

**University of Waterloo**  
**Board of Governors**  
**BUILDING & PROPERTIES COMMITTEE**  
**Report to the Board of Governors**  
**2 February 2021**

This report is submitted following the committee's meeting of 13 January 2021.

**FOR DECISION**

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**1. Renovations to the Third Floor, Earth Sciences & Chemistry Building**

**Motion:** That the Board of Governors approve the \$17.5 million budget for renovations to the 3<sup>rd</sup> floor of the Earth Sciences & Chemistry Building (ESC).

**Background:**

Recently, multi-disciplinary engineering teams with expertise in rehabilitating wet science buildings reviewed the Earth Science & Chemistry Building, the Biology 1 (B1) building, the Biology 2 (B2) building, and the Chemistry 2 (C2) building. The studies focused on the renewal of the Faculty of Science buildings constructed during the 1960s and 1970s. These studies identified the renewal requirements to modernize the buildings while improving space utilization. Although the multi-building renewal is planned to occur over multiple years in multiple phases, the initial phase would include the renovation of 25,000 square feet of labs located on the third floor of ESC. The next phase would likely be the replacement of the fume hoods and supporting HVAC systems in C2.

The proposed \$17.5 million budget is based on the recent study (including net HST):

	Estimate
	<u>\$000s</u>
Construction	14,000
Contingency	1,000
Professional Fees (10%)	1,800
Disbursements	150
Building Automation	150
Network Connectivity	300
Permits	<u>100</u>
Total	17,500

The Faculty of Science has set aside \$8.75 million for this project which together with central funding of \$8.75 million funds the estimated cost of the project. External funding opportunities will also be pursued. This funding strategy only applies to this specific phase.

**2. Proposed Math 4 Project**

**Motion:** That the Board of Governors approve an amendment to their February 2019 approval in principle regarding the development of the Math 4 building. This amendment relates to relocating the building site to the Math & Computer/Davis Centre link area with a revised budget of \$90 million.

**Background:**

This new, state-of-the-art mathematics building will host research institutes in vital fields such as fintech, data science, and cryptography. Specifically, the building will accommodate Combinatorics and Optimization, Mathematics Business and Financial Technology as well as the Centre for Education in Mathematics and

Computing which plays a key role in the Faculty's outreach program. It will enrich student experience by creating new social and collaboration spaces. It will feature classrooms and collision spaces to encourage interaction and collaboration among our faculty, students, staff, and external partners. It will accelerate leading-edge math and computer science research as well as foster a culture of innovation and collaboration. By creating a vibrant and singular environment, the new building will help Mathematics attract more of the world's top math and computer science talent.

Originally planned at the west end of "L" parking lot (north of Math 3 and east of B.C. Matthews Hall), the revised location is in the interstitial space between the Math & Computer building and the Davis Centre (site plan attached). Although this site was not contemplated in the Campus Master Plan, the proposed site continues to support the integrity of the existing outdoor quad. At approximately 142,000 gross square feet, the proposed building is planned to be 5 storeys plus a penthouse and will be designed to seamlessly connect the Math & Computer building with the Davis Centre.

The budget estimate has increased from \$50 million to \$90 million (including net HST):

	<u>Estimate</u>
Construction	\$70,000
Contingency	7,000
Professional Fees (8%)	6,000
Disbursements	250
Furniture/Furnishings	2,500
Network Connectivity	400
Audio Visual	850
Permits & Development Charges	<u>3,000</u>
Total	\$90,000 (\$634/sf)

The primary drivers for the cost increases include: (a) a larger floor plate associated with the revised program, (b) the partial demolition of the pedestrian link and office wing, (c) the accommodation of existing below grade infrastructure, and (d) significantly enhanced sustainability features.

The Faculty of Mathematics has positioned this project as one of its key fund-raising priorities and has set aside \$30 million in capital funding and committed a further \$10 million, which together with a central funding commitment of \$15 million ensures that more than 50% of the funding will be in place prior to developing the tendering documents. The Faculty has committed to fully fund the balance of the project within 7-8 years.

## FOR INFORMATION

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### 3. General Oversight

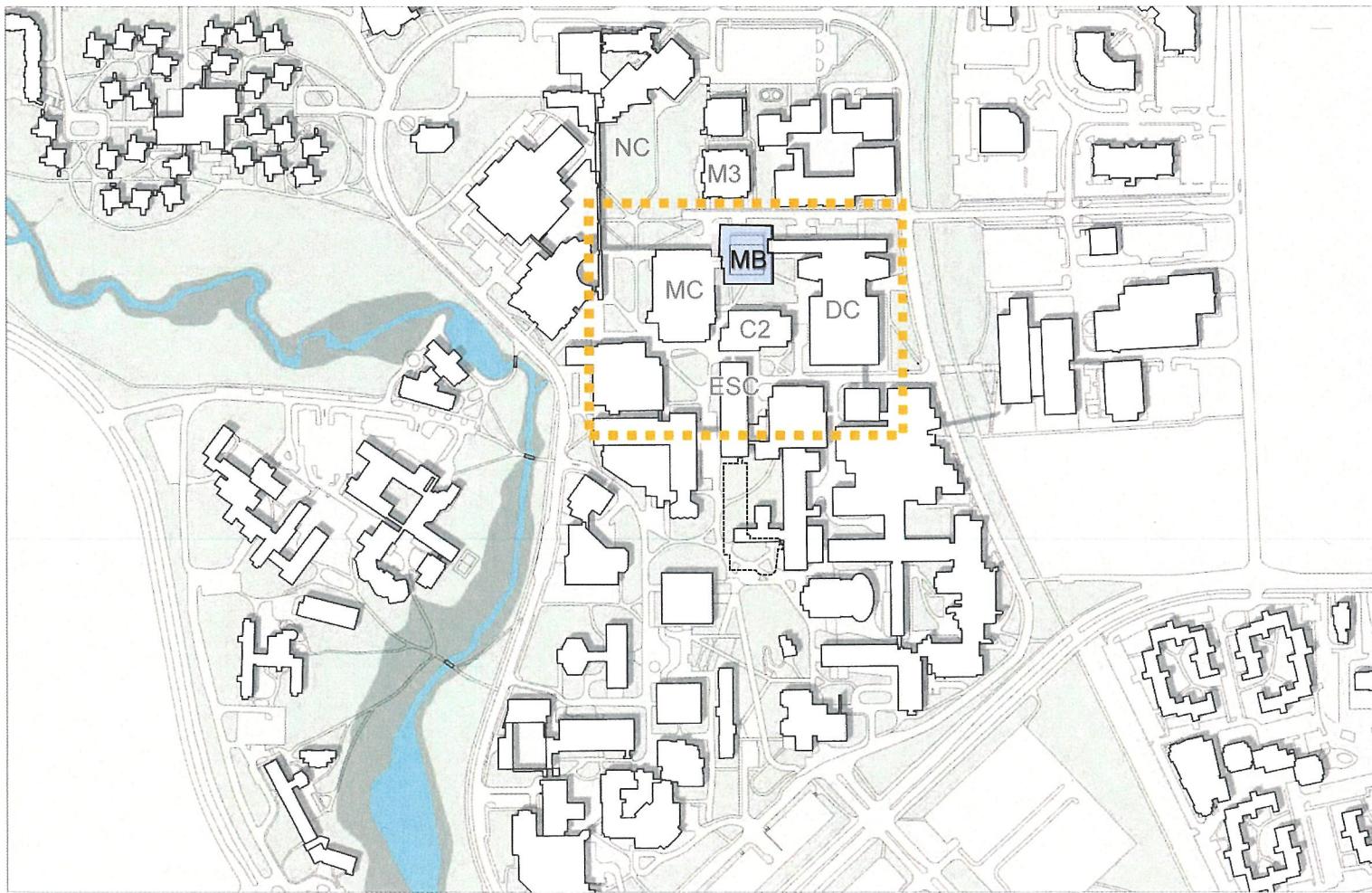
The committee reviewed and accepted for information:

- the capital financing commitments associated with capital projects, and advises that these commitments fall within the University of Waterloo's board-approved debt policy
- the work plan of the committee
- university real estate holdings
- the campus master plan
- university compliance with all building codes, fire codes, safety regulations and statutory and regulatory provisions, as appropriate, in its building and properties program; no exceptions were reported.

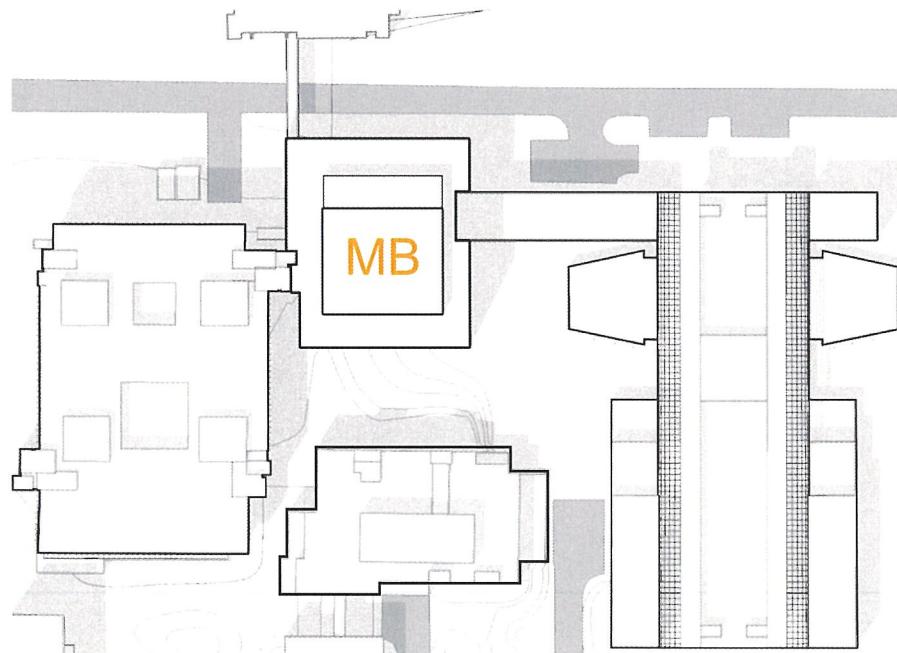
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Martha George  
Chair

## option a - site plan



## option a – phasing diagrams



### PHASE 2 – New MB Construction

- build new MB building