



Minnesota
STATE COLLEGES
& UNIVERSITIES



405 Church Street, Suite 2
Guilford, CT 06437
203.682.4950
sightlines.com

2016 Capital Renewal Training

How to update facilities condition and backlog

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Background

On January 1, 2015, Sightlines launched the new Capital Renewal (CR) website, which replaced the legacy Facilities Reinvestment & Renewal Model (FRRM). The purpose of this update process is two-fold:

- To forecast the current **backlog** and
- Predict the future **renewal needs** for the system

Each year, campuses update their current building conditions. The system will publish the results as the 2016 MnSCU Facilities Condition Report.

Applicability

The changes should reflect any changes in buildings and building systems that are placed in service or taken out of service between July 1, 2015 and June 30, 2016.

Key Dates for Updating Building System information

April 14 – May 31, 2016	Capital Renewal is open for updating Roof data updated
June 1 – June 30	Verification of data Corrections and adjustments
July 1, 2016	2016 MnSCU Facilities Report

Website:

<http://capitalrenewal.sightlines.com/>

Works in Google Chrome, Mozilla Firefox, Internet Explorer, and most other browsers

Orientation – Capital Renewal Home Page

The page below is what will greet a campus at first log on. You'll first notice a totally different interface, and the new tool blends a number of feature sets, not all of which are available to our system (gray), but which still provide the same functionality as the original Facilities Reinvestment and Renewal Model (FRRM). Here's a brief orientation:

Main Navigation:

- A:** Active links to navigate the tool for reports and data updates
- B:** Link to start inventory update
- C:** Campus selector
- D:** Key Performance Metric Dashboards

A points to the navigation menu items: Dashboards, Benchmarks & Analytics, Campus Story, Campus Profile, Data Updates, Documents, and Support.

B points to the 'Begin Renewal' link.

C points to the campus selector 'Minnesota State College and University > Alexandria Technical and Community College'.

D points to the six dashboards:

- Backlog Total \$ by building:** Bar chart showing total backlog by building.
- \$/GSF by building:** Bar chart showing cost per square foot by building.
- FCI by building:** Bar chart showing funding for capital improvement by building.
- Renewal Total \$:** Line chart showing the renewal forecast from 2015 to 2025.
- GSF by building type:** Bar chart showing square footage by building type.
- Campus Total:** Bar chart showing the total cost for the campus.

Before you Begin...

- 1. Run your 2015 campus reports**
- 2. Collect your details of new buildings and building systems that occurred in FY2016**

Step #1: Update Inventory for any known building changes.

These might include new buildings that should be added (brought in service) or buildings that should be removed (demolition) and upgrades to the major building systems.

Online Process: click *Begin Renewal* or *Data Updates*>*Update Inventory*

Minnesota State College and University > Century College 2015

Navigation: Home, Dashboards, Benchmarks & Analytics, Campus Story, Campus Profile, **Data Updates**, Documents, Support

Begin Renewal

Backlog Total \$ by building

Building	Total \$
Addition...	\$0
Auto Par...	\$0
Green H...	\$0
Kopp Te...	\$0
Phase II...	\$25M
Phase V...	\$0
Warehou...	\$0

\$/GSF by building

Building	\$/GSF
Addition...	\$0
Auto Par...	\$0
Green H...	\$0
Kopp Te...	\$0
Phase II...	\$0
Phase V...	\$0
Warehou...	\$0

FCI by building

Building	FCI (%)
Addition...	0%
Auto Par...	0%
Green H...	0%
Kopp Te...	0%
Phase II...	0%
Phase V...	0%
South A...	0%

Renewal Forecast For 10 years

Year	Renewal Need (\$)
2015	\$0
2017	\$0
2019	\$0
2021	\$95K
2023	\$0
2025	\$0

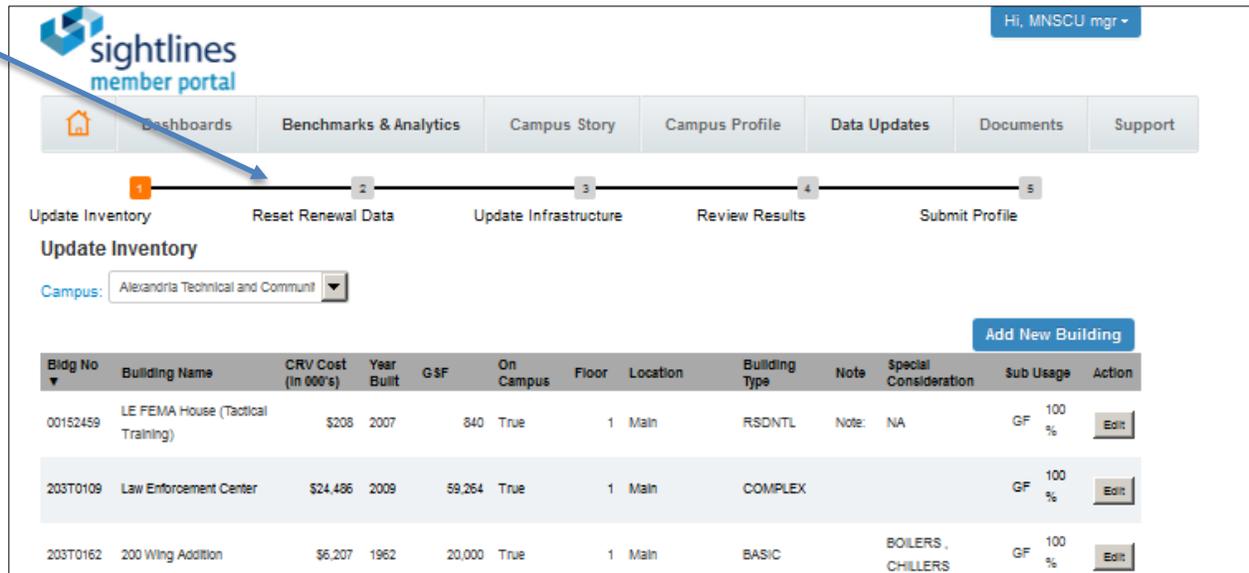
GSF by building type

Building Type	GSF
BASIC	56K
COMPLEX	0
SIMPLE	0
SMALL	0

Campus Total

Campus	Total \$
Century College	\$48M

Progress Tracker. Menu bar at the top of the back to track progress.



The screenshot shows the Sightlines member portal interface. At the top right, there is a user greeting: "Hi, MNSCU mgr". Below this is a navigation menu with the following items: Dashboards, Benchmarks & Analytics, Campus Story, Campus Profile, Data Updates, Documents, and Support. A progress tracker is located below the menu, consisting of a horizontal line with five numbered steps: 1. Update Inventory, 2. Reset Renewal Data, 3. Update Infrastructure, 4. Review Results, and 5. Submit Profile. A blue arrow points to the first step, "Update Inventory".

Under the "Update Inventory" step, there is a "Campus:" dropdown menu currently set to "Alexandria Technical and Communit". To the right of this menu is a blue button labeled "Add New Building".

Below the campus selection is a table with the following columns: Bidg No, Building Name, CRV Cost (in 000's), Year Built, G&F, On Campus, Floor, Location, Building Type, Note, Special Consideration, Sub Usage, and Action. The table contains three rows of data:

Bidg No	Building Name	CRV Cost (in 000's)	Year Built	G&F	On Campus	Floor	Location	Building Type	Note	Special Consideration	Sub Usage	Action
00152459	LE FEMA House (Tactical Training)	\$208	2007	840	True	1	Main	RSDNTL	Note:	NA	GF 100%	Edit
203T0109	Law Enforcement Center	\$24,486	2009	59,264	True	1	Main	COMPLEX			GF 100%	Edit
203T0162	200 Wing Addition	\$6,207	1962	20,000	True	1	Main	BASIC		BOILERS, CHILLERS	GF 100%	Edit

UPDATING OR REMOVING BUILDING DATA EDIT FUNCTION

To edit a building or building systems (modify or remove):

- Click “Edit” next to the appropriate building line and adjust the fields that are required. To **delete** a building you also select “Edit”

Hi, saintpaul mgr

sightlines member portal

Dashboards | Benchmarks & Analytics | Campus Story | Campus Profile | Data Updates | Documents | Support

1 Update Inventory | 2 Reset Renewal Data | 3 Update Infrastructure | 4 Review Results | 5 Submit Profile

Update Inventory

Campus Name: Saint Paul College | Building Name

Add New Building

Bldg No	Building Name	CRV Cost (in 000's)	Year Built	GSF	On Campus	Floor	Location	Building Type	Note	Special Consideration	Sub Usage	Action
206T0164	Main Bldg. (SPC)	\$87,680	1964	231,582	True	5	Main	BASIC	Roof	BACKUP GENERATOR , 5 to 8 LEVELS , CHILLERS	GF 100 %	Edit
206T0201	Main Bldg. Addition	\$2,094	2001	6,660	True	1	Main	BASIC			GF 100 %	Edit
206T0284	West Wing	\$20,558	1984	46,870	True	1	Main	COMPLEX	This		GF 100 %	Edit
206T0286PR	Parking Ramp	\$12,005	2012	202,150	True	4	Main	SIMPLE	Parki	St Cloud Ramp , BACKUP GENERATOR , Saint Paul Ramp	Revenue 100 %	Edit
206T0388	West Tower	\$19,295	1988	52,000	True	5	Main	BASIC		5 to 8 LEVELS	GF 100 %	Edit

ACTION

- After Selecting the Edit box for the line / building you'd like to modify, the line will expand to identify “Action”. Other than the drop down menus, there are three choices: UPDATE, CANCEL or DELETE.

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sightlines member portal

Dashboards | Benchmarks & Analytics | Campus Story | Campus Profile | Data Updates | Documents | Support

1 Update Inventory | 2 Reset Renewal Data | 3 Update Infrastructure | 4 Review Results | 5 Submit Profile

Update Inventory

Campus: Alexandria Technical and Communt

Add New Building

Bldg No	Building Name	CRV Cost (in 000's)	Year Built	GSF	On Campus	Floor	Location	Building Type	Note	Special Consideration	Sub Usage	Action
00152459	LE FEMA House (Text)	\$208	2007	840	<input checked="" type="checkbox"/>	1	Main	RSDNT		Mankato - Utility, Mankato Utility, Mois, Paraiso Co, NA		Update Cancel Delete

ADDING A BUILDING

Click “Add New Building” button in upper right hand corner

Hi, saintpaul mgr ▾

Home Dashboards Benchmarks & Analytics Campus Story Campus Profile Data Updates Documents Support

1 Update Inventory 2 Reset Renewal Data 3 Update Infrastructure 4 Review Results 5 Submit Profile

Update Inventory

Campus Name: Saint Paul College Building Name

Add New Building

Bldg No ▾	Building Name	CRV Cost (in 000's)	Year Built	GSF	On Campus	Floor	Location	Building Type	Note	Special Consideration	Sub Usage	Action
206T0164	Main Bldg. (SPC)	\$87,680	1964	231,582	True	5	Main	BASIC	Roof	BACKUP GENERATOR , 5 to 8 LEVELS , CHILLERS	GF 100 %	<input type="button" value="Edit"/>
206T0201	Main Bldg. Addition	\$2,094	2001	6,660	True	1	Main	BASIC			GF 100 %	<input type="button" value="Edit"/>
206T0284	West Wing	\$20,558	1984	46,870	True	1	Main	COMPLEX	This		GF 100 %	<input type="button" value="Edit"/>
206T0286PR	Parking Ramp	\$12,005	2012	202,150	True	4	Main	SIMPLE	Parki	St Cloud Ramp , BACKUP GENERATOR , Saint Paul Ramp	Revenue 100 %	<input type="button" value="Edit"/>
206T0388	West Tower	\$19,295	1988	52,000	True	5	Main	BASIC		5 to 8 LEVELS	GF 100 %	<input type="button" value="Edit"/>

Adding building

a

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Home Dashboards Benchmarks & Analytics Campus Story Campus Profile Data Updates Documents Support

1 Update Inventory 2 Reset Renewal Data 3 Update Infrastructure 4 Review Results 5 Submit Profile

Update Inventory

Campus Name: Saint Paul College Building Name

Add Building

Building Number

Building Name

Building Type

Floor

GSF

Location

Note

On Campus

Year Built

Special Consideration

NOTE: Obtain Building Number from the System Office

(continued):

Step #2: Reset Renewal Data

Part A: Running the “Buildings with Renewal Date Problems” Report

- Go to “Benchmarks and Analytics” on the top ribbon (see below)
- Run report 2.7 “Buildings with Renewal date problems”. This report will identify all the sub-systems that came due in 2016 or previous years and were NOT reset. Priority #1 is to reset all the renewal dates that show up in this report.
- When running report 2.7 select 2016 for the year, your campus, and all space. Then hit download.
- Ideally NO sub-system will show up in this report and then you can proceed to update backlog line items or years 2016 and beyond.



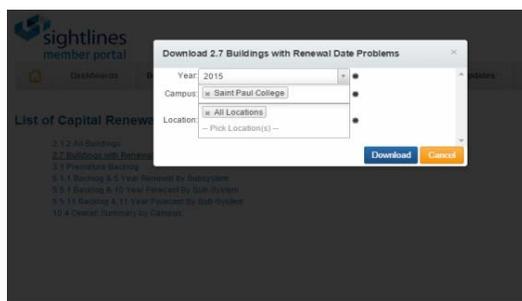
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Hi, saintpaul mgr

Home Dashboards **Benchmarks & Analytics** Campus Story Campus Profile Data Updates Documents Support

List of Capital Renewal Available Reports

- 2.1.2 All Buildings
- 2.7 Buildings with Renewal Date Problems**
- 3.1 Premature Backlog
- 5.1.1 Backlog & 5 Year Renewal by Subsystem
- 5.5.1 Backlog & 10 Year Forecast By Sub-System
- 5.5.11 Backlog & 11 Year Forecast By Sub-System
- 10.4 Overall Summary by Campus



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Download 2.7 Buildings with Renewal Date Problems

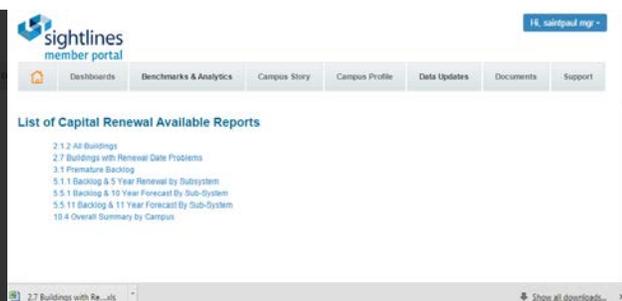
Year: 2015

Campus: [x] Saint Paul College

Location: [x] All Locations

Download Cancel

Report Search View



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Home Dashboards Benchmarks & Analytics Campus Story Campus Profile Data Updates Documents Support

List of Capital Renewal Available Reports

- 2.1.2 All Buildings
- 2.7 Buildings with Renewal Date Problems**
- 3.1 Premature Backlog
- 5.1.1 Backlog & 5 Year Renewal by Subsystem
- 5.5.1 Backlog & 10 Year Forecast By Sub-System
- 5.5.11 Backlog & 11 Year Forecast By Sub-System
- 10.4 Overall Summary by Campus

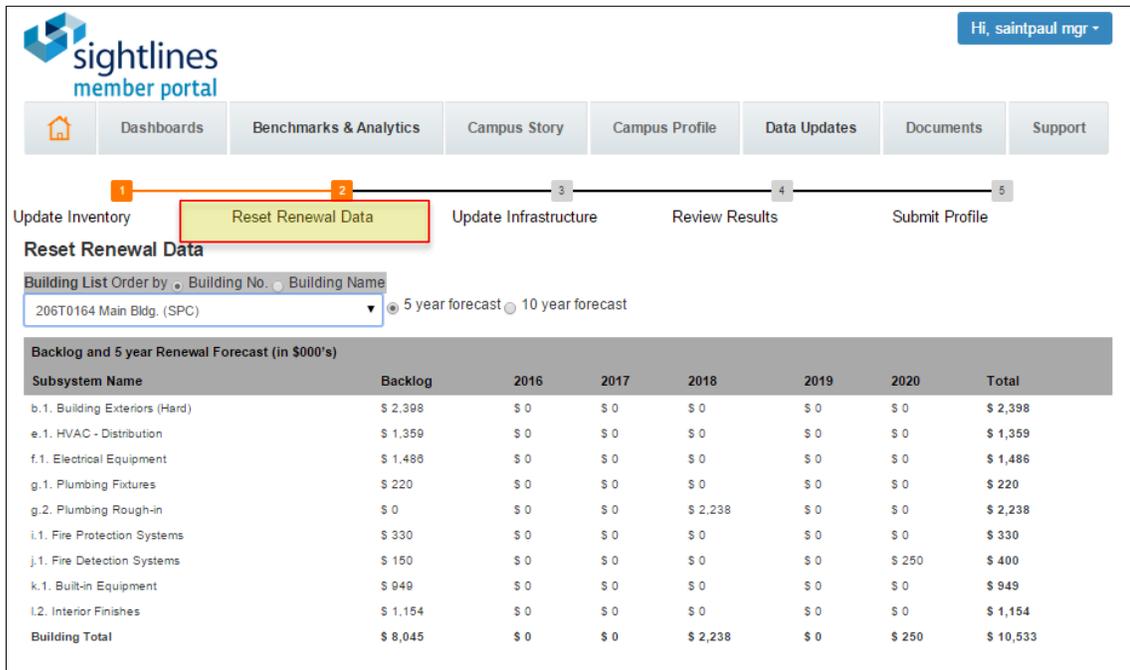
2.7 Buildings with Re_...xls Show all downloads

List of Reports

Part B: Resetting Renewal Data

The menu bar at the top of the page identifies that you're in step #2 "Reset Renewal Data"

The building sub-system information is on the same page as the building costs. You can toggle between buildings and 5 or 10 year capital forecast. This allows you to edit a renewal date of a sub-system and hit recalculate and the costs will be reflected above.



The screenshot shows the Sightlines member portal interface. At the top right, there is a user greeting: "Hi, saintpaul mgr". Below this is a navigation menu with items: Dashboards, Benchmarks & Analytics, Campus Story, Campus Profile, Data Updates, Documents, and Support. A process flow bar below the menu shows five steps: 1. Update Inventory, 2. Reset Renewal Data (highlighted with a red box), 3. Update Infrastructure, 4. Review Results, and 5. Submit Profile. Below the process flow, the "Reset Renewal Data" section is active. It includes a "Building List Order by" dropdown set to "Building No." and "Building Name", and a dropdown for the selected building: "206T0164 Main Bldg. (SPC)". There are radio buttons for "5 year forecast" (selected) and "10 year forecast". Below this is a table titled "Backlog and 5 year Renewal Forecast (in \$000's)".

Subsystem Name	Backlog	2016	2017	2018	2019	2020	Total
b.1. Building Exteriors (Hard)	\$ 2,398	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,398
e.1. HVAC - Distribution	\$ 1,359	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,359
f.1. Electrical Equipment	\$ 1,486	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,486
g.1. Plumbing Fixtures	\$ 220	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 220
g.2. Plumbing Rough-in	\$ 0	\$ 0	\$ 0	\$ 2,238	\$ 0	\$ 0	\$ 2,238
i.1. Fire Protection Systems	\$ 330	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 330
j.1. Fire Detection Systems	\$ 150	\$ 0	\$ 0	\$ 0	\$ 0	\$ 250	\$ 400
k.1. Built-in Equipment	\$ 949	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 949
l.2. Interior Finishes	\$ 1,154	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,154
Building Total	\$ 8,045	\$ 0	\$ 0	\$ 2,238	\$ 0	\$ 250	\$ 10,533

RESET OR ADJUST RENEWAL DATA

To reset any renewal dates your first step is to hit the edit button. To add a new sub-system you would hit, Add New Sub-System. To delete a sub-system you would hit edit.

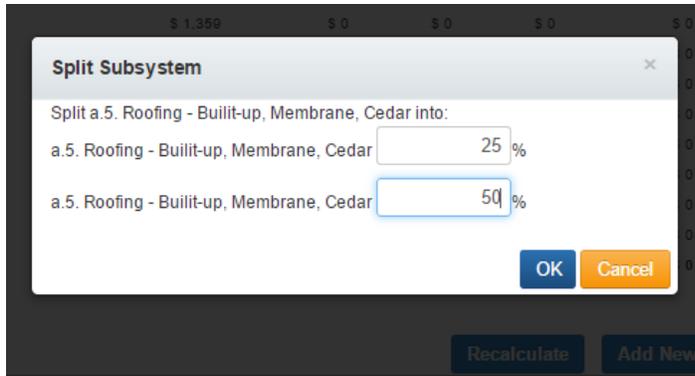
Subsystem Name ▼	Subsystem Percent	Life	Percent Renewed	Model Predicted Last	Actual Last	Model Predicted Next	Estimate Next	Notes	B_Multiplier	Action
a.5. Roofing - Built-up, Membrane, Cedar	100 %	25	75 %	2007	2007	2032		roof leaking	13.09	Edit
a.5. Roofing - Built-up, Membrane, Cedar	100 %	25	25 %	2010	2010	2035			13.09	Edit
b.1. Building Exteriors (Hard)	100 %	30	100 %	1964	1964			0		Edit
c.1. Elevators	100 %	25	67 %	2008	2008	2033				Edit
c.1. Elevators	100 %	25	33 %	2007	2007	2032		new in 2007		Edit
d.1. HVAC - Equipment	100 %	35	40 %	2007	2007	2042			-0.08	Edit
d.1. HVAC - Equipment	100 %	35	25 %	1999		2044	2044		-0.08	Edit
d.1. HVAC - Equipment	100 %	35	35 %	2010	2010	2045			-0.08	Edit

UPDATE OR SPLITTING A SUBSYSTEM

When you hit the edit button various options will come up. You can delete the sub-system, cancel, split, or collapse. If you want to split a sub-system you would hit split and then enter the appropriate percentages as shown in the below picture.

Subsystem Name ▼	Subsystem Percent	Life	Percent Renewed	Model Predicted Last	Actual Last	Model Predicted Next	Estimate Next	Notes	B_Multiplier	Action
a.5. Roofing - Built-up, Membrane, Cedar	<input type="text" value="100"/>	25	<input type="text" value="75"/>	2007	<input type="text" value="2007"/>	2032	<input type="text"/>	roof leaking	13.09	<div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> Update Split Collapse </div> <div style="border: 1px solid gray; padding: 5px;"> Delete Cancel </div>

This split will then add two line items to the building. If you need more line items continue to hit the split button. To collapse all the sub-system into one line item, hit collapse.



RECALCULATE

1. ***After making any changes/additions/deletions to subsystems, you must click RECALCULATE. This will save the changes you made.***
2. ***If you do not click RECALCULATE, your changes will not save.***

FURTHER ACTIONS FOR BUILDINGS WITH RENEWAL DATE PROBLEMS

For each sub-system that was identified in the 2.7 report following actions need to be taken. Additionally, the below actions need to be addressed for anything in backlog, entering backlog, or other changes over the next few years.

- i. **Whether or not this subsystem should be put into backlog.** If it is in backlog, then a zero will need to be entered into the *Estimate Next* cell for that building and subsystem in the *Reset Renewal Data* section.
- ii. **Estimating Remaining Life on Building Subsystems.** If it is not in backlog, then an estimate will need to be made as to how many years of remaining life the subsystem has, and the *Estimate Next* cell will need to be updated appropriately for that building and subsystem in the *Reset Renewal Data* section.
- iii. **Completed or Funded Projects.** If the project was completed or is funded, then the year of completion or funding will need to be entered in the *Actual Last* cell for that building and subsystem in the *Reset Renewal Data* section.



Step #3: Update Infrastructure by clicking *Next Step* or *Data Updates>Update Infrastructure*

In the infrastructure section all you need to update are the units. Click the edit button, and then enter the number of units for the sub-system within infrastructure. Please be sure to double check the unit of measure and if you have questions on the unit please contact Sightlines.

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[Campus Story](#)
[Campus Profile](#)
[Data Updates](#)
[Documents](#)
[Support](#)

1 Update Inventory 2 Reset Renewal Data 3 Update Infrastructure 4 Review Results 5 Submit Profile

Update Infrastructure

Campus: Saint Paul College Location: Infrastructure Category:

[Add New Subcategory](#)

Subcategory Name ▼	Class Name	Component Name	Year Built	UOM	Unit Cost	Avg Annual Cost	Units	Action
-	a. Asphalt	-	2005	LLF	\$102.346		0	Edit
-	a. Asphalt	-	2005	LLF	\$102.346	\$8,801.767	2150	Edit
-	a. Asphalt	-	2005	LLF	\$102.346	\$14,262.956	3484	Edit
-	a. Asphalt	-	2005	LLF	\$102.346	\$47,337.129	11563	Edit
-	a. Asphalt	-	2005	LLF	\$102.346	\$43,231.003	10560	Edit
-	a. Asphalt	-	2005	LLF	\$102.346		0	Edit
-	a. Asphalt	-	2005	LLF	\$102.346		0	Edit
-	a. Asphalt	-	2005	LLF	\$102.346		0	Edit
-	a. Asphalt	-	2005	LLF	\$102.346	\$56,200.304	13728	Edit

Step #4: Review Results

Click *Next Step* or *Data Updates>Review Results*. Run various charts using 2016 data to verify information and check for any obvious problems or outliers. Additional steps to qualify information before submitting data:

- a. Click ***Benchmarks & Analytics>Capital Renewal Reports>*** and run the 3 reports:
 - i. *2.7 Buildings with Renewal Date Problems* – see which subsystems have a predicted renewal date in the past
 - ii. *10.4 Overall Summary by Campus* – determine any major changes from previous year
 - iii. *3.1 Premature Backlog* – see which subsystems are in backlog well before the end of their standard useful life
- b. Please fix any items listed on these reports. If you don't understand why something is on these reports, please contact Mike Bomhoff at Sightlines at mbomhoff@sightlines.com or 610-844-9642.

Step #5: Submit Profile

Click *Next Step* or *Data Updates>Submit Profile* and clicking *Submit Data*. This will temporarily lock your data for 2016. There will be a period of time that the System Office and Sightlines will review Submitted Data before accepting the data as final. Once the System Office and Sightlines accept the data, it is permanently locked for 2016. If you would like to have your data unlocked in the interim period between your initial Submittal and final acceptance, please contact Mike Bomhoff at Sightlines at mbomhoff@sightlines.com or 610-844-9642.

SYSTEM OFFICE HOUSEKEEPING

1. **Update the inflation costs.** The system applies the same annual inflation factor published by Minnesota Management & Budget for the Capital Budget Project Inflation schedule.
2. **Update the Year.** This administrative function is completed by Sightlines under guidance of the System Office. The year has been changed to 2016. The model will recalculate based on the new year and new cost assumptions. Recalculating may take as long as five minutes per campus.
3. **Reports!** The system office will be publishing system and campus specific reports and graphics after the 2016 data is complete.

CONTACT FOR ASSISTANCE

Michael Bomhoff

Product Manager | [sightlines](#)

mbomhoff@sightlinesllc.com

610.844.9642

Emily Ziring

Sustainable Facilities Program Manager

Minnesota State Colleges and Universities

Emily.Ziring@so.mnscu.edu

Direct: 651-201-1547

APPENDIX 1 - Report Definitions

2.1.2 All Buildings – Lists building name, number, type, location, GSF and usage percentages

2.4 All Building Profiles – Identifies key building and subsystem profiles by campus and by building.

2.7 Buildings with Renewal Date Problems – Lists buildings which have “next renewal dates” before (or in) the current year

3.1 Premature Backlog – Sub-systems that are listed in the backlog even though their age is less than 80% of their expected life cycle.

5.1.1 Backlog & 5 Year Renewal by Sub-System – Includes backlog and projected renewal needs for the next 5 years by building and sub-system.

5.5.1 Backlog & 10 Year Forecast By Sub-System – Includes backlog and projected renewal needs for the next 10 years by building and sub-system.

10.4 Overall Summary by Campus – GSF, CRV, Backlog, Average Annual Renewal, Average Annual Infrastructure Needs, FCI and Average Renewal divided by CRV

APPENDIX 2 – Building Type Definitions

Small: buildings less than 10,000 gsf with basic utility systems.

Examples include modular buildings. The HVAC systems, electrical and plumbing systems are designed to support basic teaching and office space. Also included in Small are Agricultural Facilities with basic utility systems such as greenhouses, headhouses, simple animal holding facilities, and storage facilities. (See note below.)

Simple: for buildings over 10,000 gsf with minimal systems.

Examples include warehouses, barns, shops and parking structures.

Basic: for buildings over 10,000 gsf with basic utility systems.

Examples of this type of building include classrooms, offices, and libraries. The HVAC systems, electrical and plumbing systems are designed to support basic teaching and office space. Older laboratory buildings are frequently typed as basic because of the type of HVAC, electrical and plumbing systems installed in the buildings.

Complex: buildings over 10,000 gsf with complex utility systems.

Examples include biological and chemistry laboratories as well as other facilities with highly developed system needs. These buildings have complex HVAC systems (usually twice that of Basic) and extra-strength power and plumbing.

Residential: buildings that are used for housing. No square footage threshold.

Examples include residence halls and apartment buildings.