

DGS-30-456

(Rev. 06/17)

Construction Management at Risk Procurement Review Submittal Form

General Project Information

Agency Name:	Virginia State University
Is the agency a covered institution per §2.2-4379?	Yes
Project Name:	New Construction: Addition to MT Carter Building
Project Number:	212-17871-000

Other Project Information

Advising A/E Name:	RRMM Architects, PC - Dan Hickok	License Number:	401005269
COV Sections: §2.2-4380.B.2, §2.2-4381.C.2			
Attach written determination for use of CM at Risk.			
COV Sections: §2.2-4380.C.2, §2.2-4380.B.1; §2.2-4381.D.2, §2.2-4381.C.1			
Is the procurement process proposed a two-step process?			Yes
COV Sections: §2.2-4380.C.2, §2.2-4380.B.7; §2.2-4381.D.2, §2.2-4381.C.7			

Agency Reasons for Use of CM at Risk

Construction Cost (COV Sections: §2.2-4381.B.1, §2.2-4380.C.3, §2.2-4381.D.3)	Yes
Building Use (COV Sections: §2.2-4381.B.1, §2.2-4380.C.3, §2.2-4381.D.3)	Yes
Project Timeline (COV Sections: §2.2-4381.B.1, §2.2-4380.C.3, §2.2-4381.D.3)	Yes
Need for Project Phasing (COV Sections: §2.2-4380.C.5, §2.2-4381.D.5)	Yes
Project Complexity (COV Sections: §2.2-4381.B.1, §2.2-4380.C.4, §2.2-4381.D.4)	Yes
Value Eng. and/or Constructability Analysis Concurrent with Design (COV Sections: §2.2-4381.A)	Yes
Need for Quality Control/Vendor Prequalification (COV Sections: §2.2-4380.C.5, §2.2-4381.D.5)	Yes
Need for Cost/Design Control (COV Sections: §2.2-4380.C.5, §2.2-4381.D.5)	Yes

Supporting Information for Procurement Method Selection

Project Use (i.e. lab, classroom, office, etc.): (COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)
<p>The VSU MT Carter Agricultural Research Facility Annex will supplement the existing MT Carter Agricultural Research Facility. This project will construct an approximately 13,000 to 15,000 GSF building adjacent to the existing MT Carter Agricultural Research facility located on the VSU main campus. The annex will provide space for critical emerging research issues in agriculture with specific emphasis on food science, environmental and plant science, animal science, biotechnology, and nanotechnology. It will support the Research, Extension, and Academic programs integration and will serve as a space for students to collaborate on ideas and research. It will include several research and learning laboratories designed with flexible laboratory space, classroom space, sample preparation rooms, seminar rooms, a video conference room, space for visiting scientists, student, and faculty offices, graduate student lounge, multipurpose auditorium classroom seating, state of the art distance learning center, and a teleconferencing room. This two-story, brick-faced building will be complementary in style to the two academic buildings in the immediate vicinity. The total project budget is \$8,000,000.</p>

Construction Cost:	\$5,407,000	(COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)		
Project schedule: (COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)	Design Start Date	5/11/2018	Design Compl. Date	5/31/2019
	Const. Start Date	1/7/2019	Const. Compl. Date	8/30/2020
	Attach bar chart schedule to illustrate fast tracking or other schedule complexities. (COV Sections: §2.2-4380.C.3, §2.2-4380.C.4; §2.2-4381.D.3, §2.2-4381.D.4)			

Additional description to highlight key attributes that affect the project complexity, need for value engineering/constructability analysis, quality control/vendor prequalification, and cost/design control as indicated by "Yes" answers above:

This project includes sensory, food science / safety; environmental / plant / animal science, biotechnology, and nanotechnology research wet labs which require specialized skills and experience by the contractor. Pre-construction services will also aid the design team with constructability coordination reviews. These spaces require specialized freezing chambers (-20°C and -80°C), HVAC for control of temperature and humidity, de-ionized water system, dedicated flexible arm exhaust snorkels, reach-in fume hoods, an acid waste holding tanks, heavy weight centrifuges, a chemical storage room with acid and flammable waste storage cabinets with dedicated exhaust systems, oxygen, helium, hydrogen, argon, and nitrogen gases. The food science / safety lab will be used to research prevention of deleterious microbes such as e-coli, affecting preparation of food. It will require perimeter sealing, dedicated filtered exhaust and isolated fume hoods for culturing / transferring microorganisms, prep space to support heavy specialized canning, production and processing equipment. The proposed sensory lab will be among the most technology savvy and intricate in the Commonwealth of Virginia, and will be combined with a collaboration space, industrial test kitchen, and a data collection and documentation area. To share research from each lab area, a robust and complex audiovisual system will allow for live streaming demonstrations and video documentation. The specialized space will be focused on agricultural product development and requires no noise pollution from adjacent rooms, constant regulation of the temperature / humidity, pass-through hatches for food handling, communication circuits, and dedicated air circulation up to six times per hour for the ventilation and odor removal.

According to the refreshed masterplan, the project site is located adjacent to MT Carter Agricultural Research Facility and Jesse Bolling / ROTC Building. It is surrounded by parking lots, service and loading docks, and a stormwater BMP. The building will be integrated with pedestrian paths leading to the other academic buildings along University Avenue and adjacent to the site. Nearly all of the students enter and exit those buildings on a daily or weekly basis. The complexity of building and site construction adjacent to these buildings with the associated vehicular and construction worker pathways requires close daily coordination during construction. The site area is small and contains both underground and overhead utilities, as well the main utility bank directly north of the proposed project site that feeds the campus in its entirety which must be maintained at all times. Pre-construction services planning by a Construction Manager will aid the Design Team due to the high volume of pedestrians and vehicles adjacent to the site. Since the proposed site is between two existing buildings, utilities will need to be relocated with minimal downtime and disruption to the occupants. Utilities include underground steam lines to the north and underground Columbia Gas line to the northeast. An additional site constraint is maintaining existing fire access road clearance around MT Carter and Jesse Bolling building since both need to remain operational throughout the planning, utility tie-in, and construction of the new facility. The University also requires maintaining tractor-trailer use of the loading dock at MT Carter. These site access factors will be a challenge which requires a high level of expertise to manage the project.

VSU's academic program constraints require phasing of construction which allows design simultaneous with construction using an early release site and foundation package, a core and shell package, and completion with an interior construction package. The design will be complete in May, 2019, yet we will start construction in January, 2019.

The project will require complex structural system coordination due to the conditions required by various space types and needs for structural isolation of some equipment spaces.

Pre-construction services from a CM at risk support the project with Value Engineering and constructability reviews during the early design process. These services ensure the project timeline is as efficient as possible, and that the project budgets are maintained.

(COV Sections: §2.2-4380.C.4; §2.2-4381.D.4)

Submitted by: Jonathan A. Taylor Date: 7/17/2018

Signature: *Jonathan A Taylor*
Title: Director of Capital Outlay
(Agency Head or Authorized Representative)

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Based upon the information provided by the Agency, the use of Construction Management at Risk
IS recommended for this project.

Recommended by: *W. M. Coppa* 7/19/18

W. Michael Coppa, RA
Acting Director, Division of Engineering and Buildings