

# 1 Building Management System

Category	Subcategory	Grade
Overall Grade		C
Physical Health		
	Overall Condition	C
	Risk-Based Condition	C
Financial Health		
	Catch Up	F
	Keep Up	A

## 1.1 Background

### 1.1.1 What Services Do These Assets Provide?

The Building Management System is comprised of City-owned facilities at over 20 locations that include more than 40 buildings. The buildings include City Hall, Police Facilities, libraries, fire stations, historic buildings, the Maintenance Service Center, theater, and others. These buildings provide the community with a variety of services and are primarily funded by the general fund. The Building Management System does not include enterprise funded buildings (e.g., airport, water reclamation plant) or Las Positas Golf Course buildings because at the time of writing the golf course was an enterprise funded facility.

The following figures show some of the City's buildings.



Figure 1-1 City Hall



*Figure 1-2 Police Department*



*Figure 1-3 Fire Station No. 9*



*Figure 1-4 Downtown Parking Facility*

Some City buildings provide essential city services (e.g., City Hall, Police headquarter, fire stations), while other buildings provide spaces for community enrichment (e.g., Bankhead Theater, libraries, historical buildings) and specific use (e.g., rental facilities, parking facilities). The following tables categorize general funded City-owned buildings by the following service types:

- **Essential Facility / Core City Service** – These facilities are required in order for the City to provide its essential services. The City will not be able to function properly without these services as they provide infrastructure for safety, mobility, and public participation in the governing process.
- **Significant Enrichment Facility / General Usage** – These facilities provide services that enrich the quality of life for residents and are widely utilized. The services provided through these facilities closely align with the City’s vision and image and are an important component of the City’s character and the well-being of residents.
- **Enrichment Facility / Specific Usage** – These facilities provide services that enrich the quality of life for residents. These facilities provide benefit to a limited number of people within the community.

*Table 1-1 Essential Facility / Core City Service Buildings*

Facility	Facility Function
City Hall	<ul style="list-style-type: none"> <li>• Core City services are provided (engineering, permits, planning, finance, administration)</li> </ul>
Council Chambers	<ul style="list-style-type: none"> <li>• Facilitates the public participation in the governing of the City</li> </ul>
Fire Station 6	<ul style="list-style-type: none"> <li>• Life safety</li> </ul>
Fire Station 7	<ul style="list-style-type: none"> <li>• Life safety</li> </ul>
Fire Station 8	<ul style="list-style-type: none"> <li>• Life safety</li> </ul>
Fire Station 9	<ul style="list-style-type: none"> <li>• Life safety</li> </ul>

Facility	Facility Function
Fire Station 10	<ul style="list-style-type: none"> <li>Life safety</li> </ul>
Maintenance Service Center	<ul style="list-style-type: none"> <li>Provides maintenance service for City's infrastructure and facilities, as well as police storage</li> </ul>
Police Facilities	<ul style="list-style-type: none"> <li>Police headquarters</li> </ul>

*Table 1-2 Significant Enrichment Facility / General Usage Buildings*

Facility	Facility Function
Bankhead Theater	<ul style="list-style-type: none"> <li>Cultural rental facility</li> <li>Currently occupied by Livermore Valley Performing Arts Center</li> </ul>
Carnegie Library	<ul style="list-style-type: none"> <li>Historical building</li> <li>Museum / art gallery</li> </ul>
Civic Center Library	<ul style="list-style-type: none"> <li>Enrichment of education and cultural value</li> </ul>
Downtown Parking Structure	<ul style="list-style-type: none"> <li>Provides parking for residents and visitors in the downtown area</li> </ul>
Multi Service Center	<ul style="list-style-type: none"> <li>Provides a variety of health and human services</li> </ul>
Ravenswood	<ul style="list-style-type: none"> <li>Historical building</li> <li>Rental facility / social engagement</li> </ul>

*Table 1-3 Enrichment Facility / Specific Usage Buildings*

Facility	Facility Function
141 N. Livermore Ave.	<ul style="list-style-type: none"> <li>Rental facility</li> <li>Currently occupied by tenants</li> </ul>
145-149 N. Livermore Ave.	<ul style="list-style-type: none"> <li>Rental facility</li> <li>Currently occupied by tenants</li> </ul>
241 N. M St.	<ul style="list-style-type: none"> <li>Rental facility</li> <li>Currently occupied by tenants</li> </ul>
Duarte Garage / Caretaker's House	<ul style="list-style-type: none"> <li>Historical</li> </ul>
Hagemann Farm	<ul style="list-style-type: none"> <li>Historical</li> <li>Human services</li> </ul>
Railroad Depot	<ul style="list-style-type: none"> <li>Historical building</li> <li>LAVTA ticket office</li> </ul>
Rincon Library	<ul style="list-style-type: none"> <li>Branch library</li> </ul>
Shea Plaza Restroom Facility	<ul style="list-style-type: none"> <li>Public bathrooms for Shea Plaza</li> </ul>
Springtown Library	<ul style="list-style-type: none"> <li>Branch library and storage facility</li> </ul>

Facility	Facility Function
Southern Bell Building	<ul style="list-style-type: none"> <li>• Historical</li> <li>• Rental Facility</li> </ul>

### 1.1.2 Who is Responsible?

The City is fully responsible for the buildings that provide essential City services (e.g., City Hall, fire stations). In some cases, the City shares the management responsibility with another organization, such as the Livermore Area Recreation and Park District (e.g., Ravenswood). In these cases, the City generally owns the building, while the building is maintained by the other organization. In addition, there are buildings that the City owns but are leased to private parties. In these cases, the tenant is responsible for maintenance, but the City is responsible for the major capital needs (e.g., HVAC, roof). The following table summarizes the maintenance responsibilities of each building owned by the City. Where applicable, these maintenance responsibilities are reflected in the life cycle cost logic.

*Table 1-4 Building Maintenance Responsibility*

Site	Maintenance Responsibility
141 N Livermore Ave	Lessee / City
145 - 149 N Livermore Ave	Lessee / City
Bankhead Performing Arts Theater	Livermore Valley Performing Arts Center / City
Carnegie Library	Livermore Heritage Guild / Livermore Area Recreation and Park District / City
City Hall	City
Civic Center Library	City
Council Chambers	City
Duarte Garage/Caretaker's House	Livermore Heritage Guild
Fire Station 6	City
Fire Station 7	City
Fire Station 8	City
Fire Station 9	City
Fire Station 10	City
Maintenance Service Center	City / Livermore Area Recreation and Park District
Multi Service Center	City
Police Facilities	City
Railroad Depot	City / Livermore Amador Valley Transit Authority
Ravenswood	City / Livermore Area Recreation and Park District
Rincon Library	City
Springtown Library	City
Hagemann Farm	City / Livermore Heritage Guild

Site	Maintenance Responsibility
Southern Bell	Lessee

## 1.2 Asset Register

### 1.2.1 Asset Definition

An asset in the Building Management System is defined as something with value that is owned and managed by the City. For City staff use, an asset is defined at the level in which a maintenance work order will be generated and depends on the size and complexity of the asset. Typical assets in the Building Management System include the following: roof, electrical, AC unit, water heater, ceiling, interior walls, doors, flooring, plumbing, lights, driveway, etc. Any landscape assets that surround a building are not included in this management plan and are instead included in the Landscape Management System.

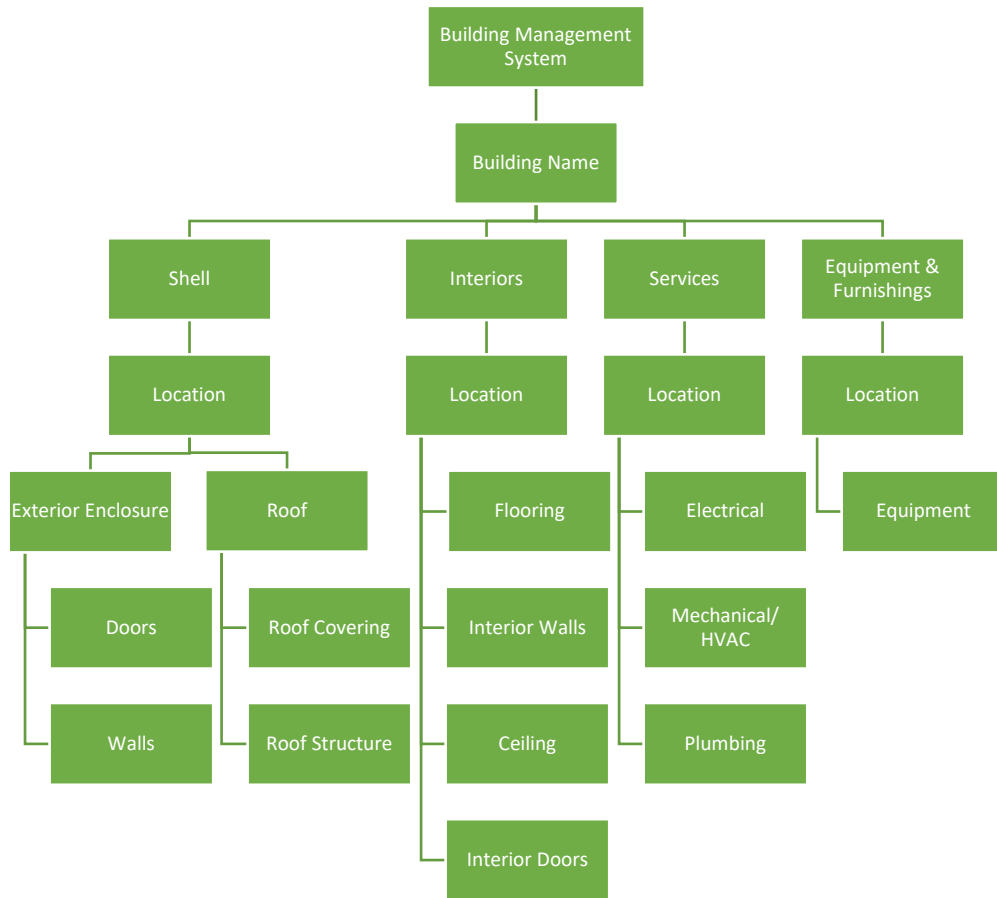
### 1.2.1 Asset Class

Assets are grouped into classes for modeling and management purposes. An asset class generally refers to a group of assets that behave similarly (e.g., useful life, rehabilitation activities). Grouping the assets into these classes allows easier life-cycle behavior modeling.

A full list of Building Management System asset classes can be found in Appendix A.

### 1.2.2 Asset Hierarchy

The asset hierarchy of the Building Management System is organized first by building, and then by more specific categories such as shell, interior, site, etc. This hierarchy helps organize assets and supports asset management decisions at various levels (e.g., asset level, building level). The following figure illustrates the general hierarchy for the Building Management System.



**Figure 1-5 Building Management System Hierarchy**

**1.2.3 Asset Inventory**

The City owns 42 main buildings (some sites include additional complimentary buildings) at 21 locations included in the general funded asset inventory. In total, there are 29,116 assets in the Building Management System covering over 305,000 square feet.

The table below identifies the City-owned buildings by site.

**Table 1-5 Site and Building List**

Site	Buildings
141 N Livermore Ave	141 N Livermore Ave
145 - 149 N Livermore Ave	145 - 149 N Livermore Ave
Bankhead Performing Arts Theater	Bankhead Performing Arts Theater Building
Carnegie Library	Carnegie Library Building

Site	Buildings
Civic Center	City Hall Civic Center Library Building Police Facilities Council Chambers Multi Service Center
Duarte Garage	Duarte Garage Caretaker's House
Fire Station 6	Fire Station 6
Fire Station 7	Fire Station 7
Fire Station 8	Fire Station 8
Fire Station 9	Fire Station 9
Fire Station 10	Fire Station 10
Maintenance Service Center (MSC)	MSC Building 1 - Administration Building MSC Building 2 - Storage MSC Building 3 - Police Evidence Storage MSC Building 4 - Covered Parking MSC Building 5 - Shop MSC Building 6 - Shop MSC Building 7 - Covered Parking MSC Building 8 - Shop MSC Building 9 - Storage
Railroad Depot	Railroad Depot
Ravenswood Historic Site	Carriage House Gift Shop/Tank Building Main House Restrooms Sleep Quarters
Rincon Library	Rincon Library Building
Springtown Library	Springtown Library



Site	Buildings
Hagemann Farm	Barn 1 Barn 2 Community Shed Feed Shed 1 Feed Shed 2 Garden Tuff Shed Goat Shed House Shed Main House Red Barn Tractor Shed Waterhouse Shed
Downtown Parking Facility	Downtown Parking Facility
241 N M St	Main Building Shed
Shea Plaza Restroom Facility	Shea Plaza Restroom Facility
Southern Bell Building	Southern Bell Building

To create the Building Management System asset inventory, as-builts or similar information was used if available. If as-builts were available, the asset register was initiated with information from the drawings (e.g., size, material, type). Safely and readily accessible assets were then verified during an on-site inspection process. If as-builts were not available (this was especially true of historic facilities), the inventory was developed during an on-site assessment. During the on-site inventory process, the condition assessment was also performed. Some interiors were not visited due to inaccessibility. The inspection process for each building is identified in Appendix B and the condition assessment is included in Section 1.2.6.

#### 1.2.4 Asset Replacement Cost

Each asset in the asset register was assigned an estimated replacement cost. A 30% markup was added to each asset replacement cost to help account for project costs (e.g., design, engineering, permit fees). To account for structural assets that are not typically replaced (e.g., foundation, exterior walls), an asset class named Structural Elements was added to each building. As summarized in this report, the replacement cost, by building, represents the sum of replacement costs of the assets within the building and the building's structural elements. The sum of all replacement costs in the Building Management System is approximately \$131.4 million.

The three locations with the highest replacement costs are City Hall with 1,834 assets summing to approximately \$21.3 million, Bankhead Performing Arts Theater with 808 assets at \$21.0 million, and the Police Facilities with 1,792 assets at \$13.0 million.

It should also be noted that the building replacement costs included in this report are different than building values derived from the City of Livermore's Risk Management Property List. The costs in this report reflect the summation of asset costs and do not reflect the insurance values from the Property List.

The table below summarizes the estimated replacement cost of each buildings by site.

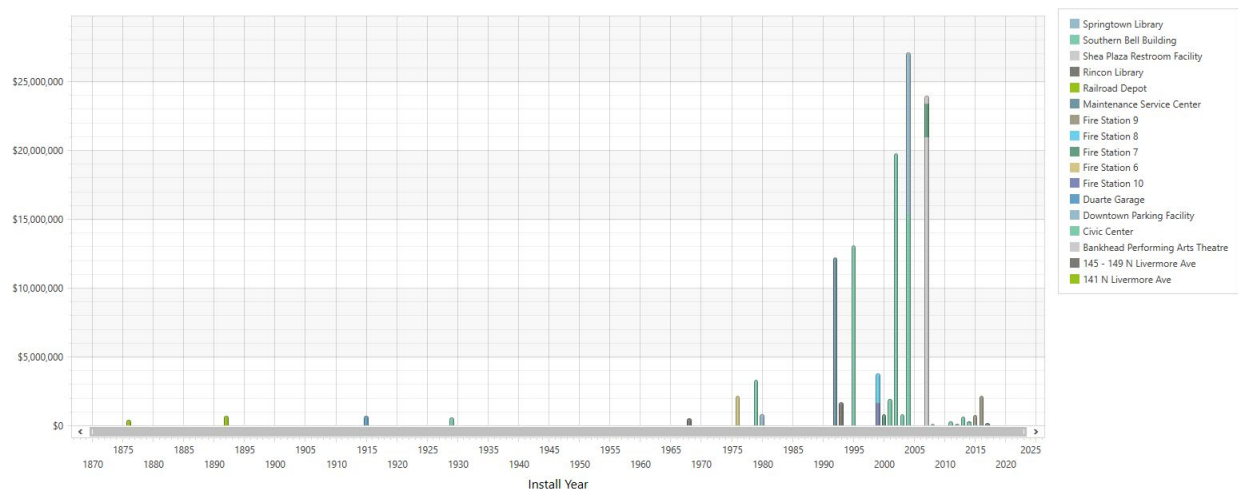
*Table 1-6 Estimated Total Asset Replacement Cost by Building/Site*

Building/Site Name	Total Asset Replacement Cost	Building/Site Name	Total Asset Replacement Cost
141 N Livermore Ave	\$ 927,700	Fire Station 8	\$2,103,800
145 - 149 N Livermore Ave	\$ 553,600	Fire Station 9	\$2,772,400
241 N M Street	\$ 581,600	Hagemann Farm	\$1,461,400
Bankhead Performing Arts Theater	\$ 20,941,000	Maintenance Service Center	\$ 12,291,600
Carnegie Library	\$2,981,500	Multi Service Center	\$3,283,600
City Hall	\$ 21,274,800	Police Facilities	\$ 13,044,700
Civic Center Library	\$ 17,544,500	Railroad Depot	\$1,466,700
Council Chambers	\$ 695,600	Ravenswood Historic Site	\$3,767,000
Downtown Parking Facility	\$ 11,751,000	Rincon Library	\$1,629,100
Duarte Garage	\$1,007,500	Shea Plaza Restroom Facility	\$ 484,500
Fire Station 10	\$1,641,500	Southern Bell Building	\$3,174,900
Fire Station 6	\$2,094,300	Springtown Library	\$ 768,000
Fire Station 7	\$3,190,700		

### 1.2.5 Installation and Consumption Profile

The installation profile gives an indication of the age of the building assets. Installation year was determined based on historical data. Exact installation year from records for certain assets was incorporated whenever possible.

The figure below shows the installation profile for the Building Management System. The graph shows the City's historical facility investments represented in 2017 dollars. The installation of the historical facilities is estimated to range from 1870 to 1929. More recent construction started in the 1960's. Subsequent developments were initially slow until 1992. The spike in asset installation in 1992 is due to the construction of the Maintenance Service Center (MSC) buildings. In 2002, 2004, and 2007, City Hall, Police Facilities, Civic Center Library, Downtown Parking Facility, Shea Plaza Restroom, and Bankhead Performing Arts Theater were built.



**Figure 1-6 Installation Profile**

More important than the installation data is the estimated current state or consumption of the assets. Consumption represents the percentage of an asset’s expected life that it has used up or consumed. As illustrated in the following figure, most building assets have consumed approximately 70% or less of their useful lives. Although 70% may seem high, these assets may be in relatively good condition with years of life left, as explained in the next section. Another reason for the high consumption peak in the 70% was that many assets received a condition score of 3 (Good or As Expected Based on Age). An exponential decay curve was utilized to represent the deterioration of the asset, which roughly translated a condition assessment score of 3 to be 70% consumed. Discussion on the condition assessment rating scale is presented in the following section.

The following figure shows the consumption profile represented in 2017 dollars. Approximately \$9.4 million worth of assets are estimated to be fully consumed. The replacement or rehabilitation of these assets should take place in the near future.

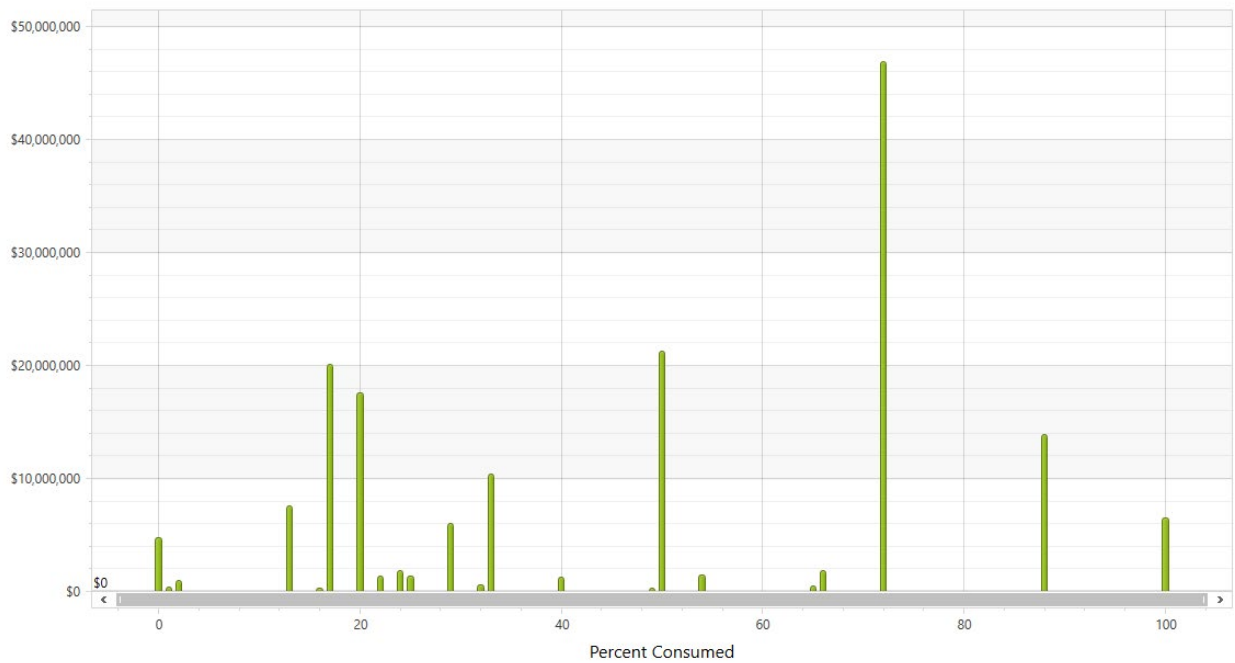


Figure 1-7 Consumption Profile

1.2.6 Condition Assessment

Condition is one of the best indicators for estimation of immediate and/or future repair and replacement work. During the asset inventory field visits, each accessible asset was assessed for condition based on the following condition scale. Assets with replacement and rehabilitation needs were highlighted. Condition information for each asset is available in the City’s IRIS database. This information would be too lengthy to include in this report.

Table 1-7 Building Condition Scale

Condition Score	Description
1	New or nearly new
2	Very good
3	Good or as expected based on age
4	Poor or recommended replacement within near-term
5	Failed or nearing failure, needs immediate attention

1.2.7 Facility Condition Index

The most commonly used rating tool in the building industry and the tool used for the City’s buildings is the Facility Condition Index (FCI). This index score is typically denoted as a percentage representing the physical condition of a facility in terms of value. FCI is calculated using the following formula:

$$FCI = \frac{Unweighted\ Repair\ Costs}{Replacement\ Value}$$

The unweighted repair costs include any costs for needed repairs and deferred maintenance. The replacement value is the estimated cost to replace the assets in the entire facility. The higher the FCI percentage, the poorer the relative facility condition.

Table 1-8 displays the facility condition description corresponding to each FCI range. The table shows the standard Facility Condition levels. However, past experience has shown that the standard levels can be unrealistic; the standard Facility Condition levels represent a level that the City may not need or even want to achieve and maintain. When the City’s buildings were scored on the standard FCI score, the facility condition levels exaggerated the facility condition as much lower than the actual condition of the buildings. An adjusted FCI rating was used instead to more accurately represent the acceptable level of facility condition for the City’s buildings. The specific FCI percentage for each building can be found in Appendix D and the FCI rating is found in Appendix D and Table 1-9.

*Table 1-8 FCI Rating Scores*

Facility Condition	Standard FCI	Adjusted FCI
Good	0 - 4.9%	0 – 9.9%
Fair	5 - 9.9%	10 – 29.9%
Poor	10% and Above	30% and Above

The following table presents the FCI rating for each building. Historical buildings were excluded from the FCI assessment as these are irreplaceable buildings; the value of these buildings cannot be established.

*Table 1-9 FCI by Building*

Site	FCI	Site	FCI
141 N Livermore Ave	Fair	MSC Building 2 – Storage	Fair
145 - 149 N Livermore Ave	Good	MSC Building 3 - Police Evidence Storage	Good
241 N M Street	Fair	MSC Building 4 - Covered Parking	Fair
Bankhead Performing Arts Theater	Good	MSC Building 5 – Shop	Fair
City Hall	Good	MSC Building 6 – Shop	Fair
Civic Center Library	Good	MSC Building 7 - Covered Parking	Good
Council Chambers	Poor	MSC Building 8 – Shop	Fair
Downtown Parking Facility	Good	MSC Building 9 – Storage	Good
Fire Station 6	Fair	Multi Service Center	Good
Fire Station 7	Good	Police Facilities	Fair
Fire Station 8	Fair	Rincon Library	Good
Fire Station 9	Good	Shea Plaza Restroom Facility	Good
Fire Station 10	Good	Southern Bell Building	Fair
MSC Building 1 - Admin Building	Fair	Springtown Library	Fair

## 1.3 Risk Analysis

### 1.3.1 Probability of Failure

For most of the assets, Probability of Failure (PoF) was determined by the condition score assigned during visual inspection. In cases where the assets were not visible or where visual assessment was not a good representation of the asset's condition, PoF was calculated based on age by comparing the installation year and estimated useful life based on the City's historical usage, manufacturer's estimation, and/or other reputable resources (e.g., research results, ENR, Whitestone, neighboring cities). PoF information for each asset is available in the City's IRIS database. This information would be too lengthy to include in this report.

### 1.3.2 Consequence of Failure

The figure below presents the multi-tier logic Consequence of Failure (CoF) rating methodology developed for the Building Management System. In the first tier, a criticality level was assessed at the site level based on the importance of the facility to the City. The most critical buildings were the Essential Services buildings, while the Enrichment Facility / Specific Usage buildings made up the other end of the spectrum. The assessment considered the type of services provided, utilization of the facility, and community impact in case of facility closure. CoF information for each asset is available in the City's IRIS database. This information would be too lengthy to include in this report.

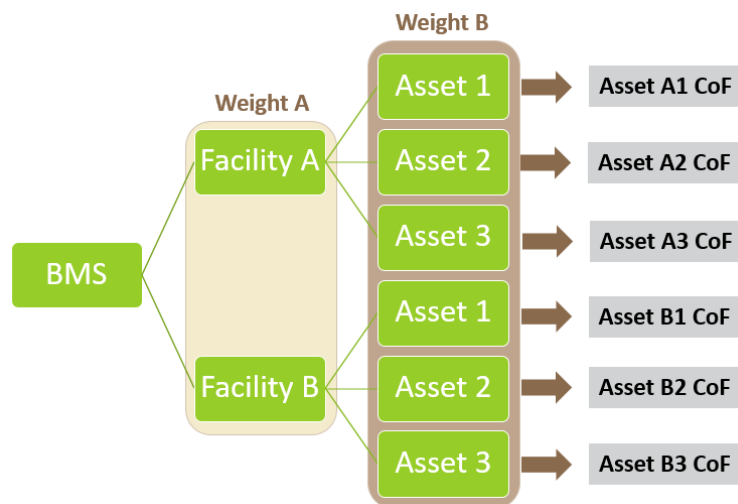


Figure 1-8 Multi-Tier Logic CoF Rating Methodology

#### 1.3.2.1 Facility and Asset Criticality Ratings

The criticality ratings for City facilities are summarized in the following table. The criticality ratings follow the facility categories established in Section 1.1.1. As expected, emergency response facilities (i.e., fire stations, police stations) are high criticality facilities. Differentiation of criticality between the historic sites were based on usage (e.g., number of people, hours in service), the type of service, and historic value. The logic of the criticality assessment carries on to other facilities.

*Table 1-10 Facility Criticality Categories*

Criticality Category	Facility
<b>Essential Facility / Core City Service</b>	City Hall Council Chambers Fire Station 6 Fire Station 7 Fire Station 8 Fire Station 9 Fire Station 10 Maintenance Service Center Police Facilities
<b>Significant Enrichment Facility / General Usage Buildings</b>	Bankhead Theater Carnegie Library Civic Center Library Downtown Parking Structure Multi Service Center Ravenswood
<b>Enrichment Facility / Specific Usage Buildings</b>	141 N. Livermore Ave. 145-149 N. Livermore Ave. 241 N. M St. Duarte Garage / Caretaker's House Hagemann Farm Railroad Depot Rincon Library Shea Plaza Restroom Facility Southern Bell Springtown Library

Criticality was also assessed at the asset level. Criticality scores were based on the importance of the asset class to the overall function of the building. For example, an HVAC system was given a criticality score of 5, while a drinking fountain was given a criticality score of 2. This criticality by asset class concept is illustrated in the following table. Appendix C includes the asset class criticality rating table.







Figure 1-9 Building Management System Risk Matrix

## 1.4 Future Needs

### 1.4.1 Immediate Needs

During the inventory verification and development process, each building in the register was visited and the asset condition was assessed. Assets with replacement and rehabilitation needs were highlighted. Some issues found in the on-site assessment are illustrated in the images of historic Hagemann Farm below. These images depict failed or failing (condition 5) roofs and gutters.





*Figure 1-10 Hagemann Farm Roof and Gutter Condition*

In addition, each building was assessed for compliance with various building codes (e.g., California Building Code, Health and Safety Code, ADA Accessibility). For more detailed information on the condition, compliance issues, and immediate needs of each site, refer to Appendix D.

The estimated cost to address the high-risk immediate needs (i.e., risk score 4 to 5) is approximately \$5.0 million. The immediate needs are summarized by site in the following table. At time of print, the City is constructing a new Civic Center and Meeting Hall to include new Council Chambers, and the City completed the Railroad Depot Rehabilitation and Relocation Project. Therefore, immediate needs at these facilities that are identified in Appendix C are not included in this table. In addition, the high-risk needs at the Council Chambers (\$590,000) have been excluded from the table.

Note that not all sites are presented in the table below because not every site has high risk assets.

*Table 1-12 Building Management System High-Risk Asset Immediate Needs by Building*

Sites with High-Risk Immediate Needs	Estimated Immediate Needs Cost
Bankhead Performing Arts Theatre	\$ 19,600
Civic Center	\$ 2,645,900
Downtown Parking Facility	\$ 1,800
Fire Station 6	\$ 270,700
Fire Station 8	\$ 218,100
Fire Station 10	\$ 3,300
Maintenance Service Center	\$ 1,237,400
Ravenswood Historic Site	\$ 18,900

#### 1.4.2 Life Cycle Cost Logic

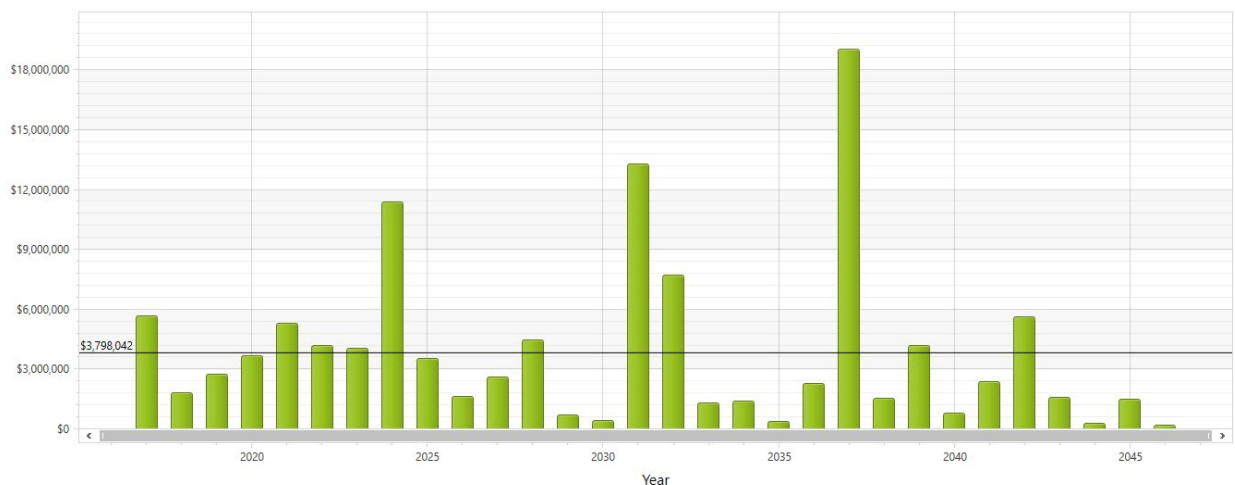
Life cycle cost logic, also known as management strategies, were developed for the building assets. Each asset class was assigned a management strategy that includes the rehabilitation and replacement activities to best characterize

the life cycle investment needs for the asset. For a full list of the life cycle logic or management strategies assigned, refer to Appendix E.

As mentioned previously, several facilities are rental properties. The City owns the facility and would presumably be responsible for the eventual removal and/or replacement of the facility as a whole; therefore, the major structural replacements (e.g., structural components) for these facilities are still included in the life cycle cost logic. In some agreements, the lessee has taken responsibility for some of the asset rehabilitation and smaller replacement activities (e.g., HVAC unit). A summary of the activities for which the lessee is responsible is provided in Appendix F.

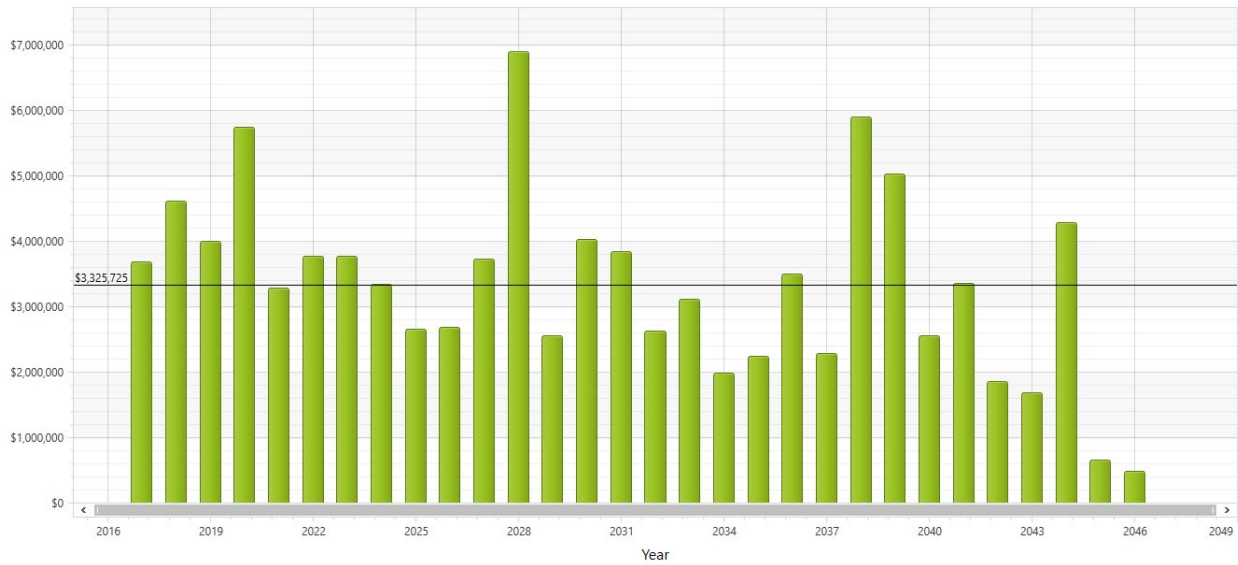
### 1.4.3 Long Range Replacement and Rehabilitation Profile

The following figures show the replacement and rehabilitation needs for which the City is responsible. The figure below presents the 30-year replacement and rehabilitation needs for the Building Management System. Utilizing a deterministic model (i.e., assets fail at the end of their estimated useful lives), the average annual investment needed for the building assets is approximately \$3.8 million.



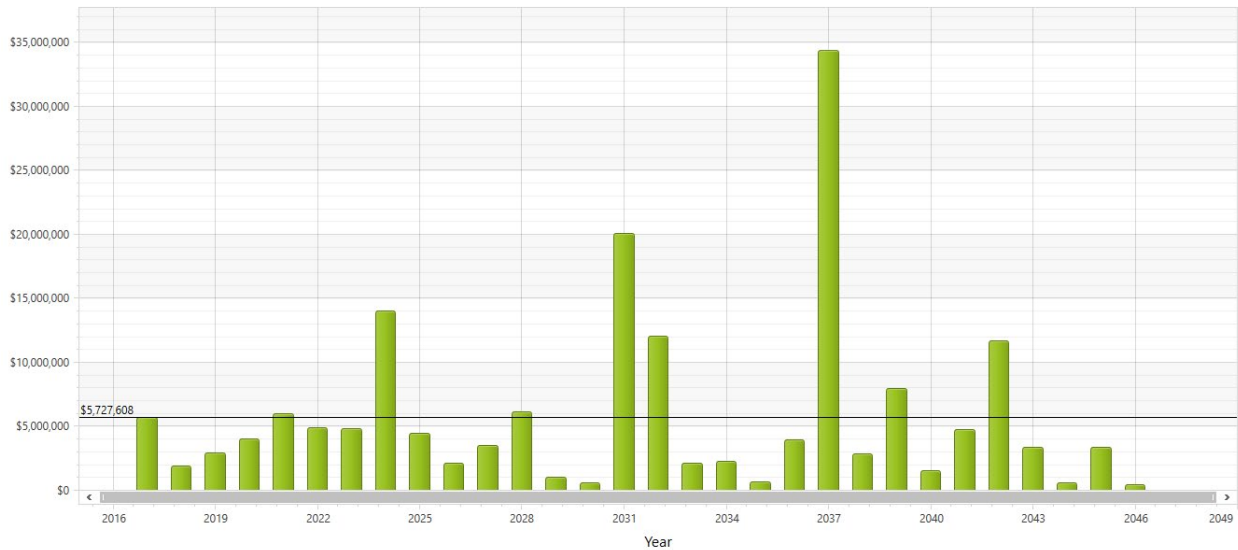
*Figure 1-11 30-Year Building Replacement and Rehabilitation Profile (Deterministic Model)*

The 30-year life cycle cost analysis was repeated utilizing a probabilistic model. In this scenario, asset failures were smoothed to show that assets may fail sooner or later than their expected useful lives; as such, this scenario may present a more realistic estimate of the future asset failures and funding needs. The probabilistic analysis incorporates the concept of randomness in that early or late asset failures are distributed randomly using the assigned standard deviation (i.e., 20%). The probabilistic model predicts the City’s annual replacement and rehabilitation needs at approximately \$3.3 million.

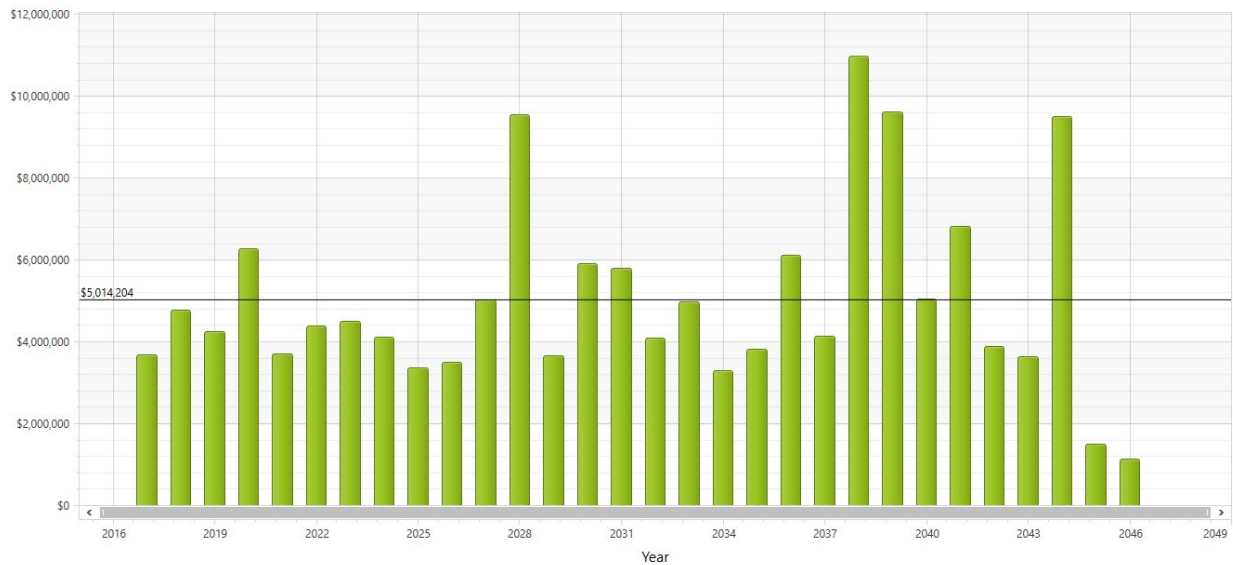


**Figure 1-12 30-Year Building Asset Replacement and Rehabilitation Profile (Probabilistic Model)**

Both analyses above represent results in 2017 dollars. Expecting the cost of construction will increase with time, a second model run was performed using a 3% annual inflation factor. With 3% inflation over the 30-year planning horizon, the projected annual investment need for the deterministic model increases from \$3.8 million per year to \$5.7 million per year. Similarly, for the probabilistic model, the annual investment need increases from \$3.3 million per year to \$5.0 million per year. The results of these analyses are presented the following figures.



**Figure 1-13 30-Year Building Asset Replacement and Rehabilitation Profile (Deterministic Model, 3% Inflation)**



**Figure 1-14 30-Year Building Asset Replacement and Rehabilitation Profile (Probabilistic Model, 3% Inflation)**

The following table summarizes the 30-year replacement and rehabilitation needs for the Building Management System.

**Table 1-13 Building Management System 30-Year Summary**

Analysis Type	R&R Average
Deterministic	\$ 3.8 M/yr
Probabilistic	\$ 3.3 M/yr
Deterministic with 3% Inflation	\$ 5.7 M/yr
Probabilistic with 3% Inflation	\$ 5.0 M/yr

#### 1.4.4 Catch Up and Keep Up

When discussing replacement and rehabilitation, Catch Up describes all replacement and rehabilitation needs (e.g., assets fully consumed with condition score of 4 or 5) in the current year. Keep Up describes all replacement and rehabilitation needs for all of the assets in the remainder of a given planning horizon after the City has addressed the Catch Up needs. In the Catch Up and Keep Up analysis, the deterministic 30-year replacement and rehabilitation analysis is re-examined by bringing the high-risk assets (Catch Up needs) to the beginning of the planning horizon. The remaining replacement and rehabilitation needs are represented by the Keep Up. The following table displays the total Catch Up replacement and rehabilitation costs in 2017 and the Keep Up for a 30-year planning horizon in 2017 dollars.

*Table 1-14 Catch Up and Keep Up Values (2017 Dollars)*

Cost	
Catch Up	\$ 5.0 million total
Keep Up	\$ 3.6 million average per year

Overall, the Catch Up and Keep Up analysis provides a view of the future needs if the City were to focus solely on high-risk assets before addressing the other Keep Up needs. If the City were to fund the Catch Up (\$5.0 million) in the immediate future, the Keep Up represents the annual average for the remaining R&R needs in the 30-year planning horizon. As such, the Keep Up annual average should only be used as the future funding need estimate if the City has the budget to address all Catch Up needs in the immediate future. Otherwise, the replacement and rehabilitation analyses in Section 1.4.3 should be used as the basis for future planning.

## 1.5 Level of Service

### 1.5.1 Preferred Level of Service

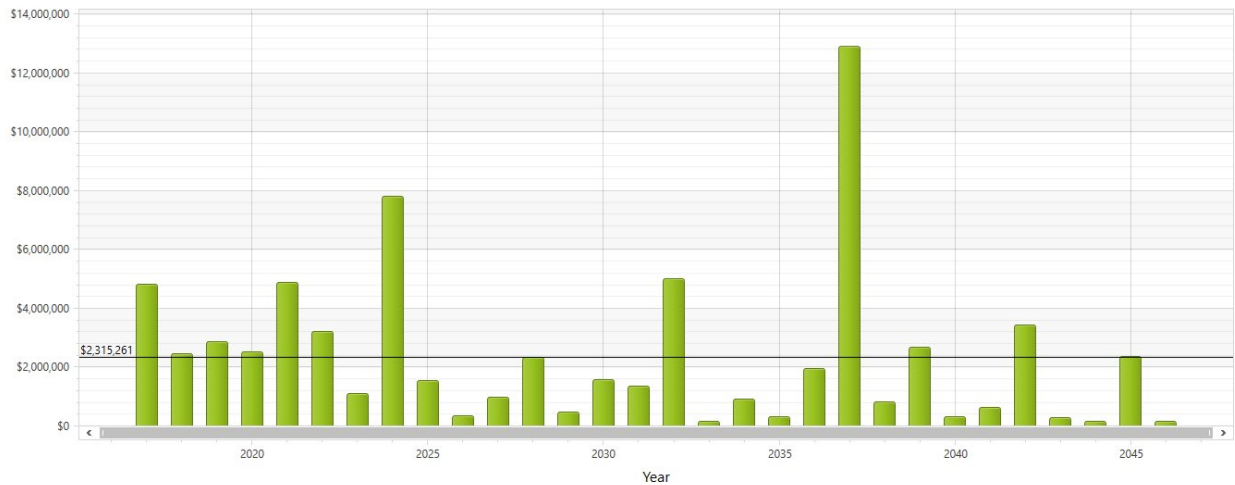
The preferred level of service would be for the City to follow the rehabilitation and replacement cycles as outlined in the life cycle cost logic section of this report (i.e., full service, replace and rehabilitate all assets on schedule regardless of priority). However, due to the City’s limited budget the City may prioritize building assets to rehabilitate or replace.

The estimated annual budget over a 30-year horizon (Table 1-13) for the preferred level of service is approximately \$3.8 million or \$5.7 million with 3% inflation.

### 1.5.2 Minimum Level of Service (High-Risk Only)

Under the minimum level of service, only high-risk assets (i.e., CoF 4 and above), which are generally associated with high-risk assets at high-risk buildings, would be rehabilitated and replaced.

The figure below shows the rehabilitation and replacement profile over a 30-year horizon for the minimum level of service (high-risk only). The annual average need for the high-risk assets is approximately \$2.3 million or \$3.4 million with 3% inflation.



**Figure 1-15 Minimum Level of Service (High-Risk Only) Replacement and Rehabilitation Profile**

While funding only the high-risk assets would allow the City to prioritize the high-use buildings, this minimum level of service would not fund several of the City’s buildings. Under this minimum level of service, at least 10 sites would not receive funding, including branch libraries, leased facilities, and several historical buildings (e.g., Duarte Garage, Hagemann Farm).

## 1.6 Management System Score

### 1.6.1 Physical Health

The physical health of the Building Management System was judged based on the ratio of poor condition assets and the high-risk, red zone assets (as identified in Section 1.3) to the overall replacement cost of all system assets. These scores were used to assess the overall grade of the building management system. For these scores, the lower the percentage of poor condition (Overall Condition) and high risk (Risk-Based Condition) scores, the better.

**Table 1-15 Building Management System Physical Health Values and Scores**

Category	Score	Grade
Overall Condition	16%	C
Risk-Based Condition	11%	C

As shown in the table, the condition grade and the risk-based condition grades are both C. These grades show that, while some of the building assets are currently in poor condition, the system overall is in decent condition.

### 1.6.2 Financial Health

The financial health of the Building Management System was judged based on the ratio of the catch up and keep up values to the 2017 annual rehabilitation and replacement budget of \$10.6 million. The scores for each category are presented below. These scores were used to assess the overall grade of the management system.

*Table 1-16 Building Management System Financial Health Scores*

Category	Score	Grade
Catch Up Score	39%	F
Keep Up Score	89%	A

Table 1-16 shows the Building Management System is underfunded, with a score of F indicating the City’s catch up needs. While the assets are currently in decent condition as shown with a score of C in the physical health score (Table 1-15), the poor catch up score means that there is insufficient funding dedicated to building rehabilitation and replacement to improve the condition of the current high-risk assets. However, the system received a keep up grade of A; this implies that the system may have the funding to keep up once it has caught up. This Keep Up grade assumes that the rehabilitation and replacement responsibilities under current lease agreements remain the same and that the annual rehabilitation and replacement budget continues to meet the current replacement and rehabilitation needs.

## 1.7 Policy Options

As projected in the replacement and rehabilitation needs of the Building Management System, a significant ongoing investment will be required to renew building assets and to sustain the delivery of vital services. The following potential options should be considered:

- New Funding Sources
  - Citywide Infrastructure District – The City may want to create a citywide infrastructure district. The City would implement a tax that would go toward the citywide infrastructure district.
  - Increase Parcel Tax – The City might want to increase property owners’ parcel tax and pay for the replacement and rehabilitation needs of the buildings.
- Public/Private Partnerships - Can a private partner help the City deliver services?
- Changes in levels of service delivery – Analyze alternate service delivery methods? Should the City match service levels to meet available funding?
- Alternative service delivery methods – Is there a different way to deliver the service?
- Risk tolerance level – Should the City focus only on the highest of the high-risk items?
- Divestment of certain assets or buildings – Does the City need to own the building? Can another entity own the building and provide the service? Should the City lease a facility instead?

### 1.7.1 Sell Rental Properties

The City is currently the landlord of several facilities (e.g., 141 N. Livermore Ave, 145-149 N. Livermore Ave, 241 N. M St., Southern Bell Building). These facilities are not essential or significant enrichment facilities. All of these rental facilities are aged and could require significant investments to meet current building codes. In addition, many assets will require replacement and rehabilitation due to age. With no specific purpose for future use, the City may consider selling these rental properties to reduce the overall replacement and rehabilitation investment needs and liabilities. In addition, the capital generated from the sale of these buildings can be used to address the needs of other buildings.

The figure below illustrates the 30-year replacement and rehabilitation needs for the City’s rental properties. It is anticipated that the potential savings from annual replacement and rehabilitation needs will be about \$81,000 per



year. This figure does not include the capital incurred from the sale of the buildings.

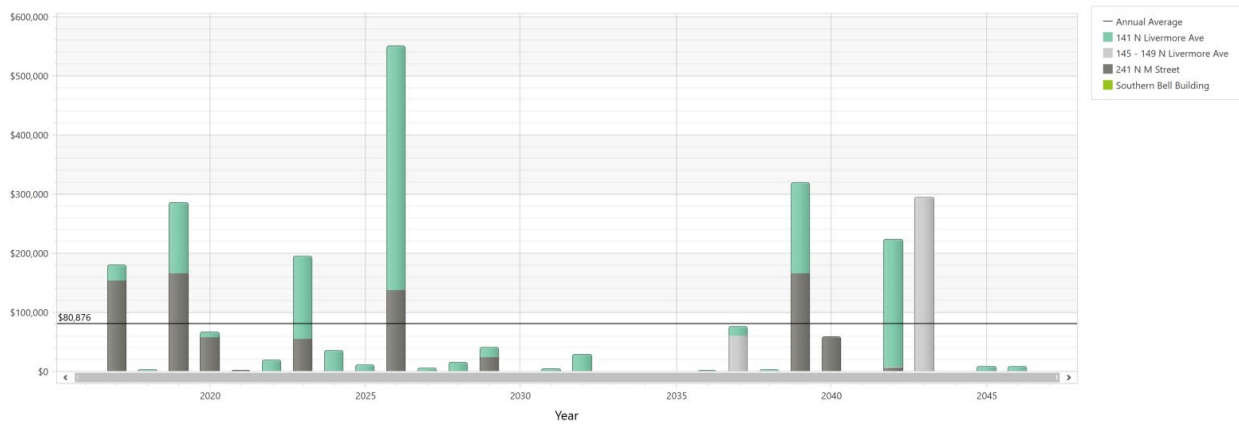


Figure 1-6 30-Year Rental Building Asset Replacement and Rehabilitation Profile

### 1.7.2 Transfer Ownership of Historical Buildings

The City owns multiple historical properties (i.e., Carnegie Library, Duarte Garage and Caretaker’s House, Ravenswood, Hagemann Farm, Southern Bell Building). In general, the City shares replacement and rehabilitation responsibilities for these historical buildings with various organizations (refer to Appendix F for more information). However, the City is generally responsible for the major restoration of historic buildings. As these buildings are historic, significant cost can be incurred to replicate the original architectural pieces and to update to current codes and standards. Instead of incurring the significant rebuild costs and liabilities presented by historical buildings, the City could consider transfer of ownership to organizations more specialized to take care of historic sites.

The figure below represents the projected 30-year annual replacement and rehabilitation needs for the historic buildings. It is anticipated that the potential savings from annual replacement and rehabilitation needs will be about \$346,000 (not including the Railroad Depot due to its recent rehabilitation).

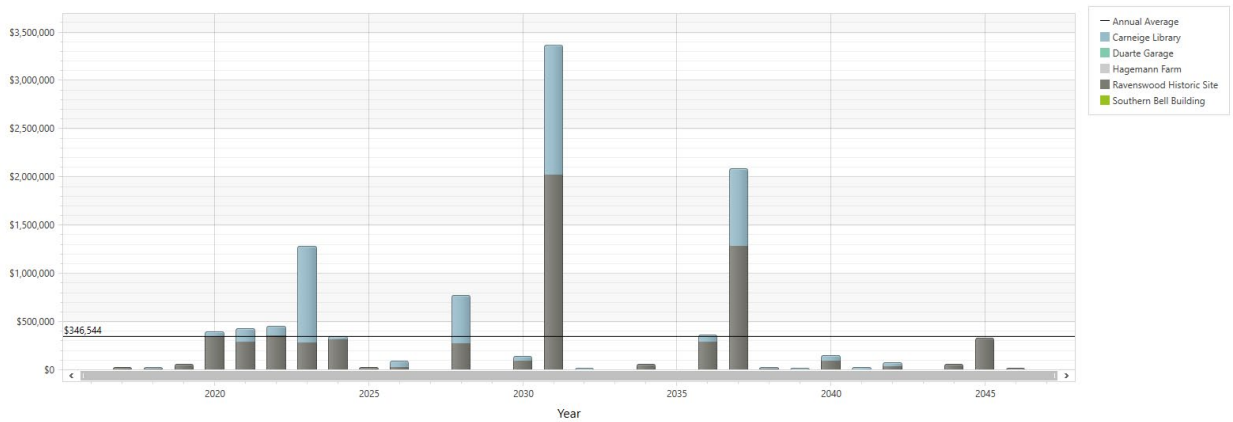


Figure 1-7 30-Year Historic Building Asset Replacement and Rehabilitation Profile (Option 2)

## 1.8 Building Replacement Criteria

In addition to individual asset replacement, the Building Management System requires consideration of the timing to replace the entire building. Sometimes it could make more sense to reconstruct rather than rehabilitate. Reconstruction may typically require higher initial capital; however it could result in lower life cycle cost, increased capacity, and higher level of service.

Additionally, many City-owned buildings have aged past their estimated useful lives but are still standing, and many are still in use. The following building replacement criteria represent an analytical method to consider building replacement decisions and aligns with the proactive practices of asset management. It is important to note that this criterion is designed to bring attention to buildings that may require replacement, not to make the decision itself. Additionally, all replacement decisions should also consider additional factors such as available budget, social impacts, and environmental considerations. Finally, the Building Replacement Criteria below is not recommended for historic buildings; instead, historic buildings will focus on continued major rehabilitation.

### Building Replacement Criteria

- Mortality
  - Asset Consumption – What is the average remaining life of the component assets?
  - Remaining Life of Structural Components – What is the average remaining useful life of the structural components of the building?
- Functionality
  - Function - Does the building serve the function required of it?
  - Capacity - Does the building meet capacity requirements?
- Level of Service
  - Building Codes - Does the building meet required building (electrical, plumbing, fire, seismic, etc.) codes?
  - Health and Safety - Does the building meet health and safety codes?
  - ADA Access - Does the building meet Americans with Disabilities Act access guidelines?
  - Strategic Vision - Does the building align with City strategic goals/vision?
- Financial Efficiency
  - Financial Efficiency – How does the cost of replacing the high-risk component assets compare to the total building replacement cost?

Mortality is a key consideration for building replacement. Mortality criteria are designed to assess the remaining useful life of the building’s assets, especially high-risk assets where failure can lead to larger consequences. The following table presents mortality factor evaluation criteria.

*Table 1-17 Building Replacement Criteria: Mortality*

Factor	Rating Scale	Rating
Average Asset Life Consumed	Less than 60%	Green
	Between 60% and 80%	Yellow
	Greater than 80%	Red
Remaining Life of Structural Components	Greater than 10 years	Green
	Between 10 and 7 years	Yellow
	Less than 7 years	Red

Functionality is another area of consideration. Does the building serve the function required of it? Does the building have sufficient space to meet the demand? Replacement decisions due to functionality and capacity are independent of mortality. The building may be in good shape, but if it cannot meet the demand, then a new building could be considered. The following table presents functionality factor evaluation criteria.

*Table 1-18 Building Replacement Criteria: Functionality*

Factor	Rating Scale	Rating
Functional Needs Met	Yes	Green
	No	Red
Capacity Needs Met	Yes	Green
	No	Red

Level of service is another key criterion for building replacement decisions. Building codes change with time. Often, it takes great investment to retrofit an existing building to meet updated codes. If the building is failing to meet numerous codes, it may make sense to replace the building rather than retrofitting it. In addition, the alignment with the City’s strategic direction is important. For instance, a building could have low maintenance costs, but not comply with other City goals and policies. The following table presents the evaluation criteria for the level of service factor.

*Table 1-19 Building Replacement Criteria: Level of Service*

Factor	Description	Rating Scale	Rating
Building Codes	Building Meets All Building Codes (e.g., electrical, fire, seismic)	Full Compliance	Green
		Partial Compliance	Yellow
		Non-Compliance	Red
Health and Safety	Building Meets All Health and Safety Codes (e.g., HAZMAT, air quality)	Full Compliance	Green
		Partial Compliance	Yellow
		Non-Compliance	Red
ADA	Building Meets All ADA Requirements	Full Compliance	Green
		Partial Compliance	Yellow
		Non-Compliance	Red
Strategic Goals and Vision	Building Aligns with the City’s Strategic Direction	Full Alignment	Green
		Partial Alignment	Yellow
		Does Not Align	Red
	City’s Image	Full Alignment	Green
		Partial Alignment	Yellow
		Does Not Align	Red
Green Initiative	Full Alignment	Green	
	Partial Alignment	Yellow	
	Does Not Align	Red	

The financial efficiency factor evaluates the cost to replace individual high-risk assets compared to the cost to replace the building (as represented by the total of asset replacement costs). The purpose of this factor is to highlight when the majority of critical assets in a building are in need of replacement. If the high-risk asset replacement cost equates to 75% or more of the total replacement cost of the building, it would be recommended to replace the entire building.

**Table 1-20 Building Replacement Criteria: Financial Efficiency**

Factor	Rating Scale	Rating
Ratio of High-Risk Assets to Total Replacement Cost	Ratio is 75% or higher	
	Ratio is 50% up to 75%	
	Ratio is lower than 50%	

Note that the high-risk assets for the financial efficiency factor are calculated at the asset-level CoF without the building-level CoF adjustment. This is because the financial efficiency factor is focused on assessing the assets within one building, rather than comparing them across the entire building management system.

Application of the building replacement methodology for three example buildings is shown in the following table. Buildings mostly highlighted as red should be considered for replacement. Buildings mostly highlighted as yellow can delay the consideration for replacement. Buildings mostly highlighted as green should not be considered for replacement. A full list of the building replacement analysis results is included in Appendix G.

**Table 1-21 Building Replacement Criteria: 3 Example Buildings**

Failure Modes	Criteria	Council Chambers	Fire Station 6	Fire Station 9
Mortality	Average Asset Life Consumed			
	Remaining Life of Structural Components			
Functionality	Functional Needs Met			
	Capacity Needs Met			
Level of Service	Buildings Codes			
	Health and Safety			
	ADA			
	Strategic Goals and Vision			
Financial Efficiency	Ratio of High-Risk Asset Replacement to Total Replacement Cost			

### 1.9 Confidence Level

Confidence level factor weights are based on the City’s specific goals for this phase of the asset management program development. Factors that were focused on during this phase of the asset management program development, such as asset inventory and condition assessment, were given higher weight. One of the City’s particular goals was also to encourage buy-in on the part of its staff and stakeholders, so the Community Asset Management Program (CAMP) committee review was added to the general asset management program as a factor. On the other hand, factors that will be improved in future phases of the program development were given lower weight.

**Table 1-22 Building Confidence Level**

Confidence Level Factor	Confidence Level Rating Score	Weighting Factor	Weighted Confidence Level Rating Score
Asset Inventory	75%	20%	15%
Data Quality	70%	15%	10.5%
Condition Assessment	80%	20%	16%
Asset Valuation	60%	10%	6%

<b>Life-cycle Cost Logic</b>	75%	10%	7.5%
<b>Risk</b>	85%	10%	8.5%
<b>Staff Review</b>	40%	5%	2%
<b>CAMP Committee Review</b>	100%	10%	10%
<b>Total Score</b>			<b>76%</b>

*Asset Inventory (Unweighted Score - 75%)*

On-site inventory collection and verification took place for each building. Further use of the asset management system will determine whether the asset level was defined at the appropriate level.

*Data Quality (Unweighted Score - 70%)*

On-site inventory collection and verification took place for each building. Further verification with staff will take place in the future.

*Condition Assessment (Unweighted Score - 80%)*

On-site inventory condition assessment took place for each building. Further verification with staff will take place in the future.

*Asset Valuation (Unweighted Score - 60%)*

Replacement costs were estimated for each asset. As assets are replaced in the future, the costs will be updated in the building management system.

*Life-cycle Cost Logic (Unweighted Score - 75%)*

Life-cycle cost logic was assigned to the assets, and a methodology based on usage was developed.

*Risk (Unweighted Score - 85%)*

A robust CoF methodology was developed that incorporates the criticality of the site and the building within the site, as well as the criticality relative to other buildings of the same type (e.g., fire stations, library branches).

*Staff Review (Unweighted Score - 40%)*

Staff was involved in the development of the building management system. Continued review of the inventory and condition assessment should happen regularly.

*CAMP Committee Review (Unweighted Score - 100%)*

The CAMP committee reviewed, analyzed, and provided input on the results throughout the asset management plan process.

## 1.10 Next Steps

### *Asset Inventory Updates*

Since the initial inventory and assessment process in 2017, some buildings have been updated or constructed. These buildings include the Railroad Depot Rehabilitation project and construction of the new Civic Center Meeting Hall. In addition, the old Council Chambers building will need to be removed from this dataset if it is demolished. These updates will need to be reflected in future versions of the asset register. This document already reflects the sale of the Barn to the Livermore Area Recreation and Park District.

### *Asset Valuation and Life Cycle Cost Logic*

As more replacement and rehabilitation cost data becomes available, the data should be used to verify or update the costs for each activity.

### *Level of Service*

Levels of service are specific activities developed to meet the City's objectives, and they include specific performance metrics to allow the City to measure how well target performance levels are being achieved. Defined levels of service can be used to track performance of the City's activities and identify areas where activities are not in alignment with the mission or goals of the organization. These levels also help to determine resources needed for the management of the system. Part of the next steps for the Building Management System will be to establish levels of service beyond the preferred and minimum levels of service discussed in Section 1.5.

## Appendix A – Building Management System Asset Classes

The following table lists the asset classes for the Building Management System.

Asset Classes			
Air Cleaner	Equipment Enclosure	Hot Water Pump	Signage
Air Compressor	Equipment Parapet Cover	Insta Heat Water Unit	Sink
Air Conditioning Unit	Exhaust Fan	Interior Door	Site Lighting
Air Handling Unit	Exhaust Vent	Interior Ladders	Skylight
Air-Cooled Condensing Unit	Exit Sign	Interior Walls	Sliding Glass Door
Air-Cooled Unit	Expansion Tank	Interior Windows	Sliding Glass Wall
Automatic Sliding Glass Door	Exterior Awning	Inverter	Solar Panels
Axial Fan	Exterior Columns	Lavatory	Solartube
Barn Door	Exterior Door	Light Fixtures - Emergency	Sound Attenuators
Batteries	Exterior Enclosure	Lighting	Split System
Battery Inverter	Exterior Lighting	Lighting and Branch Wiring	Stable Doors
Boiler	Exterior Louvers	Load Center	Stairway
Burner	Exterior Roll-up Door	Lockers	Storage Bin
Cabinetry	Exterior Roll-up Door-Fire	Main Entry	Storage Tank
Canvas Canopy	Exterior Stairs and Landing	Modular Building	Structural Content
Car Lift and Pump Unit	Exterior Stairway	Modular Building Entrance	Supply Fan
Card Reader	Exterior Wall	Panel Board	Swing Check Valves
Catwalks	Exterior Windows	Parapet	Switchboard
Ceiling	Eye Wash	Parking Decks - Covered	Switchgear
Ceiling Fan	Fan Coil Unit	Parking Decks - Exposed	Thermostat
Ceiling Mounted Heater	Fencing	Parking Stripes	Toilet
Chairlift	Filtration System	Platform	Toilet Partitions
Chiller	Fire Alarm Systems	Pneumatic Air Dryer	Transfer Switch
Chiller Building Loop Pumps	Fire Suppression Sprinklers	Pneumatic Compressor	Transformer
Chimney	Fire System Backflow Preventer	Porch	Trellis
Circulating Pump	Fixed Seating	Pressure Tank	Tub
Clarifier	Floor Drain	Pressure Washer	Tuff Shed Unit

Asset Classes			
Communications & Security	Flooring	Pump	Uninterruptible Power Supply
Compressors	Folding Partition	Railing	Urinal
Condensing Unit	Forced Air Unit w/ Cooling	Ramp	VAV Box
Cooling Towers (Galvanized)	Freezer	Roof Covering	Vehicle Exhaust System
Cupola	Gas Package Units	Roof Drain	VF Box
Dimmer Bank	Gate	Roof Hatch	VFD
Domestic Water Distribution System	General Exterior Enclosure	Roof Ladder	Wall Furnace
Door Access Unit	General Interior Construction	Roof Railing	Wall Mounted Heater
Drinking Fountain	General Plumbing Fixtures	Roof Vents	Water Closet
Ducting	Gravity Intake	Roofing	Water Distribution Control Box
DX Split System	Gravity Vents	Sanitary Waste System	Water Feature System
Electrical Disconnect	Gutters and Downspouts	Security System	Water Heater
Electrical Service & Distribution	Handrails	Security Window	Water Heater Circulating Pump
Electronic Controls	Heat Pump	Service Sink	Well Pump
Elevator	Heater Unit	Sewage Ejection Pump	
Emergency Generator	Heating/Cooling Generating Systems	Shower	



## Appendix B – Asset Inventory Process

The following inventory methods were used to assess the building assets. In some cases, more than one method was used.

- **As-built Review** – As-builts of similar drawings/information provided by the City were used to create each building’s initial asset register. Information from as-builts can include asset sizes, materials, and type.
- **On-site Assessment** – The City provided access to the buildings for on-site review. If as-builts were not available, the asset register was developed entirely during the on-site assessment, including asset sizes, materials, and types. If as-builts were available, the on-site review was used to confirm the information from the as-builts.
- **On-site Assessment (Exterior Only)** – Some building interiors were not accessible during the assessment process. As such, the exterior assets were visited, and interior assets were assumed based on as-builts or on general square footage if as-builts were unavailable.

Site	Inventory Process Type		
	As-built Review	On-site Assessment (Exterior and Interior)	On-site Assessment (Exterior Only)
141 N Livermore Ave			X
145 - 149 N Livermore Ave			X
Bankhead Performing Arts Theater	X	X	
Carnegie Library		X	
City Hall	X	X	
Civic Center Library	X	X	
Council Chambers		X	
Duarte Garage/Caretaker’s House		X	
Fire Station 6	X	X	
Fire Station 7	X	X	
Fire Station 8	X	X	
Fire Station 9	X	X	
Fire Station 10	X	X	
Maintenance Service Center	X	X	
Multi Service Center	X	X	
Police Facilities	X	X	
Railroad Depot			X
Ravenswood		X	
Rincon Library		X	
Springtown Library		X	
Hagemann Farm		X	
Southern Bell		X	

## Appendix C - Building Management System Asset Criticality Rating

The following table shows the CoF scores assigned to each asset class. For reference, CoF 5 is the highest, while CoF 1 is the lowest.

Asset Class	CoF Score
Chairlift	5
Cupola	5
Exterior Columns	5
Exterior Roll-up Door-Fire	5
Exterior Wall	5
Ramp	5
Roof Drain	5
Roof Railing	5
Roofing	5
Structural Content	5
Catwalks	5
Interior Ladders	5
Air Conditioning Unit	5
Air Handler Unit	5
Air-Cooled Condensing Unit	5
Air-Cooled Unit	5
Battery Inverter	5
Boiler	5
Chiller	5
Chiller Building Loop Pumps	5
Circulating Pump	5
Communications & Security	5
Compressors	5
Cooling Towers (Galvanized)	5
Electrical Disconnect	5
Domestic Water Distribution System	5
Electrical Service & Distribution	5
Elevator	5
Emergency Generator	5
Exhaust Fan	5
Exit Sign	5
Eye Wash	5
Fire Alarm Systems	5
Fire Suppression Sprinklers	5
Gas Package Units	5

Asset Class	CoF Score
Heat Pump	5
Heater Unit	5
Heating/Cooling Generating Systems	5
Light Fixtures - Emergency	5
Load Center	5
Panel Board	5
Reciprocating Air Compressors	5
Sanitary Waste System	5
Security System	5
Sewage Ejection Pump	5
Split System	5
Supply Fan	5
Switchboard	5
Switchgear	5
Thermostat	5
Transfer Switch	5
Transformer	5
Uninterruptible Power Supply (UPS)	5
VFD	5
Vehicle Exhaust System	5
Fuel Tank	5
Fuel Tank Gauge System	5
Handrail	5
Stairs & Ramp	5
Inverter	5
Modular Building	5
Modular Building Entrance	5
Automatic Sliding Glass Door	4
Door Access Unit	4
Exterior Door	4
Exterior Lighting	4
Exterior Roll-up Door	4
Exterior Stairs and Landing	4
Exterior Stairway	4
Exterior Windows	4
Gutters and Downspouts	4
Skylight	4
Sliding Glass Door	4
Handrails	4
Interior Walls - Acoustical Panels (Bankhead Theater)	4

Asset Class	CoF Score
Security Window	4
Stairway	4
Air Cleaner	4
Air Handling Unit	4
Axial Fan	4
Batteries	4
Car Lift and Pump Unit	4
Ceiling Mounted Heater	4
Clarifier	4
Dimmer Bank	4
Ducting	4
DX Split System	4
Electronic Controls	4
Exhaust Vent	4
Fan Coil Unit	4
Filtration System	4
Hot Water Pump	4
Insta Heat Water Unit	4
Lavatory	4
Lighting and Branch Wiring	4
VAV Box	4
VF Box	4
Wall Furnace	4
Wall Mounted Heater	4
Water Heater	4
Water Heater Circulating Pump	4
Well Pump	4
Pneumatic Air Dryer	4
Pneumatic Compressor	4
Signage	4
Security Gate	4
Site Lighting	4
Pump	4
General Exterior Enclosure	4
Gravity Intake	3
Gravity Vents	3
Roof Hatch	3
Roof Ladder	3
Card Reader	3
Ceiling	3
Door Hardware	3

Asset Class	CoF Score
Flooring	3
Interior Door	3
Interior Walls	3
Interior Windows	3
Toilet Partitions	3
Air Cleaner	3
Air Compressor	3
Condensing Unit	3
Expansion Tank	3
Fan Coil Unit	3
Forced Air Unit w/ Cooling	3
Fuel Dispensing Station	3
Fuel Tank Gauge System	3
Roof Vents	3
Shower	3
Sink	3
Toilet	3
Urinal	3
Fixed Seating	3
Platform	3
Gate	3
Parapet	3
Storage Tank	3
Wall	3
General Interior Construction	3
Burner	3
Water Distribution Control Box	3
General Plumbing Fixtures	3
Main Entry	3
Porch	3
Barn Door	2
Exterior Enclosure	2
Porch	2
Solartube	2
Ceiling Fan	2
Drinking Fountain	2
Motor Oil Vending	2
Pressure Tank	2
Pressure Washer	2
Water Feature System	2
Driveway	2

Asset Class	CoF Score
Generator Enclosure	2
Parking Lot	2
Solar Panels	2
Water Closet	2
Sound Attenuators	2
Floor Drain	2
Canvas Canopy	1
Chimney	1
Equipment Parapet Cover	1
Exterior Awning	1
Exterior Louvers	1
Stable Doors	1
Tuff Shed Unit	1
Folding Partition	1
Sliding Glass Wall	1
Hose Bibb	1
Service Sink	1
Cabinetry	1
Lockers	1
Bollard with Light	1
Dedication Plaque	1
Hose Drying Area	1
Patio	1
Storage Bin	1
Storage Shed	1
Tub	1
Equipment Enclosure	1

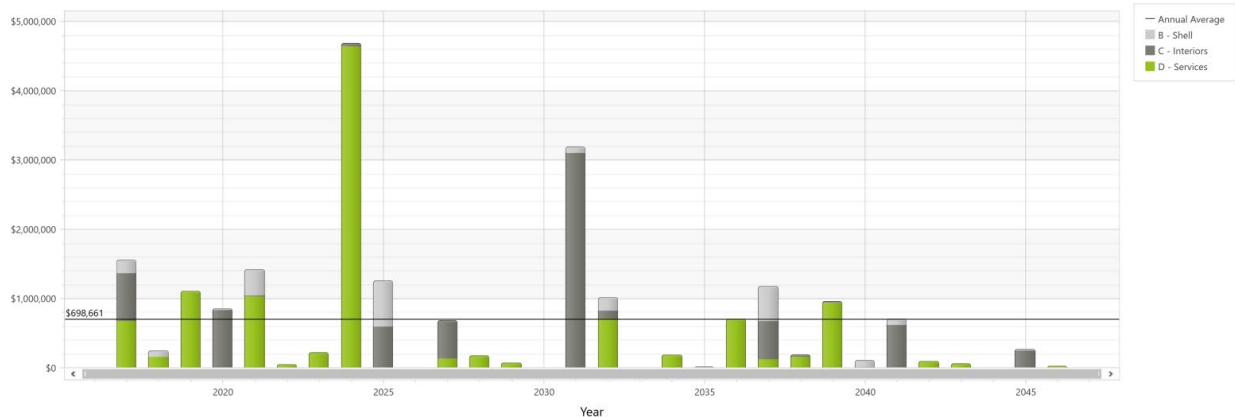
**Appendix D – Building Summaries**

**City Hall (Essential Facility/Core City Service)**

1052 South Livermore Ave.



<b>Year Built</b>	2002
<b>Square Footage</b>	53,128
<b>Facility Condition Index</b>	14%
<b>FCI Level</b>	Fair



**City Hall Immediate Needs**

- UPS needs maintenance
- UPS battery needs replacement
- Non-rated doors need replacement
- Air conditioning units need replacement
- Condensing units need replacement
- Card readers need maintenance
- CCTV systems need maintenance
- Door hardware need maintenance
- Strobes need maintenance
- Vinyl floors and carpets need maintenance

**City Hall Major Asset Classes with Replacement Needs in Next 3 Years**

- Conveying Systems
- Electrical
- Exterior Enclosure
- Fire Protection
- HVAC
- Interior Construction
- Interior Finishes

For a full list of replacement needs, refer to the IRIS results.



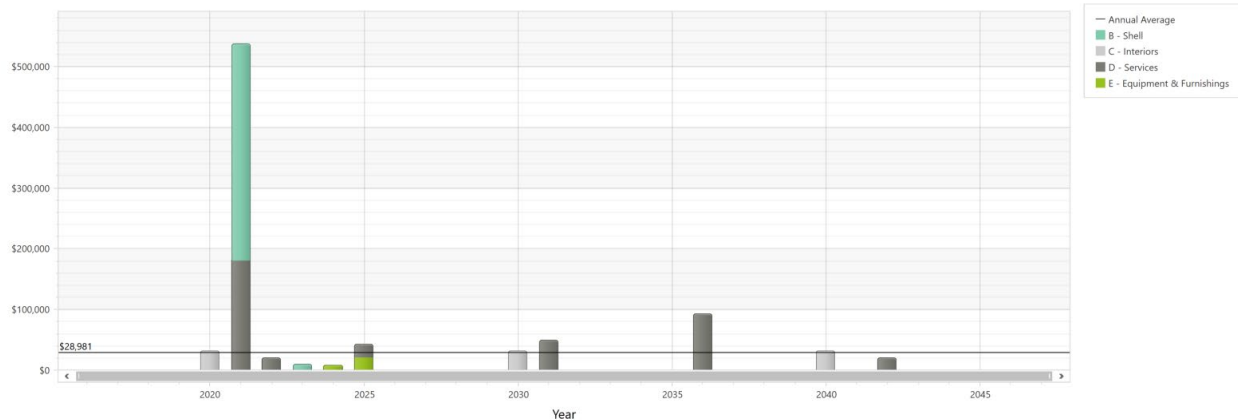
## Council Chambers (Essential Facility/Core City Service)

3575 Pacific Avenue

Note that at the time of print, the immediate needs listed below will be resolved by the City Hall Meeting Center Project which replaces the 1988 Council Chambers.



<b>Year Built</b>	1988
<b>Square Footage</b>	2,940
<b>Facility Condition Index</b>	93%
<b>FCI Level</b>	Poor



### Council Chambers Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.
- Railings at stairs and ramp not compliant with CBC Chapters 10 and 11.
- Restrooms need to be verified for CBC Chapter 11 compliance.
- Water fountain not compliant.
- No emergency exit signage at main entrance.
- Verify that all P trap boots are on in the restrooms, per CBC 11B-606.5.

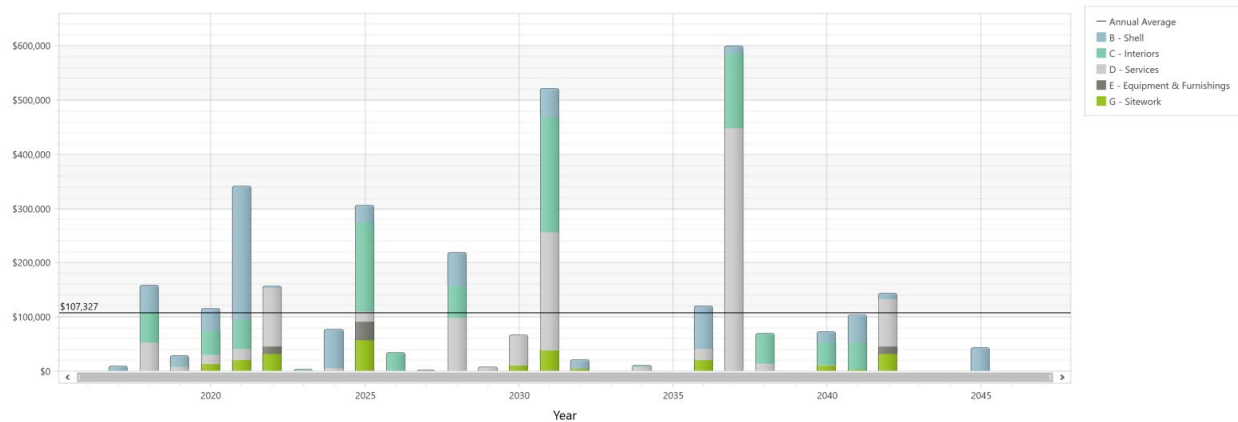
For a full list of replacement needs, refer to the IRIS results.

## Fire Station 6 (Essential Facility/Core City Service)

4550 East Avenue



Year Built	1976
Square Footage	10,672
Facility Condition Index	29%
FCI Level	Fair



### Fire Station 6 Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Verify that fire alarm is not required. Verify with the City Fire Marshal that a fire alarm system is not required for the building proper.
- Verify that power to fire sprinkler bell at panel meets NFPA 72 requirements.
- Verify that the requirements of the Health and Safety Code Section 16000-16001 which pertains to an “Essential Services” facility which a fire station falls under by state code as noted in the Health and Safety Code Section 16007 are in compliance.
- Verify that roof ladder is in compliance with CALOSHA.
- Door not CBC compliant.
- Equipment enclosure needs repair or replacement.
- AC-2 not restrained or secured to meet CBC seismic requirements.
- Exposed Fluorescent bulbs found without cover or cage.
- Water fountain not compliant with CBC Chapter 11.
- Noisy fan in restroom.
- Verify signage in restroom.
- Provide panel and circuit numbers on the infrastructure units (HVAC, water heater, etc.), to better assist in maintenance or replacement.
- Generator is in need of replacement.

- Building needs to be reviewed for possible ADA accessibility issues. From research on fire stations, even built with a clear degree of accessibility in mind, could have issues depending on interpretations of the code. Any type of public funds could possibly trigger the requirements for upgrade to meet state and federal ADA accessibility issues.

#### Fire Station 6 Major Asset Classes with Replacement Needs in Next 3 Years

- Exterior Enclosure
- HVAC
- Interior Finishes
- Plumbing

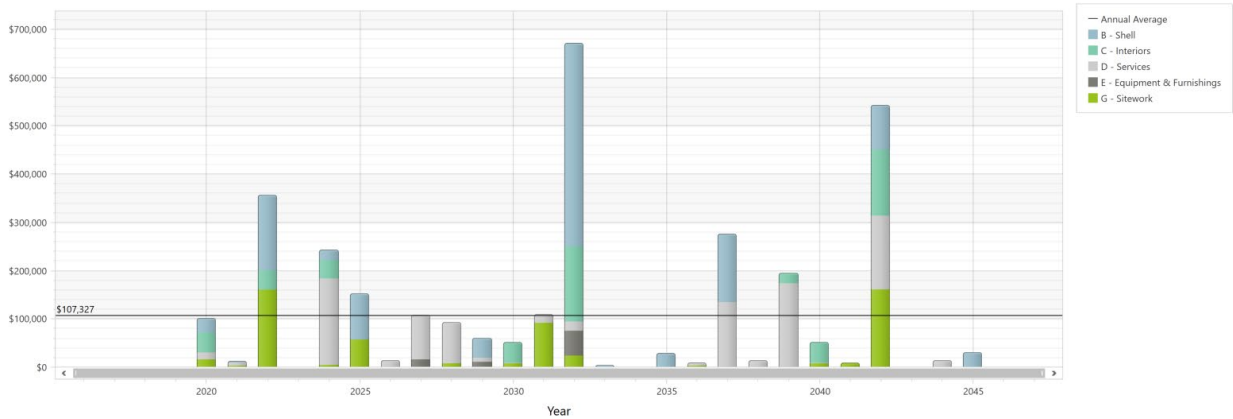
For a full list of replacement needs, refer to the IRIS results.

**Fire Station 7 (Essential Facility/Core City Service)**

951 Rincon Ave.



<b>Year Built</b>	2000
<b>Square Footage</b>	8,276
<b>Facility Condition Index</b>	8%
<b>Building Overall Risk</b>	Good



**Immediate Needs**

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Verify that the requirements of the Health and Safety Code Section 16000-16001 which pertains to an “Essential Services” facility which a fire station falls under by state code as noted.
- Electrical room is being used for storage. Not allowed by CBC and CEC.
- Water heater closet is being used for storage.
- Verify that exit signs denote correct egress from the building. Review found exit signage lacking.
- Provide panel and circuit numbers on the infrastructure units (HVAC, water heater, etc.), to better assist in maintenance or replacement.

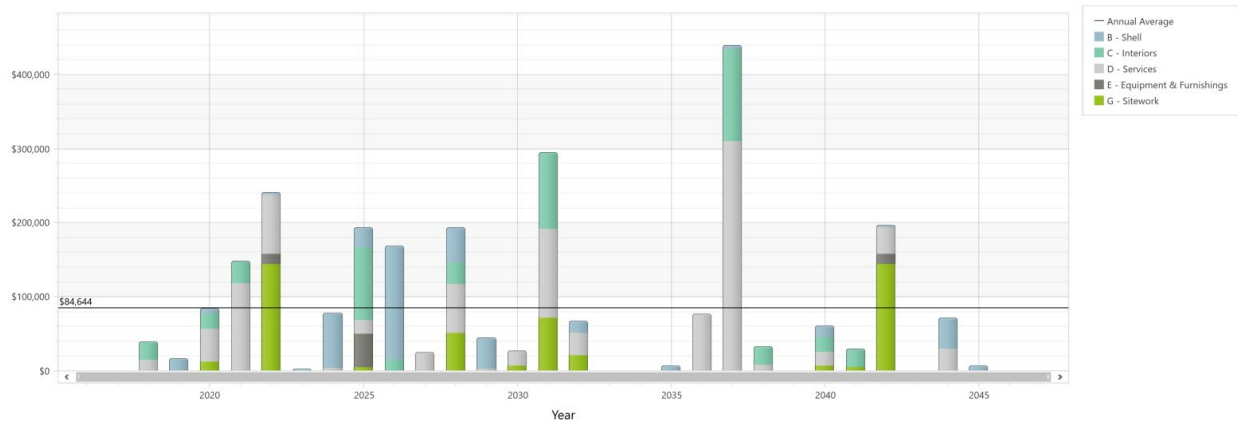
For a full list of replacement needs, refer to the IRIS results.

## Fire Station 8 (Essential Facility/Core City Service)

5750 Scenic Ave.



<b>Year Built</b>	1999
<b>Square Footage</b>	6,373
<b>Facility Condition Index</b>	15%
<b>FCI Level</b>	Fair



### Fire Station 8 Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Verify that the requirements of the Health and Safety Code Section 16000-16001 which pertains to an “Essential Services” facility which a fire station falls under by state code as noted.
- Verify that fire riser breaker in the panel requires call out per NFPA 72.
- Electrical room is being used for storage. Not allowed by CBC and CEC.
- Exposed Fluorescent bulbs found without cover or cage.
- Water heater leaking.
- Service Area (washer/Dryer Location) has drywall damage.
- Maintenance required on gravel roof.
- Provide panel and circuit numbers on the infrastructure units (HVAC, water heater, etc.), to better assist in maintenance or replacement.

### Fire Station 8 Major Asset Classes with Replacement Needs in Next 3 Years

- Exterior Enclosure
- HVAC
- Interior Finishes

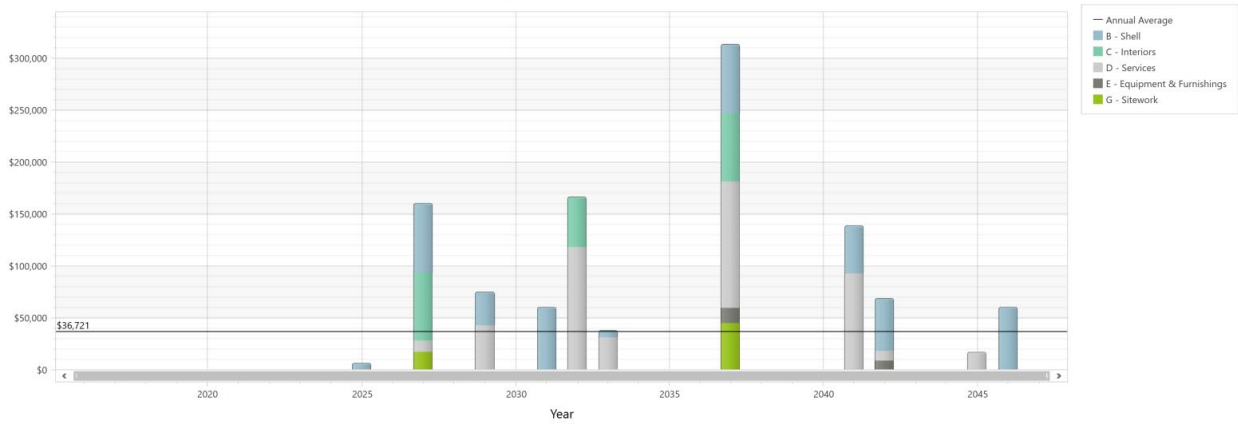
For a full list of replacement needs, refer to the IRIS results.

**Fire Station 9 (Essential Facility/Core City Service)**

1919 Cordoba St.



<b>Year Built</b>	2015
<b>Square Footage</b>	7,731
<b>Facility Condition Index</b>	0%
<b>FCI Level</b>	Good



**Fire Station 9 Immediate Needs**

- Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.
- Peeling concrete stain in dining area.
- Storage around fire sprinkler standpipe.

For a full list of replacement needs, refer to the IRIS results.

## Fire Station 10 (Essential Facility/Core City Service)

330 Airway Blvd.

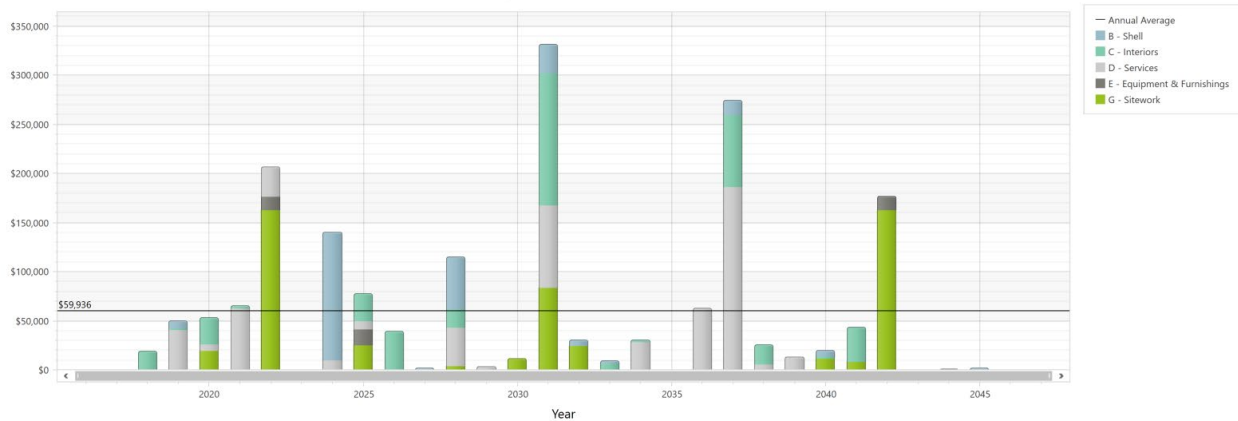


**Year Built** 2001

**Square Footage** 4,081

**Facility Condition Index** 7%

**FCI Level** Good



### Fire Station 10 Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Verify that fire alarm/fire alarm system is not required for the building proper.
- Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.
- Provide panel and circuit numbers on the infrastructure units (HVAC, water heater, etc.), to better assist in maintenance or replacement.

### Fire Station 10 Major Replacement Needs in Next 3 Years

- Exterior Enclosure
- HVAC
- Interior Finishes

For a full list of replacement needs, refer to the IRIS results.

## MSC Administration Building 1 (Essential Facility/Core City Service)

3500 Robertson Park Rd.



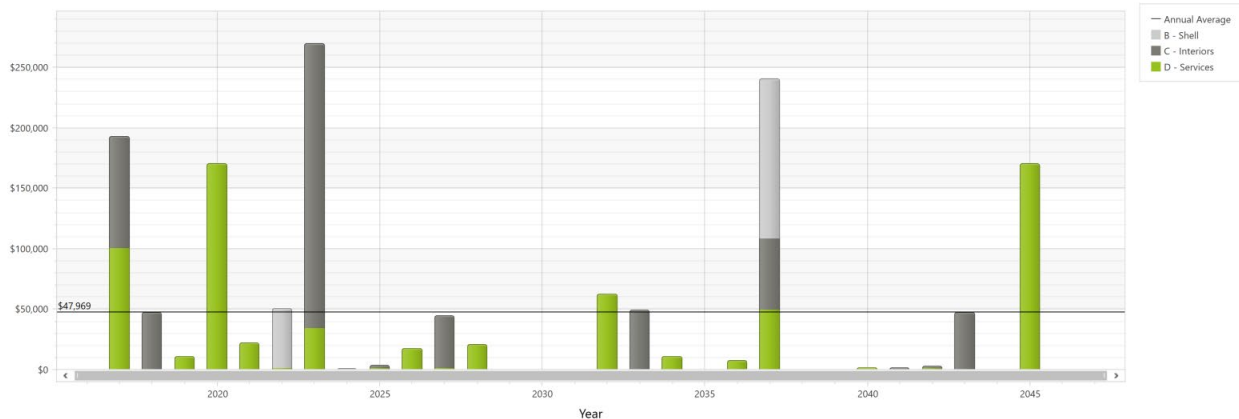
**Year Built** 1992

**Square Footage** 8,176

**Facility Condition Index** 22%

**FCI Level** Fair

This facility provides administrative offices for maintenance services. Maintenance of this facility is shared with LARPD.



### MSC Building 1 Immediate Needs

- Electrical Room #426 dedicated 24/7 Cooling needs replacement
- Fire alarm panel needs replacement and pull stations need maintenance
- Pipe mounted pump needs replacement
- Carpet and ceramic tile walls need maintenance
- Door hardware
- Light fixtures
- Thermostats

### MSC Building 1 Major Asset Classes with Replacement Needs in Next 3 Years

- Electrical
- Fire Protection
- HVAC
- Interior Finishes
- Plumbing

For a full list of replacement needs, refer to the IRIS results.



## MSC Storage Building 2 (Essential Facility/Core City Service)

3500 Robertson Park Rd.



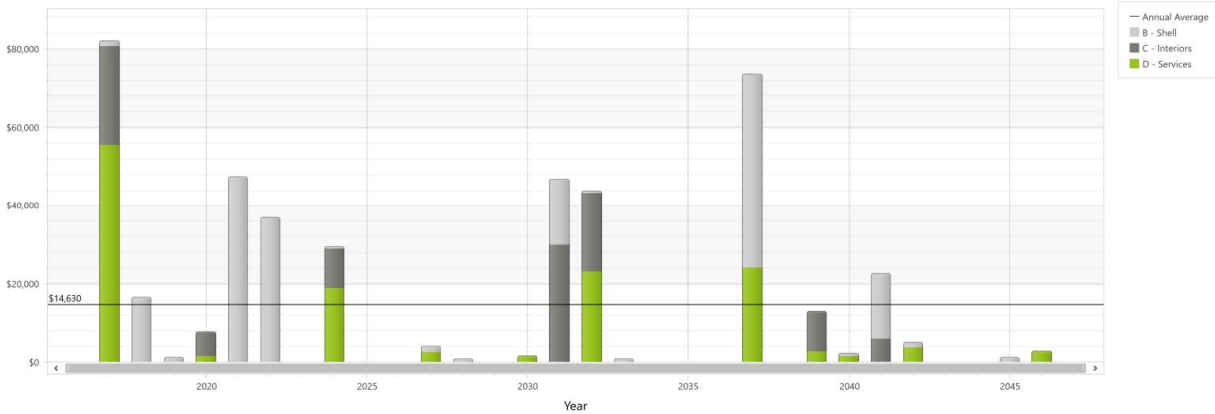
**Year Built** 1992

**Square Footage** 5,781

**Facility Condition Index** 15%

**FCI Level** Fair

This facility stores equipment dedicated to the maintenance of landscape, trails, parks, and recreation centers. Maintenance of this facility is shared with LARPD.



### MSC Building 2 Immediate Needs

- Air conditioning unit needs replacement
- Radiant gas heaters need replacement
- Security alarm panels need replacement
- Emergency lighting fixtures need replacement
- Metal door and door hardware need maintenance
- Fluorescent light fixtures need maintenance
- Thermostat needs maintenance

### MSC Building 2 Major Asset Classes with Replacement Needs in Next 3 Years

- Electrical
- Fire Protection
- HVAC
- Interior Finishes
- Plumbing

For a full list of replacement needs, refer to the IRIS results.

**MSC Building 3 (Essential Facility/Core City Service)**

3500 Robertson Park Rd.



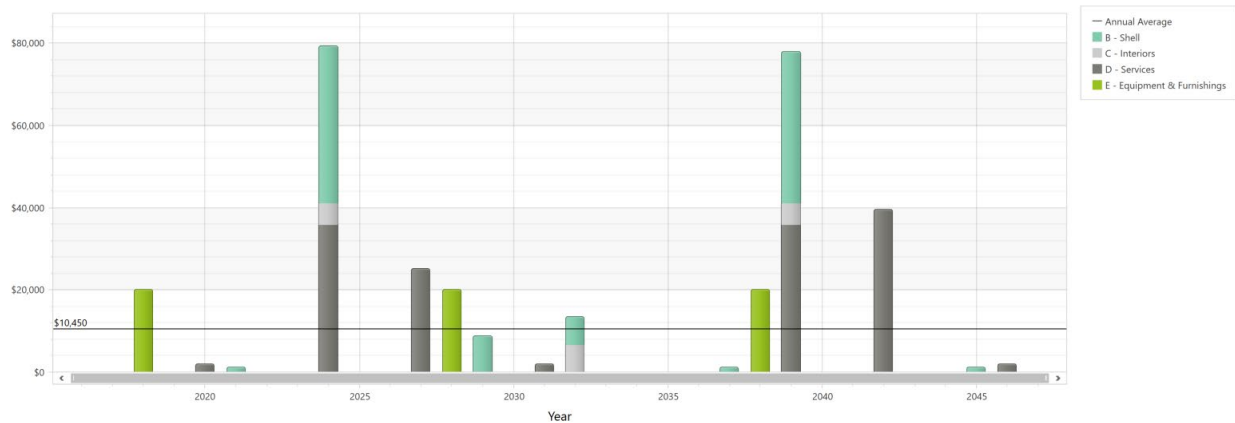
**Year Built** 1992

**Square Footage** 4,840

**Facility Condition Index** 1%

**FCI Level** Good

This facility provides storage for the police facilities. Maintenance of this facility is shared with LARPD.



**MSC Building 3 Immediate Needs**

- No seismic restraints on shelving.

For a full list of replacement needs, refer to the IRIS results.

### MSC Covered Parking Building 4 (Essential Facility/Core City Service)

3500 Robertson Park Rd.



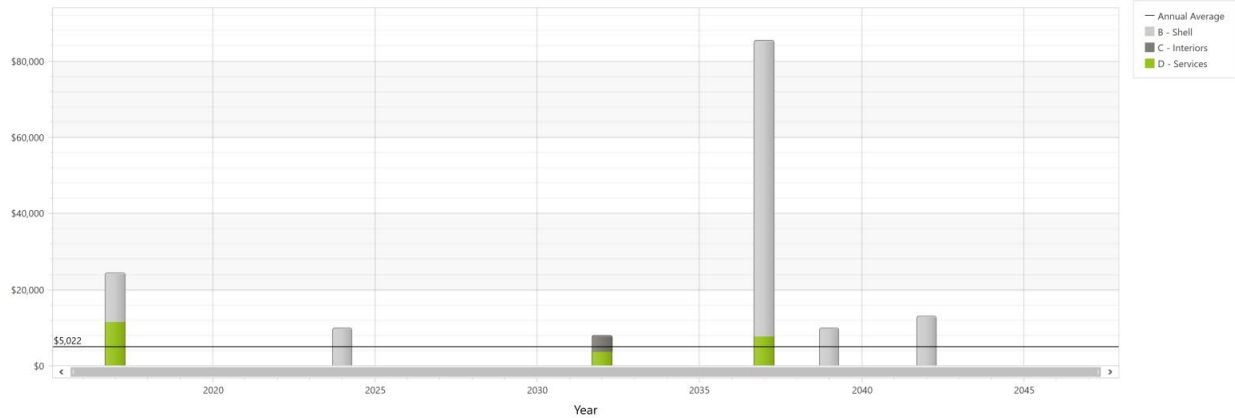
**Year Built** 1992

**Square Footage** 6,232

**Facility Condition Index** 11%

**FCI Level** Fair

This facility provides covered parking for City vehicles. Maintenance of this facility is shared with LARPD.



#### MSC Building 4 Immediate Needs

- Time controls need maintenance
- Light fixtures need maintenance

#### MSC Building 4 Major Asset Classes with Replacement Needs in Next 3 Years

- Electrical
- Exterior Enclosure

For a full list of replacement needs, refer to the IRIS results.

## MSC Shop Building 5 (Essential Facility/Core City Service)

3500 Robertson Park Rd.



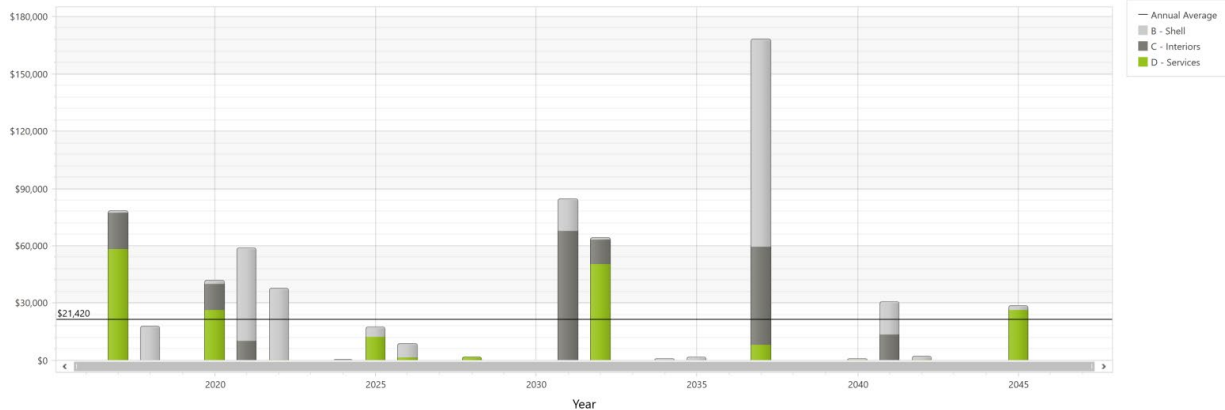
**Year Built** 1992

**Square Footage** 5,822

**Facility Condition Index** 14%

**FCI Level** Fair

This facility is dedicated to maintenance for landscape, facilities, and signals, as well as space for LARPD. Maintenance of this facility is shared with LARPD.



### MSC Building 5 Immediate Needs

- Commercial heat pump needs replacement
- Exhaust fan needs replacement
- Radiant gas heaters need replacement
- Air compressor need replacement
- Light fixtures need maintenance
- Door hardware needs maintenance
- Metal door need maintenance
- Manual rollup door with man door needs maintenance

### MSC Building 5 Major Asset Classes with Replacement Needs in Next 3 Years

- Electrical
- Exterior Enclosure
- HVAC
- Interior Construction
- Interior Finishes

For a full list of replacement needs, refer to the IRIS results.

## MSC Shop Building 6 (Essential Facility/Core City Service)

3500 Robertson Park Rd.



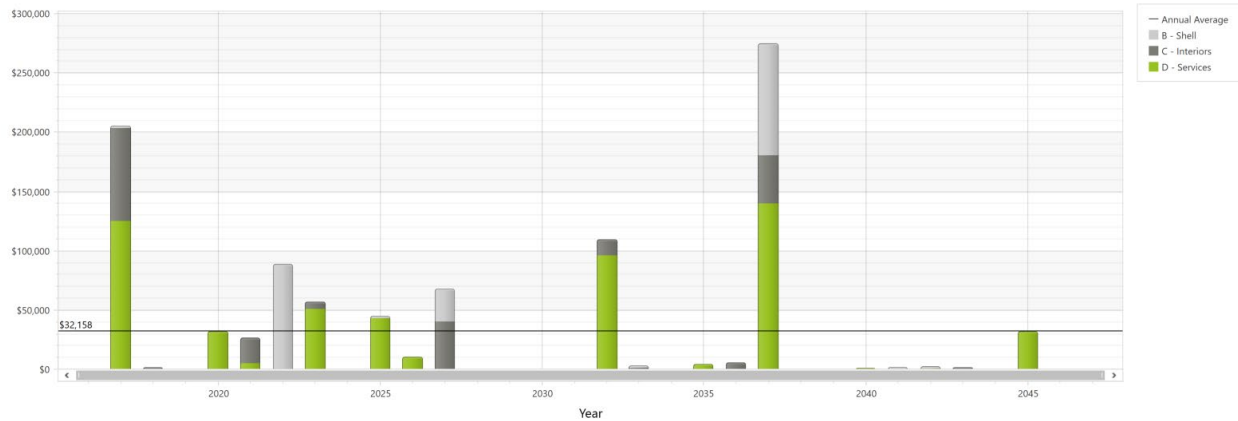
**Year Built** 1992

**Square Footage** 10,919

**Facility Condition Index** 16%

**FCI Level** Fair

This facility is dedicated to fleet and equipment maintenance. Maintenance of this facility is shared with LARPD.



### MSC Building 6 Immediate Needs

- Air compressor needs replacement
- Heat pump needs replacement
- Interior finishes need maintenance – plywood walls, carpet, tile
- Axial fan need maintenance
- Door hardware needs maintenance
- Light fixtures need maintenance
- Radiant gas heater needs maintenance

### MSC Building 6 Major Asset Classes with Replacement Needs in Next 3 Years

- Electrical
- Exterior Enclosure
- HVAC
- Interior Construction
- Interior Finishes

For a full list of replacement needs, refer to the IRIS results.

## MSC Covered Parking Building 7 (Essential Facility/Core City Service)

3500 Robertson Park Rd.



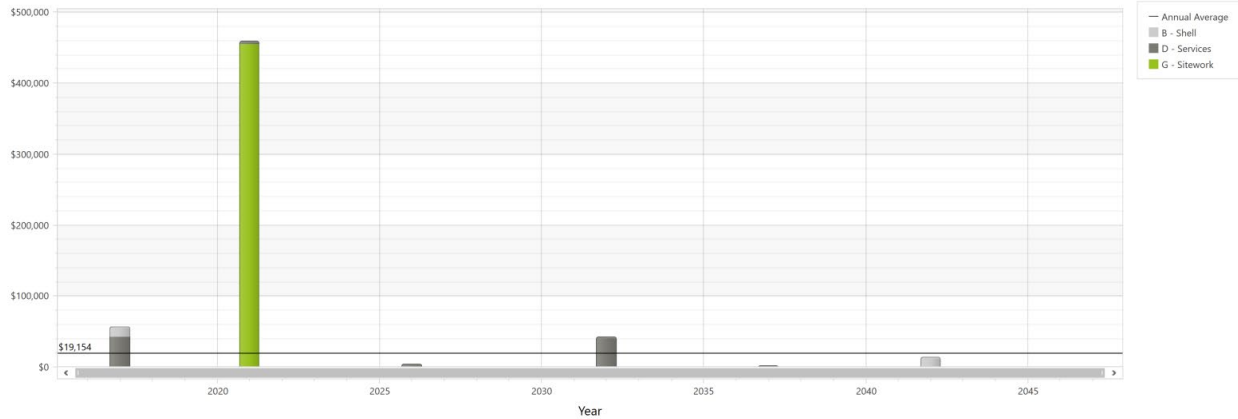
**Year Built** 1992

**Square Footage** 6,273

**Facility Condition Index** 6%

**FCI Level** Good

This facility provides covered parking for City vehicles. Maintenance of this facility is shared with LARPD.



### MSC Building 7 Immediate Needs

- Solar Photovoltaic Inverters need replacement
- Air Compressor Tank needs replacement
- Door hardware needs maintenance
- Strobes need maintenance

### MSC Building 7 Major Asset Classes with Replacement Needs in Next 3 Years

- Electrical
- Exterior Enclosure
- Fire Protection
- HVAC

For a full list of replacement needs, refer to the IRIS results.

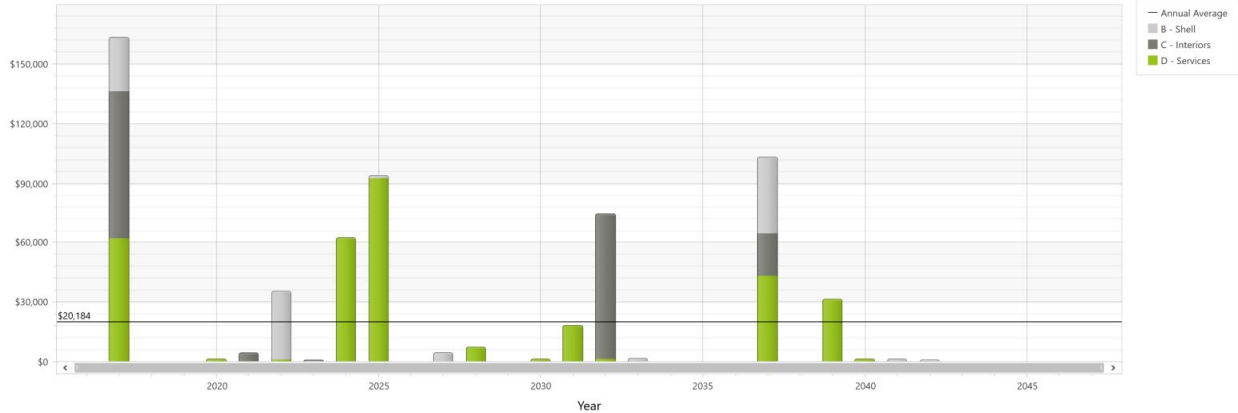
## MSC Shop Building 8 (Essential Facility/Core City Service)

3500 Robertson Park Rd.



<b>Year Built</b>	1992
<b>Square Footage</b>	6,314
<b>Facility Condition Index</b>	20%
<b>FCI Level</b>	Fair

This facility is dedicated to street maintenance and signage maintenance. Maintenance of this facility is shared with LARPD.



### MSC Building 8 Immediate Needs

- Air Compressor needs replacement
- Clarifier needs replacement
- Interior walls need maintenance
- Axial fans need maintenance
- Metal door and door hardware need replacement
- Light fixtures need maintenance
- Thermostat needs maintenance

### MSC Building 8 Major Asset Classes with Replacement Needs in Next 3 Years

- Electrical
- Exterior Enclosure
- HVAC
- Interior Construction
- Interior Finishes
- Plumbing

For a full list of replacement needs, refer to the IRIS results.

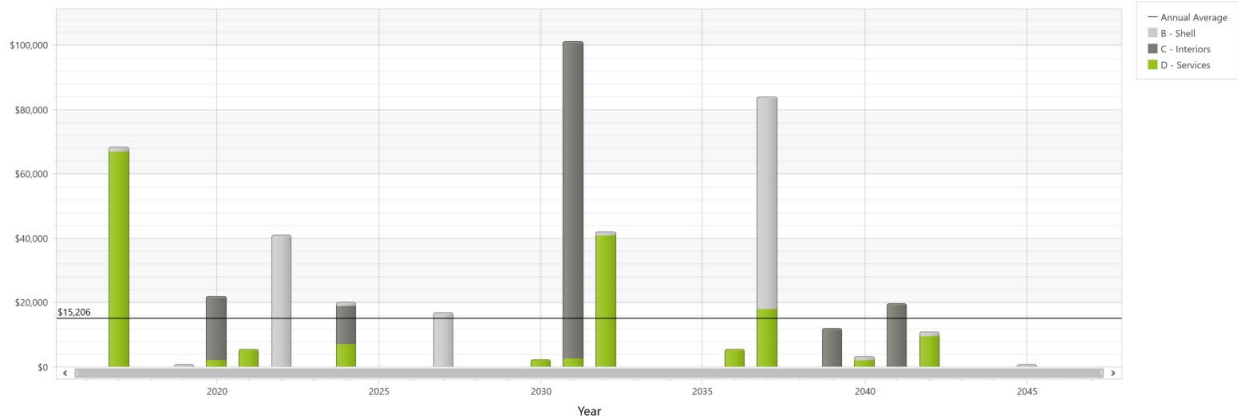
**MSC Storage Building 9 (Essential Facility/Core City Service)**

3500 Robertson Park Rd.



<b>Year Built</b>	1992
<b>Square Footage</b>	6,520
<b>Facility Condition Index</b>	10%
<b>FCI Level</b>	Good

This facility is dedicated to storage. Maintenance of this facility is shared with LARPD.



**MSC Building 9 Immediate Needs**

- Air Compressor needs replacement
- Emergency Light Fixtures and Illuminated Exit Signs need replacement
- Security Alarm Panels need replacement
- Door Hardware need maintenance

**MSC Building 9 Major Asset Classes with Replacement Needs in Next 3 Years**

- Electrical
- Exterior Enclosure
- HVAC

For a full list of replacement needs, refer to the IRIS results.

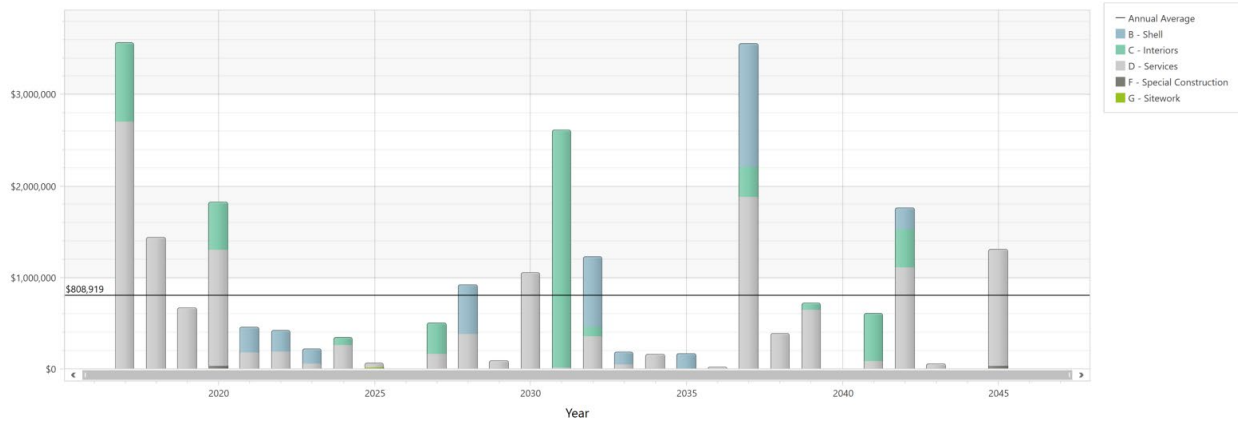


**Police Facilities (Essential Facility/Core City Service)**

1110 South Livermore Ave.



<b>Year Built</b>	2002
<b>Square Footage</b>	50,000
<b>Facility Condition Index</b>	29%
<b>FCI Level</b>	Fair



**Police Facilities Immediate Needs**

- UPS Batteries
- Built-up Gravel Roof
- Chiller 01 and 02
- Emergency Generator
- Pumps
- A/C Condensing Units
- Hydraulic Elevator
- Vacuum Air Cleaner
- Air Compressor
- Elastomeric Membrane Flat Roof

**Police Facilities Major Asset Classes with Replacement Needs in Next 3 Years**

- Conveying Systems
- Electrical
- Fire Protection
- HVAC
- Interior Finishes
- Plumbing

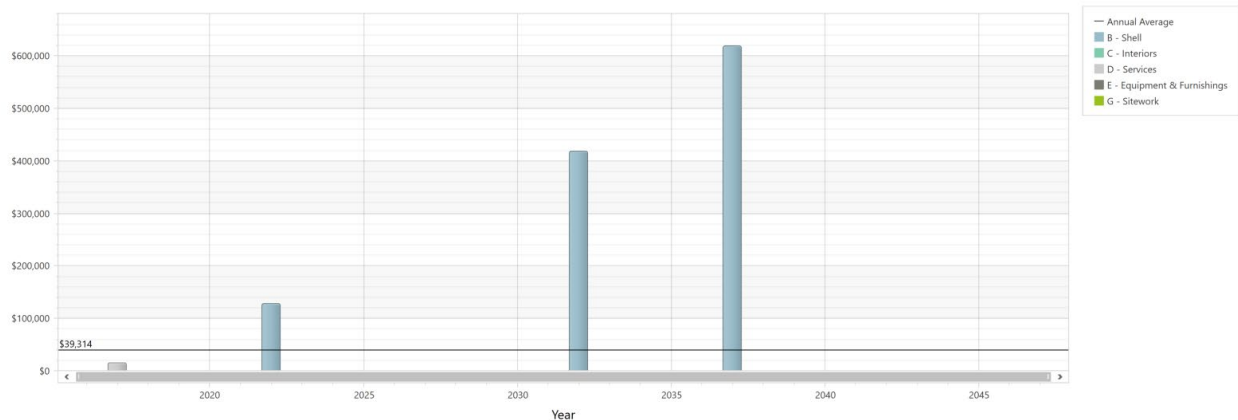
For a full list of replacement needs, refer to the IRIS results.

## Bankhead Theater (Specific Enrichment Facility/General Usage)

2400 First Street



Year Built	2007
Square Footage	29,449
Facility Condition Index	5%
FCI Level	Good



Note: Maintenance of this facility is shared with Livermore Valley Performing Arts Center (LVPAC)

### Bankhead Theater Immediate Needs

- Roof needs some maintenance, basic cleaning and periodic review.
- Single ply on roof parapet is bubbling. This should be reviewed by the manufacturer to see if this is a possible issue and should be repaired.
- Walking bridges should be looked into for going over roof ducting. Portable ladders are being used to get up on ducting, then ducting is used as main pathway to get to the other side. This looks to be a safety hazard and possibly damaging the ducting.
- Walking pads should be installed on heavily used paths to units to minimize damage to roofing surface.
- A roof ladder at the roof access hatches should be installed. Roof access requires hazardous usage of an extension ladder over 15 feet on a landing in an exit stairwell to gain access to the roof.
- Skylights need to be cleaned.
- Some of the line sets on the roof HVAC units are damaged and are in need of repair.
- Electrical rooms are being used for storage. Not allowed by CBC and CEC.
- Storage found in basement rated corridor. Could be possible issue with fire marshal.
- Wood raised platform at the orchestra pit and the trap door enclosure at the stage needs to be reviewed

for allowing wood construction.

- Interior ladders to catwalk from the stage area may require cages per CALOSHA due to length of ladder.
- HVAC system in the seating area looks to be under designed by my discussions with staff. With large audiences and warm temperatures, the existing system cannot keep up with the heat load and the seating area becomes very uncomfortable.

#### Bankhead Theater Major Asset Classes with Replacement Needs in Next 3 Years

- Conveyance Systems

For a full list of replacement needs, refer to the IRIS results.

**Carnegie Library (Specific Enrichment Facility/General Usage)**

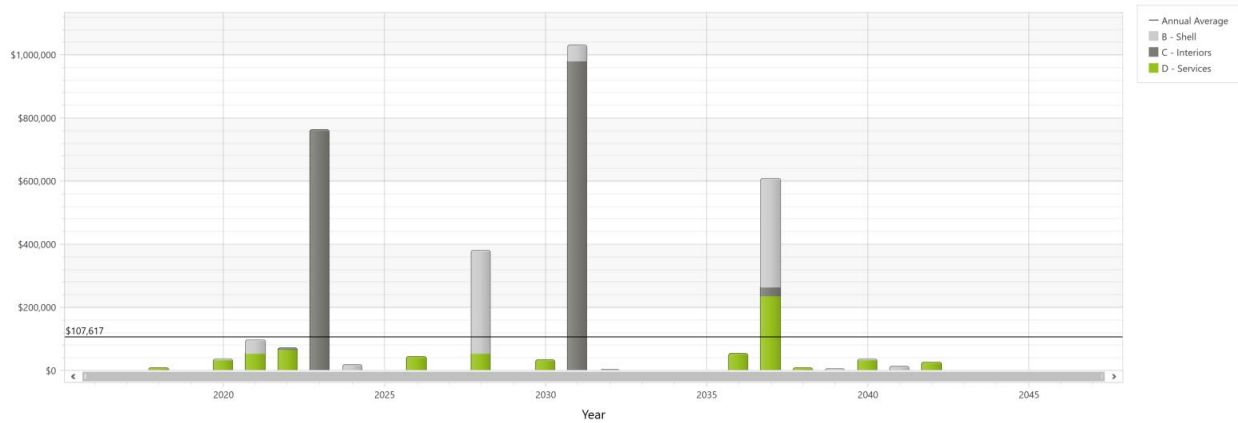
2155 Third St.



**Year Built** 1940

**Square Footage** 5,060

This is a historical facility.



Note: Maintenance of this facility is shared with LARPD

**Carnegie Library Immediate Needs**

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Furnace looks in need of repair or replacement.
- No fire alarm or fire sprinklers.
- Restrooms not compliant with CBC Chapter 11.
- Lights in restrooms need repair or replacement.
- Basement interior ramp not compliant with CBC.
- Building requires additional ADA and way finding signage.
- Spline tile system in the basement in some areas is coming down and is in need of replacement or maintenance.
- Area under the stairs is being used for storage, not allowed by CBC.
- Water damage found at hardlid ceiling in interior stairwell.
- Main level stairway, interior, does not provide accessibility. Needs review.
- Window air conditioning units need to be reviewed for maintenance or replaced.
- Exterior stairs and handrail next to chairlift not compliant with CBC. Also do not meet historical nature of

building.

- Issues with ramp to chairlift/stairs. Handrail protrusion could be a hazard.
- Basement level access next to chairlift not ADA compliant.

#### Carnegie Library Major Replacement Needs in Next 3 Years

- Electrical
- Exterior Enclosure
- Interior Construction
- Plumbing

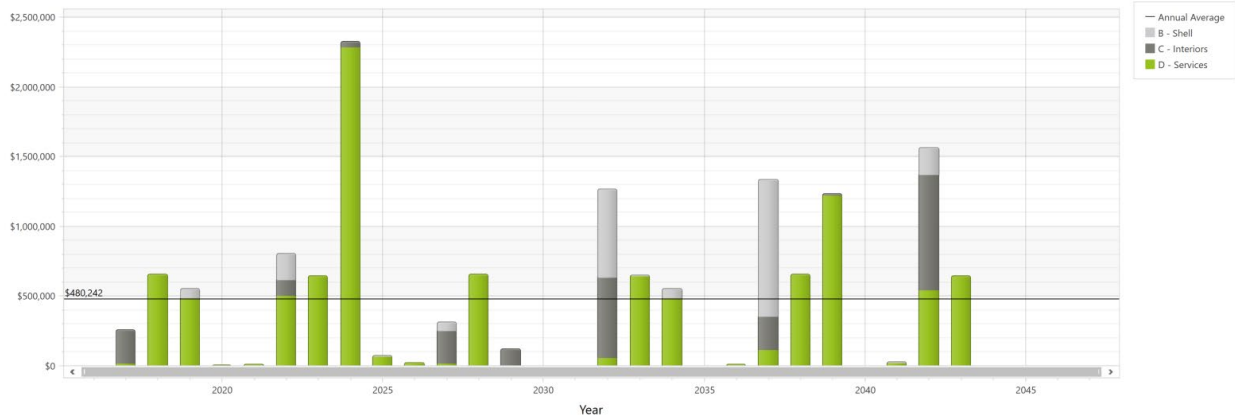
For a full list of replacement needs, refer to the IRIS results.

**Civic Center Library (Specific Enrichment Facility/General Usage)**

1188 South Livermore Ave.



<b>Year Built</b>	2004
<b>Square Footage</b>	55,468
<b>Facility Condition Index</b>	9%
<b>FCI Level</b>	Good



**Civic Center Library Immediate Needs**

- Dormer Roof
- Gas-Fired Water Heater
- Carpet

**Civic Center Library Major Asset Classes with Replacement Needs in Next 3 Years**

- Electrical
- Exterior Enclosure
- HVAC
- Interior Finishes

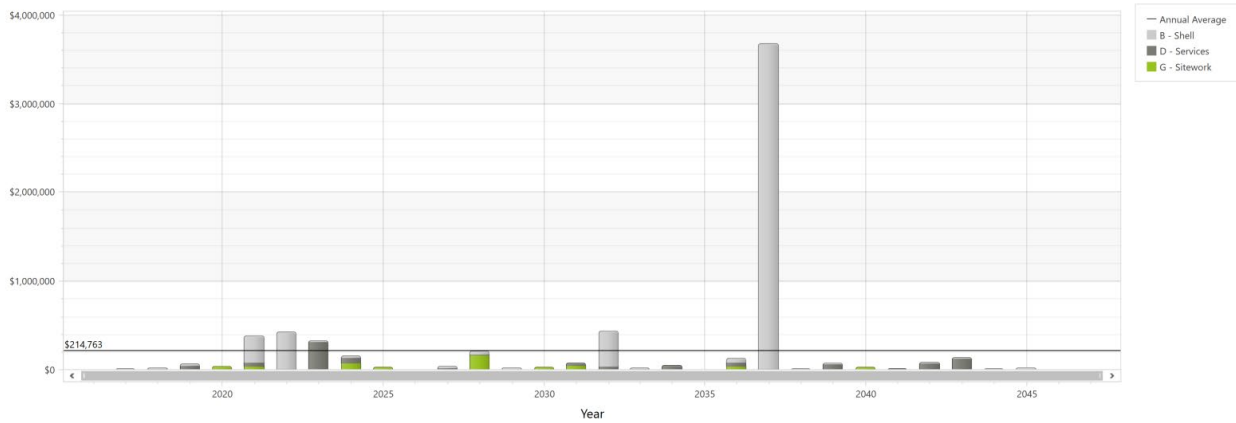
For a full list of replacement needs, refer to the IRIS results.

**Downtown Parking Facility (Specific Enrichment Facility/General Usage)**

2350 Railroad Ave.



<b>Year Built</b>	2004
<b>Facility Condition Index</b>	2%
<b>FCI Level</b>	Good



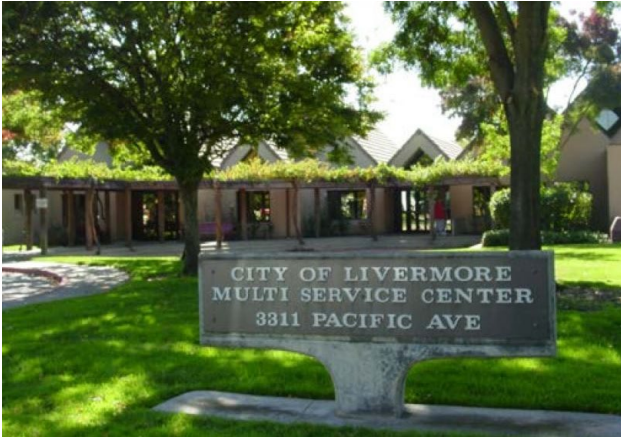
**Downtown Parking Facility Major Replacement Needs in Next 3 Years**

- Conveying Systems
- Electrical
- Exterior Enclosure
- Plumbing

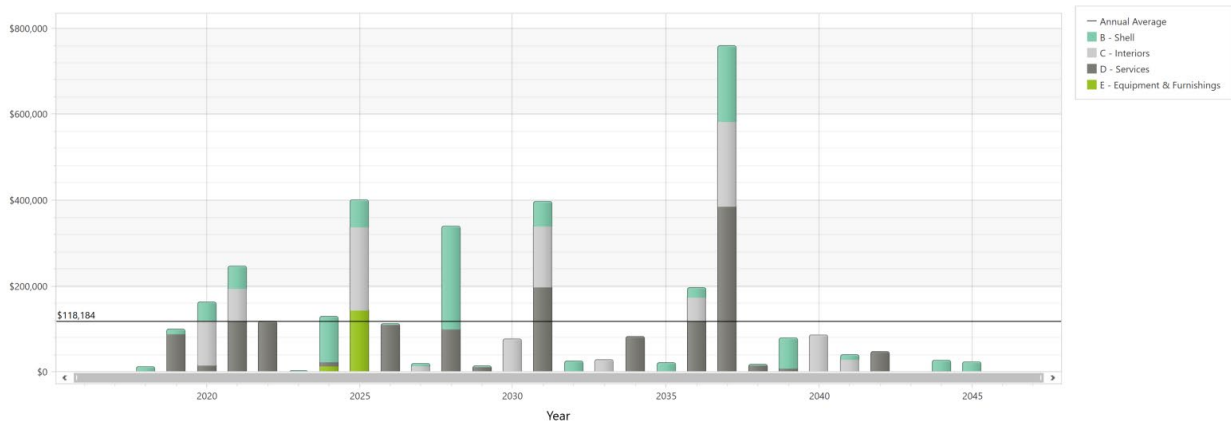
For a full list of replacement needs, refer to the IRIS results.

Multi Service Center (Specific Enrichment Facility/General Usage)

3333 Pacific Avenue



Year Built	1979
Square Footage	10,001
Facility Condition Index	4%
FCI Level	Good



Multi Service Center Immediate Needs

- Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.
- Electrical room being used for storage.
- Clearances not being kept at the electrical panels per CEC.
- Trellis is in need of repair or replacement.
- Roof gutters need to be cleaned.
- Water fountain not compliant.
- Review unisex/single stall restroom door hardware for compliancy with the code. Found a deadbolt and a push button lockset. May want to go to turn “Vacancy/No Vacancy” type of unit.

Multi Service Center Major Asset Classes with Replacement Needs in Next 3 Years

- Exterior Enclosure
- HVAC

For a full list of replacement needs, refer to the IRIS results.



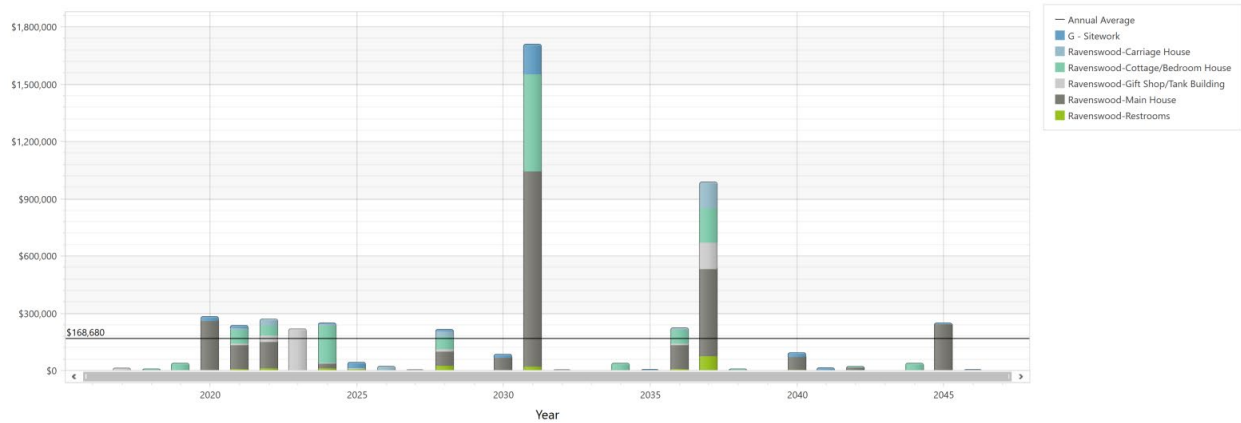
Ravenswood Historic Site (Enrichment Facility/Specific Usage)

2647 Arroyo Rd.



Year Built 1885 - 1891

This is a historical facility.



Note: Maintenance of this facility is shared with LARPD

Main House

Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Handrails not compliant with existing code.
- Handrail needed at basement well entry.
- Guardrail needed at exterior stairs, landing and porches above 30”.
- Landing at chairlift not compliant.
- Handrail going to chairlift not compliant.
- Porch needs maintenance as coating is coming off.
- No accessibility to basement level

Carriage House

Immediate Needs

- Shake roof is coming up for repair or replacement within 5 years.
- Provide protective cover on light fixtures.

**Cottage House**

No immediate needs.

**Tank House Gift Shop**

No immediate needs.

**Restroom**

No immediate needs.

For a full list of replacement needs, refer to the IRIS results.

### 141 N Livermore Ave (Enrichment Facility/Specific Usage)



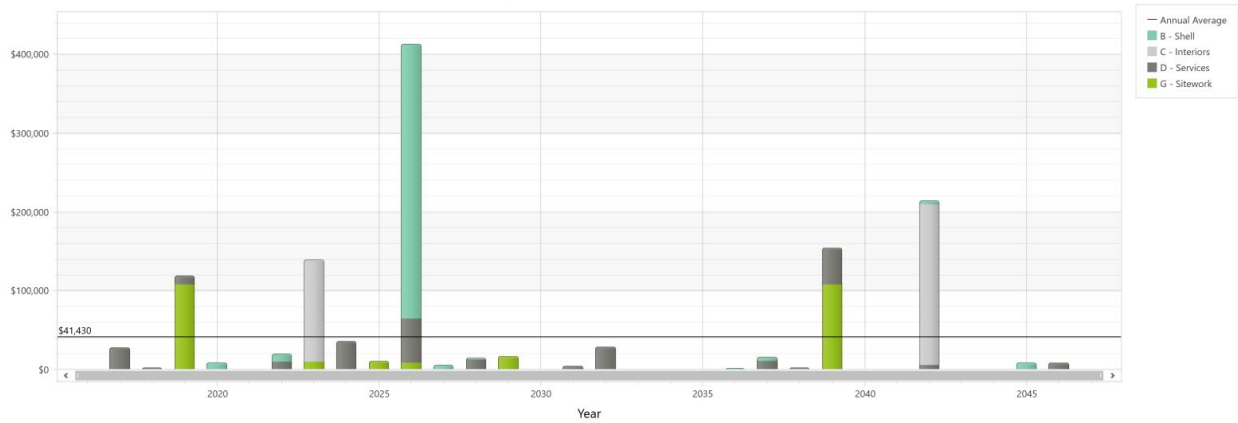
**Year Built** 1876

**Square Footage**

**Facility Condition Index** 24%

**FCI Level** Fair

This facility is leased to a private organization.



Note: Maintenance of this facility is shared with lessee.

### 141 N Livermore Ave Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Structural cracking found.
- Street entrance not accessible.
- Upper level stairs and landing not CBC compliant.
- Rear ramp, landing, and handrails not compliant with CBC.
- Parking area needs to be restriped to meet accessible parking areas and path of travel.

### 141 N Livermore Ave Major Replacement Needs in Next 3 Years

- Electrical
- HVAC
- Plumbing

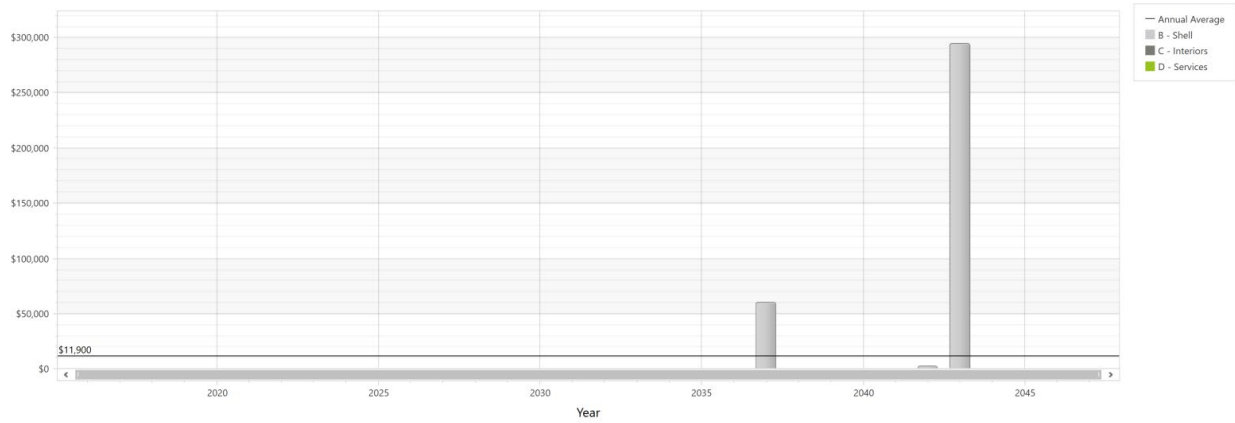
For a full list of replacement needs, refer to the IRIS results.

145 - 149 N Livermore Ave (Enrichment Facility/Specific Usage)



<b>Year Built</b>	1968
<b>Square Footage</b>	2,916
<b>Facility Condition Index</b>	2%
<b>FCI Level</b>	Good

Annex to 141 N Livermore Ave. These facilities are leased to private companies.



Note: Maintenance of this facility is shared with lessee.

For a full list of replacement needs, refer to the IRIS results.

241 N. M St. (Enrichment Facility/Specific Usage)



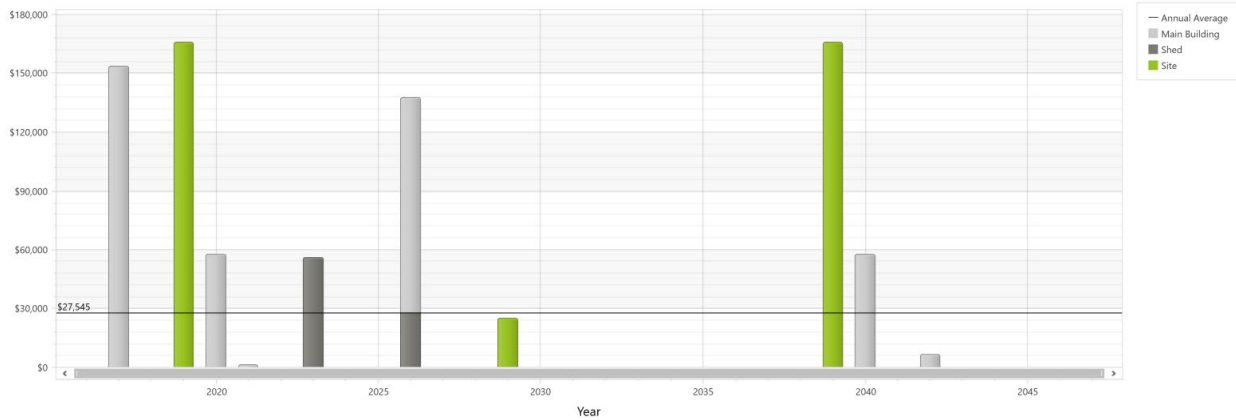
**Year Built** 1925

**Square Footage** 2,542

**Facility Condition Index** 22%

**FCI Level** Fair

This facility is currently leased to a private company.



Note: Maintenance of this facility is shared with lessee.

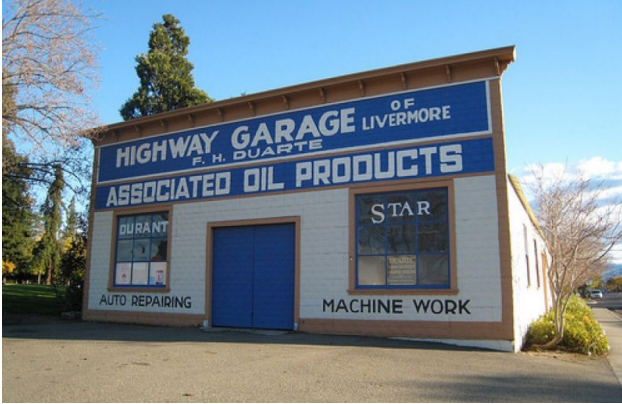
241 N M St. Major Replacement Needs in Next 3 Years

- Exterior Enclosure

For a full list of replacement needs, refer to the IRIS results.

**Duarte Garage (Enrichment Facility/Specific Usage)**

926 North L St.



**Year Built** 1915

**Square Footage** 5,172

This is a historical facility.

Note: Maintenance of this facility is the responsibility of the lessee

**Duarte Garage Immediate Needs**

- Some minor cracking in parapet needs to be reviewed for structural straining.
- Minor repairs required to exterior wall siding.
- No fire alarm found.
- Restrooms not compliant with CBC Chapter 11.
- Electrical panel needs to be replaced and upgraded.

For a full list of replacement needs, refer to the IRIS results.

**Duarte Garage Caretaker's House (Enrichment Facility/Specific Usage)**

2016 Pine St.



**Year Built** 1915

**Square Footage** 1,200

This is a historical building adjacent to the Duarte Garage.

Note: Maintenance of this facility is the responsibility of the lessee

**Caretaker's House Immediate Needs**

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Roof needs maintenance.
- Walls look to be hollow clay tile, possibly without grouting. These could become an issue during a seismic event. Structural review would be prudent.

For a full list of replacement needs, refer to the IRIS results.

**Hagemann Farm (Enrichment Facility/Specific Usage)**

455 Olivina Ave.



**Year Built** 1870

**This is a historical facility.**

Note: Maintenance for this facility is shared with lessee

**Hagemann Farm Immediate Needs**

**Red Barn**

- No major issues.

**Barn 1**

- Maintenance on roof required.
- Some boards require replacement on the sides.
- Fix or replace gutter system.
- Dry rot needs to be repaired.
- Watering units need to be replaced.
- Needs lighting fixture replacement.

**Community Shed**

- Repair window.
- No accessible entrance. Barn door not an accessible entrance.

**Goat Shed**

- Siding needs to be repaired.
- New roof needs to be provided.

**Barn 2**

- Some boards on siding need to be replaced.
- Electrical needs to be redeveloped. Verify that Romex is allowed in this occupancy use by CEC.
- Light fixtures require covers. Area could be looked at as hazardous with combustibles in barn.



### **Main House**

- Roof needs to be repaired.
- Gutters need to be replaced.
- Rafters/sheathing showing bowing. Possible structural issue needs to be reviewed.
- Building needs to be repainted.
- Exterior stoop, stairs and railing not CBC compliant.
- Electrical needs to be reviewed for panel replacement and wiring upgrades to meet CEC.

### **Feed Shed 1**

- Needs new roof.

### **Feed Shed 2**

- Building needs to be relocated to its permanent location.

### **Waterhouse Shed**

- Provide new panel.
- Joists need to be replaced due to rot and new roof needs to be provided.
- Building is rotting.

### **House Shed**

- New roof required.
- Repair walls if possible.
- Overall building is rotting.

### **Tractor Shed**

- Repair Door

For a full list of replacement needs, refer to the IRIS results.

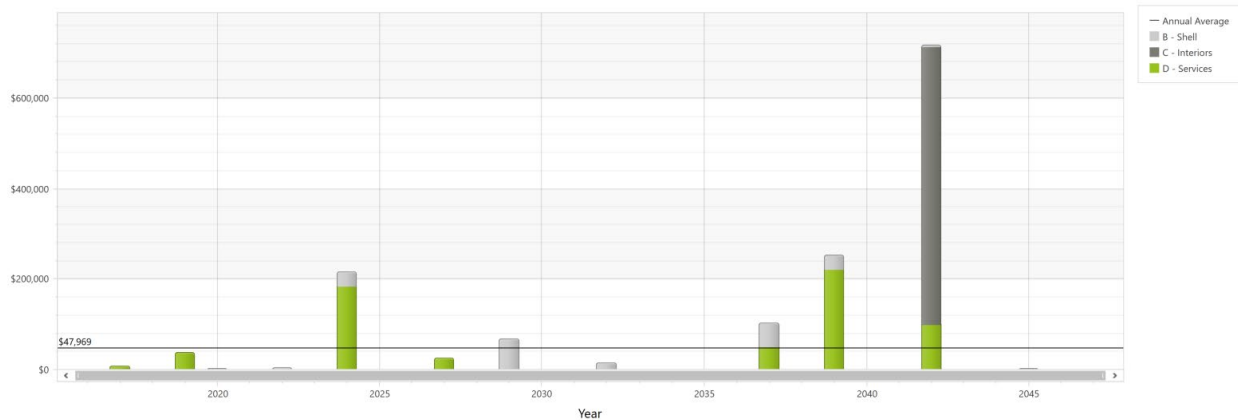
Railroad Train Depot Building (Enrichment Facility/Specific Usage)



**Year Built** 1892

**Square Footage** 2,312

This is a historical facility.



*Note: This building has been relocated and rehabilitated since this document was written. This information reflects the previous condition and location. Maintenance of this facility at the Transit Center is shared with Livermore Amador Valley Transit Authority (LAVTA).*

Railroad Train Depot Building Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.
- Building looks in need of painting.
- Door hardware not compliant with existing code.
- Exterior railings not compliant with existing code.
- Some dry rot found on the exterior of the building need to be replaced.
- Roof damage found at eaves.
- Foundation of building needs to be reviewed for structural integrity.
- No accessibility to upper level found.
- Stairs/handrail to upper level is not code compliant and is missing the guardrail.

- Stairs to upper level need to be repaired or replaced.
- Built up roofing needs maintenance or needs to be replaced.

#### Railroad Train Depot Building Major Replacement Needs in Next 3 Years

- Electrical
- Exterior Enclosure
- HVAC
- Plumbing

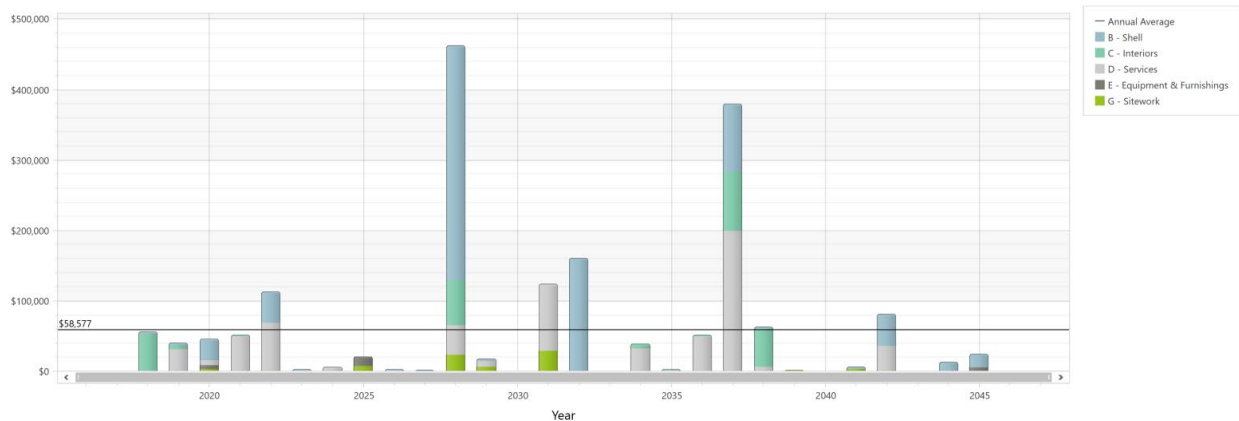
For a full list of replacement needs, refer to the IRIS results.

## Rincon Library (Enrichment Facility/Specific Usage)

725 Rincon Ave.



Year Built	1992
Square Footage	4,335
Facility Condition Index	8%
FCI Level	Good



### Rincon Library Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter.
- Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.
- Door not compliant with CBC Chapter 11.
- Water fountain not compliant.
- Electrical room being used for storage.
- May want to provide panel and circuit numbers on the HVAC units.
- Verify that countertop height in restrooms meet CBC Chapter 11 requirements.
- Signage needs to be uniform and updated.
- Trees need to be trimmed and gutters cleaned.

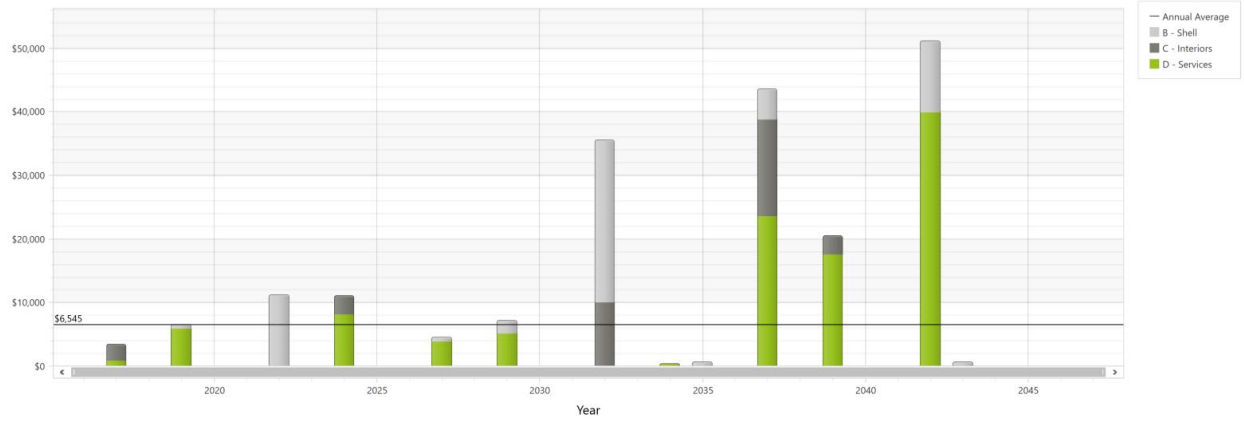
### Rincon Library Major Asset Classes with Replacement Needs in Next 3 Years

- Exterior Enclosure
- HVAC
- Interior Finishes

For a full list of replacement needs, refer to the IRIS results.

Shea Plaza Restroom Facility (Enrichment Facility/Specific Usage)

<b>Year Built</b>	2007
<b>Square Footage</b>	600
<b>Facility Condition Index</b>	2%
<b>FCI Level</b>	Good



For a full list of replacement needs, refer to the IRIS results.

## Springtown Library (Enrichment Facility/Specific Usage)

998 Bluebell Ave.

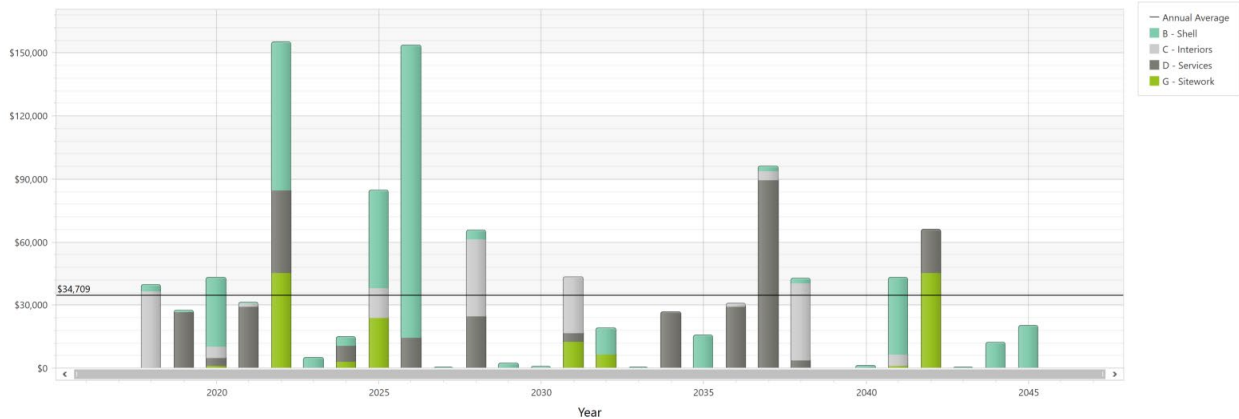


**Year Built** 1980

**Square Footage** 2,480

**Facility Condition Index** 22%

**FCI Level** Fair



### Springtown Library Immediate Needs

- Facility does not have a seismic gas shutoff valve on the gas meter
- Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.
- Verify that roof ladder is in compliance with CALOSHA.
- Area around access ladder is being used for storage.
- Roof HVAC supply duct needs to be insulated.
- Verify clearances in restrooms.
- Siding damage found in various locations on the building.
- Verify that the railing for the stairs meet CBC requirements.
- Electrical panel looks to need rebuilding.
- Storage in front of electrical panel is not compliant with clearances noted within CEC.

### Springtown Library Major Asset Classes with Replacement Needs in Next 3 Years

- Exterior Enclosure
- HVAC
- Interior Finishes

For a full list of replacement needs, refer to the IRIS results.

## Southern Bell Building (Enrichment Facility/Specific Usage)

2324 2<sup>nd</sup> St.



**Year Built** 1929

**Square Footage** 8,958

**Facility Condition Index** 17%

**FCI Level** Fair

This facility is currently leased to a private company.

### Southern Bell Building Immediate Needs

- Fire alarm pulls are taped over. This needs to be reviewed and alarms no longer required removed. Documents should be generated to review fire alarm requirements in the building and submitted to the city and fire marshal for review in implementation.
- Found trouble alarms on the fire alarm control panel.
- Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.
- Structural cracks found in exterior wall.
- No accessible entry.
- Exit gate on street does not have egress panic hardware. May be required by code.
- Main entrance needs handrails.
- Exterior railings at basement not compliant.
- Electrical switchboards remain from building's previous use. Some are active and some are not. Active units may trigger code uses with required rated areas for their enclosure with no other usage. This needs to be reviewed.
- Roof ladders very unstable and need to be brought up to OSHA requirements.
- Lower and upper roofs need maintenance or replacement. Replacement should be in a maximum 5 years.
- Middle roof needs maintenance.
- Maintenance need on mansard roof mission tiles.
- Verify when filters have been changed on the building units. Looked in need of replacement.
- Provide panel and circuit numbers on the infrastructure units (HVAC, water heater, etc.), to better assist in maintenance or replacement.
- Electrical panels found to not have required clearances as per CEC.

For a full list of replacement needs, refer to the IRIS results.

## Appendix E – Management Strategies

The following table presents the management strategies applied to the building assets, including useful life and rehabilitation activities.

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Acoustical Panels	25			
Air - Cooled Unit	15			
Air Cleaner	15			
Air Compressor	15			
Air Conditioning Unit	15	Rehab	7	15%
Air Conditioning Unit - High Use	12	Rehab	6	15%
Air Handling Unit	15			
Air Handling Unit - High Use	12			
Alarm Horn	15			
Ash Tray - Concrete	30			
Ash Tray - Metal	10			
Automatic Sliding Glass Door	15	Rehab door opening mechanism	5	20%
Automatic Sliding Glass Door - High Use	12	Rehab door opening mechanism	3	20%
Axial Fan	25			
Backflow Preventer	20			
Barn Door	50	Paint	8	15%
Batteries	5			
Battery Inverter	15			
Bench - Composite	15			
Bench - Concrete	50			
Bench - Granite	50			
Bench - Metal	10			
Bench - Steel; Wood	10			
Benches	10			
Bike Rack	20			
Boiler	30			



Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Bollard	10			
Bollard with Light	10			
Book Box	10			
Booster Pumps	20	Rehab	10	10%
Burner	20			
Cabinetry	30			
Car Lift and Pump Unit	30	Rehab	10	10%
Card Reader	7			
Carnegie Library Entryway	75			
Catwalks	75			
Ceiling - Acoustical Glue-up Spline	30			
Ceiling - Acoustical/T - Bar	30			
Ceiling - Concrete	75			
Ceiling - Drywall	30	Paint	15	25%
Ceiling - Hardlid	30	Paint	15	25%
Ceiling Fan	15			
Ceiling Mounted Heater	15			
Ceiling Mounted Heater - Low Use	18			
Chairlift	10			
Chairlift - Bankhead	10			
Chiller	20			
Chiller Building Loop Pumps	20	Rehab	10	10%
Chimney	75			
Circulating Pump	15	Rehab	8	10%
Clarifier	30			
Closed Circuit TV System	10			
Communication and Security Alarm Panel	10			
Compressors	15			
Condensing Unit	15			
Condensing Unit - High Use	12			
Control Panel	25			
Cooling Towers (Galvanized)	40			

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Cupola	75	Paint	8	10%
Dedication Plaque with Foundation	40			
Dimmer Bank	20			
Domestic Water Distribution System	40	Rehab components	10	15%
Domestic Water Distribution System Control Box	10			
Door Access Unit	15			
Door Access Unit - High Use	12			
Drinking Fountain - 2 Tier	10	Rehab	10	10%
Driveway - Fire Station	25	Minor Repair	10	10%
Driveway - PCC	50	Minor Repair	10	10%
Dual Monitor Module	15			
Ducting	75			
Ducting - Bankhead	75			
Dumpster Structure	40			
DX Split System	25			
DX Split System - Bankhead	25			
Electrical Disconnect	20			
Electrical Service & Distribution	75			
Electronic Controls	20			
Elevator	50	Rehab	20	\$ 45,000
Elevator - Bankhead	50	Rehab	20	\$ 45,000
Emergency Generator	30			
Entryway	75			
Equipment Parapet Cover	25			
Exhaust Fan	15			
Exhaust Fan - Low Use	18			
Exhaust Vent	35			
Expansion Tank	35			
Exterior Awning	10			
Exterior Columns - Concrete	75			
Exterior Columns - Concrete; Wood; Painted	50	Paint	8	10%

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Exterior Columns - Wood	50	Paint	8	15%
Exterior Door - Metal	75	Paint	8	10%
Exterior Door - Metal - High Use	60			
Exterior Door - Wood	25	Paint	8	10%
Exterior Door - Wood - High Use	20			
Exterior Door - Wood - Low Use	30			
Exterior Door - Folding - Metal - High Use	12			
Exterior Door - Folding - Metal - Small	15			
Exterior Door - Roll Up	30	Replace door opener	10	35%
Exterior Door - Roll Up - High Use	24	Replace door opener	8	35%
Exterior Lighting - Security	15			
Exterior Louvers	40			
Exterior Stairway	75			
Exterior Wall - Metal	50			
Exterior Walls - CMU	75			
Exterior Walls - CMU; Painted	75	Paint	8	15%
Exterior Walls - Concrete	75			
Exterior Walls - EFIS	75	Rehabilitation	15	20%
Exterior Walls - Hollow Clay Tile	75			
Exterior Walls - Insulated Metal Wall Panel	75			
Exterior Walls - Masonry	75			
Exterior Walls - Retaining Wall	75			
Exterior Walls - Shear Wall	75			
Exterior Walls - Steel Stud w/ Prefab Panels	75			
Exterior Walls - Stucco	75	Rehab and/or repaint	15	25%
Exterior Walls - Stud Wall - Board and Batt Siding	60			
Exterior Walls - Stud Wall - Corrugated Sheeting	75			
Exterior Walls - Stud Wall -	75			

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Corrugated/Tin Siding				
Exterior Walls - Stud Wall - Engineered Panel System	60			
Exterior Walls - Tilt Ups	75			
Exterior Walls - Veneer Brick	75			
Exterior Walls - Wood Siding	75	Rehab and/or repaint	15	25%
Exterior Windows	40			
Eyewash	10			
Fan Coil Unit	15			
Fan Coil Unit - High Use	12			
Fencing - Chainlink	30			
Fencing - Wood	10			
Filtration System	20			
Fire Alarm Control Panel	15			
Fire Alarm Systems	15			
Fire Suppression Sprinklers	50			
Fire System Backflow Preventer	15			
Fixed Seating	30			
Flag Pole	30			
Floor Drain	75			
Flooring - Carpet	10			
Flooring - Ceramic Tile	75	Minor rehab	15	20%
Flooring - Expy Flooring	75	Minor rehab	15	20%
Flooring - Linoleum Tile	30			
Flooring - Plywood	15			
Flooring - Rubber Flooring	10			
Flooring - Sealed Concrete Flooring	75	Reseal	15	20%
Flooring - Sheet Vinyl	15			
Flooring - Slate Tiles	30	Minor rehab	15	20%
Flooring - Terrazzo	75	Minor rehab	15	20%
Flooring - Wood	75	Minor refurb	30	40%
Folding Partition	30			
Fountain	50	Rehab	10	10%

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Fuel Dispensing Station	30			
Fuel Tank	50			
Fuel Tank Gauge System	30			
Gas Package Units	15			
Gas Package Units - High Use	12			
Gate	30			
Gate - Motorized	30			
Gate - Motorized - High Use	24			
Gazebo	30	Rehab	10	10%
General Exterior Enclosure	75			
General Flooring Finishes	50			
General Interior Construction	50			
Generator Enclosure	30			
Gravity Intake	40			
Gravity Vents	40			
Gutters and Downspouts	25			
Handrails	45	Paint	10	10%
Heat Detector	15			
Heat Pump	15	Rehab	8	10%
Heater Unit	15			
Heating/Cooling Generating Systems - General	15			
Hot Water Pump	10	Rehab	5	10%
Information Post	10			
Insta Heat Water Unit	10			
Interior Door	75			
Interior Ladders	35			
Interior Walls - Ceramic Tile	25			
Interior Walls - Chainlink	30			
Interior Walls - CMU	75			
Interior Walls - Concrete	75			
Interior Walls - Drywall	50	Paint	10	20%
Interior Walls - Drywall/Ceramic Tile	75			

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Interior Walls - Glass	75			
Interior Walls - Insulated Metal Wall Panel	75			
Interior Walls - Plywood	15			
Interior Walls - Stone Veneer	50			
Interior Walls - Stud - Corrugated Sheeting	75			
Interior Walls - Wood Siding	50			
Interior Windows	60			
Inverter	20			
Irrigation Antenna	15			
Irrigation Control Valves	15			
Irrigation Controller	15			
Kiosk	10			
Lavatory	75			
Lighting	15			
Lighting and Branch Wiring	75	Replace fixtures	20	65%
Lighting Fixtures	20			
Lighting Panel	25			
Load Center	25			
Lockers	30			
Louvers - Metal - Motorized	30	Refurb motor	15	20%
Illuminated Exit Sign	20			
Main Switchgear	40			
Median	40			
Modular - Sprinklers	50			
Modular Unit	30			
Modular Unit - Domestic Water Distribution System	30			
Modular Unit - Electrical Service & Distribution	30			
Modular Unit - Forced Air Unit	15			
Modular Unit - Sanitary Waste System	30			

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Modular Unit - Water Heater - Electric	10			
Monument	10			
Motor Oil Vending	30			
Panel Board	25			
Parapet	50			
Parking Decks - Covered	40			
Parking Decks - Exposed	30			
Parking Lot - AC	30	Reseal and Restripe	10	15%
Parking Lot - PCC	40			
Parking Stripes	5			
Patio	75			
Photoelectric Smoke Detector	15			
Picnic Table	50	Rehab	15	10%
Planter	20			
Planter - Small	20			
Platform	25			
Plumbing Fixtures - General	75			
Pneumatic Air Dryer	20			
Pneumatic Compressor	20			
Porch - Wood	25	Rehab	10	20%
Pressure Tank	30			
Pressure Washer	15			
Pump - Base Mounted	20	Rehab	10	10%
Pump - In-Line	20	Rehab	10	10%
Railing	15			
Ramp	50			
Ramp - Wood	25	Rehab	10	20%
Recycling Bin	10			
Relay Control Module	15			
Remote Power Supply	15			
Retaining Wall	40			
Roof Drain	25			

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Roof Hatch	40			
Roof Ladder	50	Paint	10	20%
Roof Railing	50	Paint	10	20%
Roof Vents	40			
Roofing - Built-Up Gravel Roof	30	Rehab - waterproofing	10	30%
Roofing - Built - Up Roof	30	Rehab - waterproofing	10	30%
Roofing - Canvas Canopy	10			
Roofing - Comp. Tile Roof	25			
Roofing - Concrete Tile Roof	75			
Roofing - Corrugated Sheet	50			
Roofing - Elastomeric Membrane	12			
Roofing - Metal	50			
Roofing - Mission Tile	75			
Roofing - Rolled Composite	20			
Roofing - Shake Shingle	15			
Roofing - Single Ply Roof	25			
Sanitary Waste System	75			
Security Controls	15			
Security System	20			
Security Window	75			
Service Sink	45			
Sewage Ejection Pump	20	Rehab	10	10%
Shower	75			
Signage	25			
Sink	75			
Site Lighting	50	Rehab	10	10%
Skylight	30	Reseal	15	15%
Sliding Door	35			
Sliding Glass Door	30			
Sliding Glass Door - High Use	24			
Sliding Glass Wall	35			
Solar Panels	20			



Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Solar Water Panels	15			
Solartube	30			
Sound Attenuators	45			
Sound Reduction Door	50			
Split System	20			
Split System - High Use	16			
Stable Door	50	Paint	15	15%
Stairway	75			
Stairway - Metal	75			
Stairway - Wood	75	Rehab	10	20%
Storage Bin	15			
Storage Shed	15			
Storage Tank	30			
Structural Content	75			
Supply Fan	25			
Swing Check Valves	20			
Switch Center	45			
Switchboard	45			
Switchgear	40			
Thermostat	20			
Time Controls	15			
Toilet	50			
Toilet - Bankhead	50			
Toilet Partitions	40			
Transfer Switch	25			
Transformer	50			
Trash Bin - Concrete	30			
Trash Bin - Metal	10			
Trash Bin - Plastic	5			
Trellis	30	Paint/Reseal and Repair	10	30%
Tub	75			
Tuff Shed Unit	40	Paint	10	25%

Asset Class	Useful Life	Rehabilitation Activity	Frequency	Cost
Underground Storage Tank	30			
Uninterruptible Power Supply	10			
Urinals	50			
VAV Box	25			
Vehicle Exhaust System	25			
Vehicle Exhaust System - High Use	20			
VF Box	30			
VF Box - High Use	24			
VFD	15			
Walkway	50	Rehabilitation	10	10%
Wall	40			
Wall Mounted Heater	35			
Wall Mounted Heater - High Use	28			
Wall Mounted Heater - Low Use	42			
Water Closet	30			
Water Feature System	15			
Water Fountain	25	Rehab	10	10%
Water Heater	15			
Water Heater Pump	10	Rehab	5	10%
Well Pump	15	Rehab	8	10%

## Appendix F – Lessee Responsibility

The following table outlines asset classes for which the lessee is responsible at leased buildings.

Facility	Description	Lessee Responsibility Asset Classes
<b>145 - 149 N Livermore Ave</b>	Lessee responsible for the asset replacement and rehabilitation other than structural elements.	Ceiling
		Domestic Water Distribution System
		Electrical Service & Distribution
		Exterior Door
		Exterior Roll-up Door
		Exterior Windows
		Flooring
		Interior Walls
		Lavatory
		Lighting and Branch Wiring
		Sanitary Waste System
		Service Sink
Toilet		
Water Heater		
<b>241 N M Street</b>	Lessee responsible for the asset replacement and rehabilitation other than structural elements.	Air Conditioning Unit
		Barn Door
		Domestic Water Distribution System
		Electrical Service & Distribution
		Exterior Door
		Exterior Roll-up Door
		Exterior Windows
		Flooring
		Lavatory
		Lighting and Branch Wiring
		Sanitary Waste System
		Signage
Toilet		
Water Heater		
<b>Bankhead Performing Arts Theater</b>	Lessee responsible for replacement and rehabilitation of interiors, plumbing	Air Handling Unit
		Battery Inverter

Facility	Description	Lessee Responsibility Asset Classes
	<p>fixtures, and HVAC units. Lessee responsible for exterior assets (e.g., exterior windows) other than structural elements.</p>	<ul style="list-style-type: none"> <li>Burner</li> <li>Cabinetry</li> <li>Catwalks</li> <li>Ceiling</li> <li>Dimmer Bank</li> <li>Door Access Unit</li> <li>Drinking Fountain</li> <li>Ducting</li> <li>DX Split System</li> <li>Exhaust Fan</li> <li>Exhaust Vent</li> <li>Expansion Tank</li> <li>Exterior Awning</li> <li>Exterior Door</li> <li>Exterior Roll-up Door</li> <li>Exterior Stairway</li> <li>Exterior Windows</li> <li>Fan Coil Unit</li> <li>Fencing</li> <li>Fixed Seating</li> <li>Flooring</li> <li>Gate</li> <li>General Interior Construction</li> <li>Handrails</li> <li>Heat Pump</li> <li>Hot Water Pump</li> <li>Interior Door</li> <li>Interior Ladders</li> <li>Interior Walls</li> <li>Lavatory</li> <li>Panel Board</li> <li>Patio</li> </ul>

Facility	Description	Lessee Responsibility Asset Classes
		Pump Security Window Service Sink Sewage Ejection Pump Signage Sink Sound Attenuators Stairway Switchgear Toilet Toilet Partitions Transformer Urinal VAV Box Wall Water Heater
<b>Duarte Garage and Caretakers House</b>	Lessee responsible for the asset replacement and rehabilitation other than structural elements.	Barn Door Domestic Water Distribution System Electrical Service & Distribution Exterior Door Exterior Wall Exterior Windows Flooring Interior Door Interior Walls Lavatory Lighting and Branch Wiring Roof Covering Sanitary Waste System Toilet
<b>Hagemann Farm</b>	Lessee responsible for the asset replacement and rehabilitation other	Air Conditioning Unit Barn Door

Facility	Description	Lessee Responsibility Asset Classes
	than structural elements.	Ceiling Fan Domestic Water Distribution System Electrical Service & Distribution Exterior Door Exterior Wall Exterior Windows Flooring General Interior Construction Gutters and Downspouts Interior Walls Lavatory Lighting and Branch Wiring Pressure Tank Roof Covering Sanitary Waste System Shower Sink Stable Doors Toilet Tuff Shed Unit Water Distribution Control Box Water Heater Well Pump
<b>Southern Bell Building</b>	Lessee responsible for the asset replacement and rehabilitation other than structural elements.	Ceiling Domestic Water Distribution System Ducting Electrical Service & Distribution Exterior Door Exterior Louvers Exterior Stairway Exterior Wall Exterior Windows

Facility	Description	Lessee Responsibility Asset Classes
		Fire Alarm Systems Fire Suppression Sprinklers Flooring General Interior Construction General Plumbing Fixtures Heating/Cooling Generating Systems Lighting and Branch Wiring Panel Board Roof Covering Roof Drain Sanitary Waste System Security System Stairway
<b>Maintenance Service Center</b>	LARPD is responsible for 38% of the maintenance cost for the buildings at the Maintenance Service Center	All classes

## Appendix G – Full Building Replacement Investigation

In order to consider building replacement decisions and align with the proactive practices of asset management, the following full building replacement criteria were assessed:

- Mortality
  - Asset Consumption – What is the average remaining life of the component assets?
  - Remaining Life of Structural Components – What is the average remaining useful life of the structural components of the building?
- Functionality
  - Function - Does the building serve the function required of it?
  - Capacity - Does the building meet capacity requirements?
- Level of Service
  - Building Codes - Does the building meet required building (electrical, plumbing, fire, seismic, etc.) codes?
  - Health and Safety - Does the building meet health and safety codes?
  - ADA Access - Does the building meet Americans with Disabilities Act access guidelines?
  - Strategic Vision - Does the building align with City strategic goals/vision?
- Financial Efficiency
  - Financial Efficiency – How does the cost of replacing the high-risk component assets compare to the total building replacement cost?

The following table presents mortality factor evaluation criteria.

### *Building Replacement Criteria: Mortality*

Factor	Rating Scale	Rating
Average Asset Life Consumed	Less than 60%	
	Between 80% and 60%	
	Greater than 80%	
Remaining Life of Structural Components	Greater than 10 years	
	Between 10 and 7 years	
	Less than 7 years	

The following table presents functionality factor evaluation criteria.

### *Building Replacement Criteria: Functionality*

Factor	Rating Scale	Rating
Functional Needs Met	Yes	
	No	
Capacity Needs Met	Yes	
	No	

The following table presents the evaluation criteria for the level of service factor.



**Building Replacement Criteria: Level of Service**

Factor	Description	Rating Scale	Rating
Building Codes	Building Meets All Building Codes (e.g., electrical, fire, seismic)		
		Full Compliance	
		Partial Compliance	
Health and Safety	Building Meets All Health and Safety Codes (e.g., HAZMAT, air quality)		
		Full Compliance	
		Partial Compliance	
ADA	Building Meets All ADA Requirements		
		Full Compliance	
		Partial Compliance	
Strategic Goals and Vision	Building Aligns with the City's Strategic Direction		
	City's Image	Full Alignment	
		Partial Alignment	
		Does Not Align	
	Green Initiative	Full Alignment	
		Partial Alignment	
Does Not Align			

The following table presents the evaluation criteria for the financial efficiency factor.

**Building Replacement Criteria: Financial Efficiency**

Factor	Rating Scale	Rating
Ratio of High-Risk Assets to Total Replacement Cost	Ratio is 75% or higher	
	Ratio is 50% up to 75%	
	Ratio is lower than 50%	

Essential Facility/Core City Service

City Hall (Essential Facility/Core City Service)

Replacement Criteria	Rating	Description
Asset Consumption		Average Asset Consumption: 63%
Remaining Life of Structural Components		Average Structural Component Remaining Useful Life: 60
Function		The building meets the functionality required of it.
Capacity		The building meets the capacity required of it.
Building Codes		No general building code issues were identified.
Health and Safety Codes		Some minor/fixable health and safety code issues were identified: <ul style="list-style-type: none"> <li>• Door, frame, and overall construction of main electrical room (housing a transformer) needs to be verified as per code requirements.</li> </ul>
ADA Access		No ADA access issues were identified.
Strategic Vision		The building aligns with the City's strategic vision.
Financial Efficiency		Cost of high-risk assets to total replacement cost: 16%

**Council Chambers (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>	Red	Average Asset Consumption: 88%
<b>Remaining Life of Structural Components</b>	Red	Average Structural Component Remaining Useful Life: 5 years
<b>Function</b>	Yellow	The building only partially meets the functionality needs. It allows the Council to conduct their meetings, but it does not fully accommodate the public participants in the meeting. See Capacity issues.
<b>Capacity</b>	Red	The building does not meet capacity needs for larger meetings. It fails to accommodate the participants, which requires the Council meetings to be held in another location.
<b>Building Codes</b>	Yellow	There are numerous building code issues, but these issues are fixable.
<b>Health and Safety Codes</b>	Yellow	There are health and safety code issues, but these issues are fixable.
<b>ADA Access</b>	Red	The building has multiple ADA access issues.
<b>Strategic Vision</b>	Red	The building does not align with the City's strategic vision. The building is a temporary modular building; the design does not align with the City's other facilities (e.g., City Hall, Civic Center Library). The facility does not support the green initiative.
<b>Financial Efficiency</b>	Red	Cost of high-risk assets to total replacement cost: 81% Building replacement recommended over rehabilitation of high-risk assets; Building will not be replaced in kind in order to address functionality, capacity, and level of service issues.

**Fire Station 6 (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>	Yellow	Average Asset Consumption: 65%
<b>Remaining Life of Structural Components</b>	Green	Average Structural Component Remaining Useful Life: 34
<b>Function</b>	Green	The building meets the functionality required of it.
<b>Capacity</b>	Green	The building meets the capacity required of it.
<b>Building Codes</b>	Red	<p>There are several issues with general building codes; some issues may need to be verified.</p> <ul style="list-style-type: none"> <li>• Water fountain not compliant with CBC Chapter 11.</li> <li>• Verify that fire alarm is not required. Verify with the City Fire Marshal that a fire alarm system is not required for the building proper.</li> <li>• Verify that power to fire sprinkler bell at panel meets NFPA 72 requirements.</li> <li>• Door not CBC compliant.</li> <li>• AC-2 not restrained or secured to meet CBC seismic requirements.</li> </ul>
<b>Health and Safety Codes</b>	Yellow	<p>The building has some health and safety code issues; however, these issues are fixable.</p> <ul style="list-style-type: none"> <li>• Verify that roof ladder is in compliance with CALOSHA.</li> <li>• Facility does not have a seismic gas shutoff valve on</li> </ul>
<b>ADA Access</b>	Yellow	Building needs to be reviewed for possible ADA accessibility issues. From research on fire stations, even built with a clear degree of accessibility in mind, could have issues depending on interpretations of the code. Any type of public funds could possibly trigger the requirements for upgrade to meet state and federal ADA accessibility issues.
<b>Strategic Vision</b>	Yellow	The building does not fully align with the City's strategic vision. The building has an older design and doesn't support the green initiative.
<b>Financial Efficiency</b>	Green	Cost of high-risk assets to total replacement cost: 28%

**Fire Station 7 (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 44%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 58
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The building has minor/fixable issues building code issues. <ul style="list-style-type: none"> <li>Electrical room is being used for storage.</li> </ul>
<b>Health and Safety Codes</b>		The building has minor/fixable health and safety code issues. <ul style="list-style-type: none"> <li>Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.</li> <li>Water heater closet is being used for storage.</li> <li>Verify that exit signs denote correct egress from the building. Review found exit signage lacking.</li> </ul>
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The facility aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 5%

### Fire Station 8 (Essential Facility/Core City Service)

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 62%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 57
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The building has minor/fixable issues building code issues. <ul style="list-style-type: none"> <li>Electrical room is being used for storage.</li> </ul>
<b>Health and Safety Codes</b>		The building has minor/fixable health and safety code issues. <ul style="list-style-type: none"> <li>Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.</li> </ul>
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The facility aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 30%

**Fire Station 9 (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 0% Building was constructed in 2015.
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 75
<b>Function</b>		The building does not have functionality issues.
<b>Capacity</b>		The building does not have capacity issues.
<b>Building Codes</b>		The building has only minor possible building code issues. <ul style="list-style-type: none"> <li>• Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3.</li> <li>• Storage around fire sprinkler standpipe.</li> </ul>
<b>Health and Safety Codes</b>		The building does not have health and safety code issues.
<b>ADA Access</b>		The building does not have ADA access issues.
<b>Strategic Vision</b>		The building aligns with the City’s strategic vision and goals. It is modern in design and supports the City’s green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 0%

**Fire Station 10 (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 64%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 57
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No building code issues were identified.
<b>Health and Safety Codes</b>		<p>The building has minor/fixable health and safety code issues.</p> <ul style="list-style-type: none"> <li>• Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.</li> <li>• Verify that fire alarm is not required. Verify with the City Fire Marshal that a fire alarm system is not required for the building proper.</li> </ul>
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The facility aligns with the City’s strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 21%



**Maintenance Service Center Building 1 – Administration (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 74%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues were identified.
<b>Health and Safety Codes</b>		Minor/fixable health and safety issues were identified. <ul style="list-style-type: none"> <li>• Fire alarm panel has consumed its useful life; replacement is recommended</li> </ul>
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City’s strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 42%

**Maintenance Service Center Building 2 - Landscape, Trails, Parks, and Rec Center Maintenance Storage (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 74%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues were identified.
<b>Health and Safety Codes</b>		Minor/fixable health and safety code issues were identified. <ul style="list-style-type: none"> <li>Emergency lighting fixtures have reached the end of useful life; replacement is recommended.</li> </ul>
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 19%

**Maintenance Service Center Building 3 - Police Storage (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 35%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues were identified.
<b>Health and Safety Codes</b>		Minor/fixable health and safety issues were identified. <ul style="list-style-type: none"> <li>No seismic restraints on shelving.</li> </ul>
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 0%

**Maintenance Service Center Building 4 – Covered Parking (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 59%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		No functionality issues were identified.
<b>Capacity</b>		No capacity issues were identified.
<b>Building Codes</b>		No building code issues were identified.
<b>Health and Safety Codes</b>		No health and safety code issues were identified.
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 45%

**Maintenance Service Center Building 5 - Landscape, Facilities, Signals, and LARPD Shop) (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 73%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues were identified.
<b>Health and Safety Codes</b>		No major health and safety code issues were identified.
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 27%

**Maintenance Service Center Building 6 - City Vehicle and Equipment Maintenance Shop (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 70%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues were identified.
<b>Health and Safety Codes</b>		No major health and safety code issues were identified.
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 11%

**Maintenance Service Center Building 7 – Covered Parking (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 71%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No building code issues were identified.
<b>Health and Safety Codes</b>		No health and safety code issues were identified.
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 3%

**Maintenance Service Center Building 8 - Street and Street Sign Maintenance Shop (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 77%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues were identified.
<b>Health and Safety Codes</b>		No major health and safety code issues were identified.
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 29%



**Maintenance Service Center Building 9 - Storage (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 64%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues have been identified.
<b>Health and Safety Codes</b>		<p>The following health and safety issues have been identified:</p> <ul style="list-style-type: none"> <li>Emergency light fixtures, illuminated exit signs, and alarm panels have exceeded their useful lives.</li> </ul>
<b>ADA Access</b>		No ADA access issues have been identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 12%

**Police Facilities (Essential Facility/Core City Service)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 66%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 53
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues were identified. <ul style="list-style-type: none"> <li>Emergency generator preventative maintenance, investigation, and study is recommended as per NEC 708 Critical Operations Power Systems.</li> </ul>
<b>Health and Safety Codes</b>		No major health and safety code issues were identified.
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 38%

Specific Enrichment Facility/General Usage

**Bankhead Theater (Specific Enrichment Facility/General Usage)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 23%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 62
<b>Function</b>		The facility meets the functionality required of it.
<b>Capacity</b>		The facility meets the capacity required of it.
<b>Building Codes</b>		The building has minor/fixable issues building code issues. <ul style="list-style-type: none"> <li>• Electrical room is being used for storage.</li> </ul>
<b>Health and Safety Codes</b>		Some possible health and safety codes were identified. <ul style="list-style-type: none"> <li>• Storage found in basement rated corridor.</li> <li>• Interior ladders to catwalk from the stage area may require cages per CALOSHA due to length of ladder.</li> </ul>
<b>ADA Access</b>		No major ADA access issues were identified.
<b>Strategic Vision</b>		The facility aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: <1%

**Carnegie Library (Specific Enrichment Facility/General Usage)**

Note: This is a historic building.

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption (Age): 100% Average Asset Consumption (Condition): 66%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life (Age): 0 Average Structural Component Remaining Useful Life (Condition): 29
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>Area under the stairs is being used for storage</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183</li> <li>No fire alarm or fire sprinklers</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>Restrooms not compliant</li> <li>Basement interior ramp not compliant</li> <li>Building requires additional ADA and way finding signage</li> <li>Exterior stairs and handrail next to chairlift not compliant</li> <li>Issues with ramp to chairlift/stairs. Handrail protrusion could be a hazard.</li> <li>Basement level access next to chairlift not ADA compliant</li> </ul>
<b>Strategic Vision</b>		The building may not align with the City's strategic vision and likely does not support the City's green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 22%

**Civic Center Library (Specific Enrichment Facility/General Usage)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 50%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 62
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No major building code issues identified.
<b>Health and Safety Codes</b>		No major health and safety codes were identified.
<b>ADA Access</b>		No major ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 8%

**Downtown Parking Facility (Specific Enrichment Facility/General Usage)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 57%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 62
<b>Function</b>		The facility meets the functionality required of it.
<b>Capacity</b>		The facility has been identified to need greater capacity to serve the City's needs.
<b>Building Codes</b>		No major building code issues identified.
<b>Health and Safety Codes</b>		No major health and safety codes were identified.
<b>ADA Access</b>		No major ADA access issues were identified.
<b>Strategic Vision</b>		The facility aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 18%

**Multi Service Center (Specific Enrichment Facility/General Usage)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 64%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 37
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The building has minor/fixable issues building code issues. <ul style="list-style-type: none"> <li>• Electrical room is being used for storage</li> <li>• Clearances not being kept at the electrical panels per CEC</li> </ul>
<b>Health and Safety Codes</b>		Minor health and safety code issue identified. <ul style="list-style-type: none"> <li>• Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3</li> </ul>
<b>ADA Access</b>		Minor ADA access issue identified. <ul style="list-style-type: none"> <li>• Drinking fountain not compliant</li> </ul>
<b>Strategic Vision</b>		The building was constructed in 1979. As such, it does not completely align with the City’s current strategic vision and the green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 33%

**Rincon Library (Specific Enrichment Facility/General Usage)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 64%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 50
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>• Main door not compliant with CBC Chapter 11</li> <li>• Electrical room being used for storage</li> </ul>
<b>Health and Safety Codes</b>		There are multiple health and safety code issues. <ul style="list-style-type: none"> <li>• Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183.</li> <li>• Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3</li> <li>• Signage needs to be uniform and updated</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>• Water fountain not compliant</li> <li>• Verify countertop height in restrooms</li> </ul>
<b>Strategic Vision</b>		This building was constructed in 1992. As such, it may not align with the City’s current strategic vision and may not support the City’s green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 26%



**Ravenswood Historical Site (Specific Enrichment Facility/General Usage)**

Note: This is a historic site. The following table summarizes the site as a whole.

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption by Age: 100%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life (Age): 0 Average Structural Component Remaining Useful Life (Condition): 29
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>• Sleep Quarters: Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>• Main House: Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183</li> <li>• Sleep Quarters: Verify storage in basement has required clearances from sprinklers</li> <li>• Carriage House: Provide protective cover on light fixtures</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>• Main House: Handrails not compliant with existing code</li> <li>• Main House: Handrail needed at basement well entry</li> <li>• Main House: Guardrail needed at exterior stairs, landing and porches above 30"</li> <li>• Main House: Landing and handrails at chairlift not compliant</li> <li>• Main House: No accessibility to basement level</li> <li>• Sleep Quarters: Ramp and handrail not compliant</li> </ul>
<b>Strategic Vision</b>		The building may not align with the City's current strategic vision and likely does not support the City's green initiative.

Replacement Criteria	Rating	Description
Financial Efficiency		Cost of high-risk assets to total replacement cost: 27%

### Railroad Depot (Specific Enrichment Facility/General Usage)

Note: This is a historic building. Details below reflect building information prior to relocation and rehabilitation.

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption (Age): 100% Average Asset Consumption (Condition): 79%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life (Age): 0 Average Structural Component Remaining Useful Life (Condition): 29
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No building code issues were identified.
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>• Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183</li> <li>• Door hardware not compliant with existing code</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>• Exterior railings not compliant with existing code</li> <li>• No accessibility to upper level found</li> <li>• Stairs/handrail to upper level is not code compliant and is missing the guardrail</li> </ul>
<b>Strategic Vision</b>		The building may not align with the City's strategic vision and likely does not support the City's green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 58%

Enrichment Facility/Specific Usage

141 N Livermore Avenue (Enrichment Facility/Specific Usage)

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 69%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 13 Structural cracking found during inspection
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>• Upper level stairs and landing not compliant</li> <li>• Rear ramp, landing, and handrails not compliant</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>• Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>• Street entrance is not accessible</li> <li>• Parking area needs to be restriped to meet accessible parking areas and path of travel</li> </ul>
<b>Strategic Vision</b>		The building was constructed in 1876. As such, it may not align with the City's strategic vision and does not support the City's green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 46%

145 – 149 N Livermore Avenue (Enrichment Facility/Specific Usage)

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 58%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 26
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>Verify that electrical outlets specified dimensions of water are GFI outlets or on a GFI circuit</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183</li> <li>Facility does not look to have a fire alarm</li> <li>Facility does not look to have fire sprinklers</li> <li>Water heaters need to be reviewed for correct seismic restraint</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>Clearances not meet with doors to meet ADA standards</li> <li>Restrooms need to be reviewed for clearance requirements</li> <li>Accessible parking needs to be denoted and path of travel to each tenant displayed</li> </ul>
<b>Strategic Vision</b>		The building was constructed in 1968. As such, it may not align with the City’s strategic vision and likely does not support the City’s green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 8%

241 N M Street (Enrichment Facility/Specific Usage)

Replacement Criteria	Rating	Description
Asset Consumption	Red	Average Asset Consumption: 87%
Remaining Life of Structural Components	Yellow	Average Structural Component Remaining Useful Life: 13
Function	Green	The building meets the functionality required of it.
Capacity	Green	The building meets the capacity required of it.
Building Codes	Yellow	The following building code issues were identified: <ul style="list-style-type: none"> <li>Electrical does not look up to code. This is reflected by the wires going to the adjacent metal shed.</li> </ul>
Health and Safety Codes	Yellow	The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>Facility does not look to have a fire alarm</li> <li>Facility does not look to have fire sprinklers</li> <li>Age and material of walls may indicate that building is seismically unstable</li> </ul>
ADA Access	Yellow	The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>Accessible parking needs to be denoted and path of travel to each tenant displayed</li> <li>Review of building code for possible setback issues between buildings</li> </ul>
Strategic Vision	Yellow	The building may not align with the City's strategic vision and likely does not support the City's green initiative.
Financial Efficiency	Yellow	Cost of high-risk assets to total replacement cost: 67%

## Hagemann Farm (Enrichment Facility/Specific Usage)

Note: This is a historic site.

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption (Age): 100% Average Asset Consumption (Condition): 84%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life (Age): 0 Average Structural Component Remaining Useful Life (Condition): 9.5 Evidence of dry rot was found in several of the wooden structures.
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>Barn 2: Electrical needs to be redeveloped</li> <li>Main House: Electrical needs to be reviewed for panel replacement and wiring upgrades to meet CEC</li> </ul>
<b>Health and Safety Codes</b>		The following major health and safety code issues were identified: <ul style="list-style-type: none"> <li>Barn 2: Light fixtures require covers. Area could be looked at as hazardous with combustibles in barn</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>Main house: Exterior stoop, stairs and railing not compliant</li> </ul>
<b>Strategic Vision</b>		The building may not align with the City's strategic vision and likely does not support the City's green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 46%

**Duarte Garage (Enrichment Facility/Specific Usage)**

Note: This is a historic building.

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption (Age): 100% Average Asset Consumption (Condition): 70%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life (Age): 0 Average Structural Component Remaining Useful Life (Condition): 29
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>• Electrical panel needs to be replaced and upgraded</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>• No fire alarm found</li> </ul>
<b>ADA Access</b>		The following potential ADA access issues were identified: <ul style="list-style-type: none"> <li>• Restrooms not compliant</li> </ul>
<b>Strategic Vision</b>		The building may not align with the City's strategic vision and likely does not support the City's green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 46%



**Duarte’s Garage Caretaker’s Building (Enrichment Facility/Specific Usage)**

Note: This is a historic building.

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption (Age): 100% Average Asset Consumption (Condition): 80%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life (Age): 0 Average Structural Component Remaining Useful Life (Condition): 29
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>Walls look to be hollow clay tile, possibly without grouting. These could become an issue during a seismic event</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183</li> </ul>
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building may not align with the City’s strategic vision and likely does not support the City’s green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 49%

**Shea Plaza Restroom Facility (Enrichment Facility/Specific Usage)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 36%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 48
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		No building code issues were identified.
<b>Health and Safety Codes</b>		No health and safety code issues were identified.
<b>ADA Access</b>		No ADA access issues were identified.
<b>Strategic Vision</b>		The building aligns with the City's strategic vision.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 0%

**Springtown Library (Enrichment Facility/Specific Usage)**

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption: 66%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 26
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>• Storage in front of electrical panel is not compliant with clearances noted within CEC</li> <li>• Electrical panel looks to need rebuilding</li> <li>• Verify that the railing for the stairs meet CBC</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>• Facility does not have a seismic gas shutoff valve on the gas meter as per Health and Safety Code 19180-19183</li> <li>• Verify red breaker in electrical panel for fire alarm control panel as per NFPA 72 – 10.6.5.2.3</li> <li>• Area around and access ladder are being used for</li> </ul>
<b>ADA Access</b>		The following potential ADA access issue was identified: <ul style="list-style-type: none"> <li>• Verify clearances in restrooms</li> </ul>
<b>Strategic Vision</b>		The building was constructed in 1980. As such, it does not completely align with the City's current strategic vision and the green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 51%

**Southern Bell Building (Enrichment Facility/Specific Usage)**

Note: This is a historic building.

Replacement Criteria	Rating	Description
<b>Asset Consumption</b>		Average Asset Consumption (Age): 100% Average Asset Consumption (Condition): 64%
<b>Remaining Life of Structural Components</b>		Average Structural Component Remaining Useful Life: 13 Structural cracking found during inspection.
<b>Function</b>		The building meets the functionality required of it.
<b>Capacity</b>		The building meets the capacity required of it.
<b>Building Codes</b>		The following building code issues were identified: <ul style="list-style-type: none"> <li>Electrical switchboards remain from building's previous use. Some are active and some are not. Active units may trigger code uses with required rated areas for their enclosure with no other usage.</li> <li>Electrical panels found to not have required clearances as per CEC.</li> </ul>
<b>Health and Safety Codes</b>		The following health and safety code issues were identified: <ul style="list-style-type: none"> <li>Fire alarm pulls are taped over. This needs to be reviewed and alarms no longer required removed.</li> <li>Found trouble alarms on the fire alarm control panel.</li> <li>Exit gate on street does not have egress panic hardware.</li> <li>Roof ladders very unstable and need to be brought up to OSHA requirements.</li> </ul>
<b>ADA Access</b>		The following potential ADA access issue was identified: <ul style="list-style-type: none"> <li>No accessible entry.</li> <li>Main entrance needs handrails.</li> <li>Exterior railings at basement not compliant.</li> </ul>
<b>Strategic Vision</b>		This building may not align the City's strategic vision and does not support the City's green initiative.
<b>Financial Efficiency</b>		Cost of high-risk assets to total replacement cost: 33%