

Committee Minutes

BUILDINGS AND GROUNDS COMMITTEE

The New Classroom Building – Room 130A

June 4, 2018

Open Session

Board Members Present: Mike Quillen, C.T. Hill, Robert Mills, Jeff Veatch

VPI & SU Staff: Bill Abplanalp, Jennifer Altman, Mac Babb, Van Coble, Joe Crane, Robbie Farley, Lance Franklin, Elaine Gall, Mark Gess, Alan Grant, Chris Kiwus, Heidi McCoy, Robin McCoy, Sarah McCoy, Grant Morris, Mike Mulhare, April Myers, Ed Nelson, Robert Sebek, Kayla Smith, Steven Smith, Heather Snidow, Jason Soileau, Jon Clark Teglas, Sherwood Wilson, Alison Wolfe

1. **Tour:** The Committee toured English Field at Union Park, Rector Field House, and O'Shaughnessy Hall.
2. **Welcome**
3. **Consent Agenda:** The Committee approved and accepted the items listed on the Consent Agenda:
 - a. **Approval of the Minutes for the March 26, 2018 meeting:** The Committee approved the minutes from the last meeting.
 - * b. **Resolution for an Ingress and Egress Easement to the New River Valley Regional Water Authority:** The Committee reviewed and approved a resolution authorizing the Vice President for Operations to execute a non-exclusive easement for ingress and egress to the New River Valley (NRV) Regional Water Authority. The NRV Regional Water Authority requested that the university grant this easement along a roadway partially located on university owned property to provide access to a Montgomery County Public Service Authority water tank.
 - * c. **Resolution on Appointment to the New River Valley Regional Water Authority:** The Committee reviewed and approved a resolution recommending William R. Knocke as the new at-large member to the Authority. Dr. Knocke is the W.C. English Professor and Program Coordinator in the Charles E. Via, Jr. Department of Civil and Environmental Engineering at Virginia Tech.
 - d. **Acceptance of Capital Project Status Report:** The Committee reviewed and accepted the quarterly capital project status report.
4. **Overview of Environmental Health and Safety:** The Committee received an overview of the university's environmental health and safety function from Dr. Lance Franklin, Assistant Vice President for Environmental Health and Safety.

5. **Report on Public Hearing for Solid Waste Authority Amendment:** The Vice President for Operations was appointed by the Board of Visitors at its March 2018 meeting to serve as the university's representative at any public hearings required for changes to the governing documents of the Authority. A public hearing regarding a proposed amendment to the Authority's Articles of Incorporation, which will provide staggered terms of office for the Authority's Board members, was held on May 10, 2018. Dr. Sherwood G. Wilson reported to the Committee that no public comments were received at the public hearing.
- * 6. **Resolution to Amend Solid Waste Authority Articles of Incorporation:** The Committee reviewed and approved an agreement to amend the articles of incorporation, to provide staggered terms of office for the members of the Authority's Board of Directors, and to extend the User Agreement with the Authority.
- * 7. **Resolution on Appointments to Solid Waste Authority:** The Committee reviewed and approved two reappointments - one joint member and one university representative - to the Montgomery Regional Solid Waste Authority Board of Directors, as a result of changes to the Articles of Incorporation.
8. **Design Review for Holden Hall Renovation:** The Committee received and approved the design review of the Holden Hall Renovation. This approximately 101,000 gross square foot renovation and new construction project includes renovation of the 1940s-era southern wing and the demolition and replacement of the existing, dilapidated north and east wings. The facility will support the College of Engineering and create a showcase venue for the Department of Materials Science and Engineering and the Department of Mining and Minerals Engineering.
9. **Design Review for Bovine Extension, Teaching, and Research Facility:** The Committee received and approved the design review of the Bovine Extension, Teaching, and Research (BETR) Facility. Part of the three-building Improve Kentland Facilities project, the BETR Facility provides approximately 10,200 gross square feet of additional classroom, animal interaction, and demonstration space for the College of Agriculture and Life Sciences. While the BETR Facility's design was approved in August 2015, a redesign effort is underway as part of a cost-management effort.
10. **Annual Report of the University Building Official:** The Committee reviewed and accepted the annual summary report of activities from the University Building Official. As set forth in university policy 5407, the annual report identifies the code enforcement and building permit activities performed during the prior year.
11. **August Agenda Discussion:** The Committee discussed potential topics for inclusion on the August meeting agenda.

* Requires full Board approval.

Joint Open Session with the Buildings and Grounds Committee

Board Members Present: Greta Harris, C. T. Hill, Anna James, Robert Mills, Mike Quillen, Robert Sebek – staff representative, Dennis Treacy, Horacio Valeiras, Jeff Veatch

VPI & SU Staff: Mac Babb, Bob Broyden, Van Coble, John Cusimano, John Dooley, Ted Faulkner, Lance Franklin, Mary Helmick, Jim Hillman, Tim Hodge, Robin Jones, Chris Kiwus, Nancy Meacham, Ken Miller, Grant Morris, Mike Mulhare, Mark Owczarski, Charlie Phlegar, Scot Ransbottom, Lisa Royal, Savita Sharma, Dwight Shelton, Kayla Smith, Ken Smith, Jason Soileau, Brad Sumpter, Tracy Vosburgh, Sherwood Wilson

- 1. Approval of Resolution for Planning the Slusher Residence Hall Replacement:** The Committees reviewed for approval a resolution for planning the capital project for Slusher Residence Hall Replacement.

Slusher Residence Hall was built in 1972 and is approximately 125,860 gross square feet with housing capacity for about 630 students. The facility has received few improvements since its original construction, does not meet student expectations, carries a significant deferred maintenance backlog, and requires frequent repairs that interrupt services.

The university has determined, because of Slusher Hall's condition, that the facility should be replaced rather than renovated. The university will first build and occupy a new residential facility neighboring the existing Slusher Hall, then demolish and remove Slusher Hall, and, then build a second building on the site. The total bed count of the new facilities will equal or exceed the existing 630 beds with the intention to maximize the number of beds to the extent practical. This request is for a \$3.5 million planning authorization to complete preliminary design documents for the Slusher Hall Replacement project.

The Committees recommended the Resolution for Planning the Slusher Residence Hall Replacement to the full Board for approval.

- 2. Approval of Resolution for Dietrick First Floor and Plaza Renovation Supplement:** The Committees reviewed for approval a resolution for Dietrick First Floor and Plaza Renovation Supplement.

The Board of Visitors approved the Dietrick First Floor and Plaza renovation project with a \$7 million total project cost at its September 11, 2017 meeting. The scope and budget for the project resolution were based on a feasibility study from a consultant and internal reviews. Planning work is underway, and schematic design cost reviews reveal the actual total project costs exceed \$7 million for the authorized scope.

The university has reviewed and analyzed each construction cost component of the project at the conclusion of schematic design and determined the total construction costs are \$6.8 million. The soft costs for design, project management, inspections, equipment, furnishings, etc. are \$1.5 million. Thus, the total project costs inclusive of design, construction, and equipment are \$8.3 million. The university has reviewed and analyzed opportunities for cost controls and determined a major scope reduction, either elimination of the plaza improvements or elimination of the enclosure for the seat expansion, would be necessary to remain within the current \$7 million project budget. The full project scope is necessary to meet the needs of the dining program and student expectations. The university has developed a financing plan to support the additional \$1.3 million of costs necessary to complete the entire scope of work. This request is for a \$1.3 million supplement to adjust the total authorization for the Dietrick First Floor and Plaza Renovation project to \$8.3 million.

The Committees recommended the Resolution for Dietrick First Floor and Plaza Renovation Supplement to the full Board for approval.

There being no further business, the meeting adjourned at 11:32 a.m.

*** Requires full Board approval.**

BUILDINGS AND GROUNDS COMMITTEE
June 4, 2018
Capital Project Status Report

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
FEASIBILITY						
Global Business Analytics Complex	The Feasibility Study for the Global Business Analytics Complex (G-BAC) will investigate facility options for up to four buildings comprising a replacement for the Pamplin College of Business, creation of a Data Analytics and Decision Sciences facility, and two living/learning communities.	TBD	TBD	Moseley Architects/RAMSA	July 2018	Fundraising efforts by Pamplin College of Business are ongoing. Data Analytics and Decision Sciences component is pending approval by the General Assembly (not expected before July 2019). Capital Assessts and Financial Management (CAFM), in conjunction with the Facilities Department and Division of Student Affairs, is generating a Pro Forma and Project Resource Plan for the living/learning community facilities envisioned for the project.
				TBD		
Global System Sciences	Envisioned as a destination, the facilities will serve as the headquarters of what is anticipated to be a world-renowned group focused on solving critical regional and global problems, including environmental, animal and human health. This facility will include disciplinary and interdisciplinary faculty of the College of Science, College of Natural Resources and Environment, College of Agriculture and Life Sciences, Virginia-Maryland Regional College of Veterinary Medicine, and university research institutes to facilitate education and research related to this important destination area.	TBD	TBD	EYP	TBD	A/E contract issued to EYP for feasibility study. Kickoff meeting completed in April 2018. Study is ongoing.
				TBD		
Newman Library Feasibility Study	The project will evaluate the existing building's infrastructure, code compliance requirements for egress, change of building use, and restroom facilities.	TBD	TBD	Colley Architects Blacksburg, VA	April 2018	Feasibility study is complete. Project is not envisioned to be approved for state funding prior to July 2019.
				TBD		
Southgate Dining Food Production Center	The purpose of this feasibility study is to provide Dining Services with appropriate and sufficient information to determine the most desirable option for the future growth of the Food Processing Facility. The three options being explored are: 1. Renovation/additions to existing facility, 2. Renovation/addition & new building - separate functions, 3. New building.	TBD	TBD	Architects Alliance	TBD	Feasibility study is underway. A/E will be providing deliverables for each of the design options, including potential site locations for a new facility, by summer 2018.
				TBD		
DESIGN						
Boiler Package 12	Demolition and disposal of decommissioned coal fired boiler (No. 6) and installation of a new 100 lbs/hour natural gas/oil fired packaged boiler (No. 12)	\$6,800,000	\$6,800,000	Affiliated Engineers, Inc. (AEI) Atlanta, GA	Winter 2019	Project is currently in design and on track. Early purchase of the new boiler is on track. Demolition package to abate lead/asbestos and demolish/remove the existing boiler (#6) is on track to begin in early summer 2018.
				TBD		
Chiller Plant Phase II	This project includes the replacement and upgrade of plant equipment in the existing campus chiller plants and the expansion of the underground distribution infrastructure to link campus chiller substations and bring additional existing campus buildings online. Improvements include the replacement of two outdated chillers in the North Plant with two new upgraded larger capacity chillers; and addition of two new 1,500 ton chillers in the Southwest Plant. The project also includes the replacement and upgrade of ancillary equipment with state-of-the-art, optimally sized pumping and system support equipment.	\$39,286,000	\$9,797,040	Affiliated Engineers, Inc. (AEI) Atlanta, GA	Summer 2021	Project is currently in design and on track. Construction projected to start first quarter of calendar year 2019.
				TBD		
Corps Leadership and Military Science	Three story structure that provides a centralized and consolidated home to the Corps of Cadets administration and ROTC programs.	TBD	TBD	Clark Nexsen	TBD	Preliminary Design documents completed. Project on hold pending state authorization for general fund for development of working drawings and construction.
				TBD		

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
Creativity & Innovation District Living Learning Community	This project involves the provision of a new residential life building in the emerging Creativity & Innovation District. The proposed 203,000 GSF (600 bed) facility will support the growing living/learning community anticipated for this key area of campus and supports the university's Beyond Boundaries initiative.	\$105,500,000	\$105,500,000	VMDO Charlottesville, VA	Summer 2021	Design-build project. Criteria/Bridging Document Phase is underway and on track. Procurement of the Design-Build team is targeted for fall 2019.
				TBD		
Dietrick Hall Enclosure & Spirit Plaza	This project will expand dining services by enclosing approximately 6,400 GSF of overhang area to create new interior dining space. The exterior plaza area will be renovated to create an outdoor venue that can provide an environment to study and host events and gatherings.	\$7,000,000	\$7,000,000	AECOM Roanoke, VA	TBD	Project is under design. Invitation for Bids for construction phase anticipated in late fall 2018.
HITT Hall and the Intelligent Infrastructure Complex (Smart Dining)	Program elements envision a 30,000 GSF HITT Hall space connected to Bishop-Favrao Hall, a 15,000 GSF Fusion Lab, a 30,000 GSF Smart Dining space and a 5,000 GSF Data for the Masses student activity space. Project intent is to showcase technology and innovation as a key component of the Intelligent Infrastructure Destination Area.	\$50,000,000	\$50,000,000	Lord Aeck Sargent (LAS) Atlanta, GA	Summer 2021	Design-build project. Criteria/Bridging Document Phase is underway and on track. Procurement of the Design-Build team is targeted for first quarter of calendar year 2019.
				TBD		
Holden Hall Renovation	This project includes the renovation of an approximately 21,000 GSF portion of Holden Hall fronting the Drillfield. The remaining 21,000 GSF of the existing building will be demolished and replaced with approximately 80,000 GSF of new engineering instruction and research space for a total building size of 101,000 GSF.	\$66,314,000	\$17,500,000	Moseley Architects Virginia Beach, VA	Fall 2021	Project is under design and on track. Construction start scheduled for summer 2019.
				W.M. Jordan Co.		
Improve Kentland Facilities (Phase II)	This project includes new construction of three buildings totaling approximately 28,900 GSF including a metabolic research laboratory, an applied reproduction facility, and a bovine extension teaching/research facility to serve Agency 229, Virginia Cooperative Extension, and the Virginia Agricultural Experiment Station.	\$9,363,000	\$0	Spectrum Design, PC Roanoke, VA	Fall 2019	Project on track for re-bid in June 2018.
				TBD		
Livestock and Poultry Research Facilities (Phase I)	This project is the first of two phases to renew existing facilities for the College of Agriculture and Life Sciences' livestock and poultry programs. This first phase includes approximately 126,000 GSF of new and renovated facilities located along Plantation Road and Giles Road and at Kentland Farm.	\$22,500,000	\$0	Spectrum Design, PC Roanoke, VA	Summer 2020	Project is under design and on track. Invitation for Bids for construction phase anticipated for the first quarter of 2019.
				TBD		
Multi-Modal Transit Facility	This is a Capital Lease Project administered by the Town of Blacksburg and funded by Federal Transportation Administration grants and a university match. The project is targeted for LEED Platinum to provide a campus sustainability demonstration showcase.	\$44,000,000	N/A	Wendel Associates Buffalo, NY	TBD	Project is under design at approximately 95 percent complete. A/E intends to complete full design by summer 2018. Town of Blacksburg has indicated an approximate \$8M budget shortfall based upon current cost estimates prepared by the A/E. Town of Blacksburg is attempting to mitigate the shortage.
				TBD		
Student Wellness Improvements	The project provides a comprehensive solution for student wellness services through upgrades to McComas Hall and major renovations to War Memorial Hall to meet the needs of the Schiffert Health Center, Cook Counseling Center, Recreational Sports, College of Liberal Arts and Human Sciences programs, and the College of Agriculture and Life Sciences (Human Nutrition Foods & Exercise).	\$63,000,000	\$63,000,000	CannonDesign Baltimore, MD	Spring 2022	Project is under design and on track. CM at Risk procurement efforts are currently underway.
				TBD		

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
Undergraduate Science Laboratories Renovations	This project will repurpose six laboratory/teaching spaces in Derring Hall and one laboratory in Hahn Hall. These repurposed laboratories will expand space to meet growing demand for course sections in biology, chemistry, organic chemistry, and microbiology.	\$10,000,000	\$10,000,000	Studio Twenty Seven Architecture Washington, DC	August 2019	Project is slated to re-bid in June 2018.
				TBD		
Undergraduate Science Laboratory	The project will construct a new undergraduate science laboratory facility of 102,000 gross square feet (GSF) to accommodate the growing demand for STEM-H degrees at Virginia Tech.	\$71,709,000	\$0	ZGF Architects Washington, DC	Fall 2021	Project is currently in design and on track. Earliest possible date for approval of state funding for working drawings development and construction is July 2019.
				TBD		
CONSTRUCTION						
Athletic Facilities Improvements	This is an umbrella project for improvements to multiple athletics facilities, including Rector Field House, Baseball, Tennis, and the Bowman Room (Performance Center).	\$37,500,000	\$37,500,000	Rector: Cannon Design Baseball: Cannon Design Tennis: TKA Architects (Criteria Documents) Nutrition: Hanbury Architects	Rector: Spring 2018 Baseball: Spring 2018 Tennis: TBD Nutrition: TBD	Sub-projects as follows: 1) Rector Field House - Construction reached Substantial Completion in March 2018. 2) Baseball - Construction at Weaver reached Substantial Completion in March 2018. Construction of stadium reached Substantial Completion in May 2018. 3) Tennis - Project on hold pending funding. 4) Student-Athlete Performance Center - Project is under design and on track.
				Rector: Branch Associates Baseball: Whiting-Turner Contracting Co. Tennis: D/B Contractor TBD Student Athl Perf: Hanbury		
Fire Alarm Systems and Access	This project provides for critical life safety improvements in several educational and general facilities on campus. Fire alarm systems will be installed or expanded in as many campus buildings as funding allows, including Architecture Annex, Food Science & Technology, Lane Hall, Litton-Reaves Hall, Norris Hall, Patton Hall, Randolph Hall, War Memorial Hall (Gym), Wallace Annex, and Whittemore Hall.	\$4,900,000	\$0	Multiple A/E Firms	Summer 2018	Installation of Fire Alarm System completed in all buildings except Norris Hall and Litton Reaves Hall which are scheduled to be completed in June 2018.
				Multiple Contractors		
Lane Electric Substation Expansion	This project will expand the existing electrical sub-station to add approximately 37 percent additional power capacity to serve the campus Life Sciences and Northwest Precincts and the Corporate Research Center's proposed expansion.	\$6,500,000	\$6,500,000	Appalachian Electric Power and Virginia Tech Electric Service	Summer 2019	Project is administered by Virginia Tech Electric Service in coordination with Appalachian Power Company and Appalachian Electric Power. Project is currently on track for completion in summer 2019.
				Appalachian Electric Power and Virginia Tech Electric Service		
O'Shaughnessy Hall Renovation	This project includes major renovation of a 72,000 GSF student residence building into a living-learning community. The residence hall originally housed 350 students and upon completion will house 344 students.	\$21,500,000	\$21,500,000	Moseley Architects Virginia Beach, VA	August 2018	Project is on schedule for completion in summer 2018 and occupancy in August.
				WM Jordan, Roanoke, VA		

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
Renovate/Renew Academic Buildings	This project will renovate three existing campus buildings - Sandy Hall, Liberal Arts Building, and the original portion of Davidson Hall. Collectively, these renovations will increase the functionality of three underutilized building assets, address several deferred maintenance issues, and reduce critical space deficiencies. Small additions are planned for Sandy and Liberal Arts Buildings to meet current emergency egress code requirements. New elevators in Sandy and Liberal Arts Buildings will provide ADA access.	\$35,029,000	\$0	Glavè & Holmes Architects Richmond, VA Branch & Associates Roanoke, VA	August 2018	Construction is underway on all three buildings. Davidson and Liberal Arts are expected to be complete by the start of Fall Semester 2018. Sandy Hall is lagging slightly behind due to unforeseen site conditions.
Unified Communications and Network Renewal Project	This project replaces outdated equipment and upgrades campus communications systems, providing infrastructure and equipment enhancements over a five year period. The project scope includes upgrades to the Internet Protocol (IP) Network, the cable plant, and equipment rooms in buildings throughout campus.	\$16,508,000	\$16,508,000	Multiple A/E Firms Various Contractors	December 2017	Project is complete. Final closeout actions underway.
Upper Quad Residential Facilities	This project provides for the demolition and construction of replacements for Brodie and Rasche residence halls to serve the Corps of Cadets. The new residence halls (totaling approximately 210,000 GSF) will provide over 1,000 beds in double and triple rooms sharing hall community bathrooms. These new residence halls will be constructed at the approximate location of the original Rasche Hall and Brodie Hall. Both buildings will provide double and triple occupancy rooms that meet the residence and in-room storage space needs of the cadets. Both new residence halls will provide dedicated meeting, community, and group spaces, specifically designed to meet Corps of Cadets program and organization needs. Thomas Hall and Monteith Hall will also be demolished as part of this project.	\$91,000,000	\$91,000,000	Clark Nexsen Charlotte, NC Barton Malow Company Charlottesville, VA	Pearson - August 2015 New Cadet Hall - April 2017	Project is complete. Final closeout actions underway.
Virginia Tech Carilion (VTC) Biomedical Research Expansion	This project, executed under the Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA), will construct an approximately 139,000 GSF building adjacent to the Virginia Tech - Carilion Research Institute in Roanoke, VA. The new facility will include high intensity biomedical research capable laboratories with surgical-type suites, Bio-safety Level Three laboratories, and animal imaging facilities that require high-field magnetic resonance imaging. The remaining space will include high-intensity dry laboratory research and training spaces including computational facilities, offices, procedural training rooms, and technical training space.	\$89,865,000	\$0	AECOM Skanska	January 2020	Project fast-tracked for construction. Site work is underway. Design reached 95 percent and full permit sets are expected to be issued in early June 2018.

June 4, 2018



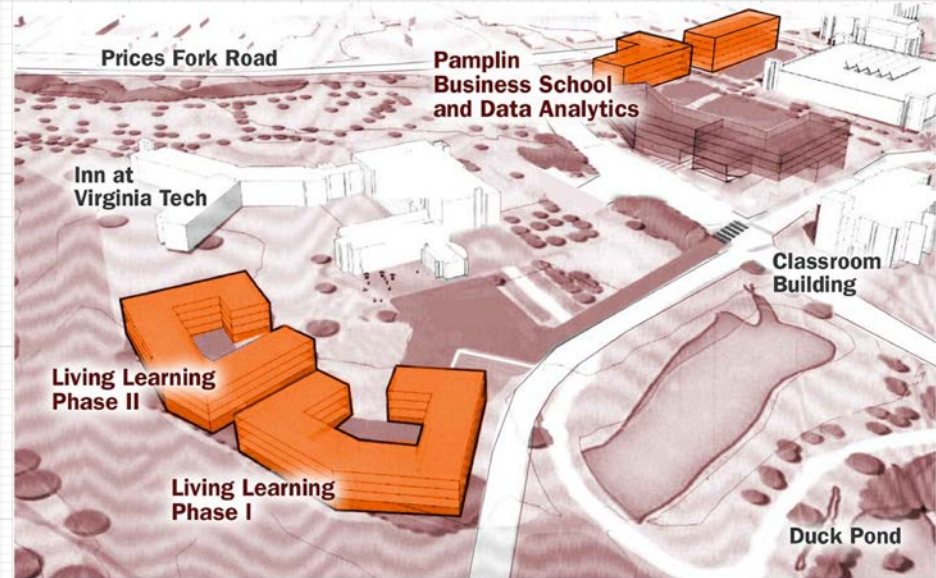
CAPITAL PROJECT STATUS REPORT



Christopher H. Kiwus, PE, PhD
Associate Vice President and Chief Facilities
Officer

■ PROJECTS IN FEASIBILITY

- Global Business Analytics Complex
- Global System Sciences
- Newman Library Feasibility Study
- Southgate Dining Food Production Center





EHS Overview

Lance Franklin, PhD, PE
Assistant Vice President for EHS



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.



Services

Laboratory Safety

Biological Safety

Radiation Safety

Occupational Health and Safety

Environmental Compliance

Off Site Safety



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.



Mission

EHS mission is to support and advance the teaching, learning and research activities of the university through promotion of a safe and health campus environment by providing and coordinating programs and services that minimize risk associated with safety, health, environmental and regulations to the Virginia Tech community in a manner consistent with responsible fiscal and environmental stewardship.

EHS has 34 employees who maintain nearly 100 programs to fulfill its commitment to health and safety within the Virginia Tech community.



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Key Metrics



Biological Safety | Laboratory Safety | Environmental Compliance
Radiation Safety | Occupational Health and Safety | Off Site Safety

FY17 Budget

Salary - \$1.93M
E&G - \$137,652
Central - \$1.22M
32 FTEs
6 Wage Workers
3 Consultants
1 Contracted Physician

- ~ 13M sqf Building Space
- ~ 1.5M sqf of Lab Space
- ~ 32,000 People Trained Annually
- ~ 2800 Permitted Spaces
- ~ 1300 Annual Inspections
- 11 ARECs
- Research Institutes
- Equine Medical Center
- Occoquan Watershed labs
- Northern Virginia Facilities
- CRC
- Power Plant
- Quarry
- Farms



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Distribution of Services

Service

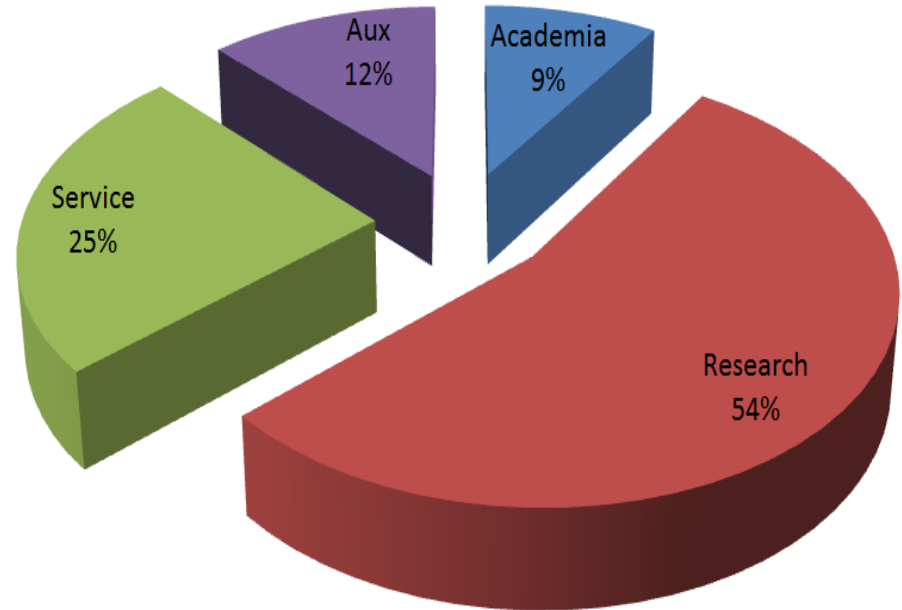
- Facilities
- Business Operations
- Police
- Emergency Management
- Information Technology

Auxiliaries

- Athletics
- Student Affairs

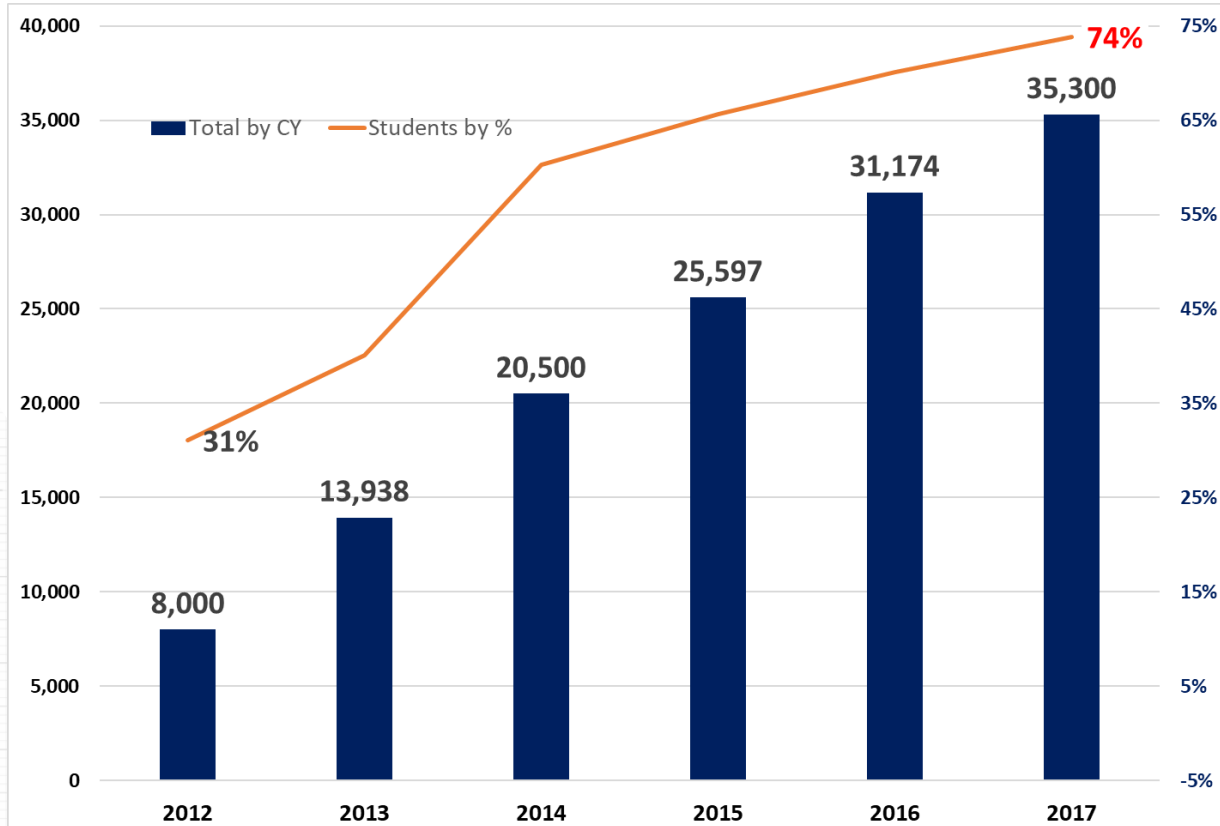
Academia

Research



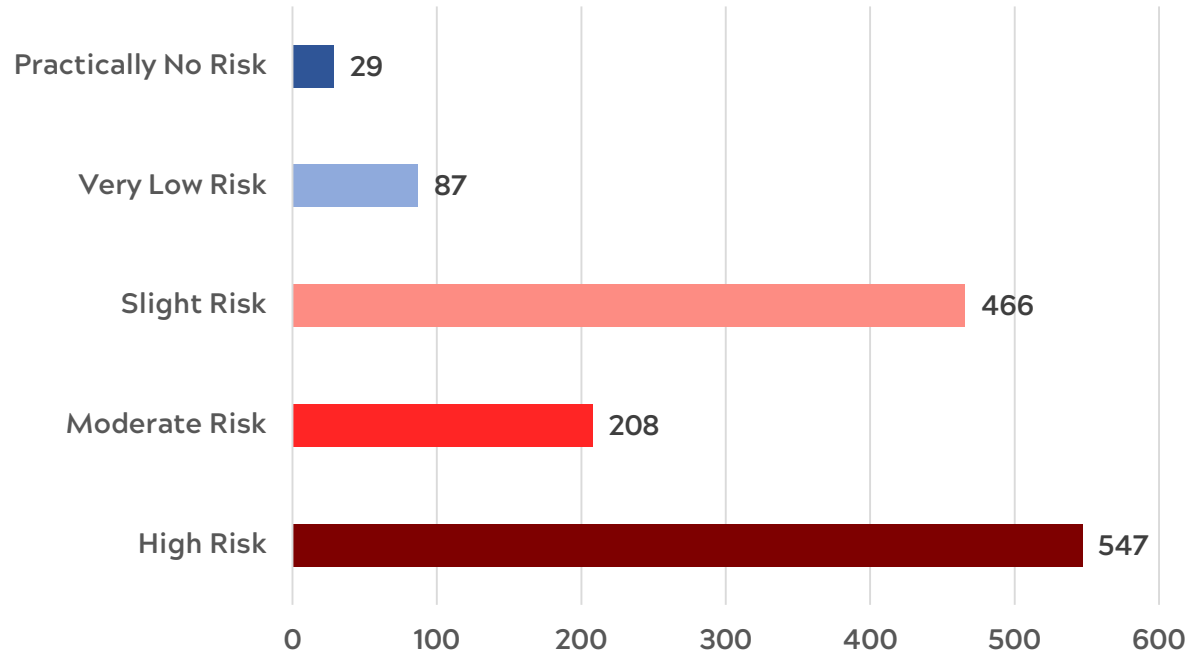
ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

EHS Training by Number of Recipients and Percent of Students, since 2012



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Laboratories and Permitted Areas by Risk Categories N= 2,790



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Biological Safety

Operational Programs

- 3 BSL-3s – can cause severe to fatal disease in humans; vaccines or treatment are available
- 296 BSL-2s – mild disease to humans or are difficult to contract
- 34 ABSL-2 facilities
- 2 Insectarium facilities
- Liaison – IACUC, IBC, IRB

BSL – biosafety level
ABSL – animal biosafety level



FY17 Budget

Salary - \$383,241
E&G - \$14,094
Central - \$0
5 FTEs



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Laboratory Safety



FY17 Budget

Salary - \$499,006
E&G - \$103,009
Central - \$666,380
8 FTEs
3 PTEs

Operational Programs

- 1,600 laboratories
- 128 tons of chemical waste generated annually
- 26 tons electronic waste
- 149 tons regulated medical waste



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Occupational Safety and Health

Operational Programs

- > 3,400 medical clients worldwide
- > 1,000 vaccinations at an annual cost of ~ \$80,000
- > 200 fire drills/tabletops
- > 400 inspections/program audits
- > 600 injury reports reviewed
- > 300 research consultations



FY17 Budget

Salary - \$599,625

E&G - \$33,487

Central - \$470,000

11 FTEs

3 PTEs

1 Contracted Physician



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Radiation Safety

FY17 Budget

Salary - \$51,260

E&G - \$7,480

Central - \$26,1800

0.75 FTE

1 Health Physics Consultant



Operational Programs

- Nuclear Medicine –VetMed, VTH and Equine Medical Center
- X-Ray equipment certification
- 76 laboratories
- 2 tons of radioactive waste generated annually
- 1,840 radiation users
- 300 packages of radioisotopes received annually
- 100 Geiger counter calibrations



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Environmental Compliance

Operational Programs

- Consent Order Management
- Greenhouse Gas Inventory
- Air Permit Compliance
- Petroleum Storage Management
- Landfill Post Closure Care Oversight
- Leachate Discharge System
- Unpermitted Discharge Investigations
- Contaminated Soils Management



FY17 Budget

Salary - \$66,232

E&G - \$1,500

Central - \$63,000

1 FTE

2 Environmental Services Consultants



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

Health and Safety Committee

Chaired by AVP of Environmental Health and Safety (EHS)

Chemical Safety & Hazardous Materials Management Committee

Hazardous Materials

Laboratory Safety

Report to AVP of EHS
Led by EHS staff

Occupational Health and Safety Committee

Physical Hazards

Fire Hazards

Safety Hazards

Occupational Health

Institutional Animal Care and Use Committee

Vertebrate Animals

Institutional Biosafety Committee

Infectious agents

Recombinant DNA

Biological origin toxins

Select agents

Blood, blood products, cells, unfixed tissue

Report to Vice President for Research & Innovation
Led by Research or College staff

Institutional Review Board

Human Subjects

Radiation Safety Committee

Radioactive Materials

Radiation-Producing Equipment

▪ EHS Program Summary

- Research and Academic Support
- Injury Prevention and Loss Reduction
- Business Process and Data Management
- Communication and Outreach
- Sustain our Safety Culture



ENVIRONMENTAL HEALTH & SAFETY
VIRGINIA TECH.

REPORT ON PUBLIC HEARING FOR SOLID WASTE AUTHORITY AMENDMENT

The Vice President for Operations was appointed by the Board of Visitors at its March 2018 meeting to serve as the university's representative at any public hearings required for changes to the governing documents of the Montgomery Regional Solid Waste Authority. A public hearing regarding a proposed amendment to the Authority's Articles of Incorporation, which will provide staggered terms of office for the Authority's Board members, was held on May 10, 2018. The Committee will receive a report from Dr. Sherwood Wilson on comments received at the public hearing.

Design Review for Holden Hall Renovation

BUILDINGS AND GROUNDS COMMITTEE

June 4, 2018

Preliminary Design is underway for this approximately 101,000 gross square foot renovation and new construction project. The 1940s-era southern wing of the facility will be renovated, with the north and east wings replacing two existing, dilapidated wings (which will be demolished). The project site is located in the Academic District, bounded by Norris Hall to the west, Old Turner Street to the north, McBryde Hall to the east, and Patton Hall/the Drillfield to the south. The facility will support the College of Engineering and create a showcase venue for the Department of Materials Science and Engineering and the Department of Mining and Minerals Engineering. A Construction Manager at Risk procurement method is being utilized to construct the project. Funding is currently authorized through detailed planning. The Commonwealth of Virginia's Bureau of Capital Outlay Management (BCOM) will provide a final budget recommendation following the university's submittal of preliminary design documents. Pending BCOM's recommendation, construction is targeted to begin in summer 2019, with occupancy to take place in late fall 2021.

Capital Project Information Summary – Holden Hall Renovation

BUILDINGS AND GROUNDS COMMITTEE

June 4, 2018

Title of Project:

Holden Hall Renovation

Location:

The building site is located in the Academic District, bounded by Norris Hall to the west, Old Turner Street to the north, McBryde Hall to the east, and Patton Hall/the Drillfield to the south. It will be located along significant east-west and north-south pedestrian patterns.

Current Project Status and Schedule:

A feasibility study was completed December 2014. Following a design preview approval by the Board of Visitors in September 2017, the project has proceeded to the preliminary design phase. Pending a full funding recommendation from BCOM, construction is targeted to begin in summer 2019, with completion in late fall 2021.

Project Description:

The project is consistent with the current, ongoing 2017 Master Plan update and will support the College of Engineering. Plans include the replacement of two deteriorated wings of Holden Hall, bringing the total facility to approximately 101,000 total gross square feet. The project will retain the south wing closest to the Drillfield.

Brief Program Description:

The facility will provide highly collaborative, thematically clustered spaces as well as create a showcase venue for the Department of Materials Science and Engineering (MME) and the Department of Mining and Minerals Engineering (MME). MSE is currently distributed across campus and the expansion and renovation will allow consolidation of the program and provide better integration of undergraduates. MME is one of the largest programs of its type in the U.S. and consistently ranks in the top ten nationally. The project will allow MME to co-locate and optimize laboratories in an innovative setting, including high-bay mock mine and robotics/automation laboratories.

Contextual Issues and Design Intent:

The existing south wing will be repaired and renovated. New construction will feature Hokie Stone, precast concrete with ornamental reveals and decorative heraldry, and metal cladding. The architectural expression will be consistent with the campus core Collegiate Gothic style and the existing wing of Holden Hall to remain. It will also provide a sensitive response to the visual and physical

connection to Norris Hall.

Demolition of the dilapidated single-story wings will require approval through the Department of Historic Resources and the Art and Architecture Review Board prior to the issuance of a demolition permit.


Architect/Engineer:

Moseley Architects | SMITHGROUPJJR


Construction Manager:

WM Jordan

June 4, 2018



HOLDEN HALL RENOVATION



Board of Visitors Design Review

■ HOLDEN HALL RENOVATION

Project Information

- New Construction: ~ 81,000 GSF
- Renovation: ~ 21,000 GSF
- Delivery Method: CM at Risk
- Funding: \$66.3 Million*
- Design Phase: Preliminary
- Construction Start: Summer 2019**
- Targeted Occupancy: Late Fall 2021**

■ HOLDEN HALL RENOVATION

Project Location



■ HOLDEN HALL RENOVATION

Existing Conditions (Future Renovation)



■ HOLDEN HALL RENOVATION

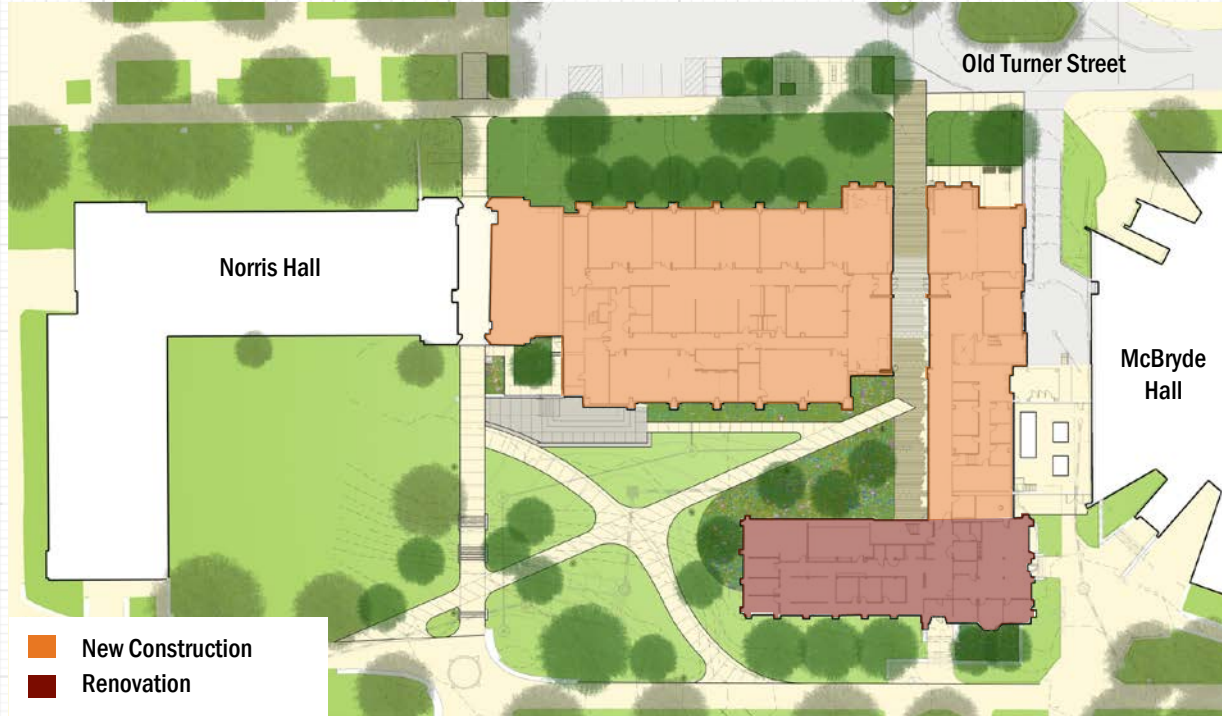
Existing Conditions (Future Addition)

To Be Replaced



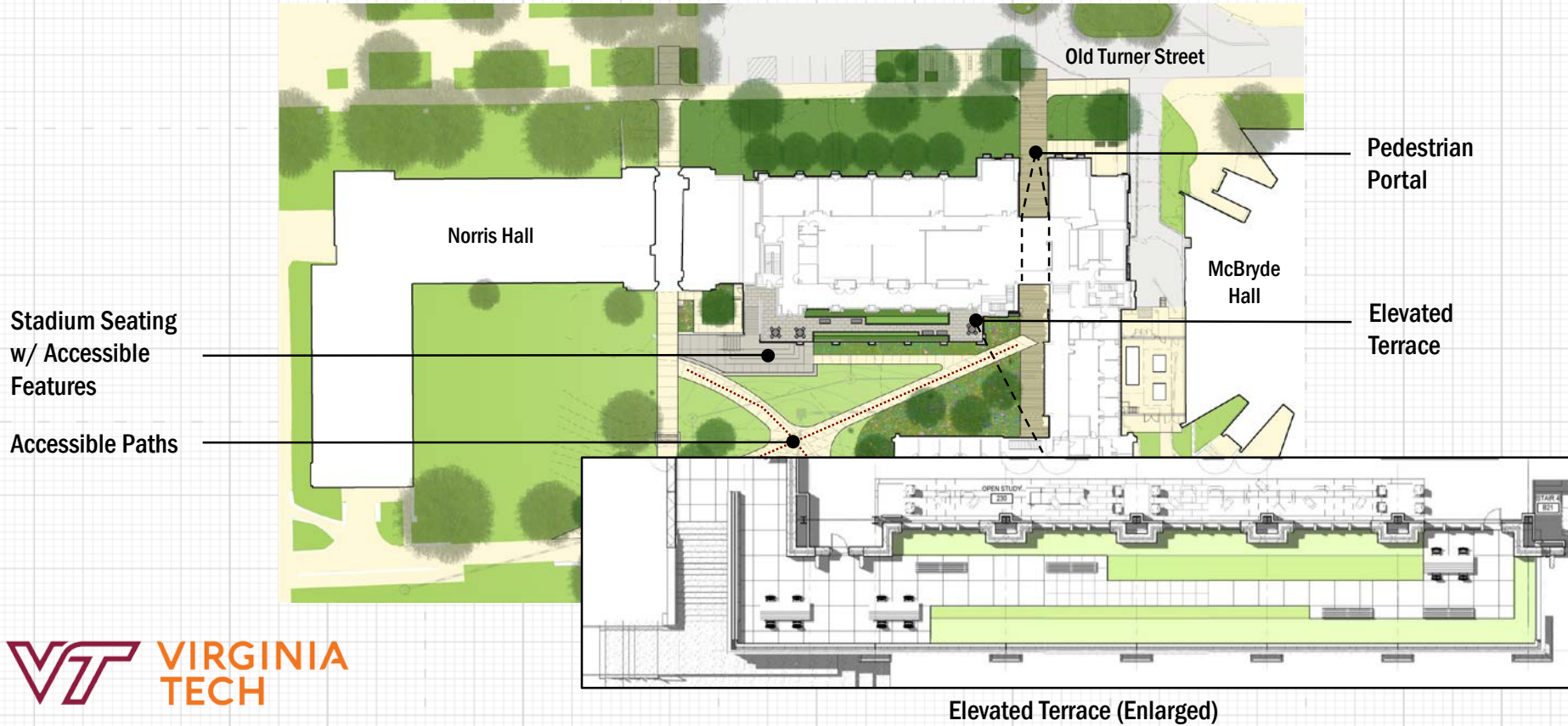
■ HOLDEN HALL RENOVATION

Site Plan



■ HOLDEN HALL RENOVATION

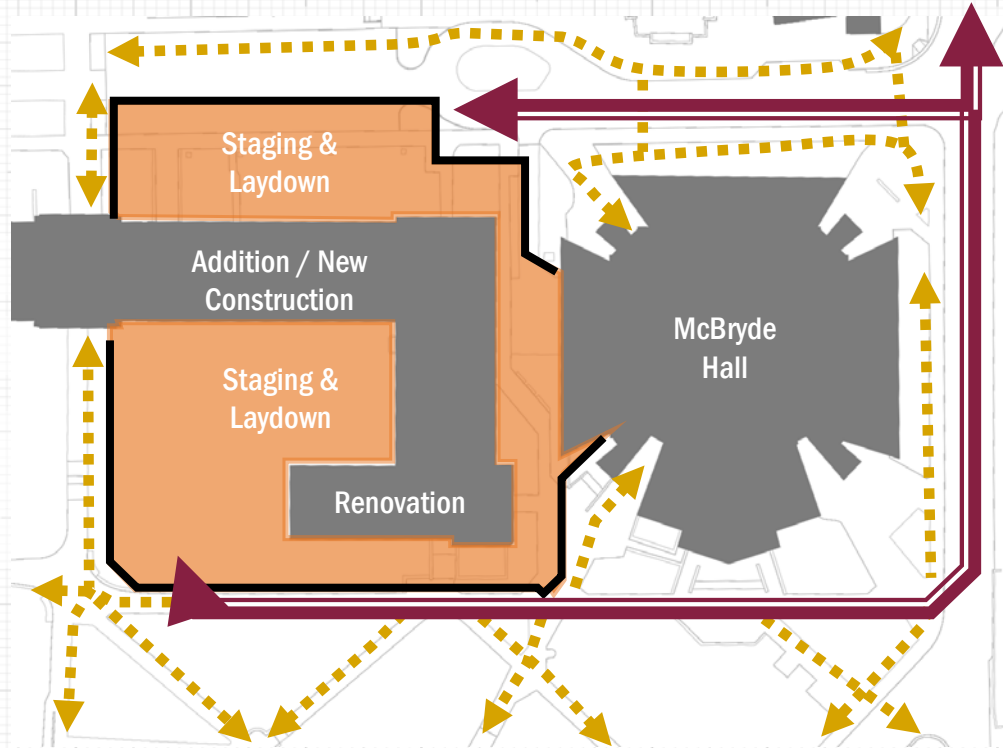
Site Plan



■ HOLDEN HALL RENOVATION

Construction Staging & Access*

- Staging Areas
- Site Fencing / Perimeter
- ▬ Delivery & Construction Vehicular Access
- ⋯ Pedestrian Circulation



■ HOLDEN HALL RENOVATION

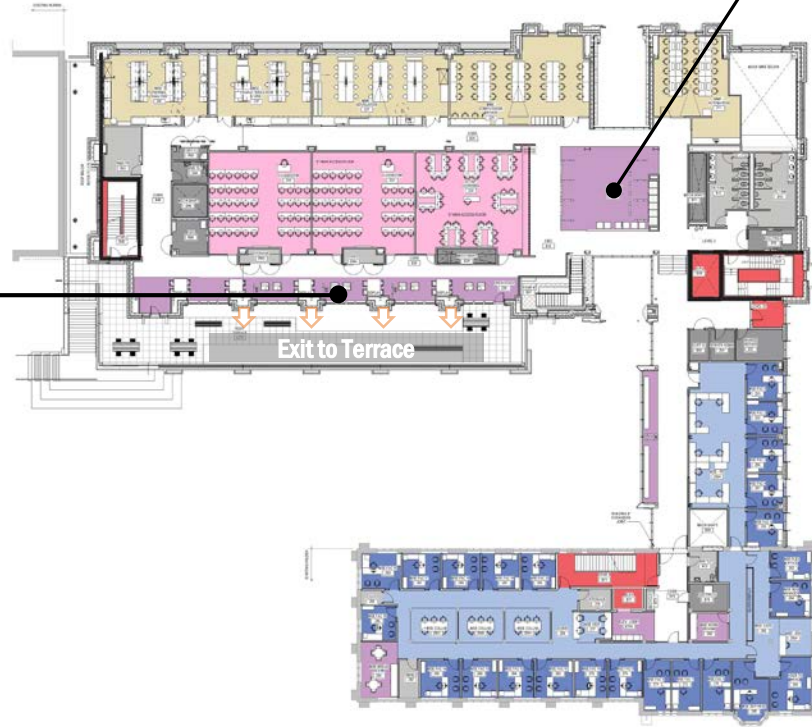
First Floor Plan



■ HOLDEN HALL RENOVATION

Second Floor Plan

Graduate
Collaboration
Space



Learning
Theater

- CLASS LABORATORIES
- RESEARCH LABORATORIES
- SUPPORT LABORATORIES
- INSTRUCTION
- COLLABORATION
- ENCLOSED OFFICE
- OPEN OFFICE / SEATING
- VCCER
- BUILDING SUPPORT
- CIRCULATION

■ HOLDEN HALL RENOVATION

Third Floor Plan

MME and MSE
Research
Laboratories

Graduate
Student / Open
Office Seating



- CLASS LABORATORIES
- RESEARCH LABORATORIES
- SUPPORT LABORATORIES
- INSTRUCTION
- COLLABORATION
- ENCLOSED OFFICE
- OPEN OFFICE / SEATING
- VCCER
- BUILDING SUPPORT
- CIRCULATION

■ HOLDEN HALL RENOVATION

Fourth Floor Plan

MSE Faculty
Research
Laboratories

Graduate Student
/ Open Office
Seating



- CLASS LABORATORIES
- RESEARCH LABORATORIES
- SUPPORT LABORATORIES
- INSTRUCTION
- COLLABORATION
- ENCLOSED OFFICE
- OPEN OFFICE / SEATING
- VCCER
- BUILDING SUPPORT
- CIRCULATION

■ **HOLDEN HALL RENOVATION**

Recommendation

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

DESIGN REVIEW FOR BOVINE EXTENSION, TEACHING, AND RESEARCH FACILITY

Part of the three-building Improve Kentland Facilities project, the Bovine Extension, Teaching, and Research (BETR) Facility provides approximately 10,200 gross square feet of additional classroom, animal interaction, and demonstration space for the College of Agriculture and Life Sciences. While the BETR Facility's design was approved in August 2015, a redesign effort is underway as part of a cost-management effort.

**Capital Project Information Summary – Bovine Extension, Teaching,
and Research Facility**

BUILDINGS AND GROUNDS COMMITTEE

June 4, 2018

Title of Project:

Bovine Extension, Teaching, and Research (BETR) Facility

Location:

The project is located on Plantation Road between the existing Livestock Judging Pavilion and Campbell Arena (across Plantation Road from the Alphin-Stuart Livestock Teaching Arena).

Current Project Status and Schedule:

This building is being redesigned to advance the Improve Kentland Facilities (IKF) project. This process is expected to conclude in spring 2018. As part of a revised bidding strategy, the BETR Facility serves as an additive bid item in the project. Depending on the outcome of the IKF bidding, the construction of the BETR Facility is targeted to begin in fall 2018. If this schedule is achieved, it is estimated that the College of Agriculture and Life Sciences (CALs) will take occupancy during the fall of 2019.

Project Description:

The BETR Facility provides additional classroom, animal interaction, and demonstration space for CALs. It features approximately 3,700 square feet of new construction for classroom and office spaces and approximately 6,500 square feet of animal demonstration space. A rear exit from the classroom building leads to the animal demonstration area, which is connected via a covered walkway. The demonstration area is a covered, dirt floor arena used for animal interaction and demonstration opportunities. It includes cattle gates around the perimeter. Drop curtains to block the wind and heaters are provided for human comfort.

Brief Program Description:

The classroom building consists of a large classroom space that can be subdivided into two smaller classrooms by a folding partition wall. This configuration allows CALs the flexibility to use the space for large lectures or smaller classroom exercises. One of the classrooms will also have a sink suitable for demonstrations that require water. In addition, a larger office with room for two work stations is provided. Non-assignable spaces in the building include men's and women's toilet facilities, an all-gender restroom, a janitor's closet, IT closet, and a mechanical/electrical room. Mechanical equipment is housed inside the building to protect it from livestock that may roam the grounds.

Contextual Issues and Design Intent:

The goal of the project is to create a facility consistent in appearance with the other agricultural buildings along Plantation Road. The classroom building will be a masonry bearing wall structure with a gable roof. The exterior walls will be clad with metal panel in an off-white color and the roof will be standing seam metal panels in a green color. The demonstration area will be a pre-engineered metal building with a gable roof and similar green metal roofing panels. A roof monitor is provided on both the classroom building and the demonstration area. These colors, materials, and building forms are consistent with existing agricultural facilities adjacent to the BETR site, including Alphin-Stuart Livestock Teaching Arena, Campbell Arena, and the Livestock Judging Pavilion.

Architect/Engineer:

Spectrum Design

General Contractor:

To be determined

June 4, 2018



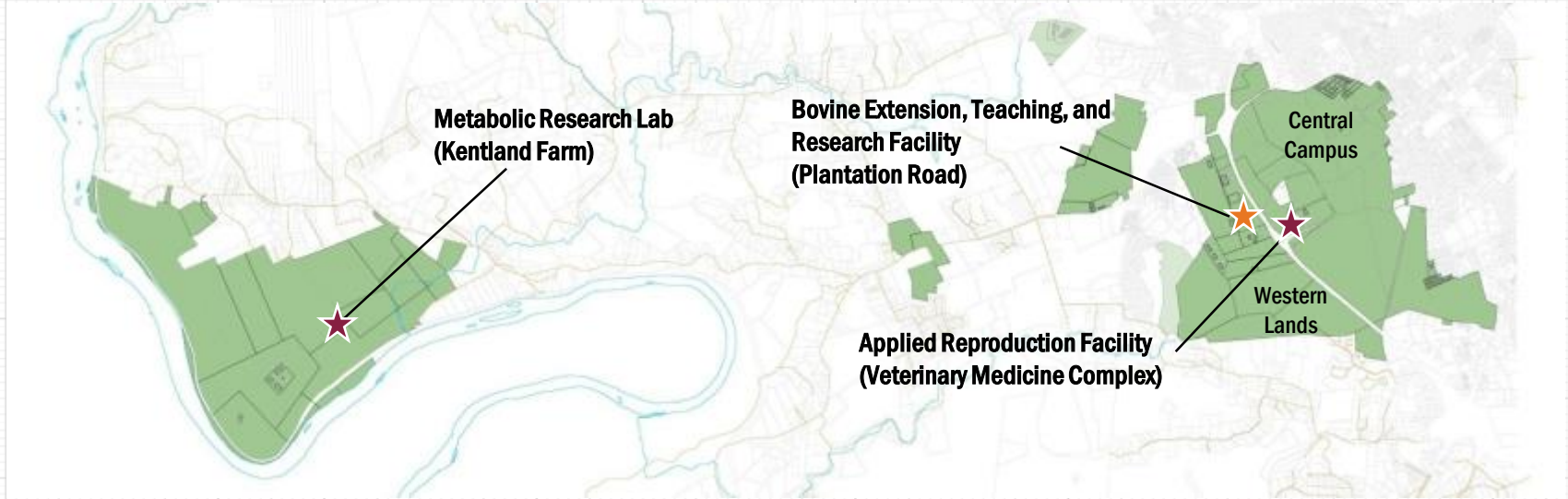
BOVINE EXTENSION, TEACHING, AND RESEARCH (BETR) FACILITY



Board of Visitors Design Review

■ BETR FACILITY

Project Location



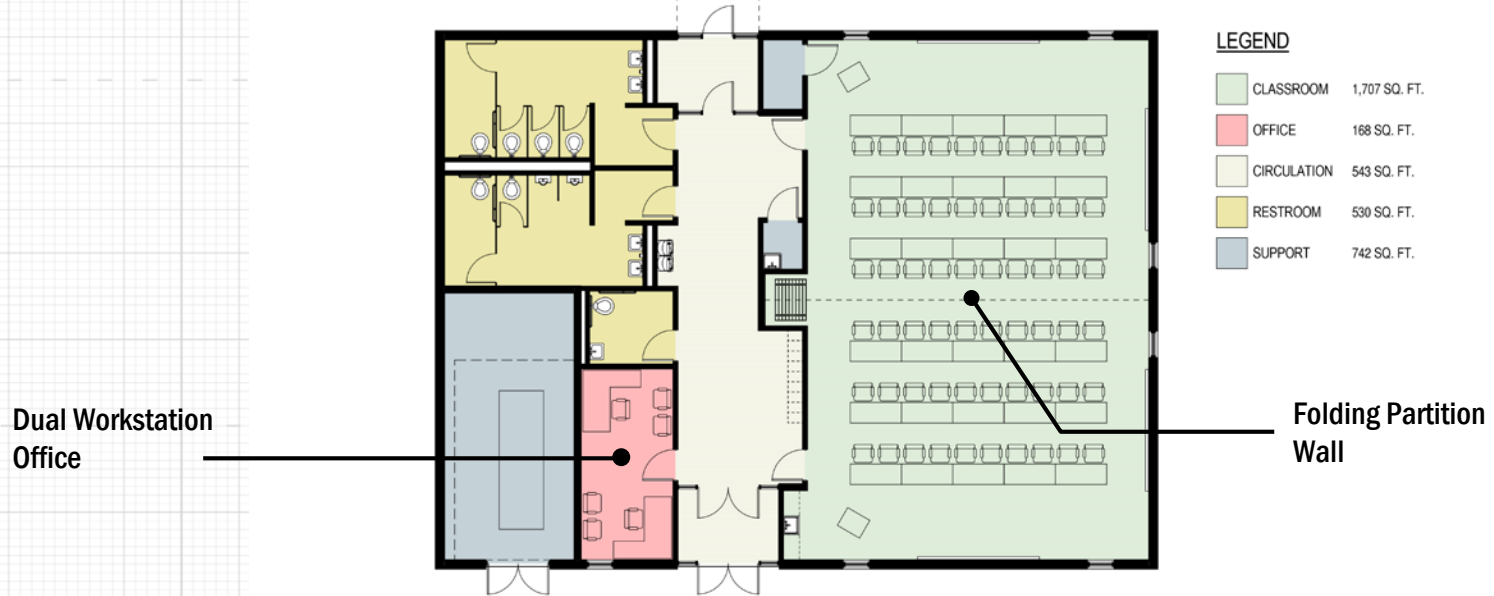
■ BETR FACILITY

Existing Condition



■ BETR FACILITY

Floor Plan



■ **BETR FACILITY**

Recommendation

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

June 4, 2018



BOVINE EXTENSION, TEACHING, AND RESEARCH (BETR) FACILITY



Board of Visitors Design Review

**Annual Report of the University Building Official
(Report Period April 1, 2017 – March 31, 2018)**

BUILDINGS AND GROUNDS COMMITTEE

June 4, 2018

Background

The Restructured Higher Education Financial and Administrative Operations Act of 2005 and the Management Agreement with the Commonwealth of Virginia grant the university the authority to designate its own building official. The Board of Visitors approved a resolution to establish a university building official and building code review unit at its June 20, 2008 meeting and the office was established July 1, 2010. Effective June 3, 2011, the Bureau of Capital Outlay Management (BCOM) formally delegated building official authority for Virginia Tech to the university's building official.

This report serves as an annual summary of activities from the University Building Official (UBO). As prescribed in university policy 5407, the annual report will identify the code enforcement and building permit activities performed during the prior year.

Since the previous annual report, the UBO office has revised many of its processes and procedures to reflect newly purchased permitting software. In addition to streamlining the office's permitting process and tracking capabilities, the revised processes and procedures have consolidated some inspections and created additional permit definitions. As a result, many of the statistics listed below may not directly correlate with those listed in previous years. Editorial notes have been included with some statistics to provide clarity.

For the period of April 1, 2017 to March 31, 2018, the following tasks have been completed:

Major Statistics

- Number of plan reviews for permit performed: 2,564 (increase of 183 or 7% since 2017 Annual Report)
 - Includes repeated reviews to achieve code compliance
- Number of permits issued (all permits and all trades): 1,491 (increase of 116 or 8% since 2017 Annual Report)
- Number of inspections performed (all trades, pass and fail): 3,740 (increase of 658 or 25% since 2017 Annual Report)
- Number of Re-Inspections due to field failures/rejections: 418 (approximate increase of 1%)

- The UBO office is required by the Virginia Statewide Building Code to issue permits for and inspect large tents, stages, and amusement devices.
 - Tent and Stage requests permitted and inspected: 31 (increase of 8 since 2017 Annual Report)
 - Special Events reviewed and inspected: 38 (increase of 14 since 2017 Annual Report)
- Number of Certificates of Occupancy (CO) Issued: 4
 - Prices Fork Research Center Restroom 0672 (March 23, 2018)
 - Eastern Shore Equipment Storage Shed 1222 (September 27, 2017)
 - West Soccer Trailer 0185S (August 31, 2017)
 - East Soccer Trailer 0185R (August 31, 2017)
- Number of Demolition Permits Issued: 22 (increase of 11 since the 2017 Annual Report)

Staffing and Development

- The UBO office participated in code committees to improve staff knowledge and application of the building code and provide input to the upcoming code change expected in 2018.
- The UBO office worked with the Department of Housing and Community Development to provide code enforcement education for other building and fire officials.
- The UBO office provided presentations on codes and code enforcement to several classes in the School of Architecture + Design within the College of Architecture and Urban Studies.

Operations

- Continued the permitting and inspection of sidewalks and other pavements or slabs, as well as roads not covered by the Virginia Department of Transportation.
- Continued the permitting and inspection of utility work outside building footprints.
- Continued to coordinate the permitting and inspection of cabling and conduit penetrations for Network Communication Services, including the removal of abandoned communication wiring across campus.
- Identified several issues of code violations: resolved or working on resolutions with the State Fire Marshal Office regarding work done by the university and contractors without proper permits, plans, or authorization.
- Continued to coordinate efforts with the local building officials association to assist the campus and community through outreach efforts to contractors and staff regarding the building codes.



UNIVERSITY BUILDING OFFICIAL ANNUAL REPORT

Elaine Gall, Interim University Building Official

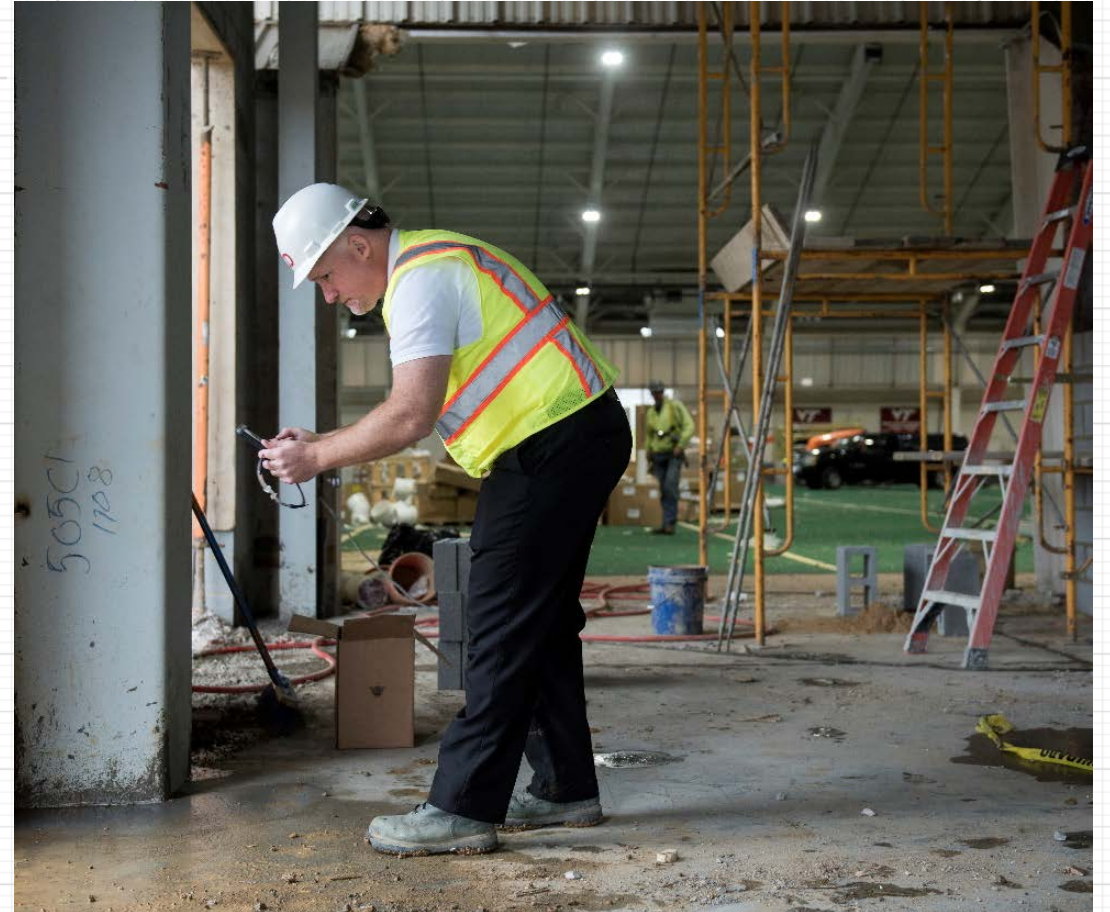
UBO: OVERVIEW

- Three universities in Virginia have a university building official
 - College of William and Mary
 - University of Virginia
 - Virginia Tech
- Each UBO works under the authority of their institution's Board of Visitors.
- For organizational and daily coordination, UBO falls within the Facilities Department.



UBO: GOALS

- Ensure our buildings are safe, accessible, and code compliant.
- Help our clients achieve compliance in the least difficult way possible.



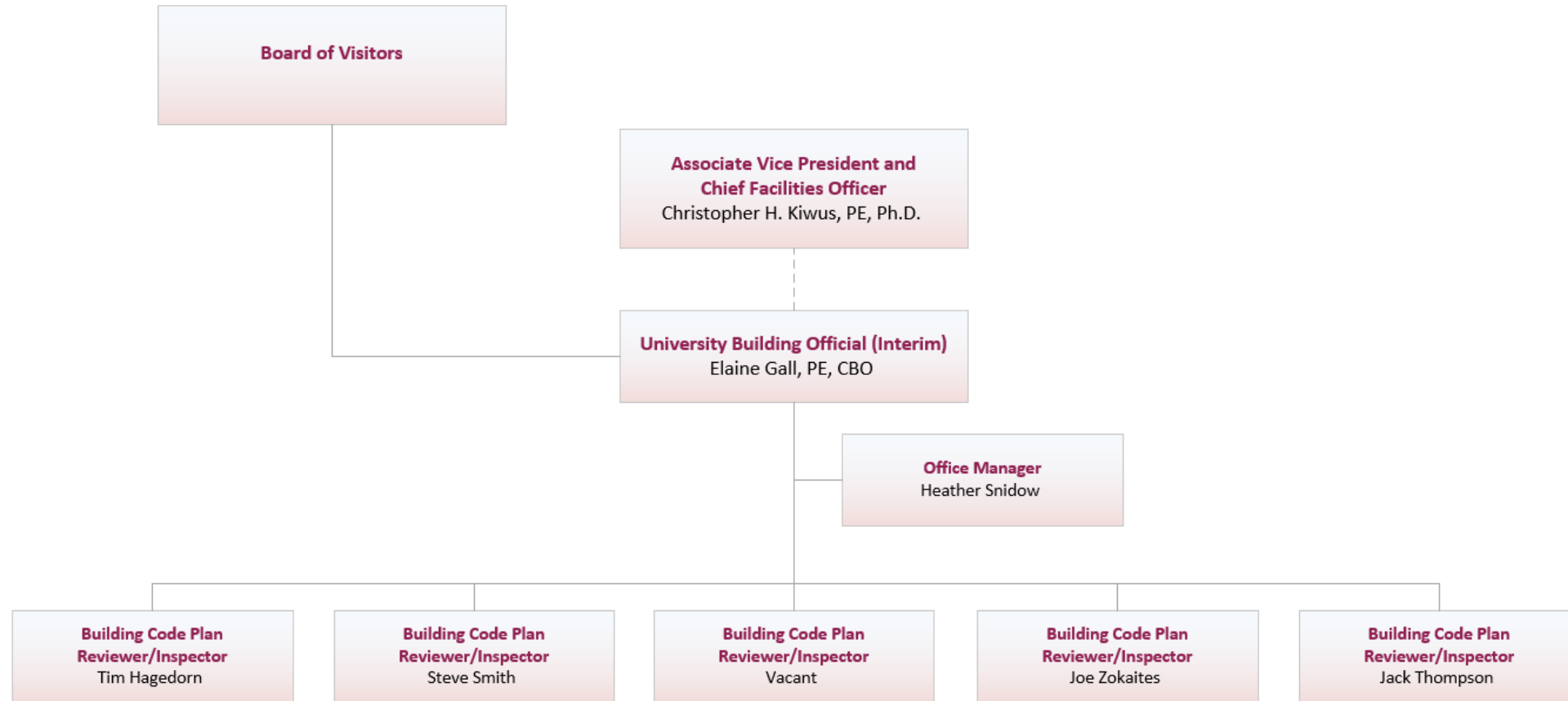
UBO: WHO AND WHAT

What We Do

- Plan Review
- Issue Permits
- Inspections and Testing
- Occupancy Approvals
- Technical Assistance



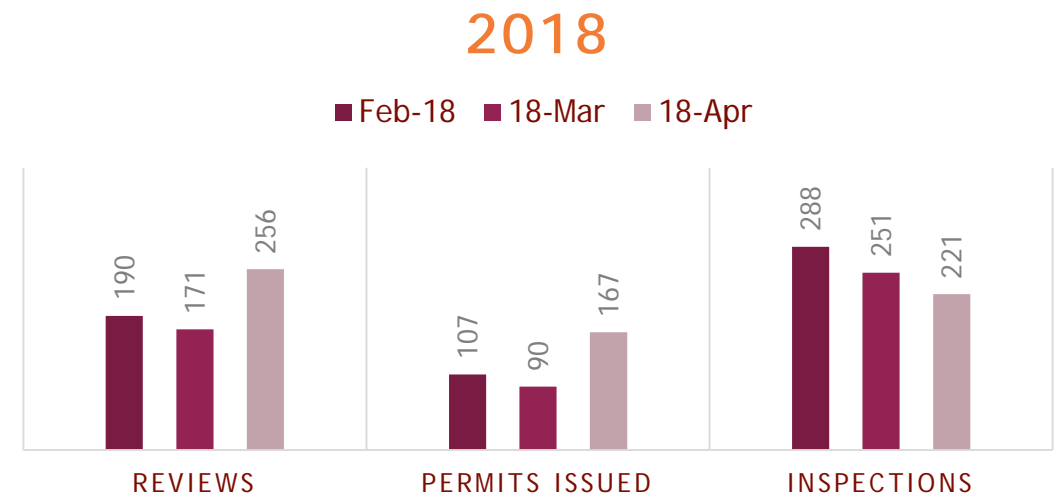
UBO: REVIEW/INSPECTION TEAM



UBO: STATISTICS

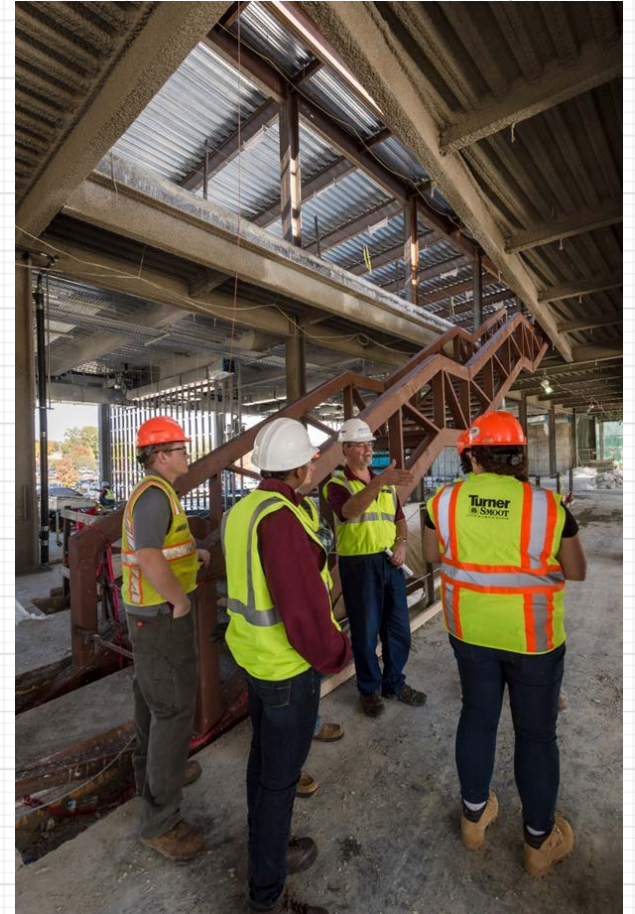
- February 2018
 - 190 Total Reviews
 - 107 Permits Issued
 - 288 Inspections
- March 2018
 - 171 Total Reviews
 - 90 Permits Issued
 - 251 Inspections

- April 2018
 - 256 Total Reviews
 - 167 Permits Issued
 - 221 Inspections



UBO: PERMITTING

- What requires a permit?
- Easier to say what does not need a building permit.
 - Replacement in kind maintenance does not need a permit.
 - Repairs, repainting, re-carpeting do not need permits.
 - Low voltage wiring or internet cables.
(except when penetrating walls or floors)
- When in doubt, ask!



UBO: NEW SMALL PROJECT REVIEWS

- New Services for Small Project Plan/Permit Review (SPR)
 - SPR is defined as a project with:
 - limited project scope,
 - no change in the building use, and
 - <\$25,000 cost.
 - Project Managers/Clients must submit SPR by noon on Monday.
 - 2 sets of construction documents,
 - Information necessary to issue a building permit.
 - Reviews are performed every Wednesday with clients at the table to ask/answer questions with the goal of issuing a permit.

UBO: NEW SMALL PROJECT REVIEWS

Wednesday Small
Project Review
(Began April 18th)



119 Reviews Completed

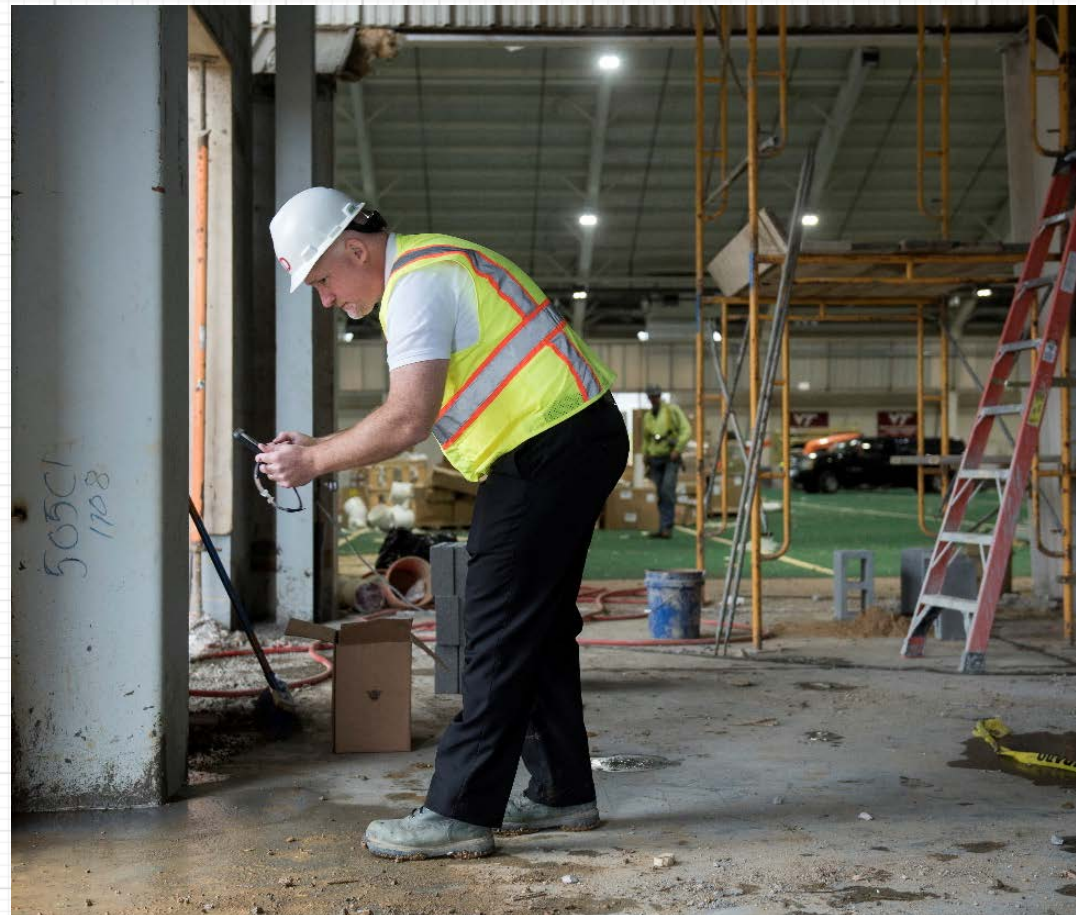


100 Permits Issued



UBO: SUMMARY

- Ensure our buildings are safe, accessible, and code compliant.
- Help our clients achieve compliance in the least difficult way possible.





QUESTIONS?

