

**Citywide  
Facility Condition Assessment**

**Report of  
Facility Condition Assessment**

**For  
City of Novato  
Carlile House  
853 Reichert Avenue, Novato, CA**



***March 4, 2013***

**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>16</u>
<u>SECTION 3 - B SHELL</u>	<u>17</u>
<u>SECTION 4 - C INTERIORS</u>	<u>24</u>
<u>SECTION 5 - D SERVICES</u>	<u>30</u>
<u>SECTION 6 - E EQUIPMENT &amp; FURNISHINGS</u>	<u>41</u>
<u>SECTION 7 - G BUILDING SITEWORK</u>	<u>42</u>

## APPENDICES

<u>APPENDIX A TWENTY-YEAR EXPENDITURE FORECAST</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 GLOSSARY OF TERMS</u>

## SECTION 1 - EXECUTIVE SUMMARY

### INTRODUCTION

In accordance with the agreement held between City of Novato, dated January 18, 2013 and Faithful+Gould Inc, this completed report provides a comprehensive Facility Condition Assessment of Carlile House located at 853 Reichert Avenue, Novato, 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 20 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 twenty-year study period have been included with an allowance of 25% for professional fees and general contractor overhead/profit and management costs (where applicable).

Chart EX-1 provides a summary of the anticipated primary expenditures over the 20 year study period. Further details of these expenditures are included within each respective report section and within the 20 year expenditure forecast, in Appendix A.

The report also calculates the Facility Condition Index (FCI) of the building based upon the calculated FCI. Further discussion of the Facility Condition Index is detailed in the sections below.

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 January 23, 2013 Mr. Andrew McClintock 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 Edison Lewis, Certified Property Manager from Keegan & Coppin Company, Inc.

Overview of the Building and Site



**BUILDING SUMMARY**

**Table EX-1 Facility Details**

<b>BUILDING NAME:</b>	Carlile House	<b>LAT/LONG:</b>	38°06'19.86"N / -122°01'17"W
<b>ADDRESS:</b>	853 Reichert Avenue, Novato, CA 94945	<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>	2,927	<b>GROSS SQUARE FOOTAGE OF LAND:</b>	9,900 (estimated) Whole Facility
<b>CURRENT REPLACEMENT VALUE:</b>	\$464,100 (Taken from the City PEPIC-CA Property Schedule)	<b>YEAR OF CONSTRUCTION:</b>	1905
<b>BUILDING USE:</b>	Visitors Center / Offices	<b>NUMBER OF STORIES:</b>	3 (Floors 2 to 3 within water tower)

**BUILDING DESCRIPTION**

Carlile House is located at 853 Reichert Avenue and was originally built in circa 1905. The property is managed by Keegan & Coppin Company, Inc. and has been for the last 12 to 13 years. The building is current occupied/leased by the Chambers of Commerce, who subsequently sublet two offices at the east side of the building to John Reuscher.

The building has a wood rafter roof construction which is supported via a light weight wood frame construction and stud walls which are encapsulated with horizontal wood panel siding. The steep-sloped roof contained an asphalt shingle roof covering, and the low-sloped level rolled asphalt. The first, second and third floors consisted of a supported wood joist with subflooring. Windows consisted of a combination of metal, wood and PVC insulated and non-insulated fixed and double-hung units. There are also single wood panel doors at the building.

The interior finishes of the building contained carpet and vinyl flooring, painted walls and solid painted ceilings.

Heating and cooling for the building is provided through two package units, from which the air is distributed throughout the building in duck work located below the floors. Hot water is provided by an electric instantaneous water heater.



The electrical system is supplied from the electrical meter panel which is mounted on the exterior wall of the building. The light fixtures consisted of surface mounted 1' x 4' fluorescent fixtures and recessed incandescent spot light fixtures.

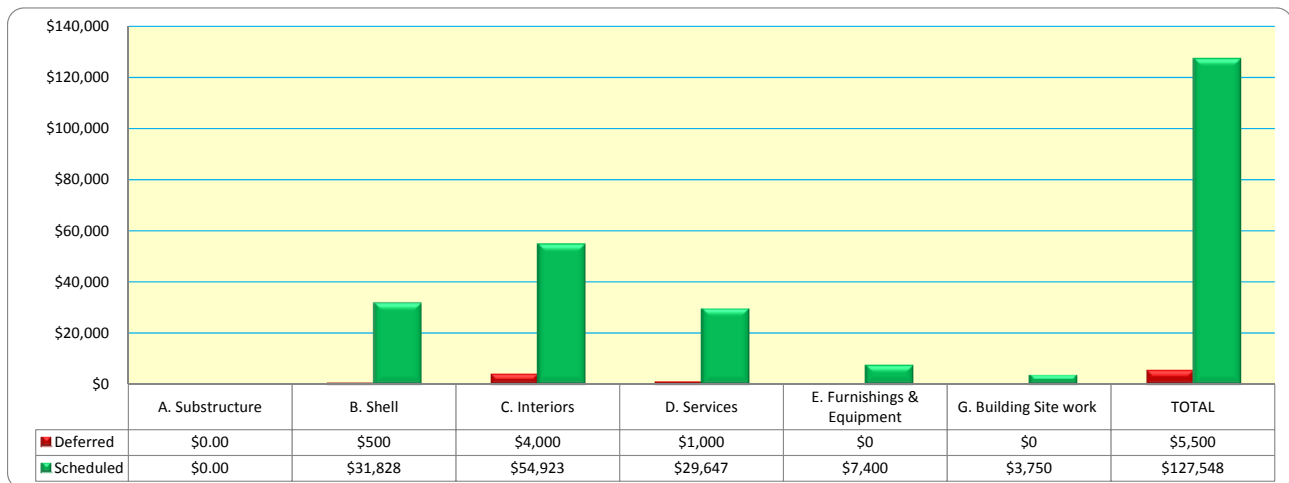
The building contains intruder security alarm systems. There is no fire alarm system, wet-pipe sprinkler or generator at the building.



## 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 interest 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 \$133,048.

**Chart EX-1 Building Expenditure Summary** <sup>1, 2, 3 & 4</sup>



## KEY FINDINGS

- ✚ B Shell: Repaint exterior wall surfaces at an estimated cost of \$9,776 in years 2016 and 2024
- ✚ C Interiors: Repaint interior wall surfaces at an estimated cost of \$8,084 in years 2020 and 2026
- ✚ C Interiors: Replace older sheet carpet floor covering at an estimated cost of \$9,268 in years 2014 and 2024
- ✚ C Interiors: Replace older sheet carpet floor covering at an estimated cost of \$10,110 in years 2022 and 2032
- ✚ D Services: Replace package units at a combined cost of \$18,368 in year 2017

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

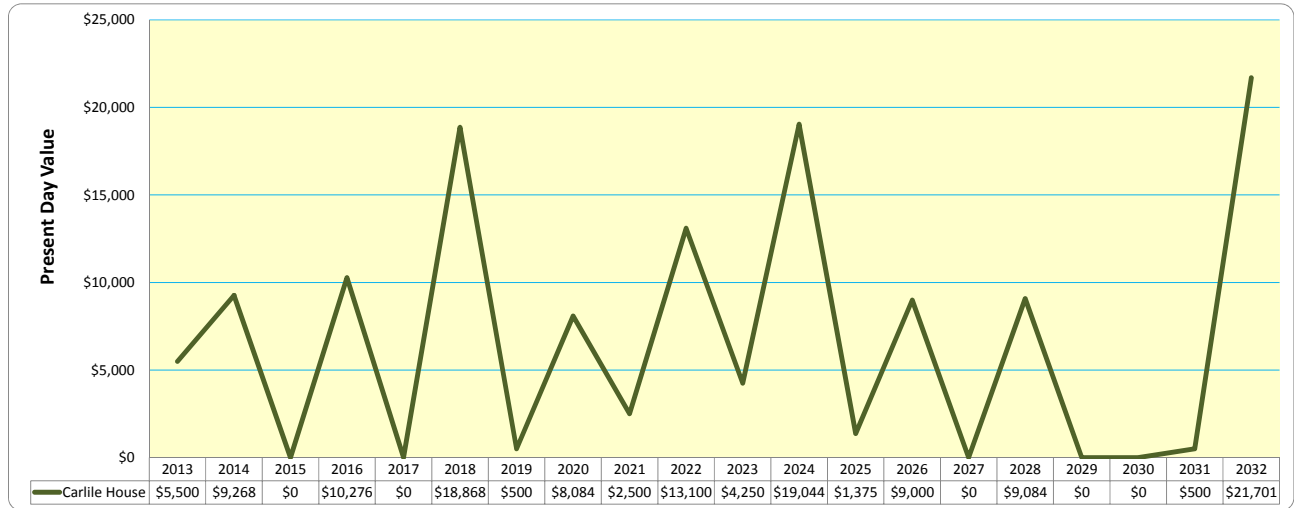
<sup>2</sup> Costs represent total anticipated values over the 20 year study period

<sup>3</sup> 25% has been included for professional fees and general contractor overhead/profit and management costs

<sup>4</sup> ADA Compliance was not examined as part of this project. The costs do not factor in bringing the recommended expenditures into compliance with current ADA rules.

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, 3 & 4</sup>





<sup>1</sup> All costs presented in present day values  
<sup>2</sup> Costs represent total anticipated values over the 20 year study period  
<sup>3</sup> 25% has been included for professional fees and general contractor overhead/profit and management costs  
<sup>4</sup> ADA Compliance was not examined as part of this project. The costs do not factor in bringing the recommended expenditures into compliance with current ADA rules.

This chart highlights significant expenditure for Carlile House within years 2018, 2024 and 2032 primarily due to 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.

**RECOMMENDED WORKS UNDER \$500**

We have scheduled below recommended works that have not been included in the expenditure forecast or combined with other similar works that either fall below the threshold of \$500 or are recommended as industry best practice, represent efficiencies in maintenance, operations or energy.

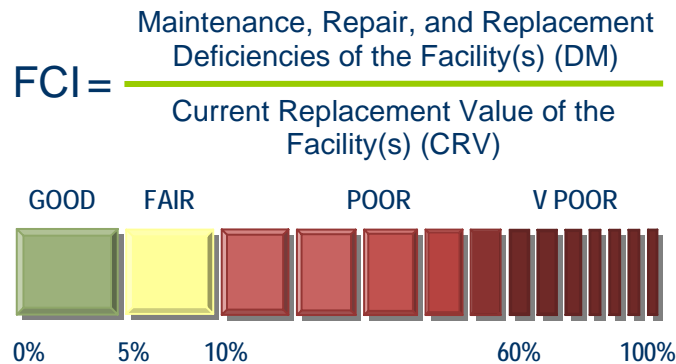
-  C Interior: Address issues relating to gypsum ceiling moisture staining; possible roof leak in year 2013
-  G Building Sitework: Undertake seal coating including re-striping at the parking lot in years 2015, 2020, 2025 and 2030



**INTERPRETING RESULTS**

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

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



The FCI is a relative indicator of condition, and should be tracked over time to maximize its benefit. It is advantageous to define condition ratings based on ranges of the FCI. There are a set of ratings: good (under 0.05 (under 5%)), fair (0.5 to 0.10 (5% to 10%)), and poor (over 0.10 (over 10%)) based on evaluating data from various clients at the time of the publication. Table EX-2 will help interpret the results:

**Table EX-2 FCI Scoring System**

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

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

Table EX-3 provides a calculation of the FCI for the building illustrating both the current condition of the building and the likely condition of the building should the required funding not be expended over the study period. The results of the study indicate that currently the building contains a GOOD facility condition index rating, therefore suggesting that the building is well maintained.

**Table EX-3 Facility Condition Index**

Building Name	FCI	Gross Square Foot (GSF)	CRV per GSF	Current Replacement Value (CRV)	Deferred Maintenance Value (DM) <small>1, 2, 3 &amp; 4</small>	FCI Ratio	Property Condition Rating
Carlile House	Current FCI Ratio	2,927	\$158	\$464,100	\$5,500	1.2%	GOOD
Carlile House	Year 10 FCI Ratio	2,927	\$158	\$464,100	\$133,048	28.7%	POOR

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

<sup>2</sup> Costs represent total anticipated values over the 20 year study period

<sup>3</sup> 25% has been included for professional fees and general contractor overhead/profit and management costs

<sup>4</sup> ADA Compliance was not examined as part of this project. The costs do not factor in bringing the recommended expenditures into compliance with current ADA rules.

Chart EX-3 indicates the effects 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 is in GOOD condition rating (below 5%) at the start of the study period and on a year by year basis stays in the GOOD condition rating throughout the study period.

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

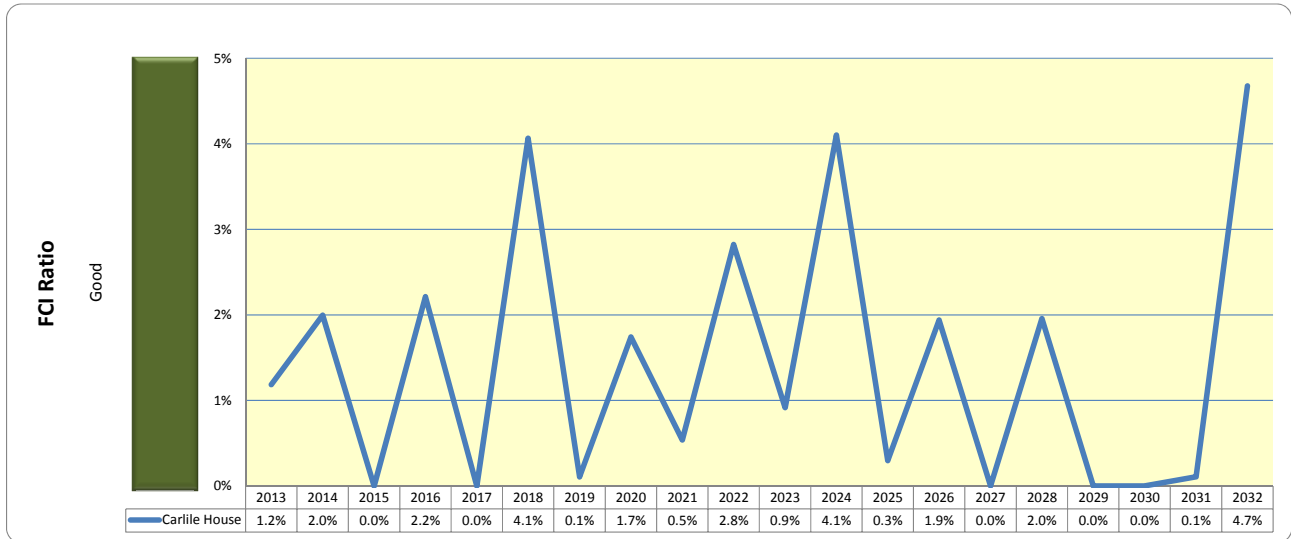
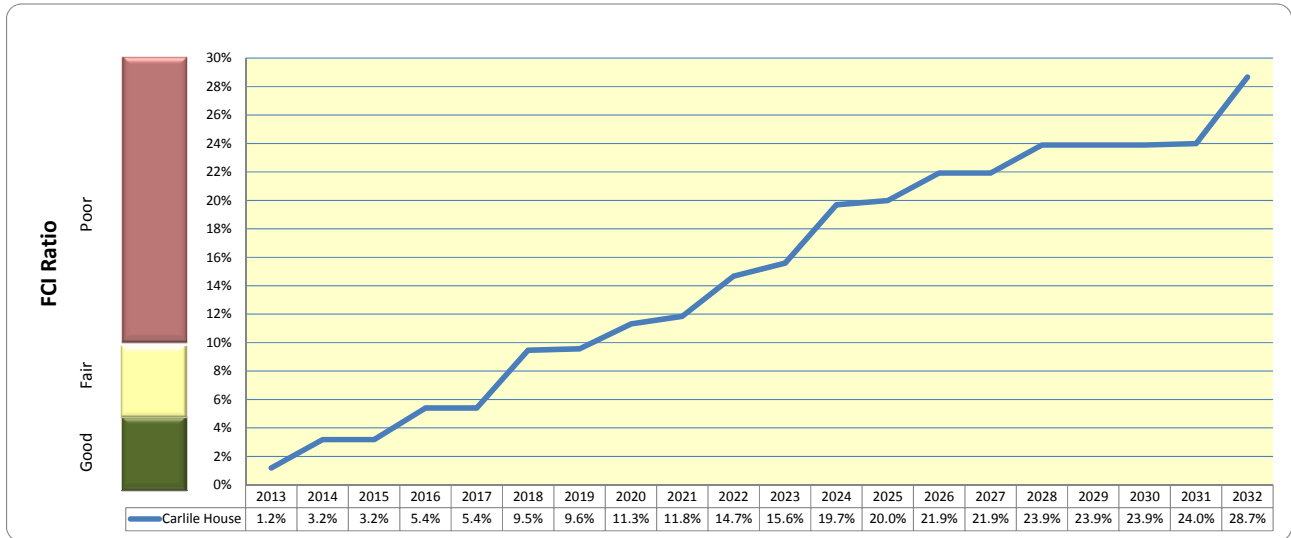


Chart EX-4 indicates the cumulative effects of the FCI ratio over the study period assuming the required funds and expenditures are **NOT** provided to address the identified works and deferred maintenance each year. The results of the study indicate at this current time the building is well maintained, with a facility condition index rating within the GOOD condition; however this rating will fall into the FAIR condition rating in 2016, and then into the POOR condition rating in 2020, where it will remain for the rest of the study period.

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



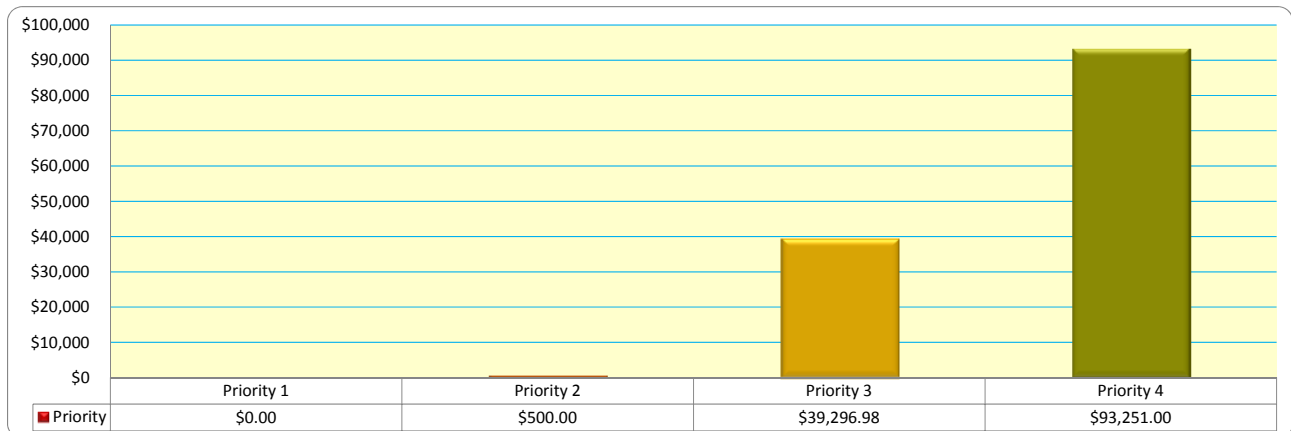
## PRIORITIZATION OF WORK

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</b> Life Safety/Code Compliance/ADA:	<ul style="list-style-type: none"> <li>• Compromises staff or public safety or when a system requires to be upgraded to comply with current codes and standards</li> </ul>
<b>Priority 2</b> Currently Critical:	<ul style="list-style-type: none"> <li>• A system or component is inoperable or compromised and requires immediate action</li> </ul>
<b>Priority 3</b> Necessary / Not Critical:	<ul style="list-style-type: none"> <li>• Maintain the integrity of the facility or component and replace those items, which have exceeded their expected useful life</li> </ul>
<b>Priority 4</b> Image/Reputation:	<ul style="list-style-type: none"> <li>• Used to maintain the appearance of a system due to image/reputation</li> </ul>

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 4 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 maintaining the appearance of the building.

Chart EX-6 Year by Year Cumulative Prioritization of Work

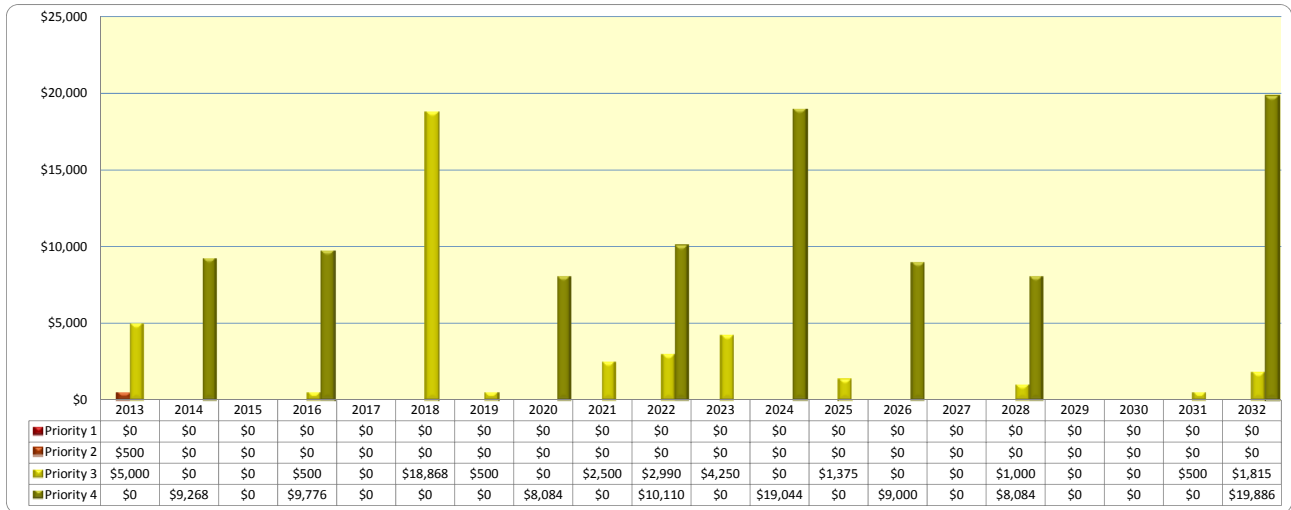


Chart EX-6 illustrates that there are a many expenditure years for Priorities 3 and 4 throughout the study period.

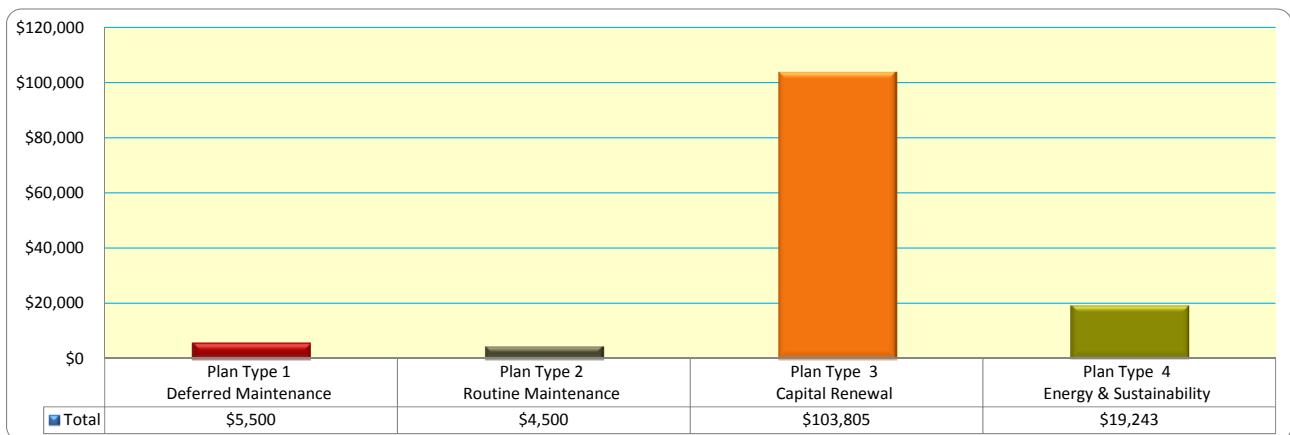
## PLAN TYPES

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> Deferred Maintenance	<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> Routine Maintenance	<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> Capital Renewal	<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> Energy & Sustainability	<ul style="list-style-type: none"> <li>• When the repair or replacement of equipment or systems are recommended to improve energy and sustainability performance</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 majority of the expenditure in this study.

Chart EX-8 illustrates the breakdown of expenditure per each year within the 20 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 are a number of expenditure years for both Priorities 3 and 4 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 available drawings to review.

### A1010 STANDARD FOUNDATIONS

#### A1011 Wall Foundations

The exterior wall constructions are assumed to be supported by concrete spread footings. These footings support the concrete stem wall constructions which in turn support the light weight wood frame construction (reference Photographs 1 and 2 in Appendix B). The compressive strength of the concrete is unknown.

#### CONDITION

### A1010 STANDARD FOUNDATIONS

#### A1011 Wall Foundations

The footings are not visible due to their location below the exterior wall construction. However there is no deterioration to the wall and floor constructions that they are supporting, therefore we assume them to be in good condition and free from defects.

#### PROJECTED EXPENDITURES

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

## SECTION 3 - B SHELL

### B10 SUPERSTRUCTURE

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 available drawings to review.

#### DESCRIPTION

### B1010 FLOOR CONSTRUCTION

#### B1012 Upper Floors Construction

The building contained a wood joist first floor throughout the main sections of the building and also at the second and third floors of the water tower, which are supported via the concrete stem walls at first floor and the wood framed structure at the second and third floors. A wood panel subflooring is present to stabilize the joists and prevent the joists from twisting. There is a crawl space below the raised first floor with ventilation openings in the north and south elevations to allow cross ventilation in this space. The openings are protected against insects and vermin with wire mesh grills present (reference Photograph 1 in Appendix B).

The porch at the north and east side of the building contained a wood constructed raised decking with access wooden staircase and railings at the east side.

### B1020 ROOF CONSTRUCTION

#### B1021 Flat Roof Construction

The low-sloped roof sections consist of wood joists with exterior grade plywood. The roof covering can be viewed in the roof covering section of this report.

#### B1022 Pitched Roof Construction

The pitched roof structures appeared to be wood rafter and joist constructions with gable ends (reference Photographs 3 through 5 in Appendix B). The roof coverings can be viewed in the roof covering section of this report.

### B1030 STRUCTURAL FRAME

#### B1033 Wood Frame Structure

The building has a light wood frame construction consisting of wood stud walls at the main section of the building and timber posts and beams at the water tower, each with wood rafters.

## CONDITION

### B1010 FLOOR CONSTRUCTION

#### B1012 Upper Floors Construction

The wood joist floor constructions and decking appeared to be in good condition. We understand that the steps and railings to the decking have been recently repaired in 2011. We do not anticipate any actions for their replacement during the study period.

### B1020 ROOF CONSTRUCTION

#### B1021 Flat Roof Construction

The low-sloped roof constructions appeared to be in fair to good condition. There were no visible signs of failure noted. We do not anticipate any expenditure during the cost study period.

#### B1022 Pitched Roof Construction

The pitched roof constructions 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 these structures.

### B1030 STRUCTURAL FRAME

#### B1033 Wood Frame Structure

The wood framed structure appeared to be in good condition. We do not anticipate the replacement of the structural elements during the cost study period.

## B20 EXTERIOR ENCLOSURES

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 available drawings to review.

### DESCRIPTION

## B2010 EXTERIOR WALLS

### B2011 Exterior Wall Construction

The building contained wood stud load bearing framed wall constructions with horizontal and vertical wood siding. The horizontal siding is generally used throughout the exterior and consists of a shiplap detail which is composed of boards joined edge to edge with overlapping rabbeted joints (reference Photographs 1 through 4 in Appendix B). The vertical wood siding is present between the concrete steam walls and the first floor consisting of tongue and groove boarding. The siding all contained a painted finished surface.

Historical detailing is present at the building with wood shingle mansards present at the gables, below the eaves and also at the surfaces of the north-east raised roof level construction. Furthermore at roof level we noted ornamental ridge crests which we assume is wood below the painted finish.

At high level we noted wooden soffits and fascias which are part of the underside of the overhanging roof structure, these contained decorative moldings that crown the gable eaves (reference Photograph 5 in Appendix B).

## B2020 EXTERIOR WINDOWS

### B2021 Windows

The building contained a mixture of window unit types, with fixed and double-hung wooden single pane windows generally throughout the first floor level. The water tower section of the building contains a combination of PVC double-hung insulated as well as metal casement and sliding single pane window units (reference Photographs 1 through 9 in Appendix B).

## B2030 EXTERIOR DOORS

### B2039 Other Doors & Entrances

The building contained single wood doors with glazed vision panels and painted finish surfaces (reference Photographs 6 and 10 in Appendix B). Door hardware consisted of knob door handles.

## CONDITION

### B2010 EXTERIOR WALLS

#### B2011 Exterior Wall Construction

The exterior wall systems at the building appeared to be in good condition. The painted surfaces of the wood siding will need to be repainted during the study period as they will have reached their EUL during this period, as the EUL for exterior paint is typically eight-years. We understand that the exterior was repainted more than seven-years ago and therefore they are due for repainting near-term. Based on observed condition we have extend the RUL by a few years so that the necessary works will be require between the start and mid-term in the study period.

The wood soffits and fascias appeared to be in good condition. In a similar instance to the exterior wall construction condition and RUL, we recommend that these are repainted at the same time as the exterior wall repainting. The cost of undertaking this work has been included in the exterior wall repainting costs.

### B2020 EXTERIOR WINDOWS

#### B2021 Windows

The various types of exterior window units generally appeared to be in fair to good condition. We are unaware when each of the window unit types were introduced to the building; however there were no observed issues. We anticipate along with regular maintenance and care at the time of the exterior wall repainting works that they will last beyond the study period without replacement necessary. We recommend that the wood window units are repainted at the same occurrence as the exterior wall repainting works.

### B2030 EXTERIOR DOORS

#### B2039 Other Doors & Entrances

The wooden door sets appeared to be in fair to good condition. The operation of the swing doors were satisfactory and operated without any difficulty. We do not anticipate any requirement for their replacement during the study period. The surface finish of the doors are satisfactory, therefore we recommend that they are repainted/finished at the same time as the exterior wall repainting works.

**B30 ROOFING**

**DESCRIPTION**

**B3010 ROOF COVERINGS**

**B3011 Roof Finishes**

The facility contained four steep-sloped and one low-sloped roof areas; these roof areas are shown on the following aerial plan:

**Overview of Roof Locations & Configurations**



The steep-sloped roof areas 1 through 4 contained diagonal/honeycomb slatted carriage house asphalt shingles with mineral surface granules bonded to underlayment on a plywood sheathing deck (reference Photographs 3 through 5 in Appendix B). Low-sloped roof area 5 is assumed to contain a rolled asphalt roof covering. The age of these roof areas are unknown. The roof levels generally drain to perimeter gutters and downspouts.

## B3020 ROOF OPENINGS

### B3021 Glazed Roof Openings

The building contained a wood framed sloped glazing system centrally (reference Photograph 11 in Appendix B). The glazing provided natural daylight to the interior space below.

#### CONDITION

## B3010 ROOF COVERINGS

### B3011 Roof Finishes

Faithful+Gould were unable to walk the field of the roofs as they were generally steep-sloped and therefore observations were taken from and observed at ground level.

The asphalt roof coverings generally appeared to be in fair condition, we are unaware when the coverings were last installed; we assume them to be more than fifteen-years old. This type of roof covering has a typical EUL of forty-years and based on observed conditions and the age of the roof material we anticipate that all of the steep-sloped roof levels will last beyond the study period without replacement necessary.

However staining was observed at the surface of the solid painted ceiling above the north entrance door. This staining implies that a roof leak is present and therefore we recommend that a qualified roofing contractor accesses the roof level and ascertains the cause of the leak. We have included an amount of expenditure in the study period to account for a likely repair.

The rolled asphalt roof covering at the low-sloped roof level is assumed to be in fair to good condition. There are no reported issues and there is no sign of moisture penetration below the roof construction in the interior space below. We assume this covering is more than ten-years old and therefore we recommend that it is replace mid-term in the study period. At this time we recommend however the roof covering is assessed further for its suitability for replacement and if it still retains a number of years.

The storm water collection gutters and downspouts appeared to be in good condition with no anticipated replacement actions during the study period, besides repainting with the exterior elevations. However we observed debris such as leaves at the north elevation (reference Photograph 5 in Appendix B) and therefore we recommend that they are periodically checked and cleaned to prevent blockages.

### B3021 Glazed Roof Openings

The sloped glazing system appeared to be in fair to good condition, we noted signs of historic moisture ingress which has been resolved with caulking applied at roof level. We understand that there are no issues at this current time. We do not anticipate any replacement actions during the cost study period.

**PROJECTED EXPENDITURES**

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repaint all exterior previously painted surfaces	5,200	SF	\$1.88	\$9,776	2016	4
B2011	Exterior Wall Construction	Repaint all exterior previously painted surfaces	5,200	SF	\$1.88	\$9,776	2024	4
B2011	Exterior Wall Construction	Repaint all exterior previously painted surfaces	5,200	SF	\$1.88	\$9,776	2032	4
B3011	Roof Finishes	Repair roof level where leak is present	1	LS	\$500	\$500	2013	2
B3011	Roof Finishes	Replace rolled asphalt roof coverings	1	LS	\$2,500	\$2,500	2021	3
Total Anticipated Expenditure for B Shell						\$32,328		



## SECTION 4 - C INTERIORS

### C10 INTERIOR CONSTRUCTION

#### DESCRIPTION

#### C1010 PARTITIONS

##### C1011 Fixed Partitions

The building contained wood stud and frame with gypsum board surfaced partitions at varying thicknesses, with assumed fiberglass batt insulation (reference Photograph 16 in Appendix B).

#### C1020 INTERIOR DOORS

##### C1021 Interior Doors

The buildings generally contained single flush wood doors which are housed within wood frames. The doors all appeared to be one directional swing operation.

##### C1023 Interior Door Hardware

The doors contained hardware consisting of door knob handles.

#### 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 interior doors during the cost study period.

##### C1023 Interior Door Hardware

The hardware at each of the doors appeared satisfactory with no issues of deterioration or failure noted generally throughout the building. We recommend that these doors are refinished at the same time as the interior wall finishes works.



The operation of the door handles, locks and hinged swing were noted to be in fair to good condition. However the door knobs pose issues in relation to ADA as they should be easy to grasp with one hand without tight grasping, pinching, or twisting of the wrist. We recommend that they are considered for replacement with ADA compliant level handles. The cost of this work has not been included in the study period.

**C20 STAIRS**

**DESCRIPTION**

**C2010 STAIR CONSTRUCTION**

C2011 Regular Stairs

Within the building there is one half-turn staircase, which provides access from the first floor through to the third floor within the water tower section of the building (reference Photograph 13 in Appendix B). The staircase is of a wooden construction with a wood handrail at the left side. The treads have a carpet finish and the risers are open.

**CONDITION**

**C2010 STAIR CONSTRUCTION**

C2011 Regular Stairs

The staircase appeared to be in a fair to good condition with no issues reported or identified to the section of staircase that is present. However the staircase to the upper floor is missing and therefore we recommend that it is continued to allow safe access.

## C30 INTERIOR FINISHES

### DESCRIPTION

#### C3010 WALL FINISHES

##### C3012 Wall Finishes to Interior Walls

Interior walls contained painted gypsum wall board throughout (reference Photographs 14 through 16 in Appendix B).

#### C3020 FLOOR FINISHES

##### C3024 Flooring

The break room and restrooms each contained vinyl sheet floor coverings (reference Photograph 17 in Appendix B).

##### C3025 Carpeting

The building generally contained sheet carpet throughout the offices, meeting rooms, corridors, lobby and reception areas (reference Photographs 13, 14, 16 and 26 in Appendix B).

#### C3030 CEILING FINISHES

##### C3031 Ceiling Finishes

There were painted gypsum board ceilings throughout the building (reference Photographs 14 and 15 in Appendix B).

### CONDITION

#### C3010 WALL FINISHES

##### C3012 Wall Finishes to Interior Walls

Interior wall finishes appeared to be in good condition generally throughout the building. We are unaware of when the building was last painted, as we understand that it is repainted on an as-needed basis. Based on the typical EUL of eight-years and our observed condition and likely usage of the interior spaces, we recommend repainting prior to mid-term in the study period.

## **C3020 FLOOR FINISHES**

### **C3024 Flooring**

The vinyl sheet floor finish appeared to be in good condition, we understand it was installed along with the break room and restroom repainting works. Vinyl flooring has a typical EUL of eighteen-years and therefore based on the RUL and observed conditions the vinyl sheet is recommended for replacement later in the study period to maintain the appearance of the building.

### **C3025 Carpeting**

The sheet carpet floor coverings appeared to be in fair to good condition. There appeared to be two different age's of carpet and we understand that the newer carpet was installed in 2012 and the older carpet appears to be more than ten-years of age (we are unaware when it was installed). The newer carpet was present within the majority of the building with the exception of the water tower section and the offices. Sheet carpet has a typical EUL of ten-years therefore we recommend that the older carpet is replaced early in the study period and the newer carpet at mid-term, and then at ten-year intervals to maintain the interior appearance of the building.

## **C3030 CEILING FINISHES**

### **C3031 Ceiling Finishes**

The painted gypsum ceilings appeared to be in good condition. Painted surfaces usually have a typical EUL of eight-years; therefore we recommend that they are repainted at the same time as the wall surfaces. Only one issue of moisture ingress where staining was observed within the gypsum painted ceiling surface. We have recommended for a detailed roof review to ascertain the cause of the moisture ingress within the roofing section of this report. We suggest when the issue is addressed that the area is left to dry sufficiently and then the section of the ceiling is prepared and repainted. The cost of this interior ceiling repair/finishing is anticipated to fall below the threshold level and therefore has not been included in the forecast expenditure.

**PROJECTED EXPENDITURES**

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C2011	Regular Stairs	Continue staircase to third floor in tower	1	LS	\$4,000	\$4,000	2013	3
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	4,300*	SF	\$1.88	\$8,084	2020	4
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	4,300*	SF	\$1.88	\$8,084	2028	4
C3025	Carpeting	Replace older sheet carpet floor covering	110*	SY	\$84.25	\$9,268	2014	4
C3025	Carpeting	Replace newer sheet carpet floor covering	120	SY	\$84.25	\$10,110	2022	4
C3025	Carpeting	Replace older sheet carpet floor covering	110*	SY	\$84.25	\$9,268	2024	4
C3025	Carpeting	Replace newer sheet carpet floor covering	120	SY	\$84.25	\$10,110	2032	4
Total Anticipated Expenditure for C Interiors						\$58,923		

\* Includes offices that are leased

## SECTION 5 - D SERVICES

### D20 PLUMBING

#### DESCRIPTION

#### D2010 PLUMBING FIXTURES

##### D2011 Water Closets

The building contains one floor mounted vitreous china water closet with (reference Photograph 18 in Appendix B).

##### D2013 Lavatories

The building contains two vitreous china vanity lavatories (reference Photograph 19 in Appendix B). The lavatories consisted of swan neck non-metering faucets with lever type handles. Water is supplied via copper pipe and assumed drained through cast iron pipe work and fittings.

##### D2014 Sinks

We noted one stainless steel single sink within the break room (reference Photograph 20 in Appendix B). The sink contained non-metering swan neck with lever handles. The stainless steel sink is self rimming and is mounted within a counter that consisted of a plastic laminated faced counter top.

#### D2020 DOMESTIC WATER DISTRIBUTION

##### D2021 Cold Water Service

Cold water piping throughout the building consisted of copper. 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 via copper pipe work. The backflow preventer and supply enters the building at the north elevation (reference Photograph 22 in Appendix B).

##### D2022 Hot Water Service

Domestic hot water was generated via one instantaneous point-of-use electric water heater located below the worktop in the break area (reference Photograph 21 in Appendix B).

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
Below Worktop in Break room	Insinkerator	SST-FLTR	12048872618	Electric	2/3 Gallons	Unknown

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

**D2030 SANITARY WASTE**

D2031 Waste Piping

Waste piping was not directly inspected, however based on typical construction methods available at the time of construction, the piping is suspected to be cast iron pipe.

**CONDITION**

**D2010 PLUMBING FIXTURES**

D2011 Water Closets

The water closet appeared to be in good condition. The water closet flushed properly and did not have any cracks in the china, therefore based upon observed conditions and with a typical EUL of thirty-five-years, we anticipate that there will be no requirement for its replacement during the study period.

D2013 Lavatories

The lavatories and faucets appeared to be in good condition. The sinks drained properly and did not have any cracks in the china, therefore based upon observed conditions and with a typical EUL of thirty-five-years, we anticipate that there will be no requirement for their replacement during the study period. We do recommend that the faucets are replaced mid-term during the study period to maintain optimal performance.

D2014 Sinks

The counter top sink appeared to be in good condition. Based on typical EUL of twenty-years we have included for its replacement later in the study period, at the same time as the cabinet replacements.



**D2020 DOMESTIC WATER DISTRIBUTION**

D2021 Cold Water Service

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

D2022 Hot Water Service

The instantaneous water heater appeared to be in good condition; it was observed to be functional and operating correctly. The water heater is assumed to be no more than a few years old; therefore with a typical EUL of fifteen-years the heater will require replacement to maintain efficiency after mid-term in the study period.

The hot water distribution pipes appeared to be in fair to good condition. We do not anticipate any expenditure within the cost study period.

**D2030 SANITARY WASTE**

D2031 Waste Piping

No visually apparent problems with the sanitary waste piping were observed.

**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 package units (reference Photograph 23 in Appendix B). The service is at the north side of the building.

**D3040 HEAT HVAC DISTRIBUTION SYSTEMS**

D3041 Air Distribution Systems

The conditioned air is distributed throughout the building via metal ductwork located below the first floor and vents through grills (reference Photograph 26 in Appendix B).

**D3050 TERMINAL & PACKAGE UNITS**

D3052 Package Units

Heating and cooling at the building is provided by two single package natural gas and electric cooling units which are manufactured by Bryant (reference Photographs 24 and 25 in Appendix B). One of the package units is located a ground level and the over at roof level. The units have a capacity of 3.5 and 4 tons.

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
South Elevation Ground Level	Package Unit	Bryant	588ANW04 8080AEBG	4997G10138	Assumed 4 Tons	Electric	Assumed 1997
Roof Level	Package Unit	Bryant	588ANW04 2080ACBG	4195G80471	Assumed 3.5 Tons	Electric	Assumed 1995

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

Assumed = Based on size of unit and area it serves / or possible year installed.

**D3060 HVAC INSTRUMENTATION AND CONTROLS**

D3069 Other Controls & Instruments

The buildings HVAC system is controlled by individual wall mounted digital thermostats located in the areas the units serves (reference Photographs 27 and 28 in Appendix B).

**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 HEAT HVAC DISTRIBUTION SYSTEMS**

D3041 Air Distribution Systems

None of the ducting in the building was available for reviewed therefore we cannot confirm the overall condition, however the system is reported to provide fresh clean air and therefore we assume there is no issues with split or detached sections of the ductwork. We recommend that the duct work is cleaned every five-years starting at the start of the study period.

**D3050 TERMINAL & PACKAGE UNITS**

D3052 Package Units

The package units appeared to be in fair condition, we are unaware of any current operating issues with the ground mounted unit; however the roof mounted unit was unable to provide heat to the areas it serves at the building as we understand that the motor had recently burnt out and it was in the process of being replaced. The units are approximately

fifteen-years old and based on current observed conditions and the typical EUL of twenty-years we recommend that they are replaced prior to mid-term in the study period to maintain efficient operation.

**D3060 HVAC INSTRUMENTATION AND CONTROLS**

D3069 Other Controls & Instrumentation

The thermostat controls appear to be in fair condition, and match the age of the HVAC equipment they serve. We recommend that they are replaced along with the units.

**D40 FIRE PROTECTION**

**DESCRIPTION**

**D4030 FIRE PROTECTION SPECIALTIES**

D4031 Fire Extinguishers

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

**CONDITION**

**D4030 FIRE PROTECTION SPECIALTIES**

D4031 Fire Extinguishers

Fire extinguishers appeared to be in good condition. We understand they are maintained on a yearly basis. The fire extinguishers were last tested in October of 2012. We do not anticipate a requirement to replace any fire extinguishers during the study period, as we expect that they will be replaced on an as-needed basis.

## D50 ELECTRICAL

### DESCRIPTION

The following information was obtained through our visual observations of the building systems. The electrical systems include the meter, panel boards, lighting fixtures, and security systems.

## D5010 ELECTRICAL SERVICE & DISTRIBUTION

### D5012 Low Tension Service & Dist.

The building contained an exterior mounted electrical panel and meter which we assume has a rating of 100-amp or less, 120/240-Volt (reference Photograph 30 in Appendix B). Limited information was present at the panel.

## 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 this type of building.

### D5022 Lighting Equipment

The interior lighting within the building is generally provided by surface mounted 1' x 4' fluorescent fixtures; however it was unclear if these fixtures contained F32 T8 32W lamps (reference Photograph 31 in Appendix B). In addition there were a number of recessed incandescent spot light fixtures and also surface mounted dome fixtures. All of the in-room lighting is controlled via local switching in the respective rooms and the large areas by a bank of light fixtures.

## D5030 COMMUNICATIONS & SECURITY

### D5033 Telephone Systems

Telephone terminal/junction box was present at the south side of the building and enters the building at this location (reference Photograph 32 in Appendix B).

### D5038 Security and Detection Systems

The building contains an intruder alarm system, which consists of a programmable security alarm panel.

## CONDITION

### D5010 ELECTRICAL SERVICE AND DISTRIBUTION

#### D5012 Low Tension Service & Dist.

The electrical equipment items appeared to be in fair to good condition; age of equipment unknown. There was no indication of damage from short circuit or overload conditions. We were not provided preventative maintenance records for the main electrical equipment, and therefore we do recommend further evaluation of the equipment via an infrared electrical inspection which will highlight if high temperatures, excessive electrical resistance, failing components, ground faults and short circuiting issues exist.

We recommend budgeting for a cyclical allowance above and beyond normal annual electrical maintenance expenditures for cleaning the interiors of all enclosures, and infrared scans of connections, fuses, and breakers in switches, and panel boards beginning at the start of the study period and repeated no more than every three-years thereafter. Any items identified as abnormal during the infrared scans should be corrected at that time.

Electrical panel boards generally have a EUL of thirty-years and based on the age of the panel boards present and their observed conditions we anticipate that there will be no requirement for replacement during the study period.

### D5020 LIGHTING & BRANCH WIRING

#### D5021 Branch Wiring Devices

The general receptacles and wiring appeared to be in fair to good condition with no reported issues. We do not anticipate a requirement for their replacement during the cost study period, only replacement on an as needed basis.

#### D5022 Lighting Equipment

The interior lighting was observed in 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 do recommend that these fixtures are check to establish if they are T8 fixtures and if not consideration is taken to retrofit the fixtures for energy efficiency. Also the incandescent fixtures are changed for compact fluorescent types. This identified works has not been included in the study period.

### D5030 COMMUNICATIONS & SECURITY

#### D5033 Telephone Systems

The existing telephone equipment was observed to be in fair condition. We do not anticipate system replacement during the cost study period, only as needed repairs, no actions are recommended during the study period.

D5038 Security and Detection Systems

The intruder alarm system appeared to be in fair condition. We are unaware of any issues with the system. We assume it to be at least ten-years of age and therefore we recommend replacement prior to mid-term in the study period.

**PROJECTED EXPENDITURES**

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D2013	Lavatories	Replace faucets	3	EACH	\$225	\$675	2022	3
D2014	Sinks	Replace single stainless steel counter sink and faucet	1	EACH	\$1,600	\$1,600	2026	4
D2022	Hot Water Supply	Replace instant water heater	1	EACH	\$875	\$875	2025	3
D3041	Air Distribution Systems	Clean ductwork	1	LS	\$500	\$500	2013	3
D3041	Air Distribution Systems	Clean ductwork	1	LS	\$500	\$500	2018	3
D3041	Air Distribution Systems	Clean ductwork	1	LS	\$500	\$500	2023	3
D3041	Air Distribution Systems	Clean ductwork	1	LS	\$500	\$500	2028	3
D3052	Package Unit	Replace ground level package unit	4	TONS	\$2,449	\$9,796	2018	3
D3052	Package Unit	Replace roof level package unit	3.5	TONS	\$2,449	\$8,572	2018	3
D5012	Low Tension Service & Dist	Preventative Maintenance of Electrical Equipment	1	LS	\$500	\$500	2013	3
D5012	Low Tension Service & Dist	Preventative Maintenance of Electrical Equipment	1	LS	\$500	\$500	2016	3
D5012	Low Tension Service & Dist	Preventative Maintenance of Electrical Equipment	1	LS	\$500	\$500	2019	3
D5012	Low Tension	Preventative Maintenance of	1	LS	\$500	\$500	2022	3



	Service & Dist	Electrical Equipment						
D5012	Low Tension Service & Dist	Preventative Maintenance of Electrical Equipment	1	LS	\$500	\$500	2025	3
D5012	Low Tension Service & Dist	Preventative Maintenance of Electrical Equipment	1	LS	\$500	\$500	2028	3
D5012	Low Tension Service & Dist	Preventative Maintenance of Electrical Equipment	1	LS	\$500	\$500	2031	3
D5038	Security and Detection System	Replace security system	2,927	SF	\$0.62	\$1,815	2022	3
D5038	Security and Detection System	Replace security system	2,927	SF	\$0.62	\$1,815	2032	3
Total Anticipated Expenditure for D Services						\$30,647		

## 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 room/kitchen. The wood cabinets generally consisted of hardwood frames and plywood panels with wooden door panels. The worktop consisted of a plywood counter (reference Photograph 17 in Appendix B). The vanity tops within the restrooms also consisted of plywood counters.

We noted a wooden reception counter at the main reception within the main lobby entrance.

#### CONDITION

#### E2010 FIXED FURNISHINGS

E2012 Fixed Casework

The fixed cabinets, counter and vanity counter tops and reception counter appeared to be in good condition and functional. Fixed casework usually has a typical EUL of twenty-years; therefore replacement is anticipated later in the study period.

#### PROJECTED EXPENDITURES

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
E2012	Fixed Casework	Replace break room floor cabinets (inc countertops)	4	LF	\$600	\$2,400	2026	4
E2012	Fixed Casework	Replace wall cabinets	4	LF	\$250	\$1,000	2026	4
E2012	Fixed Casework	Replace/modernize reception desk	1	LS	\$4,000	\$4,000	2026	4
Total Anticipated Expenditure for E Equipment & Furnishings						\$7,400		

## SECTION 7 - G BUILDING SITEWORK

### G20 SITE IMPROVEMENTS

#### DESCRIPTION

### G2020 PARKING LOTS

#### G2021 Bases and Sub-Bases

The building has an asphalt paved parking lot located south of the building and can be access from Carlile Drive, off Reichett Ave, and caters for visitors to the building. 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 ADA Parking Spaces
Parking Lot	Asphalt	South Parking Lot	250 SY	4	0

### G2030 PEDESTRIAN PAVING

#### G2031 Paving & Surfacing

The building contained cast-in-place concrete slab opposite the entrance doors and paving going away from the building. We assume the slab and paving is supported via a flexible base of sand setting bed and compacted sub grade.

### G2050 LANDSCAPING

#### G2056 Planters

Landscaping consisted of shrubs; succulents and ground cover, with a number of mature trees.



## CONDITION

### G2020 PARKING LOTS

#### G2021 Bases and Sub-Bases

The asphalt paved areas appeared to be in fair to good condition; there were no major signs of surface deterioration such as alligator cracking present. All areas of the asphalt should undergo asphaltic-based seal coat and the application of surface markings starting in the near-term and then every five-years to extend the life of the pavements. The cost of this work falls below the threshold level and has not been included in this study.

Furthermore we have also recommended a full asphalt mill overlay and associated restriping, as the typical EUL of this work is twenty-years. However we recommend that the asphalt is re-assessed at the time prior to replacement to ascertain if the work will be necessary.

### G2030 PEDESTRIAN PAVING

#### G2031 Paving & Surfacing

The cast-in-place concrete paving appeared to be in fair to good condition and will not require replacement during the cost study period.

### G2050 LANDSCAPING

#### G2056 Planters

The planted materials are in good 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.

**G40 SITE ELECTRICAL UTILITIES**

**DESCRIPTION**

**G4020 SITE LIGHTING**

G4021 Fixtures & Transformers

Exterior lighting at the buildings consisted of a combination of surface mounted wall packs with aluminum housing (reference Photograph 33 in Appendix B).

**CONDITION**

**G4020 SITE LIGHTING**

G4021 Fixtures & Transformers

The exterior light fixtures appeared to be in good condition, with no yellowing lenses or visible deterioration. We do not anticipate their replacement during the cost study period, apart from replacement of the fixtures on an individual basis, no actions are recommended during the study period.

**PROJECTED EXPENDITURES**

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
G2021	Bases and Sub-Bases	Asphalt mill and overlay to include restriping	250	SY	\$15.00	\$3,750	2023	3
Total Anticipated Expenditure for G Building Sitework						\$3,750		

# Appendix A

Twenty-Year  
Expenditure Forecast  
2013 - 2032



# Appendix B

## Photographs





**Photograph No. 1**

View of grills to allow cross ventilation to the crawl space.



**Photograph No. 2**

View of the concrete footings.



**Photograph No. 3**

View of the east elevation and roof covering.



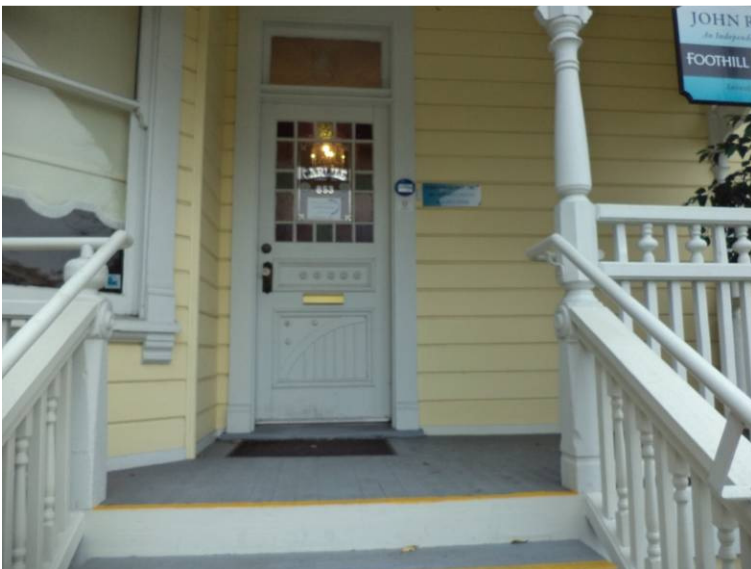
**Photograph No. 4**

View of the north elevation and water tower.



**Photograph No. 5**

View of the fascia detailing and roof covering. Also shows the debris that's collected in the gutters.



**Photograph No. 6**

View of the entrance door at the east elevation. Also the wood floor decking and siding.



**Photograph No. 7**

View of the single pane wood window units.



**Photograph No. 8**

View of the single pane metal window units.



**Photograph No. 9**

View of the single pane metal window units.



**Photograph No. 10**

View of the asphalt single roof coverings.



**Photograph No. 11**

View of the sloped glazing system.



**Photograph No. 12**

View of the the timber post and beam construction at the water tower section of the building.



**Photograph No. 13**

View of the wood constructed staircase.



**Photograph No. 14**

View of the finishes within one of the offices.



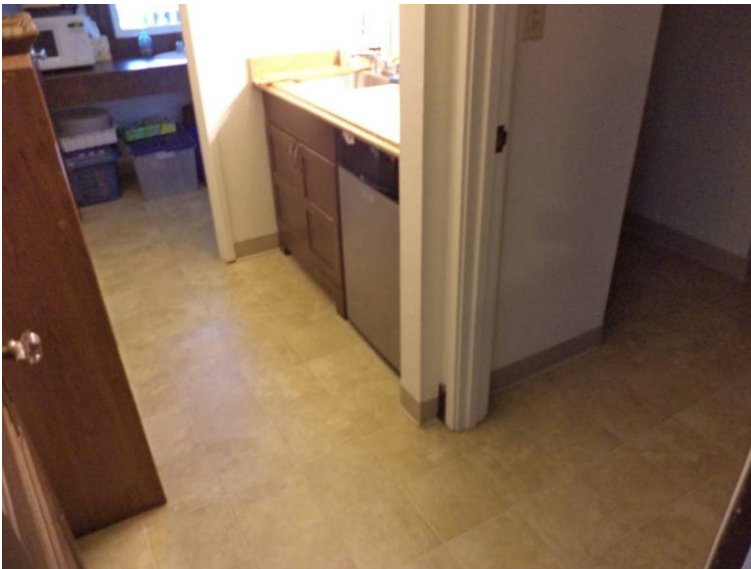
**Photograph No. 15**

View of the finishes within the meeting room.



**Photograph No. 16**

View of the finishes within the corridor.



**Photograph No. 17**

View of the vinyl sheet.



**Photograph No. 18**

View of one of the floor mounted water closet.



**Photograph No. 19**

View of the vanity and lavatory.



**Photograph No. 20**

View of the single stainless steel sink.



**Photograph No. 21**

View of the instant water heater.



**Photograph No. 22**

View of the water supply back flow preventer.



**Photograph No. 23**

View of the gas supply and meter.



**Photograph No. 24**

View of the ground mounted package unit.





**Photograph No. 25**

View of the roof mounted package unit.



**Photograph No. 26**

View of floor grills.



**Photograph No. 27**

View of a thermostat.



**Photograph No. 28**

View of the other thermostat.



**Photograph No. 29**

View of the fire extinguisher tag.



**Photograph No. 30**

View of the electrical meter and panel.



**Photograph No. 31**

View of the surface mounted light fixtures.



**Photograph No. 32**

View of the telephone incoming terminal.



**Photograph No. 33**

View of one of the wall pack light fixtures.

# Appendix C

## Asset Inventory

Location	Facility	Location of Asset	Life Cycle Code	Type	Equipment Type	Manufacturer	Model No.	Serial No.	Tag	Fuel Type	Capacity / Rating	Speed (FPM)	No. of Landings	Year Manufacture
Carlile House	Carlile House	Below Worktop in Breakroom	D2022	Hot Water Service	Water Heater	Insinkerator	SST-FLTR	12048872618		Electric	2 / 3 Gallons			Unknown
Carlile House	Carlile House	South Elevation Ground Level	D3052	Terminal & Package Units	Package Unit	Bryant	588ANW048080AEBG	4997G10138		Electric	Assumed 4 Tons			Assumed 1997
Carlile House	Carlile House	Roof Level	D3052	Terminal & Package Units	Package Unit	Bryant	588ANW042080ACBG	4195G80471		Electric	Assumed 3.5 Tons			Assumed 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 Novato (where possible), and reviewed the following documentation:

None available

# Appendix E

## 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.