

Citywide  
Facility Condition Assessment

Report of  
Facility Condition Assessment

For  
City of Novato  
Hamilton Community Center  
503 South Palm Drive, Novato, CA



*March 4, 2013*

Provided By:

Faithful+Gould, Inc.

Provided For:



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## 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 Hamilton Community Center located at 503 South Palm Drive, 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. Eric Whitworth and Mr. Mark Taylor 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 Pam Shinault, Parks & Recreations Director, City of Novato.

Overview of the Building and Site



**BUILDING SUMMARY**

Table EX-1 Facility Details

<b>BUILDING NAME:</b>	Hamilton Community Center	<b>LAT/LONG:</b>	38°03'25.43"N / -122°05.31'17"W
<b>ADDRESS:</b>	503 South Palm Drive, Novato, CA 94949	<b>OCCUPANCY STATUS:</b>	
<b>HISTORIC DISTRICT:</b>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	<b>HISTORIC BUILDING:</b>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
<b>GROSS SQUARE FOOTAGE OF BUILDING:</b>	13,283	<b>GROSS SQUARE FOOTAGE OF LAND:</b>	37,500 (estimated) Whole Facility
<b>CURRENT REPLACEMENT VALUE:</b>	\$2,641,850	<b>YEAR OF CONSTRUCTION:</b>	1942
<b>BUILDING USE:</b>	Community Center	<b>NUMBER OF STORIES:</b>	1

**BUILDING DESCRIPTION**

Hamilton Community Center is located at 503 South Palm Drive and was originally built in circa 1942.

The building has a cast-in-place concrete framed structure. The roof covering consists of a clay tile roofing system as well as asphalt roll roofing on the peaks and addition on the south of the building. Windows consisted of older single pane steel framed awning style windows and newer dual pane aluminum framed units. Doors consisted of swing operated glazed entrance doors and hollow metal personnel doors.

The interior finishes of the building contained natural stone, ceramic tile flooring, laminated and standard wood floors as well as sheet carpet and a rubber mat surface. The interior walls were painted cast-in-place concrete or gypsum board. The ceiling consisted of an exposed suspended ceiling grid systems throughout much of the building and a painted gypsum board ceiling generally in the restrooms.

The HVAC for the building is provided through six split systems with the air handlers located in the attic and the outdoor condenser units located along the south elevation. Hot water is provided by one domestic water heater, which has capacities of 6 US Gallon.

The Main Distribution Panel is an Industrial Electric unit that is rated at 208Y/120 volts at 1,000amps. The interior lighting is provided by a variety of



surface mounted and recessed fluorescent fixtures with T8 32 watt bulbs and electronic ballasts. The surface mounted fixtures are generally 1' x 4' 2 lamp industrial style fixtures without the lens and the recessed fixtures are generally 2' x 4' 3 lamp fixtures with either prismatic or parabolic lenses.

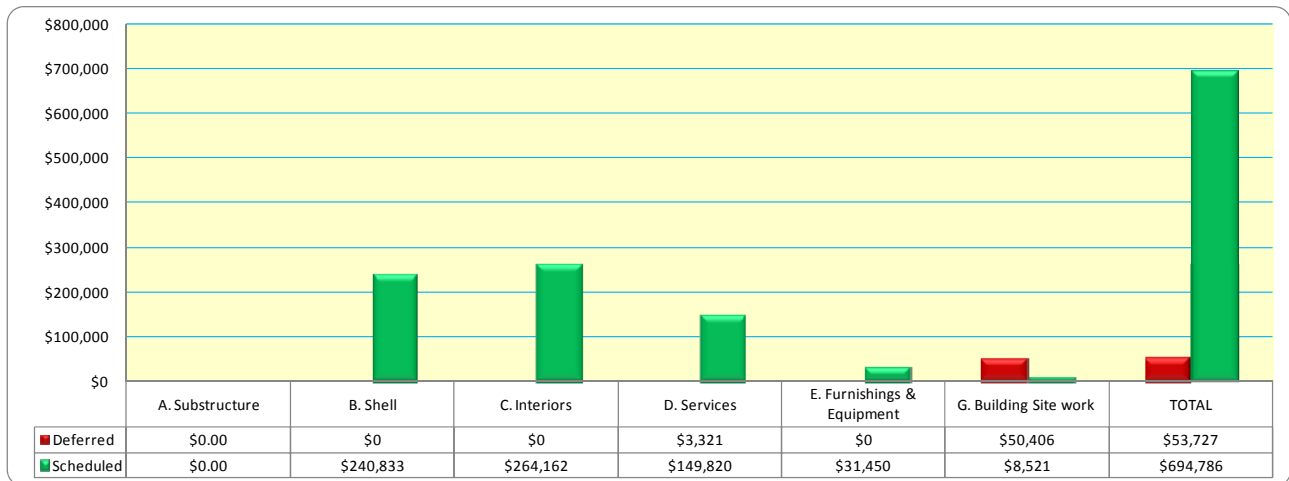
The building contains a wet-pipe fire sprinkler system, a fire alarm and an intruder security alarm systems. There is no generator at the building.



**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 \$745,513.

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



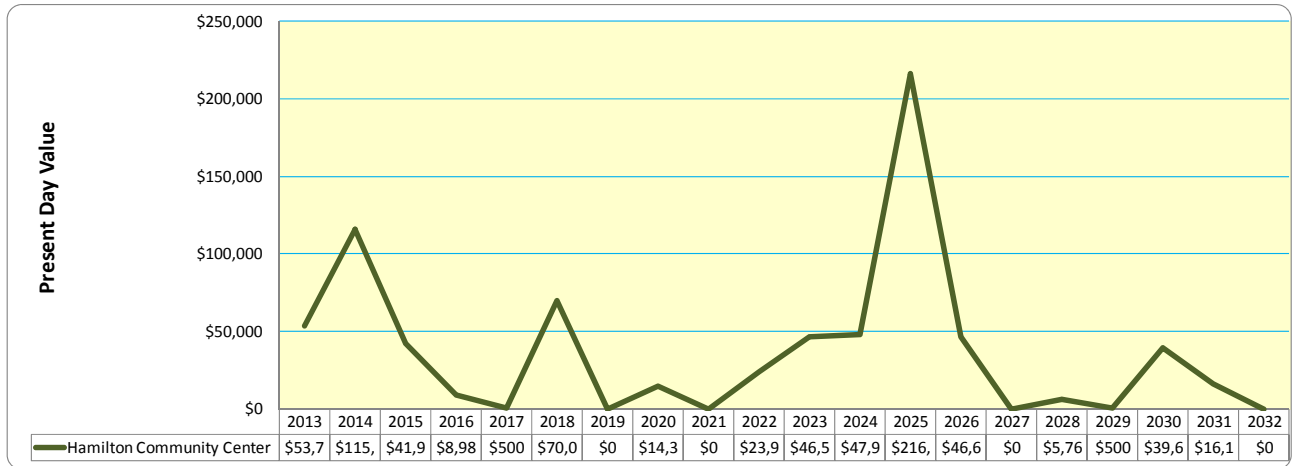
**KEY FINDINGS**

- ✚ B Shell: Repaint exterior wall surfaces at an estimated cost of \$16,176 in years 2015, 2023 and 2031
- ✚ B Shell: Replace single pane window units at an estimated cost of \$42,076 in year 2014
- ✚ B Shell: Replace roof coverings at a combined estimated cost of \$136,477 in year 2032
- ✚ C Interiors: Repaint interior wall surfaces at an estimated cost of \$29,960 in years 2018 and 2026
- ✚ C Interiors: Replace laminate wood floor coverings at an estimated cost of \$34,340 in year 2018
- ✚ C Interiors: Replace sheet carpet floor covering at an estimated cost of \$40,693 in years 2014 and 2024
- ✚ D Services: Replace HVAC systems at a combined estimated cost of \$14,496 in years 2022
- ✚ D Services: Replace telephone and fire alarm systems at a combined estimated cost of \$79,698 in year 2025
- ✚ E Furnishings: Replace fixed casework at a combined estimated cost of \$21,450 in year 2015
- ✚ G Building Sitework: Undertake full depth asphalt repair to parking lot at an estimated cost of \$50,406 in year 2013

<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> An allowance of 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> An allowance of 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 the Hamilton Community Center within years 2014, 2018, 2025, and 2030 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.

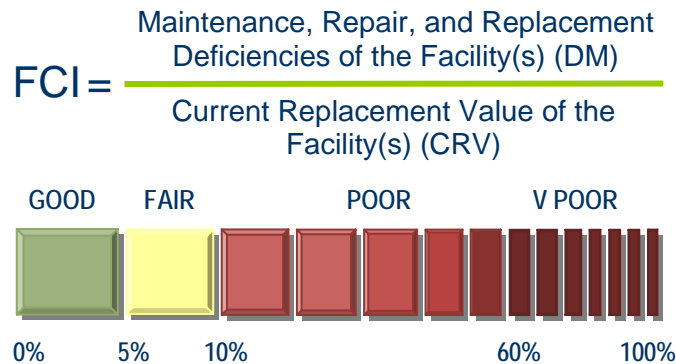
-  D Services: Replace domestic water heater in year 2027



**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) 1, 2, 3 & 4	FCI Ratio	Property Condition Rating
Hamilton Community Center	Current FCI Ratio	13,283	\$199	\$2,641,850	\$53,727	2.0%	GOOD
Hamilton Community Center	Year 20 FCI Ratio	13,283	\$199	\$2,641,850	\$748,513	28.3%	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> An allowance of 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 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 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 until the year 2025 in which it reaches FAIR condition rating then drops back down to GOOD condition rating the next year and remains there throughout the study period.

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

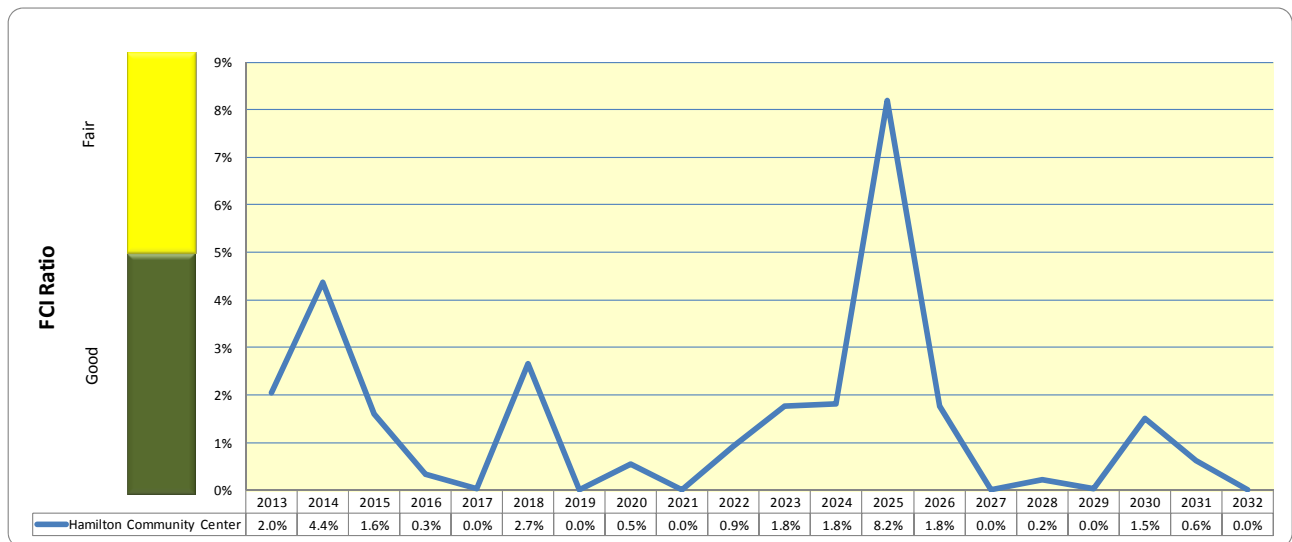
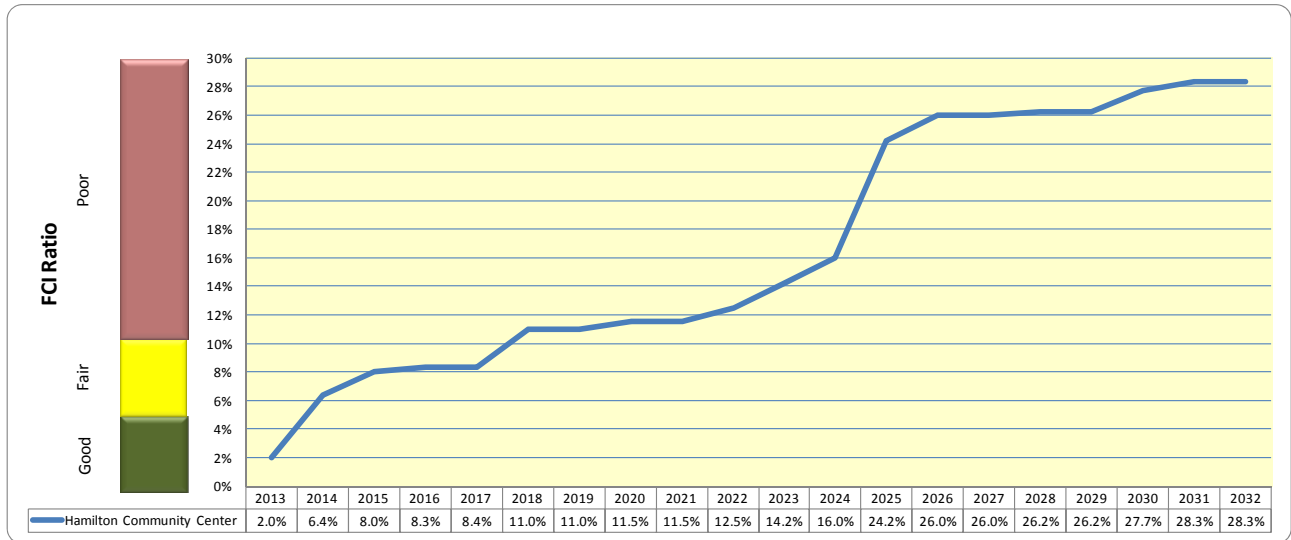


Chart EX-4 indicates the cumulative effects of the FCI ratio over the study period assuming the required funds and expenditures are **NOT** provided to address the identified works and deferred maintenance each year. The results of the study indicate at this current time the building is well maintained, with a facility condition index rating within the GOOD condition rating; however this rating will fall into the FAIR condition rating in 2014 and then fall into the POOR condition rating in 2018, where it will remain for the rest of the study period.

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



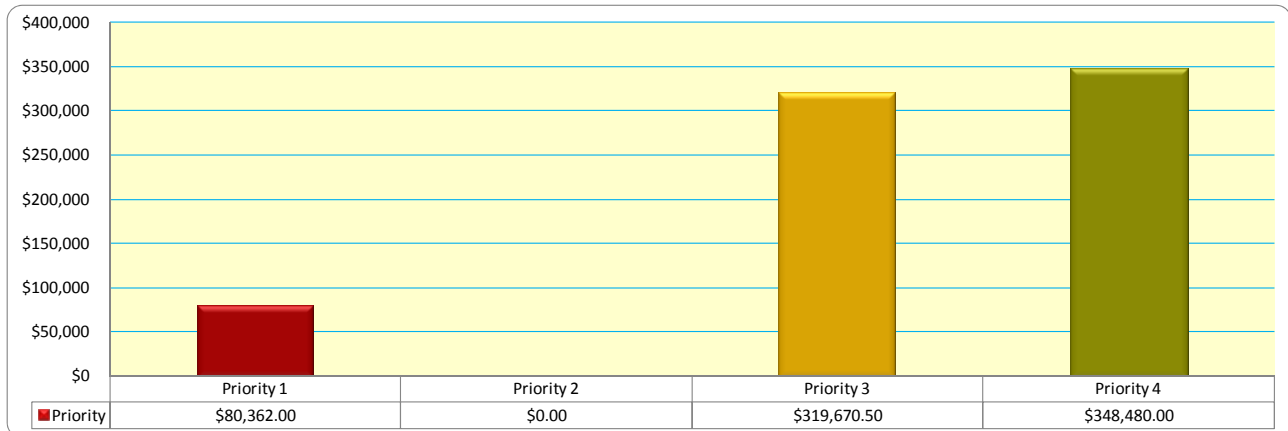
## PRIORITIZATION OF WORK

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

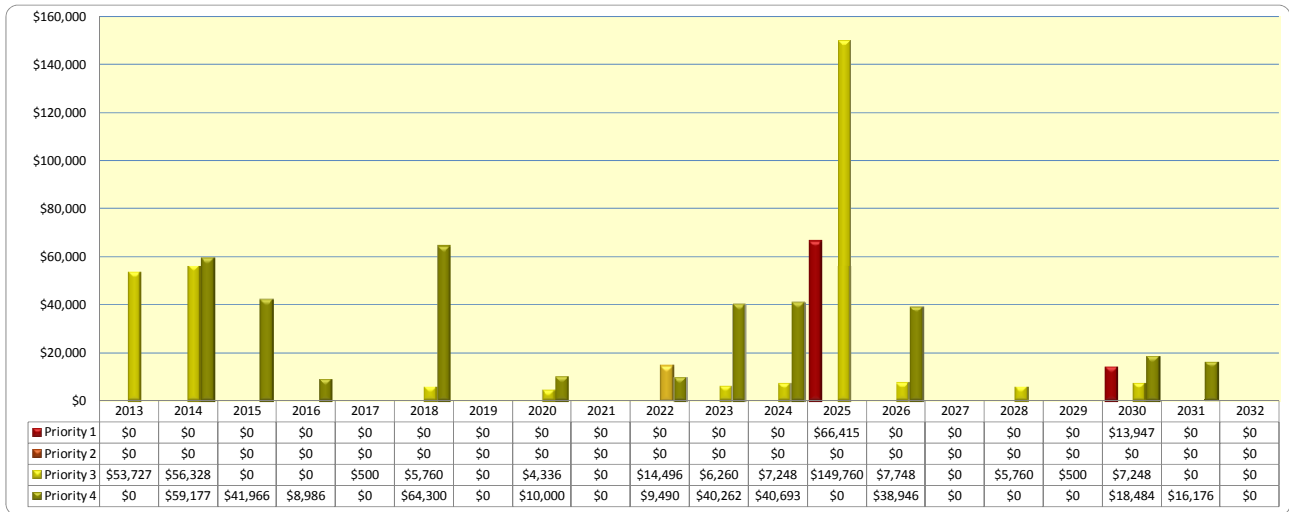


Chart EX-6 illustrates that there is one main expenditure year Priority 3 coding just after mid-term in the study period.

## 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:

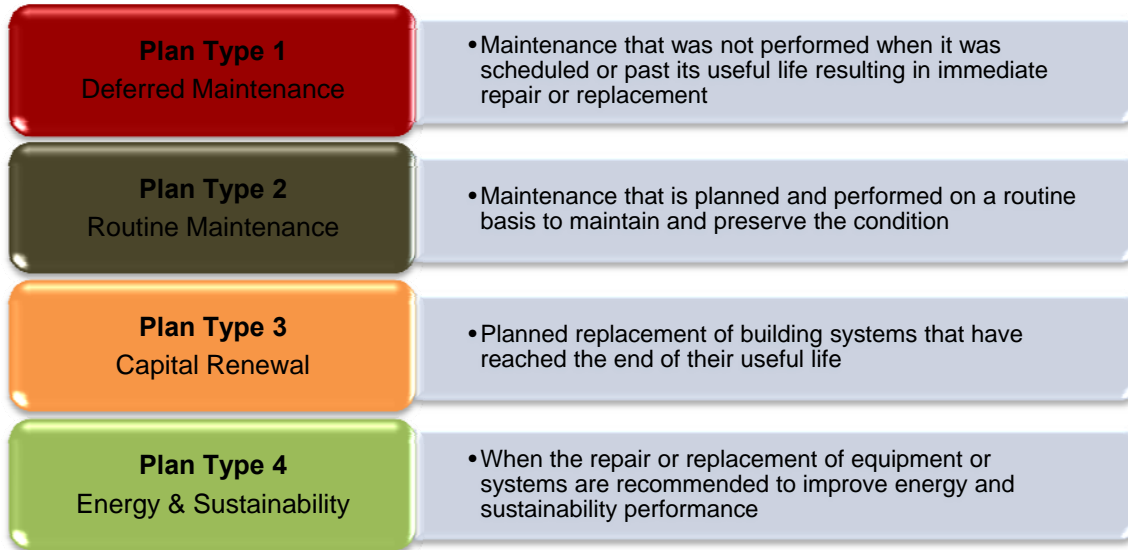
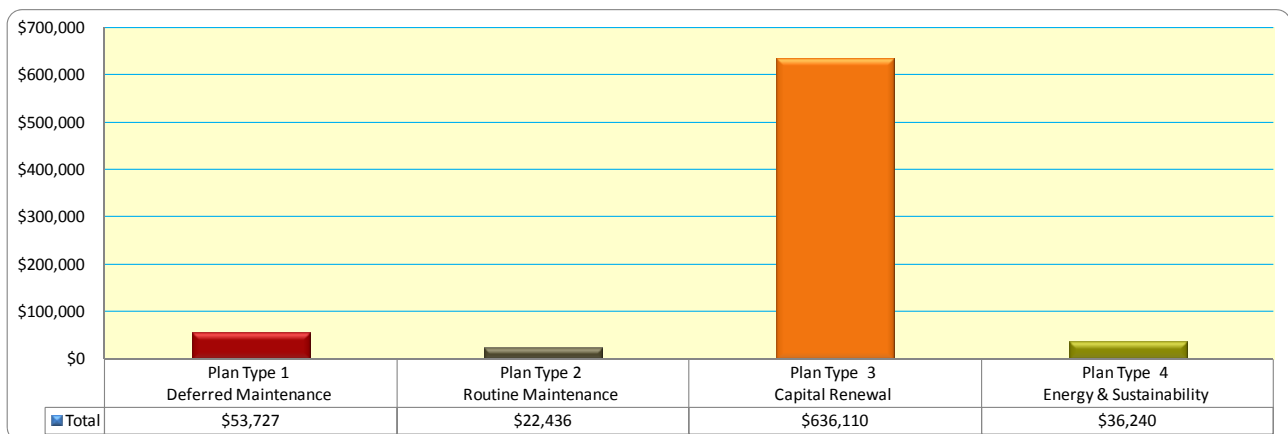


Chart EX-7 illustrates the breakdown of expenditure according to the Plan Type or deficiency categories providing an opportunity to strategically plan and effectively direct funding.

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

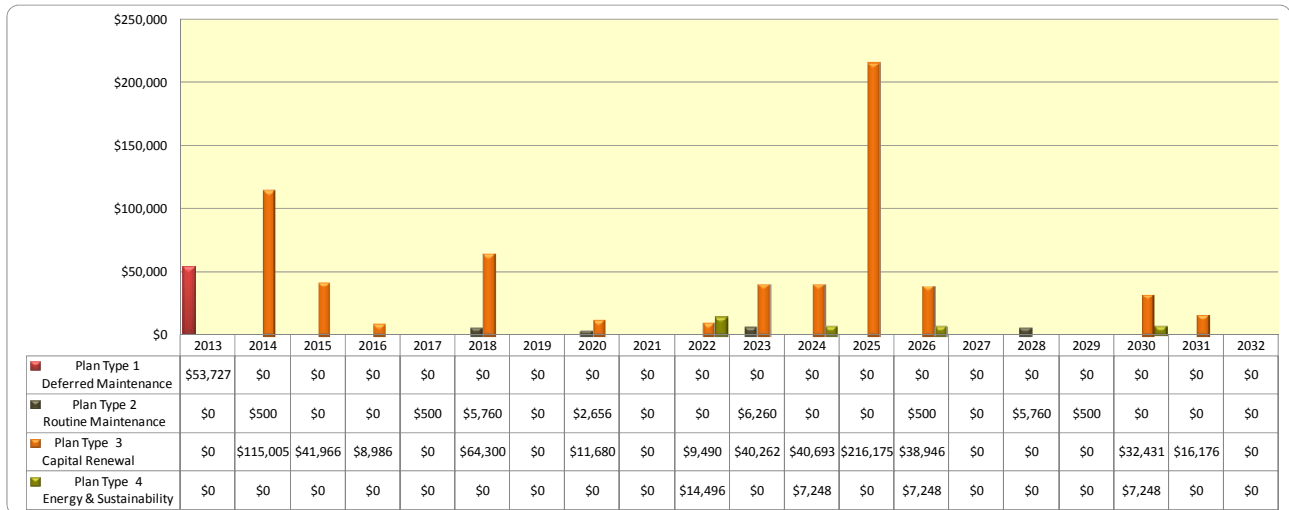


Chart EX-8 illustrates that there is expenditure needed for three Plan Types during the study period, within Plan Type 3 requiring the majority.

## SECTION 2 - A SUBSTRUCTURE

### A10 FOUNDATIONS

#### DESCRIPTION

The description of the respective structural systems for the building is based upon our review of available drawings, and our observation of exposed portions of the building structure. The drawings reviewed can be found in Appendix D.

#### A1010 STANDARD FOUNDATIONS

##### A1011 Wall Foundations

The exterior wall constructions are supported by reinforced concrete spread footings. The compressive strength of the concrete is unknown.

#### A1030 SLABS-ON-GRADE

##### A1031 Standard Slab on Grade

The building consisted of cast-in-place concrete slab-on-grade, reinforced with welded wire fabric (reference Photograph 1 in Appendix B). We assume that the floor slab was placed over a vapor barrier and compacted gravel fill, with the thickness of the slab being approximately 4" laid over a 2" sand bed. 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 constructions that they are supporting, therefore we assume them to be in good condition and free from defects.

#### A1030 SLABS-ON-GRADE

##### A1031 Standard Slab on Grade

The slab-on-grade was observed to be in good condition. While the majority of the slab was not visible there were no signs of undue settling or major cracks noted.

#### PROJECTED EXPENDITURES

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



## SECTION 3 - B SHELL

### B10 SUPERSTRUCTURE

#### DESCRIPTION

The description of the respective structural systems for the building is based upon our review of available drawings, and our observation of exposed portions of the building structure. The drawings reviewed can be found in Appendix D.

### B1020 ROOF CONSTRUCTION

#### B1021 Flat Roof Construction

The addition on the south side of the building contained a cast-in-place beam and girder slab roof construction.

#### B1022 Pitched Roof Construction

The building contained common rafter wood joist which formed a gable steep sloped roof with a wood panel deck (reference Photograph 4 in Appendix B). The trusses are supported via the exterior wall and the concrete frame structure.

### B1030 STRUCTURAL FRAME

#### B1032 Concrete Frame Structure

As explained this building has reinforced cast-in-place concrete columns (reference Photograph 7 in Appendix B) which support the cast-in-place concrete beam and girder slab.

#### CONDITION

### B1020 ROOF CONSTRUCTION

#### B1021 Flat Roof Construction

The low-sloped roof construction 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.

### B1030 STRUCTURAL FRAME

#### B1032 Concrete Frame Structure

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

## B20 EXTERIOR ENCLOSURES

### DESCRIPTION

The description of the respective structural systems for the building is based upon our review of available drawings, and our observation of exposed portions of the building structure. The drawings reviewed can be found in Appendix D.

## B2010 EXTERIOR WALLS

### B2011 Exterior Wall Construction

The exterior wall system consisted of cast-in-place concrete walls (reference Photograph 6 in Appendix B) with an approximate thickness of 16". The surface of the wall appeared to contain a painted smooth stucco surface on all elevations. In the center of the building on the south elevation there was an addition which consisted of painted CMU walls (reference Photograph 5 in Appendix B).

## B2020 EXTERIOR WINDOWS

### B2021 Windows

At each of the elevations there were steel and aluminum fixed and awning windows with single and dual pane glazing (reference Photographs 8 and 9 in Appendix B). It appeared that the newer aluminum framed windows were located at the west side of the building and at the addition on the south side of the building. The window frames contain caulking at the point where they meet the wall construction.

## B2030 EXTERIOR DOORS

### B2031 Glazed Doors & Entrances

The entrances at the north and west contained glazed aluminum doors with a side light (reference Photographs 10 and 11 in Appendix B). The glazed door at the north elevation had an operable transom window. Door hardware consisted of pull handles with an emergency push bars at the interior and door closers.

### B2039 Other Doors & Entrances

The building contained single and double hollow metal doors and frames at the perimeter, mainly at the south elevation (reference Photograph 12 in Appendix B). Door hardware consisted of a combination of push and pull handles, with emergency push bars at the interior (reference Photograph 18 in Appendix B).

## CONDITION

### B2010 EXTERIOR WALLS

#### B2011 Exterior Wall Construction

The exterior wall construction and painted surface appeared to be in fair to good condition with no signs of deterioration, water ingress or general failure noted. It was unclear when the stucco walls, soffits and wood fascia surfaces were last painted, therefore based on their current observed condition and the typical EUL of eight-years, repainting of the painted surfaces are recommended early in the study period and then every eight-years after to maintain the exterior appearance of the building.

### B2020 EXTERIOR WINDOWS

#### B2021 Windows

The aluminum framed exterior window units on the west side of the building appeared to be in good condition. We do not anticipate a requirement for their replacement as they do not require any actions during the study period. However the perimeter sealant was starting to deteriorate with surface cracking present in locations, therefore with a typical EUL of fifteen-years for exterior sealant we anticipate replacement will be necessary mid-term in the study period with a suitable polyurethane sealant.

The steel framed single pane window units appeared to be in fair to poor condition. The single-pane design of the majority of the window units offers limited thermal insulation. Onsite personnel had mentioned the windows had been an ongoing comfort issue along with having operation problems and their RUL we recommend replacing the units early in the study period to match the newer aluminum framed units. The perimeter sealant was starting to deteriorate with surface cracking present in various locations. Therefore with a typical EUL of fifteen-years for exterior sealant we anticipate replacement will be necessary mid-term in the study period with a suitable polyurethane sealant.

### B2030 EXTERIOR DOORS

#### B2031 Glazed Doors & Entrances

The aluminum glazed entrance doors appeared to be in fair to good condition. We do not anticipate a requirement for their replacement at this time; however we recommend that the doors are regularly maintained. Based on a typical EUL of thirty-years replacement is recommended based on industry standards later in the study period. At the time when the door units are scheduled to be replaced, we recommend they are re-assessed for replacement suitability.

B2039 Other Doors & Entrances

The hollow metal doors appeared to be in fair to good condition with no observed issues noted. There is no anticipated requirement for replacement of the doors during the study period. The operation of the swing doors were satisfactory and operated without any difficulty. Repainting along with the exterior elevation repainting works will be necessary to the other previously painted doors.

**B30 ROOFING**

**DESCRIPTION**

**B3010 ROOF COVERINGS**

**B3011 Roof Finishes**

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

**Overview of Roof Locations & Configurations**



The steep-sloped roof area 1(reference Photograph 13 in Appendix B) contained a clay barrel tile roofing system set on a tile battens and waterproof membrane. We are unaware of any insulation present. The low-sloped roof areas 2, 3, and 4 (reference Photograph 13 in Appendix B) contained an asphalt roll roofing system placed directly over the roof deck. The age of the roof covering systems are unknown, however we estimate them to be approximately twenty-years old.

Storm water drainage consists of perimeter gutters along the fascia which lead to downspouts where it will discharge to the vegetation surrounding the building.

**CONDITION**

**B3010 ROOF COVERINGS**

**B3011 Roof Finishes**

The clay roof tile covering appeared to be in fair to good condition. We understand that the clay roof tile covering is approximately twenty-years old and based on the typical EUL of fifty-years replacement is not anticipated during the cost study period. However we do recommend removing the roof tile and replacing the moisture barrier mid-term in the study period. The asphalt roll roofing appeared to be in fair to good condition. We understand that the asphalt roll roof covering is

approximately twenty-years old and based on the typical EUL of forty-years replacement is anticipated during the final year of the cost study period.

The roof appears to drain well with adequate slope at all areas to allow water to run to the drains. The gutters appeared to be free from debris, adequately sized and spaced properly. We did notice that one of the downspouts had become detached from the gutter at the front entrance to the building (reference Photograph 14 in Appendix B). We do not anticipate a full replacement; however recommend the gutters are maintained on a regular basis to ensure they are free from debris and working properly.

### 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 exterior wall surfaces and soffits	8,604	SF	\$1.88	\$16,176	2015	4
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	8,604	SF	\$1.88	\$16,176	2023	4
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	8,604	SF	\$1.88	\$16,176	2031	4
B2021	Windows	Replace single pane window units	536	SF	\$78.50	\$42,076	2014	3
B2021	Windows	Replace sealant at perimeter of windows and door frames	76	LF	\$11.25	\$13,752	2014	3
B3011	Roof Covering	Replace asphalt rolled roof covering	3,986	SF	\$6.25	24,913	2032	3
B3011	Roof Covering	Replace roofing felt under clay tile	9,297	SF	\$12	111,564	2032	3
Total Anticipated Expenditure for B Shell						\$240,833		

## SECTION 4 - C INTERIORS

### C10 INTERIOR CONSTRUCTION

#### DESCRIPTION

#### C1010 PARTITIONS

##### C1011 Fixed Partitions

The building contained a combination of cast-in-place concrete wall constructions and 4" stud spaced at 16" centers with gypsum board partitions, with fiberglass batt insulation throughout the building (reference Photograph 15 and in Appendix B).

##### C1017 Interior Windows and Storefronts

The interior lobby contained a 4' x 5' aluminum framed sliding window with a granite window sill which acts as a reception counter (reference Photograph 16 in Appendix B).

#### C1020 INTERIOR DOORS

##### C1021 Interior Doors

The building generally contained single flush wood doors with a number that contained glazed panels which are housed within metal frames (reference Photograph 17 in Appendix B). The doors all appeared to be one directional swing operation.

##### C1023 Interior Door Hardware

The doors contained aluminum hardware consisting of lever door handles and door 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 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. 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 throughout the building contained either a painted cast-in-place concrete or gypsum wall board surface (reference Photographs 15, 17 and 18 in Appendix B). The restrooms on the west side of the building both contained ceramic 6" x 6" wall tiles to mid height (reference Photograph 20 in Appendix B) while the restrooms on the east side of the building both contained 4" x 4" ceramic wall tiles to mid height (reference Photograph 19 in Appendix B).

#### C3020 FLOOR FINISHES

##### C3024 Flooring

The building contained a combination of floor coverings which consisted of ceramic tile in the restrooms and kitchen area as well as natural stone floor tiles within the entry way (reference Photograph 23 in Appendix B). In addition there is also laminate wood flooring located in the classrooms (reference Photograph 21 in Appendix B) and standard wood plank floor located in the ballet/dance room. The Taekwondo room had a rubber floor tile finish to absorb sound and aid fall protection (reference Photograph 22 in Appendix B).

##### C3025 Carpeting

We noted sheet carpet generally throughout all areas of the hallways and offices (reference Photograph 24 in Appendix B).

#### C3030 CEILING FINISHES

##### C3031 Ceiling Finishes

There were painted gypsum board ceilings throughout the restroom areas (reference Photograph 26 in Appendix B) and formed to create soffits at various locations throughout the main community center areas.

##### C3032 Suspended Ceilings

The building had suspended ceiling systems present, these were generally exposed grid systems (reference Photograph 27 in Appendix B), apart from in a small area on the east side of the building we noticed an adhesive 12" x 12" acoustical ceiling tiles. The suspended system is supported with wires from the underside of the roof construction above. 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 to good condition generally throughout the building. We understand that the painted walls are repainted on an as needed basis, which makes it difficult to provide a forecast of expenditure based on the typical EUL of eight-years. Therefore we have made recommendations to repaint the interior walls on a cyclical basis with the next period due in 2014 and then every eight-year after to maintain the appearance of the interior of the building.

The ceramic wall tiles and grout appeared to be in good condition with no issues noted. We anticipate that the ceramic wall tiles will last beyond the study period.

### C3020 FLOOR FINISHES

#### C3024 Flooring

The tile flooring appeared to be in fair to good condition. Ceramic flooring has a typical EUL of 30-years and quarry tile has a typical EUL of 40-years therefore based on the RUL and observed conditions the floor tile will last beyond the study period without replacement necessary.

The floor tiles and grout appeared to be in good condition with no issues noted. We anticipate that the ceramic floor tiles will last beyond the study period. However we do recommend re-grouting the ceramic floor tile in the study period to maintain its appearance.

The rubber floor tile in the martial arts room appeared to be in fair condition with no issues noted. Rubber flooring has a typical EUL of 18-years therefore based on the RUL and observed condition we recommend replacing the rubber flooring mid-term in the study period.

The laminated wood panel floor covering has a typical EUL of twenty-years plus dependant on how it is treated. We recommend that the laminated wood floor be replaced towards the end of the study period.

The wood plank floor has a typical EUL of forty-years plus dependant on how it is treated. We recommend that the wood floor is refinished every ten-years to maintain the appearance of the surface.

#### C3025 Carpeting

The sheet carpet floor coverings appeared to be generally in fair condition apart from a few isolated areas of staining (reference Photograph 25 in Appendix B). We understand that the carpet is approximately five-years old and therefore based on a typical EUL of ten-years and the likely traffic it will receive we recommend that it is replaced prior to mid-term in the study period and then on a cyclical basis to maintain the interior appearance of the building.

## 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; therefore we recommend that they are repainted at the same time as the wall surfaces.

### C3032 Suspended Ceilings

The suspended ceiling systems appeared to be in fair condition overall with a few isolated areas of staining (reference Photograph 28 in Appendix B). We recommend that these ceiling tiles are replaced now to maintain the aesthetics of the interior areas; the grid is anticipate to last beyond the study period. The adhesive acoustical system is an older system than the suspended grid system, however it appears to be in fair condition and we do not anticipate a requirement for its replacement 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
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	15,936	SF	\$1.88	\$29,960	2018	4
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	15,936	SF	\$1.88	\$29,960	2026	4
C3024	Flooring	RegROUT ceramic floor tile as well as isolated ceramic wall tile	2,576	SF	\$9.35	\$24,086	2023	4
C3024	Flooring	Replace laminate wood floor coverings	3,434	SF	\$10.00	\$34,340	2018	4
C3024	Flooring	Refinish wood plank floor	1,560	SF	\$5.76	\$8,986	2016	4
C3024	Flooring	Refinish wood plank floor	1,560	SF	\$5.76	\$8,986	2026	4
C3024	Flooring	Replace rubber mat flooring	949	SF	\$10.00	\$9,490	2022	4
C3025	Carpeting	Replace sheet carpet floor covering	483	SY	\$84.25	\$40,693	2014	4
C3025	Carpeting	Replace sheet carpet floor covering	483	SY	\$84.25	\$40,693	2024	4
C3032	Suspended Ceiling	Replace suspended ceiling tiles	4,220	SF	\$4.38	\$18,484	2015	4
C3032	Suspended Ceiling	Replace suspended ceiling tiles	4,220	SF	\$4.38	\$18,484	2030	4
Total Anticipated Expenditure for C Interiors						\$264,162		

## SECTION 5 - D SERVICES

### D20 PLUMBING

#### DESCRIPTION

#### D2010 PLUMBING FIXTURES

##### D2011 Water Closets

The building contains floor mounted vitreous china water closets which are both tank-less and have their own flush valves (reference Photograph 20 in Appendix B) and tank type (reference Photograph 19 in Appendix B).

##### D2013 Lavatories

The building contains wall hung and pedestal vitreous china lavatories (reference Photograph 29 in Appendix B). The lavatories generally 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 a stainless steel double sink within the classroom and a white cast iron sink in the kitchen (reference Photograph 30 in Appendix B). The sinks contained double lever handle non-metering faucet.

##### D2018 Drinking Fountains

We noted two wall mounted stainless steel drinking fountains at variable heights within the corridor area (reference Photograph 31 in Appendix B).

#### 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 and equipment via copper pipe work. The water enters the facility at the northeast side.

##### D2022 Hot Water Service

Domestic hot water was generated via a single electric 6 gallon water heater located in the attic area (reference Photograph 32 in Appendix B).

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

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

Location	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	≈ Year of Installation
Attic Area	State	P6610MSKO	M99312267	Electric	6 US Gallon	Assumed 2012

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

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

**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 with newer PVC added at a later time.

**CONDITION**

**D2010 PLUMBING FIXTURES**

D2011 Water Closets

The water closets and flush valves appeared to be in fair to good condition. The water closets 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 their replacement during the study period. However we do recommend the flush valves are rebuilt mid to late term during the study period to maintain optimal performance. The cost of this work has not been included in the cost study as it is anticipated to fall below the threshold level in this instance.

D2013 Lavatories

The lavatories and faucets appeared to be in fair to 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. However we do recommend the faucets are replaced mid to late term during the study period to maintain optimal performance.

D2014 Sinks

The counter top sinks appeared to be in fair condition. We anticipate that there will be no requirement for replacement within the study period. However we do recommend the faucets are replaced mid to late term during the study period to maintain optimal performance.

**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 domestic water heater appeared to be in good condition. It was observed to be functional and operating correctly, however hot water heaters generally have a typical EUL of twenty-years therefore the water heater will require replacement to maintain efficiency at the end of the study period. However the cost of replacement will fall below the threshold level and therefore has not been included in the expenditure study.

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 south east area of the building. Gas service is routed to the furnaces.

**D3030 COOLING GENERATING SYSTEMS**

D3032 Direct Expansion Systems

The building utilizes multiple split systems with varying sizes for cooling and heating. The outdoor condenser units at ground level are located on the south side of the building (reference Photograph 35 in Appendix B) and the air handling units are located in the attic area. The split-systems are manufactured by Carrier, Bryant, and Goodman.

**D3040 HEAT HVAC DISTRIBUTION SYSTEMS**

D3041 Air Distribution Systems

The building utilizes six air handler units that are manufactured by Carrier, Bryant, and Goodman and are located at the mezzanine space between the ceiling and roof levels (reference Photograph 34 in Appendix B). Only two of these units were accessible.

The ductwork is sheet metal, except for flexible duct connections to ceiling diffusers in suspended ceiling areas.

D3042 Exhaust Ventilation Systems

The building contained standard restroom style ceiling exhaust fans at the restrooms and kitchen area and are designed to remove air from the interior spaces within the building. The exhausted air is ducted from the exhaust fan through a 6" diameter duct which travels through the attic and discharges through roof vents.



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	Split-System Outdoor Condenser Unit	Goodman	CK49-38	0005585136	4 Tons	Electric	Assumed 2010
South Elevation	Split-System Outdoor Condenser Unit	Goodman	CK49-38	0005497665	4 Tons	Electric	Assumed 2010
South Elevation	Split-System Outdoor Condenser Unit	Carrier	38CKC036 350	3603E20062	4 Tons	Electric	Assumed 2006
South Elevation	Split-System Outdoor Condenser Unit	Carrier	38CKC048 570	1504E15715	4 Tons	Electric	Assumed 2004
South Elevation	Split-System Outdoor Condenser Unit	Bryant	561CJ048- F	2302E23935	4 Tons	Electric	Assumed 2002
South Elevation	Split-System Outdoor Condenser Unit	Bryant	561CJ048- F	2302E23937	4 Tons	Electric	Assumed 2002

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 serve.

## 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.

### D3030 COOLING GENERATING SYSTEMS

#### D3032 Direct Expansion Systems

The split-system appeared to be in fair to good condition. We are unaware when the systems were installed, however based on their observed condition and the typical EUL of twenty-years for this type of system. We have anticipated replacement for the exterior unit to coincide with the interior mounted unit late-term in the study period.

### D3040 HEAT HVAC DISTRIBUTION SYSTEMS

#### D3041 Air Distribution Systems

The AHU's appeared to be in fair to good condition and well maintained. The typical EUL of an AHU of this kind is twenty-years; therefore due to the RUL and observed condition we recommend replacement during the twenty year study period. We have accounted for this expenditure to coincide with the replacement of the associated exterior condenser units.

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 do recommend that the duct work is cleaned every five-years.

### D3060 HVAC INSTRUMENTATION AND CONTROLS

#### D3069 Other Controls & Instruments

The thermostat controls appear to be in fair condition, they appear to match the age of the HVAC equipment they serve. We recommend that they are replaced along with the units. Until that time we do not anticipate any related issues.

**D40 FIRE PROTECTION**

**DESCRIPTION**

**D4010 SPRINKLERS**

D4011 Sprinkler Water Supply

The building is protected with an automatic wet-pipe fire suppression system utilizing standard pendent commercial sprinkler heads fixed to fire-line pipes which are supported via the upper structure. The system is monitored by water flow and tamper switches connected to the fire alarm system. The sprinkler main enters the building at the east elevation (reference Photograph 36 in Appendix B). The water main incoming is a 6" line at the point of service.

**D4030 FIRE PROTECTION SPECIALTIES**

D4031 Fire Extinguishers

Multipurpose portable wall mounted handheld fire extinguishers were provided throughout the building (reference Photograph 37 in Appendix B).

**CONDITION**

**D4010 SPRINKLERS**

D4011 Sprinkler Water Supply

The sprinkler system was observed to be in good condition and all inspections up to date. No visible corrosion or leaks were observed however with the sprinkler heads having a typical EUL of twenty-years and with time the fire sprinkler heads can decrease in functionality and therefore lessen the efficiency of the entire sprinkler system. We anticipate that there will be a requirement for their replacement mid-term 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. The fire extinguishers were last tested in May 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 service entrance equipment, panel boards, safety switches, motor controls, lighting fixtures, and security systems.

#### D5010 ELECTRICAL SERVICE & DISTRIBUTION

D5012 Low Tension Service & Dist.

The Main Distribution Panel (MDP) is manufactured by Industrial Electric and is rated at 208Y/120 volts at 1,000 amps and is located at the south side of the building (reference Photograph 38 in Appendix B. Branch panels are typically Square D panel boards throughout the building and are rated at varying amps (reference Photograph 39 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 this type of building. Branch wiring was observed to typically be distributed in Electric Metallic Tubing (EMT) and flexible metal conduit.

D5022 Lighting Equipment

The interior lighting within the building is provided by recessed 2' x 4' 3 lamped fluorescent fixtures (reference Photograph 27 in Appendix B), 2' x 2' (reference Photograph 41 in Appendix B), 4' strip light fixtures (reference Photograph 40 in Appendix B) and surface mounted 1' x 2' double lamped fluorescent fixtures. The fluorescent fixtures all contained F32 T8 32W lamps and electronic ballasts. All of the in-room lighting is controlled via local switching in the respective rooms. We also noted wall mounted decorative light fixtures within the lobby restrooms (reference Photograph 26 in Appendix B).

#### D5030 COMMUNICATIONS & SECURITY

D5033 Telephone Systems

Telephone and data system was present at the south side of the building within the electrical room (reference Photograph 42 in Appendix B).

D5037 Fire Alarm Systems

The building is protected by a digital automatic fire detection alarm system. The main Fire Alarm Control Panel (FACP) is located within the electrical room, and is manufactured by Fire Lite. The FACP model is MS-5210UD (reference

Photograph 43 in Appendix B). Addressable devices are located throughout the building such as smoke detectors, pull stations and fire bell. The system is monitored by Bay Alarm Tel: 707.769.3524

#### D5038 Security and Detection Systems

The building contains an intruder alarm system (reference Photograph 44 in Appendix B), which consists of a programmable security alarm panel and motion sensors. The alarm panel is located near to the north entrance and the motion sensors are located throughout the building. We understand that the security system is also monitored by Bay Alarm.

### D5090 OTHER ELECTRICAL SYSTEMS

#### D5092 Emergency Light & Power Systems

Emergency exit signs are provided at exit routes from the building (reference Photograph 45 in Appendix B).

## CONDITION

### D5010 ELECTRICAL SERVICE AND DISTRIBUTION

#### D5012 Low Tension Service & Dist.

The major electrical equipment items appeared to be in fair condition and assumed original to the building. 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, panel boards, and motor starters 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 their 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. We do not anticipate a requirement for their replacement during the cost study period.

D5022 Lighting Equipment

The interior lighting was observed to be in good condition and all fixtures were operating properly with no broken lenses or deteriorated housings. We understand that all of the light fixtures were upgraded in the last ten years and therefore apart from re-lamping and replacement of fixtures on an individual basis, no actions are anticipated during the study period.

**D5030 COMMUNICATIONS & SECURITY**

D5033 Telephone Systems

The existing telephone and data equipment was observed to be in good condition. Based on a typical EUL of fifteen-years replacement is recommended based on industry standards late in the study period.

D5037 Fire Alarm Systems

The fire detection and alarm systems are in good condition and installed in accordance with the code in effect at the time of construction. The date of when the fire alarm system devices were last tested was not reported to us, but is typically an annual requirement. Based on a typical EUL of fifteen-years replacement is recommended based on industry standards late in the study period.

D5038 Security and Detection Systems

The intruder alarm system appeared to be in fair to good condition. We are unaware of any issues with the system. We assume it to be no more than a few years old therefore we do not anticipate a requirement for replacement.

**D5090 OTHER ELECTRICAL SYSTEMS**

D5092 Emergency Light & Power Systems

Emergency exit signs appeared to be in good condition. We do not anticipate their replacement during the cost study period, apart from replacement of the signs 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
D2011	Water Closets	Rebuild flush valves at water closets	4	EACH	\$238	\$952	2020	3
D2013	Lavatories	Replace faucets at lavatories	4	EACH	\$225	\$900	2020	4
D2013	Sinks	Replace sinks	2	EACH	\$2,170	\$4,340	2015	3
D3032	Direct Expansion Systems	Replace Split-System	4	TON	\$1,812	\$7,248	2030	3
D3032	Direct Expansion Systems	Replace Split-System	4	TON	\$1,812	\$7,248	2026	3
D3032	Direct Expansion Systems	Replace Split-System	4	TON	\$1,812	\$7,248	2024	3
D3032	Direct Expansion Systems	Replace Split-System	4	TON	\$1,812	\$7,248	2022	3
D3032	Direct Expansion Systems	Replace Split-System	4	TON	\$1,812	\$7,248	2022	3
D3041	Air Distribution Systems	Clean ductwork	13,283	SF	\$0.25	\$3,321	2018	3
D3041	Air Distribution Systems	Clean ductwork	13,283	SF	\$0.25	\$3,321	2023	3
D3041	Air Distribution Systems	Clean ductwork	13,283	SF	\$0.25	\$3,321	2028	3
D3042	Exhaust Ventilation Systems	Replace exhaust fans (5)	500	CFM	\$1.56	\$780	2020	3
D4011	Sprinkler Water Supply	Replace fire sprinkler heads	13,283	SF	\$1.05	\$13,947	2030	1
D5012	Low Tension Service Dist.	Preventative Maintenance to electrical equipment	1	LS	\$500	\$500	2014	3
D5012	Low Tension	Preventative Maintenance to	1	LS	\$500	\$500	2017	3

	Service Dist.	electrical equipment						
D5012	Low Tension Service Dist.	Preventative Maintenance to electrical equipment	1	LS	\$500	\$500	2020	3
D5012	Low Tension Service Dist.	Preventative Maintenance to electrical equipment	1	LS	\$500	\$500	2023	3
D5012	Low Tension Service Dist.	Preventative Maintenance to electrical equipment	1	LS	\$500	\$500	2026	3
D5012	Low Tension Service Dist.	Preventative Maintenance to electrical equipment	1	LS	\$500	\$500	2029	3
D5012	Low Tension Service Dist.	Preventative Maintenance to electrical equipment	1	LS	\$500	\$500	2032	3
D5033	Telephone System	Replace telephone system	13,283	SF	\$1.00	\$13,283	2025	3
D5037	Fire Alarm Systems	Replace fire alarm system	13,283	SF	\$5.00	\$66,415	2025	1
Total Anticipated Expenditure for D Services						\$153,141		



## SECTION 6 - E EQUIPMENT & FURNISHINGS

### E20 FURNISHINGS

#### DESCRIPTION

#### E2010 FIXED FURNISHINGS

##### E2012 Fixed Casework

The building contained wood constructed fixed casework within the break room/kitchen and classroom (reference Photographs 47 and 48 in Appendix B). The wood cabinets generally consisted of hardwood frames and plywood panels with wooden door panels. The worktop consisted of a ceramic tile counter.

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 and reception counter appeared to be in fair to good condition and functional. Fixed cabinets as well as reception counters usually have a typical EUL of twenty-years; therefore replacement will be anticipated 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
E2010	Fixed Casework	Replace fixed casework to include counter tops at reception	1	LS	\$10,000	\$10,000	2020	4
E2010	Fixed Casework	Replace fixed casework to include counters at classroom	8	LF	\$600	\$4,800	2015	4
E2010	Fixed Casework	Replace fixed base cabinets to include counters at kitchen and conference room reception	24	LF	\$600	\$14,400	2015	4
E2010	Fixed Casework	Replace fixed upper cabinets at kitchen	9	LF	\$250	\$2,250	2015	4
Total Anticipated Expenditure for D Services						\$31,450		

## SECTION 7 - G BUILDING SITEWORK

### G20 SITE IMPROVEMENTS

#### DESCRIPTION

### G2020 PARKING LOTS

#### G2021 Bases and Sub-Bases

The main building parking lot is located west of the building and can be accessed from Palm Drive (reference Photograph 49 in Appendix B), and caters for visitors to the Community Center. The parking lot 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 ADA Parking Spaces
Parking Lot	Asphalt	East Parking Lot	1,200 SY	Unknown*	Unknown*
Parking Lot	Asphalt	South Parking Lot (rear of the building)	426 SY	None	None

\*At the time of assessment there was no visible striping to indicate parking spaces.

### G2030 PEDESTRIAN PAVING

#### G2031 Paving & Surfacing

The building contained concrete paving along all elevations. We assume the paving is supported via a flexible base of sand setting bed and compacted sub grade.

#### G2033 Exterior Steps

The building contained cast-in-place concrete steps (reference Photograph 52 in Appendix B) and ramp at the north side of the building, which connected the community center site to the city sidewalk. The steps contained steel tubular handrails at either side.

## G2050 LANDSCAPING

### G2056 Planters

Landscaping consisted of shrubs; succulents and ground cover, with a number of mature trees along Palm Drive and to the south of the building.

### G2057 Irrigation Systems

The landscaped areas throughout the property are irrigated via a below grade automatic irrigation system. The irrigation system is supplied by below grade PVC piping and controllers. Pop-up type sprinkler heads and a drip system are scattered throughout the site.

## CONDITION

## G2020 PARKING LOTS

### G2021 Bases and Sub-Bases

The asphalt paved areas throughout the parking lot appeared to be in poor to fair condition. We noted minor areas of surface cracking within the wearing course and large areas of surface alligator cracking (reference Photographs 50 and 51 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. We recommend undertaking full depth asphalt pavement repair followed by restriping in these areas.

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

## G2030 PEDESTRIAN PAVING

### G2031 Paving & Surfacing

The concrete pavements appeared to be in good condition. There are no major instances of cracking to the pavements. We recommend that the caulking is removed and new applied late in the study period, we have calculated one replacement period into the buildings expenditures.

### G2033 Exterior Steps

The cast-in-place concrete steps appeared to be in good condition with no issues observed and no reported instances of disrepair. We do not anticipate replacement during the study period. The painted surface of the handrails has started to deteriorated therefore we recommend that they are repainted at the same time as the exterior of the building.

**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.

G2057 Irrigation Systems

The irrigation system at the building was observed to be in good condition, however not tested. No issues were observed and no reported instances of disrepair. We do not anticipate replacement during the study period only as-needed repair and replacement which is anticipated to fall below the threshold level of \$500.

**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	Full depth asphalt repair	1,626	SY	\$31.00	\$50,406	2013	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping at the parking lot	1,626	SY	\$1.50	\$2,439	2018	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping at the parking lot	1,626	SY	\$1.50	\$2,439	2023	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping at the parking lot	1,626	SY	\$1.50	\$2,439	2028	3
G2031	Paving & Surfaces	Replace sealant to paving joints	107	LF	\$11.25	\$1,204	2020	3
Total Anticipated Expenditure for G Building Site work						\$58,927		

# Appendix A

Twenty-Year  
Expenditure Forecast  
2013 - 2032



# Appendix B

## Photographs





**Photograph No. 1**

View of the concrete slab-on-grade.



**Photograph No. 2**

View of main entrance ramp.



**Photograph No. 3**

View of the deteriorated paintwork on the ramp handrails.



**Photograph No. 4**

View of the pitched roof construction.



**Photograph No. 5**

View of the CMU wall construction that make up the building's extension. Also shows a single hollow metal door.



**Photograph No. 6**

Shows the cast-in-place concrete walls that make up the main wall construction for the building. Also shows painted metal framed windows.





**Photograph No. 7**

View of a column at the main entrance showing signs of wear and needs repainting.



**Photograph No. 8**

View of a painted metal window on the north facing elevation.



**Photograph No. 9**

Closer view of the metal framed windows which will soon need replacing.



**Photograph No. 10**

View of the glazed aluminum main entrance door unit with side window.



**Photograph No. 11**

View of a glazed aluminum frame door unit with window on the east facing elevation.



**Photograph No. 12**

View of a double hollow metal door. Door is stained and needs repainting. Also shows exterior wall pack light.



**Photograph No. 13**

View of both types of roof covering. Asphalt roll on the flat roof and 'Spanish' tiles cover the pitched roof. Also shows gutters and downspouts.



**Photograph No. 14**

View of an unconnected downpipe. Also shows weathered fascia board that needs repainting.



**Photograph No. 15**

View of the painted gypsum board partitions that form the corridor in the east part of the building.



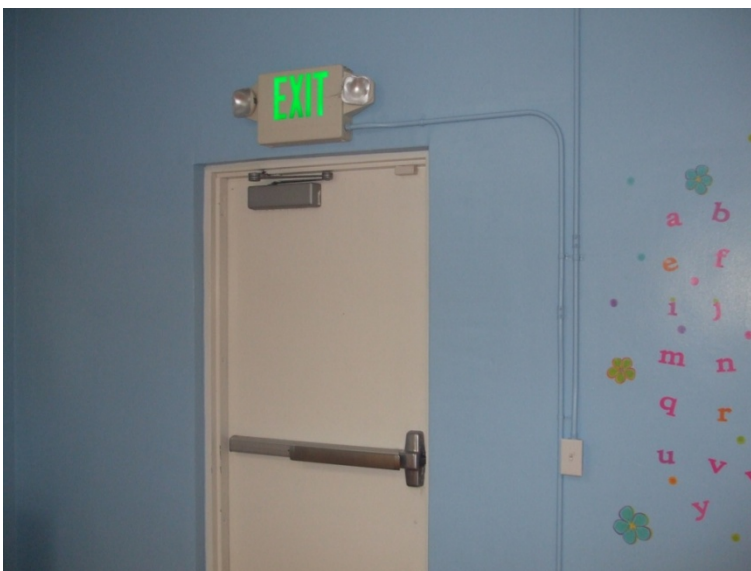
**Photograph No. 16**

View of an interior window in the lobby area.



**Photograph No. 17**

View of an interior single painted wood door.  
Also shows painted gypsum board wall finish.



**Photograph No. 18**

View of a single painted fire escape door with  
panic hardware.





**Photograph No. 19**

View of the ceramic wall tile finish and the ceramic floor tile finish in the men's lobby restroom. Also shows vitreous china water closet.



**Photograph No. 20**

View of the ceramic wall tile finish and the ceramic floor tile finish in the men's 'east wing' restroom. Also shows ADA compliant vitreous china water closet.



**Photograph No. 21**

View of the laminate wood floor system in the children's playroom.



**Photograph No. 22**

View of the rubber tile floor system in the taekwondo room.



**Photograph No. 23**

View of the natural stone tile floor finish in the lobby.



**Photograph No. 24**

View of the sheet carpet floor finish. Carpet here is becoming detached at the seam.





**Photograph No. 25**

View of the stained carpet in the large conference room.



**Photograph No. 26**

View of the painted gypsum board ceiling finish. Also shows decorative light fixture.



**Photograph No. 27**

View of the suspended acoustic ceiling system. Also shows the 2' x 4' recessed light fixtures.



**Photograph No. 28**

View of some stained acoustic ceiling tiles that need replacing.



**Photograph No. 29**

View of the wall mounted vitreous china pedestal lavatory in the men's lobby restroom.



**Photograph No. 30**

View of double countertop sink in the kitchen.



**Photograph No. 31**

View of two wall mounted drinking fountains in the east part of the building.



**Photograph No. 32**

View of the electric domestic water heater located in the attic space.



**Photograph No. 33**

View of a site drain, located at the rear of the property.





**Photograph No. 34**

View of a gas powered air handling unit located in the attic space.



**Photograph No. 35**

View of the condenser units, located at the south side of the building.



**Photograph No. 36**

View of the fire riser for the wet-pipe sprinkler system.



Photograph No. 37

View of one of the fire extinguishers present throughout the building.



Photograph No. 38

View of the main distribution panel and electric meters.



Photograph No. 39

View of one of the panel boards.



**Photograph No. 40**

View of a 4' strip light fixture with no lens.



**Photograph No. 41**

View of a 2'x 2' recessed light fixture.



**Photograph No. 42**

View of the telephone system.



Photograph No. 43

View of the fire alarm system.



Photograph No. 44

View of the intruder alarm system.



Photograph No. 45

View of a LED Emergency Exit sign with egress lighting.





**Photograph No. 47**

View of a dated fixed wooden cabinet which will soon need replacing. Also shows countertop double stainless steel sink.



**Photograph No. 48**

View of a kitchen countertop.



**Photograph No. 49**

General view of the parking lot.





**Photograph No. 50**

View of the deteriorated asphalt.



**Photograph No. 51**

A further view of the deteriorated asphalt.



**Photograph No. 52**

View of exterior concrete steps.

# 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
Hamilton Community Center	Hamilton Community Center	Attic Area	D2022	Hot Water Service	Water Heater	State	P6610MSKO	M99312267		Electric	6 Gallons			Assumed 2012
Hamilton Community Center	Hamilton Community Center	South Elevation	D3053	Split-Systems	Split-System Outdoor Condenser Unit	Goodman	CK49-38	5585136		Electric	4 Tons			Assumed 2010
Hamilton Community Center	Hamilton Community Center	South Elevation	D3053	Split-Systems	Split-System Outdoor Condenser Unit	Goodman	CK49-38	5497665		Electric	4 Tons			Assumed 2010
Hamilton Community Center	Hamilton Community Center	South Elevation	D3053	Split-Systems	Split-System Outdoor Condenser Unit	Carrier	38CKC036350	360E20062		Electric	4 Tons			Assumed 2006
Hamilton Community Center	Hamilton Community Center	South Elevation	D3053	Split-Systems	Split-System Outdoor Condenser Unit	Carrier	38CKC036350	1504E15715		Electric	4 Tons			Assumed 2004
Hamilton Community Center	Hamilton Community Center	South Elevation	D3053	Split-Systems	Split-System Outdoor Condenser Unit	Bryant	561CJ048-F	2302E23935		Electric	4 Tons			Assumed 2002
Hamilton Community Center	Hamilton Community Center	South Elevation	D3053	Split-Systems	Split-System Outdoor Condenser Unit	Bryant	561CJ048-F	2302E23937		Electric	4 Tons			Assumed 2002

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

**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.