNDRY / KITCHEN
- HOUSING - CIRCULATION
- HOUSING - DOUBLE
- BATHROOM
- HOUSING - RA
- HOUSING - SUITE
- STAFF APARTMENT
- PUBLIC - BATHROOM
- PUBLIC - CIRCULATION
- PUBLIC - COMMON SPACE
- PUBLIC - PROGRAM
- BUILDING SUPPORT
- SERVICE / STORAGE



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Floor Plans

Third Floor

Fourth Floor

Studio 72 (LLC) lounge

Group study space

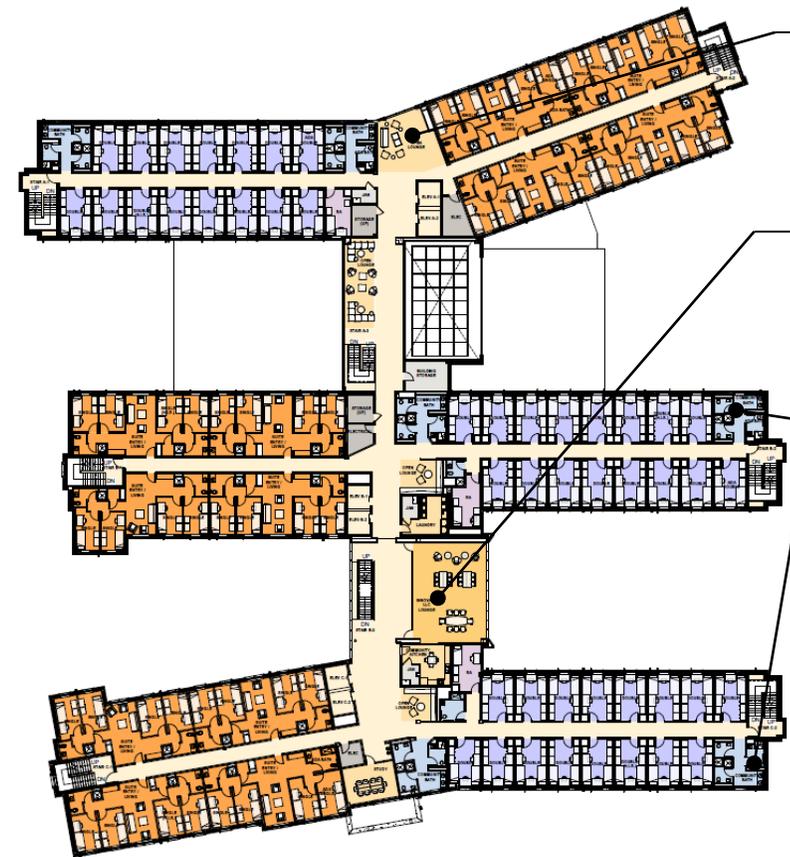
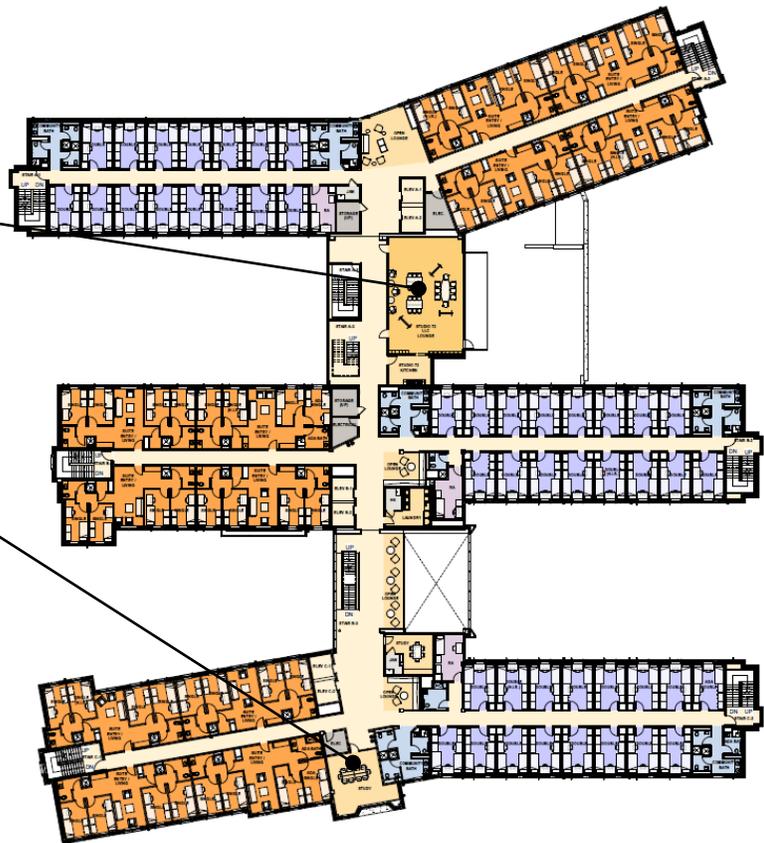
Group study space

Innovate (LLC) lounge

Wet core restrooms

ROOM TYPE LEGEND

- LOUNGE
- STUDY
- MULTI-PURPOSE ROOM
- LAUNDRY / KITCHEN
- HOUSING - CIRCULATION
- HOUSING - DOUBLE
- BATHROOM
- HOUSING - RA
- HOUSING - SUITE
- STAFF APARTMENT
- PUBLIC - BATHROOM
- PUBLIC - CIRCULATION
- PUBLIC - COMMON SPACE
- PUBLIC - PROGRAM
- BUILDING SUPPORT
- SERVICE / STORAGE



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Floor Plans

Fifth Floor

Sixth Floor

Four-bedroom suite

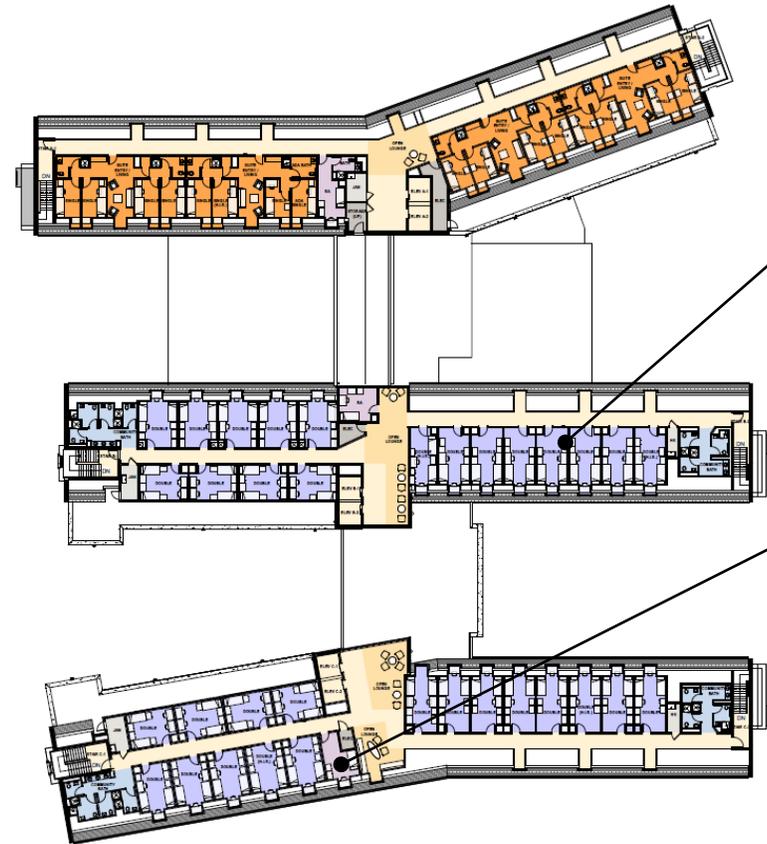
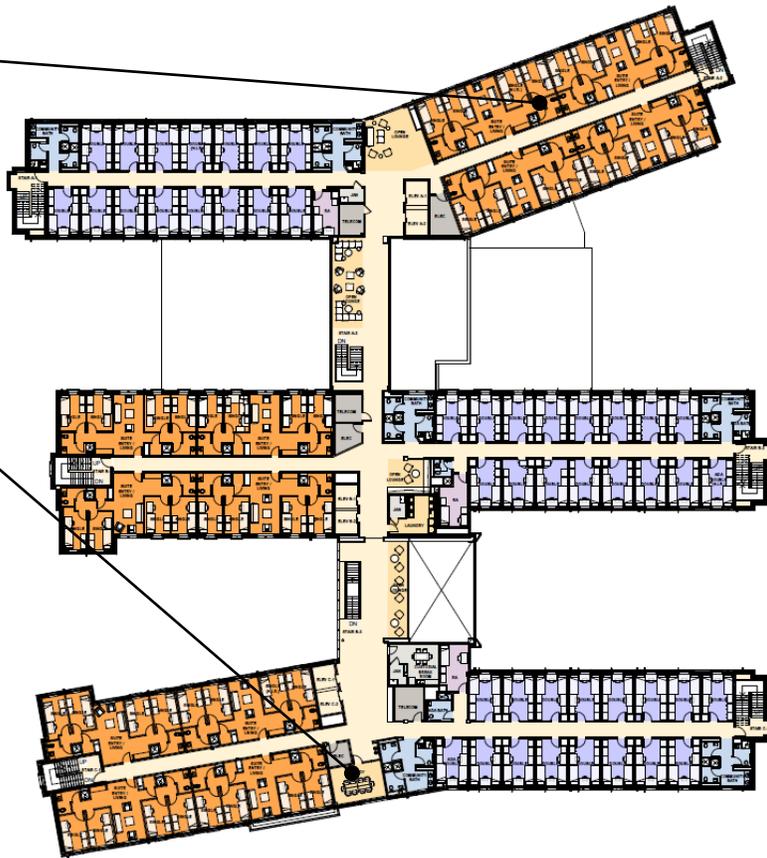
Group study space

Double-occupancy bedroom

Resident advisor housing

ROOM TYPE LEGEND

- LOUNGE
- STUDY
- MULTI-PURPOSE ROOM
- LAUNDRY / KITCHEN
- HOUSING - CIRCULATION
- HOUSING - DOUBLE
- BATHROOM
- HOUSING - RA
- HOUSING - SUITE
- STAFF APARTMENT
- PUBLIC - BATHROOM
- PUBLIC - CIRCULATION
- PUBLIC - COMMON SPACE
- PUBLIC - PROGRAM
- BUILDING SUPPORT
- SERVICE / STORAGE



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY Attachment D

View from Northwest

Gabled roof with dormers

Glass façade and canopy along promenade



Kent Street



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

Makerspace Courtyard

Heraldry opportunity

Makerspace

Graduate Life Center

Kent Street

Glazing system

Service area screening



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

Faculty Residence Courtyard

Punched windows

Accessible path

Glass connector w/ lounge space



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

View from Southwest



Precast banding

Synthetic slate

South entrance

Kent Street

Wall Street



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY Attachment D

View from Southeast



Street trees

*Vawter
Hall*

Wall Street

Otey Street

*Accessible
parking*

CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

LLC Courtyard

Heraldry opportunity

Heraldry opportunity

Precast & metal panel stair enclosure

LLC lounge



Otey Street



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

Performance Courtyard

LLC Lounge

Performance space

Teaching studios



Otey Street



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

View from Northeast



Glass façade and canopy along promenade

Primary entrance

Future CID green

Otey Street



CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Three-Quarter Aerial



Pedestrian promenade

CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY Attachment D

Interior Rendering (Common Space)



Natural light

View into learning spaces

Connector lounge

CREATIVITY AND INNOVATION DISTRICT LIVING-LEARNING COMMUNITY

Attachment D

Interior Rendering (Common Space)

Outdoor classroom

Glazing system



Living-Learning Communities



- Studio72 is open to all students regardless of major, academic year, gender identity, and artistic expertise.
- This community encourages creative approaches to problem solving, with an emphasis on collaborative art-making outside of the classroom.
- Students can participate in weekly critique session and semesterly arts showcase events, as well as hands-on making workshops with visiting artists, faculty, staff, and local artists.
- Whether it's performance art, visual art, digital art, or somewhere in between, Studio 72 is a community where curiosity, innovation, imagination, and creating art are a way of life.



- Innovate is a community open to students of all majors who are interested in becoming entrepreneurs, visionaries, and business leaders.
- Innovate assists students in developing new business ideas, taking steps from ideation to creation, or furthering current ventures through the many programs and opportunities offered.
- Even students who don't want to start their own business can benefit from the entrepreneurial mindset and skills learned through Innovate.



- Launched by the College of Architecture and Urban Studies and the Office of Student Affairs, Rhizome explores the roles art, design, construction, planning, and analytical interventions have in shaping the built and natural environment and bringing about change.
- Rhizome is a vibrant academic community designed to complement undergraduate education.
- Students enrolled in Rhizome will have the opportunity to engage in curricular and co-curricular activities to analyze the roots, interconnections, and multidimensional character of global challenges in a yearly rotating project that integrates theory and practice.

Welcome

BUILDINGS AND GROUNDS COMMITTEE

March 22, 2021

The Buildings and Grounds Committee Chair will open with welcoming remarks.

Consent Agenda

BUILDINGS AND GROUNDS COMMITTEE

March 22, 2021

The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

Consent Agenda

- a. Approval of the Minutes from the November 15, 2020 Meeting
- * b. Resolution on Appointment to the New River Valley Emergency Communications Regional Authority
- c. Acceptance of the Capital Project Status Report

*** Requires full Board approval.**

**BOARD OF VISITORS BUILDINGS AND GROUNDS COMMITTEE
MINUTES**

November 15, 2020

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Sunday, November 15, 2020, at 2:30 p.m. A quorum of the Buildings and Grounds Committee was present.

Buildings and Grounds Committee Members

Present:

Mr. Horacio Valeiras (Rector)
Mr. C.T. Hill
Ms. Sharon Brickhouse Martin
Ms. Shelly Butler Barlow
Mr. Mehul Sanghani

Absent:

Ms. Tish Long (Vice Rector)

Other Board Members Present:

Mr. Ed Baine
Ms. Carrie Chenery
Ms. Greta Harris
Ms. Anna James
Dr. Melissa Nelson
Mr. Chris Petersen
Mr. Jeff Veatch

Constituent Representatives Present:

Dr. Eric Kaufman (Faculty Representative)
Ms. Camellia Pastore (Undergraduate Student Representative)
Ms. Tamarah Smith (Staff Representative)
Ms. Sabrina Sturgeon (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Mr. Mac Babb, Mr. Eric Brooks, Mr. Bob Broyden, Dr. Cyril Clarke, Mr. Denny Cochrane, Mr. Al Cooper, Dr. Lance Collins, Dr. Kristy Daniels, Mr. Corey Earles, Ms. Kari Evans, Mr. Kevin Foust, Major General Randal Fullhart, Mr. Bryan Garey, Mr. Mark Gess, Dr. Alan Grant, Ms. Wendy Halsey, Ms. Kay Heidbreder, Ms. Elizabeth Hooper, Ms. Mary-Ann Ibeziako, Dr. Frances Keene, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Jamie Lau, Mr. Jack Leff, Mr. Ken Miller, Ms. Liza Morris, Dr. Saied Mostaghimi, Ms. Heidi Myers, Mr. Bob Muse, Mr. Justin Noble, Mr. Mark Owczarski, Dr. Dwayne Pinkney, Ms. Katie Polidoro, Dr. John Randolph, Dr. Emily Satterwhite, Dr. Todd Schenk, Mr. John Tarter, Dr. Don Taylor, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh, Dr. Robin White, Mr. Chris Yianilos

Also present were the following guests:
Mr. Henri Gendreau

Open Session

1. **Welcome:** The Committee Chair convened the meeting and provided welcoming remarks. Dr. Dwayne Pinkney introduced new Assistant Vice President for Facilities Operations, Wendy Halsey, and also detailed the launch of a new high-performance team to facilitate strategic, enterprise-wide long-range physical planning; advancement of the capital outlay program; space and land use; and real estate activities. Bob Broyden, Associate Vice President for Campus Planning and Capital Assets was introduced as the leader of this team. Bob Broyden will report dually to Chris Kiwus, Vice President for Campus Planning, Infrastructure, and Facilities and Ken Miller, Vice President for Finance.
2. **Consent Agenda:** The Committee approved and accepted the items listed on the Consent Agenda:
 - a. **Approval of the Minutes from the August 25, 2020 Meeting:** The Committee approved the minutes from the August 25, 2020 meeting.
 - b. **Acceptance of the Sustainability Annual Report:** The Committee accepted the sustainability annual report. Virginia Tech serves as a model community for a sustainable society and is committed to advancing sustainability in academics (curriculum & research), engagement, operations, planning, and administration. The university maintains a gold rating from the Association for Advancement of Sustainability in Higher Education (AASHE) using the Sustainability Tracking, Assessment, and Rating System (STARS).
 - c. **Acceptance of the Capital Project Status Report:** The Committee accepted the quarterly capital project status report.
3. **Virginia Tech 2020 Climate Action Commitment:** The Committee received a presentation on the Virginia Tech 2020 Climate Action Commitment. Approved initially in 2009 by the Board of Visitors and revised in 2013, the Virginia Tech Climate Action Commitment serves as the university's guiding framework around sustainability and energy efficiency in campus operations, facilities, curriculum, and research. In late 2019, President Sands called for its renewal and revision to ensure the most stringent climate and sustainability standards are implemented as the university continues to grow and seeks to be a leader in environmental stewardship. The mission of the revised commitment is to achieve carbon neutrality by changing our physical infrastructure, collective and individual behaviors, and educational mission; to engage everyone in creating a culture of sustainability; and to achieve these objectives through just and equitable means. A working group of faculty experts, governance representatives, students,

operations professionals, and community members led this charge and crafted the revision. Through participation in working group and subcommittee meetings, brainstorming sessions, and community engagement events, students involved in the revision process had countless opportunities to gain practical sustainability experience. Senior vice president and chief business officer, Dwayne Pinkney, sponsored the initiative. The work group was chaired by John Randolph, professor emeritus of urban affairs and planning, and co-chaired by Todd Schenk, assistant professor of urban affairs and planning and member of the Commission on Faculty Affairs. On an aggressive timeline, the revision moved through university governance this fall, receiving approval from the Energy and Sustainability Committee, Commission on University Support, and the University Council. It was endorsed by the Faculty and Staff Senates, the Student Government Association, and the Graduate Student Assembly. Dr. Pinkney's team is crafting a comprehensive financial model based on the pathways and outcomes prescribed by the commitment. It is anticipated that the Board will receive a resolution to approve the commitment at the March meeting.

4. **Update on Utilities and Energy Management Initiatives:** The Committee received a presentation regarding campus utilities and energy management initiatives from Assistant Vice President for Infrastructure, Mary-Ann Ibeziako. Mary-Ann highlighted the university's commitment to providing an effectively managed and operated infrastructure to support the institution's learning, discovery, and engagement missions. In support of this, the Division of Campus Planning, Infrastructure, and Facilities is responsible for the production, delivery, and management of safe, reliable, and efficient utility and energy systems, while effectively stewarding university resources and the environment. In support of the Virginia Tech Climate Action Commitment, the university also strives to become a leader in environmental excellence. As a strategic driver, the university has proactively established programming to champion tangible reduction in energy consumption on campus.
- * 5. **Resolution to Approve the Virginia Tech Crisis and Emergency Management Plan and Addendum:** The Committee reviewed for approval a resolution to adopt the university's Crisis and Emergency Plan and addendum in accordance with Code of Virginia. The Code requires that every four years a public institution of higher education conduct a comprehensive review and revision of its Crisis and Emergency Management Plan to ensure that it remains current, and the plan shall be adopted formally by the Board of Visitors. The plan has been reviewed by the Safety and Security Policy Committee and was promulgated by President Sands in June 2019. The Committee recommended the Resolution to Approve the Virginia Tech Crisis and Emergency Management Plan and Addendum to the full Board for approval.
6. **Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistic Act Report:** The Committee received the annual campus security and fire safety report for Virginia Tech that is compiled and published by the Virginia

Tech Police Department. This annual report is required by the Higher Education Opportunity Act and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crimes Statistics Act. The purpose of the report is to provide information about security on campus, to include: campus and community crime statistics, fire statistics and safety information, policy information, safety tips, resource phone numbers, and a brief overview of the many services the university provides. This item was presented by Mac Babb, Chief of Police and Director of Security.

- 7. Update on Agricultural Facilities Planning and Construction:** The Committee received an update from Alan Grant, Dean of the College of Agriculture and Life Sciences, on agricultural facilities planning and construction. Dr. Grant was joined by associate professors Robin White and Kristy Daniels to discuss the Metabolic Research Laboratory and its impact on their work.
- 8. Design Review for the Corps Leadership and Military Science Building:** The Committee approved the design review for the Corps Leadership and Military Science Building.
- 9. Future Agenda Items and Closing Remarks:** The Committee discussed potential topics for inclusion on future meeting agendas.

There being no further business, the meeting adjourned at 4:30 p.m.

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The Buildings and Grounds Committee and Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met in Joint Open Session on Sunday, November 15, 2020, at 4:30 p.m. A quorum was present.

Joint Committee Members

Present:

Mr. Horacio Valeiras (Rector)
Mr. Ed Baine
Mr. C.T. Hill
Ms. Sharon Brickhouse Martin
Ms. Shelly Butler Barlow
Ms. Anna James
Mr. Mehul Sanghani

Absent:

Ms. Tish Long (Vice Rector)
Mr. Preston White

Other Board Members Present:

Ms. Carrie Chenery
Ms. Greta Harris
Dr. Melissa Nelson
Mr. Chris Petersen

Mr. Jeff Veatch

Constituent Representatives Present:

Dr. Eric Kaufman (Faculty Representative)

Ms. Camellia Pastore (Undergraduate Student Representative)

Ms. Tamarah Smith (Staff Representative)

Ms. Sabrina Sturgeon (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Mr. Mac Babb, Mr. Eric Brooks, Mr. Bob Broyden, Dr. Cyril Clarke, Mr. Al Cooper, Mr. Corey Earles, Ms. Kari Evans, Mr. Kevin Foust, Major General Randal Fullhart, Mr. Bryan Garey, Mr. Mark Gess, Ms. Wendy Halsey, Ms. Kay Heidbreder, Ms. Mary-Ann Ibeziako, Dr. Frances Keene, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Jamie Lau, Mr. Ken Miller, Ms. Liza Morris, Ms. Heidi Myers, Mr. Bob Muse, Mr. Justin Noble, Mr. Mark Owczarski, Dr. Dwayne Pinkney, Mr. John Tarter, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh, Mr. Chris Yianilos

Joint Open Session with the Finance and Resource Management Committee

- * 1. **Approval of Resolution for a Capital Lease for the 3200 Commerce Street Property:** The Committees reviewed for approval a resolution for a capital lease for the 3200 Commerce Street property. The acquisition of 3.29 acres of property with 10,434 square feet of additional office and garage space at 3200 Commerce Street is an essential asset for growth by housing VTTI's technical support operations and facilitate vehicle repairs and modifications, streamlining access to research vehicles, and promoting the expedient staging of research props and fixtures. This space also provides a conditioned area for sponsors and researchers to interact with vehicle systems and is a critical staging area for modified vehicles and equipment that are not fully weather rated. The Virginia Tech Foundation (Foundation) acquired the property on behalf of the university for \$1.52 million on May 29, 2020. The funding plan calls for the university to enter a lease with the Foundation at a rate sufficient to retire the acquisition costs, normal operating costs, and property carrying costs. VTTI will fund the lease costs from its returned overhead revenues. The university and VTTI are ready to enter a lease with the Foundation and have developed an entirely nongeneral fund resource plan sufficient to cover the \$1.52 million property acquisition costs, future property carrying, and maintenance costs. The Committees recommended the Resolution for a Capital Lease for the 3200 Commerce Street Property to the full Board for approval.

- * 2. **Approval of Resolution to Supplement the New Upper Quad Residence Hall:** The Committees reviewed for approval a resolution to supplement the New Upper Quad Residence Hall project. The Board of Visitors approved the New Upper Quad Residence Hall project at its June 3, 2019 meeting. This approved project will be located on the corner of Stanger Street and Old Turner Street adjacent to the New Corps Leadership and Military Sciences Building. The project includes a program of

300 beds to support the enrollment growth plans for the Corps of Cadets to reach 1,400 students. The original project authorization includes a \$33 million budget which is based on a university residential cost model of \$110,000 per bed. The project scope includes razing Femoyer Hall and the design, construction, and furnishings for the new residential facility. Subcontractor pricing at the completion of preliminary designs show the costs for the project are \$133,000 per bed, or \$40 million. The primary drivers that push the cost over \$110,000 per bed are associated with the site, a necessary feature for the Corps of Cadets, including the complexity and extensiveness of utility relocations, volume of contaminated soils remediation and hazardous materials handling for the demolition of Femoyer Hall, extensive grade changes to address ADA compliance, and market pricing. The costs above reflect the acceptance of value engineering alternatives. This request is for authorization to move forward with a \$7 million supplement to adjust the total project authorization for the New Upper Quad Residence Hall project to \$40 million and to complete the project. The Committees recommended the Resolution to Supplement the New Upper Quad Residence Hall to the full Board for approval.

There being no further business, the joint meeting adjourned at 4:43 p.m.

* * * * *

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Sunday, November 15, 2020, at 4:45 p.m. for a tour of the university's Power Plant. A quorum of the Buildings and Grounds Committee was present.

Buildings and Grounds Committee Members

Present:

Mr. Horacio Valeiras (Rector)
Mr. C.T. Hill
Ms. Shelly Butler Barlow
Mr. Mehul Sanghani

Absent:

Ms. Tish Long (Vice Rector)

Other Board Members Present:

Mr. Ed Baine
Mr. Chris Petersen

Constituent Representatives Present:

Dr. Eric Kaufman (Faculty Representative)
Ms. Camellia Pastore (Undergraduate Student Representative)
Ms. Tamarah Smith (Staff Representative)
Ms. Sabrina Sturgeon (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

Ms. Kim O'Rourke (Secretary to the Board), Mr. Ted Acord, Mr. Billy Dudding, Mr. Bryan Garey, Mr. Mark Hayes, Ms. Mary-Ann Ibeziako, Dr. Chris Kiwus, Mr. Todd Robertson, Mr. John Tarter, Mr. Dwyn Taylor, Mr. Jon Clark Teglas

Open Session

1. **Tour:** The Committee toured the university's Power Plant. The plant plays an integral role in the university's infrastructure and provides campus buildings with a portion of their heat, hot water, and electricity needs.

There being no further business, the meeting adjourned at 5:49 p.m.

* * * * *

* Requires full Board approval.



CAPITAL PROJECTS STATUS REPORT

Prepared for the Buildings and Grounds Committee

March 22, 2021



Project Portfolio

- 20+ projects (active and completed/1-year warranty phase)
- Total value exceeds \$1B
- Adds 2M gross square feet (GSF) of additional space
- Renovates nearly 300K GSF of existing space



Capital Construction Executive Summary (Progressive)

Date Prepared: 25 FEB 2021

Legend:	 Design	 Construction
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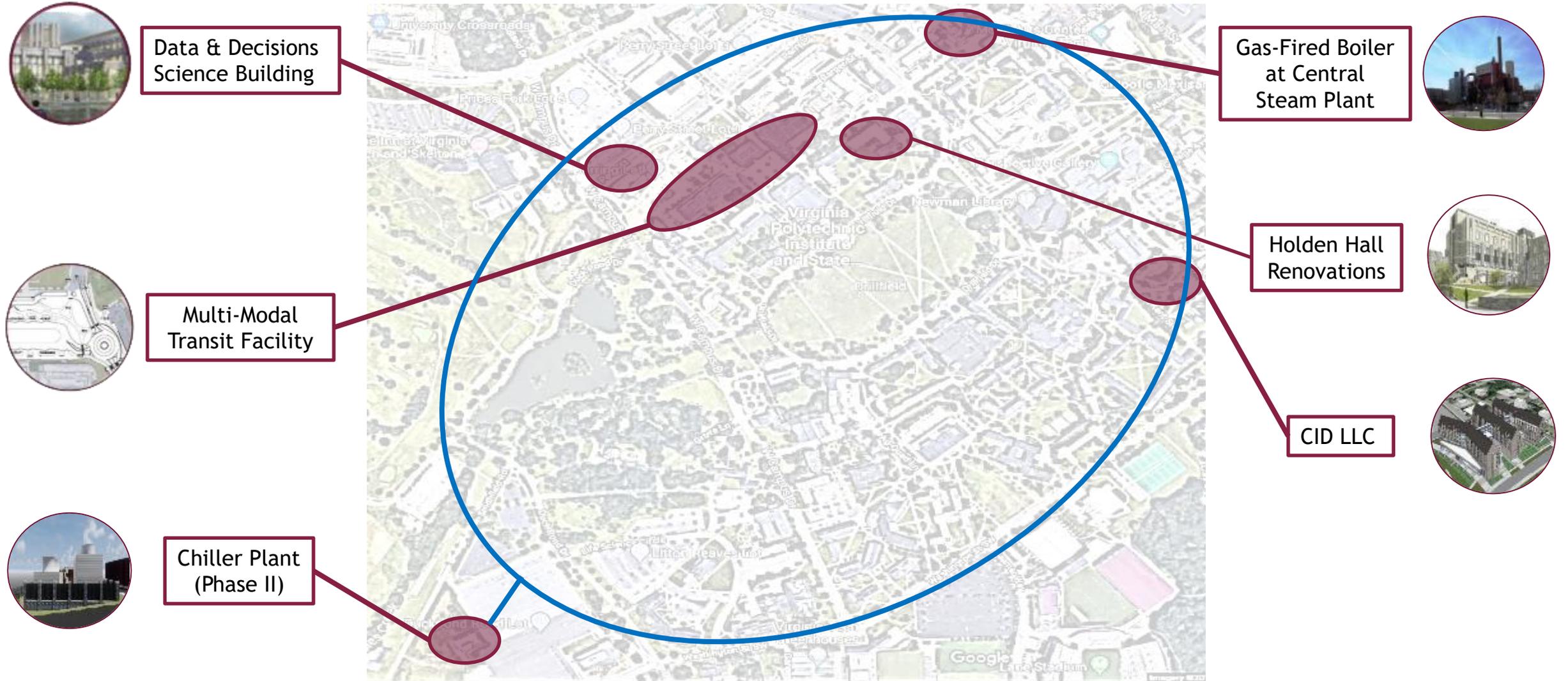
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY21		FY22		FY23		FY24		FY25							
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
VTC Biomedical Research Expansion (PPEA)	\$91.7	139,586		WARRANTY															
Athletic Weight Room Renovations & Expansion	\$4.5	4,880	17,640	WARRANTY															
Student Athlete Performance Center (Jameson Hall)	\$20.1	10,800		WARRANTY															
Improve Kentland Facilities (Phase II) -- Various Locations	\$12.5	28,403		WARRANTY															
Gas-Fired Boiler at Central Steam Plant	\$8.2	N/A																	
Creativity & Innovation District Living Learning Community	\$105.5	234,000																	
Chiller Plant Phase II	\$42.9	N/A																	
Holden Hall Renovations	\$74.9	81,000	20,240																
Livestock & Poultry Research Facilities (Ph I) -- Various Locations	\$22.5	128,895																	
Data & Decision Sciences Building (D&DS)	\$79.0	120,000																	
Multi-Modal Transit Facility	\$34.0	13,606																	
New Upper Quad Residence Hall	\$33.0	67,876																	
Corps Leadership & Military Science Building	\$52.0	60,735	14,725																
Innovation Campus - Academic Building	\$275.0	300,000																	
HITT Hall and New Dining Facility	TBD	101,000																	
Life, Health, Safety, Accessibility and Code Compliance	\$3.1	N/A																	
Tennis Center Improvements (Note 1)	\$0.5	TBD	TBD																
Randolph Hall Replacement (Design Only) (Note 1)	\$11.0	284,000																	
Undergraduate Science Laboratory Building (Note 1)	\$74.8	102,000		PENDING STATE CONSTRUCTION FUNDING															
Dietrick First Floor & Plaza Renovation	\$8.3	6,298	11,960																
Student Wellness Improvements (War Memorial Gym & McComas Hall)	TBD	30,124	217,108																
Global Business & Analytics Complex Residence Halls	\$84.0	TBD		ON HOLD															
Slusher Hall Replacement	TBD	196,000		ON HOLD															
TOTALS	\$1,037.5	1,909,203	281,673																

Note 1: Construction not yet authorized; construction dates (where shown) are "earliest possible"

Under Construction



Active Construction On Campus



Athletic Weight Room Renovations & Expansion



Design-Bid-Build
BOV Authorized

Status:

- Construction complete

Next Actions:

- Conclude warranty period and close-out contract

Complete

Legend: Design Construction		Designer: Hanbury																Builder: Thor					
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY20		FY21		FY22		FY23		FY24		FY25									
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Athletic Weight Room Renovations	\$4.5	4,880	17,640																				

Student Athlete Performance Center



Design-Bid-Build
BOV Authorized

Status:

- Construction complete

Next Actions:

- Conclude warranty period and close-out contract

Complete

Legend: Design Construction		Designer: Hanbury										Builder: Branch Builds											
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY20		FY21		FY22		FY23		FY24		FY25									
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Student Athlete Performance Center (Jameson Hall)	\$20.1	10,800																					

Improve Kentland Facilities (Ph II)

Design-Bid-Build
State
Authorized

APR Building



Complete

MRL Building



Complete

BETR Building



Complete

Status:

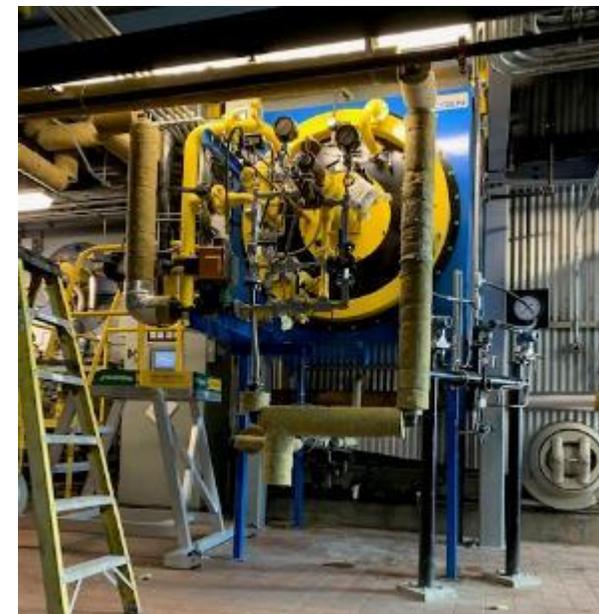
- APR Building construction complete
- BETR Building construction complete
- MRL Building construction complete

Next Actions:

- APR Building: Close out contract (warranty period complete)
- BETR Building: Conclude warranty period and close-out contract
- MRL Building: Conclude warranty period and close-out contract

Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	Designer: Spectrum Design																				Builder(s): APR = Snyder; MRL & BETR = CPPI																			
				CY 2020				CY 2021				CY 2022				CY 2023				CY 2024																							
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC																				
				FY20		FY21		FY22				FY23				FY24				FY25																							
Q3		Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2																						
Improve Kentland Facilities (Phase II) -- Various Locations	\$12.5	28,403																																									

Gas-Fired Boiler at Central Steam Plant



Design-Bid-Build
BOV Authorized

Status:

- Project on track (99% complete)
- New boiler fully installed

Next Actions:

- Complete boiler performance testing & commissioning
- Anticipated completion in March 2021

Legend: Design Construction		Designer: AEI												Builder: Southern Air									
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY20		FY21		FY22		FY23		FY24		FY25									
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
New Package Boiler #12	\$8.2	N/A																					

Creativity & Innovation District LLC



**Design-Build
BOV Authorized**

Status:

- Project on track (80% complete)

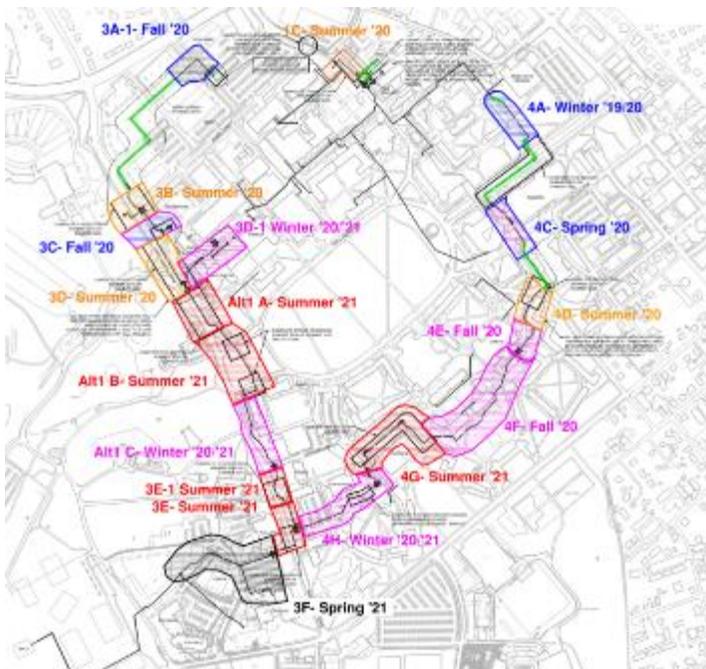
Next Actions:

- Anticipated completion in July 2021

Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	Legend: Design Construction																				Designer: Hanbury	Builder: WM Jordan
				CY 2020				CY 2021				CY 2022				CY 2023				CY 2024					
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC		
				FY20		FY21		FY22		FY23		FY24		FY25											
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2						
Creativity & Innovation District Living Learning Community	\$105.5	234,000																							

Chiller Plant (Phase II)

**Design-Bid-Build
State Authorized**



Status:

- Project on track (75% complete)

Next Actions:

- Anticipated completion in August 2021

Legend: Design Construction		Designer: AEI												Builder: Faulconer									
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY20		FY21		FY22		FY23		FY24		FY25									
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Chiller Plant Phase II	\$42.9	N/A																					

Holden Hall Renovations



CM at Risk
State Authorized

Status:

- Project on track (40% complete)

Next Actions:

- Anticipated completion in early January 2022

Legend:		Designer: Moseley												Builder: WM Jordan													
Legend:		Design				Construction																					
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024							
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC				
				FY20		FY21		FY22		FY23		FY24		FY25													
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Holden Hall Renovation	\$74.9	81,000	20,240																								

Data & Decisions Sciences Building

CM at Risk
State Authorized



Status:

- GMP contract awarded (within budget)
- Construction underway

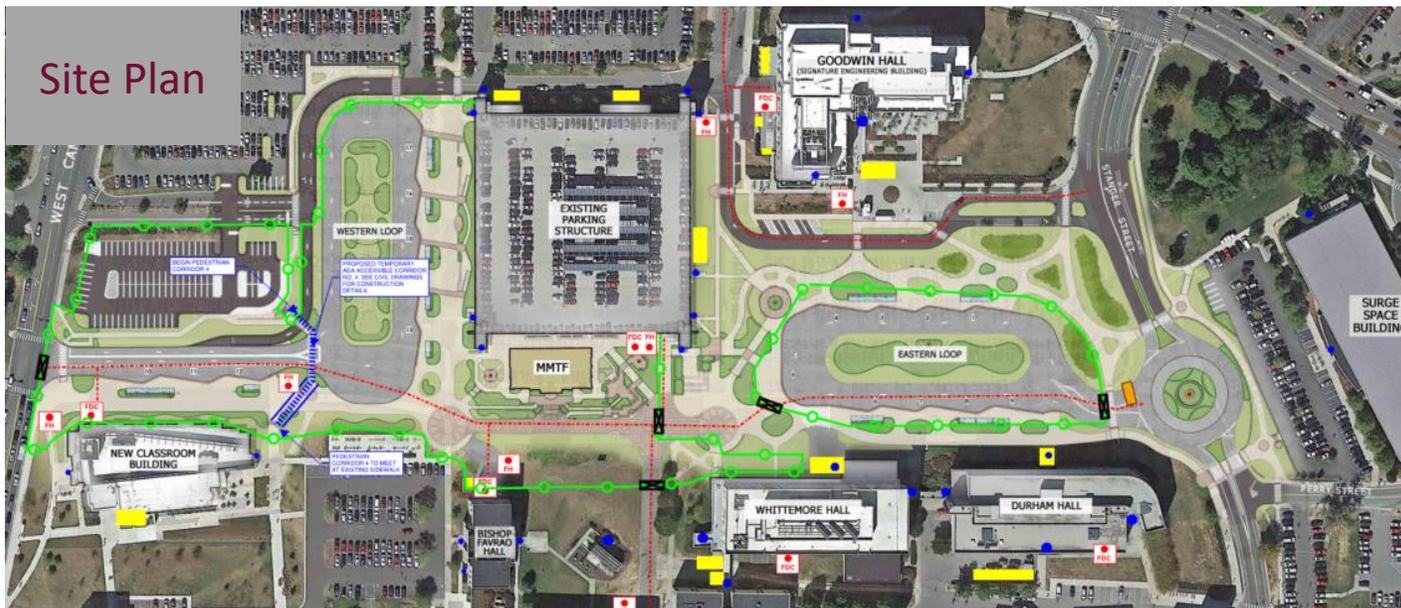
Next Actions:

- Anticipated completion in January 2023

Legend: Design Construction		Designer: Moseley												Builder: Kjellstrom & Lee											
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024					
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC		
				FY20		FY21		FY22				FY23				FY24				FY25					
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Data & Decision Sciences Building (D&DS)	\$79.0	120,000																							

Multi-Modal Transit Facility

Design-Bid-Build ToB Project



Status:

- Project awarded to W. M. Schlosser Company, Inc.

Next Actions:

- Construction start in March 2021

Legend:		Designer: Wendel (ToB contract)		Builder: Schlosser (ToB contract)																
 Design Construction		Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
Project Title					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC												
					FY21		FY22				FY23				FY24				FY25	
					Q3	Q4	Q1	Q2												
Multi-Modal Transit Facility		\$34.0	13,606																	

In Design



On-Campus Projects In Design



Undergraduate Science Laboratory Building



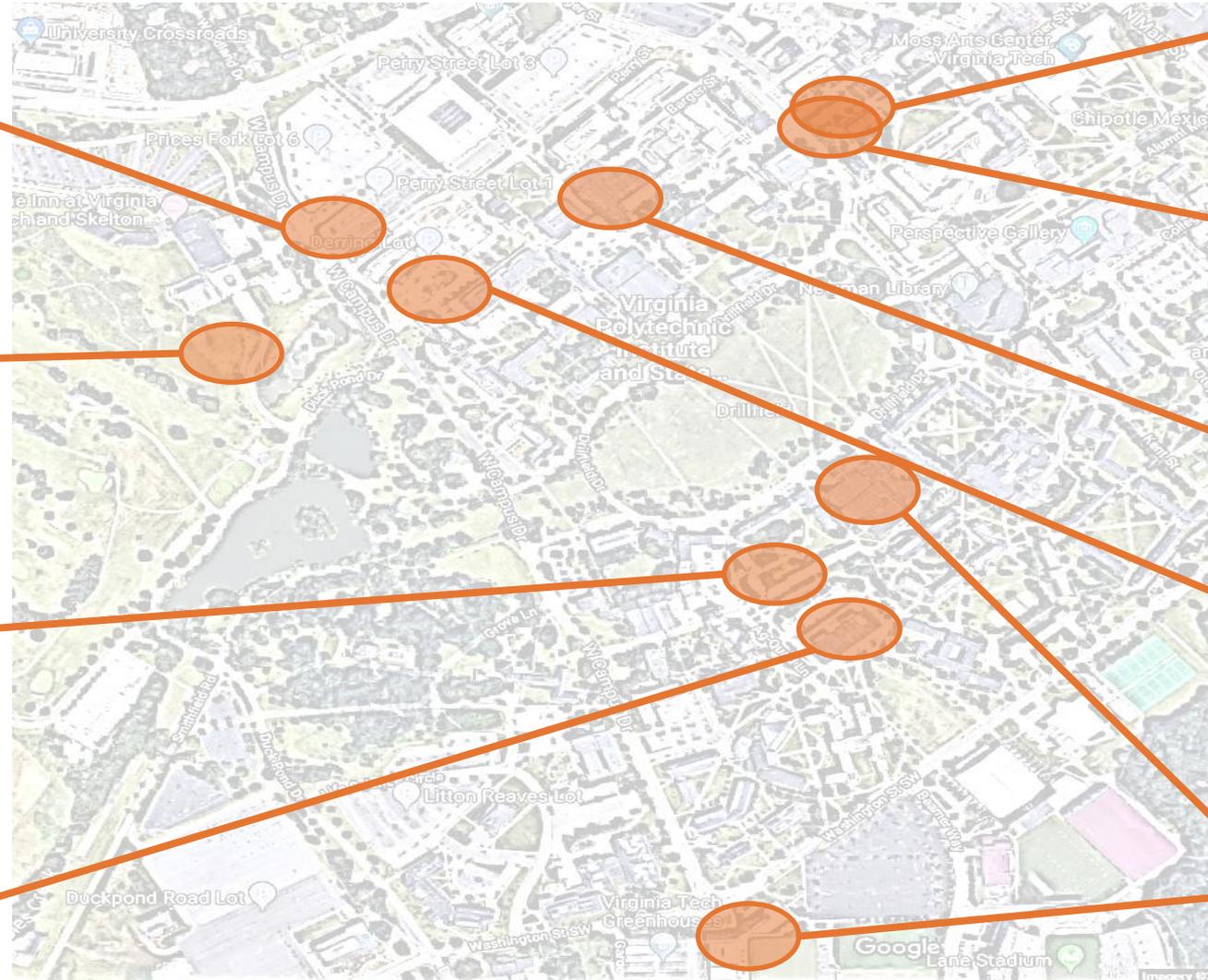
GBAC LLCs



Slusher Hall Replacement



Dietrick First Floor & Plaza Renovations



Corps Leadership & Military Science Building



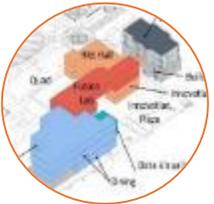
New Upper Quad Residence Hall



Randolph Hall Replacement



HITT Hall and New Dining Facility



Student Wellness Improvements



New Upper Quad Residence Hall

CM at Risk
BOV Authorized



Status:

- Working Drawings under review
- BOV Review during March 2021 session

Next Actions:

- Finalize Working Drawings
- Establish construction GMP
- Targeting construction start by July 2021

Legend:		Designer: Clark-Nexsen		Builder: Vannoy																			
Legend:				CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
Legend:				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
Legend:				FY20		FY21		FY22				FY23				FY24				FY25			
Legend:				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)																				
New Upper Quad Residence Hall (Femoyer Hall Replacement)	\$33.0	70,200																					

Corps Leadership & Military Science Building

CM at Risk
BOV Authorized



Status:

- Construction pricing established (within budget)

Next Actions:

- Award GMP contract
- Targeting site/utilities construction start in March 2021

Legend:		Designer: Clark-Nexsen												Builder: Vannoy										
		CY 2020				CY 2021				CY 2022				CY 2023				CY 2024						
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
				FY20		FY21		FY22		FY23		FY24		FY25										
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2					
Corps Leadership & Military Science Building	\$52.0	60,735	14,725																					

Innovation Campus-Academic Building



CM at Risk
State Authorized

Status:

- Preliminary Design review underway
- Working with JBG Smith (development partner) to finalize shared infrastructure costs

Next Actions:

- Begin Working Drawings phase in April 2021
- BOV Review targeted for June 2021 session
- Targeting establishment of GMP #1 (first phase of construction) in summer 2021 for September 2021 construction start

Legend: Design Construction

Designer: SmithGroup

Builder: Whiting-Turner

Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024							
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC																				
				FY20		FY21		FY22		FY23		FY24		FY25		FY20		FY21		FY22		FY23		FY24		FY25	
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2																
Innovation Campus Academic Building #1	\$275.0	300,000																									

Hitt Hall & New Dining Facility

CM at Risk
BOV Authorized



Status:

- W M Jordan selected as CMaR
- Project cost estimates validated against budget
- Preliminary Design phase underway

Next Actions:

- BOV Preview targeted for June 2021 session
- Construction start targeted for October 2021

Legend: Design Construction		Designer: Cooper Cary										Builder: W M Jordan															
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024							
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC				
				FY20		FY21		FY22				FY23				FY24				FY25							
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
HITT Hall and New Dining Facility	TBD	101,000																									

Undergraduate Science Laboratory Building (Design Only)

CMAR
State Authorized



Status:

- Design is complete
- Waiting General Assembly to authorize construction

Next Actions:

- Finalize Budget Request for General Assembly consideration
- Upon construction authorization, coordinate CMaR development of GMP

Legend: Design Construction		Designer: ZGF												Builder: Skanska											
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024					
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC		
				FY20		FY21		FY22		FY23		FY24		FY25											
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Undergraduate Science Lab (Design Only)	(Note 1)	\$74.8	102,000																						
												PENDING STATE CONSTRUCTION FUNDING													

Tennis Center Improvements (Design Only)

Design-Bid-Build
BOV Authorized



Status:

- Working Drawing phase underway

Next Actions:

- Complete Working Drawing and pause project pending funds and BOV construction authorization

Legend:		Designer: Tymoff & Moss												Builder: TBD											
		Design		Construction		CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC		
				FY20		FY21		FY22		FY23		FY24		FY25											
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Tennis Facility Addition & Renovation (Design Only)	\$0.5	TBD	TBD																						

Randolph Hall Replacement (Design Only)

CMaR (Pending)
State Authorized



Status:

- Project authorized for preliminary design only
- A/E design services procurement is underway
- CMaR procurement is underway

Next Actions:

- Complete A/E procurement
- Initiate Schematic Design phase
- Finalize CMaR procurement
- Construction funding request deferred to 2023

Legend: Design Construction		Designer: TBD																Builder: TBD							
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024					
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC		
				FY20		FY21		FY22				FY23				FY24				FY25					
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Replace Randolph Hall (Design Only)	(Note 1)	\$11.0	284,000																						

Dietrick First Floor & Plaza Renovation

Design-Bid-Build
BOV Authorized



Status:

- Project “bid-busted” in May 2020
- Construction budget = \$6M; Low bid = \$7.3M

Next Actions:

- Determine appropriate course of action for project

Legend:		Designer: Hanbury		Builder: TBD																
		Design	Construction	CY 2021				CY 2022				CY 2023				CY 2024				
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
				FY21		FY22				FY23				FY24				FY25		
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Dietrick First Floor & Plaza Renovation	\$8.3	6,298	11,960																	

Global Business & Analytics Complex Residence Halls

Design-Bid-Build
BOV Authorized



Status:

- Project on hold – initial programming over budget
- Project was previously slated for D/B procurement

Next Actions:

- Determine appropriate course of action for project

Legend: Design Construction		Designer: TBD												Builder: TBD									
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY20		FY21		FY22		FY23		FY24		FY25									
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Dietrick Dining Hall First Floor Enclosure & Spirit Plaza	\$8.3	6,298	11,960	ON HOLD																			

Slusher Hall Replacement



Design-Build
Non-General
Funds

Status:

- Project on hold – initial programming over budget

Next Actions:

- Determine appropriate course of action for project

Legend: Design Construction		Designer: Clark Nexsen																Builder: TBD					
Project Title	Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2020				CY 2021				CY 2022				CY 2023				CY 2024			
				JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY20		FY21		FY22		FY23		FY24		FY25									
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Slusher Hall Replacement	TBD	196,000		ON HOLD																			

Student Wellness Improvements

CM at Risk
BOV Authorized



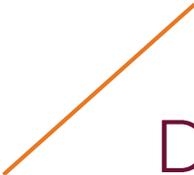
Status:

- CMaR Guaranteed Maximum Price (GMP) is over budget

Next Actions:

- Determine appropriate course of action for project

Legend:		Designer: Cannon Design		Builder: Whiting-Turner																
 Design Construction		Total Project Cost (\$M)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC												
					Y21		FY22				FY23				FY24				FY25	
					Q3	Q4	Q1	Q2												
Student Wellness Improvements (War Memorial Gym & McComas Hall)		TBD	30,124	217,108																

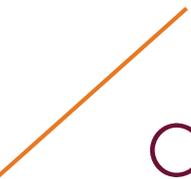


Definitions

- **State Authorized:** Authorized and funded (whole or in part) by the Virginia General Assembly
- **BOV Authorized:** Authorized and funded by the Virginia Tech Board of Visitors

- **Schematic Design Phase** = 0% to approx 20% design complete
- **Preliminary Design Phase** = Approx 20% to approx 50% design complete
- **Working Drawing Phase** = Approx 50% to 100% design complete

- **GMP** = Guaranteed Maximum Price



Construction Method Refresher

Design-Bid-Build (DBB):

- A/E completes full design
- Invitation For Bid (IFB) issued...contract awarded to lowest bidder

Construction Manager at Risk (CMaR):

- A/E completes full design
- CMaR's compete for project during early stage of design
- CMaR hired during schematic design phase
- When final designs are complete, CMaR develops Guaranteed Maximum Price (GMP)

Design-Build (D/B):

- A/E completes partial design ("criteria docs")
- D/B teams (builder + A/E) compete for project and propose full price for project delivery
- Selection based upon "best value"
- D/B team completes design and executes construction



Update on Agricultural Facilities Planning and Construction

Alan L. Grant, Ph.D.
Dean of the College of Agriculture and Life Sciences

Michael H. Schwarz, Ph.D.
Director, Virginia Seafood AREC

March 22, 2021



INVESTING IN THE FUTURE OF AGRICULTURE AND LIFE SCIENCES

- ✓ **COMPLETE:** Metabolic Research Laboratory – completes the Improve Kentland Facilities project
- **UNDERWAY:**
 - Livestock & Poultry Research Facilities, Phase 1 (10 new buildings)
 - Seafood AREC Replacement Project
- **PROPOSED:**
 - System-wide AREC Improvements (capital and non-capital projects)
 - Compost Facility (Climate Action Commitment)
 - Human and Agricultural Biosciences Building 2
 - Livestock & Poultry Research Facilities, Phase 2

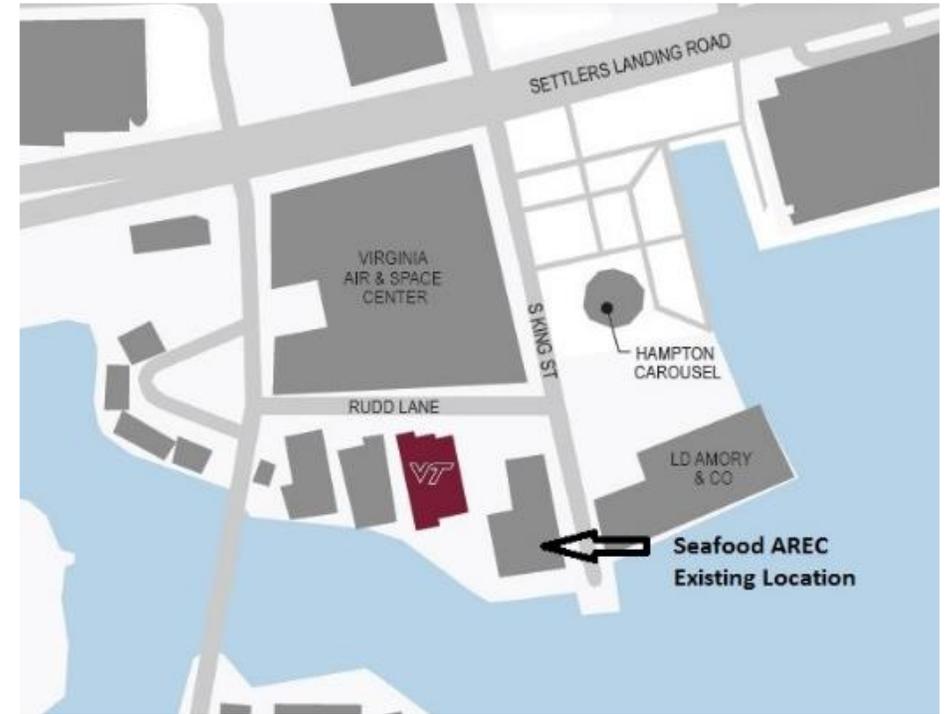
Completion: Nov 2021

New Virginia Seafood Agricultural Research and Extension Center



LOCATION MAP

Virginia Agricultural Experiment Station ARECs





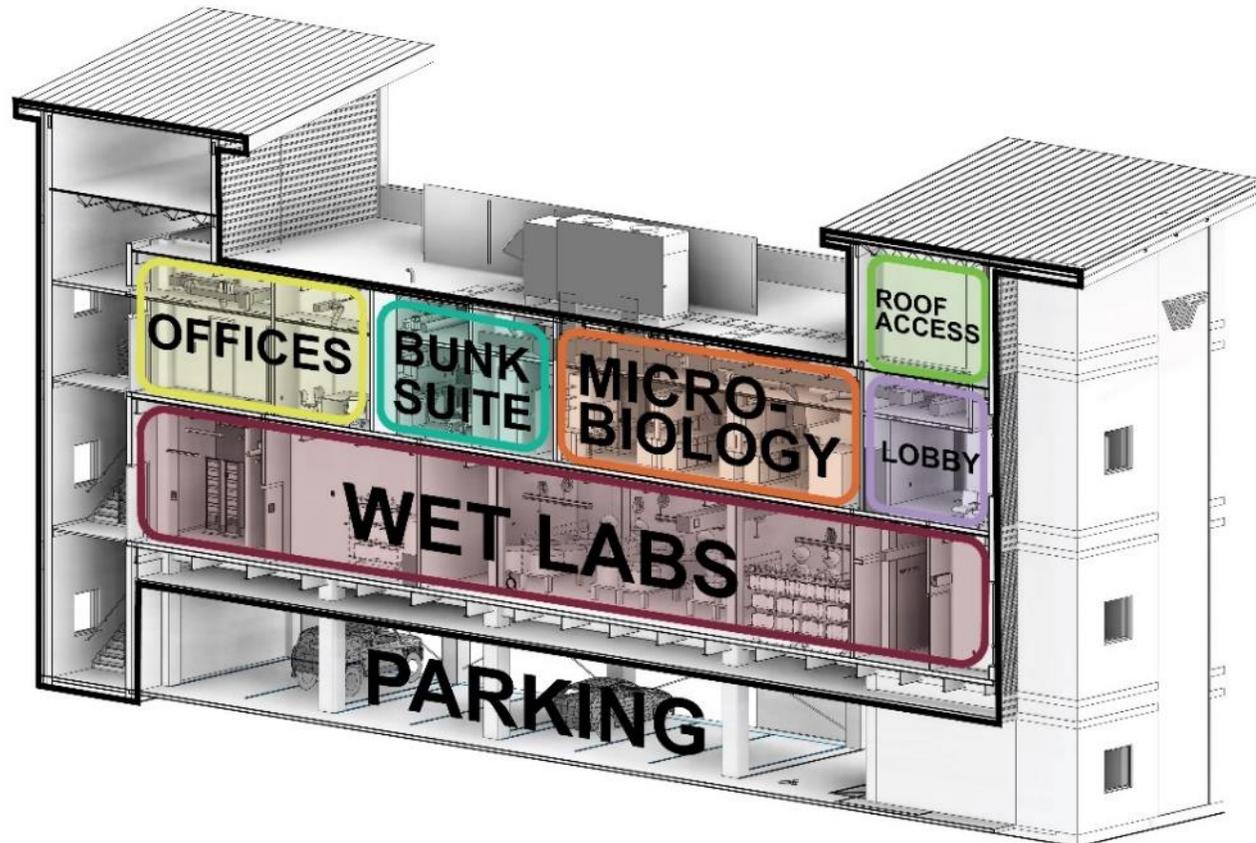
QUICK FACTS

22,383 ft², three-story building located in frequently flooded area of downtown Hampton, VA. Current building 12,000 ft²

First floor – 15 space parking garage with two entry stair towers and elevator

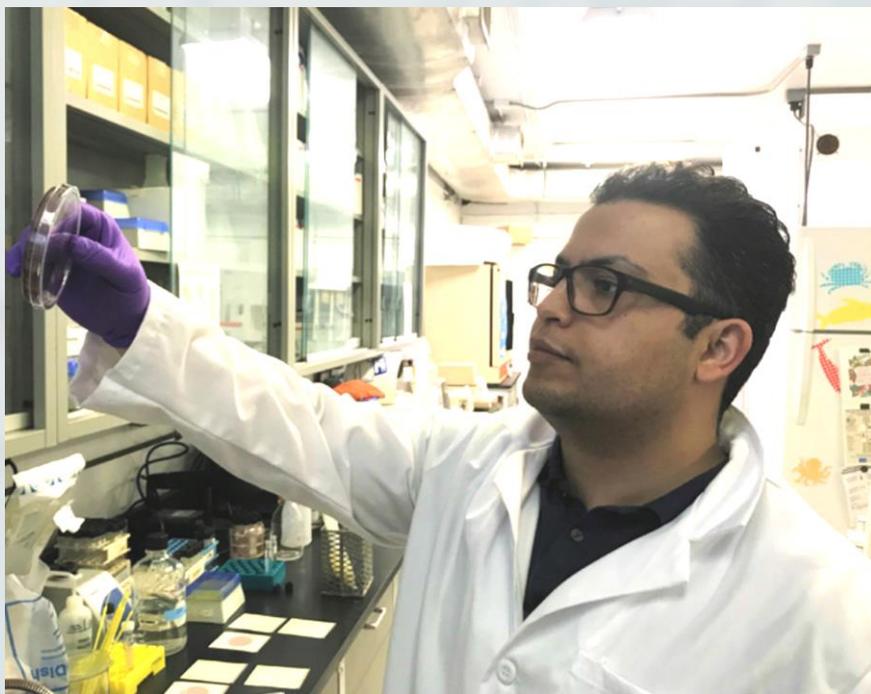
Second floor – Seafood processing, Aquaculture, technician offices, training lab space

Third floor – Microbiology lab, faculty and student offices, classroom, board room, and bunk suite.



Ongoing programs

□ Sustainable Food Production Systems



- Food Safety and Quality
- Alternative Proteins and Bioprocessing
- Alternative Seafood Products

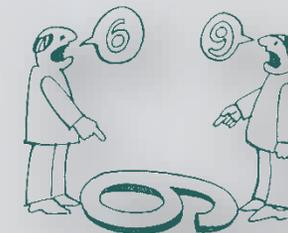


Ongoing programs

Economics, Marketing, and Regulations



- Regulatory cost studies
- Financial benchmarks
- Economic impact modelling
- Perceptions of seafood



Ongoing programs

Food Quality, Safety, and Consumer Education



- National Food Safety Training Center
- Sanitation
- Allergen Controls
- ServeSafe®
- 2019: 48 Companies; 233 clients,
107 HACCP Certificates

Ongoing programs

□ Sustainable Fisheries and Aquaculture



- Workforce development
- Applied Research and Development
- Conservation
- Public Education

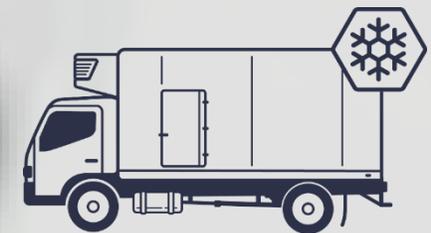
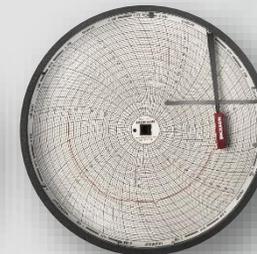
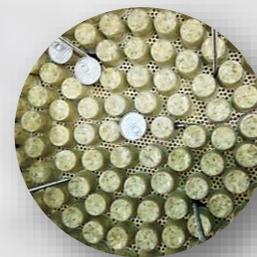


Ongoing programs

Seafood Processing, Validation and Engineering (Green Industries)



- Industry Training
- Process Validations
- New Product Development
- Value-added



New Program Investments: Supporting the Center for Advanced Innovations in Agriculture



- Controlled Environmental Agriculture
- New Seafood Frontiers
- Smartfeeds
- Robotics/automation
- Traceability, Blockchain, and Big Data Management

┌ New Program Investments: Supporting the new Center for Coastal Studies (CCS)



□ Coastal Resiliency

□ Offshore Technologies



New Program Investments: Increasing Personnel



- 2019 – 11 Faculty/staff
- 2020
 - New: 1 Research Specialist, 1 Research Scientist, 3 Research Associates, 2 grad students
- 2021
 - New: 1 Research Scientist, 1 Research Associate, and 1 Communications Associate
 - Projected: 1 Tenure Track Faculty

Program Financial Expansion



Research Expenditures

- FY 17: Implemented 5-year goal of \$1 million/Yr

Concurrent Grants CY 2020

- 28 Grants totaling \$4,350,000

Proposals already in development CY2021 (April submission)

- \$18,500,000



Dawn of a new VSAREC Program

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
CAPITAL PROJECTS						
Updates through February 26, 2021						
PROJECTS IN CONSTRUCTION						
Improve Kentland Facilities, Phase II	Applied Reproduction Facility (APR): 4,510 SF barn at Vet-Med for palpation and breeding instruction. Bovine Extension, Teaching and Research (BETR) Facility: 3,500 SF classroom building and 5,100 SF demonstration arena at livestock center on Plantation Road. Metabolic Research Laboratory (MRL): 11,330 SF animal laboratory at the Dairy Center at Kentland Farm.	\$12,463,000	Capital Outlay	Spectrum Snyder, CPPI	Fall 2020	All projects have reached substantial completion and have certificate of occupancy. Minor corrective work is ongoing and owner furnished equipment installation is in progress.
New Virginia Seafood AREC Building	21,698 SF, 3-story building to replace existing aging and structurally unsound facility in Hampton, Virginia with state-of-the-art aquaculture research and extension facilities. Facility owned and developed by Virginia Tech Foundation.	\$9,260,000	Various	RRMM E.T. Gresham	Fall 2021	Notice to Proceed issued in September, 2020. Some initial delays due to unforeseen conditions underground. Those have been resolved and project is on track.
PROJECTS IN DESIGN						
Livestock and Poultry Research Facilities, Phase I	Pkg 1: New Swine Center at Kentland Farm. Pkg 2: New Beef Nutrition Facility & Hay Shed at Kentland Farm Pkg 3: New Broiler & Turkey Grow-out facilities at the Turkey Research Center (Glade Rd.) Pkg 4: New Equitation Barn & Equipment Storage Building at Livestock Center (Plantation Rd.) Pkg 5: 3 New Hay Sheds at Smithfield Horse Center, Fields west of US 460, and Heth Farm	\$25,274,000	Capital Outlay	Spectrum Pkg 1: SIMCON Pkg 2: TBD Pkg 3: CPPI Pkg 4: Clark Nexsen Pkg 5: TBD	TBD	Pkg 1: Contract awarded, Notice to Proceed (NTP) date being negotiated Pkg 2: Re-bid due to Contractor withdrawal Pkg 3: Contract awarded, NTP being negotiated. Pkg 4: Contract awarded, NTP being negotiated. Pkg 5: Design on hold.
PROJECT INITIATION / PLANNING STAGE						
6-Year Capital Outlay Plan for the 2022-24 biennium	Capital budget requests for six projects: CNRE Center Woods, System-Wide AREC Improvements Phase I, Glade Road Relocation, Livestock and Poultry Research Facilities Phase II, Human and Agricultural Biosciences Building II, and System-Wide AREC Improvements Phase II.	TBD	TBD	TBD TBD	TBD	Scope and budget development.
NON-CAPITAL PROJECTS						
Updates through February 26, 2021						
PROJECTS COMPLETED SINCE LAST REPORT						
Livestock Center Grain Bin Relocation	To clear the site for planned new equipment storage building as part of Livestock and Poultry Research Facilities (LPRF), Phase 1 capital project, 4 large grain bins must be relocated to a new site, requiring construction of new concrete pad, power connections, and access improvements.	\$180,000	LPRF	WRA Copeland, Shively	Fall 2020	Project is complete
Glade Road Greenhouse Wind Damage Repair	Due to wind damage of an old fiberglass greenhouse, existing structure to be demolished.	\$8,000	Insurance	- Kesler	January 2021	Demolition is complete
PROJECTS IN CONSTRUCTION						
<u>Minor Projects (<\$25,000 each):</u> Shenandoah Valley AREC House 0859 Repairs Middleburg AREC House 816 Repairs Eastern Shore AREC House 1223 Bathtub repair Eastern Shore AREC Headhouse Boiler Replacement Tidewater AREC Lab abatement	Misc. minor repairs to tenant house 0859. Misc. Minor interior and exterior repairs to tenant house 0816. Replace leaking bathtub and repair flooring in tenant house 1223. Replace leaking boiler in Headhouse Asbestos abatement of damaged floor tile in 2 lab buildings	\$54,000	CALS / VAES	- Multiple	Ongoing	In Progress
Dairy Center Calan Gate installation	Conversion of 8 existing headlocks in special needs barn to accommodate removeable headlocks or 8 removeable calan gates	\$27,000	CALS / VAES	- Kesler	February 2021	Calan gate delivery was delayed due to COVID. Installation planned for early March.
Hampton Roads AREC - Repair/Replace Roofs (5 buildings)	Roofs of several buildings are failing and leaking into finished spaces: The 2000 wing of the Main Office and Lab (1101) has a flat membrane roof that is leaking into Office Spaces. The Pesticide Storage Building (1106), Garage and Workshop Buildings (1107 and 1108) and Head house (1105) have shallow to medium slope metal roofs leaking into chemical storage and work areas.	\$409,000	Maintenance Reserve	HDH Shaddeau Roofing	Summer 2021	Construction is underway
AREC Exterior Signage Upgrades	Installation of 2 new exterior signs at each AREC with refreshed design to match current branding.	\$81,000	CALS / VAES	- Westview	TBD	Detailed installation requirements being reviewed for final cost quote at each locaiton. Signage instation complete at Tidewater AREC.
PROJECTS IN DESIGN						
Turkey Center Service Building 603 Roof and Misc. Repairs	After leaks were discovered in the roof above new restroom renovation project, building condition assessment determined more extensive work was necessary to preserve building including new roof, gutters, windows, doors, and other misc. repairs	TBD	Maintenance Reserve	HDH TBD	TBD	Bidding is in progress.
Hampton Roads AREC Repair Bulkhead & Pump House	Existing bulkhead, which protects the freshwater intake, pump system and pump house has deteriorated beyond repair. Project will replace wooden bulkhead with vinyl, and replace deteriorated door and roof on pump house.	\$40,000	Maintenance Reserve	Mattern and Craig TBD	TBD	Having difficulty finding available contractors. Backlog is extensive (12 months+). Still working with multiple vendors to find a vendor who can provide the replacement bulkhead.

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
Smithfield Equine Classroom Renovations	Building envelope repairs, accessibility improvements to classroom and restroom, HVAC upgrade to add cooling, classroom interior enhancements	\$150,000	Maintenance Reserve, various	5 Design TBD	TBD	Bids opened February 24, 2021 and are being reviewed to determine if funding will allow any of the additive bid items to be chosen.
Tidewater AREC - Batten Hall waterproofing	Batten Hall (portion of Building 0771) is subject to chronic flooding in basement requiring assessment of waterproofing and mitigation measures.	\$235,000	Maintenance Reserve	WDP Associates TBD	TBD	Project on hold pending drain cleaning by AREC after asbestos abatement.
Beef Barn Repairs	Exterior and interior demolition followed by the installation of new roofing, hay loft flooring, doors, windows and lighting. This work was originally included in LPRF Phase 1, but removed due to scope concerns.	\$745,000	Maintenance Reserve	HDH, FEA TBD	TBD	Exterior repairs is out for bid. Interior repairs are being designed.
Judging Pavilion Repairs	Exterior and interior demolition followed by installation of new flooring, doors, windows, HVAC system, lighting, a covered walkway and exterior paint. This work was originally included in LPRF Phase 1, but removed due to scope concerns.	\$362,000	Maintenance Reserve	TBD TBD	TBD	Scope review with University Building Official (UBO) is necessary to resolve code requirements and funding eligibility.
Southwest Virginia AREC - Exterior Building Repairs	Repair roof, siding and door damage on Tobacco Barns 1 (0749) and 2 (0747), Cattle Barn #5 (0741) and Workshop/Machinery Shed (0742).	\$243,000	Maintenance Reserve	5 Design TBD	TBD	Design is in progress
Eastern Virginia AREC - Bldg 0880 Experiment Building Renovation	Renovation and upgrade of existing under-utilized office, workshop and meeting space.	\$180,000	CALS / VAES / Maintenance Reserve	TBD TBD	TBD	Maintenance Reserve Funding has been requestd to initiate design work.
Eastern Shore AREC - Exterior Building Repairs	Multiple buildings are in need of exterior repairs. Head house (1214) and Shop Building (1215) is in need of structural repairs to walls and repointing. Implement Shed (1216), Sweet Potato Storage (1217), Produce Grading (1218), and Insectary (1220) need exterior waterproofing, door repair, pointing repairs and gutters.	\$160,000	Maintenance Reserve	TBD TBD	TBD	Maintenance Reserve Funding has been requestd to initiate design work.
Beef Cattle Reproduction Center LED Upgrade	Conversion of existing lighting in Beef Reproduction Barn and Beef Reproduction Shed to LED for enhanced visibility and energy performance.	\$15,000	Energy Management	TBD TBD	TBD	Design is in progress.
PROJECT INITIATION / PLANNING STAGE						
Southern Piedmont AREC	Road and parking lot repairs.	\$25,000	CALS / VAES	- TBD	TBD	Scope development and contractor cost evaluation.
Ag Engineering Building, Bldg 0545 Roof and Drainage Repairs	Mitigate flooding into workshop areas and repair roof leaks.	TBD	Maintenance Reserve	- TBD	TBD	Work Order requested.
Washington Street Greenhouse Complex Renovations	Repairs and upgrades to modernize aging controlled growth environments.	TBD	CALS / VAES / Maintenance Reserve	TBD TBD	TBD	Overall scope and budget development. LED Lighting upgrade completed in one room (pilot project).
Compost Facility (to support main campus & surrounding farms)	CALS is experiencing significant and growing land pressure to meet nutrient management plan requirements, which would be greatly eased by the proposed compost facility. This initiative also has an extremely high level of student support as well as potential partnerships with Dining Services, Athletics and Facilities. Project is included in 228-2 Capital Budget Request, but is a high priority for separate, earlier funding, if possible, due to regulatory risk exposure from limited manure storage during winter months.	\$1,823,000	TBD	Coker Composting & Consulting TBD	TBD	Capital and operational costs for project under review internally.
Turkey Farm Processing Building Repair	Interior Demolition followed by the installation of new cold-formed steel stud interior partitions, new doors and a window, fiberglass reinforced plastic paneling and epoxy painted floors. This work was originally included in LPRF Phase 1, but removed due to scope concerns.	\$140,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development.
Campbell Arena Repairs	New enclosure of the existing open-air steel structure constructed of metal panel siding over steel girts and posts. This work was originally included in LPRF Phase 1, but removed due to scope concerns.	\$93,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development.
Moore Farm Barn 0501 Repairs	This highly visible and prominent barn is for many purposes such as lambing of sheep, loafing facility, hay bale storage, emergency storage for weather-affected crops, and equipment and parts storage. The condition of the	TBD	Maintenance Reserve	TBD	TBD	Scope and budget development.

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
Moore Farm Barn 0501 Repairs	roof and siding is poor, failing to provide the necessary weather protection. Without mitigation soon, the condition will deteriorate to the point of loss.	TBD	Maintenance Reserve	TBD	TBD	Scope and budget development.
Moore Farm Shed 0508 Repairs	This hay shed was built in the 1950's and received heavy use for that purpose. Over the years its condition has continued to worsen and recent wind and snow storms have accelerated the deterioration. In order to execute research projects utilizing recently renovated fields, the Beef Cattle unit now needs to utilize this shed as a working facility for cattle. This would involve pouring a concrete floor and moving in cattle working equipment. However, the structural condition of this facility is poor and should be addressed prior to additional use. It may be more cost effective to rebuild than to repair this structure.	TBD	Maintenance Reserve	TBD TBD	TBD	Scope and budget development.
Alson H. Smith AREC - Repair paving and parking	Existing asphalt parking lot and drives are deteriorating and in need of repaving.	\$56,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development. Construction planned in FY 2023.
Eastern Virginia AREC - Repair Experiment Building	Building HVAC system has failed and is not working. Electrical and plumbing are outdated. Building is not ADA accessible. General condition is deteriorating.	TBD	Maintenance Reserve	TBD TBD	TBD	Scope and budget development. Construction planned in FY 2022.
Middleburg AREC - Exterior Repairs	Siding on several buildings is in need of repair/replacement due to advanced age: Annex (0812), Frame Beef Barn (0807), Milking Barn and Milk House (0809), Loafing Barn (0810), Clinic/Admin Building (0823), Stable (0824). 8 run-in sheds (0799) are deteriorating and in need of repair or replacement. Corn House and Machinery Shed (0803) is in need or structural repairs. Basement of Annex (0812) floods and needs drainage corrections.	\$158,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development. Construction planned in FY 2022.
Reynolds Homestead FRRC - Exterior Repairs	Main Building (1030) needs window replacement, repairs of rotting soffit/fascia/flashing, deck repair and bathroom upgrade. Lath House (1030C) roof and trusses need repair.	\$30,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development. Construction planned in FY 2023.
Shenandoah Valley AREC - Repair/Replace Sheep Barn	Sheep Barn (0854) has rotten posts at ground level and leaking roof. The building should be evaluated for repair or replacement.	\$76,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development.
Southern Piedmont AREC - Building Repairs	Packhouse (0897) restroom is in need of plumbing repairs and upgrade to be reconfigured for ADA access. Packhouse roof is leaking and needs repair. Repair/replace siding and five deteriorated lean-to equipment storage sheds attached to four tobacco curing barns (0893A, 0893B, 0893C, 0893D)	\$122,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development. Construction planned in FY 2022.
Tidewater AREC - Water system repair	Water line from well to main office complex is failing in multiple locations and requires frequent repairs. Project is to install new 2-inch water line away from landscaping to reduce need for future repairs.	\$26,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development.
Smithfield Equine Complex	Develop new facilities for Equine Complex on Plantation Road including covering outdoor arena, add bleachers, restrooms, announcer stand, fencing, quarantine facility.	TBD	Private	TBD TBD	TBD	Scope and budget development.

INFORMATION TECHNOLOGY (IT) EVALUTATION & PROJECTS
 Updates through February 26, 2021. New information is in bold.

PROJECTS COMPLETED						
Network Equipment Upgrades	Upgrading network equipment to adequately manage current and future network data traffic, including VOIP, in anticipation of Smart Farm initiatives.	\$128,000	CALS / VAES	CALS IT Cisco	Complete	Network equipment has been upgraded at all ARECs within the last year and is operating satisfactorily. Sufficient expansion capacity exists for near-term technology needs.
WeatherSTEM	New WeatherSTEM weather station and sky camera installation at all ARECs and three campus farm locations.	\$104,000 initial cost and \$37,000 annually	CALS / VAES	CALS IT WeatherSTEM	Completed Summer 2019	All are functioning and data is readily accessible through web and WeatherSTEM app interfaces.
AREC A/V Upgrades, Phase 1	Installation of new audio and video equipment for ARECs to provide enhanced conferencing capability in meeting rooms. Phase 1 includes Alson H. Smith, Eastern Shore, Hampton Roads, Southern Piedmont and Tidewater ARECs.	\$34,000	CALS / VAES	CALS IT Lee Hartman and Sons	Fall 2019	Phase 1 (five ARECs) is complete. Scope and schedule for Phase 2 project (remaining ARECs) to be evaluated upon completion of Phase 1.

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
PROJECTS IN PROGRESS						
Bandwidth and Internet Connectivity	<p><u>ARECs:</u> All ARECs have 200 Mb service except Shenandoah Valley (50 Mb), Southwest Virginia (10 Mb), Reynolds Homestead (2 Mb), Hampton Roads (50 Mb), Eastern Shore (30 Mb) and Virginia Seafood (30 Mb). Northern Piedmont Center has a 50 Mb cable connection. Goal is to upgrade all to at least 200 Mb. 200 Mb service for Hampton Roads has been ordered. Eastern Shore has been upgraded to 100 Mb service. Reynolds Homestead is in the process of having an order placed for 100 Mb service.</p> <p><u>Campus Farm locations:</u> Kentland Farm has adequate 200 Mb service. Moore Farm and Urban Horticulture Center share a 50 Mb cable service which is currently adequate. The CSES Research Farm (Agronomy Farm) also has a 50 Mb cable connection. Prices Fork Research Center has a 50 Mb fiber connection. Turkey Farm cable service is being upgraded from 50 Mb to 200 Mb during LPRF phase 1, no additional cost. Upgrades are needed to provide sufficient bandwidth for existing video-based research and future initiatives after LPRF phase 1 construction. Turfgrass center is currently using a cellular hotspot for internet service. Providing standard service requires excessive installation cost. Alternative service providers are being sought. No complaints have been received about service to facilities in the Livestock Center along Plantation Road, but service levels and coverage is being reviewed.</p>	\$131,000 Annually	CALs / VAES	CALS IT	Ongoing	Alternative service providers are being sought for turfgrass center. Reviewing service levels and needs at Livestock Facilities on Plantation Road. Reviewing options to extend internet service to employee housing at Eastern Shore, Hampton Roads, Shenandoah Valley and Middleburg.
				Various		
AREC Voice-Over Internet Protocol (VOIP) Conversion	Conversion of legacy voice telephone system at all ARECs to unified VOIP system matching voice service on campus.	\$75,000	CALs / VAES	CALS IT	Ongoing	VOIP conversion projects have been, or will soon be, completed at 6 of the 11 ARECs. Remaining locations include Hampton Roads, Reynolds Homestead, and Southwest Virginia ARECs where the existing telephone service has been adequate. The Virginia Seafood AREC will be converted to VOIP with the construction of their new building. The College has funded the conversion project at Middleburg, and the service has been completed.
				Division of IT		
PROJECT INITIATION / PLANNING STAGE						
SmartFarm Projects	A project has been initiated by faculty in the Department of Animal and Poultry Sciences, in partnership with CALs IT and the Division of IT, to potentially install new technology, similar to Wi-Fi but with better exterior coverage and security management, in fields at Shenandoah Valley and Middleburg ARECs. The proposal is to study the effectiveness of this equipment for supporting data-intensive agricultural, animal-based research. Citizens Band Radio Service (CBRS) technology was investigated and deemed unsuitable for this project.	TBD	TBD	TBD	TBD	Funding request submitted to State.
				TBD		



New Upper Quad Residence Hall

Board of Visitors Design Review

Liza L.C. Morris, NCARB
Assistant Vice President for Planning and University Architect

March 22, 2021



- Scope: 67,876 GSF
- Delivery method: Construction Manager at Risk
- Total project authorization: \$40 million
- Design phase: Working Drawings
- Estimated construction start: Summer 2021
- Estimated construction completion: Summer 2023





To be demolished

Femoyer Hall

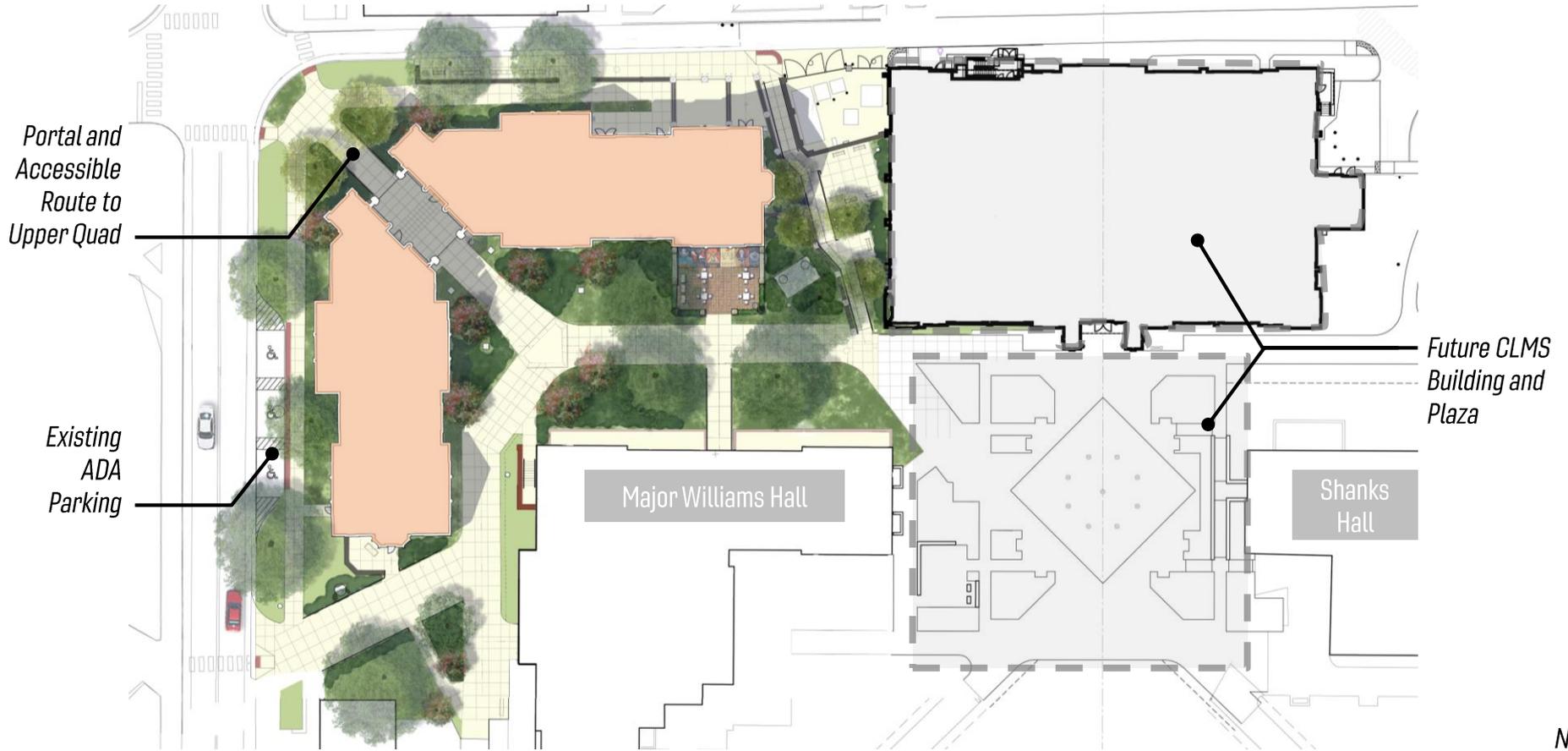
Major Williams Hall

CLAHS Building

Stanger Street

SITE PLAN

Attachment D



/ NEW UPPER QUAD RESIDENCE HALL



EXTERIOR RENDERING

Attachment D



*Future
CLMS*

*Heraldry
Opportunities*

*Portal and
Accessible Route*

CLAHS
Building

/ NEW UPPER QUAD RESIDENCE HALL

EXTERIOR RENDERING

Attachment D



Heraldry Opportunity

Hokie Stone

Precast Concrete

Major Williams Hall

/ NEW UPPER QUAD RESIDENCE HALL

EXTERIOR RENDERING

Attachment D



*Punched Window
Openings*

*Heraldry
Opportunity*

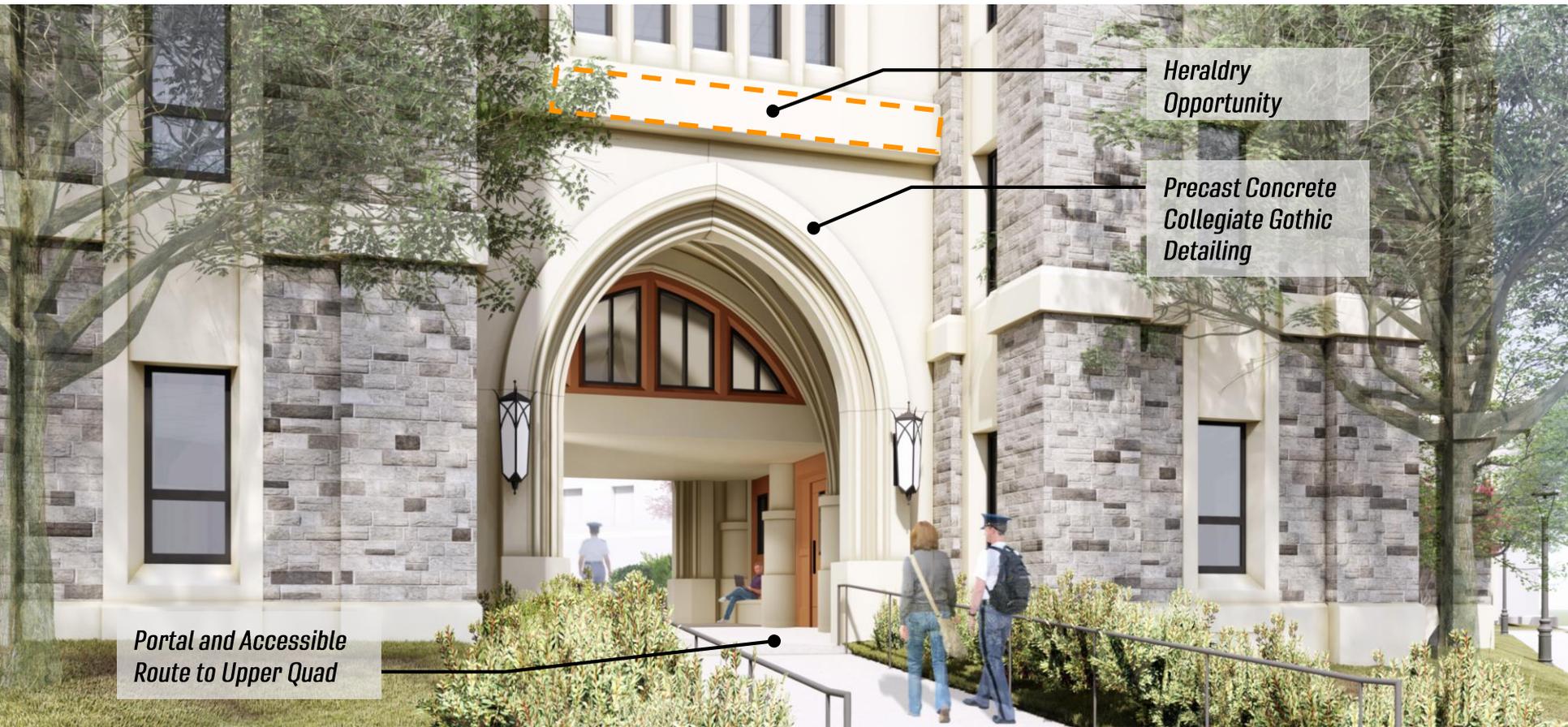
Major Williams Hall

*Accessible Route to
Upper Quad*

/ NEW UPPER QUAD RESIDENCE HALL

EXTERIOR RENDERING

Attachment D



*Heraldry
Opportunity*

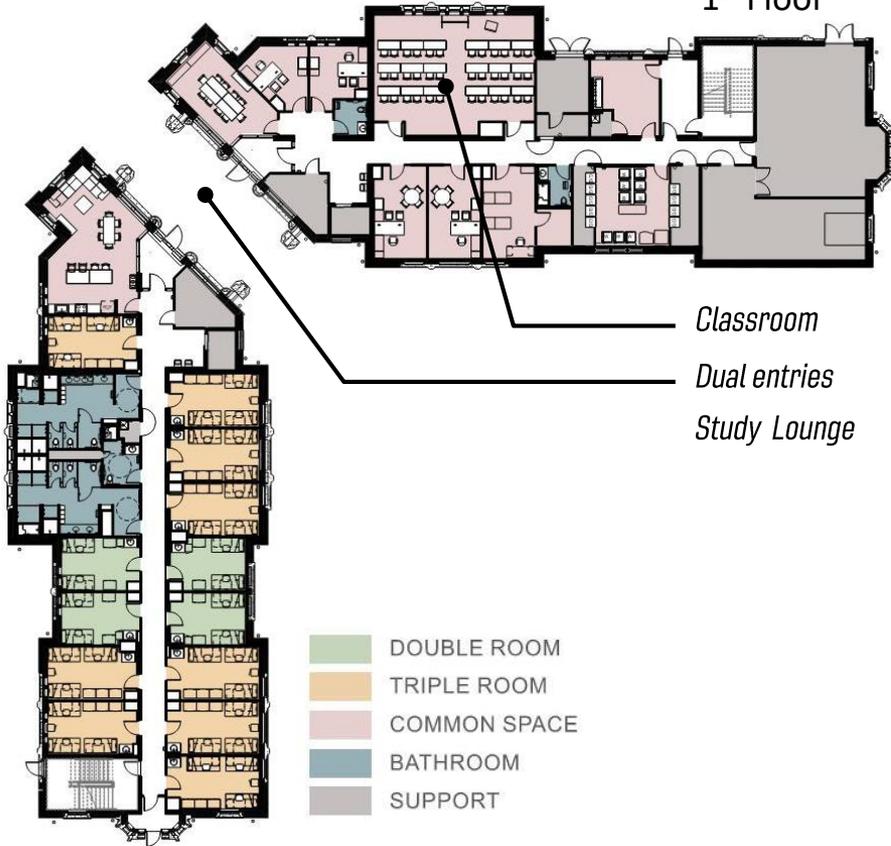
*Precast Concrete
Collegiate Gothic
Detailing*

*Portal and Accessible
Route to Upper Quad*

FLOOR PLAN

Attachment D

1st Floor



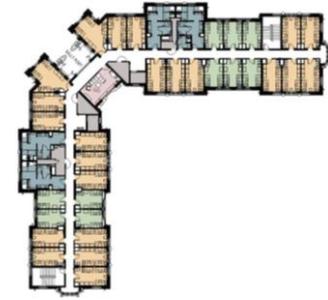
Classroom

Dual entries

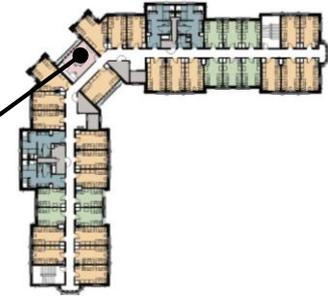
Study Lounge

- DOUBLE ROOM
- TRIPLE ROOM
- COMMON SPACE
- BATHROOM
- SUPPORT

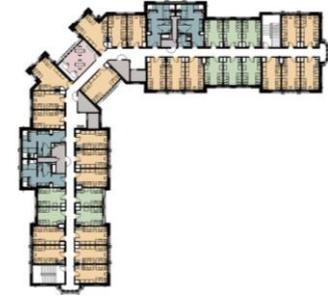
2nd Floor



3rd Floor



4th Floor





That the Design Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown.



DESIGN REVIEW FOR NEW UPPER QUAD RESIDENCE HALL

Located in the Northeast and Upper Quad District on the corner of Stanger Street and Old Turner Street, the New Upper Quad Residence Hall (NUQRH) will serve to expand the housing capacity for Virginia Tech Corps of Cadets with the addition of 301 beds.

The 67,876 gross square feet, five-story facility will accommodate a mix of residential rooms and support spaces on the ground floor. The second through fourth floors are residential, and the fifth will be comprised of attic space and mechanical equipment. This project will occupy the current site of Femoyer Hall, an existing facility that will be demolished as a part of this facility's construction. Adjacent to this project's eastern edge is the site of another capital project, the Corps Leadership and Military Science Building (CLMS), which is anticipated to begin construction in summer 2021. These two projects will be constructed concurrently and managed by a single construction manager at risk. The NUQRH is currently in working drawings with construction start and substantial completion to be coordinated with the adjacent CLMS schedule.

The \$40 million project includes debt service to be provided by Residential Programs revenue and includes the \$7 million supplement approved by the Board of Visitors in November 2020. This project was first proposed as part of the 2018-2024 Capital Outlay Plan.

Capital Project Information Summary – New Upper Quad Residence Hall

BUILDINGS AND GROUNDS COMMITTEE

March 22, 2021

Title of Project:

New Upper Quad Residence Hall

Location:

Located in the Northeast and Upper Quad District, the site is to the immediate southeast of Stanger Street and Old Turner Street intersection in an area currently occupied by Femoyer Hall. A wing of the new facility will also occupy a section of open space north of the College of Liberal Arts and Human Sciences Building, fronting Major Williams Hall.

Current Project Status and Schedule:

The New Upper Quad Residence Hall (NUQRH) and Corps Leadership and Military Science (CLMS) projects will be constructed concurrently and managed by a single construction manager at risk. The NUQRH project is currently in working drawings with construction start and substantial completion to be coordinated with the adjacent CLMS schedule.

Project Description:

This NUQRH builds on the precinct planning initiated in 2012 to repurpose and improve this district through the construction of new facilities, open spaces, amenities and enhancements that reinforce the master plan vision and maintain a competitive edge for the Virginia Tech Corps of Cadets and Reserve Officer Training Corps (ROTC) programs. NUQRH is a five-story residence hall designed to fulfill increased housing capacity needs for the Corps of Cadets. The facility includes a mix of residential rooms and support spaces on the ground floor. The second through fourth floors are residential, and the fifth will be comprised of attic space and mechanical equipment. A portal, which serves as a dual-sided main entry and northern gateway to the Upper Quad, occurs where the building's two wings intersect, and provides a much-needed accessible approach point into the district.

Brief Program Description:

This project will provide 301 additional beds for Virginia Tech Corps of Cadets as well as student support spaces, including a kitchen, laundry, and study areas. A limited number of offices and a classroom are also included on the main floor along with storage for Corps of Cadets programs.

Contextual Issues and Design Intent:

Existing facilities located on and adjacent to the project site increase the construction complexity and, along with existing roadways, compress the available construction area into an 'urban' condition. The design responds to these site conditions with an L-shaped plan organization. West and south edges of the project boundary have substantial changes in grade which will be made accessible through sloped walkways integrated with the building and landscape. The project's north and west edges overlap with campus circulation pathway initiatives including the Infinite Loop and Turner Way. Architecturally, the design maintains the collegiate gothic expression of Upper Quad residential halls, clad in Hokie Stone and precast concrete, consistent with the Campus Design Principles.

Funding:

The \$40 million project includes debt service to be provided by Residential Programs revenue and includes the \$7 million supplement approved by the Board of Visitors in November 2020. This project was first proposed as part of the 2018-2024 Capital Outlay Plan.

Architect/Engineer:

Clark Nexsen, Inc.

Construction Manager at Risk:

James R. Vannoy & Sons Construction Company, Inc.

Future Agenda Items and Closing Remarks

BUILDINGS AND GROUNDS COMMITTEE

March 22, 2021

The Committee will discuss future agenda items and make closing remarks.