

## **Capital Outlay Plan for 2018-2024**

### **JOINT FINANCE AND AUDIT COMMITTEE AND BUILDINGS AND GROUNDS COMMITTEE**

**February 28, 2017**

#### **Background**

The university prepares an updated Six-Year Capital Outlay Plan (Plan) every two years as part of its normal planning and budgeting processes. The Plan is a critical component of positioning the university for state support of Educational and General capital projects and for advancing high priority projects that may be funded entirely with nongeneral fund resources. The next state capital outlay plan will be for the 2018-2024 period and will be established in the 2018 General Assembly session. Traditionally, the state requires each institution to submit a capital plan in June of the year before a new biennium begins. Based on that timetable, a plan from the University for 2018-2024 will be due to the state in June of 2017. At this time, the state has not yet provided instructions or specific guidance for the development of a plan.

In order to be prepared for the submission of the 2018-2024 Plan to the state, the University coordinated a five-step process to develop a listing of high priority items for the planning period. The steps are briefly described below:

- The first step is to generate a comprehensive list of space and facility needs for the institution. This step began during the summer of 2016 with each dean and vice president updating their respective lists of space and facility needs and presenting their needs to executive management. These proposals are combined to form a comprehensive list grouped by major unit with items ranked in priority order within each unit. The comprehensive list includes 85 proposals for internal consideration for the planning period (shown in Appendix 1).
- The second step is to organize the comprehensive list of proposals by University strategic goals for the planning period as shown in Appendix 2. This list includes the entire set of 85 space and facility needs.
- The third step is to filter and consolidate the listing of 85 projects in Appendix 2 for redundancy, strategic impact, and funding potential as shown in Appendix 3. This creates a subset of the comprehensive listing that is focused on the highest priorities for the planning period. The projects are selected because these programs are consistent with the university strategic plan and related facility needs during the planning period.
- Step four involves organizing the consolidated list into a subset for General Fund requests that must be submitted to the state for consideration and a subset for entirely nongeneral fund projects that may be authorized by the Board of Visitors.

- Step five is ranking the General Fund list in priority order for funding. The prioritized ranking of General Fund projects for both the University Division and the Cooperative Extension/Agricultural Extension Division of Virginia Tech is shown in Attachment A. The list of projects that call for entirely nongeneral fund support is shown in Attachment B.

### **General Fund Requests, Attachment A**

The highest priority projects requesting General Fund resources are listed under each division of Virginia Tech in their priority order, which reflects the strategic priorities of Virginia Tech and state priorities as understood at this time. The total dollar value of the list exceeds projected resources likely to be allocated to Virginia Tech during the planning period. Including a variety of high priority needs in the listing ensures the University has some flexibility to adapt to various state capital funding programs that may emerge over the upcoming 12 months.

The state requires that an institution's Board of Visitors review and approve projects prior to their submission in the state budget process. The state typically requests capital plan submissions in June of odd numbered years. Because the submission date to the state may occur before the June 2017 Board of Visitors meeting, the university is seeking the review and approval of the list of potential projects for inclusion in its submission to the state, shown in Attachment A. When guidance and instructions are received from the state, the university will prepare and submit its capital budget items based upon the projects included in Attachment A. If future instructions and/or guidance from the state necessitate a change in the rankings or arrangement of projects in the General Fund listing, a final list with adjustments as submitted to the state will be brought back to the Board of Visitors for review and ratification at a future meeting.

The Global Business and Analytics Complex shown in the General Fund list (Attachment A) is a multi-facility project that includes a mix of General Fund and nongeneral fund items. The projects are shown grouped together on the General Fund list to provide a complete listing of the envisioned program. Depending on future discussions with the state, the Business and Decision Sciences item may be the sole element submitted to the state. The remaining elements of the complex would be authorized as Nongeneral Fund projects under the process described below.

### **Nongeneral Fund Projects, Attachment B**

In conjunction with the General Fund requests, Attachment B lists the highest priority projects that call for entirely nongeneral fund resources in their budget. This section of the list covers the auxiliary enterprise system projects and other projects requesting some combination of private support, returned overhead dollars, external construction grants, and/or nongeneral fund debt to fund the total costs.

Under the university's Management Agreement for Capital Projects, the state has authorized the Board of Visitors to approve and implement projects supported 100 percent by nongeneral funds. Each project follows a three-step approval process by the

Board of Visitors and those that require external debt require a fourth approval step. The steps include 1) a project must be included and approved as part of the Six-Year Capital Outlay Plan, 2) each project is individually authorized for planning when funding is sufficient for implementation, 3) each project is individually authorized for construction when planning is sufficient, and 4) external debt required for any capital project is approved prior to issuance.

Auxiliary enterprise projects with a financing plan that calls for an increase of student fees depends on Board of Visitors approval of the rates as part of the Tuition and Fee package. Projects with a financing plan that calls for private gifts depends on the successful completion of donation commitments.

### **Project Costs**

The projects costs shown on the Plan reflect total project estimates based on campus historical experience, industry trends, benchmarking of unit costs for program descriptions, and scope of the proposed facilities. The estimates reflect February 2017 prices escalated to a mid-point of construction three years out.

### **Debt Financing**

Projects with nongeneral fund support, including portions of some gift campaigns, may use external debt to finance a portion of the project. Each potential debt financing undergoes an internal financial feasibility assessment to ensure resources are sufficient to cover the full debt service term without unnecessary financial risk to the unit's operations. The positioning of debt is further analyzed to ensure the university does not exceed the parameters of the university debt policy or debt management practices, which sets a maximum limit of a five percent ratio of total annual debt service to total operating expenses. This evaluation is projected six-years out and includes anticipated issuances for projects in the Plan. The Board of Visitors reviews and approves an annual report of debt capacity and debt ratio and authorizes individual debt packages prior to an issuance. These practices provide an important set of controls to ensure the institution's debt obligations do not become a point of inflexibility in reaching the operational goals of the institution and to ensure the university is holding sufficient debt capacity for its highest priorities.

### **RECOMMENDATION:**

That the Capital Outlay Plan for 2018-2024, shown on Attachments A and B, be approved and for the university to submit the items on Attachment A in the state's capital budget process in accordance with future instructions and guidance from the state.

**Attachment A**

**General Fund Six-Year Capital Outlay Plan for 2018-2024**

**as of February 28, 2017**

				<b>Dollars in Thousands</b>		
				<u>General</u>	<u>Nongeneral</u>	<u>Total</u>
<b>University Division</b>				<u>Fund</u>	<u>Fund</u>	<u>Total</u>
1	Undergraduate Instruction Science Laboratory			\$ 75,000	\$ -	\$ 75,000
2	Global Business and Analytics Complex					
	Business and Decision Sciences Buildings			75,000	75,000	150,000
	Global and International Programs			-	10,000	10,000
	Honors Program Space			-	5,100	5,100
	Living Learning Community Residence Halls			-	73,500	73,500
				<u>75,000</u>	<u>163,600</u>	<u>238,600</u>
3	Randolph Hall Replacement			164,250	18,250	182,500
4	Corps Leadership and Military Sciences Building			28,000	20,000	48,000
5	Robeson Hall Renovation			44,600	-	44,600
6	Academic Support and Student Success Center			10,500	-	10,500
7	Renovate/Replace Brooks Center			5,250	-	5,250
8	Life, Health, Safety, Code Compliance Package					
	Fire Alarms and Building Accessibility			5,500	-	5,500
	Library Code Compliance			5,400	-	5,400
				<u>10,900</u>	<u>-</u>	<u>10,900</u>
	Total University Division Projects			<u>\$ 413,500</u>	<u>\$ 201,850</u>	<u>\$ 615,350</u>
<b>Cooperative Extension / Agriculture Experiment Station</b>						
1	Global Systems Sciences Buildings			\$ 94,400	\$ -	\$ 94,400
2	Animal Production and Livestock Facilities Phase II			22,500	-	22,500
3	Center Woods Complex Improvements			6,600	-	6,600
	Total CE/AES Division Projects			<u>\$ 123,500</u>	<u>\$ -</u>	<u>\$ 123,500</u>
<b>Grand Total of General Fund Capital Plan for 2018-2024</b>				<u><b>\$ 537,000</b></u>	<u><b>\$ 201,850</b></u>	<u><b>\$ 738,850</b></u>

**Attachment B**  
**Nongeneral Fund Six-Year Capital Outlay Plan for 2018-2024**  
**as of February 28, 2017**

	<b>Dollars in Thousands</b>		
	General Fund	Nongeneral Fund	Total
<b>Intelligent Infrastructure Complex</b>			
Hitt Hall	\$ -	\$ 15,000	\$ 15,000
Intelligent Infrastructure Building	-	10,000	10,000
Smart Dining Hall	-	25,000	25,000
Smart Design and Construction Complex (Plantation Rd)	-	7,500	7,500
Intern Hub (VTI)	-	2,000	2,000
Rural Smart Track	-	10,000	10,000
	<u>-</u>	<u>69,500</u>	<u>69,500</u>
<b>Health Sciences and Technology</b>			
Comparative Oncology Center	-	12,375	12,375
Translational Medicine, Phase 1	-	21,000	21,000
	<u>-</u>	<u>33,375</u>	<u>33,375</u>
<b>Creativity and Innovation District</b>			
Academic Space	-	8,250	8,250
Innovation and Athletics Residential Programs, 500 beds	-	57,000	57,000
	<u>-</u>	<u>65,250</u>	<u>65,250</u>
<b>Academic Quality</b>			
Integrated Security, Special Research Spaces (CRC)	-	6,500	6,500
Science Instruction Laboratory Improvements	-	10,000	10,000
Enterprise / High Performance Computing Data Center	-	5,500	5,500
Falls Church property acquisition	-	3,350	3,350
	<u>-</u>	<u>25,350</u>	<u>25,350</u>
<b>Student Experience</b>			
Student Wellness Services	-	55,000	55,000
Dietrick Hall Dinning Renovation and Expansion	-	5,000	5,000
Food Processing Center and Warehouse	-	7,000	7,000
Residential Renovations of 1000 beds by 2024	-	55,000	55,000
Dietrick Plaza Improvements	-	2,000	2,000
Owens Hall Renewal	-	57,000	57,000
	<u>-</u>	<u>181,000</u>	<u>181,000</u>
<b>Athletics Facility Improvements</b>			
ACC Broadcasting studio expansion	-	4,000	4,000
Tennis Stadium Expansion	-	4,000	4,000
Cassell Coliseum Entrance Improvements	-	2,500	2,500
Athlete Nutrition Center, 250 seats	-	10,800	10,800
	<u>-</u>	<u>21,300</u>	<u>21,300</u>
<b>Building Envelope Renewals</b>	<u>-</u>	<u>37,750</u>	<u>37,750</u>
<b>Grand Total of Nongeneral Fund Capital Plan for 2018-2024</b>	<u>\$ -</u>	<u>\$ 433,525</u>	<u>\$ 433,525</u>
<b>GRAND TOTAL SIX-YEAR CAPITAL OUTLAY PLAN</b>	<u>\$ 537,000</u>	<u>\$ 635,375</u>	<u>\$ 1,172,375</u>

## **APPENDIX 1**

### **Program and Activity Space Needs Proposals from Deans and Vice Presidents**

#### **Six-Year Capital Outlay Plan**

**December 5th and 6th, 2016**

#### **Agriculture**

- 1 Translation Medicine Center, Phase 2
- 2 Agriculture Quad Renovations (Hutchison, Smyth, Saunders, Seitz, Price)
- 3 Price Hall Renewal
- 1-229 Human and Biosciences Building, Phase 2
- 2-229 Global Systems Science Building
- 3-229 Animal Production and Livestock Facilities Renewal, Phase 2
- 4-229 System-wide Agriculture Research and Extension Center (AREC) upgrades

#### **Architecture**

- 1 Co-locate architecture programs that are in leased space
- 2 High-bay laboratory space, Plantation Road area
- 3 University Fine Arts Laboratory within Creativity and Innovation District
- 4 Intelligent Infrastructure and Construction Complex (Hitt Hall)

#### **Athletics**

- 1 ACC Broadcasting studio expansion
- 2 Tennis Stadium Expansion
- 3 Athlete Nutrition Center
- 4 Cassell Coliseum Entrance Improvement
- 5 Athletics Residence Hall space, 176 beds

#### **Business**

- 1 Business and Decision Sciences Building
- 2 Business Program Living Learning Community
- 3 Global and International Programs Facility

#### **Engineering**

- 1 Randolph Hall Renovation
- 2 Electrical Engineering and Computer Engineering Building
- 3 Expand inventory of Student-team project space

## **Graduate School**

- 1 Graduate student work spaces across campus
- 2 Graduate student and family housing
- 3 Housing for short-term visiting scholars
- 4 Child care space on campus or adjacent to campus
- 5 Housing for students in the NCR programs, affordable for graduate students
- 6 Connect Graduate Life Center to Creativity and Innovation District project

## **Honors College**

- 1 Honors Program space

## **Information Technology**

- 1 New enterprise/High Performance Computing data center

## **Liberal Arts**

- 1 Life Span and Family Services Research Center
- 2 University Fine Arts Laboratory within Creativity and Innovation District
- 3 Corps Leadership and Military Sciences building (construction)
- 4 Innovate spaces for Performing Arts student housing
- 5 Improve and Expand Performing Arts Spaces in Squires

## **Libraries**

- 1 Library renovations for Creativity and Innovation District
- 2 New Library spaces in west campus area
- 3 New Health Sciences Library in Roanoke
- 4 Move Special Collections out of Newman

## **Natural Resources**

- 1 Refurbish and Expand Center Woods Complex
- 2 Cheatham Hall renovation/expansion to co-locate CNRE programs
- 3 Renovate/replace Brooks Center for packaging systems and design

## **Research**

- 1 Integrated (one-stop shop) Commercialization/Translation space
- 2 Intern Village at VTTI
- 3 Research Cores (shared research resources)
- 4 Special and Critical Research Programs

## **Science**

- 1 Robeson Hall Renovation
- 2 Translation Medicine Center, Phase 2
- 3 Science instruction laboratory Improvements (renovations)

## **Student Affairs**

- 1 Student Wellness Services, renovation of War Memorial Hall
- 2 Increase residential inventory by 1050 beds by 2023
- 3 Renovate O'Shaughnessy, 340 beds
- 4 Residential renovations of 1650 beds by 2027
- 5 Southgate Center Refurbishment for Dining Services
- 6 Expand dining capacity in north area of campus
- 7 Dietrick Dining Hall Renovation and expansion
- 8 Dietrick Dining Plaza Improvements
- 9 Owens Renewal
- 10 Expand Commons spaces in multiple areas around campus
- 11 Squires Renovation
- 12 G. Burke Johnston Renovation
- 13 Corps Leadership and Military Sciences Building

## **Undergraduate Academic Affairs**

- 1 Undergraduate Instruction Science Laboratory (Construction)
- 2 General Assignment classroom renovations
- 3 Academic Support and Student Success Center, Student Success Commons

## **Veterinary Medicine**

- 1 Translational Medicine Center, Phase 1 (Expand teaching hospital space)
- 2 Translational Medicine Center, Phase 2 (Expand research laboratories)
- 3 Health Sciences and Technology, Phase 2
- 4 Comparative Oncology Center in Roanoke

## **Infrastructure**

- 1 West Campus Perimeter Road Expansion
- 2 Ongoing Life/Health Safety Improvements
- 3 Ongoing ADA Improvements
- 4 New Power Plant – Energy Systems Park
- 5 Relocating existing Substation and Renovating existing Power Plant
- 6 Strategic approach to Storm Water Management



- 7 Roanoke Facility Services solution
- 8 Package Gas Boiler in Central Heat Plant

### **Campus Improvements**

- 1 Burruss Hall Systems Renewal – 3 Phases
- 2 North Academic Precinct Pedestrian Improvements
- 3 Drill field Improvements
- 4 Graduate Life Center / Squires Pedestrian Plaza
- 5 Daylight Stroubles Creek
- 6 Sterrett Facilities Renewal
- 7 System-wide Building Envelope Renewals

## APPENDIX 2

### Proposals Grouped by University Strategic Planning Goals

#### Six-Year Capital Outlay Plan

January 15, 2017

#### **Creativity and Innovation District**

Increase residential inventory by 1050 beds by 2023  
Innovate spaces for Performing Arts student housing  
Athletics Residence Hall space, 176 beds  
Library renovations for Creativity and Innovation District  
University Fine Arts Laboratory within Creativity and Innovation District 1 of 2 - Architecture  
University Fine Arts Laboratory within Creativity and Innovation District 2 of 2 - Liberal Arts

#### **Decision Sciences and Data Analytics Destination Area**

Business and Decision Sciences Building  
Global and International Programs Facility  
Increase residential inventory by 1050 beds by 2023  
Business Program Living Learning Community

#### **Global Systems Sciences**

Global Systems Science Building  
Refurbish and Expand Center Woods Complex  
Renovate/replace Brooks Center for packaging systems and design  
System-wide Agriculture Research and Extension Center (AREC) upgrades  
Animal Production and Livestock Facilities Renewal, Phase 2

#### **Health Sciences and Technology Innovation District**

Translational Medicine, Phase 1 (Expand teaching hospital space)  
Translational Medicine, Phase 2 (Expand research laboratories) 1 of 3 - VetMed  
Translational Medicine, Phase 2 (Expand research laboratories) 2 of 3 - Agriculture  
Translational Medicine, Phase 2 (Expand research laboratories) 3 of 3 - Science  
Health Sciences and Technology, Phase 2  
Human and Biosciences Building, Phase 2  
Comparative Oncology Center in Roanoke  
New Health Sciences Library in Roanoke  
Life Span and Family Services Research Center

### **Integrated Security Destination Area**

Corps Leadership and Military Sciences building (construction) 1 of 2 - Liberal Arts  
Corps Leadership and Military Sciences building (construction) 2 of 2 - Student Affairs  
Special and Critical Research Programs

### **Intelligent Infrastructure Destination Area**

Intelligent Infrastructure and Construction Complex (Hitt Hall)  
Expand dining capacity in north area of campus  
High-bay laboratory space, Plantation Road area  
Expand inventory of Student-team project space  
Intern Village at VTTI

### **Academic Quality**

Undergraduate Instruction Science Laboratory (Construction)  
New enterprise/High Performance Computing data center  
Robeson Hall Renovation  
Science instruction laboratory Improvements (renovations)  
Academic Support and Student Success Center, Student Success Commons  
Randolph Hall Renovation  
Honors Program space  
General Assignment classroom renovations  
Agriculture Quad Renovations (Hutchison, Smyth, Saunders, Seitz, Price)  
Price Hall Renewal  
Electrical Engineering and Computer Engineering Building  
New Library spaces in west campus area  
Move Special Collections out of Newman  
Cheatham Hall renovation/expansion to co-locate CNRE programs  
Improve and Expand Performing Arts Spaces in Squires  
Co-locate architecture programs that are in leased space

### **Athletics**

ACC Broadcasting studio expansion  
Tennis Stadium Expansion  
Athlete Nutrition Center  
Cassell Coliseum Entrance Improvement

## **Student Experience**

- Renovate O'Shaughnessy, 340 beds
- Student Wellness Services, renovation of War Memorial Hall
- Residential renovations of 1650 beds by 2027
- Southgate Center Refurbishment for Dining Services
- Owens Renewal
- Dietrick Dining Hall Renovation and expansion
- Dietrick Plaza Improvements
- Expand Commons spaces in multiple areas around campus
- Squires Renovation
- G. Burke Johnston Renovation

## **Campus Infrastructure**

- Ongoing Life/Health Safety Improvements
- Ongoing ADA Improvements
- West Campus Perimeter Road Expansion
- New Power Plant – Energy Systems Park
- Relocating existing Substation and Renovating existing Power Plant
- Strategic approach to Storm Water Management
- Roanoke Facility Services solution
- Package Gas Boiler in Central Heat Plant

## **Campus Improvements**

- Burruss Hall Systems Renewal – 3 Phases
- North Academic Precinct Pedestrian Improvements: Durham steps, Lavery corridor, and Cowgill
- Drill field Improvements
- Graduate Life Center / Squires Pedestrian Plaza
- Daylight Stroubles Creek
- Sterrett Facilities Renewal
- Building Envelope Renewals

## **Integral Planning Considerations**

- Graduate student work spaces across campus
- Graduate student and family housing
- Housing for short-term visiting scholars
- Child care space on campus or adjacent to campus
- Housing for students in the National Capital Region, affordable for graduate students
- Connect Graduate Life Center to Creativity and Innovation District's Living Learning Community
- Research Cores (shared research resources)
- Integrated (one-stop shop) Commercialization/Translation space

**APPENDIX 3**

**Consolidation of Strategic Group Items to form Specific Projects**

**Six-Year Capital Outlay Plan**

**February 7, 2017**

	<u>Component Size</u>	<u>Program Cost Estimate</u>
<b><u>Creativity and Innovation District</u></b>		
Academic Space	15,000	\$ 8,250
Innovation and Athletics Residential Programs, 500 beds	115,000	<u>57,000</u>
		65,250
<b><u>Decision Sciences and Data Analytics Destination Area</u></b>		
Business and Decision Sciences Buildings	120,000	150,000
Global and International Programs	21,000	10,000
Honors Program Space	10,000	5,100
Living Learning Community Residence Halls	175,000	<u>73,500</u>
		238,600
<b><u>Global Systems Sciences (Agency 229)</u></b>		
Global Systems Sciences Buildings	135,000	94,400
Animal Production and Livestock Facilities Phase II	90,000	22,500
Center Woods Complex Improvements	33,200	<u>6,600</u>
		123,500
<b><u>Health Sciences and Technology Innovation District</u></b>		
Comparative Oncology Center	16,500	12,375
Translational Medicine, Phase 1	37,500	<u>21,000</u>
		33,375
<b><u>Integrated Security Destination Area</u></b>		
Integrated Security, Special Research Spaces	30,000	6,500
Corps Leadership and Military Sciences Building	60,500	<u>48,000</u>
		54,500
<b><u>Intelligent Infrastructure Destination Area</u></b>		
Hitt Hall	26,000	15,000
Intelligent Infrastructure Building	15,000	10,000
Smart Dining Hall	35,000	25,000
Smart Design and Construction Complex (Plantation Rd)	TBD	7,500
Intern Hub (VTTI)	TBD	2,000
Rural Smart Track	N/A	<u>10,000</u>
		69,500

	<u>Component Size</u>	<u>Program Cost Estimate</u>
<b><u>Academic Quality</u></b>		
Undergraduate Instruction Science Laboratory Building	102,000	75,000
Science Instruction Laboratory Renovations	15,000	10,000
Randolph Hall Replacement	284,000	182,500
Robeson Hall Renovation	66,600	44,600
Academic Support and Student Success Center	20,000	10,500
New Enterprise / HPC Data Center	2MgWs	5,500
Renovate/Replace Brooks Center	35,000	5,250
Falls Church property acquisition	5.3 acres	3,350
		<u>336,700</u>
<b><u>Student Experience</u></b>		
Student Wellness Services (War Memorial Hall Renovation)	200,961	55,000
Dietrick Dining Hall Renovation and Expansion	20,800	5,000
Food Processing Center and Warehouse	36,000	7,000
Residential Renovations of 1,000 beds by 2024	110,000	55,000
Dietrick Plaza Improvements	Hardscape	2,000
Owens Renewal	97,000	57,000
		<u>181,000</u>
<b><u>Ongoing Life, Health, Safety, Code Compliance Improvements</u></b>		
Fire Alarms and Building Accessibility	N/A	5,500
Library Code Compliance	6,800	5,400
		<u>10,900</u>
<b><u>Building Envelope Renewals</u></b>		
	N/A	<u>37,750</u>
<b><u>Athletics Facility Improvements</u></b>		
ACC Broadcasting studio expansion	3,000	4,000
Tennis Stadium Expansion	TBD	4,000
Cassell Coliseum Entrance Improvement	N/A	2,500
Athlete Nutrition Center, 250 seats	17,500	10,800
		<u>21,300</u>
<b>GRAND TOTAL SIX-YEAR CAPITAL OUTLAY PLAN</b>		<b><u><u>\$ 1,172,375</u></u></b>