

RB22C
University of Maryland, College Park
University System of Maryland

***University Learning and Teaching Center
(Prince George's County)***

General Obligation Bonds **\$2,050,000**

Summary of Recommended Bond Actions

1. University Learning and Teaching Center

 Approve.

Bill Text: Provide funds to begin design of the University Learning and Teaching Center.

Project Description: This project will renovate and construct an addition to Holzapfel Hall creating the University Learning and Teaching Center. The center will house five large lecture halls, six classrooms, a Center for Teaching Excellence, a classroom technology services unit, and lounge and study space. The project includes the demolition of Shiver Hall and a portion of Holzapfel Hall, the construction of a satellite central utilities building (SCUB), extension of utilities, and related site improvements. The building will replace obsolete instructional space in several buildings with technologically advanced classrooms and reduce the classroom space deficit by approximately 18,000 net assignable square feet (NASF). Once completed, the center will provide 47,900 NASF/90,800 gross square feet (GSF) of classroom, office, and lounge and study, and other support space.

Project Summary Information

Total Project Cost:	\$55,034,473	Cost Per Square Foot – Base:	\$337
Budget Estimate Stage:	Budget	With Escalation and Contingencies:	\$343
Program Plan Status:	Part I and Part II Approved	Gross Square Footage:	95,800
Green Building:	Yes	Net Usable Square Footage:	47,900
Est. Completion Date:	June 2016	Building Efficiency:	52.8%
Project Design Cost %:	9.9%		

Project Analysis

The fiscal 2013 budget provides \$2.1 million to begin design of the University Learning and Teaching Center. This building will be solely dedicated to providing technological advanced classroom space allowing for the replacement of obsolete instructional space in several buildings. The center will replace eight large lecture halls currently housed in Jimenez Hall, the Computer and Space Sciences building, Tydings Hall, Shoemaker Hall, and the Reckord Armory. Construction is projected to begin in June 2014 and be completed by June 2016. The estimated cost of construction is \$48.2 million and will be leveraged with a \$10.0 million donation. The total cost of the project including a 5,000 GSF SCUB is estimated to be \$55.1 million.

The center will address University of Maryland, College Park’s (UMCP) insufficient and poorly configured classroom space and decentralized technology support units. According to the Maryland Higher Education Commission (MHEC), in fiscal 2010, the classroom space deficit was 69,711 NASF, and in particular, there is a shortage of mid- and large-sized classrooms that can accommodate 50 to 500 students. For fall 2010, the room utilization rate was 70% for classrooms with 50 to 75 seats; 73% for rooms with 150 to 200 seats; and 81% for rooms with 300 to 500 seats. The rate indicates the percentage of time a room is being used between 8:00 a.m. and 5:00 p.m. during weekdays. The recommended rate for any size classroom is 67%. The higher the percentage, the harder it is to offer classes at convenient times, relocate classes during emergencies, or hold events such as guest lecturers or conferences. Current utilization rates of large classrooms provide little to no flexibility in scheduling, leading to cancellation of classes due to a lack of usable space. The center will not have a classroom under 50 seats. It will include four classrooms with 300 to 500 seats, one 150-seat lecture hall, and six classrooms with 50 to 75 seats.

The center’s classrooms will replace current lecture halls that are poorly configured and cannot accommodate the use of technologies used in today’s classrooms. The sight lines in these classrooms are blocked by support columns causing blind spots throughout the lecture hall. This along with low ceilings that prevent the installation of audio-visual equipment requires faculty to post

information in multiple locations to ensure all students can view the material. Since many of the classrooms were constructed prior to the integration of technology into the lecture hall, rooms cannot support the use of computers, teleconferencing, or video equipment. For instance, in Reckord Armory, faculty use a chalkboard and overhead projectors to present material and cannot incorporate computer-based teaching methods or problem-based learning into the classroom that can engage students and lead to greater comprehension of the material. Classrooms in the center will integrate various technologies, including projectors, computers, DVD players, film projectors, and audio equipment.

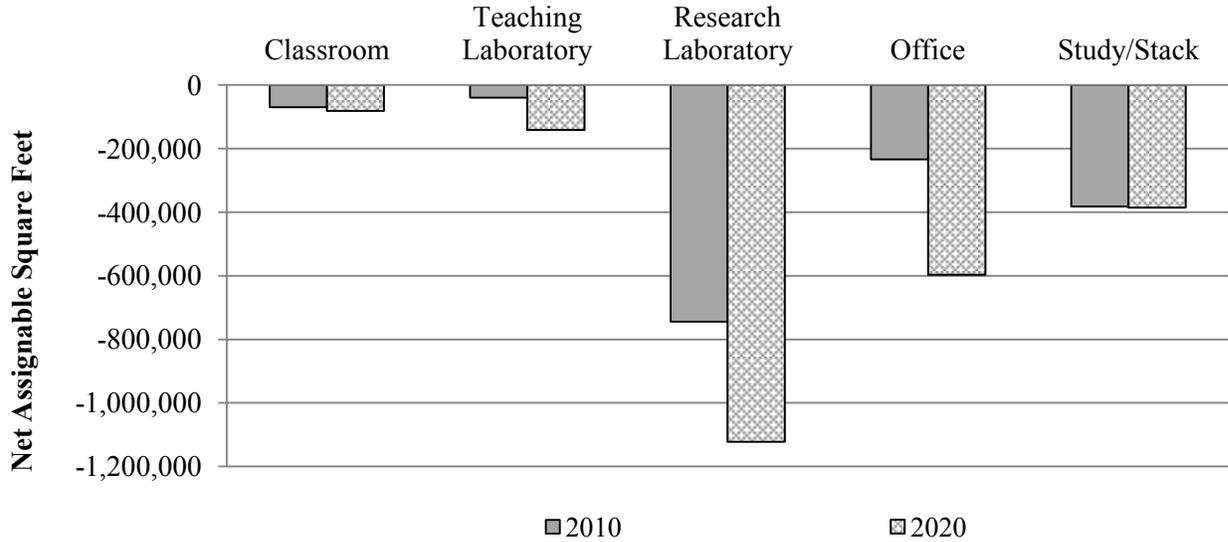
Low ceilings also prevent tiered seating, which further limits the ability of students to see faculty and materials. It also results in poor visibility for those students sitting in the back of the classroom. Due to this, UMCP either has to accept that students will receive a substandard education experience or limit class sizes below the number of seats available, thereby preventing the necessity of using the back rows.

The center will include space to house the Center for Technology Services (CTS) which consolidates technology support personnel in an area where instructors are more likely to need technical assistance. Currently, technology support units are scattered throughout campus with faculty having to wait, on average for 15 minutes for help to arrive, which can waste up to as much as one-third of instructional time. Collocating technical support within the center, which will be the main hub of lecture spaces on campus, will ensure the availability of timely support, thereby ensuring minimal disruption of instruction time.

When completed, the center will provide 47,900 NASF/90,800 GSF, of which the addition to Holzapfel Hall will account for 34,200 NASF/63,400 GSF, with renovations comprising the remaining 13,700 NASF/27,400 GSF. Overall, the center will help reduce UMCP's classroom and study space deficit. According to MHEC, based on 11%, or 2,948 students, enrollment growth in full-time day equivalent students, the classroom deficit is projected to grow from 69,711 NASF in fiscal 2010 to 182,291 NASF in fiscal 2020, as shown in **Exhibit 1**. The center will create an additional 36,600 NASF of classroom space, resulting in a net reduction in the deficit of approximately 18,000 NASF. This accounts for conversion of obsolete instructional space to other uses as well as the demolition of classroom space in Shriver Hall and parts of Holzapfel Hall. The center will include 4,585 NASF and 1,000 NASF of lounge/study and stack space, respectively, which will help somewhat reduce the current study/stack space deficit of 381,967 NASF.

The project includes the demolition of Shriver Hall and a small portion of Holzapfel Hall and construction of a 5,000 GSF SCUB, extension of utilities, and related site improvements. The large lecture halls housed in various buildings across campus will be reconfigured upon completion of the center. The 506-seat lecture hall in Tydings Hall will be converted into a smaller lecture hall with improved sight lines and technology, while the remaining seven halls will be repurposed to meet other university needs such as administrative and support space.

**Exhibit 1
Academic Space Deficiency
Fiscal 2010 and Projected Fiscal 2020**



Source: Maryland Higher Education Commission, Four-year Public Colleges and Universities Academic Space Surplus/Deficiency, Fiscal 2010, Projected 2020

Prior Authorization and Capital Improvement Program

**Authorization Uses
(\$ in Millions)**

<i>Fund Uses</i>	<i>Prior Authorization</i>	<i>2013 Request</i>	<i>2014 Estimate</i>	<i>2015 Estimate</i>	<i>2016 Estimate</i>	<i>2017 Estimate</i>
Acquisition	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Planning	0.000	2.050	2.500	0.950	0.000	0.000
Construction	0.000	0.000	0.000	24.100	24.100	0.000
Equipment	0.000	0.000	0.000	0.000	0.000	1.400
Total	\$0.000	\$2.050	\$2.500	\$25.050	\$24.100	\$1.400

**Authorization Sources
(\$ in Millions)**

<i>Fund Sources</i>	<i>Prior Authorization</i>	<i>2013 Request</i>	<i>2014 Estimate</i>	<i>2015 Estimate</i>	<i>2015 Estimate</i>	<i>2017 Estimate</i>
GO Bond	\$0.000	\$2.050	\$2.500	\$20.050	\$19.100	\$1.400
Nonbudgeted	0.000	0.000	0.000	5.000	5.000	0.000
Total	\$0.000	\$2.050	\$2.500	\$25.050	\$24.100	\$1.400

Executive’s Operating Budget Impact Statement

(\$ in Millions)

	<i>FY 2013</i>	<i>FY 2014</i>	<i>FY 2015</i>	<i>FY 2016</i>	<i>FY 2017</i>
Estimated Operating Cost	\$0.000	\$0.000	\$0.000	\$0.470	\$3.147
Estimated Staffing	0	0	0	0	10

According to the fiscal 2013 *Capital Improvement Program*, the University Learning and Teaching Center is not expected to impact the operating budget until fiscal 2016, requiring \$0.5 million in amortized equipment costs. In fiscal 2017, \$3.1 million will be needed to operate the facility which includes 10 new regular positions, utilities, telephones, equipment, and supplies.

GO Bond Recommended Actions

1. Approve \$2.1 million in general obligation bond funding to support the design of the University Learning and Teaching Center.

Capital Project Cost Estimate Worksheet

Department: University of Maryland, College Park
Project Number: RB22C
Project Title: University Learning and Teaching Center
Analyst: Sara J. Baker

Structure

New Construction: New Addition	63,400 Sq. Ft. X	\$345.00 Sq. Ft. =	\$21,873,000
New Construction: SCUB	5,000 Sq. Ft. X	\$240.00 Sq. Ft. =	1,200,000
Renovation: Holzapfel	27,400 Sq. Ft. X	\$254.00 Sq. Ft. =	6,959,600
Renovation:	0 Sq. Ft. X	\$0.00 Sq. Ft. =	0
Built-in Equipment:			0
Demolition:			0
Information Technology:	68,400 GSF X	\$0.00 GSF =	0
Telecommunications:			0
Miscellaneous – Other:	Underpinning /Holzapfel structural		1,160,000
Miscellaneous – Other:			0
Miscellaneous – Other:			0
Subtotal			\$31,192,600
Regional Factor:	100.0%		0
Subtotal			\$31,192,600
Escalation to Mid-point:	4.67 Yrs. X	3.9% =	18.17% 5,667,695
Total Cost of Structure (Bid Cost)			\$36,860,295

Site Work and Utilities

Site Improvements:	1,881,741 + regional factor + mid-point escalation	\$2,223,653
Utilities:	1,559,630 + regional factor + mid-point escalation	1,843,015
Project Subtotal (Bid Cost)		\$40,926,964

Fees and Miscellaneous Costs

Green Building Premium:	2.0%	\$818,539
Total Construction Contingency:	10.0%	4,092,696
Inspection Cost:	2.2%	900,393
Miscellaneous:	CPM Construction Share	1,309,663
Miscellaneous:	CPM Schedule	54,853
Miscellaneous:	Building Equipment Commissioning	681,301
Miscellaneous:	Reimbursables	123,000
Miscellaneous:	Moveable Equipment	1,400,000
A/E Basic Fee through Construction Phase @	7.5%	3,376,474
A/E Special Fee through Construction Phase @	3.0%	1,350,590
Total Cost of Project		\$55,034,473

Base Cost Per New Square Foot	\$337
Adjusted Cost Per New Square Foot (incl. escalation, contingencies, and Green Bldg.)	\$343
Base Cost Per Renovated Square Foot	\$254
Adjusted Cost Per Renovated Square Foot (incl. escalation, conting., and Green Bldg.)	\$337