Governor Edmund G. "Pat" Brown Building (418)

505 Van Ness Avenue, San Francisco, CA 94102

Facility Condition Assessment

September 2015

Prepared for the State of California Department of General Services

TABLE OF CONTENTS

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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 Governor Edmund G."Pat" Brown / CPUC Building (418).

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 Governor Edmund G."Pat" Brown / CPUC Building (418) 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 Governor Edmund G."Pat" Brown / CPUC Building (418) on February 15-16, 2015. The evaluation team reviewed available engineering studies and construction documents to familiarize themselves with the physical conditions. The evaluation team conducted a walk-through of the building to observe building systems and components, identify physical deficiencies, and formulate recommendations to remedy any deficiencies.

SURVEY FINDINGS

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

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

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

Key Finding	Metric
Current Replacement Value	$153,774,485
Immediate Repair Costs (12 months)	$1,811,352
1-5 Year Capital Needs	$25,113,852
6-10 Year Capital Needs	$1,475,638
Total 10-Year Capital Reserve Needs	$28,400,842

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

Current Year FCI

$$\text{Current FCI} = \frac{\$1,811,352}{\$153,774,485}$$

Ten-Year FCI

$$\text{Ten} - \text{Year FCI} = \frac{\$28,400,842}{\$153,774,485}$$

Current Year FCI	Ten-Year FCI
1.18 %= *Good Condition*	**18.47 %= *Poor Condition***

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

- The emergency generator is original to the building and beyond its expected useful life. Replacement is recommended.
- The heating and cooling system controls are original to the building and limits maintenance staff in the ability to monitor and manage systems. Upgrades and replacements are recommended.
- The cooling tower is original to the 1984 construction. Based on its current condition, replacement is recommended.
- The co-generation equipment is original to the building and has been decommissioned. Removal 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 Governor Edmund G. "Pat" Brown / CPUC Building at 505 Van Ness Avenue in San Francisco serves as the headquarters for the California Public Utilities Commission. Named after the former Governor and designed by Skidmore Owings and Merrill, construction of this unique cylindrical building was completed in 1984.

A 1982 agreement between the City and County of San Francisco Redevelopment Agency and the State of California created the San Francisco State Building Authority, a Joint Powers Authority entity that has jurisdiction over and constructed the building through the issuance of lease revenue bonds. The bonds were fully paid off in October 2013. However the building and property remain under the jurisdiction of the San Francisco State Building Authority.

The 5 story building, along with offices, has an auditorium and private meeting rooms for the California Public Utilities Commission meetings, as well as a 1st floor cafeteria. The building's landscaped open-air central atrium provides for public open space. The facility houses several pieces of art: Olivia Jackson's painting in the Visitor's Entry, Mathew Thomas's painting in the entrance to the Utility Commission's Hearing Room, Al Wong's window art in the cafeteria, the courtyard sculpture by Olga Rozsa in the courtyard along with Stephen Destaebler's Totem Columns. The building has a mechanical penthouse and there is a two floor, 92,978 square foot underground parking facility with 235 spaces.

The building occupants number 868 and the gross square footage is 383,503, of which the office space occupies a gross square footage of 290,525, with a total net usable square footage of 217,497. The ratio of gross to net usable is 74.9%.

BUILDING DESCRIPTION

The Governor Edmund G."Pat" Brown / CPUC Building is comprised of a single, 5-story building with a central courtyard containing 383,505 gross square feet. Construction of the property was completed in 1984. According to property management personnel, the property has had an active capital improvement program which includes both past and planned future improvements. However, there are a number of immediate repairs and capital reserve costs recommended over the evaluation period. These needs are identified in the various sections of this report.

The building's structural system consists of conventional concrete masonry bearing walls, steel roof framing, a steel superstructure and corrugated metal floor and roof decks which are topped with a lightweight leveling concrete. The roof structure is flat and covered with a built-up roofing system throughout. The exterior walls are smooth-finished cast in-place concrete panels with exposed aggregate and painted metal trim along with double glazed glass curtain walls.

The building has painted interior gypsum board walls throughout while the floors are finished with commercial carpet tiles, commerial carpeting, vinyl floor tiles, vinyl sheet flooring, ceramic tiles and Terazzo flooring. The interior ceilings are finished with acoustical ceiling tiles and painted gypsum ceilingboards.

Heating and cooling is provided by a central hydronic system comprised of central boilers, chillers, cooling towers and sporadic evaporative coolers. Domestic hot water is provided to the restrooms, break room areas, showers, and a tenant commercial kitchen by a commercial grade natural gas-fired hot water heater located in the mechanical room.

Fire/Life Safety systems include fire suppression sprinklers, fire hydrants surrounding the site nearby, smoke detectors, a full complement of fire alarms/devices, handheld fire extinguishers and wet standpipes. The building has a single 750 kW emergency diesel generator and one electric fire pump. The facility is served by four overhead traction and three hydraulic passenger elevators. One traction elevator has both front and rear access and is designated specifically as a freight elevator. Two passenger elevators serve the lower level parking garage and one is designated as a private lift solely for the use by passengers requiring vertical conveyance to the fifth floor.

The building covers nearly the entire site and the only landscaping occurs at the central courtyard. This landscaping consists of mature trees, shrubs, and green lawn areas. Landscaped areas are also irrigated by an in-ground drip irrigation system. The parking lots throughout are subtereanean and constrcuted with concrete while there is a minor area of aspahlt paving at the rear of the site. This aspahlt includes a small parking lot as well as a rear driveway which provides access to the subterranean parking grarge. Based on a physical count there is parking for 250 vehicles. The sidewalks throughout the property are constructed of cast-in-place concrete with cast-in-place concrete steps with metal handrails occurring at areas of grade changes.

Project Statistics

Item	Description
Project Name	Governor Edmund G."Pat" Brown / CPUC Building
Building ID	418
Property Type	Administration
Year Built	1984
Number of Stories	5
Occupied	Yes
Land Area (acres)	1.94
Gross Square Feet (GSF)	383,505

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 Governor Edmund G."Pat" Brown / CPUC Building (418) on February 15-16, 2015. The survey included analysis and observation of the building's interior and exterior, including the roofs. The evaluation team interviewed the building maintenance staff to inquire about the subject property's previous repairs and replacements and their costs, level of preventive maintenance exercised, pending repairs and improvements, and frequency of repairs and replacements. Opinions were developed based on the site evaluation, interviews with relevant maintenance providers and facilities managers, and previous experience with comparable properties. The evaluation team questioned those knowledgeable of the subject property's physical condition and operation (or knowledgeable of similar systems) to gain comparative information to use in evaluation of the subject property. In addition, the building staff provided documents and information to the evaluation team that were relevant to the subject property's physical improvements, extent, and type of use and assisted the team in identifying potential discrepancies between reported information and observed conditions.

[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.

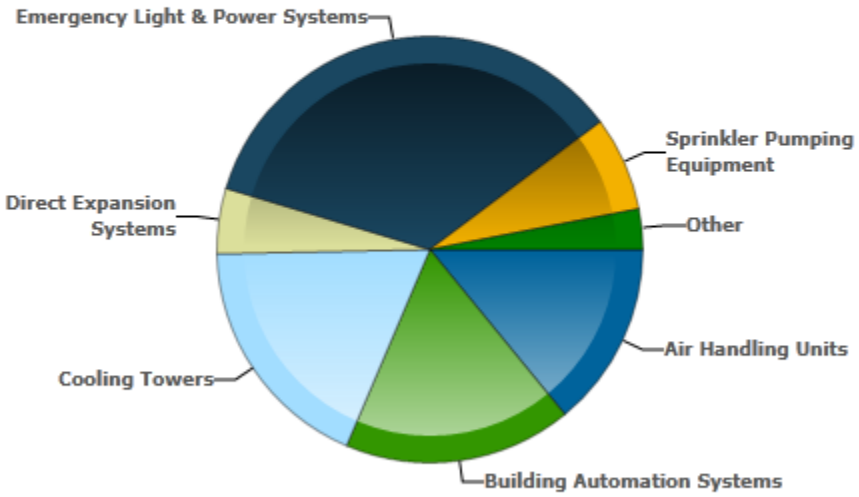
PRIORITY RATIO

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.

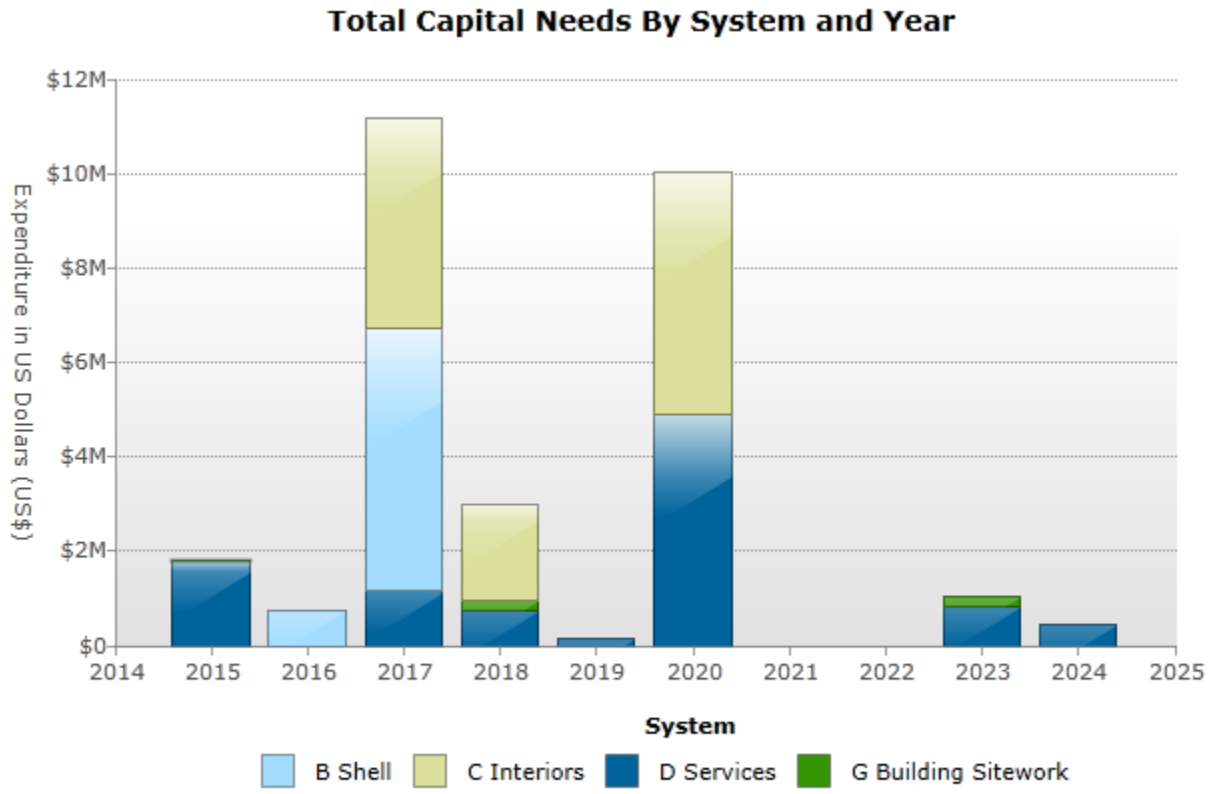
The physical condition of building systems and related components are typically defined as being in one of four conditions: Good, Fair, Poor, or Very Poor, or a combination thereof. For the purposes of this report, the following definitions are used:

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
D3031	Cooling Towers	$331,160
D3032	Direct Expansion Systems	$89,715
D3041	Air Handling Units	$254,984
D3042	Exhaust Ventilation Systems	$30,719
D3068	Building Automation Systems	$313,859
D4012	Sprinkler Pumping Equipment	$129,633
D5092	Emergency Light & Power Systems	$636,503
D5094	Other Special Systems & Devices	$12,980
G3060	Fuel Distribution	$11,800
	Total	**$1,811,352**



	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	$0	$0	$1,799,552	$0	$0	$11,800	**$1,811,352**
2016	$0	$763,200	$0	$0	$0	$0	$0	**$763,200**
2017	$0	$5,543,592	$4,460,446	$1,165,291	$0	$0	$0	**$11,169,329**
2018	$0	$0	$2,043,029	$724,079	$0	$0	$237,100	**$3,004,209**
2019	$0	$0	$0	$146,591	$0	$0	$0	**$146,591**
2020	$0	$0	$5,137,292	$4,893,232	$0	$0	$0	**$10,030,524**
2023	$0	$0	$0	$806,000	$0	$0	$237,100	**$1,043,100**
2024	$0	$0	$0	$432,538	$0	$0	$0	**$432,538**
Total	**$0**	**$6,306,792**	**$11,640,767**	**$9,967,283**	**$0**	**$0**	**$486,001**	**$28,400,842**

CURRENT REPLACEMENT VALUE

The Current Replacement Value has been determined as $153,774,485 for the Governor Edmund G."Pat" Brown / CPUC Building Building (418). 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
383,505 GSF	$401	$153,774,485

FACILITY CONDITION INDEX

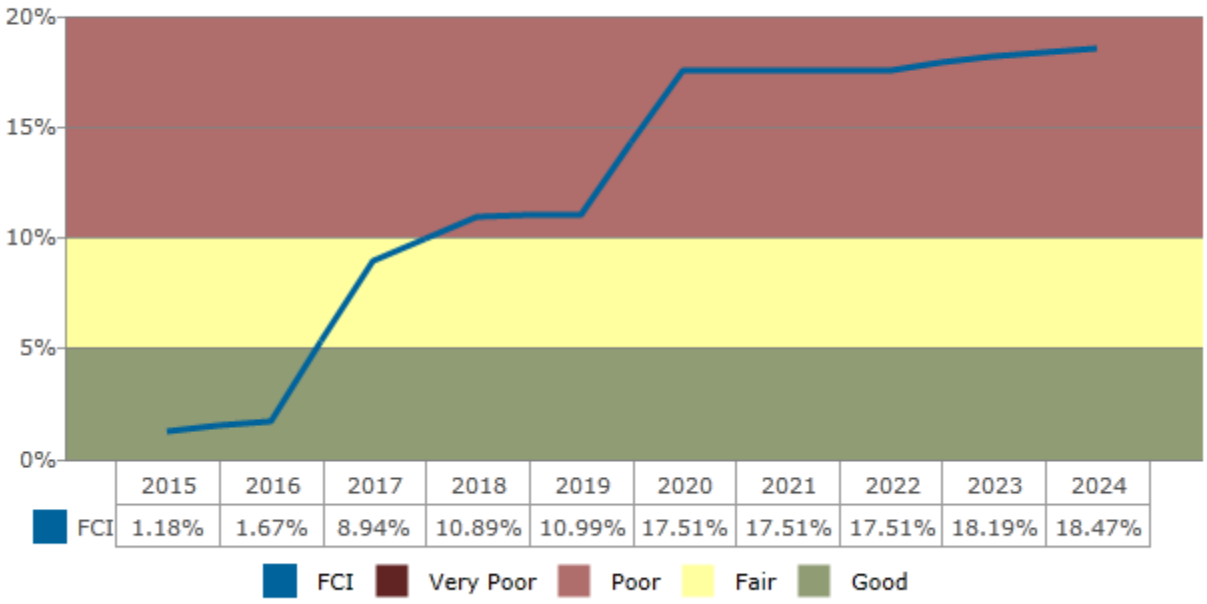
The FCI[1] is an indication of a building's current and future overall condition. According to industry standards an FCI ratio of 65 percent, or the "rule of two-thirds," is the threshold for identifying potential candidates for replacement or divestment.[2] Once the FCI ratio reaches 65 percent, or 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.

Cumulative Effects of FCI over the Study Period



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
FCI	1.18%	1.67%	8.94%	10.89%	10.99%	17.51%	17.51%	17.51%	18.19%	18.47%

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APPENDICES

APPENDIX A: ACCESSIBILITY ISSUES

No accessibility issues were identified.

APPENDIX B: GENERAL ASSESSMENT INFORMATION

A Substructure Systems

A10 FOUNDATIONS

Item	Description
A1011 Wall Foundations	A1011 Concrete Foundations
Condition	Fair
Qty / UOM	38,260 / SF
RUL (years)	19
Location	Foundation

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

Item	Description
A1031 Standard Slab on Grade	A1031 Standard Slab on Grade
Condition	Fair
Qty / UOM	383,500 / SF
RUL (years)	19
Location	Entire Facility

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

B Shell Systems

B10 SUPERSTRUCTURE

Item	Description
B1012 Upper Floors Construction	B1010 Cast-in-place Concrete Beams and Floor Slabs
Condition	Fair
Qty / UOM	383,505 / SF
RUL (years)	19
Location	Entire Facility

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

B20 EXTERIOR ENCLOSURE

Item	Description
B2011 Exterior Wall Construction	B2011 Exterior Concrete Walls
Condition	Fair
Qty / UOM	92,000 / SF
RUL (years)	10
Location	Exterior Walls

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

Item	Description
B2021 Windows	B2021 Aluminum Windows
Condition	Fair
Qty / UOM	1,500 / EA
RUL (years)	2
Location	Windows

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2021	Replace B2021 Aluminum Windows	1,500.0 - EA	3614.8	IN - Beyond Rated Life	Priority 2	2017	5,422,198

Item	Description
B2031 Glazed Doors & Entrances	B2031 Glazed Entrance Doors
Condition	Fair
Qty / UOM	28 / EA
RUL (years)	2
Location	Entrance Doors

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2031	Replace B2031 Glazed Entrance Doors	28.0 - EA	4335.5	IN - Beyond Rated Life	Priority 2	2017	121,394

COST SUMMARY:

Type	Year	Total Expenditures
B20 Exterior Enclosure	2017	$5,543,592

B30 ROOFING

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing
Condition	Fair
Qty / UOM	410 / SQ
RUL (years)	1
Location	Roof Covering

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B3011	Replace B3011 Built-Up Roofing	410.0 - SQ	1861.5	IN - Beyond Rated Life	Priority 1	2016	763,200

COST SUMMARY:

Type	Year	Total Expenditures
B30 Roofing	2016	$763,200

C Interiors Systems

C10 Interior Construction

Item	Description
C1021 Interior Doors	C1021 Interior Doors
Condition	Fair
Qty / UOM	655 / EA
RUL (years)	3
Location	Interior Doors

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C1021	Replace C1021 Interior Doors	655.0 - EA	2403.1	IN - Beyond Rated Life	Priority 3	2018	1,574,044

COST SUMMARY:

Type	Year	Total Expenditures
C10 Interior Construction	2018	$1,574,044

C30 INTERIOR FINISHES

Item	Description
C3012 Wall Finishes to Interior Walls	C3012 Paint Interior Walls, Drywall
Condition	Fair
Qty / UOM	219,892 / SF
RUL (years)	3
Location	Interiors

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, repainting the interior walls is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3012	Replace C3012 Paint Interior Walls, Drywall	219,892.0 - SF	2.1	IN - Appearance	Priority 3	2018	468,986

Item	Description
C3024 Flooring	C3020 Vinyl Tile
Condition	Fair
Qty / UOM	19,610 / SY
RUL (years)	2
Location	Interior Flooring

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3024	Replace C3020 Vinyl Tile	19,610.0 - SY	125.8	IN - Appearance	Priority 3	2017	2,466,550

Item	Description
C3024 Flooring	C3020 Floor Finishes; Terrazzo Flooring
Condition	Fair
Qty / UOM	47,959 / SF
RUL (years)	5
Location	Interior Flooring Finish

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended/refinished/reconditioned during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3024	Replace C3020 Floor Finishes; Terrazzo Flooring	47,959.0 - SF	36.1	IN - Appearance	Priority 4	2020	1,730,869

Item	Description
C3025 Carpeting	C3025 Carpeting
Condition	Fair
Qty / UOM	17,445 / SY
RUL (years)	2
Location	Interior Flooring

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3025	Replace C3025 Carpeting	17,445.0 - SY	96.6	IN - Appearance	Priority 3	2017	1,685,285

Item	Description
C3031 Ceiling Finishes	C3031 Drywall – Painted Finished Ceilings
Condition	Fair
Qty / UOM	68,000 / SF
RUL (years)	2
Location	Interior Ceiling

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, repainting the interior painted ceilings is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3031	Replace C3031 Drywall – Painted Finished Ceilings	68,000.0 - SF	4.5	IN - Appearance	Priority 3	2017	308,611

Item	Description
C3032 Suspended Ceilings	C3032 Acoustical Ceiling Tile
Condition	Fair
Qty / UOM	2,835 / CSF
RUL (years)	5
Location	Interior Ceiling

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term, at the same time as the fire sprinkler replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3032	Replace C3032 Acoustical Ceiling Tile	2,835.0 - CSF	1201.6	IN - Appearance	Priority 4	2020	3,406,423

COST SUMMARY:

Type	Year	Total Expenditures
C30 Interior Finishes	2017	$4,460,446
C30 Interior Finishes	2018	$468,986
C30 Interior Finishes	2020	$5,137,292

D Services Systems

D10 Conveying Systems

Item	Description
D1011 Passenger Elevators	D1011 Traction Elevator Machinery and Controls
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	28
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Consultant's full report was completed as part of this assessment. Please see the consultant's report with findings attached in the Appendix of this report. Based on current condition and RUL, no action is indicated.

Item	Description
D1011 Passenger Elevators	D1011 Hydraulic Elevators, 3500 LB
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	24
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Consultant's full report was completed as part of this assessment. Please see the consultant's report with findings attached in the Appendix of this report. Based on current condition and RUL, no action is indicated.

D20 PLUMBING

Item	Description
D2011 Water Closets	D2011 Commercial Water Closet - Standard
Condition	Fair
Qty / UOM	73 / EA
RUL (years)	3
Location	Throughout Facility
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2011	Replace D2011 Commercial Water Closet - Standard	73.0 - EA	1232.4	IN - Beyond Rated Life	Priority 3	2018	89,968

Item	Description
D2012 Urinals	D2012 Urinal - Standard
Condition	Fair
Qty / UOM	14 / EA
RUL (years)	4
Location	Throughout Facility
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2012	Replace D2012 Urinal - Standard	14.0 - EA	2250.7	IN - Beyond Rated Life	Priority 3	2019	31,510

Item	Description
D2013 Lavatories	D2013 Counter Top Sink and Faucet - Standard
Condition	Fair
Qty / UOM	69 / EA
RUL (years)	4
Location	Restrooms

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2013	Replace D2013 Counter Top Sink and Faucet - Standard	69.0 - EA	1667.8	IN - Beyond Rated Life	Priority 3	2019	115,081

Item	Description
D2022 Hot Water Service	D2022 Domestic Hot Water Heater - Gas - 275 Gal
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	15
Location	1st Floor Mechanical Room

OBSERVATIONS/COMMENTS:

The domestic hot water heater is a recovery unit that supplies a storage tank, and was replaced in 2010. Based on current condition and RUL, no further action is recommended.

COST SUMMARY:

Type	Year	Total Expenditures
D20 Plumbing	2018	$89,968
D20 Plumbing	2019	$146,591

D30 HVAC

Energy Supply	
Item	**Description**
Fuel Oil Type	N/A
Fuel Gas Type	Natural Gas
Solid Fuel Type	N/A
District Heat Type	N/A
District Cooling Type	N/A
Solar Thermal	Yes
Fuel Tank Type	N/A
Fuel Tank Size (gallons)	N/A
Fuel Tank Location	N/A
Gas Meter Location	Basement
Electrical Meter Location	Main Electric Room
Water Meter Location	Basement

Item	Description
D3021 Boilers	D3020 Water Boiler, Gas
Condition	Good
Qty / UOM	2 / EA
RUL (years)	28
Location	1st Floor Mechanical Room

OBSERVATIONS/COMMENTS:

The two HVAC boilers were replaced in 2013. Based on current condition and RUL, no further action is recommended.

Item	Description
D3022.1 Circulating Pumps	D3022 HVAC Condenser Water - 20 HP
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	3

Item	Description
Location	1st Floor Mechanical Room

OBSERVATIONS/COMMENTS:

The condenser water distribution pumps and associated motors appear to have been upgraded and are in functional condition and based on its current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3022	Replace D3022 HVAC Condenser Water - 20 HP	3.0 - EA	26054.9	IN - Beyond Rated Life	Priority 2	2018	78,165

Item	Description
D3022.1 Circulating Pumps	D3022 HVAC Chilled Water Circ Pumps 20 HP
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	3
Location	1st Floor Mechanical Room

OBSERVATIONS/COMMENTS:

The three chilled water distribution pumps and associated motors were upgraded in 2003, and variable frequency drives (VFDs) appear to have been replaced. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3022	Add new VFD's	3.0 - EA	26054.9	IN - Beyond Rated Life	Priority 2	2018	78,165

Item	Description
D3022.1 Circulating Pumps	D3023 HW Circulating 10 HP
Condition	Fair
Qty / UOM	5 / EA
RUL (years)	3
Location	1st Floor Mechanical Room

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3022	Replace D3023 HW Circulating 10 HP	5.0 - EA	19810.2	IN - Beyond Rated Life	Priority 2	2018	99,051

Item	Description
D3031.1 Chillers	D3031 Chiller, Water Cooled, 200 Ton, - New Controls
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	8
Location	1st Floor Mechanical Room

OBSERVATIONS/COMMENTS:

The two, 200-ton chillers are original to the construction of the 1984 building. New controls were added in 2003. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3031	Replace D3031 Chiller, Water Cooled, 200 Ton, - New Controls	2.0 - EA	403000.0	IN - Beyond Rated Life	Priority 4	2023	806,000

Item	Description
D3031.2 Cooling Towers	D3031 Cooling Tower, Galvanized Steel, 30Ton
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Penthouse Rooftop

OBSERVATIONS/COMMENTS:

The cooling tower is original to the 1984 construction. Based on its current condition and RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3031	D3031 Replace VFD	1.0 - EA	23550.6	IN - Beyond Rated Life	Priority 1	2015	23,551

Item	Description
D3031.2 Cooling Towers	D3031 Cooling Tower, Galvanized Steel, 220 Ton
Condition	Poor
Qty / UOM	2 / EA
RUL (years)	0
Location	Penthouse Rooftop

OBSERVATIONS/COMMENTS:

The cooling towers are original to the 1984 construction. Based on current condition and RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3031	Replace D3031 Cooling Tower, Galvanized Steel, 220 Ton	2.0 - EA	153804.6	IN - Beyond Rated Life	Priority 1	2015	307,609

Item	Description
D3032 Direct Expansion Systems	D3032 Pad-Mounted Condenser 20-Ton
Condition	Poor
Qty / UOM	2 / EA
RUL (years)	0
Location	Main Electrical Room-Lower Level

OBSERVATIONS/COMMENTS:

Air handling unit (AHU) is located adjacent to main electrical room on lower level garage. Based on current condition and zero years RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3032	Replace D3032 Pad-Mounted Condenser 20-Ton	2.0 - EA	44857.4	IN - Beyond Rated Life	Priority 1	2015	89,715

Item	Description
D3032 Direct Expansion Systems	D3032 Condenser Coils 100 Ton
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	2
Location	Penthouse Mechanical

OBSERVATIONS/COMMENTS:

Fabricated AC units house three 1,300 MBH coils. These coils are functioning and are well maintained. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3032	Replace D3032 Condenser Coils 100 Ton	3.0 - EA	76963.1	IN - Beyond Rated Life	Priority 2	2017	230,889

Item	Description
D3041.1 Air Handling Units	D3041 Return Air - 34,000 CFM - 15 Hp
Condition	Poor
Qty / UOM	4 / EA
RUL (years)	0
Location	Parking Garage

OBSERVATIONS/COMMENTS:

Based on current condition and zero years remaining useful life (RUL), replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 Return Air - 34,000 CFM - 15 Hp	4.0 - EA	63745.9	IN - Beyond Rated Life	Priority 1	2015	254,984

Item	Description
D3041.1 Air Handling Units	D3041 Supply Air Fans - 1A,B,C - 54,000 CFM - 75 HP Motors
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	2
Location	Penthouse Mechanical

OBSERVATIONS/COMMENTS:

The supply air fans are 75-hp and were reported to have been replaced in 2002. They are installed in fabricated air handlers that supply air to the VAV boxes located in each space. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 Supply Air Fans - 1A,B,C - 54,000 CFM - 75 HP Motors	3.0 - EA	161200.0	IN - Beyond Rated Life	Priority 2	2017	483,600

Item	Description
D3041.1 Air Handling Units	D3041 Return Air Fans - 49,000 CFM - 15HP
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	3
Location	Penthouse Mechanical

OBSERVATIONS/COMMENTS:

The return air fans are 15-hp and were replaced in 2002. They are installed in fabricated air handlers that receive return air from the VAV boxes located in each space. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 Return Air Fans - 49,000 CFM - 15HP	3.0 - EA	39385.9	IN - Beyond Rated Life	Priority 2	2018	118,158

Item	Description
D3041.1 Air Handling Units	D3041 Supply Air - 26,000 CFM
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	2
Location	Parking Garage

OBSERVATIONS/COMMENTS:

The air supply is provided by air handlers located in rooms in the lower level parking garage. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Add VFD's	4.0 - EA	39385.9	IN - Beyond Rated Life	Priority 2	2017	157,543

Item	Description
D3041.2 Terminal Units VAV	D3041 VAV Boxes w Coil
Condition	Fair
Qty / UOM	128 / EA
RUL (years)	5
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by variable air volume terminals (VAVs) supplied with conditioned air from the central system air handlers. Maintenance staff reports that the VAVs have been upgraded but cannot verify exact number. Units observed were newer than original construction date of 1984. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 VAV Boxes w Coil	128.0 - EA	3460.5	IN - Beyond Rated Life	Priority 3	2020	442,943

Item	Description
D3041.2 Terminal Units VAV	D3041 VAV Boxes No Coil
Condition	Fair
Qty / UOM	160 / EA
RUL (years)	5
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by VAVs supplied with conditioned air from the central system air handlers. Maintenance staff reports that the VAVs have been upgraded but cannot verify exact number. Units observed were newer than original construction date of 1984. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 VAV Boxes No Coil	160.0 - EA	2496.7	IN - Beyond Rated Life	Priority 3	2020	399,474

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 20,000 CFM
Condition	Fair
Qty / UOM	6 / EA
RUL (years)	3
Location	Parking Garage

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3042	Replace D3042 Exhaust Fan 20,000 CFM	6.0 - EA	16594.2	IN - Beyond Rated Life	Priority 2	2018	99,565

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan < 15,000 CFM
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	0
Location	Penthouse Rooftop

OBSERVATIONS/COMMENTS:

Based on current poor condition and zero years RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3042	Replace D3042 Exhaust Fan < 15,000 CFM	4.0 - EA	7679.9	IN - Beyond Rated Life	Priority 1	2015	30,719

Item	Description
D3052 Package Units	D3052 Package Unit, Gas Heat, 5 Ton Cooling
Condition	Good
Qty / UOM	3 / EA
RUL (years)	15
Location	Parking Garage

OBSERVATIONS/COMMENTS:

Package units in parking garage support wall-mounted fan coil units in electrical/telecommunication rooms. Based on current condition and RUL, no further action is recommended.

Item	Description
D3052 Package Units	D3052 Computer/Sever Room AC
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	12
Location	Data Center

OBSERVATIONS/COMMENTS:

No action is anticipated.

Item	Description
D3068 Building Automation Systems	D3068 DDC Controls
Condition	Poor
Qty / UOM	383,503 / SF
RUL (years)	0
Location	Maintenance Admin Offices

OBSERVATIONS/COMMENTS:

Direct digital control system (DDC) is original to the building, and limits maintenance staff in the ability to monitor and manage systems. The chiller controls were updated in 2003. Upgrades and replacements are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3068	Replace D3068 DDC Controls	383,503.0 - SF	0.8	FN - Modernization	Priority 1	2015	313,859

COST SUMMARY:

Type	Year	Total Expenditures
D30 HVAC	2015	$1,020,437
D30 HVAC	2017	$872,033
D30 HVAC	2018	$473,103
D30 HVAC	2020	$842,418
D30 HVAC	2023	$806,000

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	Electrical Room
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	Yes
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	Honeywell
Date of Last Fire Alarm Service	December 15, 2014
Are the individual office unit fire alarm systems monitored?	Yes
Are the common area fire alarm systems monitored?	Yes
Types of Common Areas Monitored	Hallways, Lobby, Auditorium, Cafeteria
Fire Alarm Monitoring Company	Self Monitored 24 Hour

Item	Description
D4011 Sprinkler Water Supply	D4011 Wet-Pipe Sprinkler System
Condition	Fair
Qty / UOM	383,503 / SF
RUL (years)	5
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The facility is equipped with a wet pipe overhead sprinkler system which is inspected per the State Fire Marshall's requirements, and is currently operational. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4011	D4011 Install Wet Pipe Sprinkler System	383,503.0 - SF	9.3	CC - Life Safety	Priority 3	2020	3,565,964

Item	Description
D4012 Sprinkler Pumping Equipment	D4012 Fire Pump Electrical 150 HP
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Fire Pump Room

OBSERVATIONS/COMMENTS:

One 150 HP electric fire pump appears to be original. The pump is operational, well maintained, and has passed inspection. Based on current condition and zero years RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4012	Replace D4012 Fire Pump Electrical 150 HP	1.0 - EA	129632.5	CC - Life Safety	Priority 1	2015	129,633

Item	Description
D4031 Fire Extinguishers	D4031 Ansul System at Kitchen Hood
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	5
Location	Cafeteria

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4031	Replace D4031 Ansul System at Kitchen Hood	2.0 - EA	11735.1	CC - Life Safety	Priority 3	2020	23,470

COST SUMMARY:

Type	Year	Total Expenditures
D40 Fire Protection Systems	2015	$129,633
D40 Fire Protection Systems	2020	$3,589,434

D50 ELECTRICAL SYSTEMS

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear, Mainframe, 2500 Amps
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	2
Location	Main Electrical Room-Lower Level

OBSERVATIONS/COMMENTS:

The electrical service is reportedly adequate for the facility's needs and the switchgear is in working condition. A full infrared scan, cleaning, and tightening is scheduled. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5010 Switchgear, Mainframe, 2500 Amps	8.0 - EA	21237.6	IN - Reliability	Priority 2	2017	169,901

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 225 Amps, 30 Circuits
Condition	Fair
Qty / UOM	55 / EA
RUL (years)	9
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The vast majority of the electrical panels are original 1984 panels. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	55.0 - EA	7864.3	IN - Reliability	Priority 4	2024	432,538

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear, Mainframe, 2500 Amps
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	3
Location	Main Electrical Room-Lower Level

OBSERVATIONS/COMMENTS:

The main switchgear is original equipment. The electrical service is reportedly adequate for the facility's needs and the switchgear is in working condition. Based on its current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5010 Switchgear, Mainframe, 2500 Amps	8.0 - EA	17847.0	IN - Reliability	Priority 3	2018	142,776

Item	Description
D5012 Low Tension Service & Dist.	D5012 Secondary Dry Transformer 45 kVA
Condition	Fair
Qty / UOM	6 / EA
RUL (years)	2
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Many step-down units are original. Based on its current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5012 Secondary Dry Transformer 45 kVA	6.0 - EA	14159.8	IN - Reliability	Priority 2	2017	84,959

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear, Mainframe, 800 Amps
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	3
Location	Main Electrical Room-Lower Level

OBSERVATIONS/COMMENTS:

The electrical service is reportedly adequate for the facility's needs and the switchgear is in working condition. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5010 Switchgear, Mainframe, 800 Amps	2.0 - EA	9116.1	IN - Reliability	Priority 3	2018	18,232

Item	Description
D5012 Low Tension Service & Dist.	D5012 Secondary Dry Transformer 75 kVA
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	2
Location	Main Electrical Room-Lower Level

OBSERVATIONS/COMMENTS:

Many step-down units are original equipment. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5012 Secondary Dry Transformer 75 kVA	2.0 - EA	19199.4	IN - Reliability	Priority 2	2017	38,399

Item	Description
D5021 Branch Wiring Devices	D5010 Electrical Service and Distribution
Condition	Fair
Qty / UOM	1,150 / EA
RUL (years)	5
Location	Interior Ceiling Lighting

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, it is recommended that this asset be replaced during the assessment term. This replacement of all lamps should coincide with the replacement of the ACTs and fire suppression sprinkler system.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5021	Replace D5010 Electrical Service and Distribution	1,150.0 - EA	401.2	IN - Beyond Rated Life	Priority 3	2020	461,380

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm Panel
Condition	Good
Qty / UOM	1 / EA
RUL (years)	14
Location	Security Room

OBSERVATIONS/COMMENTS:

The fire alarm panel was replaced in 2014, and appears to be fairly comprehensive with strobes and an adequate number of modern devices placed throughout the spaces. Based on its current condition and RUL, no further action is recommended.

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm System
Condition	Good
Qty / UOM	383,503 / SF
RUL (years)	20
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The fire alarm panel was replaced in 2014, but the fire alarm system is original to the building. It appears to be fairly comprehensive with strobes and an adequate number of modern devices placed throughout the spaces. Based on current condition and RUL, no further action is recommended.

Item	Description
D5092 Emergency Light & Power Systems	D5092 Emergency Generator 750 kW
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Penthouse Emergency Generator Room

OBSERVATIONS/COMMENTS:

The 750 KW emergency generator, original to the building construction,located in the penthouse emergency generator room, appears to be in working condition. Based on current condition and zero years RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5092	Replace D5092 Emergency Generator 750 kW	1.0 - EA	622389.6	CC - Life Safety	Priority 1	2015	622,390
D5092	D5092 Add/Improve secondary containment for day tank	1.0 - EA	3500.0	EN - Air/ Water Quality	Priority 1	2015	3,500

Item	Description
D5092 Emergency Light & Power Systems	D5092 Emergency Transfer Switch - 750 KW
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Penthouse Emergency Generator Room

OBSERVATIONS/COMMENTS:

The transfer switch associated with 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 RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5092	Replace D5092 Emergency Transfer Switch - 750 KW	1.0 - EA	10613.1	CC - Life Safety	Priority 1	2015	10,613

Item	Description
D5094 Other Special Systems & Devices	D5094 Removal of Co-Gen Equipment
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Basement

OBSERVATIONS/COMMENTS:

The co-generation equipment has been decommissioned. Removal is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5094	Replace D5094 Removal of Co-Gen Equipment	1.0 - EA	12980.0	FN - Obsolescence	Priority 1	2015	12,980

COST SUMMARY:

Type	Year	Total Expenditures
D50 Electrical Systems	2015	$649,483
D50 Electrical Systems	2017	$293,259
D50 Electrical Systems	2018	$161,008
D50 Electrical Systems	2020	$461,380
D50 Electrical Systems	2024	$432,538

G Building Sitework Systems

G20 Site Improvements

Site Information	
Item	**Description**
Main Ingress and Egress	505 Van Ness Avenue San Francsico, California
Access from	SE
Additional Entrances	N/A
Access from	N
Parking Count: Open lot	N/A
Parking Count: Sheltered by carports	N/A
Parking Count: Private garages	N/A
Parking Count: Subterranean garage	250
Parking Count: Freestanding parking structure	N/A
Number of ADA Compliant Spaces	N/A
Number of ADA Compliant Spaces for Vans	N/A
Method of obtaining parking count	Site plan
Property Identification Sign-Primary	Monument Sign
Property Identification Sign- Secondary	Structure mounted
Illuminated Identification Signage	Yes
Building Identification Sign	Yes
Illuminated Sign	Yes
Location of Property ID Sign	Front elevation of building
Trees Present	No
Shrubs Present	Yes
Grasses Present	Yes
Flower beds Present	Yes
Decorative Rocks Present	Yes
Lava Rocks Present	No
Ponds Present	No
Fountains Present	No
Topography	Flat

Item	Description
G2022 Paving & Surfacing	G2020 Parking Lots
Condition	Fair
Qty / UOM	191,210 / SF
RUL (years)	3
Location	Asphalt Parking

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, this asset should be crack-sealed, sealed and striped during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
G2022	Replace G2020 Parking Lots	191,210.0 - SF	1.2	IN - Beyond Rated Life	Priority 3	2018	237,100
G2022	Replace G2020 Parking Lots	191,210.0 - SF	1.2	IN - Beyond Rated Life	Priority 3	2023	237,100

Item	Description
G2032 Edging	G2030 Concrete Steps
Condition	Fair
Qty / UOM	2,000 / SF
RUL (years)	19
Location	Site

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

COST SUMMARY:

Type	Year	Total Expenditures
G20 Site Improvements	2018	$237,100
G20 Site Improvements	2023	$237,100

G30 SITE CIVIL/MECHANICAL UTILITIES

Item	Description
G3060 Fuel Distribution	G3063 Underground Storage Tank, removal
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Basement

OBSERVATIONS/COMMENTS:

Co-generator equipment is decommissioned and will be removed. Removal of diesel underground storage tank is recommended. Cost does not include remediation, if any.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
G3060	Replace G3063 Underground Storage Tank, removal	1.0 - EA	11800.0	FN - Obsolescence	Priority 1	2015	11,800

COST SUMMARY:

Type	Year	Total Expenditures
G30 Site Civil/Mechanical Utilities	2015	$11,800

The weather at the time of the assessment was:

Item	Description
Approximate Outdoor Temperature (degrees F)	70
Weather Conditions	Clear
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	Yes
Floor Plan Reviewed	Yes
Construction Drawings Reviewed	Yes
Termite Inspection Report Reviewed	No
Boiler Certificates Reviewed	No
Document Year Built Information Obtained From	Client

APPENDIX C: CERTIFICATION

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

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

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

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

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

Prepared By: Geoffrey Straniere, Field Observer

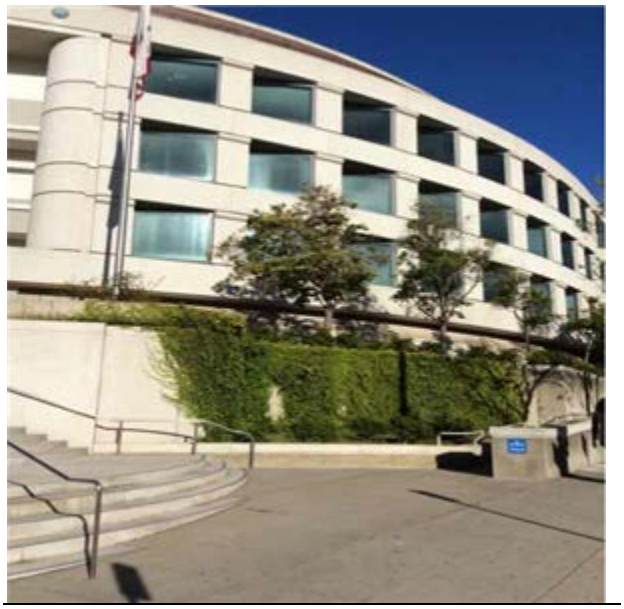
Reviewed By: 

Matthew Anderson, Program Manager

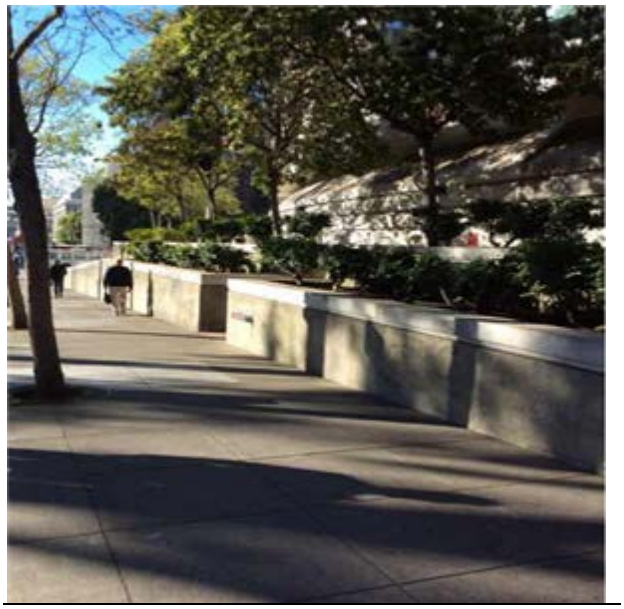
APPENDIX D: PHOTOS

:- Courtyard Elevation

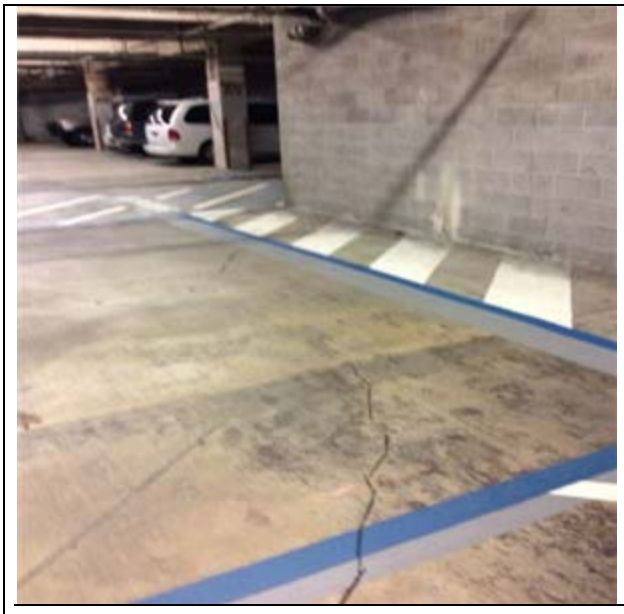
:- Front Elevation



:- Side Elevation



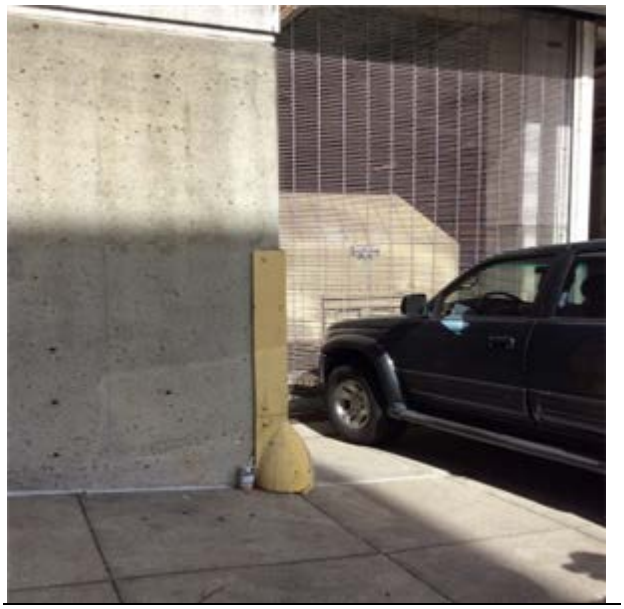
:- Site Walkway Elevation



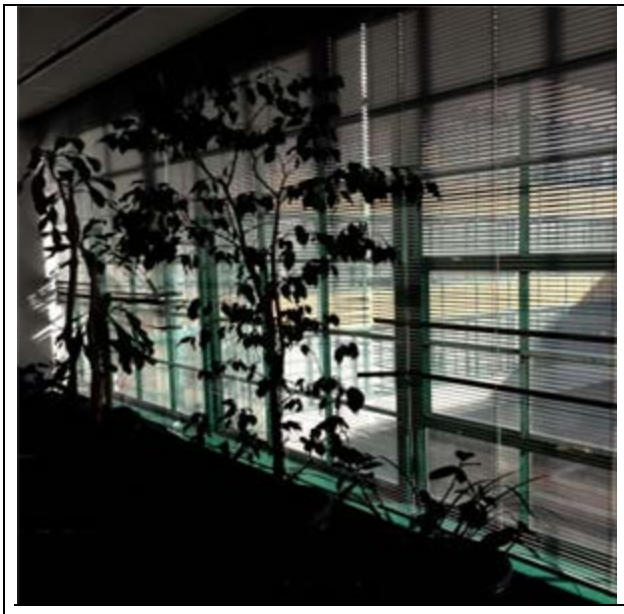
A1031 Standard Slab on Grade

B1010 Cast-in-place Concrete Beams and Floor Slabs

B2011 Exterior Concrete Walls



B2011 Exterior Concrete Walls

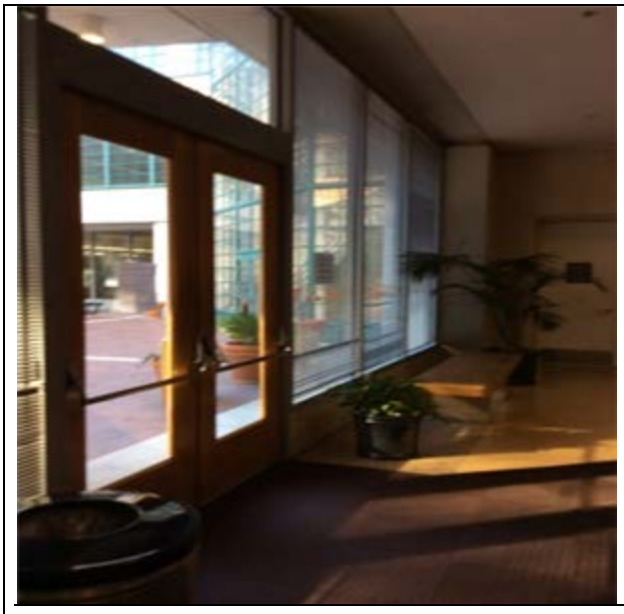


B2021 Aluminum Windows

B2021 Aluminum Windows

B2021 Aluminum Windows

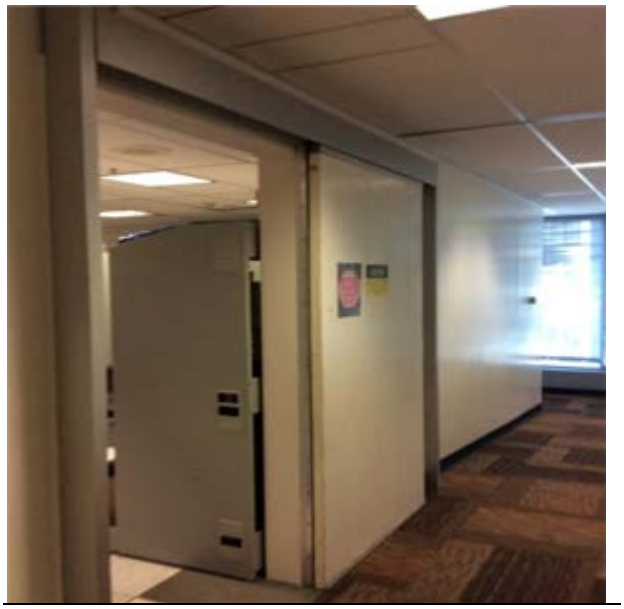
B2031 Glazed Entrance Doors



B2031 Glazed Entrance Doors

B3011 Built-Up Roofing

C1021 Interior Doors

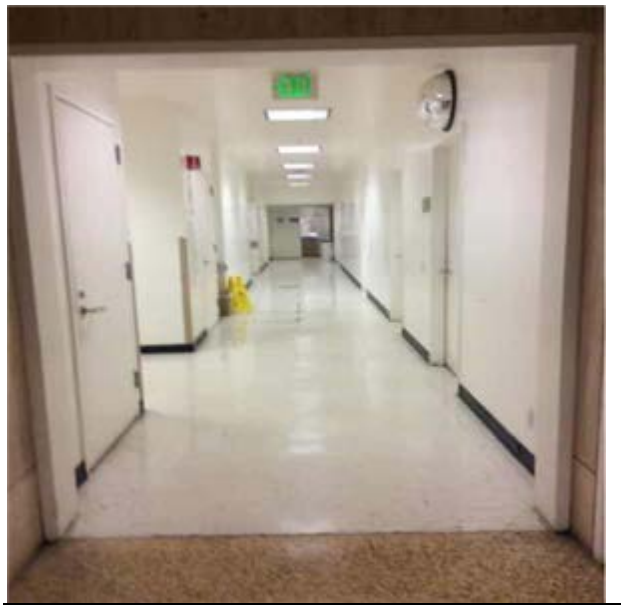


C1021 Interior Doors

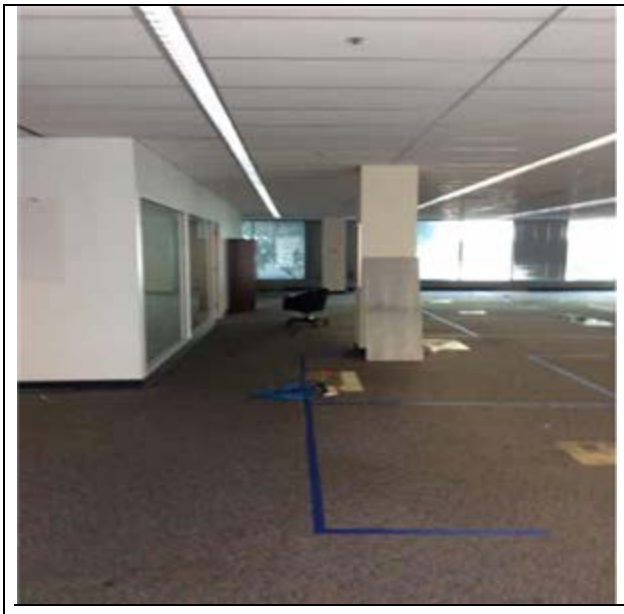
C1021 Interior Doors

C1021 Interior Doors

C1021 Interior Doors



C3012 Paint Interior Walls, Drywall



C3012 Paint Interior Walls, Drywall

C3020 Vinyl Tile

C3020 Floor Finishes; Terrazzo Flooring

C3025 Carpeting:- Interior construction

C3031 Drywall – Painted Finished Ceilings

C3032 Acoustical Ceiling Tile

C3032 Acoustical Ceiling Tile

D2011 Commercial Water Closet - Standard

D2012 Urinal - Standard

D2013 Counter Top Sink and Faucet - Standard

D2013 Counter Top Sink and Faucet - Standard

D2022 Domestic Hot Water Heater - Gas - 275 Gal

D3020 Water Boiler, Gas

D3023 HW Circulating 10 HP

D3023 HW Circulating 10 HP

D3022 HVAC Chilled Water Circ Pumps 20 HP

D3022 HVAC Condenser Water - 20 HP

D3031 Chiller, Water Cooled, 200 Ton, - New Controls

D3031 Cooling Tower, Galvanized Steel, 220 Ton

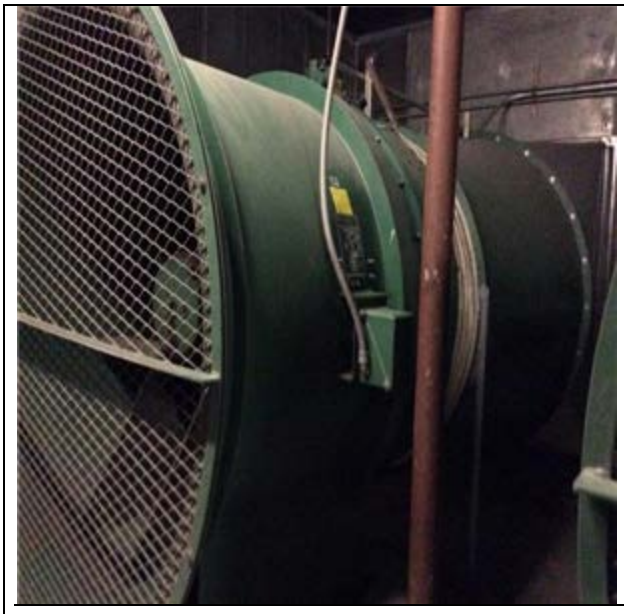
D3031 Cooling Tower, Galvanized Steel, 30Ton

D3032 Condenser Coils 100 Ton

D3032 Pad-Mounted Condenser 20-Ton

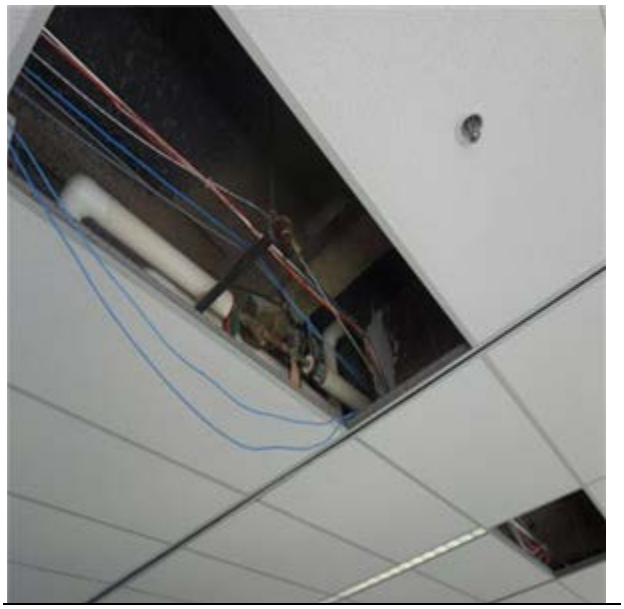
D3041 Return Air - 34,000 CFM - 15 Hp

D3041 Supply Air Fans - 1A,B,C - 54,000 CFM - 75 HP Motors

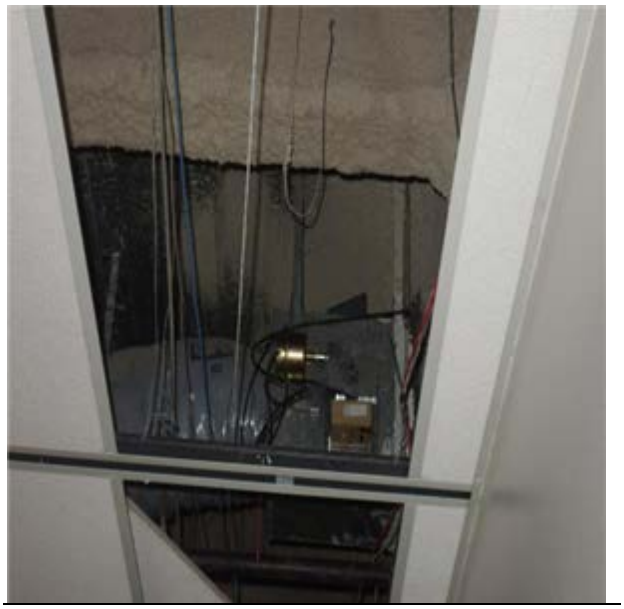


D3041 Return Air Fans - 49,000 CFM - 15HP

D3041 Supply Air - 26,000 CFM



D3041 VAV Boxes w Coil



D3041 VAV Boxes No Coil

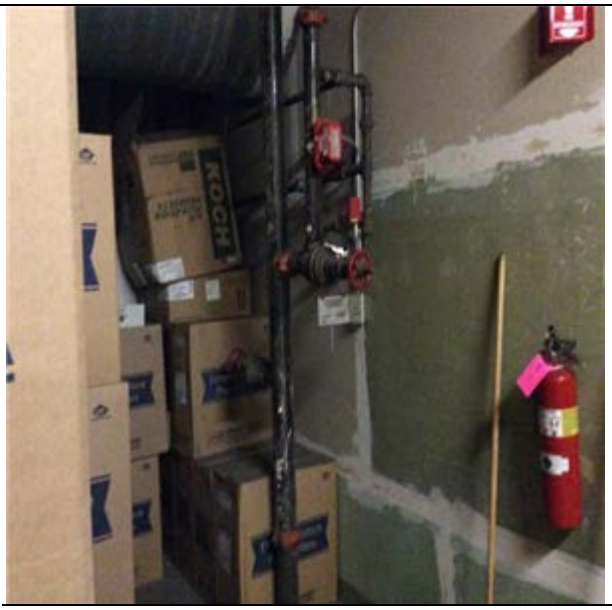
D3042 Exhaust Fan 20,000 CFM

D3042 Exhaust Fan < 15,000 CFM

D3052 Computer/Sever Room AC

D3052 Package Unit, Gas Heat, 5 Ton Cooling

D3068 DDC Controls



D4011 Wet-Pipe Sprinkler System

D4012 Fire Pump Electrical 150 HP

D4031 Ansul System at Kitchen Hood

D5012 Breaker Panel 225 Amps, 30 Circuits

D5010 Switchgear, Mainframe, 2500 Amps

D5012 Secondary Dry Transformer 75 kVA

D5010 Switchgear, Mainframe, 800 Amps

D5012 Secondary Dry Transformer 45 kVA

D5010 Switchgear, Mainframe, 2500 Amps

D5037 Fire Alarm Panel

D5037 Fire Alarm Panel

D5037 Fire Alarm System

D5092 Emergency Transfer Switch - 750 KW

D5092 Emergency Generator 750 kW

G2020 Parking Lots

G2030 Concrete Steps

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

GOVERNOR "Pat" BROWN /PUC BUILDING FACT SHEET

505 Van Ness Avenue
San Francisco
San Francisco County
Category 2 - Medium Priority - Further Study Required

BUILDING INFORMATION

- Age: 30 years (completed in 1984)
- Size:* 5-story
  383,503 GSF 217,497 NUSF 217,497 Assigned SF
  1.94 Acre Parcel
  235 parking space - 96,600 square foot parking structure
  Capacity - 868 occupants
- Financial: A 1982 agreement between the City and County of San Francisco Redevelopment Agency and the State created the San Francisco State Building Authority which constructed this building.

  SPI Structure #: 2674
  Real Property #: 661
  BPM #: 418

  Lease-Revenue Bonds 1993 Series A and Series A Term Bond Original Balance $62,705,000 - Bond Balance as of June 30, 2012: $9,365,000. **Final payment date was October 2013**. CPUC has now paid the bonds off and effective FY 14-15, the building will belong to DGS and DGS will be now be responsible to fund the building's maintenance, repair and all other related buidling management services. A Budget Change Proposal is in development by BPM to submit to DOF regarding the costs to DGS as an owned asset. A Transfer of Jurisdiction is also in process to officially record the transfer of the property from the San Francisco State Building Authority via a Joint Powers Agreement to DGS.
- LEED Status: LEED-EB Silver Certification, 2009
- Tenants: Single tenant building, the California Public Utilities Commission (207,156 SF)

COMPLETED STUDIES AND SIGNIFICANT FINDINGS

A. 2009 American Disability Act Accessibility Compliance Survey

Even though the building was constructed in 1984, some access barriers still remain. As a result, this building and the site has accessibility deficiencies requiring alterations to achieve compliance.

B. 2010 Marx/Okubo Property Condition Assessment (For Sale-Leaseback)

This report identified repair and maintenance items that needed attention in the near 1-3 year time frame. The major items included exterior sealants, upgraded power capacity and distribution system, repairs to air-handling units, modernize elevators, and ADA deficiencies. Estimated cost for those three years, approximately $3 million.

C. 2012 Access Compliance Conceptual Budget/Evaluation

In follow up to the 2009 American Disability Act Accessibility Compliance Survey this report provides the Conceptual Cost and Path of Travel Plans. ADA upgrades have been evaluated for this building as part of DGS's ten year ADA Compliance Upgrades and Deferred Special Repairs Program.

ADDITIONAL BUILDING ISSUES

A new roof was being completed at the time of the Marx/Okubo Property Assessment.

CURRENT UTILIZATION PROJECTS

None, occupied by single tenant.

RECENTLY COMPLETED PROJECTS

Cost

TBD

ACTIVE PROJECTS

Cost

TBD

* Source: Statewide Property Inventory

PLANNED SPECIAL REPAIRS BY FISCAL YEAR

Estimated Cost

TBD

DGS STRATEGY: Integrate the building into the DGS portfolio as a wholly owned and managed DGS asset. Evaluate the Building / Parking lot for an Infrastructure Study - cracks are present and seismic upgrades may be necessary.

APPENDIX G: COST TABLES

10 YEAR EXPENDITURE FORECAST

Governor Edmund G."Pat" Brown / CPUC Building
505 Van Ness Avenue
San Francisco, California

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**																						
B2021	Aluminum Window , 4-0 X 6-0, Upper Floor Floor	B2021 Aluminum Windows	Windows	Replace B2021 Aluminum Windows	25	2	1,500.00	EA	$3,614.80	IN - Beyond Rated Life	Priority 2	$0	$0	$5,422,198	$0	$0	$0	$0	$0	$0	$0	$0	$5,422,198
B2031	Aluminum 3'-0" X 7'-0"	B2031 Glazed Entrance Doors	Entrance Doors	Replace B2031 Glazed Entrance Doors	30	2	28.00	EA	$4,335.51	IN - Beyond Rated Life	Priority 2	$0	$0	$121,394	$0	$0	$0	$0	$0	$0	$0	$0	$121,394
B30	**ROOFING**																						
B3011	Tpo, Roof 45 Mills, Full Adhered	B3011 Built-Up Roofing	Roof Covering	Replace B3011 Built-Up Roofing	20	1	410.00	SQ	$1,861.46	IN - Beyond Rated Life	Priority 1	$0	$763,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$763,200
Shell Subtotal												**$0**	**$763,200**	**$5,543,592**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$6,306,792**
C. INTERIORS																							
C10	**INTERIOR CONSTRUCTION**																						
C1021	Fire Door, Wood, Flush, 60 Minute, Incl. Demo, with Hardware	C1021 Interior Doors	Interior Doors	Replace C1021 Interior Doors	30	3	655.00	EA	$2,403.12	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$1,574,044	$0	$0	$0	$0	$0	$0	$0	$1,574,044
C30	**INTERIOR FINISHES**																						
C3012	Paint Interior Walls, Drywall	C3012 Paint Interior Walls, Drywall	Interiors	Replace C3012 Paint Interior Walls, Drywall	10	3	219,892.00	SF	$2.13	IN - Appearance	Priority 3	$0	$0	$0	$468,986	$0	$0	$0	$0	$0	$0	$0	$468,986
C3024	Terrazzo	C3020 Floor Finishes; Terrazzo Flooring	Interior Flooring Finish	Replace C3020 Floor Finishes; Terrazzo Flooring	15	5	47,959.00	SF	$36.09	IN - Appearance	Priority 4	$0	$0	$0	$0	$0	$1,730,869	$0	$0	$0	$0	$0	$1,730,869
C3024	Vinyl Tile	C3020 Vinyl Tile	Interior Flooring	Replace C3020 Vinyl Tile	18	2	19,610.00	SY	$125.78	IN - Appearance	Priority 3	$0	$0	$2,466,550	$0	$0	$0	$0	$0	$0	$0	$0	$2,466,550
C3025	Carpet, Standard Commercial, Medium Traffic	C3025 Carpeting	Interior Flooring	Replace C3025 Carpeting	10	2	17,445.00	SY	$96.61	IN - Appearance	Priority 3	$0	$0	$1,685,285	$0	$0	$0	$0	$0	$0	$0	$0	$1,685,285
C3031	Drywall – Painted Finished Ceilings	C3031 Drywall – Painted Finished Ceilings	Interior Ceiling	Replace C3031 Drywall – Painted Finished Ceilings	20	2	68,000.00	SF	$4.54	IN - Appearance	Priority 3	$0	$0	$308,611	$0	$0	$0	$0	$0	$0	$0	$0	$308,611
C3032	Acoustical Tile With Exposed Grid System	C3032 Acoustical Ceiling Tile	Interior Ceiling	Replace C3032 Acoustical Ceiling Tile	20	5	2,835.00	CSF	$1,201.56	IN - Appearance	Priority 4	$0	$0	$0	$0	$0	$3,406,423	$0	$0	$0	$0	$0	$3,406,423
Interiors Subtotal												**$0**	**$0**	**$4,460,446**	**$2,043,029**	**$0**	**$5,137,292**	**$0**	**$0**	**$0**	**$0**	**$0**	**$11,640,767**
D. SERVICES																							
D20	**PLUMBING**																						
D2011	Flush Valve & Water Closet	D2011 Commercial Water Closet - Standard	Throughout Facility	Replace D2011 Commercial Water Closet - Standard	25	3	73.00	EA	$1,232.44	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$89,968	$0	$0	$0	$0	$0	$0	$0	$89,968
D2012	Urinal with 1.0 Gpf Model	D2012 Urinal - Standard	Throughout Facility	Replace D2012 Urinal - Standard	35	4	14.00	EA	$2,250.73	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$31,510	$0	$0	$0	$0	$0	$0	$31,510
D2013	Counter Top Sink and Faucet	D2013 Counter Top Sink and Faucet - Standard	Restrooms	Replace D2013 Counter Top Sink and Faucet - Standard	35	4	69.00	EA	$1,667.84	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$115,081	$0	$0	$0	$0	$0	$0	$115,081
D30	**HVAC**																						
D3022.1	Circulation Pump 30 HP	D3022 HVAC Condenser Water - 20 HP	1st Floor Mechanical Room	Replace D3022 HVAC Condenser Water - 20 HP	15	3	3.00	EA	$26,054.88	IN - Beyond Rated Life	Priority 2	$0	$0	$0	$78,165	$0	$0	$0	$0	$0	$0	$0	$78,165
D3022.1	Circulation Pump 30 HP	D3022 HVAC Chilled Water Circ Pumps 20 HP	1st Floor Mechanical Room	Add new VFD's	15	3	3.00	EA	$26,054.88	IN - Beyond Rated Life	Priority 2	$0	$0	$0	$78,165	$0	$0	$0	$0	$0	$0	$0	$78,165
D3022.1	Heating Water Distribution Pump 10 HP	D3023 HW Circulating 10 HP	1st Floor Mechanical Room	Replace D3023 HW Circulating 10 HP	15	3	5.00	EA	$19,810.24	IN - Beyond Rated Life	Priority 2	$0	$0	$0	$99,051	$0	$0	$0	$0	$0	$0	$0	$99,051
D3031.1	Chiller, Water Cooled, Centrifugal, 240 Ton	D3031 Chiller, Water Cooled, 200 Ton, - New Controls	1st Floor Mechanical Room	Replace D3031 Chiller, Water Cooled, 200 Ton, - New Controls	25	8	2.00	EA	$403,000.00	IN - Beyond Rated Life	Priority 4	$0	$0	$0	$0	$0	$0	$0	$0	$806,000	$0	$0	$806,000
D3031.2	Galvanized Steel Cooling Tower 50 Ton	D3031 Cooling Tower, Galvanized Steel, 30Ton	Penthouse Rooftop	D3031 Replace VFD	25	0	1.00	EA	$23,550.58	IN - Beyond Rated Life	Priority 1	$23,551	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23,551	$0
D3031.2	Cooling Tower, Galvanized Steel, 254 Ton	D3031 Cooling Tower, Galvanized Steel, 220 Ton	Penthouse Rooftop	Replace D3031 Cooling Tower, Galvanized Steel, 220 Ton	25	0	2.00	EA	$153,804.64	IN - Beyond Rated Life	Priority 1	$307,609	$0	$0	$0	$0	$0	$0	$0	$0	$0	$307,609	$0
D3032	Evaporative Condensers 100 Ton	D3032 Condenser Coils 100 Ton	Penthouse Mechanical	Replace D3032 Condenser Coils 100 Ton	20	2	3.00	EA	$76,963.08	IN - Beyond Rated Life	Priority 2	$0	$0	$230,889	$0	$0	$0	$0	$0	$0	$0	$0	$230,889
D3032	Pad-Mounted Condenser 20-Ton	D3032 Pad-Mounted Condenser 20-Ton	Main Electrical Room-Lower Level	Replace D3032 Pad-Mounted Condenser 20-Ton	15	0	2.00	EA	$44,857.40	IN - Beyond Rated Life	Priority 1	$89,715	$0	$0	$0	$0	$0	$0	$0	$0	$0	$89,715	$0
D3041.1	Central Station Ahu 16000 CFM	D3041 Return Air - 34,000 CFM - 15 Hp	Parking Garage	Replace D3041 Return Air - 34,000 CFM - 15 Hp	15	0	4.00	EA	$63,745.92	IN - Beyond Rated Life	Priority 1	$254,984	$0	$0	$0	$0	$0	$0	$0	$0	$0	$254,984	$0
D3041.1	Air Handler 20,000-22,000 CFM	D3041 Supply Air - 26,000 CFM	Parking Garage	Add VFD's	15	2	4.00	EA	$39,385.87	IN - Beyond Rated Life	Priority 2	$0	$0	$157,543	$0	$0	$0	$0	$0	$0	$0	$0	$157,543
D3041.1	Central Station Ahu 63000 CFM	D3041 Supply Air Fans - 1A,B,C - 54,000 CFM - 75 HP Motors	Penthouse Mechanical	Replace D3041 Supply Air Fans - 1A,B,C - 54,000 CFM - 75 HP Motors	15	2	3.00	EA	$161,200.00	IN - Beyond Rated Life	Priority 2	$0	$0	$483,600	$0	$0	$0	$0	$0	$0	$0	$0	$483,600
D3041.1	Air Handler 20,000-22,000 CFM	D3041 Return Air Fans - 49,000 CFM - 15HP	Penthouse Mechanical	Replace D3041 Return Air Fans - 49,000 CFM - 15HP	15	3	3.00	EA	$39,385.87	IN - Beyond Rated Life	Priority 2	$0	$0	$0	$118,158	$0	$0	$0	$0	$0	$0	$0	$118,158
D3041.2	Vav Box , 270 to 600 CFM	D3041 VAV Boxes No Coil	Throughout Facility	Replace D3041 VAV Boxes No Coil	30	5	160.00	EA	$2,496.72	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$399,474	$0	$0	$0	$0	$0	$399,474
D3041.2	Vav Box , 1500-2500 CFM	D3041 VAV Boxes w Coil	Throughout Facility	Replace D3041 VAV Boxes w Coil	30	5	128.00	EA	$3,460.49	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$442,943	$0	$0	$0	$0	$0	$442,943
D3042	Exhaust Fan 8500 CFM	D3042 Exhaust Fan < 15,000 CFM	Penthouse Rooftop	Replace D3042 Exhaust Fan < 15,000 CFM	20	0	4.00	EA	$7,679.87	IN - Beyond Rated Life	Priority 1	$30,719	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,719	$0
D3042	Exhaust Fan, Sidewall 11,250 CFM	D3042 Exhaust Fan 20,000 CFM	Parking Garage	Replace D3042 Exhaust Fan 20,000 CFM	20	3	6.00	EA	$16,594.18	IN - Beyond Rated Life	Priority 2	$0	$0	$0	$99,565	$0	$0	$0	$0	$0	$0	$0	$99,565
D3068	Direct Digital Controls (DDC) Extensive	D3068 DDC Controls	Maintenance Admin Offices	Replace D3068 DDC Controls	20	0	383,503.00	SF	$0.82	FN - Modernization	Priority 1	$313,859	$0	$0	$0	$0	$0	$0	$0	$0	$0	$313,859	$0
D40	**FIRE PROTECTION SYSTEMS**																						
D4011	Sprinkler Head	D4011 Wet-Pipe Sprinkler System	Throughout Facility	D4011 Install Wet Pipe Sprinkler System	25	5	383,503.00	SF	$9.30	CC - Life Safety	Priority 3	$0	$0	$0	$0	$0	$3,565,964	$0	$0	$0	$0	$0	$3,565,964
D4012	Fire Pump Electric 1000 Gpm	D4012 Fire Pump Electrical 150 HP	Fire Pump Room	Replace D4012 Fire Pump Electrical 150 HP	30	0	1.00	EA	$129,632.53	CC - Life Safety	Priority 1	$129,633	$0	$0	$0	$0	$0	$0	$0	$0	$0	$129,633	$0
D4031	Install Ansul System at Kitchen Hood	D4031 Ansul System at Kitchen Hood	Cafeteria	Replace D4031 Ansul System at Kitchen Hood	20	5	2.00	EA	$11,735.10	CC - Life Safety	Priority 3	$0	$0	$0	$0	$0	$23,470	$0	$0	$0	$0	$0	$23,470
D50	**ELECTRICAL SYSTEMS**																						
D5012	Switchgear, Mainframe, 1600 Amps	D5010 Switchgear, Mainframe, 2500 Amps	Main Electrical Room-Lower Level	Replace D5010 Switchgear, Mainframe, 2500 Amps	40	3	8.00	EA	$17,846.98	IN - Reliability	Priority 3	$0	$0	$0	$142,776	$0	$0	$0	$0	$0	$0	$0	$142,776
D5012	Switchgear, Mainframe, 1200 Amps	D5010 Switchgear, Mainframe, 2500 Amps	Main Electrical Room-Lower Level	Replace D5010 Switchgear, Mainframe, 2500 Amps	40	2	8.00	EA	$21,237.64	IN - Reliability	Priority 2	$0	$0	$169,901	$0	$0	$0	$0	$0	$0	$0	$0	$169,901
D5012	Breaker Panel 225 Amps, 30 Circuits	D5012 Breaker Panel 225 Amps, 30 Circuits	Throughout Facility	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	40	9	55.00	EA	$7,864.32	IN - Reliability	Priority 4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$432,538	$0	$432,538
D5012	Secondary Dry Transformer 45 kVA	D5012 Secondary Dry Transformer 45 kVA	Throughout Facility	Replace D5012 Secondary Dry Transformer 45 kVA	40	2	6.00	EA	$14,159.76	IN - Reliability	Priority 2	$0	$0	$84,959	$0	$0	$0	$0	$0	$0	$0	$0	$84,959
D5012	Secondary Dry Transformer 75 kVA	D5012 Secondary Dry Transformer 75 kVA	Main Electrical Room-Lower Level	Replace D5012 Secondary Dry Transformer 75 kVA	40	2	2.00	EA	$19,199.43	IN - Reliability	Priority 2	$0	$0	$38,399	$0	$0	$0	$0	$0	$0	$0	$0	$38,399
D5012	Switchgear, Mainframe < 600 Amps	D5010 Switchgear, Mainframe, 800 Amps	Main Electrical Room-Lower Level	Replace D5010 Switchgear, Mainframe, 800 Amps	40	3	2.00	EA	$9,116.07	IN - Reliability	Priority 3	$0	$0	$0	$18,232	$0	$0	$0	$0	$0	$0	$0	$18,232
D5021	Fluorescent Fixture,	D5010 Electrical Service and Distribution	Interior Ceiling Lighting	Replace D5010 Electrical Service and Distribution	40	5	1,150.00	EA	$401.20	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$461,380	$0	$0	$0	$0	$0	$461,380
D5092	Diesel Generator 650 to 750 kW	D5092 Emergency Generator 750 kW	Penthouse Emergency Generator Room	D5092 Add/Improve secondary containment for day tank	0	0	1.00	EA	$3,500.00	EN - Air/ Water Quality	Priority 1	$3,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,500	$0

10 YEAR EXPENDITURE FORECAST

Governor Edmund G."Pat" Brown / CPUC Building
505 Van Ness Avenue
San Francisco, California

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		
	Diesel Generator 650 to 750 kW	D5092 Emergency Generator 750 kW	Penthouse Emergency Generator Room	Replace D5092 Emergency Generator 750 kW	25	0	1.00	EA	$622,389.63	CC - Life Safety	Priority 1	$622,390	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$622,390	$0
D5092	Transfer Switch	D5092 Emergency Transfer Switch - 750 KW	Penthouse Emergency Generator Room	Replace D5092 Emergency Transfer Switch - 750 KW	25	0	1.00	EA	$10,613.06	CC - Life Safety	Priority 1	$10,613	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,613	$0
D5094	D5094 Other Special Systems & Devices	D5094 Removal of Co-Gen Equipment	Basement	Replace D5094 Removal of Co-Gen Equipment	25	0	1.00	EA	$12,980.00	FN - Obsolescence	Priority 1	$12,980	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,980	$0
Services Subtotal												**$1,799,552**	**$0**	**$1,165,291**	**$724,079**	**$146,591**	**$4,893,232**	**$0**	**$0**	**$806,000**	**$432,538**	**$1,799,552**	**$8,167,731**
E. EQUIPMENT & FURNISHING																							
Equipment & Furnishing Subtotal												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
F. SPECIAL CONSTRUCTION AND DEMOLITION																							
Special Construction And Demolition Subtotal												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
G. BUILDING SITEWORK																							
G20	**SITE IMPROVEMENTS**																						
G2022	G2022 Paving & Surfacing	G2020 Parking Lots	Asphalt Parking	Replace G2020 Parking Lots	5	3	191,210.00	SF	$1.24	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$237,100	$0	$0	$0	$0	$237,100	$0	$0	$474,201
G30	**SITE CIVIL/MECHANICAL UTILITIES**																						
G3060	G3060 Fuel Distribution	G3063 Underground Storage Tank, removal	Basement	Replace G3063 Underground Storage Tank, removal	20	0	1.00	EA	$11,800.00	FN - Obsolescence	Priority 1	$11,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$11,800	$0
Building Sitework Subtotal												**$11,800**	**$0**	**$0**	**$237,100**	**$0**	**$0**	**$0**	**$0**	**$237,100**	**$0**	**$11,800**	**$474,201**
Z. GENERAL																							
General Subtotal												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
										Expenditure Totals per Year		**$1,811,352**	**$763,200**	**$11,169,329**	**$3,004,209**	**$146,591**	**$10,030,524**	**$0**	**$0**	**$1,043,100**	**$432,538**	**$1,811,352**	**$26,589,490**
										Total Cost (Inflated @ 5% per Yr.)		**$1,811,352**	**$801,360**	**$12,314,185**	**$3,477,747**	**$178,182**	**$12,801,772**	**$0**	**$0**	**$1,541,134**	**$671,008**	**Total ***	**$28,400,842**

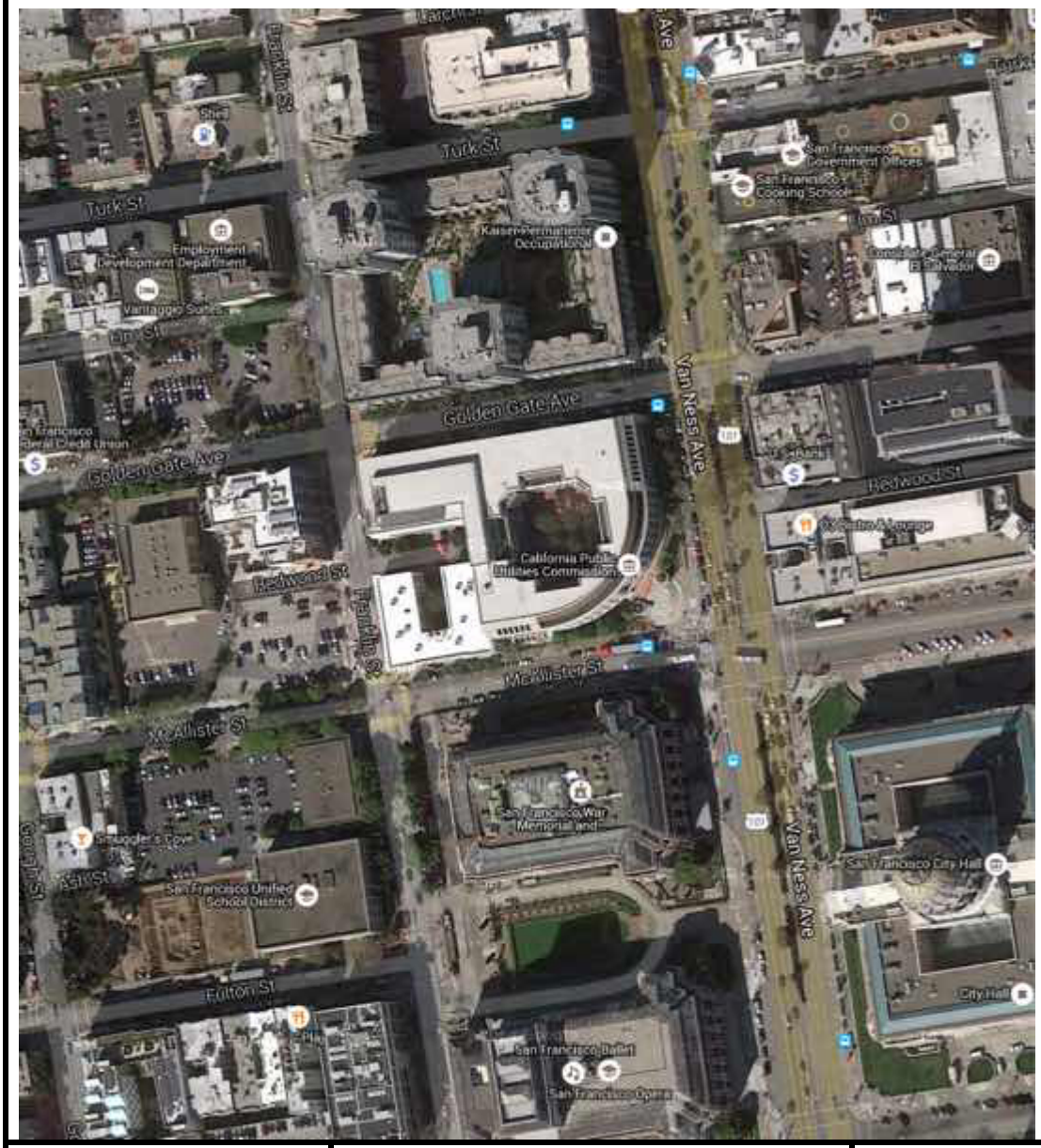
* - Present Value Currency

Footnotes

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

Current Repl.Value $153,774,485

APPENDIX H: SUPPORTING DOCUMENTATION



EMG

Source:

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

Project Number:

111326.14R-038.305

Project Name:

Governor Edmund G."Pat" Brown / CPUC Building

On-Site Date:

February 15-16, 2015

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

Gov. Edmund G. "Pat" Brown

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	$381.50	290,525	$110,834,219
Underground Parking	$131.06	92,978	$12,185,370
	$0.00	0	$0
	$0.00	0	$0
	$0.00	0	$0
	Total	383,503	$123,019,588

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	$110,834,219	25.00%	$138,542,773
Underground Parking	$12,185,370	25.00%	$15,231,712
	$0	25.00%	$0
	$0	25.00%	$0
	$0	25.00%	$0
Cost Per SF	**$400.97**	**Total Estimate**	**$153,774,485**

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: David Omosheyin

Building name: Governor Edmund G. "Pat" Brown Building (418)

What is your association with this property? I am the Building Manager

What is the length of your association with this property? 15 years

Phone number: 415-703-2936

Please provide information about inspections relating to the following items

Inspections	Date Last Inspected	List Name & Contact for Maintenance Contractor, if any.
1. Elevators	6-22-14	Kone Elevator 877-276-8691
2. HVAC, Mechanical, Electric, Plumbing		
3. Life-Safety/Fire	9/15/14	Honeywell Inc. 650-918-3200
4. Roofs		

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

Carpet Replacement, Work Station replacement and reconfiguration, Electrical rewiring, Data cable replacement.
Boulers replacement

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

Yes. List on 5 year plan

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

5 years

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

None

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**			

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				
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				Irrigation needs to be replace
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				Some ADA improvement was made
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			
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

Elevator Assessment

Building 418 – Governor Edmund G."Pat" Brown / CPUC Building
505 Van Ness
San Francisco, CA

Table of Contents

Elevator Consulting Associates, Inc. – 103 Soukup Ct., Folsom, CA 95630
O: 916-983-1035 – C: 916-337-3572 – F: 916-983-1028
sean.colgan@elevatorconsultingassociates.com

Appendix A – Elevator Equipment Summary

The following chart provides an "at a glance" summary of all of the elevator equipment at the subject property.

Bank/Elevator Description	Elevator Number	Speed	Capacity	Floors Served	Date of Original Install	Date of Last Mod	Next Mod Due	Elevator Type	Machine/ Power Unit Manuf.	Motor Control	Control Manuf.	Door Size/ Style	Door Equip. Manuf.
Elevators 1-4 (Group – ID# 78401-78404)	1	350 fpm	4,000 pounds	P2, P1 (Front); 1-5 (Rear)	1985	2013	20+ years	Overhead Geared Traction	Dover	VVVF	MCE	42"x 84" Center Opening	GAL
	2	350 fpm	3,500 pounds	1-5	1985	2013	20+ years	Overhead Geared Traction	Dover	VVVF	MCE	42"x 84" Center Opening	GAL
	3	350 fpm	3,500 pounds	1-5	1985	2013	20+ years	Overhead Geared Traction	Dover	VVVF	MCE	42"x 84" Center Opening	GAL
	4	350 fpm	3,500 pounds	1-5	1985	2013	20+ years	Overhead Geared Traction	Dover	VVVF	MCE	42"x 84" Center Opening	GAL
Elevators 5-6 (Duplex – ID# 78405-78406)	5	125 fpm	3,500 pounds	P2, P1, 1	1985	2014	20+ years	Inground Hydraulic	Boremax	Solid State	MCE	42"x 84" Center Opening	GAL
	6	125 fpm	3,500 pounds	P2, P1, 1	1985	2014	20+ years	Inground Hydraulic	Boremax	Solid State	MCE	42"x 84" Center Opening	GAL
Elevator 7 (Simplex – ID# 78407)	7	250 fpm	3,000 pounds	1-5	1985	2013	20+ years	Basement Geared Traction	Dover	VVVF	MCE	36"x 84" Center Opening	GAL

Elevator Number	State Inspection Date	State Inspection Status	5-Year Test Date	5-Year Test Status	Annual Test Date	Annual Test Status	Fire Service Testing Logs	Machine Room Maintenance Logs	Overall Level of Maintenance	Modernization Priority
1	Not Posted	Unknown	Not Required	Not Required	Not Required	Not Required	None	None	Average	Low
2	Not Posted	Unknown	Not Required	Not Required	Not Required	Not Required	None	None	Average	Low
3	Not Posted	Unknown	Not Required	Not Required	Not Required	Not Required	None	None	Average	Low
4	Not Posted	Unknown	Not Required	Not Required	Not Required	Not Required	None	None	Average	Low
5	Not Posted	Unknown	9/5/13	Past Due	Not Required	Not Required	None	None	Average	Low
6	Not Posted	Unknown	10/15/13	Past Due	Not Required	Not Required	None	None	Average	Low
7	Not Posted	Unknown	Not Required	Not Required	Not Required	Not Required	None	None	Average	Low

Appendix B – Repair Items

The following chart details items that must be scheduled for repair prior to the end of the current maintenance contract. Contractor shall provide a schedule to Owner and Consultant within two weeks of receipt of this report.

Building 418 – Public Utilities Commission				
Current Items			These Columns For Use by Contractor and in Future ECA Visits	
Item #	**Item Description**	**Units Affected**	**Item Complete**	**Comments**
1	None noted			

Appendix C – Maintenance Corrections

The following chart details minor maintenance items (cleaning, lubrication, adjustments, etc.) which should be addressed to the greatest extent possible prior to the building walkthroughs for the elevator maintenance bid process, projected to take place the first two weeks of April, 2015.

Building 418 – Public Utilities Commission				
Current Items			These Columns For Use by Contractor and in Future ECA Visits	
Item #	**Item Description**	**Units Affected**	**Item Complete**	**Comments**
1	Organize machine room	1-4		
2	Perform general cleaning of machine room	1-7		
3	Provide fire service logs in machine room	1-7		
4	Hoist rope has one rouged spot - monitor	2		
5	Sweep pits	1-4		
6	Clean pits	5-6		
7	Place cover on computer in machine room	7		
8	Place cover on starter assembly in machine room	7		

Appendix D – Owner's Maintenance Items

The following items are not part of your elevator contract, and thus are typically corrected by building engineering or another non-elevator sub-contractor. ECA is happy to discuss any of these items at any time. Please feel free to call or e-mail Matt Ensley or Sean Colgan with any questions you may have.

Sean Colgan: 916-337-3572 – sean.colgan@elevatorconsultingassociates.com

Matt Ensley: 213-247-8992 – matt.ensley@elevatorconsultingassociates.com

Building 418 – Public Utilities Commission				
Current Items			These Columns For Use by University and in Future ECA Visits	
Item #	Item Description	Units Affected	Item Complete	Comments
1	Post annual inspection certificates in elevator cabs			

Appendix E – Modernization Recommendation

It is commonly held in the industry that elevator equipment should be modernized every 20-25 years. While this is a valid generalization, the actual time for modernization can vary greatly from property to property, depending on the type of equipment installed, its age, the level of usage, etc. In this case, the elevator equipment was modernized in 2013-2014 (last year). Assuming that the level of maintenance will be maintained at or above industry standard, these elevators should operate properly for another 20+ years before modernization is required. Furthermore, there are currently no obsolescence or serviceability issues which would keep these elevators from being competitively bid or serviced by any qualified elevator contractor. As such, we do not recommend any budgets for modernization or upgrade of the elevators at this time.

We would be happy to discuss this modernization recommendation or any other aspect of this report at any time. Please contact Sean Colgan at 916-337-3572, or by email at sean.colgan@elevatorconsultingassociates.com.

Prepared by

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