Building Disposition Report
This Building Disposition Report results from a comprehensive review of campus education and general administration buildings conducted by staff from Administration and Finance with assistance from Sightlines Facilities Asset Advisors, a consultant firm that provides integrated facilities planning services. Reviewed in the assessment is the current condition of our buildings with respect to deferred maintenance deficiencies, renewal of building systems, fire safety, and other needs.
This Assessment demonstrates the need for capital expenditures of $750 million over the next five years, once the cost of swing space, demolition, and replacement space are taken into account. An additional $720 million is needed in the six- to ten-year range.
This Building Disposition Report summarizes the capital investments needed in education and general administration buildings on the University of Massachusetts Amherst campus. The Report does not include auxiliary service buildings, such as housing and dining facilities. Neither does it include dozens of structures smaller than 10,000 square feet. Buildings are categorized according to their condition and the kinds of investments needed, including building system replacement and space renovation:

1. Keep Up
2. Catch Up and Keep Up
3. Keep and Renew
4. Defer and Do Not Reinvest
5. Secure and Protect
6. Dispose and Replace
With respect to method, these data were compiled from a base including 6400 individual entries of deferred needs. Those entries were combined into projects and analyzed for urgency. Building summary sheets underpin the spreadsheet entries included in this report.
Category 1: KEEP UP

These are our best buildings, and there are precious few of them supporting instruction and research:

- Alfond Hall
- Animal Care Facility
- Conte Polymer Research Center
- E-Lab II
- Engineering & Computer Science Center
- Knowles Engineering Building
- Mahar Auditorium
- 358 North Pleasant
- Grinnell Arena
- Robsham Visitor’s Center

Almost 900 thousand square feet of education and general administration space, or 14% of 6.5 million square feet, fall into Category 1. Soon to come into the Category 1 inventory are:

- Skinner Hall
- Studio Arts Building
- Central Heating Plant
- Integrated Sciences Building
- Recreation Center
Category 2: CATCH UP AND KEEP UP

A building is categorized for catching up and keeping up with building system maintenance if maintenance has been deferred, but spaces and building systems are not yet in need of renewal. A building in this category is currently capable of serving the important applications of the programs and services it houses. The goal of the institution is to retire deferred maintenance on a system-by-system basis, and to maintain building components within their life cycles. Roughly 1.5 million square feet of classroom, laboratory, and academic office space, or 23% of education and general administration space, falls into this category and represents the campus’s greatest asset exposure. Among the large structures in this category are:

Arnold House
Fine Arts Center
Furcolo Hall
Hasbrouck Laboratory Addition
Herter Hall
Hicks Cage
Holdsworth Hall
Lederle Graduate Research Center
Lederle Graduate Research Center Addition
Marston Hall
Morrill Science Center Section IV
Stockbridge Hall
Thompson Hall
Tobin Hall
Whitmore
Category 3: KEEP AND RENEW

A building is categorized for renewal if significant maintenance has been deferred, and space or systems need significant renewal. The ability of a building in this category to serve the important applications of the programs and services it houses is compromised. The goal of the institution is to maintain building components to the extent possible, retire deferred maintenance on a system-by-system basis when feasible, and invest in renewal when possible and economically justifiable.

Bartlett Hall
Animal Isolation Laboratory
Clark Hall
Fernald Hall
French Hall
Goessmann Laboratory & Addition
Isenberg School of Management
New Africa House
Munson
Chenoweth Laboratory Addition
DuBois Library
University Health Center
Wilder
Marcus Hall
Morrill Science Center Sections I, II, and III

Bowditch Hall
Boyden
Chancellor’s House
Dickenson Hall
Goodell
Hamden DC
Memorial Hal
Thayer Animal Disease Lab
Stockbridge House & Addition
Totman
Machmer Hall
Category 4: DEFER AND DO NOT REINVEST

A building is deferred if it is not suitable for a significant financial investment. The ability of a building in this category to serve the modest applications of the programs and services it houses is compromised in the long term; however, it is usable in the near future. The goal of the institution is to keep these buildings in service for ten years or more with necessary maintenance and limited expenditures to retire deferred maintenance affecting the building envelope, utilities, and life safety systems. These buildings are on a disposal cycle, with the date of disposal undetermined.

- Ag Engineering Central
- Ag Engineering North
- Ag Engineering South
- Berkshire House
- Draper Hall
- Hampshire House
- Middlesex House
- Engineering Shops Building
- Flint Laboratory
- Hasbrouck Laboratory
- Apiary
- Army ROTC
- Astronomy Bldng
- East Exp. Station
- Elab
- Farley Lodge
- Bowditch Lodge
- Old Hasbrouck
- Hicks
- Mather
- Paige
- Tilson Hse
Category 5: SECURE AND PROTECT

A building is categorized to be closed if significant maintenance has been deferred, and both space and systems need significant renewal. A building in this category is no longer able to support a program or service, but carries significance worth protecting against the time renewal and modernization become possible. The goal of the institution is to provide the minimum maintenance to the building envelope and utilities. This is a category the institution hopes rarely to employ.

Only the Chapel currently falls into this category.
Category 6: DISPOSE AND REPLACE

A building is categorized for disposal if qualitative considerations do not outweigh the impracticality of further investment in the asset. The need is to replace these structures within five years, or at minimum to identify funds to begin the replacement process within five years.

While many of the structures in category 6 are obscure and already slated for removal in connection with a building project, some warrant discussion:

Old Cold Storage Building
South College
(Old) Chenoweth Laboratory
Hatch Laboratory
Hills House
Student Union
West Experiment Station

French Greenhouse
Hadley Farm Manor Hse
Montague Hse
Photo Lab
University Apts
# Category 1 Building

## Knowledge Engineering Building

| Annual Current Building Maintenance Expenditures | $33,430 |
| Annual Building Maintenance Equilibrium Expenditure | |

### Required Capital Improvements Years 0-5

#### Safety/Code Upgrades

- Allotment for Asbestos Abatement: $30,000
- Install/Replace/Repair security system for labs: $42,500

**Safety/Code Upgrades Subtotal**: $72,500

#### Critical Maintenance

- Repair window gaskets: $127,750
- Replace second converter, air compressor, and electric valves on Leiberts: $100,000
- Replace faucets: $5,000

**Critical Maintenance Subtotal**: $232,750

**Minimum Total Capital Improvements Years 05**: $305,250

### Projected Critical Maintenance Years 6+10

- **Projected Critical Maintenance Years 6+10**: $801,283

### Projected Deferred Maintenance Years 11 and Beyond

- **Projected Deferred Maintenance Years 11 and Beyond**: $3,531,675

### Current Value of Total Need

- **Current Value of Total Need**: $4,638,208

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**Building Profile Information**

- **Building Disposition Code**: 1
- CAMIS Replacement Value: $6,580,558
- Building Area: 38,325 GSF
- Year Constructed: 1991
- Critical Deferred Maintenance/Replacement Value: 5%

**Programs Affected**

- ECE

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## Category 2 Building

### Stockbridge Hall

| Annual Current Building Maintenance Expenditures | $ 96,299 |
| Annual Building Maintenance Equilibrium Expenditure | $  |

### Required Capital Improvements Years 0-5

#### Safety/Code Upgrades
- Enclose stair towers and repair stair treads: $1,000,000
- Asbestos Removal: $425,574
- Remove flammable storage from the top floor: $300,000

**Safety/Code Upgrades Subtotal:** $1,725,574

#### Critical Deferred Maintenance
- Electrical Renovation (panelboards, wiring, main svc eqpt, recept & switches): $500,000
- Exterior Renovation (replace some windows, paint windows and trim, repoint masonry): $600,000
- Plumbing Renovation (replace risers, rebuild portions of waste piping throughout, rebuild toilet rooms): $1,500,000

**Critical Deferred Maintenance Subtotal:** $2,600,000

**Minimum Total Capital Improvements Years 0-5:** $4,325,574

### Projected Critical Deferred Maintenance Years 6-10
- $7,125,804

### Projected Critical Maintenance Years 11 and Beyond
- $326,678

### Current Value of Total Need
- $11,778,056

### Recommended Modernization 0-5 Years
- $2,941,858

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### Building Profile Information

- **Building Disposition Code:** 2
- **CAMIS Replacement Value:** $18,004,595
- **Building Area:** 70,929 GSF
- **Year Constructed:** 1912
- **Critical Deferred Maintenance/Replacement Value:** 24%

### Programs Affected
- NRE
- FAC
- PSIS
- RE
- UMASS Classrooms
- Vet & Animal Sci.

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*Minimum Building Investment*

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# Category 3 Building

## Machmer Hall

| Annual Current Building Maintenance Expenditures | $ 64,005 |
| Annual Building Maintenance Equilibrium Expenditure | |

## Required Capital Improvements Years 0-5

<table>
<thead>
<tr>
<th>Safety/Code Upgrades</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace fire alarm system, smoke detection, and emergency lighting</td>
<td>$ 545,000</td>
</tr>
<tr>
<td>Asbestos Removal</td>
<td>$ 250,000</td>
</tr>
</tbody>
</table>

**Safety/Code Upgrades Subtotal**: $ 795,000

<table>
<thead>
<tr>
<th>Critical Deferred Maintenance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace local panels, wiring, upgrade service capacity</td>
<td>$ 545,000</td>
</tr>
<tr>
<td>Replace motor control center</td>
<td>$ 200,000</td>
</tr>
<tr>
<td>Replace aluminum windows</td>
<td>$ 1,612,000</td>
</tr>
<tr>
<td>Replace curtainwall glazing</td>
<td>$ 602,304</td>
</tr>
<tr>
<td>Exterior masonry walls</td>
<td>$ 400,000</td>
</tr>
<tr>
<td>Foundation drainage</td>
<td>$ 33,549</td>
</tr>
<tr>
<td>Replace main PRV and steam system</td>
<td>$ 1,814,000</td>
</tr>
<tr>
<td>HVAC Renovation (unit vents, exhaust fans, AHUs)</td>
<td>$ 3,100,000</td>
</tr>
<tr>
<td>Plumbing renovation (water mains &amp; risers, waste piping, replace bundle with plate heater, fixtures, bathroom renovations)</td>
<td>$ 1,200,000</td>
</tr>
</tbody>
</table>

**Critical Deferred Maintenance Subtotal**: $ 9,506,853

### Minimum Total Capital Improvements Years 0-5

$ 10,301,853

### Projected Critical Deferred Maintenance Years 6-10

$ 4,823,551

### Projected Deferred Maintenance Years 11 and Beyond

$ 1,128,676

### Current Value of Total Need

$ 16,254,080

### Recommended Modernization 0-5 Years

$ 2,361,000

### Building Profile Information

| Building Disposition Code | 3 |
| CAMIS Replacement Value | $17,468,660 |
| Building Area | 72,556 GSF |
| Year Constructed | 1957 |
| Critical Deferred Maintenance/Replacement Value | 59% |

### Programs Affected

- Anthro
- Arts & Sci. Advising
- CSBS
- Communication
- Political Sci
- Social Thought
- Sociology
- UMASS Classroom

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Minimum Building Investment
Category 4 Building

<table>
<thead>
<tr>
<th>Paige Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Current Building Maintenance Expenditures</strong></td>
</tr>
<tr>
<td><strong>Annual Building Maintenance Equilibrium Expenditure</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Capital Improvements Years 0-5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety/Code Upgrades</strong></td>
</tr>
<tr>
<td>Installation of eyewash and showers</td>
</tr>
<tr>
<td>Asbestos Removal</td>
</tr>
<tr>
<td>Increase building and laboratory security to protect BL3 lab and irradiator</td>
</tr>
<tr>
<td><strong>Safety/Code Upgrades Subtotal</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical Deferred Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Renovation (building wiring, new receptacles and switches, panelboard replacement and upgrade capacity.)</td>
</tr>
<tr>
<td>Highest and best use study.</td>
</tr>
<tr>
<td>Upgrade generator in Bsmnt. Mech. Rm. With a larger one</td>
</tr>
<tr>
<td>Rebuilding 2 high pressure and 2 low pressure PRVs, upgrade mech room ventilation.</td>
</tr>
<tr>
<td>Repair and paint throughout</td>
</tr>
<tr>
<td>Renovate bathrooms</td>
</tr>
<tr>
<td><strong>Critical Deferred Maintenance Subtotal</strong></td>
</tr>
</tbody>
</table>

**Minimum Total Capital Improvements Years 95** $1,631,892

**Projected Critical Deferred Maintenance Years 610** $1,152,500

**Projected Critical Maintenance Years 11 and Beyond** $309,461

**Current Value of Total Need** $3,093,853

**Recommended Modernization 0-5 Years** $20,920,000

**Building Profile Information**
- Building Disposition Code: 4
- CAMIS Replacement Value: $8,070,024
- Building Area: 29,991 GSF
- Year Constructed: 1950
- Critical Deferred Maintenance/Replacement Value: 20%

**Programs Affected**
- Vet & Animal Sci.
### Category 6 Building

<table>
<thead>
<tr>
<th>Hills House</th>
<th>Building Profile Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Current Building Maintenance Expenditures</td>
<td>$41,183</td>
</tr>
<tr>
<td>Annual Building Maintenance Equilibrium Expenditure</td>
<td></td>
</tr>
</tbody>
</table>

#### Required Capital Improvements Years 0-5

<table>
<thead>
<tr>
<th>Safety/Code Upgrades</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace fire alarm system, add smoke detection</td>
<td>$650,000</td>
</tr>
</tbody>
</table>

**Safety/Code Upgrades Subtotal** $650,000

**Minimum Total Capital Improvements Years 0-5** $658,000

<table>
<thead>
<tr>
<th>Current Value of Total Need</th>
<th>$658,000</th>
</tr>
</thead>
</table>

**Replacement Space to Support Current Function Beyond 10 Years** $39,000,000

**Demolition Cost** $1,500,000

**Recommend Restricted Use/Occupancy**

#### Minimum Building Investment

<table>
<thead>
<tr>
<th>Building Disposition Code</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMIS Replacement Value</td>
<td>$23,580,699</td>
</tr>
<tr>
<td>Building Area</td>
<td>87,634 GSF</td>
</tr>
<tr>
<td>Year Constructed</td>
<td>1968</td>
</tr>
<tr>
<td>Critical Deferred Maintenance/Replacement Value</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Programs Affected**
- Education Policy Research
- Health Services
- International Prog.
- Landscape
- School of Ed
- Student Development
- UMASS Classrooms

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*Minimum Building Investment*