Open Session Tour
The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Monday, April 4, 2022 at 8:00 a.m. for a tour of Holden Hall and the Data & Decision Sciences Building construction site. The tour originated and ended at the Lobby of the Inn at Virginia Tech and Skelton Conference Center (901 Prices Fork Road, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

Board of Visitors Members
Present:
Shelly Butler Barlow (Committee Chair)
Ed Baine
C.T. Hill
Melissa Nelson
Horacio Valeiras
Preston White

Absent:
Tish Long (Rector)
Sharon Brickhouse Martin
Carrie Chenery
Greta Harris
Anna James
Chris Petersen
Mehul Sanghani
Jeff Veatch

Constituent Representative(s) Present:
Paolo Fermin (Undergraduate Student Representative)
Phil Miskovic (Graduate Student Representative)

Also present were the following Virginia Tech staff members:
President Tim Sands, Lynsay Belshe, Taylor Bolte, Bob Broyden, Kevin Carlson, Cyril Clarke, Sean Corcoran, Aaron Curfiss, Alisha Ebert, Katrina Estep, Mark Gess, Chris Kiel, Chris Kiwus, Kray Luxbacher, Megan Marsh, Elizabeth McClanahan, Elizabeth Mitchell, Liza Morris, Ed Nelson, Rob Ogle, Kim O'Rourke, Jeff Orzolek, Mark Owczarski, Julia Ross, Todd Shelton, John Tarter, Dwyn Taylor, and Jon Clark Teglas

The Committee assembled in the lobby of The Inn for a tour of Holden Hall and the Data & Decision Sciences Building construction site.

The tour concluded at 9:40 a.m.

*******************************************************
Attachment E
Open Session Meeting
The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University convened on Monday, April 4, 2022 at 10:00 a.m. in open session in the Solitude Room of the Inn at Virginia Tech and Skelton Conference Center (901 Prices Fork Road, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

Board of Visitors Members
Present: Shelly Butler Barlow (Committee Chair), Ed Baine, Sharon Brickhouse Martin, Carrie Chenery*, Greta Harris, C.T. Hill, Chris Petersen*, Horacio Valeiras, Preston White
Absent: Tish Long (Rector), Anna James, Melissa Nelson, Mehul Sanghani, Jeff Veatch

* Two Board members participated remotely for personal reasons in accordance with Code of Virginia §2.2-3708.2(A)(1)(2).
- Carrie Chenery participated remotely while on a family vacation and was located at 9423 Old Oregon Inlet Road, Nags Head, NC.
- Chris Petersen participated remotely due to business travel from 1515 Wyandotte St, Kansas City, MO.

Constituent Representative(s) Present:
Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:

1. Welcome: The Committee Chair convened the meeting and provided welcoming remarks.

2. Consent Agenda: The Committee approved the items listed on the Consent Agenda.
   a. Approval of the Minutes from the November 8, 2021 Meeting: The Committee approved the minutes from the November 8, 2021 meeting.

Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
b. Resolution to Approve the New River Valley Passenger Rail Station Authority Agreement: The Committee reviewed for approval a resolution regarding the university’s participation in and authorization of the execution of an agreement establishing the New River Valley Passenger Rail Station Authority. The General Assembly recently authorized the creation of a regional passenger rail station authority and the university has been invited to join it on an equal basis with the County of Floyd, the County of Giles, the County of Montgomery, the County of Pulaski, the City of Radford, the Town of Blacksburg, the Town of Christiansburg, the Town of Pulaski, and Radford University. Joining the authority will create economic growth and development for the university. The comfort, convenience, and welfare of the university community requires the development of facilities and the creation of the New River Valley Passenger Rail Station Authority will facilitate development of such necessary facilities. The resolution commits the university to participating in the establishment of the New River Valley Passenger Rail Station Authority, authorizes that the university administration may commit resources, procure services, and enter into agreements that further the progress of the formation and operation of the authority, and authorizes the execution of an agreement establishing the respective rights and obligations of the members regarding the authority consistent with the provisions of the Code of Virginia.

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

c. Resolution to Approve Appointments to the New River Valley Passenger Rail Station Authority: The Committee reviewed for approval a resolution to appoint Lynsay M. Belshe, Vice President for Enterprise Administrative and Business Services, and Christopher H. Kiwus, (in his role as) Vice President for Campus Planning, Infrastructure, and Facilities, and as the Virginia Tech representatives and members on the New River Valley Passenger Rail Station Authority Board of Directors.

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

d. Resolution to Approve an Appointment to the Montgomery Regional Solid Waste Authority: The Committee reviewed for approval a resolution to reappoint Christopher H. Kiwus, in his role as Vice President for Campus Planning, Infrastructure, and Facilities, as the Virginia Tech representative and member on the Montgomery Regional Solid Waste Authority Board of Directors.

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

e. Resolution to Approve the Disposition of University Building No. 0350 (Lumenhaus): The Committee reviewed for approval a resolution authorizing the disposal of Building No. 0350. The 800 gross square foot facility is located

得意-discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
within the North Academic District of main campus, at 1317 Perry Street, Blacksburg. Constructed in 2009 for the Solar Decathlon Home competition, Lumenhaus is the third such solar competition house designed and built as part of a research program begun in 2002. After competitions and touring, the house was installed adjacent to Cowgill Hall. It is beyond its useful life as an experimental and teaching structure, and is in need of maintenance and repair. The university wishes to dispose and surplus the building before it falls into further disrepair. Appurtenant elements will be removed and the site will be restored. The disposal and clearing of this site supports key elements of the Campus Master Plan. The university will obtain required reviews and approvals prior to the disposition of this structure.

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

f. Resolution to Approve an Easement to Atmos Energy Corporation in Support of Increased Gas Lines and Gas Line Capacity on Virginia Tech’s Main Campus: The Committee reviewed for approval a resolution authorizing the Senior Vice President and Chief Business Officer to execute an easement to Atmos Energy Corporation for the installation of a gas line in the area of Plantation Road located in the Town of Blacksburg, Montgomery County, Virginia, in support of Virginia Tech’s access to natural gas service.

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

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

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

4. Update on Parking and Transportation: The Committee received an update from Lynsay Belshe, Vice President for Enterprise Administrative and Business Services, and Jeri Baker, Senior Director of Transportation Services, on parking and transportation. The university has more than 16,000 parking spaces, a motorist assistance program, a fleet of approximately 300 vehicles, and a robust, award-winning alternative transportation program.

5. Overview of Facilities Accessibility Projects: The Committee received an update from Kelly Oaks, Associate Vice President for Equity and Accessibility, and Wendy Halsey, Assistant Vice President for Facilities Operations, on accessibility improvements to campus facilities. While ADA compliance is required by law, Virginia Tech strives to proactively provide a campus environment that is free of barriers - physical, digital, and more - and is inclusive to all students, employees, and visitors. This morning, the team highlighted physical improvement projects that have been

* Requires full Board approval.
completed or are in progress. They also shared several recently installed organizational resources and services - such as an ADA campus accessibility architect and a pathways enhancement crew - that proactively inform and manage ADA projects on campus to include ramps, curb cuts, maintaining and upgrading sidewalks, and addressing physical barriers. The team reiterated that while there is a lot more work to do, they have confidence that their coordinated approach - grounded in a community of practice model with the Campus Accessibility Working Group at the core - will continue to propel efforts forward.

6. **Discussion of Strategic Facilities Investment Programs:** Chris Kiwus, Interim Senior Vice President and Chief Business Officer and Vice President for Campus Planning, Infrastructure, and Facilities, discussed the university’s strategic facilities investment programs. Dr. Kiwus emphasized that Virginia Tech is committed to providing a safe, inclusive, accessible, sustainable, mission-centric, partner-focused, and cost-effective infrastructure that preserves, fosters, complements, and advances the university’s distinct senses of place and service. Extensive land holdings, effectively maintained and growing facilities, and a modern inventory of equipment and systems provide a sound foundation for current programs and future initiatives. Dr. Kiwus noted that the university has installed intentional programming in the areas of general operations and maintenance, customer requested renovations, facilities renewal, maintenance reserve, and capital projects to assess, respond, and ensure the adequacy of our facilities.

7. **Future Agenda Items and Closing Remarks:** The Committee discussed potential topics for inclusion on future meeting agendas.

    The meeting adjourned at 11:08 a.m.

*******************************************************************************

♦ Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
Joint Open Session Meeting
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 Monday, April 4, 2022 at 11:50 a.m. in joint open session in the Solitude Room of the Inn at Virginia Tech and Skelton Conference Center (901 Prices Fork Road, Blacksburg). A quorum of the joint Committee was present.

Board of Visitors Members
Present: Tish Long (Rector) Shelly Butler Barlow (Committee Chair) Ed Baine Sharon Brickhouse Martin Carrie Chenery* Greta Harris C.T. Hill Anna James Chris Petersen* Horacio Valeiras Preston White
Absent: Melissa Nelson Mehul Sanghani Jeff Veatch
* Two Board members participated remotely for personal reasons in accordance with Code of Virginia §2.2-3708.2(A)(1)(2).
• Carrie Chenery participated remotely while on a family vacation and was located at 9423 Old Oregon Inlet Road, Nags Head, NC.
• Chris Petersen participated remotely due to business travel from 1515 Wyandotte Street, Kansas City, MO.

Constituent Representative(s) Present:
Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:
President Tim Sands, Mac Babb, Callan Bartel, Lynsay Belshe, Bob Broyden, Kevin Carlson, Al Cooper, John Cusimano, Jeff Earley, Alisha Ebert, Mark Gess, Emily Gibson, Tony Haga, Kay Heidbreder, Jim Hillman, Mary-Ann Ibeziako, Robin Jones, Frances Keene, Chris Kiel, Chris Kiwus, Sharon Kurek, Jamie Lau, Rob Mann, Elizabeth McClanahan, Nancy Meacham, Scott Midkiff, Ken Miller, Bernadette Mondy, Liza Morris, Mike Mulhare, Bobbi Myers, Heidi Myers, Justin Noble, Kim O'Rourke, Charlie Phlegar, Jon Porter, Ken Smith, Dwyn Taylor, Jon Clark Teglas, Rob Viers, Tracy Vosburgh, Lisa Wilkes, and Chris Wise

1. Motion to Reconvene in Open Session

* 2. Approval of Items Discussed in Closed Session

♦ Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
* 3. Approval of Resolution for a Long-term Lease for the Research Swing Space: The Committees reviewed for approval a resolution for a long-term lease for the Research Swing Space. The total project budget for the project is $20 million, and the estimated annual lease costs are $2.07 million with an estimated present value debt impact of $20 million.

The Committees recommended the Resolution for a Long-term Lease for the Research Swing Space to the full Board for approval.

* 4. Approval of Resolution for a Long-term Lease for the Gilbert Street Project: The Committees reviewed for approval a resolution for a long-term lease for the Gilbert Street project. The total budget for the university’s portion of the project is $71.7 million with an estimated annual lease costs of $5.5 million and an estimated present value debt impact of $69 million.

The Committees recommended the Resolution for a Long-term Lease for the Gilbert Street Project to the full Board for approval.

* 5. Approval of Resolution for Planning for the New Pamplin College of Business Building: The Committees reviewed for approval a resolution for planning the new Pamplin College of Business building. The target total project budget is $80.8 million, and the funding plan calls for entirely nongeneral fund support. The funding sources include $40.4 million of private fund raising and $40.4 million of university nongeneral funds will be allocated by the university in a combination of cash and annual support for debt service. The private fund commitments have reached the necessary milestone and cash receipts are available and sufficient to cover the $8 million costs to complete planning through working drawings.

The Committees recommended the Resolution for Planning for the New Pamplin College of Business Building to the full Board for approval.

The meeting concluded at 12:14 p.m.

***********************************************
Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

Monday, April 4, 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 10:00 a.m. in the Solitude Room of the Inn at Virginia Tech and Skelton Conference Center.

Agenda Item

1. Tour of Holden Hall and the Data & Decision Sciences Building
   Reporting Responsibility
   Chris Kiwus

2. Welcome
   Shelley Butler Barlow, Chair

3. Consent Agenda
   a. Approval of the Minutes from the November 8, 2021 Meeting
   * b. Resolution to Approve the New River Valley Passenger Rail Station Authority Agreement
   * c. Resolution to Approve Appointments to the New River Valley Passenger Rail Station Authority
   * d. Resolution to Approve an Appointment to the Montgomery Regional Solid Waste Authority
   * e. Resolution to Approve the Disposition of University Building No. 0350 (Lumenhaus)
   * f. Resolution to Approve an Easement to Atmos Energy Corporation in Support of Increased Gas Lines and Gas Line Capacity on Virginia Tech’s Main Campus
   g. Acceptance of the Capital Project Status Report
   Shelley Butler Barlow, Chair

4. Update on Agricultural Facilities
   Alan Grant

5. Update on Parking and Transportation
   Lynsay Belshe
   Jeri Baker

6. Overview of Facilities Accessibility Projects
   Kelly Oaks
   Wendy Halsey

7. Discussion of Strategic Facilities Investment Programs
   Chris Kiwus

8. Future Agenda Items and Closing Remarks
   Shelley Butler Barlow, Chair

♦ Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
Joint Closed/Open Session Agenda

FINANCE AND RESOURCE MANAGEMENT COMMITTEE AND BUILDINGS AND GROUNDS COMMITTEES

11:30 a.m.

April 4, 2022

Joint Closed

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motion to Begin Closed Session</td>
<td>Sharon Brickhouse, Martin</td>
</tr>
<tr>
<td>* 2. Approval of Resolution for the Disposition of Real Estate</td>
<td>Ken Miller, Chris Kiwus, Bob Broyden</td>
</tr>
</tbody>
</table>

Joint Open

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motion to Reconvene in Open Session</td>
<td>Sharon Brickhouse, Martin</td>
</tr>
<tr>
<td>2. Approval of Items Discussed in Closed Session</td>
<td>Ed Baine</td>
</tr>
<tr>
<td>* 3. Approval of Resolution for a Long-term Lease for the Research Swing Space</td>
<td>Ken Miller, Chris Kiwus, Bob Broyden</td>
</tr>
<tr>
<td>* 4. Approval of Resolution for a Long-term Lease for the Gilbert Street Project</td>
<td>Ken Miller, Chris Kiwus, Bob Broyden</td>
</tr>
<tr>
<td>* 5. Approval of Resolution for Planning for the New Pamplin College of Business Building</td>
<td>Ken Miller, Chris Kiwus, Bob Broyden</td>
</tr>
</tbody>
</table>

* Requires full Board approval.
♦ Discusses Enterprise Risk Management topic(s).
Tour of Holden Hall and the Data & Decision Sciences Building

BUILDINGS AND GROUNDS COMMITTEE

April 4, 2022

The Committee will tour Holden Hall and the Data & Decision Sciences Building construction site.
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 8, 2021 Meeting

*b. Resolution to Approve the New River Valley Passenger Rail Station Authority Agreement

*c. Resolution to Approve Appointments to the New River Valley Passenger Rail Station Authority

*d. Resolution to Approve an Appointment to the Montgomery Regional Solid Waste Authority

*e. Resolution to Approve the Disposition of University Building No. 0350 (Lumenhaus)

*f. Resolution to Approve an Easement to Atmos Energy Corporation in Support of Increased Gas Lines and Gas Line Capacity on Virginia Tech’s Main Campus

  g. 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
APRIL 2022
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:** 14 MAR 2022

### Project Title

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2022 (FY22)</th>
<th>CY 2023 (FY23)</th>
<th>CY 2024 (FY24)</th>
<th>CY 2025 (FY25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Kentland Facilities (Phase II) -- Various Locations</td>
<td>$12.5</td>
<td>$10.1</td>
<td>28,403</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Creativity &amp; Innovation District Living Learning Community</td>
<td>$105.5</td>
<td>$85.3</td>
<td>232,000</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Holden Hall Renovations</td>
<td>$74.9</td>
<td>$58.5</td>
<td>82,905</td>
<td>20,240</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Gas-Fired Boiler at Central Steam Plant</td>
<td>$8.2</td>
<td>$3.8</td>
<td>N/A</td>
<td>N/A</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Chiller Plant Phase II</td>
<td>$42.9</td>
<td>$32.7</td>
<td></td>
<td>N/A</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Data &amp; Decision Sciences Building (D&amp;DS)</td>
<td>$79.0</td>
<td>$58.9</td>
<td>120,000</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Livestock &amp; Poultry Research Facilities (Ph I) -- Various Locations</td>
<td>$25.3</td>
<td>$18.2</td>
<td>129,100</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Multi-Modal Transit Facility</td>
<td>N/A</td>
<td>N/A</td>
<td>13,606</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Corps Leadership &amp; Military Science Building</td>
<td>$52.0</td>
<td>$37.9</td>
<td>65,428</td>
<td>8,449</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>New Upper Quad Residence Hall</td>
<td>$42.0</td>
<td>$32.0</td>
<td>56,650</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Innovation Campus - Academic Building (Note 2)</td>
<td>$302.1</td>
<td>$223.5</td>
<td>299,733</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Dietrick Renovation</td>
<td>$9.1</td>
<td>$6.8</td>
<td>6,298</td>
<td>11,960</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>HITT Hall</td>
<td>$85.0</td>
<td>$65.5</td>
<td>101,000</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Undergraduate Science Laboratory Building</td>
<td>$90.4</td>
<td>$68.5</td>
<td>102,746</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Student Wellness Improvements (War Memorial Gym &amp; McComas Hall)</td>
<td>$58.0</td>
<td>$46.9</td>
<td>217,708</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Life, Health, Safety, Accessibility and Code Compliance</td>
<td>$3.1</td>
<td>$2.2</td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Planning: Tennis Center Improvements -- Design Only</td>
<td>$0.8</td>
<td>$3.0</td>
<td>7,000</td>
<td>500</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Planning: Replace Randolph Hall (Mitchell Hall) -- Design Only</td>
<td>$11.0</td>
<td>$170.0</td>
<td>284,000</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Global Business &amp; Analytics Complex Residence Halls</td>
<td>$84.0</td>
<td>$66.0</td>
<td>160,000</td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>$1,085.8</strong></td>
<td><strong>1,688,869</strong></td>
<td><strong>258,857</strong></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
</tbody>
</table>

**Note 1:** Non-VT project

**Note 2:** Multiple GMPs results in design/construction overlap (fast track)
Project Portfolio Distribution

Supported/Non-VT Projects

AUG 2021 BOV  NOV 2021 BOV  APR 2022 BOV  JUN 2022 BOV

Pre-Planning/Feasibility  Design  Construction  Warranty/Close-Out

Smart Road (NVC)  Smart Road (NVC)  Smart Road (NVC)  Gilbert St Proj  Gilbert St Proj  Gilbert St Proj  Seafood AREC
Virginia Tech Campus

Legend

- In Design
- Under Construction
- Warranty
- Design only

Capital Project Portfolio
In Design
Projects In Design

- Undergraduate Science Laboratory Building
- GBAC LLCs (On Hold)
- Life, Health, Safety, Accessibility
- Randolph Hall Replacement
- Student Wellness Improvements
Undergraduate Science Laboratory Building

Status:
- GMP submitted by CMaR in January over budget by approx 7.5%
- Successfully reduced budget overrun through Value Management options and sought 5% funding supplement from State in February
- Received 5% funding supplement from State on 9 March

Next Actions:
- Award of GMP (full construction) contract targeted for late March
Planning: Replace Randolph Hall (Mitchell Hall)

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:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

Designer: Perkins & Will
Builder: Skanska

CMaR
State Authorized
Life, Health, Safety, Accessibility & Code Compliance

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 June and develop final cost estimates

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life, Health, Safety, Accessibility and Code Compliance</td>
<td>$3.1</td>
<td>$3.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

State Authorized

Designer: Quinn Evans
Builder: TBD
Status:
- Design is 99% complete
- Cost estimates received in February indicate project is 24% over budget principally due to extreme market escalation
- Developing strategy to meet program needs and provide key benefits for students through reduction of some project scope and infusion of some additional funding

Next Actions:
- Finalize and implement appropriate strategy to move project forward

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Wellness Improvements (War Memorial Gym &amp; McComas Hall)</td>
<td>$58.0</td>
<td>$44.0</td>
<td>217,708</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Designer: Cannon Design
Builder: Whiting-Turner
Global Business & Analytics Complex Residence Halls

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 support the program within the Student Life Village

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Business &amp; Analytics Complex Residence Halls</td>
<td>$84.0</td>
<td>$66.0</td>
<td>160,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Designer: TBD
Builder: TBD
Planning: Tennis Center Improvements

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

Next Actions:
• None

Designer: Tymoff & Moss
Builder: TBD
Under Construction
Active Construction Projects

- Multi-Modal Transit Facility (ToB project)
- Data & Decisions Science Building
- HITT Hall
- Chiller Plant (Phase II)
- Livestock & Poultry Research Facilities (Various locations)
- Gas-Fired Boiler at Central Steam Plant
- Corps Leadership & Military Science Building
- New Upper Quad Residence Hall
- Dietrick Renovation
- Innovation Campus Academic Building (Alexandria, VA)
Innovation Campus - Academic Building

Status:
- Construction underway for GMP-1 (early site package) for foundations/parking garage (27% complete)
- GMP-2 (building construction) pricing package in hand

Next Actions:
- Finalize negotiations and award GMP-2 to construct the building
- Targeting GMP-2 award in late March/early April

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation Campus - Academic Building</td>
<td>$302.1</td>
<td>$223.5</td>
<td>299,733</td>
<td></td>
</tr>
</tbody>
</table>

Legend:  
- Schematic Design Phase  
- Preliminary Design Phase  
- Working Drawings Phase  
- Construction Phase

Attorney: SmithGroup

Project Title

<table>
<thead>
<tr>
<th>Innovation Campus - Academic Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Note 2)</td>
</tr>
</tbody>
</table>

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

Status:

- Construction underway for GMP-1 (early site package) for foundations/parking garage (27% complete)
- GMP-2 (building construction) pricing package in hand

Next Actions:

- Finalize negotiations and award GMP-2 to construct the building
- Targeting GMP-2 award in late March/early April

Designer: SmithGroup

Builder: Whiting-Turner
**Dietrick Renovation (& Quillen Family Spirit Plaza)**

**Status:**
- Contract awarded in March for improvements to Dietrick Hall (capital project) and outdoor plaza (non-capital project)
- Both components executed under single construction contract

**Next Actions:**
- Anticipated completion in January 2023

### Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietrick Renovation</td>
<td>$9.1</td>
<td>$6.8</td>
<td>6,298</td>
<td>11,960</td>
</tr>
</tbody>
</table>

**Designer:** Hanbury  
**Builder:** Branch Builds
## Hitt Hall

### Status:
- GMP-1 (early site package) construction underway
- GMP-2 (building construction) awarded in March

### Next Actions:
- Anticipated completion in February 2024

### Legend:
- **Schematic Design Phase**
- **Preliminary Design Phase**
- **Working Drawings Phase**
- **Construction Phase**

### Table:

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>HITT Hall</td>
<td>(Note 2) $85.0</td>
<td>$65.5</td>
<td>101,000</td>
<td></td>
<td></td>
<td>FY21</td>
<td>FY22</td>
<td>FY23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JAN-MAR</td>
<td>APR-JUN</td>
<td>OCT-DEC</td>
<td>JAN-MAR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY21</td>
<td>FY22</td>
<td>FY23</td>
<td>FY24</td>
</tr>
</tbody>
</table>

**Designer:** Cooper Cary  
**Builder:** W M Jordan
### New Upper Quad Residence Hall

Status:
- Project on track (25% complete)

Next Actions:
- Anticipated completion in August 2023

### Project Details

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Upper Quad Residence Hall</td>
<td>$42.0</td>
<td>$32.0</td>
<td>56,650</td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

**Next Actions:**
- Anticipated completion in August 2023

**Status:**
- Project on track (25% complete)

**Designer:** Clark - Nexsen

**Builder:** Vannoy

**CM at Risk**
**BOV Authorized**
Corps Leadership & Military Science Building

Status:
- Project on track (36% complete)

Next Actions:
- Anticipated completion in July 2023

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021 FY</th>
<th>CY 2022 FY</th>
<th>CY 2023 FY</th>
<th>CY 2024 FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corps Leadership &amp; Military Science Building</td>
<td>$52.0</td>
<td>$37.9</td>
<td>65,428</td>
<td>8,449</td>
<td>Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

Designer: Clark - Nexsen
Builder: Vannoy
Livestock & Poultry Research Facilities (Phase I)

Status:
- Construction underway on 4 of 6 bid packages:
  - Poultry: 77% complete
  - Swine: 58% complete
  - Equine: 77% complete
  - Beef: 70% complete

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

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021 FY21 FY22 FY23</th>
<th>CY 2022 FY24 FY25</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock &amp; Poultry Research Facilities (Ph I) - Various Locations</td>
<td>25.3</td>
<td>18.2</td>
<td>129,100</td>
<td></td>
<td>FY21 FY22 FY23</td>
<td>FY24 FY25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Designer: Spectrum Design
Builder: (Various)
**Data & Decisions Sciences Building**

**Status:**
- Project on track (63% complete)

**Next Actions:**
- Anticipated completion in April 2023

**Designer:** Moseley  
**Builder:** Kjellstrom & Lee

---

**Legend:**
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data &amp; Decision Sciences Building (D&amp;DS)</td>
<td>$79.0</td>
<td>$58.9</td>
<td>120,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Construction Budget ($M)** (Construction contract value)

**CM at Risk**
State Authorized

---

**Attachment E**
**Chiller Plant (Phase II)**

**Status:**
- Project on track (99% complete)

**Next Actions:**
- Test and commission chilled water network in summer 2022

---

**Legend:**
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021 FY21</th>
<th>CY 2022 FY22</th>
<th>CY 2023 FY23</th>
<th>CY 2024 FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiller Plant Phase II</td>
<td>$42.9</td>
<td>$32.7</td>
<td>N/A</td>
<td></td>
<td>Q3 FY21</td>
<td>Q1 FY22</td>
<td>Q1 FY23</td>
<td>Q1 FY24</td>
</tr>
</tbody>
</table>

**Designer:** AEI

**Builder:** Faulconer
## Gas-Fired Boiler at Central Steam Plant

### Project Summary

**Budgets:**
- **Construction Budget ($M):** $8.2
- **New Const ($SF):** $3.8
- **Renovation ($SF):** N/A

**Status:**
- Project complete

**Next Actions:**
- Waiting DEQ issuance of final boiler permit for alternative fuel source (fuel oil)

**Legend:**
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

### Construction Budget

<table>
<thead>
<tr>
<th>Project Title</th>
<th>CY 2021</th>
<th>FY21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-Fired Boiler at Central Steam Plant</td>
<td>$8.2</td>
<td>Q3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Title</th>
<th>CY 2022</th>
<th>FY22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-Fired Boiler at Central Steam Plant</td>
<td>$3.8</td>
<td>Q4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Title</th>
<th>CY 2023</th>
<th>FY23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-Fired Boiler at Central Steam Plant</td>
<td>N/A</td>
<td>Q1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Title</th>
<th>CY 2024</th>
<th>FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-Fired Boiler at Central Steam Plant</td>
<td>N/A</td>
<td>Q2</td>
</tr>
</tbody>
</table>

### Designer:
- AEI

### Builder:
- Southern Air
Holden Hall Renovation

Status:
- Project complete; move-in underway

Next Actions:
- Address punch list and close out contract

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JAN-MAR</td>
<td>APR-JUN</td>
<td>JUL-SEP</td>
<td>OCT-DEC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY21</td>
<td>Q3</td>
<td>Q4</td>
<td>Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY22</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY23</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY24</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY25</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
</tr>
<tr>
<td>Holden Hall Renovations</td>
<td>$74.9</td>
<td>$58.5</td>
<td>82,905</td>
<td>20,240</td>
<td>Warranty</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CM at Risk
State Authorized

Designer: Moseley
Builder: WM Jordan
Creativity & Innovation District LLC

Status:
• Project complete

Next Actions:
• Address punch list items and close out contract

Legend:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JAN-MAR</td>
<td>APR-JUN</td>
<td>OCT-DEC</td>
<td>JAN-MAR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY21</td>
<td>Q1 Q2 Q3</td>
<td>Q2 Q3 Q4</td>
<td>Q1 Q2 Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY22</td>
<td>Q1 Q2 Q3</td>
<td>Q2 Q3 Q4</td>
<td>Q1 Q2 Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY23</td>
<td>Q1 Q2 Q3</td>
<td>Q2 Q3 Q4</td>
<td>Q1 Q2 Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY24</td>
<td>Q1 Q2 Q3</td>
<td>Q2 Q3 Q4</td>
<td>Q1 Q2 Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY25</td>
<td>Q1 Q2 Q3</td>
<td>Q2 Q3 Q4</td>
<td>Q1 Q2 Q3</td>
</tr>
</tbody>
</table>

Creativity & Innovation District Living Learning Community

- Designer: Hanbury
- Builder: WM Jordan
Improve Kentland Facilities (Phase II)

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:
- Schematic Design Phase
- Preliminary Design Phase
- Working Drawings Phase
- Construction Phase

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (Gsf)</th>
<th>Renovation (Gsf)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>APR-JUN</td>
<td>JUL-SEP</td>
<td>APR-JUN</td>
<td>JUL-SEP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OCT-DEC</td>
<td>OCT-DEC</td>
<td>OCT-DEC</td>
<td>OCT-DEC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY21</td>
<td>FY22</td>
<td>FY23</td>
<td>FY24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY22</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY24</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Designer: Spectrum Design

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

Design-Bid-Build State Authorized
### Multi-Modal Transit Facility

**Status:**
- Construction underway (25% complete)

**Next Actions:**
- Anticipated completion in April 2023

---

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

**Designer:** Wendel (ToB contract)

**Builder:** WM Schlosser (ToB contract)

---

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSF)</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JAN-MAR</td>
<td>APR-JUN</td>
<td>JUL-SEP</td>
<td>OCT-DEC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PR-JUN</td>
<td>JUL-SEP</td>
<td>OCT-DEC</td>
<td>JAN-MAR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>APR-JUN</td>
<td>JUL-SEP</td>
<td>OCT-DEC</td>
<td>APR-JUN</td>
</tr>
<tr>
<td>Multi-Modal Transit Facility</td>
<td>(Note 1) N/A</td>
<td>N/A</td>
<td>13,606</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Non-VT project*
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 Methods

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

April 4, 2022
Steady Progress

- Virginia Seafood AREC
- Livestock and Poultry Research Facilities, Ph. 1
  - New Swine Center
  - New Beef Nutrition Facility and Hay Barn
  - New Broiler and Turkey Grow-out facilities
  - New Equine Facility and Equipment Storage Building
- Beef Barn Repairs
- SWAREC Exterior Repairs (4 buildings)
- EVAREC Experiment Building Repairs
- ESAREC Exterior Repairs (7 buildings)
- Alphin-Stuart Arena Footing Replacement
NEW VIRGINIA SEAFOOD AREC

Completion: March 2022
Vacate existing building: May 2022
Open House: November 30, 2022

Please join us!
LIVESTOCK AND POULTRY RESEARCH FACILITIES

Substantial Completion Schedules

Beef Nutrition Facility and Hay Barn: May 2022

Swine Center: June 2022

Equine Barn and Equipment Storage: May 2022

Turkey and Broiler Grow-out Facilities: April 2022

Furnishing and Equipment purchases in progress
ALPHIN-STUART ARENA FOOTING REPLACEMENT

- Increased safety for horses and riders
- Industry-leading materials used in top equine facilities
- Waterless and dust-free
  - Almost 9,000,000 gallons of water and 1,750 manhours of labor saved over 5 years
- Simplifies maintenance
- Cleaner facility
- Completed during Spring Break
MAJOR PROJECT UPDATES

Planning in progress or beginning soon:

- LPRF Final Bid Packages 5 and 6
- System-Wide AREC Improvements, Ph. 1
- Human and Agricultural Biosciences Building II
- Hampton Roads AREC future planning
- Maintenance Reserve Planning for 2022-2024
TECHNOLOGY AND CONNECTIVITY

- 1 Gbps Internet service available at 2 ARECs and ordered for 3 others
- RTK (Real Time Kinematic) scheduled for installation at 7 ARECs for spring 2022
- $1.14M in network equipment for ARECs and VCE awaiting delivery and installation
- Trial project for field-level wireless communications is set to begin in late April/early May at one AREC
## College of Agriculture Life Sciences (CALS) Projects Status Report

### BUILDINGS AND GROUNDS COMMITTEE

**April 4, 2022**

**Spectrum**

**Snyder, CPPI**

**RRMM**

**E.T. Gresham**

**Spectrum**

**Pkg 1: SIMCON**

**Pkg 2: CPPI**

**Pkg 3: CPPI**

**Pkg 4: Clark Nexsen**

**Pkg 5: TBD**

**Pkg 6: TBD**

### PROJECTS IN CONSTRUCTION

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT DESCRIPTION</th>
<th>ESTIMATED TOTAL</th>
<th>PROJECT TEAM</th>
<th>CONTRACT COMPLETION DATE</th>
<th>PROJECT STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Kentland Facilities, Phase II</td>
<td>Applied Reproduction Facility (APR): 4,510 SF barn at Vet-Med for palpation and breeding instruction. Skine Extension, Teaching and Research (SETR) Facility: 5,100 SF classroom building and 3,300 SF demonstration area at livestock center on Plantation Road. Metabolic Research Laboratory (MRL): 11,390 SF animal laboratory at the Dairy Center at Kentland Farm.</td>
<td>$12,663,000</td>
<td>Capital Outlay</td>
<td>Spectrum</td>
<td>Fall 2020</td>
</tr>
<tr>
<td>New Virginia Seabold AREC Building</td>
<td>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.</td>
<td>$9,350,000</td>
<td>Various</td>
<td>BHM</td>
<td>March 2022</td>
</tr>
<tr>
<td>Livestock and Poultry Research Facilities, Phase I</td>
<td>Fig. 1: New Swine Center at Kentland Farm. Fig. 2: New Beef Nutrition Facility &amp; Insect Shield at Kentland Farm Fig. 3: New Equine Center at Smithfield Horse Center, Fields west of US 460, and Heth Farm Fig. 4: Final Demolition of remaining facilities</td>
<td>$33,074,000</td>
<td>Capital Outlay</td>
<td>Spectrum</td>
<td>Fig. 1: UNCON</td>
</tr>
</tbody>
</table>

### PROJECTS IN DESIGN

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT DESCRIPTION</th>
<th>ESTIMATED TOTAL</th>
<th>PROJECT TEAM</th>
<th>CONTRACT COMPLETION DATE</th>
<th>PROJECT STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>System-Wide AREC Improvements, Phase I</td>
<td>Renew and expand 51,440 GSF of aging and deteriorating AREC Facilities - 12,140 SF of renovations and 39,300 SF of new construction storage, greenhouse, heating, research and outreach facilities - to update condition and expand capacity. 13 projects identified at 10 ARECs.</td>
<td>$16,800,000</td>
<td>Capital Outlay</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Human and Agricultural Biosciences Building II</td>
<td>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.</td>
<td>$48,000,000</td>
<td>Capital Outlay</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

### NON-CAPITAL PROJECTS

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT DESCRIPTION</th>
<th>ESTIMATED TOTAL</th>
<th>FUND SOURCE</th>
<th>PROJECT TEAM</th>
<th>CONTRACT COMPLETION DATE</th>
<th>PROJECT STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Projects ($25,000 each)</td>
<td>Alson H. Smith Jr. AREC Greenhouse Controls Upgrade</td>
<td>$87,000</td>
<td>CALS / VAES</td>
<td>Various</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>Minor Projects ($25,000 each)</td>
<td>Alson H. Smith Jr. AREC Office Area Electrical Upgrade</td>
<td></td>
<td>Multiple</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Projects ($25,000 each)</td>
<td>Eastern Shore AREC Headhouse Boiler Replacement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Projects ($25,000 each)</td>
<td>Eastern Shore AREC Fiber Optic Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Projects ($25,000 each)</td>
<td>Hampton Roads AREC Fiber Optic Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Projects ($25,000 each)</td>
<td>Shenandoah Valley AREC Exterior Building Maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey Center Service Building 403 Roof and Misc. Repairs</td>
<td>Weather leaks were discovered in the roof above new restroom renovation project, building condition assessment determined additional work was necessary to preserve building including new roof, gutters, windows, doors, and other misc. repairs</td>
<td>$155,000</td>
<td>Maintenance Reserve</td>
<td>HSD</td>
<td>November 2021</td>
<td>Roof replacement in progress and on schedule.</td>
</tr>
<tr>
<td>PROJECT NAME</td>
<td>PROJECT DESCRIPTION</td>
<td>ESTIMATED TOTAL PROJECT COST</td>
<td>FUND SOURCE</td>
<td>PROJECT TEAMS</td>
<td>CONTRACT COMPLETION DATE</td>
<td>PROJECT STATUS</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------</td>
<td>-----------------------------</td>
<td>-------------</td>
<td>---------------</td>
<td>--------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Hampton Roads AREC Repair - Bulkhead &amp; Pump House</td>
<td>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.</td>
<td>$68,000</td>
<td>Maintenance Reserve</td>
<td>Mattern and Craig</td>
<td>Winter 2021</td>
<td>Construction underway.</td>
</tr>
<tr>
<td>Alpha-Gear Arena Footing Replacement</td>
<td>Existing footing is beyond useful life and in need of replacement. Materials being specified for enhanced performance, ease of maintenance, and greater sustainability.</td>
<td>$176,000</td>
<td>CALS</td>
<td>-</td>
<td>Spring 2022</td>
<td>Work is complete.</td>
</tr>
<tr>
<td><strong>PROJECTS IN CONSTRUCTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Minor Projects ($25,000 each)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apolot - SWE DC - AREC New Hoophouse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middletown AREC Hot Walker Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Va. AREC Lighting Upgrades</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AREC Exterior Signage Upgrades</td>
<td>Installation of 2 new exterior signs at each AREC with refreshed design to match current branding.</td>
<td>$81,000</td>
<td>CALS / VAES</td>
<td>-</td>
<td>TBD</td>
<td>Signage initiation complete at Tidewater, Southwest Virginia, and Shenandoah Valley ARECs. Final design and fabrication pending at others.</td>
</tr>
<tr>
<td><strong>Beef Barn Repairs</strong></td>
<td>Repair to exterior and door damage on Tobacco Barn 1 (0748) and 2 (0749), Cattle Barn #5 (0741) and Workshop/Machinery Shed (0742).</td>
<td>$105,000</td>
<td>Maintenance Reserve</td>
<td>HDH, ICA</td>
<td>Summer 2022</td>
<td>Construction in progress. Roofing completion delayed due to change in roof materials. Interior repairs to be completed after spring semester.</td>
</tr>
<tr>
<td><strong>Southwest Virginia AREC - Exterior Building Repairs</strong></td>
<td>Repair roof, siding and door damage on Tobacco Barns #1 (0748) and 2 (0749), Cattle Barn #5 (0741) and Workshop/Machinery Shed (0742).</td>
<td>$181,000</td>
<td>Maintenance Reserve</td>
<td>L Design</td>
<td>TBD</td>
<td>Tobacco Barns #1 and #2 are complete. Cattle Barn is in progress, to be followed by Machine Shed.</td>
</tr>
<tr>
<td><strong>Washington Street Greenhouse Complex Renovations</strong></td>
<td>Repairs and upgrades to modernize aging controlled growth environments.</td>
<td>$80,000</td>
<td>CALS / VAES / Maintenance Reserve</td>
<td>VT Facilities Engineering</td>
<td>TBD</td>
<td>Repairs to electrical system underway. Repairs to venting system waiting for materials.</td>
</tr>
<tr>
<td><strong>Reynolds Homestead FRRC - Exterior Repairs</strong></td>
<td>Main Building (1800) needs window replacement, repairs of rotted soffit/fascia/shingling, deck repair and bathroom upgrades. Lath House (1800C) roof and trusses need repair.</td>
<td>$30,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development. Construction planned in FY 2023.</td>
</tr>
<tr>
<td><strong>PROJECTS IN DESIGN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Minor Projects ($25,000 each)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tidewater AREC Peanut Storage Shed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southwest Virginia AREC Tobacco Barn #3 Demolition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Eastern Va. AREC - Experiment Building Renovation</strong></td>
<td>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.</td>
<td>$186,000</td>
<td>Maintenance Reserve</td>
<td>Structures Group</td>
<td>TBD</td>
<td>Project is out for bid.</td>
</tr>
<tr>
<td><strong>Eastern Shore AREC - Exterior Building Repairs</strong></td>
<td>Multiple buildings in need of exterior repairs. Head house (1210) and Shop Building (1211) is in need of structural repairs to walls and roof. Implement Shop (1316), Lower Processing Storage (1317), Produce Staging (1318), and Inventory (1320) need exterior waterproofing, door repair, painting repairs and gutters.</td>
<td>$490,000</td>
<td>Maintenance Reserve</td>
<td>Structures Group</td>
<td>TBD</td>
<td>Project is out for bid.</td>
</tr>
<tr>
<td><strong>Southern Piedmont AREC - Packhouse Restroom Repairs</strong></td>
<td>Packhouse (0897) restroom is in need of plumbing repairs and upgrade to be reconfigured for ADA access. Packhouse roof is leaking and needs repair.</td>
<td>$122,000</td>
<td>Maintenance Reserve</td>
<td>Thompson &amp; Litten</td>
<td>TBD</td>
<td>Design is in progress.</td>
</tr>
<tr>
<td>PROJECT NAME</td>
<td>PROJECT DESCRIPTION</td>
<td>ESTIMATED TOTAL PROJECT COST</td>
<td>FUND SOURCE</td>
<td>PROJECT TEAMS</td>
<td>CONTRACT COMPLETION DATE</td>
<td>PROJECT STATUS</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------</td>
<td>-------------------------------</td>
<td>-------------</td>
<td>---------------</td>
<td>--------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Moore Farm Barn OSO Repairs</td>
<td>This highly visible and prominent barn is for many purposes such as lambing of sheep, tofu 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.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Campbell Arena Repairs</td>
<td>New enclosure of the existing open-air steel structure consisted of metal panel siding over steel girts and posts. This work was originally included in LPRF Phase 1, but removed due to scope concerns.</td>
<td>$89,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Turkey Farm Processing Building Repair</td>
<td>Interior Demolition followed by the installation of new cold-formed steel stud interior partitions, new doors and a window.</td>
<td>$140,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Compost Facility (to support main campus &amp; surrounding farms)</td>
<td>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.</td>
<td>$1,813,000</td>
<td>TDD</td>
<td>Color Consulting &amp; Consulting</td>
<td>TBD</td>
<td>Capital and operational costs for project under review internally.</td>
</tr>
<tr>
<td>Judging Pavilion Repairs</td>
<td>Exterior and interior demolition followed by installation of new flooring, doors, windows, HVAC system, lighting, a covered walkway and exterior paint.</td>
<td>$462,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope review with University Building Official (UBO) is necessary to resolve code requirements and funding eligibility. Project deferred to 2023.</td>
</tr>
<tr>
<td>Alphin Stuart Arena Roof Drain repair</td>
<td>Repair failing roof drains.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Purchase orders being issued.</td>
</tr>
<tr>
<td>Tidewater AREC - Water system repair</td>
<td>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 a 2-inch water line.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>City tap fee received. Obtaining quote for water line installation on private side of meter.</td>
</tr>
<tr>
<td>Southern Piedmont AREC - Pavement repairs</td>
<td>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.</td>
<td>$362,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope review with University Building Official (UBO) is necessary to resolve code requirements and funding eligibility. Project deferred to 2023.</td>
</tr>
<tr>
<td>Tide Water AREC - Water system repair</td>
<td>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 a 2-inch water line.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>City tap fee received. Obtaining quote for water line installation on private side of meter.</td>
</tr>
<tr>
<td>Prices Fork Quarantine Lab Emergency Generator</td>
<td>Installation of new emergency backup generator to comply with regulatory requirements</td>
<td>TBD</td>
<td>TDD</td>
<td>Gibson Engineering</td>
<td>TBD</td>
<td>Design is in progress.</td>
</tr>
<tr>
<td>Heth Farm Shed and Silo Demolition</td>
<td>Demolish two structures that are currently unsafe and operationally unnecessary.</td>
<td>TBD</td>
<td>TDD</td>
<td>CALS</td>
<td>TBD</td>
<td>Design is in progress.</td>
</tr>
<tr>
<td>Southern Piedmont AREC - Pavement repairs</td>
<td>Demolish 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.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>City tap fee received. Obtaining quote for water line installation on private side of meter.</td>
</tr>
<tr>
<td>Moore Farm Barn OSO Repairs</td>
<td>This highly visible and prominent barn is for many purposes such as lambing of sheep, tofu 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.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Campbell Arena Repairs</td>
<td>New enclosure of the existing open-air steel structure consisted of metal panel siding over steel girts and posts. This work was originally included in LPRF Phase 1, but removed due to scope concerns.</td>
<td>$89,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Kentland Farm Dairy Complex LED Lighting Retrofit</td>
<td>Replace failing fixtures to restore operational effectiveness and realize energy savings (5 buildings).</td>
<td>TBD</td>
<td>Energy Management</td>
<td>TBD</td>
<td>TBD</td>
<td>Bidding is in progress.</td>
</tr>
<tr>
<td>Urban Horticulture Center LED Lighting Retrofit</td>
<td>Replace failing fixtures to restore operational effectiveness and realize energy savings (2 buildings).</td>
<td>TBD</td>
<td>Energy Management</td>
<td>TBD</td>
<td>TBD</td>
<td>Bidding is in progress.</td>
</tr>
<tr>
<td>PROJECT INITIATION / PLANNING STAGE</td>
<td>Contractor quote received. Fund options being evaluated.</td>
<td>TBD</td>
<td>TDD</td>
<td>Gibson Engineering</td>
<td>TBD</td>
<td>Contractor quote received. Fund options being evaluated.</td>
</tr>
<tr>
<td>Prices Fork Quarantine Lab Emergency Generator</td>
<td>Installation of new emergency backup generator to comply with regulatory requirements</td>
<td>TBD</td>
<td>TDD</td>
<td>Gibson Engineering</td>
<td>TBD</td>
<td>Contractor quote received. Fund options being evaluated.</td>
</tr>
<tr>
<td>Gibson Engineering</td>
<td>TBD</td>
<td>TDD</td>
<td>Gibson Engineering</td>
<td>TBD</td>
<td>Contractor quote received. Fund options being evaluated.</td>
<td></td>
</tr>
<tr>
<td>Heth Farm Shed and Silo Demolition</td>
<td>Demolish two structures that are currently unsafe and operationally unnecessary.</td>
<td>TBD</td>
<td>TDD</td>
<td>CALS</td>
<td>TBD</td>
<td>Design is in progress.</td>
</tr>
<tr>
<td>Moore Farm Barn OSO Repairs</td>
<td>This highly visible and prominent barn is for many purposes such as lambing of sheep, tofu 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.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>PROJECT NAME</td>
<td>PROJECT DESCRIPTION</td>
<td>ESTIMATED TOTAL PROJECT COST</td>
<td>FUND SOURCE</td>
<td>PROJECT TEAM</td>
<td>CONTRACT COMPLETION DATE</td>
<td>PROJECT STATUS</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>-------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Moore Farm Shed Overhaul Repairs</td>
<td>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 paving a concrete floor and resurfacing the working equipment. However, the structural condition of the facility is poor and should be addressed prior to additional use. It may be more cost-effective to rebuild than to repair this structure.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Alston H. Smith AREC - Repair parking and parking</td>
<td>Existing asphalt parking lot and driveways are deteriorating and in need of repaving.</td>
<td>$56,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Middleburg AREC - Erosion Repairs</td>
<td>Erosion on several buildings is in need of repair/Repair due to advanced age: Annex (0841), Franke Barn Barn (0867), Milking Barn and Milk House (0868), Loafing Barn (0869), Clinic/Adams Building (0862), Stable (0864). 3 of 10 wind sheds (0796) are deteriorating and are in need of repair or replacement. Linn House and Machinery Shed (0803) is in need of structural repairs. Ascent of Annex (0861) floods and needs drainage corrections.</td>
<td>$130,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Shenandoah Valley AREC - Repair/Replace Sheep Barn</td>
<td>Sheep Barn (0845) has rotten posts at ground level and leaking roof. The building should be evaluated for repair or replacement.</td>
<td>$74,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Shenandoah Valley AREC - Renovate Carriage House</td>
<td>Renovate Carriage House to add two single/user public restrooms and welcome center area for visitors to the McCormick Farm.</td>
<td>TBD</td>
<td>CALS / VAES</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Southern Piedmont AREC - Building Repairs</td>
<td>Repair/replace siding and five deteriorated lean-to equipment storage sheds attached to four tobacco curing barns (0864A, 0864B, 0864C, 0864E).</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Smithfield Equine Complex</td>
<td>Develop new facilities for Equine Complex on Plantation Road including covering outdoor arenas, add washrooms, restrooms, announcer stand, fencing, and gate facility.</td>
<td>TBD</td>
<td>Private</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
<tr>
<td>Smithfield Equine Classroom Renovations, Phase 2</td>
<td>Completion of building envelope repairs, restroom repairs, accessibility improvements.</td>
<td>$110,000</td>
<td>Maintenance Reserve, CALS</td>
<td>TBD</td>
<td>TBD</td>
<td>Scope and budget development.</td>
</tr>
</tbody>
</table>

INFORMATION TECHNOLOGY (IT) EVALUATION & PROJECTS

Updates through March 31, 2022. New information is in bold.

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT DESCRIPTION</th>
<th>ESTIMATED TOTAL PROJECT COST</th>
<th>FUND SOURCE</th>
<th>PROJECT TEAM</th>
<th>CONTRACT COMPLETION DATE</th>
<th>PROJECT STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERC A/V Upgrades, Phase 1</td>
<td>Installation of new audio and video equipment for ARECs to provide enhanced conferencing capability in training rooms. Phase 1 includes Alston H. Smith, Eastern Shore, Hampton Roads, Southern Piedmont and Tidewater ARECs.</td>
<td>$34,000</td>
<td>CALS / IT</td>
<td>Lee Hartman and Sons</td>
<td>Fall 2019</td>
<td>Phase 1 (five ARECs) is complete. Scope and schedule for Phase 2 project (remaking ARECs) to be evaluated upon completion of Phase 1.</td>
</tr>
</tbody>
</table>
### PROJECTS IN PROGRESS

**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.
- Estimated Total Project Cost: $75,000 annually
- Fund Source: CALS / VAES
- Project Teams: CALS IT
- Contract Completion Date: Ongoing
- Project Status: Ongoing
- Details: VOIP conversion projects have been completed at 7 of the 11 ARECs. Remaining locations include Hampton Roads, Reynolds Homestead, and Southwest Virginia AREC 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**
- 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 on-site 4G and the AREC network to additional buildings and some exterior areas.
- Estimated Total Project Cost: $1,140,000
- Fund Source: CALS / VAES
- Project Teams: CALS IT
- Contract Completion Date: TBD
- Project Status: TBD
- Details: Orders for equipment have been placed.

**Real Time Kinematic (RTK)**
- Project to install RTK systems at select ARECs has been started. RTK enables the AREC 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.
- Estimated Total Project Cost: $213,000
- Fund Source: CALS / VAES
- Project Teams: CALS IT, Trimble
- Contract Completion Date: Summer 2022
- Project Status: TBD
- Details: Orders for equipment have been placed.

**Eastern Virginia AREC Field-Wide 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.
- Estimated Total Project Cost: $50,000
- Fund Source: CALS / VAES
- Project Teams: CALS IT, Dell Radio, Pearson Wireless
- Contract Completion Date: TBD
- Project Status: Funding has been authorized.

**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 AREC. The proposal is to study the effectiveness of this equipment for supporting data-intensive agricultural, animal-based research.
- Estimated Total Project Cost: TBD
- Fund Source: TBD
- Project Teams: TBD
- Contract Completion Date: TBD
- Project Status: Funding needs and sources are being resolved.

---

**BANDWIDTH AND INTERNET CONNECTIVITY**
- Designed to address bandwidth issues at all ARECs.
- **Kentland Farm**
  - Internet service to employee housing at Eastern Shore, Hampton Roads, Shenandoah Valley and Middleburg.
- **Shenandoah Valley**
  - Orders for equipment have been placed.
- **Eastern Shore**
  - Orders for equipment have been placed.
- **Other AREC Sites**
  - Most installations have been completed with some minor tweaking of installs remaining.
- **Operations**
  - Coverage and security management, in fields at Shenandoah Valley and Middleburg AREC. The proposal is to study the effectiveness of this equipment for supporting data-intensive research.

---

**PROJECT TEAM**
- **CALS IT**
- **Division of IT**
- **Lee Hartman and Sons**
- **Pierson Wireless**
- **Lee Hartman and Sons**
- **Trimble**
- **John Deere**
- **Dell Radio**
- **Pearson Wireless**
- **John Deere**

---

**PROJECT COST**
- $213,000
- $75,000
- $1,140,000
- $213,000
- $50,000
- TBD

---

**DATE**
- April 4, 2022

---

**FUND SOURCE**
- **CALS / VAES**
- **CALS / VAES**
- **CALS / VAES**
- **CALS / VAES**
- **CALS / VAES**
- TBD

---

**PROJECT STATUS**
- **Ongoing**
- **Spring 2022**
- **TBD**

---

**PROJECT NAME**
- **Barndwidth and Internet Connectivity**
- **AREC Voice-Over Internet Protocol (VOIP) Conversion**
- **Network Equipment Upgrades and Expansion**
- **Real Time Kinematic (RTK)**
- **Eastern Virginia AREC Field-Wide Wireless (a SmartFarm Project)**
- **SmartFarm Projects**

---

**PROJECT DESCRIPTION**
- Design a project to install RTK systems at select ARECs.
- Installation of new technology, similar to Wi-Fi but with better exterior coverage and security management, in fields at Eastern Virginia AREC.
- 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 AREC.
- Installation of new audio and video equipment for ARECs to provide enhanced conferencing capability in larger conference rooms.
- A project to install RTK systems at select ARECs has been started. RTK enables the AREC to implement precision agriculture research practices.
- A project to install RTK systems at select ARECs has been started. RTK enables the AREC to implement precision agriculture research practices.
- A project to install RTK systems at select ARECs has been started. RTK enables the AREC to implement precision agriculture research practices.
- A project to install RTK systems at select ARECs has been started. RTK enables the AREC to install precision agriculture research practices.
UPDATE ON PARKING AND TRANSPORTATION

BOARD OF VISITORS - APRIL 2022

LYNSAY BELSHE, VICE PRESIDENT, ENTERPRISE ADMINISTRATIVE AND BUSINESS SERVICES

JERI BAKER, SENIOR DIRECTOR, TRANSPORTATION SERVICES
OVERVIEW: TRANSPORTATION SERVICES

PARKING SERVICES
- Manages nearly 16,000 parking spaces on the Blacksburg campus
- Serves roughly 33,000 students, 13,000 employees, and 60,000 alumni, parents, and community members per year

FLEET SERVICES
- Manages university rental fleet of approximately 150 state vehicles
- Employees and students can reserve vehicles for business purposes on a daily or long-term basis

ALTERNATIVE TRANSPORTATION SERVICES
Portfolio includes:
- Bike Hub, Heads Up Hokies, Blacksburg Transit, Zipcar, Mass Transit, Ride Solutions, and Roam NRV Bike Share

AIR TRANSPORTATION SERVICES
- Provides air transportation for Virginia Tech employees, or employees of university-related corporations on university business
- Hanger located at the Virginia Tech Montgomery Executive Airport and is staffed by five pilots and an operations manager
- Virginia Tech owns two Cessna Citation jets (HokieBirds)
PARKING SERVICES’ CURRENT STATE
PARKING SERVICES

- **University Auxiliary Unit:** 100% self-supporting through self-generated revenue.
- **Equitable** - user-based system, everyone who uses the system supports financially.
- **Affordability and accessibility** is a priority with remote lot options/benchmarking.
- **Customer focus mindset**
- **Continuous Improvement**
- **Approximately 16,000 current parking spaces**
PARKING SPACES
AT VIRGINIA TECH’S BLACKSBURG CAMPUS

- Visitors/Suppliers: 1,237
- Employees: 4,476
- Students: 8,799
- Commuter/Graduates: 4,587
- Residents: 4,212

Grand Total: 15,714

Estimated daily surplus of over 1,000 spaces on campus
PARKING SERVICES

- Recent initiatives:
  - **Visitor Parking**: began charging visitors in Summer of 2020 to share cost of parking to all users.
  - **ParkMobile**: phone application that allows customers to easily pay-to-park by the hour or day.
  - **North End Center garage is a 24/7 gated facility**: ensures all patrons are sharing in the cost of the garage.
  - **Extending parking enforcement hours to 10 p.m.**: maintains a controlled campus to protect spaces that permit holders have paid to use for late afternoon and evening purposes.
LOOKING AHEAD
PARKING DISPLACEMENT: CAPITAL CONSTRUCTION

- Over the past year and continuing over the next several years, multiple new facilities and major renovations to existing buildings are set to take place throughout the North Academic District.

- This construction has, and will continue to, displace a substantial amount of parking in the campus core.

Estimated # of Spaces Set to Be Displaced - Capital Construction:

- **760** - Multi-Modal Transit Facility (FY21)
- **460** - Data & Decision Sciences (FY21)
- **86** - HITT Hall (~FY22)
- **384** - Undergraduate Science Lab Building (~FY22)

# of Spaces Displaced - Completed Capital Construction

- **402** - Goodwin Hall (FY14)
- **367** - New Classroom Building (FY16)
PARKING & TRANSPORTATION MASTER PLAN

- 2016 Parking and Transportation Master Plan and the university wide Campus Master Plan of 2018 set guideposts for the future of parking and transportation on campus.
  - As campus growth continues to disrupt parking across campus, the effective reassignment of parking will require consistent monitoring and adjustments.
  - A tiered permit pricing system should be implemented on campus to help reduce traffic issues and frustration among users in locating an available space.
  - Parking needs to be reallocated to effectively support future demand.

Parking lots by type on the Blacksburg campus
STRATEGIES TO HELP OFFSET PARKING DISPLACEMENT

- Shift towards periphery parking for majority of Commuter/Graduates.
- Continue to move displaced Faculty/Staff parking to Perry Street Garage.
- Adjust quantity of student Perry Street Lots permits sold.
- Continue to drive strong campus community participation in alternative transportation methods, including BT, walking, biking, carpool, vanpool.
Goal 9: Reduce single-occupancy-vehicle commuting to campus by 20 percent by 2025 and reduce transportation-related GHG emissions by 40 percent by 2030.

Build upon existing opportunities:

- Blacksburg Transit: Strong partnership, ridership, fleet upgrades.
- Multi-Modal Transit Facility (MMTF) - construction underway.
- Future of Work - hybrid work arrangements and commuting options (ParkMobile, etc.)
IN CLOSING

CURRENT STATE:

- 100% self-supporting Auxiliary unit
- Continue to be impacted by capital projects within North Academic District
- Affordability and accessibility is a priority with remote lot options
- Customer focus mindset, Continuous Improvement
- Over 1,000 available spaces each day

LOOKING AHEAD:

- Multi-Modal Transit Facility (MMTF)
- Continued focus on alternative transportation programs
- Movement toward garage parking
- Support the university mission

CONNECT WITH TRANSPORTATION SERVICES

E-mail: parking@vt.edu
Phone: (540) 231-3200
Website: parking.vt.edu

Social Media:

Twitter: @GetAroundVT
Instagram: @GetAroundVT
Facebook: Virginia Tech Transportation Services
Tik Tok: @VTParkingFacilities
OVERVIEW OF FACILITIES ACCESSIBILITY PROJECTS

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

KELLY OAKS, PHD
ASSOCIATE VICE PRESIDENT FOR EQUITY AND ACCESSIBILITY

APRIL 4, 2022
AGENDA

• Facilities Accessibility Stakeholders
• Sample Projects Completed
• Projects In Design
• Other Facilities Accessibility Initiatives
STAKEHOLDERS

• Campus Accessibility Working Group
• Office for Equity and Accessibility
• Campus Planning, Infrastructure and Facilities: Office of University Planning, Facilities Operations, Pathways Enhancement Crew
• Student Affairs
• Finance
April 16 Memorial
Accessible Path

Project Summary
Provide a fully accessible path around the memorial.

Project Highlights
• Widened pathways and implemented continuous sloping pathways, created new accessible entry points into the memorial garden upper area.
• Installed new accessible bench seating around the memorial.
• Relocated ADA parking spaces in closer proximity to the memorial.
• Installed accompanying curb cuts for new ADA parking spaces.

Project Status
Complete
Patton Hall Entry
Ramp Replacement

Project Summary
Accessibility improvements to Patton Hall entryway

Project Highlights
Ramp was demolished and reconstructed at a compliant slope. Included demolition of adjacent knee wall.

Project Status
Complete
Vet Med “I” Lot Route
Accessible Path

Project Summary
Provide a fully accessible path from the “I” Lot to Vet Med

Project Highlights
• Created a new ADA-compliant path connecting existing I-Lot to Vet Med facility.
• Pathway lit to allow for safe 24-hour accessibility.
• Pedestrian crosswalk lighting was upgraded for increased safety.

Project Status
Complete
Whittemore Hall Entrances
Design & Construct Accessible Entry

Project Summary
Create an accessible entry

Project Highlights
Construct an ADA compliant ramp on the southwest side of Whittemore.

Project Status
Under Construction
**Squires Newman Library Pathway**

*Design & Construct Accessible Pathway*

**Project Summary**
Create an accessible pathway connecting Alumni Mall and Graduate Life Center side of Squires Student Center.

**Project Highlights**
Construct a ramp with handrail, provide necessary painting and landscaping, relocate bike rack and install signage.

**Project Status**
Under Construction
President's Quad
Accessibility Redesign and Phase I Construction

Project Summary
Resolve ADA violations in a way that results in a desirable and effective space

Project Highlights
- Create an overall plan for the quad, to the schematic design level, indicating overall pedestrian circulation and amenity placement.
- Design components of the plan that will resolve ADA violations (e.g., relocating picnic areas to a more effective and desirable location); effort will result in a “shovel-ready” design for individual components.
- Relocate picnic areas and/or construct new pathways in phases based on total funding available.

Project Status
Schematic Design Complete
Project Summary
Evaluate opportunities to provide ADA-compliant access to the Upper Quad from the Drillfield

Project Highlights
• Contract with a landscape architect to evaluate ramp opportunities between the College of Liberal Arts and Human Sciences Building and Torgersen Hall.
• Contract with landscape architect will include a sub-consultant that can evaluate ADA needs to ensure 24-hour access through Major Williams Hall to highest level of Upper Quad.
• Construct ramp and other necessary elements, if feasibility study identifies a viable conceptual design from the Drillfield side to in front of Major Williams Hall.
• Make necessary modifications to Major Williams Hall, identified in feasibility study, to allow for 24-hour access through the building to the highest level of the Upper Quad.

Project Status
Schematic Design Complete; Phase I of 24/7 access thru Major Williams is under construction
FACILITIES ACCESSIBILITY INITIATIVES

Pathways Enhancement Crew (PEC)

- Established Summer of 2021
- 3 person crew which focuses on installing ramps and curb cuts, upgrading deteriorated sidewalks, addressing barriers, and assisting with other architectural/physical access that are not ADA compliant
- Already completed repairs at Patton, Goodwin, Fralin, Wallace, Derring and along the Drillfield

Hired additional ADA Architect

- Provides both Capital and Renovation project reviews and recommendations
- Prioritizes work for the PEC and renovation projects
- Identifies accessibility improvements for existing buildings
- Investigates instances of non-compliance and facilitates resolution
DISCUSSION OF STRATEGIC FACILITIES INVESTMENT PROGRAMS

CHRIS KIWUS

APRIL 4, 2022
DISCUSSION OF STRATEGIC FACILITIES INVESTMENT PROGRAMS

- **Operations and Maintenance Program**
  - Housekeeping, grounds care, preventative maintenance, service agreements, and routine repairs

- **Customer Requested Renovation Program**
  - Program enhancements and improvements requested and funded by campus departments less than $3 million

- **Facilities Renewal Program**
  - Program enhancements and improvements funded centrally less than $3 million

- **Maintenance Reserve Program**
  - Repairs greater than $25,000 and less than $3 million

- **Capital Project Program**
  - Renovations/replacements greater than $3 million

---

**Facility Condition Monitoring and Assessment Program**