



## Red Bluff State Building (461)

2440 Main Street, Red Bluff, CA 96080

### Facility Condition Assessment

September 2015

*Prepared for the State of California Department of General Services*

**EMG**

ENGINEERING PEACE OF MIND



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## EXECUTIVE SUMMARY

### BACKGROUND

This Facility Condition Assessment (FCA), prepared by EMG Corporation (EMG) in collaboration with the Department of General Services (DGS) Real Estate Services Division (RESA) and the consulting team of Hellmuth, Obata & Kassabaum, Inc. (HOK), is a component of a comprehensive long-range strategic asset management plan for DGS's portfolio of general-purpose office buildings. The goal is to determine the best course of action to address DGS's general-purpose office buildings' infrastructure deficiencies and space needs with a focus on controlling long-term costs.

The DGS portfolio comprises nearly 17 million gross square feet (GSF) of state-owned office facilities statewide, contained within 54 general-purpose state-owned office building sites. The FCA inventories and evaluates each of the DGS general purpose office buildings to benchmark current condition and establish a replacement value. This FCA assesses the infrastructure conditions for the Red Bluff State Building (461).

The assessment methodology identifies infrastructure systems and components requiring immediate repair or replacement based on their useful life expectancy. In addition, the FCA projects the capital funding needs over a ten-year lifecycle horizon period of 2015 to 2024. The assessments evaluate envelope, structure, plumbing, heating, air conditioning, energy and lighting controls, electrical, data/communications, elevators, fire protection and suppression, security, and utility capacity and systems. The replacement value is determined by multiplying the existing building square footage (SF) by the cost per SF to construct a new, similar building on a similar site.

### OBJECTIVE

The objective of the FCA is to identify the capital reserves for infrastructure lifecycle repair/replacement needs over the ten-year lifecycle. The FCA projections will become the basis for the Facility Condition Index (FCI). The FCI is the ratio of immediate repair costs or capital reserve needs to the current replacement value of the existing building. The FCI is a key performance indicator that is used to objectively quantify and evaluate the current condition of a building and can be used to compare the relative condition of the subject building with other buildings within the same portfolio and as a trending matrix for infrastructure "health" over time.

The Red Bluff State Building (461) FCI ratio will be incorporated as a comparative factor in the overall DGS portfolio analysis, enabling DGS to accurately rank and prioritize building repair/replacement needs in the long-range strategic plan.

## SCOPE OF ASSESSMENT

The EMG evaluation team, comprised of engineers and architects, visited the Red Bluff State Building (461) on March 4, 2015. The evaluation team reviewed available engineering studies and construction documents to familiarize themselves with the physical conditions. The evaluation team conducted a walk-through of the building to observe building systems and components, identify physical deficiencies, and formulate recommendations to remedy any deficiencies.

## SURVEY FINDINGS

One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building’s overall condition. Two FCI ratios are calculated and presented – Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building’s Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

The values are based on a scale from 0-100 percent. A lower FCI ratio indicates that the building’s infrastructure is in “Good” condition. Based on industry standards, a “Good” condition building will have an FCI ratio at or below five percent. A “Fair” condition building will have an FCI ratio between five and ten percent. A “Poor” condition building will have an FCI ratio between 10 and 65 percent. A building with an FCI ratio exceeding 65 percent is considered “Very Poor” and is a candidate for replacement or divestment.

The table below represents summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

Key Finding	Metric
Current Replacement Value	\$9,578,051
Immediate Repair Costs (12 months)	\$264,362
1-5 Year Capital Needs	\$1,544,081
6-10 Year Capital Needs	\$33,669
Total 10-Year Capital Reserve Needs	\$1,842,112

$$FCI = \frac{\text{Immediate Repair Costs or Ten-Year Capital Reserve Needs}}{\text{Current Replacement Value of Building}}$$

**Current Year FCI**

$$\text{Current FCI} = \frac{\$264,362}{\$9,578,051}$$

**Ten-Year FCI**

$$\text{Ten-Year FCI} = \frac{\$1,842,112}{\$9,578,051}$$

Current Year FCI	Ten-Year FCI
<b>2.76 % = <i>Good Condition</i></b>	<b>19.23 % = <i>Poor Condition</i></b>

The major issues contributing to the Immediate Repair Costs and the Current Year FCI ratio are summarized below:

- Exterior painted walls show fading and minor peeling. Based on condition and remaining useful life (RUL), exterior painting is required.
- The HVAC boiler is original, outdated. It is recommended to be replaced with a high efficiency boiler.
- A basic Alerton Backtalk system was installed in 2012. The system controls only the pumps, chiller, and cooling tower. A more extensive system that includes remote control of all building HVAC equipment is recommended.
- The concrete cap on the retaining wall along the front elevation sidewalk is severely cracked and requires extensive repair.

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables in the appendices.

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## INTRODUCTION

### BUILDING BACKGROUND

The Red Bluff State Building (461) is located at 2440 Main Street. This single story building is on a 3.14 acre parcel and was completed in 1969 by the State of California.

There are 108 parking spaces. The building capacity is 85 occupants. The building occupants are Water Resources and General Services.

The gross floor area is 25,163 SF with net usable SF of 20,885. The ratio of net usable to gross building area is 82.9 percent.

### BUILDING DESCRIPTION

The structural system is concrete columns and beams with concrete tilt-up walls and roof planks. The roof structure is flat with single-ply membrane finish.

The exterior concrete walls are finished with painted textured concrete and aluminum framed curtain walls.

Interior walls are painted drywall, wood paneling, and ceramic tiles. Floor finishes include carpet, terrazzo, vinyl composition tiles, and ceramic tiles. Ceilings are suspended acoustic tiles, glued-on acoustic tiles, and painted drywall.

Domestic hot water is supplied to the restrooms and break room areas by a single residential grade electric water heater.

Heating and cooling are provided by a central system of boilers, chillers, cooling tower, and air handler. A roof mounted packaged unit serves the telecommunications room, and a small split system provides cooling for the computer server room.

Life safety systems include fire extinguishers, fire alarm system, and hydrants. The building covers approximately 30 percent of the site. Landscaping consists of trees, shrubs, and lawn areas. Flower beds are spread around the building perimeter and bordered with concrete. The parking lot is paved with asphalt.

## Project Statistics

Item	Description
Project Name	Red Bluff State Building
Building ID	461
Property Type	Administration
Year Built	1969
Number of Stories	1
Occupied	Yes
Land Area (acres)	3.14
Gross Square Feet (GSF)	25,165

## FACILITY CONDITION ASSESSMENT

The goal of the FCA is to gather the data necessary to understand the existing building's condition, identify strategies to meet the building's lifecycle needs, and create the foundation for a long-range strategic plan.

### COMPONENTS OF THE FCA

#### Current conditions analysis

The current condition analysis identifies the existing building's immediate requirements, including deferred maintenance, recommended discretionary improvements, and code non-compliance issues.

#### Anticipated building reserve analysis

The anticipated building reserve analysis projects the ongoing degradation of the building's components and costs associated with the reserve or replacement of these components as they reach the end of their useful lives.

#### Funding needs analysis

The funding needs analysis results in a summary report of deferred maintenance and systems reserve funding needs.

## CALCULATION OF FUNDING NEEDS

Calculating probable funding needs involves identifying and quantifying the building's infrastructure systems or components that require immediate or future action over their lifecycle horizon. Funding needs are segregated into two categories, Immediate Repair Costs and Capital Reserve Needs. A Replacement Value is calculated and a Remaining Useful Life Estimate is determined as well as Opinions of Probable Cost in order to establish the FCI. The terms are defined as follows:

### Immediate Repair Costs

Immediate Repair Costs are Opinions of Probable Cost that require immediate action as a result of: (1) material existing or potentially unsafe conditions, (2) material building or fire code violations, or (3) conditions that, if left un-remedied, have the potential to result in, or contribute to, critical element or system failure within **one year** that will likely result in a significant escalation of its remedial cost. Immediate Repair Costs are items which require action within year one.

### Capital Reserve Needs

Capital Reserve Needs are recurring probable expenditures, which are not considered operation or maintenance expenses, that should be budgeted annually. In general, Capital Reserve Needs are reasonably predictable both in terms of frequency and cost. However, Capital Reserve Needs may also include components or systems that have an indeterminable life but nonetheless have a potential liability for failure within a ten-year period. The Capital Reserve Needs presented in the FCA represent average industry costs as of 2015, without inflation. The Ten-Year Expenditure Forecast table in Appendix G includes inflation by assuming a five percent annual inflation rate on Total Capital Needs by year.

### Current Replacement Value

Current Replacement Value is determined by multiplying the existing building's SF by the Cost per SF to construct a new, similar building on a similar site. Current Replacement Value is not an appraised or market value for the purposes of a property sale. To estimate the cost per SF, EMG referenced Marshall & Swift's *Marshall Valuation Service*. This building cost data index is an industry standard, adjusted annually, and relied upon by the insurance industry, as well as other agencies and organizations. Cost per SF is calculated by adjusting Marshall & Swift's unit cost for a Government Office Building to account for factors related to building systems, class of construction, and location to reflect the estimated cost of construction at the subject building site.

### Remaining Useful Life

Remaining Useful Life (RUL) estimate is based upon site observations, research, and judgment, along with reference to Expected Useful Life (EUL) tables from various industry sources. A sample copy of

the EUL table is included in the appendices. EMG estimates when a system or component will likely need replacement based on a visual review of the current condition and the RUL estimate. Exposure to the elements, quality of installation, extent of use, and quality and amount of preventive maintenance exercised are factors that impact the effective age of a system or component. As a result, a system or component might have an effective age that is greater or less than its actual chronological age. The RUL of a system or component equals the EUL less its effective age.

### **Opinions of Probable Cost**

Opinions of Probable Cost are estimates for individual repair or replacement and are a key consideration of this engagement. These estimates may be based on invoice or bid documents provided by the owner or building manager, cost estimates developed by construction resources (such as R.S. Means), or EMG's experience with similar properties, city cost indexes, and projections of economic conditions. Where quantities cannot be derived from building plans, lump sum costs or allowances are utilized.

Opinions of Probable Cost should only be construed as preliminary, order-of-magnitude budgets. Actual costs will likely vary from EMG's estimates depending on type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, market conditions, and whether competitive pricing is solicited. ASTM E2018-08<sup>1</sup> recognizes that certain Opinions of Probable Cost cannot be developed within the scope of an FCA without further study. Instances where a visual inspection is not possible and further study is recommended, EMG provides a cost estimate of the additional study in the FCA.

### **Facility Condition Index**

The FCI gives an indication of a building's overall state of condition. The values are based on a 0-100 percent scale. The Current Year FCI is the ratio of Immediate Repair Costs to Current Replacement Value. The Ten-Year FCI is the ratio of Capital Reserve Needs (2015 – 2024) to Current Replacement Value. The Ten-Year FCI is calculated using uninflated 2015 dollars because the year of project implementation is likely unknown or subject to change. Since both the repair/replacement costs and Current Replacement Value will increase at the same inflation rate, the impacts of inflation do not significantly affect the FCI ratio.

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<sup>1</sup> ASTM 2018-08 is the national guideline for preparing a Facility Condition Assessment published by the American Society for the Testing of Materials.

## SCOPE OF ASSESSMENT

The evaluation team conducted a walk-through survey of Red Bluff State Building (461) on March 4, 2015. The survey included analysis and observation of the building's interior and exterior, including the roofs. The evaluation team interviewed the building maintenance staff to inquire about the subject property's previous repairs and replacements and their costs, level of preventive maintenance exercised, pending repairs and improvements, and frequency of repairs and replacements. Opinions were developed based on the site evaluation, interviews with relevant maintenance providers and facilities managers, and previous experience with comparable properties. The evaluation team questioned those knowledgeable of the subject property's physical condition and operation (or knowledgeable of similar systems) to gain comparative information to use in evaluation of the subject property. In addition, the building staff provided documents and information to the evaluation team that were relevant to the subject property's physical improvements, extent, and type of use and assisted the team in identifying potential discrepancies between reported information and observed conditions.

The evaluation team made a visual assessment for compliance with the American with Disabilities Act (ADA) Accessibility Guidelines and the California Title 24 disabled access requirements. Items determined to be out of compliance are included in the repair/replacement costs. The assessments did not include detailed measurements to determine compliance under the regulations.

The data collected in the FCA are the basis of the projected ten-year Capital Reserve Needs. The goals of the FCA are:

- Benchmark current building condition with recommended corrections for deficiencies to establish the Immediate Repair Costs.
- Estimate life expectancy of various building systems and components to establish the Capital Reserve Needs for infrastructure lifecycle repair/replacement for the ten-year assessment period from 2015 to 2024.
- Provide estimates for corrections for Immediate Repairs Costs and projections for Capital Reserve Needs for lifecycle component replacement within the ten-year projection timeframe.
- Serve as a guide for future replacement, repairs, and improvements and assist DGS in prioritizing its capital budget and expenditures across its real estate portfolio.

## PRIORITY RANKING

The recorded existing conditions, identified problems and deficiencies, documented corrective action, and quantities of recommended repairs and/or replacements are documented during the assessment process. Data are collected and entered directly into the assessment and capital planning database using tablet computers. Based on the discussions with the client and industry standards, a Priority Ranking is calculated for each cost observation. The Priority Ranking calculation is a function of four key categories.

## **PRIORITY RANKING CATEGORIES**

### **Building Mission Ranking**

A building can be ranked on a scale of one to ten based on conversations with the client regarding the importance of each building to the overall mission of the building. The properties reviewed during this assessment are all general-purpose office buildings and for the purposes of this study are all ranked the same for Building Mission.

### **Remaining Useful Life Ranking**

The EUL projection of the component is calibrated against the RUL as estimated by the field assessor. This ratio is then utilized as a factor in the priority ranking. An RUL of zero years is given the highest priority and always results in ranking the component as Priority 1.

### **Asset Component Category**

Each material or system (asset) evaluated is assigned a unique Unifomat code. The Unifomat designation is then associated with a ranking based on the overall importance to the operation of the building. An asset that is related to the building envelope, e.g. roof, window, or exterior siding, is assigned a higher ranking than a component such as a flooring, carpeting, or other finish material.

### **Functional Asset Categories**

The cost associated with each asset or component evaluated is assigned to a category to include: Code Compliance, Facility Operations, Environmental Factors, Facility Functionality, and Integrity of the Facility. The Asset Categories are given a ranking based on their relative importance. For example, Code Compliance is ranked higher than Maintenance.

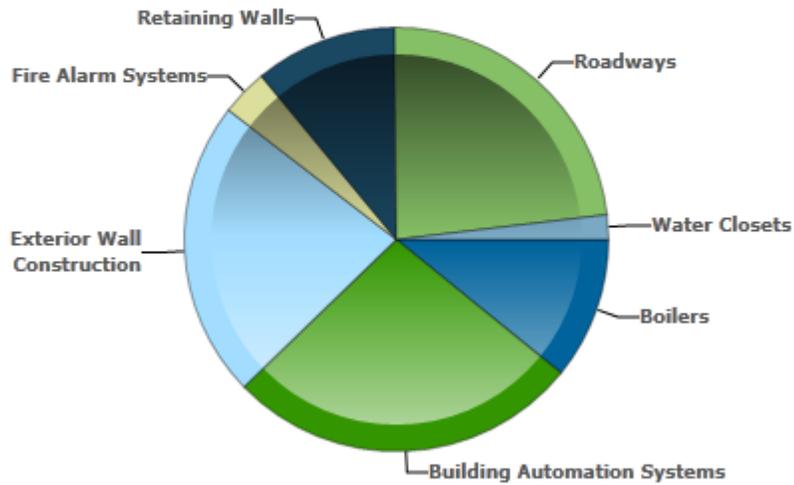
## **PRIORITY RATIO**

The four categories above are assigned a numerical value and the values are multiplied together for each cost observation. The resulting number is then assigned a priority by the capital planning software with the lower range assigned Priority 1 and the higher range of numbers assigned among Priority 2, Priority 3, and Priority 4. Priority 5 is reserved for code issues that were permitted by the code at the time of construction but would be required only if a major renovation or code compliance project were to be undertaken.

The physical condition of building systems and related components are typically defined as being in one of four conditions: Good, Fair, Poor, or Very Poor, or a combination thereof. For the purposes of this report, the following definitions are used:

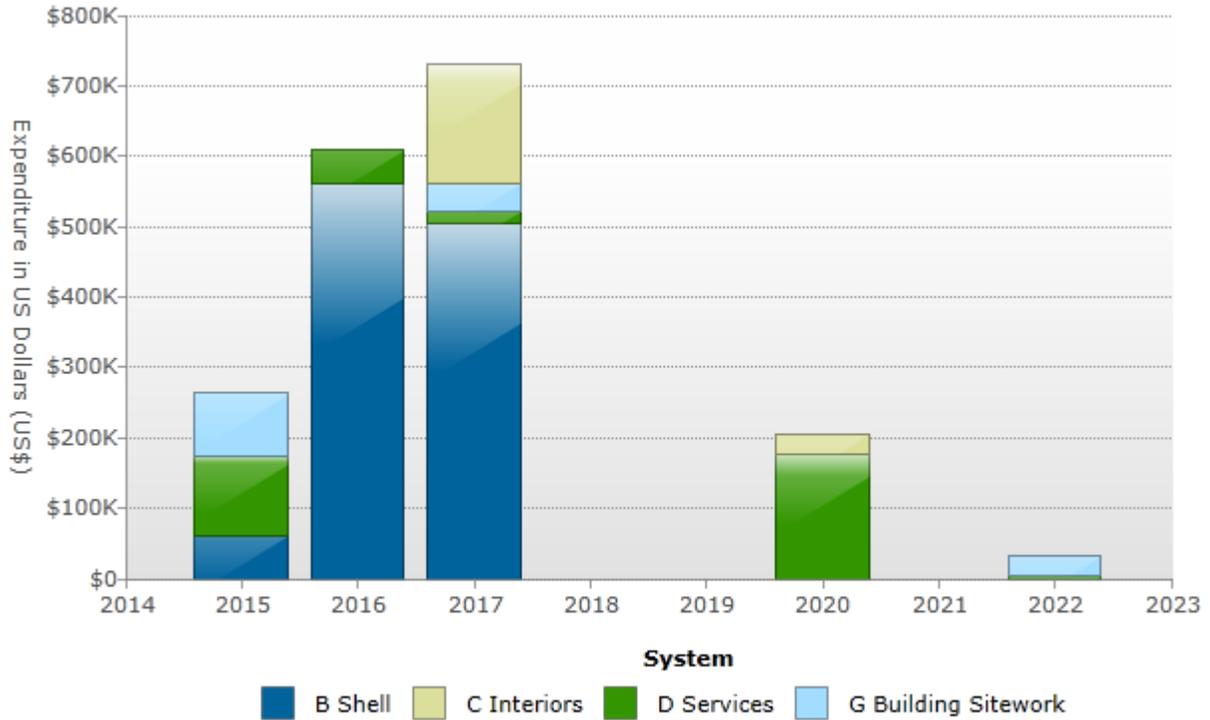
Condition	Definition
Good	In new or well-maintained condition, with no visual evidence of wear, soiling, or other deficiencies.
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
Very Poor	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal is now necessary.

### Distribution of Immediate Needs by Building System



Level	Building System	Estimated Cost
B2011	Exterior Wall Construction	\$60,016
D2011	Water Closets	\$4,933
D3021	Boilers	\$28,676
D3068	Building Automation Systems	\$71,146
D5037	Fire Alarm Systems	\$9,403
G2010	Roadways	\$61,478
G2042	Retaining Walls	\$28,711
	<b>Total</b>	<b>\$264,362</b>

### Total Capital Needs By System and Year



Year	Building System							Total
	A Sub-Structure	B Shell	C Interiors	D Services	E Equip. & Furnishings	F Spec. Const. & Demolition	G Bldg. Site Work	
2015	\$0	\$60,016	\$0	\$114,157	\$0	\$0	\$90,189	\$264,362
2016	\$0	\$562,393	\$0	\$45,633	\$0	\$0	\$0	\$608,026
2017	\$0	\$505,780	\$168,781	\$15,032	\$0	\$0	\$40,192	\$729,786
2020	\$0	\$0	\$29,859	\$176,411	\$0	\$0	\$0	\$206,270
2022	\$0	\$0	\$0	\$2,917	\$0	\$0	\$30,752	\$33,669
<b>Total</b>	<b>\$0</b>	<b>\$1,128,189</b>	<b>\$198,641</b>	<b>\$354,150</b>	<b>\$0</b>	<b>\$0</b>	<b>\$161,133</b>	<b>\$1,842,112</b>

## CURRENT REPLACEMENT VALUE

The Current Replacement Value has been determined as \$9,578,051 for the Red Bluff State Building Building (461). The Current Replacement Value is the existing building SF multiplied by the Cost per SF to construct a new, similar building. As noted previously, the basis of the Cost per SF amount is the Marshall & Swift Cost Valuation system. A copy of the cost calculation is included in Appendix H of this report.

Building Area	Cost/SF	Current Replacement Value
25,165 GSF	\$381	\$9,578,051

## FACILITY CONDITION INDEX

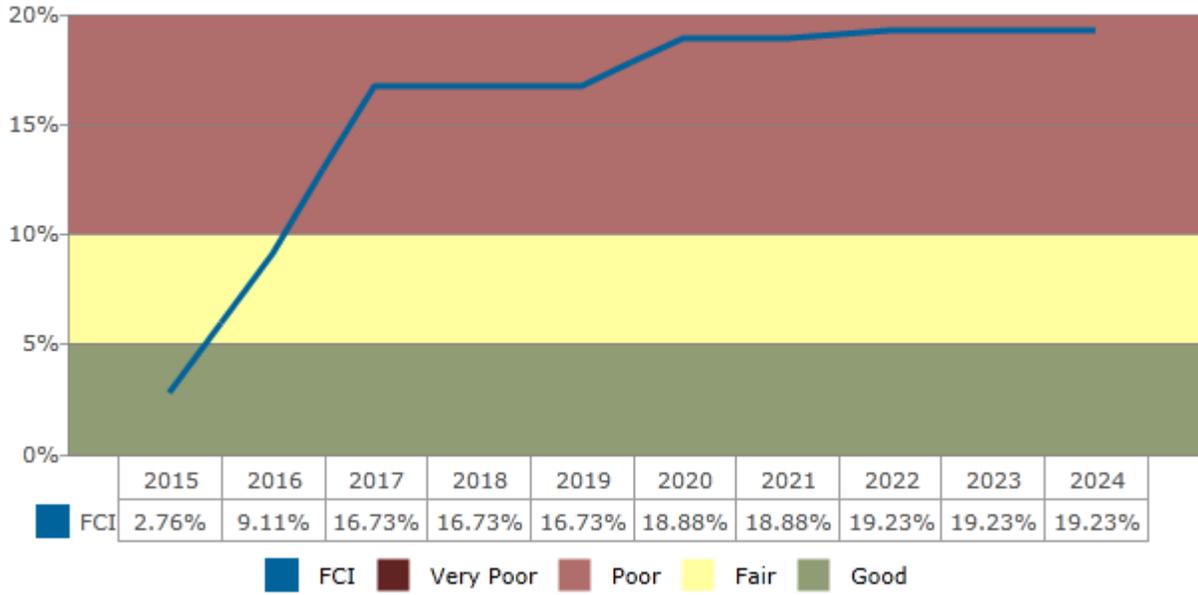
The FCI<sup>1</sup> is an indication of a building’s current and future overall condition. According to industry standards an FCI ratio of 65 percent, or the “rule of two-thirds,” is the threshold for identifying potential candidates for replacement or divestment.<sup>2</sup> Once the FCI ratio reaches 65 percent, or roughly two-thirds of the Current Replacement Value of the estimated cost to replace a building, it may not be prudent to continue to fund repairs. In cases where aggressive facilities planning is expected to be necessary, this threshold may be adjusted to address more pressing needs.

Condition	Definition	Value
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	Greater than 5% to 10%
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 10% to 65%
Very Poor	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal is now necessary.	Greater than 65%

<sup>2</sup> Sean C. Rush (1991). *Managing the Facilities Portfolio: a Practical Approach to Institutional Facility Renewal and Deferred Maintenance*. National Association of College and University Business Officers. pp. 26–66. ISBN 978-0-915164-59-2.

The chart below indicates the cumulative effects of the FCI ratio over the ten-year study period assuming the required funds are NOT provided to address the identified repairs and replacements for each year.

**Cumulative Effects of FCI over the Study Period**



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# APPENDICES

## APPENDIX A: ACCESSIBILITY ISSUES

Item	Description
C3005 ADA Renovations	C3005 ADA Restroom Renovation
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	2
Location	Restrooms

**Recommendations:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3005	C3005 ADA Restroom Renovation	2.0 - EA	29760.0	CC - Accessibility	Priority 2	2017	59,520

**Cost Summary:**

Year	Total Expenditures
2017	\$59,520



**APPENDIX B: GENERAL ASSESSMENT INFORMATION**

**A Substructure Systems**

**A10 FOUNDATIONS**

Item	Description
A1011 Wall Foundations	A1011 Concrete Spread Foundation
Condition	Good
Qty / UOM	25,165 / SF
RUL (years)	24
Location	Building Foundation

OBSERVATIONS/COMMENTS:

No further action is required.

**B Shell Systems**

**B20 EXTERIOR ENCLOSURE**

Item	Description
B2011 Exterior Wall Construction	B2011 Exterior Walls, Painted Textured Concrete
Condition	Poor - Fair
Qty / UOM	10,000 / SF
RUL (years)	0
Location	Exterior Walls

OBSERVATIONS/COMMENTS:

Exterior painted walls show fading and minor peeling. Based on condition and remaining useful life (RUL), exterior painting is required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2011	B2011 Paint Exterior Walls	10,000.0 - SF	6.0	IN - Appearance	Priority 1	2015	60,016

Item	Description
<b>B2021 Windows</b>	B2021 Aluminum Windows, Fixed
<b>Condition</b>	Poor - Fair
<b>Qty / UOM</b>	212 / EA
<b>RUL (years)</b>	1
<b>Location</b>	Exterior Walls

OBSERVATIONS/COMMENTS:

Windows are single pane, appear to be original, and have exceeded their expected life. According to management staff, some leakage is noted. Based on condition and RUL, window replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2021	Replace B2021 Aluminum Windows, Fixed	212.0 - EA	2652.8	IN - Beyond Rated Life	Priority 1	2016	562,393

Item	Description
<b>B2031 Glazed Doors &amp; Entrances</b>	B2031 Glazed Entrance Doors
<b>Condition</b>	Good
<b>Qty / UOM</b>	5 / EA
<b>RUL (years)</b>	27
<b>Location</b>	Exterior Walls

OBSERVATIONS/COMMENTS:

Aluminum framed glass doors were reportedly replaced in 2012. No further action is required.

Item	Description
<b>B2032 Solid Exterior Doors</b>	B2032 Exterior Steel Doors
<b>Condition</b>	Fair
<b>Qty / UOM</b>	2 / EA
<b>RUL (years)</b>	20
<b>Location</b>	South side storage room

OBSERVATIONS/COMMENTS:

No further action is required.

COST SUMMARY:

Type	Year	Total Expenditures
B20 Exterior Enclosure	2015	\$60,016
B20 Exterior Enclosure	2016	\$562,393

**B30 ROOFING**

Item	Description
<b>B3011 Roof Finishes</b>	B3011 Single-Ply Membrane Roofing
<b>Condition</b>	Fair
<b>Qty / UOM</b>	280 / SQ
<b>RUL (years)</b>	2
<b>Location</b>	Roof

OBSERVATIONS/COMMENTS:

Based on RUL, roof replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Replace B3011 Single-Ply Membrane Roofing	280.0 - SQ	1806.4	IN - Beyond Rated Life	Priority 2	2017	505,780

COST SUMMARY:

Type	Year	Total Expenditures
B30 Roofing	2017	\$505,780

## C Interiors Systems

### C10 INTERIOR CONSTRUCTION

Item	Description
C1011 Fixed Partitions	C1011 Toilet Room Partitions
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	2
Location	Restrooms

OBSERVATIONS/COMMENTS:

Toilet partitions show minor corrosion and holes from previous mounted accessories. Replacement is recommended in conjunction with floor and wall ceramic tile finishes.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C1011	Replace C1011 Toilet Room Partitions	8.0 - EA	2227.3	IN - Appearance	Priority 3	2017	17,819

Item	Description
C1021 Interior Doors	C1021 Interior Doors
Condition	Fair
Qty / UOM	78 / EA
RUL (years)	15
Location	Entire Facility

OBSERVATIONS/COMMENTS:

No further action is required.

**COST SUMMARY:**

Type	Year	Total Expenditures
C10 Interior Construction	2017	\$17,819

**C30 INTERIOR FINISHES**

Item	Description
<b>C3005 ADA Renovations</b>	C3005 ADA Restroom Renovation
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	2
Location	Restrooms

**OBSERVATIONS/COMMENTS:**

Renovate restrooms ADA amenities in conjunction with recommended replacements of ceramic tile floors and walls, toilet partitions, and plumbing fixtures.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3005	C3005 ADA Restroom Renovation	2.0 - EA	29760.0	CC - Accessibility	Priority 2	2017	59,520

Item	Description
<b>C3012 Wall Finishes to Interior Walls</b>	C3012 Paint Interior Walls, Drywall
Condition	Fair
Qty / UOM	14,000 / SF
RUL (years)	5
Location	Entire Facility

**OBSERVATIONS/COMMENTS:**

Based on RUL, the interior walls will require repainting during the assessment period.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3012	C3012 Paint Interior Walls, Drywall	14,000.0 - SF	2.1	IN - Appearance	Priority 4	2020	29,859

Item	Description
<b>C3012 Wall Finishes to Interior Walls</b>	C3012 Ceramic Tile, Wainscot
<b>Condition</b>	Fair
<b>Qty / UOM</b>	5 / CSF
<b>RUL (years)</b>	2
<b>Location</b>	Restrooms

**OBSERVATIONS/COMMENTS:**

Ceramic wall tiles appear to be original and show evidence of previous mismatched repairs and physical damage. Replacement is recommended in conjunction with flooring and plumbing fixture replacements.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3012	Replace C3012 Ceramic Tile, Wainscot	5.0 - CSF	2479.0	IN - Appearance	Priority 3	2017	12,395

Item	Description
<b>C3024 Flooring</b>	C3020 Ceramic Floor Tiles
<b>Condition</b>	Fair
<b>Qty / UOM</b>	4 / CSF
<b>RUL (years)</b>	2
<b>Location</b>	Restrooms

**OBSERVATIONS/COMMENTS:**

Ceramic tile flooring in restrooms shows wear and evidence of previous repairs. Replacement is recommended in conjunction with plumbing fixtures and wall tile replacements.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3024	Replace C3020 Ceramic Floor Tiles	4.0 - CSF	3155.9	IN - Appearance	Priority 3	2017	12,624

Item	Description
<b>C3024 Flooring</b>	C3024 Vinyl Tile
<b>Condition</b>	Fair
<b>Qty / UOM</b>	2,200 / SY
<b>RUL (years)</b>	10
<b>Location</b>	Entire Facility

**OBSERVATIONS/COMMENTS:**

Minor repairs or replacements may be required as part of routine maintenance.

Item	Description
<b>C3025 Carpeting</b>	C3025 Carpet Tiles - Standard
<b>Condition</b>	Fair
<b>Qty / UOM</b>	650 / SY
<b>RUL (years)</b>	2
<b>Location</b>	Entire Facility

**OBSERVATIONS/COMMENTS:**

Based on RUL, carpet replacement is anticipated during the assessment period.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3025	Replace C3025 Carpet Tiles - Standard	650.0 - SY	96.6	IN - Appearance	Priority 3	2017	62,794

Item	Description
<b>C3031 Ceiling Finishes</b>	C3031 Drywall – Painted Finished Ceilings
<b>Condition</b>	Fair
<b>Qty / UOM</b>	800 / SF
<b>RUL (years)</b>	2
<b>Location</b>	Restrooms

OBSERVATIONS/COMMENTS:

Based on RUL, drywall ceilings will require repainting during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3031	C3031 Paint Interior Drywall Ceilings	800.0 - SF	4.5	IN - Appearance	Priority 3	2017	3,631

Item	Description
<b>C3032 Suspended Ceilings</b>	C3032 Acoustical Ceiling Tile
<b>Condition</b>	Fair
<b>Qty / UOM</b>	240 / CSF
<b>RUL (years)</b>	10
<b>Location</b>	Entire Facility

OBSERVATIONS/COMMENTS:

No further action is required.

COST SUMMARY:

Type	Year	Total Expenditures
C30 Interior Finishes	2017	\$150,963
C30 Interior Finishes	2020	\$29,859

## D Services Systems

### D20 PLUMBING

Item	Description
D2011 Water Closets	D2011 Commercial Water Closet, 1.6 GPF Unit
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	0
Location	Throughout Facility
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

Water closets with manual flush valves are noted. Replacement of the water closets as part of complete restroom renovations are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2011	Replace D2011 Commercial Water Closet, 1.6 GPF Unit	4.0 - EA	1233.1	OP - Energy	Priority 1	2015	4,933

Item	Description
D2012 Urinals	D2012 Urinal - Standard
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	2
Location	Throughout Facility
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

Manual flush valves were observed. Replacement of the urinals as part of complete restroom renovations are recommended.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2012	Replace D2012 Urinal - Standard	3.0 - EA	2440.7	FN - Modernization	Priority 2	2017	7,322

Item	Description
<b>D2013 Lavatories</b>	D2013 Wall Hung Lavatory and Faucet - Standard
<b>Condition</b>	Fair
<b>Qty / UOM</b>	5 / EA
<b>RUL (years)</b>	2
<b>Location</b>	Restrooms

**OBSERVATIONS/COMMENTS:**

Lavatories with manual faucets appear to be original. Replacement of the faucets and lavatories as part of complete restroom renovations are recommended.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2013	Replace D2013 Wall Hung Lavatory and Faucet - Standard	5.0 - EA	1542.0	FN - Modernization	Priority 2	2017	7,710

Item	Description
<b>D2022 Hot Water Service</b>	D2020 Domestic Hot Water Heater - Electric - 40 Gal
<b>Condition</b>	Good
<b>Qty / UOM</b>	1 / EA
<b>RUL (years)</b>	7
<b>Location</b>	Penthouse Mechanical Room

**OBSERVATIONS/COMMENTS:**

Based on RUL, the water heater will require replacement during the assessment term.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2022	Replace D2020 Domestic Hot Water Heater - Electric - 40 Gal	1.0 - EA	2917.0	IN - Beyond Rated Life	Priority 4	2022	2,917

**COST SUMMARY:**

Type	Year	Total Expenditures
D20 Plumbing	2015	\$4,933
D20 Plumbing	2017	\$15,032
D20 Plumbing	2022	\$2,917

**D30 HVAC**

Energy Supply	
Item	Description
Fuel Oil Type	N/A
Fuel Gas Type	Natural Gas
Solid Fuel Type	N/A
District Heat Type	N/A
District Cooling Type	Site Physical Plant Chilled Water
Solar Thermal	No
Fuel Tank Type	N/A
Fuel Tank Size (gallons)	N/A
Fuel Tank Location	N/A
Gas Meter Location	Exterior Wall
Electrical Meter Location	Exterior Wall
Water Meter Location	Street Vault

Item	Description
D3021 Boilers	D3020 Water Boiler, Gas 400 MBH
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	0
Location	Penthouse Mechanical Room

OBSERVATIONS/COMMENTS:

The HVAC boiler is original, outdated, and is recommended for replacement with a high efficiency hot water unit.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3021	Replace D3020 Water Boiler, Gas 400 MBH	1.0 - EA	28675.5	IN - Beyond Rated Life	Priority 1	2015	28,676

Item	Description
D3022.1 Circulating Pumps	D3023 HW Circulating Pump -1 HP
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	5
Location	Penthouse Mechanical Room

OBSERVATIONS/COMMENTS:

Based on RUL, the hot water circulation pump will require replacement during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3023 HW Circulating Pump -1 HP	1.0 - EA	3144.2	IN - Beyond Rated Life	Priority 3	2020	3,144

Item	Description
D3022.1 Circulating Pumps	D3023 Condensate Return Pump 2 HP
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Penthouse Mechanical Room

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D3022.1 Circulating Pumps	D3022 HVAC Chilled Water Circ Pump 2 HP
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	5
Location	Penthouse Mechanical Room

OBSERVATIONS/COMMENTS:

Based on RUL, the chilled water circulation pump will require replacement during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022 HVAC Chilled Water Circ Pump 2 HP	1.0 - EA	12202.8	IN - Beyond Rated Life	Priority 3	2020	12,203

Item	Description
D3031.1 Chillers	D3031 Chiller, Water Cooled, 100 Ton
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	15
Location	Penthouse Mechanical Room

OBSERVATIONS/COMMENTS:

The original chiller was rebuilt in 2000 and appears to be well-maintained. No further action is required.

Item	Description
D3031.2 Cooling Towers	D3031 Cooling Tower, Steel, 170 Ton
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	5
Location	Rooftop

OBSERVATIONS/COMMENTS:

The cooling tower appears to be original and is reported to be functioning adequately. Based on estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3031	Replace D3031 Cooling Tower, Steel, 170 Ton	1.0 - EA	137441.6	IN - Beyond Rated Life	Priority 3	2020	137,442

Item	Description
D3041.1 Air Handling Units	D3041 Air Handling Unit
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	5
Location	Penthouse Mechanical Room

OBSERVATIONS/COMMENTS:

The original air handling unit (AHU) has exceeded its expected life and is recommended for replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	D3041 Add VFD to 25 HP fan motor on Air Handler Unit	1.0 - EA	4000.0	IN - Beyond Rated Life	Priority 1	2020	4,000
D3041	Replace D3041 Air Handling Unit	1.0 - EA	23622.0	FN - Modernization	Priority 3	2020	23,622

Item	Description
D3052 Package Units	D3052 Package Unit for Telco Room AC, 5 Tons
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	1
Location	Rooftop

OBSERVATIONS/COMMENTS:

The roof mounted air conditioning unit supplies the communications room. Based on RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 Package Unit for Telco Room AC, 5 Tons	1.0 - EA	30355.2	IN - Beyond Rated Life	Priority 1	2016	30,355

Item	Description
D3052 Package Units	D3052 Split System for Data Room AC, 1.5Ton
Condition	Good
Qty / UOM	1 / EA
RUL (years)	12
Location	Data room and roof

OBSERVATIONS/COMMENTS:

The ductless split-system air conditioning unit is fairly new. No further action is required.

Item	Description
D3068 Building Automation Systems	D3068 Direct Digital Controls - Basic
Condition	Fair
Qty / UOM	25,165 / SF
RUL (years)	15
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The Alerton Backtalk direct digital control (DDC) system was installed in 2012 and controls chiller, pumps, and cooling tower. A more extensive system is recommended for better control. See asset for Direct Digital Controls - Install.

Item	Description
D3068 Building Automation Systems	D3068 Direct Digital Control - Install
Condition	Poor
Qty / UOM	25,165 / SF
RUL (years)	0
Location	Maintenance Administrative

OBSERVATIONS/COMMENTS:

A basic Alerton Backtalk system was installed in 2012 which controls pumps, chiller, and cooling tower. A more complete system for remote control of all building HVAC systems is recommended, and will be achieved by further extension of the basic system.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3068	Replace D3068 Direct Digital Control - Install	25,165.0 - SF	2.8	FN - Modernization	Priority 1	2015	71,146

**COST SUMMARY:**

<b>Type</b>	<b>Year</b>	<b>Total Expenditures</b>
D30 HVAC	2015	\$99,822
D30 HVAC	2016	\$34,355
D30 HVAC	2020	\$176,411

**D40 FIRE PROTECTION SYSTEMS**

<b>Fire and Life Safety System</b>	
<b>Item</b>	<b>Description</b>
<b>Fire Alarm System Components Present</b>	
Smoke detectors	Yes
Pull stations	Yes
Audible alarms	Yes
Strobe lights	Yes
Central fire alarm panel	Yes
Annunciator panel	No
Smoke Detectors Power Supply	Hardwired Electric
Carbon Monoxide Detectors	Yes
Heat Detector	Yes
Central Fire Alarm Panel Location	Security Desk
Annunciator Panel Location	N/A
Fire Extinguishers	N/A
Fire Extinguisher Inspection Date	March 3, 2015
Distance to Nearest Fire Hydrant (ft)	N/A
Illuminated Exit Signs	Yes
Kitchen Suppression Systems	N/A
Halon Gas Systems	N/A
Smoke Evacuation Systems	N/A
Fire-rated Stairwells	N/A
Fire-rated Stairwell Finish	N/A
Stairwell Discharge	N/A
Stairwell Pressurized	N/A
Fire-Rated Doors Observed	Yes
Location of Fire-Rated Doors	Other
Fire Alarm Service Company	Major Alarm Inc
Date of Last Fire Alarm Service	March 3, 2015
Are the individual office unit fire alarm systems monitored?	Yes
Are the common area fire alarm systems monitored?	Yes
Types of Common Areas Monitored	N/A
Fire Alarm Monitoring Company	Major Alarm Inc

Item	Description
D4031 Fire Extinguishers	D4031 Fire Extinguishers
Condition	Good
Qty / UOM	14 / EA
RUL (years)	10
Location	Throughout Building

OBSERVATIONS/COMMENTS:

Fire extinguishers were certified March 3, 2015. No further action is required.

**D50 ELECTRICAL SYSTEMS**

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear, Mainframe, 1000 Amps
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	1
Location	Outdoor Electical Area

OBSERVATIONS/COMMENTS:

The main switchgear is original equipment, has exceeded its expected service life, and requires replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5010 Switchgear, Mainframe, 1000 Amps	1.0 - EA	11277.7	IN - Reliability	Priority 1	2016	11,278

Item	Description
<b>D5012 Low Tension Service &amp; Dist.</b>	D5012 Breaker Panel 225 Amps, 30 Circuits
<b>Condition</b>	Fair
<b>Qty / UOM</b>	4 / EA
<b>RUL (years)</b>	15
<b>Location</b>	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

Breaker panels appear to have been replaced in 2000. No further action is required.

Item	Description
<b>D5037 Fire Alarm Systems</b>	D5037 Fire Alarm Panel
<b>Condition</b>	Fair
<b>Qty / UOM</b>	1 / EA
<b>RUL (years)</b>	0
<b>Location</b>	Telco Room

OBSERVATIONS/COMMENTS:

The fire alarm panel is basic and should be upgraded.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5037	Replace D5037 Fire Alarm Panel	1.0 - EA	9402.5	CC - Life Safety	Priority 1	2015	9,403

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm System
Condition	Fair
Qty / UOM	25,165 / SF
RUL (years)	10
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The alarm system is adequate; however, the panel is basic and recommended for replacement. Refer to fire alarm panel asset.

COST SUMMARY:

Type	Year	Total Expenditures
D50 Electrical Systems	2015	\$9,403
D50 Electrical Systems	2016	\$11,278

# G Building Sitework Systems

## G20 SITE IMPROVEMENTS

Site Information	
Item	Description
Main Ingress and Egress	Main Street
Access from	N
Additional Entrances	N/A
Access from	N/A
Parking Count: Open lot	108
Parking Count: Sheltered by carports	N/A
Parking Count: Private garages	N/A
Parking Count: Subterranean garage	N/A
Parking Count: Freestanding parking structure	N/A
Number of ADA Compliant Spaces	8
Number of ADA Compliant Spaces for Vans	2
Method of obtaining parking count	Point of contact
Property Identification Sign-Primary	Monument Sign
Property Identification Sign- Secondary	N/A
Illuminated Identification Signage	No
Building Identification Sign	Yes
Illuminated Sign	No
Location of Property ID Sign	Front elevation of building
Trees Present	Yes
Shrubs Present	Yes
Grasses Present	Yes
Flower beds Present	Yes
Decorative Rocks Present	Yes
Lava Rocks Present	No
Ponds Present	No
Fountains Present	No
Topography	Heavily sloping

Item	Description
G2010 Roadways	G2011 Concrete Steps
Condition	Good
Qty / UOM	360 / SF
RUL (years)	0
Location	Front and east end

OBSERVATIONS/COMMENTS:

Steps are concrete at grade changes with metal handrails. No further action is required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2010	Replace G2011 Concrete Steps	360.0 - SF	170.8	IN - Beyond Rated Life	Priority 1	2015	61,478

Item	Description
G2012 Paving & Surfacing	G2012 Asphalt Seal Coat
Condition	Fair
Qty / UOM	40,000 / SF
RUL (years)	2
Location	Site

OBSERVATIONS/COMMENTS:

The asphalt pavement will require periodic crack-filling, seal coating, and restriping.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2012	G2012 Asphalt Seal Coat	40,000.0 - SF	0.8	IN - Beyond Rated Life	Priority 3	2017	30,752
G2012	G2012 Asphalt Seal Coat	40,000.0 - SF	0.8	IN - Beyond Rated Life	Priority 3	2022	30,752

Item	Description
G2035 Exterior Steps & Ramps	G2035 Exterior Concrete Ramp
Condition	Good
Qty / UOM	75 / LF
RUL (years)	19
Location	East End

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
G2042 Retaining Walls	G2042 Concrete Retaining Wall Cap
Condition	Poor
Qty / UOM	280 / LF
RUL (years)	0
Location	Site

OBSERVATIONS/COMMENTS:

The concrete cap on the retaining wall along the front elevation sidewalk is severely cracked and requires extensive repair.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2042	Replace G2042 Concrete Retaining Wall Cap	280.0 - LF	102.5	IN - Beyond Rated Life	Priority 1	2015	28,711

COST SUMMARY:

Type	Year	Total Expenditures
G20 Site Improvements	2015	\$90,189
G20 Site Improvements	2017	\$30,752
G20 Site Improvements	2022	\$30,752

**G40 SITE ELECTRICAL UTILITIES**

Item	Description
<b>G4021 Fixtures &amp; Transformers</b>	G4021 Fixtures & Transformers
<b>Condition</b>	Poor - Fair
<b>Qty / UOM</b>	5 / EA
<b>RUL (years)</b>	2
<b>Location</b>	Site

OBSERVATIONS/COMMENTS:

Exterior site lighting fixtures are original and recommended for replacement, due to age and condition.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G4021	Replace G4021 Fixtures & Transformers	5.0 - EA	1888.0	IN - Beyond Rated Life	Priority 3	2017	9,440

COST SUMMARY:

Type	Year	Total Expenditures
G40 Site Electrical Utilities	2017	\$9,440

The weather at the time of the assessment was:

Item	Description
<b>Approximate Outdoor Temperature (degrees F)</b>	70
<b>Weather Conditions</b>	Clear
<b>Snow Covering Ground</b>	No
<b>Wind Conditions</b>	Little to no wind

The documentation provided at the time of the assessment is as:

Item	Description
Site Plan Reviewed	Yes
Floor Plan Reviewed	Yes
Construction Drawings Reviewed	Yes
Termite Inspection Report Reviewed	No
Boiler Certificates Reviewed	Yes
Document Year Built Information Obtained From	Fact Sheet

## **APPENDIX C: CERTIFICATION**

EMG has completed a FCA of the subject property listed on the cover page. The FCA was performed at the Client's request using methods and procedures consistent with good commercial and customary practice conforming with ASTM E2018-08, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process. Within this Property Condition Report (PCR), EMG's reference to the Client follows the ASTM guide's definition of User, that is, the party that retains EMG for the preparation of a baseline FCA of the subject property.

This report is exclusively for the use and benefit of the Client identified on the first page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and EMG.

The opinions EMG expresses in this report were formed utilizing the degree of skill and care ordinarily exercised by any prudent architect or engineer in the same community under similar circumstances. EMG assumes no responsibility or liability for the accuracy of information contained within this report that has been obtained from the Client or the Client's representatives, from other interested parties, or from the public domain. The conclusions presented represent EMG's professional judgment based on information obtained during the course of this assignment. EMG's evaluations, analyses, and opinions are not representations regarding the building design, structural soundness, or actual value of the property. Factual information regarding operations, conditions, and test data provided by the Client or the Client's representative has been assumed to be correct and complete. The conclusions presented within this report are based on the data provided, observations made, and conditions that existed specifically on the date of the assessment. EMG certifies that EMG has no undisclosed interest in the subject property, that EMG's relationship with the Client is at arms-length, and that EMG's employment and compensation are not contingent upon the findings or estimated costs to remedy any noted deficiencies due to deferred maintenance and/or any noted component or system replacements.

EMG's FCA cannot wholly eliminate the uncertainty regarding the presence of physical deficiencies and/or the performance of a subject property's building systems. Preparation of a FCA in accordance with ASTM E2018-08 is intended to reduce, but not eliminate, the uncertainty regarding the potential for component or system failure and to reduce the potential that such component or system failure may not be initially observed. This FCA was prepared recognizing the inherent subjective nature of EMG's opinions as to such issues as workmanship, quality of original installation, and estimating the remaining useful life of any given component or system. It should be understood that EMG's suggested remedy may be determined under time constraints or may be formed without the aid of engineering calculations, testing, exploratory probing, the removal of materials, or design. Furthermore, there may be other alternate or more appropriate schemes or methods to remedy the noted physical deficiencies. EMG's opinions are generally formed without detailed knowledge from individuals familiar with the performance of noted components or systems.

Any questions regarding this report should be directed to the Program Manager.

**Prepared By:** Geoffrey Straniere, Field Observer

**Reviewed By:**   
Matthew Anderson, Program Manager

## **APPENDIX D: PHOTOS**



:- Front Elevation



:- East End



:- West End



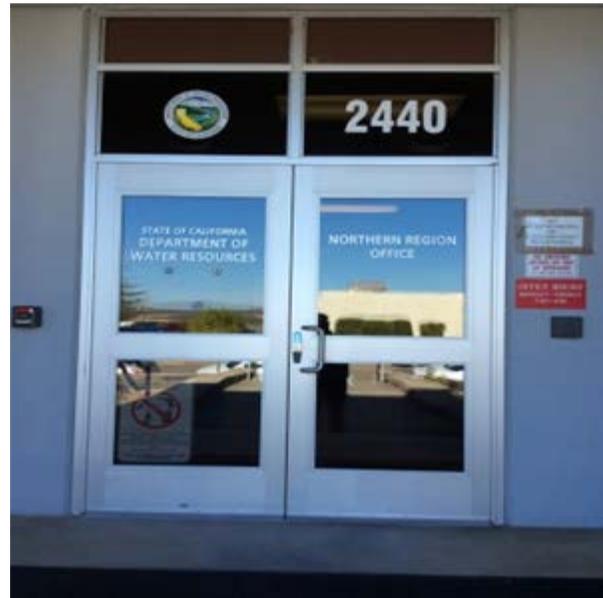
:- Rear Elevation



B2011 Exterior Walls, Painted Textured Concrete



B2021 Aluminum Windows, Fixed



B2031 Glazed Entrance Doors



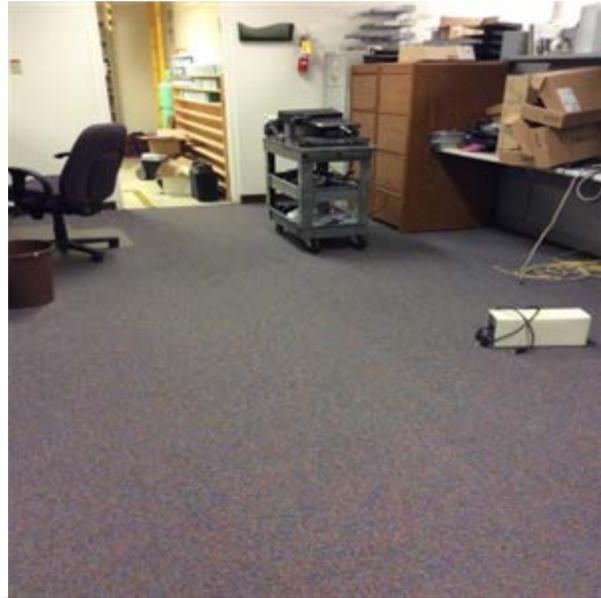
B3011 Single-Ply Membrane Roofing



C1021 Interior Doors



C3012 Paint Interior Walls, Drywall



C3025 Carpet Tiles - Standard



C3032 Acoustical Ceiling Tile



D2011 Commercial Water Closet, 1.6 GPF Unit



D2012 Urinal - Standard



D2013 Wall Hung Lavatory and Faucet - Standard



D2020 Domestic Hot Water Heater - Electric - 40 Gal



D3020 Water Boiler, Gas 400 MBH



D3023 HW Circulating Pump -1 HP



D3022 HVAC Chilled Water Circ Pump 2 HP



D3023 Condensate Return Pump 2 HP



D3031 Chiller, Water Cooled, 100 Ton



D3031 Cooling Tower, Steel, 170 Ton



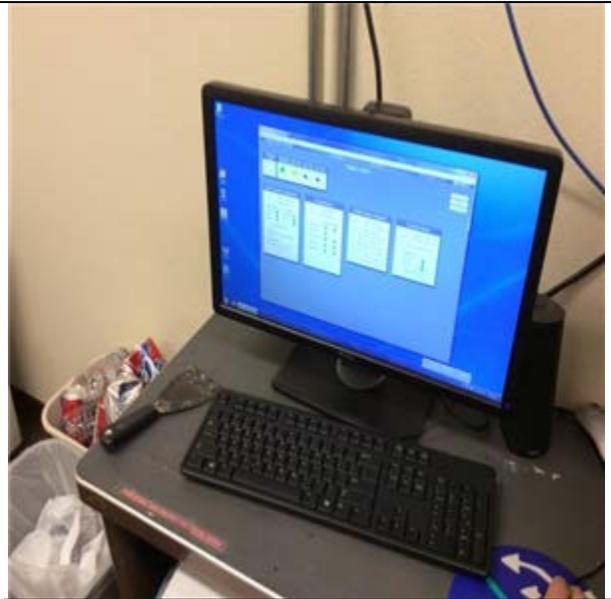
D3041 Air Handling Unit



D3052 Package Unit for Telco Room AC, 5 Tons



D3052 Split System for Data Room AC, 1.5Ton



D3068 Direct Digital Controls - Basic



D5010 Switchgear, Mainframe, 1000 Amps



D5012 Breaker Panel 225 Amps, 30 Circuits



D5037 Fire Alarm Panel



D5037 Fire Alarm System



G2011 Concrete Steps



G2012 Asphalt Seal Coat



G2035 Exterior Concrete Ramp



G2042 Concrete Retaining Wall Cap

## **APPENDIX E: TERMINOLOGY AND ABBREVIATIONS**

<b>TERMINOLOGY and ABBREVIATIONS</b>	
Actual Knowledge	Information or observations known first hand by EMG.
ADA	The Americans with Disabilities Act
AHU	Air Handling Unit
Ancillary Structures	Structures that are not the primary improvements of the Property but which may have been constructed to provide support uses.
ASTM	American Society for Testing and Materials
Baseline	A minimum scope level of observation, inquiry, research, documentation review, and cost estimating for conducting a Property Condition Assessment as normally conducted by EMG.
BOMA	Building Owners & Managers Association
Building	Referring to the primary building or buildings on the Property, which are within the scope of the FCA.
Building Codes	A compilation of rules adopted by the municipal, county and/or state governments having jurisdiction over the Property that govern the property's design &/or construction of buildings.
Building Department Records	Information concerning the Property's compliance with applicable Building, Fire and Zoning Codes that is readily available for use by EMG within the time frame required for production of the Property Condition Assessment.
Building Systems	Interacting or interdependent components that comprise a building such as structural, roofing, side wall, plumbing, HVAC, water, sanitary sewer and electrical systems.
BUR	Built Up Roof
CBC	California Building Code
Component	A piece of equipment or element in its entirety that is part of a system.
CFM	Cubic Feet per Minute, usually referring to air flow in a heating or cooling system.
Dangerous or Adverse Conditions	Situations which may pose a threat or possible injury to the Project Manager, or those situations which may require the use of special protective clothing, safety equipment, access equipment, or any precautionary measures.
Deferred Maintenance	Deficiencies that result from postponed maintenance, or repairs that have been put off until a later time and that require repair or replacement to an acceptable condition relative to the age of the system or property.
DHW	Domestic Hot Water
DDC	Direct Digital Controls, for HVAC systems
Dismantle	To take apart; disassemble; tear down any component, device or piece of equipment that is bolted, screwed, secured, or fastened by other means.
DWV	Drainage Waste Ventilation
EPDM	Ethylene propylene diene terpolymer, a single ply roofing material, usually black
EIFS	Exterior Insulation and Finish System
EMS	Energy Management System
Engineering	Analysis or design work requiring extensive formal education, preparation and experience in the use of mathematics, chemistry, physics, and the engineering sciences as provided by a Professional Engineer licensed to practice engineering by any state of the 50 states.
Expected Useful Life (EUL)	The average amount of time in years that a system or component is estimated to function when installed new.

<b>TERMINOLOGY and ABBREVIATIONS</b>	
FEMA	Federal Emergency Management Agency
Fire Department Records	Information generated or acquired by the Fire Department having jurisdiction over the Property, and that is readily available to EMG within the time frame required for production of the FCA.
FIRM	Flood Insurance Rate Maps
FM	Factory Mutual
FRT	Fire Retardant Treated
Guide	A series of options or instructions that do not recommend a specific course of action.
HP	Horse Power, a unit of measure for pumps and motors.
HVAC	Heating, Ventilating & Air Conditioning
IAQ	Indoor Air Quality
Immediate Repairs	Physical deficiencies that require immediate action as a result of: (i) existing or potentially material unsafe conditions, (ii) significant negative conditions impacting tenancy/marketability, (iii) material building code violations, or (iv) poor or deteriorated condition of critical element or system, or (v) a condition that if left "as is", with an extensive delay in addressing same, has the potential to result in or contribute to critical element or system failure within one (1) year.
Interviews	Interrogatory with those knowledgeable about the Property.
kVA	Kilo Volt Amps, a measurement used for electrical devices where Amps is the plural of Amperage, a measure of electrical force.
kW	One thousand Watts, a measure of electrical output.
Material	Having significant importance or great consequence to the asset's intended use or physical condition.
MEP	Mechanical, Electrical, and Plumbing
NFPA	National Fire Protection Association
Observations	The results of the Project Manager's Walk-through Survey.
Observe	The act of conducting a visual, unaided survey of items, systems or conditions that are readily accessible and easily visible on a given day as a result of the Project Manager's walk-through.
Obvious	That which is plain or evident; a condition that is readily accessible and can be easily seen by the Project Manager as a result of his Walk-through without the removal of materials, moving of chattel, or the aid of any instrument, device, or equipment.
Owner	The entity holding the deed to the Property that is the subject of the FCA.
Physical Deficiency	Patent, conspicuous defects, or significant deferred maintenance of the Property's material systems, components, or equipment as observed during the Project Manager's Walk-through Survey.  Material systems, components, or equipment that are approaching, have realized, or have exceeded their typical Expected Useful Life (EUL); or, that have exceeded their useful life result of abuse, excessive wear and tear, exposure to the elements, or lack of proper or adequate maintenance.  This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous repairs, normal operating maintenance, and conditions that do not present a material deficiency to the Property.
PVC	Poly Vinyl Chloride

<b>TERMINOLOGY and ABBREVIATIONS</b>	
Practically Reviewable	Information that is practically reviewable means that the information is provided by the source in a manner and form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data.
Practice	A definitive procedure for performing one or more specific operations or functions that does not produce a test result.
Primary Improvements	The site and building improvements that are of fundamental importance with respect to the Property.
Project Manager	The individual Professional Engineer, Contractor, or Registered Architect having a general, well rounded knowledge of all pertinent site and building systems and components that conducts the on site visit and walk-through observation.
Property	The site and building improvements, which are specifically within the scope of the FCA to be prepared in accordance with the agreement between the Client and EMG.
Readily Accessible	Those areas of the Property that are promptly made available for observation by the Project Manager without the removal of materials or chattel, or the aid of any instrument, device, or equipment at the time of the Walk-through Survey.
Reasonably Ascertainable	Information that is publicly available, provided to EMG's offices from either its source or an information research/retrieval concern, practically reviewable, and available at a nominal cost for either retrieval, reproduction or forwarding.
Recreational Facilities	Spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment, or athletic facilities.
Remaining Useful Life (RUL)	<p>The consultant's professional opinion of the number of years before a system or component will require replacement or reconditioning. The estimate is based upon observation, available maintenance records, and accepted EUL's for similar items or systems.</p> <p>Inclement weather, exposure to the elements, demand on the system, quality of installation, extent of use, and the degree and quality of preventive maintenance exercised are all factors that could impact the RUL of a system or component. As a result, a system or component may have an effective age greater or less than its actual age. The RUL may be greater or less than its Expected Useful Life (EUL) less actual age.</p>
Replacement Costs	Costs to replace the system or component "in kind" based on Invoices or Bid Documents provided by the current owner or the client, construction costs developed by construction resources such as <i>Means</i> and <i>Dodge</i> , EMG's experience with past costs for similar properties, or the current owner's historical incurred costs.
RTU	Rooftop Unit
Shut-Down	Equipment or systems that are not operating at the time of the Project Manager's Walk-through Survey. Equipment or systems may be considered shutdown if it is not in operation as a result of seasonal temperatures.
Significant	Important, material, and/or serious.
Site Visit	The visit to the property by EMG's Project Manager including walk-through visual observations of the Property, interviews of available project personnel and tenants (if appropriate), review of available documents and interviews of available municipal personnel at municipal offices, all in accordance with the agreement for the Property Condition Assessment.

<b>TERMINOLOGY and ABBREVIATIONS</b>	
Specialty Consultants	Practitioners in the fields of engineering, architecture; or, building system mechanics, specialized service personnel or other specialized individuals that have experience in the maintenance and repair of a particular building component, equipment, or system that have acquired detailed, specialized knowledge in the design, assessment, operation, repair, or installation of the particular component, equipment, or system.
Structural Component	A component of the building, which supports non-variable forces or weights (dead loads) and variable forces or weights (live loads).
Suggested Remedy	A preliminary opinion as to a course of action to remedy or repair a physical deficiency. There may be alternate methods that may be more commensurate with the Client's requirements. Further investigation might make other schemes more appropriate or the suggested remedy unworkable. The suggested remedy may be to conduct further research or testing, or to employ Specialty Consultants to gain a better understanding of the cause, extent of a deficiency (whether observed or highly probable), and the appropriate remedy.
Survey	Observations as the result of a walk-through scan or reconnaissance to obtain information by EMG of the Property's readily accessible and easily visible components or systems.
System	A combination of interacting or interdependent components assembled to carry out one or more functions.
Technically Exhaustive	The use of measurements, instruments, testing, calculations, exploratory probing or discover, and/or other means to discover and/or troubleshoot Physical Deficiencies, develop scientific or Engineering findings, conclusions, and recommendations.
Term	Reserve Term: The number of years that Capital Reserves are projected for as specified in the Expenditure Forecast.
TPO	Thermoplastic polyolefin, a white single ply roofing material, usually white
Timely Access	Entry provided to the Project Manager at the time of his site visit.
UST	Underground Storage Tank
Walk-through Survey	The Project Manager's site visit of the Property consisting of his visual reconnaissance and scan of readily accessible and easily visible components and systems. This definition connotes that such a survey should not be considered in depth, and is to be conducted without the aid of special protective clothing, exploratory probing, removal of materials, testing, or the use of special equipment such as ladders, scaffolding, binoculars, moisture meters, air flow meters, or metering/testing equipment or devices of any kind. It is literally the Project Manager's walk of the Property and observations.



**APPENDIX F: BUILDING FACT SHEET**

# RED BLUFF BUILDING FACT SHEET

2440 Main Street  
Red Bluff  
Tehama County

## Category 3 - Low Priority - Special Repairs and Maintenance

### BUILDING INFORMATION

- Age: 45 years (completed in 1969)
- Size:\*
  - 1-story
  - 25,165 GSF      20,885 NUSF      20,885 Assigned SF
  - 3.14 Acre Parcel
  - 108 surface parking spaces
  - Capacity - 85 occupants
- Financial:
  - No Encumbrances
  - BRA Rate - \$1.64/month per SF, FY 2013-14 (DGS Price Book)
  - \$1.69/month per SF, FY 2014-15 (Proposed DGS Price Book)
- LEED Status: None being pursued at this time.
- Tenants: 2 Agencies, tenants include Department of Water Resources (19,755 SF) and Department of General Services (510 SF)



SPI Structure #: 2094  
Real Property #: 663  
BPM #: 461

### COMPLETED STUDIES AND SIGNIFICANT FINDINGS

#### A. 2005 Infrastructure Study

Roof integrity was rated inadequate and in need of strengthening. Primary concerns are that trusses do not have the capacity to resist potential loads. The electrical capacity is nearly maxed out, potentially requiring additional panels. First priority critical needs include structural, HVAC, and electrical repairs that are estimated at \$961,000. The total 10-year total estimate is \$3.6 million.

#### B. 2010 American Disability Act Accessibility Compliance Survey

This building has substantial accessibility deficiencies, some requiring major retrofit while others only minor alterations to achieve full compliance. These deficiencies could significantly impact the costs of tenant improvements.

#### C. 2012 Access Compliance Conceptual Budget/Evaluation

Follow up to the 2010 American Disability Act Accessibility Compliance Survey this report provides the Conceptual Cost and Path of Travel Plans. ADA upgrades have been proposed for this building as part of DGS's ten year ADA Compliance Upgrades and Deferred Special Repairs Program.

### ADDITIONAL BUILDING ISSUES

There is the presence of asbestos containing materials and lead-based paint throughout the building leading to a reduced ability to maintain existing floor, wall, ceiling systems, and other building infrastructure. This also increases the costs for repairs and to tenants for tenant improvements.

### CURRENT UTILIZATION PROJECTS

None

### RECENTLY COMPLETED PROJECTS

Cost

TBD

### ACTIVE PROJECTS

Cost

TBD

### PLANNED SPECIAL REPAIRS BY FISCAL YEAR

Estimated Cost

TBD

**DGS STRATEGY:** Continue to operate/maintain the building as-is through the special repair/maintenance process; no capital outlay work is required at this location at this time.

\* Source: Statewide Property Inventory

## **APPENDIX G: COST TABLES**

10 YEAR EXPENDITURE FORECAST



Red Bluff State Building  
2440 Main Street  
Red Bluff

Useful Life

Estimated Useful Life
Remaining Useful Life

Plan Type

OP: Operations	CC: Code Compliance
EN: Environmental	FN: Functionality
IN: Integrity	

Legend

Deferred
Scheduled

Element #	Component Description	Asset	Location	Action	EUL (Yrs)	RUL (Yrs)	Qty.	Unit of Meas.	Unit Cost	Plan Type	Priority	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total - Deferred	Total - Scheduled											
												Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9													
<b>A. SUBSTRUCTURE</b>																																		
Substructure Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B. SHELL</b>																																		
<b>B20 EXTERIOR ENCLOSURE</b>																																		
B2011	Finished Concrete	B2011 Exterior Walls, Painted Textured Concrete	Exterior Walls	B2011 Paint Exterior Walls	10	0	10,000.00	SF	\$6.00	IN - Appearance	Priority 1	\$60,016	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60,016	\$0										
B2021	Aluminum Window, 4-0 X 6-0, First Floor	B2021 Aluminum Windows, Fixed	Exterior Walls	Replace B2021 Aluminum Windows, Fixed	25	1	212.00	EA	\$2,652.80	IN - Beyond Rated Life	Priority 1	\$0	\$562,393	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$562,393										
<b>B30 ROOFING</b>																																		
B3011	Tpo, Roof 45 Mills, Full Adhered	B3011 Single-Ply Membrane Roofing	Roof	Replace B3011 Single-Ply Membrane Roofing	20	2	280.00	SQ	\$1,806.36	IN - Beyond Rated Life	Priority 2	\$0	\$0	\$505,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$505,780										
Shell Subtotal												\$60,016	\$562,393	\$505,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60,016	\$1,068,173		
<b>C. INTERIORS</b>																																		
<b>C10 INTERIOR CONSTRUCTION</b>																																		
C1011	Toilet Room Partitions Overhead Braced	C1011 Toilet Room Partitions	Restrooms	Replace C1011 Toilet Room Partitions	10	2	8.00	EA	\$2,227.31	IN - Appearance	Priority 3	\$0	\$0	\$17,819	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,819										
<b>C30 INTERIOR FINISHES</b>																																		
C3005	ADA Renovations	C3005 ADA Restroom Renovation	Restrooms	C3005 ADA Restroom Renovation	20	2	2.00	EA	\$29,760.00	CC - Accessibility	Priority 2	\$0	\$0	\$59,520	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$59,520										
C3012	Paint Interior Walls, Drywall	C3012 Paint Interior Walls, Drywall	Entire Facility	C3012 Paint Interior Walls, Drywall	10	5	14,000.00	SF	\$2.13	IN - Appearance	Priority 4	\$0	\$0	\$0	\$0	\$0	\$29,859	\$0	\$0	\$0	\$0	\$0	\$0	\$29,859										
C3012	Ceramic Tile, Low Walls	C3012 Ceramic Tile, Wainscot	Restrooms	Replace C3012 Ceramic Tile, Wainscot	50	2	5.00	CSF	\$2,479.01	IN - Appearance	Priority 3	\$0	\$0	\$12,395	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,395										
C3024	2X2 Ceramic Tile	C3020 Ceramic Floor Tiles	Restrooms	Replace C3020 Ceramic Floor Tiles	30	2	4.00	CSF	\$3,155.88	IN - Appearance	Priority 3	\$0	\$0	\$12,624	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,624										
C3025	Carpet Tiles - Standard	C3025 Carpet Tiles - Standard	Entire Facility	Replace C3025 Carpet Tiles - Standard	10	2	650.00	SY	\$96.61	IN - Appearance	Priority 3	\$0	\$0	\$62,794	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$62,794										
C3031	Drywall - Painted Finished Ceilings	C3031 Drywall - Painted Finished Ceilings	Restrooms	C3031 Paint Interior Drywall Ceilings	10	2	800.00	SF	\$4.54	IN - Appearance	Priority 3	\$0	\$0	\$3,631	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,631										
Interiors Subtotal												\$0	\$0	\$168,781	\$0	\$0	\$29,859	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$198,641	
<b>D. SERVICES</b>																																		
<b>D20 PLUMBING</b>																																		
D2011	Commercial Grade Water Closet With 1.6 Gpf Unit	D2011 Commercial Water Closet, 1.6 GPF Unit	Throughout Facility	Replace D2011 Commercial Water Closet, 1.6 GPF Unit	25	0	4.00	EA	\$1,233.15	OP - Energy	Priority 1	\$4,933	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,933	\$0										
D2012	Urinal	D2012 Urinal - Standard	Throughout Facility	Replace D2012 Urinal - Standard	35	2	3.00	EA	\$2,440.66	FN - Modernization	Priority 2	\$0	\$0	\$7,322	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,322										
D2013	China Wall Hung Lavatory and Faucet	D2013 Wall Hung Lavatory and Faucet - Standard	Restrooms	Replace D2013 Wall Hung Lavatory and Faucet - Standard	35	2	5.00	EA	\$1,542.05	FN - Modernization	Priority 2	\$0	\$0	\$7,710	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,710										
D2022	Domestic Hot Water Heater - Electric	D2020 Domestic Hot Water Heater - Electric - 40 Gal	Penthouse Mechanical Room	Replace D2020 Domestic Hot Water Heater - Electric - 40 Gal	12	7	1.00	EA	\$2,916.96	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,917	\$0	\$0	\$0	\$0	\$2,917										
<b>D30 HVAC</b>																																		
D3021	Boiler, Gas-Fired, Water, Cast Iron, 400 MBH	D3020 Water Boiler, Gas 400 MBH	Penthouse Mechanical Room	Replace D3020 Water Boiler, Gas 400 MBH	30	0	1.00	EA	\$28,675.55	IN - Beyond Rated Life	Priority 1	\$28,676	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,676	\$0										
D3022.1	In-Line Centrifugal Hydronic Pump, 1/4 to 1/3 HP, Cast Iron, Flanged	D3023 HW Circulating Pump -1 HP	Penthouse Mechanical Room	Replace D3023 HW Circulating Pump -1 HP	15	5	1.00	EA	\$3,144.22	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$3,144	\$0	\$0	\$0	\$0	\$0	\$0	\$3,144										
D3022.1	Circulation Pump 1.5 HP	D3022 HVAC Chilled Water Circ Pump 2 HP	Penthouse Mechanical Room	Replace D3022 HVAC Chilled Water Circ Pump 2 HP	15	5	1.00	EA	\$12,202.79	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$12,203	\$0	\$0	\$0	\$0	\$0	\$0	\$12,203										
D3031.2	Galvanized Steel Cooling Tower 100 to 120 Ton	D3031 Cooling Tower, Steel, 170 Ton	Rooftop	Replace D3031 Cooling Tower, Steel, 170 Ton	15	5	1.00	EA	\$137,441.60	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$137,442	\$0	\$0	\$0	\$0	\$0	\$0	\$137,442										
D3041.1	Air Handler 3600-3800 CFM	D3041 Air Handling Unit	Penthouse Mechanical Room	D3041 Add VFD to 25 HP fan motor on Air Handler Unit	0	1	1.00	EA	\$4,000.00	IN - Beyond Rated Life	Priority 1	\$0	\$4,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,000										
	Air Handler 3600-3800 CFM	D3041 Air Handling Unit	Penthouse Mechanical Room	Replace D3041 Air Handling Unit	40	5	1.00	EA	\$23,622.00	FN - Modernization	Priority 3	\$0	\$0	\$0	\$0	\$0	\$23,622	\$0	\$0	\$0	\$0	\$0	\$0	\$23,622										
D3052	Split System Unit, 5-Ton, Condenser and Fan Coil	D3052 Package Unit for Telco Room AC, 5 Tons	Rooftop	Replace D3052 Package Unit for Telco Room AC, 5 Tons	15	1	1.00	EA	\$30,355.20	IN - Beyond Rated Life	Priority 1	\$0	\$30,355	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,355										
D3068	Direct Digital Controls (DDC) Basic	D3068 Direct Digital Control - Install	Maintenance Administrative	Replace D3068 Direct Digital Control - Install	20	0	25,165.00	SF	\$2.83	FN - Modernization	Priority 1	\$71,146	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$71,146	\$0										
<b>D50 ELECTRICAL SYSTEMS</b>																																		
D5012	Switchgear, Mainframe, 1200 Amps	D5010 Switchgear, Mainframe, 1000 Amps	Outdoor Electrical Area	Replace D5010 Switchgear, Mainframe, 1000 Amps	40	1	1.00	EA	\$11,277.73	IN - Reliability	Priority 1	\$0	\$11,278	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,278										
D5037	Fire Alarm Panel	D5037 Fire Alarm Panel	Telco Room	Replace D5037 Fire Alarm Panel	15	0	1.00	EA	\$9,402.52	CC - Life Safety	Priority 1	\$9,403	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,403	\$0										
Services Subtotal												\$114,157	\$45,633	\$15,032	\$0	\$0	\$176,411	\$0	\$2,917	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$114,157	\$239,993			
<b>E. EQUIPMENT &amp; FURNISHING</b>																																		
Equipment & Furnishing Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>F. SPECIAL CONSTRUCTION AND DEMOLITION</b>																																		
Special Construction And Demolition Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>G. BUILDING SITEWORK</b>																																		
<b>G20 SITE IMPROVEMENTS</b>																																		
G2010	G2010 Roadways	G2011 Concrete Steps	Front and east end	Replace G2011 Concrete Steps	25	0	360.00	SF	\$170.77	IN - Beyond Rated Life	Priority 1	\$61,478	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$61,478	\$0										
G2012	Asphalt-Seal Coat- Roadways	G2012 Asphalt Seal Coat	Site	G2012 Asphalt Seal Coat	5	2	40,000.00	SF	\$0.77	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$30,752	\$0	\$0	\$0	\$30,752	\$0	\$0	\$0	\$0	\$0	\$30,752										
G2042	Retaining Wall, Cast in Place Concrete, Reinforced, Up to 6' High, No Shoring Or Protection	G2042 Concrete Retaining Wall Cap	Site	Replace G2042 Concrete Retaining Wall Cap	50	0	280.00	LF	\$102.54	IN - Beyond Rated Life	Priority 1	\$28,711	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,711	\$0										
<b>G40 SITE ELECTRICAL UTILITIES</b>																																		
G4021	G4021 Fixtures & Transformers	G4021 Fixtures & Transformers	Site	Replace G4021 Fixtures & Transformers	30	2	5.00	EA	\$1,888.00	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$9,440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,440										
Building Sitework Subtotal												\$90,189	\$0	\$40,192	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$90,189	\$70,944	

Element #	Component Description	Asset	Location	Action	EUL (Yrs)	RUL (Yrs)	Qty.	Unit of Meas.	Unit Cost	Plan Type	Priority <sup>2</sup>	2015 Year 0	2016 Year 1	2017 Year 2	2018 Year 3	2019 Year 4	2020 Year 5	2021 Year 6	2022 Year 7	2023 Year 8	2024 Year 9	Total - Deferred	Total - Scheduled										
<b>Z. GENERAL</b>																																	
<b>General Subtotal</b>												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Expenditure Totals per Year</b>												\$264,362	\$608,024	\$729,786	\$0	\$0	\$206,270	\$0	\$33,669	\$0	\$0	\$264,362	\$1,577,750										
<b>Total Cost (Inflated @ 5% per Yr.)</b>												\$264,362	\$638,427	\$804,589	\$0	\$0	\$263,258	\$0	\$47,376	\$0	\$0	Total *	\$1,842,112										

\* - Present Value Currency

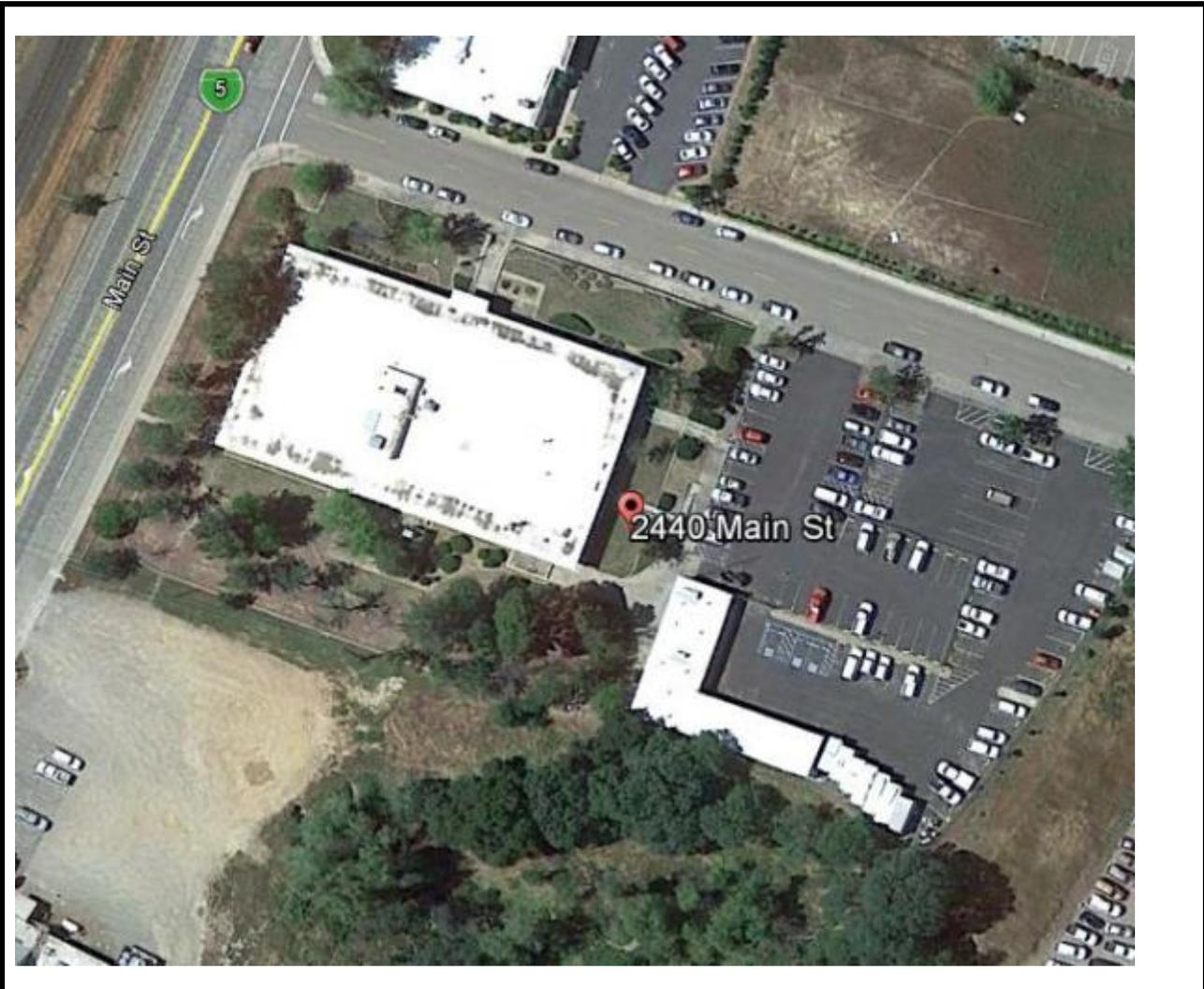
**Footnotes**

- 1 Detailed descriptions for Useful Life and Plan Type can be found in the Appendices of the Facility Condition
- 2 Detailed Descriptions of the Priorities can be found in the Appendices of the Facility Condition Assessment

Current Repl.Value \$9,578,051



**APPENDIX H: SUPPORTING DOCUMENTATION**



**Source:**  
The north arrow indicator is an approximation of 0° North.

**Project Number:**  
111326.14R-042.305  
**Project Name:**  
Red Bluff State Building

**On-Site Date:**  
March 4, 2015

## Estimate of Structures Cost Using Marshall Cost Systems

Red Bluff

### Site Calculation

#### Estimate of Unusual Land Improvements Cost (Estimators Data Cost Base):

Description	Cost	Estimated \$/ SF	Unusual Land Total
			\$0
<b>Total</b>			<b>\$0</b>

#### Estimate of Unusual Land Improvements Cost (Estimators Cost Data Base):

##### Estimate of Structure Cost :

Building Type	Cost per SF	Number of SF	Building Type Total
Main Building	\$304.49	25,165	\$7,662,441
	\$0.00	0	\$0
	\$0.00	0	\$0
	\$0.00	0	\$0
	\$0.00	0	\$0
<b>Total</b>		<b>25,165</b>	<b>\$7,662,441</b>

##### Estimate of Adjustments for Fees:

Description	% increase	
Soft Costs	25.00%	
	0.00%	
	0.00%	
<b>Total Fees/ Interest included in Marshall System</b>		<b>25.00%</b>

##### Total Structure Estimate:

Description	Unit	Fee Adjust	Adjusted Totals
Main Building	\$7,662,441	25.00%	\$9,578,051
	\$0	25.00%	\$0
	\$0	25.00%	\$0
	\$0	25.00%	\$0
	\$0	25.00%	\$0
<b>Cost Per SF</b>	<b>\$380.61</b>	<b>Total Estimate</b>	<b>\$9,578,051</b>

<b>Expected Useful Life (EUL) Table</b>	
<b>SITE SYSTEM ITEMS</b>	
<b>ROADWAYS/ PARKING/ WALKWAYS</b>	
Asphalt pavement	25
Asphalt seal coat	5
Concrete pavement	50
Curbing, asphalt	25
Curbing, concrete	50
Parking, stall striping	5
Parking, gravel surfaced	15
Security gate- rolling gate	10
Security gate- lift arm	10
Sidewalk, asphalt	25
Sidewalk, brick paver	30
Sidewalk, concrete	50
<b>STORM SEWER, DRAINAGE AND EROSION CONTROL</b>	
Catch basins, inlets, culverts	50
Earthwork, grading and erosion control	50
Storm drain lines	40
<b>LANDSCAPING, TOPOGRAPHY AND FENCING</b>	
Fencing, chain-link (4' height)	40
Fencing, dumpster enclosure (wood)	12
Fencing, Tennis Court (10' height)-Chain link	40
Fencing, wood privacy (6' height)	15
Fencing, wrought iron (4-6' height and decorative)	50
Fencing, concrete masonry unit (CMU)	30
Irrigation System	30
Retaining walls, 80 lb block type	50
Retaining walls, concrete masonry unit (CMU) with brick face	40
Fencing, PVC (6' height)	25
Retaining walls, timber (railroad tie)	25
<b>SITE SYSTEM ITEMS</b>	
<b>GENERAL SITE IMPROVEMENTS</b>	
Lighting (pole mounted)	25
Mail kiosk	10
Pool deck	15
Pool/ spa plaster liner	8
Signage, monument	20
Signage, roadway/ parking	10
Tennis court / basketball court surface (paint markings)	5

<b>GENERAL SITE IMPROVEMENTS</b>	
Tennis court Surface (acrylic emulsion)	10
Tot-lot (playground equipment)	10
<b>SITE SANITARY AND WATER</b>	
Domestic Hot Water (DHW) - supply / return	30
Lift station	50
Sanitary lines	50
Sanitary treatment	40
Water main	40
Water supply lines	50
Water tower	50
<b>SITE MECHANICAL / ELECTRICAL</b>	
Compactors	15
Dumpsters	10
Electrical distribution center	40
Electric main	40
Emergency Generator	25
Gas lines	40
Gas main	40
Heating supply/ return	40
Power distribution	40
Transformer	30
<b>BUILDING ARCHITECTURAL ITEMS</b>	
Wood Decks	20
Storage Sheds	30
Carports	40
Garages	50
Basement Stairs	50
Building mounted exterior lighting	10
Building mounted High Intensity Discharge (HID) lighting	10
Bulkhead	10
Canopy, concrete	50
Canopy, wood / metal	40
Ceilings, open or exterior	30
Chimney	40
Common area doors, interior (solid wood/ metal clad)	30
Common area floors, ceramic / quarry tile, terrazzo	50+
Common area floors, wood (strip or parquet)	30
Common area floors, resilient tile or sheet	15
Common area floors, carpet	8
Common area floors, concrete	50+

<b>BUILDING ARCHITECTURAL ITEMS</b>	
Common area railing	20
Common area ceiling, concrete	50+
Common area ceiling, acoustic tile (drop ceiling),	15
Common area countertop and sink	20
Common area dishwasher	15
Common area disposal	5
Common area kitchen cabinets, wood	15
Common area wall coverings	15
Caps, copings (aluminum/ terra-cotta) - Parapet	25
Exterior common door, aluminum and glass	30
Exterior common door, solid core wood or metal clad	25
Exterior stairs, wood	15
Exterior stairs, metal pan- concrete filled	30
Exterior stairs, concrete	50
Exterior unit door, solid wood/ metal clad	25
<b>EXTERIOR CLADDING</b>	
Aluminum Siding	40
Brick or block	40
Brownstone or stone veneer	40
Exterior Insulation Finishing Systems (EIFS)	20
Glass block	40
Granite block	40
Metal/ glass curtain wall	30
Precast concrete panel (tilt-up)	40
Vinyl siding	25
Wood shingle/ clapboard/ plywood, stucco, composite wood	20
Cement-board siding (Hardi-plank)/ non integral color	45
Fire Escapes	40
Foundations	50+
Roof hatch	30
Roof skylight	30
Insulation, wall	50+
Interior lighting	15
Interior railings	20
Mail facility, interior	20
Parapet wall,	50+
Penthouse	50
Railing, roof	25

<b>INTERIORS</b>	
Public bathroom accessories	7
Public bathroom fixtures	15
Refrigerator, common area	10
<b>BUILDING ARCHITECTURAL ITEMS</b>	
<b>ROOF COVERINGS</b>	
Built-up roof - Ethylene Propylene Diene Monomer (EPDM) / Thermoplastic Polyolefin (TPO)	20
Asphalt shingle (3-tab)	20
Wood shingles (cedar shake)	25
Slate, clay, concrete tile	40
Metal	40
Roof drainage exterior (gutter/ downspout)	10
Roof drainage interior (drain covers)	30
Roof structure	50+
Slab	50+
Service door	25
Soffits (wood/ stucco)	20
Soffits (aluminum or vinyl)	25
Stair structures	50+
Storm/ screen doors	7
Storm/ screen windows	10
Waterproofing (foundations)	50+
Windows (frames and glazing), vinyl or aluminum	30
Wood floor frame	50+
<b>BOILER ROOM EQUIPMENT</b>	
Blowdown and Water Treatment	25
Boiler Room Pipe Insulation	Included in boiler
Boiler Room Piping	Included in boiler
Boiler Room Valves	15
Boiler Temperature Controls	Included in boiler
Oil-fired, sectional	22
Gas/ dual fuel, sectional	25
Oil/ gas/ dual fired, low MBH	30
<b>BOILERS</b>	
Oil/ gas/ dual fired, high MBH	40
Gas fired atmospheric	25
Electric	20

<b>BUILDING HEATING WATER TEMPERATURE CONTROLS</b>	
Common area	15
Buzzer/Intercom, central panel	20
Central Unit Exhaust, roof mounted	15
Chilled Water Distribution	50+
Chilling Plant	15
Cooling Tower	25
Combustion Air, Duct with fixed louvers	30
Combustion Air, Motor louver and duct	25
<b>CONDENSATE, FEEDWATER, WATER</b>	
Feedwater only (hydronic)	10
Cooling Tower	25
DHW Circulating Pumps	by size
Tank only, dedicated fuel	10
Exchanger in storage tank	15
Exchanger in boiler	15
External tankless	15
Instantaneous (tankless type)	10
Domestic Hot Water Storage Tanks, Small (up to 150 gallons)	15
Domestic Hot Water Storage Tanks, Large (over 150 gallons)	15
Domestic Cold Water Pumps	15
<b>ELECTRICAL &amp; ELEVATOR</b>	
Electrical Switchgear	50+
Electrical Wiring	30
Elevator, Controller, dispatcher	15
Elevator, Cab	15
Elevator, Machinery	30
Elevator, Shaft-way Doors	20
Elevator, Shaft-way Hoist rails, cables, traveling	25
Elevator, Shaft-way Hydraulic piston and leveling	25
<b>EMERGENCY ALARM AND FIRE PROTECTION</b>	
Call station	10
Emergency Generator	25
Emergency Lights	8
Evaporative Cooler	15
Fire Extinguisher	10
Fire Pumps	20
Fire Suppression	50+
Flue Exhaust	w/boiler
Free Standing Chimney	50+
Fuel Oil Storage	25

<b>EMERGENCY ALARM AND FIRE PROTECTION</b>	
Fuel Transfer System	25
Gas Distribution	50+
Heat Sensors	15
Heat Exchanger	35
Heating Risers and Distribution	50+
<b>MECHANICAL – ELECTRIC – PLUMBING ITEMS</b>	
Heating Water Circulating Pumps	by size
Heating Water Controller	15
Hot and Cold Water Distribution	50
<b>HVAC</b>	
Pad/ roof condenser	20
A/C window unit or through wall	10
Fan coil unit, electric	20
Fan coil unit, hydronic	30
Furnace (electric heat with A/C)	20
Furnace (electric heat with A/C)	20
Furnace (gas heat with A/C)	20
Packaged terminal air conditioner ( PTAC)	15
Packaged HVAC (roof top units)	20
Heat pump condensing component	20
Heater, electric baseboard	25
Heater, wall mounted electric or gas	20
Hydronic heat/ electric A/C	20
Line Dryers	15
Master TV System	10
Motorized Valves	12
Outdoor Temperature Sensor	10
Pneumatic lines and Controls	30
<b>POWER VENTILATOR</b>	
Purchased Steam Supply Station	50+
Sanitary Waste and Vent System	50+
Sewage Ejectors	50
Smoke and Fire Detection System, central panel	15
Solar Hot Water	20
<b>SUMP PUMP</b>	
Commercial Sump Pump	15
Water Softening and Filtration	15
Water Tower	50+

## **PLAN TYPE DEFINITION**

Within the report text a Plan Type is assigned to the various cost categories. The following is a brief description of the Plan Types that may be used in the report.

### **Code Compliance (CC)**

- **Accessibility:** Conditions that are not in conformance with the American Disabilities Act Accessibility Guidelines
- **Building Code:** Conditions that are not in conformance with the Building codes
- **Life Safety:** Conditions that are not in conformance with the NFPA 101 Life Safety Code

### **Operations (OP)**

- **Energy:** Conditions that adversely affect energy use or will decrease water or energy usage
- **Maintenance:** Components or systems that can usually be accomplished by the current maintenance staff
- **Security:** Conditions that compromise the protection of the asset or its occupants

### **Environmental (EN)**

- **Air/ Water Quality:** Conditions that affect air or water quality
- **Asbestos:** Reported or suspected asbestos-containing material(ACM)
- **Lead:** Reported lead based paint
- **PCB:** Reported PCB containing equipment

### **Functionality (FN)**

- **Mission:** Components which do not meet the mission of the organization
- **Modernization:** Conditions that need to be upgraded in appearance or function
- **Plant Adaptation:** Components or systems that must change to fit a new or adapted use
- **Obsolescence:** Components or systems that are or are becoming obsolete
- **Capacity:** Components or system which cannot meet demand load

### **Integrity (IN)**

- **Appearance:** Problems with the material or system appearance that are not functional in nature
- **Reliability:** Components or systems which cannot be depended on to function as designed
- **Beyond Rated Life:** A component or system that has exceeded its rated life



**APPENDIX I: PRE-SURVEY QUESTIONNAIRE**

## Property Condition Assessment: Pre-Survey Questionnaire

This questionnaire should be completed by someone knowledgeable about the subject property. The completed form should be presented to EMG's Field Observer on the day of the site visit. If the form is not completed, EMG's Project Manager will require additional time during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final Property Condition Report.

Name of person completing questionnaire: Doug Evans

Building name: Red Bluff State Building (461)

What is your association with this property? Building Manager

What is the length of your association with this property? 3 years

Phone number: 530-225-2175

Please provide information about inspections relating to the following items

Inspections	Date Last Inspected	List Name & Contact for Maintenance Contractor, if any.
1. Elevators	N/A	
2. HVAC, Mechanical, Electric, Plumbing	Monthly	In house staff
3. Life-Safety/Fire	Monthly	In house staff
4. Roofs	Monthly	In house staff

5. List any major capital improvements within the last three years.

None

6. Are there any other major capital expenditures planned in the near term?

Energy Management System, Boiler replacement, chiller and water tower replacement

7. What is the age of the roof(s)?

Unknown

8. What building systems (HVAC, roof, interior/exterior finishes, paving etc.) are the responsibilities of contractors to repair or replace?

In house staff maintenance. Repairs and replacement would be put out for contractors bids.

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. Note: N/A indicates "Not Applicable", Unk indicates "Unknown"

Question	Y	N	N/A	Unk	Comments
9. Are there any unresolved building, or fire code issues?		<b>x</b>			
10. Are there any "down" or unusable units?		<b>x</b>			
11. Are there any problems with erosion, storm-water drainage or areas of paving that do not drain?	<b>x</b>				Storm water drain needs to be enlarged. roof drainage tends to pond in the parking lot.

Question	Y	N	N/A	Unk	Comments
12. Is the property served by a private water well?		<b>x</b>			
13. Is the property served by a private septic system or other waste treatment systems?		<b>x</b>			
14. Are there any problems with foundations or structures?				<b>x</b>	
15. Is there any water infiltration in basements or crawl spaces?	<b>x</b>				Water from roof drains seeps into concrete tilt up exterior walls, which then empties into a concrete pit in the interior of the building.
16. Are there any wall, or window leaks?	<b>x</b>				See above
17. Are there any roof leaks?	<b>x</b>				Roof sinks leak into the interior space.
18. Is the roofing covered by a warranty or bond?		<b>x</b>			
19. Are there any poorly insulated areas?	<b>x</b>				Ceiling insulation is beginning to fall off in numerous areas within the facility.
20. Is Fire Retardant Treated (FRT) plywood used?				<b>x</b>	
21. Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?		<b>x</b>			
22. Are there any problems with the utilities, such as inadequate capacities?				<b>x</b>	
23. Are there any problems with the landscape irrigation systems?	<b>x</b>				Irrigation is antiquated.
24. Has a termite/wood boring insect inspection been performed within the last year?		<b>x</b>			
25. Do any of the HVAC systems use R-11, 12, or 22 refrigerants?	<b>x</b>				Chiller unit uses R-22
26. Has any part of the property ever contained visible suspect mold growth?		<b>x</b>			
27. Is there a mold Operations and Maintenance Plan?		<b>x</b>			
28. Have there been indoor air quality or mold related complaints from tenants?		<b>x</b>			

Question	Y	N	N/A	Unk	Comments
29. Is polybutylene piping used?				x	
30. Are there any plumbing leaks or water pressure problems?		x			
31. Are there any leaks or pressure problems with natural gas service?		x			
32. Does any part of the electrical system use aluminum wiring?		x			
33. Are there transformers inside the building?		x			
34. Do any Commercial units have less than 200-Amp service?				x	
35. Are there any recalled fire sprinkler heads (Star, GEM, Central, Omega)?				x	
36. Is there any pending litigation concerning the property?		x			
37. Has the State previously completed an ADA or 'Title 24 review?	x				Path of travel. Ramp was put in.
38. Have any ADA or Title 24 improvements been made to the property?	x				Path of travel. Ramp was put in.
39. Does a Barrier Removal Plan exist for the property?		x			
40. Has the Barrier Removal Plan been approved by a credentialed third party?		x			
41. Have there been any ADA or Title 24 related complaints?		x			
42. Have there been any complaints about the elevators or wait times?			x		
43. Are there any problems with exterior lighting?	x				Lighting needs upgraded and modified.
44. Are there any other significant issues/hazards with the property?		x			
45. Are there any unresolved construction defects at the property?				x	



**Prepared by**

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111326.14R-042.305



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