



Fresno Water Resources Building (753)

3374 East Shields Avenue, Fresno, CA 93726

Facility Condition Assessment

September 2015

Prepared for the State of California Department of General Services



TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	2
BACKGROUND	2
OBJECTIVE	2
SCOPE OF ASSESSMENT	3
SURVEY FINDINGS.....	3
INTRODUCTION	6
BUILDING BACKGROUND.....	6
BUILDING DESCRIPTION.....	6
FACILITY CONDITION ASSESSMENT.....	7
SCOPE OF ASSESSMENT	9
PRIORITY RANKING	10
CURRENT REPLACEMENT VALUE.....	15
FACILITY CONDITION INDEX.....	15
APPENDICES	18
APPENDIX A: ACCESSIBILITY ISSUES	18
APPENDIX B: GENERAL ASSESSMENT INFORMATION	20
APPENDIX C: CERTIFICATION.....	54
APPENDIX D: PHOTOS.....	56
APPENDIX E: TERMINOLOGY AND ABBREVIATIONS.....	70
APPENDIX F: BUILDING FACT SHEET	76
APPENDIX G: COST TABLES.....	80
APPENDIX H: SUPPORTING DOCUMENTATION.....	84
APPENDIX I: PRE-SURVEY QUESTIONNAIRE.....	98

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EXECUTIVE SUMMARY

BACKGROUND

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

The DGS portfolio comprises nearly 17 million gross square feet (GSF) of state-owned office facilities statewide, contained within 54 general-purpose state-owned office building sites. The FCA inventories and evaluates each of the DGS general purpose office buildings to benchmark current condition and establish a replacement value. This FCA assesses the infrastructure conditions for the Fresno Department of Water Resources Building (753).

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 Fresno Department of Water Resources Building (753) 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 Fresno Department of Water Resources Building (753) on February 13, 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	\$14,569,116
Immediate Repair Costs (12 months)	\$1,445,151
1-5 Year Capital Needs	\$1,738,769
6-10 Year Capital Needs	\$419,560
Total 10-Year Capital Reserve Needs	\$3,603,479

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

Current Year FCI

$$\text{Current FCI} = \frac{\$1,445,151}{\$14,569,116}$$

Ten-Year FCI

$$\text{Ten-Year FCI} = \frac{\$3,603,479}{\$14,569,116}$$

Current Year FCI	Ten-Year FCI
9.92 % = <i>Fair Condition</i>	24.73 % = <i>Poor Condition</i>

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

- The HVAC control system is an antiquated pneumatic system. A full conversion over to an electronic direct digital control (DDC) platform is highly recommended.
- The facility lacks a fire sprinkler system. EMG recommends installation of a complete wet pipe fire sprinkler system as a life safety improvement.
- The ramp from the street is too steep. The ramp from the parking area to the building entrance is too steep, narrow, and has no hand railings. Replacement of both ramps is required to meet the ADA and Title 24 Accessibility Guidelines.

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 Fresno Department of Water Resources Building (753) is located at 3374 East Shields Avenue. Designed by Los Angeles architect, Norbert W. Pieper, it was completed in 1967.

The one-story building is of framed construction. Five agencies occupy the building including Water Resources, Consumer Affairs, Public Health, General Services, and Rehabilitation. The building offers 135 surface parking spaces.

The gross floor area is 38,600 SF with a net usable area of 30,187 SF. The ratio of net usable to gross building area is 78.2 percent. The occupant load is 86.

BUILDING DESCRIPTION

The building structural mainframe is a combination of concrete masonry units (CMU), exterior bearing walls, and wood framed interior bearing walls supporting wood trusses. An additional garage building is located at the southeast corner of the property and is constructed of stucco-clad wood bearing walls with steel columns, supporting a wood joist and plywood roof. A small mechanical building constructed of CMU is located on the east side of the property and contains the chiller and cooling tower. The primary roofs are flat with white single ply membrane. The mechanical building has corrugated translucent panels over sloped roofing.

Exterior walls are a combination of painted CMU and stucco. Windows are aluminum fixed units.

Interior walls are painted CMU and drywall, with ceramic tiles in restrooms. Floor finishes include carpet, vinyl tiles, terrazzo, and ceramic tiles. Ceiling finishes are suspended acoustic tiles and painted drywall.

Heating and cooling are provided by a boiler, chiller, cooling tower, and large capacity air handlers.

The life safety system includes smoke detectors, pull stations, horns, and strobes.

Planting beds for shrubs and small trees are located along the front and west sides of the building, and are bordered with stone and masonry retaining walls. Asphalt paved parking is provided along the west and south sides of the property. Sidewalks, steps, and ramps are concrete.

Project Statistics

Item	Description
Project Name	Water Resources
Building ID	753
Property Type	Administration
Year Built	1967
Number of Stories	1
Occupied	Yes
Land Area (acres)	2.79
Gross Square Feet (GSF)	38,600

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 E2018-08¹ 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 Fresno Department of Water Resources Building (753) on February 13, 2015. The survey included analysis and observation of the building's

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

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

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

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

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

PRIORITY RANKING

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

PRIORITY RANKING CATEGORIES

Building Mission Ranking

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

Remaining Useful Life Ranking

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

Asset Component Category

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

Functional Asset Categories

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

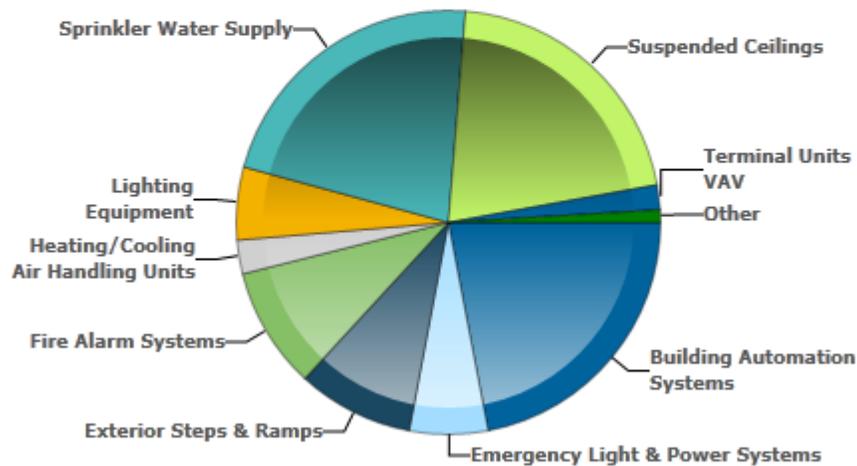
PRIORITY RATIO

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

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

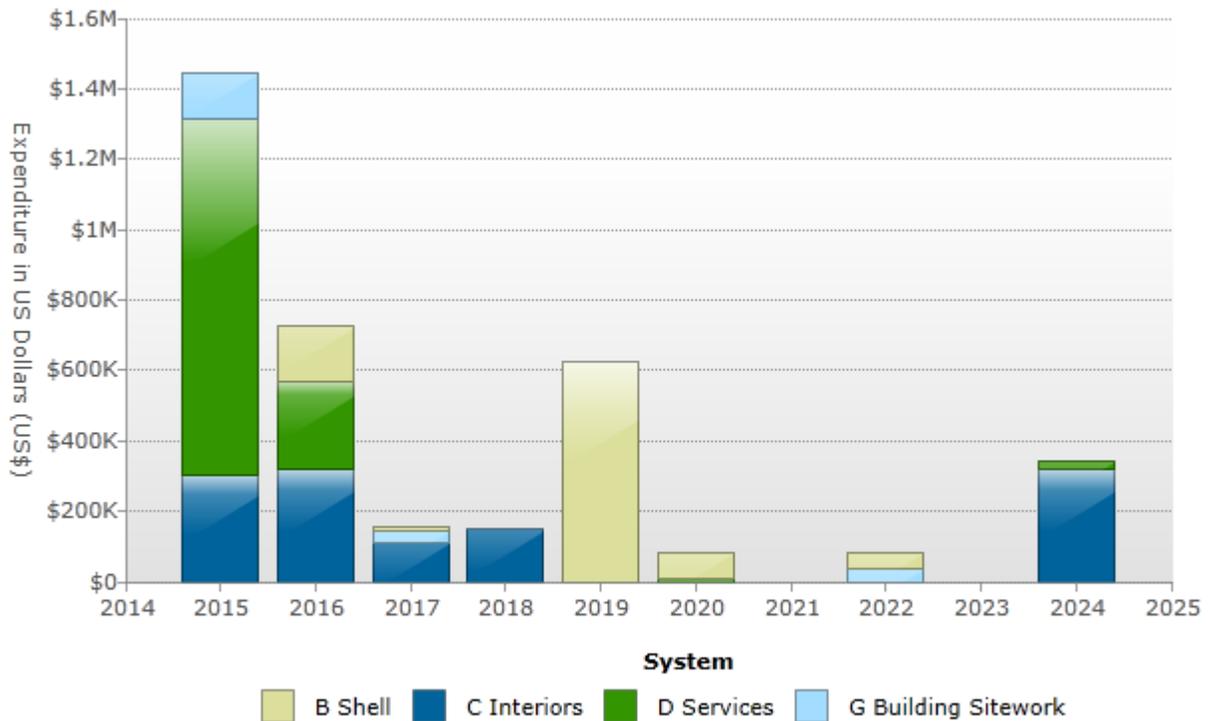
Condition	Definition
Good	In new or well-maintained condition, with no visual evidence of wear, soiling, or other deficiencies.
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable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

Distribution of Immediate Needs by Building System



Level	Building System	Estimated Cost
C1011	Fixed Partitions	\$1,087
C3032	Suspended Ceilings	\$301,592
D2018	Drinking Fountains and Coolers	\$5,753
D3041	Terminal Units VAV	\$27,320
D3042	Exhaust Ventilation Systems	\$5,734
D3063	Heating/Cooling Air Handling Units	\$37,185
D3068	Building Automation Systems	\$317,817
D4011	Sprinkler Water Supply	\$318,836
D5022	Lighting Equipment	\$80,240
D5037	Fire Alarm Systems	\$133,911
D5092	Emergency Light & Power Systems	\$86,364
G2012	Paving & Surfacing	\$1,214
G2035	Exterior Steps & Ramps	\$128,097
	Total	\$1,445,151

Total Capital Needs By System and Year



Year	Building System							Total
	A Sub-Structure	B Shell	C Interiors	D Services	E Equip. & Furnishings	F Spec. Const. & Demolition	G Bldg. Site Work	
2015	\$0	\$0	\$302,679	\$1,013,161	\$0	\$0	\$129,311	\$1,445,151
2016	\$0	\$159,051	\$321,697	\$245,258	\$0	\$0	\$0	\$726,005
2017	\$0	\$12,547	\$108,171	\$0	\$0	\$0	\$35,057	\$155,775
2018	\$0	\$0	\$148,949	\$0	\$0	\$0	\$0	\$148,949
2019	\$0	\$626,587	\$0	\$0	\$0	\$0	\$0	\$626,587
2020	\$0	\$71,689	\$0	\$9,763	\$0	\$0	\$0	\$81,452
2022	\$0	\$44,950	\$0	\$0	\$0	\$0	\$35,057	\$80,007
2024	\$0	\$0	\$321,697	\$17,856	\$0	\$0	\$0	\$339,553
Total	\$0	\$914,824	\$1,203,193	\$1,286,037	\$0	\$0	\$199,426	\$3,603,479

CURRENT REPLACEMENT VALUE

The Current Replacement Value has been determined as \$14,569,116 for the Fresno Department of Water Resources Building Building (753). 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
38,600 GSF	\$377	\$14,569,116

FACILITY CONDITION INDEX

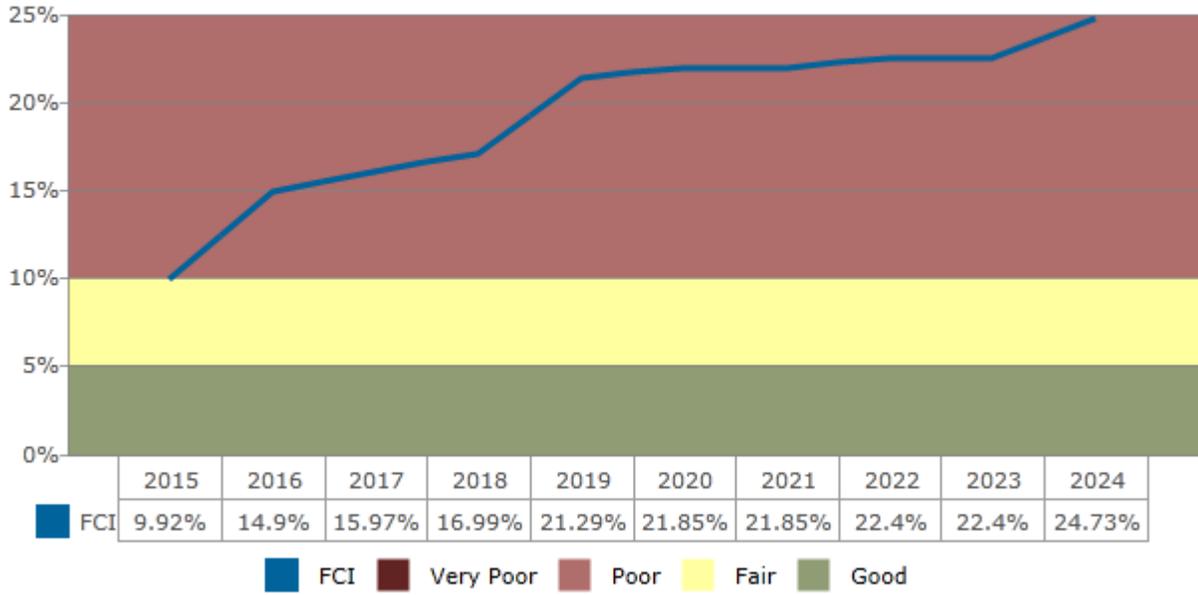
The FCI¹ is an indication of a building’s current and future overall condition. According to industry standards an FCI ratio of 65 percent, or the “rule of two-thirds,” is the threshold for identifying potential candidates for replacement or divestment.² Once the FCI ratio reaches 65 percent, or roughly 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



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APPENDICES

APPENDIX A: ACCESSIBILITY ISSUES

Item	Description
C1011 Fixed Partitions	C1011 Wood Stud and Drywall half wall partition
Condition	Poor
Qty / UOM	64 / SF
RUL (years)	0
Location	Throughout Facility

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountain
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Throughout Facility

Item	Description
G2035 Exterior Steps & Ramps	G2030 Concrete Ramp with Rails, Including Demo
Condition	Poor
Qty / UOM	74 / LF
RUL (years)	0
Location	Front of Building

Recommendations:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C1011	Replace C1011 Wood Stud and Drywall half wall partition	64.0 - SF	17.0	CC - Accessibility	Priority 1	2015	1,087
D2018	Replace D2018 Drinking Fountain	2.0 - EA	2876.6	CC - Accessibility	Priority 1	2015	5,753
G2035	Replace G2030 Concrete Ramp with Rails, Including Demo	74.0 - LF	1731.0	CC - Accessibility	Priority 1	2015	128,097

Cost Summary:

Year	Total Expenditures
2015	\$134,937

APPENDIX B: GENERAL ASSESSMENT INFORMATION

A Substructure Systems

A10 FOUNDATIONS

Item	Description
A1032 Structural Slab on Grade	A1032 Reinforced Concrete Slab Foundation
Condition	Good
Qty / UOM	38,600 / SF
RUL (years)	20
Location	Building Foundation

OBSERVATIONS/COMMENTS:

No further action is required.

B Shell Systems

B20 EXTERIOR ENCLOSURE

Item	Description
B2011 Exterior Wall Construction	B2011 Painted Exterior Wall Stucco and Lath
Condition	Fair - Good
Qty / UOM	5,100 / SF
RUL (years)	7
Location	Exterior Walls

OBSERVATIONS/COMMENTS:

The exterior stucco walls will require painting during the assessment term due to normal deterioration.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2011	Replace B2011 Painted Exterior Wall Stucco and Lath	5,100.0 - SF	4.6	IN - Appearance	Priority 4	2022	23,272

Item	Description
B2011 Exterior Wall Construction	B2011 Painted Masonry Exterior Walls
Condition	Fair - Good
Qty / UOM	13,788 / SF
RUL (years)	5
Location	Exterior Walls

OBSERVATIONS/COMMENTS:

The exterior masonry block walls will require painting during the assessment term due to normal deterioration.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2011	Replace B2011 Painted Masonry Exterior Walls	13,788.0 - SF	4.6	IN - Appearance	Priority 3	2020	62,917

Item	Description
B2021 Windows	B2021 Aluminum Windows
Condition	Fair
Qty / UOM	44 / EA
RUL (years)	1
Location	Exterior Walls

OBSERVATIONS/COMMENTS:

The single pane aluminum windows appear to be original to the building construction. Replacement of all windows with energy efficient dual pane units is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2021	Replace B2021 Aluminum Windows	44.0 - EA	3614.8	IN - Beyond Rated Life	Priority 1	2016	159,051

Item	Description
B2031 Glazed Doors & Entrances	B2031 Glazed Entrance Doors
Condition	Fair
Qty / UOM	5 / EA
RUL (years)	7
Location	Exterior Entrances

OBSERVATIONS/COMMENTS:

The entry doors are aluminum storefront systems with fully glazed doors and side panels. Based on RUL, replacement is anticipated during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2031	Replace B2031 Glazed Entrance Doors	5.0 - EA	4335.5	IN - Appearance	Priority 4	2022	21,678

Item	Description
B2032 Solid Exterior Doors	3'-0" X 7'-0" Steel, Painted, Door
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	2
Location	Exterior Walls

OBSERVATIONS/COMMENTS:

Based on RUL, exterior steel door replacements will be required during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2032	Replace 3'-0" X 7'-0" Steel, Painted, Door	8.0 - EA	1568.4	IN - Beyond Rated Life	Priority 2	2017	12,547

COST SUMMARY:

Type	Year	Total Expenditures
B20 Exterior Enclosure	2016	\$159,051
B20 Exterior Enclosure	2017	\$12,547
B20 Exterior Enclosure	2020	\$62,917
B20 Exterior Enclosure	2022	\$44,950

B30 ROOFING

Item	Description
B3011 Roof Finishes	B3011 TPO Membrane Roofing
Condition	Fair
Qty / UOM	400 / SQ
RUL (years)	4
Location	Roof

OBSERVATIONS/COMMENTS:

Based on RUL and current condition, roof membrane replacement is anticipated during the reserve period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Replace B3011 TPO Membrane Roofing	400.0 - SQ	1566.5	IN - Beyond Rated Life	Priority 3	2019	626,587

Item	Description
B3011 Roof Finishes	B3011 Translucent Fiberglass Roof
Condition	Fair
Qty / UOM	900 / SF
RUL (years)	5
Location	Mechanical Building east side

OBSERVATIONS/COMMENTS:

The corrugated fiberglass translucent roof on the east side of mechanical building shows aging and exposed fibers. Replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Replace B3011 Translucent Fiberglass Roof	900.0 - SF	9.7	IN - Beyond Rated Life	Priority 3	2020	8,772

COST SUMMARY:

Type	Year	Total Expenditures
B30 Roofing	2019	\$626,587
B30 Roofing	2020	\$8,772

C Interiors Systems

C10 INTERIOR CONSTRUCTION

Item	Description
C1011 Fixed Partitions	C1011 Wood Stud and Drywall half wall partition
Condition	Poor
Qty / UOM	64 / SF
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Partial height walls with swing doors were observed in some of the common corridors. The walls present an ADA barrier, as the clear openings were 30 inches or less. A cost is included to remove the walls and refinish the adjacent surfaces.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C1011	Replace C1011 Wood Stud and Drywall half wall partition	64.0 - SF	17.0	CC - Accessibility	Priority 1	2015	1,087

Item	Description
C1021 Interior Doors	C1021 Interior Doors
Condition	Fair - Good
Qty / UOM	148 / EA
RUL (years)	15
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

No further action is required.

COST SUMMARY:

Type	Year	Total Expenditures
C10 Interior Construction	2015	\$1,087

C30 INTERIOR FINISHES

Item	Description
C3012 Wall Finishes to Interior Walls	C3012 Paint Interior Walls, Drywall
Condition	Fair
Qty / UOM	58,000 / SF
RUL (years)	3
Location	Throughout Building

OBSERVATIONS/COMMENTS:

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

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3012	Replace C3012 Paint Interior Walls, Drywall	58,000.0 - SF	2.1	IN - Appearance	Priority 3	2018	123,702

Item	Description
C3024 Flooring	C3024 2X2 Ceramic Tile
Condition	Poor - Fair
Qty / UOM	8 / CSF
RUL (years)	3
Location	Restrooms

OBSERVATIONS/COMMENTS:

Based on the estimated useful life and observed condition, ceramic tile replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3024	Replace C3024 2X2 Ceramic Tile	8.0 - CSF	3155.9	IN - Appearance	Priority 3	2018	25,247

Item	Description
C3024 Flooring	C3024 Vinyl Tile
Condition	Fair
Qty / UOM	860 / SY
RUL (years)	2
Location	Throughout Interior

OBSERVATIONS/COMMENTS:

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

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3024	Replace C3024 Vinyl Tile	860.0 - SY	125.8	IN - Appearance	Priority 3	2017	108,171

Item	Description
C3024 Flooring	C3024 Terrazzo
Condition	Fair - Good
Qty / UOM	500 / SF
RUL (years)	25
Location	Lobby

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
C3025 Carpeting	C3025 Carpet Commercial Medium Grade
Condition	Fair
Qty / UOM	3,330 / SY
RUL (years)	1
Location	Throughout Interior

OBSERVATIONS/COMMENTS:

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

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3025	Replace C3025 Carpet Commercial Medium Grade	3,330.0 - SY	96.6	IN - Appearance	Priority 3	2016	321,697
C3025	Replace C3025 Carpet Commercial Medium Grade	3,330.0 - SY	96.6	IN - Appearance	Priority 3	2024	321,697

Item	Description
C3032 Suspended Ceilings	C3032 Acoustical Ceiling Tile
Condition	Fair
Qty / UOM	251 / CSF
RUL (years)	0
Location	Throughout Interior

OBSERVATIONS/COMMENTS:

Based on RUL, acoustic ceiling tile replacement is anticipated during the assessment period. Fire sprinkler system installation also necessitates total ceiling replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3032	Replace C3032 Acoustical Ceiling Tile	251.0 - CSF	1201.6	IN - Appearance	Priority 2	2015	301,592

COST SUMMARY:

Type	Year	Total Expenditures
C30 Interior Finishes	2015	\$301,592
C30 Interior Finishes	2016	\$321,697
C30 Interior Finishes	2017	\$108,171
C30 Interior Finishes	2018	\$148,949
C30 Interior Finishes	2024	\$321,697

D Services Systems

D20 PLUMBING

Item	Description
D2011 Water Closets	D2011 Commercial Grade Water Closet, 1.6 GPF Unit
Condition	Fair
Qty / UOM	11 / EA
RUL (years)	1
Location	Restrooms
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

Based on RUL, water closet replacements are anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2011	Replace D2011 Commercial Grade Water Closet, 1.6 GPF Unit	11.0 - EA	1233.1	OP - Energy	Priority 2	2016	13,565

Item	Description
D2012 Urinals	D2012 Urinal
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	5
Location	Restrooms
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

Urinals are fitted with automatic flush valves. Based on RUL, replacements are anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2012	Replace D2012 Urinal	4.0 - EA	2440.7	IN - Beyond Rated Life	Priority 3	2020	9,763

Item	Description
D2013 Lavatories	D2013 Wall Hung Sink and Faucet
Condition	Fair
Qty / UOM	10 / EA
RUL (years)	1
Location	Restrooms

OBSERVATIONS/COMMENTS:

Based on RUL and condition, lavatory and faucet replacements are anticipated during the assessment term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2013	Replace D2013 Wall Hung Sink and Faucet	10.0 - EA	1542.0	IN - Beyond Rated Life	Priority 1	2016	15,420

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountain
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The existing drinking fountains do not comply with ADA requirements, and require replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2018	Replace D2018 Drinking Fountain	2.0 - EA	2876.6	CC - Accessibility	Priority 1	2015	5,753

Item	Description
D2022 Hot Water Service	D2022 Domestic Water Heater
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	1
Location	Penthouse

OBSERVATIONS/COMMENTS:

The gas-fired domestic water heater has exceeded its expected service life. Replacement is recommended during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2022	Replace D2022 Domestic Water Heater	1.0 - EA	4526.0	OP - Energy	Priority 2	2016	4,526

COST SUMMARY:

Type	Year	Total Expenditures
D20 Plumbing	2015	\$5,753
D20 Plumbing	2016	\$33,511
D20 Plumbing	2020	\$9,763

D30 HVAC

Energy Supply	
Item	Description
Fuel Oil Type	N/A
Fuel Gas Type	Natural Gas
Solid Fuel Type	N/A
District Heat Type	Site Physical Plant Hot Water
District Cooling Type	Site Physical Plant Chilled Water
Solar Thermal	No
Fuel Tank Type	N/A
Fuel Tank Size (gallons)	N/A
Fuel Tank Location	N/A
Gas Meter Location	East side along building wall
Electrical Meter Location	East of main building at the Mechanical Plant
Water Meter Location	North side of main building

Item	Description
D3021 Boilers	D3020 Water Boiler, Gas 1460 MBH
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	10
Location	Penthouse
Boiler Draft Type	Atmospheric/Gravity Draft
Boiler Location	Penthouse

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D3022.1 Circulating Pumps	D3022 HVAC Heating Water Circulation Pumps 3 HP
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	15
Location	Penthouse
Piping Type	Black Iron
Piping Diameter	6
Piping Insulation	Fiberglass
Pump HP	3

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D3022.1 Circulating Pumps	D3023 Condensate Return System
Condition	Good
Qty / UOM	1 / EA
RUL (years)	19
Location	Utility Building

OBSERVATIONS/COMMENTS:

The condensate return station was installed when the cooling tower was installed. It has a variable frequency drive (VFD) motor. No further action is required.

Item	Description
D3022.1 Circulating Pumps	D3022 HVAC Chilled Water Circulation Pumps 7.5 HP
Condition	Good
Qty / UOM	1 / EA
RUL (years)	19
Location	Utility Building

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D3031.1 Chillers	D3031 Chiller, Water Cooled, 150 Ton
Condition	Good
Qty / UOM	1 / EA
RUL (years)	24
Location	Utility Building
Chiller Refrigerant	134A

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D3031.2 Cooling Towers	D3031 Cooling Tower, Galvanized Steel, 150 Ton
Condition	Good
Qty / UOM	1 / EA
RUL (years)	24
Location	Utility Building
Cooling Tower Type	Induced Draft Crossflow
Number of Cells	1
Cooling Tower Material	Galvanized Steel
Cooling Tower VFD	Yes

OBSERVATIONS/COMMENTS:

The cooling tower was installed in 2014, The fan motor is on a VFD. No further action is required.

Item	Description
D3041.1 Air Handling Units	D3041 AHU Fan Motor, 5 HP
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	1
Location	Penthouse

OBSERVATIONS/COMMENTS:

The outside fresh air/return air handling unit fan motors will require replacements due to normal usage wear. These units are connected to a VFD.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Replace D3041 AHU Fan Motor, 5 HP	2.0 - EA	8928.0	IN - Beyond Rated Life	Priority 1	2016	17,856

Item	Description
D3041.1 Air Handling Units	D3041 AHU Fan Motor, 25 HP
Condition	Good
Qty / UOM	2 / EA
RUL (years)	9
Location	Penthouse

OBSERVATIONS/COMMENTS:

The air handling unit fan motors will likely require replacements during the term due to normal wear. These units are connected to a VFD.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Replace D3041 AHU Fan Motor, 25 HP	2.0 - EA	8928.0	IN - Beyond Rated Life	Priority 4	2024	17,856

Item	Description
D3041.1 Air Handling Units	D3041 Penthouse AHU 18000 - 20000 CFM
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	1
Location	Penthouse
Air Handling Unit Sub Type	Constant Volume Multi-Zone
Air Handling Unit Heat Type	Hot Water
Air Handling Unit Cooling Type	Chilled Water Coil
Air Handling Unit Outdoor Air	Provided By Makeup Air Units
Number of Return Air Fans	2
Return Air Fan Capacity Units	Cfm
Return Air Fan Outdoor Air	Provided By Makeup Air Units
Return Air Fan Duct Location	Concealed Above Ceilings And In Walls
Return Air Fan Duct Insulation	Not Insulated
Duct Supply Diffusers and Registers	In Conditioned Spaces On Walls And Ceilings
Duct Return Grilles	Conditioned Space

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by two penthouse packaged air handling units (AHUs) which feed VAV type boxes located in each space. AHUs are supplied with heated and chilled water from the central system and range from 18000 CFM to 20000 CFM nominal capacity. Due to their extended age, full replacement of the units is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Replace D3041 Penthouse AHU 18000 - 20000 CFM	2.0 - EA	35811.5	IN - Beyond Rated Life	Priority 1	2016	71,623

Item	Description
D3041.2 Terminal Units VAV	D3041 VAV Boxes
Condition	Poor - Fair
Qty / UOM	12 / EA
RUL (years)	0
Location	Throughout Facility
Terminal Units Control	Building System
Terminal Units Units	Cfm
Terminal Heating Medium	Hot Water

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by variable air volume (VAV) terminals supplied with conditioned air from the central system air handlers. The maintenance staff reports that the vast majority of VAV boxes are most likely original to the 1967 construction. Based on their age and condition, replacements are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Replace D3041 VAV Boxes	12.0 - EA	2276.6	IN - Beyond Rated Life	Priority 1	2015	27,320

Item	Description
D3042 Exhaust Ventilation Systems	D3041 Air Handling Unit 18000 - 20000 CFM
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	1
Location	Penthouse
Ventilation System	Central Exhaust Duct Network

OBSERVATIONS/COMMENTS:

There are two return/fresh air fans located on the roof outside of the rear of the penthouse. Due to their extended age, full replacement of these units is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Replace D3041 Air Handling Unit 18000 - 20000 CFM	2.0 - EA	40650.7	IN - Beyond Rated Life	Priority 1	2016	81,301

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 2000 CFM
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Rooftop
Ventilation System	Central Exhaust Duct Network

OBSERVATIONS/COMMENTS:

Most of the miscellaneous rooftop exhaust fans are original to the 1967 construction and do not appear to be functional, nor needed, except the restroom exhaust fan. The fan requires replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Replace D3042 Exhaust Fan 2000 CFM	1.0 - EA	5734.3	IN - Beyond Rated Life	Priority 1	2015	5,734

Item	Description
D3063 Heating/Cooling Air Handling Units	D3063 Variable Frequency Drive, 10 - 7.5 HP Motor
Condition	Good
Qty / UOM	2 / EA
RUL (years)	14
Location	Utility Building

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D3063 Heating/Cooling Air Handling Units	D3063 Variable Frequency Drive, 25 - 5 HP Motor
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Utility Building

OBSERVATIONS/COMMENTS:

Replacements of VFDs are recommended in conjunction with direct digital control (DDC) installation.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3063	Replace D3063 Variable Frequency Drive, 25 - 5 HP Motor	2.0 - EA	18592.6	IN - Beyond Rated Life	Priority 1	2015	37,185

Item	Description
D3068 Building Automation Systems	D3068 Pneumatic HVAC Controls
Condition	Poor
Qty / UOM	38,600 / SF
RUL (years)	0
Location	Throughout Facility
Pneumatic Controls Equipment	Air Dryer – Refrigerated
Equipment Controlled	AHU System

OBSERVATIONS/COMMENTS:

The control system is an antiquated pneumatic system relying on simple two-input controllers. A fully integrated direct digital control (DDS) system is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3068	Replace D3068 Pneumatic HVAC Controls	38,600.0 - SF	8.2	IN - Reliability	Priority 1	2015	317,817

COST SUMMARY:

Type	Year	Total Expenditures
D30 HVAC	2015	\$388,056
D30 HVAC	2016	\$170,780
D30 HVAC	2024	\$17,856

D40 FIRE PROTECTION SYSTEMS

Fire and Life Safety System	
Item	Description
Fire Alarm System Components Present	
Smoke detectors	No
Pull stations	No
Audible alarms	Yes
Strobe lights	No
Central fire alarm panel	No
Annunciator panel	No
Smoke Detectors Power Supply	Hardwired Electric
Carbon Monoxide Detectors	N/A
Heat Detector	N/A
Central Fire Alarm Panel Location	N/A
Annunciator Panel Location	N/A
Fire Extinguishers	Yes
Fire Extinguisher Inspection Date	March 17, 2015
Distance to Nearest Fire Hydrant (ft)	60
Illuminated Exit Signs	Yes
Kitchen Suppression Systems	N/A
Halon Gas Systems	N/A
Smoke Evacuation Systems	N/A
Fire-rated Stairwells	N/A
Fire-rated Stairwell Finish	N/A
Stairwell Discharge	N/A
Stairwell Pressurized	N/A
Fire-Rated Doors Observed	Yes
Location of Fire-Rated Doors	Office entrances
Fire Alarm Service Company	N/A
Date of Last Fire Alarm Service	N/A
Are the individual office unit fire alarm systems monitored?	N/A
Are the common area fire alarm systems monitored?	N/A
Types of Common Areas Monitored	N/A
Fire Alarm Monitoring Company	N/A

Item	Description
D4011 Sprinkler Water Supply	D4011 Wet-Pipe Sprinkler System
Condition	Poor
Qty / UOM	38,600 / SF
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The entire facility lacks a fire suppression overhead sprinkler system. EMG recommends installation of a complete wet pipe fire sprinkler system as a life safety improvement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D4011	D4011 Install Wet Pipe Sprinkler System	38,600.0 - SF	8.3	CC - Life Safety	Priority 1	2015	318,836

COST SUMMARY:

Type	Year	Total Expenditures
D40 Fire Protection Systems	2015	\$318,836

D50 ELECTRICAL SYSTEMS

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear, Mainframe, 1000 Amps
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	1
Location	Utility Building
Service Size (Amperage)	1000
Service Voltage	277/480
Service Voltage Type	Three-Phase Four-Wire Alternating Current (Ac)
Step Down Transformers	Yes
Electrical Distribution Panel Type	Circuit Breakers
Main Electrical Distribution Lines	Underground
Site Electrical Transformer Location	Pad-Mounted
Electrical Wiring in Metal Conduit	Yes

OBSERVATIONS/COMMENTS:

The main switchgear is original equipment and has exceeded its expected life. Based on estimated RUL, replacement is recommended during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5010 Switchgear, Mainframe, 1000 Amps	1.0 - EA	11277.7	IN - Beyond Rated Life	Priority 2	2016	11,278

Item	Description
D5012 Low Tension Service & Dist.	D5012 Secondary Dry Transformer 225 kVA
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	1
Location	Utility Building
Service Size (Amperage)	225
Service Voltage	277/480
Service Voltage Type	Three-Phase Four-Wire Alternating Current (Ac)
Step Down Transformers	Yes
Electrical Distribution Panel Type	Circuit Breakers
Main Electrical Distribution Lines	Underground
Site Electrical Transformer Location	Pad-Mounted
Electrical Wiring in Metal Conduit	Yes

OBSERVATIONS/COMMENTS:

The step-down transformer is original and has exceeded its expected life. Based on estimated remaining useful life (RUL), replacement is recommended during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5012 Secondary Dry Transformer 225 kVA	1.0 - EA	29688.3	IN - Beyond Rated Life	Priority 2	2016	29,688

Item	Description
D5022 Lighting Equipment	D5010 Lighting Fixtures in Suspended Ceilings
Condition	Fair
Qty / UOM	200 / EA
RUL (years)	0
Location	All suspended ceiling locations

OBSERVATIONS/COMMENTS:

Replace lighting in suspended ceilings in conjunction with ceiling replacements, in support of fire sprinkler system installation throughout facility.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5010 Lighting Fixtures in Suspended Ceilings	200.0 - EA	401.2	FN - Modernization	Priority 1	2015	80,240

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm System
Condition	Poor
Qty / UOM	38,600 / SF
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The entire facility lacks a fire alarm system. The installation of a complete fire alarm system is recommended as a life-safety improvement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5037	Install Facility Wide Fire Alarm Panel	38,600.0 - SF	3.5	CC - Life Safety	Priority 1	2015	133,911

Item	Description
D5092 Emergency Light & Power Systems	D5092 Emergency Generator 75 kW
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	0
Location	Utility Building

OBSERVATIONS/COMMENTS:

There is no emergency generator at this location. The installation of a diesel generator of approximately 75 kW is recommended as a life safety measure.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5092	Replace D5092 Emergency Generator 75 kW	1.0 - EA	86364.2	CC - Life Safety	Priority 1	2015	86,364

COST SUMMARY:

Type	Year	Total Expenditures
D50 Electrical Systems	2015	\$300,515
D50 Electrical Systems	2016	\$40,966

G Building Sitework Systems

G20 SITE IMPROVEMENTS

Site Information	
Item	Description
Main Ingress and Egress	Shields Avenue
Access from	S
Additional Entrances	N/A
Access from	N/A
Parking Count: Open lot	121
Parking Count: Sheltered by carports	N/A
Parking Count: Private garages	N/A
Parking Count: Subterranean garage	N/A
Parking Count: Freestanding parking structure	N/A
Number of ADA Compliant Spaces	5
Number of ADA Compliant Spaces for Vans	2
Method of obtaining parking count	Physical count
Property Identification Sign-Primary	Structure mounted
Property Identification Sign- Secondary	N/A
Illuminated Identification Signage	No
Building Identification Sign	No
Illuminated Sign	N/A
Location of Property ID Sign	Front elevation of building
Trees Present	Yes
Shrubs Present	Yes
Grasses Present	Yes
Flower beds Present	Yes
Decorative Rocks Present	No
Lava Rocks Present	No
Ponds Present	No
Fountains Present	No
Topography	Gently sloping

Item	Description
G2012 Paving & Surfacing	G2012 Asphalt Seal Coat
Condition	Fair - Good
Qty / UOM	45,600 / SF
RUL (years)	2
Location	Parking lot

OBSERVATIONS/COMMENTS:

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

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2012	Replace G2012 Asphalt Seal Coat	45,600.0 - SF	0.8	IN - Appearance	Priority 3	2017	35,057
G2012	Replace G2012 Asphalt Seal Coat	45,600.0 - SF	0.8	IN - Appearance	Priority 3	2022	35,057

Item	Description
G2012 Paving & Surfacing	G2012 Aggregate- #6 Crusher Run, 2"-3" Depth
Condition	Poor
Qty / UOM	160 / SY
RUL (years)	0
Location	Access Road

OBSERVATIONS/COMMENTS:

The access road to the mechanical building has no paving. The surface washes away during rain storms. Restoration of the roadway with crushed stone is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2012	Replace G2012 Aggregate- #6 Crusher Run, 2"-3" Depth	160.0 - SY	7.6	IN - Beyond Rated Life	Priority 1	2015	1,214

Item	Description
G2012 Paving & Surfacing	G2012 Asphalt Paving
Condition	Fair - Good
Qty / UOM	45,600 / SF
RUL (years)	17
Location	Parking lot

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
G2035 Exterior Steps & Ramps	G2030 Concrete Ramp with Rails, Including Demo
Condition	Poor
Qty / UOM	74 / LF
RUL (years)	0
Location	Front of Building

OBSERVATIONS/COMMENTS:

The ramp from the street is too steep. The ramp from the parking area to the building entrance is too steep, narrow, and has no hand railings. Replacement of both ramps is required to meet ADA accessibility requirements.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2035	Replace G2030 Concrete Ramp with Rails, Including Demo	74.0 - LF	1731.0	CC - Accessibility	Priority 1	2015	128,097

Item	Description
G2041 Fences & Gates	G2041 Chain Link Fencing, Galvanized 6 Ga., 8' H with Vision Slats, with Spiral Razor Wire in Concrete
Condition	Fair
Qty / UOM	690 / LF
RUL (years)	13
Location	East and South Perimeters

OBSERVATIONS/COMMENTS:

The chain link fencing is located along the east and south sides of the property perimeter. The fence has vision slats, barbed wire, and concertina wire. No further action is required.

Item	Description
G2042 Retaining Walls	G2040 Dry Laid Segmental Unit Masonry Retaining Wall
Condition	Good
Qty / UOM	188 / SF Face
RUL (years)	10
Location	Front Elevation

OBSERVATIONS/COMMENTS:

The stack block retaining wall is in good condition. Routine maintenance will be required during the assessment period.

COST SUMMARY:

Type	Year	Total Expenditures
G20 Site Improvements	2015	\$129,311
G20 Site Improvements	2017	\$35,057
G20 Site Improvements	2022	\$35,057

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	No
Floor Plan Reviewed	No
Construction Drawings Reviewed	No
Termite Inspection Report Reviewed	No
Boiler Certificates Reviewed	No
Document Year Built Information Obtained From	

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: Tony DeFabritis / Dean Washichek, Field Observer

Reviewed By: 
Matthew Anderson, Program Manager

APPENDIX D: PHOTOS



:- Front Elevation



:- East Elevation



:- West Side



:- Rear Elevation



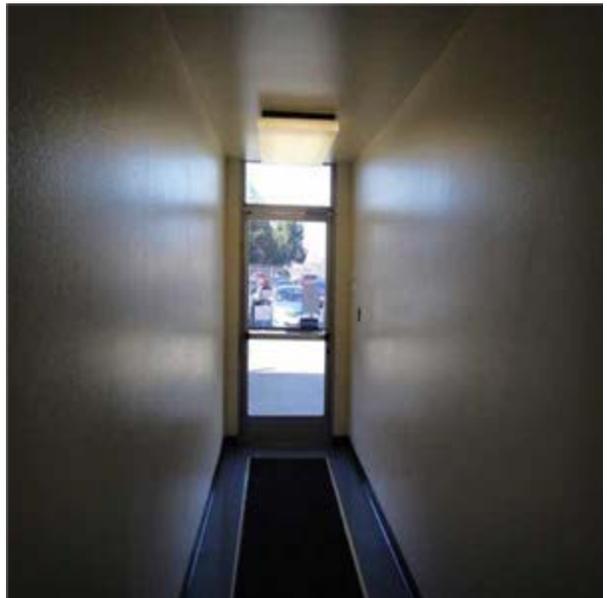
B2011 Painted Masonry Exterior Walls



B2011 Painted Exterior Wall Stucco and Lath



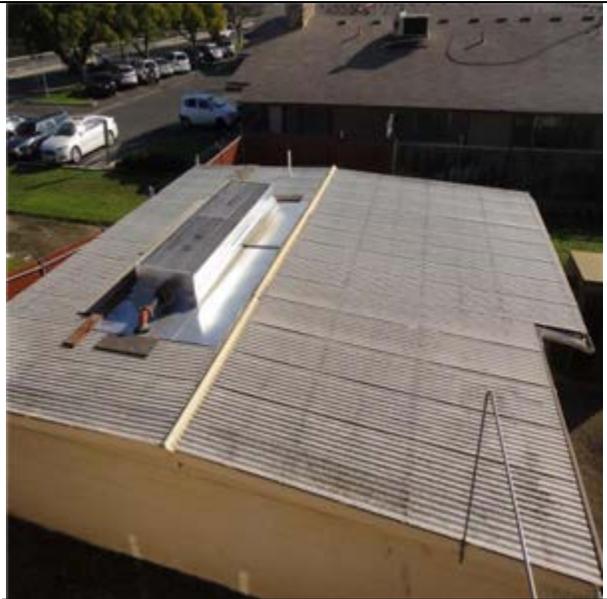
B2021 Aluminum Windows



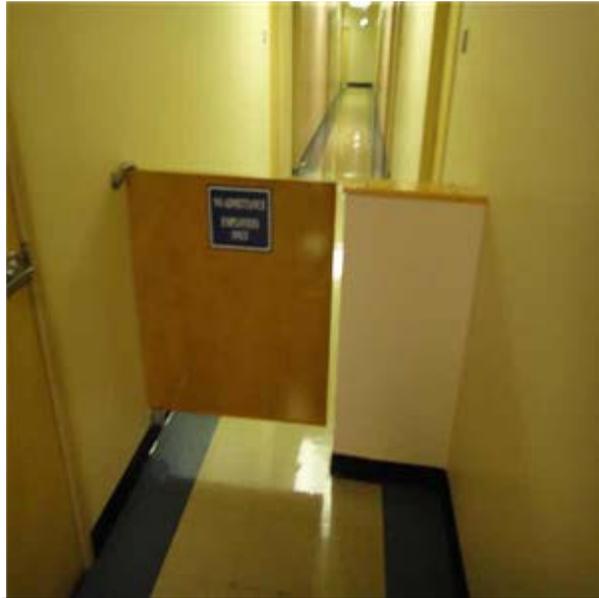
B2031 Glazed Entrance Doors



B3011 TPO Membrane Roofing



B3011 Translucent Fiberglass Roof



C1011 Wood Stud and Drywall half wall partition



C3012 Paint Interior Walls, Drywall



C3024 2X2 Ceramic Tile



C3024 Vinyl Tile



C3024 Terrazzo



C3025 Carpet Commercial Medium Grade



C3032 Acoustical Ceiling Tile



D2011 Commercial Grade Water Closet, 1.6 GPF Unit



D2012 Urinal



D2013 Wall Hung Sink and Faucet



D2018 Drinking Fountain



D2022 Domestic Water Heater



D3020 Water Boiler, Gas 1460 MBH



D3022 HVAC Heating Water Circulation Pumps 3 HP



D3023 Condensate Return System



D3022 HVAC Chilled Water Circulation Pumps 7.5 HP



D3031 Chiller, Water Cooled, 150 Ton



D3031 Cooling Tower, Galvanized Steel, 150 Ton



D3041 Penthouse AHU 18000 - 20000 CFM



D3041 AHU Fan Motor, 5 HP



D3041 AHU Fan Motor, 25 HP



D3041 VAV Boxes



D3041 Air Handling Unit 18000 - 20000 CFM



D3042 Exhaust Fan 2000 CFM



D3063 Variable Frequency Drive, 10 - 7.5 HP Motor



D3063 Variable Frequency Drive, 25 - 5 HP Motor



D3068 Pneumatic HVAC Controls



D5010 Switchgear, Mainframe, 1000 Amps



D5012 Secondary Dry Transformer 225 kVA



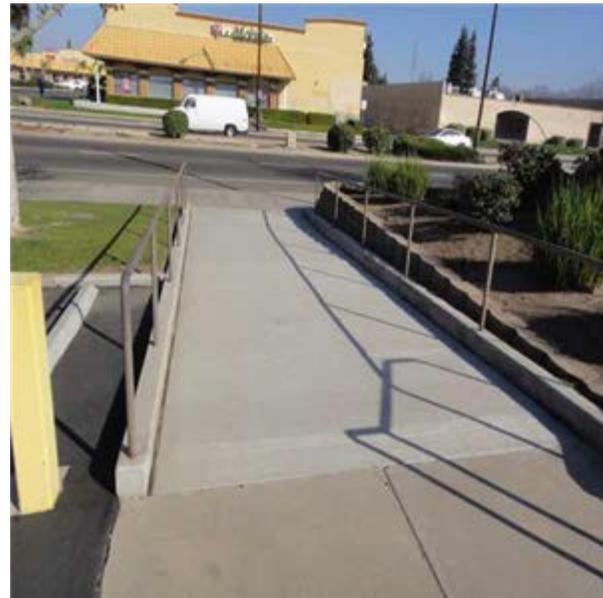
G2012 Aggregate- #6 Crusher Run, 2"-3" Depth



G2012 Asphalt Paving



G2030 Concrete Ramp with Rails, Including Demo



G2030 Concrete Ramp with Rails, Including Demo



G2041 Chain Link Fencing, Galvanized 6 Ga., 8' H with Vision Slats, with Spiral Razor Wire in Concrete



G2040 Dry Laid Segmental Unit Masonry Retaining Wall

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)	<p>The consultant's professional opinion of the number of years before a system or component will require replacement or reconditioning. The estimate is based upon observation, available maintenance records, and accepted EUL's for similar items or systems.</p> <p>Inclement weather, exposure to the elements, demand on the system, quality of installation, extent of use, and the degree and quality of preventive maintenance exercised are all factors that could impact the RUL of a system or component. As a result, a system or component may have an effective age greater or less than its actual age. The RUL may be greater or less than its Expected Useful Life (EUL) less actual age.</p>
Replacement Costs	Costs to replace the system or component "in kind" based on Invoices or Bid Documents provided by the current owner or the client, construction costs developed by construction resources such as <i>Means</i> and <i>Dodge</i> , EMG's experience with past costs for similar properties, or the current owner's historical incurred costs.
RTU	Rooftop Unit
Shut-Down	Equipment or systems that are not operating at the time of the Project Manager's Walk-through Survey. Equipment or systems may be considered shutdown if it is not in operation as a result of seasonal temperatures.
Significant	Important, material, and/or serious.
Site Visit	The visit to the property by EMG's Project Manager including walk-through visual observations of the Property, interviews of available project personnel and tenants (if appropriate), review of available documents and interviews of available municipal personnel at municipal offices, all in accordance with the agreement for the Property Condition Assessment.

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 employ Specialty Consultants to gain a better understanding of the cause, extent of a deficiency (whether observed or highly probable), and the appropriate remedy.
Survey	Observations as the result of a walk-through scan or reconnaissance to obtain information by EMG of the Property's readily accessible and easily visible components or systems.
System	A combination of interacting or interdependent components assembled to carry out one or more functions.
Technically Exhaustive	The use of measurements, instruments, testing, calculations, exploratory probing or discover, and/or other means to discover and/or troubleshoot Physical Deficiencies, develop scientific or Engineering findings, conclusions, and recommendations.
Term	Reserve Term: The number of years that Capital Reserves are projected for as specified in the Expenditure Forecast.
TPO	Thermoplastic polyolefin, a white single ply roofing material, usually white
Timely Access	Entry provided to the Project Manager at the time of his site visit.
UST	Underground Storage Tank
Walk-through Survey	The Project Manager's site visit of the Property consisting of his visual reconnaissance and scan of readily accessible and easily visible components and systems. This definition connotes that such a survey should not be considered in depth, and is to be conducted without the aid of special protective clothing, exploratory probing, removal of materials, testing, or the use of special equipment such as ladders, scaffolding, binoculars, moisture meters, air flow meters, or metering/testing equipment or devices of any kind. It is literally the Project Manager's walk of the Property and observations.

APPENDIX F: BUILDING FACT SHEET

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

APPENDIX G: COST TABLES

10 YEAR EXPENDITURE FORECAST



Fresno Department of Water Resources Building
3374 East Shields Avenue
Fresno

Useful Life	Estimated Useful Life
	Remaining Useful Life

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

Legend	Deferred
	Scheduled

Element #	Component Description	Asset	Location	Action	EUL (Yrs)	RUL (Yrs)	Qty.	Unit of Meas.	Unit Cost	Plan Type	Priority	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total - Deferred	Total - Scheduled
												Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9		

A. SUBSTRUCTURE																																
Substructure Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

B. SHELL																															
B20 EXTERIOR ENCLOSURE																															
B2011	Stucco and Lath	B2011 Painted Exterior Wall Stucco and Lath	Exterior Walls	Replace B2011 Painted Exterior Wall Stucco and Lath	10	7	5,100.00	SF	\$4.56	IN - Appearance	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,272	\$0	\$0	\$23,272								
B2011	Solid Masonry	B2011 Painted Masonry Exterior Walls	Exterior Walls	Replace B2011 Painted Masonry Exterior Walls	10	5	13,788.00	SF	\$4.56	IN - Appearance	Priority 3	\$0	\$0	\$0	\$0	\$0	\$62,917	\$0	\$0	\$0	\$0	\$0	\$62,917								
B2021	Aluminum Window, 4-0 X 6-0, First Floor	B2021 Aluminum Windows	Exterior Walls	Replace B2021 Aluminum Windows	25	1	44.00	EA	\$3,614.80	IN - Beyond Rated Life	Priority 1	\$0	\$159,051	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$159,051								
B2031	Aluminum 3'-0" X 7'-0"	B2031 Glazed Entrance Doors	Exterior Entrances	Replace B2031 Glazed Entrance Doors	25	7	5.00	EA	\$4,335.51	IN - Appearance	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,678	\$0	\$0	\$21,678								
B2032	3'-0" X 7'-0" Steel, Painted, Door	B2032 3'-0" X 7'-0" Steel, Painted, Door	Exterior Walls	Replace 3'-0" X 7'-0" Steel, Painted, Door	45	2	8.00	EA	\$1,568.35	IN - Beyond Rated Life	Priority 2	\$0	\$0	\$12,547	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,547								
B30 ROOFING																															
B3011	Tpo, Roof 45 Mills	B3011 TPO Membrane Roofing	Roof	Replace B3011 TPO Membrane Roofing	20	4	400.00	SQ	\$1,566.47	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$626,587	\$0	\$0	\$0	\$0	\$0	\$0	\$626,587								
B3011	Fiberglass panels (8 OZ)	B3011 Translucent Fiberglass Roof	Mechanical Building east side	Replace B3011 Translucent Fiberglass Roof	30	5	900.00	SF	\$9.75	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$8,772	\$0	\$0	\$0	\$0	\$0	\$8,772								
Shell Subtotal												\$0	\$159,051	\$12,547	\$0	\$626,587	\$71,689	\$0	\$44,950	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$914,824

C. INTERIORS																									
C10 INTERIOR CONSTRUCTION																									
C1011	Wood Stud Walls, 5/8" Drywall, No Insulation	C1011 Wood Stud and Drywall half wall partition	Throughout Facility	Replace C1011 Wood Stud and Drywall half wall partition	20	0	64.00	SF	\$16.99	CC - Accessibility	Priority 1	\$1,087	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,087	\$0		
C30 INTERIOR FINISHES																									
C3012	Paint Interior Walls, Drywall	C3012 Paint Interior Walls, Drywall	Throughout Building	Replace C3012 Paint Interior Walls, Drywall	10	3	58,000.00	SF	\$2.13	IN - Appearance	Priority 3	\$0	\$0	\$0	\$123,702	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$123,702		
C3024	2X2 Ceramic Tile	C3024 2X2 Ceramic Tile	Restrooms	Replace C3024 2X2 Ceramic Tile	30	3	8.00	CSF	\$3,155.88	IN - Appearance	Priority 3	\$0	\$0	\$0	\$25,247	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,247		
C3024	Vinyl Tile	C3024 Vinyl Tile	Throughout Interior	Replace C3024 Vinyl Tile	18	2	860.00	SY	\$125.78	IN - Appearance	Priority 3	\$0	\$0	\$108,171	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$108,171		
C3025	Carpet, Standard Commercial, Medium Traffic	C3025 Carpet Commercial Medium Grade	Throughout Interior	Replace C3025 Carpet Commercial Medium Grade	8	1	3,330.00	SY	\$96.61	IN - Appearance	Priority 3	\$0	\$321,697	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$321,697	\$0	\$643,393		
C3032	Acoustical Tile With Exposed Grid System	C3032 Acoustical Ceiling Tile	Throughout Interior	Replace C3032 Acoustical Ceiling Tile	20	0	251.00	CSF	\$1,201.56	IN - Appearance	Priority 2	\$301,592	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$301,592	\$0		
Interiors Subtotal												\$302,679	\$321,697	\$108,171	\$148,949	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$321,697	\$302,679	\$900,514

D. SERVICES																									
D20 PLUMBING																									
D2011	Commercial Grade Water Closet With 1.6 Gpf Unit	D2011 Commercial Grade Water Closet, 1.6 GPF Unit	Restrooms	Replace D2011 Commercial Grade Water Closet, 1.6 GPF Unit	35	1	11.00	EA	\$1,233.15	OP - Energy	Priority 2	\$0	\$13,565	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,565		
D2012	Urinal	D2012 Urinal	Restrooms	Replace D2012 Urinal	35	5	4.00	EA	\$2,440.66	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$9,763	\$0	\$0	\$0	\$0	\$0	\$9,763		
D2013	China Wall Hung Lavatory and Faucet	D2013 Wall Hung Sink and Faucet	Restrooms	Replace D2013 Wall Hung Sink and Faucet	35	1	10.00	EA	\$1,542.05	IN - Beyond Rated Life	Priority 1	\$0	\$15,420	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,420		
D2018	Drinking Fountain	D2018 Drinking Fountain	Throughout Facility	Replace D2018 Drinking Fountain	10	0	2.00	EA	\$2,876.60	CC - Accessibility	Priority 1	\$5,753	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,753	\$0		
D2022	Domestic Hot Water Heater - Gas	D2022 Domestic Water Heater	Penthouse	Replace D2022 Domestic Water Heater	15	1	1.00	EA	\$4,526.00	OP - Energy	Priority 2	\$0	\$4,526	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,526		
D30 HVAC																									
D3041.1	Air Handler 18,000-20,000 CFM	D3041 AHU Fan Motor, 25 HP	Penthouse	Replace D3041 AHU Fan Motor, 25 HP	15	9	2.00	EA	\$8,928.00	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,856	\$0	\$17,856		
D3041.1	Air Handler 18,000-20,000 CFM	D3041 Penthouse AHU 18000 - 20000 CFM	Penthouse	Replace D3041 Penthouse AHU 18000 - 20000 CFM	25	1	2.00	EA	\$35,811.55	IN - Beyond Rated Life	Priority 1	\$0	\$71,623	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$71,623		
D3041.1	Air Handler 18,000-20,000 CFM	D3041 AHU Fan Motor, 5 HP	Penthouse	Replace D3041 AHU Fan Motor, 5 HP	15	1	2.00	EA	\$8,928.00	IN - Beyond Rated Life	Priority 1	\$0	\$17,856	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,856		
D3041.2	Vav Box, 270 to 600 CFM	D3041 VAV Boxes	Throughout Facility	Replace D3041 VAV Boxes	30	0	12.00	EA	\$2,276.64	IN - Beyond Rated Life	Priority 1	\$27,320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,320	\$0		
D3042	Make Up Air Unit 5000 CFM	D3041 Air Handling Unit 18000 - 20000 CFM	Penthouse	Replace D3041 Air Handling Unit 18000 - 20000 CFM	20	1	2.00	EA	\$40,650.67	IN - Beyond Rated Life	Priority 1	\$0	\$81,301	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$81,301		
D3042	Exhaust Fan, Centrifugal, Belt-Drive, Aluminum Housing, 2050 Through 3500 CFM	D3042 Exhaust Fan 2000 CFM	Rooftop	Replace D3042 Exhaust Fan 2000 CFM	10	0	1.00	EA	\$5,734.31	IN - Beyond Rated Life	Priority 1	\$5,734	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,734	\$0		
D3063	Variable Frequency Drive, 25 HP Fan Motor,	D3063 Variable Frequency Drive, 25 - 5 HP Motor	Utility Building	Replace D3063 Variable Frequency Drive, 25 - 5 HP Motor	20	0	2.00	EA	\$18,592.56	IN - Beyond Rated Life	Priority 1	\$37,185	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,185	\$0		
D3068	Direct Digital Controls (DDC) Extensive	D3068 Pneumatic HVAC Controls	Throughout Facility	Replace D3068 Pneumatic HVAC Controls	20	0	38,600.00	SF	\$8.23	IN - Reliability	Priority 1	\$317,817	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$317,817	\$0		
D40 FIRE PROTECTION SYSTEMS																									
D4011	Sprinkler Head	D4011 Wet-Pipe Sprinkler System	Throughout Facility	D4011 Install Wet Pipe Sprinkler System	25	0	38,600.00	SF	\$8.26	CC - Life Safety	Priority 1	\$318,836	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$318,836	\$0		
D50 ELECTRICAL SYSTEMS																									
D5012	Switchgear, Mainframe, 1200 Amps	D5010 Switchgear, Mainframe, 1000 Amps	Utility Building	Replace D5010 Switchgear, Mainframe, 1000 Amps	30	1	1.00	EA	\$11,277.73	IN - Beyond Rated Life	Priority 2	\$0	\$11,278	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,278		
D5012	Secondary Dry Transformer 150 kVA	D5012 Secondary Dry Transformer 225 kVA	Utility Building	Replace D5012 Secondary Dry Transformer 225 kVA	40	1	1.00	EA	\$29,688.28	IN - Beyond Rated Life	Priority 2	\$0	\$29,688	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$29,688		
D5022	T12 Lamps, with T8 Lamps and Add Instant Start Electronic Ballasts	D5010 Lighting Fixtures in Suspended Ceilings	All suspended ceiling locations	Replace D5010 Lighting Fixtures in Suspended Ceilings	20	0	200.00	EA	\$401.20	FN - Modernization	Priority 1	\$80,240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$80,240	\$0		
D5037	Fire Alarm System, Install New	D5037 Fire Alarm System	Throughout Facility	Install Facility Wide Fire Alarm Panel	20	0	38,600.00	SF	\$3.47	CC - Life Safety	Priority 1	\$133,911	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$133,911	\$0		
D5092	Diesel Generator 75 kW	D5092 Emergency Generator 75 kW	Utility Building	Replace D5092 Emergency Generator 75 kW	25	0	1.00	EA	\$86,364.20	CC - Life Safety	Priority 1	\$86,364	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$86,364	\$0		
Services Subtotal												\$1,013,161	\$245,258	\$0	\$0	\$0	\$0	\$9,763	\$0	\$0	\$0	\$0	\$17,856	\$1,013,161	\$272,876

E. EQUIPMENT & FURNISHING																																
Equipment & Furnishing Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

G. BUILDING SITEWORK																																
G20 SITE IMPROVEMENTS																																
G2012	Aggregate- #6 Crusher Run, 2"-3" Depth	G2012 Aggregate- #6 Crusher Run, 2"-3" Depth	Access Road	Replace G2012 Aggregate- #6 Crusher Run, 2"-3" Depth	10	0	160.00	SY	\$7.59	IN - Beyond Rated Life	Priority 1	\$1,214	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,214	\$0									
G2012	Asphalt- Seal Coat- Roadways	G2012 Asphalt Seal Coat	Parking lot	Replace G2012 Asphalt Seal Coat	5	2	45,600.00	SF	\$0.77	IN - Appearance	Priority 3	\$0	\$0	\$35,057	\$0	\$0	\$0	\$0	\$35,057	\$0	\$0	\$0	\$70,115									
G2035	Cast-In-Place Concrete Stairs, No Rails, Including Demo	G2030 Concrete Ramp with Rails, Including Demo	Front of Building	Replace G2030 Concrete Ramp with Rails, Including Demo	25	0	74.00	LF	\$1,731.04	CC - Accessibility	Priority 1	\$128,097	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$128,097	\$0									
Building Sitework Subtotal												\$129,311	\$0	\$35,057	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$129,311	\$70,115

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		

Z. GENERAL

General Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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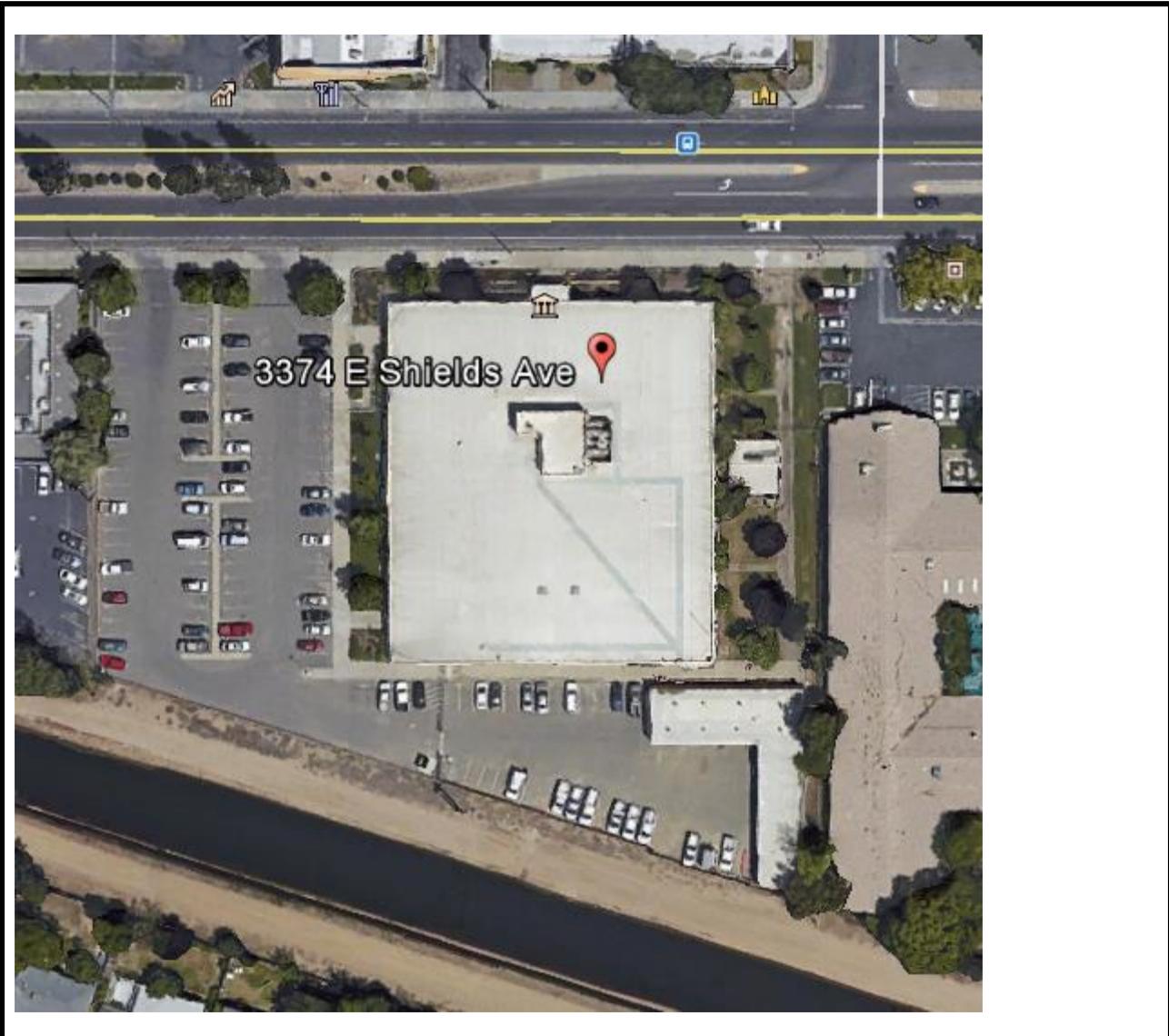
Expenditure Totals per Year	\$1,445,151	\$726,005	\$155,775	\$148,949	\$626,587	\$81,452	\$0	\$80,007	\$0	\$339,553	\$1,445,151	\$2,158,328
Total Cost (Inflated @ 5% per Yr.)	\$1,445,151	\$762,306	\$171,742	\$172,428	\$761,620	\$103,955	\$0	\$112,578	\$0	\$526,758	Total *	\$3,603,479

* - 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 \$14,569,116

APPENDIX H: SUPPORTING DOCUMENTATION



	<p>Source:</p> <p>The north arrow indicator is an approximation of 0° North.</p>	<p>Project Number:</p> <p>111326.14R-043.305</p> <p>Project Name:</p> <p>Fresno Department of Water Resources Building</p>
		

Estimate of Structures Cost Using Marshall Cost Systems

Department of Water Resources

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 Type Total
Main Building	\$301.95	38,600	\$11,655,293
	\$0.00	0	\$0
	\$0.00	0	\$0
	\$0.00	0	\$0
	\$0.00	0	\$0
Total		38,600	\$11,655,293

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	\$11,655,293	25.00%	\$14,569,116
	\$0	25.00%	\$0
	\$0	25.00%	\$0
	\$0	25.00%	\$0
	\$0	25.00%	\$0
Cost Per SF	\$377.44	Total Estimate	\$14,569,116

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

Date Completed: 2/13/2015
 Property Name: Fresno Water Resources Bldg
 EMG Project Number: 11322.142 - 093.305

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

Abbreviated Accessibility Checklist

Abbreviated Accessibility Checklist					
	Ramps	Yes	No	NA	Comments
1*	If there is a ramp from parking to an accessible building entrance, does it meet slope requirements? (1:12)		X		ramp from parking lot too steep, landings not flat
2	Are ramps longer than 6 ft complete with railings on both sides?		X		
3	Is the width between railings at least 36 inches?			X	
4	Is there a level landing for every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?			X	
	Entrances/Exits	Yes	No	NA	Comments
1	Is the main accessible entrance doorway at least 32 inches wide?	X			
2	If the main entrance is inaccessible, are there alternate accessible entrances?		X		
3	Can the alternate accessible entrance be used independently?			X	
4	Is the door hardware easy to operate (lever/push type hardware, no twisting required and not higher than 48 inches above the floor)?	X			
5	Are main entry doors other than revolving door available?	X			
6	If there are two main doors in series, is the minimum space between the doors 48 inches plus the width of any door swinging into the space?	X			
	Paths of Travel	Yes	No	NA	Comments
1	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 inches wide)?		X		short pony walls in main corridors - less than 36"
2	Does a visual scan of the main path reveal any obstacles (phones, fountains, etc.) that protrude more than 4 inches into walkways or corridors?	X			pony walls
3	Is at least one wheelchair-accessible public telephone available?			X	

Abbreviated Accessibility Checklist

Abbreviated Accessibility Checklist					
Paths of Travel		Yes	No	NA	Comments
4	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?			X	
5	Is there a path of travel that does not require the use of stairs?	X			
Elevators		Yes	No	NA	Comments
1	Do the call buttons have visual signals to indicate when a call is registered and answered?			X	
2	Is the "UP" button above the "DOWN" button?			X	
3	Are there visual and audible signals inside cars indicating floor change?			X	
4	Are there standard raised and Braille marking on both jambs of each hoist way entrance?			X	
5	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?			X	
6	Do elevator lobbies have visual and audible indicators of car arrival?			X	
7	Are elevator controls low enough to be reached from a wheelchair (48 inches front approach/54 inches side approach)?			X	
8	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?			X	
9	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?			X	
Toilet Rooms		Yes	No	NA	Comments
1	Are common area public restrooms located on an accessible route?	X			
2	Are pull handles push/pull or lever type?	X			

Abbreviated Accessibility Checklist					
	Toilet Rooms	Yes	No	NA	Comments
3	Are there audible and visual fire alarm devices in the toilet rooms?		X		
4	Are corridor access doors wheelchair-accessible (at least 32 inches wide)?	X			
5	Are public restrooms large enough to accommodate a wheelchair turnaround (60" turning diameter)?		X		stall too small
6	In unisex toilet rooms, are there safety alarms with pull cords?			X	
7	Are toilet stall doors wheelchair accessible (at least 32" wide)?	X			
8	Are grab bars provided in toilet stalls?		X		
9	Are sinks provided with clearance for a wheelchair to roll under (29" clearance)?	X			
10	Are sink handles operable with one hand without grasping, pinching or twisting?		X		
11	Are exposed pipes under sink sufficiently insulated against contact?		X		
	Guest Rooms	Yes	No	NA	Comments
1	Are there sufficient reported accessible sleeping rooms with respect to the total number of reported guestrooms?			X	Grab bars - Yes / No / Varies Pipes insulated - Yes / No / Varies Lever hardware - Yes / No / Varies Visual alarms - Yes / No / Varies 29" Sink clearance - Yes / No / Varies 60" Turning area - Yes / No / Varies 32" Doorway - Yes / No / Varies
2	Are there sufficient reported accessible rooms with roll-in showers with respect to the total number of reported accessible guestrooms?			X	

*Based on visual observation only. The slope was not confirmed through measurements.

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: Jerry W. Sandquist

Building name: Fresno Water Resources Building (753)

What is your association with this property? C.E.II - D.G.S. owned

What is the length of your association with this property? 28 years

Phone number: 559-445-5084

Please provide information about inspections relating to the following items

Inspections	Date Last Inspected	List Name & Contact for Maintenance Contractor, if any.
1. Elevators	N/A	
2. HVAC, Mechanical, Electric, Plumbing	Inspected by who? We are there almost daily - we make our quarterly inspections.	
3. Life-Safety/Fire	Monthly - 1/2015	
4. Roofs	At least annually and before rain by our staff.	

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

New chiller, roof access, paint outside of building.

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

New hot water heating boiler

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

15 years old - White rubber

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

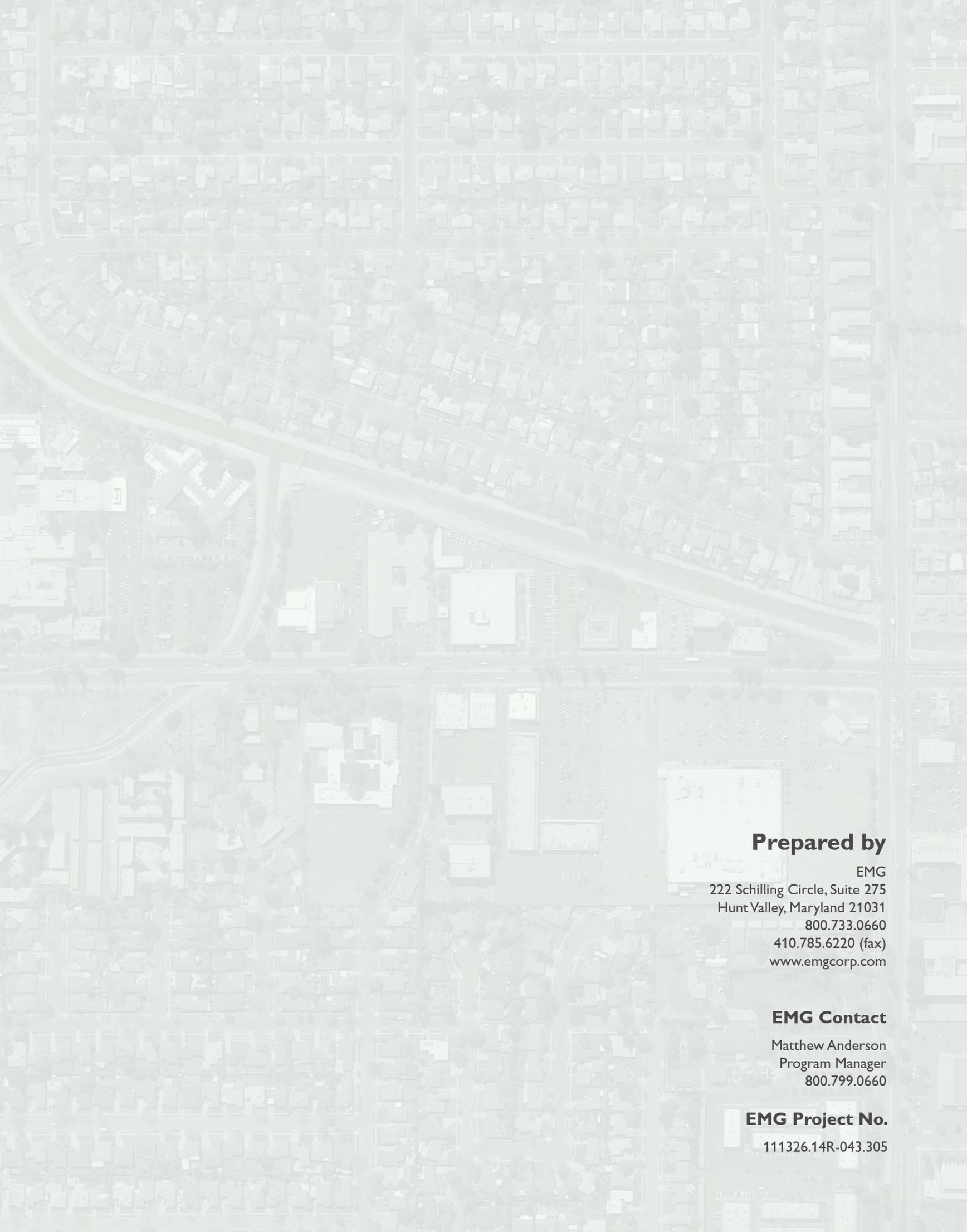
Controls, chiller, boiler, mixing boxes

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	Unknown because we believe we have resolved past problems, but have not had enough rain to verify.

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	See #11.
16. Are there any wall, or window leaks?				x	Possible leaks to walls/windows may still exist - see #11.
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				We have had voltage issues in the past which P.G.AND E. have acknowledged.
23. Are there any problems with the landscape irrigation systems?		x			
24. Has a termite/wood boring insect inspection been performed within the last year?		x			
25. Do any of the HVAC systems use R-11, 12, or 22 refrigerants?		x			
26. Has any part of the property ever contained visible suspect mold growth?		x			
27. Is there a mold Operations and Maintenance Plan?		x			
28. Have there been indoor air quality or mold related complaints from tenants?		x			

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



Prepared by

EMG
222 Schilling Circle, Suite 275
Hunt Valley, Maryland 21031
800.733.0660
410.785.6220 (fax)
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EMG Contact

Matthew Anderson
Program Manager
800.799.0660

EMG Project No.

111326.14R-043.305



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