DGS-30-456
(Rev. 10/18)

Construction Management at Risk Procurement Review Submittal Form

General Project Information

Agency Name:	University of Virginia	
Is the agency a covered institution per §2.2-4379?		Yes
Project Name:	Physics Building Renewal	
Project Number:	P04869	

Other Project Information

Advising A/E Name:	Amanda Saunders	License Number:	401011795
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 Contol (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)

The Physics Department is comprised of a total of 134,748 GSF and was constructed in three phases: The original "Old Building" (96,048 SF) was built in 1954, the Connector, "Old Addition" (9,690 SF), was completed in 1980, and the "New Addition" (29,010 SF) was completed in 1993. Key programmatic functions for this building include offices, classrooms, research and teaching labs, fabrication space, and material storage. The building is constructed primarily with concrete structure and limited steel framing and wood construction. This project intends to upgrade the building to comply with the requirements for Type IIA construction, and possibly decommission the existing firewall separation.
In order to recruit and retain outstanding Physics/ STEM students and faculty, a comprehensive renovation is required that will renovate both the existing four-story 1950s building along with the two-story 1980s addition. The scope includes replacing existing mechanical systems, new electrical wiring, new plumbing, upgraded fire safety infrastructure, renewing the building's envelope and roof, and a new interior layout to meet building code, life safety, and accessibility requirements. The renovated building will provide high-quality space to serve the demands of the University's current and future instructional and research programs.

The University of Virginia has seen significant enrollment growth in Science, Technology, Engineering, and Mathematics (STEM) disciplines. This growth has stressed all of UVA's STEM faculty and instructional facility capacities and has prompted changes in instruction and space use to absorb much higher course enrollment counts. Additional priorities for the project include addressing the University's need for flexible STEM teaching labs and research space, and active learning classrooms.

While this is largely an interior renovation, a modest, single-story addition to the 1980s wing will provide additional emergency egress from the 1954 building's lecture halls as well as add a flexible 99-seat active learning classroom. Renovations to the 1954 building's existing attic will convert that floor into new additional office and collaboration areas while also providing essential swing space during the phased renovation. This project will correct longstanding deferred maintenance deficiencies and will renovate worn and outdated circa 1954 and 1980 classrooms, teaching labs, research labs, fabrication shops, and student fabrication spaces to meet longstanding and projected needs for experimental and theoretical Physics.

Construction Cost:	$57,000,000	(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	6/1/18	Design Compl. Date	8/1/21
	Const. Start Date	Summer/Fall '21	Const. Compl. Date	7/31/24
	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/constuctabilitiy analysis, qualitiy control/vendor prequalification, and cost/design control as indicated by "Yes" answers above:

Competitive sealed bidding and Design/ Build are not practical for this project.
The Physics Building is located on McCormick Road, a major pedestrian artery on grounds, just West of Central Grounds. The complex is located along with other science buildings that are currently under renovation and intermittently impacting road conditions with closures and deliveries. There will also be another active construction site adjacent to the project site for the Contemplative Commons building that will require close coordination between project teams. Potential outages among projects will require coordination and communication between projects.

A CM is critical for required preconstruction coordination with the Owner, design team, and end users, providing early cost models, managing the extensive Value Engineering process and Constructability Analysis efforts, developing effective and optimal phasing plans, and performing preconstruction activities and commissioning. Significant complexity includes:

- Working in collaboration with the design team to provide added value by minimizing unforeseen conditions utilizing early investigation including laser scanning and clash detection that is critical given the nature of this age building with its heavy, MEP lab-oriented system infrastructure.
- Planning & executing a viable, efficient, multi-phased, multi-year renovation plan to accommodate faculty, research staff, and students during renovation of a partially occupied facility that was constructed in 3 different phases over a period of almost 40 years using different contractors and building codes.

- Scheduling & executing all staging, phased demolition work, enabling projects to accommodate swing space, construction, and renovation activities.
- Relocating occupants in phases as the facility is renovated, and planning and providing temporary building systems to support occupants throughout construction.
- Maintaining functionality of occupied spaces including minimizing noise and disruption, keeping existing systems online while new systems are being built, and developing a transition plan to switch over with input from occupants and the design team.
- Executing the required enabling projects that will create swing space in the converted attic to be occupied during construction and requiring close attention to the details of life and fire safety system requirements.
- Ensuring life safety systems are operational and maintained including fire alarm systems and egress; and working with the Owner, design team, and occupants to develop and understand circulation throughout an active construction site.
- Building a new addition that connects the original building with the 1980s addition and provides essential building egress and code required fire separations.
- Coordinating with the design team and Owner, understanding requirements potentially including specialized building systems, and executing preconstruction testing and commissioning to achieve LEED Silver.

These complicating factors require a responsive phasing and site logistics plan coordinated closely with the design team, Owner, and end users. Early costing exercises are essential to ensure priority scope items are accommodated in the renewal. In our professional opinion, this complex Project will gain significant fiscal benefit, added value, and necessary construction expertise and coordination experience from bringing a seasoned CM team on board during the design process.

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

Submitted by: Jeff Moore DS JM Date: 2/11/2021

Signature: DocuSigned by: Donald Sundgren AED1A3EA59A24E1... 2/12/2021

Title: Associate Vice President & Chief Facilities Officer

(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 not recommended for this project. Recommended by: W. M. Coppa W. Michael Coppa, RA Director, Division of Engineering and Builidngs