

Agenda Item No. 3.6

AGENDA ITEM BRIEFING

Submitted by: Billy Hamilton, Deputy Chancellor and Chief Financial Officer
The Texas A&M University System

Subject: Approval of the Project Scope and Budget, Appropriation for Construction Services, and Approval for Construction for the BCDC: Innovation Proving Grounds Project, Texas A&M Engineering Experiment Station, Bryan, Texas (Project No. 28-3322)

Background and Prior Actions:

The Bush Combat Development Complex (BCDC): Innovation Proving Grounds (IPG) Project was approved by the Board to be added to the FY 2020 – FY 2024 A&M System Capital Plan with an FY 2020 start date at the May 2020 meeting.

Proposed Board Action:

- (1) Approve the project scope and budget.
- (2) Appropriate \$37,800,000 for construction services and related project costs. \$4,200,000 has been previously appropriated to this project.
- (3) Approve construction of the BCDC: Innovation Proving Grounds Project for Texas A&M Engineering Experiment Station (TEES).

Funding/Budget Amount:

<u>Funding Source</u>	<u>Budget Amount</u>	<u>Average Estimated Annual Debt Service</u>	<u>Debt Service Source</u>
Cash (General Revenue)	<u>\$42,000,000</u>	N/A	N/A
Total Project Funds	<u>\$42,000,000</u>		

Project Justification:

The Army Futures Command (AFC), headquartered in Austin, is drawing on research from universities around the country and the private sector to modernize the United States Army (Army), and RELLIS will be a central hub where the newest and most innovative ideas are tested and evaluated – often by soldiers from nearby Fort Hood or members of the Texas A&M University Corps of Cadets.

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The aim is to shorten the time it takes to get emerging technologies from the lab to the field and maximize technology capabilities through soldier feedback. A team of Army and Texas A&M University System (A&M System) researchers will quickly evaluate prototypes that can be tested by soldiers in a real-world environment using a vast array of sensors and instruments at RELLIS.

TEES has formally executed a cooperative agreement with the Combat Capabilities Development Command (CCDC)-Army Research Laboratory (ARL) to conduct research that will discover and mature technologies leading to an ecosystem capable of generating novel approaches which will accelerate technology transfer across disparate science and technology fields specifically for the AFC modernization mission. This is a five-year, \$65M research agreement. Included in the agreement is funding for TEES to develop, equip and operate an Innovation Proving Ground at the RELLIS Campus. In addition, the 86th Texas State Legislature appropriated \$50M to the Governor to transfer to TEES for AFC efforts. These funds are to be used for the purpose of engaging this state's public institutions of higher education with private sector industries to establish and equip a proving ground site and to commercialize and manufacture critical emerging technologies for infrastructure networks, public safety, and national defense. \$42M of the \$50M will be used for the IPG.

The IPG will be an integral part of the research efforts being built at the BCDC and the ongoing research efforts with the AFC. It will provide an experimentation site to enable a myriad of tests, evaluations, and research efforts. The IPG's distinct capabilities will directly assist in the development of innovative, synergistic strategies to support agile and rigorous assessments of cutting-edge technologies and prototypes. The IPG will provide TEES and TEES' clients a test environment to bridge the gap between "lab-scale" research and development and national/government scale testing and evaluation.

Scope:

The initial phase of the IPG project will consist of two "exterior" (land and air) platform test areas: 1) IPG Mobility Challenge Course, an engineered one-mile test course capable of supporting a broad range of vehicles executing mobility operations under realistic and stressful conditions; and 2) IPG Off-Road Test Area, an engineered maneuver area that facilitates the assessment of a platform's ability to effectively operate in a cross-country environment. The project shall prepare for a future third "exterior" test area: 3) an IPG Subterranean Test Area, an underground facility supporting the testing of navigational capabilities and sensor effectiveness in an area where communications are limited and autonomy can be stressed.

These test areas will be supported by state-of-the-art instrumentation both off platform – all weather/all visibility cameras/audio generating devices, and on platform – audio recording, micro cameras, and data collecting sensors (automotive, network, Assured Position Navigation and Timing). Combined, this instrumentation will enable the capture and visualization of all data in terms of system and system of systems performance. The IPG will have the ability to download and store data for in-depth analysis, collaboration, and future use. Relatedly, the IPG will live stream data and audio/video feedback to a "Data Wall" in the new Innovative Technologies Development Complex (ITDC) facility (currently under construction) providing a

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real-time Common Operational Picture (COP) and real-time streaming analytics in allowing “as occurs” situational understanding and limited causality on system performance.

Control/observation towers and proving ground storage facilities will also be constructed.

Construction on this project is scheduled to start in May 2021 with substantial completion scheduled for May 2022. The total project budget is \$42,000,000.

Other Major Fiscal Impacts:

None.

Strategic Plan Imperative(s) this Item Advances:

Approval of this agenda item will advance A&M System Strategic Imperative #4 of increasing the A&M System’s prominence by developing a state-of-the-art research proving ground that will enhance defense and industry-based research for TEES.

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THE TEXAS A&M UNIVERSITY SYSTEM
FACILITIES PLANNING AND CONSTRUCTION
Office of the Deputy Chancellor and Chief Financial Officer
July 13, 2020

Members, Board of Regents
The Texas A&M University System

Subject: Approval of the Project Scope and Budget, Appropriation for Construction Services, and Approval for Construction for the BCDC: Innovation Proving Grounds Project, Texas A&M Engineering Experiment Station, Bryan, Texas (Project No. 28-3322)

I recommend adoption of the following minute order:

“The project scope along with a project budget of \$42,000,000 for the BCDC: Innovation Proving Grounds Project is approved.

The amount of \$37,800,000 is appropriated from Account No. 28-810075 AFC IPG Funding, for construction services and related project costs.

The BCDC: Innovation Proving Grounds Project, Texas A&M Engineering Experiment Station, Bryan, Texas, is approved for construction.”

Respectfully submitted,

[ORIGINAL SIGNED BY]

Billy Hamilton
Deputy Chancellor and
Chief Financial Officer

Approval Recommended:

[ORIGINAL SIGNED BY]

John Sharp
Chancellor

[ORIGINAL SIGNED BY]

Phillip Ray
Vice Chancellor for Business Affairs

[ORIGINAL SIGNED BY]

M. Katherine Banks, Ph.D., P.E.
Vice Chancellor of Engineering and National Laboratories
The Texas A&M University System
Director, Texas A&M Engineering Experiment Station

Approved for Legal Sufficiency:

[ORIGINAL SIGNED BY]

Ray Bonilla
General Counsel

[ORIGINAL SIGNED BY]

Kelly Templin, Director
The Texas A&M University System

BCDC: INNOVATION PROVING GROUNDS	PROJECT BUDGET
TEXAS A&M ENGINEERING EXPERIMENT STATION	
PROJECT NO. 28-3322	

1. Construction	\$34,238,600
2. Project Contingency	1,712,000
3. Program of Requirements.....	222,700
4. Pre-Construction Services	2,766,000
5. Commissioning Services	90,000
6. Construction Testing	179,000
7. Campus Services & Technology	344,000
8. Furnishings	83,000
9. Equipment	1,052,700
10. Other Project Costs.....	199,000
11. FPC Management	<u>1,113,000</u>
12. TOTAL PROJECT COST.....	<u>\$42,000,000</u>

BCDC: INNOVATION PROVING GROUNDS TEXAS A&M ENGINEERING EXPERIMENT STATION PROJECT NO. 28-3322	PROJECT SCHEDULE
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1. BOR Approval to Include in Capital Plan May 14, 2020
2. Issue A/E Request for Qualifications (RFQ) June 30, 2020
3. Issue Construction Manager at Risk (CMAR) RFP July 7, 2020
4. Receive A/E RFQ Response July 16, 2020
5. Shortlist A/E Firms July 23, 2020
6. Select A/E Firms July 23, 2020
7. Receive CMAR RFP Response July 30, 2020
8. Chancellor Approval of A/E Rank Order August 13, 2020
9. Shortlist CMAR Firms August 13, 2020
10. BOR Approval for Construction August 20, 2020
11. Execute A/E Agreement August 27, 2020
12. Interview CMAR Firms August 27, 2020
13. A/E Design Kick-Off August 28, 2020
14. CMAR Ranked Order Approved by Chancellor September 25, 2020
15. Execute CMAR Agreement October 23, 2020
16. Complete Schematic Design December 23, 2020
17. Complete Design Development March 11, 2021
18. Receive GMP from CMAR May 6, 2021
19. Submit THECB Application May 20, 2021
20. Notice to Proceed May 24, 2021
21. Complete Construction Documents May 27, 2021
22. Substantial Completion May 27, 2022
23. Owner Occupancy July 29, 2022



BCDC: Innovation Proving Grounds

Texas A&M Engineering Experiment Station

Project No. 28-3322