



SPOTLIGHT ON: TRAFFIC SIGNALS

The City owns and operates **more than 100 signalized intersections** which are vital in maintaining the flow and safety of traffic throughout Livermore.

All together, the City has over \$54 million dollars' worth of traffic signals and related components. Each of these signals requires constant monitoring and monthly maintenance.

Currently, signalized intersections have a Physical Health score of "B+" and a Financial Health Grade of "F."

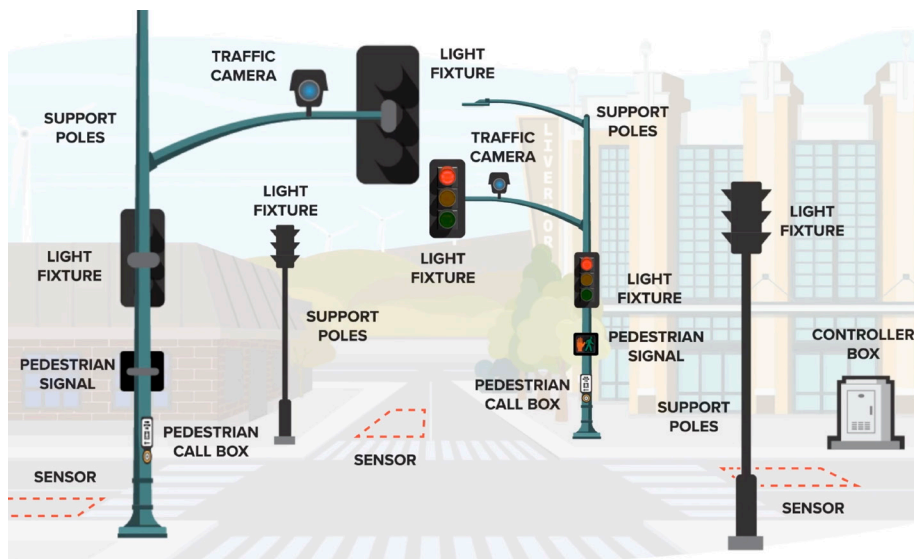
This tells us that while most signals are in good condition, there will be funding shortages for future repair and replacement activities.

Quick Facts

| | |
|--------------------------------------|----------------|
| Number of Signalized Intersections: | 108 |
| Asset Components: | 6,449 |
| Total Asset Value: | \$54.1M |
| Cost of one signalized intersection: | \$450K |
| Annualized repair/replacement cost: | \$1.8M |
| Physical Health: | B+ |
| Financial Health: | F |

Traffic Signal Components

A signalized intersection includes dozens of components, including, signal heads, detection systems, fiber and wireless interconnects, and many other elements.



Did you know?

The first traffic signal in Livermore was activated on June 26, 1951 at the intersection of First and L Streets.





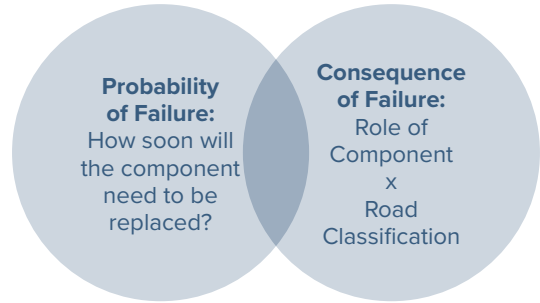
Asset Analysis

Every component in a signalized intersection must be maintained, repaired, and eventually replaced.

The City keeps careful tabs on each asset—checking every component and calculating its **Level of Risk** as shown in the graphic on the right.



Determining Level of Risk

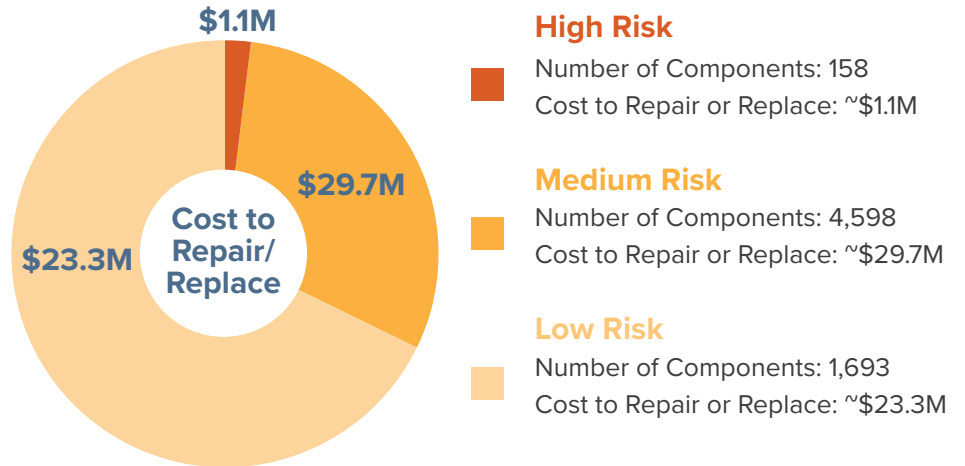


Example: A signal head has a higher Consequence of Failure than a closed-circuit camera. And a traffic signal in a high traffic area has a higher Consequence of Failure than a remote intersection.

Level of Risk

This graph shows the current Level of Risk for all signal light components, along with the cost to repair or replace.

Over time, more components will enter the High Risk category as they age.



Asset Health Grade

The overall health of an asset class is determined by two grades, Physical Health and Financial Health.

Physical Health: B+

When determining the **physical health** of an asset class the City considers two factors: 1) the Overall Condition of all components with a high probability of failure; and 2) the number and cost of High Risk Failing Assets. Currently traffic signals are in good physical shape.

Overall Condition: B

High Risk Failing Assets: A

Financial Health: F

When determining the **financial health** of an asset class, the City considers two factors: the immediate “Catch Up” costs to repair/replace critical components, and “Keep Up” costs for subsequent needs. Currently the City does not have adequate funding to repair or replace asset components as they fail.

Catch Up: F

Keep Up: F