Citywide
Facility Condition Assessment

Report of

Facility Condition Assessment

For
City of Manhattan Beach
City Hall
1400 Highland Avenue, Manhattan Beach, CA

August 23, 2013
(Rev A)

Provided By:

Faithful+Gould, Inc.

Provided For:

CITY OF MANHATTAN BEACH
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INTRODUCTION

In accordance with the agreement held between City of Manhattan Beach, dated May 9, 2013 and Faithful+Gould Inc, this completed report provides a comprehensive Facility Condition Assessment of the City Hall building located at 1400 Highland Avenue, Manhattan Beach, CA (The Facility).

This report provides a summary of the facility information known to us at the time of the study, the scope of work performed, an equipment inventory, evaluation of the visually apparent condition of the Property, and an expenditure forecast of expenditures anticipated over the next 10 years. The expenditure forecast does not account for typical planned maintenance items such as changing filters to fan coil units and only considers deficiencies above a $500 aggregated value.

Our cost rates to produce life cycle and replacement cost estimates are based on our knowledge of the local regional market rates. Our line item costs assume that the work will be undertaken by either in-house or by direct sub-contract labor. Identified recommended works that are required during the ten-year study period have been included with an allowance of 25% for professional fees and general contractor overhead/profit and management costs (where applicable).

Charts EX-1 and EX-2 provide a summary of the anticipated primary expenditures over the 10 year study period. Further details of these expenditures are included within each respective report section and within the 10 year expenditure forecast, in Appendix A.

The report also calculates the Facility Condition Index (FCI) of each building based upon the calculated FCI. Further discussion of the Facility Condition Index is detailed in the sections below. The FCI does not include the general site systems, however we have still included repair and replacement costs so that they can be represented in the study.

This report was completed in general accordance with the ASTM E2018-08 Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process.

PROJECT DETAILS

On May 15, 2013, Mr. Jeffrey Dillon of Faithful+Gould visited the facility to observe and document the condition of the building and the site components. During our site visit, Faithful+Gould was assisted by Mr. Doug Foster, Senior Facilities Maintenance Technician for the City of Manhattan Beach.

Overview of the Building at the Facility

Assumed site boundary

BUILDING SUMMARY

Table EX-1 Facility Details

BUILDING NAME:	City Hall		LAT/LONG:	33º.88'75"N / -118º.41'04"W	
ADDRESS:	1400 Highland Avenue Manhattan Beach, CA 90266		OCCUPANCY STATUS: OCCUPIED ☒ VACANT ☐ PARTIALLY ☐		
HISTORIC DISTRICT:	YES ☐	NO ☒	HISTORIC BUILDING:	YES ☐	NO ☒
GROSS SQUARE FOOTAGE OF BUILDING:	27,474		GROSS SQUARE FOOTAGE OF LAND:	62,000 (estimated)	
CURRENT REPLACEMENT VALUE:	$8,497,158		YEAR OF CONSTRUCTION:	1975	
			BUILDING EUL:	60 Years	
			BUILDING RUL:	22 Years	
BUILDING USE:	Administration		NUMBER OF STORIES:	2	

BUILDING DESCRIPTION

The Manhattan Beach City Hall is located at the northwest corner of the intersection of Highland Avenue and Fifteenth Street. The building contains municipal offices including the City Council Chambers, the Finance Department and the P&R, Comm Dev. Admin Department and was constructed in circa 1973.

The building has steel joist roof construction which is supported via reinforced concrete and concrete masonry walls which have a painted or brick veneer finish. The various low-sloped roofs contain built-up roof coverings. Standing seam metal mansard roofing is utilized along the perimeter of the City Council section of the building. The basement floor level consists of a cast-in-place reinforced slab-on-grade concrete slab and the upper level has cast-in-place concrete floors supported by reinforced concrete joist slabs supported by reinforced concrete columns and beams. Windows consist of aluminum framed single pane units and doors consist of storefront entrance doors and steel service doors.

The interior finishes of the building contain marble tile, ceramic tile, vinyl and carpet sheet floor coverings, painted, wallpapered and ceramic tiled walls and painted or suspended ceilings.

A subterranean parking garage is provided to accommodate approximately 160 vehicles in a two level reinforced concrete garage structure located to the east of the building.

The heating and cooling for the building is provided via a central hydronic system comprised of a central chiller, natural gas fired boiler, cooling tower, air handling units and numerous Variable Air Volume (VAV) units. The HVAC components are controlled via a central control system. Conditioned air is distributed throughout the building via metal ductwork. The lower levels are served by their own air handling unit that supplies the computer server room as well as other occupied areas. Hot water is provided by two domestic water heaters with a capacity of 40 and 50 US gallons.

The Main Distribution Panel (MDP) is a General Electric unit that is rated at 277/480 volts at 1,200-amps. The interior lighting is generally provided by recessed and surface mounted 2' x 4' and fluorescent fixtures with T8 watt bulbs and electronic ballasts, compact fluorescents and wall mounted fixtures.

The building contains a wet-pipe sprinkler system, central fire alarm system, emergency generator and intruder security alarm system. Additionally there is one hydraulic passenger elevator as well as a wheel chair loft servicing the facility.

ENVIRONMENTAL REVIEW

During the assessment period an inspection and survey to ascertain if Asbestos Containing Materials (ACM) and Lead-Based Paint (LBP) are present at the interior and exteriors of the building. The assessment was undertaken by Andersen Environmental and their full report can be reviewed Appendix E. A summary of results indicate the following:

The following materials were found to contain asbestos and considered ACM:

Table EX-2 Summary of Asbestos Results

Material Description	Material Location	Condition	Asbestos Percentage	Estimated Quantity*
Joint Compound White	Throughout	Good	<1% Chrysotile	17,290
12" Gray VCT and Black Mastic	RM 10	Good	3-8% Chrysotile	420
12" Tan VCT and Black Mastic	RM 10	Good	2-5% Chrysotile	1,720
12" Tan Spected VCT and Black Mastic	Stairwell	Good	5-7% Chrysotile	110
12" White VCT and Black & Yellow Mastic	Janitors Closet	Good	3-4% Chrysotile	150
Roofing Materials	Roof	Good	Presumed	11,000

* These quantities are only approximations

Expenditure relating to the removal of the ACM has not been provided within this report. We recommend that the abatement contractor is selected through a bidding process.

Lead-Based Paint was also identified at the building. Through sampling of several paint components the presence of LBP was indicated at or above the action level at the following locations:

- All Restrooms, Ceramic Wall Tile
- Room 31 Ceramic Wall Tile

The areas where LBP was found, it was observed to be intact (good condition). LBP components in good condition may remain in place subsequent to renovation/demolition or they may be removed intact by lead trained personnel in accordance with all applicable federal, state and local regulations. Expenditure relating to the removal of the LBP has not been provided within this report.

SEISMIC STRUCTURAL ASSESSMENT

During the assessment period a seismic/structural condition assessment of the building was also conducted. The assessment was undertaken by Atkins and their full report can be reviewed Appendix F. Overall no major distress or damages to the structure and non-structural components of the building were visible during the on-site observation. Minor cracking was observed in the concrete buttress walls and first floor level slab on grade. Both of these issues are minor and pose no structural life safety concerns. Compared with buildings of similar vintage and type of construction, the overall condition of the City Hall Building appears to be good condition and well maintained. There is no obvious outstanding structural issue that requires immediate mitigation.

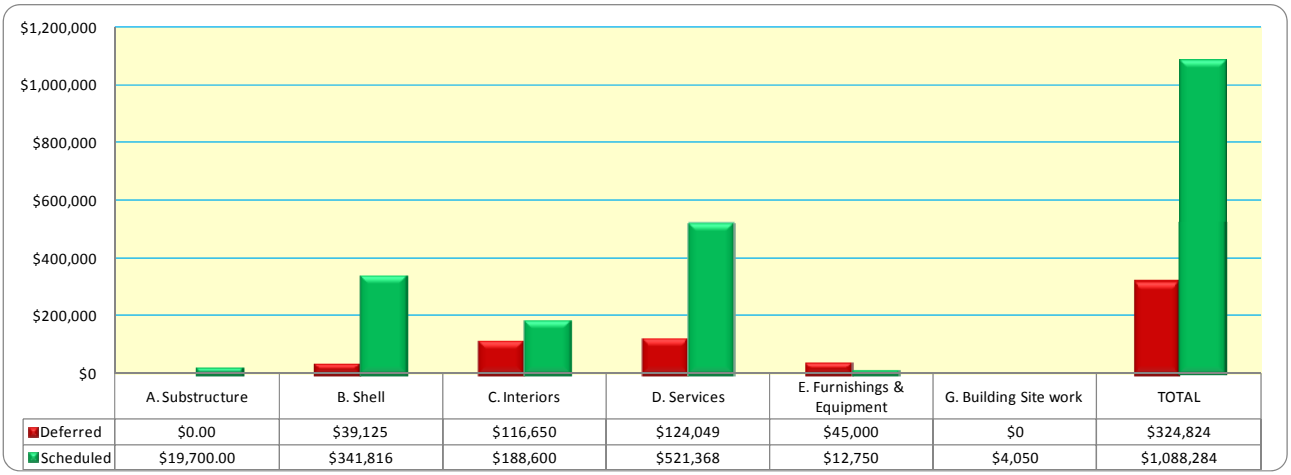
The adjacent subterranean parking garage was also inspected during the on-site assessment. Extensive water intrusion damage was noted in the street level structural slab over the garage and cracking was also observed in the parking slabs and in the garage entrance retaining walls. Further details and cause of the issue can be reviewed within the main structural report. Related expenditure costs have been included within the relevant sections of this report. Overall the structural condition of the garage is moderately poor and short term expenditure is recommended.

Expenditure relating to the structural issues mentioned above has been included within this report.

BUILDING EXPENDITURE SUMMARY

The building expenditure summary section provides an executive overview of the findings from the assessments. Chart EX-1 provides a summary of anticipated expenditures over the study period. In addition, we have scheduled key findings highlighting key items of significance and their anticipated failure year. Further details of these expenditures are included within each respective report section and within the expenditure forecast, in Appendix A of this report. The results illustrate a total anticipated expenditure over the study period of $1,411,108.

Chart EX-1 Building Expenditure Summary [1 & 2]



	A. Substructure	B. Shell	C. Interiors	D. Services	E. Furnishings & Equipment	G. Building Site work	TOTAL
Deferred	$0.00	$39,125	$116,650	$124,049	$45,000	$0	$324,824
Scheduled	$19,700.00	$341,816	$188,600	$521,368	$12,750	$4,050	$1,088,284

KEY FINDINGS

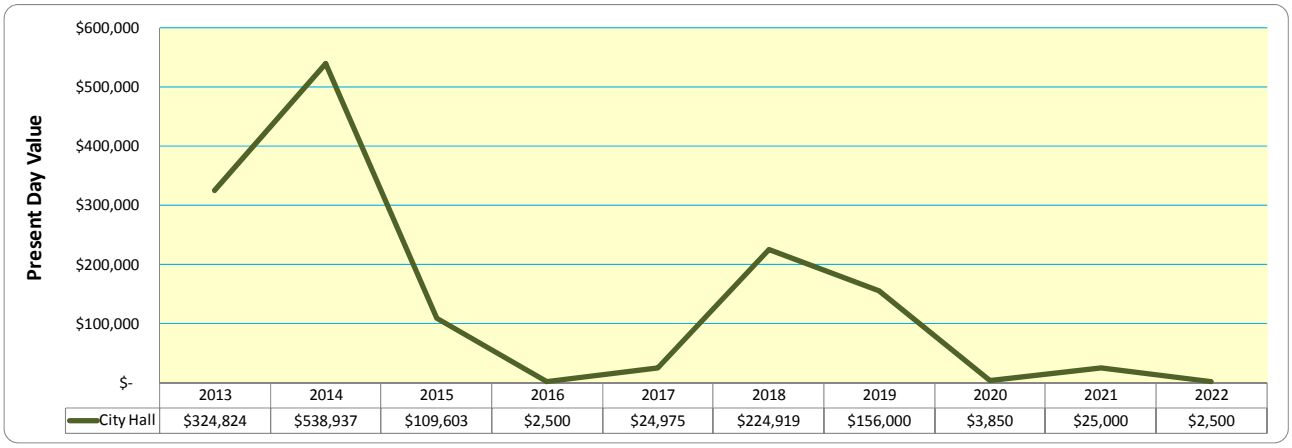
- A Substructure: Repair structural identified works at a combined estimated cost of $19,700 in year 2013
- B Shell: Waterproofing garage upper level deck at an estimated cost of $105,000 in year 2014
- B Shell: Repaint exterior surfaces at an estimated cost of $21,125 in years 2013, 2017, and 2021
- B Shell: Replace the windows at the western elevation at an estimated cost of $157,500 in year 2018
- C Interiors: Repaint interior wall surfaces at an estimated cost of $104,000 in years 2013 and 2019
- C Interiors: Replace carpeting at an estimated cost of $49,500 in year 2019
- D Services: Renovate restrooms at an estimated cost of $113,680 in year 2013
- D Services: Cast iron waste pipe replacement at an estimated cost of $3,500 in each year (2013 through 2022)
- D Services: Replace 15 ton condenser at an estimated cost of $17,813 in year 2015
- D Services: Replace HVAC control system at an estimated cost of $89,291 in year 2015
- D Services: Upgrade fire suppression system at an estimated cost of $112,643 in year 2013

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 10 year study period

- D Services: Replace interior lighting system at an estimated cost of $96,159 in year 2014
- D Services: Replace interior lighting control system at an estimated cost of $68,685 in year 2014
- D Services: Upgrade security system at an estimated cost of $96,159 in year 2014

Chart EX-2 illustrates a summary of yearly anticipated expenditures over the cost study period for the building. A detailed breakdown of anticipated expenditures is contained within Appendix A of this report.

Chart EX-2 Expenditure Forecast [1 & 2]



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
City Hall	$324,824	$538,937	$109,603	$2,500	$24,975	$224,919	$156,000	$3,850	$25,000	$2,500

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 10 year study period

This chart highlights expenditure for the building within years 2013, 2014 and 2018 due to the following systems which are expected to reach their Estimated Useful Life (EUL) and therefore due for replacement. The line represents the total expenditure for each year and is a useful tool to indicate the magnitude of the impeding issues the building will face.

Year 2013

- Interior repainting works
- Renovate restrooms
- Installation of window treatments

Year 2014

- Waterproofing upper garage deck
- Upgrade of fire suppression system
- Replacement of HVAC controls
- Replacement of light fixtures
- Installation of lighting controls
- Upgrade of security system

Year 2018

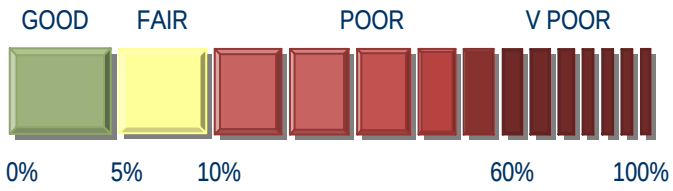
- Replacement of window units

INTERPRETING RESULTS

In this report we have calculated the Facility Condition Index (FCI) for the facility; illustrating the likely condition of the systems and equipment should the required funding not be expended over the cost study period. The FCI is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. The FCI is primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

The FCI is the ratio of accumulated Deferred Maintenance (DM) (total sum of required and recommended works) to the Current Replacement Value (CRV) for a constructed asset calculated by dividing DM by CRV. The range is from zero for a newly constructed asset, to one for a constructed asset with a DM value equal to its CRV. Acceptable ranges vary by "Asset Type', but as a general guideline the FCI scoring system is as follows:

$$FCI = \frac{\text{Maintenance, Repair, and Replacement Deficiencies of the Facility(s) (DM)}}{\text{Current Replacement Value of the Facility(s) (CRV)}}$$



The FCI is a relative indicator of condition, and should be tracked over time to maximize its benefit. It is advantageous to define condition ratings based on ranges of the FCI. There are a set of ratings: GOOD (under 0.05 (under 5%)), FAIR (0.5 to 0.10 (5% to 10%)), POOR (over 0.10 (over 10%)) and V-POOR (over 0.60 (over 60%)) based on evaluating data from various clients at the time of the publication. Table EX-3 will help interpret the results:

Table EX-3 FCI Scoring System

Condition	Definition	Score	Percentage Value
GOOD	In a new or well maintained condition, with no visual evidence of wear, soiling or other deficiencies	0.00 to 0.05	0% to 5%
FAIR	Subject to wear, and soiling but is still in a serviceable and functioning condition	0.05 to 0.10	5% to 10%
POOR	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 0.10	Greater than 10%
V-POOR	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal now necessary	Greater than 0.60	Greater than 60%

If the FCI rating is 60% or greater then replacement of the asset/building should be considered instead of renewal.

Table EX-4 provides a calculation of the FCI for the building illustrating both the current condition of the building and the likely condition of the building should the required funding not be expended over the study period. The results of the study indicate that currently the building contains a GOOD facility condition index rating, however will fall into a POOR condition rating should required and recommended actions not be implemented.

Table EX-4 Facility Condition Index

Building Name	FCI	Gross Square Foot (GSF)	CRV per GSF	Current Replacement Value (CRV)	Deferred Maintenance Value (DM) [1 & 2]	FCI Ratio	Property Condition Rating
City Hall	Current FCI Ratio	27,474	$309	$ 8,497,158	$324,824	3.8%	GOOD
City Hall	Year 10 FCI Ratio	27,474	$309	$ 8,497,158	$1,411,108	16.6%	POOR

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 10 year study period

Chart EX-3 indicates the affects of the FCI ratio per year, assuming the required funds and expenditures ARE made to address the identified works each year. As explained, the building has a GOOD condition rating (below 5%) at the start and during the study period and maintains this on a year by year basis. Year 2014 is the only year that it falls into the FAIR condition rating.

Chart EX-3 Year by Year Effects of FCI over the Study Period

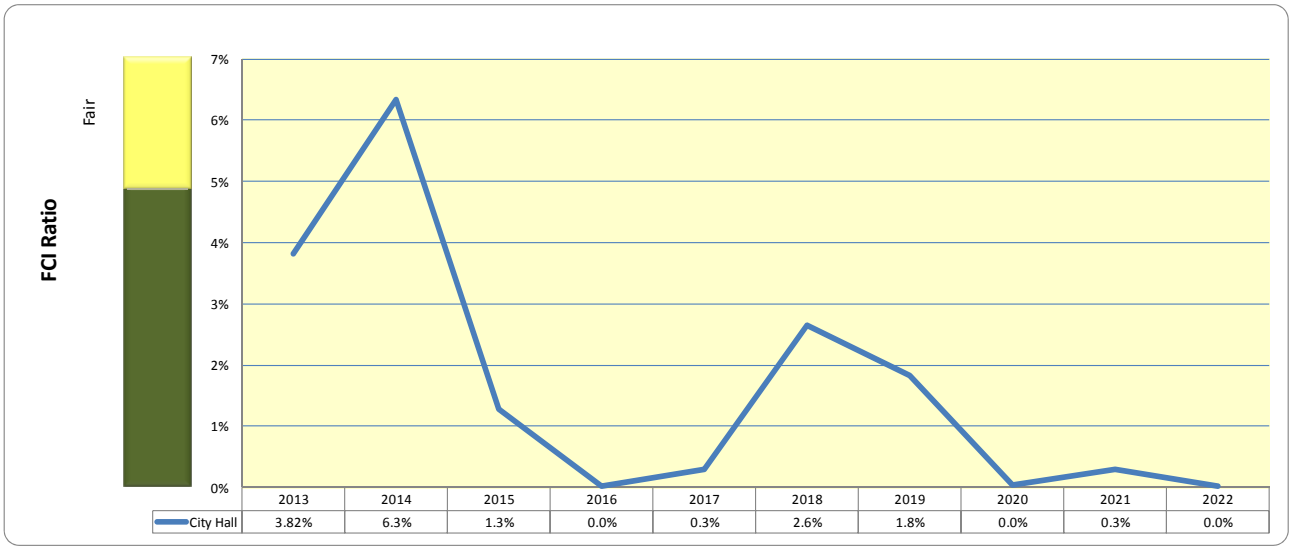
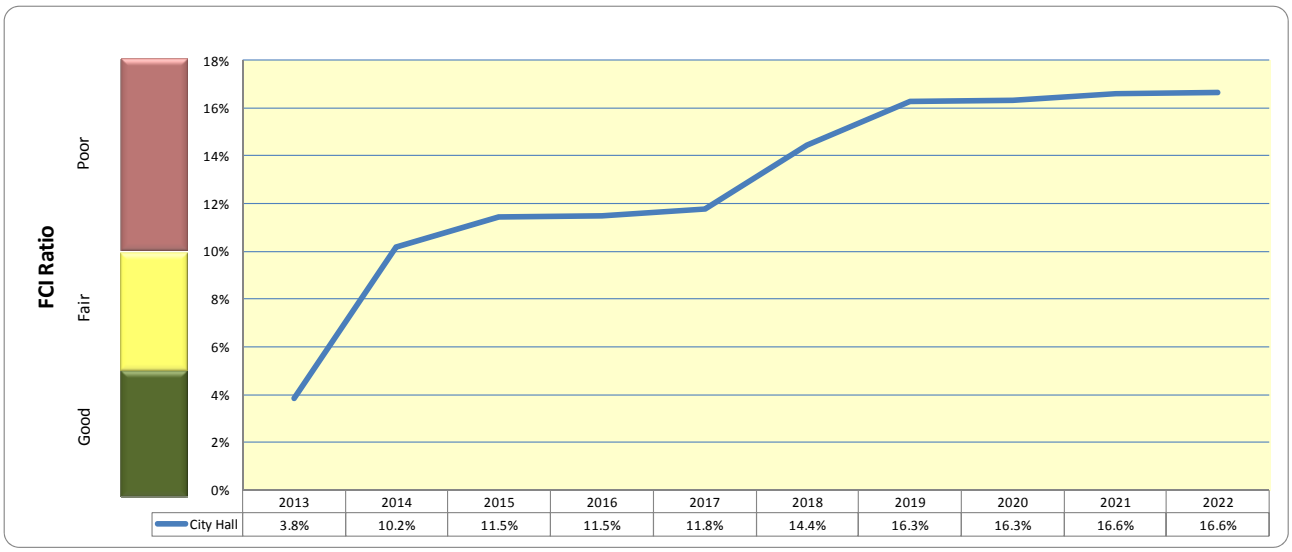


Chart EX-4 indicates the cumulative effects of the FCI ratio over the study period assuming the required funds and expenditures are NOT provided to address the identified works and deferred maintenance each year. The results of the study indicate at this current time the building is maintained with a facility condition index rating within the GOOD condition; however following the first year it will immediately fall into the POOR condition rating and stay there for the rest of the study.

Chart EX-4 Cumulative Effects of FCI over the Study Period



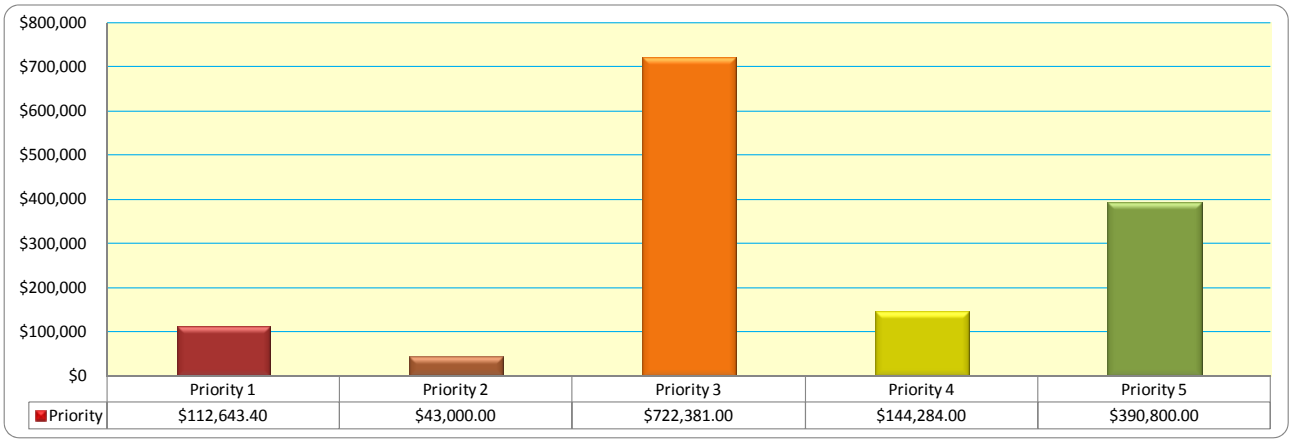
PRIORITIZATION OF WORK

Faithful+Gould has prioritized the identified work in order to assist with analyzing the deficiencies found during the assessments. The following Priorities are shown below:

Priority 1 - Life Safety/ Code Compliance/ADA:	•Compromises staff or public safety or when a system requires to be upgraded to comply with current codes and standards.
Priority 2 – Currently Critical:	•A system or component is inoperable or compromised and requires immediate action
Priority 3 – Necessary / Not Critical:	•Maintain the integrity of the facility or component and replace those items, which have exceeded their expected useful life
Priority 4 – Recommended:	•Necessary for optimal performance of the facility or component
Priority 5 – Appearance:	•Used when a system has degraded and requires refurbishment

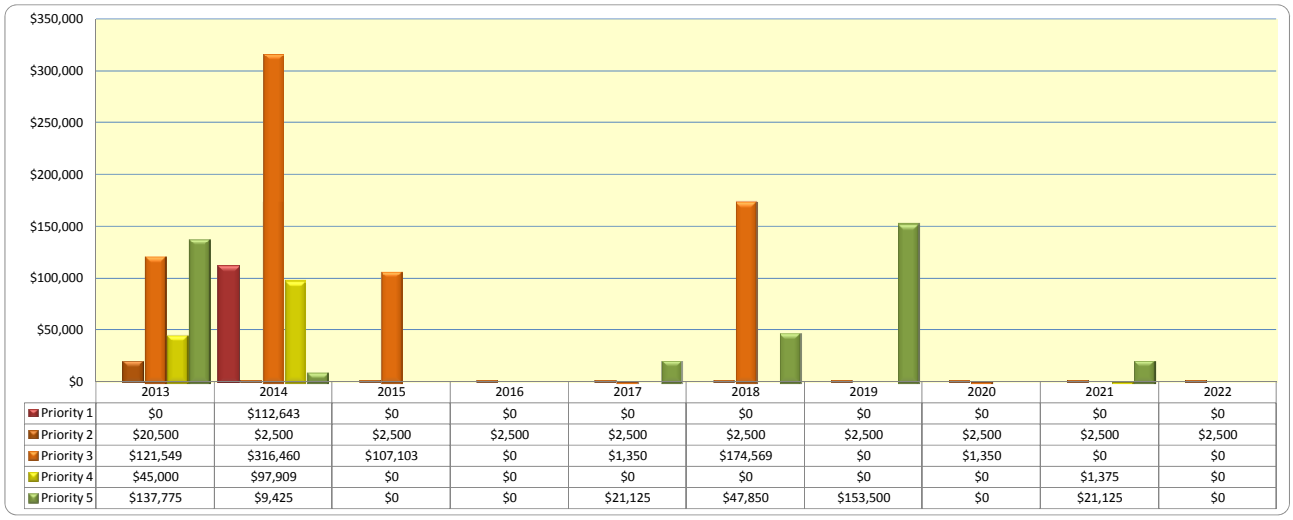
Chart EX-5 illustrates the breakdown of expenditure according the priority coding providing an opportunity to strategically plan and effectively direct funding to the highest priority.

Chart EX-5 Cumulative Prioritization of Work



Priority 3 appears to require the most amount of expenditure in this study. This category illustrates that the work which needs to be undertaken is associated with necessary but not critical works of the building and replace equipment that has exceeded their EUL.

Chart EX-6 Year by Year Cumulative Prioritization of Work



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Priority 1	$0	$112,643	$0	$0	$0	$0	$0	$0	$0	$0
Priority 2	$20,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Priority 3	$121,549	$316,460	$107,103	$0	$1,350	$174,569	$0	$1,350	$0	$0
Priority 4	$45,000	$97,909	$0	$0	$0	$0	$0	$0	$1,375	$0
Priority 5	$137,775	$9,425	$0	$0	$21,125	$47,850	$153,500	$0	$21,125	$0

Chart EX-6 illustrates key years for the Priorities 1 through 4, notably 2013 though 2014, and 2018 through 2019.

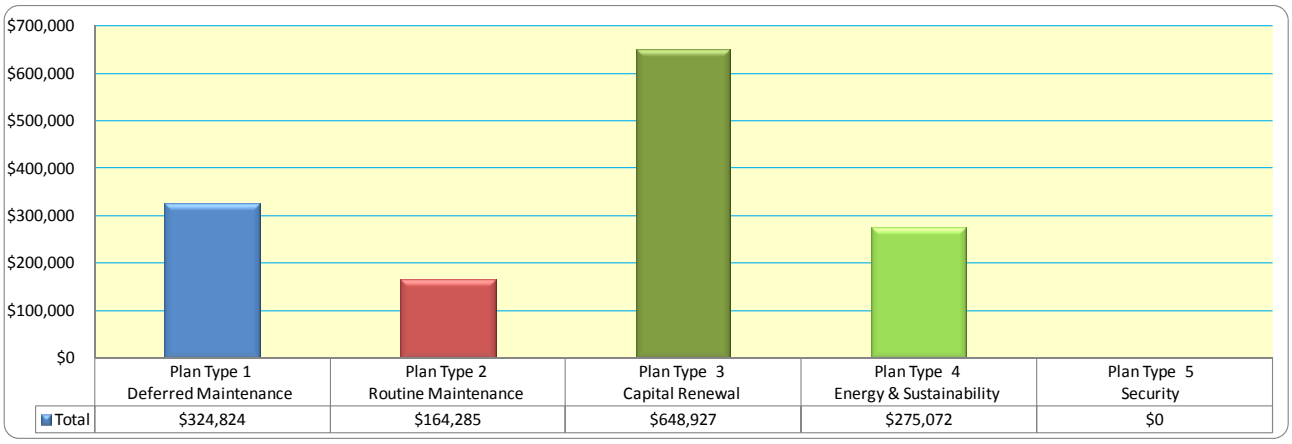
PLAN TYPES

Faithful+Gould has prioritized the identified work according to the Plan Type or deficiency categories in order to assist with analyzing the deficiencies found during the assessments. The following Plan Types are shown below:

Plan Type 1 Deferred Maintenance	•Maintenance that was not performed when it was scheduled or past its useful life resulting in immediate repair or replacement
Plan Type 2 Routine Maintenance	•Maintenance that is planned and performed on a routine basis to maintain and preserve the condition
Plan Type 3 Capital Renewal	•Planned replacement of building systems that have reached the end of their useful life
Plan Type 4 Energy & Sustainability	•When the repair or replace of equipment or systems are recommended to improve energy and sustainability performance.
Plan Type 5 Security	•When a system requires replacement due to a security risk or requirement

Chart EX-7 illustrates the breakdown of expenditure according to the Plan Type or deficiency categories providing an opportunity to strategically plan and effectively direct funding.

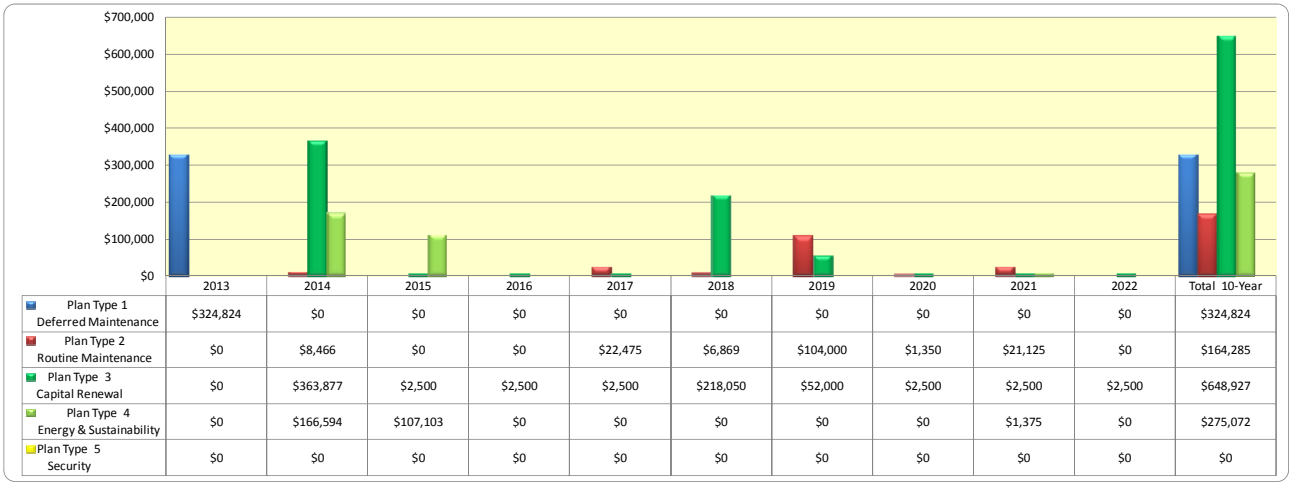
Chart EX-7 Cumulative Expenditure by Plan Type



Plan Type 3 appears to require the most amount of expenditure in this study. The Capital Expenditure category illustrates that the work which needs to be undertaken to replace systems that have reached the end of their useful life.

Chart EX-8 illustrates the breakdown of expenditure per each year within the 10 year study period according to the Plan Type or deficiency categories.

Chart EX-8 Yearly Expenditure by Plan Type



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total 10-Year
Plan Type 1 Deferred Maintenance	$324,824	$0	$0	$0	$0	$0	$0	$0	$0	$0	$324,824
Plan Type 2 Routine Maintenance	$0	$8,466	$0	$0	$22,475	$6,869	$104,000	$1,350	$21,125	$0	$164,285
Plan Type 3 Capital Renewal	$0	$363,877	$2,500	$2,500	$2,500	$218,050	$52,000	$2,500	$2,500	$2,500	$648,927
Plan Type 4 Energy & Sustainability	$0	$166,594	$107,103	$0	$0	$0	$0	$0	$1,375	$0	$275,072
Plan Type 5 Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Chart EX-8 illustrates that there is expenditure needed for four Plan Types during the study period, with Plan Type 3 requiring the most expenditure throughout the study period.

SECTION 2 - A SUBSTRUCTURE

A10 FOUNDATIONS

DESCRIPTION

The description of the respective structural systems for the building is based upon our observation of exposed portions of the building structure and review of the available drawings.

A1010 STANDARD FOUNDATIONS

A1011 Wall Foundations

The exterior walls at both the garage area and at the main building are supported by reinforced concrete spread footings and grade beams. Structural drawings reviewed for the buildings indicate that the concrete footings were designed with a compressive strength of 2,500 pounds per square inch (psi) and the grade beams with a compressive strength of 3,000 psi.

A1030 SLABS-ON-GRADE

A1031 Standard Slab on Grade

The first floor level of the garage and the basement level of the main building consisted of cast-in-place concrete slab-on-grade, reinforced with welded wire fabric. The floor slabs are 6" thick over an aggregate base. The slabs contain a thickened edge at their perimeter and were designed with a compressive strength of 2,500 psi.

CONDITION

A1010 STANDARD FOUNDATIONS

A1011 Wall Foundations

The floor structure appeared to be in good condition therefore we assume that the reinforced concrete foundations are also in good condition. However, we observed localized areas of minor cracking in the lower level concrete walls. It was also noted in the concrete buttress walls and in the stem wall adjacent to the basement level entrance on the west side of the building (reference Photograph 1 in Appendix B). We recommend budgeting for repairs of the cracking in the near-term to prevent further damage. Further details of these issues can be reviewed in Appendix F.

A1030 SLABS-ON-GRADE

A1031 Standard Slab on Grade

The cast-in-place concrete slab at the building appeared to be in good condition. However minor cracking was observed at first level slab on grade at the side exit. Due to the quantity of the cracks and the minimal cost to repair, repairs will fall below the threshold of $500 and therefore would usually not be included in this study, although in this instance it has been included as they can be undertaken at the same time as the subterranean parking garage repairs.

The concrete slab on grade at the subterranean parking garage also contains minor cracking which we recommend repair with patching using cement based mortar or suitable epoxy materials.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
A1011	Wall Foundations	Repair cracks in lower level concrete walls	200	LF	$30.00	$6,000**	2014	3
A1011	Wall Foundations	Repair cracks in lower level garage concrete retaining walls	300	LF	$30.00	$9,000**	2014	3
A1031	Standard Slab on Grade	Repair slab on grade at the building	10	LF	$20.00	$200*	2014	3
A1031	Standard Slab on Grade	Repair slab on grade at the subterranean parking garage	150	LF	$30.00	$4,500**	2014	3
		Total Anticipated Expenditure for A Substructure				$19,700		

* Combined with similar type works
** Expenditure and works taken from structural assessment report in Appendix F

SECTION 3 - B SHELL

B10 SUPERSTRUCTURE

DESCRIPTION

The description of the respective structural systems for the building is based upon our observation of exposed portions of the building structure and review of the available drawings.

B1020 ROOF CONSTRUCTION

B1021 Flat Roof Construction

The low-sloped roof sections consist of 4" x 10" steel I beams which are supported via the perimeter walls and interior columns and in turn supports the corrugated steel deck and roof covering (reference Photograph 2 in Appendix B). The steel beams at the roof level generally span north to south and are spaced at 5' centers. The roof covering can be viewed in the roof covering section of this report.

The upper level of the garage consists of concrete framed deck comprised of the structural level supported by concrete beams and columns (reference Photograph 3 in Appendix B). The concrete deck is sandwich type construction comprised of the first level supported by the concrete structure followed by a waterproofing membrane with a second layer of concrete poured above the membrane. The deck has expansion joint material installed at regular intervals.

B1022 Pitched Roof Construction

The mansard roof sections at the City Council Chambers section of the building consist of 4" x 10" steel I beams supporting the corrugated steel deck and metal roof covering. The steel beams are spaced at 5' centers. The roof covering can be viewed in the roof covering section of this report.

B1030 STRUCTURAL FRAME

B1032 Concrete Frame Structure

The building has structural reinforced concrete construction (reference Photograph 4 in Appendix B) consisting of 14" x 14" concrete columns, and various sizes of girders and beams ranging in size 7 ½" x 20" girders to 32" x 36" concrete beams.

CONDITION

B1020 ROOF CONSTRUCTION

B1021 Flat Roof Construction

The flat roof construction at the building appeared to be in good condition. There were no visible signs of failure noted. We do not anticipate any expenditure during the cost study period which relates to replacement of the roof structure.

Extensive water intrusion damage was noted at the upper level deck of the garage (reference Photographs 5 and 6 in Appendix B). Evidence of water infiltration is indicated by the efflorescence at the underside of the deck, particularly adjacent to the expansion joints. It was reported to Faithful+Gould that a series of urethane injections were performed in an attempt to eliminate the water infiltration which did not eliminate the infiltration issue. The primary source of the water infiltration appears to be the numerous landscape planters along the upper level of the garage. Additionally, the exposed surface of the deck exhibited alligator cracking throughout contributing to the water damages. Prolonged exposure to water can potentially deteriorate the reinforcing steel bars in the concrete and cause long term structural performance and safety concerns. Therefore, we recommend repair of the upper level deck including replacement of the waterproofing membrane.

B1022 Pitched Roof Construction

The mansard roof construction at the building appeared to be in good condition. There were no visible signs of failure noted. We do not anticipate any expenditure during the cost study period which relates to replacement of the roof structure.

B1030 STRUCTURAL FRAME

B1032 Concrete Frame Structure

The reinforced concrete framed structure at the City Hall building appeared to be in good condition. We do not anticipate the replacement of the concrete structural elements during the cost study period. However, the concrete structure at the garage is considered poor to fair due to the water infiltration issues described above.

B20 EXTERIOR ENCLOSURES

DESCRIPTION

The description of the respective exterior enclosures structural systems for the building is based upon our review of available drawings and our observation of exposed portions of the building structure.

B2010 EXTERIOR WALLS

B2011 Exterior Wall Construction

The building is predominantly enclosed with painted exposed portions of the reinforced concrete structural system, decorative concrete masonry units along the lower level and brick veneer (reference Photograph 7 in Appendix B). The brick veneer is located at the corners of each section of the building as well as along the eastern elevation of the administration section of the building.

B2020 EXTERIOR WINDOWS

B2021 Windows

All windows at the building are single glazed units. The windows consist of fixed and awning type units set in bronze anodized aluminum frames (reference Photograph 8 in Appendix B). The windows are fitted with vertical blinds at the interior. Information regarding window finishes can be found in section E2013.

B2023 Storefronts

The building contains aluminum glazed storefront consisting of single glazed panels and glazed entrance doors at the lower and upper level entrances. The doors consist of automatic sliding doors at the main upper level entrance and manual swinging doors at the east and west entrances to the building (reference Photograph 9 in Appendix B). The garage level and main entrance automatic sliding door provided unrestricted access to disabled individuals.

B2030 EXTERIOR DOORS

B2031 Glazed Doors & Entrances

The building contained an entrance at the western elevation at the garage level that containing one automatic single glazed framed aluminum entrance door (reference Photograph 10 in Appendix B).

B2034 Overhead Doors

A coiling metal fire door with fusible links is located at the lower level entrance to the building from the garage.

B2039 Other Doors & Entrances

The building contained single and double hollow metal doors and frames at the service entrances and the entrances to the mechanical rooms and receiving. Door hardware consisted of lever handles.

CONDITION

B2010 EXTERIOR WALLS

B2011 Exterior Wall Construction

The exterior wall systems at the building appeared to be in poor to fair overall condition with generally no major signs of deterioration, water ingress or general failure noted. However, efflorescence and minor mortar deterioration was observed at the lower level CMU walls (reference Photograph 11 in Appendix B). It appears that the damage was caused by the frequent use of the below grade irrigation system. We recommend near-term cleaning and re-pointing of the affected areas. The exterior painted surfaces were reportedly last painted a few years ago and therefore based on the typical EUL of four-years for exterior paint, as well as current observed conditions, re-painting will be necessary near-term in the study period to maintain the appearance and protect the exterior walls.

The brick veneer at the building corners and along the east elevation appeared to be in fair to good condition. There were no signs of deterioration present. Brick veneer has a typical EUL of 75 years; therefore we do not anticipate the replacement of the brick veneer during the cost study period.

B2020 EXTERIOR WINDOWS

B2021 Windows

The exterior wall systems at the building are in a mixed fair condition. Leaks have been reported during heavy rain storms and it has been advised and observed that many of the window seals area missing also. Furthermore several window latch mechanisms where noted to be either broken or not operational. The deterioration can be attributed to the coastal environment so a consideration of this should be taken into account in any repair work. We have recommended mid-term replacement the western elevation windows with insulated units for energy efficiency and improve thermal resistance. If operable windows were installed versus the current fixed units, natural ventilation would be increased as an additional energy saving measure.

The caulking at the perimeter of the window units was generally in fair condition. We recommend that the caulking at the window perimeters is replaced mid-term in the study period concurrent with exterior painting.

B2030 EXTERIOR DOORS

B2031 Glazed Doors & Entrances

The glazed exterior doors appeared to be generally in fair to good condition and compliant with ADA. However we observed that the sliders at the glazed sliding doors are reaching the end of their EUL and therefore to prevent non operation and continuing operating issues we recommend that they are replaced near-term in the study period.

B2034 Overhead Doors

A coiling metal fire door with fusible links is located at the lower level entrance to the building from the garage.

B2039 Other Doors & Entrances

The metal doors and the roll-up door appeared to be in fair condition and there were no observed issues. In general the operation of the doors was satisfactory and operated without any difficulty. Re-painting concurrent with the building exterior will be necessary to maintain the doors.

B30 ROOFING

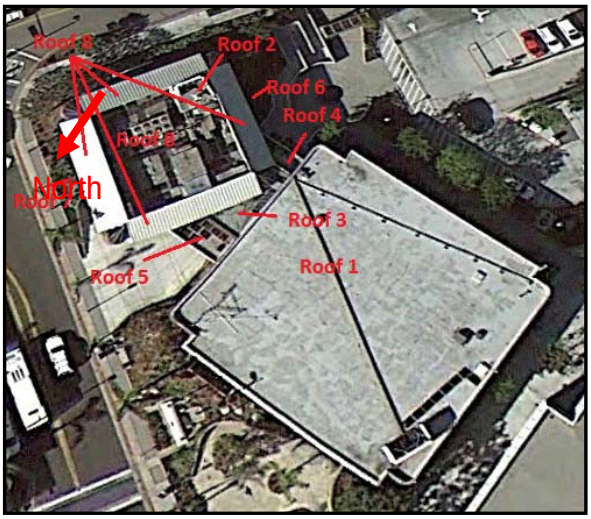
DESCRIPTION

B3010 ROOF COVERINGS

B3011 Roof Finishes

The facility contained several low-sloped roof areas as well as a pitched mansard roof; these roof areas are shown on the following aerial plan:

Overview of Roof Locations & Configurations



The low-sloped roof areas contained a combination of asphaltic Built-Up Roof (BUR) with a mineral cap sheet surface with loose granules applied to the surface and Thermoplastic Tri-Polymer Alloy (TPA) single-ply membranes (reference Photographs 12 and 13 in Appendix B). The roof coverings are approximately 7 to 12-years of age. Roof drainage is provided by surface mounted drains with internal leaders and perimeter scuppers.

The pitched mansard roof around the perimeter of the City Council Chambers section of the building contained standing seam metal panels with a factory applied painted finish (reference Photograph 14 in Appendix B). The mansard roof coverings are approximately six-years of age. Roof drainage is provided by perimeter drainage to the surrounding low-slope roofs. Tables B30-1 and B30-2 provide a summary of the roof coverings:

Table B30-1 Summary of Roof Covering

Roof Component	Roof 1	Roof 2	Roof 3	Roof 4
Age	2002	2002	2002	2002
Roof Area (total / approx. square footage)	10,511	221	266	204
Application/ Membrane	BUR	BUR	BUR	TPA
Manufacturer / Model	Tremco	Tremco	Tremco	Tremco
Surface	Mineral Surface Cap Sheet and Loose Granules	Mineral Surface Cap Sheet and Loose Granules	Mineral Surface Cap Sheet and Loose Granules	Smooth White
Deck Type	Metal	Metal	Metal	Metal
Insulation	25/32" Fiberboard	25/32" Fiberboard	25/32" Fiberboard	½" Fiberboard
Drainage	Internal Drains	Internal Drains	Scuppers	Internal Drains
Overflow Scuppers	Yes	No	Yes	No
Base Flashings	Aluminum	Aluminum	Aluminum	Aluminum
Cap Flashings	Steel	Steel	Steel	Steel
Perimeter Enclosure	Parapet	Parapet	Parapet	Parapet
Warranty (Manufacturer)	15 Years	15 Years	15 Years	15 Years
Warranty (Contractor)	Unknown	Unknown	Unknown	Unknown

Table B30-2 Summary of Roof Covering

Roof Component	Roof 6	Roof 6	Roof 7	Roof 8
Age	2002	2006	Circa 2001	Circa 2006
Roof Area (total / approx. square footage)	407	3,000	4,410	3,035
Application/ Membrane	TPA	TPA	TPA	Standing Seam Metal
Manufacturer / Model	Tremco	Tremco	Tremco	Unknown
Surface	Smooth White	Smooth White	Smooth White	Factory Applied
Deck Type	Metal	Metal	Metal	Metal
Insulation	½" Fiberboard	25/32" Fiberboard	25/32" Fiberboard	None
Drainage	Internal Drains	Internal Drains	Internal Drains	Perimeter
Overflow Scuppers	Yes	No	No	No
Base Flashings	Aluminum	Aluminum	Aluminum	None
Cap Flashings	Aluminum	Aluminum	Aluminum	None
Perimeter Enclosure	None	None	None	None
Warranty (Manufacturer)	15 Years	10 Years	10 Years	20 Years
Warranty (Contractor)	Unknown	Unknown	Unknown	Unknown

B3020 ROOF OPENINGS

B3021 Glazed Roof Openings

There are skylights located at the four corners of the City Council Chambers as well as at the connector Roof 3 (reference Photograph 15 in Appendix B). The skylights are constructed with fixed laminated glass glazing set in anodized aluminum framing.

B3022 Roof Hatches

Roof access was gained through a metal roof access hatch.

CONDITION

B3010 ROOF COVERINGS

B3011 Roof Finishes

The BUR and TPA roof areas appeared to be in fair to good overall condition. These types of roof coverings have a typical EUL of 15 to 20 years and based on observed conditions and roof material ages we anticipate that with near-term repairs all of the low-sloped roofs should last beyond the study period. We are unaware of, or could not visually see, any possible areas of water ingress. Additionally, we recommend the following maintenance and repair procedures in the near-term:

- Repaint the parapet wall cap at Roof 1
- Replace the roof hatch at Roof 1
- Power wash the TPA surfaces

Additionally, the standing seam mansard roofs appeared to be in good overall condition. These types of roof coverings have a typical EUL of 40 years and based on observed conditions and roof material ages we anticipate that the mansard roofs last beyond the study period.

B3020 ROOF OPENINGS

B3021 Glazed Roof Openings

The skylights appeared to be in fair overall condition. With and EUL of 30 years and based on observed conditions we anticipate that the skylights will last beyond the study period without replacement necessary. However, the skylight at the connector roof will require near-term sealant replacement. We did not note any areas of water ingress at the interior.

B3022 Roof Hatches

The roof hatch appeared to be in poor to fair condition. Based observed conditions replacement is anticipated near-term in the study period.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B1021	Flat Roof Construction	Waterproof garage upper level deck	7,000	SF	$15.00	$105,000*	2014	3
B2011	Exterior Wall Construction	Clean and repoint lower level masonry surfaces	600	SF	$25.00	$1,500*	2014	3
B2011	Exterior Wall Construction	Repaint exterior wall and door surfaces	6,500	SF	$3.25	$21,125	2013	5
B2011	Exterior Wall Construction	Repaint exterior wall and door surfaces	6,500	SF	$3.25	$21,125	2017	5
B2011	Exterior Wall Construction	Repaint exterior wall and door surfaces	6,500	SF	$3.25	$21,125	2021	5
B2021	Exterior Windows	Replace sealant at perimeter of windows	850	LF	$12.00	$10,200	2018	3
B2021	Exterior Windows	Replace the single pane windows along western elevation	1,800	SF	$87.50	$157,500	2018	3
B2031	Glazed Doors & Entrances	Replace sliding mechanisms	1	LS	$1,500	$1,500	2014	3
B2034	Overhead Doors	Replace overhead security door	1	EACH	$18,000	$18,000	2013	2
B3011	Roof Coverings	Repaint roof coping	400	SF	$3.25	$1,300	2014	5
B3011	Roof Coverings	Powerwash TPA roofing	11,632	SF	$0.50	$5,816	2014	3
B3021	Roof Openings	Replace skylight sealant	1	LS	$750	$750	2014	3
B3022	Roof Hatches	Replace roof hatch	1	EACH	$2,500	$2,500	2014	3
		Total Anticipated Expenditure for B Shell				$380,941		

* Expenditure and works taken from structural assessment report in Appendix F

SECTION 4 - C INTERIORS

C10 INTERIOR CONSTRUCTION

DESCRIPTION

C1010 PARTITIONS

C1011 Fixed Partitions

The buildings contained a combination reinforced concrete partitions, CMU partitions and metal studs with gypsum board partitions at varying thicknesses. The concrete partitioning was present at the lower level of the building.

C1014 Site Built Toilet Partitions

The men's and women's restrooms have painted steel partitions mounted on steel frames. In addition within the men's restroom the urinals have privacy screens present.

C1020 INTERIOR DOORS

C1021 Interior Doors

The building generally contained single flush solid core wood doors which are housed within steel frames. There are also a limited amount of hollow core steel doors. The doors all appeared to be one directional swing operation.

C1023 Interior Door Hardware

The doors contained aluminum hardware consisting of lever door handles. Some of the doors were equipped with mechanical closers.

C2010 STAIR CONSTRUCTION

C2011 Regular Stairs

There are three half-turn stairways within the building that provided access from the first floor to second floor level (reference Photograph 16 in Appendix B). The stairway landings are of steel construction with closed risers and concrete treads. The stairways have metal handrails mounted on both sides.

The stairway at the lobby area of steel and wood construction with closed risers and ceramic tile covered treads and risers. The stairway has metal handrails mounted on both sides (reference Photograph 17 in Appendix B).

The stairway at the northwest corner of the garage is constructed of steel with steel treads and risers with textured treads. The stairway has metal handrails mounted on both sides.

CONDITION

C1010 PARTITIONS

C1011 Fixed Partitions

The interior fixed partitions all appeared to be in fair to good condition. There were no deficiencies found in relation to the wall structures. The fixed partitions are suitable for the current use.

C1014 Site Built Toilet Partitions

The toilet partitions appeared to be in fair condition and are suitable for the current use. The privacy screens at the men's urinals are have deteriorated with corrosion present. We have recommended a full upgrade / renovation of the restrooms during the study period which will include full replacement of the toilet partitions and privacy screens.

C1020 INTERIOR DOORS

C1021 Interior Doors

The interior doors appeared to be in fair to good condition with no deficiencies noted. We do not anticipate any expenditure in relation to the internal doors during the cost study period. The doors appeared to comply with ADA recommendations.

C1023 Interior Door Hardware

The hardware at each of the doors appeared functional with no issues of deterioration or failure noted generally throughout the buildings. The operation of the door handles, locks and hinged swing were noted to be in fair to good condition and comply with ADA requirements.

C2010 STAIR CONSTRUCTION

C2011 Regular Stairs

The stairways appeared to be in a good condition with no issues reported or identified. We do not anticipate any actions in association with the stairways during the study period.

C30 INTERIOR FINISHES

DESCRIPTION

C3010 WALL FINISHES

C3012 Wall Finishes to Interior Walls

The building consisted of unfinished concrete, unfinished and painted CMU or painted gypsum wall board (reference Photographs 18 through 20 in Appendix B). The restrooms contained 2" x 2" or 4" x 6" ceramic tile walls (reference Photograph 21 in Appendix B).

C3020 FLOOR FINISHES

C3024 Flooring

The majority of the lower level contained marble tile flooring (reference Photographs 17 and 19 in Appendix B). The restrooms have 1" x 1" or 2" x 2" ceramic tile floor coverings (reference Photograph 21 in Appendix B). A limited amount of the interior spaces have 12" x 12" vinyl tile flooring.

C3025 Carpeting

The building contained sheet carpet or carpet tiles within the office areas and Council Chambers. The carpet appears to vary in age.

C3030 CEILING FINISHES

C3031 Ceiling Finishes

There was painted gypsum board ceilings in some areas of the building including of the restrooms at the City Council area. The ceilings were smooth painted wallboard (reference Photograph 16 in Appendix B).

C3032 Suspended Ceilings

The majority of the ceilings throughout the building contained suspended acoustical tiles with a white enameled exposed grid system (reference Photograph 19 in Appendix B). The ceiling tiles varied in sized from 1' x 1' to 2' x 4' and the system is supported with wires from the underside of the roof construction above. The ceiling panels are generally 5/8" thick mineral board in fissured pattern. The ceiling system incorporated lighting and air-handling components.

CONDITION

C3010 WALL FINISHES

C3012 Wall Finishes to Interior Walls

Interior wall finishes appeared to be in fair condition generally throughout the building, with minor marks and damages observed. The typical EUL of interior painted walls is five-years, and based on our observations we recommend re-painting of all the previously painted walls near-term in the study period to maintain the appearance of the building and work areas. The ceramic tiled walls within the restrooms appeared to be in fair condition. The typical EUL for ceramic tile wall coverings is 30-years and therefore with an age of 38-years, late term replacement is recommended.

C3020 FLOOR FINISHES

C3024 Flooring

The vinyl flooring appears to be in poor condition and the ceramic tile fair condition. The vinyl floor covering contained stains and was faded throughout. Vinyl flooring has a typical EUL of eighteen-years and therefore based on the RUL and observed conditions we recommend that it is replaced near-term in the study to maintain the interior appearance. The typical EUL for ceramic tile floor coverings is 30 years and therefore with an age of more than 40 years, late term replacement is recommended.

C3025 Carpeting

The sheet carpet floor coverings appeared to be in fair condition. The typical EUL of carpet sheet is ten-years and therefore we have recommended for its replacement midway in the study period (reference Photograph 18 in Appendix B).

C3030 CEILING FINISHES

C3031 Ceiling Finishes

The painted gypsum ceilings appeared to be in poor to fair condition. Painted surfaces usually have a typical EUL of eight-years; therefore we recommend that they are repainted along with the interior wall surfaces. This has been combined within the projected expenditures.

C3032 Suspended Ceilings

The suspended acoustical ceiling systems appeared to be in poor condition. There are areas of broken and missing tiles, with discoloration evident. As they are no longer manufactured, an exact match for replacement is no longer possible, therefore replacement of the suspended ceiling system is recommended in its entirety, as replacement of the tiles alone would should a faded and stained grid system.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C1014	Site Built Toilet Partitions	Replace privacy screens at urinals	1	LS	$650	$650	2013	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	32,000	SF	$3.25	$104,000	2013	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	32,000	SF	$3.25	$104,000	2019	5
C3012	Wall Finishes to Interior Walls	Replace ceramic tile wall surfaces	1,500	SF	$15.00	$22,500	2018	5
C3024	Flooring	Replace vinyl floor covering	700	SF	$3.75	$2,625	2013	5
C3024	Flooring	Replace ceramic tile floor covering	700	SF	$18.00	$12,600	2018	5
C3025	Carpeting	Replace carpet floor covering	1,100	SY	$45.00	$49,500	2019	5
C3032	Suspended Ceilings	Replace suspended ceiling systems	1,500	SF	$6.25	$9,375	2013	5
		Total Anticipated Expenditure for C Interiors				$305,250		

SECTION 5 - D SERVICES

D10 CONVEYING SYSTEMS

DESCRIPTION

D1010 ELEVATORS AND LIFTS

D1011 Passenger Elevators

The building contained one hydraulic-drive passenger elevator which serves the building from first to second floor level. The passenger elevator is manufactured by Montgomery and has a capacity of 2,000 lbs. The garage was serviced by one hydraulic-drive elevator manufactured by Mitsubishi with a capacity of 3,500 lbs (reference Photograph 22 in Appendix B).

Machine Room Equipment

The passenger elevator machine room contained the hydraulic fluid tank, pump and valve equipment serving the hydraulic ram to the elevator car together with its individual control equipment.

Cabs

The elevator cab consists of front entry pre-finished steel elevator doors and surrounds with a combination of stainless steel and laminate sheet panel interior walls. A car-operating panel is provided within the cab.

D1094 Wheelchair Lift

The building contained one self-contained screw type wheel-chair lift which serves the lobby area at the lower level entrance from the garage. The lift is manufactured by National Wheel-O-Vator and has a capacity of 750 lbs (reference Photograph 23 in Appendix B).

Table D10-1 Summary of the Elevators & Lifts

Equipment Type	Manufacturer	Model No.	Serial No.	No. of Landings	Speed (FPM)	Capacity (Pounds)	Year Install
Hydraulic Passenger Elevator	Montgomery	Unknown	P-14242-1	2	125 FPM	2,000 lbs	1975
Hydraulic Passenger Elevator	Mitsubishi	Unknown	Unknown	2	Unknown	3,500 lbs	2000
Screw Type Wheelchair Lift	National Wheel-O-Vator	Unknown	Unknown	2	Unknown	750 lbs	Circa 2007

Unknown = Access limited or equipment had no name plates present.

CONDITION

D1010 ELEVATORS AND LIFTS

D1011 Passenger Elevators

The hydraulic elevators appeared to be in fair condition and approximately 13 to 38-years old. The typical EUL of elevators is based on the equipment and particularly the controller which is the brains of the system and directs the elevator motor. The controller has been upgraded and therefore the elevators and controls are anticipated to last beyond the study period with regular maintenance being undertaken.

D1094 Wheelchair Lift

We understand that the wheelchair lift was installed in 2007 and appeared to be in good condition. The typical EUL of lifts of this kind is 20 years; therefore based on the equipment and amount of usage (minimal use) replacement is not anticipated during the study period, however we recommend regular servicing is undertaken.

Performance measurements were not taken to evaluate system performance to industry standards as published by the National Elevator Industry Inc. (N.E.I.I.). General system performance was observed such as door operation, acceleration and stopping. Where observed, performance appeared adequate.

D20 PLUMBING

DESCRIPTION

D2010 PLUMBING FIXTURES

D2011 Water Closets

The building contained wall mounted vitreous china tank-less water closets with manual flush valves within restrooms (reference Photograph 24 in Appendix B).

D2012 Urinals

The men's restrooms contained vitreous china wall hung urinals which were either waterless or containing manual flush valves (reference Photograph 25 in Appendix B).

D2013 Lavatories

The building contained wall mounted and vanity vitreous china lavatories (reference Photograph 25 in Appendix B). The lavatories generally consisted of single-handle lever type, non-metering faucets. Water is supplied via copper pipe work and drained through cast iron pipe work and fittings.

D2020 DOMESTIC WATER DISTRIBUTION

D2021 Cold Water Service

Cold water piping throughout the building consisted of a copper pipe system. The cold water service for the facility is supplied directly from the street pressure. Taps are made to the water line downstream of the meter and routed to plumbing fixtures and equipment via copper pipe work. The water enters the facility at the west elevation.

D2022 Hot Water Service

Domestic hot water is generated via two Rheem 50 US gallon capacity water heaters (reference Photograph 26 in Appendix B). One water heater is natural gas-fired and located in a rooftop mechanical penthouse and the second water heater is electric and located in a lower level mechanical room.

Table D20-1 Summary of the Domestic Water Heating Equipment

Location	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	Year of Installation
Roof Level Mechanical	Rheem	41V50N	RHLN0400140528	Natural Gas	50 GAL	2000
Mechanical Closet	Rheem	ELD52-B	DX0908	Electric	50 GAL	2008

D2030 SANITARY WASTE

D2031 Waste Piping

Waste piping observed at the building consisted of 2" and 4" diameter cast iron.

CONDITION

D2010 PLUMBING FIXTURES

D2011 Water Closets

The water closets and flush valves appeared to be in good condition. The water closets flushed properly and did not have any cracks in the china. The water closets are generally ADA compliant and appear to have low-flow flush valves. However, those on the first floor for the Council Chamber are not ADA compliant, and therefore can pose accessibility issues and therefore don't comply with ADA. We have recommended a full upgrade / renovation of the restrooms during the study period which will include full replacement of the fixtures.

D2012 Urinals

The urinal and flush valves appeared to be in good condition. The urinals flushed properly and did not have any cracks in the china. The urinals are ADA compliant and the flushing appeared to have low-flow flush valves. We have recommended a full upgrade / renovation of the restrooms during the study period which will include full replacement of the fixtures.

D2013 Lavatories

The lavatories and faucets at each of the restrooms appeared to be in fair to good condition. The sinks drained properly and did not have any cracks in the china. The lavatories appeared to be ADA compliant and contain low-flow faucets. We have recommended a full upgrade / renovation of the restrooms during the study period which will include full replacement of the fixtures.

D2020 DOMESTIC WATER DISTRIBUTION

D2021 Cold Water Service

The domestic water systems appeared to be in good condition. No major problems were observed that could be attributed to age and deferred maintenance.

D2022 Hot Water Service

The domestic water heaters appeared to be in fair condition. Water heaters generally have a typical EUL of ten-years in this geographic location due to the mineral content in the water supply; therefore with an age of 3 to 13-years, replacement will be necessary during the study period with energy efficient water heaters.

D2031 Waste Piping

The waste piping appeared to be in poor overall condition. The horizontal cast iron pipes have cracked and require replacement. Due to the design of the interior spaces, it is not practical to do a complete replacement of the piping. Therefore, we have recommended budgeting an annual allowance to replace the damaged cast iron sanitary waste piping per year.

After discussions with the City maintenance personnel we understand that a number of the City buildings have been having issues with sewer blockages and pipe deterioration, therefore we have been requested to include for camera inspections of the drainage/sewer system at the building.

D30 HVAC

DESCRIPTION

D3010 FUEL ENERGY SUPPLY SYSTEMS

D3012 Gas Supply System

There is natural gas service to the building. The pressure reducing station and gas meter are located at the western side. Gas service is routed to the gas-fired water heater and to the heating boiler.

D3020 HEAT GENERATING SYSTEMS

D3021 Boilers

Heating hot water is supplied from one natural gas fired boiler (reference Photograph 27 in Appendix B). The boiler was manufactured by Raypac and is located in the rooftop mechanical penthouse. The boiler was replaced in 2005.

D3030 COOLING GENERATING SYSTEMS

D3031 Chillers

Chilled cooling water is supplied from an air-chiller unit (reference Photograph 28 in Appendix B). The chiller was manufactured by Trane and has a cooling capacity of 80 tons and is located in the rooftop. The chiller was installed in circa 2000.

D3040 AIR DISTRIBUTION SYSTEMS

D3041 Air Distribution Systems

The conditioned air is distributed throughout the building via Variable Air Volume units (VAVs) and metal ductwork located above the ceilings and through metal flexible duct connections to ceiling diffusers/grills recessed in the ceilings. The ductwork is sheet metal, except for flexible duct connections to ceiling diffusers in suspended ceiling areas

D3042 Exhaust Ventilation Systems

The building contained three exhaust fans which serve the interior spaces (reference Photograph 30 in Appendix B). The fans have 475, 750 or 1,050 cubic feet per minute (CFM) capacities. A 2,600 CFM capacity exhaust fan is located in the garage.

The building also contains a number of rooftop mounted exhaust fans at roof level which are designed to remove air from the interior areas. They are manufactured by a variety of manufacturers; however they appear to be typically of similar capacities.

D3050 HEAT TRANSFER TERMINAL AND PACKAGED UNITS

D3053 Split System

Cooling is provided to a portion of the lower level by a Carrier condensing unit with approximately 15 tons of cooling (reference Photograph 29 in Appendix B). The unit was installed in 1994.

Table D30-1 provides a summary of the HVAC equipment:

Table D30-1 Summary of the HVAC Equipment

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Fuel Type	Year
Rooftop	Boiler	Raypak	DMS24-53	050940701	750,000 BTUH	Natural Gas	2005
Rooftop	Chiller	Trane	CCACC804	J041822460	80 Tons	Electric	Circa 2000
Rooftop	Air Handler	Trane	50-30C-UW-UU	Unknown	20 HP	Electric	Circa 2000
Rooftop	Air Handler	Trane	14-16B-UW-UU	Unknown	7.5 HP	Electric	Circa 2000
Rooftop	Chilled Water Pump	Baldor	35A01W206	Unknown	5 HP	Electric	Circa 2000
Rooftop	Heating Hot Water Pump	Sta-Rite	JHHG3-53H	Unknown	2.5 HP	Electric	Circa 2000
Rooftop	Exhaust Fan	Master Fan	11D	Unknown	1,050 CFM	Electric	Unknown
Rooftop	Exhaust Fan	Exitaire	Unknown	Unknown	750 CFM	Electric	Unknown
Rooftop	Exhaust Fan	Exitaire	Unknown	Unknown	2,600 CFM	Electric	Unknown
Basement	Air Handler	Carrier	39LC1152CA1034-L	Unknown	7.5 HP	Electric	Circa 2000
Basement	Condenser	Carrier	38AE-016-C600	Unknown	15 Tons	Electric	Circa 2000

Basement	Compressor	Devilbiss	RUDM5033	B41548	½ HP	Electric	Unknown
Throughout Interior	VAV (56)	Titus	DESV	Unknown	2,000 CFM	Electric	Varies

Unknown = Access limited or equipment had no name plates present.

D3060 HVAC INSTRUMENTATION AND CONTROLS

D3063 Other Controls & Instrumentation

The heating and cooling equipment are controlled by a combination of a Honeywell pneumatic system and a NOVAR IOM/2 Direct Digital Control (DDC) system that controls the central components in the building (reference Photograph 31 in Appendix B). Low voltage actuators modulate valves and dampers to provide temperature control based on certain set points and/or local temperature sensors.

CONDITION

D3010 FUEL ENERGY SUPPLY SYSTEMS

D3012 Gas Supply System

No visually apparent problems with the gas distribution piping were observed at the building. No issues have been reported regarding performance; therefore we believe the supply will be serviceable through the end of the study period.

D3020 HEAT GENERATING SYSTEMS

D3021 Boilers

The natural-gas fired boiler appeared to be in good condition and was installed in 2005. The typical EUL of equipment such as this is 30-years and therefore the unit will last beyond the study period with regular maintenance. No issues concerning operation was observed or mentioned.

D3030 COOLING GENERATING SYSTEMS

D3031 Chillers

The rooftop chiller appeared to be in fair condition and the coils were replaced in 2002. The typical EUL of equipment such as this is 20 to 30-years and therefore the unit will last beyond the study period with regular maintenance. However, the exterior case is worn and portions of the steel are becoming corroded and we recommend that the chiller is properly prepared, primed and painted to deter further deterioration.

D3040 AIR DISTRIBUTION SYSTEMS

D3041 Air Distribution Systems

The metal duct appeared to be in fair overall condition. However, the exposed ducting at the rooftop is corroded and we recommend painting concurrent with the chiller unit recommended above. The zonal control system does not function efficiently, causing issued in numerous areas throughout the structure. We recommend that the HVAC consultant also reviews the duct work in detail to ascertain poor supply. Only a small proportion of the ducting in the building was reviewed but that portion was noted to be in fair to good condition with no deficiencies. We recommend that the duct work is cleaned every 5 years starting at the start of the study period, as it was unclear when they were last cleaned.

D3042 Exhaust Ventilation Systems

The exhaust ventilation components appeared to be in fair overall condition. However, as with the other HVAC components at the rooftop, the fans are corroded and we recommend painting is recommended. A similar zonal control issue exists with these components also; therefore we recommend that a further review is undertaken.

D3050 HEAT TRANSFER TERMINAL AND PACKAGED UNITS

D3053 Split System

The pad-mounted condenser is in good overall condition and is approximately 19 years of age. The typical EUL of equipment such as this is twenty-years and therefore near-term replacement of the unit is recommended. No issues concerning operation was observed or mentioned. We understand that major customization is an option therefore we recommend that a HVAC consultant is employed by the City to establish available systems.

D3060 HVAC INSTRUMENTATION AND CONTROLS

D3069 Other Controls & Instrumentation

The HVAC control system is in poor condition, with some leaking to the pneumatic tubing and valves noted. As the pneumatic system continues to age, maintenance activities will increase to keep the system functioning properly. The currently installed system provides minimal control over the building systems but is currently operating as designed. In addition, the Novar IOM/2 system has become obsolete with manufacturer support no longer available. Based upon the age and condition of the pneumatic controls and the obsolescence of the low voltage systems, we recommend budgeting for upgrading the control system to a full DDC system near to mid-term. This would eliminate all pneumatic actuators and help provide additional energy savings and controllability of the HVAC systems.

D40 FIRE PROTECTION

DESCRIPTION

D4010 SPRINKLERS

D4011 Sprinkler Water Supply

The first floor of the building is protected with an automatic wet-pipe fire suppression system utilizing standard pendent commercial sprinkler heads fixed to fire-line pipes which are supported via the upper structure. The system is monitored by water flow and tamper switches connected to the fire alarm system. The sprinkler main is a 6" line at the point of service.

D4030 FIRE PROTECTION SPECIALTIES

D4031 Fire Extinguishers

Multipurpose portable wall mounted handheld fire extinguishers were provided throughout the building.

CONDITION

D4030 FIRE PROTECTION SPECIALTIES

D4011 Sprinkler Water Supply

The sprinkler system was observed to be in fair condition and all inspections up to date. No visible corrosion or leaks were observed. However we understand that the system is no longer adequate for the buildings current use and therefore we have recommended an upgrade of the system near-term.

D4030 FIRE PROTECTION SPECIALTIES

D4031 Fire Extinguishers

Fire extinguishers appeared to be in good condition. We understand they are maintained on a yearly basis by DCS Testing & Equipment. The fire extinguishers were last tested in February of 2013. We do not anticipate a requirement to replace any fire extinguishers during the study period.

D50 ELECTRICAL

DESCRIPTION

The following information was obtained through our visual observations of each of the building systems. The electrical systems include the service entrance equipment, panel boards, safety switches, motor controls, lighting fixtures, and security systems.

D5010 ELECTRICAL SERVICE & DISTRIBUTION

D5012 Low Tension Service & Dist.

The main incoming service for the site is routed from the meter to the Main Distribution Panel (MDP). The MDP is manufactured by General Electric and is rated at 277/480 volts at 1,200 amps, 3-phase, 4-wire and is located within the electrical room at the lower level of the building, and contains fusible switches (reference Photograph 32 in Appendix B). Branch panels are typically General Electric panelboards throughout the building and are rated at 277/480 and 208/120 volts at 50 to 500 amps each.

In addition to the fusible safety switches used as the service disconnecting means, fusible and non fused type safety switches are also installed near equipment such as roof top chiller unit and serve as the required local disconnecting means for the equipment.

D5020 LIGHTING & BRANCH WIRING

D5021 Branch Wiring Devices

The branch wiring devices at the building included switches, receptacles and other devices that would be generally associated with these types of buildings. Branch wiring was observed to typically be distributed in Electric Metallic Tubing (EMT) and flexible metal conduit.

D5022 Lighting Equipment

The interior lighting within each building is provided by recessed mounted 2' x 4' fluorescent fixtures within the suspended ceiling system and recessed round fluorescent can type fixtures within the remaining interior spaces (reference Photographs 18 and 19 in Appendix B). The florescent fixtures all contained T8 lamps and electronic ballasts. The majority of the lighting is controlled via local switching in the respective rooms.

D5030 COMMUNICATIONS & SECURITY

D5033 Telephone Systems

The telephone system and servers were contained in a lower level mechanical room.

D5037 Fire Alarm Systems

The building is protected by a digital automatic fire detection alarm system. The main Fire Alarm Control Panel (FACP) is located within the lower level electrical room, and is manufactured by Honeywell (reference Photograph 33 in Appendix B). Addressable devices are located throughout each floor level such as smoke detectors, pull stations and fire bell.

D5038 Security and Detection Systems

The building contained an intruder alarm system which consisted of a programmable security alarm panel and motion sensors. The alarm system is a multi zone system with the panels located at the entrances and the motion sensors located throughout the building.

D5090 OTHER ELECTRICAL SYSTEMS

D5092 Emergency Light & Power Systems

Emergency egress exit lighting signs are provided at exit routes from the building.

CONDITION

D5010 ELECTRICAL SERVICE AND DISTRIBUTION

D5012 Low Tension Service & Dist.

The electrical equipment was noted to be in good condition. Electrical distribution systems generally have a typical EUL of more than thirty-years. There was no indication of damage from short circuit or overload conditions. We were not provided preventative maintenance records for the main electrical equipment, and therefore we do recommend further evaluation of the equipment via an infrared electrical inspection which will highlight if high temperatures, excessive electrical resistance, failing components, ground faults and short circuiting issues exist.

D5020 LIGHTING & BRANCH WIRING

D5021 Branch Wiring Devices

The general receptacles and wiring appeared to be in fair condition within the buildings. We do not anticipate a requirement for their replacement during the cost study period.

D5022 Lighting Equipment

Although the interior lighting utilizes T8 fixtures, the system is inefficient and does not provide an adequate amount of lighting to the interior spaces. Additionally, the majority of the lights are controlled by manual switches. Therefore, we

recommend replacement of the current lighting system with suspended T-Bar lighting systems with controls connected to the building automation system or to motion activated switching.

D5030 COMMUNICATIONS & SECURITY

D5033 Telephone Systems

The existing telephone and data equipment was observed to be in fair condition. We do not anticipate any replacement during the cost study period.

D5037 Fire Alarm Systems

The fire alarm system appeared to be in good condition. We are unaware of any issues with the system and it appears that it receives regular testing. We do not anticipate replacement during the cost study period as long as regular upgrades are undertaken as required.

D5038 Security and Detection Systems

The intruder alarm system appeared to be in good condition, if out of date. We are unaware of any issues with the system; however we are advised that the level of security provided by the current system is not sufficient for the building type. We recommend that the system is upgraded with a CCTV system incorporated and improved secure entry system in the near-term.

D5090 OTHER ELECTRICAL SYSTEMS

D5092 Emergency Light & Power Systems

Emergency egress exit lighting signs appeared to be in fair condition. With an EUL of 20 years, we anticipate replacement of the two exits lights mid-term during the cost study period. However, replacement will fall below the threshold of $500 and therefore it has not been included within this cost study.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D20	Plumbing	Update / renovate restrooms	1	LS	$113,680	$113,680	2013	3
D2022	Hot Water Service	Replace natural gas domestic water heater	50	GAL	$35	$1,750	2014	4
D2022	Hot Water Service	Replace electric domestic water heater	50	GAL	$27.50	$1,375	2021	4
D2031	Waste Piping	Undertake camera inspection of sewer lines	1	LS	$1,000	$1,000	2013	3
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2013	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2014	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2015	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2016	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2017	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2018	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2019	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2020	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2021	2
D2031	Waste Piping	Replace cast iron piping	1	LS	$2,500	$2,500	2022	2
D3031	Rooftop Equipment	Repaint rooftop HVAC equipment	2,500	SF	$3.25	$8,125	2014	5
D3041	Air Distribution Systems	Clean ductwork	27,474	SF	$0.25	$6,869	2013	3
D3041	Air Distribution Systems	Clean ductwork	27,474	SF	$0.25	$6,869	2018	3
D3053	Split	Replace condenser	15	TON	$1,187.50	$17,813	2015	3

	Systems							
D3069	HVAC Controls	Install DDC control system	27,474	SF	$4.06	$89,291	2015	3
D4011	Sprinkler Water Supply	Upgrade wet-pipe suppression system throughout building	27,474	SF	$4.10	$112,643	2014	1
D5022	Lighting	Install T-bar lighting system	27,474	SF	$3.50	$96,159	2014	3
D5022	Lighting	Install automatic lighting controls	27,474	SF	$2.50	$68,685	2014	3
D5038	Security and Detection Systems	Upgrade security system	27,474	SF	$3.50	$96,159	2014	4
		Total Anticipated Expenditure for D Services				$645,417		

SECTION 6 - E EQUIPMENT & FURNISHINGS

E20 FURNISHINGS

DESCRIPTION

E2010 FIXED FURNISHINGS

E2012 Fixed Casework

The building contained wood constructed floor and wall mounted fixed casework within the break rooms, storage rooms and work areas. The wood cabinets generally consisted of hardwood frames with oriented strand board panels and doors. The counters observed within the break area and restrooms were plastic laminate.

B2013 Blinds and Other Window Treatments

The building contained window treatments generally consisting of blinds at each of the windows.

CONDITION

E2010 FIXED FURNISHINGS

E2012 Fixed Casework

The fixed floor and wall cabinets appeared to be in fair condition and although twelve-years old they were observed to be functional and suitable for their intended use. Replacement is anticipated later in the study period. The fixed counters in the restroom are in a state of disrepair and are recommend for replacement early in the study period the maintain appearance and suitability. These have been included within the full restroom renovation expenditure.

B2013 Blinds and Other Window Treatments

The window blinds are generally in poor condition. We recommend that they are replaced near-term in the study period to maintain the interior appearance and also suitable shade.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
E2012	Fixed Casework	Replace floor cabinets (inc countertops)	15	LF	$600	$9,000	2018	5
E2012	Fixed Casework	Replace wall mounted cabinets	15	LF	$250	$3,750	2018	5
E2013	Blinds and Other Window Treatments	Replace window treatment throughout building	1	LS	$45,000	$45,000	2013	4
		Total Anticipated Expenditure for E Equipment & Furnishings				$57,750		

SECTION 7 - G BUILDING SITEWORK

G20 SITE IMPROVEMENTS

DESCRIPTION

G2020 PARKING LOTS

G2021 Bases and Sub-Bases

The main entrance drive accessing the facility subterranean parking garage is located at the northern section of the site and can be access from Fifteenth Street to the north (reference Photograph 34 in Appendix B). The paving around the site has a concrete surface with white line striping denoting areas of parking stalls. We were not provided with the original specification details of the paving and therefore cannot comment on the specific concrete mix type, classification or its suitability for its existing use. Table G20-1 provides a summary of the site systems.

Table G20-1 Schedule of Site Systems

System Type	System Surface	Location	Measurement	No. of Parking Spaces	No. of Disabled Parking Spaces
Drive Aisle	Concrete	North	1,800 SF	160*	8

* Including ADA Parking Spaces.

G2040 SITE DEVELOPMENT

G2042 Retaining Walls

There is a variable height concrete masonry unit retaining wall located along the lower level of the building along the western elevation (reference Photograph 35 in Appendix B).

G2046 Fountain, Pools & Watercourses

There are two water features at the Property with one located adjacent to the main entrance and the other located at the central courtyard area (reference Photograph 37 in Appendix B). The mechanical equipment including the pumps and filtration systems are located in mechanical rooms at the lower level of the garage (reference Photograph 38 in Appendix B).

G2050 LANDSCAPING

G2056 Planters

Landscaping consisted of shrubs and ground cover, with a number of mature trees located in reinforced concrete planters at several locations throughout the site including the courtyard between the Property and the adjacent library building (reference Photograph 36 in Appendix B).

G2057 Irrigation Systems

The landscaped areas are irrigated via a below grade automatic irrigation system. The irrigation system is supplied by below grade PVC piping and an automatic controller. Above ground sprinkler heads are scattered throughout the site.

CONDITION

G2020 PARKING LOTS

G2021 Bases and Sub-Bases

The concrete paved areas appeared to be in fair condition. All areas of the pavement, including the lower level of the garage should undergo the re-application of surface markings every 3 years to extend the life of the pavements beginning in year two.

G2040 SITE DEVELOPMENT

G2042 Retaining Walls

The retaining wall at the facility appeared to be in fair condition with no issues observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

G2046 Fountain, Pools & Watercourses

The water features at the Property are in good condition. No issues were observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

G2050 LANDSCAPING

G2056 Planters

The planted materials are in fair overall condition. The plant materials will require routine maintenance and replacement and should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

G2057 Irrigation Systems

The irrigation system at the building is in good condition. No issues were observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

G40 SITE ELECTRICAL UTILITIES

DESCRIPTION

G4020 SITE LIGHTING

G4021 Fixtures & Transformers

Exterior lighting at the buildings consisted of pole mounted lights with HID fixtures. There are two (2) two head lights and three (3) one head lights.

G4090 OTHER SITE ELECTRICAL UTILITIES

G4092 Site Emergency Power Generation

The building is served by an ONAN emergency generator located in the lower level mechanical area (reference Photograph 39 in Appendix B). The generator is diesel fueled and has a rating of 250 KW and 312.5 KVA.

The transfer switch associated with the generator was manufactured by Toshiba Houston. The emergency switchboard which is connected to the emergency generator has a rating of 277/480 volts at 400 amps, 3-phase, 4-wire.

Table G40-1 provides a summary of the generator equipment:

Table G40-1 Summary of the Generator Equipment

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Fuel Type	Year
Lower Level Mechanical Room	Diesel Generator	Onan	Unknown	Unknown	1250kW / 312.5 KVA	Diesel	Unknown
Opposite Generator	Transfer Switch	Toshiba Houston	Unknown	Unknown	277/480 volts at 400 amps, 3-phase, 4-wire	Electric	Unknown

Unknown = Access limited or equipment had no name plates present.

CONDITION

G4020 SITE LIGHTING

G4021 Fixtures & Transformers

The pole mounted lights appeared to be in fair to good condition and repair or replacement and should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

G4092 Site Emergency Power Generation

The emergency generator appeared to be in good condition. Equipment such as this has a typical EUL of twenty-years. Based on observed conditions we recommend that the generator will last beyond the study period without replacement necessary. We recommend the continuation of regular maintenance and testing as required. It is further recommended to repaint the generator housing however the cost of this work has not been included within the study period as it will fall below the threshold of $500.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
G2021	Bases and Sub-Bases	Restriping at the parking areas	1,800	SF	$0.75	$1,350	2014	3
G2021	Bases and Sub-Bases	Restriping at the parking areas	1,800	SF	$0.75	$1,350	2017	3
G2021	Bases and Sub-Bases	Restriping at the parking areas	1,800	SF	$0.75	$1,350	2020	3
		Total Anticipated Expenditure for G Building Sitework				$4,050		

Appendix A

Ten-Year
Expenditure Forecast
2013 - 2022

FAITHFUL+GOULD
CONSTRUCTIVE EXPERTISE

10 YEAR EXPENDITURE FORECAST

City Hall
1400 Highland Avenue
Manhattan Beach, CA
Rev A

Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Total	Combined Total
						$			1	2	3	4	5	6	7	8	9	10			
									Deferred	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Deferred	Scheduled	
A. SUBSTRUCTURE																					
A1011	Repair cracks in lower level concrete walls	N/A	1	200.00	LF	$30.00	Capital Renewal	3	$0	$6,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,000	$6,000
A1011	Repair cracks in garage lower level concrete walls	N/A	1	300.00	LF	$30.00	Capital Renewal	3	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,000	$9,000
A1031	Repair slab on grade at the building	N/A	1	10.00	LF	$20.00	Capital Renewal	3	$0	$200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$200
A1031	Repair slab on grade at the subterranean parking garage	N/A	1	150.00	LF	$30.00	Capital Renewal	3	$0	$4,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,500	$4,500
							A. SUBSTRUCTURE SUB-TOTALS		$0	$19,700	$0	$0	$0	$0	$0	$0	$0	$0	$0	$19,700	$19,700
B. SHELL																					
B1021	Waterproofing garage upper level deck	10	1	7,000.00	SF	$15.00	Capital Renewal	3	$0	$105,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$105,000	$105,000
B2011	Clean and repoint lower level masonry walls	10	1	600.00	SF	$25.00	Capital Renewal	3	$0	$15,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15,000	$15,000
B2011	Repaint exterior surfaces	4	1	6,500.00	SF	$3.25	Deferred Maintenance	5	$21,125	$0	$0	$0	$0	$0	$0	$0	$0	$0	$21,125	$0	$21,125
B2011	Repaint exterior surfaces	4	4	6,500.00	SF	$3.25	Routine Maintenance	5	$0	$0	$0	$0	$21,125	$0	$0	$0	$21,125	$0	$0	$42,250	$42,250
B2021	Replace sealant at perimeter of windows	15	5	850.00	LF	$12.00	Capital Renewal	3	$0	$0	$0	$0	$0	$10,200	$0	$0	$0	$0	$0	$10,200	$10,200
B2021	Replace western elevation windows	30	5	1,800.00	SF	$87.50	Capital Renewal	3	$0	$0	$0	$0	$0	$157,500	$0	$0	$0	$0	$0	$157,500	$157,500
B2031	Replace sliding mechanisms	15	1	1.00	LS	$1,500.00	Capital Renewal	3	$0	$1,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,500	$1,500
B2034	Replace overhead security door	30	1	1.00	EACH	$18,000.00	Deferred Maintenance	2	$18,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$18,000	$0	$18,000
B3011	Repaint roof coping	7	1	400.00	SF	$3.25	Routine Maintenance	5	$0	$1,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,300	$1,300
B3011	Powerwash the TPA roof surfaces	N/A	1	11,632.00	SF	$0.50	Routine Maintenance	3	$0	$5,816	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,816	$5,816
B3021	Replace skylight sealants	15	1	1.00	LS	$750.00	Capital Renewal	3	$0	$750	$0	$0	$0	$0	$0	$0	$0	$0	$0	$750	$750
B3022	Replace roof hatch	30	1	1.00	EACH	$2,500.00	Capital Renewal	3	$0	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,500	$2,500
							B. SHELL SUB-TOTALS		$39,125	$131,866	$0	$0	$21,125	$167,700	$0	$0	$21,125	$0	$39,125	$341,816	$380,941
C. INTERIORS																					
C1014	Replace privacy screens at urinals	20	0	1.00	LS	$650.00	Deferred Maintenance	5	$650	$0	$0	$0	$0	$0	$0	$0	$0	$0	$650	$0	$650
C3012	Repaint interior wall and ceiling surfaces	6	0	32,000.00	SF	$3.25	Deferred Maintenance	5	$104,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$104,000	$0	$104,000
C3012	Repaint interior wall and ceiling surfaces	6	6	32,000.00	SF	$3.25	Routine Maintenance	5	$0	$0	$0	$0	$0	$0	$104,000	$0	$0	$0	$0	$104,000	$104,000
C3012	Replace ceramic tile wall surfaces	30	5	1,500.00	SF	$15.00	Capital Renewal	5	$0	$0	$0	$0	$0	$22,500	$0	$0	$0	$0	$0	$22,500	$22,500
C3024	Replace vinyl floor covering	18	0	700.00	SF	$3.75	Deferred Maintenance	5	$2,625	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,625	$0	$2,625
C3024	Replace ceramic tile floor covering	30	5	700.00	SF	$18.00	Capital Renewal	5	$0	$0	$0	$0	$0	$12,600	$0	$0	$0	$0	$0	$12,600	$12,600
C3025	Replace sheet carpet floor covering	10	6	1,100.00	SY	$45.00	Capital Renewal	5	$0	$0	$0	$0	$0	$0	$49,500	$0	$0	$0	$0	$49,500	$49,500
C3032	Replace suspended ceiling systems	20	0	1,500.00	SF	$6.25	Deferred Maintenance	5	$9,375	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,375	$0	$9,375
							C. INTERIORS SUB-TOTALS		$116,650	$0	$0	$0	$0	$35,100	$153,500	$0	$0	$0	$116,650	$188,600	$305,250
D. SERVICES																					
D20	Update/renovate restrooms	15	0	1.00	LS	$113,680.00	Deferred Maintenance	3	$113,680	$0	$0	$0	$0	$0	$0	$0	$0	$0	$113,680	$0	$113,680
D2022	Replace natural gas domestic water heater	10	0	50.00	GAL	$35.00	Energy & Sustainability	4	$0	$1,750	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,750	$1,750
D2022	Replace electric domestic water heater	10	8	50.00	GAL	$27.50	Energy & Sustainability	4	$0	$0	$0	$0	$0	$0	$0	$0	$1,375	$0	$0	$1,375	$1,375
D2031	Undertake camera inspection of sewer system	N/A	0	1.00	LS	$1,000.00	Deferred Maintenance	3	$1,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$1,000
D2031	Replace cast iron piping	1	0	1.00	LS	$2,500.00	Deferred Maintenance	2	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,500	$0	$2,500

D2031	Replace cast iron piping	1	1	1.00	LS	$2,500.00	Capital Renewal	2	$0	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$0	$22,500	$22,500
D3031	Repaint rooftop HVAC equipment	10	1	2,500	SF	$3.25	Capital Renewal	5	$0	$8,125	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,125	$8,125
D3041	Clean ductwork	5	0	27,474	SF	$0.25	Deferred Maintenance	3	$6,869	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,869	$0	$6,869
D3041	Clean ductwork	5	5	27,474	SF	$0.25	Routine Maintenance	3	$0	$0	$0	$0	$0	$6,869	$0	$0	$0	$0	$0	$6,869	$6,869
D3053	Replace condenser	20	2	15	TON	$1,187.50	Energy & Sustainability	3	$0	$0	$17,813	$0	$0	$0	$0	$0	$0	$0	$0	$17,813	$17,813
D3069	Install DDC control system	20	2	27,474	SF	$3.25	Energy & Sustainability	3	$0	$0	$89,291	$0	$0	$0	$0	$0	$0	$0	$0	$89,291	$89,291
D4011	Upgrade wet-pipe suppression system throughout building	35	1	27,474	SF	$4.10	Capital Renewal	1	$0	$112,643	$0	$0	$0	$0	$0	$0	$0	$0	$0	$112,643	$112,643
D5022	Install T-bar lighting system	20	1	27,474	SF	$3.50	Energy & Sustainability	3	$0	$96,159	$0	$0	$0	$0	$0	$0	$0	$0	$0	$96,159	$96,159
D5022	Install automated lighting controls	15	1	27,474	SF	$2.50	Energy & Sustainability	3	$0	$68,685	$0	$0	$0	$0	$0	$0	$0	$0	$0	$68,685	$68,685
D5038	Upgrade security system	10	1	27,474	SF	$3.50	Capital Renewal	4	$0	$96,159	$0	$0	$0	$0	$0	$0	$0	$0	$0	$96,159	$96,159
							D. SERVICES SUB-TOTALS		$124,049	$386,021	$109,603	$2,500	$2,500	$9,369	$2,500	$2,500	$3,875	$2,500	$124,049	$521,368	$645,417
E. EQUIPMENT & FURNISHING																					
E2012	Replace floor cabinets (inc countertops)	20	5	15	LF	$600.00	Capital Renewal	5	$0	$0	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$9,000	$9,000
E2012	Replace wall mounted cabinets	20	5	15	LF	$250.00	Capital Renewal	5	$0	$0	$0	$0	$0	$3,750	$0	$0	$0	$0	$0	$3,750	$3,750
E2013	Replace window treatment throughout building	10	1	1	LS	$45,000.00	Deferred Maintenance	4	$45,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$45,000	$0	$45,000
							E. EQUIPMENT & FURNISHING SUB-TOTALS		$45,000	$0	$0	$0	$0	$12,750	$0	$0	$0	$0	$45,000	$12,750	$57,750
F. SPECIAL CONSTRUCTION AND DEMOLITION																					
							F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
G. BUILDING SITEWORK																					
G2021	Re-striping at the parking areas	3	1	1,800.00	SF	$0.75	Routine Maintenance	3	$0	$1,350	$0	$0	$1,350	$0	$0	$1,350	$0	$0	$0	$4,050	$4,050
							G. BUILDING SITEWORK SUB-TOTALS		$0	$1,350	$0	$0	$1,350	$0	$0	$1,350	$0	$0	$0	$4,050	$4,050
Z. GENERAL																					
							Z. GENERAL SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
							Expenditure Totals per Year		$324,824	$538,937	$109,603	$2,500	$24,975	$224,919	$156,000	$3,850	$25,000	$2,500	$324,824	$1,088,284	$1,413,108
							Total Cost (Inflated @ 4% per Yr.)		$324,824	$560,495	$118,547	$2,812	$29,217	$273,648	$197,390	$5,066	$34,214	$3,558	$324,824	$1,224,948	$1,549,772

Appendix B
Photographs

FAITHFUL+GOULD
CONSTRUCTIVE EXPERTISE

Photograph No. 1

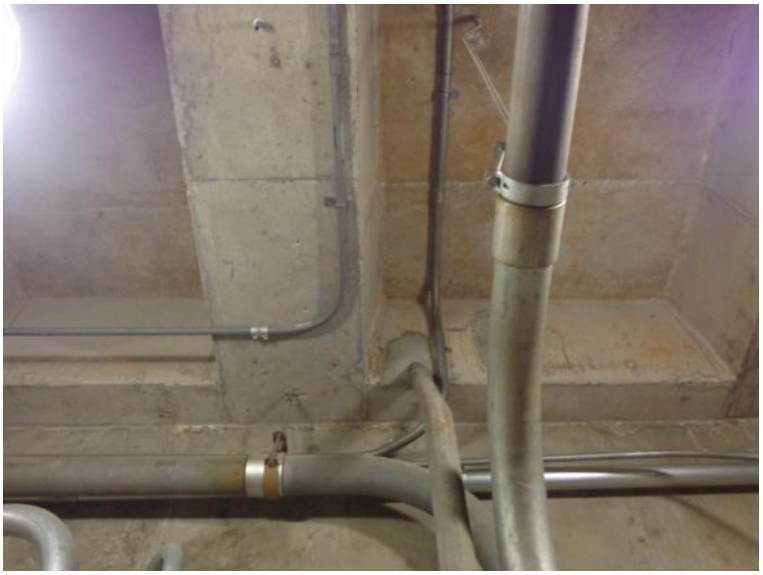
View of the cracks in the stem wall.

Photograph No. 2

View of the roof framing.

Photograph No. 3

View of the garage.



Photograph No. 4

View of the concrete structural system.

Photograph No. 5

View of the water infiltration at the garage.

Photograph No. 6

Additonal view of the water infiltration at the garage.

Photograph No. 7

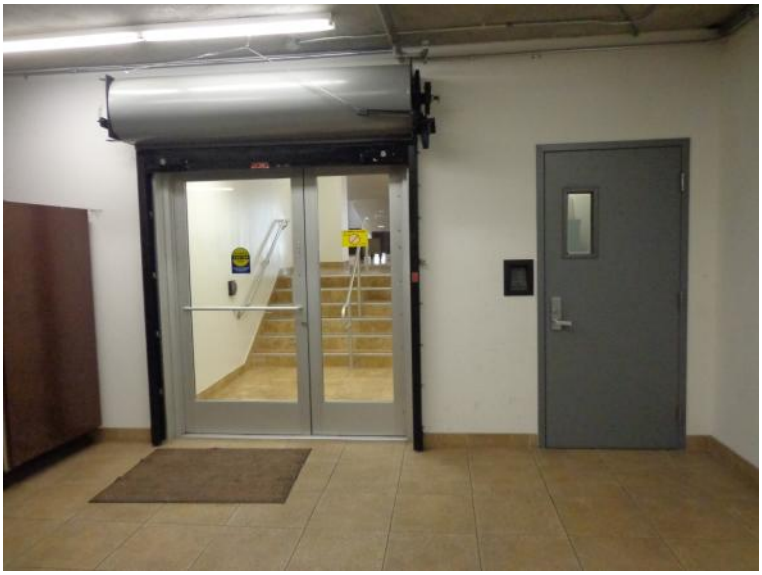
View of the exterior finishes.

Photograph No. 8

View of the automatic entrance doors at the north elevation.

Photograph No. 9

View of the storefront system at the south elevation.



Photograph No. 10

View of the entrance door from the garage.

Photograph No. 11

View of the efflorescence at the masonry walls.

Photograph No. 12

View of a typical BUR roof.

Photograph No. 13

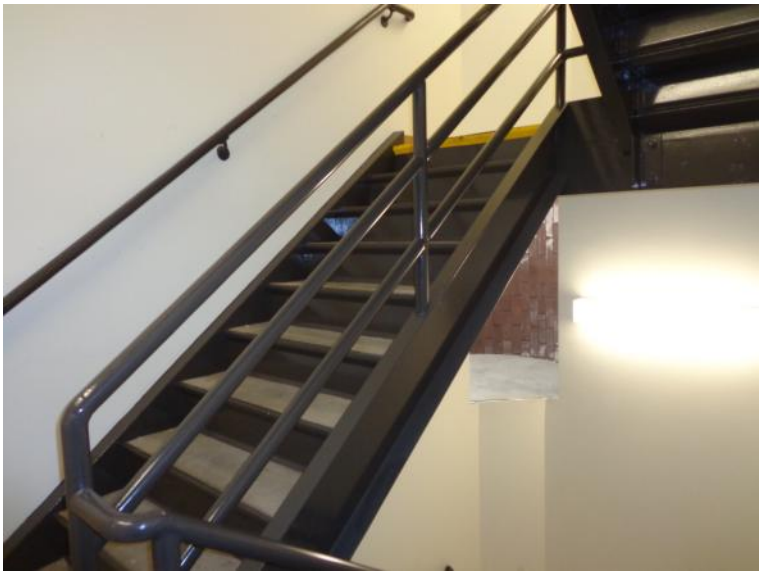
View of a typical TPA roof.

Photograph No. 14

View of the mansard roof.

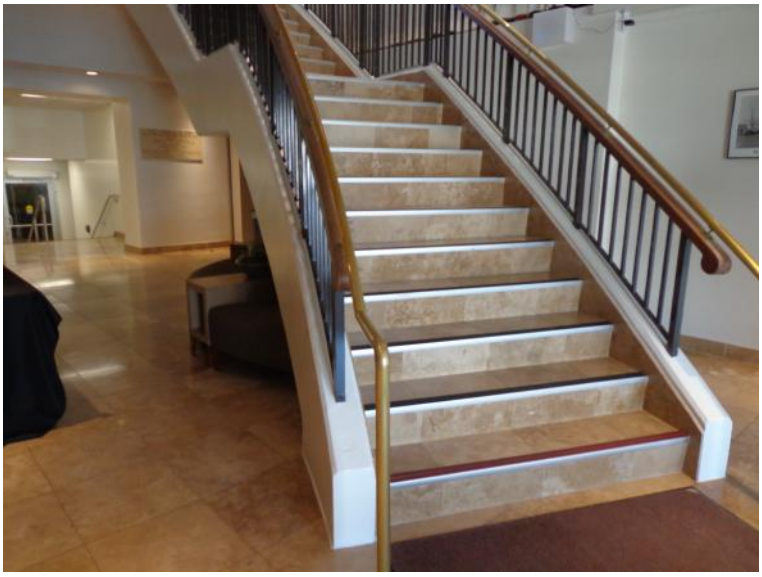
Photograph No. 15

View of a skylight.



Photograph No. 16

View of a typical steel framed stairway.



Photograph No. 17

View of the lobby stairway.

Photograph No. 18

View of the typical office finishes.

Photograph No. 19

View of the typical first floor interior finishes.

Photograph No. 20

View of the City Council Chamber.

Photograph No. 21

View of one of the restroom interiors.

Photograph No. 22

View of the garage elevator.

Photograph No. 23

View of the wheel chair lift at the lobby.

Photograph No. 24

View of a typical water closet.

Photograph No. 25

View of typical urinals and lavatories.

Photograph No. 26

View of one of the water heaters.

Photograph No. 27

View of the heating boiler.

Photograph No. 28

View of the rooftop chiller.

Photograph No. 29

View of the split system condensing unit.

Photograph No. 30

View of a rooftop exhaust fan.

Photograph No. 31

View of a component of the HVAC control system.

Photograph No. 32

View of the main electrical switchgear.

Photograph No. 33

View of the fire alarm panel.

Photograph No. 34

View of one of the main entrance drive.

Photograph No. 35

View of the masonry retaining walls.

Photograph No. 36

View of a typical planter.

Photograph No. 37

View of the water feature adjacent to the upper level entrance.

Photograph No. 38

View of water feature pump and filtration equipment.

Photograph No. 39

View of the emergency generator.

Appendix C

Asset Inventory

ASSET INVENTORY

D10 CONVEYING SYSTEMS

Equipment Type	Manufacturer	Model No.	Serial No.	No. of Landings	Speed (FPM)	Capacity (Pounds)	Year Install
Hydraulic Passenger Elevator	Montgomery	Unknown	P-14242-1	2	125 FPM	2,000 lbs	1975
Hydraulic Passenger Elevator	Mitsubishi	Unknown	Unknown	2	Unknown	3,500 lbs	2000
Screw Type Wheelchair Lift	National Wheel-O-Vator	Unknown	Unknown	2	Unknown	750 lbs	Circa 2000

D20 PLUMBING

Location	Equipment Type	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	Year
Roof Level Mechanical	Water Heater	Rheem	41V50N	RHLN04001 40528	Natural Gas	50 US Gallons	2000
Mechanical Closet	Water Heater	Rheem	ELD52-B	DX0908	Elactric	50 US Gallons	2008

D30 HVAC

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity (Heat and Cool)	Fuel	Year
Rooftop	Boiler	Raypak	DMS24-53	050940701	750,000 BTUH	Natural Gas	2005
Rooftop	Chiller	Trane	CCACC804	J041822460	80 Tons	Electric	Circa 2000
Rooftop	Air Handler	Trane	50-30C-UW-UU	Unknown	20 HP	Electric	Circa 2000
Rooftop	Air Handler	Trane	14-16B-UW-UU	Unknown	7.5 HP	Electric	Circa 2000
Rooftop	Chilled Water Pump	Baldor	35A01W206	Unknown	5 HP	Electric	Circa 2000
Rooftop	Exhaust Fan	Master Fan	11D	Unknown	1,050 CFM	Electric	Unknown
Rooftop	Exhaust Fan	Exitaire	Unknown	Unknown	750 CFM	Electric	Unknown

Rooftop	Exhaust Fan	Exitaire	Unknown	Unknown	2,600 CFM	Electric	Unknown
Rooftop	Heating Hot Water Pump	Sta-Rite	JHHG3-53H	Unknown	2.5 HP	Electric	Circa 2000
Basement	Air Handler	Carrier	39LC1152CA1034-L	Unknown	7.5 HP	Electric	Circa 2000
Basement	Condenser	Carrier	38AE-016-C600	Unknown	15 Tons	Electric	Circa 2000
Basement	Compressor	Devilbiss	RUDM5033	B41548	½ HP		
Throughout Interior	VAV (56)	Titus	DESV	NA	2,000 CFM	Electric	Varies

G40 SITE ELECTRICAL UTILITIES

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Year
Lower Level	Main Switchboard	General Electric	AV-Line	Unknown	1,200 Amps 277/480 Volts	1975
Lower Level	MCC	General Electric	IC7700	Unknown	480 Volts	1975
Lower Level	Switchboard	General Electric	AV-Line	Unknown	400 Amps	1975
Lower Level	Switchboard	General Electric	AV-Line	Unknown	1,200 Amps 277/480 Volts	1975
Rooftop	MCC	General Electric	201B7525	Unknown	600 Amps 480/120 Volts	1975
Lower Level	Transfer Switch	Toshiba Houston	Unknown	Unknown	Unknown	1996
Lower Level	Generator	ONAN	250DFAC	J960620025	250 KW 312.5 KVA	1996
Lower Level	Emergency Power Switchboard	General Electric	Unknown	Unknown	400 Amps 480/277 Volts	1996

Appendix D

Document Review and
Warranty Information

DOCUMENT REVIEW & WARRANTY INFORMATION

In addition to the completion of our visual evaluation, Faithful+Gould interviewed the various representatives from the City of Manhattan Beach (where possible), and reviewed the following documentation:

Architectural Construction drawings for City Hall by Heitschmidt Mounce Associates, dated 11/12/1973.

Structural Construction drawings for City Hall by Brandow and Johnston Associates, dated 11/12/1973.

Record architectural construction drawings for Garage Conversion and First Floor Rearrangements by Richard T. Stone, AISA Architect, Inc., dated 1/18/1994.

Record architectural construction drawings for ADA Improvements by GTS Associates, Inc., dated 10/13/1994.

City Hall floor plans dated 1996

Appendix E

Environmental Report:
Asbestos & Lead-Based Paint

FAITHFUL GOULD

ANDERSEN ENVIRONMENTAL
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LIMITED ASBESTOS & LEAD–BASED PAINT ASSESSMENT REPORT

Presented To:

Faithful & Gould
3400 North Central Avenue
Suite 2400
Pheonix, AZ 85014

Assessment Location:
City Hall
1400 Highland Avenue
Manhattan Beach, CA. 90266

Andersen Environmental Project No. 1304-584

Report Date: June 5, 2013

TABLE OF CONTENTS

DESCRIPTION **PAGE NO.**

APPENDICES

1.0 INTRODUCTION

This report presents the results of Andersen Environmental's Limited Asbestos & Lead-Based Paint Assessment of 1400 Highland Avenue, Manhattan Beach, CA 90266 (referred to hereunder as the subject property). This document is prepared for the sole use of The City of Manhattan Beach and any regulatory agencies that are directly involved in this project. No other party should rely on the information contained herein without prior written consent of The City of Manhattan Beach scope of services, inspection methodology, and results are presented below.

2.0 SCOPE OF WORK

The purpose of this inspection and survey is to identify the Asbestos Containing Materials (ACM) and Lead-Based Paint (LBP) present within the interiors and exteriors of the subject property building. As the asbestos sampling is destructive in nature, and may void any roof warrantees, the roofing materials of the building were not sampled during this assessment.

Asbestos

The purpose of this assessment was to perform bulk sampling of suspect materials in order to determine the presence or absence of ACM associated with the two buildings at the subject property. The scope of this assessment included reviewing any provided building records and/or previous investigation records, visually identifying homogeneous areas and functional spaces, collecting bulk samples of suspect ACM, interpreting the laboratory results, producing a written report of our findings, recommendations, floor plans and approximations of ACM quantities.

Lead-Based Paint

The purpose of this assessment was to perform an X-Ray Fluorescence (XRF) survey of the building onsite in order to determine which components may be covered with lead laden coatings. To comply with Title 17, EPA and HUD guidelines, painted and varnished surfaces in every accessible "room equivalent" were sampled for the presence of lead-based paint (LBP) and the condition of the painted surfaces was assessed. The intent was to ascertain the presence of LBP above the Los Angeles County action level using X-Ray Fluorescence. If LBP was found, the inspection would identify individual architectural components and their respective concentrations of lead in such a manner that this report would be used to characterize the presence of LBP at this property. The scope of work also included producing a written report of our findings and recommendations.

3.0 PROPERTY DESCRIPTION

The subject property consists of a two-story steel framed building with an adjacent subterranean parking garage. Currently, the property consists of office space, council chambers and public traffic areas. The exterior finishes of the building consists of exterior stucco on concrete, metal framed windows and an applied built up roof. The interior finishes include drywall walls and ceilings, drop ceilings with acoustic tiles and vinyl floor tiles or carpeted floors.

4.0 INSPECTOR'S QUALIFICATIONS

Andersen Environmental performed the lead inspection at the site using a Niton XRF spectrum analyzer instrument. Freddy Torres has completed an EPA approved curriculum in Lead in Construction Inspector / Risk Assessor Training.

Benjamin Curry and Lamont Leiva of Andersen Environmental performed the asbestos inspection at the site. Lamont Leiva is certified by the State of California Division of Occupational Safety and Health (DOSH) as Certified Site Surveillance Technician and worked under the supervision of Benjamin Curry, a DOSH Certified Asbestos Consultant.

Personnel certificates have been provided in ***Appendix C.***

5.0 TESTING PROTOCOL

Asbestos

The sampling was performed in accordance with requirements of the following regulations:

- Asbestos Hazard Emergency Response Act (AHERA); 40 CFR 763 Subpart E
- Asbestos School Hazard Abatement Reauthorization Act (ASHARA); Section 206 of the Toxic Substance Control Act
- National Emissions Standards for Hazardous Air Pollutants (NESHAPS); 40 CFR 61 Subpart M.

This report is a record of activities, observations, analytical results and recommendations performed to date.

Lead-Based Paint

The sampling was performed in accordance with requirements of the following regulations:

- Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing[i].
- Title 17, California Code of Regulations
- EPA Lead Based Paint Program

XRF Testing: Testing of the painted surfaces was patterned after the inspection protocol in Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing[ii]. In every "room equivalent" within the tested property, one representative surface of each "testing combination" was tested. Multiple readings were collected to resolve inconsistencies in the test results.

Regulatory Compliance: Several public (government) agencies have a published "regulatory action level" to classify LBP. To further complicate matters, some of the established "levels" are quantified in different units of measurement. Listed below are the current regulatory agencies that have defined LBP, along with the respective action level:

Agency	Ordinance #	Action level (mg / cm^2)	Action level (ppm[iii])
HUD / EPA	24 CFR 35.86 & 40 CFR 745.103	1.0 mg / cm^2	5,000 ppm

L.A. County	Title 11, 11.28.010	0.7 mg / cm^2	600 ppm[iv]
OSHA / CAL OSHA	29 CFR 1926.62 & Title 8, 1532.1	*Not Specified*	600 ppm[v]

HUD / EPA have recently issued the following guidance regarding units of measurement for paint samples:

"Report lead paint amounts in mg/cm² because this unit of measurement does not depend on the number of layers of non-lead-based paint and can usually be obtained without damaging the painted surface. All measurements of lead in paint should be in mg/cm², unless the surface area cannot be measured or if all paint cannot be removed from the measured surface area. In such cases, concentrations may be reported in weight percent (%) or parts per million by weight (ppm)."[vi]

Furthermore, EPA has previously issued guidance on lead content classification as follows:

"… The rule, at 24 CFR 35.86 and 40 CFR 745.103 states that a lead-based paint free finding must demonstrate that the building is free of 'paint or other surface coatings that contain lead in excess of 1.0 milligrams per square centimeter *(1.0 mg / cm^2)* or 0.5 percent by weight *(5000 ppm).*' The State standards are not applicable, whether more or less stringent, since a State cannot amend Federal requirements."[vii]

In recognition of the various action levels the testing results are classified as follows for this report:

- Painted surfaces with readings at or above 0.7 mg / cm^2 are considered - Positive
- Painted surfaces with readings below 0.7 mg / cm^2 are considered - Negative

The individual readings have been provided on all field data sheets. Any future change in action levels by one of the regulating agencies may affect the classification of results.

For purposes of this survey, any material containing any detectable level of lead is subject to OSHA's Lead Exposure in Construction Rule (29 CFR Part 1926). Any work that disturbs these materials must be performed in accordance with these and any other applicable standards.

6.0 METHOD OF TESTING

Asbestos

All samples were collected using a clean knife, chisel or the appropriate tools. The sample location was first moistened with water in order to limit dust release. Each sample was extracted carefully so as not to disturb adjacent materials while still penetrating through all layers of the material sampled. Each sample was sealed in the appropriate sized plastic zip lock bag and the bag then labeled with a unique identification number. The sample number, description and location was then recorded on a log and plotted on a floor plan of the structure or area. Sampling tools were cleaned after collecting each sample. Any excess dust or debris from the sample location was cleaned using a moistened cloth. Whenever possible, samples were collected from previously damaged portions of the material in order to minimize damage to the material.

A total of seventy two (72) samples were submitted to LA Testing in South Pasadena, California. LA Testing is accredited under the NIST/NVLAP program for asbestos in bulk material by polarized light microscopy and the State of California for asbestos analysis.

The analyses of the samples in this report were performed using polarized light microscopy using the EPA method 600/R-93/116. The phase abundances provided are visually estimated and expressed as percent area. Total percentage of sample constituents may total greater than 100 due to trace amounts. The limit of detection for this analytical method is less than one percent. In multilayer samples, unless

otherwise specified, the asbestos concentration is reported for the layer where asbestos is found. These results lie within the statistical limits of variability calculated for standard reference samples routinely analyzed in the laboratory. On a per sample basis, the accuracy and precision of the results depend on the type of sample and its asbestos content.

Lead-Based Paint

Paint Testing: The method employed was X-ray fluorescence (XRF) using a Niton XLp 303A by Thermo Scientific, this unit uses a radioactive source of Cadmium 109. It was calibrated to NIST standard lead concentration samples prior to and after its use. Uncoated surfaces and other bare materials were not tested. The instrument was operated in "Quick Mode," where the duration for each test result is determined by a combination of:

- The actual reading relative to the designated action level;
- Age of the radioactive source;
- The substrate on which the test was taken.

The instrument's calibration was verified according to the manufacturer's specifications in compliance with the Performance Characteristic Sheet (PCS) developed for this instrument.

The readings from this instrument produce a 95% confidence level that the "lead" reading accurately reflects the actual level of lead in the tested surfaces, relative to the federal action level.

7.0 SUMMARY OF RESULTS

Asbestos

The following materials were found to contain asbestos and are considered ACM:

Material Description	Material Locations	Condition	Asbestos Percentage	Estimated Quantity*
Joint Compound White	Throughout	Good	<1% Chrysotile	17,290
12" Gray VCT and Black Mastic	RM 10	Good	3-8% Chrysotile	420
12" Tan VCT and Black Mastic	RM 10	Good	2-5% Chrysotile	1720
12" Tan Speckled VCT and Black Mastic	Stairwell	Good	5-7% Chrysotile	110
12" White VCT and Black & Yellow Mastic	Janitors Closet	Good	3-4% Chrysotile	150
Roofing Materials	Roof	Good	Presumed	11,000

* These quantities are only approximations. The exact quantities should be measured by the abatement contractor during the bidding process.

ACM floor tiles may be present beneath carpeted areas of the floor. Unless further sampling analysis is conducted, all of the drywall/joint compound must be treated as an Asbestos Containing Construction Material (ACCM).

Samples that were found to contain less than one percent (<1%) asbestos by PLM analysis should be further analyzed using the 1000 point count method. This analysis method has a lower detection limit and may if performed yield results lower than the regulatory levels of Cal-OSHA.

All other suspect materials sampled during this assessment tested negative for asbestos.

Lead-Based Paint

Paint Sampling: Throughout the subject property, several of the painted components indicated the presence of lead-based paint (LBP) at or above the action level. The following summary lists the specific components that tested above the action level and their respective locations:

- All Restrooms, Ceramic Wall Tile – 10.3 – 12.3 mg / cm^2
- Room 31, Ceramic Wall Tile – 11.5 mg / cm^2

Sampling for this inspection was representative and any components that were not tested but similar to those components that tested positive for LBP should be considered and treated as lead laden.

8.0 RECOMMENDATIONS

Given the clients anticipated renovation of the subject property buildings, Andersen Environmental recommends the following:

Asbestos

Samples that were found to contain less than one percent (<1%) asbestos by PLM analysis should be further analyzed using the 1000 point count method. This analysis method has a lower detection limit and may if performed yield results lower than the regulatory levels of Cal-OSHA.

If materials found to contain asbestos and/or presumed to contain asbestos are going to be disturbed or removed; by law, they must first be abated and properly disposed of by a licensed and Cal/OSHA registered asbestos abatement contractor prior to any renovation or demolition activities.

In as such that no destructive investigation has been performed during the survey, the report may not reveal concealed asbestos-containing materials. Subsequently, additional investigation including construction documents review and/or destructive investigation is recommended as a precaution to prevent accidental exposure when construction or demolition is planned for this facility. Any suspect materials that are uncovered during construction activities; that were not sampled during this assessment, should be considered asbestos containing, unless sampled to prove otherwise.

It is highly recommended that abatement monitoring be performed by the asbestos consultant (Andersen Environmental) if asbestos abatement is to be performed while non-abatement persons (employees, tenants, other building occupants, or general public) are present in adjacent areas. Abatement monitoring included the collection of air samples in adjacent areas to demonstrate that asbestos fibers are not

migrating out of the regulated areas. In addition to air sampling, the monitoring includes oversight of the abatement contractor to ensure that the work is being conducted in compliance with all applicable regulations and in accordance with the scope of work and abatement specifications. Such abatement monitoring serves to limit the legal liabilities of the building owner.

Lead-Based Paint

Numerous surfaces within the interior of the subject property were determined to contain lead concentrations above the regulated amount. LBP was found to be intact (good condition).

LBP components in good condition may remain in place subsequent to renovation/demolition or they may be removed intact by lead trained personnel in accordance with all applicable federal, state and local regulations.

Should the contractor choose not to remove the lead-based paint materials and remove the materials in their entirety with the lead-paint components in place, it is recommended that samples representative of the entire mass of the prospective waste stream be collected by the contractor. These samples should then be analyzed according to the CAL EPA protocols for waste characterization as follows:

To characterize all waste streams, the following should be performed:

- Collect a representative sample of the waste material.
- For a pile of waste take one sample of a proportionate combination of Component in the pile. If a large quantity of waste is generated no less than four samples may be required.

Analysis for the waste characterization samples shall be performed as follows:

- Waste generated by chemical stripping shall, in addition to the requirements for determining the solid and soluble lead concentrations, shall be tested for corrosiveness and other contaminants, as applicable, resulting from the chemical stripping process.

- Analyze samples for Total Threshold Limit Concentration (TTLC)
  - If results are less than 50 mg/kg, the waste is not hazardous and shall be disposed as general construction waste.
  - If sample results are between 50 and 1,000 mg/kg the waste shall be tested for Soluble Threshold Limit Concentration (STLC).
  - If the sample results are above 1,000 mg/kg the waste is considered California Regulated Hazardous Waste, and no further testing is needed.

Where waste is required to be tested for STLC, the following shall apply:

- If the STLC results are less than 5 mg/L and had a TTLC of less than 350 mg/kg, the material shall be disposed at a Class II waste landfill. Evidence of such results of the STLC testing will be required by the landfill before waste is accepted. No further testing is required.
- If the STLC results are 5 mg/L or greater, or had a TTLC between 350 mg/kg and 1,000 mg/kg, the waste is a California regulated waste and the material shall be tested using the federally mandated Toxicity Characterization Leaching
  Procedure (TCLP)

Where waste is required to be tested by TCLP the following shall apply:

- If the TCLP is less than 5 mg/L, the waste is California regulated hazardous solid waste (non-RCRA). This material shall be disposed in a Class I hazardous waste landfill.
- If the TCLP is equal to or greater than 5 mg/L, the waste is a federally regulated hazardous waste solid (RCRA). The waste will then require treatment before being disposed in a Class I hazardous waste landfill.

9.0 HAZARDOUS WASTE HANDLING & DISPOSAL

Andersen Environmental recommends that the client utilize a hazardous materials disposal company that meets the following criteria:

- The company is certified for the removal of asbestos and/or lead.
- The company has an approved transportation license to transport the generated hazardous waste.
- The company provides certification showing proper disposal of fluorescent tubes and lamps waste
- Employees handling the change out of spent tubes, thermostats and PCB-containing light ballast should be familiar with hazard communication laws

10.0 INSPECTION LIMITATIONS

This Assessment was planned, developed, and implemented based on Andersen Environmental previous experience in performing asbestos and lead-based paint assessments. This inspection was patterned after Chapter 7 of the *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision)* and NESHAPS; 40 CFR 61 Subpart M. Andersen Environmental utilized state-of-the-art-practices and techniques in accordance with regulatory standards while performing this assessment. Andersen Environmental evaluation of the relative risk of exposure to lead identified during this inspection/risk assessment is based on conditions observed at the time of the inspection. Andersen Environmental cannot be responsible for changing conditions that may alter the relative exposure risk or for future changes in accepted methodology. Andersen Environmental uses only qualified personnel to perform building surveys. Reasonable effort was made to survey accessible suspect materials. Additional suspect materials may be located between walls, in voids, or in other inaccessible areas; caution should be exercised regarding these areas.

Andersen Environmental cannot warrant that these buildings do not contain LBP or ACM in locations other than those identified in this report.

Enclosed are the diagram(s), actual test results, and all relevant certifications and licenses.

Survey and Report by:

Benjamin Curry
DOSH Certified Asbestos Consultant No. 09-4549
CDPH Certified Lead Inspector/Assessor/Supervisor No. 20747

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[i] 1997 Revision
[ii] 1997 Revision
[iii] Parts per million
[iv] Applies to sale and application of LBP.
[v] Applies to construction related activities
[vi] Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision).
[vii] Office of Pollution Prevention and Toxics, (August 20, 1996)

Appendix F

Seismic Structural Report

ATKINS

SEISMIC/STRUCTURAL CONDITION ASSESSMENT OF MANHATTAN BEACH CITY HALL 1400 Highland Avenue Manhattan Beach, CA 90266

I. INTRODUCTION

This report summarizes the results of a seismic/structural condition assessment of the existing City Hall Building located at the above referenced address. The review was conducted in accordance with the structural life safety requirements of the current California Building Code (2010 edition), other relevant engineering standards such as the FEMA guidelines, and the prevalent structural engineering practice. The purpose of the seismic/structural condition assessment is to determine the subject building's general structural conditions, adequacy with respect to its occupancy and use, remaining serviceable life expectancy, needs for near term capital repairs/replacements/upgrades, and recommended time frame for capital improvement work.

The findings and recommendations of this report are based on an on-site observation conducted on May 22, 2013 and a review of the following documents:

- Record architectural construction drawings for City Hall by Heitschmidt Mounce Associates, dated 11/12/1973.
- Record structural construction drawings for City Hall by Brandow and Johnston Associates, dated 11/12/1973.
- Record architectural construction drawings for Garage Conversion and First Floor Rearrangements by Richard T. Stone, AISA Architect, Inc., dated 1/18/1994.
- Record architectural construction drawings for ADA Improvements by GTS Associates, Inc., dated 10/13/1994.

The structural systems and elements of the building were determined based on a review of the aforementioned available architectural and structural drawings and data collected during the on-site visual observation. Structural analysis based on the current building code's structural life safety requirements was conducted to establish a baseline structural asset model to support the assessment of the existing structure's load resisting adequacy, serviceable life expectancy, and needs for near term capital repairs/replacements/upgrades. The data and findings from the field observation and desktop analysis were evaluated to develop the engineer's opinions and recommendations for future capital improvements and time frames.

II. DESCRIPTION OF EXISTING BUILDING STRUCTURES

Designed in 1973, presumably based on the 1972 Uniform Building Code, the City Hall Building consists of two two-story (basement level and first floor level) wings linked by a central stair well (Fig. 1). The primary structural construction materials are reinforced concrete, structural steel, and masonry. When the building was first completed, parking was provided by the at-grade parking lot to the east of the building. The parking lot was later converted into a subterranean parking garage, and the basement level of the City Hall was linked to the garage structure.

The South Wing is a 105'-0" long (north-south direction) by 88'-10" wide (east-west direction) by 30'-0" tall 2-story structure. Similarly, the North Wing is a 59'-8" by 59'-8" by 30'-0" tall 2-story structure, with the finish floor elevations aligned with those of the South Wing. The structural construction of the two wings is identical. The roofs consist of 1-5/16" 20 GA metal decks filled with 2-1/4" of insulating light

weight concrete, supported by structural steel beams and columns (Fig. 2). The exterior walls of the South Wing are typically 8" clay masonry bearing walls. The four sides of the North Wing roof are enclosed with mansards constructed of structural steel trusses (Fig. 3) supported by 8" reinforced concrete walls to provide screening of the rooftop mechanical equipment (Fig. 4).

The first floors are constructed of reinforced concrete joist slabs supported by reinforced concrete girders and columns (Fig. 1). A 4-1/4" normal weight concrete fill lays over the structural slab. 15" thick by 5' long concrete buttress walls are present on the east and west facades to function as brise soleil and provide lateral load resistance. The exterior perimeter walls are reinforced concrete walls, some of which are partial subterranean and function as basement retaining walls.

The basement level consists of concrete slabs on grade (Fig. 5) over spread footings and continuous wall footings. Since the site topography slopes down from east to west, the western side of the basement level is accessible to pedestrians from the street level via the central stair well.

Lateral forces from wind and earthquake are collected by the concrete filled metal deck roof diaphragms and the reinforced concrete slab first floor diaphragms, and distributed to the concrete and masonry shear walls around the building perimeter.

III. EXISTING STRUCTURAL CONDITIONS

No major distress or damages to the structural and non-structural components of the building were visible during the on-site observation. Minor cracking was noted in the concrete buttress walls (Fig. 6) and in the stem wall (Fig. 7) adjacent to the basement level entrance on the west side of the building. Such cracking is probably the result of past building movement due to seismic motions and thermal expansion and shrinkage. Judging by the limited extent of the cracking, the effect on the structural/seismic life safety is negligible.

Minor cracking was also noted during the on-site observation in the first level slab on grade at the side exit (Fig. 8). The extent of the cracking is very minor and poses no structural life safety concerns. Efflorescence and mortar joint deterioration were observed in the southern perimeter clay masonry walls (Fig. 9). Such damage is likely the result of exposure to water from the landscape sprinklers and is non-structural in nature and won't affect the fundamental structural characteristics of the building.

Compared with buildings of similar vintage and type of construction, the overall condition of the City Hall Building appears to be good and well maintained. There is no obvious outstanding structural issue that requires immediate mitigation.

Although not part of the City Hall Building, the adjacent subterranean parking garage was also inspected during the on-site observation. Extensive water intrusion damage was noted in the street level structural slabs over the garage (Fig. 10). Based on the field observation, the primary source of the water appears to be the planters supported by the slabs. Such exposure to water can potentially deteriorate the reinforcing steel bars in the concrete and cause long term structural performance and safety concerns. At the time of the observation, cracking in the parking slabs (Fig. 11) and in the garage entrance retaining walls (Fig. 12) was noted.

The overall structural condition of the garage is moderately poor. The problems associated with the water intrusion and retaining wall cracking should be mitigated as part of the City's short term (1-3 years) capital improvements.

IV. EXPECTED STRUCTURAL PERFORMANCE AND RISK

Structurally, the existing City Hall Building is expected to perform reasonably well against the day to day occupancy loads within a time frame of 10 years in the short term and 50 years in the long term. The building's risk exposure to earthquake is less predictable due to the uncertainties in predicting future seismic motion intensities. Based on modern seismic risk and hazard evaluation methodologies, we would estimate the City Hall's potential structural damage due to future severe seismic activities to be approximately 14% of its structural replacement dollar value.

V. ESTIMATED COST FOR REPAIR AND UPGRADE

Currently, there are no outstanding structural issues within the City Hall Building that require immediate repair or mitigation. The minor cracking in the concrete walls and slabs noted in the present structural inventory poses no immediate concerns about the building's structural performance or safety, and can be repaired with patching with cement based mortar or epoxy materials. Depending on the City's capital improvement budgets, such minor repair can be included in the City's mid-term (4-6 years) or short term (1-3 years) capital improvement programs. The estimated cost for such repair is summarized in the following table:

Item	Unit Cost	Quantity	Estimate Cost
Crack Repair in Concrete Wall	$30	200 feet	$6,000
Crack Repair in Slab	$20	10 feet	$200
Masonry Wall Efflorescence & Joints	$25	600 s.f.	$1,500

Although not part of the City Hall Building, the adjacent subterranean parking garage needs to have the water intrusion in the slabs and cracking in the slabs and retaining walls addressed within the short term (1-3 years) time frame. The estimated cost for such repair is summarized in the following table:

Item	Unit Cost	Quantity	Estimate Cost
Slab Water Intrusion	$15	7,000 s.f.	$105,000
Slab Crack Repair	$30	150 feet	$4,500
Retaining Wall Crack Repair	$30	300 feet	$9,000

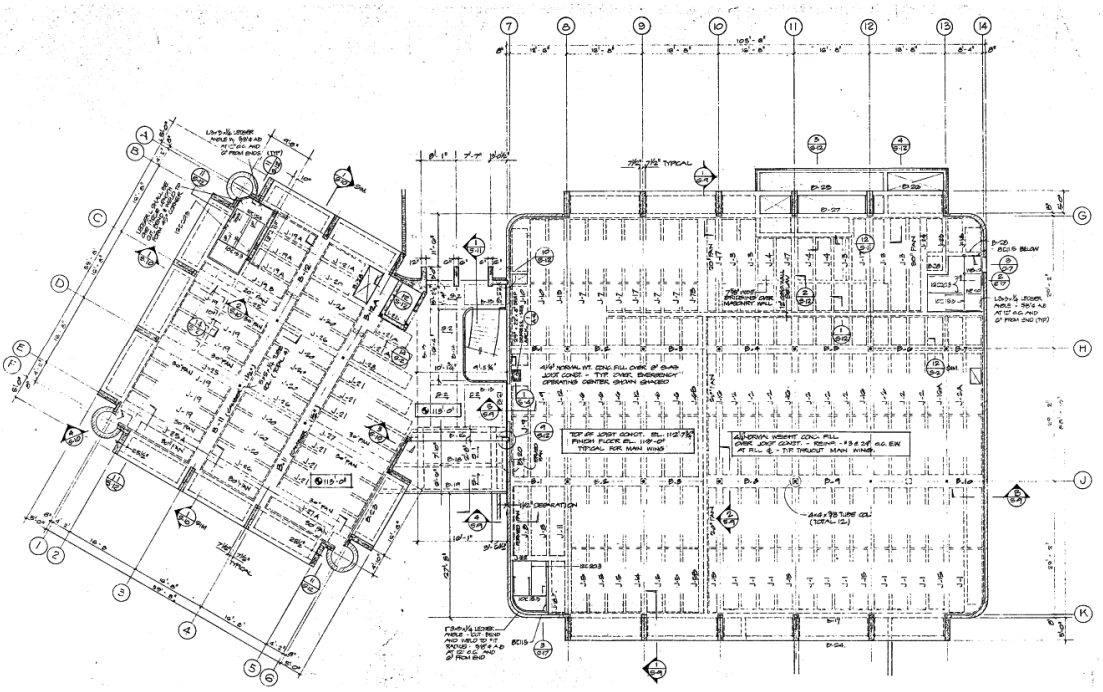

Figure 1: Building Structural Plan (First Floor)

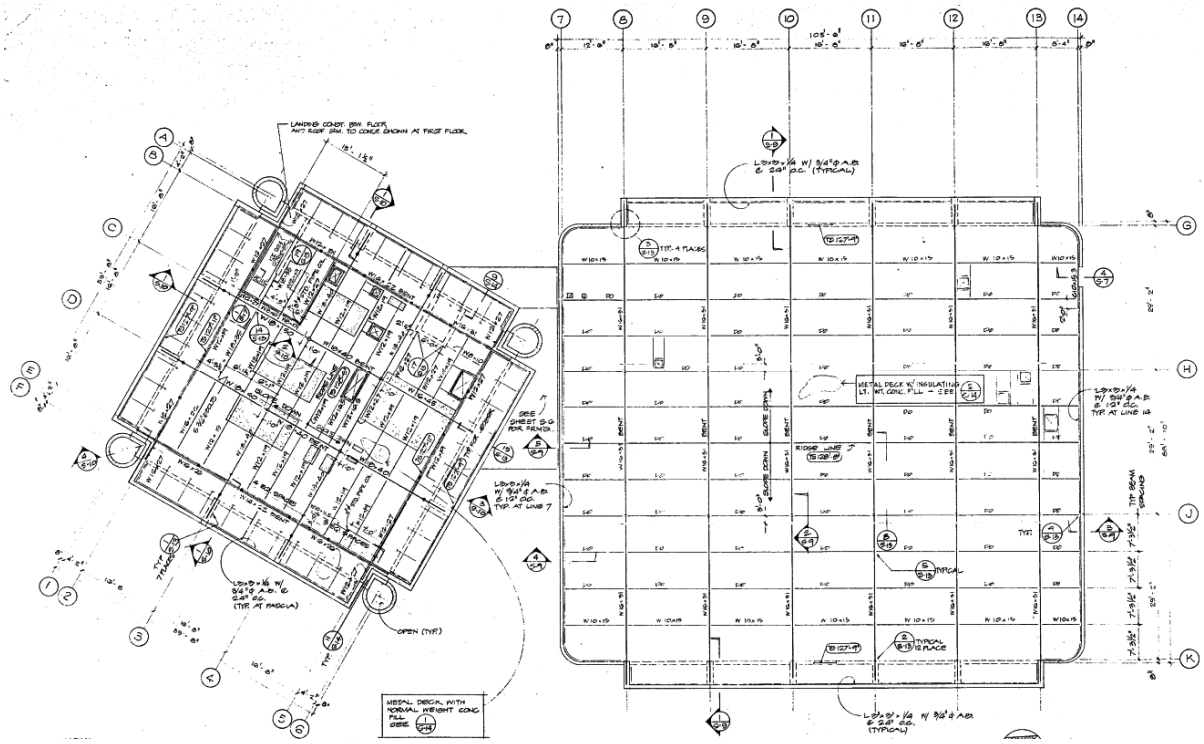

Figure 2: Roof Framing Plan

Figure 3: Roof Mansard

Figure 4: Rooftop Equipment

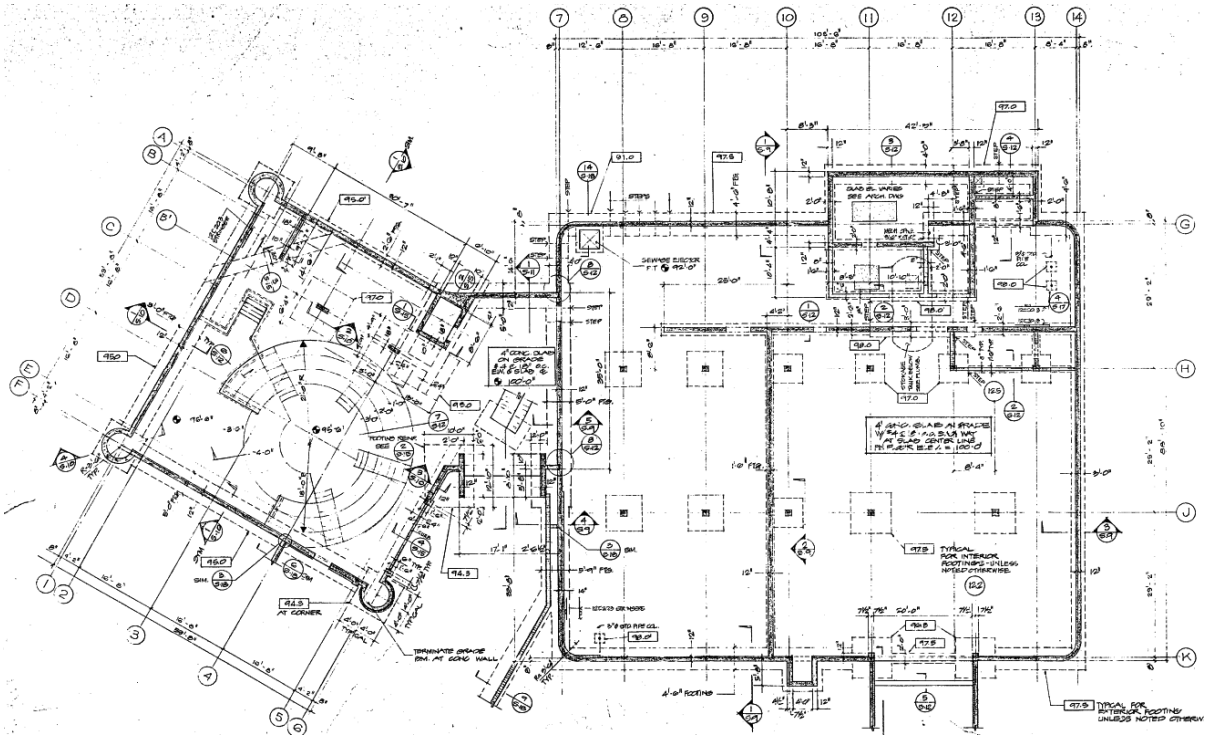

Figure 5: Basement Level Structural Plan

Figure 6: Concrete Cracking in Buttress Walls

Figure 7: Concrete Cracking in Entrance Stem Wall

Figure 8: Cracked Slab on Grade

Figure 9: Effloresence

Figure 10: Water Intrusion Damage in Adjacent Garage

Figure 11: Garage Slab Cracking

Figure 12: Cracking in Garage Retaining Wall

Appendix G
Glossary of Terms

Acronyms & Glossary of Terms

CMU	Concrete Masonry Unit
BUR	Built-Up Roof
EIFS	Exterior Insulation and Finish System
EPDM	Ethylene Propylene Diene Monomer
SC	Solid Core Doors
HM	Hollow Metal Doors
MH	Man Holes
ABC	Aggregate Base Course
EMT	Electrical Metallic Conduit
EUL	Estimated Useful Life
RUL	Recommended Useful Life
EOL	End of Life
FCI	Facility Condition Index
CRV	Current Replacement Value
DM	Deferred Maintenance
SF	Square Foot
SY	Square Yards
PSF	Pounds-Per-Square-Foot
PSI	Pounds-Per-Square-Inch
NFPA	National Fire Protection Association
FACP	Fire Alarm Control Panel
NAC	Notification Appliance Circuit
FCC	Fire Command Center
HVAC	Heating Ventilating and Air conditioning
VAV	Variable Air Volume
AHU	Main Air Handling Units
HP	Horse Power
FSS	Fuel Supply System
MDP	Main Distribution Panel
SES	Service Entrance Switchboard's
NEMA	National Electrical Manufactures Association
HID	Intensity Discharge
EMT	Electrical Metallic Tubing
KVA	kilovolt-ampere
RO	Reverse Osmosis
BTU/HR	British Thermal Units per Hour
kW	Kilowatt
FPM	Feet per Minute (Elevator Speed)
Amp	Amperage

Acronyms & Glossary of Terms

BTU – British Thermal Unit; the energy required to raise the temperature of one pound of water by one degree.

Building Envelope - The enclosure of the building that protects the building's interior from the outside elements, namely the exterior walls, roof and soffit areas.

Building Systems – Interacting or independent components or assemblies, which from single integrated units, that comprise a building and its site work, such as, pavement and flatwork, structural frame, roofing, exterior walls, plumbing, HVAC, electrical, etc.

Caulking – Soft, putty-like material used to fill joints, seams, and cracks.

Codes – See building codes.

Component – A fully functional portion of a building system, piece of equipment, or building element.

Deferred Maintenance – Physical deficiencies that cannot be remedied with routine maintenance, normal operating maintenance, etc., excluding de minimis conditions that generally do not present a material physical deficiency to the subject property.

Expected Useful Life (EUL) – The average amount of time in years that an item, component or system is estimated to function when installed new and assuming routine maintenance is practiced.

Facility – All or any portion of buildings, structures, site improvements, complexes, equipment, roads, walks, passageways, parking lots, or other real or personal property located on site.

Flashing – A thin, impervious sheet of material placed in construction to prevent water penetration or to direct the flow of water. Flashing is used especially at roof hips and valleys, roof penetrations, joints between a roof and a vertical wall, and in masonry walls to direct the flow of water and moisture.

Remaining Useful Life (RUL) – A subjective estimate based upon observations, or average estimates of similar items, components, or systems, or a combination thereof, of a number of remaining years that an item, component, or system is established to be able to function in accordance with its intended purpose before warranting replacement. Such period of time is affected by the initial quality of an item, component, or system, the quality of the initial installation, the quality and amount of preventative maintenance exercised, climatic conditions, extent of use, etc.

Thermal Resistance (R) – A unit used to measure a material's resistance to heat transfer. The formula for thermal resistance is: R = Thickness(in inches)/K

Structural Frame – The components or building systems that support the building's nonvariable forces or weights (dead loads) and variable forces or weights (live loads).

Warranty – Legally enforceable assurance of quality or performance of a product or work, or of the duration of satisfactory performance. Warranty guarantee and guaranty are substantially identical in meaning; nevertheless, confusion frequently arises from supposed distinctions attributed to guarantee (or guaranty) being exclusively indicative of duration of satisfactory performance or of a legally enforceable assurance furnished by a manufacturer or other third party. The uniform commercial code provisions on sales (effective in all states except Louisiana) use warranty but recognize the continuation of the use of guarantee and guaranty.