

## Capital Budget Request

### Construct Academic Support and Student Success Center

#### Overview

Agency	Virginia Polytechnic Institute and State University (208)
Project Code	none
Project Type	New Construction
Biennium	2018-2020
Budget Round	Initial Bill
Request Origin	New Project
Project Location	Roanoke Area
Facility/Campus	Blacksburg Main Campus
Source of Request	Agency Request
Infrastructure Element	Classroom / Office
Contains significant technology costs? No	
Contains significant energy costs? No	
Project will be used by other than a state or local governmental entity? No	

#### Agency Narrative

**Agency Description**  
**Executive Summary:**

Student advising and academic planning are essential support services for students to successfully navigate degree completion in a timely fashion. Virginia Tech, like other institutions, is aggregating core student academic support services to consolidate services for efficient and effective delivery. The University has identified nine pivotal services that students access on a regular basis stay in high demand. These nine services are being consolidated in to a program called "Academic Support and Student Success Center."

At present seven of the nine programs are located in Femoyer Hall, which was built in 1949 as a residence hall and has been occupied by these academic support units since 1985. This 35,538 square foot building located on main campus and has had no major improvements since its original construction. The building has a facility condition index of 32 percent in the FICAS system as of June 9, 2017. The 68 year old building has extensive egress and ADA deficiencies, deteriorated building systems that cannot support the programs or meet the expectations of undergraduate students, and has reached the end of its serviceable life. Because of its age and deferred maintenance backlog, the building cannot be restored to full service with normal Maintenance reserve and routine maintenance.

This capital project request is for new constructing to replace Femoyer Hall. The proposed project is for a three story building of approximately 28,000 gross square feet. Under this plan, the University would build the new facility, relocate the programs, vacate Femoyer Hall, and then demolish and remove Femoyer Hall. This project will enhance the University's service to students and will eliminate risk and extraordinary maintenance costs by removing a deteriorated building from the inventory.

The University has identified three potential locations for the new Academic Support and Student Success Center and the capital project planning process will determine a final site selection for the program.

The capital project request is for the academic program and the funding plan calls for \$14.8 million of General Fund support.

**Project Description:**

The requested Academic Support and Student Success Center would be a three-story building of approximately 28,000 gross square feet. The building would contain 12,500 assignable square feet (ASF) of office space; 2,640 ASF of meeting rooms; 1,500 ASF of classrooms; and 1,600 ASF of building support and storage space.

Constructing the new Academic Support and Student Success Center will allow the programs in Femoyer to be relocated while providing accessible, modern space to students. Additionally, a few of the programs that will be relocated to the Center are currently located in leased space and the new building will increase operational efficiencies while reducing off-campus leases.

The University has identified three potential locations for the new Academic Support and Student Success Center and the capital project planning

process will determine a final site selection for the program.

Under this plan, the University would build the new facility, relocate the programs from Femoyer Hall, and then demolish and remove Femoyer Hall. This project will enhance the University's service to students and will eliminate risk and extraordinary maintenance costs by removing a deteriorated building from the inventory.

The project scope, site development, and building configuration shall be consistent with the 2017 master plan update and include universal accessibility design principles as appropriate. The proposed building is expected to provide a strong connection to the site including landscaping for outdoor classroom sections.

#### Justification

##### Program Description:

Student advising and academic planning are essential support services for students to successfully navigate degree completion in a timely fashion. Virginia Tech, like other institutions, is aggregating core student academic support services to consolidate services for efficient and effective delivery. The University has identified nine pivotal services that students access on a regular basis and are in high demand. These nine services are being consolidated into a program titled "Academic Support and Student Success Center."

The Academic Support and Student Success Center will provide students with the knowledge, skills, and self-awareness necessary to achieve success in college and in life. As well-rounded, global citizens prepared to enter the workforce, Virginia Tech's students enhance the economic development of the State. The Center will also measure undergraduate's post-graduation achievement. This provides a feedback loop to inform decisions affecting the University's recruitment strategies, while ensuring curriculum development and curriculum delivery meet students and employer's needs, thus further enhancing economic development through a prepared workforce.

This centralized location would serve as a "front door" to pivotal services that students access on a regular basis. The nine programs that will be relocated to Academic Support and Student Success Center are:

- University Academic Advising Center provides essential academic guidance to the University's rapidly growing undergraduate population.
- Student Success Center provides tutoring, academic coaching, and workshops.
- Multicultural Academic Opportunities Program (MAOP) provides mentoring, peer support, and financial support.
- College Access Collaborative is dedicated to supporting a more diverse undergraduate student body through partnerships with communities in low high school attainment and lower rates of advancement to higher education.
- Summer and Winter Sessions is a rapidly growing program that offers students greater flexibility in course selection and degree management.
- Student Success Collaborative uses predictive analytics to provide academic advising and tutoring to improve retention and graduation rates.
- VT Engage develops service programs and community learning opportunities for students, staff, faculty, and alumni.
- Office of Undergraduate Research supports undergraduate research opportunities by providing grants, coaching, and workshops.
- Global Education Office supports Study Abroad opportunities for undergraduate students.

The University's strategic plan includes the following principle strategies that this important project helps to achieve:

- Increasing the number of our programs recognized as among the best internationally.
- Developing an appropriate infrastructure for e-learning.
- Increasing graduate enrollment toward a target of 10,000 students across all campuses.
- Increasing undergraduate involvement in meaningful research experiences and experiential learning through hands on minds on.
- Developing and implementing alternate pathways for the general education of all students.
- Continuing to investigate, develop, and utilize current and emerging technologies to enhance traditional classrooms, provide mobile access, and expand high-quality distance-learning opportunities.
- Identifying opportunities during construction and renovation to create flexible spaces that fully support e-learning components.
- Pursuing quality-of-life initiatives in support of the University as a vibrant, dynamic, and sustainable workplace.

##### Existing Facilities:

Seven of the nine units are located in Femoyer Hall which was built in 1949 and has had few improvements since its original construction. The 35,538 gross square foot, 68 year old, building has extensive egress and ADA deficiencies, as well as deteriorated building systems and a facility condition index of 32 percent in the FICAS system.

Femoyer Hall's condition has deteriorated beyond the scope of normal operations and maintenance reserve repairs. The building's original layout as a residential housing facility and its deteriorated condition are such that renovations would be more costly and less space efficient than new construction. Thus, the University plans to raze Femoyer after the occupying departments vacate to a new location.

Two of the units are located off campus in leases in downtown Blacksburg. These leases will be terminated once a new building is ready to occupy.

##### Funding Plan:

The program of Academic Support and Student Success Center project is entirely Educational and General academic support; thus, the funding

plan calls for 100 percent General Fund support for this \$14.8 million building.

#### Options Considered:

Options considered but rejected include leasing additional off-campus space which is detrimental to effective student service delivery or renovating Femoyer Hall which, because of its serious deterioration and residential program design, has a higher cost and is less space efficient than new construction.

#### Alternatives Considered

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#### Costing Methodology

##### A. Methods Used to Estimate Costs:

The method for estimating costs for the Academic Support and Student Success Center project includes: 1) using unit costs in the Bureau of Capital Outlay Management's Construction Costs Database updated October 2016 with a regional market multiplier and a multiplier for softs costs; and 2) comparables as shown in the CR-3. Both methods are escalated to a construction midpoint of 2021 at three percent in accordance with the instructions for developing the Six-Year Capital Outlay Plan.

On a total project cost basis, inclusive of design, construction, and equipment, the unit costs are \$529 per gross square foot. The unit construction costs of the project are \$378 per gross square foot, including self-performed construction work. The building types in this request are classroom and office in the Bureau of Capital Outlay Management's Construction Costs Database.

The University's project cost estimates are derived from a database of on-campus construction costs of comparable project types. Virginia Tech building construction reflects the high level of quality, durability, and tradition that makes Virginia Tech a distinctive and memorable place for students. Our estimates also include the cost of technology, specialized instruction, and energy efficiency goals of the institution.

Construction Manager at risk is the intended delivery method for this project.

##### B. The proposed costs include the following critical considerations to ensure the project fully meets the needs of the program and the University:

- 1) The building envelope will be comprised primarily of Hokie Stone with precast concrete accents consistent with University standards as affirmed by the Board of Visitors. Brick, metal panels, and siding materials are not permitted as substitutions for Hokie Stone. The stone is a four-inch thick nominal stone thickness with a two-inch nominal air barrier over moisture resistant sheathing. Stainless steel anchoring straps and load bearing shelf angles and stainless steel flashings comprise the structural support and flashings system. The University owns the stone quarries and provisions the cut material to the building; thus, the material costs are carried in the Other Costs section of the proposed budget while the construction budget carries all erection, final stone dressing, installation and intensive quality assurance inspection costs.
- 2) Mechanical equipment and building automation systems are designed and selected to meet performance requirements and to optimize total costs of ownership inclusive of energy costs and operations and maintenance costs. System selections are justified based on a 30-year economic life cycle analysis. Mechanical equipment will be covered and secured to maximize equipment life and service.
- 3) Academic buildings include interior glazing for energy efficiency, lighting for academic work, and to enhance pedagogy.
- 4) Ceiling heights must be a minimum of 16 feet for sound attenuation in large lecture and assembly environments as required for effective pedagogy.
- 5) Building structural support systems will accommodate large open and unimpeded interior spaces to maximize long-term programmatic functionality and adaptation to new program space and technology arrangements. This includes raised floor systems for maximum adaptation.
- 6) High-capacity wireless networks to support multiple devices (laptop computer, tablet computer, smartphone, and other WIFI devices) used simultaneously by students and faculty to retrieve information and to communicate and to connect digitally with sites around campus and around the world.
- 7) Power outlets corresponding to the seat/station count and power outlets in common areas will exceed the minimum code requirements by approximately 30 percent.
- 8) Automated audiovisual and lighting controls are included for all classroom and class laboratory spaces.
- 9) Climate controlled technology server rooms, 10 feet by 10 feet, on each floor of the building.
- 10) Communications infrastructure, both wired and wireless, is installed by a University operated auxiliary; thus, these costs are shown in the Other Costs section of the proposed budget.
- 11) Site development costs in this region are historically in the medium to high range and require generally significant subsurface rock excavation and removal and deep foundations. The potential locations for the project are anticipated to have restricted site access in dense and active parts of campus which will impact mobilization costs.

12) Utilities (power, steam, chilled water, gas, sanitary sewer, and storm water infrastructure) do not terminate at the building site and their extension is included the proposed budget.

13) An existing building, Femoyer Hall, must be demolished as part of this project and the costs for this are included in the construction budget line item.

### Agency Funding Request

Phase	Year	Fund	Subobject	Requested Amount
Full Funding	2019	01000 - General Fund	2322 - Construction, Buildings	\$14,800,000
Total				\$14,800,000

### Project Costs

Cost Type	Total Project Costs	Requested Funding	DGS Rec
Acquisition Cost	\$0	\$0	
Building & Built-in Equipment	\$10,579,223	\$10,579,223	
Sitework & Utility Construction	\$0	\$0	
<b>Construction Cost Total</b>	<b>\$10,579,223</b>	<b>\$10,579,223</b>	
<b>DESIGN &amp; RELATED SERVICE ITEMS</b>			
A/E Basic Services	\$1,060,376	\$1,060,376	
A/E Reimbursables	\$16,216	\$16,216	
Specialty Consultants (Food Service, Acoustics, etc.)	\$0	\$0	
CM Design Phase Services	\$0	\$0	
Subsurface Investigations (Geotech, Soil Borings)	\$21,205	\$21,205	
Land Survey	\$9,898	\$9,898	
Archeological Survey	\$0	\$0	
Hazmat Survey & Design	\$2,062	\$2,062	
Value Engineering Services	\$18,275	\$18,275	
Cost Estimating Services	\$12,384	\$12,384	
Other Design & Related Services	\$0	\$0	
<b>Design &amp; Related Services Total</b>	<b>\$1,140,416</b>	<b>\$1,140,416</b>	
<b>INSPECTION &amp; TESTING SERVICE ITEMS</b>			
Project Inspection Services (inhouse or consultant)	\$396,986	\$396,986	
Project Testing Services (conc., steel, roofing, etc.)	\$63,893	\$63,893	
<b>Inspection &amp; Testing Services Total</b>	<b>\$460,879</b>	<b>\$460,879</b>	
<b>PROJECT MANAGEMENT &amp; OTHER COST ITEMS</b>			
Project Management (inhouse or consultant)	\$205,837	\$205,837	
Work By Owner	\$128,522	\$128,522	
BCOM Services	\$13,975	\$13,975	
Advertisements	\$0	\$0	
Printing & Reproduction	\$0	\$0	
Moving & Relocation Expenses	\$0	\$0	
A/V Cabling	\$0	\$0	
IT Cabling	\$0	\$0	
Telephone Cabling	\$0	\$0	
A/V Equipment	\$0	\$0	
IT Equipment	\$268,468	\$268,468	
Telephone Equipment	\$0	\$0	
Signage	\$30,442	\$30,442	
Demolition	\$0	\$0	
Hazardous Material Abatement	\$0	\$0	

Utility Connection Fees	\$0	\$0
Utility Relocations	\$228,353	\$228,353
Commissioning	\$0	\$0
Miscellaneous Other Costs	\$434,883	\$434,883
<b>Project Management &amp; Other Costs Total</b>	<b>\$1,310,480</b>	<b>\$1,310,480</b>
Furnishings & Movable Equipment	\$1,122,464	\$1,122,464
Construction Contingency	\$186,538	\$186,538
<b>TOTAL PROJECT COST</b>	<b>\$14,800,000</b>	<b>\$14,800,000</b>

Capacity			
Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost		0	\$0
Construction Cost	GSF	28,000	\$378
Total Project Cost	GSF	28,000	\$529

Operating and Maintenance Costs (Agency)						
Cost Type	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
GF Dollars	\$0	\$0	\$0	\$398,514	\$410,469	\$422,783
NGF Dollars	\$0	\$0	\$0	\$0	\$0	\$0
GF Positions	0.00	0.00	0.00	2.29	2.29	2.29
NGF Positions	0.00	0.00	0.00	0.00	0.00	0.00
GF Transfer	\$0	\$0	\$0	\$0	\$0	\$0
GF Revenue	\$0	\$0	\$0	\$0	\$0	\$0
Layoffs	0	0	0	0	0	0

Planned start date of new O&M costs (if different than the beginning of the fiscal year):---

Supporting Documents					
File Name	File Size	Uploaded By	Upload Date	Comment	
<a href="#">CR-3_Project Planner-06 Academic Support and Student Success.xlsx</a>	419,058	Rob Mann	7/7/2017	CR3-Form_Academic Support & Student Success Center	
<a href="#">06_Academic Support and Student Success Center.pdf</a>	62,746	Rob Mann	7/7/2017	Academic Support and Student Success Center Program Chart	

Workflow History				
User Name	Claimed	Submitted	Step Name	Submit Action
Jennifer Hundley	06/06/2017 11:54 AM	06/06/2017 11:54 AM	Enter Capital Budget Request	Continue Working
Jennifer Hundley	06/06/2017 11:54 AM	06/06/2017 11:58 AM	Continue Drafting	Continue Working
Jennifer Hundley	06/09/2017 03:37 PM	06/09/2017 03:38 PM	Continue Drafting	Continue Working
Rob Mann	07/07/2017 10:58 AM	07/07/2017 11:21 AM	Continue Drafting	Submit for Agency Review
Rob Mann	07/07/2017 11:25 AM	07/07/2017 11:27 AM	Agency Review Step 1	Ready for DPB Bulk Submit
Bob Broyden	07/07/2017 03:35 PM	07/07/2017 03:37 PM	Ready for DPB Submission	Continue Review
Bob Broyden	07/07/2017 04:35 PM	07/07/2017 04:35 PM	Ready for DPB Submission	Submit to DPB
			DPB Review	