

Citywide  
Facility Condition Assessment

Report of  
Facility Condition Assessment

For  
City of Manhattan Beach  
City Hall Annex  
421 15th Street, Manhattan Beach, CA



*August 23, 2013  
(Rev A)*

Provided By:

**Faithful+Gould, Inc.**

Provided For:



## TABLE OF CONTENTS

<u>SECTION 1 - EXECUTIVE SUMMARY</u>	<u>2</u>
<u>SECTION 2 - A SUBSTRUCTURE</u>	<u>17</u>
<u>SECTION 3 - B SHELL</u>	<u>18</u>
<u>SECTION 4 - C INTERIORS</u>	<u>26</u>
<u>SECTION 5 - D SERVICES</u>	<u>31</u>
<u>SECTION 6 - E EQUIPMENT &amp; FURNISHINGS</u>	<u>43</u>
<u>SECTION 7 - G BUILDING SITEWORK</u>	<u>44</u>

## APPENDICES

<u>APPENDIX A 10-YEAR EXPENDITURE FORECASTS</u>
<u>APPENDIX B FACILITY PHOTOGRAPHS</u>
<u>APPENDIX C ASSET INVENTORY</u>
<u>APPENDIX D DOCUMENT REVIEW AND WARRANTY INFORMATION</u>
<u>APPENDIX E ENVIRONMENTAL REPORT: ASBESTOS &amp; LEAD-BASED PAINT</u>
<u>APPENDIX F GLOSSARY OF TERMS</u>

## SECTION 1 - EXECUTIVE SUMMARY

### 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 Annex building located at 421 15th Street, 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 through EX-2 provides 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

<b>BUILDING NAME:</b>	City Hall Annex	<b>LAT/LONG:</b>	33° 88' 82"N / -118° 40' 97"W
<b>ADDRESS:</b>	421 15th Street Manhattan Beach, CA 90266	<b>OCCUPANCY STATUS:</b> OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>	
<b>HISTORIC DISTRICT:</b>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	<b>HISTORIC BUILDING:</b>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
<b>GROSS SQUARE FOOTAGE OF BUILDING:</b>	4,394	<b>GROSS SQUARE FOOTAGE OF LAND:</b>	25,400 (estimated)
<b>CURRENT REPLACEMENT VALUE:</b>	\$1,537,900	<b>YEAR OF CONSTRUCTION:</b>	1970
		<b>BUILDING EUL:</b>	60 Years
		<b>BUILDING RUL:</b>	17 Years
<b>BUILDING USE:</b>	Administration	<b>NUMBER OF STORIES:</b>	1

**BUILDING DESCRIPTION**

The City Hall Annex, also known as the Civic Center Annex, consists of the United States Post Office, Civic Center Station, the Manhattan Beach Chamber of Commerce and Dial a Ride offices, is located at the cross roads southwest corner of 15th Street and North Valley Drive and was constructed in circa 1970.

The building has a wood joist roof construction which is supported via concrete masonry units and wood framed walls which are encapsulated with cementitious stucco or stone veneer. The low-sloped roof contained a BUR roof covering. The floor consisted of a cast-in-place reinforced slab-on-grade concrete slab. Windows consisted of wood framed single pane units and doors consisted of storefront entrance doors and steel service doors.

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

The heating and cooling for the building is provided via three outdoor packaged heat pump units. Each unit is controlled via individual thermostats. Conditioned air is distributed throughout the building via metal ductwork. Hot water is provided by a domestic water heater with a capacity of 30 US gallons. The Main Distribution Panel is a Murray unit that is rated at 120/240 volts at 600-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 does not contain a wet-pipe sprinkler system, fire alarm system, intruder security alarm or emergency generator.



**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*
12" Brown VCT and Black Mastic	Annex Mail Box	Good	5-7% Chrysotile	2,050
Acoustic Ceiling Spray	Throughout	Good	6% Chrysotile	4,400
4" Brown Cove Base Mastic	Annex	Good	3% Chrysotile	1,400
12" Gray VCT and Black Mastic	Post Office	Good	6% Chrysotile	1,550
Roofing Materials	Roof	Good	Presumed	5,250

\* 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:

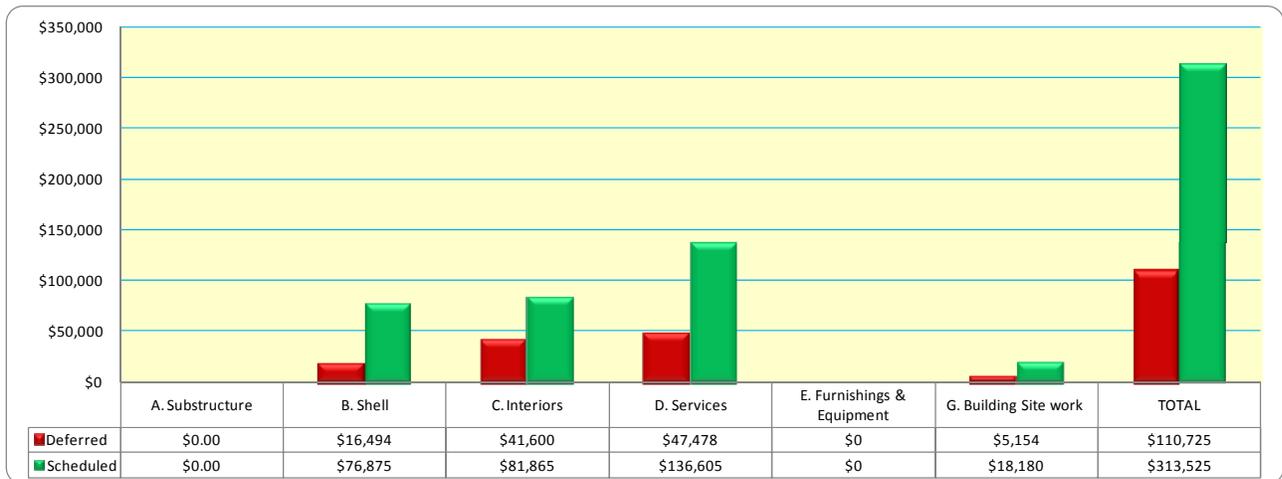
- Mailbox Lobby Ceramic Wall Tile – 9.6 mg/cm2

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.

**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 circa \$424,250.

**Chart EX-1 Building Expenditure Summary <sup>1 & 2</sup>**



**KEY FINDINGS**

- + B Shell: Repaint exterior wall surfaces at an estimated cost of \$6,338 in years 2015 and 2019
- + B Shell: Replace exterior sealants at an estimated cost of \$4,200 in year 2018
- + C Interiors: Repaint interior wall surfaces (general areas) at an estimated cost of \$21,125 in years 2013, 2017 and 2021
- + C Interiors: Repaint interior wall surfaces (Post Office) at an estimated cost of \$11,700 in years 2013, 2017 and 2021
- + C Interiors: Replace carpeting at an estimated cost of \$8,775 in year 2013
- + D Services: Install fire suppression system at an estimated cost of \$65,000 in year 2014
- + D Services: Install fire alarm system at an estimated cost of \$30,000
- + D Services: Install security alarm system at an estimated cost of \$15,379

<sup>1</sup> All costs presented in present day values

<sup>2</sup> Costs represent total anticipated values over the 10 year study period

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 <sup>1 & 2</sup>



<sup>1</sup> All costs presented in present day values

<sup>2</sup> Costs represent total anticipated values over the 10 year study period

This chart highlights expenditure for the building within years 2013, 2014 and 2020 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 impending issues the building will face.

Year 2013

-  Repaint interior wall and ceiling surfaces
-  Replacement of sheet carpet floor covering
-  Installation of fire alarm system
-  Installation of security system

Year 2014

-  Repaint exterior surfaces
-  Installation of fire suppression system
-  Installation of fire alarm system

Year 2020

-  Replacement of window units



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 FAIR 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) <small>1 &amp; 2</small>	FCI Ratio	Property Condition Rating
City Hall Annex	Current FCI Ratio	4,394	\$350	\$ 1,537,900	\$110,725	7.2%	FAIR
City Hall Annex	Year 10 FCI Ratio	4,394	\$350	\$ 1,537,900	\$424,250	27.6%	POOR

<sup>1</sup> All costs presented in present day values

<sup>2</sup> 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 FAIR condition rating (above 5% / below 10%) at the start and during the study period, however returns to a GOOD condition rating for the majority of the study period.

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

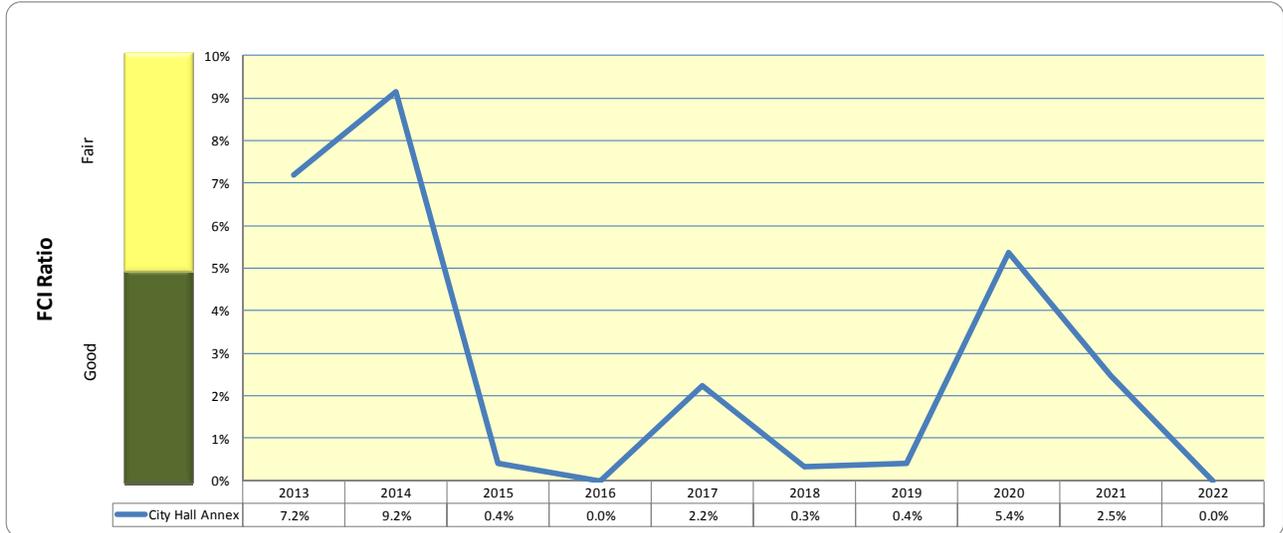
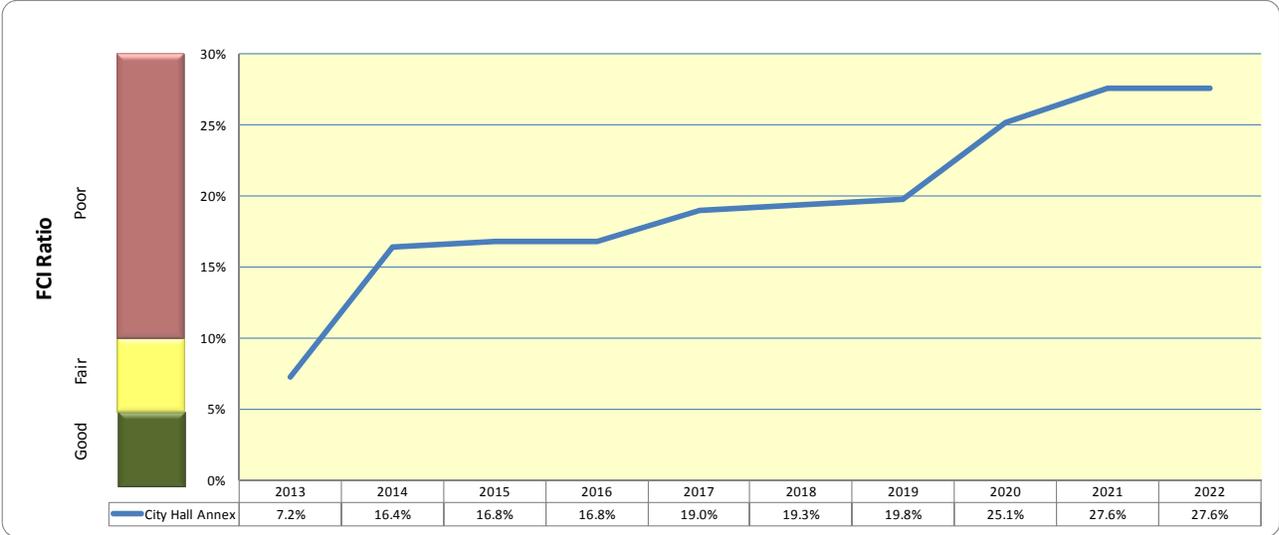


Chart EX-4 indicates the cumulative effects of the FCI ratio over the study period assuming the required funds and expenditures are **NOT** provided to address the identified works and deferred maintenance each year. The results of the study indicate at this current time the building is maintained with a facility condition index rating within the FAIR condition; however it quickly falls into the POOR condition rating early in the study period, where it remains.

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:

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

Chart EX-5 illustrates the breakdown of expenditure according to 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 maintain the integrity of the building and asset.

Chart EX-6 Year by Year Cumulative Prioritization of Work



Chart EX-6 illustrates that there are two key years for Priority 1 and 3, these being in years 2013 and 2014, and 2014 and 2020.

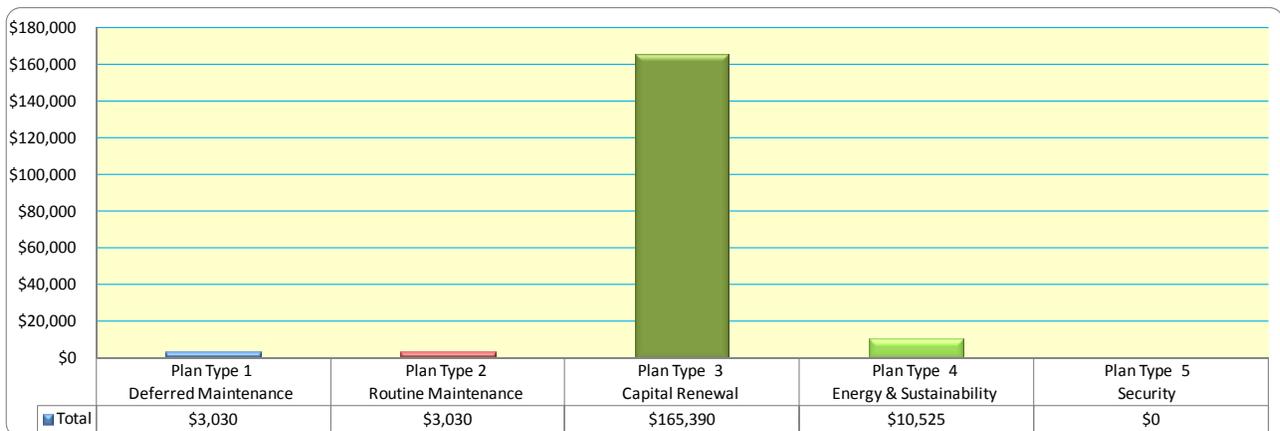
**PLAN TYPES**

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:

<b>Plan Type 1</b> <b>Deferred Maintenance</b>	<ul style="list-style-type: none"> <li>•Maintenance that was not performed when it was scheduled or past its useful life resulting in immediate repair or replacement</li> </ul>
<b>Plan Type 2</b> <b>Routine Maintenance</b>	<ul style="list-style-type: none"> <li>•Maintenance that is planned and performed on a routine basis to maintain and preserve the condition</li> </ul>
<b>Plan Type 3</b> <b>Capital Renewal</b>	<ul style="list-style-type: none"> <li>•Planned replacement of building systems that have reached the end of their useful life</li> </ul>
<b>Plan Type 4</b> <b>Energy &amp; Sustainability</b>	<ul style="list-style-type: none"> <li>•When the repair or replace of equipment or systems are recommended to improve energy and sustainability performance.</li> </ul>
<b>Plan Type 5</b> <b>Security</b>	<ul style="list-style-type: none"> <li>•When a system requires replacement due to a security risk or requirement</li> </ul>

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 – Capital Renewal appears to require the most expenditure in this study.

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



Chart EX-8 illustrates that there is expenditure needed for three Plan Types during the study period, within Plan Type 3 requiring 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. There were no structural drawings available to review.

#### A1010 STANDARD FOUNDATIONS

##### A1011 Wall Foundations

The exterior walls are supported by reinforced concrete spread footings. We are unaware of the designed compressive strength of the concrete.

#### A1030 SLABS-ON-GRADE

##### A1031 Standard Slab on Grade

The first floor level of the building consisted of cast-in-place concrete slab-on-grade, reinforced with welded wire fabric. We assume that the floor slabs are 4" thick over an aggregate base. The slabs are assumed to contain a thickened edge at their perimeter. We are unaware of the designed compressive strength of the concrete.

#### CONDITION

#### A1010 STANDARD FOUNDATIONS

##### A1011 Wall Foundations

The floor structure appeared to be in good condition therefore we assume that the masonry supports are also in good condition. We do not anticipate that any actions will be generated during the study period.

#### A1030 SLABS-ON-GRADE

##### A1031 Standard Slab on Grade

The cast-in-place concrete slab at the building appeared to be in good condition. We do not anticipate any expenditure during the cost study period, which relates to its replacement.

#### PROJECTED EXPENDITURES

No projected expenditures are identified for A Substructure during the study period.

## 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. There were no drawings available to review.

### B1020 ROOF CONSTRUCTION

#### B1021 Flat Roof Construction

The low-sloped roof sections consist of 6" x 12" wood beams and 2" x 12" wood joists which are also supported via the perimeter and interior load bearing walls and in turn support the plywood deck and roof covering. The wood beams and joists at roof level generally span north to south and the beams are spaced at 10'-0" and the wood joists are spaced at 16" centers. The roof covering can be viewed in the roof covering section of this report.

#### B1023 Canopies

The canopy enclosing the dumpster at the southwest corner of the building is constructed of wood framing with a wood joist framed roof with plywood framing (reference Photographs 3 and 4 in Appendix B).

### B1030 STRUCTURAL FRAME

#### B1033 Wood Frame Structure

The building has a wood frame construction consisting of wood stud walls and wood joists.

#### 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.



B1023 Canopies

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

**B1030 STRUCTURAL FRAME**

B1033 Wood Frame Structure

The wood framed structure appeared to be in fair to good condition, but there is a reported issue of termites that should be investigated further. We do not anticipate the replacement of the wood structural elements during the cost study period.

## 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. There were no drawings available to review.

## B2010 EXTERIOR WALLS

### B2011 Exterior Wall Construction

The building is predominantly enclosed with painted cementitious stucco and wood trim (reference Photographs 1 through 3 and 5 in Appendix B). Portions of the front elevation are accented with stone veneer. The stucco and wood trim contained a painted finish.

## B2020 EXTERIOR WINDOWS

### B2021 Windows

All windows at the building are single glazed units. The windows consist of fixed and hopper type wood framed units and aluminum framed sliding windows (reference Photographs 6 and 7 in Appendix B).

### B2022 Curtain Walls

A portion of the Chamber of Commerce section of the building along the west elevation was comprised of a glazed wood framed curtain walling system (reference Photograph 5 in Appendix B).

## B2030 EXTERIOR DOORS

### B2031 Glazed Doors & Entrances

The building contained main entrances at the north and south elevations with each entrance containing two automatic single glazed framed brown anodized aluminum entrance doors (reference Photograph 8 in Appendix B).

### 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 (reference Photograph 9 in Appendix B). Door hardware consisted of a knob or level handles.

## CONDITION

### B2010 EXTERIOR WALLS

#### B2011 Exterior Wall Construction

The exterior wall systems at the building appeared to be in poor to fair condition with generally no major signs of deterioration, water ingress or general failure noted. We understand that there is rodent intrusion in wall breaches, and repair of these access points is needed. Further, to the south side of the structure there is reported rot and termite damage extending into the structure, which should also be addressed.

Based on an EUL of 4 years for exterior paint at this building, 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 stone veneer along the west elevation appeared to be in fair to good condition. There were signs of deterioration present. Stone veneer has a typical EUL of 75-years; therefore we do not anticipate the replacement of the stone veneer during the cost study period.

### B2020 EXTERIOR WINDOWS

#### B2021 Windows

The exterior window units appeared to be in fair condition, they are single pane and even though they are aged, there were no major deficiencies observed in the windows. However they are approaching the end of their useful life and some of the screens are inoperable, and we have recommended their mid-term replacement to operable insulated units for energy efficiency and improve thermal resistance.

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

#### B2022 Curtain Walls

The curtain walling system appeared to be in fair condition. However they are approaching the end of their useful life and we have recommended their mid-term replacement to operable insulated units for energy efficiency and improve thermal resistance. Replacement costs have been included with the window replacement recommended above.

### B2030 EXTERIOR DOORS

#### B2031 Glazed Doors & Entrances

The exterior doors appeared to be in good condition. The doors are approximately ten-years of age and therefore replacement will not be required during the study period. We understand that there are safety issues with the automatic entrance doors and should be replaced early in the study period.



B2039 Other Doors & Entrances

The metal doors 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. However the west door with the Post Office is in poor condition and should be replaced. 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 two low-sloped roof areas; these roof areas are shown on the following aerial plan:

**Overview of Roof Locations & Configurations**



The two low-sloped roof areas contained asphaltic Built-Up Roof (BUR) with a mineral cap sheet surface with loose granules applied to the surface (reference Photographs 10 through 12 in Appendix B). The roof coverings are approximately five-years of age. Roof drainage gutters and downspouts are provided at the rear service door and above the two main entrances. The remaining roof areas drain via edge drainage along the perimeter of the roof. Table B30-1 provides a summary of the roof coverings:

**Table B30-1 Summary of Roof Covering**

Roof Component	Roof 1	Roof 2
Age	Circa 2007	Circa 2007
Roof Area (total / approx. square footage)	4,169	225
Application/ Membrane	BUR	BUR
Manufacturer / Model	Unknown	Unknown
Surface	Mineral Surface Cap Sheet and Loose Granules	Mineral Surface Cap Sheet and Loose Granules
Deck Type	Plywood	Plywood
Insulation	Unknown	Unknown
Cover Board	Unknown	Unknown
Drainage	Perimeter Drainage and 3" Gutters and Downspouts	Perimeter Drainage
Overflow Scuppers	None	None
Base Flashings	Aluminum	Aluminum
Cap Flashings	None	None
Perimeter Enclosure	None	None
Warranty (Manufacturer)	Unknown	Unknown
Warranty (Contractor)	Unknown	Unknown

**CONDITION**

**B3010 ROOF COVERINGS**

B3011 Roof Finishes

The BUR roof areas appeared to be in fair to good overall condition. This type of roof covering has a typical EUL of 15 to 20-years and based on observed conditions and roof material ages we anticipate that both Roofs 1 and 2 will last beyond the study period without replacement necessary. We are unaware or could not visually see any possible areas of water ingress.

**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
B2011	Exterior Wall Construction	Repairs to exterior walls	50	SF	\$31.25	\$1,563	2013	4
B2011	Exterior Wall Construction	Repaint exterior surfaces	1,950	SF	\$3.25	\$6,338	2015	5
B2011	Exterior Wall Construction	Repaint exterior surfaces	1,950	SF	\$3.25	\$6,338	2019	5
B2021	Exterior Windows	Replace window screens	1	LS	\$650	\$650	2013	3
B2021	Exterior Windows	Replace sealant at perimeter of windows and curtainwall	350	LF	\$12.00	\$4,200	2018	3
B2021	Exterior Windows	Replace the single pane windows	960	SF	\$62.50	\$60,000	2020	3
B2031	Glazed Doors & Entrances	Replace automatic doors	1	EACH	\$11,281.25	\$11,282	2013	1
B2039	Other Doors & Entrances	Replace Post Office door	1	EACH	\$3,000	\$3,000	2013	3
Total Anticipated Expenditure for B Shell						\$93,369		

## SECTION 4 - C INTERIORS

### C10 INTERIOR CONSTRUCTION

#### DESCRIPTION

#### C1010 PARTITIONS

##### C1011 Fixed Partitions

The buildings contained both CMU partitions and wood studs with gypsum board partitions at varying thicknesses. The CMU partitioning was present to separate the Post Office, Dial a Ride offices and Chamber of Commerce, restrooms and lobby areas of the building and the wood partitions separated the individual offices within each section of the building.

#### C1020 INTERIOR DOORS

##### C1021 Interior Doors

The building generally contained single flush hollow core steel doors which are housed within steel frames. The entrance to the Post Office was through two automatic single glazed framed brown anodized aluminum entrance doors similar to the exterior entrance doors. The Chamber of Commerce interior entrance door consisted of a glazed door set in a metal frame. 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.

#### 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.

## 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. However, the entrance doors are not sufficient width to provide unrestricted access to disabled individuals. Therefore we have recommended the installation of doors with a minimum width of 35" to comply with ADA recommendations. The recommended costs include a 25% additional allowance to accommodate the reconfiguration of the framing system to allow the wider doors.

### C1023 Interior Door Hardware

The hardware at each of the doors appeared satisfactory 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. We do not anticipate any expenditure during the study period.

## C30 INTERIOR FINISHES

### DESCRIPTION

#### C3010 WALL FINISHES

##### C3012 Wall Finishes to Interior Walls

Interior walls at each of the buildings generally contained painted gypsum wall board. The two restrooms contained 1" x 1" ceramic tile wainscot.

#### C3020 FLOOR FINISHES

##### C3024 Flooring

The majority of the building interior contained 12" x 12" resilient vinyl tile floor coverings (reference Photographs 13 through 15 in Appendix B). The two restrooms have 1" x 1" ceramic tile floor coverings. The floor at the entrance to the Chamber of Commerce is covered with 6" x 6" ceramic tile.

##### C3025 Carpeting

The building contained sheet carpet within the Chamber of Commerce and Dial a Ride office areas. The sheet carpet within both areas is approximately 8- to 10-years old.

#### C3030 CEILING FINISHES

##### C3031 Ceiling Finishes

There was painted gypsum board ceilings throughout the majority of the building. The ceilings were generally textured; however the restroom ceilings were smooth painted wallboard (reference Photograph 16 in Appendix B).

##### C3032 Suspended Ceilings

The Dial a Ride offices contained 2' x 4' suspended acoustical tiled ceilings within a white enameled exposed grid system (reference Photograph 17 in Appendix B). 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 EUL of interior painted walls is 4 years at this building, and based on our observations we recommend re-painting of all the previously painted walls near-term to maintain the appearance of the building and work areas. A 25% contingency has been applied to the cost of repainting of the Post Office space due to difficulty with access.

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 more than 40-years, late term replacement is recommended.

### C3020 FLOOR FINISHES

#### C3024 Flooring

The vinyl and ceramic tile flooring appeared to be in fair condition throughout the building. Vinyl flooring has a typical EUL of eighteen-years and therefore based on the RUL and observed conditions we recommend that it is replaced mid-term in the study to maintain the interior appearance. A 25% contingency has been applied to the cost of replacing the vinyl flooring in the Post Office space due to difficulty with access. 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 near-term in the study period (reference Photographs 14 and 18 in Appendix B).

### C3030 CEILING FINISHES

#### C3031 Ceiling Finishes

The painted gypsum ceilings appeared to be in fair to good condition. Painted surfaces usually have a typical EUL of eight-years, however as the surface of the ceilings are not touched and subject to marking, we anticipate that they will not need re-painting during the cost study period. A 25% contingency has been applied to the cost of repainting of the Post Office space due to difficulty with access.

#### C3032 Suspended Ceilings

The suspended acoustical ceiling systems appeared to be in fair to good condition. We do not anticipate a requirement for replacement during 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
C1021	Interior Doors	Replace the restroom doors	2	EACH	\$1,875	\$3,750	2014	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	6,500	SF	\$3.25	\$21,125	2013	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces at Post Office	1,800	SF	\$6.50	\$11,700	2013	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	6,500	SF	\$3.25	\$21,125	2017	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces at Post Office	1,800	SF	\$6.50	\$11,700	2017	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	6,500	SF	\$3.25	\$21,125	2021	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces at Post Office	1,800	SF	\$6.50	\$11,700	2021	5
C3012	Wall Finishes to Interior Walls	Replace ceramic tile wall surfaces	325	SF	\$15.00	\$4,875	2020	5
C3024	Flooring	Replace vinyl tile floor covering	575	SF	\$3.75	\$2,156	2021	5
C3024	Flooring	Replace vinyl tile floor covering at Post Office	620	SF	\$4.70	\$2,914	2021	5
C3024	Flooring	Replace ceramic tile floor covering	140	SF	\$18.00	\$2,520	2020	5
C3025	Carpeting	Replace sheet carpet floor covering	195	SY	\$45.00	\$8,775	2013	5
Total Anticipated Expenditure for C Interiors						\$123,465		

## SECTION 5 - D SERVICES

### D20 PLUMBING

#### DESCRIPTION

### D2010 PLUMBING FIXTURES

#### D2011 Water Closets

The building contained floor mounted vitreous china tank-less water closets with manual flush valves within the men's and women's restrooms.

#### D2012 Urinals

The building contained one vitreous china wall hung urinal with manual flush valves, within the men's restroom (reference Photograph 19 in Appendix B).

#### D2013 Lavatories

The building contained wall mounted and vanity vitreous china lavatories (reference Photograph 19 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. We believe 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 one natural gas-fired water heater located in a mechanical room adjacent to the restrooms.

Table D20-1 provides a summary of the water heater:

**Table D20-1 Summary of the Domestic Water Heating Equipment**

Location	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	Year of Installation
Mechanical Closet	General Electric	GG30T6XA	GELN030V11767	Natural Gas	30 US Gallons	2003

**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 fair condition. The water closets flushed properly and did not have any cracks in the china. However the water closets are not currently ADA compliant. Therefore, we recommend their replacement with low-flow ADA compliant water closets during the study period.

We have recommended a full upgrade / renovation of the restrooms during the study period which will include full replacement of the fixtures and a major floor plan modification to meet ADA access requirements.

D2012 Urinals

The urinal and flush valve appeared to be in fair condition. The urinals flushed properly and did not have any cracks in the china. However the urinal is not currently ADA compliant. Therefore, we recommend replacement with of the current urinal with a waterless or low-flow ADA compliant urinal during the study period.

We have recommended a full upgrade / renovation of the restrooms during the study period which will include full replacement of the fixtures and a major floor plan modification to meet ADA access requirements.

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 with the exception of wrapping the drain pipes. We recommend that the drain pipe is properly wrapped to comply with ADA recommendations. However, the cost for this work will fall below the threshold of \$500 and therefore it has not been included within this cost study.

Additionally, the faucets do not appear to be low flow models, and therefore we recommend replacement of the faucets with low flow designs.

We have recommended a full upgrade / renovation of the restrooms during the study period which will include full replacement of the fixtures and a major floor plan modification to meet ADA access requirements.

## **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 heater appeared to be in fair condition. Water heaters generally have a typical EUL of 10 years in this location due to the acidic content in the water supply; therefore with an age of ten-years, replacement will be necessary in the beginning of the study period with an energy efficient water heater.

## **D2030 SANITARY WASTE**

### **D2031 Waste Piping**

No visually apparent problems with the sanitary waste piping were observed at the building. 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 west side. Gas service is routed to the gas-fired water heater.

**D3040 AIR DISTRIBUTION SYSTEMS**

D3041 Air Distribution Systems

The conditioned air is distributed throughout the building via 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

D30412 Exhaust Ventilation Systems

The building contained two rooftop centrifugal direct drive exhaust fans which serve the restrooms (reference Photographs 10 and 12 in Appendix B).

**D3050 HEAT TRANSFER TERMINAL AND PACKAGED UNITS**

D3052 Package Units

The building contained two pad-mounted heat pump package units and one roof-mounted heat pump package unit (reference Photographs 20 and 21 in Appendix B). The pad-mounted units service the Post Office and Dial a Ride office and the rooftop heat pump services the Chamber of Commerce space. They are manufactured by Carrier or BDP Bard and have a cooling capacity of 3-tons each.

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
Post Office – Pad Mounted	Packaged Heat Pump Unit	BDP	655ANX-036000	4294G40559	3 Tons	Electric	2005
Dial a Ride - Pad Mounted	Packaged Heat Pump Unit	Carrier	50JS-036	1404G41346	3 Tons	Electric	2006
Chamber of Commerce – Roof Level	Packaged Heat Pump Unit	Carrier	50HS-036	4394G40152	3 Tons	Electric	2012

**D3060 HVAC INSTRUMENTATION AND CONTROLS**

D3069 Other Controls & Instrumentation

The building occupants are able to control the room temperature via wall mounted thermostats.

**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.

**D3040 AIR DISTRIBUTION SYSTEMS**

D3041 Air Distribution Systems

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.

**D3050 HEAT TRANSFER TERMINAL AND PACKAGED UNITS**

D3052 Package Units



The pad-mounted and roof-mounted heat pump package units appeared to be in good condition. The units vary from one to eight years of age. The typical EUL of equipment such as this is twenty-years and therefore they will last beyond the study period with regular maintenance. No issues concerning operation was observed or mentioned. The pad-mounted heat pump servicing the Post Office is owned and maintained by the tenant.

#### **D3060 HVAC INSTRUMENTATION AND CONTROLS**

##### **D3069 Other Controls & Instrumentation**

The thermostat controls appeared to be in fair to good condition and functional. However, we recommend replacement of the manual thermostats with programmable thermostats as an energy saving measure.



**D40 FIRE PROTECTION**

**DESCRIPTION**

**D4010 SPRINKLERS**

D4011 Sprinkler Water Supply

No system was observed to be in place in the Post Office.

**D4020 STANDPIPES**

D4023 Standpipe Equipment

There is a standpipe riser and fire hose located in a cabinet in the main lobby area.

**D4030 FIRE PROTECTION SPECIALTIES**

D4031 Fire Extinguishers

Multipurpose portable wall mounted handheld fire extinguishers were provided throughout the building (reference Photographs 29 in Appendix B).

**CONDITION**

**D4010 SPRINKLERS**

D4011 Sprinkler Water Supply

After discussions with the City maintenance personnel it was decided that because the building is a public place that a wet-pipe fire suppression system is to be installed. We have included for a full system installation early in the study period.

**D4020 STANDPIPES**

D4023 Standpipe Equipment

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



**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 facility is serviced by a 600-amp, 120/208-Volt, 3-phase, 4-wire metered panel which is located at the northwest corner of the building, within an exterior metal enclosure (reference Photograph 23 in Appendix B).

**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 within the Dial a Ride office and 4' strip double lamped fluorescent fixtures surface mounted within the remaining interior spaces (reference Photographs 13, 16 and 17 in Appendix B). The florescent fixtures all contained T8 lamps and electronic ballasts. All of the in-room lighting is controlled via local switching in the respective rooms.

**D5030 COMMUNICATIONS & SECURITY**

D5033 Telephone Systems

The telephone system was contained in an interior closet.

D5037 Fire Alarm Systems

There is no alarm system at the building.

D5038 Security and Detection Systems

There is no intruder alarm system at the building.

**D5090 OTHER ELECTRICAL SYSTEMS**

D5092 Emergency Light & Power Systems

Emergency egress exit lighting signs are provided at exit routes from the building (reference Photograph 24 in Appendix B).

**CONDITION**

**D5010 ELECTRICAL SERVICE AND DISTRIBUTION**

D5012 Low Tension Service & Dist.

The electrical equipment was observed to be in poor to fair condition. Equipment of this kind has a typical EUL of 30 years, however due to the marine environment the EUL has shortened and therefore started to corrode the panel; the BUS is degraded. Furthermore the enclosure has started to show signs of corrosion and the doors will not operate and lock properly. We recommend full replacement of the distribution panel and enclosure at the start of the study period to maintain a continuous supply to the building.

**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

The interior lighting was replaced in 1995 and observed in to be in fair to good fair to good condition and all fixtures were operating properly with no broken lenses or deteriorated housings. No actions will be generated during the study period and we anticipate the light fixtures will be replaced on an as needed basis. However we recommend replacement of the manual switches currently installed in the offices and restrooms with occupancy sensor type switches to provide automatic operation of the lighting in these spaces.



## **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**

We recommend that a full fire alarm system is installed throughout the building with the necessary addressable devices such as smoke detectors, manual pull stations and fire bell. We have included for this installation at the start of the study period.

### **D5038 Security and Detection Systems**

We recommend that an intruder alarm system is installed throughout the building with a CCTV system incorporated and improved secure entry system in the near-term. We have included for this installation at the start of the study period.

## **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	Renovate restrooms	1	LS	\$50,000	\$50,000	2014	3
D2022	Water Heater	Replace domestic water heater	38	GAL	34.38	\$1,306	2014	4
D2031	Waste Piping	Undertake camera inspection of sewer lines	1	LS	\$1,000	\$1,000	2013	3
D3041	Air Distribution Systems	Clean ductwork	4,394	SF	\$0.25	\$1,099	2013	3
D3041	Air Distribution Systems	Clean ductwork	4,394	SF	\$0.25	\$1,099	2018	3
D3069	HVAC Controls	Install programmable thermostats	3	EACH	\$250	\$750	2014	3
D4013	Sprinkler Water Supply	Install wet-pipe suppression system throughout building	1	LS	\$65,000	\$65,000*	2014	1
D5012	Low Tension Service & Dist.	Replace MDP system and enclosure	600	AMP	\$27.00	\$16,200	2014	4
D5022	Lighting Equipment	Install motion sensor type switches	12	EACH	\$187.50	\$2,250	2014	3
D5037	Fire Alarm Systems	Install fire alarm system	1	LS	\$30,000	\$30,000*	2013	1
D5038	Security and Detection Systems	Install security system	4,394	SF	\$3.50	\$15,379	2013	4
Total Anticipated Expenditure for D Services						\$184,082		

\* Costs provided by City maintenance personnel

## 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, printing rooms and the reception desk. The wood cabinets generally consisted of hardwood frames with oriented strand board panels and doors. The counters observed were plastic laminate.

#### CONDITION

#### E2010 FIXED FURNISHINGS

E2012 Fixed Casework

#### E2010 FIXED FURNISHINGS

E2012 Fixed Casework

The fixed floor and wall cabinets appeared to be in good condition and although twelve-years old they were observed to be functional and suitable for their intended use. Fixed cabinets such as these have a typical EUL of 20-years; therefore replacement will be necessary just after the study period, so no replacement actions are anticipated.

#### PROJECTED EXPENDITURES

There are no projected expenditures for E Equipment & Furnishings during the study period.

## SECTION 7 - G BUILDING SITEWORK

### G20 SITE IMPROVEMENTS

In addition to the buildings located at the site, we have also undertaken a cursory review and assessment of the major site assets to further assist the City in understanding the condition of the site over all. The FCI calculations which are located in the Executive Summary do not include any likely cost that has been shown in this section.

#### DESCRIPTION

### G2020 PARKING LOTS

#### G2021 Bases and Sub-Bases

The main facility parking lot is located at the northern section of the site and can be access from North Valley Drive to the west and from an alley along the east elevation of the building off of 15th Street (reference Photographs 25 and 26 in Appendix B). The parking lot and paving around the site has an asphalt 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 asphalt 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 and Parking	Asphalt	Parking Lot and Alley	1,140 SY	26*	1

Made up of 2# Purchasing Stalls, 3# Maintenance Stalls, 5# Reserved Stalls and 254# Regular Stalls.

\* Including ADA Parking Spaces.

### G2040 SITE DEVELOPMENT

#### G2041 Fences & Gates

The building contained a wood stockade type fence creating an enclosure at the north elevation of the building (reference Photograph 27 in Appendix B).

#### G2042 Retaining Walls

There is a 43" high concrete masonry unit retaining wall located along the western perimeter of the asphalt alley (reference Photograph 28 in Appendix B).

## G2050 LANDSCAPING

### G2056 Planters

Landscaping consisted of shrubs and ground cover, with a number of mature trees located in CMU and stone planters at several locations throughout the site.

### G2057 Irrigation Systems

The landscaped areas along the east and south elevations of the building are irrigated via a below grade automatic irrigation system (reference Photograph 29 in Appendix B). The irrigation system is supplied by below grade PVC piping and a wall mounted Rain Bird controller. Above ground sprinkler heads are scattered throughout the site.

## CONDITION

## G2020 PARKING LOTS

### G2021 Bases and Sub-Bases

The asphalt paved areas the main site appeared to be in fair condition. We noted areas of surface alligator cracking at the alley (reference Photograph 30 in Appendix B). Alligator cracking is a series of interconnected cracks caused by fatigue failure of the asphalt surface under repeated vehicle loading which is also indicative of sub-base and sub-grade deterioration. The City of Manhattan has scheduled repairs to the alley pavement.

All areas of the asphalt should undergo asphaltic-based seal coat and the re-application of surface markings every three-years to extend the life of the pavements beginning in year one..

## G2040 SITE DEVELOPMENT

### G2041 Fences & Gates

The dumpster enclosure fence 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.

## 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 recessed soffit mounted fluorescent lights.

**CONDITION**

**G4020 SITE LIGHTING**

G4021 Fixtures & Transformers

The soffit 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.

**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	Full depth asphalt repair	133	SY	\$38.75	\$5,154	2013	3
G2021	Bases and Sub-Bases	Crack repair, seal coating and re-stripping at the parking lot	1,010	SY	\$1.50	\$1,515	2014	3
G2021	Bases and Sub-Bases	Crack repair, seal coating and re-stripping at the parking lot	1,010	SY	\$1.50	\$1,515	2017	3
G2021	Bases and Sub-Bases	Asphalt mill and overlay including restripping	1,010	SY	\$15.00	\$15,150	2020	3
Total Anticipated Expenditure for G Building Sitework						\$23,334		

# Appendix A

Ten-Year  
Expenditure Forecast  
2013 - 2022

10 YEAR EXPENDITURE FORECAST

City Hall Annex  
421 15th Street  
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		
<b>A. SUBSTRUCTURE</b>																						
<b>A. SUBSTRUCTURE SUB-TOTALS</b>									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
<b>B. SHELL</b>																						
B2011	Repairs to exterior walls	10	0	50.00	SF	\$31.25	Deferred Maintenance	4	\$1,563	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,563	\$0	\$1,563	
B2011	Repaint exterior surfaces	4	2	1,950.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$6,338	\$0	\$0	\$0	\$6,338	\$0	\$0	\$0	\$0	\$0	\$12,675	\$12,675
B2021	Replace window screens	10	0	1.00	LS	\$650.00	Deferred Maintenance	3	\$650	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$650	\$0	\$650	
B2021	Replace sealant at perimeter of windows and curtain wall	10	5	350.00	LF	\$12.00	Capital Renewal	3	\$0	\$0	\$0	\$0	\$0	\$4,200	\$0	\$0	\$0	\$0	\$0	\$4,200	\$4,200	
B2021	Replace the single pane windows	25	7	960.00	SF	\$62.50	Capital Renewal	3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60,000	\$0	\$0	\$0	\$60,000	\$60,000	
B2031	Replace automatic doors	20	0	1.00	EACH	\$11,281.25	Deferred Maintenance	1	\$11,281	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,281	\$0	\$11,281	
B2039	Replace Post Office door	20	0	1.00	EACH	\$3,000.00	Deferred Maintenance	3	\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	\$0	\$3,000	
<b>B. SHELL SUB-TOTALS</b>									\$16,494	\$0	\$6,338	\$0	\$0	\$4,200	\$6,338	\$60,000	\$0	\$0	\$16,494	\$76,875	\$93,369	
<b>C. INTERIORS</b>																						
C1021	Replace the restroom doors	15	1	2.00	EACH	\$1,875.00	Capital Renewal	5	\$0	\$3,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,750	\$3,750	
C3012	Repaint interior wall and ceiling surfaces	4	0	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	
C3012	Repaint interior wall and ceiling surfaces at Post Office	4	0	1,800.00	SF	\$6.50	Deferred Maintenance	5	\$11,700	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,700	\$0	\$11,700	
C3012	Repaint interior wall and ceiling 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	
C3012	Repaint interior wall and ceiling surfaces at Post Office	4	4	1,800.00	SF	\$6.50	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$11,700	\$0	\$0	\$0	\$11,700	\$0	\$0	\$23,400	\$23,400	
C3012	Replace ceramic tile wall surfaces	30	7	325.00	SF	\$15.00	Capital Renewal	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,875	\$0	\$0	\$0	\$4,875	\$4,875	
C3024	Replace vinyl tile floor covering	18	8	575.00	SF	\$3.75	Capital Renewal	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,156	\$0	\$0	\$2,156	\$2,156	
C3024	Replace vinyl tile floor covering at Post Office	18	8	620.00	SF	\$4.70	Capital Renewal	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,914	\$0	\$0	\$2,914	\$2,914	
C3024	Replace ceramic tile floor covering	18	7	140.00	SY	\$18.00	Capital Renewal	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,520	\$0	\$0	\$0	\$2,520	\$2,520	
C3025	Replace sheet carpet floor covering	10	0	195.00	SY	\$45.00	Deferred Maintenance	5	\$8,775	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,775	\$0	\$8,775	
<b>C. INTERIORS SUB-TOTALS</b>									\$41,600	\$3,750	\$0	\$0	\$32,825	\$0	\$0	\$7,395	\$37,895	\$0	\$41,600	\$81,865	\$123,465	
<b>D. SERVICES</b>																						
D20	Renovate restrooms	15	1	1.00	LS	\$50,000.00	Capital Renewal	3	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$50,000	
D2022	Replace domestic water heater	10	1	38.00	GAL	\$34.38	Energy & Sustainability	4	\$0	\$1,306	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,306	\$1,306	
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	
D3041	Clean ductwork	5	0	4,394	SF	\$0.25	Deferred Maintenance	3	\$1,099	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,099	\$0	\$1,099	
D3041	Clean ductwork	5	5	4,394	SF	\$0.25	Routine Maintenance	3	\$0	\$0	\$0	\$0	\$0	\$1,099	\$0	\$0	\$0	\$0	\$0	\$1,099	\$1,099	
D3069	Install programmable thermostats	10	1	3.00	EACH	\$250.00	Energy & Sustainability	3	\$0	\$750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$750	\$750	
D4013	Install wet-pipe suppression system throughout building	35	1	1.00	LS	\$65,000.00	Capital Renewal	1	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65,000	\$65,000	
D5012	Replace MDP system and enclosure	30	1	600.00	AMP	\$27.00	Capital Renewal	4	\$0	\$16,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,200	\$16,200	
D5022	Install motion sensor type switches	20	1	12.00	EACH	\$187.50	Energy & Sustainability	3	\$0	\$2,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,250	\$2,250	
D5037	Install fire alarm system	15	0	1.00	LS	\$30,000.00	Deferred Maintenance	1	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$30,000	
D5038	Install security system	10	0	4,394.00	SF	\$3.50	Deferred Maintenance	4	\$15,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,379	\$0	\$15,379	
<b>D. SERVICES SUB-TOTALS</b>									\$47,478	\$135,506	\$0	\$0	\$0	\$1,099	\$0	\$0	\$0	\$0	\$47,478	\$136,605	\$184,082	
<b>E. EQUIPMENT &amp; FURNISHING</b>																						
<b>E. EQUIPMENT &amp; FURNISHING SUB-TOTALS</b>									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
<b>F. SPECIAL CONSTRUCTION AND DEMOLITION</b>																						

F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS										\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
G. BUILDING SITEWORK																						
G2021	Full depth asphalt repair	15	0	133.00	SY	\$38.75	Deferred Maintenance	3	\$5,154	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,154	\$0	\$5,154	
G2021	Crack repair, seal coating and re-striping at the parking lot	3	1	1,010.00	SY	\$1.50	Routine Maintenance	3	\$0	\$1,515	\$0	\$0	\$1,515	\$0	\$0	\$0	\$0	\$0	\$0	\$3,030	\$3,030	
G2021	Asphalt mill and overlay including restriping	10	7	1,010.00	SY	\$15.00	Capital Renewal	3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,150	\$0	\$0	\$0	\$15,150	\$15,150	
G. BUILDING SITEWORK SUB-TOTALS										\$5,154	\$1,515	\$0	\$0	\$1,515	\$0	\$0	\$15,150	\$0	\$0	\$5,154	\$18,180	\$23,334
Z. GENERAL																						
Z. GENERAL SUB-TOTALS										\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Expenditure Totals per Year										\$110,725	\$140,771	\$6,338	\$0	\$34,340	\$5,299	\$6,338	\$82,545	\$37,895	\$0	\$110,725	\$313,525	\$424,250
Total Cost (Inflated @ 4% per Yr.)										\$110,725	\$146,402	\$6,855	\$0	\$40,173	\$6,446	\$8,019	\$108,624	\$51,862	\$0	\$110,725	\$368,381	\$479,106

# Appendix B

## Photographs



**Photograph No. 1**

View of the front elevation of the building.



**Photograph No. 2**

View of the side elevation.



**Photograph No. 3**

View of the rear elevation and canopy.



**Photograph No. 4**

View of the canopy structure.



**Photograph No. 5**

View of the exterior finishes and curtain wall.



**Photograph No. 6**

View of the sliding aluminum windows.



**Photograph No. 7**

View of an awning type window.



**Photograph No. 8**

View of the automatic entrance doors at the north elevation.



**Photograph No. 9**

View of the meatl exit door at the east elevation.



**Photograph No. 10**

View of the main BUR roofing system.



**Photograph No. 11**

Additional view of the main BUR roofing system.



**Photograph No. 12**

View of the BUR roof at the north elevation.



**Photograph No. 13**

View of the typical interior finishes.



**Photograph No. 14**

Additional view of the typical interior finishes.



**Photograph No. 15**

View of the restroom finishes.



**Photograph No. 16**

View of a typical textured ceiling.



**Photograph No. 17**

View of the suspended ceiling in the Dial a Ride offices.



**Photograph No. 18**

View of carpet floor coverings in the Chamber of Commerce office.



**Photograph No. 19**

View of the urinal and one of the wall hung lavatories.



**Photograph No. 20**

View of the rooftop heat pump packaged unit.



**Photograph No. 21**

View of one of the pad mounted heat pump packaged units.



**Photograph No. 22**

View of the fire hose cabinet.



**Photograph No. 23**

View of the metering located in the main electrical cabinet at the rear alley.



**Photograph No. 24**

View of an illuminated exit sign.



**Photograph No. 25**

View of the asphalt parking area.



**Photograph No. 26**

View of the asphalt paved alley.



**Photograph No. 27**

View of the wood fence along the north elevation of the building.



**Photograph No. 28**

View of the masonry retaining wall.



**Photograph No. 29**

View of the irrigation system.



**Photograph No. 30**

View of the condition of the alley pavement.

# Appendix C

## Asset Inventory

**ASSET INVENTORY****D20 PLUMBING**

Location	Equipment Type	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	Year
Interior Closet	Water Heater	General Electric	GG30T6XA	GELN0303V1 1767	Natural Gas	30 US Gallons	2003

**D30 HVAC**

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity (Heat and Cool)	Fuel	Year
Roof Level	Packaged Heat Pump Unit	Carrier	50HS-036	4394G40152	3 Tons	Electric	2012
Pad Mounted – Dial A Ride	Packaged Heat Pump Unit	Carrier	50JS-036	1404G41346	3 Tons	Electric	2006
Pad Mounted – Post Office	Packaged Heat Pump Unit	BDP	655ANX-036000	4294G40559	3 Tons	Electric	2005

**G40 SITE ELECTRICAL UTILITIES**

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Year
Exterior Cabinet	Main Supply	Murray	NA	NA	120/240 V 600 Amp	1995

# **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:

Building Power Upgrade Plot Plan and Dimensions drawings dated 1995.

Crime Prevention Offices Floor Plan dated 2006

Electrical Service, Lighting and Power Floor Plans dated 1995

Roof Lighting Plans dated 2001

# Appendix E

Environmental Report:  
Asbestos & Lead-Based Paint





## **LIMITED ASBESTOS & LEAD-BASED PAINT ASSESSMENT REPORT**

### **Presented To:**

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

### **Assessment Location:**

City Hall Annex, Post Office and Chamber of Commerce  
421 15<sup>th</sup> Street  
Manhattan Beach, CA. 90266

Andersen Environmental Project No. 1304-584

Report Date: June 5, 2013

# TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE NO.</u>
<b>1.0 INTRODUCTION</b> .....	3
<b>2.0 SCOPE OF WORK</b> .....	3
<b>3.0 PROPERTY DESCRIPTION</b> .....	3
<b>4.0 INSPECTOR'S QUALIFICATIONS</b> .....	4
<b>5.0 TESTING PROTOCOL</b> .....	4
<b>6.0 METHOD OF TESTING</b> .....	5
<b>7.0 SUMMARY OF RESULTS</b> .....	6
<b>8.0 RECOMMENDATIONS</b> .....	7
<b>9.0 HAZARDOUS WASTE HANDLING &amp; DISPOSAL</b> .....	9
<b>10.0 INSPECTION LIMITATIONS</b> .....	9

## APPENDICES

APPENDIX A	ASBESTOS ANALYTICAL RESULTS
APPENDIX B	XRF RESULTS
APPENDIX C	INSPECTOR'S CERTIFICATIONS
APPENDIX D	MAPS / FLOOR PLANS
APPENDIX E	DHS FORM 8552

## 1.0 INTRODUCTION

This report presents the results of Andersen Environmental's Limited Asbestos & Lead-Based Paint Assessment of 421 15<sup>th</sup> Street, 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 warranties, 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 two buildings 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 single story, wood framed building. Currently, the property is utilized as a post office and office space for the City Hall and the Chamber of Commerce. The exterior finishes consist of stucco with metal framed windows and a flat roof with asphalt sheeting. The interior finishes include plaster and drywall walls and ceilings, acoustic ceiling spray with vinyl composite floor tiles.

## 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<sup>i</sup>.
- 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<sup>ii</sup>. 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:

<u>Agency</u> (ppm <sup>iii</sup> )	<u>Ordinance #</u>	<u>Action level (mg / cm<sup>2</sup>)</u>	<u>Action level</u>
<b>HUD / EPA</b>	24 CFR 35.86 & 40 CFR 745.103	1.0 mg / cm <sup>2</sup>	5,000 ppm
<b>L.A. County</b>	Title 11, 11.28.010	0.7 mg / cm <sup>2</sup>	600 ppm <sup>iv</sup>
<b>OSHA / CAL OSHA</b>	29 CFR 1926.62 & Title 8, 1532.1	<i>Not Specified</i>	600 ppm <sup>v</sup>

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

“Report lead paint amounts in mg/cm<sup>2</sup> 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/cm<sup>2</sup>, 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).”<sup>vi</sup>

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<sup>2</sup>) 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.”<sup>vii</sup>

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<sup>2</sup> are considered - Positive
- Painted surfaces with readings below 0.7 mg / cm<sup>2</sup> 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 thirty four (34) 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:

<b>Material Description</b>	<b>Material Locations</b>	<b>Condition</b>	<b>Asbestos Percentage</b>	<b>Estimated Quantity*</b>
12” Brown VCT with Black Mastic	Annex Mail Box	Good	5-7% Chrysotile	2,050
Acoustic Ceiling Spray	Throughout	Good	6% Chrysotile	4,400
4” Brown Cove Base Mastic	Annex	Good	3% Chrysotile	1,400
12” Gray VCT and Black Mastic	Post Office	Good	6% Chrysotile	1,550
Roofing Materials	Roof	Good	Presumed	5,250

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

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:

- Mailbox Lobby Ceramic Wall Tile – 9.6 mg / cm<sup>2</sup>

*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**

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**

Components and painted surfaces throughout the interior and exterior 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

- 
- 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**

## 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:  $R = \text{Thickness}(\text{in inches})/K$

**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.