

# Facility Life Cycle Planning

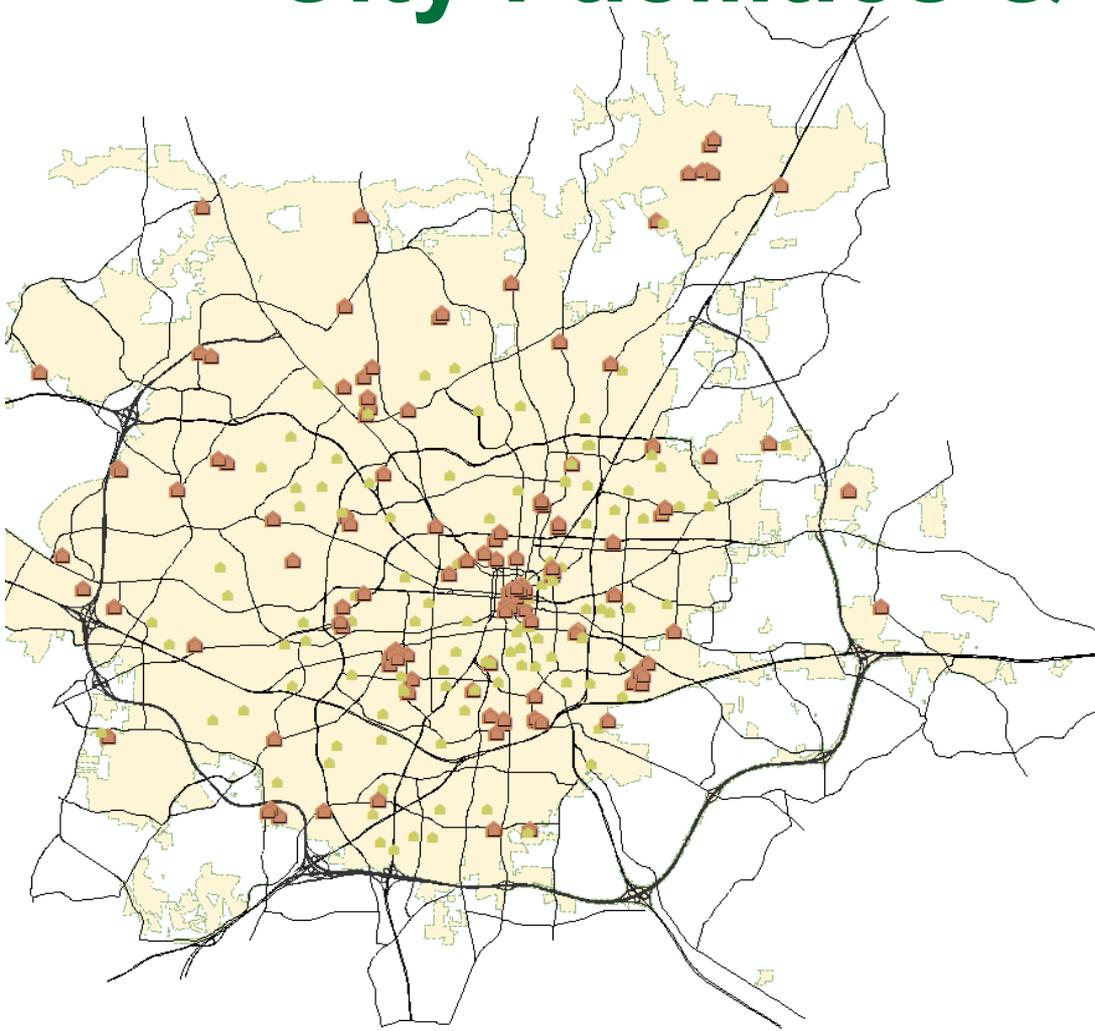
August 26, 2021

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Engineering & Inspections



# City Facilities & Structures

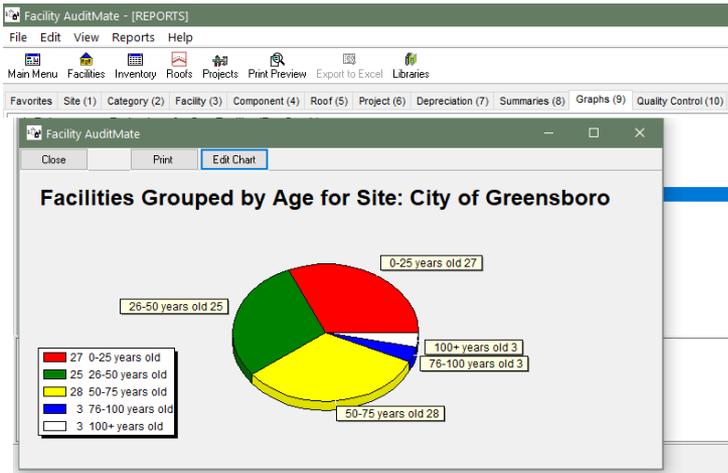


# Facilities & Structures Require Ongoing Maintenance

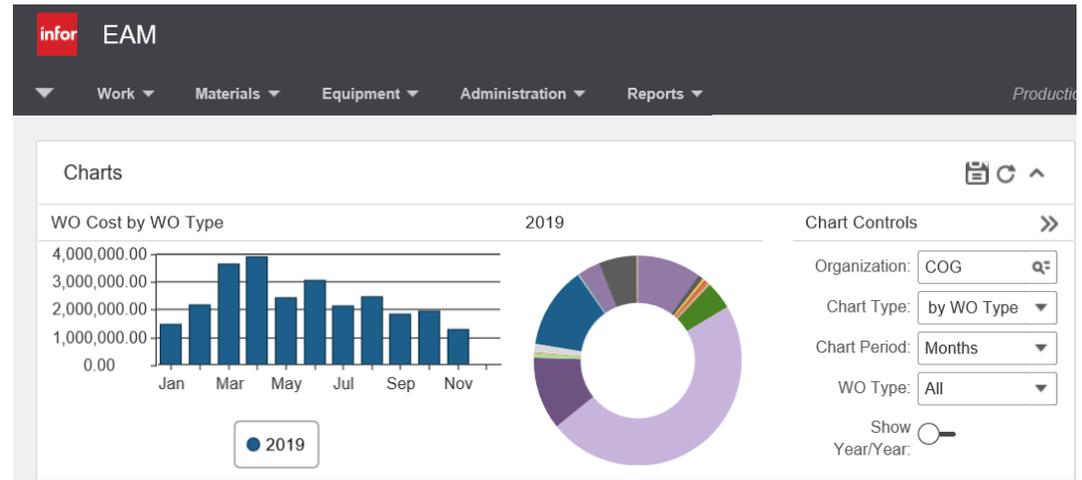


# How Do We Plan For Replacements?

Maintain an Inventory of occupied buildings and their major components.

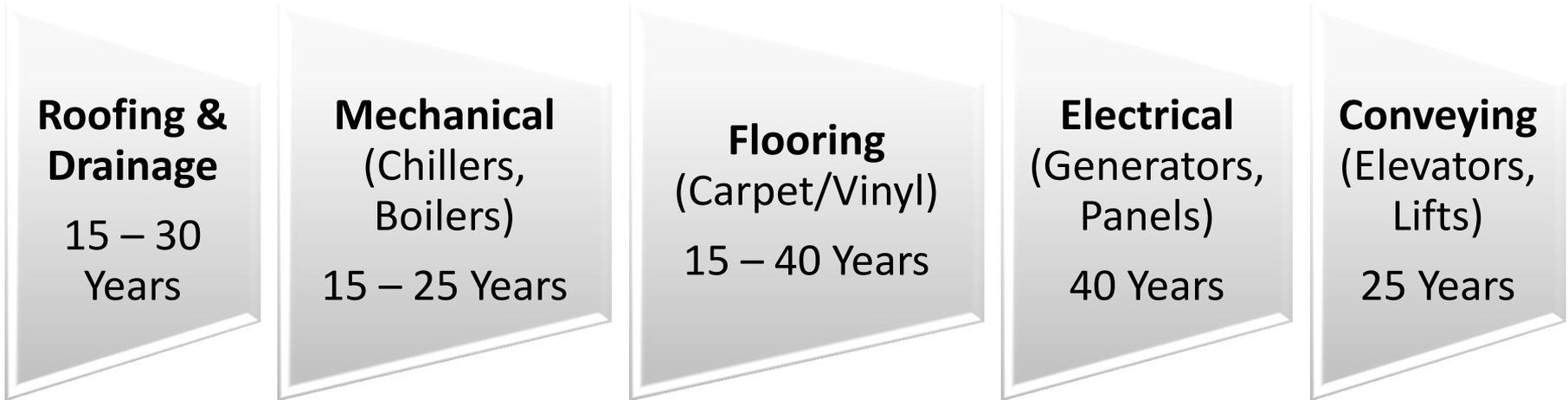


Evaluate repair and maintenance history to project building components “End of Life”.

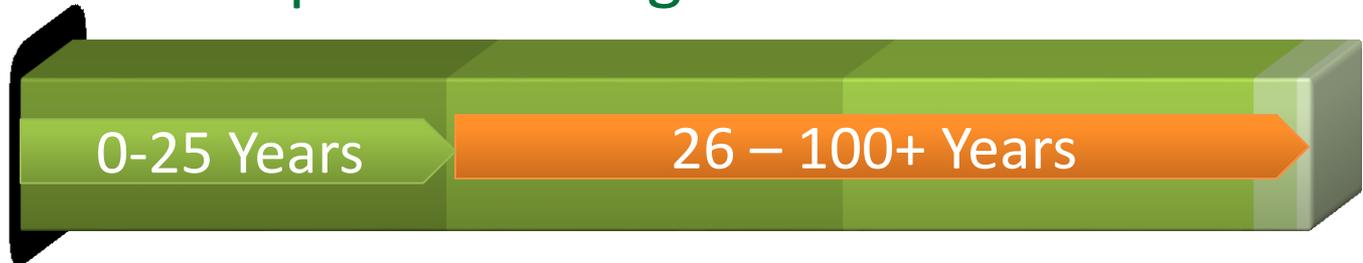


# Building Inventory

- “End of Life” for Building Components = Industry Standard Life Expectancy +/- Condition Assessment

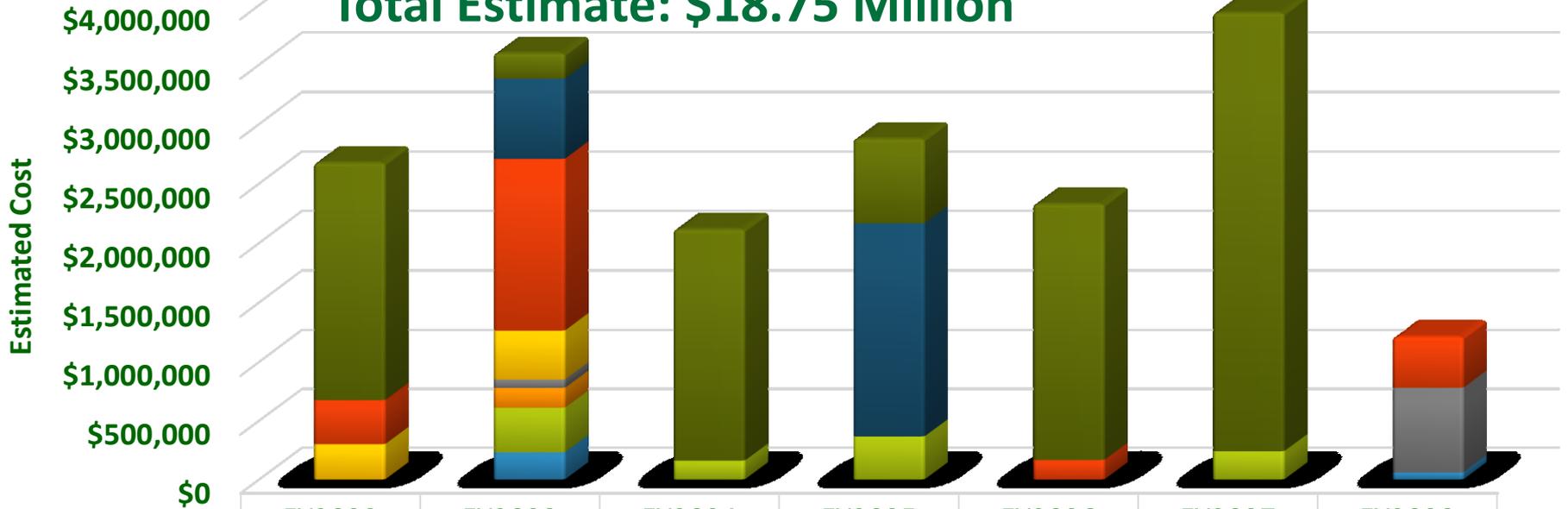


- 67% of the occupied buildings are older than 25 years



# Facilities Needs FY2022 through FY2028

Total Estimate: \$18.75 Million

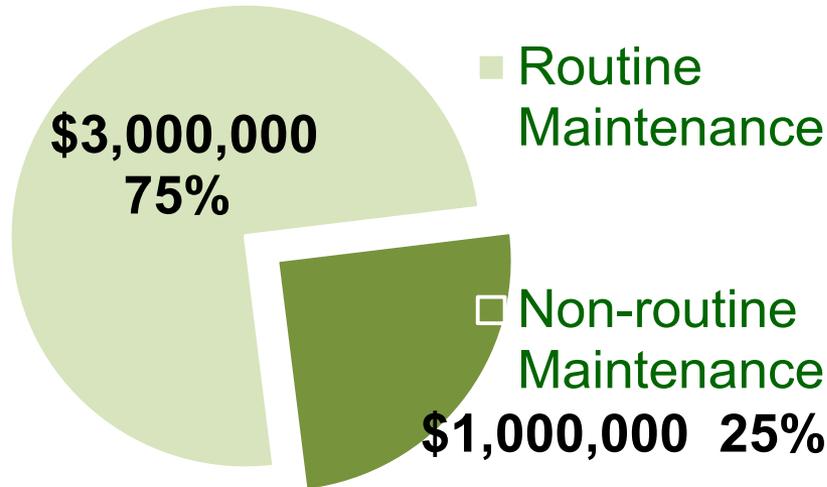


	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Roof	\$2,000,000	\$213,230	\$1,955,070	\$710,000	\$2,162,000	\$3,695,200	
Other		\$675,000		\$1,800,000			
HVAC	\$375,000	\$1,445,000			\$166,000		\$430,695
Flooring	\$300,000	\$412,957					
Fire		\$70,000					\$720,852
Elevator		\$170,000					
Electrical		\$380,000	\$160,000	\$366,000		\$240,000	
ADA		\$230,000					\$60,000

# How Are We Funded?

## Facilities Maintenance

Base Budget - Total \$4 Million



Additional funding needs for Replacements are planned for and budgeted through “Capital Improvement Planning” process

### Routine Maintenance & Repairs

- Funded through our annual base budget

### Replacements of Components

- Funding is planned and budgeted for as components reach end of life.
- Estimated annual need is \$3.0 to \$3.5 Million

# Unfunded Needs - Example

## Central Library

- Constructed in 1998 – building is now 23 years old
- Roof (Life Expectancy 15 years for ballasted roofs)
  - Roof & Skylight Estimated Replacement: \$1.25 million
- Chillers (Life Expectancy 15-25 years)
  - Estimated Cost: \$365,000
- Carpet (original to the building)
  - Estimated Cost: \$300,00
- Total Estimated Cost: **\$1,925,000**

# Central Library Repair Needs

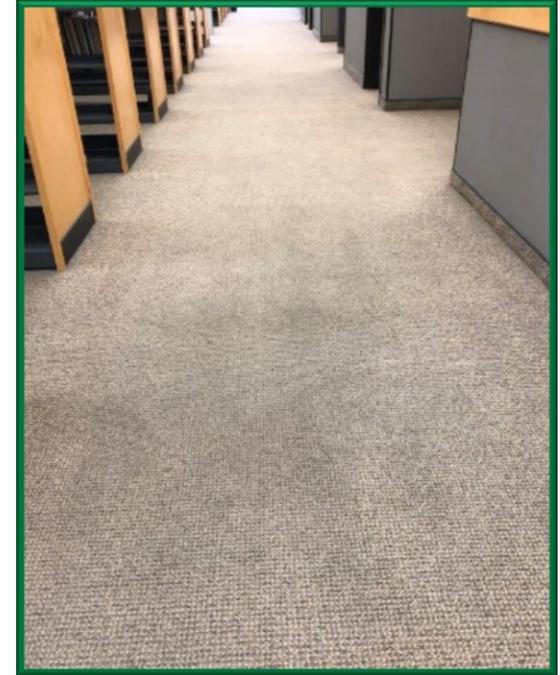
Decaying Roof Structure  
\$1,250,000



Cooling Tower  
\$375,000



Carpet  
\$300,000



# Impacts of Roof Leaks

Images taken after a heavy rain event in January 2020



Emergency Shut-down of Library in 2018 after a heavy storm



**In 2018 water intrusion from roof leaks caused a electrical fire in the computer server room**



# Sustainability

- Replacement Equipment is almost always more efficient than original equipment due to overall energy efficiency progress in manufacturing.
- Solar opportunities are investigated on a case by case basis when major roofs need to be replaced.
- An example of a solar option is the Central Library Roof:
  - Roof cost \$1.2 million
  - Add 1 MW solar would cost an additional \$2-\$3 million based on current market conditions



# Questions

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