

Capital Project Stage Gate II: Research Way Laboratory Improvements

BACKGROUND

In April 2018, the Board approved the acquisition of the 103,200 gross square foot Research Way Laboratory (RWL) building at 4575 Research Way for \$19.8M. The building will serve as a surge space for the occupants of Cordley Hall during that building's renovation, a possible surge space for other future building renovations, and eventually as a permanent OSU research and innovation-focused building. The RWL requires approximately \$11M of systems renewal and programmatic improvements to serve as surge space. On May 30, 2019, the Finance & Administrative Committee advanced the project to the design development phase, which the university has now completed. The following information is provided for consideration of advancing this project to the construction phase, pursuant to the [Approval of Capital Projects Policy](#).

PROJECT DESCRIPTION, SCOPE AND PROGRAM

The RWL Improvements project will address capital renewal needs inherent to a 30-year-old building and modestly renovate existing spaces to support biological research, educational, and administrative personnel. The building was previously used for biological and chemical research; therefore, major renovation is not needed.

Key components of the project include:

- Flexible wet and dry labs to accommodate multiple types of research.
- New and refurbished research support spaces that are flexible to accommodate a range of needs.
- Improved air circulation.
- Minimal renovation to conference and meeting rooms.
- Minimal facility office upgrades to serve as many as 200 personnel.
- Storage for research collections.
- Infrastructure upgrades and deferred maintenance to existing safety, plumbing, and HVAC equipment.
- Accessible path upgrades to parking and sidewalks at the entry of the building.
- Accessible restroom upgrades.

ESTIMATED TOTAL PROJECT BUDGET, FUNDING AND TIMELINE

The RWL Improvements project cost is \$11M and will be funded by \$10M in OSU revenue bonds and \$1M in State Capital Improvements and Renewal funds. The project is scheduled for completion in the summer of 2020.

IDENTIFICATION OF RISKS AND MITIGATION STRATEGIES

The following risks have been identified for the RWL Improvements project. In consideration of these risk, the contingencies for design, construction and owner are 2%, 3% and 7%, respectively. The lowered design contingency reflects that the project design is well-established with cost estimates confirmed by sub-contractor specialists.

Risks	Consequences	Mitigation Strategy
<i>Undiscovered conditions</i>	Renovations carry an inherent risk of the actual construction or conditions being different from archived documents or even explorative inspection and testing, especially in older buildings. Unexpected conditions beyond what is expected would present a risk to final cost, schedule, and/or the quality and scope of the project.	This risk is mitigated by both construction and owner contingencies.
<i>Labor and materials availability</i>	Availability of resources presents risk to cost, schedule, and possible scope.	This risk is mitigated by both construction and owner contingencies.
<i>Higher than expected construction market escalation</i>	This risk is based more on national/regional economics than labor availability (above), but risks are similar.	This risk is mitigated by including an escalation rate of 7%/yr. Risks are also mitigated as cost estimates from the design phase are confirmed by sub-contractors.
<i>Project delay</i>	Funding, permitting, logistical, contractual, or any reason for substantial delays in construction present not only schedule vulnerability, but also subject the project to further escalation in materials and labor costs. Stretching the construction period would likely increase the cost for the contractor to manage the project and pay for general logistics (general conditions).	This risk is mitigated by having a team in place early that considers critical activities, appropriate timelines, and measures to avoid and accommodate delays.

TOTAL COST OF OWNERSHIP

Total cost of ownership is a summary of estimated financial obligations for an asset, including initial design and construction expenses, operations and maintenance, debt service, and renewal costs. It is a more useful way of considering the total impacts of E&G projects than the standard project pro forma the university uses for self-support projects, which have a revenue component.

The estimated total cost of ownership over a 30-year life cycle for the RWL building is summarized in the table below, which includes total project cost, debt service, operations and maintenance, and capital renewal funding based on depreciation.

Education and General Fund – Forecasted Total Cost of Ownership Research Way Laboratory	
ITEM	COST
Total improvement project cost (\$10M borrowed; \$1M CIR)	\$11,000,000
Total debt service for the improvements (30 yrs – 5.25%)	19,968,465
Operations and maintenance (30 yrs, \$11.25/GSF/yr – escalated 3% annually)	55,235,058
Capital renewal (30 yrs – 3%) ¹	13,770,588
Total cost of ownership	\$88,974,111

¹Capital renewal is calculated based on each building’s estimated lifespan and associated depreciation, with a 3% annual escalation

RECOMMENDATION

Staff recommend that the Finance & Administration Committee recommend to the Board approval of a total capital project budget of \$11M for the Research Way Laboratory Improvements project and advancing of the project to construction phase.