Employment Development Department Headquarters (025)

722/800 Capitol Mall, Sacramento, CA 95814

Facility Condition Assessment

June 2015

Prepared for the State of California Department of General Services

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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 (RESD) 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 Employment Development Department Headquarters (025).

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 Employment Development Department Headquarters (025) 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 Employment Development Department Headquarters (025) on December 1 & 2, 2014. 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	$213,793,273
Immediate Repair Costs (12 months)	$30,127,119
1-5 Year Capital Needs	$1,764,504
6-10 Year Capital Needs	$477,847
Total 10-Year Capital Reserve Needs	$32,369,469

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

Current Year FCI

$$\text{Current FCI} = \frac{\$30,127,119}{\$213,793,273}$$

Ten-Year FCI

$$\text{Ten-Year FCI} = \frac{\$32,369,469}{\$213,793,273}$$

Current Year FCI	Ten-Year FCI
14.09 %= *Poor Condition*	**15.14 %= *Poor Condition***

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

- The windows are original and in need of replacement. Due to the building's historical designation, replacement windows must maintain the original design.
- Interior finish replacements are recommended, including painting, new flooring, and acoustic ceiling tiles.
- The roof membrane is old and there are areas with ponding water. Roof replacement is recommended.
- Escalator replacement is recommended.
- Replacements for heating, ventilation, and air conditioning (HVAC), including air distribution ducting and HVAC controls, are required.
- Installation of a wet-pipe fire sprinkler system for life safety is recommended.

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 single-tenant Employment Development Department Headquarters (025) was constructed in 1955. The building is located at 722 and 800 Capitol Mall, Sacramento. The building is unique in the Sacramento-area portfolio in that it "bridges" Eighth Street. The building is a seven-story structure with an elevator and mechanical rooms on the roof. Due to its age, the building is considered a "historic building" and renovations or alterations are subject to review by the State Historic Preservation Officer.

Floors one through six are dedicated to office functions and a portion of the 7th floor is used for storage. Use of the 7th floor as occupied space requires code upgrades to bring the building into compliance with contemporary high-rise fire, life, and safety codes. The occupied areas of the six floors consist of open office, private office, computer rooms, storage rooms, and support areas. A 196-seat auditorium is located on the ground floor. Cafeteria space on the 4th floor is vacant. The Employment Development Department Headquarters (025) connects to the adjacent EDD Annex (Solar-Subterranean Building) (013) via sky bridges at the 3rd, 4th, 5th, and 6th floors. The single-story Subterranean Park Complex resides at 750 N Street, Sacramento and is connected to the Solar Annex via a walkway beneath N Street.

The gross building area is 479,300 SF with a net usable area of 372,340 SF. The ratio of net usable to gross building area is 77.9 percent. Capacity is 1,551 occupants. There is no on-site parking.

BUILDING DESCRIPTION

The building foundation is steel reinforced concrete slab-on-grade. Upper floors are concrete topped metal decks with steel beams and columns. The primary roofs are flat, with a built-up or single-ply membrane. A steel-framed canopy with corrugated metal roofing is located at the fourth floor cafeteria terrace.

The exterior façade includes painted concrete walls with aluminum-framed windows and storefront doors.

The walls of the office areas are painted drywall. Floor finishes consist of carpet tiles, terazzo flooring, vinyl composite tile, and ceramic tile in the restrooms. Ceilings are exposed concrete with adhered acoustic tiles throughout the interior of the building

There are six traction passenger elevators, and two traction freight elevators. In addition, six escalators provide access to the first four floors and are original to the building.

The building is served by the DGS Central Utility Plant and has no on-site boilers or chillers. Air handling units throughout the building provide conditioned air to interior spaces. Domestic hot water is

supplied by a new steam-to-hot water heat exchanger. Wastewater and vent piping are cast iron and original to the building.

The main and branch wiring electrical components are original to the building. There are two diesel generators.

Life safety systems include smoke detectors, fire alarms, fire extinguishers, and a kitchen fire supression system in the cafeteria.

The building covers nearly the entire site, landscaped with perimeter planters, lawn areas, and shrubs. Landscaped areas are irrigated by an in-ground spray sprinkler system. The parking area is paved with asphalt. Based on a physical count, parking is provided for 15 cars. All of the parking stalls are located in an open lot.

The sidewalks throughout the property are constructed of cast-in-place concrete.

Project Statistics

Item	Description
Project Name	Employment Development Department Headquarters
Building ID	025
Property Type	Administration
Year Built	1955
Number of Stories	7
Occupied	Yes
Land Area (acres)	4.37
Gross Square Feet (GSF)	479,300

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[1] 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.

SCOPE OF ASSESSMENT

The evaluation team conducted a walk-through survey of Employment Development Department Headquarters (025) on December 1 & 2, 2014. 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.

[1] ASTM 2018-08 is the national guideline for preparing a Facility Condition Assessment published by the American Society for the Testing of Materials.

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 Uniformat code. The Uniformat 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 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.

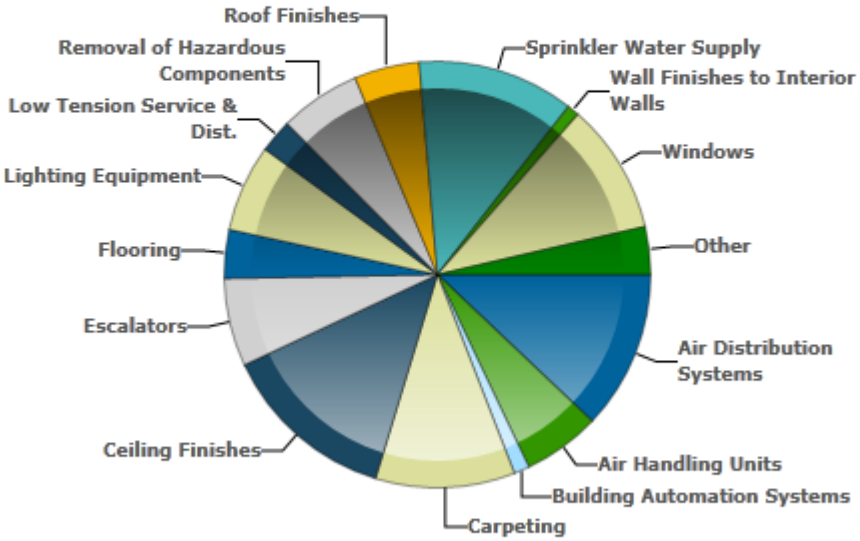
PRIORITY RATIO

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:

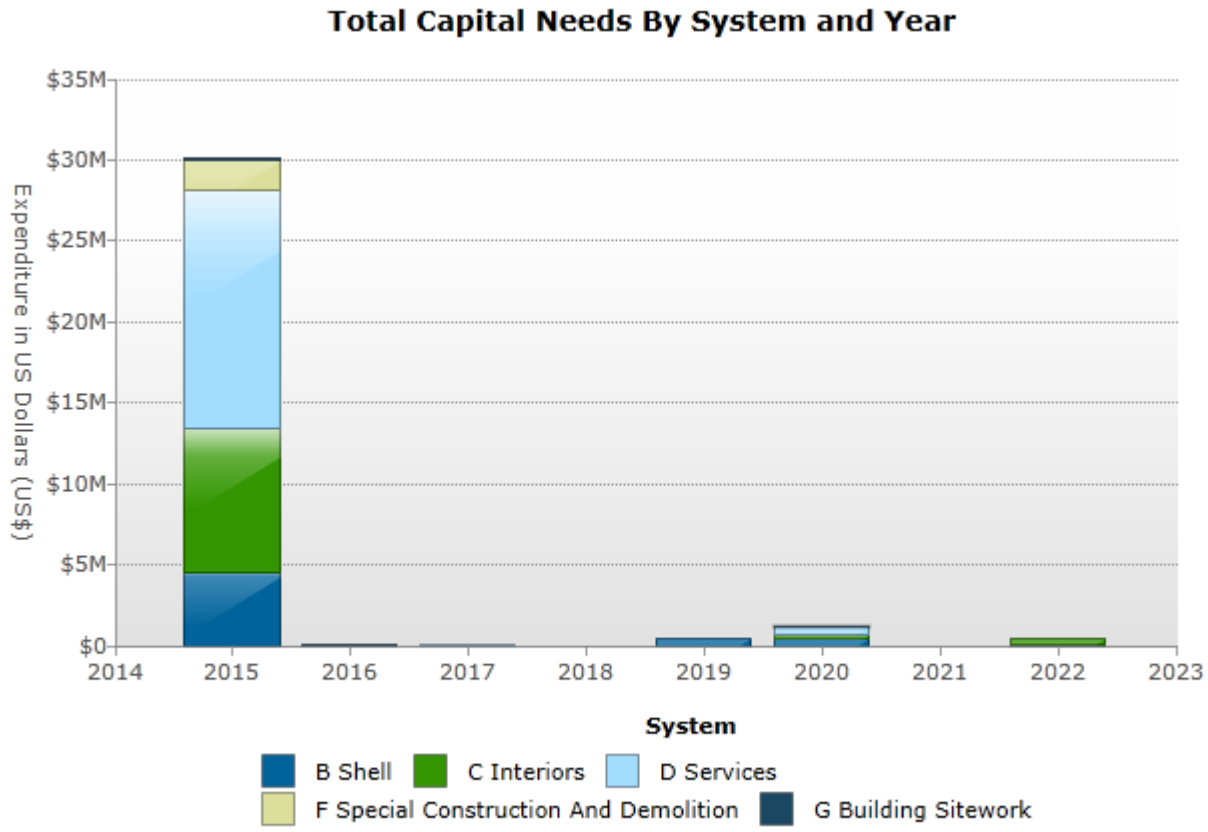
Condition	Definition
Good	In new or well-maintained condition, with no visual evidence of wear, soiling, or other deficiencies.
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable 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
B2021	Windows	$2,984,680
B3011	Roof Finishes	$1,489,171
B3014	Flashings & Trim	$98,580
C1021	Interior Doors	$72,094
C2014	Stair Handrails and Balustrades	$130,032
C3012	Wall Finishes to Interior Walls	$278,720
C3024	Flooring	$1,110,950
C3025	Carpeting	$3,187,985
C3031	Ceiling Finishes	$4,017,600
D1011	Passenger Elevators	$58,786
D1012	Freight Elevators	$40,222
D1021	Escalators	$2,013,396
D2018	Drinking Fountains and Coolers	$74,792
D2023	Domestic Water Supply Equipment	$49,107

Level	Building System	Estimated Cost
D2031	Waste Piping	$175,254
D3041	Air Distribution Systems	$3,635,035
D3041	Air Handling Units	$1,770,241
D3042	Exhaust Ventilation Systems	$145,659
D3068	Building Automation Systems	$353,400
D4011	Sprinkler Water Supply	$3,587,200
D4012	Sprinkler Pumping Equipment	$50,740
D4021	Standpipe Water Supply	$33,040
D5012	Low Tension Service & Dist.	$762,839
D5022	Lighting Equipment	$1,989,290
F2021	Removal of Hazardous Components	$1,855,040
G2022	Paving & Surfacing	$10,340
G2033	Exterior Steps	$118,207
G2035	Exterior Steps & Ramps	$34,720
	Total	**$30,127,119**



	Building System							
Year	A Sub-Structure	B Shell	C Interiors	D Services	E Equip. & Furnishings	F Spec. Const. & Demolition	G Bldg. Site Work	Total
2015	$0	$4,572,431	$8,797,381	$14,739,000	$0	$1,855,040	$163,267	**$30,127,119**
2016	$0	$0	$0	$0	$0	$0	$17,360	**$17,360**
2017	$0	$0	$0	$99,120	$0	$0	$0	**$99,120**
2019	$0	$449,345	$0	$0	$0	$0	$0	**$449,345**
2020	$0	$405,303	$272,800	$516,166	$0	$0	$4,410	**$1,198,679**
2022	$0	$69,095	$408,752	$0	$0	$0	$0	**$477,847**
Total	**$0**	**$5,496,173**	**$9,478,933**	**$15,354,286**	**$0**	**$1,855,040**	**$185,037**	**$32,369,469**

CURRENT REPLACEMENT VALUE

The Current Replacement Value has been determined as $213,793,273 for the Employment Development Department Headquarters Building (025). 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
479,300 GSF	$446	$213,793,273

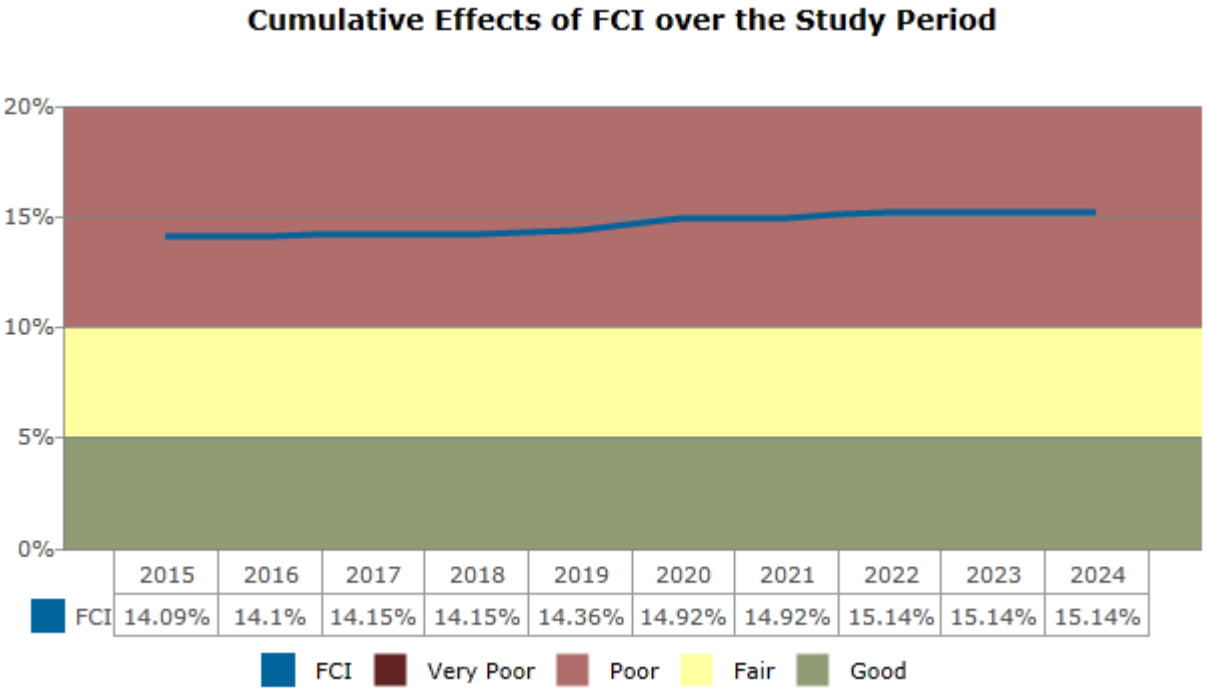
FACILITY CONDITION INDEX

The FCI[1] 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.[2] 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%

[2] 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.



APPENDICES

APPENDIX A: ACCESSIBILITY ISSUES

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountains
Condition	Poor - Fair
Qty / UOM	26 / EA
RUL (years)	0
Location	Throughout interior

Item	Description
G2033 Exterior Steps	G2033 Concrete Steps
Condition	Poor
Qty / UOM	72 / LF
RUL (years)	0
Location	West side of building

Item	Description
G2035 Exterior Steps & Ramps	G2035 Loading dock ramp
Condition	Poor - Fair
Qty / UOM	1 / EA
RUL (years)	0
Location	Loading dock

Recommendations:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2018	Replace D2018 Drinking Fountains	26.0 - EA	2876.6	CC - Accessibility	Priority 1	2015	74,792
G2033	G2033 Replace steps with a ramp	72.0 - LF	1641.8	CC - Accessibility	Priority 1	2015	118,207
G2035	Replace G2035 Loading dock ramp	1.0 - EA	34720.0	CC - Accessibility	Priority 1	2015	34,720
G2035	G2035 Repair ramp and add wheel guard	1.0 - LS	17360.0	CC - Accessibility	Priority 1	2016	17,360

Cost Summary:

Year	Total Expenditures
2015	$227,718
2016	$17,360

APPENDIX B: GENERAL ASSESSMENT INFORMATION

A Substructure Systems

A10 FOUNDATIONS

Item	Description
A1032 Structural Slab on Grade	A1031 Reinforced Concrete Slab on Grade
Condition	Good
Qty / UOM	88300 / SF
RUL (years)	30
Location	Ground floor

OBSERVATIONS/COMMENTS:

The ground floor concrete slab appears stable and no action is required.

B Shell Systems

B10 SUPERSTRUCTURE

Item	Description
B1012 Upper Floors Construction	B1010 Metal Decking with Concrete Topping
Condition	Good
Qty / UOM	417523 / SF
RUL (years)	30
Location	All upper floors

OBSERVATIONS/COMMENTS:

The floors appear level with no noticeable subsiding or cracks. No further action is required.

Item	Description
B1023 Canopies	B1020 Steel Joists Supporting Corrugated Metal Roof
Condition	Good
Qty / UOM	4441 / SF
RUL (years)	25
Location	Off of fourth floor cafeteria

OBSERVATIONS/COMMENTS:

This shade canopy is a classic of its era. Painting is included in the general painting costs.

B20 EXTERIOR ENCLOSURE

Item	Description
B2011 Exterior Wall Construction	B2011 Exterior Wall Construction
Condition	Good
Qty / UOM	107712 / SF
RUL (years)	6
Location	All exterior walls

OBSERVATIONS/COMMENTS:

The exterior walls show some minor cracking. Patching at the time of painting is recommended and included in the paint cost.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2011	B2011 Paint and patch building exterior	100,750.0 - SF	4.5	OP - Maintenance	Priority 3	2019	449,345

Item	Description
B2021 Windows	B2021 Steel framed windows 14' x 4'
Condition	Poor - Fair
Qty / UOM	13720 / SF
RUL (years)	0
Location	Various exterior walls

OBSERVATIONS/COMMENTS:

The single glazed steel framed windows are problematic on several fronts. The windows leak air and beginning to leak water. Some frames are showing corrosion. At each end of the approximately 14' x 4' (56 SF each x 245 units) assembly is an operable casement. Occupants of office spaces often open the windows for fresh air, which creates havoc with the heating, ventilation, and air conditioning (HVAC) system.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2021	Replace B2021 Steel framed windows 14' x 4'	13,720.0 - SF	179.8	IN - Beyond Rated Life	Priority 1	2015	2,466,856

Item	Description
B2021 Windows	B2021 Steel framed 12 x 4 windows
Condition	Poor - Fair
Qty / UOM	2880 / SF
RUL (years)	0
Location	All exterior walls

OBSERVATIONS/COMMENTS:

The single glazed steel framed windows are problematic on several fronts. The windows leak air and are beginning to leak water. Some frames are also beginning to show corrosion. At each end of the approximately 12' x 4' (48 SF each x 60 units) assembly is an operable casement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2021	Replace B2021 Steel framed 12 x 4 windows	2,880.0 - SF	179.8	IN - Beyond Rated Life	Priority 1	2015	517,824

Item	Description
B2031 Glazed Doors & Entrances	B2030 Aluminum Glazed Doors
Condition	Fair - Good
Qty / UOM	15 / EA
RUL (years)	5
Location	Entry doors and doors to the EDD annex

OBSERVATIONS/COMMENTS:

Peroiodic replacement will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2031	Replace B2030 Aluminum Glazed Doors	15.0 - EA	9920.0	IN - Beyond Rated Life	Priority 3	2020	148,800

Item	Description
B2032 Solid Exterior Doors	B2032 Exterior Steel Doors, Single
Condition	Fair
Qty / UOM	15 / EA
RUL (years)	7
Location	Entire building

OBSERVATIONS/COMMENTS:

Based on expected life, exterior steel door replacement will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2032	Replace B2032 Exterior Steel Doors, Single	15.0 - EA	1568.4	IN - Beyond Rated Life	Priority 4	2022	23,525

Item	Description
B2032 Solid Exterior Doors	B2032 6'-0" X 7'-0" Steel Double Door with Frame and Hardware
Condition	Fair
Qty / UOM	7 / EA
RUL (years)	7
Location	First floor perimeter

OBSERVATIONS/COMMENTS:

Based on estimated remaining life, replacement will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2032	Replace B2032 6'-0" X 7'-0" Steel Double Door with Frame and Hardware	7.0 - EA	6509.9	IN - Beyond Rated Life	Priority 4	2022	45,569

Item	Description
B2039 Other Doors & Entrances	B2030 12' X 12' Steel Roll-Up Door
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Loading Dock

OBSERVATIONS/COMMENTS:

The roll-up door is functioning adequately.

COST SUMMARY:

Type	Year	Total Expenditures
B20 Exterior Enclosure	2015	$2,984,680
B20 Exterior Enclosure	2019	$449,345
B20 Exterior Enclosure	2020	$148,800
B20 Exterior Enclosure	2022	$69,095

B30 ROOFING

Item	Description
B3011 Roof Finishes	B3011 TPO, Roof 45 Mills, Full Adhered
Condition	Fair
Qty / UOM	142 / SQ
RUL (years)	5
Location	Third floor

OBSERVATIONS/COMMENTS:

Based on condition and estimated RUL, single-ply TPO roof replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B3011	Replace B3011 TPO, Roof 45 Mills, Full Adhered	142.0 - SQ	1806.4	IN - Beyond Rated Life	Priority 3	2020	256,503

Item	Description
B3011 Roof Finishes	B3010 Built-Up Roofing
Condition	Poor - Fair
Qty / UOM	800 / SQ
RUL (years)	0
Location	Roof at 6th , 7th and 4th floors

OBSERVATIONS/COMMENTS:

The built-up roofs have reached the end of their RUL. Several leaks have occurred in the past year. The roofs are not properly sloped to the drains and ponding is a persistent problem.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B3011	Replace B3010 Built-Up Roofing	800.0 - SQ	1861.5	IN - Beyond Rated Life	Priority 1	2015	1,489,171

Item	Description
B3014 Flashings & Trim	B3010 Coping at Parapets
Condition	Poor
Qty / UOM	1500 / LF
RUL (years)	0
Location	Built-up roof perimeter

OBSERVATIONS/COMMENTS:

The parapets do not appear to have coping. Several layers of paint or epoxy seem to be the only barracade against water intrusion. Installing sheet metal coping is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B3014	G3014 Install Sheet Metal Coping	1,500.0 - LF	65.7	IN - Beyond Rated Life	Priority 1	2015	98,580

COST SUMMARY:

Type	Year	Total Expenditures
B30 Roofing	2015	$1,587,751
B30 Roofing	2020	$256,503

C Interiors Systems

C10 Interior Construction

Item	Description
C1021 Interior Doors	C1021 Interior Fire Rated Doors
Condition	Fair
Qty / UOM	30 / EA
RUL (years)	0
Location	Corridors

OBSERVATIONS/COMMENTS:

Provide 20-minute fire rated doors from corridors to vestibules and offices.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C1021	Replace C1021 Interior Fire Rated Doors	30.0 - EA	2403.1	CC - Life Safety	Priority 1	2015	72,094

Item	Description
C1021 Interior Doors	C1021 Interior Doors
Condition	Fair
Qty / UOM	120 / EA
RUL (years)	10
Location	Doors on to corridors

OBSERVATIONS/COMMENTS:

No further action required.

Item	Description
C1031 Fabricated Toilet Partitions	C1031 Fabricated Toilet Partitions
Condition	Poor - Fair
Qty / UOM	125 / EA
RUL (years)	5
Location	Restrooms

OBSERVATIONS/COMMENTS:

The toilet compartment are functioning adequately, but showing signs of eventual failure due to normal deterioration.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C1031	Replace C1031 Fabricated Toilet Partitions	125.0 - EA	2182.4	IN - Beyond Rated Life	Priority 4	2020	272,800

COST SUMMARY:

Type	Year	Total Expenditures
C10 Interior Construction	2015	$72,094
C10 Interior Construction	2020	$272,800

C20 STAIRS

Item	Description
C2014 Stair Handrails and Balustrades	C2014 Steel Stair Guardrails
Condition	Poor
Qty / UOM	76 / Flights
RUL (years)	0
Location	Seven stairwells

OBSERVATIONS/COMMENTS:

There are seven sets of interior steel stairs. The prior infrastructure study noted that the stair guardrails do not meet the current code for the minimum space between the rails and will require replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C2014	C2014 Prep and paint steel stairway parts	33,600.0 - SF	3.9	IN - Appearance	Priority 2	2015	130,032
C2014	C2014 Prep and paint steel stairway parts	33,600.0 - SF	3.9	IN - Appearance	Priority 2	2022	130,032

COST SUMMARY:

Type	Year	Total Expenditures
C20 Stairs	2015	$130,032
C20 Stairs	2022	$130,032

C30 INTERIOR FINISHES

Item	Description
C3012 Wall Finishes to Interior Walls	C3012 Drywall - Painted Walls
Condition	Good
Qty / UOM	134000 / SF
RUL (years)	35
Location	Throughout building

OBSERVATIONS/COMMENTS:

Peroiodic painting will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3012	C3012 Paint interior walls	134,000.0 - SF	2.1	IN - Appearance	Priority 3	2015	278,720
C3012	C3012 Paint interior walls	134,000.0 - SF	2.1	IN - Appearance	Priority 3	2022	278,720

Item	Description
C3024 Flooring	C3020 2X2 Ceramic Floor Tile
Condition	Good
Qty / UOM	20 / CSF
RUL (years)	15
Location	Restrooms

OBSERVATIONS/COMMENTS:

Newer ceramic tile floor finishes do not require further action.

Item	Description
C3024 Flooring	C3020 2X2 Ceramic Floor Tile
Condition	Poor - Fair
Qty / UOM	72 / CSF
RUL (years)	0
Location	Restrooms

OBSERVATIONS/COMMENTS:

The ceramic tile floors appear to be original. Some cracking, grout deterioration, and water stains are noted.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3024	Replace C3020 2X2 Ceramic Floor Tile	72.0 - CSF	3387.7	IN - Appearance	Priority 2	2015	243,913

Item	Description
C3024 Flooring	C3020 Vinyl Tile
Condition	Fair
Qty / UOM	5316 / SY
RUL (years)	0
Location	All corriors and cafeteria

OBSERVATIONS/COMMENTS:

The central corridor flooring is vinyl tile. Based on its age and condition, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3024	Replace C3020 Vinyl Tile	5,316.0 - SY	163.1	IN - Appearance	Priority 2	2015	867,037

Item	Description
C3024 Flooring	C3020 Terrazzo Flooring
Condition	Good
Qty / UOM	6000 / SF
RUL (years)	20
Location	Main entries

OBSERVATIONS/COMMENTS:

No further action required.

Item	Description
C3025 Carpeting	C3020 Carpet Tiles - Standard
Condition	Poor - Fair
Qty / UOM	33000 / SY
RUL (years)	0
Location	complete building

OBSERVATIONS/COMMENTS:

The carpet tiles are generally worn and stained.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3025	Replace C3020 Carpet Tiles - Standard	33,000.0 - SY	96.6	IN - Appearance	Priority 2	2015	3,187,985

Item	Description
C3031 Ceiling Finishes	C3030 Ceiling tiles, 12" glued
Condition	Poor - Fair
Qty / UOM	4000 / CSF
RUL (years)	0
Location	Throughout building

OBSERVATIONS/COMMENTS:

Ceiling tiles are dated, loose, mismatched, physically damaged, or missing in numerous locations.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3031	Replace C3030 Ceiling tiles, 12" glued	4,000.0 - CSF	1004.4	IN - Appearance	Priority 2	2015	4,017,600

COST SUMMARY:

Type	Year	Total Expenditures
C30 Interior Finishes	2015	$8,595,255
C30 Interior Finishes	2022	$278,720

D Services Systems

D10 CONVEYING SYSTEMS

Item	Description
D1011 Passenger Elevators	D1011 Traction Passenger Elevator
Condition	Good
Qty / UOM	6 / EACH
RUL (years)	30
Location	Throughout Facility
Elevator Style	Passenger
Elevator Type	Traction
Machinery Location	Penthouse At The Top Of The Shaft
Elevator Cab Finishes	Vinyl-Tile
Elevator Doors	Electronic Safety Stops
Elevator Light Fixtures	Recessed Ceiling
Certificate of Inspection Location	Management Office
Certificate of Inspection Expired	No

OBSERVATIONS/COMMENTS:

There are two banks of three passenger elevators serving each end of the building. The elevators were modernized in the past five years according to the elevator consulting report in the appendix. The report further discusses the repairs that are recommended for all six cars.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D1011	D1011 Install car top handrails on cars 1, 3-6	5.0 - EACH	4550.0	CC - Life Safety	Priority 1	2015	22,750
D1011	D1011 Install car numbers at the main lobby	6.0 - EACH	182.0	CC - Building Code	Priority 1	2015	1,092
D1011	D1011 Install correct rope retainers	6.0 - EACH	3640.0	CC - Building Code	Priority 1	2015	21,840
D1011	D1011 Adjust cars for proper performance and address deferred maintenance items	6.0 - EACH	2184.0	CC - Building Code	Priority 1	2015	13,104

Item	Description
D1012 Freight Elevators	D1012 Traction Freight Elevator
Condition	Good
Qty / UOM	2 / EACH
RUL (years)	30
Location	Cars 7 and 8
Elevator Style	Freight
Elevator Type	Traction
Machinery Location	Penthouse At The Top Of The Shaft
Elevator Cab Finishes	Vinyl-Tile
Elevator Doors	Electronic Safety Stops
Elevator Light Fixtures	Recessed Ceiling
Certificate of Inspection Location	Management Office
Certificate of Inspection Expired	No

OBSERVATIONS/COMMENTS:

There are two freight elevators serving each end of the building. The elevators were modernized in the past five years according to the elevator consulting report in the appendix.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D1012	D1012 Adjust cars for proper performance and address deferred maintenance items	2.0 - EACH	2184.0	OP - Maintenance	Priority 2	2015	4,368
D1012	D1012 Perform five year full load tests on cars 7 and 8	2.0 - EACH	6370.0	CC - Building Code	Priority 1	2015	12,740
D1012	D1012 Install door restrictor on car 7	1.0 - EACH	6370.0	CC - Life Safety	Priority 1	2015	6,370
D1012	D1012 Install car numbers at the main lobby	2.0 - EACH	182.0	CC - Building Code	Priority 1	2015	364
D1012	D1012 Install car top handrails	2.0 - EACH	4550.0	CC - Life Safety	Priority 1	2015	9,100

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D1012	D1012 Install correct rope retainers	2.0 - EACH	3640.0	CC - Building Code	Priority 1	2015	7,280

Item	Description
D1021 Escalators	D1021 Escalators
Condition	Poor
Qty / UOM	6 / EACH
RUL (years)	0
Location	Floors 1-4
Certificate of Inspection Location	Management Office

OBSERVATIONS/COMMENTS:

The Architectural Elevator Consulting, LLC report outlines the deficiencies of the building escalators. The escalators serve the bottom four floors and are original to the building. The report recommends a full replacement of the escalator system due to age, code compliance, and safety concerns.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D1021	Replace D1021 Escalators	6.0 - EACH	330880.0	FN - Modernization	Priority 1	2015	1,985,280
D1021	D1021 Install yellow comb plates on all escalators	6.0 - EACH	2556.0	CC - Building Code	Priority 1	2015	15,336
D1021	D1021 Install new stop switches on escalators that are readily visible	6.0 - EACH	2130.0	CC - Life Safety	Priority 1	2015	12,780

COST SUMMARY:

Type	Year	Total Expenditures
D10 Conveying Systems	2015	$2,112,404

D20 PLUMBING

Item	Description
D2011 Water Closets	D2011 Commercial Grade Water Closet, 1.6 GPF Unit
Condition	Fair
Qty / UOM	145 / EA
RUL (years)	10
Location	Throughout Facility
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

The toilets are functional and have been fitted with automatic flush valves. No further action is required.

Item	Description
D2012 Urinals	D2012 Urinal
Condition	Fair
Qty / UOM	38 / EA
RUL (years)	15
Location	Throughout Facility
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

Manual flush valves (both hand and foot operated) were observed on most plumbing fixtures. Automatic flush valves are recommended to improve hygiene and possibly to save water.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2012	Install automatic flush valves on urinals	25.0 - EA	944.0	OP - Energy	Priority 2	2017	23,600

Item	Description
D2013 Lavatories	D2013 Counter Top Sink and Faucet
Condition	Poor
Qty / UOM	90 / EA
RUL (years)	5
Location	Restrooms

OBSERVATIONS/COMMENTS:

Primarily manual faucets were observed in the restrooms. Automatic faucets are recommended for all sinks to improve hygiene, to improve accessibility, and to save water.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2013	D2013 Install automatic faucets with motion sensors	80.0 - EA	944.0	OP - Energy	Priority 2	2017	75,520
D2013	Replace D2013 Counter Top Sink and Faucet	90.0 - EA	1667.8	FN - Modernization	Priority 3	2020	150,105

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountains
Condition	Poor - Fair
Qty / UOM	26 / EA
RUL (years)	0
Location	Throughout interior

OBSERVATIONS/COMMENTS:

Many drinking fountains are split-level ADA compliant; however, numerous wall-mounted box water coolers remain that are not compliant. These units should be replaced with accessible units.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2018	Replace D2018 Drinking Fountains	26.0 - EA	2876.6	CC - Accessibility	Priority 1	2015	74,792

Item	Description
D2023 Domestic Water Supply Equipment	D2023 Domestic Water Booster Pump Station
Condition	Poor
Qty / UOM	2 / EA
RUL (years)	0
Location	Domestic Water Storage and Pump Room

OBSERVATIONS/COMMENTS:

The boiler room has a domestic water booster pump station largely original to the 1955 construction. The station consists of two 15 HP pumps. The booster pumps have exceeded their expected useful life, require frequent maintenance, and are recommended for replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2023	Replace D2023 Domestic Water Booster Pump Station	2.0 - EA	24553.4	IN - Beyond Rated Life	Priority 1	2015	49,107

Item	Description
D2031 Waste Piping	D2031 Cast Iron Pipe 6”
Condition	Poor
Qty / UOM	1000 / LF
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Horizontal cast iron waste piping is original to the building and is failing beneath the first floor. Replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2031	Replace D2031 Cast Iron Pipe 6”	1,000.0 - LF	175.3	FN - Modernization	Priority 1	2015	175,254

COST SUMMARY:

Type	Year	Total Expenditures
D20 Plumbing	2015	$299,152
D20 Plumbing	2017	$99,120
D20 Plumbing	2020	$150,105

D30 HVAC

Energy Supply	
Item	**Description**
Fuel Oil Type	N/A
Fuel Gas Type	N/A
Solid Fuel Type	N/A
District Heat Type	District Steam
District Cooling Type	District Chilled Water
Solar Thermal	No
Fuel Tank Type	N/A
Fuel Tank Size (gallons)	N/A
Fuel Tank Location	N/A
Gas Meter Location	N/A
Electrical Meter Location	Electrical Room
Water Meter Location	Street Vault

Item	Description
D3022.1 Circulating Pumps	D3022 HVAC Chilled Water Circulation Pumps 60 HP
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	Boiler Room

OBSERVATIONS/COMMENTS:

Two 60-HP chilled water distribution pumps and associated motors appear to be operating properly.

Item	Description
D3023 Auxiliary Equipment	D3023 Condensate Return System
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	5
Location	Boiler Room

OBSERVATIONS/COMMENTS:

The condensate return station is reportedly functioning adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3023	Replace D3023 Condensate Return System	4.0 - EA	16497.3	IN - Beyond Rated Life	Priority 3	2020	65,989

Item	Description
D3023 Auxiliary Equipment	D3020 Heat Exchanger, Steam to Water Heater
Condition	Good
Qty / UOM	1 / EA
RUL (years)	25
Location	Boiler Room

OBSERVATIONS/COMMENTS:

Building engineers are currently installing a new Spirax Sarco model RH-60 steam-to-water heat exchanger to supply domestic hot water to the entire building.

Item	Description
D3032 Direct Expansion Systems	D3032 Air Cooled Refrigeration Condenser
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Rooftop, 3rd level

OBSERVATIONS/COMMENTS:

Two sets of three-fan condensers provide cooling to the air handling equipment supporting the uninterruptible power sources (UPS) room on the first floor. The units are performing adequately and no further action is required.

Item	Description
D3041 Air Distribution Systems	D3040 Central AHU - Constant Volume
Condition	Poor
Qty / UOM	479000 / CSM
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Heating, ventilation and air conditioning (HVAC) balancing and conditioning is a major source of tenant dissatisfaction and maintenance expense. It is recommended that the full air distribution ducting be reconfigured and balanced at the time of replacement of air handling units(AHUs).

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3040 Central AHU - Constant Volume	479,000.0 - CSM	7.6	FN - Modernization	Priority 1	2015	3,635,035

Item	Description
D3041.1 Air Handling Units	D3041 Interior AHU 13,000-32,000 CFM
Condition	Poor
Qty / UOM	20 / EA
RUL (years)	0
Location	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by 20 interior AHUs. The AHU's are provided with steam and chilled water from the central system, and range from 13,400 CFM to 32,300 CFM nominal capacity. These systems are original to the 1955 building and have been updated incrementally over the years as major components such as motors, coils, and blower shafts fail. Poor air distribution and conditioning is both a major tenant complaint and frequent maintenance expense. Replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 Interior AHU 13,000-32,000 CFM	20.0 - EA	48120.6	FN - Modernization	Priority 1	2015	962,413

Item	Description
D3041.1 Air Handling Units	D3041 Central Station Ahu 33500 CFM
Condition	Poor
Qty / UOM	6 / EA
RUL (years)	0
Location	Rooftop

OBSERVATIONS/COMMENTS:

Rooftop exhaust AHUs are original to the building and require frequent maintenance. The AHUs are recommended for replacement at the time of major air distribution overhaul and balancing.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 Central Station Ahu 33500 CFM	6.0 - EA	134638.0	IN - Beyond Rated Life	Priority 1	2015	807,828

Item	Description
D3041.1 Air Handling Units	D3040 Air Handler 15,100-18,000 CFM
Condition	Good
Qty / UOM	4 / EA
RUL (years)	10
Location	First Floor Data Center

OBSERVATIONS/COMMENTS:

The air handlers are functioning adequately.

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Kitchen Exhaust Hood
Condition	Poor - Fair
Qty / UOM	1 / EA
RUL (years)	0
Location	4th Floor Cafeteria

OBSERVATIONS/COMMENTS:

The Cafeteria is not currently in use. Previous reports indicate that a new commercial range hood complying with the California Mechanical Code is required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3042	Replace D3042 Kitchen Exhaust Hood	1.0 - EA	111600.0	FN - Modernization	Priority 1	2015	111,600

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 4,500 CFM
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	0
Location	Rooftop

OBSERVATIONS/COMMENTS:

Most of the restroom rooftop exhaust fans are beyond their expected useful life and require replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3042	Replace D3042 Exhaust Fan 4,500 CFM	3.0 - EA	11352.8	IN - Beyond Rated Life	Priority 1	2015	34,059

Item	Description
D3063 Heating/Cooling Air Handling Units	D3063 Variable Frequency Drive, 20 HP Motor
Condition	Fair
Qty / UOM	24 / EA
RUL (years)	15
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Variable frequency drives (VFDs) for AHU fan motors and chiller pumps are operating effectively.

Item	Description
D3068 Building Automation Systems	D3068 DDC Controls
Condition	Poor
Qty / UOM	125000 / SF
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Conversion to direct digital control (DDC) has occurred within the past few years but the (VFDs and motor controls require servicing.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3068	Replace D3068 DDC Controls	125,000.0 - SF	2.8	IN - Beyond Rated Life	Priority 1	2015	353,400

COST SUMMARY:

Type	Year	Total Expenditures
D30 HVAC	2015	$5,904,334
D30 HVAC	2020	$65,989

D40 Fire Protection Systems

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

Item	Description
D4011 Sprinkler Water Supply	D4011 Wet-Pipe Sprinkler System
Condition	Poor
Qty / UOM	400000 / SF
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

With the exception of mechanical spaces, the entire facility lacks a fire suppression overhead sprinkler system. The installation of a facility-wide fire suppression retrofit is recommended as a life-safety improvement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4011	Install facility-wide sprinkler system	400,000.0 - SF	9.0	CC - Life Safety	Priority 1	2015	3,587,200

Item	Description
D4012 Sprinkler Pumping Equipment	D4012 Sprinkler Pumping Equipment
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	0
Location	Mechanical Room

OBSERVATIONS/COMMENTS:

The addition of a backup fire pump is required in conjunction with recommended new fire sprinklers system installation.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4012	Replace D4012 Sprinkler Pumping Equipment	1.0 - EA	50740.0	CC - Life Safety	Priority 1	2015	50,740

Item	Description
D4021 Standpipe Water Supply	D4021 Standpipe Installation
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	0
Location	Stairwells

OBSERVATIONS/COMMENTS:

Connection of five existing standpipes and installation of three new standpipes is required in conjunction with new fire sprinkler system installation.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4021	Replace D4021 Standpipe Installation	8.0 - EA	4130.0	CC - Life Safety	Priority 1	2015	33,040

COST SUMMARY:

Type	Year	Total Expenditures
D40 Fire Protection Systems	2015	$3,670,980

D50 ELECTRICAL SYSTEMS

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 225 Amps, 30 Circuits
Condition	Poor
Qty / UOM	97 / EA
RUL (years)	0
Location	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

The majority of the electrical panels are original to the building and have far exceeded their expected serviceable life. Due to reports of overloads and frequent maintenance, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	97.0 - EA	7864.3	IN - Beyond Rated Life	Priority 1	2015	762,839

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear, Mainframe, Amps
Condition	Fair
Qty / UOM	16 / EA
RUL (years)	5
Location	Main Electrical Room

OBSERVATIONS/COMMENTS:

The main switchgear is original Westinghouse equipment. The main electrical service is reportedly adequate for thebuilding's needs.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5010 Switchgear, Mainframe, Amps	16.0 - EA	18754.5	IN - Beyond Rated Life	Priority 3	2020	300,071

Item	Description
D5012 Low Tension Service & Dist.	D5012 Secondary Dry Transformer 75 kVA
Condition	Fair
Qty / UOM	20 / EA
RUL (years)	10
Location	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

The majority of the step-down transformers are original equipment and functioning adequately.

Item	Description
D5022 Lighting Equipment	D5022 Lighting and Branch Wiring
Condition	Fair
Qty / UOM	4742 / EA
RUL (years)	0
Location	Areas requiring new ceiling tiles

OBSERVATIONS/COMMENTS:

The existing light fixtures are surface mounted on the 12x12 ceiling tiles that are to be removed. Replacement of the existing fixtures is not practical and it is recommended that new fixtures be installed when the fire suppression system is installed.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5022	Replace D5022 Lighting and Branch Wiring	4,742.0 - EA	401.2	FN - Modernization	Priority 1	2015	1,902,490

Item	Description
D5022 Lighting Equipment	D5022 Exterior Wall Mt Light, 100 Watt
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Exterior lighting is generally inadequate due to frequent failure based on age. Light fixtures and lamps are recommended for prompt replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5022	Replace D5022 Exterior Wall Mt Light, 100 Watt	1.0 - EA	86800.0	CC - Building Code	Priority 1	2015	86,800

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm Panel
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Lobby

OBSERVATIONS/COMMENTS:

The fire alarm panel was recently replaced and some minor upgrades were made to the alarm system.

Item	Description
D5092 Emergency Light & Power Systems	D5092 Emergency Generator 250 kW
Condition	Good
Qty / UOM	2 / EA
RUL (years)	20
Location	Exterior Generator Yard

OBSERVATIONS/COMMENTS:

The emergency generators are located in a fenced yard adjacent to the parking lot. The generators are relatively new. No further action is required.

Item	Description
D5092 Emergency Light & Power Systems	D5090 UPS System Batteries
Condition	Good
Qty / UOM	20 / EA
RUL (years)	10
Location	UPS Room

OBSERVATIONS/COMMENTS:

The UPS battery system appears to be in good working order.

Item	Description
D5092 Emergency Light & Power Systems	D5092 Emergency Transfer Switch
Condition	Good
Qty / UOM	1 / EA
RUL (years)	20
Location	Main Electrical Room

OBSERVATIONS/COMMENTS:

The transfer switch for the emergency generator is reported to be functioning adequately. The transfer switch is original equipment and a conjunctive replacement is recommended when the generator is replaced.

COST SUMMARY:

Type	Year	Total Expenditures
D50 Electrical Systems	2015	$2,752,130
D50 Electrical Systems	2020	$300,071

F Special Construction And Demolition Systems

F20 Selective Demolition

Item	Description
F2021 Removal of Hazardous Components	F2021 Removal of Hazardous Components
Condition	Fair
Qty / UOM	400000 / SF
RUL (years)	0
Location	Throughout building

OBSERVATIONS/COMMENTS:

Replacement of the ceiling tiles and the older vinyl tile flooring will require asbestos abatement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
F2021	Replace F2021 Removal of Hazardous Components	400,000.0 - SF	4.6	EN - Asbestos	Priority 2	2015	1,855,040

COST SUMMARY:

Type	Year	Total Expenditures
F20 Selective Demolition	2015	$1,855,040

G Building Sitework Systems

G20 Site Improvements

Site Information	
Item	**Description**
Main Ingress and Egress	Capitol Mall
Access from	N
Additional Entrances	N/A
Access from	S
Parking Count: Open lot	15
Parking Count: Sheltered by carports	0
Parking Count: Private garages	0
Parking Count: Subterranean garage	0
Parking Count: Freestanding parking structure	0
Number of ADA Compliant Spaces	3
Number of ADA Compliant Spaces for Vans	1
Method of obtaining parking count	Physical count
Property Identification Sign-Primary	Structure mounted
Property Identification Sign- Secondary	N/A
Illuminated Identification Signage	Yes
Building Identification Sign	Yes
Illuminated Sign	Yes
Location of Property ID Sign	Front elevation of building
Trees Present	Yes
Shrubs Present	Yes
Grasses Present	Yes
Flower beds Present	N/A
Decorative Rocks Present	No
Lava Rocks Present	No
Ponds Present	No
Fountains Present	No
Topography	Flat

Item	Description
G2022 Paving & Surfacing	G2022 Asphalt Pavement
Condition	Fair
Qty / UOM	5250 / SF
RUL (years)	10
Location	South of bldg 800, adjacent to 8th Street

OBSERVATIONS/COMMENTS:

The asphalt paved parking lot requires repair and periodic seal coating due to normal deterioration. Some vegetation removal will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
G2022	G2022 Replace asphalt pavement at damaged areas	1,000.0 - SF	5.9	OP - Maintenance	Priority 3	2015	5,930
G2022	G2022 Seal and stripe asphalt	5,250.0 - SF	0.8	OP - Maintenance	Priority 3	2015	4,410
G2022	G2022 Seal and stripe asphalt	5,250.0 - SF	0.8	OP - Maintenance	Priority 3	2020	4,410

Item	Description
G2033 Exterior Steps	G2033 Concrete Steps
Condition	Poor
Qty / UOM	72 / LF
RUL (years)	0
Location	West side of building

OBSERVATIONS/COMMENTS:

The emergency exits at these two locations lead to an exit with three or four risers. It is recommended to make the exits accessible by replacing the steps with a ramps.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
G2033	G2033 Replace steps with a ramp	72.0 - LF	1641.8	CC - Accessibility	Priority 1	2015	118,207

Item	Description
G2035 Exterior Steps & Ramps	G2035 Loading dock ramp
Condition	Poor - Fair
Qty / UOM	1 / EA
RUL (years)	0
Location	Loading dock

OBSERVATIONS/COMMENTS:

The building exit at the loading dock continues down a ramp to the parking lot. Since this is an exit, it should be verified if the slope conforms to the maximum allowed of 1:12. If not, it should be replaced.

If the slope does comply, several repairs are required. A wheel guard is needed and part of the ramp has broken away at a railing post. An estimated cost for repair is included.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
G2035	Replace G2035 Loading dock ramp	1.0 - EA	34720.0	CC - Accessibility	Priority 1	2015	34,720
G2035	G2035 Repair ramp and add wheel guard	1.0 - LS	17360.0	CC - Accessibility	Priority 1	2016	17,360

COST SUMMARY:

Type	Year	Total Expenditures
G20 Site Improvements	2015	$163,267
G20 Site Improvements	2016	$17,360
G20 Site Improvements	2020	$4,410

The weather at the time of the assessment was:

Item	Description
Approximate Outdoor Temperature (degrees F)	62
Weather Conditions	Rainy
Snow Covering Ground	No
Wind Conditions	Little to no wind

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

Item	Description
Site Plan Reviewed	No
Floor Plan Reviewed	Yes
Construction Drawings Reviewed	Yes
Termite Inspection Report Reviewed	No
Boiler Certificates Reviewed	
Document Year Built Information Obtained From	Building History, provided by POC

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: Kay van der Have, Field Observer

Reviewed By: 

Matt Anderson, Program Manager

APPENDIX D: PHOTOS

:- Front elevation

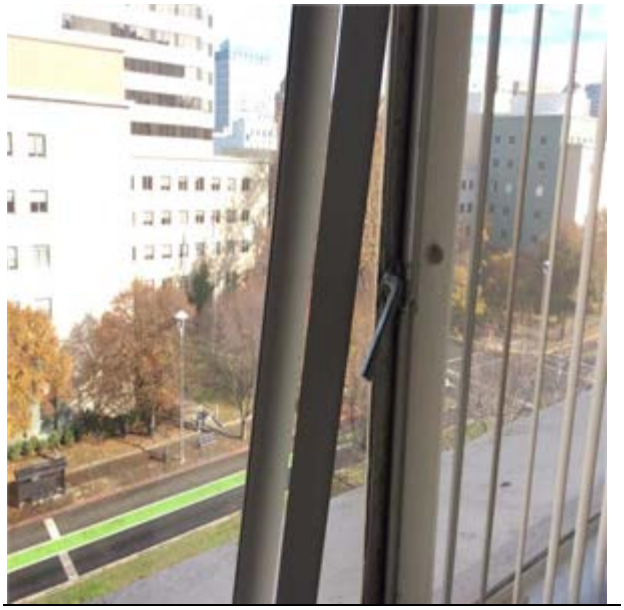
:- Front entrance

:- Partial rear elevation

:- Partial west side elevation

B1020 Steel Joists Supporting Corrugated Metal Roof :- Shade canopy

B2021 Steel framed windows 14' x 4'



B2021 Steel framed windows 14' x 4' :- Latching mechanism

B2021 Steel framed 12 x 4 windows:- Exterior facade

B2030 Aluminum Glazed Doors :- Full vision storefronts

B2030 Aluminum Glazed Doors:- Emergency exit without a ramp

B2032 Exterior Steel Doors, Single

B3010 Built-Up Roofing:- Standing water after mild rainstorm

B3010 Built-Up Roofing :- Ineffectiveness of slope to the drain

B3010 Built-Up Roofing:- Roof over 4th floor cafeteria

B3011 TPO, Roof 45 Mills, Full Adhered :- Third floor roof adjacent to cafeteria

B3010 Coping at Parapets:- Paint or epoxy peeling and leaving parapet cap exposed

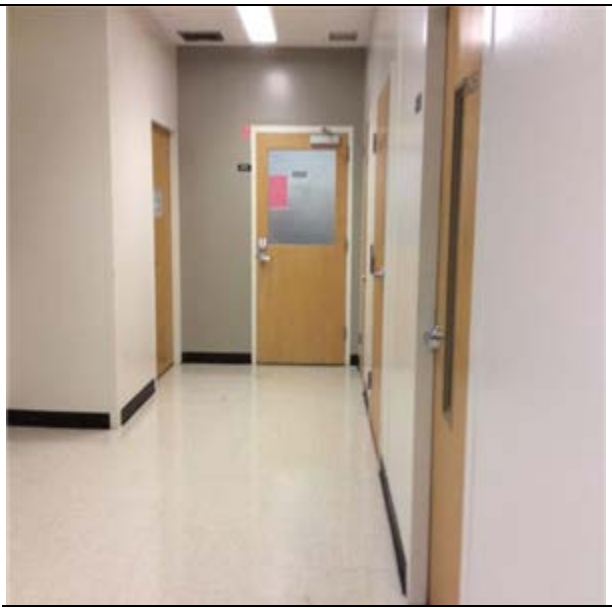
C1021 Interior Doors :- Corridor doors

C1031 Fabricated Toilet Partitions

C2014 Steel Stair Guardrails

C3020 Terrazzo Flooring:- Entrance lobby

C3020 Vinyl Tile :- Worn tile at a seismic joint



C3020 Vinyl Tile:- Corridor finishes

C3020 Vinyl Tile :- Cafeteria

C3020 Vinyl Tile:- Cafeteria

C3020 2X2 Ceramic Floor Tile

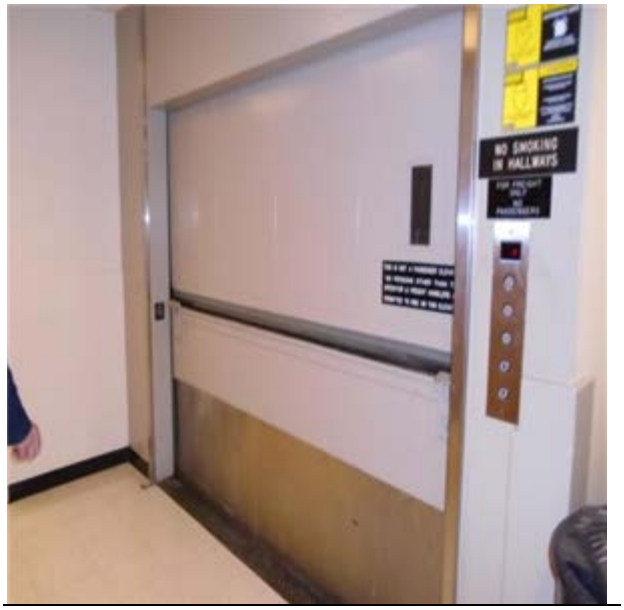
C3020 2X2 Ceramic Floor Tile:- Cove base damaged and tile wear

C3020 Carpet Tiles - Standard :- Held together by tape

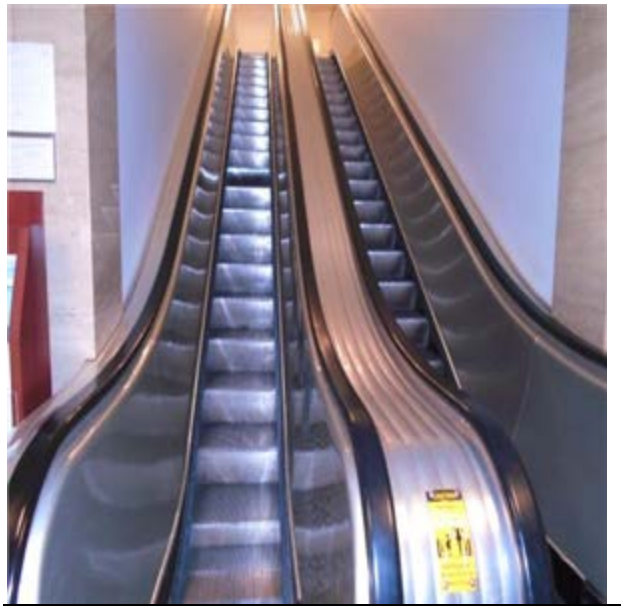
C3030 Ceiling tiles, 12" glued :- Loosening tiles in an office

C3030 Ceiling tiles, 12" glued :- Missing and loose tiles

D1011 Traction Passenger Elevator



D1012 Traction Freight Elevator



D1021 Escalators

D2011 Commercial Grade Water Closet, 1.6 GPF Unit

D2012 Urinal

D2013 Counter Top Sink and Faucet

D2018 Drinking Fountains

D2023 Domestic Water Booster Pump Station

D3022 HVAC Chilled Water Circulation Pumps 60 HP

D3020 Heat Exchanger, Steam to Water Heater

D3032 Air Cooled Refrigeration Condenser

D3040 Central AHU - Constant Volume

D3040 Air Handler 15,100-18,000 CFM

D3041 Interior AHU 13,000-32,000 CFM

D3041 Central Station Ahu 33500 CFM

D3042 Exhaust Fan 4,500 CFM

D3063 Variable Frequency Drive, 20 HP Motor

D4011 Wet-Pipe Sprinkler System

D5010 Switchgear, Mainframe, Amps

D5012 Secondary Dry Transformer 75 kVA

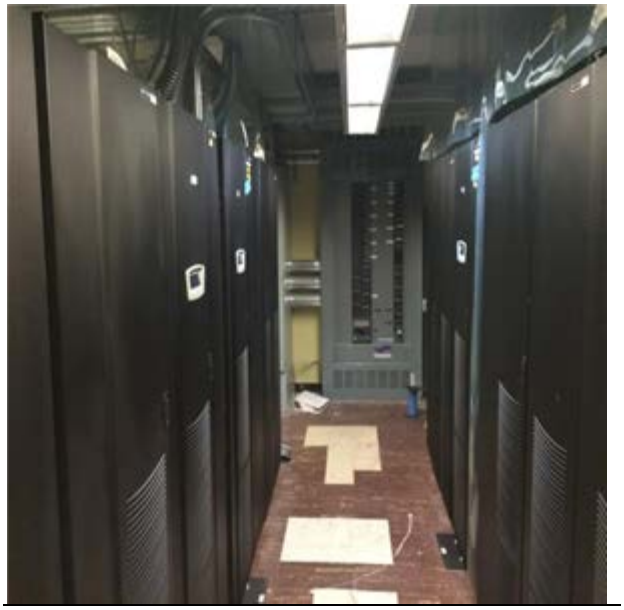
D5012 Breaker Panel 225 Amps, 30 Circuits

D5022 Exterior Wall Mt Light, 100 Watt

D5037 Fire Alarm Panel

D5092 Emergency Transfer Switch

D5092 Emergency Generator 250 kW



D5090 UPS System Batteries

G2033 Concrete Steps:- Emergency exit without a ramp

G2035 Loading dock ramp :- Edge of ramp without wheel guard and failed concrete at railing post. Note tree root damage at pavement adjacent to ramp

APPENDIX E: TERMINOLOGY AND ABBREVIATIONS

TERMINOLOGY and ABBREVIATIONS	
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.

TERMINOLOGY and ABBREVIATIONS	
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

TERMINOLOGY and ABBREVIATIONS	
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)	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. 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.
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 *Means* and *Dodge*, 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.

TERMINOLOGY and ABBREVIATIONS	
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 employee 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

EMPLOYMENT DEVELOPMENT DEPARTMENT HEADQUARTERS FACT SHEET

722/800 Capitol Mall
Sacramento
Sacramento County
Category 3 - Low Priority, Special Repairs and Maintenance

BUILDING INFORMATION

- Age: 59 years (completed in 1955)
- Size:* 7-story, 6 occupied with mechanical penthouse
  479,300 GSF 372,340 NUSF 356,720 Assigned SF
  4.37 Acre Parcel
  No parking available, but has Light Rail access
  Capacity - 1,551 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)
  Central Plant rate an additional $0.60/month per SF

SPI Structure #: 2531
Real Property #: 9625
BPM #: 025

- LEED Status: Registered for LEED-EB Certification as part of DGS blanket registration in 2008.
- Tenants: The Employment Development Department is the sole tenant of the building

COMPLETED STUDIES AND SIGNIFICANT FINDINGS

A. 1995 Structural Retrofit Survey
Based on the findings of this Survey, a Structural Retrofit was completed in 2001.

B. 2002 Infrastructure Study
The study concluded that the building is in need of American Disability Act (ADA) compliance, hazardous materials remediation, mechanical upgrades, and plumbing upgrades.

C. 2010 American Disability Act Accessibility Compliance Survey
The Survey identified some areas of inaccessibility including some restroom issues (height of toilet paper dispensers, location of grab bars), signage at stairs and permanent rooms, assistive listening devices, areas lacking visual fire alarm devices, and cross slopes at door to balcony in the Cafeteria.

D. 2012 Access Compliance Conceptual Budget/Evaluation
In follow up to the 2010 American Disablility 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 a concern that increases in energy usage by EDD, including the need for additional cooling due to planned EDD upgrades, cannot be met with existing infrastructure. This includes the cooling capacity of the Central Plant.

CURRENT UTILIZATION PROJECTS

Credit Union vacated space on fourth floor. Space was backfilled by EDD eliminating the need to lease private sector space.

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

Employment Development Department Headquarters
722/800 Capitol Mall
Sacramento

Useful Life[1]: Estimated Useful Life / Remaining Useful Life

Plan Type[2]: **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[3]	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
A. SUBSTRUCTURE																							
Substructure Subtotal												$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
B. SHELL																							
B20	**EXTERIOR ENCLOSURE**																						
B2011	B2011 Exterior Wall Construction	B2011 Exterior Wall Construction	All exterior walls	B2011 Paint and patch building exterior	10	4	100,750.00	SF	$4.46	OP - Maintenance	Priority 3	$0	$0	$0	$0	$449,345	$0	$0	$0	$0	$0	$0	$449,345
B2021	B2021 Windows	B2021 Steel framed 12 x 4 windows	All exterior walls	Replace B2021 Steel framed 12 x 4 windows	30	0	2,880.00	SF	$179.80	IN - Beyond Rated Life	Priority 1	$517,824	$0	$0	$0	$0	$0	$0	$0	$0	$0	$517,824	$0
B2021	B2021 Windows	B2021 Steel framed windows 14' x 4'	Various exterior walls	Replace B2021 Steel framed windows 14' x 4'	30	0	13,720.00	SF	$179.80	IN - Beyond Rated Life	Priority 1	$2,466,856	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,466,856	$0
B2031	Aluminum 3'-0" X 7'-0"	B2030 Aluminum Glazed Doors	Entry doors and doors to the EDD annex	Replace B2030 Aluminum Glazed Doors	20	5	15.00	EA	$9,920.00	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$148,800	$0	$0	$0	$0	$0	$148,800
B2032	3'-0" X 7'-0" Steel, Painted, Door	B2032 Exterior Steel Doors, Single	Entire building	Replace B2032 Exterior Steel Doors, Single	45	7	15.00	EA	$1,568.35	IN - Beyond Rated Life	Priority 4	$0	$0	$0	$0	$0	$0	$0	$23,525	$0	$0	$0	$23,525
B2032	6'-0" X 7'-0" Steel Double Door with Frame and Hardware	B2032 6'-0" X 7'-0" Steel Double Door with Frame and Hardware	First floor perimeter	Replace B2032 6'-0" X 7'-0" Steel Double Door with Frame and Hardware	35	7	7.00	EA	$6,509.93	IN - Beyond Rated Life	Priority 4	$0	$0	$0	$0	$0	$0	$0	$45,569	$0	$0	$0	$45,569
B30	**ROOFING**																						
B3011	Tpo, Roof 45 Mills, Full Adhered	B3011 TPO, Roof 45 Mills, Full Adhered	Third floor	Replace B3011 TPO, Roof 45 Mills, Full Adhered	20	5	142.00	SQ	$1,806.36	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$256,503	$0	$0	$0	$0	$0	$256,503
B3011	Built-Up Roofing, Total Roof	B3010 Built-Up Roofing	Roof at 6th , 7th and 4th floors	Replace B3010 Built-Up Roofing	20	0	800.00	SQ	$1,861.46	IN - Beyond Rated Life	Priority 1	$1,489,171	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,489,171	$0
B3014	Sheet Metal Flashing	B3010 Coping at Parapets	Built-up roof perimeter	G3014 Install Sheet Metal Coping	30	0	1,500.00	LF	$65.72	IN - Beyond Rated Life	Priority 1	$98,580	$0	$0	$0	$0	$0	$0	$0	$0	$0	$98,580	$0
Shell Subtotal												**$4,572,431**	**$0**	**$0**	**$0**	**$449,345**	**$405,303**	**$0**	**$69,095**	**$0**	**$0**	**$4,572,431**	**$923,743**
C. INTERIORS																							
C10	**INTERIOR CONSTRUCTION**																						
C1021	C1021 Interior Doors	C1021 Interior Fire Rated Doors	Corridors	Replace C1021 Interior Fire Rated Doors	25	0	30.00	EA	$2,403.12	CC - Life Safety	Priority 1	$72,094	$0	$0	$0	$0	$0	$0	$0	$0	$0	$72,094	$0
C1031	C1031 Fabricated Toilet Partitions	C1031 Fabricated Toilet Partitions	Restrooms	Replace C1031 Fabricated Toilet Partitions	20	5	125.00	EA	$2,182.40	IN - Beyond Rated Life	Priority 4	$0	$0	$0	$0	$0	$272,800	$0	$0	$0	$0	$0	$272,800
C20	**STAIRS**																						
C2014	C2014 Stair Handrails and Balustrades	C2014 Steel Stair Guardrails	Seven stairwells	C2014 Prep and paint steel stairway parts	7	0	33,600.00	SF	$3.87	IN - Appearance	Priority 2	$130,032	$0	$0	$0	$0	$0	$0	$130,032	$0	$0	$130,032	$130,032
C30	**INTERIOR FINISHES**																						
C3012	Drywall - Painted Finished Walls	C3012 Drywall - Painted Walls	Throughout building	C3012 Paint interior walls	7	0	134,000.00	SF	$2.08	IN - Appearance	Priority 3	$278,720	$0	$0	$0	$0	$0	$0	$278,720	$0	$0	$278,720	$278,720
C3024	Vinyl Tile	C3020 Vinyl Tile	All corriors and cafeteria	Replace C3020 Vinyl Tile	18	0	5,316.00	SY	$163.10	IN - Appearance	Priority 2	$867,037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$867,037	$0
C3024	2X2 Ceramic Tile	C3020 2X2 Ceramic Floor Tile	Restrooms	Replace C3020 2X2 Ceramic Floor Tile	30	0	72.00	CSF	$3,387.68	IN - Appearance	Priority 2	$243,913	$0	$0	$0	$0	$0	$0	$0	$0	$0	$243,913	$0
C3025	Carpet Tiles - Standard	C3020 Carpet Tiles - Standard	complete building	Replace C3020 Carpet Tiles - Standard	10	0	33,000.00	SY	$96.61	IN - Appearance	Priority 2	$3,187,985	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,187,985	$0
C3031	C3031 Ceiling Finishes	C3030 Ceiling tiles, 12" glued	Throughout building	Replace C3030 Ceiling tiles, 12" glued	20	0	4,000.00	CSF	$1,004.40	IN - Appearance	Priority 2	$4,017,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,017,600	$0
Interiors Subtotal												**$8,797,381**	**$0**	**$0**	**$0**	**$0**	**$272,800**	**$0**	**$408,752**	**$0**	**$0**	**$8,797,381**	**$681,552**
D. SERVICES																							
D10	**CONVEYING SYSTEMS**																						
D1011	Traction Geared Elevator - High Rise	D1011 Traction Passenger Elevator	Throughout Facility	D1011 Adjust cars for proper performance and address deferred maintenance items	20	0	6.00	EACH	$2,184.00	CC - Building Code	Priority 1	$13,104	$0	$0	$0	$0	$0	$0	$0	$0	$0	$13,104	$0
	Traction Geared Elevator - High Rise	D1011 Traction Passenger Elevator	Throughout Facility	D1011 Install car numbers at the main lobby	20	0	6.00	EACH	$182.00	CC - Building Code	Priority 1	$1,092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,092	$0
	Traction Geared Elevator - High Rise	D1011 Traction Passenger Elevator	Throughout Facility	D1011 Install car top handrails on cars 1, 3-6	20	0	5.00	EACH	$4,550.00	CC - Life Safety	Priority 1	$22,750	$0	$0	$0	$0	$0	$0	$0	$0	$0	$22,750	$0
	Traction Geared Elevator - High Rise	D1011 Traction Passenger Elevator	Throughout Facility	D1011 Install correct rope retainers	20	0	6.00	EACH	$3,640.00	CC - Building Code	Priority 1	$21,840	$0	$0	$0	$0	$0	$0	$0	$0	$0	$21,840	$0
D1012	Traction Geared Elevator - High Rise	D1012 Traction Freight Elevator	Cars 7 and 8	D1012 Adjust cars for proper performance and address deferred maintenance items	20	0	2.00	EACH	$2,184.00	OP - Maintenance	Priority 2	$4,368	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,368	$0
	Traction Geared Elevator - High Rise	D1012 Traction Freight Elevator	Cars 7 and 8	D1012 Install car numbers at the main lobby	20	0	2.00	EACH	$182.00	CC - Building Code	Priority 1	$364	$0	$0	$0	$0	$0	$0	$0	$0	$0	$364	$0
	Traction Geared Elevator - High Rise	D1012 Traction Freight Elevator	Cars 7 and 8	D1012 Install car top handrails	20	0	2.00	EACH	$4,550.00	CC - Life Safety	Priority 1	$9,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,100	$0
	Traction Geared Elevator - High Rise	D1012 Traction Freight Elevator	Cars 7 and 8	D1012 Install correct rope retainers	20	0	2.00	EACH	$3,640.00	CC - Building Code	Priority 1	$7,280	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,280	$0
	Traction Geared Elevator - High Rise	D1012 Traction Freight Elevator	Cars 7 and 8	D1012 Install door restrictor on car 7	20	0	1.00	EACH	$6,370.00	CC - Life Safety	Priority 1	$6,370	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,370	$0
	Traction Geared Elevator - High Rise	D1012 Traction Freight Elevator	Cars 7 and 8	D1012 Perform five year full load tests on cars 7 and 8	10	0	2.00	EACH	$6,370.00	CC - Building Code	Priority 1	$12,740	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,740	$0
D1021	15" High, 32" Wide	D1021 Escalators	Floors 1-4	D1021 Install new stop switches on escalators that are readily visible	20	0	6.00	EACH	$2,130.00	CC - Life Safety	Priority 1	$12,780	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,780	$0
	15" High, 32" Wide	D1021 Escalators	Floors 1-4	D1021 Install yellow comb plates on all escalators	20	0	6.00	EACH	$2,556.00	CC - Building Code	Priority 1	$15,336	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15,336	$0
	15" High, 32" Wide	D1021 Escalators	Floors 1-4	Replace D1021 Escalators	20	0	6.00	EACH	$330,880.04	FN - Modernization	Priority 1	$1,985,280	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,985,280	$0
D20	**PLUMBING**																						
D2012	Urinal	D2012 Urinal	Throughout Facility	Install automatic flush valves on urinals	15	2	25.00	EA	$944.00	OP - Energy	Priority 2	$0	$0	$23,600	$0	$0	$0	$0	$0	$0	$0	$0	$23,600
D2013	Enamel Steel Wall Hung Lavatory and Faucet	D2013 Counter Top Sink and Faucet	Restrooms	D2013 Install automatic faucets with motion sensors	15	2	80.00	EA	$944.00	OP - Energy	Priority 2	$0	$0	$75,520	$0	$0	$0	$0	$0	$0	$0	$0	$75,520
	Enamel Steel Wall Hung Lavatory and Faucet	D2013 Counter Top Sink and Faucet	Restrooms	Replace D2013 Counter Top Sink and Faucet	35	5	90.00	EA	$1,667.84	FN - Modernization	Priority 3	$0	$0	$0	$0	$0	$150,105	$0	$0	$0	$0	$0	$150,105
D2018	Drinking Fountain	D2018 Drinking Fountains	Throughout interior	Replace D2018 Drinking Fountains	10	0	26.00	EA	$2,876.60	CC - Accessibility	Priority 1	$74,792	$0	$0	$0	$0	$0	$0	$0	$0	$0	$74,792	$0
D2023	Hydronic Circulating Pump, 15 HP	D2023 Domestic Water Booster Pump Station	Domestic Water Storage and Pump Room	Replace D2023 Domestic Water Booster Pump Station	20	0	2.00	EA	$24,553.44	IN - Beyond Rated Life	Priority 1	$49,107	$0	$0	$0	$0	$0	$0	$0	$0	$0	$49,107	$0
D2031	Cast Iron Pipe 6"	D2031 Cast Iron Pipe 6"	Throughout Facility	Replace D2031 Cast Iron Pipe 6"	40	0	1,000.00	LF	$175.25	FN - Modernization	Priority 1	$175,254	$0	$0	$0	$0	$0	$0	$0	$0	$0	$175,254	$0
D30	**HVAC**																						
D3023	Condensate return system (SIMPLEX PUMP, FLOAT SWITCH, 3/4 HP, 15 GPM)	D3023 Condensate Return System	Boiler Room	Replace D3023 Condensate Return System	20	5	4.00	EA	$16,497.34	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$65,989	$0	$0	$0	$0	$0	$65,989
D3041	Central AHU - Constant Volume	D3040 Central AHU - Constant Volume	Throughout Facility	Replace D3040 Central AHU - Constant Volume	25	0	479,000.00	CSM	$7.59	FN - Modernization	Priority 1	$3,635,035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,635,035	$0
D3041.1	Central Station Ahu 33500 CFM	D3041 Central Station Ahu 33500 CFM	Rooftop	Replace D3041 Central Station Ahu 33500 CFM	20	0	6.00	EA	$134,637.96	IN - Beyond Rated Life	Priority 1	$807,828	$0	$0	$0	$0	$0	$0	$0	$0	$0	$807,828	$0
D3041.1	Air Handler 20,000-22,000 CFM	D3041 Interior AHU 13,000-32,000 CFM	Utility Areas/Closets	Replace D3041 Interior AHU 13,000-32,000 CFM	20	0	20.00	EA	$48,120.64	FN - Modernization	Priority 1	$962,413	$0	$0	$0	$0	$0	$0	$0	$0	$0	$962,413	$0
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan 4,500 CFM	Rooftop	Replace D3042 Exhaust Fan 4,500 CFM	20	0	3.00	EA	$11,352.84	IN - Beyond Rated Life	Priority 1	$34,059	$0	$0	$0	$0	$0	$0	$0	$0	$0	$34,059	$0
D3042	D3042 Exhaust Ventilation Systems	D3042 Kitchen Exhaust Hood	4th Floor Cafeteria	Replace D3042 Kitchen Exhaust Hood	25	0	1.00	EA	$111,600.00	FN - Modernization	Priority 1	$111,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$111,600	$0
D3068	Direct Digital Controls (DDC) Basic	D3068 DDC Controls	Throughout Facility	Replace D3068 DDC Controls	20	0	125,000.00	SF	$2.83	IN - Beyond Rated Life	Priority 1	$353,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$353,400	$0
D40	**FIRE PROTECTION SYSTEMS**																						
D4011	Sprinkler Head	D4011 Wet-Pipe Sprinkler System	Throughout Facility	Install facility-wide sprinkler system	25	0	400,000.00	SF	$8.97	CC - Life Safety	Priority 1	$3,587,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,587,200	$0
D4012	Fire Pump Electric 750 Gpm 44 HP	D4012 Sprinkler Pumping Equipment	Mechanical Room	Replace D4012 Sprinkler Pumping Equipment	25	0	1.00	EA	$50,740.00	CC - Life Safety	Priority 1	$50,740	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,740	$0
D4021	D4021 Standpipe Water Supply	D4021 Standpipe Installation	Stairwells	Replace D4021 Standpipe Installation	25	0	8.00	EA	$4,130.00	CC - Life Safety	Priority 1	$33,040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$33,040	$0
D50	**ELECTRICAL SYSTEMS**																						
D5012	Breaker Panel 225 Amps, 30 Circuits	D5012 Breaker Panel 225 Amps, 30 Circuits	Utility Areas/Closets	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	40	0	97.00	EA	$7,864.32	IN - Beyond Rated Life	Priority 1	$762,839	$0	$0	$0	$0	$0	$0	$0	$0	$0	$762,839	$0
D5012	Switchgear, Mainframe, 1600 Amps	D5010 Switchgear, Mainframe, Amps	Main Electrical Room	Replace D5010 Switchgear, Mainframe, Amps	40	5	16.00	EA	$18,754.45	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$300,071	$0	$0	$0	$0	$0	$300,071
D5022	D5022 Lighting Equipment	D5022 Lighting and Branch Wiring	Areas requiring new ceiling tiles	Replace D5022 Lighting and Branch Wiring	25	0	4,742.00	EA	$401.20	FN - Modernization	Priority 1	$1,902,490	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,902,490	$0

10 YEAR EXPENDITURE FORECAST

4tell

Employment Development Department Headquarters
722/800 Capitol Mall
Sacramento

Useful Life[1]: Estimated Useful Life | Remaining Useful Life

Plan Type[1]: **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[2]	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		
D5022	Exterior Wall Mt Light, 100 Watt	D5022 Exterior Wall Mt Light, 100 Watt	Throughout Facility	Replace D5022 Exterior Wall Mt Light, 100 Watt	15	0	1.00	EA	$86,800.00	CC - Building Code	Priority 1	$86,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$86,800	$0
Services Subtotal												**$14,739,000**	**$0**	**$99,120**	**$0**	**$0**	**$516,166**	**$0**	**$0**	**$0**	**$0**	**$14,739,000**	**$615,286**
E. EQUIPMENT & FURNISHING																							
Equipment & Furnishing Subtotal												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
F. SPECIAL CONSTRUCTION AND DEMOLITION																							
F20	**SELECTIVE DEMOLITION**																						
F2021	F2021 Removal of Hazardous Components	F2021 Removal of Hazardous Components	Throughout building	Replace F2021 Removal of Hazardous Components	50	0	400,000.00	SF	$4.64	EN - Asbestos	Priority 2	$1,855,040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,855,040	$0
Special Construction And Demolition Subtotal												**$1,855,040**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,855,040**	**$0**
G. BUILDING SITEWORK																							
G20	**SITE IMPROVEMENTS**																						
G2022	G2022 Paving & Surfacing	G2022 Asphalt Pavement	South of bldg 800, adjacent to 8th Street	G2022 Replace asphalt pavement at damaged areas	15	0	1,000.00	SF	$5.93	OP - Maintenance	Priority 3	$5,930	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,930	$0
	G2022 Paving & Surfacing	G2022 Asphalt Pavement	South of bldg 800, adjacent to 8th Street	G2022 Seal and stripe asphalt	5	0	5,250.00	SF	$0.84	OP - Maintenance	Priority 3	$4,410	$0	$0	$0	$0	$4,410	$0	$0	$0	$0	$4,410	$4,410
G2033	Concrete Steps	G2033 Concrete Steps	West side of building	G2033 Replace steps with a ramp	75	0	72.00	LF	$1,641.76	CC - Accessibility	Priority 1	$118,207	$0	$0	$0	$0	$0	$0	$0	$0	$0	$118,207	$0
G2035	G2035 Exterior Steps & Ramps	G2035 Loading dock ramp	Loading dock	G2035 Repair ramp and add wheel guard	20	1	1.00	LS	$17,360.00	CC - Accessibility	Priority 1	$0	$17,360	$0	$0	$0	$0	$0	$0	$0	$0	$0	$17,360
	G2035 Exterior Steps & Ramps	G2035 Loading dock ramp	Loading dock	Replace G2035 Loading dock ramp	40	0	1.00	EA	$34,720.00	CC - Accessibility	Priority 1	$34,720	$0	$0	$0	$0	$0	$0	$0	$0	$0	$34,720	$0
Building Sitework Subtotal												**$163,267**	**$17,360**	**$0**	**$0**	**$0**	**$4,410**	**$0**	**$0**	**$0**	**$0**	**$163,267**	**$21,770**
Z. GENERAL																							
General Subtotal												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
										Expenditure Totals per Year		**$30,127,119**	**$17,360**	**$99,120**	**$0**	**$449,345**	**$1,198,679**	**$0**	**$477,847**	**$0**	**$0**	**$30,127,119**	**$2,242,350**
										Total Cost (Inflated @ 5% per Yr.)		**$30,127,119**	**$18,228**	**$109,280**	**$0**	**$546,182**	**$1,529,851**	**$0**	**$672,378**	**$0**	**$0**	**Total ***	**$32,369,469**

*** - Present Value Currency**

Current Repl.Value **$213,793,273**

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

APPENDIX H: SUPPORTING DOCUMENTATION

EMG

N

Source:

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

Project Number:

111236.14R-002.305

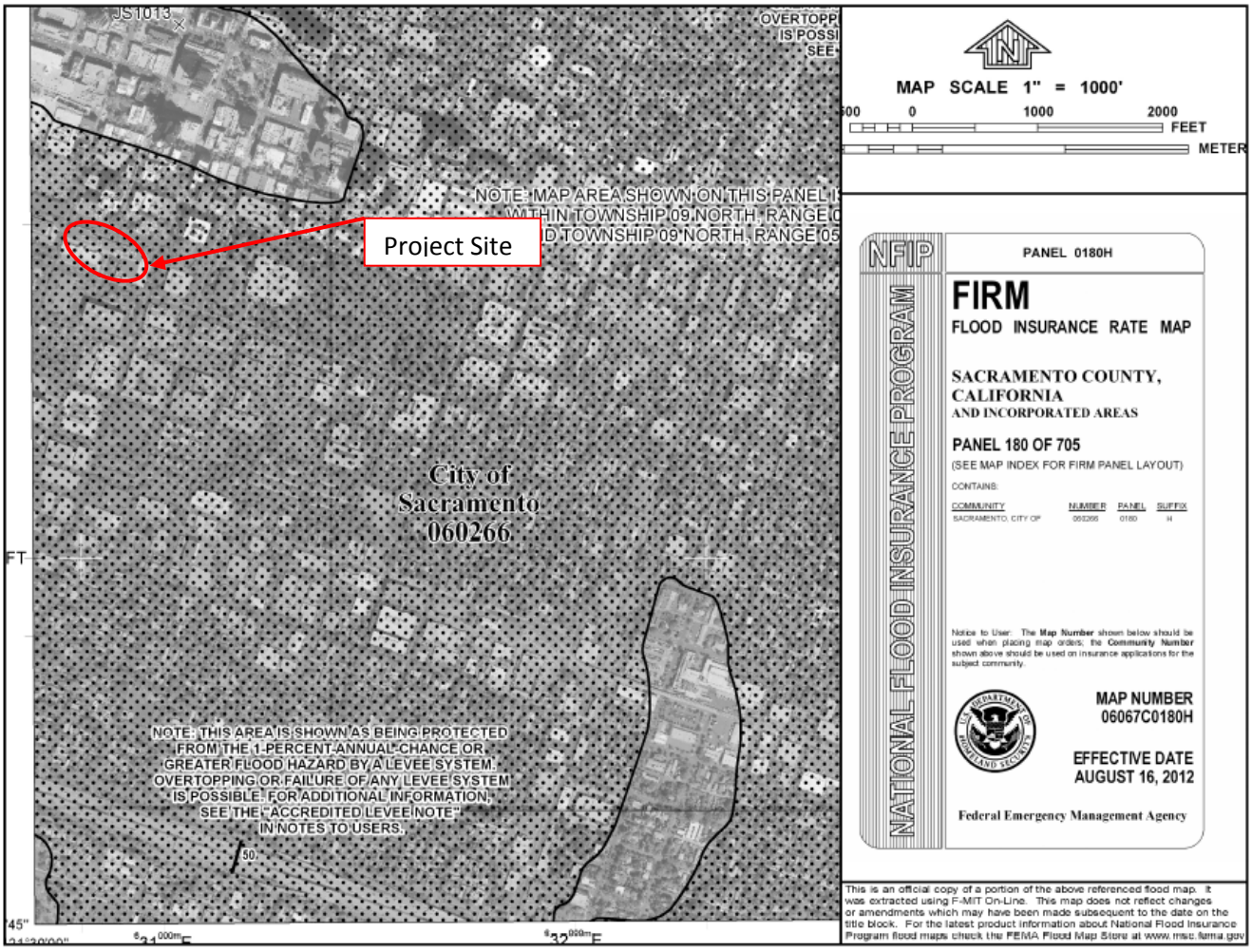
Project Name:

Employment Development Department Headquarters

On-Site Date:

December 1 and 2, 2014

Flood Map



EMG	**SOURCE:** FEMA	**Project Number:** 111326.14R-002.305
N		**Project Name:** EDD Headquarters
	Not drawn to scale. The north arrow indicator is an approximation of 0° North.	**On-Site Date:** December 1, 2014

Expected Useful Life (EUL) Table	
SITE SYSTEM ITEMS	
ROADWAYS/ PARKING/ WALKWAYS	
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
STORM SEWER, DRAINAGE AND EROSION CONTROL	
Catch basins, inlets, culverts	50
Earthwork, grading and erosion control	50
Storm drain lines	40
LANDSCAPING, TOPOGRAPHY AND FENCING	
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
SITE SYSTEM ITEMS	
GENERAL SITE IMPROVEMENTS	
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

GENERAL SITE IMPROVEMENTS	
Tennis court Surface (acrylic emulsion)	10
Tot-lot (playground equipment)	10
SITE SANITARY AND WATER	
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
SITE MECHANICAL / ELECTRICAL	
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
BUILDING ARCHITECTURAL ITEMS	
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+

BUILDING ARCHITECTURAL ITEMS	
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
EXTERIOR CLADDING	
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

INTERIORS	
Public bathroom accessories	7
Public bathroom fixtures	15
Refrigerator, common area	10
BUILDING ARCHTECTURAL ITEMS	
ROOF COVERINGS	
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+
BOILER ROOM EQUIPMENT	
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
BOILERS	
Oil/ gas/ dual fired, high MBH	40
Gas fired atmospheric	25
Electric	20

BUILDING HEATING WATER TEMPERATURE CONTROLS	
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
CONDENSATE, FEEDWATER, WATER	
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
ELECTRICAL & ELEVATOR	
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
EMERGENCY ALARM AND FIRE PROTECTION	
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

EMERGENCY ALARM AND FIRE PROTECTION	
Fuel Transfer System	25
Gas Distribution	50+
Heat Sensors	15
Heat Exchanger	35
Heating Risers and Distribution	50+
MECHANICAL – ELECTRIC – PLUMBING ITEMS	
Heating Water Circulating Pumps	by size
Heating Water Controller	15
Hot and Cold Water Distribution	50
HVAC	
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
POWER VENTILATOR	
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
SUMP PUMP	
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

Estimate of Structures Cost Using Marshall Cost Systems

Employment Development Department Headquarters (025)

Site Calculation

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

Description	Cost	Estimated $/ SF	Unusual Land Total
			$0
Total			$0

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

Estimate of Structure Cost :

Building Type	Cost per SF	Number of SF	Building TypeTotal
main building	$356.84	479,300	$171,034,618
	$0.00	0	$0
	$0.00	0	$0
	$0.00	0	$0
	$0.00	0	$0
	Total	479,300	$171,034,618

Estimate of Adjustments for Fees:

Description	% increase
Soft Costs	25.00%
	0.00%
	0.00%

Total Fees/ Interest included in Marshall System	25.00%

Total Structure Estimate:

Description	Unit	Fee Adjust	Adjusted Totals
main building	$171,034,618	25.00%	$213,793,273
	$0	25.00%	$0
	$0	25.00%	$0
	$0	25.00%	$0
	$0	25.00%	$0
Cost Per SF	**$446.05**	**Total Estimate**	**$213,793,273**

ADA Checklist

Property Name: Employment Development Department Headquarters
Date: December 1 & 2, 2014
Project Number: 111326.14R-002.305

EMG Abbreviated Accessibility Checklist					
	Building History	**Yes**	**No**	**N/A**	**Comments**
1.	Has the management previously completed an ADA review?	✓			
2.	Have any ADA improvements been made to the property?	✓			
3.	Does a Barrier Removal Plan exist for the property?		✓		According to the PSQ
4.	Has the Barrier Removal Plan been reviewed/approved by an arms-length third party such as an engineering firm, architectural firm, building department, other agencies, etc.?			✓	No Barrier Removal Plan
5.	Has building ownership or management received any ADA related complaints that have not been resolved?		✓		
6.	Is any litigation pending related to ADA issues?				Unknown
	Parking	**Yes**	**No**	**N/A**	**Comments**
1.	Are there sufficient accessible parking spaces with respect to the total number of reported spaces?	✓			15 marked spaces three accessible spaces
2.	Are there sufficient van-accessible parking spaces available (96” wide/ 96” aisle for van)?	✓			15 marked spaces, one van accessible space
3.	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading “Van Accessible” at van spaces?	✓			
4.	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	✓			
5.	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	✓			
6.	Does signage exist directing you to accessible parking and an accessible building entrance?	✓			

EMG Abbreviated Accessibility Checklist					
	Ramps	**Yes**	**No**	**N/A**	**Comments**
1.	If there is a ramp from parking to an accessible building entrance, does it meet slope requirements? (1:12)		✓	✓	The ramp leads from an exit to the parking lot. It does not appear to meet the 1:12 slope requirement
2.	Are ramps longer than 6 ft complete with railings on both sides?	✓			
3.	Is the width between railings at least 36 inches?	✓			
4.	Is there a level landing for every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?			✓	
	Entrances/Exits	**Yes**	**No**	**N/A**	**Comments**
1.	Is the main accessible entrance doorway at least 32 inches wide?	✓			
2.	If the main entrance is inaccessible, are there alternate accessible entrances?			✓	The main entry is accessible
3.	Can the alternate accessible entrance be used independently?			✓	
4.	Is the door hardware easy to operate (lever/push type hardware, no twisting required, and not higher than 48 inches above the floor)?	✓			
5.	Are main entry doors other than revolving door available?	✓			
6.	If there are two main doors in series, is the minimum space between the doors 48 inches plus the width of any door swinging into the space?			✓	There are not two main doors in series
	Paths of Travel	**Yes**	**No**	**N/A**	**Comments**
1.	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 inches wide)?		✓		The corridors are at least 36” wide, but there are several non compliant water fountains
2.	Does a visual scan of the main path reveal any obstacles (phones, fountains, etc.) that protrude more than 4 inches into walkways or corridors?	✓			Water fountains in the corridors protrude from five to 17 inches with different kinds of guards
3.	Are floor surfaces firm, stable, and slip resistant (carpets wheelchair friendly)?	✓			
4.	Is at least one wheelchair-accessible public telephone available?			✓	No public phones are available
5.	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			
6.	Is there a path of travel that does not require the use of stairs?	✓			

EMG Abbreviated Accessibility Checklist					
7.	If audible fire alarms are present, are visual alarms (strobe light alarms) also installed in all common areas?		✓		There are audible alarms but no strobes
	Elevators	**Yes**	**No**	**N/A**	**Comments**
1.	Do the call buttons have visual signals to indicate when a call is registered and answered?				
2.	Are there visual and audible signals inside cars indicating floor change?				
3.	Are there standard raised and Braille marking on both jambs of each host way entrance?				
4.	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?				
5.	Do elevator lobbies have visual and audible indicators of car arrival?				
6.	Does the elevator interior provide sufficient wheelchair turning area (51” x 68”)?				
7.	Are elevator controls low enough to be reached from a wheelchair (48 inches front approach/54 inches side approach)?				
8.	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?				
9.	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?				
	Restrooms	**Yes**	**No**	**N/A**	**Comments**
1.	Are common area public restrooms located on an accessible route?	✓			
2.	Are pull handles push/pull or lever type?	✓			
3.	Are there audible and visual fire alarm devices in the toilet rooms?		✓		No audible or visual alarms
4.	Are corridor access doors wheelchair-accessible (at least 32 inches wide)?	✓			
5.	Are public restrooms large enough to accommodate a wheelchair turnaround (60” turning diameter)?	✓			
6.	In unisex toilet rooms, are there safety alarms with pull cords?			✓	No unisex toilets
7.	Are stall doors wheelchair accessible (at least 32” wide)?	✓			
8.	Are grab bars provided in toilet stalls?				
9.	Are sinks provided with clearance for a wheelchair to roll under (29” clearance)?	✓			

EMG Abbreviated Accessibility Checklist					
10.	Are sink handles operable with one hand without grasping, pinching or twisting?	✓			
11.	Are exposed pipes under sink sufficiently insulated against contact?	✓			
12.	Are soap dispensers, towel, etc. reachable (48" from floor for frontal approach, 54" for side approach)?	✓			
13.	Is the base of the mirror no more than 40" from the floor?	✓			

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: Kevin Mayugba

Building name: Employment Development Department Headquarters (025)

What is your association with this property? Building Manger III

What is the length of your association with this property? 1 and 1/2 years

Phone number: 916-653-9964

Please provide information about inspections relating to the following items

Inspections	Date Last Inspected	List Name & Contact for Maintenance Contractor, if any.
1. Elevators	February 2015	Mark Sharp, ThyssenKrupp, 916-376-8700
2. HVAC, Mechanical, Electric, Plumbing	February 2015	
3. Life-Safety/Fire	January 2015	Sandra Louie, Battalion One, 510-653-8075
4. Roofs	February 2015	

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

138489 Steam Valve Replacement. 134993 Carpet Replacement, 139483 Heat Exchanger replacement.

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

No

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

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

NA

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?		**x**			
10. Are there any "down" or unusable units?		**x**			
11. Are there any problems with erosion, storm-water drainage or areas of paving that do not drain?	**x**				Design of roof drain system is poor. After storms water ponds for several days.

Question	Y	N	N/A	Unk	Comments
12. Is the property served by a private water well?		x			
13. Is the property served by a private septic system or other waste treatment systems?		x			
14. Are there any problems with foundations or structures?		x			
15. Is there any water infiltration in basements or crawl spaces?		x			
16. Are there any wall, or window leaks?	x				Windows are original to building.
17. Are there any roof leaks?				x	
18. Is the roofing covered by a warranty or bond?		x			
19. Are there any poorly insulated areas?				x	
20. Is Fire Retardant Treated (FRT) plywood used?				x	
21. Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?				x	
22. Are there any problems with the utilities, such as inadequate capacities?		x			
23. Are there any problems with the landscape irrigation systems?		x			
24. Has a termite/wood boring insect inspection been performed within the last year?		x			
25. Do any of the HVAC systems use R-11, 12, or 22 refrigerants?		x			
26. Has any part of the property ever contained visible suspect mold growth?	x				
27. Is there a mold Operations and Maintenance Plan?	x				
28. Have there been indoor air quality or mold related complaints from tenants?		x			

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				
38. Have any ADA or Title 24 improvements been made to the property?		x			
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				It is not energy savings.
44. Are there any other significant issues/hazards with the property?		x			
45. Are there any unresolved construction defects at the property?		x			

APPENDIX J: ELEVATOR REPORT

EDD
700 – 822 Capitol Mall
Sacramento, CA

Due Diligence
Elevator/Escalator Report

December 15, 2014

Prepared for:

Ms. Karla Rodriquez
EMG Corporation
Hunt Valley, MD 21212

Prepared by:

Mr. James Young
Project Manager
Architectural Elevator Consulting, LLC
1326 5th Ave., Suite 630
Seattle, WA 98101

ARCHITECTURAL ELEVATOR CONSULTING, LLC

TABLE OF CONTENTS

Section I: Executive Summary

A. Introduction

On December 2, 2014 James Young of Architectural Elevator Consulting, LLC (AEC) surveyed all the vertical transportation systems at the EDD – 722 and 800 Capitol Mall Sacramento, CA. There are eight (8) traction elevators and six (6) escalators that provide the vertical transportation. The passenger elevators provide vertical transportation to the office floors on levels 1-6. The escalators provide access from the 1st floor to the fourth floor and are stacked above each other. The purpose of the survey was to review the major components, to identify upgrades needed over the next ten years and check for compliance with various codes. In addition to reviewing the major components of the elevators we checked the performance parameters of the equipment and tested safety devices such as door restrictors, electric edges and emergency phones.

All the traction elevators and escalators were manufactured and installed by Westinghouse Elevator Company during the original building construction in the 1950's. The traction elevators have the original Westinghouse machines and were recently modernized with new non-proprietary Swift controllers, GAL door operators and all new signal fixtures. The escalators are original with the exception that skirt brushes have been recently added. This is the 2nd major modernization as Schindler/Haughton modernized the elevators in the late 1980's.

During our survey we noted that the elevators were being well maintained by ThyssenKrupp Elevator Company with a few areas that need work. Housekeeping in the machine rooms and car tops needs to be improved. Car and door performance is below average and should be improved. The performance needs to be adjusted to achieve the designed times and speeds.

B. Elevator/Escalator Layout

The office building has two sets of three car passenger elevators, one at 722 and one at 800 Capitol Mall. In addition there is a service elevator and a full freight elevator. The service elevator appears to have been converted from a freight elevator. The service and freight elevators Cars 7 and 8, provide access to all office floors and one mechanical level. The passenger elevators have fast and efficient center opening doors. All six passenger traction elevators are rated for 3,500 lbs. capacity while the service and freight elevators are rated for 6,000 lbs. Six (6) escalators provide service from the main entry to the fourth floor. The escalators are laid out so that employees can go back and forth between the 1st and 4th floor. The number and speed of elevators and escalators appear to be adequate to provide satisfactory service for the building.

Elevator/Escalator Summary				
Elevator/Escalator Bank	**Elevator Speed**	**Floors Served**	**Capacity**	**Door Type**
Passenger Cars 1-3	500 FPM	1-6	3,500 lbs.	Center
Passenger Cars 4-6	500 FPM	1-6	3,500 lbs.	Center
Freight Car 7	200 FPM	1-7	6,000 lbs.	Center
Freight Car 8	200 FPM	1-7	6,000 lbs.	Vertical Bi-parting
Escalators 1-6	90 FPM	1-4	36" Wide	N/A

C. Condition

Most the major components of the elevators were found to be in good condition. All the elevators were fully modernized in the last five years and have solid state controllers that are non-proprietary. No major work on the elevators is anticipated over the next 10 years. However, the escalators are mostly original and have smooth step risers that should be replaced. The escalators can be replaced with new escalators or fully modernized. In ***Section II*** of this report we provide an in-depth review of each of the major components of the elevators and escalators with photographs.

D. Maintenance/Performance

The elevators are currently being maintained by ThyssenKrupp Elevator Company. The level of maintenance was good in most areas, but needed some attention in other areas. Oil is leaking some of the machines and housekeeping for the car tops and pits needs to be improved. The performance was observed to be below the designed times and speeds. This needs to be remedied. In ***Appendix C*** of this report we provide a summary of the performance times for each elevator followed by a maintenance deficiency list. We recommend this list be provided to the elevator service provider so they can correct these items.

E. Code Review:

There are several codes affecting existing elevators in the State of California. During our survey we reviewed the elevators for compliance to the following codes; Americans with Disabilities Act (ADA)/California T24, and compliance with the National Elevator Code for Existing Elevators, A17.3.

1. **Americans with Disability Act (ADA)/California T24:** In 1990 the federal government enacted ADA to make public spaces more accessible to disabled persons. California has a few specific accessibility requirements in addition to ADA. All of the elevators meet most ADA and California Title 24 requirements. The sizes of the passenger elevators meet ADA for new and existing elevators. All the cars had proper hall lanterns and gongs. ***Appendix A*** provides a complete listing of the ADA/T24 requirements. The following is a list of which items need to be corrected to meet ADA:

    a. Car 7: No floor passing chime.

2. **Retro Active Codes for Existing Elevators/Escalators:** We reviewed the elevators for compliance to A17.3 Code, the national safety code for existing elevators. This code requires all elevators, no matter age or installation date, to meet a minimum level of safety. A17.3 is not adopted in California, thus not required by the State, but highly recommended. A complete check list for this retro-active code is included in ***Appendix B*** of this report. The elevators have been retro-actively upgraded for most of these codes. The following is a list of items missing:

    a. Install door restrictor on Car 7 and repair door restrictor on Car 4 that is inoperative.
    b. Install stop switches on the escalators that are readily visible.

3. **Seismic:** The elevators were installed prior to seismic code, thus the original elevators most likely did not have any seismic features. During modernizations in the late 1980's with Schindler/Haughton and more recently with TKE, many seismic features were added. The traction elevators have a seismic switch in the machine room, ring and string derailment, and seismic retainers. The fishplates on the car and counterweight rails are non-seismic, but do not need to be updated unless meeting the most stringent code is desired. The escalators most likely do not have any seismic protection. The gearless traction machines for passenger elevators 1-6 had seismic rope retainers but not in compliance with current seismic code.

F. Recommendation:

We recommend all traction machines be outfitted with correctly sized seismic rope retainers. All the elevators should be adjusted for proper operation. The floor-to-floor times are too slow. Because all of the elevators were recently modernized no major capital expenses are needed over the next ten years on the elevators. However, Car 7 should have a door restrictor added. All six (6) escalators should be fully modernized or replaced with new escalators. The building has a history of accidents on the escalators that have resulted in lawsuits, some of which have been considered frivolous.

Section II : Component Review

A. MACHINE ROOM:

Controllers:

The controllers were manufactured by CEC/Swift and installed locally by TKE when the elevators were recently modernized. The controllers have energy efficient SCR drives made by Magnetec, the world's leading supplier of SCR drives.

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Passenger Machines:

All the passenger elevators have Westinghouse gearless machines. The machines have D.C. hoist motors and appear to have been refurbished when modernized in the last 5 years. All the machines were found to be in good condition. Rope brakes were added. The machines have rope retainers but not all are installed correctly.

Service/Freight Machines:

Service Car 7 and Freight Car 8 have the original Westinghouse geared machines. The machines have the original D.C. hoist motors. Both the machines were found to be in good condition.

B. HOISTWAY:

Hoistway Construction:

The hoistway (elevator shaft) is the main area where the elevators go up and down. The hoistways are mostly built of drywall and some concrete.

Car Guide Rails:

The car rails are in good condition but do not have seismic fish plates. Upgrading the guide rails to current seismic standards is voluntary.

Pits:

The pits for are poured concrete with sump areas and metal grating. The pits were found to be clean and dry.

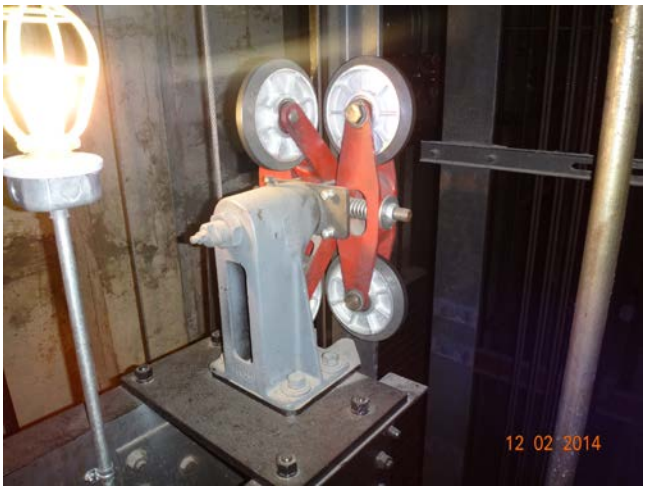
C. CAR TOP:

Door Operator:

The door operators are GAL MOVFR and are closed loop. The door operation was noted to be fair with room for improvement. All of the cars are equipped with door restrictors but Car 4 was disabled. The GAL door operators that are installed are known to be reliable and have a long life cycle.

Car Roller/Slide Guides:

On both sides of the elevators and on the top and bottom roller guides keep the elevators riding up and down the steel guide rails. The existing ride quality was noted to be good. High quality ELSCO roller guides appeared to be new from the last modernization. No work is anticipated on the roller guides.



D. SIGNAL FIXTURES:

Car Operating Panels:

All the elevators have the newer Car Operating Panels (COP's) installed during the recent elevator modernization. The panels are in good condition meet ADA and T24 and do not need any work at this time.

Hall Lanterns:

Hall lanterns inform persons waiting in the hall of which direction the elevator is about to travel in next. ADA requires that the hall lanterns illuminate and sound for the waiting passengers. The existing elevators have hall lanterns for each car. The lanterns have the proper gong for up and down.

Hall Call Pushbuttons:

At each floor hall call push buttons are located so that users can call the elevator. The hall call stations have raised operation buttons which meet ADA and California Title 24. These were all noted to be in good condition.

E. CAB INTERIOR:

Wall Finish:

The existing cab interiors are likely original and are in fair condition. The back wall has the code required handrail. The railing heights are in compliance with Title 24 California code.

Ceilings:

The cabs have down light ceilings with incandescent light fixtures. The light fixtures could be updated with energy efficient LED's and/or the entire ceiling could be replaced.

F. ESCALATORS

Escalators:

View of upper end of the escalators at the 4th floor with caution signs and proper lighting. Skirt brushes have been installed to reduce the possibility of shoes getting caught between the skirt to step gap. The stop switches are not readily visible.

Escalator Steps:

The escalator steps have the original smooth risers. Due to safety concerns these have been outlawed by the National retroactive safety code, A17.3, for over 20 years. While A17.3 is not adopted in California, the importance of having these steps replaced cannot be taken lightly.

Middle Section:

View of escalators at 2nd floor with two center escalators coming up from first floor and the outer escalators providing service from the 2nd to the 3rd floor.

Typical Escalator:

View of escalator looking up with smooth risers visible and skirt brushes installed.

Terminal:

View of terminal landing with combplates that are not contrasting color.

Vertical Transportation

EDD 722-800 Capitol Mall

Item No.	Recommendation	Rating	Quantity	Unit	Unit Cost	Immediate Code Items	Immediate - Repair	Years 1-3	Years 4-6	Years 7-10	Totals
1	Replace or modernize all six escalators. They have smooth step risers and are at the end of their useful service life.	1	6	EA	$400,000.00				$2,400,000		$2,400,000
2	Install yellow combplates on all the esacalators	1	6	EA	$1,200.00	$7,200					$7,200
3	Install car top handrails on Cars 1, 3-8	1	6	EA	$2,500.00	$15,000					$15,000
4	Install car numbers at the main lobby	1	8	EA	$100.00	$800					$800
5	Install door restrictor on Car 7	1	2	EA	$3,500.00	$7,000					$7,000
6	Adjust cars for proper performance and address deferred maintenance items	2	8	EA	$1,200.00		$9,600				$9,600
7	Perform five year full load tests on Cars 7 and 8	1	2	EA	$3,500.00	$7,000					$7,000
8	Install correct rope retainers on Cars 1-8	1	8	EA	$2,000.00	$16,000					$16,000
9	Install new stop switches on the escalators that are readily visible	1	6	EA	$1,000.00	$6,000					$6,000
10				EA							$0
11											
12											
	Subtotal					$59,000	$9,600	$0	$2,400,000	$0	$2,468,600

1	$59,000	Code and Safety
2	$9,600	Deferred Maintenance & Repair
3	$0	Capital Expenditure
4	$2,400,000	Modernization / Improvements
5	$2,468,600	Total

Rating:
1 - Code and Safety
2 - Repair and Maintenance
3 - Capital Expenditure
4 - Modernization / Improvements
5 - Total

Appendix A
ADA/California T24 ELEVATOR CHECKLIST

ADA	Item	Complies Yes/No/N/A	
		Cars 1-6	**Car 7**
	GENERAL		
4.10.1	Elevator must comply with ASME A17.1-1990. Freight elevators are not acceptable unless only elevator provided, and is permitted to carry passengers, both public and employees.	Yes	Yes
	AUTOMATIC OPERATION		
4.10.2	Elevators must be Automatic.	Yes	Yes
4.10.2	Self-leveling to within 1/2 in.	Yes	Yes
	HALL CALL BUTTONS		
4.10.3	Buttons centered at 42 in. above the floor.	Yes	Yes
4.10.3	Buttons to illuminate when call is entered and extinguish when answered.	Yes	Yes
4.10.3	Buttons to be at least 3/4 in. in the smallest dimension.	Yes	Yes
4.10.3	Up button located above down button.	Yes	Yes
4.10.3	Buttons raised or flushed. **(T24 must be raised)**	Yes	Yes
4.10.3	Objects mounted beneath hall buttons not to project into the lobby more than 4 in.	Yes	Yes
	HALL or CAR LANTERNS		
4.10.4	Visible and audible signals at each hoistway entrance to indicate which car is responding to the call.	Yes – Hall/Car	Yes – Car
4.10.4	Audible signals to sound once for up and twice for “down” or may verbal announcement stating “up” “down.”	Yes	Yes
4.10.4	Hall directional lantern centered 72 in. above floor.	Yes	Yes
4.10.4	Directional lantern visible elements minimum of 2-½ in. in the smallest dimension.	Yes	Yes
4.10.4	Directional lanterns must be visible from the vicinity of the hall call button.	Yes	Yes
4.10.4	In car lanterns, meeting the requirements above are acceptable in lieu of hall directional lanterns.	N/A	N/A
	HOISTWAY ENTRANCES		
4.10.5	Raised and Braille floor designations are required on both door jambs. Permanently applied plates are acceptable. **(T24 must be to the left)**	Yes	Yes
4.10.5	Centerline of floor designation characters 60 in. above floor.	Yes	Yes
4.30.4	Characters must be 2 in. high, raised 1/32 in. upper sans serif (block letters) or simple serif type.	Yes	Yes
4.30.4	Grade II Braille to accompany raised characters.	Yes	Yes
	DOOR PROTECTIVE & REOPENING DEVICES		
4.10.6	Doors must open and close automatically.	Yes	Yes
4.10.6	Non-contact door reopening device at 5 in. and 29 in. above the floor.	Yes	Yes

Appendix A
ADA/California T24 ELEVATOR CHECKLIST

ADA	Item	Complies Yes/No/N/A	
		Cars 1-6	**Car 7**
4.1.6(3)(c)	If safety edges are provided on existing elevators, the non-contact door reopening devices may be omitted.	Yes	Yes
4.10.6	Reopening device to remain operational for at least 20 seconds.	**No**	Yes-8 **No-6,7,9**
	DOOR AND SIGNAL TIMING		
4.10.7	Minimum acceptable door open time from notification car is answering a hall call until the car doors begin to close: *T=D/(1.5ft/s,* where *T* is the total time in and *D* is the distance from a point in the lobby or corridor 60 in. directly in front of the farthest button controlling that car to centerline of its hoistway door.	Yes	Yes
4.10.7	Minimum acceptable notification time 5.0 seconds.	Yes	Yes
	DOOR DELAY FOR CAR CALLS		
4.10.8	Doors to remain open for a minimum of 3.0 seconds in response to car calls.	Yes	Yes
	FLOOR PLAN NEW ELEVATOR		
4.10.9	At least 36" wide door. Side Open Door: Cab must be 5'-8" wide x 4'-3" deep Center Open Door: Cab must be 6'-8" wide by 4'-3" deep	Yes	Yes
	FLOOR PLAN EXISTING ELEVATOR		
4.1.6	Minimum of 48" x 48"	Yes	Yes
4.10.9	Clearance between car platform sill and edge of hoistway landing sill no greater than 1-¼ in.	Yes	Yes
	Handrails Circular Square Dia.____Top of Handrail _____ Height Side Back **(T24 must be 32")**	Yes	Yes
	FLOOR SURFACES		
4.10.10	Surfaces to be stable, firm and slip resistant.	Yes	Yes
4.5.3	Carpeting if installed must have firm cushion, pad or backing, or no cushion or pad. Carpeting must have level loop, textured loop, level pile texture. Carpeting pile thickness not to exceed 1/2 in. Carpeting must have exposed edges fastened to the floor surface. Exposed edges of carpets must be trimmed.	Yes	Yes
	ILLUMINATION LEVELS		
4.10.11	Five foot-candles of illumination to be provided at car controls, platform and at sill.	Yes	Yes
	CAR CONTROLS		
4.10.12	Buttons to be at least 3/4 in. in their smallest dimension.	Yes	Yes
4.10.12	Buttons must be flush or raised. **(T24 must be raised)**	Yes	Yes
4.10.12	Buttons must be designated by raised characters and Braille or symbols complying with ASME A17.1 Rule 210.13.	Yes	Yes
4.10.12	Characters must be a minimum of 5/8 in. high, upper case sans (block letters) or simple serif type.	Yes	Yes

Appendix A
ADA/California T24 ELEVATOR CHECKLIST

ADA	Item	Complies Yes/No/N/A	
		Cars 1-6	**Car 7**
4.10.12	Grade II Braille to accompany raised character of symbol.	Yes	Yes
4.10.12	Raised designations must be to the immediate left of the button to which they apply.	Yes	Yes
4.10.12	Call button illuminates when call is entered and extinguish when answered.	Yes	Yes
4.10.12	Floor buttons must be no higher then 48 in. when located in front return. Buttons must be no higher than 54 in. when a side approach provided.	Yes	Yes
4.10.12	Emergency controls, including emergency alarm and emergency stop (if provided) must be grouped at the bottom of the panel and have centerlines no less than 35 in. above the finished floor.	Yes	Yes
4.10.12	Controls must be on the front return wall with center-opening doors. They may be on the front return or strike jamb sidewall with side doors.	Yes	Yes
	CAR POSITION INDICATORS		
4.10.13	Visual car position indicator must be provided above control panel or over door.	Yes	Yes
4.10.13	Car position indicator numerals must be a minimum of 1/2 in. high.	Yes	Yes
4.10.13	Audible signal to sound as the car passes or stops at a floor and a corresponding floor designation must illuminate. Audible signal must be at least 20 dB with a frequency no higher than 1,500 Hz.	No	No
4.10.13	A button to activate audible signal only for desired trip may be provided.	N/A	N/A
4.10.13	An automatic verbal announcement the floor at which a car stops may be substituted for the audible signal.	Yes	**No**
	EMERGENCY COMMUNICATIONS		
4.10.14	If provided, emergency two-way communication systems between the elevator and a point outside the hoistway must comply with ASME A17.1-1990, Rule 211.1.	Yes	Yes
4.10.14	The highest operable part must be a maximum of 48 in. from the car floor.	Yes	Yes
4.10.14	Emergency communication identification must be provided and located adjacent to the device. Characters must be a minimum of 5/8 in. high raised 1/32 in., upper case serif (block letters) or simple serif type, and accompanied by Grade II Braille.	Yes	Yes
4.10.13	If a handset is provided the cord must be at least 29 in. long.	N/A	N/A
4.27.4	If located in a closed compartment, the door must be operable with one hand. It must not require tight grasping, pinching or twisting of the wrist. The force required to open the door must not exceed 5 lb/f.	N/A	N/A
4.10.13	The system must not require voice communication.	Yes	Yes

Appendix B
A17.3 National Retro-active Safety code

A17.3	Code Item	Cars: 1-6	Cars: 7	Car: 8
2.1	**HOISTWAYS**			
2.1.1	Hoistway Construction (Enclosed & Fire rated per local code or ANSI/NFPA No. 101)	Yes	Yes	Yes
2.1.2	Windows in Hoistway Enclosures: (If provided are they guarded properly.)	Yes	Yes	Yes
2.1.3	Projections in Hoistway (Must be flush and level; Leveling zone +3"./ 60 to 75 deg bevel.)	Yes	Yes	Yes
2.1.4	Pipes Conveying Gases, Vapors, or Liquids. (If provided must be properly covered & securely fastened.)	Yes	Yes	Yes
2.1.5	Counterweight Guards (Start at 12" go to 84" above pit floor; not needed with comp rope/chain)	N/A	N/A	N/A
2.2	**MACHINE ROOMS AND MACHINERY SPACES**			
2.2.1	Enclosures – Designated Machine Room (No-non elevator equipment- existing can stay)	Yes	Yes	Yes
2.2.2	Access to Machine Rooms and Machinery Spaces (A permanent means to the machine room- locked door)	Yes	Yes	Yes
2.2.3	Lighting(Permanent lighting in all machine rooms)	Yes	Yes	Yes
2.2.4	Ventilation (Natural or mechanical to avoid overheating)	Yes	Yes	Yes
2.2.5	Pipes Conveying Gases, Vapors, or liquids (Existing pipes allowed if guarded to prevent discharge)	Yes	Yes	Yes
2.2.6	Protection From Weather	Yes	Yes	Yes
2.3	**PITS**			
2.3.1	Access to Pits (Means of access to all pits. If access door provide closer & keys onsite.)	Yes	Yes	Yes
2.3.2	Drains (Drains connected directly to the sewer are not permitted.)	Yes	Yes	Yes
2.3.3	Stop Switch (A stop switch shall be provided for every pit. Locate near access, color, etc.)	Yes	Yes	Yes
2.4	**CLEARANCES AND RUNBYS**			
2.4.1	Horizontal Car Clearances (Not more then 5" for horizontal doors; 7.5" for vertical doors)	Yes	Yes	Yes
2.4.2	Bottom Car Clearances (Car shall not strike any equipment when resting on fully compressed buffer.)	Yes	Yes	Yes
2.4.3	Bottom Car and Counterweight Runby (Shall not exceed 24" for cars; or 36" for cwt.)	Yes	Yes	Yes
2.4.4	Top Car Clearance (Car does not strike any overhead structure)	Yes	Yes	Yes
2.4.5	Landing Sill Clearance (At least ½" for side guides; at least ¾" for corner guides. Max cannot exceed 1 ½".)	Yes	Yes	Yes
2.5	**PROTECTION OF SPACES BELOW HOISTWAYS**			
2.5	Counterweight safeties required	N/A	N/A	N/A
2.6	**HOISTWAY ENTRANCES**			
2.6.1	Doors or Gates Required (Passenger Elevators – full width/height – no hand latches.) (Freight Elevators – at least 6-0" gate)	Yes	Yes	Yes
2.6.2	Closing of Hoistway Doors (Door closers required on cars except swinging portion of horizontal door)	Yes	Yes	Yes
2.6.3	Hoistway Door Vision Panels(Required on manually operated or self closing doors, location,Size, and type of glass)	N/A	N/A	Yes
2.6.4	Door Hangers (Prevent jumping, and stops, 4 times load)	Yes	Yes	Yes
2.6.5	Non-Shearing Astragals (For vertical bi-parting doors only)	N/A	N/A	Yes
2.6.6	Pull Straps (Must not be more than 6'-6" from floor when open)	N/A	N/A	N/A
2.7	**HOISTWAY DOOR LOCKING DEVICES, PARKING, DEVICES, AND ACCESS**			
2.7.1	Hoistway Door or Gate Locking Devices (Mechanical and electrical interlocks required)	Yes	Yes	Yes
2.7.2	Elevator Parking Device (For cars operated from within car only)	N/A	N/A	N/A
2.7.3	Access to Hoistway (Hoistway door unlocking devices and access switches)	Yes	Yes	Yes
2.7.4	Restricted Opening of Hoistway Doors and/or Car Doors on Passenger Elevators	No Car 4	No	N/A

A17.3	Code Item	Cars: 1-6	Cars: 7	Car: 8
	(Cannot open more then 4" outside unlocking zone +-18" max.)			
2.7.5	Hoistway Emergency Door Contacts (Positively opened)	Yes	Yes	Yes
2.8	**POWER OPERATION OF DOORS AND GATES**			
2.8.1	Kinetic Energy and Force Limitations for Power-operated Horizontal Sliding Doors. (Shall not exceed 7ft/lbs. with re-opening device, without 2.5ft/lbs.; cannot exceed 30 ft/lbs)	Yes	Yes	Yes
2.8.2	Reopening Device for Power-Operated Car Doors or Gates (Can be rendered inoperative if less then 2.5ft/lb)	Yes	Yes	Yes
	Part III			
3.1	Buffers And Bumpers (Car and counterweight buffers are required)	Yes	Yes	Yes
3.2	Counterweights (The weights shall be protected so that they cannot be dislodged. The rod nuts shall be protected)	Yes	Yes	Yes
3.3	**CAR FRAMES AND PLATFORMS**			
3.3.1	Car Platforms(Cover entire area)	Yes	Yes	Yes
3.3.2	Platform Guards (Aprons) (Vertical face at least 21", 60-75deg, withstand 150#)	Yes	Yes	Yes
3.3.3	Hinged Platform Sills(Must have contacts & prevent operation unless within 2")	N/A	N/A	N/A
3.3.4	Floating (Movable) Platforms (Prohibited if car can move when door is not closed)	N/A	N/A	N/A
3.3.5	Protection of Platforms Against Fire (Must be covered with sheet metal or fire resistant material)	Yes	Yes	Yes
3.4	**CAR ENCLOSURES**			
3.4.1	Car Enclosures (Passenger – total enclosed; Frt maybe perforated, but not by the cwt.; Car top must withstand 300lbs on any 2sqft.)	Yes	Yes	Yes
3.4.2	Car Doors and Gates (Must have gate or door and electric contract)	Yes	Yes	Yes
3.4.3	Location of Car Doors and Gates (Hor, distance not more then 5 ½"., Swing door 4" max., space and site guard requirements.)	Yes	Yes	Yes
3.4.4	Emergency Exits (Cover hinged, single car blind shaft-every 36', side allowed)	Yes	Yes	Yes
3.4.5	Car Illumination (At least two lights, 5ftc; frt=2.5ftc; emerg. .2ftc for 4 hrs.)	Yes	Yes	Yes
3.4.6	Protection of Light Bulbs and Tubes (Guarded or coated to prevent breaks)	Yes	Yes	Yes
3.5	**SAFTIES**			
3.5.1	Car Safeties (Every car must have a safety)	Yes	Yes	Yes
3.5.2	Counterweight Safeties (If occupied space below)	Yes	Yes	Yes
3.5.3	Safeties to Stop Ascending Cars or Counterweights Prohibited (Cannot be provided)	Yes	Yes	Yes
3.5.4	Application and Release of Safeties (Must be mechanical can only release if car goes up)	Yes	Yes	Yes
3.5.5	Max. Permissible Movement of Gov. Rope to Oper. Safety (For type "B" Safties-200ft or less 42in.; 201 to 375fpm – 36in.; Over 375 FPM 30in. Cwt. = 42in all speeds.)	Yes	Yes	Yes
3.5.6	Rail Lubricants and Lubrication Plate (Plate on cross head stating type of lubricant or none at all.)	Yes	Yes	Yes
3.5.7	Overall Length of Guide Rails (Extended to prevent disengaging)	Yes	Yes	Yes
3.6	**SPEED GOVERNORS**			
3.6.1	Speed Governor Overspeed and Car Safety Mechanism Switches. (A switch shall be provided when speed is over 150FPM. For static control switch shall be for all speeds & both direct.)	Yes	Yes	Yes
3.6.2	Governor Ropes (Shall be of iron, steel, monel metal, phosphor bronze, or ss. At least 3/8" in diameter Tiller rope not allowed.)	Yes	Yes	Yes
3.7	**CAPACITY AND LOADING**			
3.7.1	Minimum Rated Load for Passenger Elevators (per table 3.7.1)	Yes	Yes	Yes
3.7.2	Use of Partitions for Reducing Inside Net Platform Area (Partitions must be permanent and symmetrical)	N/A	N/A	N/A
3.7.3	Min. Rated Load for Freight Elevators (Class A = Not more then ¼ of total cap.; Class B = Motor Veh.; Class C = loading with industrial truck, etc.)	N/A	N/A	N/A
3.7.4	Capacity Plates	Yes	Yes	Yes

A17.3	Code Item	Cars: 1-6	Cars: 7	Car: 8
	(Every car must have one with rated load; Frt : one piece loads, loading and unloading; ¼" high for pass, 1" for frt.)			
3.7.5	Signs on Freight Elevators(NOT A PASS ELEV…etc. ½" high letters)	N/A	N/A	Yes
3.8	**DRIVING MACHINES AND SHEAVES**			
3.8.1	General Requirements (Must be cast iron or steel, fin. Grooves no set screws)	Yes	Yes	Yes
3.8.2	Winding Drum Machines (Must have slack rope switch; Chain, belt, or rope-driven mechanisms shall not be used.)	N/A	N/A	N/A
3.8.3	Indirect-Drive Machines (Must be at least 3 belts, safety factor of 10)	Yes	Yes	Yes
3.8.4	Brakes (Must be released electrically and have spring or gravity and friction)	Yes	Yes	Yes
3.9	**TERMINAL STOPPING DEVICES**			
3.9.1	Normal and Terminal Stopping Devices (Locate at upper and lower terminals. If in machine room provide broken rope, tape or chain switch)	Yes	Yes	Yes
3.9.2	Final Terminal Stopping Devices (Winding drum machines- on machines and in hoistway; Traction – in the hoistway operated by the car.)	Yes	Yes	Yes
3.10	**OPERATING DEVICES AND CONTROL EQUIPMENT**			
3.10.1	Types of Operating Devices (Rope or rod devices shall not be used.)	Yes	Yes	Yes
3.10.2	Car-Switch Operation Elevators (If provided must return to stop position if released by hand)	Yes	Yes	Yes
3.10.3	Top-of-Car Operating Devices (Continuous pressure <150FPM; between crosshead & door)	Yes	Yes	Yes
3.10.4	Electrical Provisions			
	(a) Slack Rope Switch	N/A	N/A	N/A
	(b) Motor-Generator Running Switch	N/A	N/A	N/A
	(c) Compensating Rope Sheave Switch	N/A	Yes	Yes
	(d) Broken rope, tape or chain	Yes	Yes	Yes
	(e) Stop Switch – Top of Car- marked "stop" & "run"	Yes	Yes	Yes
	(f) Car-Safety Mechanism Switch	Yes	Yes	Yes
	(g) Speed Gov. Overspeed Switch	Yes	Yes	Yes
	(h) Final Terminal Stopping Devices	Yes	Yes	Yes
	(i) Emergency Terminal Stopping Devices (reduced stroke)	Yes	Yes	Yes
	(j) Motor Generator Overspeed Protection	N/A	N/A	N/A
	(k) Motor Field Sensing Means (not required w/ static drive)	Yes	Yes	Yes
	(m) Buffer Switches for Oil Buffers (type c safety)	N/A	N/A	N/A
	(n) Hoistway Door Interlocks or Hoistway Door Contacts	Yes	Yes	Yes
	(p) Car Door or Gate Electric Contacts	Yes	Yes	Yes
	(q) Normal Terminal Stopping Devices	Yes	Yes	Yes
	(r) Car Side Emergency Exit Electric Contact	N/A	N/A	N/A
	(s) Electric Contacts for Hinged Car Platform Sills	N/A	N/A	N/A
	(t) In-Car Stop Switch (Must be keyed, if provided)	Yes	Yes	Yes
	(u) Emergency Stop Switch (Must be provided for freight cars)	Yes	Yes	Yes
	(v) Stop Switch in Pit	Yes	Yes	Yes
	(w) Buffer Switches for Gas Spring Return Oil Buffers	N/A	N/A	N/A
3.10.5	Power Supply Line Disconnecting Means (Provided w/ overcurrent protection, within site, and numbered)	Yes	Yes	Yes
3.10.6	Phase Reversal and Failure Protection (Means to prevent starting if out of phase)	Yes	Yes	Yes
3.10.7	Devices for Making Hoistway Door Interlocks or Electric Contacts, or Car Door or Gate Electric Contacts Inoperative (These devices are prohibited)	Yes	Yes	Yes
3.10.8	Release and Application of Driving Machine Brakes (If ungrounded or if stop switch is pulled shall release brake)	Yes	Yes	Yes
3.10.9	Control and Operating Circuit Requirements (The failure of any single magnetically operated switch)	Yes	Yes	Yes
3.10.10	Absorption of Regenerated Power (Provide means to absorb energy during overhauling)	Yes	Yes	Yes

Appendix B
A17.3 National Retro-active Safety code

A17.3	Code Item	Cars: 1-6	Cars: 7	Car: 8
3.11	**EMERGENCY OPERATION AND SIGNALING DEVICES**			
3.11.1	Car Emergency Signaling Devices (Audible signal, two-way communication, on emerg. power)	Yes	Yes	Yes
3.11.2	Operations of Elevators Under Standby (Emergency) Power (If provided must be able to absorb regenerative power)	Yes	Yes	Yes
3.11.3	Firefighters' Service (A17.1-1987 Rules 211.3 through 211.8- appendix C; phase I and II switches shall be the same in each bldg)	Yes	Yes	Yes
3.12	**SUSPENSION MEANS AND THEIR CONNECTIONS**			
3.12.1	Suspension Means (Must be wire rope made of iron or steel- Elevator ropes only)	Yes	Yes	Yes
3.12.2	Rope Data Tag	Yes	Yes	Yes
3.12.3	Factor of Safety (f = SxN/W or table 3.12.3)	Yes	Yes	Yes
3.12.4	Minimum Number and Diameter of Suspension Ropes (3 for traction; 2 for drum; minimum diameter = 3/8")	Yes	Yes	Yes
3.12.5	Suspension Rope Equalizers (When provided shall be of the individual-compression spring type)	Yes	Yes	Yes
3.12.6	Securing of Suspension Wire Ropes to Winding Drums (rope must be secured by clamps or tapered babbitted sockets.)	N/A	N/A	N/A
3.12.7	Spare Turns on Winding Drums (Not less then one turn of the rope when car is on buffer)	N/A	N/A	N/A
3.12.8	Suspension Rope Fastenings (Spliced eyes by return loop may continue in service)	Yes	Yes	Yes
3.12.9	Auxiliary Rope Fastening Devices	N/A	N/A	N/A

Appendix "C"

Performance Review and Maintenance Deficiency List

Performance Review:

In this section we provide the results of randomly reviewing 50% or more of the performance of all elevators.

Part A: Definitions

A stopwatch, tachometer, and spring gauge are utilized to measure the performance of each elevator. Original equipment design, national and local codes and other factors govern these times. The following is an explanation of each item that was reviewed.

- Car Door Dwell Time: When an elevator is responding to a car call, the code requires the elevator doors to stay open a minimum of 3.0 seconds. This is to allow ample time for the passengers to exit.
- Hall Call Dwell Time: When an elevator is responding to a hall call, the code requires the elevator doors to stay open a minimum of 5.0 seconds. This is to allow ample time for the passengers to enter the elevator.
- Floor-To-Floor Time: This measures the time that it takes an elevator to go from one floor to the next floor. Door open and close times are calculated into this time to provide a meaningful measurement. The stopwatch is started when the doors start to close and is stopped when the elevator is level at the next floor with the doors ¾ open for center opening doors, and ½ open for side opening doors.
- Door Open Time: The door open time is measured when the doors start to open until they are fully open.
- Door Close Time: The door close time is measured when the doors start to close until they are fully closed.
- Full Speed: Full speed of an elevator is measured in the machine room utilizing a tachometer or in the car using an accelerometer.
- Door Closing Pressure: The force required to prevent the doors from closing. This pressure is measured with a spring gauge.
- Ride Quality: Acceleration, deceleration, side-to-side sway and noise level are evaluated in this section.

On the following page the results of the elevators checked are provided.

Appendix "C"

Performance Review and Maintenance Deficiency List

	Passenger Cars 1-6							
	PERFORMANCE TIMES	**Design 1-6**	**Car 1**	**Car 2**	**Car 3**	**Car 4**	**Car 5**	**Car 6**
7.1	Door Open Time	**1.6**	**2.3**	**3.2**	**3.1**	**3.0**	**2.7**	**2.5**
7.2	Door Close Time	**2.4**	**3.6**	2.6	**3.5**	**3.1**	**3.0**	**3.0**
7.3	Floor to Floor Up	**8.0**	**12.7**	**13.8**	**12.9**	**12.5**	**13.6**	**12.1**
9.6	Floor to Floor Down	**8.0**	**12.8**	**13.1**	**12.8**	**12.5**	**13.0**	**13.4**
7.5	Full Speed Up	**500 FPM**	495	496	497	495	496	496
7.6	Full Speed Down	**500 FPM**	494	494	495	495	495	495
7.7	Jerk Rate Up	**< 7.0**	8.6	9.3	**10.5**	**11.5**	7.6	**11.8**
7.8	Jerk Rate Down	**<7.0**	7.2	6.7	8.9	7.3	9.2	5.4
7.9	Power Closing of Door (Pressure Gauge)	**<30lbs**	24 lbs	-	24 lbs	23 lbs	26 lbs	18 lbs
7.10	Interrupted Ray	**.5sec**	3.2	1.3	1.5	4.3	1.4	4.2
7.11	Car Dwell Time	**3.0**	4.0	4.1	4.0	6.5	3.8	7.7
7.12	Hall Call Dwell Time	**5.0**	6.5	5.6	5.2	7.6	**3.8**	6.4
7.13	Hall/Car Lantern Time	**8.0**	12.7	9.5	11.0	7.6	**3.8**	6.4
	Nudging	**20.0**	13	19	20	14	17	14
	Test Emergency Phone	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes

Items in Red do not comply and should be adjusted.

Car #	**GENERAL MAINTENANCE DEFICIENCIES**
	Car 1
1.1	E-phone was too busy to answer but phone works.
1.2	Nudging is only 13 seconds.
1.3	Car top is dirty.
1.4	No car top railing.
1.5	Rope retainers are incomplete on the hoist machine.
1.6	No car number at the lobby.
	Car 2
2.1	Car top and pit are very dirty.
2.2	Nudging is too short.

2.3	Rope retainers are incomplete on the machines.
2.4	No Car numbers at the lobby.
	Car 3
3.1	Car top and pit are very dirty.
3.2	Nudging is too short.
3.3	Rope retainers are incomplete on the machines.
3.4	No Car numbers at the lobby.
	Car 4
4.1	Car top and pit are very dirty.
4.2	Nudging is too short.
4.3	Rope retainers are incomplete on the machines.
4.4	No Car numbers at the lobby.
4.5	Governor/sheave access space is not locked and no signs.
4.5	Door restrictor does not work.
4.6	No car top handrails.
	Car 5
5.1	Car top and pit are very dirty.
5.2	Nudging is too short.
5.3	Rope retainers are incomplete on the machines.
5.4	No Car numbers at the lobby.
5.5	Governor/sheave access space is not locked and no signs.
5.6	No car top handrails.
	Car 6
6.1	Car top and pit are very dirty.
6.2	Nudging is too short.
6.3	Rope retainers are incomplete on the machines.
6.4	No Car numbers at the lobby.
6.5	Governor/sheave access space is not locked and no signs.
6.6	No car top handrails.

Appendix "C"

Performance Review and Maintenance Deficiency List

Freight Cars 7 and 8					
	PERFORMANCE TIMES	**Design**	**Car 7**	**Design**	**Car 8**
7.1	Door Open Time	**1.8**	2.9/1.6		N/A
7.2	Door Close Time	**2.7**	4.2/3.8		N/A
7.3	Floor to Floor Up (3 to 4)	**8.6**	18.3		N/A
9.6	Floor to Floor Down (4 to 3)	**8.6**	17.7		N/A
7.5	Full Speed Up	**200 FPM**	192	**200 FPM**	192
7.6	Full Speed Down	**200 FPM**	194	**200 FPM**	198
7.7	Jerk Rate Up	**< 7.0**	5.8	**< 7.0**	7.6
7.8	Jerk Rate Down	**< 7.0**	7.6	**< 7.0**	**7.8**
7.9	Power Closing of Door (Pressure Gauge)	**<30lbs**	20#/21#	**<30lbs**	N/A
7.10	Interrupted Ray	**.5sec**	23	**.5sec**	N/A
7.11	Car Dwell Time	**3.0**	3.1	**3.0**	N/A
7.12	Hall Call Dwell Time	**5.0**	9.1	**5.0**	N/A
7.13	Hall/Car Lantern Time	**8.0**	12.5	**8.0**	N/A
7.14	Nudging	**20.0**	12/6	**20.0**	N/A
7.15	Test Emergency Phone	**Yes**	Yes	**Yes**	Yes

	Car 7
7.1	No annual or five year test tags.
7..2	Hoist machines brushes are clicking and making a lot of noise.
7.3	No rope retainers on governor.
7.4	No lobby number for ID
7.5	Car top is dirty.
7.6	Pit is dirty.
7.7	Cat top railings are needed.
7.8	Car 7 was not weighed after cab mod or label changed on cross head.

Appendix “C”

Performance Review and Maintenance Deficiency List

	Car 8
8.1	E-phone operator identified Car 8 as Car 7.
8.2	Pit is very dirty.
8.3	Car top is dirty.
8.4	No lobby ID number.
8.5	Car top railings are needed.

Prepared by

EMG
222 Schilling Circle, Suite 275
Hunt Valley, Maryland 21031
800.733.0660
410.785.6220 (fax)
www.emgcorp.com

EMG Contact

Matthew Anderson
Program Manager
800.799.0660

EMG Project No.

111326.14R.002.305

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