

## **Committee Minutes**

### **BUILDINGS AND GROUNDS COMMITTEE**

**Roanoke Higher Education Center – Room 716**

**August 27, 2018**

#### **Open Session**

**Board Members Present:** C.T. Hill, Robert Mills, Dennis Treacy, Preston White

**Undergrad Student Representative:** Rachel Iwicki

**VPI & SU Staff:** Mac Babb, Van Coble, Joe Crane, Kevin Foust, Lance Franklin, Tom Gabbard, Elaine Gall, Mark Gess, Patrick Hilt, Chris Kiwus, Alexa Magdalenski, Sarah McCoy, Liza Morris, Mike Mulhare, Kayla Smith, Dwyn Taylor, Jon Clark Teglas

1. **Welcome**
2. **Consent Agenda:** The Committee approved accepted the items listed on the Consent Agenda:
  - a. **Approval of the Minutes from the June 4, 2018 meeting:** The Committee approved the minutes from the June meeting.
  - b. **Acceptance of Capital Project Status Report:** The Committee reviewed and accepted capital project status report.
3. **Overview of the Buildings and Grounds Committee:** The Committee received an overview of Buildings and Grounds Committee oversight and responsibilities.
4. **Satellite Location Safety, Security and Preparedness Presentation:** The Committee received an overview of safety, security, and preparedness activities at Virginia Tech facilities outside Blacksburg from Mr. Mike Mulhare, Assistant Vice President for Emergency Management, Virginia Tech Police Chief Kevin Foust and Lance Franklin, Assistant Vice President for Environmental Health and Safety.
- \* 5. **Resolution to Increase the Width of a Virginia Electric and Power Company Easement:** The Committee reviewed and approved a request from Virginia Electric Power Company (VEPCO), a subsidiary of Dominion Energy, Inc., to increase the width of VEPCO's overhead electric transmission lines easement by thirty feet (30'), for a total width of one hundred feet (100'), on Virginia Tech's Northern Piedmont Center.

- \* 6. **Resolution on Demolition of University Building No. 0835:** The Committee reviewed and approved the university's request to demolish the Tenant House, Obenshain Building No. 0835, which is a 935 gross square foot (GSF) concrete masonry unit and wooden room structure with a basement on university property located on the Northern Piedmont Center in Orange County, Virginia.
- 7. **Design Preview for Livestock and Poultry Research Facilities – Phase I:** The Committee reviewed and approved the design preview for the Livestock and Poultry Research Facilities – Phase 1. This project seeks to improve fourteen (14) facilities through both renovation and new construction. The Rector noted the importance of maintaining the presence of agricultural education facilities on the main campus. Mr. Mills noted the importance of providing modern facilities like those students will encounter in industry upon graduation.
- 8. **Design Review for the Student-Athlete Performance Center:** The Committee reviewed and approved the design review the Student-Athlete Performance Center. This approximately 28,800 gross square foot renovation and new construction project is intended to provide a competitive advantage for athletics.
- 9. **November Agenda Discussion:** The Committee discussed that the Campus Master Plan Update, the acceptance of the Clery Report, and the annual Sustainability Report will be included on the November meeting agenda.

The division of Operations is coordinating a **tour of most of the Agricultural, Research & Extension Centers** to facilitate discussions about safety and security support, facility needs, and other opportunities for coordination. This approximately four day bus trip would provide a unique opportunity to see many of the university's research facilities throughout the state. Any Board of Visitors members who would like to participate in the tour should express their interest to Kim O'Rourke.

Dr. Wilson shared that **an unsolicited proposal to redevelop the university's Falls Church site** under the provisions of the **Public Private Infrastructure Act** was received on August 16th. The appropriate process have been initiated and the Board will be briefed as the proposal(s) are reviewed and if the university enters into negotiations regarding a detailed proposal and/or Comprehensive Agreement.

### **Joint Open Session with the Buildings and Grounds Committee**

**Board Members Present:** Zo Amani – Graduate Student Representative, Ed Baine, Greta Harris, C. T. Hill, Anna James, Robert Mills, Debbie Petrine, Dennis Treacy, Horacio Valeiras, Preston White

**VPI & SU Staff:** Mac Babb, Callan Bartel, Bob Broyden, Richard Blythe, D'Elia Chandler, Cyril Clarke, David Crotts, John Cusimano, Brian Daniels, John Dooley, Jack Finney, Kevin Foust, Lance Franklin, Tom Gabbard, Mark Gess, Dee Harris, Mary Helmick, Tim Hodge, Katie Hugar, Chris Kiwus, Steve McNight, Nancy Meacham, Ken Miller, Terri Mitchell, Liza Morris, Sally Morton, Mike Mulhare, Mark Owczarski, Charlie Phlegar, Lisa Royal, Tim Sands, Savita Sharma, Dwight Shelton, Ken Smith, Brad Sumpter, Dwyn Taylor, Sherwood Wilson

- \* 1. **Approval of Resolution for Planning the Athletics Weight Room Renovation and Expansion:** The Committees reviewed for approval a resolution for planning the capital project for the Athletics Room Renovation and Expansion.

The Merryman Center was built in 1998 and is approximately 42,000 gross square feet. The facility has received few improvements since its original construction, and requires an update to meet the Athletic department's expectations within the highly competitive environment for NCAA Division I college football. The envisioned renovation and expansion will provide state-of-the-art spaces for weight training, nutrition, team meeting space, circulation, and an updated graphics package.

Based on a feasibility study completed in January 2018, the university has determined that the desired athletics program can be accommodated with an approximately 22,520 gross square foot project. This includes a 17,640 gross square foot renovation of the first two floors of the Merryman Center and a 4,880 gross square foot expansion of the second floor team meeting rooms.

This request is for a \$700,000 planning authorization to complete working drawings for the Athletics Weight Room Renovation and Expansion project.

The Athletics program is raising private funds to support the project and has received gifts and commitments sufficient to support the planning phase of the project.

The Committees recommended the Resolution for Planning the Athletics Weight Room Renovation and Expansion to the full Board for approval.

There being no further business, the meeting adjourned at 11:22 a.m.

**\* Requires full Board approval**

BUILDINGS AND GROUNDS COMMITTEE  
August 27, 2018  
Capital Project Status Report

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
FEASIBILITY						
G. Burke Johnston (GBJ) Student Center Programming Study	The Feasibility Study will provide a high level review of options to repurpose GBJ as a Student Success Center upon completion of the dining facility envisioned for the Intelligent Infrastructure for Human-Centered Communities Destination Area.	TBD	TBD	VMDO Architects	December 2018	Feasibility Study is underway and on track.
				TBD		
Global Business Analytics Complex (G-BAC)	The Feasibility Study 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	TBD	Feasibility Study is complete. Fundraising efforts by Pamplin College of Business are ongoing. Pro Forma cost analysis for the living/learning communities is under development.
				TBD		
Global System Sciences	The Feasibility Study will investigate a facility that will support 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 focused on solving critical regional and global problems, including environmental, animal, and human health.	TBD	TBD	EYP	January 2019	Feasibility Study is underway and on track.
				TBD		
Media Building Feasibility Study	The Media Building is a 2-story structure that was constructed in 1934 at the intersection of Draper Road and Roanoke Street. The purpose of this feasibility study is to evaluate the repurposing of the facility to support and further the work of the Institute for Creativity, Arts, and Technology (ICAT). The study intends to provide an overall vision for the facility with the A/E providing high-level budget and phasing analysis.	TBD	TBD	VMDO Architects	July 2018	Feasibility Study is complete.
				TBD		
Newman Library Feasibility Study	The Feasibility Study 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		
Phi Gamma Delta (Fiji) Fraternity House	The Feasibility Study will develop initial programming, exterior renderings, fundraising materials, and a cost estimate of a new fraternity house that can accommodate 30-44 beds.	TBD	TBD	VMDO Architects	TBD	Feasibility Study is underway.
				TBD		
Southgate Dining Food Production Center	The Feasibility Study will provide Dining Services with information to determine the most desirable option for the future growth of the Food Processing Facility. Three options being explored are: 1. renovation/additions to existing facility; 2. renovation/addition & new building; 3. new building.	TBD	TBD	The Architects Alliance Inc. Blacksburg, VA	December 2018	Feasibility Study is underway and on track.
				TBD		

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
PROJECT INITIATED						
Slusher Hall Replacement	This project envisions the demolition of Slusher Hall and construction of replacement residence hall(s) that will equal or exceed 630 beds. Planning documents and designs will be developed to execute the project in phases to avoid unnecessary reduction in bed inventory during the project.	\$3,500,000	\$3,500,000	TBD	TBD	A/E contract procurement initiated; Requests for Proposals (RFP) issued in July 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	Late Fall 2019	Design is underway and on track. Early procurement of the new boiler is underway. Procurement of the demolition contract to remove the existing decommissioned boiler is underway; demolition is targeted to begin in fall 2018. Targeting installation of the new boiler in summer/fall 2019 to be on line for the winter 2019 heating season.
				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 totaling 6,000 tons; and the 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) Chapel Hill, NC	Summer 2021	Design is underway and on track. Procurement of construction contract is targeted for late fall 2018/early winter 2019
				TBD		
Corps Leadership & 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 (50% design) documents completed. Project on hold pending state authorization for general fund for development of working drawings and construction.
				TBD		
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 gross square feet (GSF) and approximately 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 enhanced environment to study and host outdoor events and gatherings.	\$8,300,000	\$8,300,000	AECOM Roanoke, VA	TBD	Project is under design. Procurement of construction contract is targeted for late fall 2018/early winter 2019 with planned completion in fall 2019.
				TBD		
HITT Hall & the Intelligent Infrastructure Complex	Program elements envision a 30,000 GSF HITT Hall connected to Bishop-Favrao Hall; a 15,000 GSF Fusion Lab; 5,000 GSF Data for the Masses student activity space; and a dining facility. 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. Procurement of the Design-Build team is targeted for first quarter of calendar year 2019.
				TBD		

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
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	Re-design is complete. Construction contract procurement/re-bid underway; targeting construction start in early fall 2018.
				TBD		
Livestock & 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 154,100 GSF of new and renovated facilities located at existing Virginia Tech sites on the Plantation Road Corridor, at Smithfield Horse Center, at Kentland Farm, and at the Glade Road Poultry Research Center.	\$22,500,000	\$0	Spectrum Design, PC Roanoke, VA	Summer 2020	Project is under design and on track. Procurement of construction contract is targeted for early winter 2019.
				TBD		
Multi-Modal Transit Facility	The Multi-Modal Transit Facility project is a partnership with the Town of Blacksburg under which the Town will obtain funding, hold contracts, and own the building that will be located and operated on Virginia Tech land.	\$44,000,000	N/A	Wendel Associates Buffalo, NY	Summer 2021	Design is underway with planned conclusion in August 2018. Project faces a budgetary shortfall of \$8 million. Construction phase on hold pending outcome of Town of Blacksburg efforts to garner additional project funds via VDOT Smart-Scale Grant. If funds are obtained, construction phase is targeted to begin in spring/summer 2019.
				TBD		
Student-Athlete Performance Center	This project includes a complete renovation and expansion of the fourth floor of the Jamerson Center, construction of a balcony cantilevered from the fourth floor, and a new elevator tower. The project will provide approximately 17,000 square feet for dining, nutrition, recruiting, donor hospitality, and allow for a seamless transition to the Cassell Coliseum concourse.	\$16,680,000	\$16,680,000	Hanbury Norfolk, VA	TBD	Project is under design. Procurement of construction contract is targeted for early 2019 with planned completion by fall 2020.
				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 programming needs of the Schiffert Health Center, Cook Counseling Center, Recreational Sports, College of Liberal Arts and Human Sciences, and the College of Agriculture and Life Sciences.	\$63,000,000	\$63,000,000	CannonDesign Baltimore, MD	Spring 2022	Design is underway; options to optimize programmatic needs specific to Cook Counseling Center are under consideration. Procurement of Construction Manager at Risk (CMaR) targeted for fall 2018.
				TBD		
Undergraduate Science Laboratories Renovations	The project will repurpose multiple laboratory/teaching spaces in Derring and Hahn Halls 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	Construction contract awarded in July 2018; construction start targeted to begin in August 2018 with planned completion by August 2019.
				Thor Construction, Inc. Roanoke, VA		
Undergraduate Science Laboratory	The project will construct a new undergraduate science laboratory facility of 102,000 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		

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
CONSTRUCTION						
ACC Network Studio	The project will establish the necessary broadcast facilities including interior renovations to an existing control room; construction of two new controls rooms; installation of fiber, infrastructure, and equipment to support the broadcast of Virginia Tech intercollegiate athletic events on the ACC Network.	\$10,000,000	\$0	Multiple A/E Firms	Fall 2019	Demolition of existing spaces in Lane Stadium is complete; procurement of construction contracts to support installation of infrastructure is underway; equipment procurement (via the Department of Athletics) is underway.
				Multiple Contractors		
Athletic Facilities Improvements	This is an umbrella project for improvements to multiple athletics facilities, including Rector Field House, Baseball, and Tennis.	\$37,500,000	\$37,500,000	Rector: Cannon Design Baseball: Cannon Design Tennis: TKA Architects (Criteria Documents)	Rector: May 2018 Baseball: May 2018 Tennis: TBD	Sub-projects as follows: 1) Rector Field House - Construction reached Substantial Completion in March 2018. 2) Baseball - Construction reached Substantial Completion in May 2018. 3) Tennis - Project on hold pending funding.
				Rector: Branch Associates Baseball: Whiting-Turner Contracting Co. Tennis: D/B Contractor TBD		
Commonwealth Ballroom Improvements	The scope of work includes replacing outdated and nonfunctioning lighting systems, stage systems, ceiling tiles, and air handlers for the Commonwealth Ballroom in Squires Student Center. An acoustical dividing wall will be added to increase usage capabilities by student organizations and the campus community.	\$3,246,000	\$3,246,000	Dewberry Engineers	March 2019	Construction contract awarded in July 2018; construction start targeted to begin in October 2018 with planned completion in time for Spring 2019 Commencement.
				Glass & Associates, Inc.		
Fire Alarm Systems & 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	Fall 2018	Installation of Fire Alarm System completed in all buildings except Norris Hall and Litton Reaves Hall which are scheduled to be completed in August and October 2018, respectively.
				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, the 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 Hall and the Liberal Arts Building to meet current emergency egress code requirements. New elevators in Sandy Hall and the Liberal Arts Building will provide ADA access.	\$35,029,000	\$0	Glavè & Holmes Architects Richmond, VA	August 2018	Construction is underway on all three buildings. Davidson Hall and the Liberal Arts Building are on track for completion in time for start of Fall Semester 2018. Sandy Hall encountered delays and is targeted for completion in time for start of Spring Semester 2019.
				Branch & Associates Roanoke, VA		
Steger Hall Hokie Stone Repairs & Betterments	The scope of work includes repair of Hokie Stone facade as well as cleaning and removal of efflorescence from the stone, precast, and glass surfaces.	\$1,100,000	\$1,100,000	Wiss, Janney, Elstner Associates, Inc.	December 2018	Project is under construction; targeted for completion in late fall 2018.
				Skanska USA Building		
Unified Communications & 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	December 2017	Project is complete. Final report.
				Various Contractors		
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	Pearson Hall - August 2015 New Cadet Hall - April 2017	Project is complete; contract close-out actions underway.
				Barton Malow Company Charlottesville, VA		
Virginia Tech Carilion 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. 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	January 2020	Project fast-tracked for construction; design completed July 2018. Foundation work is underway and steel erection began July 2018.
				Skanska		



August 27, 2018



# CAPITAL PROJECT STATUS REPORT

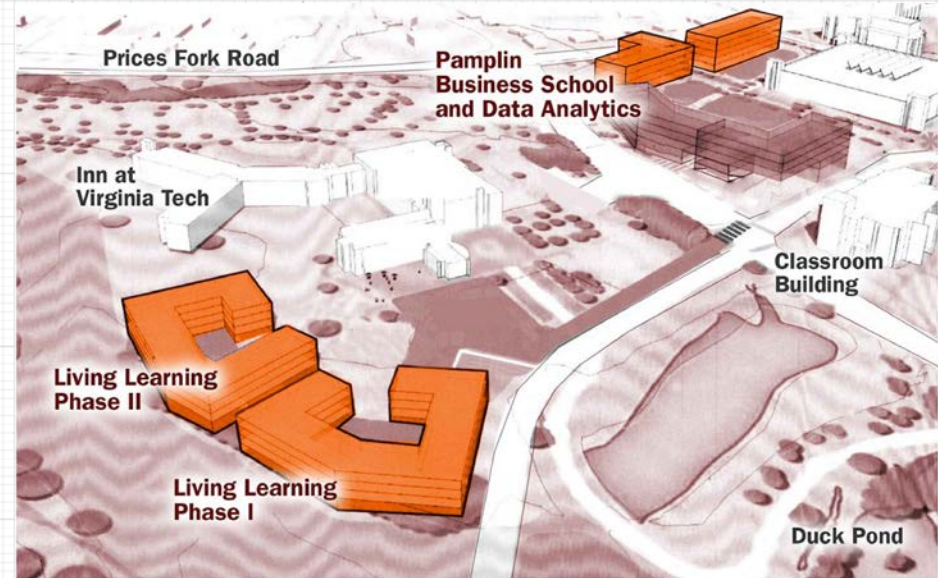


Christopher H. Kiwus, PE, PhD  
Associate Vice President and Chief Facilities Officer

# ■ Projects In Feasibility

Attachment E

- G. Burke Johnston Student Center Programming Study
- Global Business Analytics Complex
- Global System Sciences
- Media Building Feasibility Study
- Newman Library Feasibility Study
- Phi Gamma Delta (Fiji) Fraternity House
- Southgate Dining Food Production Center



# ■ Projects Initiated

- Slusher Hall Replacement

Attachment E





# ■ Projects Under Construction

Attachment E

- ACC Network Studio
- Athletic Facilities Improvements
- Commonwealth Ballroom Improvements
- Fire Alarm Systems & Access
- Lane Electric Substation Expansion
- O'Shaughnessy Hall Renovation
- Renovate/Renew Academic Buildings
- Steger Hall Hokie Stone Repairs & Betterments
- Unified Communications & Network Renewal Project
- Upper Quad Residential Facilities
- Virginia Tech Carilion Biomedical Research Expansion



# Buildings & Grounds Committee Overview

- Sherwood G. Wilson
- August 27, 2018



## ■ Buildings & Grounds Committee Charge

Attachment E

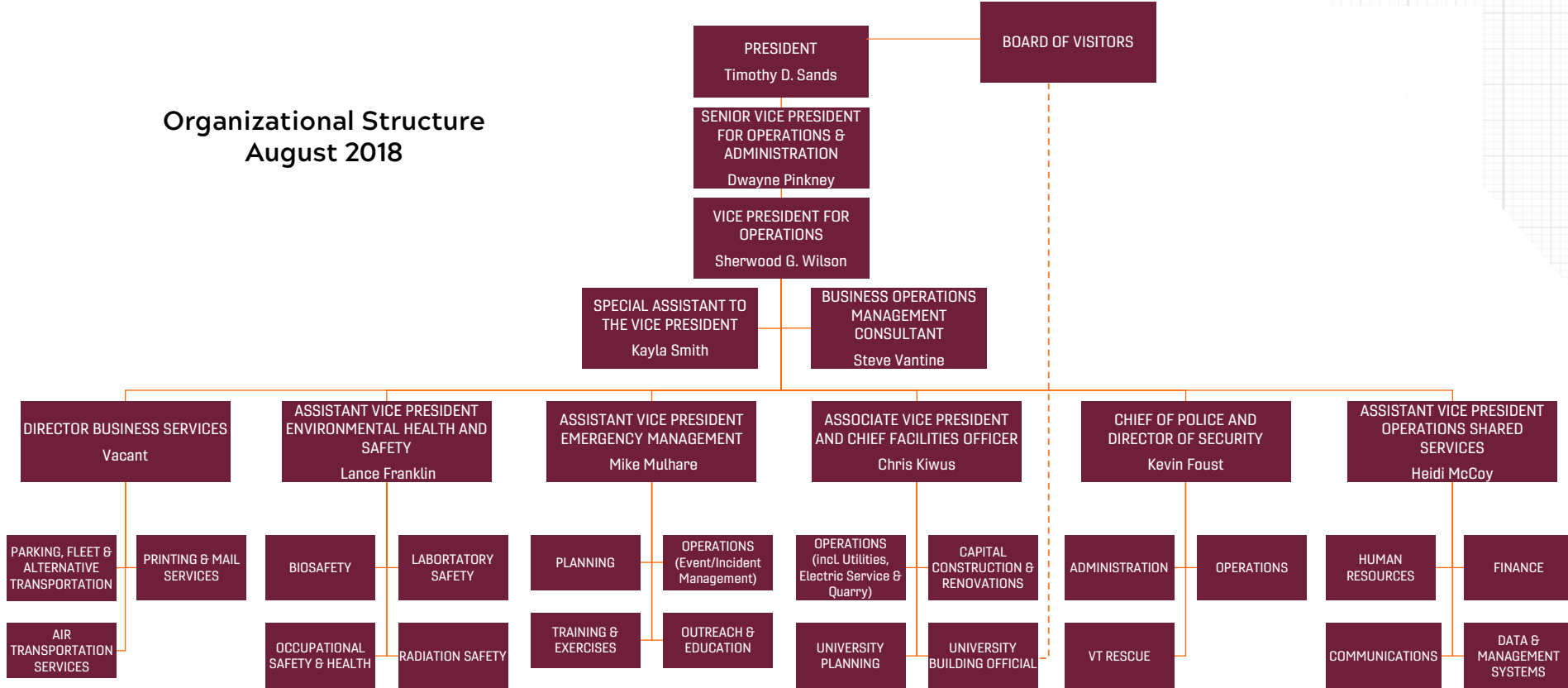
... responsible for oversight of campus **safety and security**, the maintenance and development of the **physical plant and infrastructure**, **land use and planning**, and review and development of **capital outlay requests**.

The university employee designated as the **University Building Official** when serving in that capacity reports directly to the Board of Visitors through this committee.

# ■ Operations Division

Attachment E

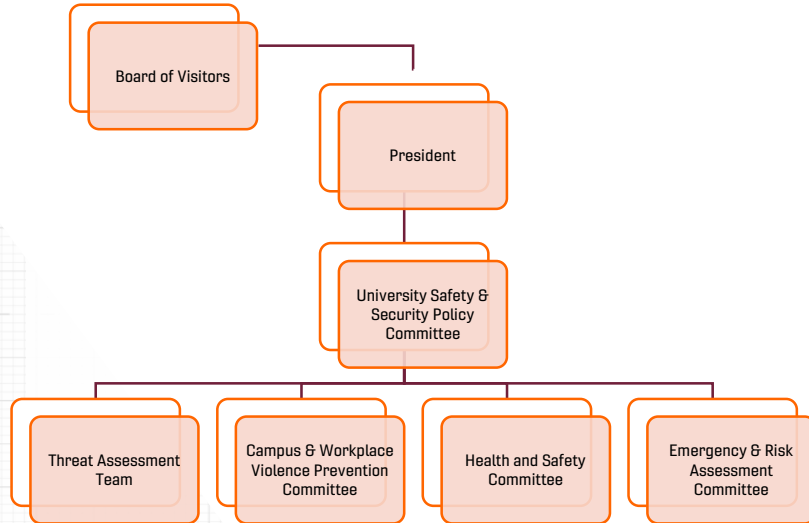
## Organizational Structure August 2018



## ■ Safety & Security

Attachment E

### University Safety & Security Policy Committee Organizational Structure



- University Safety & Security Policy Committee
- University Policy 5615
- Threat Assessment
- Functional offices/entities:
  - Virginia Tech Police Department
    - Virginia Tech Rescue Squad
  - Office of Emergency Management
  - Environmental Health & Safety



## ■ Land Use and Planning

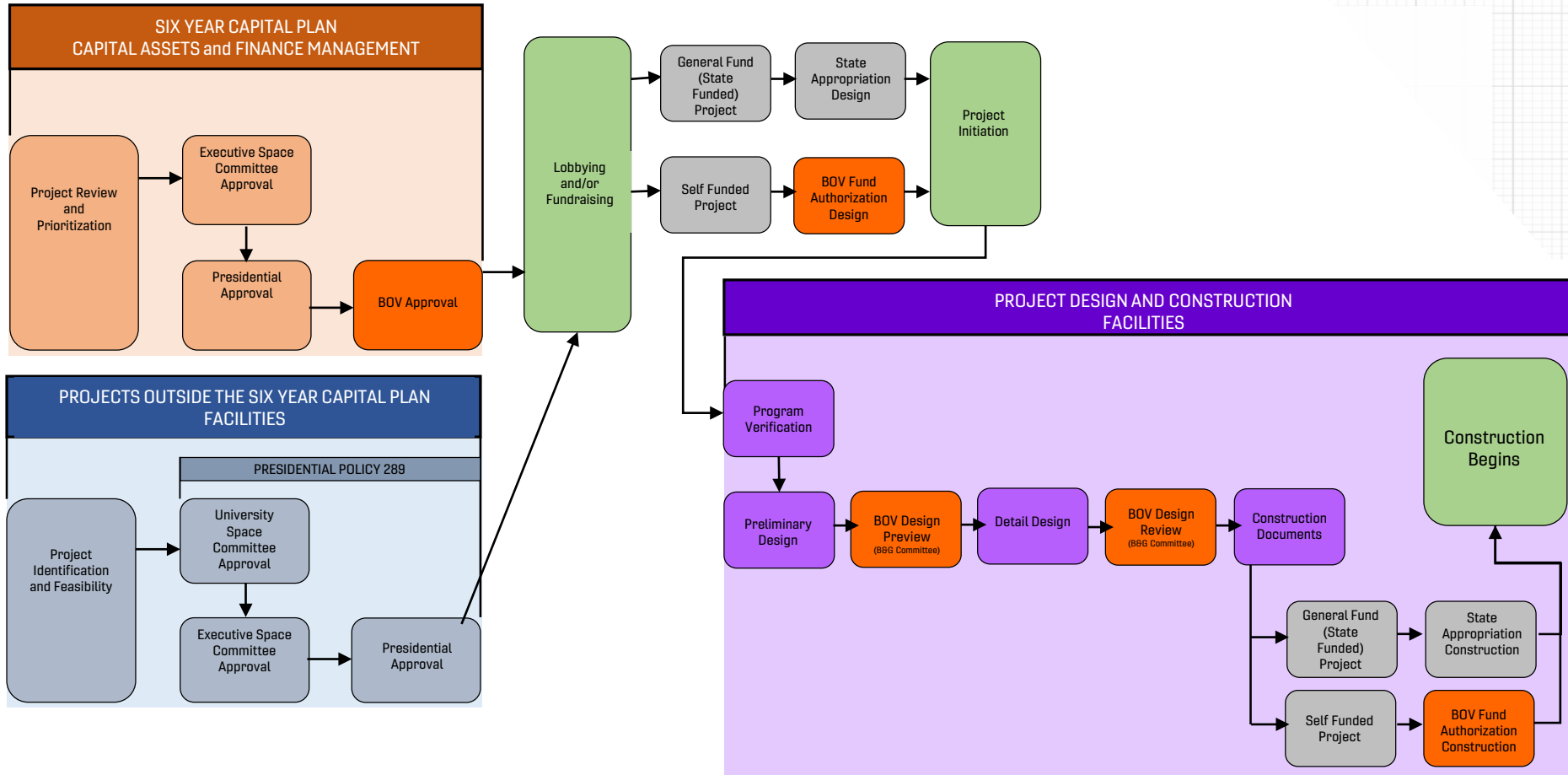
Attachment E

- Master Plan
- Project Siting
- Architecture and Landscape Design
- Transportation Planning
- Space Management



# ■ Capital Outlay and Construction Management

Attachment E



## ■ Physical Plant and Infrastructure

Maintaining and sustaining the built and natural environment

- Includes: buildings, transportation, utilities, electrical/mechanical systems, and the main campus grounds
- Main goal: provide a safe, reliable, efficient, functional, and beautiful setting for the campus community
- Accomplished via: proactive assessment, long-range planning, and collaborative management
  - Certain maintenance, repair, renovation, and housekeeping activities are delegated to Student Affairs and Athletics
  - The Division of Information Technology is responsible for the planning, installation, and maintenance of all communications and data infrastructure (telephones, internet, etc.)



## ■ Summary: BOV B&G Committee Review and Action Items

Attachment E

Type	Frequency	Committee
Capital Project Status Report	Every meeting	Buildings & Grounds
Tours of Capital Projects and/or Future Construction Sites	Most meetings – as needed	Buildings & Grounds
University Building Official Annual Report	Annually in June	Buildings & Grounds
Sustainability Report	Annually in November	Buildings & Grounds
Clery Report	Annually in November	Buildings & Grounds and Compliance, Audit & Risk
Design Preview/Reviews	As needed in order to receive Board approval	Buildings & Grounds
Project Updates (ex: Drillfield Drive Improvements)	As needed to keep the Board informed	Buildings & Grounds
<b>Regional Public Service Authority Appointments</b>	As needed to maintain full representation	Buildings & Grounds and <b>Full Board</b>
<b>Demolitions</b>	As needed in order to receive Board approval	Buildings & Grounds and <b>Full Board</b>
<b>Easements</b>	As needed in order to receive Board approval	Buildings & Grounds and <b>Full Board</b>
<b>Acquisitions and Conveyances of Property</b>	As needed in order to receive Board approval	Buildings & Grounds and <b>Full Board</b>
<b>Crisis and Emergency Management Plan (CEMP)</b>	Every four years	Buildings & Grounds and <b>Full Board</b>
<b>Funding – Design</b>	As needed in order to receive Board approval	Buildings & Grounds and Finance & Resource Management and <b>Full Board</b>
<b>Funding – Construction and Capital Leases</b>	As needed in order to receive Board approval	Buildings & Grounds and Finance & Resource Management and <b>Full Board</b>
<b>Six-Year Capital Plan</b>	Every two years	Buildings & Grounds with Finance & Resource Management and <b>Full Board</b>
<b>Master Plan</b>	As needed in order to receive Board approval	Buildings & Grounds and <b>Full Board</b>

### Notes:

- Other, less common, items that would come forward for review through the B&G Committee include: **Adoptions of and Updates to Regulations (ex: Parking and Weapons), updates to facility-related university policies, updates to construction-related governing documents (ex: PPEA Guidelines, Design Standards, etc.),** and litigation briefings.
- The BOV has delegated authority for approving safety and security-related university policy revisions to the University Safety and Security Policy Committee.

# Satellite location safety, security & preparedness

- Mike Mulhare, Assistant Vice President for Emergency Management
- Kevin Foust, Chief of Police & Director of Security
- Lance Franklin, Assistant Vice President for Environmental Health & Safety

# ■ Emergency Management - Beyond Blacksburg

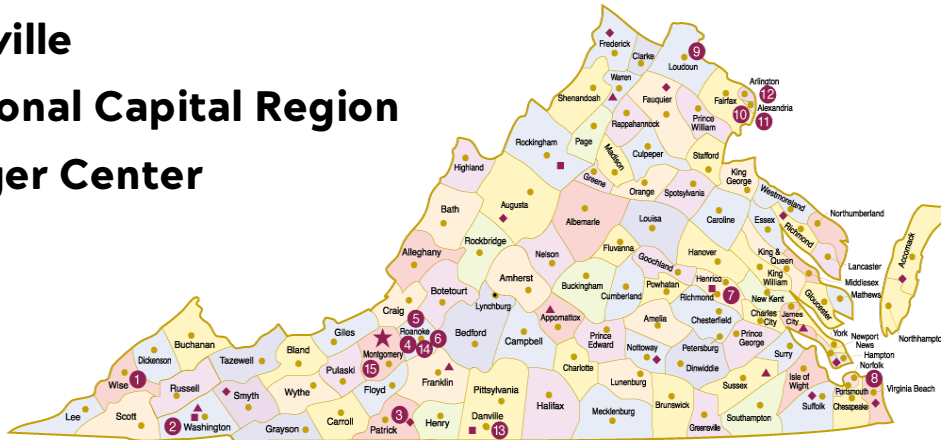
Attachment E

## Regional/Satellite Based

- Roanoke
- Hampton Roads
- Richmond
- Abingdon
- Danville
- National Capital Region
- Steger Center

## Program Elements

- Emergency Action Planning
- Business Continuity
- VT Alerts
- Annual Training and Exercises



OPERATIONS  
VIRGINIA TECH.



## ■ Emergency Management - Beyond Blacksburg

Attachment E

### Recent Actions

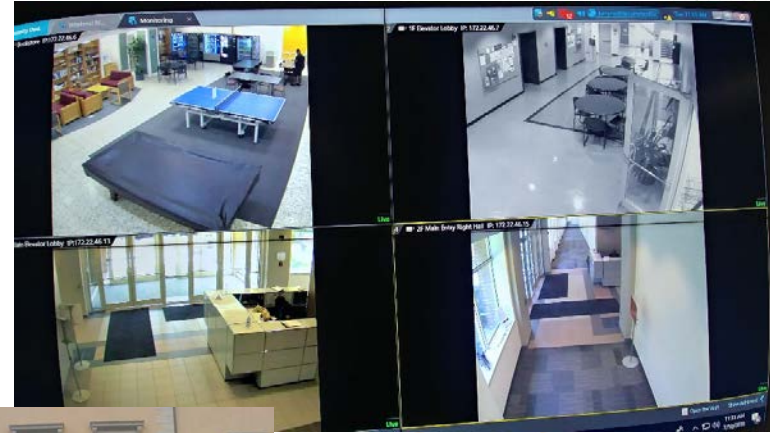
- **Joint Exercise with UVA at Falls Church**
- **Alert Protocol for Health Science & Technology (Roanoke) Campus**
- **Manage Alerts at Falls Church for UVA**
- **Support ARECS Directors Meeting**
- **Develop Additional Emergency Planning Portal Features to Support Satellite Facilities**
- **Develop Custom Templates for Cooperative Extension Emergency Plans.**
- **Assist Steger Center with Update of Emergency Action Plans and Notification Procedures**



## ■ Police Department efforts outside the Blacksburg campus

Attachment E

- Security cameras at the Falls Church center
- Visit to the Steger Center
- Ability to send VT Alerts to off-sites from the Security Center
- Efforts at VTCRI and medical school in Roanoke
- Liaison contact with jurisdictional agencies at off-sites
- Joint presentations at Agricultural Research & Extension Centers (ARECs) with OEM
- Full time representation on the FBI's Joint Terrorism Task Force





## ■ Environmental Health and Safety Off Site Services

Attachment E

- **Occupational Health Services**
- **Pesticide Management**
- **Hazardous Waste Management**
- **Regulated Medical Waste Management**
- **Personnel safety training**
- **Farm safety**
- **Fire and life safety oversight**
- **Petroleum Storage Management**
- **Unpermitted Discharge Investigations**
- **Contaminated Soils Management**
- **Exposure Control Consultation**

### Deliverables (FY 2018)

- **73 Inspections**
- **12,000 Miles Traveled**
- **985 Individuals Trained**
- **283 Medical Evaluations**
- **547 Service Hours**
- **206 Medical Surveys**
- **143 Respirator Users**
- **51 Vaccinations**
- **25 Blood/Titer tests**
- **35 Tons of Medical & Hazardous Waste**
- **7 Investigations/Consultations**
- **1 AREC Farm Manager Conference**

- **Maintaining adequate safety, security & preparedness activities at locations outside the Blacksburg campus requires:**
  - **Outreach** - individualized approaches based on the activities occurring at each location
  - **Relationships** - build trust and reliability between contacts in each location and central support teams
  - **Resources** - particularly in time and staffing

## **DESIGN PREVIEW FOR LIVESTOCK AND POULTRY RESEARCH FACILITIES – PHASE I**

The Livestock and Poultry Research Facilities – Phase I project seeks to enhance spaces available to the College of Agriculture and Life Sciences (CALS). CALS currently possesses several existing buildings that are beyond their useful life. Specifically, improvements are targeted to assist the poultry, swine, equine, and beef cattle programs. To this end, the project seeks to improve 14 facilities through renovation and new construction. The buildings are located at existing Virginia Tech sites on the Plantation Road Corridor, Smithfield Horse Center, at Kentland Farm, and at the Glade Road Poultry Research Center.

This project provides for approximately 129,600 gross square feet of newly constructed space and 24,500 gross square feet of renovated space. To achieve these improvements, the project requires the demolition of six existing buildings and three grain silos. Several of these facilities have been abandoned due to their condition.

This \$22.136 million project is the first of two phases and was authorized and appropriated by the Commonwealth of Virginia in July 2016. The second phase was requested as part of the six-year capital outlay submission to the commonwealth in June 2017; however it was not funded as part of the 2018 Governor's budget and remains pending. The Phase II project scope includes 13 buildings, contains 97,000 gross square feet, and projects a total project budget of \$24.3 million.

## Capital Project Information Summary – Livestock and Poultry Research Facilities

### BUILDINGS AND GROUNDS COMMITTEE

August 27, 2018

**Title of Project:**

Livestock and Poultry Research Facilities – Phase I

**Location:**

Facilities exist across four primary locations. Location 1, the Plantation Road Corridor, is located southwest of the campus core (beyond Route 460). Location 2, Smithfield Horse Center sits on the southwestern edge of campus (directly adjacent to the Duck Pond Road parking lot). Location 3, Kentland Farm, is located along the New River nine miles to the west of campus and 13 miles to the north of Radford. Location 4, the Glade Road Poultry Research Center is situated approximately three miles to the northwest of campus along the Town of Blacksburg boundary.

**Current Project Status and Schedule:**

The project is currently in schematic design. The architect of record (Spectrum Design) seeks to conclude the design process in early 2019. Construction is targeted to begin in spring 2019 with occupancy targeted for summer 2020.

**Project Description:**

Across all areas, projects focus on increasing research, animal housing, and storage space for CALS use. Work on the Plantation Road Corridor and Smithfield Horse Center focuses on increasing the supply of animal housing and storage space. Projects in the Glade Road Poultry Research Center also focus on animal housing. Lastly, projects at Kentland Farm focus on animal housing and research.

The Plantation Road Corridor will see the construction of four new facilities. Projects include an Equine Barn, an equipment storage building, and two hay barns. With the exception of the Equine Barn, which is focused on animal housing, all other projects focus on increasing the supply and quality of CALS storage space. An existing granary and two silos, all of which are beyond their useful life, will be demolished. Three existing facilities (Campbell Arena, the Animal Judging Pavilion, and the Beef Barn) will receive renovations. More details are included in the program description.

New construction at Smithfield Horse Center consists exclusively of a hay barn. The facility will be constructed on the site of three demolished feed storage buildings and one granary silo.

Efforts at Kentland Farm focus on the new construction of three facilities. These include a Swine Facility, designed to replicate a commercial swine production building, which provides additional animal housing for CALS pigs. The Beef Nutrition / Physiology Research Facility is designed for the performance of feed studies on cattle. The complex will include a working area for cattle, a small lab space, and commodity storage. A new hay barn will also be constructed adjacent to the facility. No demolitions or renovations will occur at this site.

New construction at the Glade Road Poultry Center consists of the new construction of two facilities. Referred to collectively as the Broiler and Turkey Grow-Out Facilities, these buildings are designed to provide space for the housing of chickens (broilers) and turkeys for CALS. Projects specifically focus on improving conditions for the processing of broilers and turkeys raised for meat production. These new facilities will be constructed on the sites of two existing (to be demolished) facilities. While designed for the same use, poultry processing, the existing facilities are beyond their useful life. An additional poultry processing facility will also receive a renovation. More details are included in the program description below.

#### **Brief Program Description:**

The project groups facilities to be newly constructed into two categories, major facilities and minor facilities, depending on the complexity of the program and the building's location. Buildings with multi-use programs, or that are located near the main campus, are considered major. Buildings with basic programs, not located near the main campus, are considered minor.

The Plantation Road Corridor will see the construction of one major facility and three minor facilities. Three buildings will also receive a renovation. The major facility is the approximately 13,500 gross square foot Equine Barn. It features over 11,300 square feet of animal housing, approximately 300 square feet of office space, and nearly 1,900 square feet of support and circulation space. Minor facilities include two additional, but more remote, hay barns. These facilities are 8,400 and 10,000 gross square feet (respectively). Programs consist almost exclusively of hay storage space. A new 5,600 gross square foot Equipment Storage Facility will also be constructed. Its program consists exclusively of storage space. Renovations, of approximately 22,700 total gross square feet, will also occur to Campbell Arena, the Animal Judging Pavilion, and the Beef Barn. These efforts focus on the upgrading of building systems, structural reinforcement, and other interior modifications.

Smithfield Horse Center will receive one major facility. This building is the approximately 10,000 gross square foot Hay Barn. While featuring a simple program of hay storage space, this facility is considered major due to its location near the western perimeter of the campus core.

Kentland Farm will see the construction of two major facilities and one minor facility. No renovations will occur at this location. The first major facility is the roughly 26,600 gross square foot Beef Nutrition / Physiology Research Facility. It contains over 21,000 square feet of animal housing and approximately 5,500 square feet of support and storage space. The second major facility is the nearly 23,000 gross square foot Swine Facility. The majority of the program, nearly 15,500 square feet, is devoted to animal housing. It also contains over 900 square feet of office and classroom use and over 6,600 square feet of support, storage, restroom, and circulation space. The minor facility is an approximately 9,000 gross square foot hay barn. Hay storage is its only programmatic element.

The Glade Road Poultry Research Center will receive two new minor facilities. One facility will also receive a renovation. The new minor facilities, the Broiler and Turkey Grow-Out Facilities, will be approximately 12,300 and 11,200 gross square feet (respectively). Programs consist exclusively of animal housing and support space. One existing poultry facility will receive 1,800 gross square feet of renovation targeted at improving processing spaces and creating two ADA-compliant restrooms.

**Contextual Issues and Design Intent:**

Facility designs seek consistency with typical agricultural farm-use facilities. Coloration, material selection, and building forms seek to mirror the existing conditions at project sites. This approach features significant use of metal panel for roofs and siding, gabled roof forms, roof monitors, and overall coloration to match nearby buildings (typically white siding and gray, red, or green roofs).


**Architect/Engineer:**

Spectrum Design


**General Contractor:**

To be determined

August 27, 2018



# LIVESTOCK AND POULTRY RESEARCH FACILITIES - PHASE I



Board of Visitors Design Preview

# ■ Livestock and Poultry Research Facilities - Phase I

Attachment E

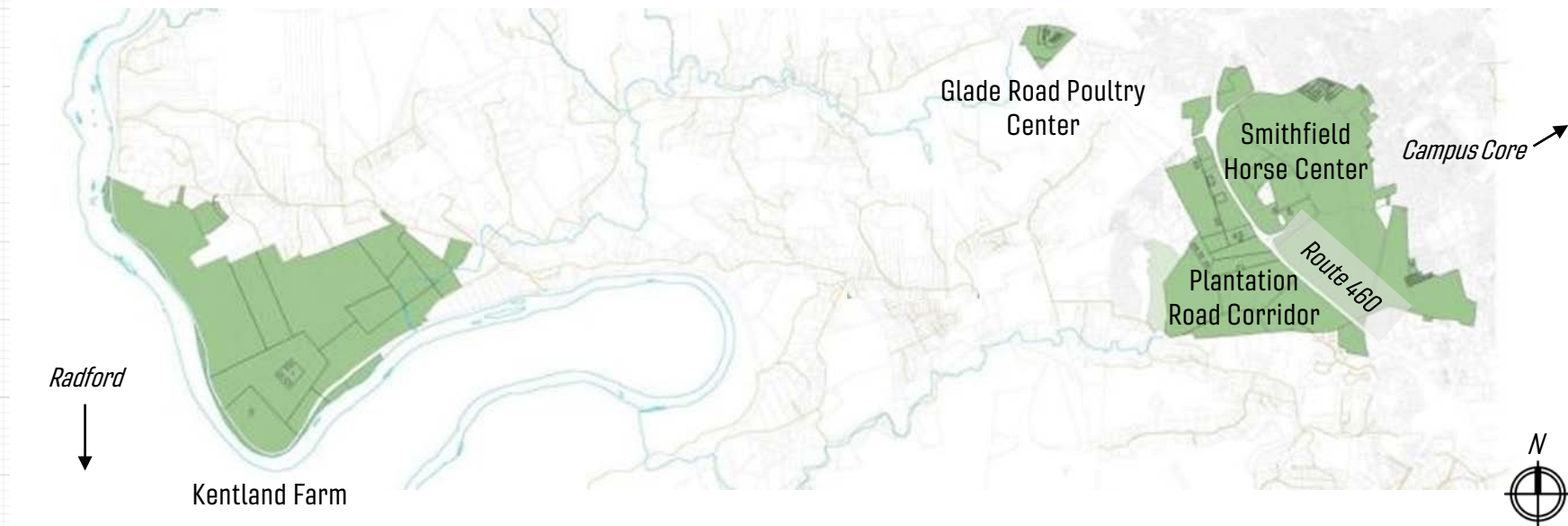
## Project Information

- New Construction: ~ 129,600 GSF
- Renovation ~ 24,500 GSF
- Delivery Method: Design-Bid-Build
- Funding (State Maximum): \$22.5 Million
- Design Phase: Schematic
- Construction Start: Spring 2019
- Targeted Occupancy: Summer 2020



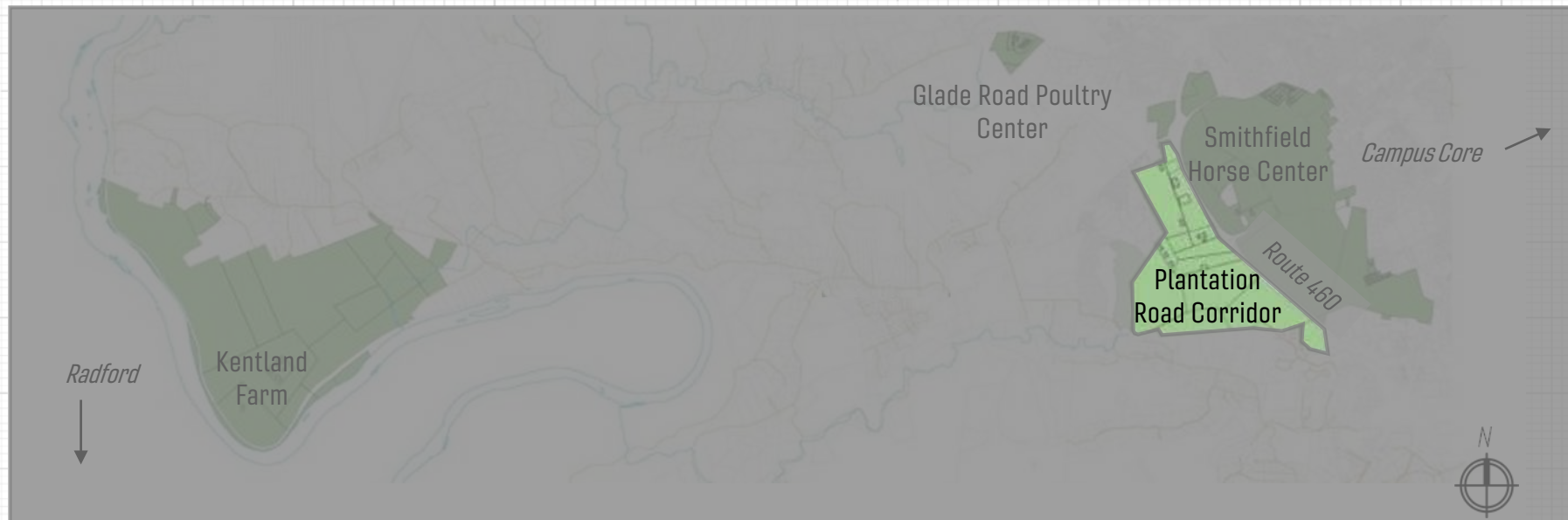
## ■ Project Locations

Attachment E

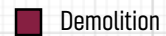
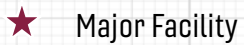


## ■ Location 1 - Plantation Road Corridor

Attachment E



## ■ Location 1 - Plantation Road Corridor

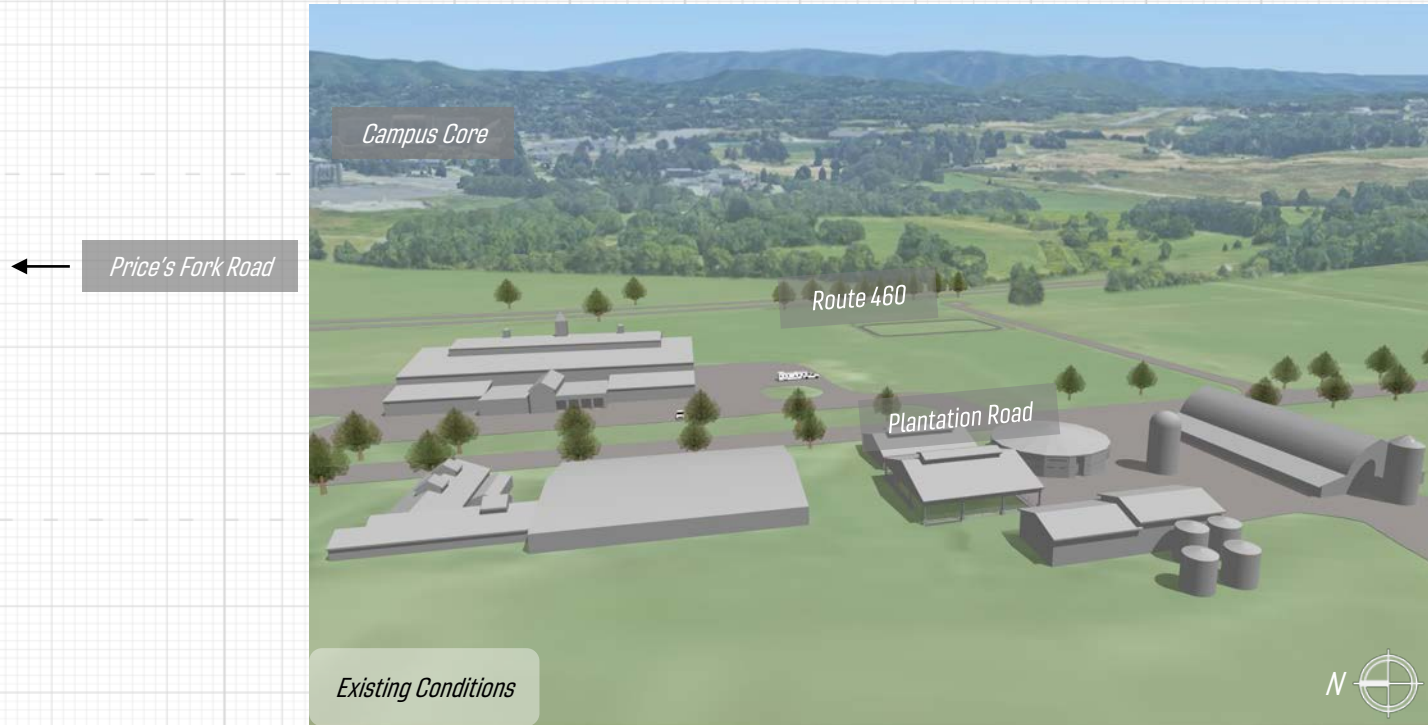






## ■ Plantation Road Corridor - Existing Conditions

Attachment E



## ■ Plantation Road Corridor - Buildings to be Demolished

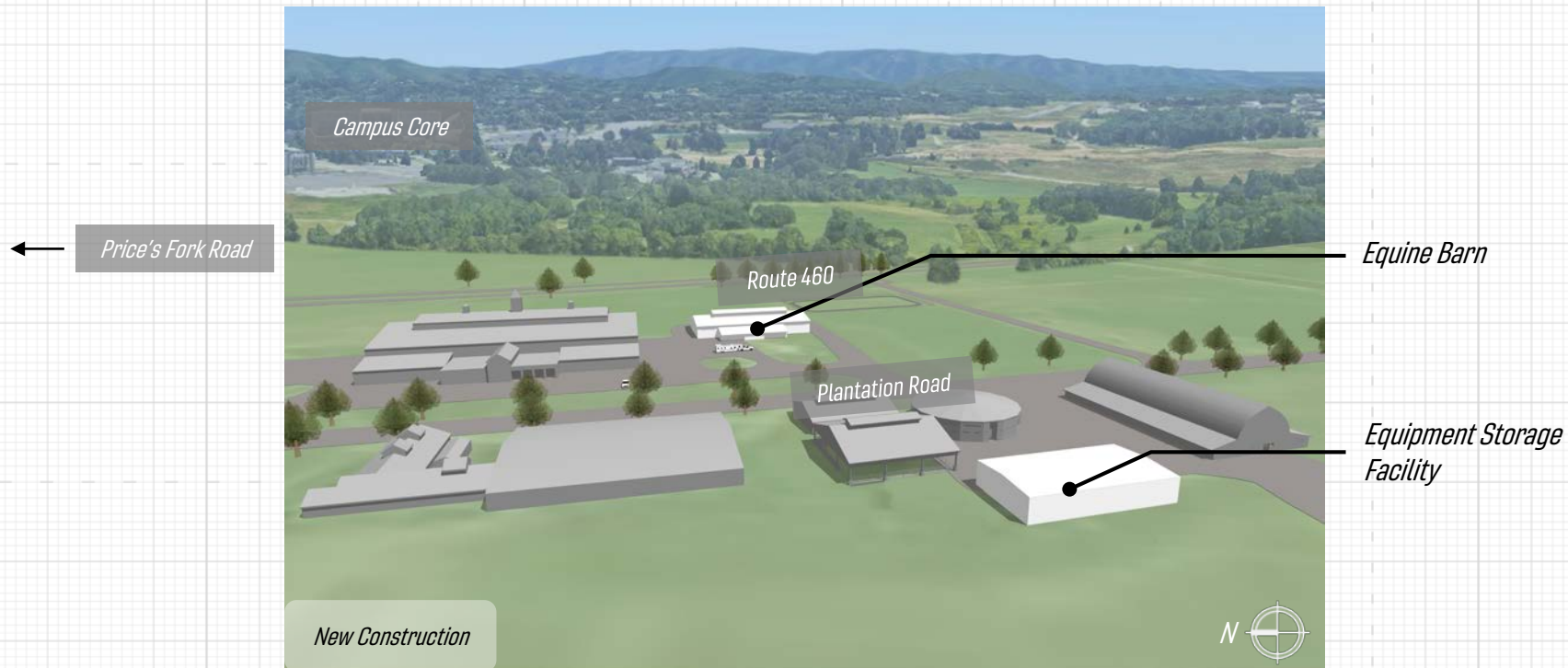
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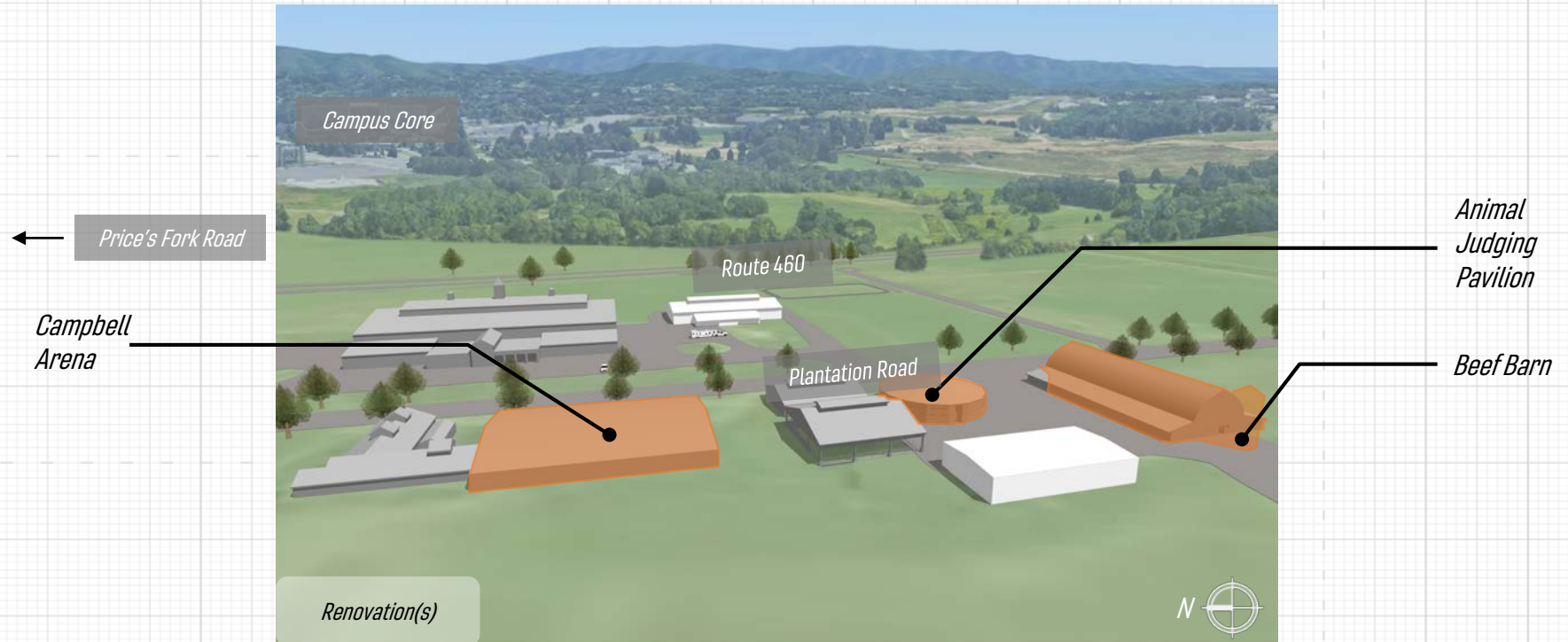
## ■ Plantation Road Corridor - New Construction

Attachment E



## ■ Plantation Road Corridor - Renovations

Attachment E





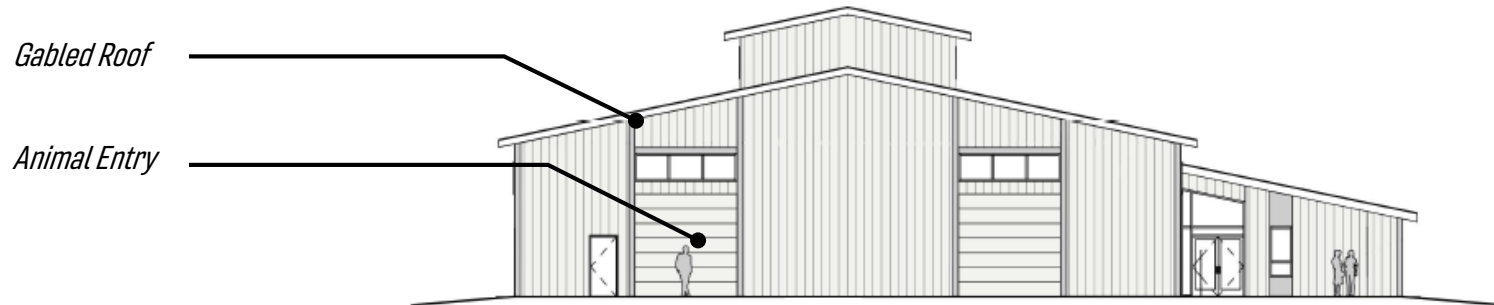
## ■ Plantation Road Corridor - Equine Barn: Elevations

Attachment E

*West Elevation*

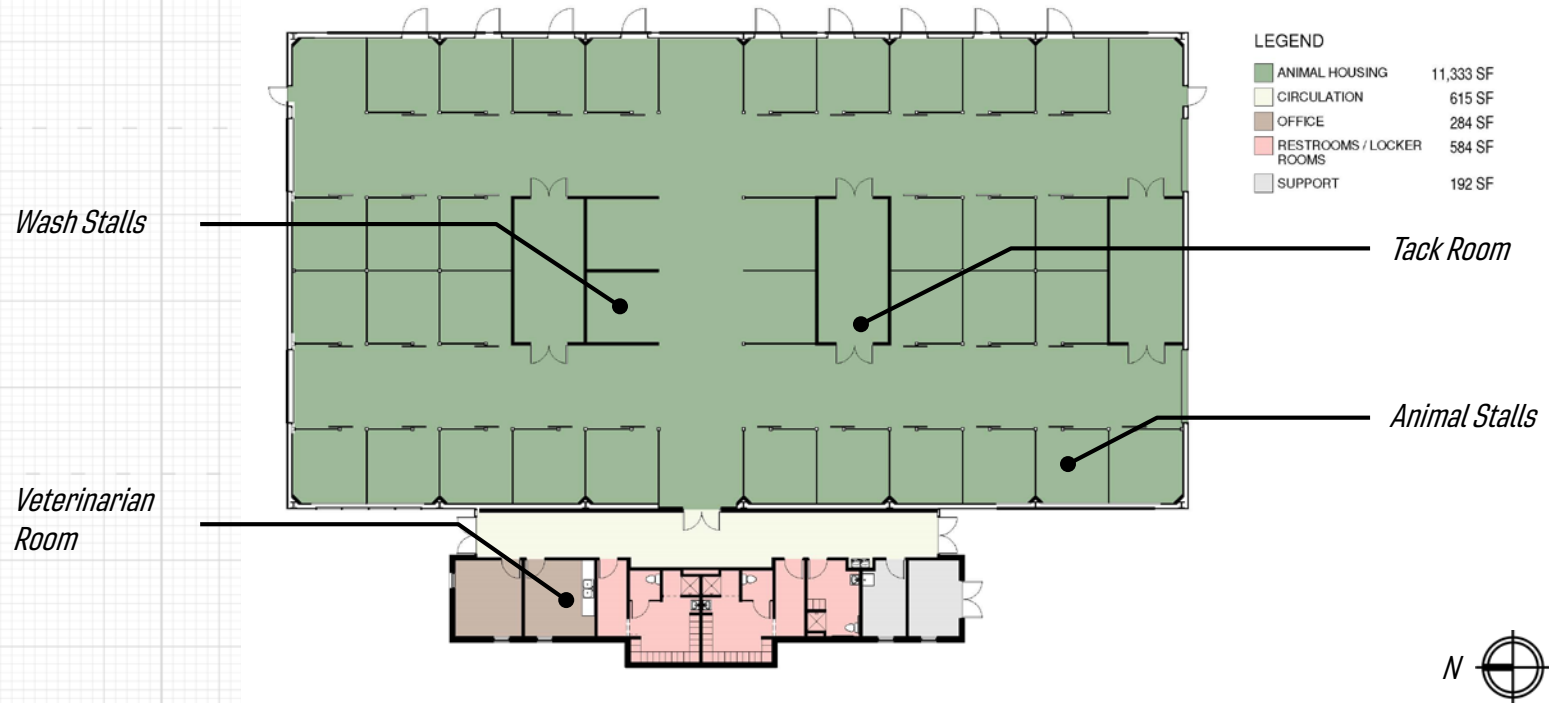


*North Elevation*



# ■ Plantation Road Corridor - Equine Barn: Floorplan

Attachment E



## ■ Plantation Road Corridor - Minor Facilities

Attachment E

Two Hay Barns & One Equipment Storage Facility

*Character Images*

*Hay Barns:*



*Equipment Storage Facility:*



## ■ Location 2 - Smithfield Horse Center

Attachment E





## ■ Location 2 - Smithfield Horse Center



## ■ Location 2 - Smithfield Horse Center



★ Major Facility



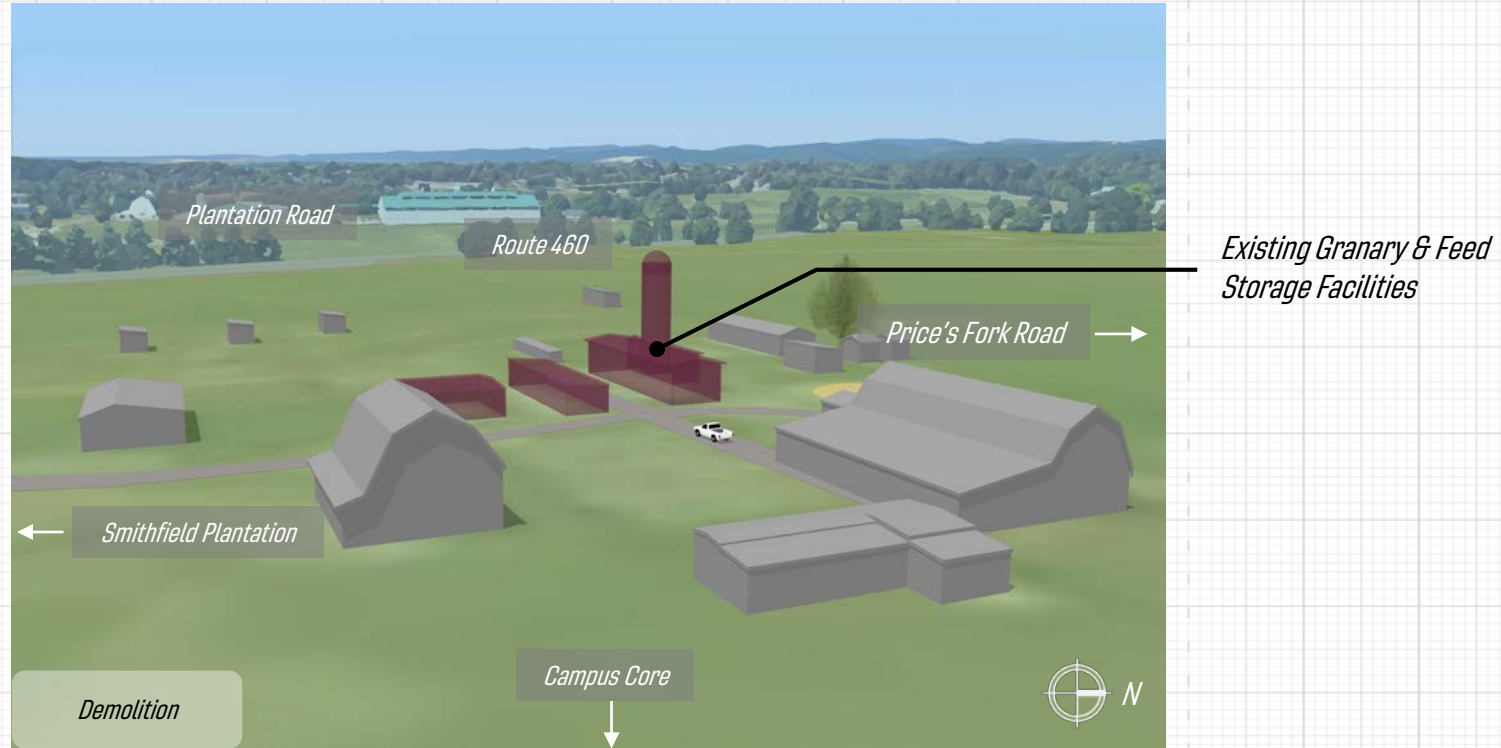
## ■ Smithfield Horse Center - Existing Conditions

Attachment E



## ■ Smithfield Horse Center - Buildings to be Demolished

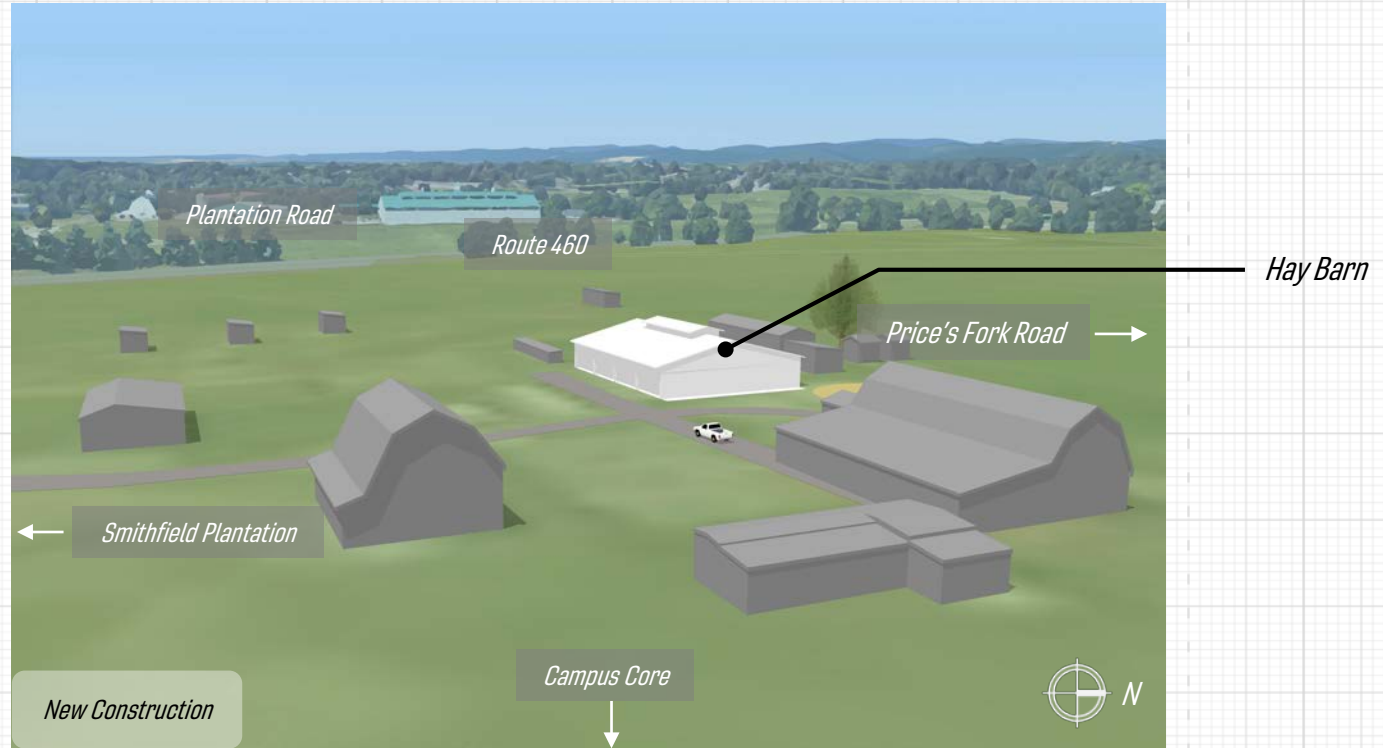
Attachment E





## ■ Smithfield Horse Center - New Construction: Hay Barn

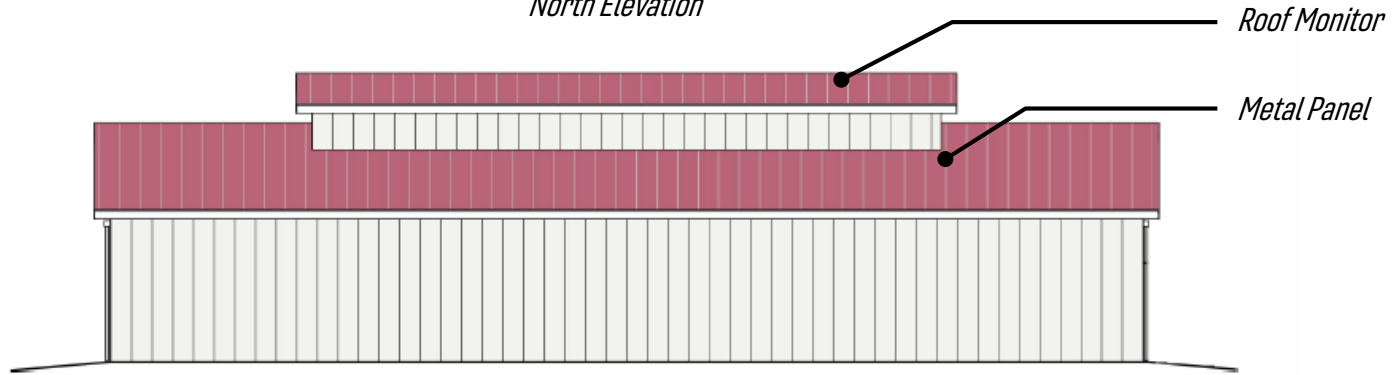
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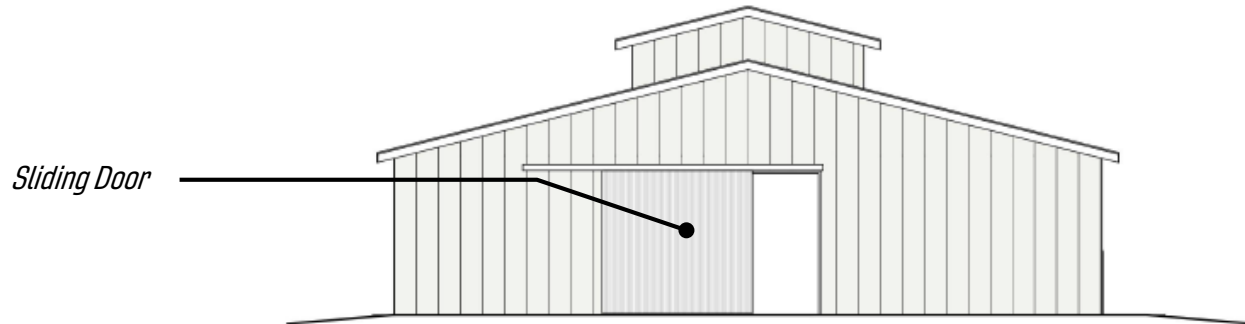
# ■ Smithfield Horse Center - Hay Barn: Elevations

Attachment E

*North Elevation*

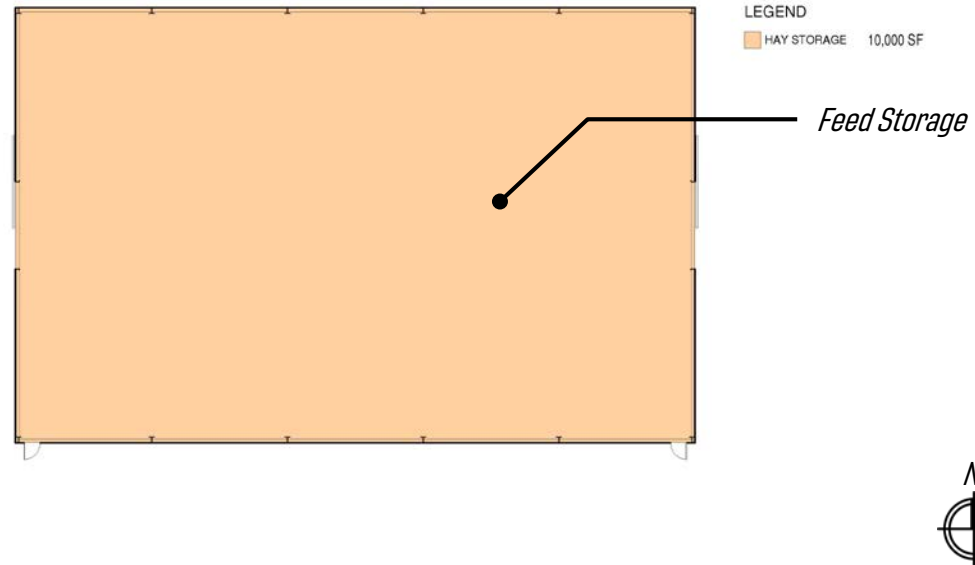


*West Elevation*



## ■ Smithfield Horse Center - Hay Barn: Floorplan

Attachment E



## ■ Location 3 - Kentland Farm

Attachment E



## ■ Location 3 - Kentland Farm

*Swine Facility*

*Beef Nutrition / Physiology  
Research Facility*

- ★ Major Facility
- Minor Facility



□ New Construction



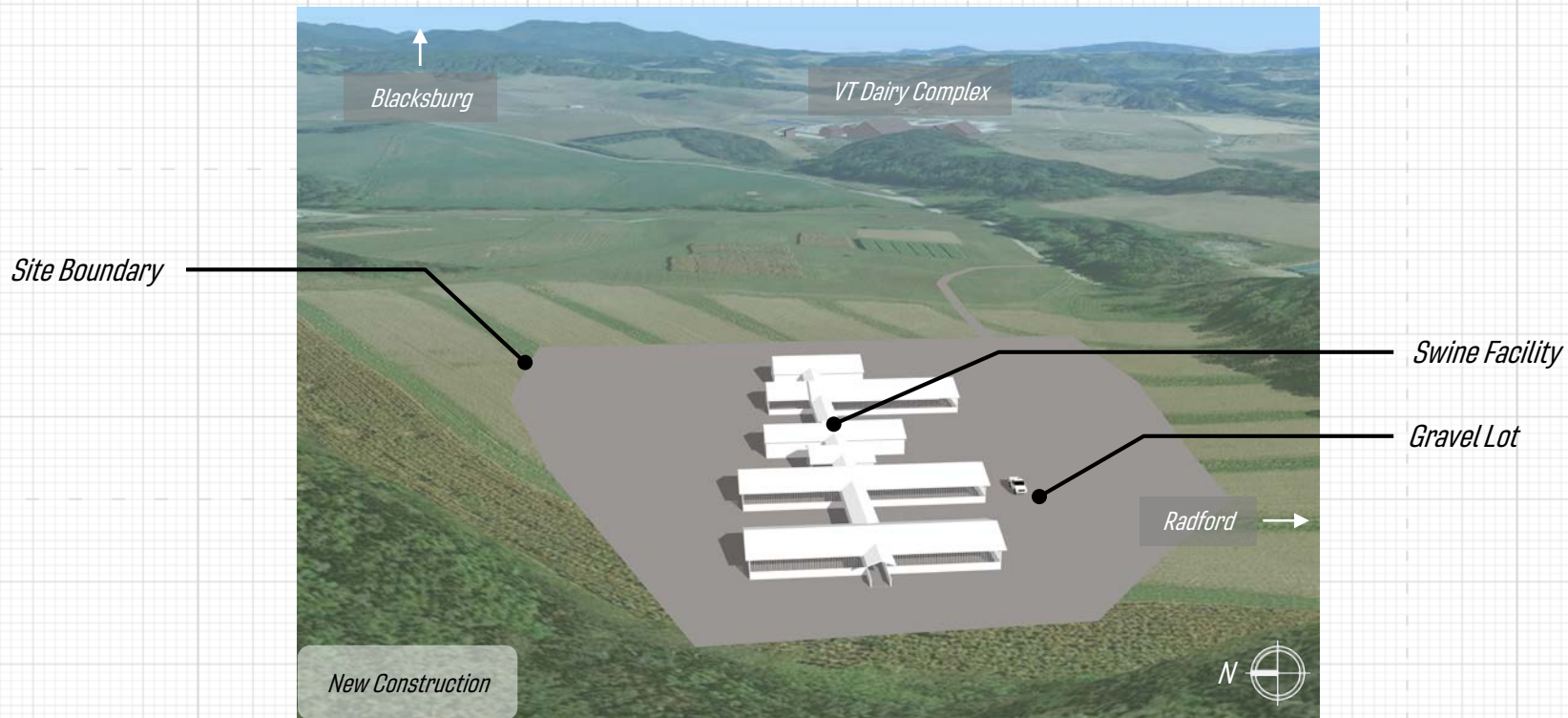
## ■ Kentland Farm - Existing Conditions: Swine Facility

Attachment E



# ■ Kentland Farm - New Construction: Swine Facility

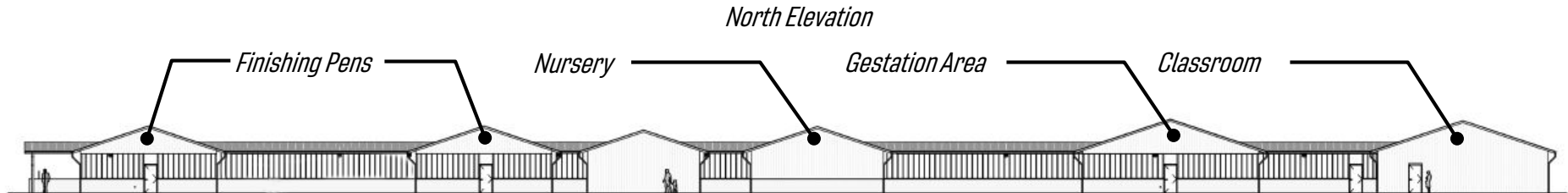
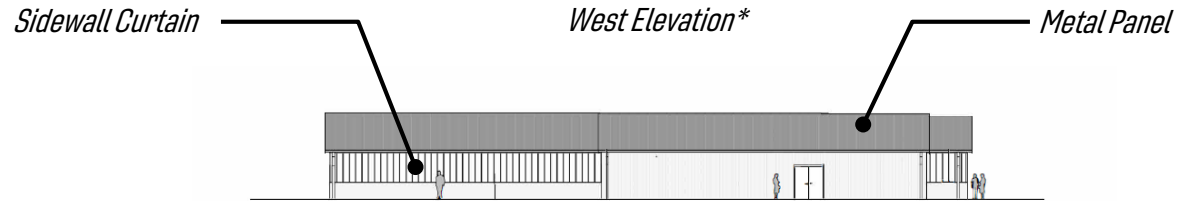
Attachment E





# ■ Kentland Farm - Swine Facility: Elevations

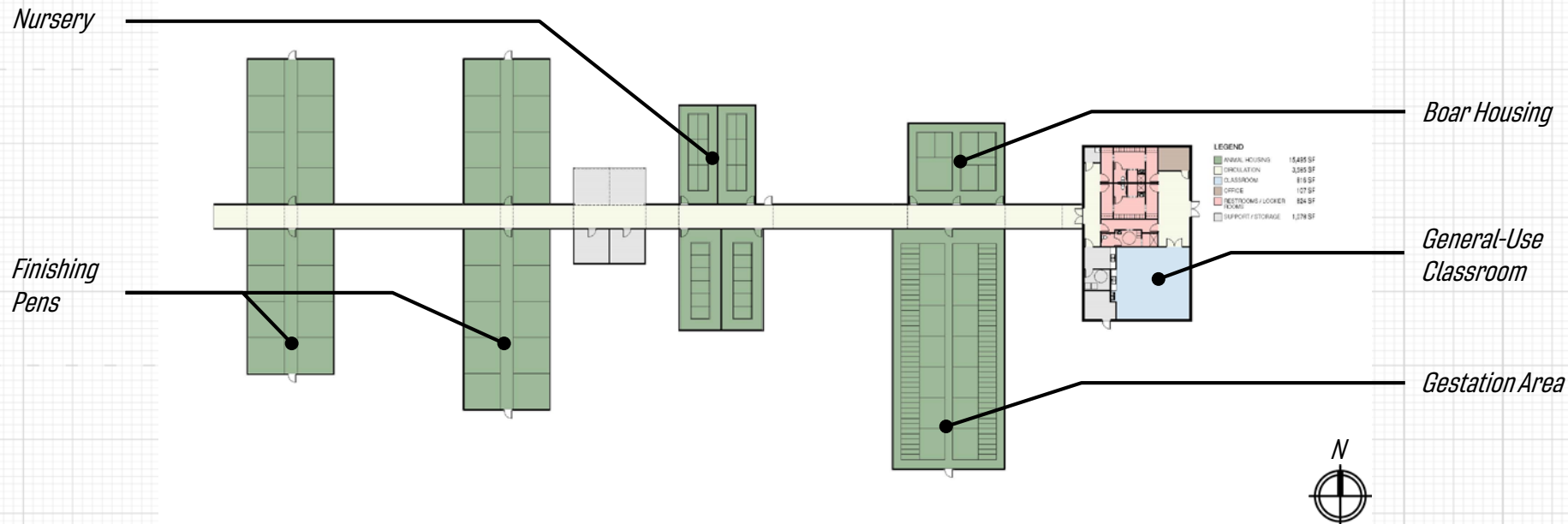
Attachment E



\* Image Not to Scale

# ■ Kentland Farm - Swine Facility: Floorplan

Attachment E

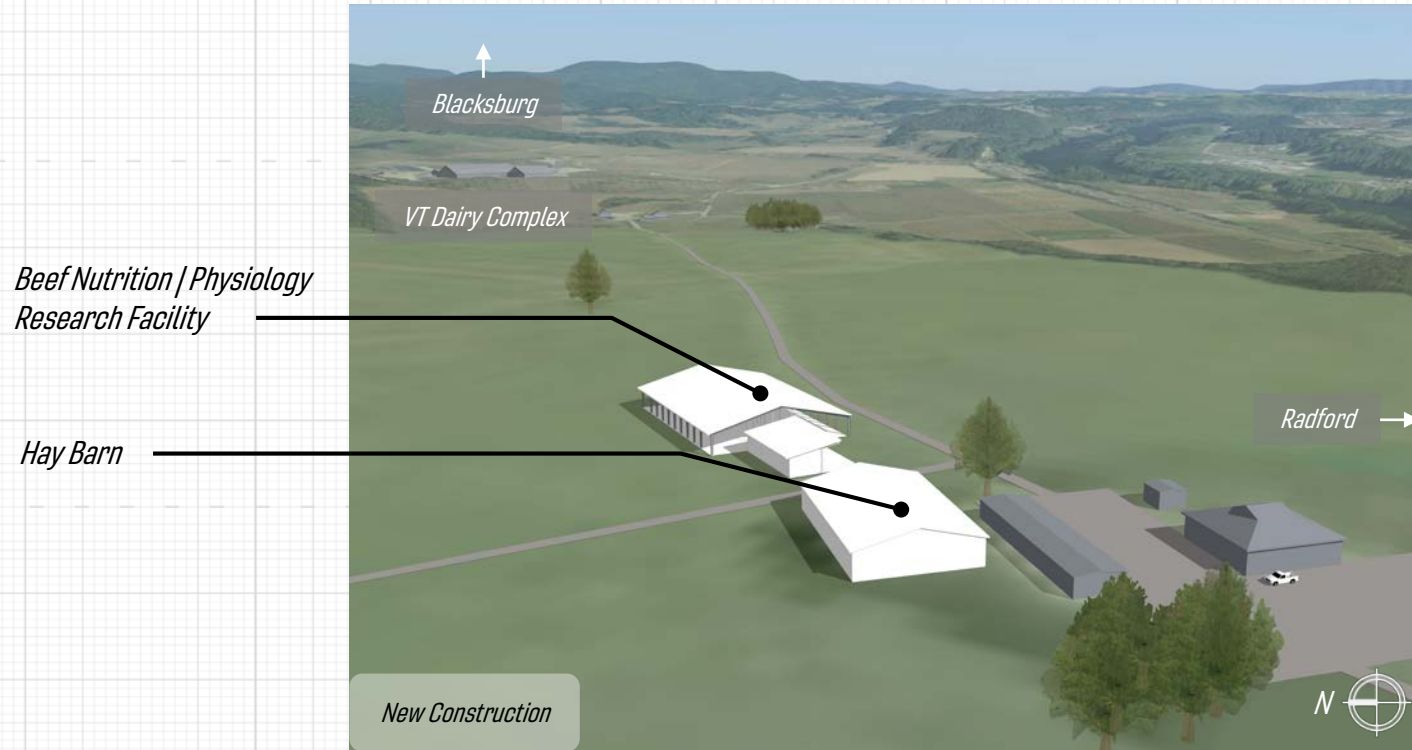


## ■ Kentland Farm - Existing Conditions: Beef Nutrition | Physiology Research Facility

Attachment B



## ■ Kentland Farm - New Construction: Beef Nutrition | Physiology Research Facility



# ■ Kentland Farm - Beef Research Facility: Elevations

Attachment E

*North Elevation*

*Cattle Pens*

*Feed Storage*



*Metal Panel*

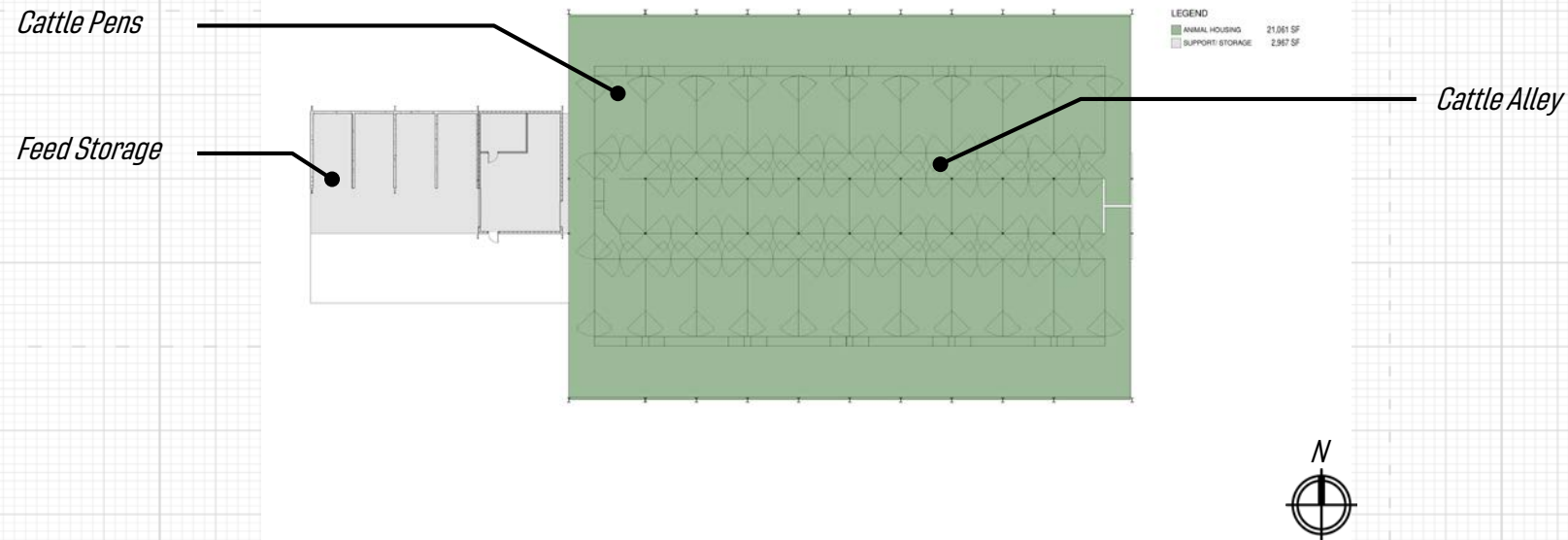
*West Elevation*

*Concrete*

*Cattle Pens*



# ■ Kentland Farm -Beef Nutrition | Physiology Research Facility: Floorplan



## ■ Kentland Farm - Minor Facility: One Hay Barn

Attachment E

*Character Image*





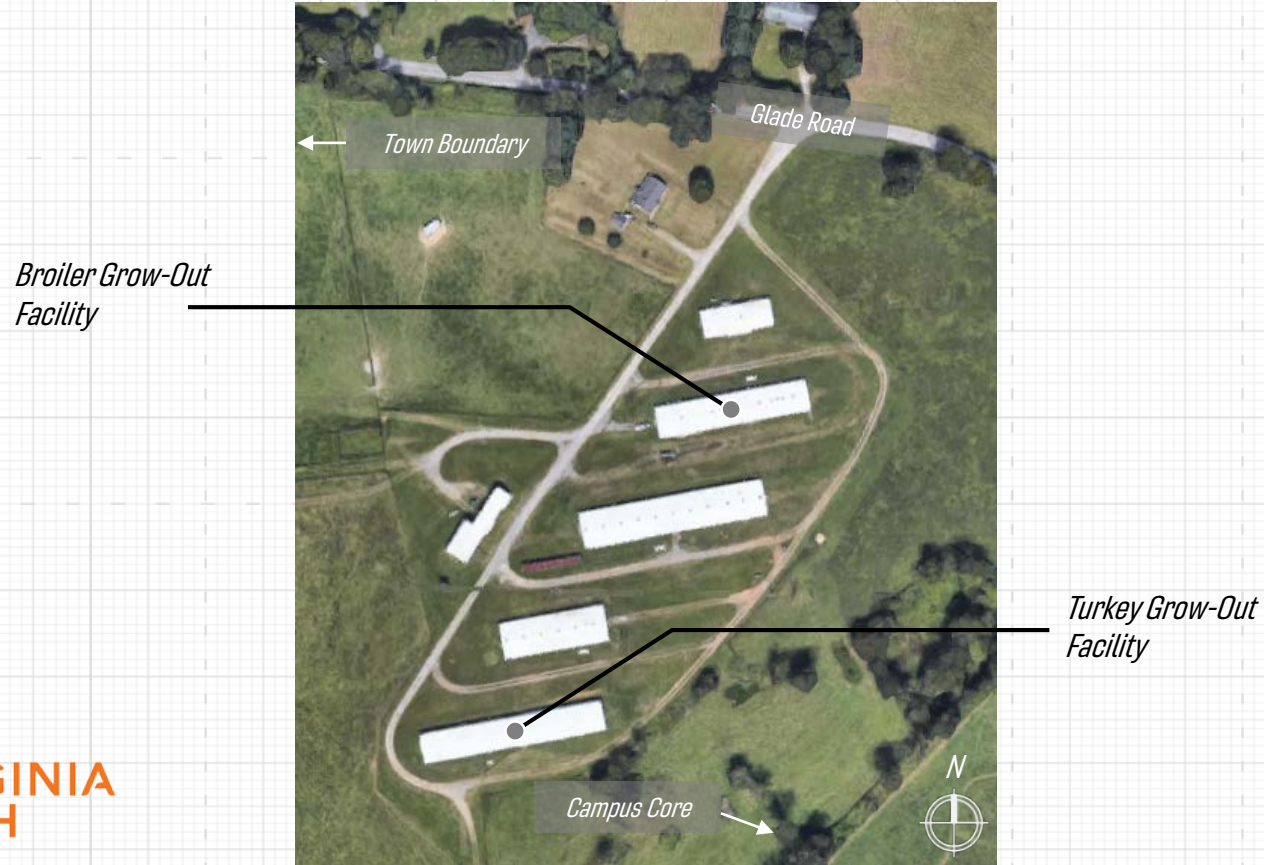
## ■ Location 4 - Glade Road Poultry Center

Attachment E



## ■ Location 4 - Glade Road Poultry Center

Attachment E



## ■ Location 4 - Glade Road Poultry Center

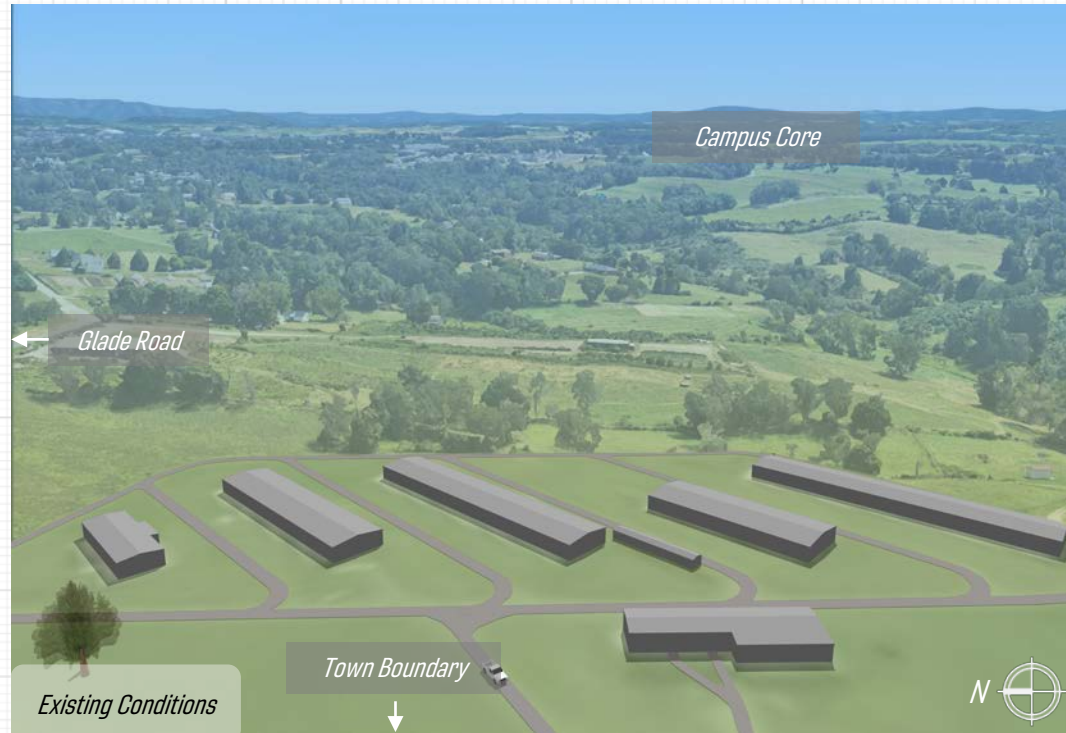
Attachment E



- Demolition
- New Construction
- Renovation

## ■ Glade Road Poultry Center - Existing Conditions: Poultry Grow-Out Facilities

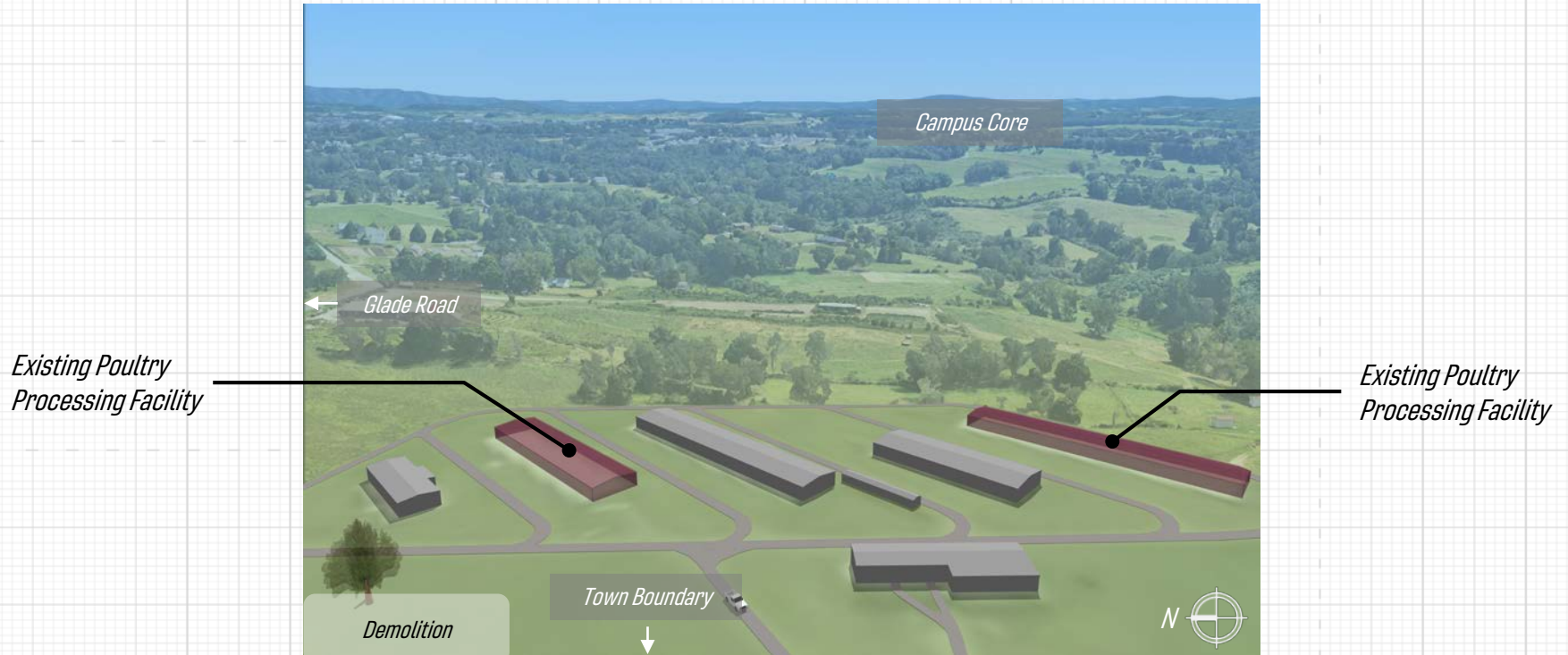
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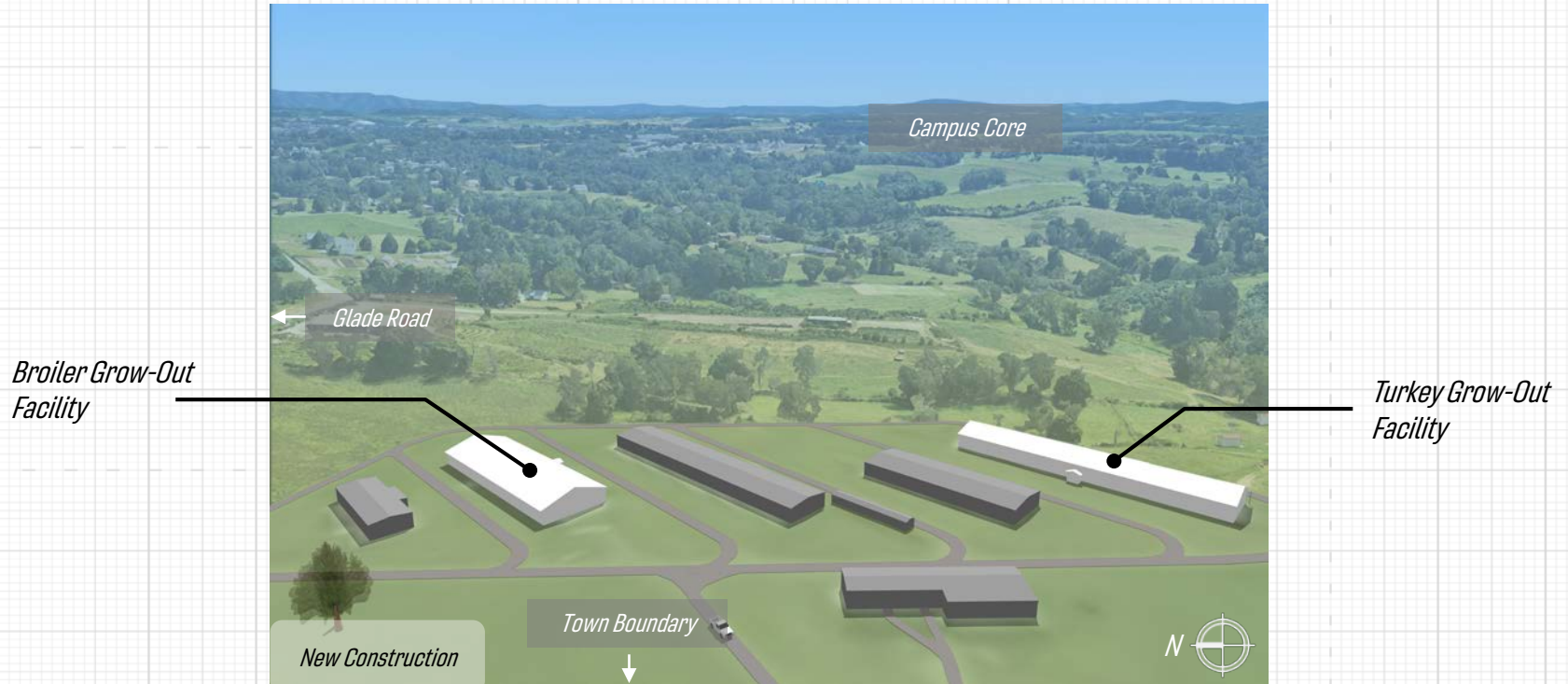
## ■ Glade Road Poultry Center - Buildings to be Demolished

Attachment E



## ■ Glade Road Poultry Center - New Construction: Poultry Grow-Out Facilities

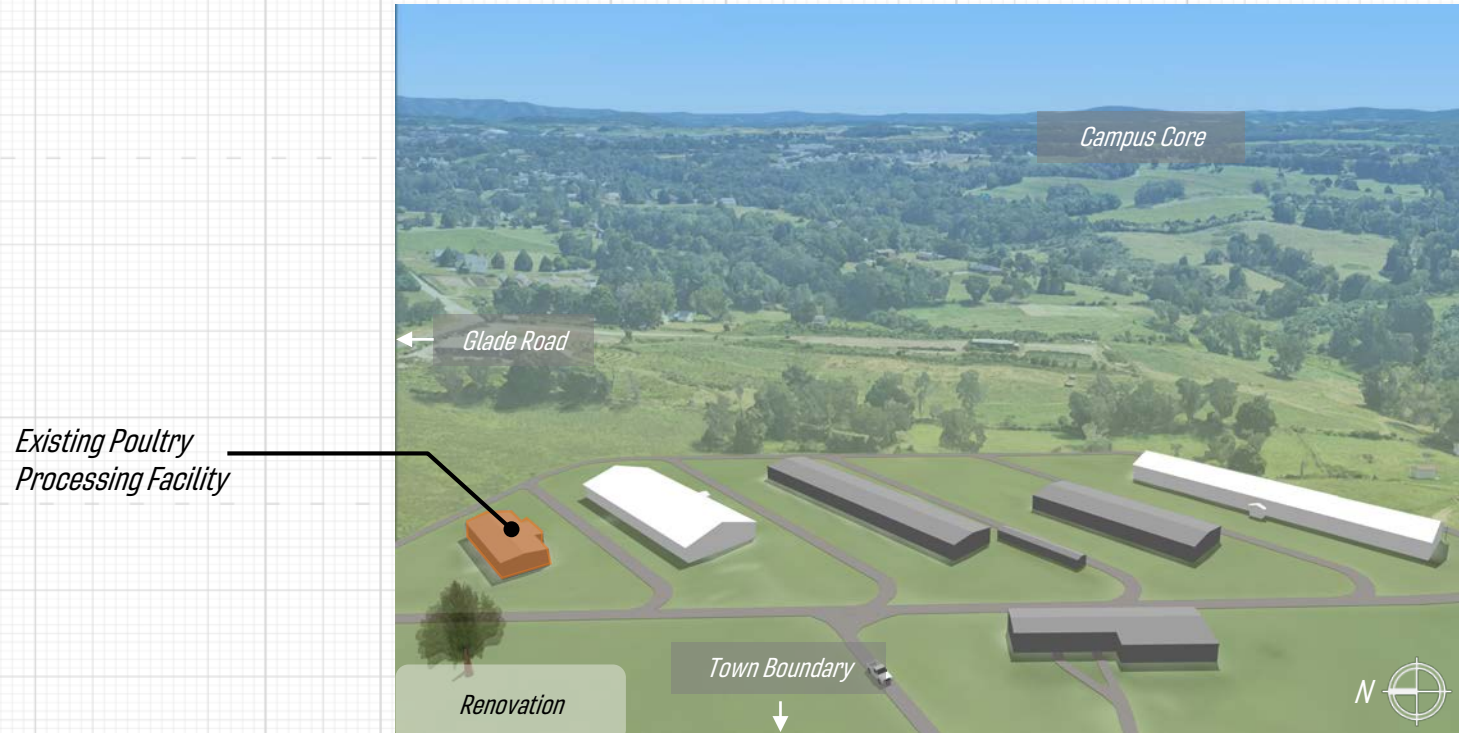
Attachment 3





## ■ Glade Road Poultry Center - Renovation: Poultry Processing Facility

Attachment E



## ■ Glade Road - Minor Facilities: Two Poultry Grow-Out Facilities

Attachment E

*Character Image*



## ■ Livestock and Poultry Research Facilities - Phase I

Attachment E

### Recommendation

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

## **DESIGN REVIEW FOR THE STUDENT-ATHLETE PERFORMANCE CENTER**

The Student-Athlete Performance Center project seeks to create a 200-seat nutrition center centrally located within the athletics area of campus. This approximately 25,500 gross square foot renovation and new construction project is intended to provide a competitive advantage for athletics. Meal offerings will be designed to provide performance-based nutrition. It is designed to serve the existing group of Virginia Tech athletes in close proximity to their training and performance spaces. This arrangement fosters inter-team community, supports athletic performance, and offers a flexible meeting and event space for related uses.

## **Capital Project Information Summary – Student-Athlete Performance Center**

### **BUILDINGS AND GROUNDS COMMITTEE**

**August 27, 2018**

**Title of Project:**

Student-Athlete Performance Center

**Location:**

This facility is a renovation of, and addition to, the existing Gordan D. Bowman Memorial Club Room (Bowman Room). This room is on the fourth floor of the Jamerson Athletic Center, located between Lane Stadium and Cassell Coliseum. Additional light renovation and minor construction will also occur on floors one through three.

**Current Project Status and Schedule:**

The project is currently in the working drawings phase. Full construction is targeted to begin in spring 2019 with occupancy targeted for fall 2020.

**Project Description:**

This project supports overall recruitment and branding efforts by the Department of Athletics. Capturing views of the indoor practice facility, outdoor football practice field, and Lane Stadium will provide visual reinforcement of the athletics brand to users of the space. The facility will also be designed to meet best practices for sustainable design and operations. The total project budget is \$16.682 million.

**Brief Program Description:**

This project focuses on a partial renovation of, and addition to, the fourth floor of the Jamerson Athletic Center. On this floor, approximately 3,700 square feet of additional seating (including balconies) will be constructed. This figure also includes a 1,900 square foot enclosure of a portion of the existing roof to widen the entry corridor from Cassell Coliseum and to create limited office space. The approximately 9,200 square foot fourth floor renovation focuses on modification to, and or creation of, additional dining, serverly, and kitchen space. The approximately 8,500 square feet of third floor renovations focus on enhancing structural stability to accommodate additional weight on the fourth floor. New elevator-related construction of approximately 1,700 square feet, and renovation of 450 square feet for egress, will also occur on floors one through three.

**Contextual Issues and Design Intent:**

Primary exterior materials include precast concrete, Hokie Stone, and a glazing system. An opportunity for heraldry will exist on the eastern elevator tower. Finally, the facade of the structure contains four separately-accessible balconies.

**Architect/Engineer:**

Hanbury

**Construction Manager:**

To be determined



August 27, 2018



# STUDENT-ATHLETE PERFORMANCE CENTER



Board of Visitors Design Review

# ■ Student-Athlete Performance Center

Attachment E

## Project Information

- New Construction: ~ 7,300 GSF
- Renovation: ~ 18,200 GSF
- Delivery Method: Design-Bid-Build
- Funding (Total Authorization): \$16.682 Million
- Design Phase: Working Drawings
- Construction Start: Spring 2019
- Targeted Occupancy: Fall 2020

# ■ Student-Athlete Performance Center

Attachment E

## Project Location



# ■ Student-Athlete Performance Center

Attachment E

Existing Condition (Interior)



## ■ Student-Athlete Performance Center

Attachment E

Existing Condition (Exterior)



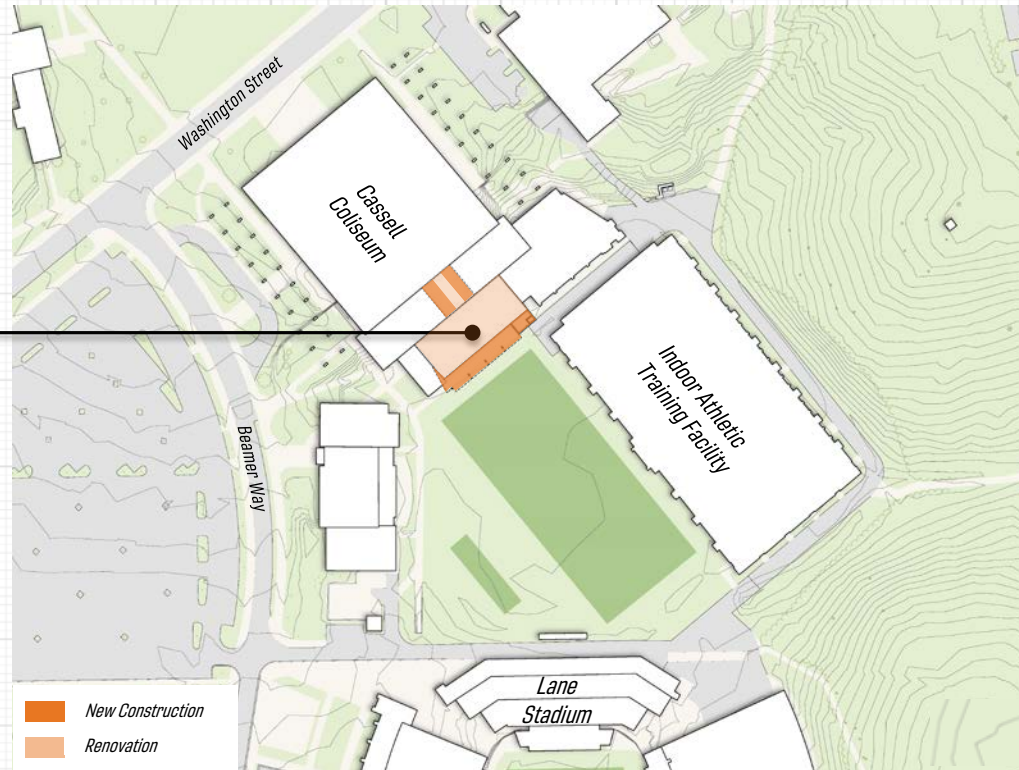


# ■ Student-Athlete Performance Center

Attachment E

## Site Plan

*Student-Athlete  
Performance  
Center*





# ■ Student-Athlete Performance Center

Attachment E

Interior Rendering (View toward Lane Stadium)

*Service*



*View toward Lane Stadium*

*Dining*

# ■ Student-Athlete Performance Center

Attachment E

Interior Rendering (View toward Lane Stadium)

*Wood-Look  
Suspended  
Ceiling*



*View toward Merryman Athletic Center*

*Tile  
Flooring*

# ■ Student-Athlete Performance Center

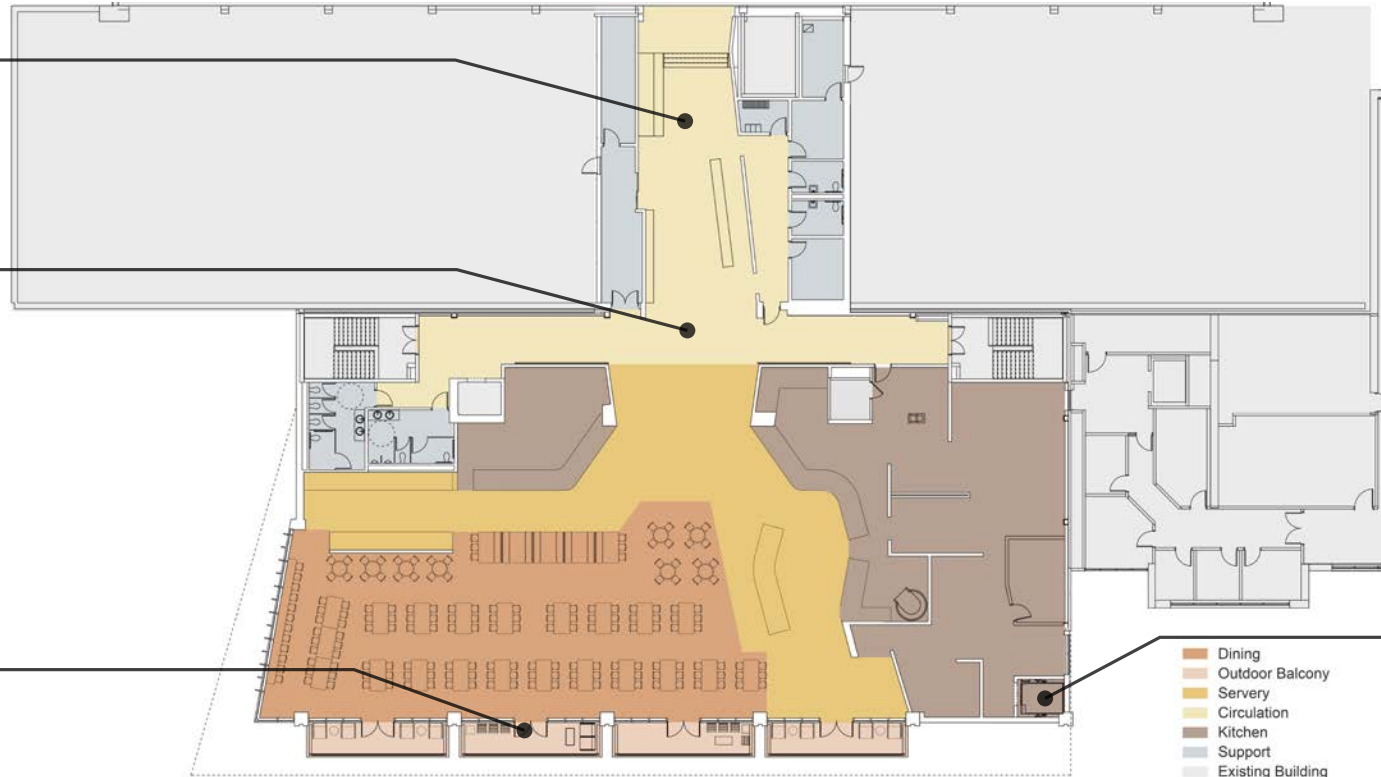
Attachment E

## Fourth Floor Plan

*Access to  
Cassell  
Coliseum*

*Entry*

*Exterior  
Balconies*



*Freight  
Elevator*

# ■ Student-Athlete Performance Center

Attachment E

## Floor Plans

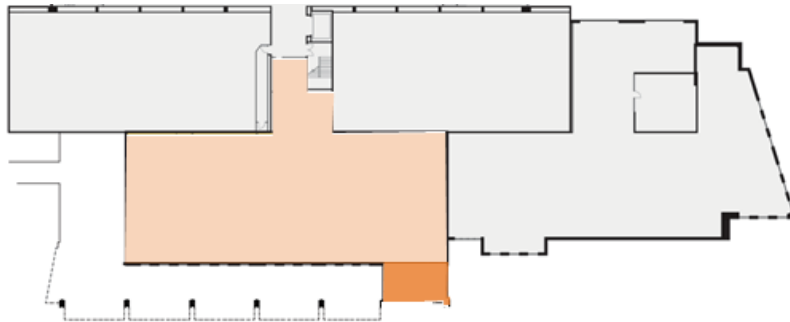
*First Floor*



*Second Floor*



*Third Floor*



*Fourth Floor*



## ■ Student-Athlete Performance Center

Attachment E

### Recommendation

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