BIOMEDICAL DISCOVERY CENTER PROJECT SUMMARY

FOR PRELIMINARY BOARD OF GOVERNOR’S APPROVAL

JANUARY 2021
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1. Existing conditions

The proposed redevelopment site is at the location of the existing Environmental Health (1970) and Physiology (1966) buildings. Both have had continuing maintenance and safety concerns over the years, including several gas leaks and fires.

Physiology is a three-story, 65,000gsf building housing a variety of functions, including Virtual Reality research, Student Success Center, Environmental Health, forensics and toxicology labs. It also houses a hypo/hyperbaric chamber capable of housing large animals, which is unique. The chamber was installed in 1965 and would be difficult to move, since the building was actually built around the chamber. Laboratories experience air quality issues due to old HVAC system, and heat gain through the windows throws off the instrumentation.

Environmental Health is a single-story, 18,000gsf building housing aerosols research and an OSHA consultant group that does fieldwork and industry visits. There is a wind tunnel for research on aerosol exposures. The building is maze-like and air quality issues impact research. Clean room space would be helpful, but there is no space available to set one up.
2. Opportunity

An analysis done by Facilities Management and approved by the Master Plan Committee identified this as a logical high-density redevelopment site. It sits on approximately 3.4 acres in a prime location at the southern end of the Center Avenue Mall, at the intersection with Lake Street.

The site is well served by emergency access and utilities.

It is also convenient to parking, transit and pedestrians.
The Physiology Building is a missed opportunity from a campus planning perspective. It is a 2-story building that turns its back on the Lake Street/Center Ave intersection. It has convenient parking close by as well as bike and transit access. This site should be a gateway to the University. Additionally, it has potential to be an iconic building for CVMBS that could accommodate K-12 outreach and community engagement.

3. Impact

Redevelopment of the site is expected to be accomplished in at least two phases. The first phase is estimated at 110,000 – 125,000 gsf, shared between the College of Veterinary Medicine and Biomedical Sciences and the School of Public Health, with a new 300-seat flipped general assignment classroom. Existing poor-quality facilities will be replaced with state-of-the-art classrooms and laboratories.

COLLEGE OF VETERINARY MEDICINE AND BIOMEDICAL SCIENCES (CVMBS)

The College priorities for redevelopment are to replace existing space and grow the undergraduate program. Specific plans include:

- Toxicology-currently a graduate program that will expand to undergraduates through a concentration in the Biomedical Sciences umbrella.
- Biomedical Sciences Degree-umbrella degree with concentrations in: infectious diseases, forensics, toxicology, etc.
  - Biomedical Sciences enrollment is currently capped. In order to grow the undergraduate program classrooms and experiential learning in laboratories will be required.
- Undergraduate pre-vet program
- A branch of the CU Medical School is operating on Campus, with new faculty hires. Several of these will have a research need and medical students may also desire research experience.
- Student Success Center

SCHOOL OF PUBLIC HEALTH

The School of Public Health offers a Master’s Program, two dual degrees (MPH/DVM and MPH/MSW) and a recently developed MPH/MS in Civil and Environmental Engineering. Plans to expand the program include:

5-year programs (4+1 program) in

- Health & Exercise Science
- Food Science & Human Nutrition
- Human Development & Family Studies
- Biology
- Psychology
- Environmental and Radiological Health Sciences

Undergraduate courses (in-person and online) in addition to certificates and minors.
The School does not currently have a centralized location on campus and needs room for growth. Space for classrooms, offices, computer labs, etc, in the Biomedical Discovery Center will take advantage of the synergies between the programs.

4. Space Needs

A preliminary space program is shown below:

<table>
<thead>
<tr>
<th>Request</th>
<th>Notes</th>
<th>gsf</th>
<th>$/gsf</th>
<th>Est. cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recapture GA classrooms in Physiology</td>
<td>existing classroom size</td>
<td>4648</td>
<td>547</td>
<td>2542456</td>
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<tr>
<td>Biomedical classrooms</td>
<td>Per master plan effort--10 year growth of 1000 undergraduates</td>
<td>10790</td>
<td>547</td>
<td>5902130</td>
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<tr>
<td>Biomedical teaching lab/support</td>
<td>Per master plan effort--10 year growth of 1000 undergraduates</td>
<td>12450</td>
<td>616</td>
<td>7669200</td>
</tr>
<tr>
<td>Biomedical student study/outreach</td>
<td>Per master plan effort--10 year growth of 1000 undergraduates</td>
<td>9130</td>
<td>479</td>
<td>4373270</td>
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<tr>
<td>Biomedical research lab/support</td>
<td>Per master plan effort--10 year growth of 20 faculty</td>
<td>28220</td>
<td>753</td>
<td>21249660</td>
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<tr>
<td>Biomedical faculty office</td>
<td>Per master plan effort--10 year growth of 1000 undergraduates</td>
<td>16600</td>
<td>479</td>
<td>7951400</td>
</tr>
<tr>
<td>300 seat flipped classroom- GA</td>
<td>300 *23.3 asf/seat (current university deficit)</td>
<td>11620</td>
<td>547</td>
<td>6356140</td>
</tr>
<tr>
<td>Biomedical admin offices/conf</td>
<td>Per master plan effort--10 year growth of 1000 undergraduates</td>
<td>9960</td>
<td>479</td>
<td>4770840</td>
</tr>
<tr>
<td>School of Public Health</td>
<td>Office, classroom, conference, computer lab, GTA, admin--Centralized location for the School</td>
<td>14359</td>
<td>547</td>
<td>7854373</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>11777</strong></td>
<td><strong>68669469</strong></td>
<td></td>
</tr>
</tbody>
</table>

5. Cost

Facilities Management calculated total development benchmark costs for various types of space based on recent building projects and escalated to 2021.

<table>
<thead>
<tr>
<th>Type</th>
<th>New</th>
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<tbody>
<tr>
<td>RESEARCH SPACE</td>
<td>$ 753</td>
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<tr>
<td>TEACHING LAB</td>
<td>$ 616</td>
</tr>
<tr>
<td>CLASSROOM</td>
<td>$ 547</td>
</tr>
<tr>
<td>OFFICE</td>
<td>$ 479</td>
</tr>
</tbody>
</table>

Applying these metrics to the space program above, the estimated cost for Phase I of the Glover deconstruction and redevelopment is $70M-$75M, depending on when the project receives final approval. Funding is anticipated to be from donors and bonds supported by an approved increase in the Student Facility Fee.