



Virginia Department of Planning and Budget
Project Request Justification

2006-2008

Biennium

Date: October 25, 2006

A. General Information

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| <p>1. Agency Name: <u>Virginia Tech</u>
Supplement:</p> <p>3. Project Title: <u>Institute for Critical Technology & Applied Science, Phase I</u></p> | <p>2. Agency Code: <u>208</u></p> <p>4. Agency Priority: <u>4</u></p> |
| <p>5. Name of Person to Contact about this Form: <u>M. Dwight Shelton, Jr.</u></p> | |
| <p>6. Contact Person's Telephone Number: <u>(540) 231-8775</u></p> | |
| <p>7. Contact Person's E-mail Address: <u>mdsjr@vt.edu</u></p> | |

B. Proposed Project

1. **Description (include project size, capacity, and purpose):**

This first building (Phase I) for Virginia Tech's Institute for Critical Technology and Applied Science (ICTAS) was authorized in the 2002 General Obligation Bond (GOB) Program with \$13,996,000 in GOB Funding and \$17,000,000 in nongeneral fund support from the authorization of 9(d) agency bonds, for a total project cost of \$30,996,000. The project originally called for the construction of a 103,000 gross square foot (GSF), highly specialized research laboratory building for engineering and science programs, with construction slated to being in early 2005.

During the time between the request for authorization for the building in late 2001, and the completion of working drawings and independent cost estimates for the project in fall 2004, the cost of construction and building materials escalated significantly worldwide. As a result, cost estimates for the ICTAS, Phase I building were \$8 million over the authorized project budget of \$30,996,000. The University addressed this estimated overrun through a combination of a minor reduction in project scope from 103,000 GSF to 100,000 GSF, cutting \$4 million of program costs, and requesting a \$4 million state supplement for the project. The General Assembly approved the \$4 million General Fund supplement in the 2006 Acts of Assembly, effective July 1, 2006.

The project was bid in May 2006, with the sole bid reflecting an actual cost overrun of \$6,989,225 for a total project cost of \$37,985,225. In order to avoid further delays and cost increases, the University sought and received a \$6,989,225 administrative increase of nongeneral fund authorization to keep the project moving forward. On July 1, the \$4 million supplement authorized in Chapter 3 of the 2006 Acts of Assembly became effective, replacing a portion of the \$6,989,225 nongeneral fund increase, leaving \$2,989,225 of the overrun funded by nongeneral fund resources. Construction of the building is underway with occupancy scheduled for January 2008.

In accordance with the state's support to supplement previously authorized GOB project cost overruns associated with materials inflation and code compliance, this request is to

complete the funding of the cost overrun and increase the budget for the ICTAS, Phase I (project code 16714) by \$2,989,225 of General Fund support.

2. In approved Master Site Plan: Yes No
If not, explain:

3. In current Strategic Plan: Yes No
If not, explain:

C. Project Justification

1. Programmatic:

This first building (Phase I) for Virginia Tech's Institute for Critical Technology and Applied Science (ICTAS) was authorized in the 2002 General Obligation Bond (GOB) Program. The project originally called for the construction of a 103,000 gross square foot (GSF), highly specialized research laboratory building for engineering and science programs, with construction slated to begin in early 2005.

The completion of the ICTAS Phase I building is vital to the success of Virginia Tech's Institute for Critical Technology and Applied Science initiative and the achievement of the University's goal to increase research productivity in growth-oriented areas of science and technology. The establishment of a research facility of this caliber will dramatically impact the teaching and research experience in advanced engineering and sciences at Virginia Tech by allowing students and researchers to utilize the latest materials and techniques in their fields. The enhanced reputation this will bring to the University's engineering and science programs will increase Virginia Tech's status as a major research university, attract the brightest students and most successful faculty, and promote scientific and technological development in Southwest Virginia. Further, this building is envisioned to significantly enhance and increase research space that is needed to support local business and industry and to provide for economic development throughout the Commonwealth.

2. Existing facilities:

The University's inventory of laboratory space to support modern research methods is not sufficient or technically capable of meeting even current research performance requirements. To achieve the envisioned output potential of the ICTAS program, total additional building space needs are estimated at 285,000 gross square feet (GSF) phased over three buildings. This phase one ICTAS facility, with approximately 100,000 GSF, is part of the 2002 GOB program and will provide a critical "jump start" to initiate the program.

As an example of the quantity and quality of existing space, the College of Engineering currently occupies about 506,000 assignable square feet (ASF) that includes 307,000 assignable square feet (ASF) of research space. This space is spread over eight main buildings and multiple smaller spaces adjacent to campus or off campus. Of the 307,000 ASF of research space, only 86,000 ASF is modern (being built between 1990 and 1997). The remainder of the research space is between 30 years old and 75 years old. While this older space continues to support less intensive functions, it is not suitable for the pursuit of state-of-the-art research work. None of the existing engineering and life sciences space

has the systems or structural capacity necessary to house the new research technologies for imaging and measurement, such as nuclear magnetic resonance facilities, that are required to conduct research at the micron scale.

D. Options Considered (include as an option delaying this project until future biennia. For supplements to existing projects, identify what scope changes would be necessary to complete the project within existing resources)

Supplement Project: The project was bid in May 2006 and is under construction with an estimated January 2008 occupancy. Prior to the bid, the project scope was adjusted by a five percent size reduction and the removal of \$4 million of program costs in an effort to manage the project costs.

The University had a \$4 million General Fund supplement pending in the 2006 budget when the low bid arrived at \$6,989,225 over budget. In order to avoid further delays and cost increases, the University sought and received a \$6,989,225 administrative increase of nongeneral fund authorization to keep the project moving forward. The \$4 million supplement was approved and replaced a portion of the \$6,989,225, leaving \$2,989,225 of the overrun funded by nongeneral fund resources.

The \$2,989,225 of nongeneral fund resources currently supporting the project overrun are overhead funds originally intended to support program operations. These funds have been redirected to cover the unexpected excess project costs. This reallocation of nongeneral fund resources to the capital project has a negative impact on the research operations of the ICTAS program because operational investments must be deferred. If granted, this request for supplement funding will allow the overhead resources to be returned to the program for their original purpose.