Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
Existing Building Layout viewed from Southwest

UGA Biological Science Building

1967 Master Plan of Ag Hill

Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
UGA Biological Science Building

Annex Building

Courtyard View

Main Building Entry Level Four

Existing Conditions Photos

Lab with Exposed Fan Coil Units

VIEW OF EXISTING LAB SPACE

Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
UGA Biological Science Building

**STRUCTURE**
- No visible signs of structural deterioration
- Column grid and spacing is conducive to modern open labs
- Design of frame will support typical live loads

**SKIN**
- Brick veneer with CMU backup
- Good condition overall, minimal work required
  -- Aluminum windows - need replacement

**MEP SYSTEMS**
- Existing building system capacity has been far exceeded by demand of research program
- Expanded service needs provided by suspended fan coil units in labs
- Electrical service has expanded beyond original capacity and electrical panels are now located in the corridors

**LAB FIT-OUT**
- Lab layout is inflexible
- Research needs have changed since this building was built
- Renovation for flexibility should be considered

---

**COST COMPARISON**

<table>
<thead>
<tr>
<th></th>
<th>NEW BLDG</th>
<th>RENOVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HOK Benchmark</strong></td>
<td>$350-400sf</td>
<td>$200-250sf</td>
</tr>
</tbody>
</table>
| **Probable Construction Cost** | | **$225/sf** *

* Cost estimate is based on beginning work in 2007 with a phased construction schedule.

---

*Mid-20th Century Buildings Workshop*

*Facility Officers Conference/ Columbus, Ga./ 26 October 2011*
UGA Biological Science Building

Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
UGA Biological Science Building

Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
UGA Biological Science Building

Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
UGA Biological Science Building

Mid-20th Century Buildings Workshop
Facility Officers Conference/ Columbus, Ga./ 26 October 2011
UGA Biological Science Building

Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
UGA Biological Science Building

Axon View of Proposed Building

Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011
Dealing with the Campus high-rise

University of Georgia
Modern Era High-rises = challenges for campuses

Repair?
Replace?
Rebuild?
Brumby Hall

Built: 1966

General Information:
- Total Gross Square Feet: 210,484
- Square feet per Bed: 225
- 935 Beds: 1st-Year Women student-focused
- Nine floors: 1 - Student Services offices & 2-8 - residents
- Double-occupancy rooms with community bath per wing
- Structure: Concrete frame with brick veneer exterior & non-thermally broken windows

Findings:
- Well Maintained: No major Renovations/Upgrades, so starting to show typical signs of age
- Exterior Envelope & Roof: Water Infiltration issues
- Life Safety, ADA & Code issues: Upgrading required
- Structural Systems: No reported problems
- HVAC: Galvanized, 2-pipe system has corrosion issues
- Plumbing, Electrical & Fire Protection: Building systems require upgrading

University of Georgia – Freshmen Housing Master Plan Study
Positive issues associated with campus high-rises

Campus Cash Cows

Good use of campus space

Popular communities
Pros: high percentage of Students in B/C/R

Q4. Where did you live as a freshman while attending UGA (or this year if you are currently a freshman)? (n=763)

- Creswell: 56%
- Brumby: 19%
- Russell: 17%
- Other: 9%
- Did not live on Campus: 20%
- O-House: 3%
- Church: 3%
- Myers: 6%
- Hill: 3%
- Reed: 5%
- Lipscomb: 4%
- Boggs: 4%
- Mell: 3%
- Morris: 3%
- Other: 3%
PROS:

High Density of Students close to academic center of campus
PROS:

Viable Campus Communities and Traditional Connection for Alumni
Cons:

Wear & tear to roofs & parapets
Cons:

*Mechanical, Electrical, Plumbing*
Cons:

Life Safety
Cons:

Can they compete with New Dorms?
The Financial Side

Financial Analysis

General Assumptions

- Exp. & Rev. Assumptions
  - Actuals: 2007-2009
  - 2009-10 Actuals to Q3
  - YTD % of Total 2010: 75%
  - Projections for 2011-2021
  - Projections based on 2009-10

- Inflation Assumptions
  - Expense: 3.5%
  - Revenue: 4.0%

- Capital Expenditures
  - Planned B/C/R Expenditures
    - Not Included
  - 2010-11: $6.2 Million

- Debt Assumptions
  - 2010 Actuals Projected Forward
The Financial Side

<table>
<thead>
<tr>
<th>Financial Analysis</th>
<th>Current Condition Projected to 2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2010-11:</strong></td>
<td><strong>2020-21:</strong></td>
</tr>
<tr>
<td>- Revenue: $39.4 Million</td>
<td>- Revenue: $58.2 Million</td>
</tr>
<tr>
<td>- Expense: $27.2 Million</td>
<td>- Expense: $38.9 Million</td>
</tr>
<tr>
<td>- NOI: $12.1 Million</td>
<td>- NOI: $19.3 Million</td>
</tr>
<tr>
<td>- Debt PMT: $10.2 Million</td>
<td>- Debt PMT: $11.2 Million</td>
</tr>
<tr>
<td>- DCR = 1.19</td>
<td>- DCR = 1.72</td>
</tr>
<tr>
<td>- DSR = 1.66</td>
<td>- DSR = 2.37</td>
</tr>
<tr>
<td>- Cash Flow: $1.9 Million</td>
<td>- Cash Flow: $8.1 Million</td>
</tr>
</tbody>
</table>
### The Financial Side

#### Financial Analysis

**Financial Capacity for Renovations**

**No Rate Premium for B /C /R**

- **2013-14 Est. Cash Flow**
  - $2.45 Million

- **B/C/R Rate per Bed**
  - $5,010 per Year

- **Available Cash for Reno (maintaining a 1.1 DCR)**
  - $1.3 Million

- **Available Debt Capacity**
  - **Total**: $18.3 Million
  - 30-year Term @ 6.0%

- **Renovation Funding Capacity**
  - $29.00 per SF
  - $6,350 per Bed
The Financial Side

= prohibitively expensive to renovate or rebuild without raising rents
Are Students Willing to Pay??

Willingness to Pay a Premium for Renovations
(n=754)

- 51%: No Premium
- 31%: up to 10% or $443
- 14%: up to 20% or $886
- 4%: over 21% or over $930
How much should we as campus architects respect these less significant structures?
Can we improve upon modern architecture?
Future of the High-rise