

**RB23**  
**Bowie State University**  
 University System of Maryland

***Capital Budget Summary***

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**State-owned Capital Improvement Program**  
 (\$ in Millions)

<b>Projects</b>	<b>Prior Auth.</b>	<b>2017 Request</b>	<b>2018 Est.</b>	<b>2019 Est.</b>	<b>2020 Est.</b>	<b>2021 Est.</b>	<b>Beyond CIP</b>
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Natural Sciences Center	\$70.670	\$31.501	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
<b>Total</b>	<b>\$70.670</b>	<b>\$31.501</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>

<b>Fund Source</b>	<b>Prior Auth.</b>	<b>2017 Request</b>	<b>2018 Est.</b>	<b>2019 Est.</b>	<b>2020 Est.</b>	<b>2021 Est.</b>	<b>Beyond CIP</b>
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GO Bonds	\$70.670	\$31.501	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
<b>Total</b>	<b>\$70.670</b>	<b>\$31.501</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>

CIP: *Capital Improvement Program*  
 GO: general obligation

***Summary of Recommended Bond Actions***

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1. New Natural Sciences Center  
 Approve.
  
2. SECTION 2 – Bowie State University – New Fine and Performing Arts Center  
 Approve.

## ***Budget Overview***

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The fiscal 2017 budget programs \$28.2 million to complete construction and \$3.3 million to equip the new Natural Sciences Center (NSC), for total State support of \$31.5 million. As shown in **Exhibit 1**, two years ago, the 2014 *Capital Improvement Program* (CIP) had programmed a total project cost of \$89.4 million versus the 2015 and 2016 CIPs, which both had the project cost at about \$102.0 million. Large cost overruns following the 2014 CIP totaled \$12.8 million, or 14.3%.

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**Exhibit 1**  
**Changes in Programmed Funding for the Natural Sciences Center**  
**2014-2016 Capital Improvement Programs**  
 (\$ in Millions)

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>\$</u>	<u>% Changes</u> <u>2014-2016</u>
Planning	\$8.900	\$8.602	\$8.602	-0.3	-3.3%
Construction	77.500	90.618	90.269	12.8	16.5%
Equipment	3.000	3.300	3.300	0.3	10.0%
<b>Total</b>	<b>\$89.400</b>	<b>\$102.520</b>	<b>\$102.171</b>	<b>12.8</b>	<b>14.3%</b>

Source: Department of Budget and Management

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At the time construction funding was first authorized, the demolition phase was expected to commence in October 2014. However, in large part as a result of the impending funding gap, which caused delays in the project execution, the commencement of construction did not take place until February 2015.

When completed, the new NSC facility will provide modern laboratory and office space for expanding Bowie State University (BSU) programs in physical sciences, nursing, and mathematics. The project scope also includes demolishing both the Wiseman Center and the Crawford Science Building. In combination with the completion of a new Student Center Building in August 2013 and the State-funded Fine and Performing Arts Center in early 2012, this will substantially alter BSU's central campus space.

The NSC project includes the following components:

- **Demolition of the Wiseman Center** – This was completed in March 2015 and created space on campus for construction of NSC.

- **Construction of the Modified NSC** – This now includes additional facilities for nursing and mathematics research and classes, as well as necessary structural components mistakenly left out in the initial design.
- **Demolition of the Crawford Science Building** – When NSC is complete, the Crawford Building will be demolished between May and November 2017, as the latter building is inadequate for current teaching needs, and the space can be repurposed as a plaza in front of the new Student Center.

NSC will help improve BSU by creating a new teaching and research laboratory and classroom space. While the current science facility, the Crawford Science Building, offers about 15,000 net assignable square feet (NASF) for laboratory space, according to the 2016 CIP, NSC will offer about 39,000 NASF for laboratory space. NSC also includes space for a greenhouse, lounge, central services, and data processing that are all important for improving educational spaces at BSU. NSC will also have about 16,000 NASF for offices and about 12,000 NASF for classrooms. While the 2013 CIP documentation noted that NSC had about 85,672 net square feet (NSF), current documentation shows 87,890 NSF, an increase of 2,218 NSF, or 2.6%, mostly due to increased classroom laboratory space.

The overall NSC project includes demolition costs for the Crawford Science Building as BSU has abandoned plans to renovate the Crawford Science Building after the completion of NSC. The Crawford Science Building cannot accommodate the mechanical, electrical, and plumbing systems required for a modern science building. In addition, although the building was remodeled in 1991, it is estimated to be cost prohibitive to meet modern fire and Americans with Disabilities Act requirements due to structural design, such as low ceiling heights and interior load-bearing walls. The demolition of the Crawford Science Building will enable a renovated plaza to be placed in front of the new Student Center, the first Leadership in Energy and Environmental Design-certified building on campus, which opened in August 2013.

As a result of this change, the project scope was expanded to include the Department of Nursing and the Department of Mathematics, as these departments will no longer be able to stay in the Crawford Science Building. While the nursing program is housed in the Center for Learning and Technology (CLT), it uses the Crawford Science Building for core science components. CLT does not have space for program growth, and the Crawford Science Building, as noted above, lacks sufficient space. NSC will add extensive new laboratory space for the nursing program to increase enrollment and to provide specialized spaces that simulate various clinical spaces found in a hospital, such as an operating room or a pediatric unit. NSC will also offer modern facilities for hazardous material storage, which are not currently available in the Crawford Science Building. Classrooms will be larger to accommodate more students, and NSC will include a lecture hall that can seat 100 students. Office layouts will improve to meet the State guideline of 166 NASF, whereas the Crawford Science Building only offers 90 NASF per office.

NSC will assist in attracting students to science, technology, engineering, and mathematics (STEM) fields and retaining students over the course of their studies. In fall 2012, natural sciences, mathematics, and nursing generated about 25.0% of all weekly student contact hours on campus. In fall 2014, BSU rejected a total of 658 qualified nursing students for undergraduate and graduate

programs because it did not have the physical space to teach them. NSC would provide enough space for all of those students and would also help attract and retain highly qualified STEM faculty and staff. Finally, as all undergraduate students are required to take a science class with a laboratory component to meet general education requirements, NSC will serve as a means to introduce all students to STEM disciplines. Although total student headcount declined 4.7% in fall 2015, and 5.1% among first-time, full-time students, BSU believes enrollment will grow again in the future.

## ***Operating Budget Impact Statement***

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### **Executive’s Operating Budget Impact Statement – State-owned Projects (\$ in Millions)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<b>Natural Sciences Center</b>					
Estimated Operating Cost	\$0.000	\$0.967	\$1.939	\$1.975	\$2.011
Estimated Staffing	0	2	3	3	3
<b>Total Operating Impact</b>					
Estimated Operating Cost	<b>\$0.000</b>	<b>\$0.967</b>	<b>\$1.939</b>	<b>\$1.975</b>	<b>\$2.011</b>
Estimated Staffing	<b>0</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>

According to the 2016 CIP, NSC will impact the fiscal 2018 operating budget by \$1.0 million and grow to \$1.1 million in fiscal 2018 due to general costs for fuel and utilities, supplies and materials, and amortized equipment. This total operating cost is about \$0.9 million higher than it had been in the 2015 CIP, and the 2016 CIP no longer reflects any operating costs in fiscal 2017 due to the later project completion date. Costs also rise to reflect 3 new positions required to maintain the facility and additional costs in running the building when it is completed in fiscal 2018. This matches the 2014 CIP but is a decrease from 4 positions listed in the 2013 CIP.

## ***Pre-authorizations and De-authorizations***

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BSU has one de-authorization for \$100,799 from the New Fine and Performing Arts Center due to the funds not being needed to complete the project.

## ***GO Bond Recommended Actions***

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1. Approve \$31.5 million in general obligation bonds for the construction and equipping of the new Natural Sciences Center on the campus of Bowie State University.
2. Approve the de-authorization of \$0.1 million in general obligation bonds for the construction of the New Fine and Performing Arts Center at Bowie State University due to the funds not being needed.