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FOR
FACILITIES PLANNING AND CONSTRUCTION
COMMITTEE**

Committee Meeting: 11/9/2016

Board Meeting: 11/10/2016
Austin, Texas

Brenda Pejovich, Chairman
David J. Beck
Alex M. Cranberg
Wallace L. Hall, Jr.
R. Steven Hicks

	Committee Meeting	Board Meeting	Page
Convene	3:15 p.m. <i>Chairman Pejovich</i>		
1. U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration	3:15 p.m. Discussion	Action	145
<u>Discussion Item</u>			
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<u>Additions to the CIP</u>			
3. U. T. Dallas: Math and Science Building - Amendment of the FY 2017-2022 Capital Improvement Program to include project (Preliminary Board approval)	3:55 p.m. Action <i>President Benson</i>	Action	147
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5. U. T. Arlington: Residence Hall - West Campus (Phase I) - Amendment of the FY 2017-2022 Capital Improvement Program to include project (Preliminary Board approval)	4:05 p.m. Action <i>President Karbhari</i>	Action	152

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	<u>Design Development Approval</u>			
6.	U. T. Arlington: Parking Garage - West Campus - Amendment of the FY 2017-2022 Capital Improvement Program to include project; approval of total project cost; approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)	4:10 p.m. Action <i>President Karbhari</i> <i>Mr. O'Donnell</i>	Action	154
7.	U. T. El Paso: Interdisciplinary Research Building - Approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)	4:15 p.m. Action <i>Mr. O'Donnell</i>	Action	157
8.	U. T. San Antonio: Science and Engineering Building - Amendment of the FY 2017-2022 Capital Improvement Program to decrease total project cost; approval to revise funding sources; approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)	4:20 p.m. Action <i>Mr. O'Donnell</i>	Action	160
9.	U. T. Medical Branch - Galveston: Health Education Center - Approval of design development; approval to revise funding sources; approval of institutional management; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)	4:25 p.m. Action <i>Mr. O'Donnell</i>	Action	163
	Adjourn	4:30 p.m.		

1. **U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration**

RECOMMENDATION

The proposed Consent Agenda is located at the back of the book. The Consent Agenda item assigned to this Committee is on [Page 243](#).

2. **U. T. System: Update on Program Cost Savings Measures and Hybrid Project Delivery Initiative**

DISCUSSION

Since 2015, progress has been made in implementing the Hybrid Project Delivery Initiative in the planning and construction of the previously designated pilot projects as well as other major projects within the Capital Improvement Program (CIP). Use of these private-sector best practices can improve early project definition, align stakeholder and service provider efforts, drive solutions-focused behavior, and ultimately reduce initial and long-term costs. Associate Vice Chancellor O'Donnell will summarize progress to date in these areas.

3. U. T. Dallas: Math and Science Building - Amendment of the FY 2017-2022 Capital Improvement Program to include project (Preliminary Board approval)

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Benson that the U. T. System Board of Regents amend the FY 2017-2022 Capital Improvement Program (CIP) to include the Math and Science Building project at U. T. Dallas as follows:

Project No.:	302-906	
Project Delivery Method:	Construction Manager-at-Risk	
Milestone Dates:	Definition Phase Approved	September 2016
	Addition to CIP	November 2016
	Design Development	May 2017
	Notice to Proceed	February 2018
	Substantial Completion	April 2020
Total Project Cost:	<u>Source</u>	<u>Proposed</u>
	Permanent University Fund Bond Proceeds ¹	\$ 89,000,000
	Revenue Financing System Bond Proceeds ²	\$ <u>12,000,000</u>
		\$101,000,000
Funding Notes:	¹ See Item 8 on Page 35 regarding allocation of Permanent University Fund (PUF) Bond Proceeds ² Revenue Financing System (RFS) to be repaid from Designated Tuition	
Investment Metrics:	<ul style="list-style-type: none"> • Increase tenured and tenure-track faculty members by 40 from 566 to 606 and senior lecturers by 32 from 690 to 722 by 2026 • Increase external research funding by approximately \$6 million annually from \$106 million to \$112 million by 2026 • Directly support the University's Strategic Plan imperative of increasing enrollment to more than 27,500 students by 2022 	
Project Advocate:	Bruce Novak, Dean, School of Natural Sciences and Mathematics	
Definition Phase Completed:	Yes	
Project Planning:	Owner's Project Requirements	Yes
	Basis of Design	Yes
	Schematic Plans	Yes
	Detailed Cost Estimate	Yes
	Facilities Program	Yes

Cost Per Gross Square Foot Benchmarks*

Math and Science Building (with 9% Shell Space)	\$464
Math and Science Building (Estimated Total Finish-Out)	\$487
Texas Higher Education Coordinating Board Average for Laboratory, General	\$501

	Low Quartile	Median	High Quartile
Other U. T. System Projects	\$483	\$527	\$575
Other National Projects	\$536	\$593	\$781

* All benchmark costs escalated to midpoint of construction

BACKGROUND INFORMATION

Previous Action

On September 21, 2016, the Chancellor approved this project for Definition Phase.

Project Description

The proposed Math and Science Building will be located at the center of the campus, just north of the current Science Learning Center building. This building will contain approximately 175,000 gross square feet (GSF), including 15,000 GSF of shelled space, with classrooms, laboratories, offices, and support space primarily for mathematics, physics, and other designated university programs. This building will provide efficiently designed space to support productivity of the Departments of Physics and Mathematical Sciences faculty and staff. Mathematical Sciences and Physics have closely correlated teaching missions and have considerable synergy in their research activities. These departments also provide “service courses” to other units, such as Management and Engineering. The space planned is highly flexible, permitting convenient reconfiguration of internal space to meet specific course or student learning needs. Additionally, investigation will be conducted on the possible options for replacement and enhancement of services provided in the Visual Arts Building, such as studio and gallery space, which currently occupies the site for the proposed project.

This project is contingent upon approval of \$89,000,000 of PUF requested in Item 8 on [Page 35](#).

This proposed project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP. Approval of design development plans and authorization of expenditure of funding will be presented to the Board for approval at a later date.

4. U. T. Medical Branch - Galveston: League City Infrastructure Expansion - Amendment of the FY 2017-2022 Capital Improvement Program to include project; approval of total project cost; appropriation of funds; authorization of institutional management; and resolution regarding parity debt (Final Board approval)

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Health Affairs, the Executive Vice Chancellor for Business Affairs, and President Callender that the U. T. System Board of Regents amend the FY 2017-2022 Capital Improvement Program (CIP) to include the League City Infrastructure Expansion project at U. T. Medical Branch - Galveston (UTMB) as follows:

Project No.:	601-1039	
Institutionally Managed:	Yes	
Project Delivery Method:	Construction Manager-at-Risk	
Milestone Dates:	Definition Phase Approved	June 2016
	Addition to CIP	November 2016
	Design Development	December 2016
	Notice to Proceed	January 2017
	Substantial Completion	September 2017
Total Project Cost:	<u>Source</u>	<u>Proposed</u>
	Revenue Financing System Bond Proceeds ¹	\$ 18,500,000
	Hospital Revenues	<u>\$ 4,200,000</u>
		\$ 22,700,000
Funding Note:	¹ Revenue Financing System (RFS) to be repaid from Hospital Revenues	
Project Advocate:	Cheryl Sadro, Executive Vice President and Chief Business and Finance Officer	
Definition Phase Completed:	Yes	
Project Planning:	Owner's Project Requirements	Yes
	Basis of Design	Yes
	Schematic Plans	Yes
	Detailed Cost Estimate	Yes
	Facilities Program	Yes

- a. approve a total project cost of \$22,700,000 with funding of \$18,500,000 from RFS Bond Proceeds and \$4,200,000 from Hospital Revenues;
- b. appropriate funds;

- c. authorize UTMB to manage the project budgets, appoint architects, approve facility programs, prepare final plans, and award contracts; and
- d. resolve in accordance with Section 5 of the Amended and Restated Master Resolution Establishing The University of Texas System Revenue Financing System that
 - parity debt shall be issued to pay the project's cost, including any costs prior to the issuance of such parity debt
 - sufficient funds will be available to meet the financial obligations of the U. T. System, including sufficient Pledged Revenues as defined in the Master Resolution to satisfy the Annual Debt Service Requirements of the Financing System, and to meet all financial obligations of the U. T. System Board of Regents relating to the Financing System; and
 - UTMB, which is a "Member" as such term is used in the Master Resolution, possesses the financial capacity to satisfy its direct obligation as defined in the Master Resolution relating to the issuance by the U. T. System Board of Regents of tax-exempt parity debt in the aggregate amount of \$18,500,000.

BACKGROUND INFORMATION

Debt Service

The \$18,500,000 in RFS debt will be repaid from Hospital Revenues. Annual debt service on the \$18,500,000 RFS debt is expected to be \$1.13 million. The institution's debt service coverage is expected to be at least 2.1 times and average 2.6 times over FY 2018-2023.

Previous Action

On June 6, 2016, the Chancellor approved this project for Definition Phase.

Project Description

This project will provide the necessary infrastructure framework to support the League City Campus growth in accordance with the Master Plan. The project will increase the capacity of the chilled water plant by 2,000 tons by installing a modular packaged plant and will extend underground utilities by 3,000 feet to support the M. D. Anderson Cancer Center - League City clinic and planned facilities for UTMB. The production equipment is modular in design to accommodate the immediate installation of high efficiency centrifugal chillers, space and infrastructure for additional chillers as the campus grows, associated centrifugal chilled water pumps, cooling towers, and centrifugal condenser water pumps. The design will include a refrigerant leak detection and purge system. Additionally, the hot water production will also be modular in design and the boilers will be high efficiency natural gas fired condensing hot water boilers and associated distribution pumps.

UTMB's League City Campus is a strategic growth area between Houston and Galveston. In planning for the future, projections show the Houston/Galveston area population will grow by 1.7 million people in the next 10 to 15-year timeframe. The planned growth over the next five years will result in a campus size of 1 million gross square feet (GSF) with an eventual build out to 3 million GSF. This growing footprint comes with an increasing demand for utilities. To meet the projected demands and immediate needs to support the strategic partnership with U. T. M. D. Anderson Cancer Center, the utilities and infrastructure must be expanded. This project will provide the immediate need for additional services and will be designed and built scalable and modular to support additional growth.

This proposed repair and rehabilitation project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP. Approval of design development plans and authorization of expenditure of funding will be presented to the President for approval at a later date. It has been determined that this project would best be managed by UTMB Facility Management personnel who have the experience and capability to manage all aspects of the work.

5. U. T. Arlington: Residence Hall - West Campus (Phase I) - Amendment of the FY 2017-2022 Capital Improvement Program to include project (Preliminary Board approval)

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Karbhari that the U. T. System Board of Regents amend the FY 2017-2022 Capital Improvement Program (CIP) to include the Residence Hall - West Campus (Phase I) project at U. T. Arlington as follows:

Project No.:	301-914	
Project Delivery Method:	Construction Manager-at-Risk	
Milestone Dates:	Definition Phase Approved	July 2016
	Addition to CIP	November 2016
	Design Development	February 2017
	Notice to Proceed	April 2017
	Substantial Completion	July 2018

Total Project Cost:	<u>Source</u>	<u>Proposed</u>
	Revenue Financing System Bond Proceeds ¹	\$34,500,000
	Auxiliary Enterprises Balances ²	<u>\$ 1,500,000</u>
		\$36,000,000

Funding Notes: ¹ Revenue Financing System (RFS) to be repaid from rental income
² Auxiliary Enterprises Balances from housing reserves

Investment Metric: • Directly support the University's Strategic Plan imperative of increasing enrollment to more than 43,000 students by 2020

Project Advocate: Don Lange, Director of Auxiliary Operations and Logistics

Definition Phase Completed: Yes

Project Planning:	Owner's Project Requirements	Yes
	Basis of Design	Yes
	Schematic Plans	Yes
	Detailed Cost Estimate	Yes
	Facilities Program	Yes

Cost Per Bed Benchmarks*

Residence Hall - West Campus (Phase I)	\$50,373
College Planning & Management National Average for Residence Halls	\$91,436

	Low Quartile	Median	High Quartile
Other U. T. System Projects	\$66,997	\$84,951	\$100,467
Other Texas Projects	\$59,477	\$90,452	\$97,650

* All benchmark costs escalated to midpoint of construction

BACKGROUND INFORMATION

Previous Action

On July 12, 2016, the Chancellor approved this project for Definition Phase.

Project Description

U. T. Arlington's Housing Master Plan indicates that the aging housing facilities have become functionally obsolete and should be replaced with new residence halls that offer high levels of living-learning experiences. The University currently has 3,819 beds on campus and is operating at 99% occupancy with a waiting list of 344 students. Concurrent with completion of this project, two dormitories, Brazos House and Trinity House offering 333 beds, will be closed and demolition is scheduled for FY 2019, resulting in a total of 4,343 beds provided by the institution. There are an additional 1,077 beds provided by private development on campus.

The proposed four-story residence hall will offer approximately 536 beds in double-occupancy rooms and is intended for freshmen and sophomore students. Study suites, social areas with kitchens, a classroom and other amenities that encourage educational opportunities through living-learning environments are included.

This proposed project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP. Approval of design development plans and authorization of expenditure of funding will be presented to the Board for approval at a later date.

6. U. T. Arlington: Parking Garage - West Campus - Amendment of the FY 2017-2022 Capital Improvement Program to include project; approval of total project cost; approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Karbhari that the U. T. System Board of Regents amend the FY 2017-2022 Capital Improvement Program (CIP) to include the Parking Garage - West Campus project and approve the recommendations for the project at U. T. Arlington as follows:

Project No.:	301-1047	
Project Delivery Method:	Design-Build	
Milestone Dates:	Definition Phase Approved	July 2016
	Addition to CIP	November 2016
	Design Development	November 2016
	Notice to Proceed	January 2017
	Substantial Completion	December 2017
Total Project Cost:	<u>Source</u>	<u>Proposed</u>
	Revenue Financing System Bond Proceeds ¹	\$30,000,000
Funding Note:	¹ Revenue Financing System (RFS) to be repaid from parking income	
Investment Metric:	<ul style="list-style-type: none"> • Directly support the University's Strategic Plan imperative of increasing enrollment to more than 43,000 students by 2020 	
Project Advocate:	Bill Poole, Assistant Vice President for Facilities Management and Campus Operations	
Definition Phase Completed:	Yes	
Project Planning:	Owner's Project Requirements	Yes
	Basis of Design	Yes
	Schematic Plans	Yes
	Detailed Cost Estimate	Yes
	Facilities Program	Yes

Cost Per Parking Space Benchmarks*

Parking Garage - West Campus	\$16,334
Carl Walker Parking Structure Cost Outlook for 2017, Dallas	\$17,070

	Low Quartile	Median	High Quartile
Other U. T. System Projects	\$14,502	\$18,442	\$22,270
Other National Projects	\$17,357	\$21,002	\$29,520

* All benchmark costs escalated to midpoint of construction

- a. approve a total project cost of \$30,000,000;
- b. approve design development plans;
- c. appropriate funds and authorize expenditure of \$30,000,000 with funding from RFS Bond Proceeds; and
- d. resolve in accordance with Section 5 of the Amended and Restated Master Resolution Establishing The University of Texas System Revenue Financing System that
 - parity debt shall be issued to pay the project's cost, including any costs prior to the issuance of such parity debt;
 - sufficient funds will be available to meet the financial obligations of the U. T. System, including sufficient Pledged Revenues as defined in the Master Resolution to satisfy the Annual Debt Service Requirements of the Financing System, and to meet all financial obligations of the U. T. System Board of Regents relating to the Financing System; and
 - U. T. Arlington, which is a "Member" as such term is used in the Master Resolution, possesses the financial capacity to satisfy its direct obligation as defined in the Master Resolution relating to the issuance by the U. T. System Board of Regents of tax-exempt parity debt in the aggregate amount of \$30,000,000.

BACKGROUND INFORMATION

Debt Service

The \$30,000,000 in RFS debt will be repaid from parking income. Annual debt service on the \$30,000,000 RFS debt is expected to be \$1.83 million. The institution's debt service coverage is expected to be at least 2.2 times and average 2.7 times over FY 2017-2022.

Previous Action

On July 12, 2016, the Chancellor approved this project for Definition Phase.

Project Description

The proposed five-story, cast-in-place, post-tensioned garage containing approximately 502,575 gross square feet will provide an estimated 1,500 parking spaces on the west side of campus and accommodate parking for students, faculty, and staff. This garage will be constructed on a surface lot, supplementing the 1,100 spaces in Lot 33 that are being eliminated for the construction of two residence halls and a dining facility. The project will open in two stages with the first stage scheduled to open August 2017 to provide 750 spaces and the second stage will open in December 2017.

The rapidly accelerating annual growth in enrollment has necessitated a balanced response in the growth of supporting students, faculty, staff, and infrastructure. In addition to supporting the increased student enrollment, the proposed project also supports the institution's Strategic Plan and conforms to the current, approved Campus Master Plan. An update of the University's Campus Master Plan, presented to the Board on May 9, 2007, recommended reducing the amount of surface parking lots from 111 acres to 57 acres to make better use of the campus land.

This proposed project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP.

Basis of Design

The planned building life expectancy is 50 years.

The exterior appearance and finish are consistent with similar urban parking garages and with the existing Campus Master Plan.

7. U. T. El Paso: Interdisciplinary Research Building - Approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Natalicio that the U. T. System Board of Regents approve the recommendations for the Interdisciplinary Research Building project at U. T. El Paso as follows:

Project No.:	201-942	
Project Delivery Method:	Construction Manager-at-Risk	
Milestone Dates:	Addition to CIP	August 2015
	Design Development	November 2016
	Notice to Proceed	March 2017
	Substantial Completion	March 2019
Total Project Cost:	<u>Source</u>	<u>Proposed</u>
	Tuition Revenue Bond Proceeds	\$70,000,000
	Permanent University Fund Bond Proceeds	\$10,000,000
	Revenue Financing System Bond Proceeds ¹	<u>\$ 5,000,000</u>
		\$85,000,000
Funding Note:	¹ Revenue Financing System (RFS) to be repaid from Designated Tuition	
Investment Metrics:	<u>By 2025</u>	
	<ul style="list-style-type: none"> • Recruit and retain 60 additional top-tier faculty members • Attract 500 doctoral and 2,000 undergraduate students • Increase of \$30 million in external research funding from \$90 million to \$120 million • Add \$5 million in commercialization revenue 	
Project Advocates:	William Hargrove, Director of the Center for Environmental Resource Management Roberto Osegueda, Vice President for Research Greg McNicol, Associate Vice President for Business Affairs	
Definition Phase Completed:	N/A	
Project Planning:	Owner's Project Requirements	Yes
	Basis of Design	Yes
	Schematic Plans	Yes
	Detailed Cost Estimate	Yes
	Facilities Program	Yes

Cost Per Gross Square Foot Benchmarks*

Interdisciplinary Research Building (with 40% Shell Space)	\$349
Interdisciplinary Research Building (Estimated Total Finish-Out)	\$441
Texas Higher Education Coordinating Board Average for Laboratory, General	\$500

	Low Quartile	Median	High Quartile
Other U. T. System Projects	\$458	\$544	\$586
Other National Projects	\$446	\$500	\$648

* All benchmark costs escalated to midpoint of construction

- a. approve design development plans;
- b. appropriate funds and authorize expenditure of \$85,000,000 with funding of \$70,000,000 from Tuition Revenue Bond (TRB) Proceeds, \$10,000,000 from Permanent University Fund (PUF) Bond Proceeds, and \$5,000,000 from RFS Bond Proceeds, and
- c. resolve in accordance with Section 5 of the Amended and Restated Master Resolution Establishing The University of Texas System Revenue Financing System that
 - parity debt shall be issued to pay the project's cost, including any costs prior to the issuance of such parity debt;
 - sufficient funds will be available to meet the financial obligations of the U. T. System, including sufficient Pledged Revenues as defined in the Master Resolution to satisfy the Annual Debt Service Requirements of the Financing System, and to meet all financial obligations of the U. T. System Board of Regents relating to the Financing System; and
 - U. T. El Paso, which is a "Member" as such term is used in the Master Resolution, possesses the financial capacity to satisfy its direct obligation as defined in the Master Resolution relating to the issuance by the U. T. System Board of Regents of tax-exempt parity debt in the aggregate amount of \$5,000,000.

BACKGROUND INFORMATION

Debt Service

The \$5,000,000 in RFS debt will be repaid from Designated Tuition. Annual debt service on the \$5,000,000 RFS debt is expected to be \$380,000 and begin in FY 2019. The institution's debt service coverage is expected to be at least 1.7 times and average 2.0 times over FY 2019-2024.

Previous Actions

On July 10, 2014, President Natalicio presented this project to the Board of Regents for approval to submit the project for consideration by the Texas Legislature for TRB funding.

The 84th Legislature passed, and Governor Greg Abbott signed into law House Bill 100, allowing for the issuance of \$922,632,000 in TRB Proceeds for U. T. System institutions effective September 1, 2015. On August 20, 2015, the project was included in the CIP with a total project cost of \$85,000,000 with funding of \$70,000,000 from TRBs, \$10,000,000 from PUF Bond Proceeds, and \$5,000,000 from RFS Bond Proceeds.

Project Description

This five-story, 158,800 gross square foot (GSF) facility represents an essential building block in the University's strategic plan to expand the research teams, attract competitive doctoral students, and increase capacity to generate additional research revenues. It will provide critically needed space to continue expanding the number of fast-growing, multidisciplinary research initiatives that are aligned with the priorities articulated in the University's Research Strategic Plan by providing integrated core research facilities, research labs, collaborative spaces, and research team suites. Approximately 63,520 GSF on the third and fourth floors will be flexible shell space.

This project will also expand the thermal plant infrastructure, extend electrical and communication duct banks, and include anticipated site preparation costs. The building will occupy the space of two former dormitory buildings, Barry Hall and Burges Hall, which were previously demolished.

Basis of Design

The planned building life expectancy includes the following elements:

Enclosure: 40 years

Building Systems: 20 years

Interior Construction: 10-20 years

The interior and exterior appearance and finish are consistent with other campus buildings and with the existing Campus Master Plan. The mechanical and electrical building systems are designed with sufficient flexibility and space for future capacity to allow for changes without significant disruption to ongoing activities.

8. U. T. San Antonio: Science and Engineering Building - Amendment of the FY 2017-2022 Capital Improvement Program to decrease total project cost; approval to revise funding sources; approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Romo that the U. T. System Board of Regents approve the recommendations for the Science and Engineering Building project at U. T. San Antonio as follows:

Project No.:	401-946		
Project Delivery Method:	Construction Manager-at-Risk		
Milestone Dates:	Addition to CIP	August 2015	
	Design Development	November 2016	
	Notice to Proceed	December 2017	
	Substantial Completion	May 2020	
Total Project Cost:	<u>Source</u>	<u>Current</u>	<u>Proposed</u>
	Tuition Revenue Bond Proceeds	\$ 70,000,000	\$ 70,000,000
	Permanent University Fund Bond Proceeds	\$ 10,000,000	\$ 10,000,000
	Designated Funds ¹	\$ 20,000,000	\$ 10,000,000
	Revenue Financing System Bond Proceeds ²	\$ 0	\$ 5,000,000
		<u>\$100,000,000</u>	<u>\$ 95,000,000</u>
Funding Notes:	¹ Designated Funds from Designated Tuition		
	² Revenue Financing System (RFS) to be repaid from Designated Tuition		
Investment Metrics:	<ul style="list-style-type: none"> • Increase Student Credit Hours in the College of Engineering by 20% from 45,000 to 54,000 • Increase Student Credit Hours in the Chemistry Department by 37% from 29,200 to 40,000 • Increase Student Credit Hours in the Biology Department by 84% from 51,400 to 94,600 		
Project Advocates:	Joann Browning, Dean, College of Engineering George Perry, Dean, College of Science		
Definition Phase Completed:	N/A		
Project Planning:	Owner's Project Requirements	Yes	
	Basis of Design	Yes	
	Schematic Plans	Yes	
	Detailed Cost Estimate	Yes	
	Facilities Program	Yes	

Cost Per Gross Square Foot Benchmarks*

Science and Engineering Building (with 7% Shell Space)	\$426
Science and Engineering Building (Estimated Total Finish-Out)	\$437
Texas Higher Education Coordinating Board Average for Laboratory, General	\$501

	Low Quartile	Median	High Quartile
Other U. T. System Projects	\$483	\$527	\$575
Other National Projects	\$536	\$593	\$781

* All benchmark costs escalated to midpoint of construction

- a. amend the FY 2017-2022 Capital Improvement Program (CIP) to decrease the total project cost from \$100,000,000 to \$95,000,000;
- b. revise funding sources to include RFS Bond Proceeds;
- c. approve design development plans;
- d. appropriate funds and authorize expenditure of \$95,000,000 with funding of \$70,000,000 from Tuition Revenue Bond (TRB) Proceeds, \$10,000,000 from Permanent University Fund (PUF) Bond Proceeds, \$10,000,000 from Designated Funds, and \$5,000,000 from RFS Bond Proceeds; and
- e. resolve in accordance with Section 5 of the Amended and Restated Master Resolution Establishing The University of Texas System Revenue Financing System that
 - parity debt shall be issued to pay the project's cost, including any costs prior to the issuance of such parity debt;
 - sufficient funds will be available to meet the financial obligations of the U. T. System, including sufficient Pledged Revenues as defined in the Master Resolution to satisfy the Annual Debt Service Requirements of the Financing System, and to meet all financial obligations of the U. T. System Board of Regents relating to the Financing System; and
 - U. T. San Antonio, which is a "Member" as such term is used in the Master Resolution, possesses the financial capacity to satisfy its direct obligation as defined in the Master Resolution relating to the issuance by the U. T. System Board of Regents of tax-exempt parity debt in the aggregate amount of \$5,000,000.

BACKGROUND INFORMATION

Debt Service

The \$5,000,000 in RFS debt will be repaid from Designated Tuition. Annual debt service on the \$5,000,000 RFS debt is expected to be \$380,000 and will begin in FY 2020. The institution's debt service coverage is expected to be at least 2.2 times and average 2.4 times over FY 2020-2025.

Previous Actions

On July 10, 2014, President Romo presented this project to the Board of Regents for approval to submit the project for consideration by the Texas Legislature for TRB funding. The 84th Legislature passed, and Governor Greg Abbott signed into law House Bill 100, allowing for the issuance of \$922,632,000 in TRB Proceeds for U. T. System institutions effective September 1, 2015. On August 20, 2015, the project was included in the CIP with a total project cost of \$100,000,000 with funding of \$70,000,000 from TRBs, \$10,000,000 from PUF, and \$20,000,000 from Designated Funds.

Project Description

This proposed four-story Science and Engineering Building will provide an approximately 148,251 gross square foot (GSF) facility to provide needed instructional lab space, multiple collaboration areas, classrooms, faculty offices, and research laboratories to support Science, Technology, Engineering, and Mathematics (STEM) disciplines. Research labs will be dedicated to the newly established curriculum for Chemical Engineering and will also support the Brain Health Initiative as part of the University's strategic plan for state-of-the-art space to support STEM education and research. The proposed structure will also contain a 17,000 GSF "Maker Space" for interdisciplinary engineering senior-design projects, creating synergies and opportunities between Engineering, Science, and corporate partners. It is intended to be a transformative showcase for the campus supporting new pedagogies and associated technologies that are both flexible and adaptable over time. Two additional engineering-focused instructional labs will bring multiple disciplines into a single space to teach concepts of instrumentation and controls, and fluids principles. In addition, critically-needed updates to biology and chemistry instructional laboratories will provide opportunities for a large portion of the student body to experience the spaces as part of the core curriculum requirements.

Shell space of approximately 10,700 GSF has been included on the 4th level of the facility. The shell areas proposed represent one-half of programmed space allocated for Chemical Engineering and the Brain Health Initiative.

Basis of Design

The planned building life expectancy includes the following elements:

Enclosure: 50 years
Building Systems: 50 years
Interior Construction: 20 years

The interior and exterior appearance and finish are consistent with other campus buildings and with the existing Campus Master Plan. The mechanical and electrical building systems are designed with sufficient flexibility and space for future capacity to allow for changes without significant disruption to ongoing activities.

9. U. T. Medical Branch - Galveston: Health Education Center - Approval of design development; approval to revise funding sources; approval of institutional management; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Health Affairs, the Executive Vice Chancellor for Business Affairs, and President Callender that the U. T. System Board of Regents approve the recommendations for the Health Education Center project at U. T. Medical Branch - Galveston (UTMB) as follows:

Project No.:	601-949		
Institutionally Managed:	Yes		
Project Delivery Method:	Construction Manager-at-Risk		
Milestone Dates:	Addition to CIP	August 2015	
	Design Development	November 2016	
	Notice to Proceed	January 2017	
	Substantial Completion	March 2019	
Total Project Cost:	<u>Source</u>	<u>Current</u>	<u>Proposed</u>
	Tuition Revenue Bond Proceeds	\$ 67,800,000	\$ 67,800,000
	Gifts	\$ 22,600,000	\$ 0
	Revenue Financing System Bond Proceeds ¹	\$ 0	\$ 22,600,000
		\$ 90,400,000	\$ 90,400,000
Funding Note:	¹ Revenue Financing System (RFS) to be repaid from Gifts and Hospital Revenues		
Investment Metrics:	<u>By 2020</u>		
	<ul style="list-style-type: none"> • Improve participation in student interprofessional education by 2%, from 86% in 2016 to 88% in 2020 • Improve student appreciation of the value of interprofessional teamwork by 2%, from 84% in 2016 to 86% in 2020 • Improve faculty satisfaction with simulation activities by 2% over baseline (to be measured by a new tool with baseline in FY 2017) 		
Project Advocate:	Danny Jacobs, Executive Vice President, Provost and Dean of Medicine		
Definition Phase Completed:	N/A		
Project Planning:	Owner's Project Requirements	Yes	
	Basis of Design	Yes	
	Schematic Plans	Yes	
	Detailed Cost Estimate	Yes	
	Facilities Program	Yes	

Cost Per Gross Square Foot Benchmarks*

Health Education Center (with 3% Shell Space)	\$353
Health Education Center (Estimated Total Finish-Out)	\$357
Texas Higher Education Coordinating Board Average for Classroom, Medical/Healthcare	\$393

	Low Quartile	Median	High Quartile
Other U. T. System Projects	\$375	\$443	\$466
Other National Projects	\$421	\$552	\$743

* All benchmark costs escalated to midpoint of construction

- a. approve design development plans;
- b. revise funding sources to include RFS Bond Proceeds;
- c. authorize UTMB to manage the project budgets, appoint architects, approve facility programs, prepare final plans, and award contracts;
- d. appropriate funds and authorize expenditure of \$90,400,000 with funding of \$67,800,000 from TRB Proceeds and \$22,600,000 from RFS Bond Proceeds; and
- e. resolve in accordance with Section 5 of the Amended and Restated Master Resolution Establishing The University of Texas System Revenue Financing System that
 - parity debt shall be issued to pay the project's cost, including any costs prior to the issuance of such parity debt;
 - sufficient funds will be available to meet the financial obligations of the U. T. System, including sufficient Pledged Revenues as defined in the Master Resolution to satisfy the Annual Debt Service Requirements of the Financing System, and to meet all financial obligations of the U. T. System Board of Regents relating to the Financing System; and
 - UTMB, which is a "Member" as such term is used in the Master Resolution, possesses the financial capacity to satisfy its direct obligation as defined in the Master Resolution relating to the issuance by the U. T. System Board of Regents of tax-exempt parity debt in the aggregate amount of \$22,600,000.

BACKGROUND INFORMATION

Debt Service

The \$22,600,000 in RFS debt is expected to be repaid from Gifts and supplemented with institutional funds to the extent necessary. Annual debt service on the \$22,600,000 RFS debt is expected to be \$1.38 million. The institution's debt service coverage is expected to be at least 2.2 times and average 2.7 times over FY 2019-2024.

Previous Actions

On July 10, 2014, President Callender presented this project to the Board of Regents for approval to submit the project for consideration by the Texas Legislature for TRB funding. The 84th Legislature passed, and Governor Greg Abbott signed into law House Bill 100, allowing for the issuance of \$922,632,000 in TRB Proceeds for U. T. System institutions effective September 1, 2015. On August 20, 2015, the project was included in the CIP with a total project cost of \$90,400,000 with funding of \$67,800,000 from TRBs and \$22,600,000 from Gifts.

Project Description

The project will consist of 161,811 gross square feet (GSF) of resilient and advanced technology education space and will promote interprofessional education in the Schools of Medicine, Nursing, Health Professions and Graduate Biomedical Sciences. The facility will feature standardized patient and simulation areas, classroom space, conference rooms, and office and administrative space, and will provide opportunities for ad hoc learning by creating teaching and learning spaces in the building's public areas. Approximately 5,000 GSF will be shell space.

Texas is experiencing critical shortages in the number of physicians, nurses, and other health professionals needed to care for its diverse, growing, and aging population. For more than 120 years, UTMB has been a leader in educating and training the state's health care workforce, and the lack of adequate physical space that is appropriately equipped for today's interprofessional learning and training is a significant barrier to increasing enrollment.

The design standards call for all critical functions to be constructed at a minimum of 20 feet above sea level in existing facilities or 25 feet above sea level in new facilities. First floor space for the project has been designed to accept flood water, with the higher technology and specialized classrooms located on the second floor or above to ensure a rapid return to service after any future flooding event.

UTMB plans to raise \$22.6 million in Gifts over a five-year period. RFS debt will be issued to provide interim financing pending the receipt of Gifts and will be repaid as gifts are received. Institutional funds will be used to supplement gift receipts, if necessary.

It has been determined that this project would best be managed by UTMB Facilities Management personnel who have the experience and capability to manage all remaining aspects of the work.

Basis of Design

The planned building life expectancy includes the following elements:

Enclosure: 50 years

Building Systems: 50 years

Interior Construction: 20 years

The interior and exterior appearance and finish are consistent with other campus buildings and with the existing Campus Master Plan. The mechanical and electrical building systems are designed with sufficient flexibility and space for future capacity to allow for changes without significant disruption to ongoing activities.