Sightlines, LLC
University of Alaska System Presentation
FY2012

Date: April 3, 2013
Presented by: Colin Sanders, Laura Vassilowitch & Sheena Salsberry
**Sightlines Profile**

Common vocabulary, consistent methodology, credibility through benchmarking

- **Annual Stewardship**: The annual investment needed to ensure buildings will properly perform and reach their useful life *“Keep-Up Costs”*
- **Asset Reinvestment**: The accumulated backlog of repair and modernization needs and the definition of resource capacity to correct them. *“Catch-Up Costs”*

- **Operational Effectiveness**: The effectiveness of the facilities operating budget, staffing, supervision, and energy management
- **Service**: The measure of service process, the maintenance quality of space and systems, and the customers opinion of service delivery

**System Peers**

- **Connecticut** *
- Maine
- Missouri
- Mississippi
- New Hampshire
- Oregon
- Pennsylvania

*New system peer*
Sightlines Profile

Common vocabulary, consistent methodology, credibility through benchmarking

Operating funds:
- State General Funds
- Student tuitions & Fees
- F&A Recovery
- Other

Capital funds:
- Bonds
- State General Funds
- Federal Grants
- Foundations Grants

Annual Stewardship

Asset Reinvestment

- Facilities operating budget
- Staffing levels
- Energy cost and consumption

- Campus Inspection
- Service Process
- Customer Satisfaction Survey

System Peers

- Connecticut*
- Maine
- Missouri
- Mississippi
- New Hampshire
- Oregon
- Pennsylvania

*New system peer

Reference 52

Operating funds:
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Annual Stewardship

Asset Reinvestment

- Facilities operating budget
- Staffing levels
- Energy cost and consumption

- Campus Inspection
- Service Process
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System Peers

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- New Hampshire
- Oregon
- Pennsylvania

*New system peer

Reference 52
### Scope of work

Total GSF: 6.6M GSF; 346 buildings

<table>
<thead>
<tr>
<th>MAUs</th>
<th>Campuses</th>
<th>GSF</th>
<th>Bldg. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAA</td>
<td>Anchorage, Kenai Peninsula, Kodiak College, Matanuska-Susitna College, Prince William Sound Community College</td>
<td>2.6M GSF</td>
<td>95 Buildings</td>
</tr>
<tr>
<td>UAF</td>
<td>Fairbanks, Community and Technical College, College of Rural &amp; Community Development</td>
<td>3.3M GSF</td>
<td>212 Buildings</td>
</tr>
<tr>
<td>UAS</td>
<td>Juneau, Ketchikan, Sitka</td>
<td>569K GSF</td>
<td>39 Buildings</td>
</tr>
</tbody>
</table>

Reference 52
When Stewardship falls...
1. Failures increase
2. Operational effectiveness falls
3. Customer satisfaction decreases
4. Capital investment is driven by customers. Space wins over systems.
5. The backlog of needs increases

Focused project selection...
1. Decreases operating costs
2. Savings increase stewardship
3. Planned maintenance grows
4. Customer satisfaction improves
5. Greater flexibility of project selection repeats the cycle.
UA System’s ROPA Radar Charts

UA System FY12

Annual Stewardship

Asset Reinvestment

Operating Effectiveness

Service

UAA

UAF

UAS

Reference 52
Sightlines Database

Western Region Trends
(AK, AZ, CA, CO, ID, MT, NM, OR, TX, WA)
#1 Dichotomy of campus age profiles

Campuses are growing older

(% Square Footage over 25 years old
(Renovation Age)

Western Region (AK, AZ, CA, CO, ID, MT, NM, OR, TX, WA)

Reference 52
#2 Cyclical capital investments

Investments decreasing to national database average

Capital Investment into Existing Space

**Western Region Database**

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Capital</th>
<th>One-Time Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>$1.5</td>
<td>$2.9</td>
</tr>
<tr>
<td>2008</td>
<td>$1.8</td>
<td>$4.6</td>
</tr>
<tr>
<td>2009</td>
<td>$1.8</td>
<td>$5.2</td>
</tr>
<tr>
<td>2010</td>
<td>$1.7</td>
<td>$4.2</td>
</tr>
<tr>
<td>2011</td>
<td>$1.6</td>
<td>$3.4</td>
</tr>
<tr>
<td>2012</td>
<td>$1.4</td>
<td>$3.5</td>
</tr>
</tbody>
</table>

**National Database**

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Capital</th>
<th>One-Time Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>$1.2</td>
<td>$3.1</td>
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<tr>
<td>2008</td>
<td>$1.3</td>
<td>$4.0</td>
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<tr>
<td>2009</td>
<td>$1.4</td>
<td>$4.0</td>
</tr>
<tr>
<td>2010</td>
<td>$1.3</td>
<td>$3.2</td>
</tr>
<tr>
<td>2011</td>
<td>$1.5</td>
<td>$3.4</td>
</tr>
<tr>
<td>2012</td>
<td>$1.6</td>
<td>$3.3</td>
</tr>
</tbody>
</table>

Western Region (AK, AZ, CA, CO, ID, MT, NM, OR, TX, WA)

Reference 52
#3 Less investment into space projects in 2012

Shifting investments towards building envelope, system, and infrastructure needs

**Western Region**

**Total Project Spending**

<table>
<thead>
<tr>
<th>Year</th>
<th>Building Envelope</th>
<th>Building Systems</th>
<th>Infrastructure</th>
<th>Space Renewal</th>
<th>Safety/Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>40%</td>
<td>24%</td>
<td>13%</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>2012</td>
<td>29%</td>
<td>25%</td>
<td>26%</td>
<td>7%</td>
<td>13%</td>
</tr>
</tbody>
</table>

*Western Region (AK, AZ, CA, CO, ID, MT, NM, OR, TX, WA)*

Reference 52
#4 Steady increase in backlog

The western region saw an 11% increase in backlog since FY07

Backlog $/GSF

Western Region (AK, AZ, CA, CO, ID, MT, NM, OR, TX, WA)
UA System profile

Major factors that influence campus operations and decisions
Alaska in Context: Campus renovation age vs. peers

57% of Alaska System space is over 25 years old

Renovation Age Categories
System peer comparison

- **High Risk**
  - UA System: 50%
  - Peer System Average: 69%

- **High Risk**
  - UA System: 33%
  - Peer System Average: 69%

- **Over 25 years old**
  - UA System: 19%
  - Peer System Average: 19%

- **25 to 50 years old**
  - UA System: 23%
  - Peer System Average: 23%

- **10 to 25 years old**
  - UA System: 25%
  - Peer System Average: 47%

- **Under 10 years old**
  - UA System: 7%

% of space over 25 years old
Peer system comparison

- A: 70%
- B: 57%
- C: 50%
- D: 53%
- E: 57%
- UA System: 69%
- G: 69%
- H: 69%

Systems Ordered by Tech Rating

Peer System Average

Reference 52
Age profile informs capital strategy

Renovation Age Categories
System peer comparison

Buildings over 50
Life cycles of major building components are past due. Failures are possible. Core modernization cycles are missed.
Highest risk

Buildings 25 to 50
Life cycles are coming due in envelope and mechanical systems. Functional obsolescence prevalent.
Higher Risk

Buildings 10 to 25
Lower cost space renewal updates and initial signs of program pressures
Medium Risk

Buildings Under 10
Little work, “honeymoon” period.
Low Risk

Reference 52
Alaska in Context: Tech rating

Alaska System Tech Ranges from 2.5 to 3.3

Tech Rating by MAU

Tech Rating
Peer system comparison

SL Public University FY2012 Average: 2.93
Alaska in Context: Density Factor

UA System Density Factor range: 280-640

Density Factor by MAU

UA System Density Factor

Peer system comparison

*Users Include Faculty, Staff, Student FTEs

SL Public University FY2012 Average: 616
Alaska in Context: Building Intensity

UA System Building Intensity Average: 56 Buildings/1M GSF

Building Intensity by MAU

Building Intensity System Averages

Peer system comparison

SL Public University FY2012 Average: 39
Capital, Budget, and Operations

Asset value change and performance value
UA System terminology to Sightlines

**Maintenance & Operations Budget**
- **DM**
  - One-time Capital
  - Recurring Capital

**R&R**
- One-time Capital
- Recurring Capital

**M&R**
- Projects
- Daily Maintenance

**Grounds & Custodial**
- Daily Operations

*Stewardship and Reinvestment classifications are based on funding source rather than type of work*
Total capital spending

Total FY12 investment was $130M

Project split-out
FY06-FY12

Total UA System
Capital Spending

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Existing Facilities</th>
<th>Non-Facilities/New Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2006</td>
<td>$32.2M</td>
<td>$28.4M</td>
</tr>
<tr>
<td>FY2007</td>
<td>$28.4M</td>
<td>$31.6M</td>
</tr>
<tr>
<td>FY2008</td>
<td>$31.6M</td>
<td>$68.3M</td>
</tr>
<tr>
<td>FY2009</td>
<td>$69.6M</td>
<td>$60.4M</td>
</tr>
<tr>
<td>FY2010</td>
<td>$90.2M</td>
<td>$78.7M</td>
</tr>
<tr>
<td>FY2011</td>
<td>$88.6M</td>
<td>$98.6M</td>
</tr>
<tr>
<td>FY2012</td>
<td>$101.9M</td>
<td>$130M</td>
</tr>
</tbody>
</table>

Avg: $83M
Total capital spending in facilities

Total facilities related investments in FY12 was $54M

Total UA System
Capital Spending

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Capital Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2006</td>
<td>$22.2M</td>
</tr>
<tr>
<td>FY2007</td>
<td>$27.0M</td>
</tr>
<tr>
<td>FY2008</td>
<td>$42.7M</td>
</tr>
<tr>
<td>FY2009</td>
<td>$48.2M</td>
</tr>
<tr>
<td>FY2010</td>
<td>$60.0M</td>
</tr>
<tr>
<td>FY2011</td>
<td>$43.8M</td>
</tr>
<tr>
<td>FY2012</td>
<td>$53.9M</td>
</tr>
</tbody>
</table>

Avg: $42.5M

Reference 52
Sightlines’ stewardship “Best Practice” target
Creating a target for recurring funding sources from operating budget funds

UA System – FY2012 Stewardship Targets

<table>
<thead>
<tr>
<th>$ in Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$107.4</td>
</tr>
<tr>
<td>$65.6</td>
</tr>
</tbody>
</table>

Life Cycle Need (Equilibrium)

Functional Obsolescence (Target)

**Annual Stewardship**

Recurring capital: *M&R and R&R projects*

Planned Maintenance: *Service contracts and PM work order labor and materials*

*Stewardship and Reinvestment classifications are based on *funding source* rather than *type of work*
Total capital investment vs. target need

Funding 19% of stewardship target on average

UA System – Annual Stewardship

Life Cycle Need: $107M

Target Need: $66M

*Capital investments includes renovation of vacated space
Total capital investment vs. target need

Deferral rate since FY06 totals up to $303M

UA System – Annual Stewardship

$ in Millions

2006  2007  2008  2009  2010  2011  2012

Target Need: $66M

Life Cycle Need: $107M

*Capital investments includes renovation of vacated space
Capital investment vs. target comparison

Increasing AS by $8.2M each year will help UA System reach Sightlines’ target range

% of Target – 7 year average
By MAU

% of Target – 7 year average
Peer system comparison

Target Range – Sustaining or Increasing Net Asset Value

Systems Ordered by Tech Rating

Reference 52
Capital investment mix profile for UA

UA spending mix follows with regional trend - shifting away from space projects

**UA System FY07**
Mix of Spending

- 51% Bldg. Envelope
- 21% Bldg. Systems
- 10% Code
- 7% Infrastructure
- 11% Space

**UA System FY12**
Mix of Spending

- 33% Bldg. Envelope
- 26% Bldg. Systems
- 18% Code
- 7% Infrastructure
- 7% Space

Reference 52
Capital investment mix profile comparison FY12

UA system and system peers mix of spending similar to regional database

- **UA System FY12**:
  - Bldg. Envelope: 18%
  - Bldg. Systems: 33%
  - Infrastructure: 26%
  - Space: 21%
  - Code: 7%

- **System Peers FY12**:
  - Bldg. Envelope: 14%
  - Bldg. Systems: 27%
  - Infrastructure: 21%
  - Space: 31%
  - Code: 7%

- **Regional Database FY12**:
  - Bldg. Envelope: 13%
  - Bldg. Systems: 29%
  - Infrastructure: 26%
  - Space: 25%
  - Code: 7%

Reference 52
Recent years focusing on envelope and mechanical needs

**Investment Focus - Envelope & Mechanical Projects**

**% of Target by Project Category**

- **% of Envelope, Mechanical, & Infrastructure vs. Target**
- **% of Space & Programming vs. Target**

**UA System Total Consumption**

- **BTU/GSF**
  - Fossil BTU/GSF
  - Electric BTU/GSF

- **Reference 52**
DM&R Progression over time

UA System backlog of deferred maintenance and renewal totals $1.1B in FY12

UA System Total DM&R
FY06-FY12

FY06 $698M
FY07 $736M
FY08 $875M
FY09 $888M
FY10 $941M
FY11 $1,033M
FY12 $1,082M

$ in Millions

Reference 52
**UA System terminology to Sightlines**

*Stewardship and Reinvestment classifications are based on funding source rather than type of work*
Operating Budget vs. Peer Systems

UA system closer to peers when accounting for the cost of living

**Daily Service:** Maintenance, Grounds, Custodial, and Facilities Admin budget
Includes all personnel, supplies, materials, and contract costs

**Institutions in order of Tech Rating**

Adjusted budget reflects a comparison normalized for regional cost-of-living variance
Maintenance performance

UA System coverage ratio similar to peers despite having more buildings to cover

**Maintenance Staffing Coverage**

GSF/FTE

- **Systems Ordered by Tech Rating**
  - A
  - B
  - C
  - D
  - E
  - UA System
  - G
  - H

**Maintenance Staffing Coverage**

Maintained Buildings/FTE

- **Systems Ordered by Building Intensity Avg.**
  - A
  - B
  - C
  - D
  - E
  - F
  - UA System
  - H

General Repair score (1-5)

- **UA System avg.** 4.07
- **Peer System avg.** 3.80

Reference 52
Custodial performance
Covering more buildings with comparable inspection scores

Custodial Staffing Coverage

**GSF/FTE**

<table>
<thead>
<tr>
<th>System</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>UA</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSF/FTE</td>
<td>40,000</td>
<td>35,000</td>
<td>30,000</td>
<td>25,000</td>
<td>20,000</td>
<td>15,000</td>
<td>10,000</td>
<td>5,000</td>
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</tbody>
</table>

Systems Ordered by Density Factor

Custodial Staffing Coverage

**Cleaned Buildings/FTE**

<table>
<thead>
<tr>
<th>System</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>UA</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings/FTE</td>
<td>1.5</td>
<td>1.4</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
<td>1.0</td>
<td>1.2</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Systems Ordered by Building Intensity Avg.

Cleanliness Score (1-5)

<table>
<thead>
<tr>
<th>UA System avg.</th>
<th>Peer System avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.00</td>
<td>4.10</td>
</tr>
</tbody>
</table>

Peer System Average

Reference 52
University of Alaska System

Bringing it all together
FY10 Recommendations

Reduce effects of a high cost structure, campus complexity and regional strain by:

- Tracking operations and capital data consistently across all MAU’s to ensure accurate comparisons and analysis.
- Quantifying the backlog consistently across all MAU’s to aid in implementing a long-range capital plan that includes both keep-up and catch-up funding.
- Monitoring daily operations to maximize efficiencies and track the correlation between change in backlog and operational metrics, including:
  - Operating budget
  - Energy consumption
  - Staffing levels
  - Campus inspection
- Monitoring academic space utilization rates to ensure efficient use of facilities.

FY11 Recommendations

- Create a manageable target that is applicable to all the MAUs that will help reduce the backlog and maintain facilities at a sustainable level.
- Understand impact of wide ranging density factors, tech ratings, and age, and develop differentiated maintenance, repairs, and stewardship strategies for each MAU.
- Fund projects that will steward the space under 10 (keep your young space young), and address the life cycles/deferred needs in space over 25 (renovate older, worn out buildings).
  - University Building Fund (In progress)
Continue to complete the Investment Strategy Building Chart to incorporate plans for future budgets. Putting a strategy in place will help reach the goal to decrease the DM&R.
Using the detailed analysis for multi-year investment planning.

Investment strategy and project selection based on facts.
FY12 recommendation #2
Database shows national trends of increasing backlog and daily service budget

**Decreasing the DM&R will help relieve stress on facilities maintenance and operations budget**

![National Database Graph]

Backlog and Daily Service % Change since FY07

- **Backlog % change**
  - 2007: 0%
  - 2008: 1%
  - 2009: 3%
  - 2010: 4%
  - 2011: 6%
  - 2012: 10%

- **Daily service % change**
  - 2007: 0%
  - 2008: 4%
  - 2009: 6%
  - 2010: 6%
  - 2011: 6%
  - 2012: 8%

Reference 52
While adopting new investment strategies, a consistent method of communicating to the campus community is vital for expectation levels. Providing feedback for work requests will help with the scheduling and service levels, also helping to address overall general satisfaction.
Questions and Discussion
Appendix
Campus profile: Tech Rating

Tech Rating Scale (1-5)

Tech Rating by Campus

<table>
<thead>
<tr>
<th>Campus</th>
<th>Composite</th>
<th>Anchorage</th>
<th>KPC</th>
<th>Kodiak</th>
<th>Mat-Su</th>
<th>PWSCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAA</td>
<td>3.3</td>
<td>3.4</td>
<td>3.0</td>
<td>3.0</td>
<td>2.9</td>
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<td>UAF</td>
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<td>3.0</td>
<td>3.0</td>
<td>2.3</td>
<td></td>
<td></td>
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<tr>
<td>UAS</td>
<td>2.5</td>
<td>2.6</td>
<td>2.0</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tech Rating Criteria

1. Residential grade or no heating; no cooling
2. Low pressure steam; local cooling (window unit)
3. Medium pressure steam; Central cooling; pneumatic controls
4. High pressure steam; Central cooling- VAV system; Chillers; DDC Controls; HVAC system; Fume Hoods
5. All of 4 and 100% outside air; Bio containment level 2 or 3

Database Average
Campus profile: Density Factor
Users: Student, Faculty and Staff FTE

Density Factor by Campus

UAA

UAF

UAS

Database Average
Campus profile: Building Intensity

# of buildings / 1M GSF

Building Intensity by Campus

Database Average

Reference 52