

Capital Budget Request

Renovate Library	
Overview	
Agency	Virginia Polytechnic Institute and State University (208)
Project Code	none
Project Type	Improvements-Other
Biennium	2014-2016
Budget Round	Amended Bill
Request Origin	Previously Submitted
Building Name	
Project Location	Roanoke Area
Facility/Campus	Blacksburg Main Campus
Source of Request	Agency Request
Building Function	Higher Education Library -- 100% E&G
Infrastructure Element	Library / Resource Center
Contains significant technology costs? No	
Contains significant energy costs? No	
Agency Narrative	
<p>Agency Description</p> <p>This project has been on the University's plan since 1997 and is included in the first biennium as a high priority need. Newman Library was constructed in 1955, with an addition in 1980, and serves as the central scholarly materials management for the entire University and serves as the largest student-study facility for the university.</p> <p>Through expanded use of off-site storage and on-line materials, existing stack space will be reprogrammed for other academic uses. This project request is for the reorganization and modernization of 226,000 square feet of the library facility. The goal is to provide a quality library environment with up-to-date interactive learning formats that serve the entire university campus. Improvements include main floor reorganizations to enhance general circulation space, additional formal and informal student study spaces, space for academic support functions such as the writing center, language labs and visual communications labs, and more efficient, consolidated staff work areas.</p> <p>This project will also comprehensively address the need for upgraded HVAC systems, upgraded electrical systems and lighting, rehabilitated and improved plumbing systems, new communication networking systems and renovations to attain life safety code compliance. This project will continue the institution's efforts to update and improve the functionality of the library space. With these improvements the library will be more responsive to student and faculty users, more efficient in its operations, and more supportive as a learning and research environment.</p> <p>Justification</p> <p>Program description: Newman Library serves as the home of central library operations, the primary scholarly materials management facility, and as a primary location for informal student study space. As the library collection grows there is a need to prioritize the materials that will be housed on-site along with the need for student study space and space for other academic support functions. Off-site storage and the opportunity to use electronic formats for many materials previously held in print version will allow the library to shift collections off the floor and return space for student study programs. This project will convert the floor space from stacks to modern student study spaces. The need for additional formal and informal student work spaces is integral to the university's plan to improve the learning outcomes of students. A central means to this goal is providing more "hand-on, minds-on" active learning that allow students to put into practice and reinforce concepts and methods through team based problem solving and projects.</p> <p>The University's strategic plan includes the following principle strategies:</p> <ul style="list-style-type: none"> • Enhancing the overall Virginia Tech Experience for students. • Increasing undergraduate involvement in meaningful research experiences and experiential learning—hands on, minds on. • Identifying opportunities during construction and renovation to create flexible classroom spaces that fully support e-learning components. • Increasing support for international experiences and foreign language competency for all students. • Developing ways to integrate computational science/informatics and digital fluency for managing and analyzing complex data sets across a wide range of disciplines. • Increasing the quality and availability of academic advising for all students. 	

- Promoting life-long learning.
- Implementing the Climate Action Commitment and Sustainability Plan.

Existing facilities:

Newman Library was constructed in 1955, with an addition in 1980. The building size is about 226,000 gross square feet and is a comparatively small library for a university with over 31,000 students. Because of limited available floor space, the library is not able to meet the full need of the student body for private study areas and work spaces. With the anticipated addition of high-density storage, space previously used to house library materials will be freed up to restore needed study areas, provide more group project rooms, and consolidate and improve the efficiency of the information commons. The facility condition index in FICAS is 19 percent.

Funding plan:

The scope of the project is for library Educational and General space; thus, the funding plan calls for 100 percent General Fund support.

Alternatives Considered

Other options considered include delaying the project. A delay will result in increased renovation costs and will allow valuable floor space in the library to remain idle while student needs for active learning and quiet study areas to remain unfulfilled.

Costing Methodology

Virginia Tech's project cost estimate is 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.

Mechanical equipment and building automation systems will be designed to maximize energy efficiency and minimize operations and maintenance costs. Mechanical equipment will be located inside and screened from view to maximize student use of the campus landscape. Electrical systems will support current academic technologies and increased student use of individual technology equipment. Effective use of exterior and interior glazing will enhance energy efficiency lighting fixtures for an improved academic experience. Design priorities will include flexibility to maximize the long-term programmatic functionality of the building.

Virginia Tech's system of classrooms, instructional laboratories and informal learning spaces support technology driven instruction, student support services and innovative teaching. All buildings used by students for study and group projects must have high-capacity wireless networks to support multiple devices (laptop computer, tablet computer, smartphone) used simultaneously by students to retrieve information and to communicate and to connect digitally with instructional sites around campus and around the world. The use of electronic equipment by students also requires dedicated power outlets corresponding to the number of seats and power outlets in common areas. Raised floor systems are often needed to accommodate these and future developments in technology and classroom configuration.

The university operates its own communications network using primarily internet connectivity which requires accessible, climate controlled server rooms in lieu of the traditional phone closet. Because the communications infrastructure is installed by our own university operated auxiliary it is carried as a project (soft) cost outside of the normal construction budget.

Renovation of this building will involve complete replacement of mechanical, plumbing, electrical systems that have exceeded their useful life. It will also require installation of sprinkler, fire alarm systems and accessibility improvements.

The project is anticipated to have additional site costs due to restricted site access in a dense and active part of campus that will impact mobilization costs. This project will use a C-M at risk construction delivery method appropriate for the size and complexity of this project. Project costs are estimated to the mid-point of construction using three percent escalation in accordance with the instructions for developing the Six-Year Capital Outlay Plan.

Agency Funding Request

Phase	Year	Fund	Subobject	Requested Amount
Full Funding	2016	0100 - General Fund	2322 - Construction, Buildings	\$89,300,000
Total				\$89,300,000

Project Costs

Cost Type	Total Project Costs	Requested Funding	DGS Rec
Acquisition Cost	\$0	\$0	\$0
Building & Built-in Equipment	\$57,560,000	\$57,560,000	\$0
Sitework & Utility Construction	\$2,879,000	\$2,879,000	\$0
Construction Cost Total	\$60,439,000	\$60,439,000	\$0
Design & related Services from Other Costs tab	\$8,337,000	\$8,337,000	\$0
Inspection & Testing Services from Other Costs tab	\$1,850,000	\$1,850,000	\$0
Project Management & Other Costs from Other Costs tab	\$5,448,000	\$5,448,000	\$0

Furnishings & Movable Equipment	\$10,808,000	\$10,808,000	\$0
Construction Contingency	\$2,418,000	\$2,418,000	\$0
Total Project Cost	\$89,300,000	\$89,300,000	\$0

Capacity

Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost		0	\$0
Construction Cost	GSF	226,000	\$267
Total Project Cost	GSF	226,000	\$395

Other Costs

Cost Type	Total Project Costs	Requested Funding	DGS Rec
Design & Related Service Items			
A/E Basic Services	\$7,087,000	\$7,087,000	
A/E Reimbursables	\$0	\$0	
Specialty Consultants (Food Service, Acoustics, etc.)	\$0	\$0	
CM Design Phase Services	\$755,000	\$755,000	
Subsurface Investigations (Geotech, Soil Borings)	\$7,000	\$7,000	
Land Survey	\$0	\$0	
Archeological Survey	\$0	\$0	
Hazmat Survey & Design	\$0	\$0	
Value Engineering Services	\$0	\$0	
Cost Estimating Services	\$47,000	\$47,000	
Other Design & Related Services	\$441,000	\$441,000	
Design & Related Services Total	\$8,337,000	\$8,337,000	
Inspection & Testing Service Items			
Project Inspection Services (inhouse or consultant)	\$1,597,000	\$1,597,000	
Project Testing Services (conc., steel, roofing, etc.)	\$253,000	\$253,000	
Inspection & Testing Services Total	\$1,850,000	\$1,850,000	
Project Management & Other Cost Items			
Project Management (inhouse or consultant)	\$1,193,000	\$1,193,000	
Work By Owner	\$91,000	\$91,000	
BCOM Services	\$0	\$0	
Advertisements	\$0	\$0	
Printing & Reproduction	\$0	\$0	
Moving & Relocation Expenses	\$215,000	\$215,000	
Data & Voice Communications	\$1,680,000	\$1,680,000	
Signage	\$77,000	\$77,000	
Demolition	\$0	\$0	
Hazardous Material Abatement	\$0	\$0	
Utility Connection Fees	\$576,000	\$576,000	
Utility Relocations	\$137,000	\$137,000	
Commissioning	\$576,000	\$576,000	
Miscellaneous Other Costs	\$903,000	\$903,000	
Project Management & Other Costs Total	\$5,448,000	\$5,448,000	

Operating and Maintenance Costs (Agency)

Cost Type	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
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GF Dollars	\$0	\$0	\$469,320	\$483,400	\$497,902	\$512,839
NGF Dollars	\$0	\$0	\$0	\$0	\$0	\$0
GF Positions	0.00	0.00	0.00	0.00	0.00	0.00
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
CR-3 Library Renovation.xls	625,152	Rob Mann	6/30/2014	CR-3 Library Renovation

Workflow History

User Name	Claimed	Submitted	Step Name
Rob Mann	06/26/2014 01:46 PM	06/26/2014 01:46 PM	Enter Capital Budget Request
Rob Mann	06/26/2014 01:46 PM	06/26/2014 01:46 PM	Continue Drafting
Rob Mann	06/27/2014 02:16 PM	06/27/2014 02:53 PM	Continue Drafting
Rob Mann	06/27/2014 04:14 PM	06/27/2014 04:17 PM	Agency Review Step 1
Bob Broyden	06/30/2014 03:17 PM	06/30/2014 03:26 PM	Ready for DPB Submission
Rob Mann	06/30/2014 03:52 PM	06/30/2014 03:53 PM	Ready for DPB Submission
Bob Broyden	06/30/2014 03:55 PM	06/30/2014 03:55 PM	Ready for DPB Submission
			DPB Review