Who Partners with Sightlines?

Robust membership includes colleges, universities, consortiums and state systems

Sightlines is proud to announce that:
- 450 colleges and universities are Sightlines clients including over 325 ROPA members.
- Consistently over 90% member retention rate
- We have clients in over 40 states, the District of Columbia and four Canadian provinces
- More than 125 new institutions became Sightlines members since 2013

Sightlines advises state systems in:
- Alaska
- California
- Florida
- Hawaii
- Maine
- Massachusetts
- Minnesota
- Mississippi
- Missouri
- Nebraska
- New Hampshire
- New Jersey
- Pennsylvania
- Texas

Serving the Nation’s Leading Institutions:
- 70% of the Top 20 Colleges*
- 75% of the Top 20 Universities*
- 34 Flagship State Universities
- 14 of the 14 Big 10 Institutions
- 9 of the 12 Ivy Plus Institutions

* U.S. News 2016 Rankings
A Vocabulary for Measurement

The Return on Physical Assets – ROPA™

- **Annual Stewardship**: The annual investment needed to ensure buildings will properly perform and reach their useful life “Keep-Up Costs”
- **Asset Reinvestment**: The accumulation 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

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Asset Value Change

Operations Success
<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyola University Maryland</td>
<td>Baltimore, Maryland</td>
</tr>
<tr>
<td>Boston College</td>
<td>Boston, Massachusetts</td>
</tr>
<tr>
<td>University of Notre Dame</td>
<td>South Bend, Indiana</td>
</tr>
<tr>
<td>Gonzaga University</td>
<td>Gonzaga, Washington</td>
</tr>
<tr>
<td>Seattle University</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td>The University of Chicago</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>Xavier University</td>
<td>Cincinnati, Ohio</td>
</tr>
<tr>
<td>Washington University in St. Louis</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Vanderbilt University</td>
<td>Nashville, Tennessee</td>
</tr>
<tr>
<td>Creighton University</td>
<td>Omaha, Nebraska</td>
</tr>
</tbody>
</table>

**Comparative Considerations**

Size, technical complexity, region, geographic location, and setting are all factors included in the selection of peer institutions.
**Peer Institutions**

<table>
<thead>
<tr>
<th>School</th>
<th>Constituent Group</th>
<th>GSF</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston College</td>
<td>Research Institution</td>
<td>Over 5M</td>
<td>10,000-20,000</td>
</tr>
<tr>
<td>Creighton University</td>
<td>Comprehensive/Doctoral Institution</td>
<td>2.5M - 5M</td>
<td>5,000-10,000</td>
</tr>
<tr>
<td>Gonzaga University</td>
<td>Comprehensive/Doctoral Institution</td>
<td>2.5M - 5M</td>
<td>5,000-10,000</td>
</tr>
<tr>
<td>Loyola University Maryland</td>
<td>Comprehensive/Doctoral Institution</td>
<td>1M - 2.5M</td>
<td>5,000-10,000</td>
</tr>
<tr>
<td>Saint Louis University</td>
<td>Research Institution</td>
<td>Over 5M</td>
<td>10,000-20,000</td>
</tr>
<tr>
<td>Seattle University</td>
<td>Comprehensive/Doctoral Institution</td>
<td>1M - 2.5M</td>
<td>5,000-10,000</td>
</tr>
<tr>
<td>The University of Chicago</td>
<td>Research Institution</td>
<td>Over 5M</td>
<td>20,001+</td>
</tr>
<tr>
<td>University of Notre Dame</td>
<td>Research Institution</td>
<td>Over 5M</td>
<td>10,000-20,000</td>
</tr>
<tr>
<td>Vanderbilt University</td>
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<td>10,000-20,000</td>
</tr>
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<td>Research Institution</td>
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<td>10,000-20,000</td>
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<td>5,000-10,000</td>
</tr>
</tbody>
</table>
Driving a New Conversation
Connecting the dots between space, capital and operating on campus

Space
- More Space than Wealth
- Fewer Renovations
- Older Campus Profile

Capital
- Historical Underinvestment
- Growing Deferred Need

Operations
- Strained Operations
- Impact on Service Levels
Historical Challenges
Space vs. Wealth Relationship

SLU space wealth profile in challenging quadrant

Database Distribution - Wealth v. Space

Less Resources

More Resources

Less Students

More Students

GSF/Student

Wealth per Student

Saint Louis University

Peers

Students FTEs: 11,766
Endowment 2015 from NACUBO: 1,083,348,000
Space: 6,243,464 – All Occupied Space- Does Not Include Parking Garages
Space vs. Wealth Peers

Wealth Comparison

<table>
<thead>
<tr>
<th>Wealth per Student</th>
<th>SLU</th>
<th>Space Peers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$-</td>
<td></td>
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<tr>
<td>$50,000</td>
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<tr>
<td>$450,000</td>
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</tbody>
</table>

Space Comparison

<table>
<thead>
<tr>
<th>GSF per Student</th>
<th>SLU</th>
<th>Wealth Peers</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
<td></td>
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<tr>
<td>200</td>
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<td>600</td>
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</tbody>
</table>

Schools with a similar Space Profile to SLU, have approx. $300,000 more wealth per student to take care of their space.

Schools with a similar Wealth Profile to SLU, have 100 GSF per student less to take care. At SLU, that equates to 600,000 GSF.

Students FTEs: 11,766
Endowment 2015 from NACUBO: 1,083,348,000
Space: 6,243,464 – All Occupied Space- Does Not Include Parking Garages
Older, Higher Risk Age Profile

Campus Age by Category

- **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**
  - Major envelope and mechanical life cycles come due. Functional obsolescence prevalent.
  - Higher Risk

- **Buildings 10 to 25**
  - Short life-cycle needs; primarily space renewal.
  - Medium Risk

- **Buildings Under 10**
  - Little work. "Honeymoon" period.
  - Low Risk

SLU '04: 46%  31%  15%
SLU '15: 51%  18%  16%
Peer Average '04: 14%  28%  32%
Peer Average '15: 19%  23%  23%
Oldest Among Peers with Limited Renovations

Renovation Age

*Database Average: 34.2 Years

Delta of Construction Age vs. Renovation Age

*Institutions ordered by increasing renovation age
Continue Commitment to Stewardship

Increase since commitment in 2012 of $1.20/GSF

Total Capital Investment into Existing Space

$/GSF

SLU

Peers

Annual Stewardship
Asset Reinvestment
Avg


Stewardship Funding Leads to Increased DM Need

Total Capital Investment vs. Funding Target

Increasing Net Asset Value

Lowering Risk Profile

Increasing Backlog & Risk

Note: Data shown does not include infrastructure spending
Lower Investment Misses Targets

Total Capital Investment vs. Funding Target

- Increasing Net Asset Value
- Lowering Risk Profile
- Increasing Backlog & Risk

$ in Millions

0 10 20 30 40 50 60


Annual Stewardship  Asset Reinvestment  Annual Investment Target  Life Cycle Need

Note: Data shown does not include infrastructure spending
Rate of Change Doubles Peers

Over 12 years, SLU’s AR Need grew 71% compared to peers at 26%

AR Need $/GSF

<table>
<thead>
<tr>
<th>Year</th>
<th>SLU</th>
<th>Peers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td></td>
<td></td>
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<tr>
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<td>2012</td>
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<tr>
<td>2013</td>
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<tr>
<td>2014</td>
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<tr>
<td>2015</td>
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</tr>
</tbody>
</table>

AR Need $/GSF
- Blue: SLU
- Orange: Peers
- Yellow: Average
Facilities Operating Expenditures vs. Peers

SLU Costs up 7% from 2008, Peers remain steady

Operating Actuals $/GSF

SLU

Peers

$/GSF


Daily Service PM Utilities Average
Planned Maintenance Increasing

SLU has been growing PM in the past four years

Opportunity for Cost Avoidance:
Invest $1.00 in PM now
OR
Spend $2.73 in reactive maintenance later*

*Data from Ozanne Analytics
Higher Output from Grounds Operations

Grounds Staffing

Grounds Supervision

Grounds Materials

Grounds Inspection Score

Institutions arranged by Grounds Intensity

Peer Group Member Average
Investment in Grounds Shows in Satisfaction

“I love the landscaping here!”

“The grounds keeping crew are very polite and hardworking. They are always busy and the campus grounds always look so beautiful. You can tell they care about what it looks like.”

“This is the most beautiful campus. The grounds truly welcome the entire community. Thank you!”

“I think it looks great and I think that is very important in recruiting students.”
Greater Strain on Maintenance

Maintenance Staffing

Maintenance Supervision

Maintenance Materials

General Repair / Impression

Institutions arranged by Tech Rating

- Peer Group Member Average
- Average without E
Performance Tops Customer Survey Results

**Staffing Communication:**
- I am asked for feedback or receive feedback once service is completed
- I am notified of the work order schedule
- Schedule is on-time and if re-scheduled, I am made aware of changes
- The number of days to start is generally acceptable

**Staffing Performance:**
- The number of days to complete the work is generally acceptable
- Work is performed competently
- Work is performed courteously
- Work meets my expectations

**Communication and Performance Scores**

- **Survey Score**
  - **Communication**
  - **Performance**

- **Custodial**
  - Communication: 3.0
  - Performance: 4.1

- **Grounds**
  - Communication: 3.5
  - Performance: 4.0

- **Mechanical**
  - Communication: 3.0
  - Performance: 3.0

- **Structural**
  - Communication: 2.5
  - Performance: 3.0

**Legend:**
- Communication
- Performance
- Communication Average
- Performance Average
Energy peer group

Saint Louis University is in climate zone 3

<table>
<thead>
<tr>
<th>Institution</th>
<th>Climate Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>George Mason University</td>
<td>3</td>
</tr>
<tr>
<td>The University of Tennessee - Knoxville</td>
<td>3</td>
</tr>
<tr>
<td>Towson University</td>
<td>3</td>
</tr>
<tr>
<td>University of Kentucky - Main Campus</td>
<td>3</td>
</tr>
<tr>
<td>University of Missouri - Columbia</td>
<td>3</td>
</tr>
<tr>
<td>University of Missouri - Kansas City</td>
<td>3</td>
</tr>
<tr>
<td>University of Missouri - St. Louis</td>
<td>3</td>
</tr>
<tr>
<td>Virginia Commonwealth University</td>
<td>4</td>
</tr>
</tbody>
</table>

Size, technical complexity, and geographic location.
Consistent Consumption in Recent Years

Energy Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Fossil BTU/G SF</th>
<th>Electric BTU/G SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
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<td></td>
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<td>2006</td>
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<td>2014</td>
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<tr>
<td>2015</td>
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</tbody>
</table>

Sightlines LLC
Energy Consumption vs. Peers

Energy Consumption

SLU | Peers


BTU/NSF

Fossil | Electric | Average

Sightlines
Operations Output

SLU's operations performs below peer average in 3 areas of measurement

The Service Relationship

Campus Inspection
Service Process
Customer Satisfaction

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

SLU
Peers

Campus Inspection  Service Process  Customer Satisfaction
Current Progress
Aligning Project Selection for Impact

Customer Views
(Survey)

Program Value
(Strategic Plan)

Operational Costs
(Work Orders)

Building Condition
(BPS)

Highest Impact Projects
BPS: Bottom Up, Top Down Approach

Building Portfolio Creation
- Group Buildings
- Outline investment strategies

Funding Identification
- What financial resources are available?

Funding Allocation
- By Portfolio
- By Investment Criteria

Project Identification
- Inventory
- Interviews
- Other studies

Project Codification
- Timeframe
- Package
- Investment Criteria

Project Selection
- Project scores
- Meet investment objectives

Multi-year capital investment plan

Complete
Current Step
Future Step
Identified Needs – Over 6,100 Projects

Timeframes A, B, & C only – excluding new construction

Identified Needs by Timeframe

- $173
- $137
- $223

Breakout

- Infrastructure: 78%
- Modernization: 19%
- Repair/Maintenance: 3%

Identified Needs:
- Timeframe A (Backlog + 1-3 years)
- Timeframe B (4-7 years)
- Timeframe C (8-10 years)
Identified Needs by Investment Criteria

Timeframes A, B, & C only – excluding new construction

Identified Needs

- Reliability – issues of imminent failure of compromise to the system that may result in interruption to program or use of space.
- Safety/Code – Code compliance issues and institutional safety priorities or items that are not in conformance with current codes, even though the system is "grandfathered" and exempt from current code.
- Asset Preservation – Projects that preserve or enhance the integrity of buildings systems or building structure, or campus infrastructure.
- Economic Opportunity – Projects that result in a reduction of annual operating costs or capital savings.
- Program Improvement – Projects that improve the functionality of space, primarily driven by academic, student life, and athletic programs or departments. These projects are also issues of campus image and impact.
Total Needs by Functional Portfolio

Timeframes Backlog + A, B, & C only – excluding new construction

Identified Needs by System, by Timeframe

<table>
<thead>
<tr>
<th>System</th>
<th>Backlog + A (1-3 years)</th>
<th>B (4-7 years)</th>
<th>C (8-10 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provost &amp; Research</td>
<td>$150</td>
<td>$100</td>
<td>$50</td>
</tr>
<tr>
<td>Student Development &amp; Athletics</td>
<td>$200</td>
<td>$100</td>
<td>$50</td>
</tr>
<tr>
<td>Medical Affairs</td>
<td>$100</td>
<td>$50</td>
<td>$50</td>
</tr>
<tr>
<td>Admin &amp; Other Support Grounds, Infrastructure, &amp; Parking</td>
<td>$50</td>
<td>$25</td>
<td>$25</td>
</tr>
</tbody>
</table>
Total Needs by Functional Portfolio

Timeframes Backlog + A, B, & C only – excluding new construction

Identified Needs by System, by Timeframe

- $0 - $20
- $20 - $40
- $40 - $60
- $60 - $80
- $80 - $100
- $100 - $120
- $120 - $140

- Medical Affairs
- Student Development & Athletics
- Provost & Research
- Admin & Other Support
- Grounds, Infrastructure & Parking

- Backlog + A (1-3 years)
- B (4-7 years)
- C (8-10 years)
Net Asset Value

Measuring the “percent good” in a building

\[
\text{NAV Index} = \left(\frac{\text{Replacement Value - Building Needs}}{\text{Replacement Value}}\right) \times 100
\]

Campus leadership can set different NAV levels for different buildings and portfolios, helping to balance capital investments across campus and prioritize project selection.

- **Capital Upkeep Stage:** Primarily new or recently renovated buildings with sporadic building repair & life cycle needs; “You pick the projects”
- **Repair and Maintain Stage:** Buildings are beginning to show their age and may require more significant investment on a case-by-case basis.
- **Systemic Renovation Stage:** Buildings may require more significant repairs, large-scale capital infusions/renovations are inevitable; “The projects pick you”
- **Transitional Stage:** Major buildings components are in jeopardy of failure. Develop a plan before making investments.
Net Asset Value

All included buildings

NAV Index by Building

Investment Strategy

Capital Upkeep Stage: Primarily new or recently renovated buildings w/ sporadic building repair & life cycle needs; “You pick the projects”

Repair and Maintain Stage: Buildings are beginning to show their age and may require more significant investment on a case-by-case basis

Systemic Renovation Stage: Buildings may require more significant repairs; large-scale capital infusions/renovations are inevitable; “The projects pick you”

Transitional Stage: Major buildings components are in jeopardy of failure. Develop a plan before making investments.
Customer Satisfaction Survey

Total Completed Surveys: 701; 61% completion Rate for viewed surveys

- Total Users
  - 26% (2011)
  - 11% (2012)
  - 62% (2013)

- Satisfaction
- Feedback
- Expectations
- Schedule
- Knowledge

Customer Satisfaction Index:
- Staff
- Faculty
- Student
- Other

Yearly Satisfaction Ratings:
- 2011: 77%
- 2012: 73%
- 2013: 69%
- 2015: 68%
Aligning Survey and BPS Results

Student Development and Medical Affairs consistently rising to the top

Identified Needs by System, by Timeframe

- Student Development & Athletics: 62%
- Medical Affairs: 67%
- Provost & Research: 73%
- Admin & Other Support: 85%

NAV (% GOOD) vs. Satisfaction Scores

NAV - Building Satisfaction Score
Customer Survey Helps Target Specific Projects

Buildings with lowest HVAC satisfaction have higher $/GSF in HVAC related need

Lowest Satisfaction Buildings

Difference between below average satisfaction buildings and all buildings is $20/GSF in HVAC Need

*BPS Data includes HVAC, Heating, Cooling and Mechanical Need. Survey results include distracting noises, temperature and undesirable odors.
Program Value Matrix

- **Major Capital Renovations**
  - Poor Building Condition, High Program Value

- **Stewardship**
  - Excellent Building Condition, High Program Value

- **Transitional Buildings**
  - Poor Building Condition, Low Program Value

- **Maintain/Repurpose**
  - Excellent Building Condition, Low Program Value
Operational Cost Matrix

Daily Service Demands vs. Building Condition

Backlog $/GSF vs. Average Cost per DS Work Order

- High Need, Low Payback
- Low Need, Low Payback
- High Need, High Payback
- Low Need, High Payback

SAMPLE DATA
Key Takeaways

> The facilities challenges at SLU are great
  > Challenging space wealth
  > Low historical investment
  > Strained operations

> SLU has the tools to tackle these challenges
  > User perception
  > Building Condition
  > Strategic plan
  > Operations data & benchmarks

> Align future investment to maximize impact