## Capital Budget Summary

### State-owned Capital Improvement Program
($ in Millions)

<table>
<thead>
<tr>
<th>Projects</th>
<th>Prior Auth.</th>
<th>2022 Request</th>
<th>2023 Est.</th>
<th>2024 Est.</th>
<th>2025 Est.</th>
<th>2026 Est.</th>
<th>Beyond CIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry Building Wing 1 Replacement</td>
<td>$28.863</td>
<td>$45.190</td>
<td>$53.817</td>
<td>$7.030</td>
<td>$0.000</td>
<td>$0.000</td>
<td>$0.000</td>
</tr>
<tr>
<td>Campuswide Building Systems and Infrastructure Improvement</td>
<td>55.000</td>
<td>10.000</td>
<td>2.500</td>
<td>12.500</td>
<td>12.500</td>
<td>12.500</td>
<td>n/a</td>
</tr>
<tr>
<td>Interdisciplinary Engineering Building</td>
<td>0.000</td>
<td>0.000</td>
<td>10.000</td>
<td>45.000</td>
<td>55.000</td>
<td>45.000</td>
<td>45.000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$83.863</strong></td>
<td><strong>$55.190</strong></td>
<td><strong>$66.317</strong></td>
<td><strong>$64.530</strong></td>
<td><strong>$67.500</strong></td>
<td><strong>$57.500</strong></td>
<td><strong>$45.000</strong></td>
</tr>
</tbody>
</table>

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<th>Fund Source</th>
<th>Prior Auth.</th>
<th>2022 Request</th>
<th>2023 Est.</th>
<th>2024 Est.</th>
<th>2025 Est.</th>
<th>2026 Est.</th>
<th>Beyond CIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GO Bonds</td>
<td>$42.363</td>
<td>$50.190</td>
<td>$51.317</td>
<td>$24.530</td>
<td>$52.500</td>
<td>$52.500</td>
<td>$45.000</td>
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<tr>
<td>Revenue Bonds</td>
<td>25.000</td>
<td>5.000</td>
<td>5.000</td>
<td>5.000</td>
<td>5.000</td>
<td>5.000</td>
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<tr>
<td>Nonbudgeted Funds</td>
<td>16.500</td>
<td>0.000</td>
<td>10.000</td>
<td>35.000</td>
<td>10.000</td>
<td>0.000</td>
<td>0.000</td>
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CIP: Capital Improvement Program
GO: general obligation

For further information contact: Sara J. Baker
Phone (410) 946-5530

Analysis of the FY 2022 Maryland Executive Budget, 2021

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Summary of Recommended Bond Actions

1. Campus Building Systems and Infrastructure Improvements
   Approve funding for the campuswide building systems and infrastructure projects.

2. Chemistry Building Wing I Replacement
   Approve funding to continue construction of the replacement of Wing 1 of the Chemistry Building.

3. SECTION 13 – University of Maryland, College Park Campus – Chemistry Building Wing I Replacement
   Approve a fiscal 2023 preauthorization to continue construction of the Chemistry Building Wing I Replacement.

4. SECTION 14 – University of Maryland, College Park Campus – Chemistry Building Wing I Replacement
   Approve a fiscal 2024 preauthorization to complete construction of the Chemistry Building Wing I Replacement project.

Budget Overview

Chemistry Building Wing 1 Replacement

This is the third phase of a project to renovate and replace space for the chemistry department. Phase I expanded the scope of the St. John Center to include six teaching chemistry laboratories. Phase II, funded with $16.5 million of institutional funds, updated selected spaces, and upgraded the HVAC in the second and third floors of Wing 2. Phase III will demolish and replace Wing 1 and will house 26 research laboratories and support space.

The projected cost of Phase III is $118.4 million, which is $15.5 million higher than the amount programmed in the 2020 Capital Improvement Program (CIP). This is due to prior year projections being based on an old cost estimate to replace Wing 1, which has since been updated. Of the increase, $2.0 million is related to modification of the program plan, and the remaining $13.5 million is due to revised schematic design phase estimate from that Architectural and Engineering firm that more accurately reflects the cost of the facility. The capital budget provides $45.2 million to continue construction and two preauthorizations of $48.3 million and $5.3 million for fiscal 2023 and 2024, respectively, are provided to allow the construction contract to be bid and awarded.
Campuswide Building Systems and Infrastructure Improvements

This is a stand-alone facility renewal initiative to address critical deferred maintenance projects that, if left unaddressed, pose serious health, life, and safety issues. Infrastructure failures have caused disruptions in electricity and HVAC services and caused water damage to buildings, resulting in classes being canceled, relocated to another building, or suspended and has resulted in lost research. The University of Maryland, College Park Campus (UMCP) estimates that its facilities renewal backlog totals $788.0 million as of fall 2019.

When the program was initiated in fiscal 2013, it was anticipated that it would be annually funded. From fiscal 2013 through 2016, the State has provided $25 million of general obligation bonds with another $20 million coming from University System of Maryland (USM) Academic Revenue Bonds (ARB) debt. The program was put on hold from fiscal 2017 to 2020 to facilitate the funding of other priority UMCP projects. It should be noted that UMCP plans to spend $47.4 million from its operating budget on facilities renewal in fiscal 2022 in addition to $7.3 million in ARBs as part of USM’s facilities renewal program.

The program addresses a variety of renewal projects that can be categorized into two general categories – building systems and infrastructure. Building systems include replacing electrical gear; upgrading fire alarm systems, automatic fire sprinkler systems, and fire pump controls; replacing HVAC equipment; and replacing equipment in utility buildings. Infrastructure improvements include replacing underground heating and cooling piping and domestic water pipes; repairing building foundations; replacing underground foundation drain and sanitary piping; replacing exterior security lighting, cameras and telephones; repairing and/or repaving roads, and repairing storm drain outfall and ponds.

The projects funded in fiscal 2022 include:

- connect multiple buildings to a new primary water line in the East Campus ($0.5 million);
- repair failing domestic water valves and storm and sanitary manholes ($0.5 million);
- repair failed stormwater management sand filter in the West Campus ($0.5 million);
- replace failing exterior lighting ($0.9 million);
- upgrade the HVAC central control and monitoring system in phases ($0.5 million);
- replace failing laboratory water purifying system in the Plant Science Building ($2.0 million);
- replace failing air-handling unit in School of Public Health building ($0.6 million); and
- upgrade HVAC system to provide central air conditioning in Woods Hall ($4.5 million).

*Analysis of the FY 2022 Maryland Executive Budget, 2021*
Summary of Other Projects in the Capital Improvement Program

Interdisciplinary Engineering Building

In October 2017, UMCP announced its largest donation of $219.5 million from the A. James & Alice B. Clark Foundation. The gift included provisions to provide 30%, or $55 million, (the lesser of the two), to support the construction of a new building for the A. James Clark School of Engineering, which is to be leveraged with State and institutional funds. The 2021 CIP programs initial design funding in fiscal 2023 and construction funding in fiscal 2024 through 2026. The preliminary estimated cost of the project is $200.0 million. The program plan was submitted to the Department of Budget and Management in February 2021.

The project will construct a state-of-the-art 157,000 gross square feet/87,000 net assignable square feet facility that will house elements of the Department of Civil and Environmental Engineering (ENCE), the Maryland Transportation Institute, the Department of Mechanical Engineering, and the Quantum Technology Center. It will also include space for collaboration with institutional and industrial partners, including the Center for Advanced Transportation Technology, which is affiliated with ENCE but will be located elsewhere on campus.
GO Bond Recommended Actions

1. Approve $5.0 million in general obligation bond funds to design, construct, and equip the campuswide systems and infrastructure improvements.

2. Approve $45.2 million in general obligation bond funds to continue construction of the Chemistry Building Wing 1 Replacement.

3. Approve the preauthorization of $48.3 million in general obligation funds for fiscal 2023 to continue the construction of the Chemistry Building Wing 1 Replacement project.

4. Approve the preauthorization of $5.3 million in general obligation bond funding for fiscal 2024 to complete construction of the Chemistry Building Wing 1 Replacement project.