

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

Tuesday, June 7, 2022

Open Session Tour

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Tuesday, June 7, 2022 at 8:00 a.m. for an urban forestry and campus landscape tour. The tour originated at the Lobby of the Inn at Virginia Tech and Skelton Conference Center (901 Prices Fork Road, Blacksburg) and concluded at the New Classroom Building (1455 Perry Street, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

Board of Visitors Members

Present:

Shelly Butler Barlow (Committee Chair)
Sharon Brickhouse Martin
C.T. Hill
Chris Petersen
Mehul Sanghani
Horacio Valeiras
Preston White

Absent:

Tish Long (Rector)
Ed Baine
Carrie Chenery
Greta Harris
Anna James
Jeff Veatch

Constituent Representative(s) Present:

Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:

Lynsay Belshe, Bob Broyden, Wendy Halsey, Jamie King, Chris Kiwus, Jack Leff, Megan Marsh, Jon Clark Teglas, Paul Winistorfer

- 1. Urban Forestry and Campus Landscape Tour:** The Committee assembled in the lobby of the Inn for an urban forestry and campus landscape tour. The Division of Campus Planning, Infrastructure, and Facilities is responsible for coordinating efforts to assure that our buildings and grounds constantly express the sense of place and quality that is intrinsic to Virginia Tech. Interwoven into the Blacksburg campus landscape, among the daily activities of students and employees and the memories of proud alumni, are more than 10,000 trees. Like Hokie Stone-clad buildings, trees are enduring symbols of pride for the university community — steadfast, scenic, and integral to sustainability. The Committee was briefed by University Arborist, Jamie King – an alumnus of Virginia Tech – who has been at the center of deepening campus efforts around tree preservation and sustainability since his hire in 2019. In support of the Virginia Tech 2020 Climate Action Commitment, the university has invested in and actively leverages the grounds system as a living laboratory. Having earned Tree Campus USA designation for 14 years in a row, this recognition directly highlights the university’s commitment to tree preservation, community engagement, and experiential learning

◆ **Discusses Enterprise Risk Management topic(s).**

* **Requires full Board approval.**

opportunities. The Committee also met several members of the university's grounds crew. These team members maintain the functional, access, and aesthetic standards for 850 intensively managed acres on campus, 20 miles of roadway, 20 miles of sidewalks, 70 parking lots, and the 4-acre Duck Pond.

The tour concluded at 9:40 a.m.

Joint Open Session with the Finance and Resource Management Committee

The Buildings and Grounds Committee and the Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Tuesday, June 7, 2022 at 10:00 a.m. in joint open session in Room 260 of the New Classroom Building (1455 Perry Street, Blacksburg). A quorum of the joint Committee was present.

Board of Visitors Members

Present:

Tish Long (Rector)
Shelly Butler Barlow (Committee Chair)
Ed Baine (Committee Chair)
Sharon Brickhouse Martin
C.T. Hill
Chris Petersen
Mehul Sanghani
Horacio Valeiras
Preston White

Absent:

Carrie Chenery
Anna James
Melissa Nelson
Jeff Veatch
Greta Harris

Constituent Representative(s) Present:

Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:

President Tim Sands, Callan Bartel, Lynsay Belshe, Eric Brooks, Bob Broyden, Brock Burroughs, Caroline Buscaglia, Al Cooper, Alisha Ebert, Kari Evans, David Gerrard, Alan Grant, Tony Haga, Wendy Halsey, Jim Hillman, Frances Keene, Chris Kiel, Chris Kiwus, Kayla Lambert, Jamie Lau, Jack Leff, Rob Mann, Megan Marsh, Elizabeth McClanahan, Nancy Meacham, Ken Miller, Liza Morris, Mike Mulhare, Heidi Myers, Kim O'Rourke, James Perkins, Charlie Phlegar, Dwyn Taylor, Jon Clark Teglas, Chris Wise

*** 1. Approval of Resolution to Supplement the Student Wellness Improvements**

Authorization: The Committees reviewed for approval a resolution to supplement the student wellness improvements authorization. This request was for a \$12 million supplement to adjust the total authorization for the Student Wellness Improvements project to \$70 million to complete a renovation of War Memorial Hall.

◆ **Discusses Enterprise Risk Management topic(s).**

* **Requires full Board approval.**

The Committees recommended the Resolution to Supplement the Student Wellness Improvements Authorization to the full Board for approval.

There being no further business, the joint meeting adjourned at 10:08 a.m.

Open Session Meeting

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Tuesday, June 7, 2022 at 10:30 a.m. in open session in Room 260 of the New Classroom Building (1455 Perry Street, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

Board of Visitors Members

Present:

Tish Long (Rector)
Shelly Butler Barlow (Committee Chair)
C.T. Hill
Chris Petersen
Mehul Sanghani
Horacio Valeiras

Absent:

Ed Baine
Sharon Brickhouse Martin
Carrie Chenery
Greta Harris
Anna James
Melissa Nelson
Jeff Veatch
Preston White

Constituent Representative(s) Present:

Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:

President Tim Sands, Lynsay Belshe, Eric Brooks, Caroline Buscaglia, Van Coble, Al Cooper, Jeff Earley, Alisha Ebert, Kari Evans, David Gerrard, Alan Grant, Tony Haga, Wendy Halsey, Jim Hillman, Patrick Hilt, Elizabeth Hooper, Frances Keene, Chris Kiel, Chris Kiwus, Kayla Lambert, Jamie Lau, Jack Leff, Joy Manning, Megan Marsh, Ross Mecham, Bernadette Mondy, Liza Morris, Mike Mulhare, Heidi Myers, Kim O'Rourke, James Perkins, Charlie Phlegar, Dan Sui, Dwyn Taylor, Jon Clark Teglas, Lisa Wilkes

2. **Welcome:** The Committee Chair convened the meeting and provided welcoming remarks.
3. **Consent Agenda:** The Committee approved the items listed on the Consent Agenda.
 - a. **Approval of the Minutes from the April 4, 2022 Meeting:** The Committee reviewed for approval the minutes from the April 4, 2022 meeting.

◆ **Discusses Enterprise Risk Management topic(s).**

* **Requires full Board approval.**

- * b. **Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Fiber at the Virginia Tech Corporate Research Center:** The Committee reviewed for approval a resolution authorizing the Interim Senior Vice President and Chief Business Officer to execute an amendment to the existing easement, or a new easement as may be appropriate, to the Town of Blacksburg. The Shenandoah Telecommunications Company (Shentel) has requested the university grant the easement to the town in the area of Research Center Drive between Forecast Drive and Pratt Drive on the Blacksburg campus in support of the town’s internet expansion project.

The Committee recommended the resolution to the full Board for approval.

- * c. **Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Squires Parking Lot:** The Committee reviewed for approval a resolution authorizing the Interim Senior Vice President and Chief Business Officer to execute an easement to the Town of Blacksburg.. The Town of Blacksburg has requested the university grant an easement for the installation and upgrade of a sanitary sewer line in the area of Squires Student Center, in support of the Blacksburg campus’ sanitary sewer capacity.

The Committee recommended the resolution to the full Board for approval.

- * d. **Resolution to Approve a Joint Appointment to the New River Valley Regional Water Authority:** The Committee reviewed for approval a resolution authorizing the re-appointment of Dr. William R. Knocke as the at-large member to the New River Valley Regional Water Authority for a new four-year term.

The Committee recommended the resolution to the full Board for approval.

- e. **Acceptance of the Capital Project Status Report:** The Committee accepted the quarterly capital project status report.

4. Update on Agricultural Facilities: The Committee received an update on agricultural facilities planning and construction from Alan Grant, Dean of the College of Agriculture and Life Sciences, and David Gerrard, Head of the Department of Animal and Poultry Sciences. The progress of several capital and non-capital investments that will have significantly positive programmatic impact were highlighted.

5. Annual Report of the University Building Official: The Committee received the annual report from the University Building Official, Chris Kiel. The University Building Official has primary responsibility for the proper management for, and enforcement of, the Virginia Uniform Statewide Building Code (VUSBC) to ensure that construction projects conducted on property owned by the university are

- ◆ **Discusses Enterprise Risk Management topic(s).**
- * **Requires full Board approval.**

completed in compliance with the code, related laws, and regulations. The office serves as primary liaison with outside regulatory agencies on code issues that affect the design, construction, and approval to occupy new university facilities or maintain existing facilities. The office also serves as an integral partner in ensuring physical accessibility on campus. The office was established in July 2010 after the Restructured Higher Education Financial and Administrative Operations Act of 2005 and the Management Agreement with the Commonwealth of Virginia granted the university the authority to designate its own building official. Organizationally, the University Building Official reports directly and exclusively to the Board of Visitors through the Buildings and Grounds Committee.

- 6. Overview of the Facilities Renovations Program:** The Committee received an overview of the university's renovations program from Assistant Vice President for Facilities Operations, Wendy Halsey, and Director of Renovations, Joy Manning. Facility improvements with a total project cost below \$3 million or involve less than 5,000 gross square feet of new space are managed via the renovations program. Hundreds of renovations projects completed each year provide significant and direct impact to the university's students, faculty, and staff.

- 7. Future Agenda Items and Closing Remarks:** The Committee discussed potential topics for inclusion on future meeting agendas. Given that a new Committee will convene at the next meeting, in-depth overviews of both the capital construction program and the campus master plan are planned for the August meeting. It was noted that the timing of these overviews, paired with the substantial progress on the Student Life Village master plan – which the Committee received in-depth briefings during Board meetings in November 2021 and April 2022 – presents an opportunity to consider adding the Student Life Village study as a supplemental appendix to the aggregate campus master plan.

There being no further business, the meeting adjourned at 11:15 a.m.

- ◆ Discusses Enterprise Risk Management topic(s).
- * Requires full Board approval.

Open Joint Session Agenda

**FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE**

Room 260, New Classroom Building

10:00 a.m.

June 7, 2022

<u>Agenda Item</u>	<u>Reporting Responsibility</u>
* 1. Approval of Resolution to Supplement the Student Wellness Improvements Authorization	Ken Miller Chris Kiwus Bob Broyden

*** Requires full Board approval.**

◆ Discusses Enterprise Risk Management topic(s).

Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

Tuesday, June 7, 2022

Bus departs for tour at 8:00 a.m. from the Lobby of the Inn at Virginia Tech and Skelton Conference Center.

Open session meeting begins at 10:30 a.m. in Room 260 of the New Classroom Building.

<u>Agenda Item</u>	<u>Reporting Responsibility</u>
1. Urban Forestry and Campus Landscape Tour	Chris Kiwus
2. Welcome	Shelley Butler Barlow, Chair
3. Consent Agenda	Shelley Butler Barlow, Chair
a. Approval of the Minutes from the April 4, 2022 Meeting	
* b. Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Fiber at the Virginia Tech Corporate Research Center	
* c. Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Squires Parking Lot	
* d. Resolution to Approve a Joint Appointment to the New River Valley Regional Water Authority	
e. Acceptance of the Capital Project Status Report	
4. Update on Agricultural Facilities	Alan Grant David Gerrard
5. Annual Report of the University Building Official	Chris Kiel
6. Overview of the Facilities Renovations Program	Wendy Halsey Joy Manning
7. Future Agenda Items and Closing Remarks	Shelley Butler Barlow, Chair

◆ Discusses Enterprise Risk Management topic(s).

* Requires full Board approval.

Urban Forestry and Campus Landscape Tour

BUILDINGS AND GROUNDS COMMITTEE

June 7, 2022

The Committee will assemble in the lobby of the Inn for an urban forestry and campus landscape tour.

Consent Agenda
BUILDINGS AND GROUNDS COMMITTEE

June 7, 2022

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

Consent Agenda

- a. Approval of the Minutes from the April 4, 2022 Meeting
- * b. Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Fiber at the Virginia Tech Corporate Research Center
- * c. Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Squires Parking Lot
- * d. Resolution to Approve a Joint Appointment to the New River Valley Regional Water Authority
- e. Acceptance of the Capital Project Status Report

*** Requires full Board approval.**

CAPITAL PROJECTS UPDATE

PREPARED FOR THE BUILDINGS AND GROUNDS COMMITTEE OF THE BOARD OF VISITORS
JUNE 2022



VIRGINIA
TECH.



Project Portfolio

- 19 BOV-authorized projects -- active and complete (w/in 1-year warranty phase)
- Total value of ~\$1B
- Adds ~1.7M gross square feet (GSF) of new construction
- Renovates nearly 300K GSF of existing space



Capital Construction Executive Summary (Progressive)

Date Prepared: 20 APR 2022

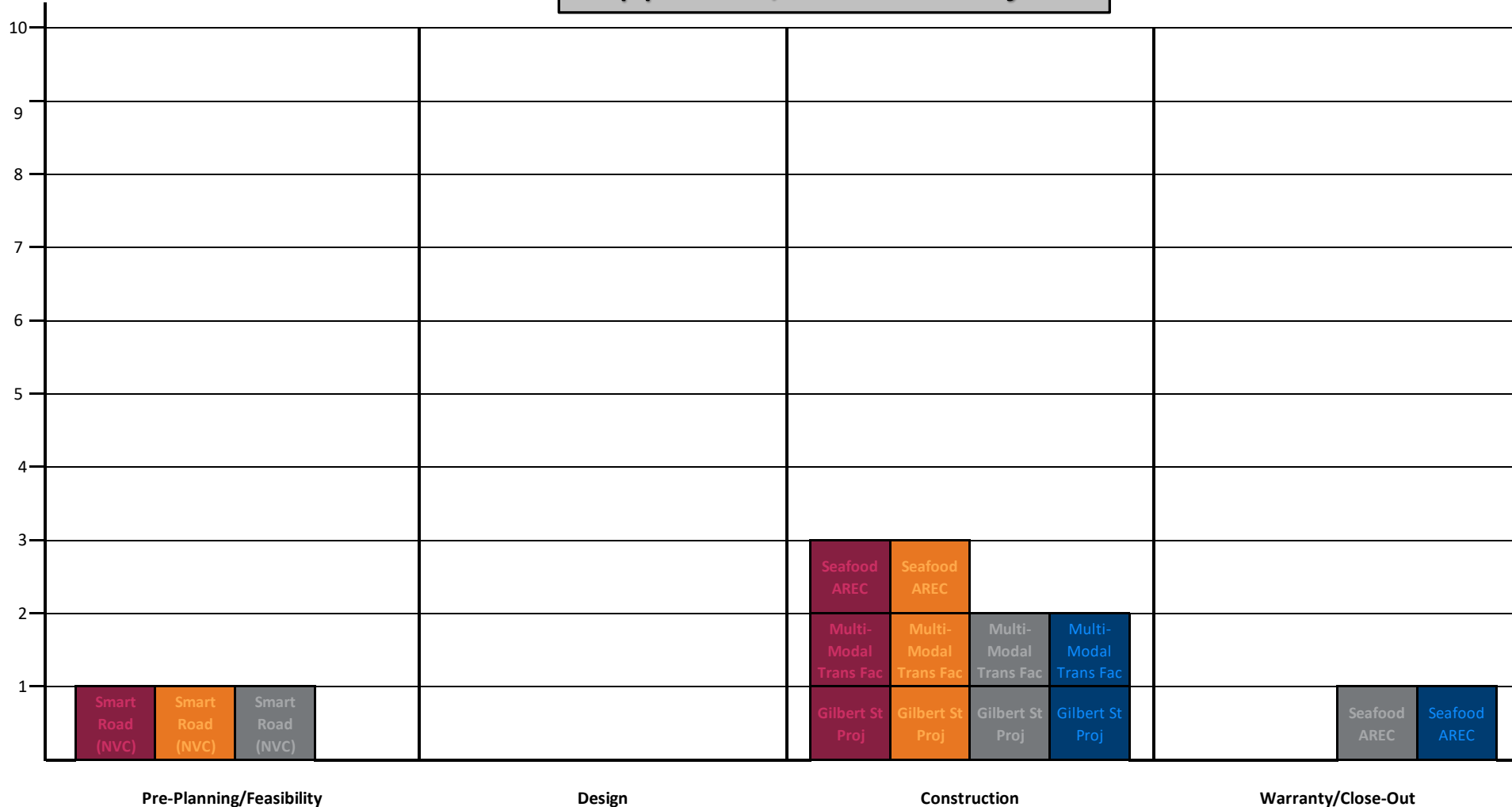
LEGEND: Design Construction **SD = Schematic Design** **PD = Preliminary Design** **WD = Working Drawings**

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Improve Kentland Facilities (Phase II) -- Various Locations	\$12.5	\$10.1	28,403		WARRANTY											
Creativity & Innovation District Living Learning Community	\$105.5	\$85.3	232,000		WARRANTY											
Holden Hall Renovations	\$74.9	\$58.5	82,905	20,240	WARRANTY											
Gas-Fired Boiler at Central Steam Plant	\$8.2	\$3.8	N/A			WARRANTY										
Chiller Plant Phase II	\$42.9	\$32.7	N/A													
Data & Decision Sciences Building (D&DS)	\$79.0	\$58.9	120,000													
Livestock & Poultry Research Facilities (Ph I) - Various Locations	\$25.3	\$18.2	129,100													
Multi-Modal Transit Facility (Note 1)	N/A	N/A	13,606													
Corps Leadership & Military Science Building	\$52.0	\$37.9	65,428	8,449												
New Upper Quad Residence Hall	\$42.0	\$32.0	56,650													
Innovation Campus - Academic Building (Note 2)	\$302.1	\$226.3	299,733													
HITT Hall (Note 2)	\$85.0	\$65.5	101,000													
Dietrick Renovation	\$9.1	\$6.8	6,298	11,960												
Undergraduate Science Laboratory Building	\$90.4	\$69.5	102,746													
Student Wellness Improvements	\$58.0	\$46.9		217,708												
Life, Health, Safety, Accessibility and Code Compliance	\$3.1	\$2.2				WD										
Planning: Mitchell Hall (Replace Randolph Hall) -- <i>Design Only</i>	\$11.0	\$170.0	284,000			PD		WD								
Planning: New Business Building -- <i>Design Only</i>	\$8.0	\$60.6M	104,000				SD		PD		WD					
Planning: Tennis Center Improvements -- <i>Design Only</i>	\$0.8	\$3.0	7,000	500												
Global Business & Analytics Complex Residence Halls	\$84.0	\$66.0	160,000		ON HOLD											
TOTALS	\$1,093.8		1,792,869	258,857												

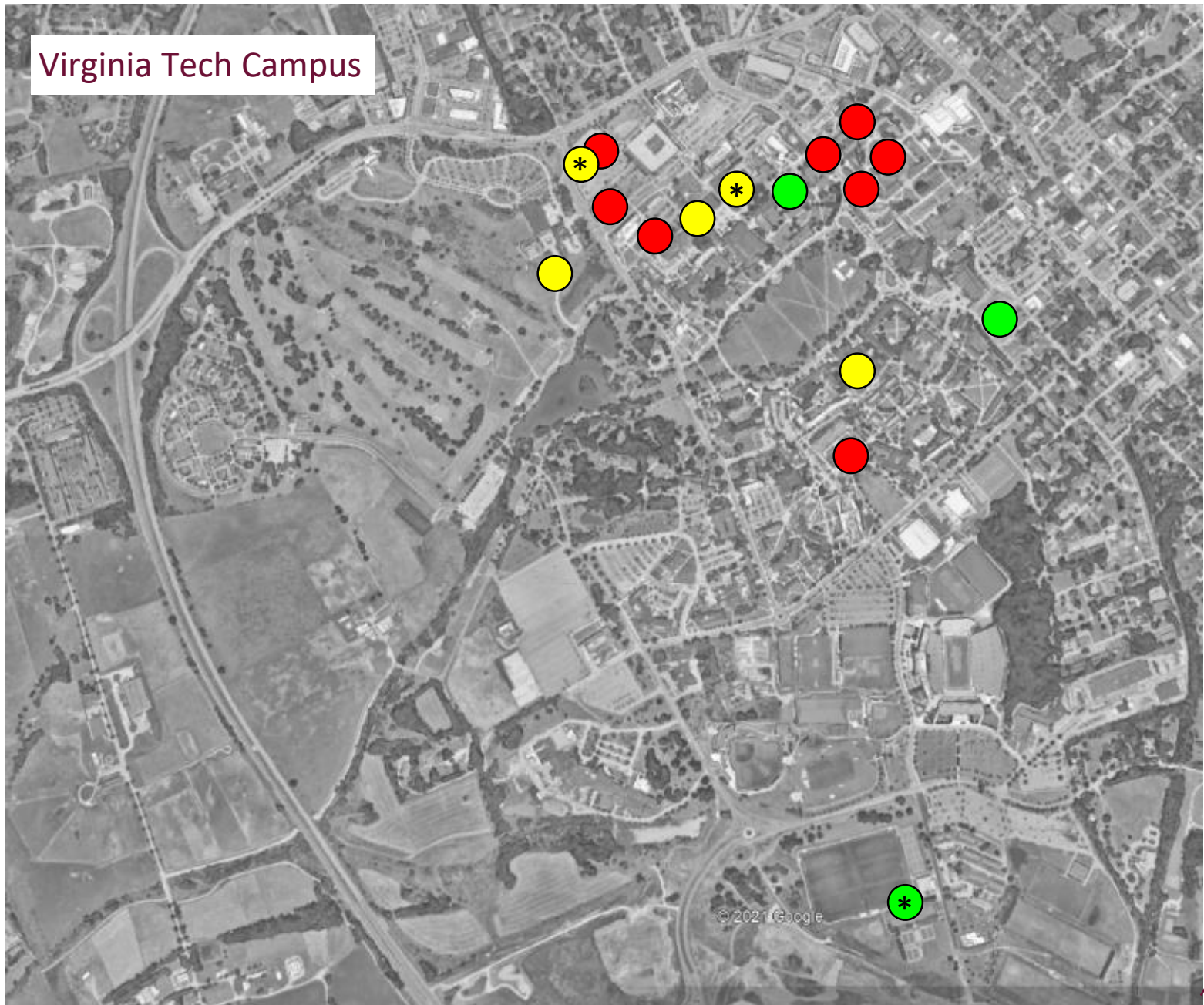
Note 1: Non-VT project
 Note 2: Multiple GMPs results in design/construction overlap (fast track)

Project Portfolio Distribution

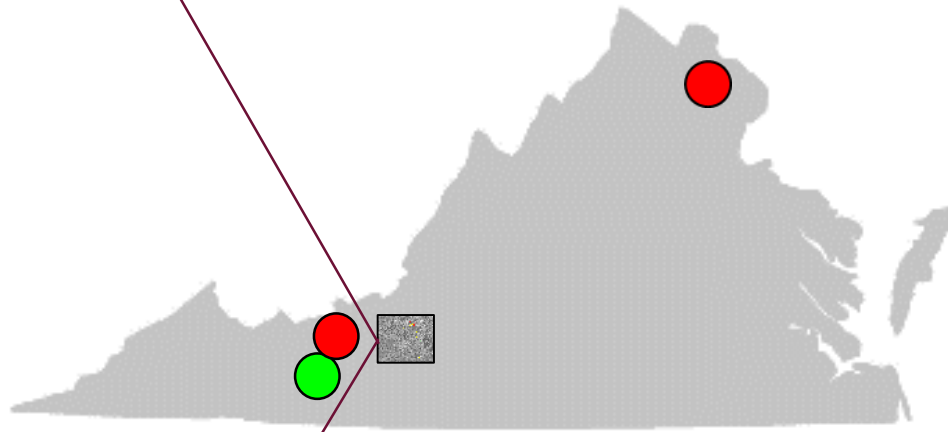
Supported/Non-VT Projects



Virginia Tech Campus



Capital Project Portfolio



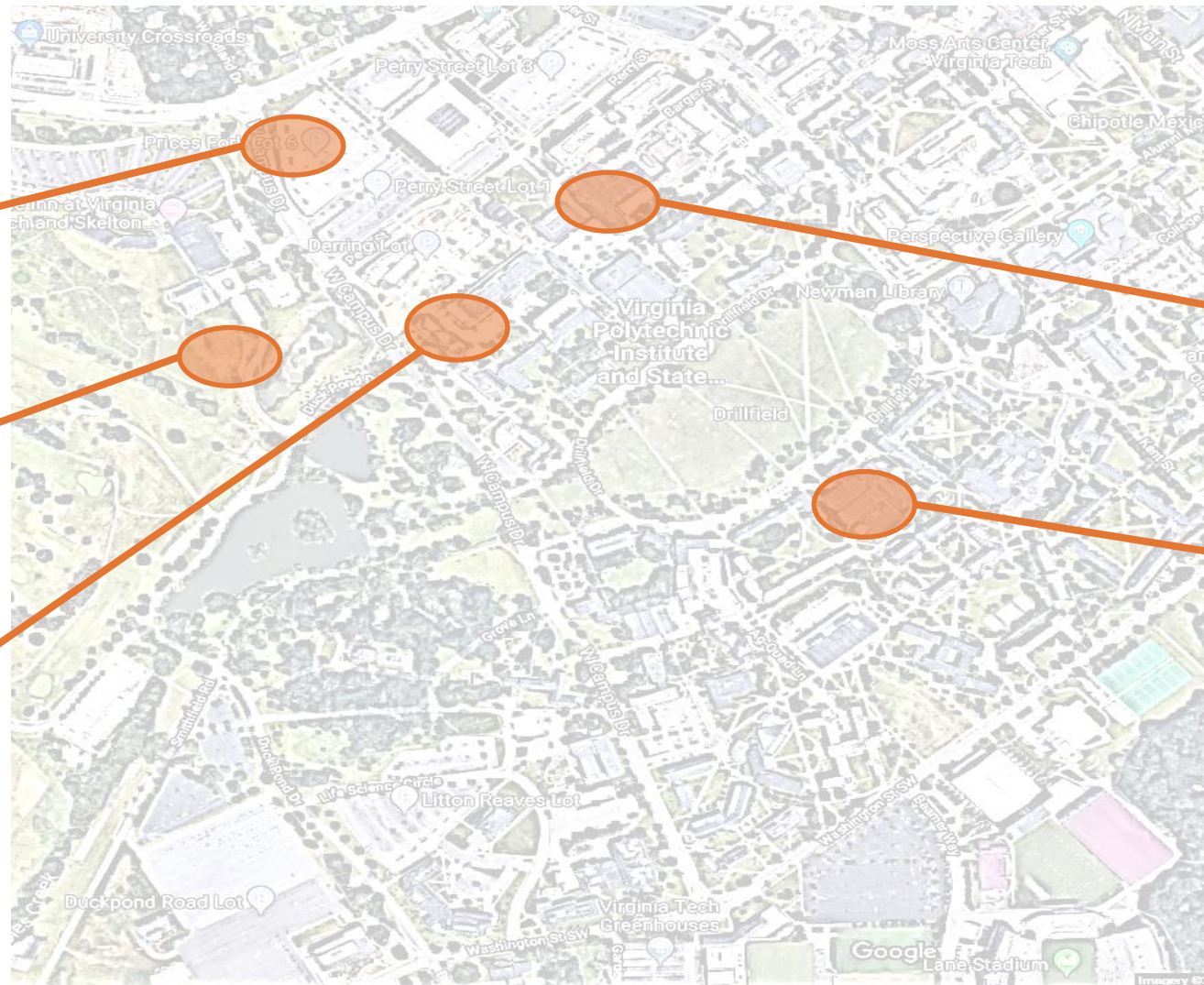
Legend

- Yellow circle = In Design
- Red circle = Under Construction
- Green circle = Warranty/Complete
- * = Design only

In Design



Projects In Design



New Business Building*

*A/E Procurement underway for design



GBAC LLCs (On Hold)



Life, Health, Safety, Accessibility

Randolph Hall Replacement



Student Wellness Improvements



Planning: New Business Building

CMaR
BOV Authorized



Status:

- A/E Request For Proposals (RFP) issued

Next Actions:

- Receive proposals, short-list firms and conduct interviews
- Rank short-listed firms and begin negotiations with #1 firm

LEGEND:	Design	Construction	SD = Schematic Design	PD = Preliminary Design	WD = Working Drawings
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Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Planning: New Business Building -- <i>Design Only</i>	\$8.0	\$60.6M	104,000				SD		PD		WD					

Designer: TBD

Builder: TBD

Planning: Mitchell Hall (Replace Randolph Hall)

CMaR
State Authorized



Status:

- Project authorized through Preliminary Design only
- Schematic Design is underway
- CMaR pre-construction contract is underway

Next Actions:

- Complete Schematic Design phase and develop cost estimates
- Transition to Preliminary Design

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Planning: Mitchell Hall (Replace Randolph Hall) -- Design Only	\$11.0	\$170.0	284,000			PD		WD								

Designer: Perkins & Will

Builder: Skanska

Life, Health, Safety, Accessibility & Code Compliance

Design-Bid-Build
State Authorized



Status:

- Preliminary Design cost estimates in development
- Transitioning to Working Drawings phase
- Supplemental funding request currently before General Assembly for full scope of this project which also addresses other accessibility priorities on campus

Next Actions:

- Complete Working Drawings in July/August and develop final cost estimates

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings																
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Life, Health, Safety, Accessibility and Code Compliance	\$3.1	\$2.2				WD										

Designer: Quinn Evans

Builder: TBD

Student Wellness Improvements

**CM at Risk
BOV Authorized**



Status:

- Design is complete
- Current cost estimates indicate project is over budget principally due to extreme market escalation
- Strategy developed to meet program needs and provide key benefits for students through reduction of project scope and infusion of additional funding

Next Actions:

- BOV authorize implementation of strategy to advance the project

LEGEND:	Design	Construction	SD = Schematic Design	PD = Preliminary Design	WD = Working Drawings
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Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Student Wellness Improvements	\$58.0	\$46.9		217,708												

Designer: Cannon Design

Builder: Whiting-Turner

Global Business & Analytics Complex Residence Halls

**Design-Bid-Build
BOV Authorized**



Status:

- Program originally conceived for this project is now envisioned to be included in phase 1 of the Student Life Village

Next Actions:

- This project may be closed and its budget redirected to the support the program within the Student Life Village

LEGEND:	Design	Construction	SD = Schematic Design	PD = Preliminary Design	WD = Working Drawings
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Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY23		FY24		FY25		FY26		FY27		FY28	
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Global Business & Analytics Complex Residence Halls	\$84.0	\$66.0	160,000		ON HOLD											

Designer: TBD

Builder: TBD

Planning: Tennis Center Improvements

Design-Bid-Build
BOV Authorized



Status:

- Design complete
- Project in close-out pending completion of private fund-raising campaign and BOV construction authorization

Next Actions:

- None

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Planning: Tennis Center Improvements -- <i>Design Only</i>	\$0.8	\$3.0	7,000	500												

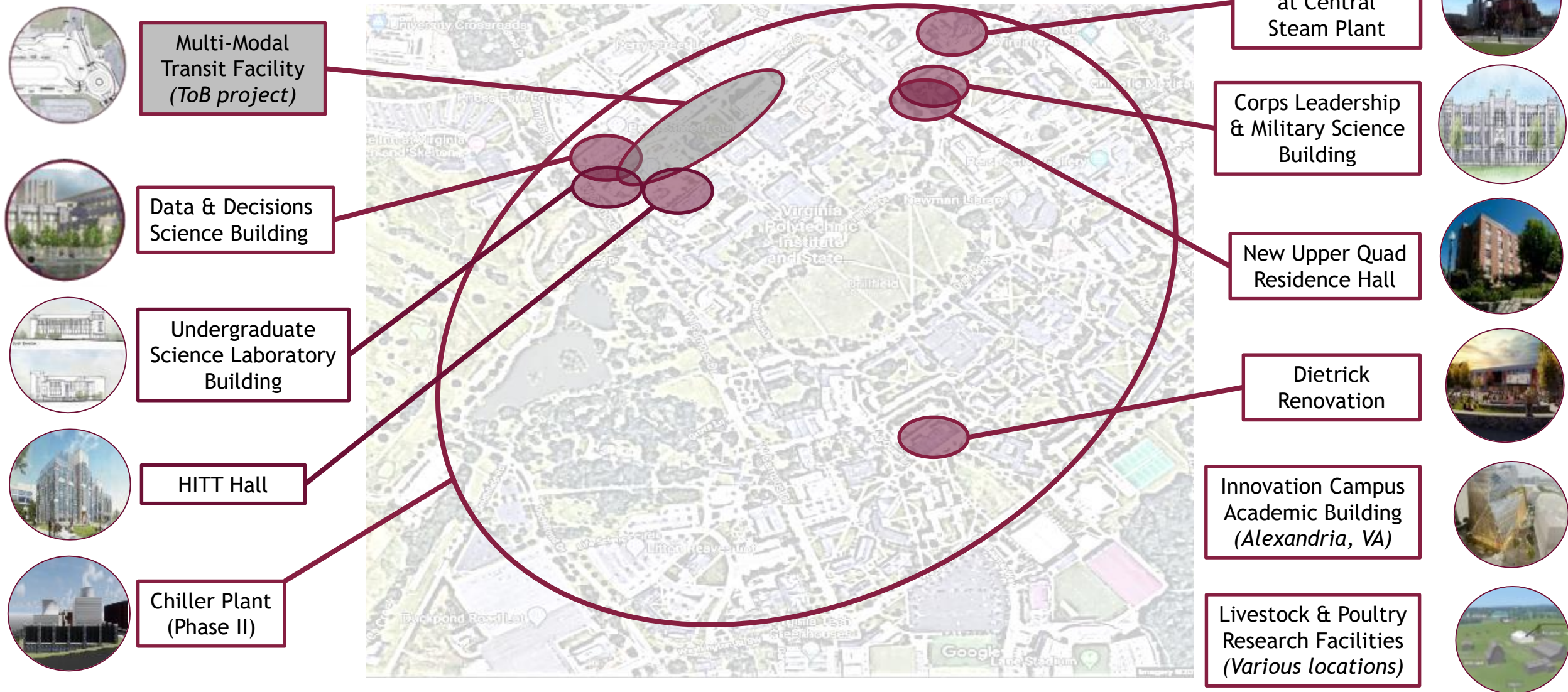
Designer: Tymoff & Moss

Builder: TBD

Under Construction



Active Construction Projects



Innovation Campus-Academic Building

**CM at Risk
State Authorized**



Status:

- Construction underway for GMP-1 (early site package) for foundations/parking garage (80% complete)
- GMP-2 (building construction) contract fully executed

Next Actions:

- Anticipated completion in April 2024

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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							
					FY22		FY23		FY24		FY25												
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2							
Innovation Campus - Academic Building	\$302.1	\$226.3	299,733																				

Designer: SmithGroup

Builder: Whiting-Turner

Undergraduate Science Laboratory Building

CMAR
State Authorized



Status:

- GMP fully executed; contractor mobilized and beginning initial sit work

Next Actions:

- Anticipated completion in April 2024

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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	
					FY22		FY23		FY24		FY25						
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Undergraduate Science Laboratory Building	\$90.4	\$69.5	102,746														

Designer: ZGF

Builder: Skanska

Dietrick Renovation (& Quillen Family Spirit Plaza)

**Design-Bid-Build
BOV Authorized**



Status:

- Contract awarded in March for improvements to Dietrick Hall (capital project) and outdoor plaza (non-capital project)
- Project on track (15% complete)

Next Actions:

- Anticipated completion in March 2023 with phased re-openings of first floor dining venues in fall 2022

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Dietrick Renovation	\$9.1	\$6.8	6,298	11,960												

Hitt Hall

CM at Risk
BOV Authorized



Status:

- GMP-1 (early site package) construction 10% complete
- GMP-2 (building construction) awarded and underway

Next Actions:

- Anticipated completion in March 2024

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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		
					FY22		FY23		FY24		FY25							
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
HITT Hall	(Note 2)	\$85.0	\$65.5	101,000														

Designer: Cooper Cary

Builder: W M Jordan

New Upper Quad Residence Hall

**CM at Risk
BOV Authorized**



Status:

- Project on track (45% complete)

Next Actions:

- Anticipated completion in August 2023

LEGEND:
Design
Construction
 SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
New Upper Quad Residence Hall	\$42.0	\$32.0	56,650													

Designer: Clark - Nexsen

Builder: Vannoy

Corps Leadership & Military Science Building

**CM at Risk
BOV Authorized**



Status:

- Project on track (45% complete)

Next Actions:

- Anticipated completion in July 2023

LEGEND:
Design
Construction
SD = Schematic Design
PD = Preliminary Design
WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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				
					FY22		FY23		FY24		FY25									
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Corps Leadership & Military Science Building	\$52.0	\$37.9	65,428	8,449																

Designer: Clark - Nexsen

Builder: Vannoy

Livestock & Poultry Research Facilities (Phase I)

**Design-Bid-Build
State Authorized**



Poultry Facility



Swine Facility

Status:

- Construction underway on 4 of 6 bid packages:
 - Poultry: 79% complete
 - Swine: 62% complete
 - Equine: 85% complete
 - Beef: 72% complete

Next Actions:

- Supplemental construction funding for 3 hay barns and demolition currently before General Assembly



Equine Facility



Beef Facility

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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	
					FY22		FY23		FY24		FY25						
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Livestock & Poultry Research Facilities (Ph I) - Various Locations	\$25.3	\$18.2	129,100														

Designer: Spectrum Design

Builder: (Various)

Data & Decisions Sciences Building

CM at Risk
State Authorized



Status:

- Project on track (70% complete)

Next Actions:

- Anticipated completion in April 2023

LEGEND:
Design
Construction
 SD = Schematic Design PD = Preliminary Design WD = Working Drawings

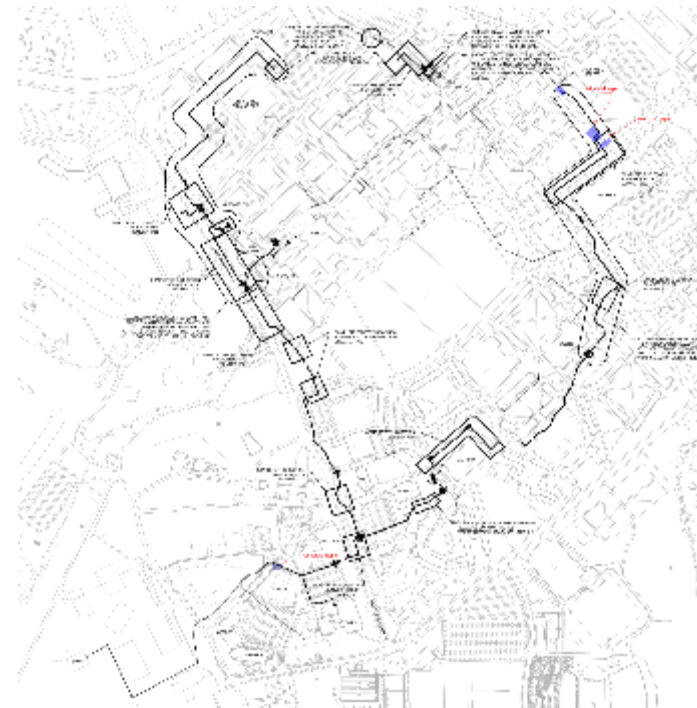
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2022				CY 2023				CY 2024			
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Data & Decision Sciences Building (D&DS)	\$79.0	\$58.9	120,000													

Designer: Moseley

Builder: Kjellstrom & Lee

Chiller Plant (Phase II)

Design-Bid-Build
State Authorized



Status:

- Project on track (99% complete)

Next Actions:

- Test and commission chilled water network in late summer 2022

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Chiller Plant Phase II	\$42.9	\$32.7	N/A													

Designer: AEI

Builder: Falconer

Gas-Fired Boiler at Central Steam Plant

Design-Bid-Build
BOV Authorized



Status:

- Project complete

Next Actions:

- Waiting DEQ issuance of final boiler permit for alternative fuel source (fuel oil)

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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	
					FY22		FY23		FY24		FY25						
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Gas-Fired Boiler at Central Steam Plant	\$8.2	\$3.8	N/A														

Designer: AEI

Builder: Southern Air

Holden Hall Renovation

CM at Risk
State Authorized

Complete



Status:

- Project complete; move-in underway

Next Actions:

- Address punch list and close out contract

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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	
					FY2		FY23		FY24		FY25						
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Holden Hall Renovations	\$74.9	\$58.5	82,905	20,240	WARRANTY												

Creativity & Innovation District LLC

**Design-Build
BOV Authorized**



Status:

- Project complete

Next Actions:

- Address punch list items and close out contract

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2					
Creativity & Innovation District Living Learning Community	\$105.5	\$85.3	232,000		WARRANTY											

Designer: Hanbury

Builder: WM Jordan

Improve Kentland Facilities (Phase II)

Design-Bid-Build
State
Authorized

APR Building



MRL Building



BETR Building



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: Close-out contract (warranty period complete)
- MRL Building: Resolve manure treatment issue (design/warranty issue)

LEGEND: Design Construction SD = Schematic Design PD = Preliminary Design WD = Working Drawings

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Improve Kentland Facilities (Phase II) -- Various Locations	\$12.5	\$10.1	28,403		WARRANTY											

Designer: Spectrum Design

Builder(s): APR = Snyder; MRL & BETR = CPPI

Multi-Modal Transit Facility

Design-Bid-Build Town of Blacksburg (ToB) Project



Status:

- Construction underway (30% complete)

Next Actions:

- Anticipated completion in April 2023

LEGEND:	Design	Construction	SD = Schematic Design	PD = Preliminary Design	WD = Working Drawings
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Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	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
					FY22		FY23		FY24		FY25					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Multi-Modal Transit Facility	N/A	N/A	13,606													

Designer: Wendel (ToB contract)

Builder: WM Schlosser (ToB contract)

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

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

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

David E. Gerrard, Ph.D.
Department Head, Animal and Poultry Sciences

June 7, 2022



New roof on Beef Barn



THE LATEST ON...

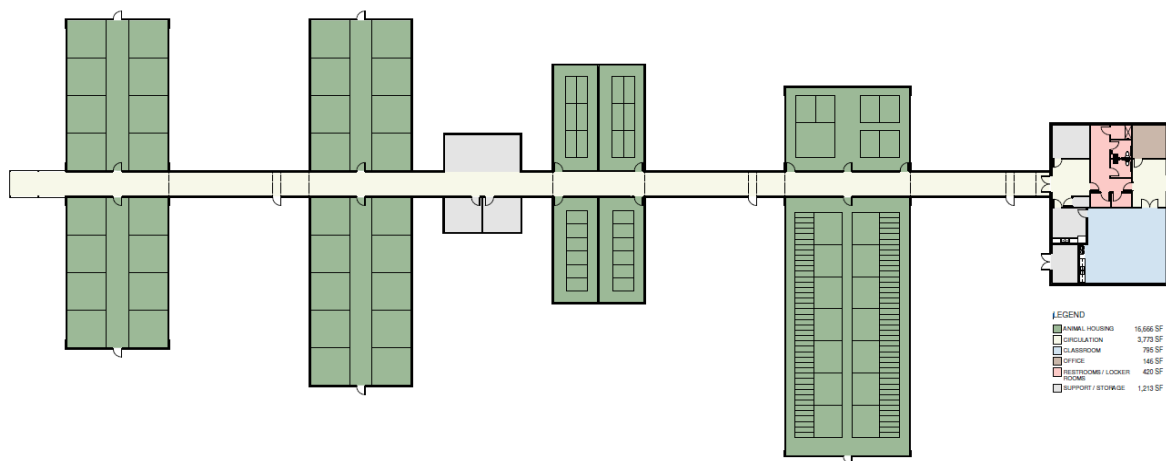
- The new Virginia Seafood AREC is occupied. Owner equipment is being installed and operations initializing.
- 4 buildings at Southwest Virginia AREC have new roofs, siding, and misc. exterior repairs complete.
- New roof and LED lighting are complete at the Beef Barn. Interior structural repairs in progress.
- Exterior repairs to seven buildings at Eastern Shore AREC have begun.
- Interior and exterior repairs and upgrades are underway on Experiment Building at Eastern Virginia AREC.
- AREC Maintenance Reserve project planning for 2022-2024 biennium nearing completion.

Project Highlight:

LIVESTOCK AND POULTRY
RESEARCH FACILITIES, PHASE 1

BID PACKAGE #1

Swine Center



Cost: \$5.6 million

Size: 24,325 square feet

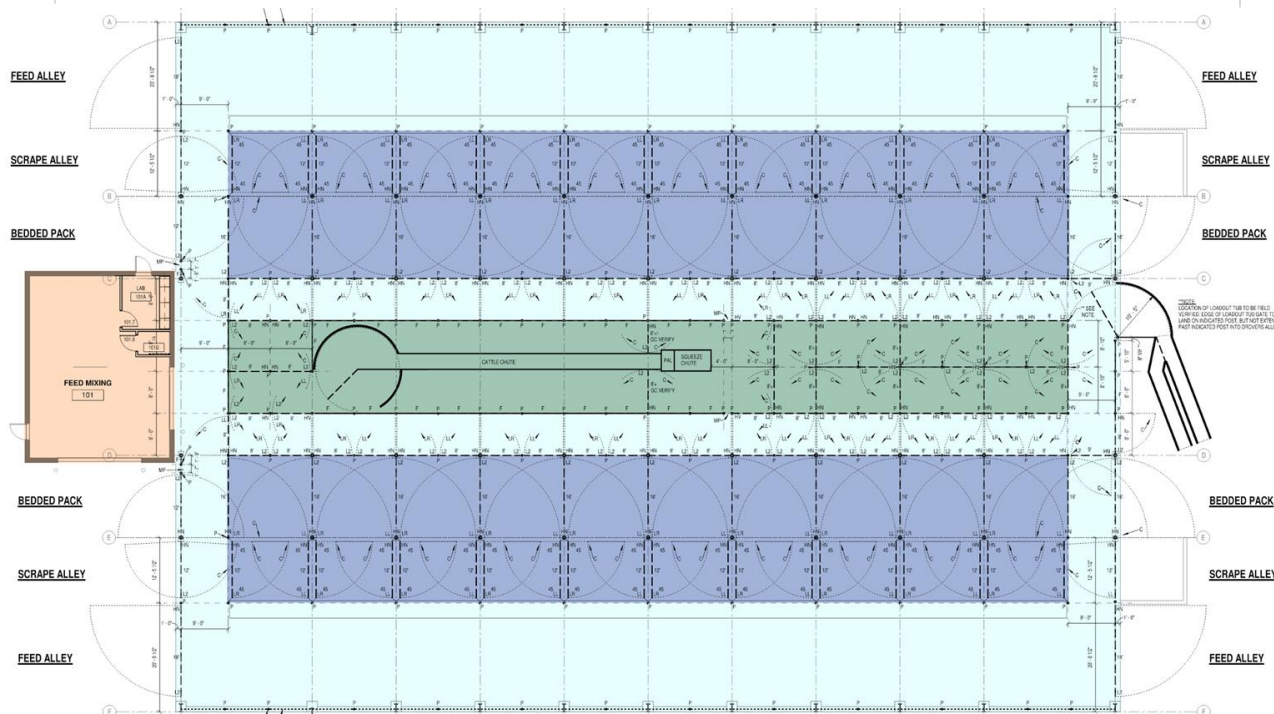
Progress: 65% complete

Completion: August 2022

Description: Small scale swine production and research facility. Separate buildings for Classroom/locker room/admin, Boar Housing and Gestation, Farrowing and Nursery, Grower, and Finishing.

BID PACKAGE #2

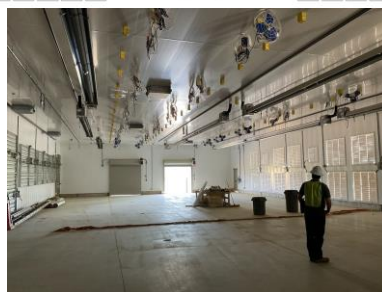
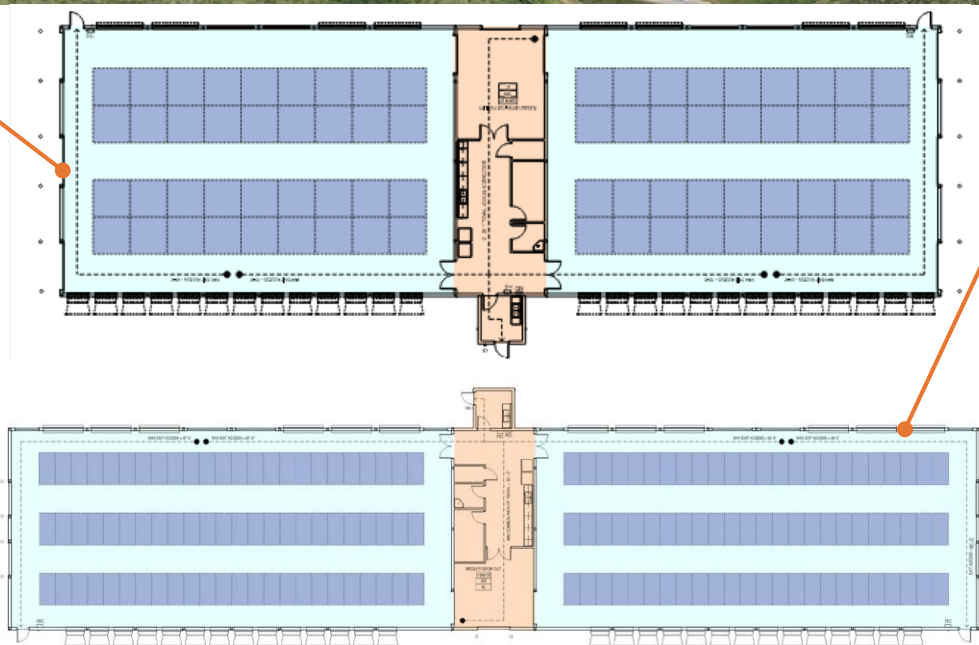
Beef Nutrition and Physiology Facility; Kentland Hay Shed



	<u>Beef Nutrition</u>	<u>Hay Shed</u>
Cost:	\$3.89 M	\$0.60 M
Size:	24,666 s.f.	8,761 s.f.
Progress:	60%	95%
Completion:	August 2022	May 2022
Description:	20 stall cattle housing facility to conduct feed studies. Includes cattle working area, loading chutes, feed mixing room, lab space, 4 grain bins, and 4 covered bulk commodity storage bins. 3-sided hay shed is across the road for dry storage of hay bales.	

BID PACKAGE #3

Broiler Grow-Out Facility; Turkey Grow-Out Facility



	<u>Broiler Grow</u>	<u>Turkey Grow</u>
Cost:	\$3.02 M	\$2.73 M
Size:	11,868 s.f.	10,844 s.f.
Progress:	93%	90%
Completion:	May 2022	May 2022

Description: Small-scale turkey and broiler grow-out facilities for poultry research. Up to 288 4'x4' broiler pens and 144 4'x8' turkey pens in 2 separate environmentally controlled rooms per building. Includes central work areas and feed storage.



BID PACKAGE #4

Equine Facility; Equipment Storage Building

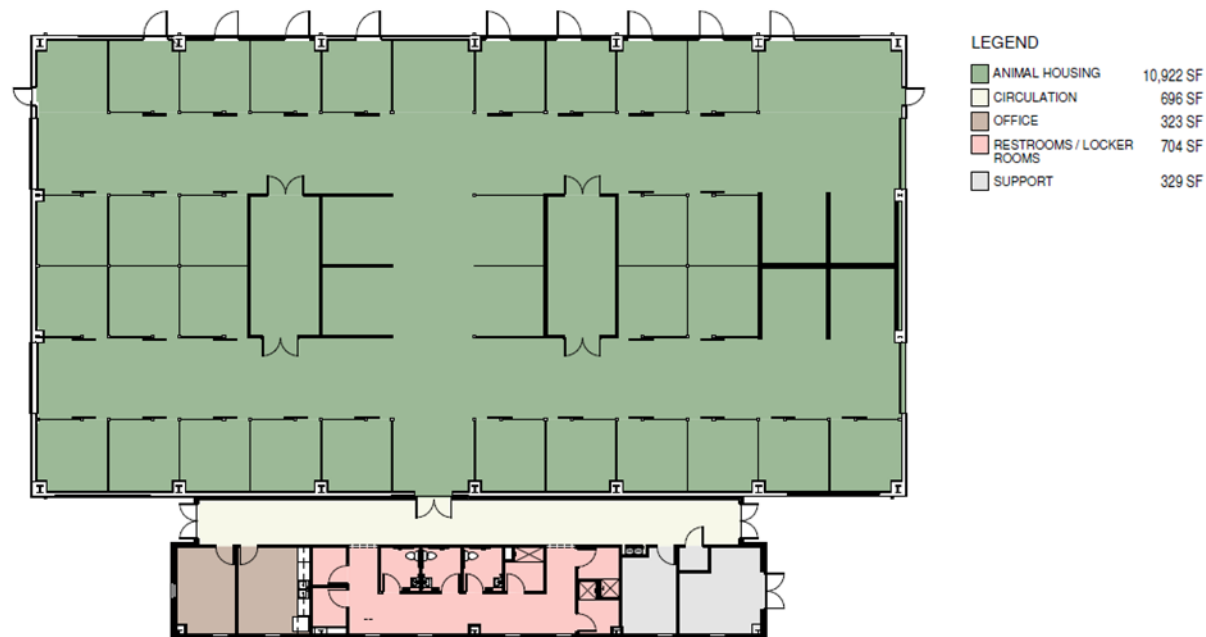


Equine

Equip.
Storage

Cost:	\$2.40 M	\$0.89 M
Size:	13,358 s.f.	5,295 s.f.
Progress:	68%	82%
Completion:	July 2022	June 2022

Description: 29 stall horse barn with tack rooms, wash stalls, grooming stalls, feed storage, bedding storage, and manure storage. Building includes locker room facilities, office, vet room and laundry. Equipment storage building includes 1 heated and 3 unheated bays for equipment storage and maintenance.



TECHNOLOGY
AND CONNECTIVITY

TECHNOLOGY AND CONNECTIVITY



- RTK units delivered/installed at 3 ARECs. Remaining 3 installs slated for June/July.
- Field level wireless trial at Eastern Va. AREC scheduled to begin in June/July
- Dedicated dark fiber activation ordered for Kentland Farm - boosts connectivity to as much as 10 Gbps
- Collaboration with DoIT to build a 4G/5G/CBRS testbed at Kentland Farm



THANK YOU



PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
CAPITAL PROJECTS						
Updates through May 31, 2022						
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	April 2022	Project is substantially complete. Move in is in progress. Owner equipment is being installed and operations are being started.
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 Pkg 6: Final Demolition of remaining facilities	\$31,074,000	Capital Outlay	Spectrum Pkg 1: SIMCON Pkg 2: CPPI Pkg 3: CPPI Pkg 4: Clark Nexsen Pkg 5: TBD Pkg 6: TBD	Packages 1-4: Summer 2022	Packages 1-4 are under construction and progressing toward summer completions. Packages 5-6: Design on hold pending funding appeal
PROJECTS IN DESIGN						
(none)						
PROJECT INITIATION / PLANNING STAGE						
System-Wide AREC Improvements, Phase I	Renew and expand 50,660 GSF of aging and deteriorating AREC facilities - 12,160 SF of renovations and 38,500 SF of new construction storage, greenhouse, housing, research and outreach facilities - to update condition and expand capacity. 13 projects identified at 10 ARECs.	\$16,850,000	Capital Outlay	TBD TBD	TBD	Capital budget request submitted to state for consideration in 2022 budget.
Human and Agricultural Biosciences Building II	Construct new research lab facility for the School of Plant and Environmental Sciences to co-locate numerous research teams in one location with modernized facilities to focus on studying climate change.	\$68,000,000	Capital Outlay	EYP TBD	TBD	Re-programming effort underway for a \$53.5 M construction target. Completion anticipated early summer 2022.
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 May 31, 2022						
PROJECTS COMPLETED SINCE LAST REPORT						
Minor Projects (<\$25,000 each): Eastern Virginia AREC Lighting Upgrades Southwestern Virginia AREC Tobacco Barn #3 Demolition	LED lighting upgrade in Main Office and Lab building and Scott Farm Building Demolition of existing barn no longer needed.	\$18,000	CALS / VAES	- Multiple	Various	Complete
Washington Street Greenhouse Complex Renovations	Repairs and upgrades to modernize aging controlled growth environments.	\$90,000	CALS / VAES / Maintenance Reserve	VT Facilities Engineering Bell Electric, VT HVAC Shop	Spring 2022	Complete
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).	\$583,000	Maintenance Reserve	5 Design Lily Construction	Spring 2022	Complete

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
Alphin-Stuart Arena Roof Drain repair	Repair failing roof drains.	TBD	Maintenance Reserve	- NRV Roofing, Varney	Spring 2022	Complete
PROJECTS IN CONSTRUCTION						
Minor Projects (<\$25,000 each): Alson H. Smith Jr. AREC New Hoophouse Middleburg AREC Hot Walker Installation Reynolds Homestead FRRC Exterior Repairs Shenandoah Valley AREC Working Pens Middleburg AREC Laundry Hookup Alson H. Smith Jr. AREC Greenhouse Controls Upgrade	Construct a 20' x 48' gable high tunnel hoophouse for horticultural research projects. Site prep and electrical hookup for installation of new horse exercising research equipment. Repair deteriorating eaves and trim on main AREC building. Installation of new working pens and open shed. Washer and dryer connections for two buildings. Replace aging controls system.	\$66,000	CALS / VAES	- Multiple	Ongoing	In Progress
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	Signage instation complete at Tidewater, Southwest Virginia, Alson H. Smith Jr., Eastern Virginia, Middleburg, Southern Piedmont, and Shenandoah Valley ARECs. Final design and fabrication pending at others.
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.	\$1,064,000	Maintenance Reserve	HDH, FEA Thor, SRC	Summer 2022	Construction in progress. Roofing and lighting replacement complete. Structural repairs underway.
Eastern Virginia AREC - Experiment Building Renovation	Renovation and upgrade of existing under-utilized office, workshop and meeting space. Building HVAC system has failed and is not working. Electrical and plumbing are outdated. Building is not ADA accessible. General condition is deteriorating.	\$195,000	Maintenance Reserve	Structures Group Eagle River	TBD	Construction is underway.
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.	\$596,000	Maintenance Reserve	Structures Group ET Gresham	TBD	Costruction is underway
Tidewater AREC - Water system repair	Water line from well to main office complex is failing in multiple locations and requires frequent repairs, creating water quality concerns. Project is to connect to public water system with 1.5-inch water line.	\$40,000	Maintenance Reserve	- Lewis Construction	Summer 2022	Construction is underway.
PROJECTS IN DESIGN						
Minor Projects (<\$25,000) each: Tidewater AREC Peanut Storage Shed Eastern Virginia AREC RTK Tower Installation Tidewater AREC RTK Tower Installation Southwest AREC Smart Feeder Power Connection	960 square foot prefabricated structure for field storage of harvested peanuts. Power and data connections for new GPS and Wi-Fi tower. Power and data connections for new GPS and Wi-Fi tower. Power connections for new smart feeding equipment in Cattle Barn	\$37,000	CALS / VAES	- Multiple	Various	In Progress
Southern Piedmont AREC - Packhouse Restroom 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.	\$122,000	Maintenance Reserve	Thompson & Litton TBD	TBD	Design is in progress.

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
Urban Horticulture Center LED Lighting Retrofit	Replace failing fixtures to restore operational effectiveness and realize energy savings (2 buildings)	TBD	Energy Management	In house	TBD	Bidding is in progress
				TBD		
Kentland Farm Dairy Complex LED Lighting Retrofit	Replace failing fixtures to restore operational effectiveness and realize energy savings (5 buildings).	TBD	Energy Management / CALS	In house	TBD	Bidding is in progress
				TBD		
Heth Farm Shed and Silo Demolition	Demolish two structures that are currently unsafe and operationally unnecessary	TBD	CALS	TBD	TBD	Determining permitting requirements.
				TBD		
Prices Fork Quarantine Lab Room 8 Renovation	Minor Modifications to improve workflow and safety within Entomology Quarantine Facility at Prices Fork Research Center.	TBD	CALS	TBD	TBD	Design is in progress.
				TBD		
Prices Fork Quarantine Lab Emergency Generator	Installation of new backup generator for operational reliability at Entomology Quarantine Facility at Prices Fork Research Center.	TBD	CALS	Gibson Engineering	TBD	Design is in progress.
				TBD		
Southern Piedmont AREC - Pavement repairs	Existing main parking lots (3) and primary internal roadways are deteriorating and in need of repair. Approximately 1,300 square feet of milling and 8,400 square yards of 2-inch asphalt overlay required.	\$126,000	CALS / VAES	-	TBD	Contractor quote received. Funding options being evaluated.
				TBD		
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	Scope review with University Building Official (UBO) is necessary to resolve code requirements and funding eligibility. Project deferred to 2023.
				TBD		
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. Existing equitation barn to be repurposed for small animal research and extension activities.	\$93,000	Maintenance Reserve, CALS	TBD	TBD	Schematic Design to begin Summer 2022.
				TBD		
PROJECT INITIATION / PLANNING STAGE						
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	Capital and operational costs for project under review internally.
				TBD		
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	Scope and budget development.
				TBD		
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 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.
				TBD		

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
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	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	Scope and budget development. Construction planned in FY 2023.
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 of structural repairs. Basement of Annex (0812) floods and needs drainage corrections.	\$158,000	Maintenance Reserve	TBD	TBD	Scope and budget development. Construction planned in FY 2022.
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	Scope and budget development.
Shenandoah Valley AREC - Renovate Carriage House	Renovate Carriage House to add two single-user public restrooms and welcome center area for visitors to the McCormick Farm.	TBD	CALS / VAES	TBD	TBD	Scope and budget development underway. Study will be necessary to address development within historic property for Department of Historic Resources.
Southern Piedmont AREC - Building Repairs	Repair/replace siding and five deteriorated lean-to equipment storage sheds attached to four tobacco curing barns (0893A, 0893B, 0893C, 0893D)	TBD	Maintenance Reserve	TBD	TBD	Scope and budget development. Construction planned in FY 2022.
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	Scope and budget development.
Smithfield Equine Classroom Renovations, Phase 2	Completion of building envelope repairs, restroom repairs, accessibility improvements.	\$110,000	Maintenance Reserve, CALS	TBD	TBD	Scope and budget development.

INFORMATION TECHNOLOGY (IT) EVALUTATION & PROJECTS
 Updates through May 31, 2022. New information is in bold.

PROJECTS COMPLETED						
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.
AREC A/V Upgrades, Phase 2	Installation of new audio and video equipment for ARECs to provide enhanced conferencing capability in larger conference rooms. Phase 2 includes Alson H. Smith, Hampton Roads, Southern Piedmont and Tidewater ARECs.	\$238,000	CALS / VAES	CALS IT Lee Hartman and Sons	Spring 2022	These 4 installations are complete.

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>ARECs: 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. A quote has been received for 100 Mb service at Southwest Virginia. 1 Gbps service is now available at Alson H Smith, and Hampton Roads ARECs, and has been ordered for Southern Piedmont, and Tidewater. Eastern Shore AREC will be upgraded to 200 Mbps.</p> <p>Campus Farm locations: 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. A dark fiber connection to campus is being considered that would both lower the current monthly cost and increase the Kentland bandwidth to nearly 10 Gbps is being explored.</p>	\$245,000 Annually	CALS / VAES	CALS IT	Ongoing	Alternative service providers are being sought for turfgrass center and local tenant houses. Reviewing service levels and needs at Livestock Facilities on Plantation Road. Ordered and partially installed fiber to extend internet service to employee housing at Eastern Shore, Hampton Roads, Shenandoah Valley and Middleburg. Service to the Turfgrass Center is now tentatively scheduled for mid-July.
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 Division of IT	Ongoing	VOIP conversion projects have been completed at 7 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 completion of their new building.
Network Equipment Upgrades and Expansion	A project to upgrade routers and switches as well as expand in-building wireless and some external wireless has been started. This project will replace LAN gear as well as enhance wireless connectivity within AREC buildings and expand wi-fi and the AREC network to additional buildings and some exterior spaces.	\$1,140,000	CALS/VAES	CALS IT	TBD	Orders for equipment have been placed.
Real Time Kinematic (RTK)	A project to install RTK systems at select ARECs has been started. RTK enables the ARECs to implement precision agriculture research practices. RTK increases the accuracy over and above standard GPS from an accuracy of 2-4 meters to ~1 centimeter. Installation is planned for Spring 2022.	\$213,000	CALS/VAES	CALS IT John Deere Trimble	Summer 2022	RTK tower and equipment has been installed at Tidewater AREC. Mobile units for Middleburg AREC and Shenandoah Valley AREC have been received. Tower installations for Eastern Shore, Eastern Va., and Southern Piedmont are expected by end of June 2022.
Eastern Virginia AREC Field-level Wireless (a SmartFarm Project)	Installation of new technology, similar to Wi-Fi but with better exterior coverage and security management, in fields at Eastern Virginia AREC to study the effectiveness of this equipment for supporting data-intensive agricultural, plant-based research as well as providing ready access to the internet and data network.	\$90,000	CALS/VAES	CALS IT Dell JMA Pierson Wireless John Deere	Summer 2022	Funding has been authorized. Installation expected to coincide with RTK installation sometime in late June.
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. Project has expanded to include faculty from the School of Plant and Environmental Sciences, and now includes work at Kentland Farm. An additional project in cooperation with DoIT, CALS, and COE would create a 5G/CBRS testbed at Kentland Farm.	TBD	TBD	CALS IT DoIT MAAP VTNSI TBD	TBD	Funding needs and sources are being resolved.

UNIVERSITY BUILDING OFFICIAL

BOARD OF VISITORS

BUILDINGS AND GROUNDS
COMMITTEE

JUNE 7, 2022



OFFICE OF THE UNIVERSITY BUILDING OFFICIAL

Established in 2010, the Office of the University Building Official has primary responsibility for the proper management for, and enforcement of, the Virginia Uniform Statewide Building Code to ensure that construction projects conducted on property owned by the university are completed in compliance with the code, related laws, and regulations.

UBO TEAM



Attachment E
Chris Kiel, PE, MCP, CBO
University Building Official



Steven Smith, PE, CBO
Building Code Plan
Reviewer/Inspector

Jack Thompson, Jr., PE
Building Code Plan
Reviewer/Inspector



John Bush, AIA
Building Code Plan
Reviewer/Inspector



Mike Vellines, PE, CBO
Interim Building Code Plan
Reviewer/Inspector

Heather Snidow
Permit Technician/
Administrative Coordinator

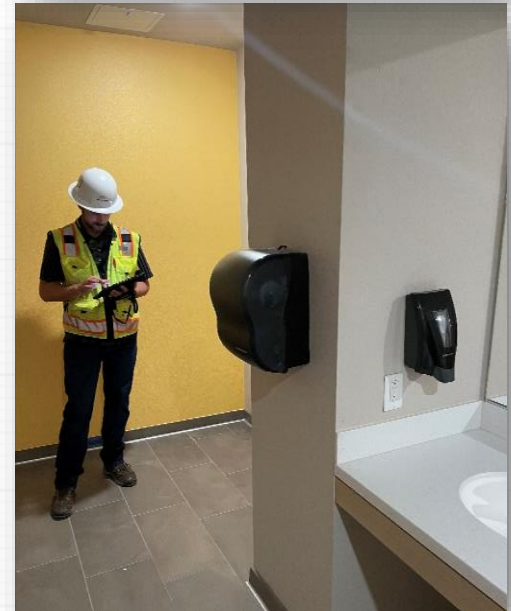
Marie Castillo
Assistant Permit Technician

CAMPUS ACCESSIBILITY

ACCESSIBILITY REMAINS A CENTRAL FOCUS AND JURISDICTION AREA FOR THE UNIVERSITY BUILDING OFFICIAL

UBO is responsible for ensuring the campus environment is ADA-compliant, including both building interiors and exteriors:

- All Virginia Tech facilities across the state
- New buildings, renovations, minor alterations
- Stadiums, residence halls, dining halls, and academic buildings
- Classrooms, labs, maker spaces
- Restrooms: Toilets, showers, sinks
- Doors, ramps, stair rails, doors, thresholds
- Sidewalks, outdoor amphitheaters, temporary concert venues



ADA INSPECTIONS

UBO remains on the frontlines working to ensure designers and clients embrace accessibility requirements and university guidelines.

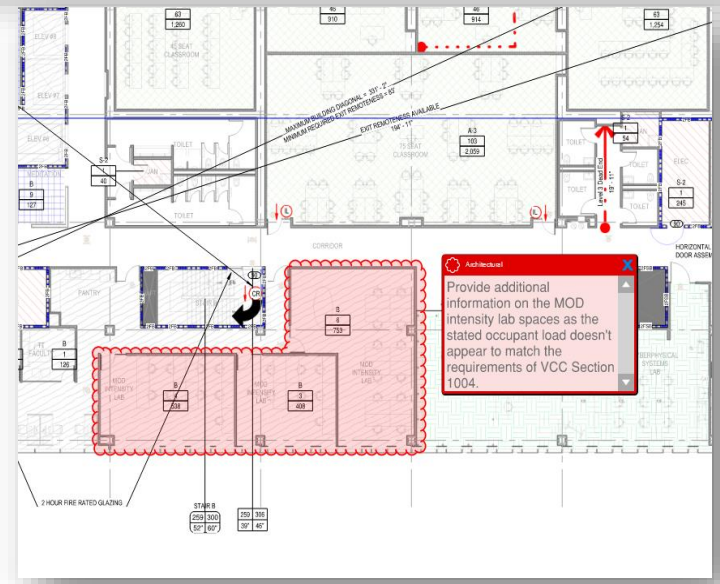
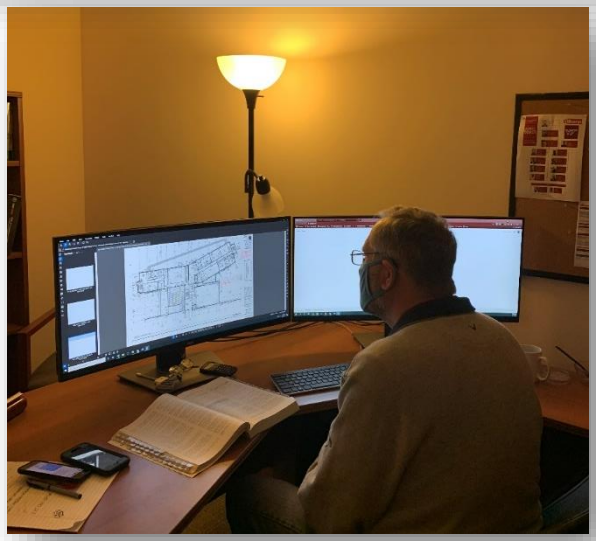
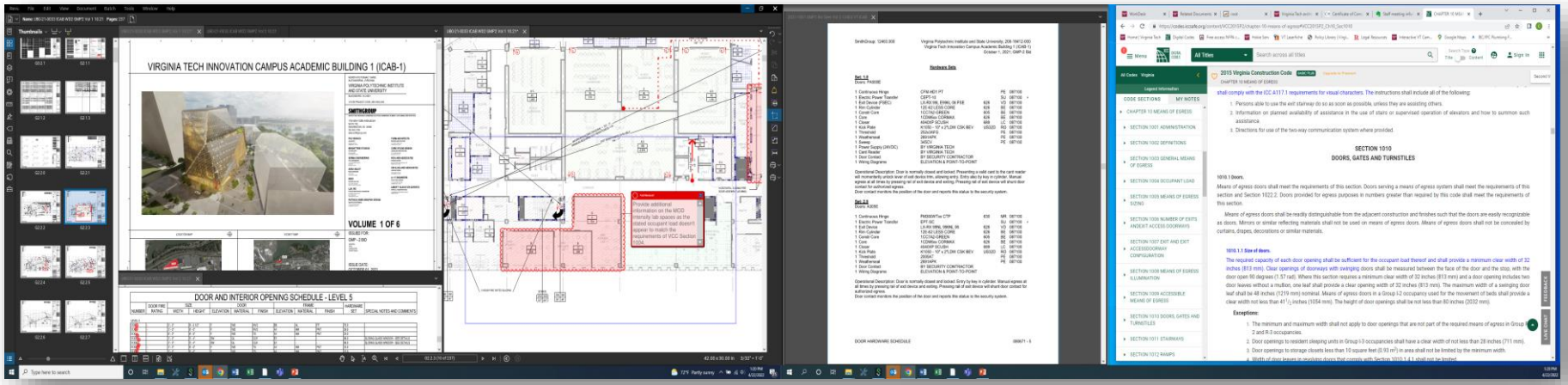
THOUGHTFUL
DECISION-
MAKING

CONTINUOUS
COMMUNITY
DIALOGUE

CONTINUOUS
IMPROVEMNT



REVIEWS



REVIEWS

ELECTRONIC PROCESSES



STREAMLINING
PROCESSES



BETTER
COMMUNICATION
OF INFORMATION



COLLABORATIVE
DISCUSSION OF
CODE ISSUES

Electronic improvements have led to improved efficiencies in permit review:

- Non Capital Average Plan Review : **2 days** turnaround
- Capital Project Average Plan Review: **6 days** turnaround

CUSTOMER SERVICE EFFICIENCIES

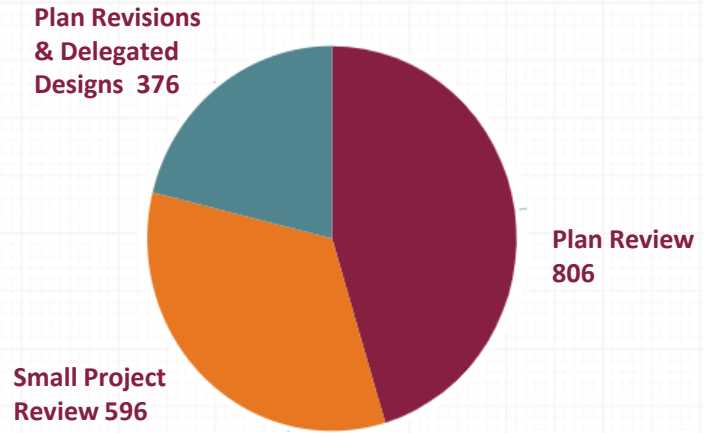
The old way....



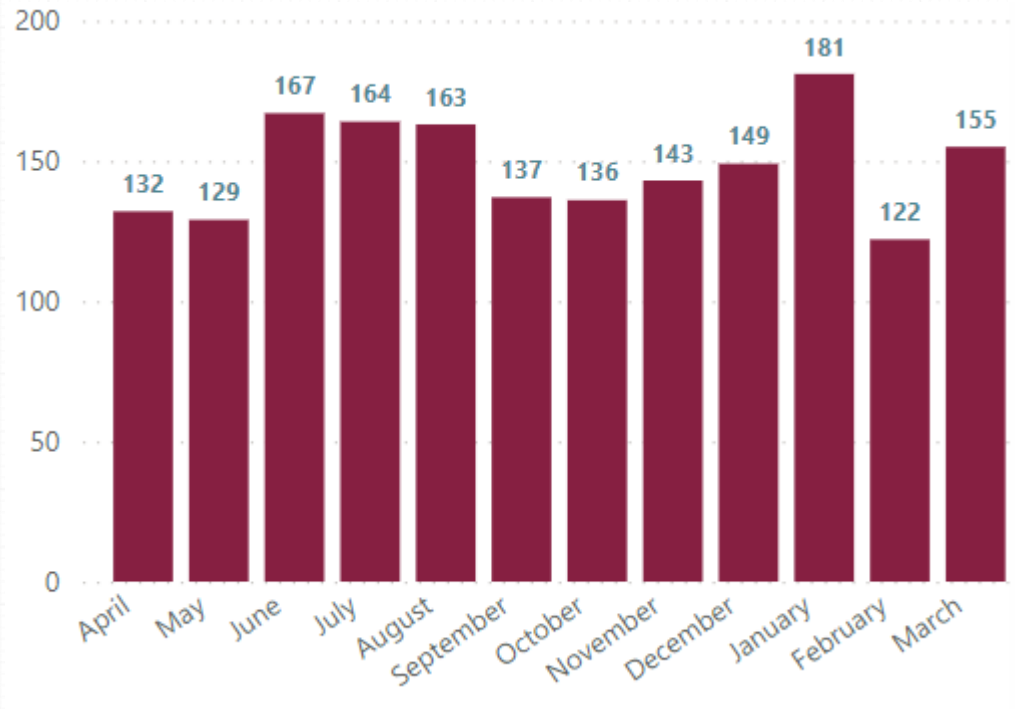
The new way....

REVIEWS

TOTAL COMPLETED
PLAN REVIEWS: 1,778



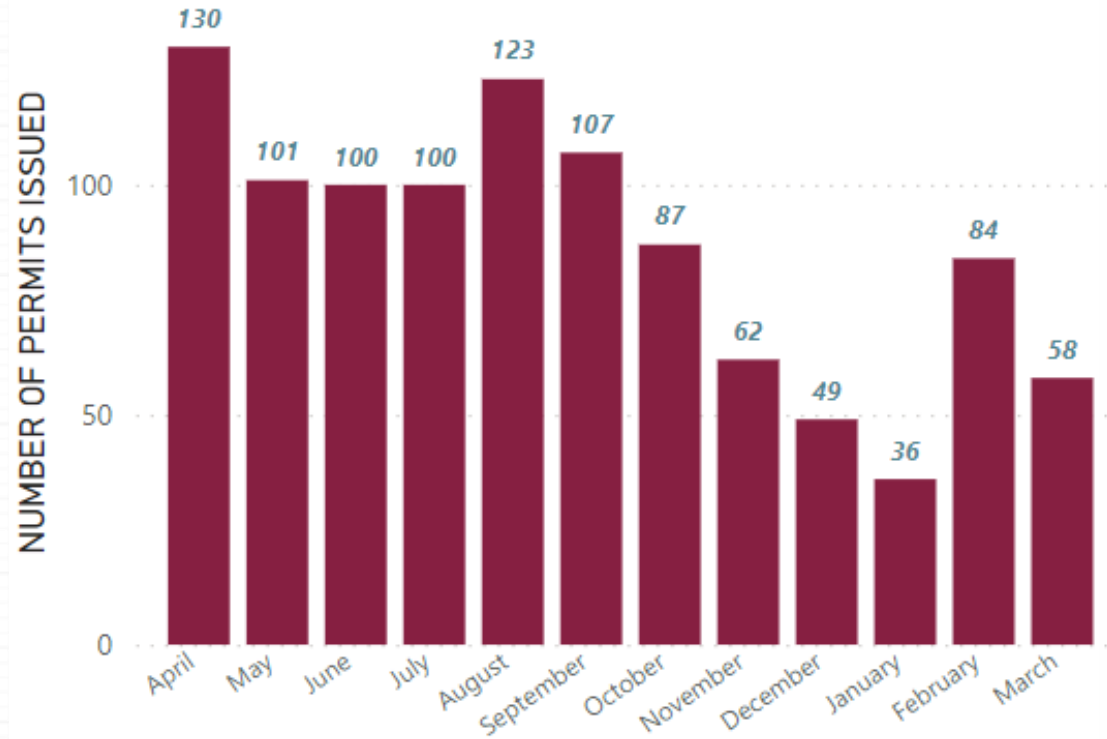
COMPLETED
PLAN
REVIEWS
BY MONTH



Reviews: April 1, 2021 – March 31, 2022

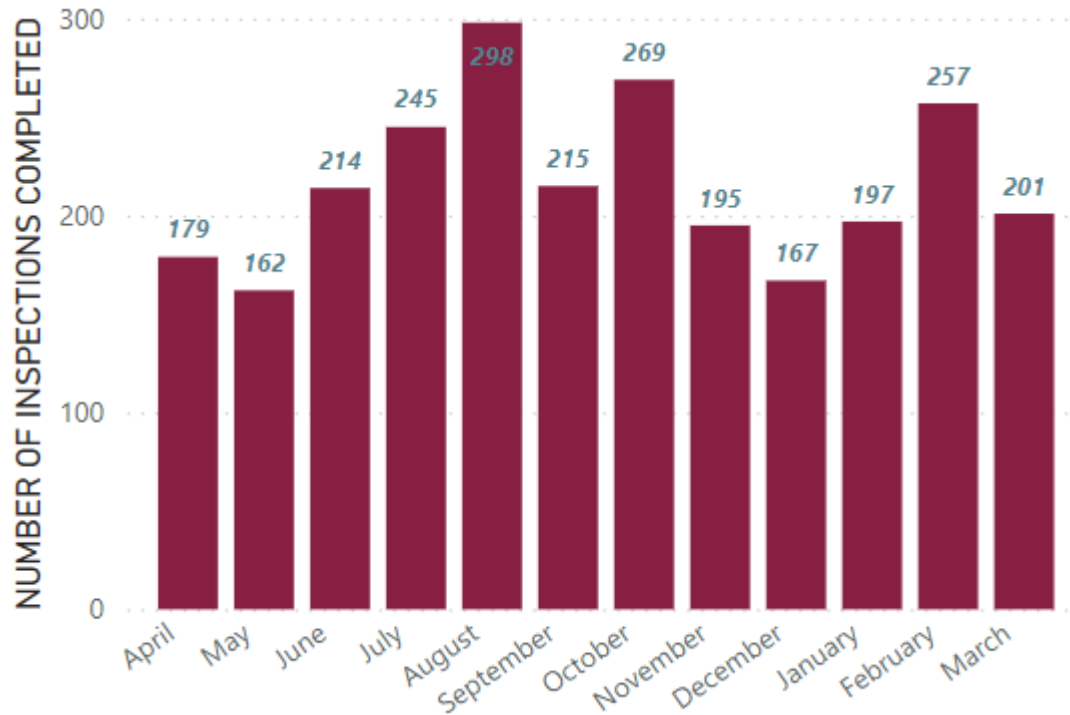
PERMITS

TOTAL NUMBER
OF PERMITS: 1,037



INSPECTIONS

TOTAL NUMBER OF INSPECTIONS: 2,599



Inspections: April 1, 2021 – March 31, 2022

INSPECTIONS

Attachment E

- Average 10.5 inspections each day.
- Meeting with design teams and contractors on-site to address issues that arise.
- Virtual inspection process for remote locations save time and money.



Hitt Hall covered channel

QUESTIONS?

Attachment E



Multi-Modal Transit Facility

THANK YOU!

Office of the University Building
Official

540-231-4678

vtubo-g@vt.edu

OVERVIEW OF THE FACILITIES RENOVATIONS PROGRAM

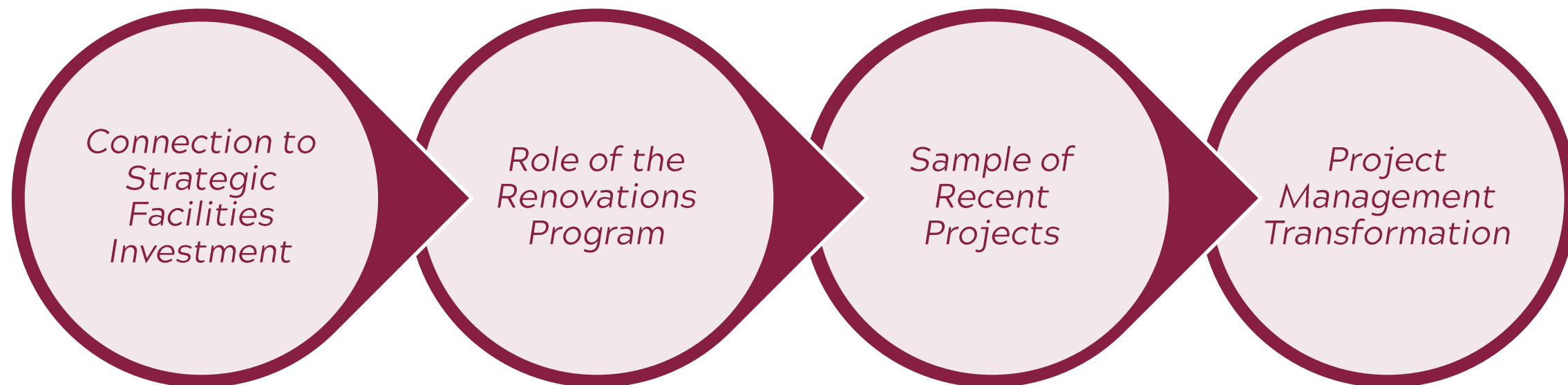
PRESENTATION FOR THE BOARD OF VISITORS

WENDY HALSEY, MAURP, MBA, PE
ASSISTANT VICE PRESIDENT FOR FACILITIES OPERATIONS

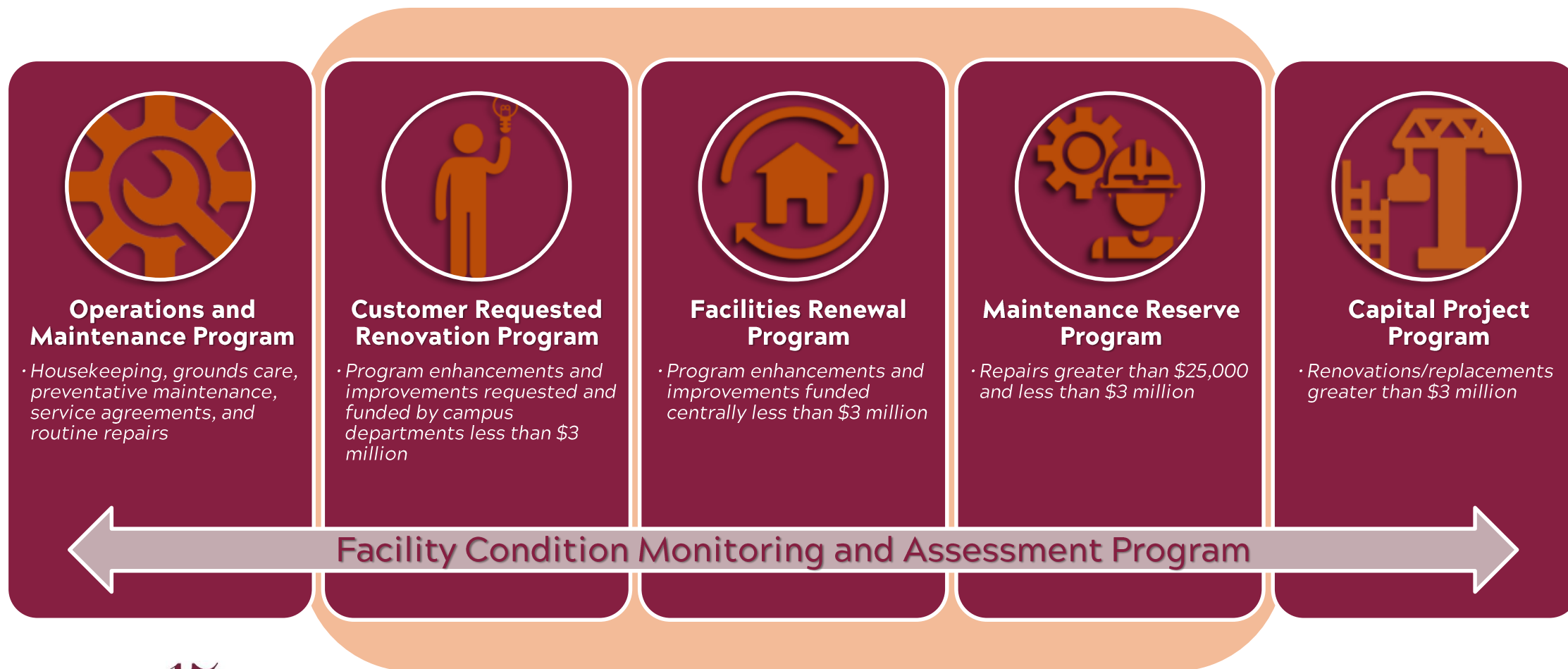
JOY MANNING
DIRECTOR OF RENOVATIONS

JUNE 7, 2022

DISCUSSION POINTS

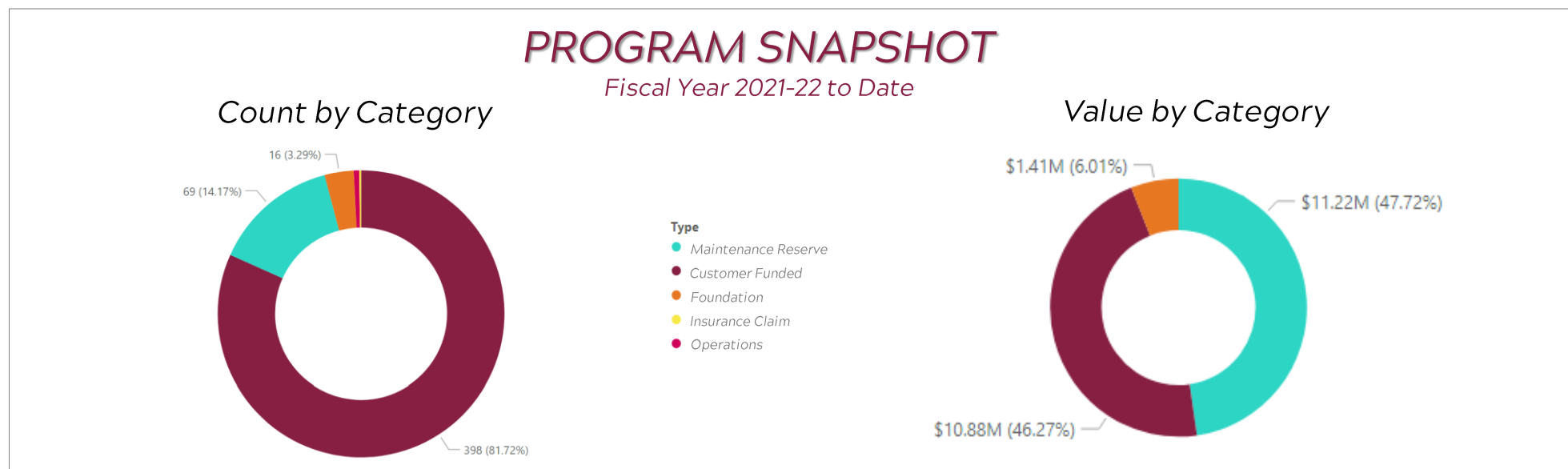


STRATEGIC FACILITIES INVESTMENT



RENOVATIONS PROGRAM

- Facility improvements with a total project cost below \$3M or involve less than 5,000 gross square feet of new space
- The Renovations Team executes \$16M to \$20M in projects each year



CLASSROOM IMPROVEMENTS LITTON REAVES HALL

Project Summary

Renovation of the existing instructional auditorium in Litton Reaves Hall.

Project Budget

\$1,685,610

Project Highlights

The project was funded by both central funds and maintenance reserve funds. The scope of work was a complete refresh of the finishes throughout the space as well as lighting and seating improvements. In addition, the project addressed impacts of the aging foundation.

Project Status

Completed



ROOF REPLACEMENT AND ATRIUM REPAIRS

PAMPLIN HALL

Project Summary

Full replacement of the roof and repairs to address leaks with the glass atrium system.

Project Budget

\$508,000

Project Highlights

The project included a replacement of the existing ballasted roof with a new roofing system and removal/replacement of all glazing panels within the glass atrium system to address leaks.

Project Status

Completed



NEW CONSTRUCTION

BASEBALL PITCHING LAB

Project Summary

Provide a lab for the Department of Intercollegiate Athletics to study and train pitching performance.

Project Budget

\$1,827,096

Project Highlights

The new building is a single-story, 20-foot high, 2,043 gross square foot facility for indoor pitching practice. The new building finishes include precast concrete panels, Hokie Stone, aluminum framed windows and overhead doors, in line with sporting facilities architectural styles and material of the Athletics and Recreation District.

Project Status

Under Construction



ACROSS THE COMMONWEALTH



Roanoke Riverside 4
MRI Shielding Installation



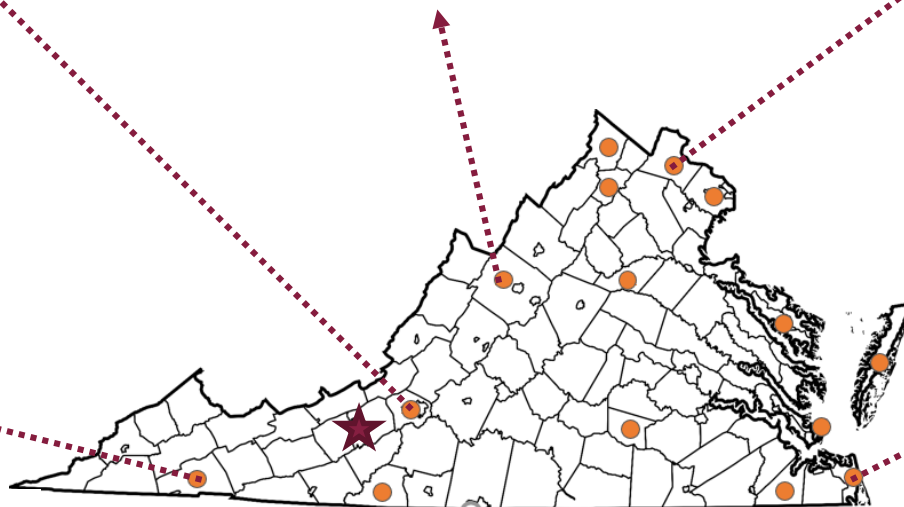
Shenandoah Valley
Cattle Feed Shed



Equine Medical Center
New Treatment Floor



Southwest AREC
Barns



Hampton Roads
Bulkhead Replacement

PROJECT MANAGEMENT TRANSFORMATION

Renovations project management has transitioned from an outsourced model to an in-house project management model.

Benefits

- *Incentivized cost savings for the customers.*
- *Increased responsiveness, consistency, transparency, and adaptability to all campus constituents.*
- *Incentivized to be customer centric (schedule, scope, etc.).*
- *Stabilized workforce and heightened ownership of the process.*
- *The 10.5% management fee was reduced to 7.5% with goal of future reductions by moving in house staff to education & general funding.*

QUESTIONS?