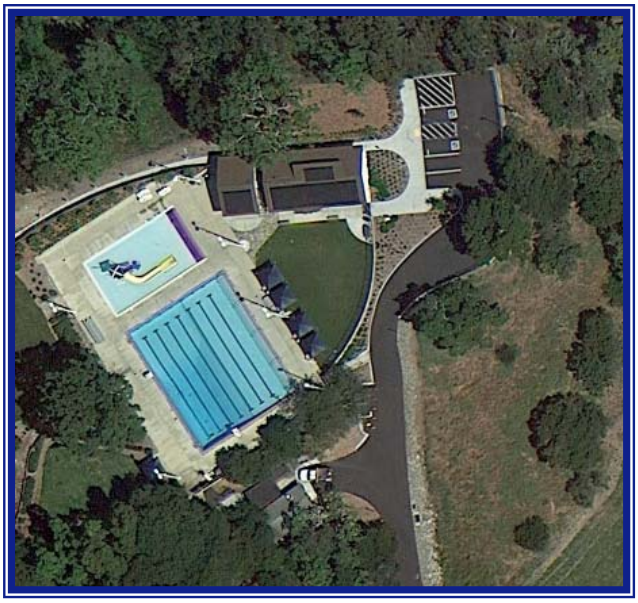
Citywide
Facility Condition Assessment

Report of

Facility Condition Assessment

For
City of Novato
Hamilton Pool & Bath House and Pool Pump Building
203 El Bonito Drive, Novato, CA



March 4, 2013

Provided By:

Faithful+Gould, Inc.

Provided For:

City of Novato

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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 the Hamilton Pool & Bath buildings located at 203 El Bonito Drive, Novato, CA (The Facility). The facility consisted of the following buildings:

- Pool & Bath House
- Pool Pump Building

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).

Charts EX-1 and EX-2 provide 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 each 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 24, 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 Steve Evans, Senior Facilities Custodian for the City of Novato.

Overview of the Buildings at the Facility

BUILDING SUMMARY

Table EX-1 Facility Details

BUILDING NAME:	Pool & Bath House		LAT/LONG:	38°.03'12.28"N / -122°.30'44.62"W	
ADDRESS:	203 El Bonito Drive, Novato, CA 94949		OCCUPANCY STATUS: OCCUPIED ☒ VACANT ☐ PARTIALLY ☐		
HISTORIC DISTRICT:	YES ☐	NO ☒	HISTORIC BUILDING:	YES ☐	NO ☒
GROSS SQUARE FOOTAGE OF BUILDING:	1,800		GROSS SQUARE FOOTAGE OF LAND:	55,000 (estimated) Whole Facility	
CURRENT REPLACEMENT VALUE:	$1,526,400 (Includes estimated pool replacement value)		YEAR OF CONSTRUCTION:	2009	
BUILDING USE:	Changing Facilities		NUMBER OF STORIES:	1	

BUILDING DESCRIPTION

The Pool & Bath House building is part of a swimming complex located at 203 El Bonito Drive, Novato. We understand that the buildings along with the pool upgrades were completed circa 2009. The facility includes two pools. The larger pool is intended for lap swimming and aquatic sports. The smaller of the two has a shallow play area and a beach type access ramp with a large climbing jungle gym.

The building contained steel columns at each perimeter corner supporting laminated wood beams supporting the roof structure with Concrete Masonry Unit (CMU) exterior wall fill, wood joist steep sloped roof construction and a reinforced concrete floor slab. The roof covering consists of an asphalt shingle roof system. Windows consisted of aluminum single pane units and doors consisted of a glazed aluminum door within glazed storefront and hollow metal personnel doors. The interior finishes of the building contained sealed exposed concrete floors to the office and an epoxy coated floors at the changing rooms and restrooms, as well as painted and ceramic tile wall finishes.

There is no HVAC to the building. Hot water is provided by two 130 US gallon domestic water heaters.

The main incoming service for the site is routed from the meter to the Main Distribution Panel (MDP) at the Pool & Bath House and is manufactured by Cutler-Hammer and is rated at 240/120 volts at 200-amps. Interior lighting is provided by surface mounted 4' strip fluorescent fixtures with T8 32 watt bulbs. There is a wet-pipe sprinkler system, fire alarm and an intruder security alarm system.

Table EX-2 Facility Details

BUILDING NAME:	Pool Pump Building		LAT/LONG:	38°.03'10.60"N / -122°.30'44.86"W	
ADDRESS:	203 El Bonito Drive, Novato, CA 94949		OCCUPANCY STATUS: OCCUPIED ☒ VACANT ☐ PARTIALLY ☐		
HISTORIC DISTRICT:	YES ☐	NO ☒	HISTORIC BUILDING:	YES ☐	NO ☒
GROSS SQUARE FOOTAGE OF BUILDING:	2,000		GROSS SQUARE FOOTAGE OF LAND:	55,000 (estimated) Whole Facility	
CURRENT REPLACEMENT VALUE:	$650,000		YEAR OF CONSTRUCTION:	Circa 1950	
BUILDING USE:	Equipment Building		NUMBER OF STORIES:	1	

BUILDING DESCRIPTION

The Pool Pump Building is part of the swim Hamilton Pool & Bath House swimming complex and is located at 203 El Bonito Drive, Novato. We understand that the building was built circa 1950. The building houses all of the pool equipment.

The pump house contained wood wall panel siding on a wood stud wall backing which contained a painted finish at all elevations, wood truss steep sloped roof construction and reinforced concrete floor slab. The roof covering consists of an asphalt shingle system. The building only contained single and double solid wood exterior personnel doors. The interior finishes of the building consisted of exposed concrete floors and painted wood wall surfaces.

There is no heating or cooling present at the building. The pool equipment consists of filters, pumps, and all associated piping.

The main incoming service for the site is routed from the meter to the Main Distribution Panel (MDP) at the Pool & Bath House and is manufactured by Cutler-Hammer and is rated at 240/120 volts at 200 amps. Interior lighting is provided by suspended 1' x 4' and 4' strip fluorescent fixtures with T8 32 watt bulbs.

There is no wet-pipe sprinkler system, fire alarm, intruder security alarm system or emergency generator present.

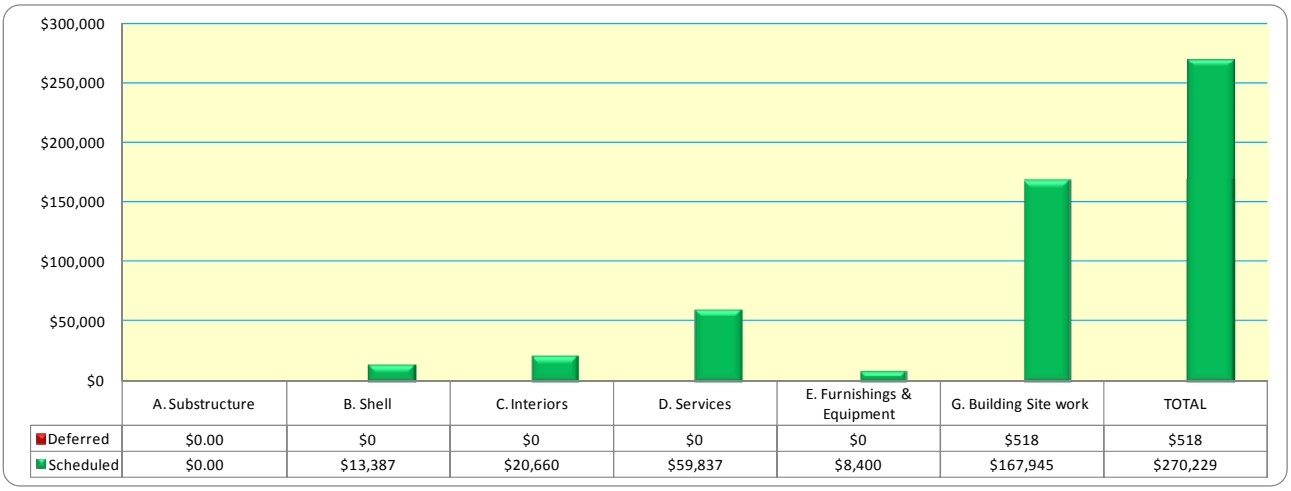
BUILDING EXPENDITURE SUMMARY

The building expenditure summary section provides an executive overview of the findings from the assessments. Charts EX-1 and EX-2 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.

Pool & Bath House

The results illustrate a total anticipated expenditure over the study period of circa $270,747.

Chart EX-1 Building Expenditure Summary [1, 2, 3 & 4]



	A. Substructure	B. Shell	C. Interiors	D. Services	E. Furnishings & Equipment	G. Building Site work	TOTAL
Deferred	$0.00	$0	$0	$0	$0	$518	$518
Scheduled	$0.00	$13,387	$20,660	$59,837	$8,400	$167,945	$270,229

KEY FINDINGS

- B Shell: Repaint exterior wall surfaces at an estimated cost of $4,286 in years 2017 and 2025
- C Interiors: Repaint interior wall surfaces at an estimated cost of $5,320 in years 2017 and 2025
- D Services: Replace domestic water heaters at a combined estimated cost of $12,220 in year 2025
- D Services: Replace fire alarm system at an estimated cost of $20,000 in year 2025
- E Furnishings: Replace fixed cabinets in office space at an estimated cost of $11,700 in year 2030
- G Building Sitework: Reapplication of pool coating at an estimated cost of $29,169 in year 2016, 2022 and 2028
- G Building Sitework: Replace sealant to paving construction joints at an estimated cost of $11,374 in year 2025

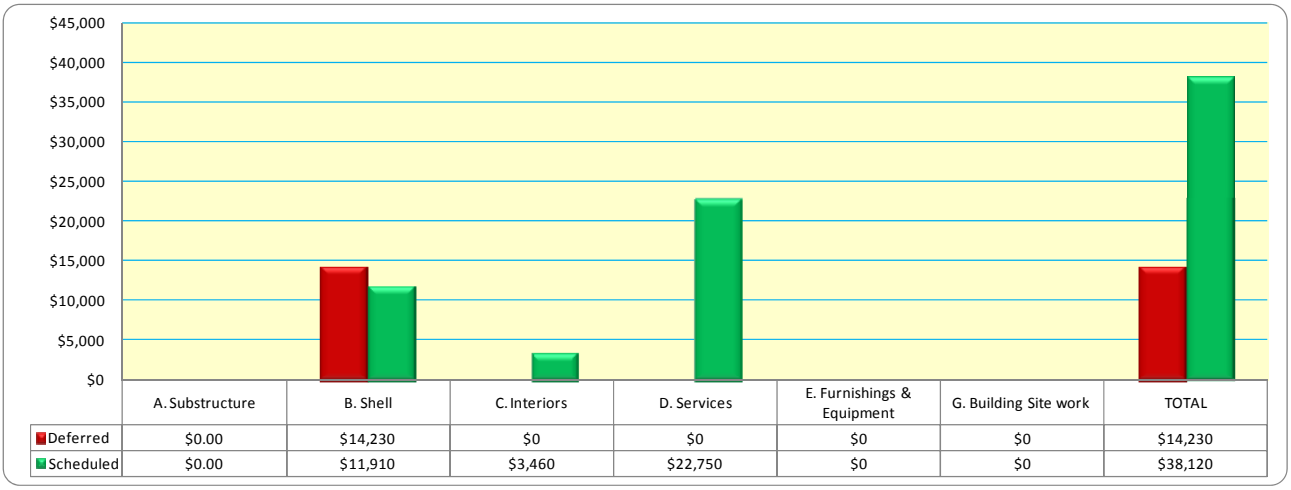
[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 20 year study period
[3] An allowance of 25% has been included for professional fees and general contractor overhead/profit and management costs
[4] ADA Compliance was not examined as part of this project.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

- G Building Sitework: Mill asphalt and overlay to include re-striping at an estimated cost of $18,030 in year 2030
- G Building Sitework: Replace pole site lighting at an estimated cost of $30,625 in year 2030

Pool Pump Building

The results illustrate a total anticipated expenditure over the study period of circa $52,350.

Chart EX-2 Building Expenditure Summary [1, 2, 3 & 4]



	A. Substructure	B. Shell	C. Interiors	D. Services	E. Furnishings & Equipment	G. Building Site work	TOTAL
Deferred	$0.00	$14,230	$0	$0	$0	$0	$14,230
Scheduled	$0.00	$11,910	$3,460	$22,750	$0	$0	$38,120

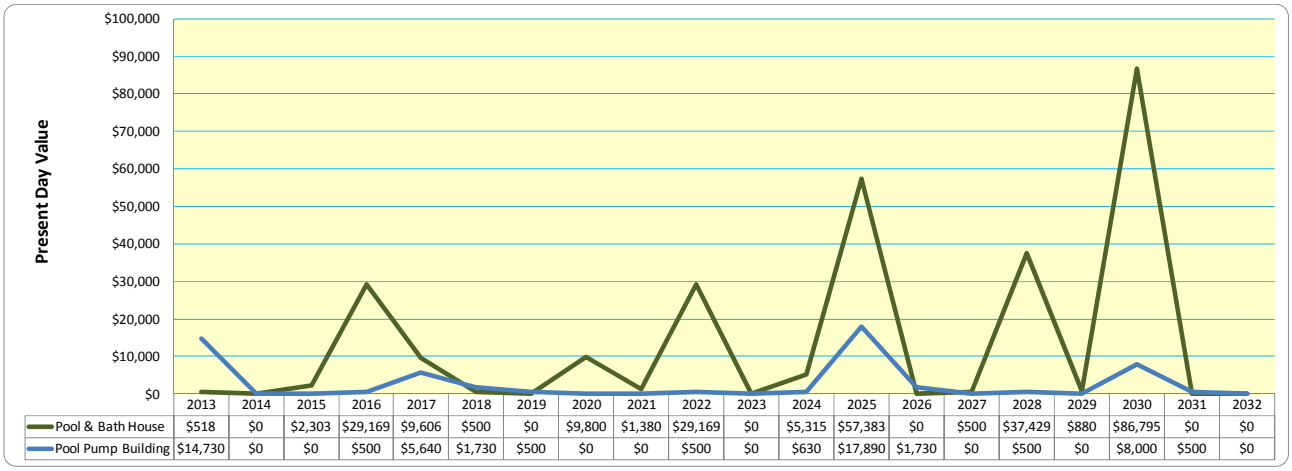
KEY FINDINGS

- B Shell: Repaint exterior wall surfaces at an estimated cost of $5,640 in years 2017 and 2025
- D Services: Replace pool circulation pumps at a combined estimated cost of $7,500 in year 2025
- D Services: Replace pool filters at an estimated cost of $8,000 in year 2030

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 20 year study period
[3] An allowance of 25% has been included for professional fees and general contractor overhead/profit and management costs
[4] 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 illustrates a summary of yearly anticipated expenditures over the cost study period for each of the building's. A detailed breakdown of anticipated expenditures is contained within Appendix A of this report.

Chart EX-3 Expenditure Forecast [1, 2, 3 & 4]



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Pool & Bath House	$518	$0	$2,303	$29,169	$9,606	$500	$0	$9,800	$1,380	$29,169	$0	$5,315	$57,383	$0	$500	$37,429	$880	$86,795	$0	$0
Pool Pump Building	$14,730	$0	$0	$500	$5,640	$1,730	$500	$0	$0	$500	$0	$630	$17,890	$1,730	$0	$500	$0	$8,000	$500	$0

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 20 year study period
[3] An allowance of 25% has been included for professional fees and general contractor overhead/profit and management costs
[4] 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 Pool & Bath House building within years 2025 and 2030 and the Pool Pump Building in the years 2013 and 2025 primarily due to the systems which are expected to reach their Estimated Useful Life (EUL) and therefore due for replacement. The line represents the total expenditure for each year, and is a useful tool to indicate the magnitude of the impeding issues the buildings 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.

Pool Pump Building

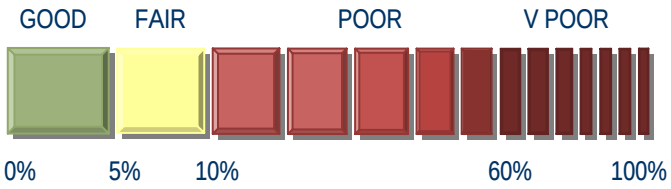
- A Substructure: Repairing the concrete with suitable epoxy repair system at location of cracks

INTERPRETING RESULTS

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

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

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



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

Table EX-3 FCI Scoring System

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

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

Table EX-4 provides calculations of the FCI for the buildings (excluding the site system expenditure costs); illustrating both the current condition of the buildings and the likely condition of the buildings should the required funding not be expended over the study period. The results of the study indicate that currently both of the buildings are in a GOOD condition rating at this time.

Table EX-4 Facility Condition Index

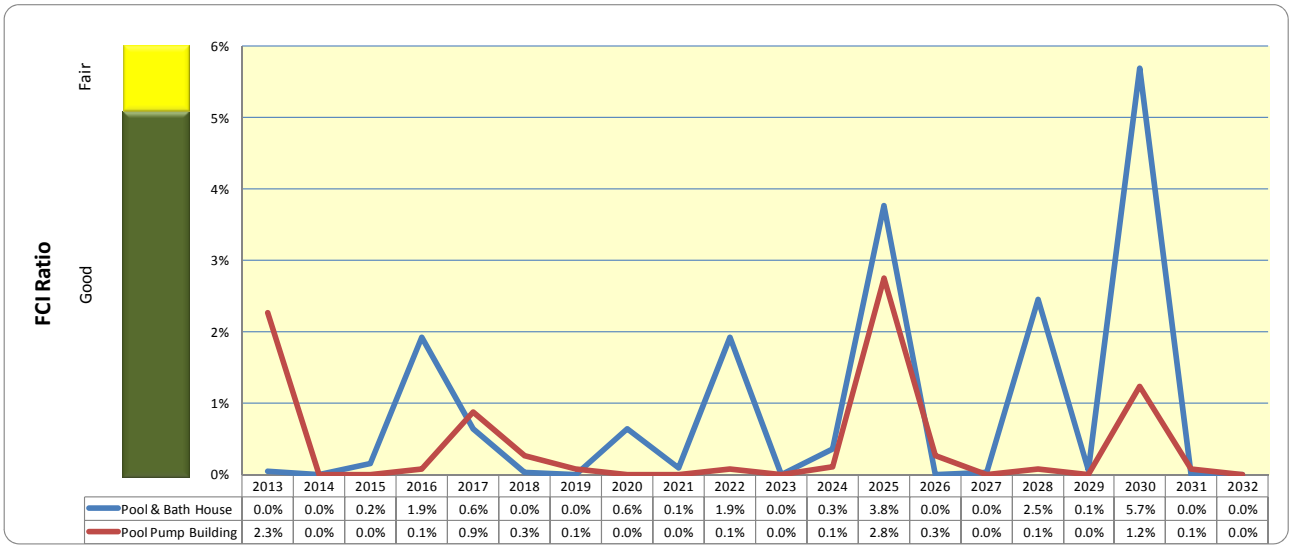
Building Name	FCI	Gross Square Foot (GSF)	CRV per GSF	Current Replacement Value (CRV)	Deferred Maintenance Value (DM) [1, 2, 3 & 4]	FCI Ratio	Property Condition rating
Pool & Bath House	Current FCI Ratio	1,800	$848*	$1,526,400	$518	0.0%	GOOD
Pool & Bath House	Year 20 FCI Ratio	1,800	$848*	$1,526,400	$270,747	17.7%	POOR
Pool Pump Building	Current FCI Ratio	2,000	$325	$650,000	$14,230	2.2%	GOOD
Pool Pump Building	Year 20 FCI Ratio	2,000	$325	$650,000	$52,350	8.1%	FAIR

* Includes pool replacement as well as building replacement

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 20 year study period
[3] An allowance of 25% has been included for professional fees and general contractor overhead/profit and management costs
[4] 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-4 indicates the affects of the FCI ratio per year, assuming the required funds and expenditures ARE made to address the identified works and deferred maintenance each year. As explained the buildings start with a GOOD condition rating in the first year of the study period then the Pool & Bath House falls into the FAIR condition rating at the end of the expenditure forecast in 2030.

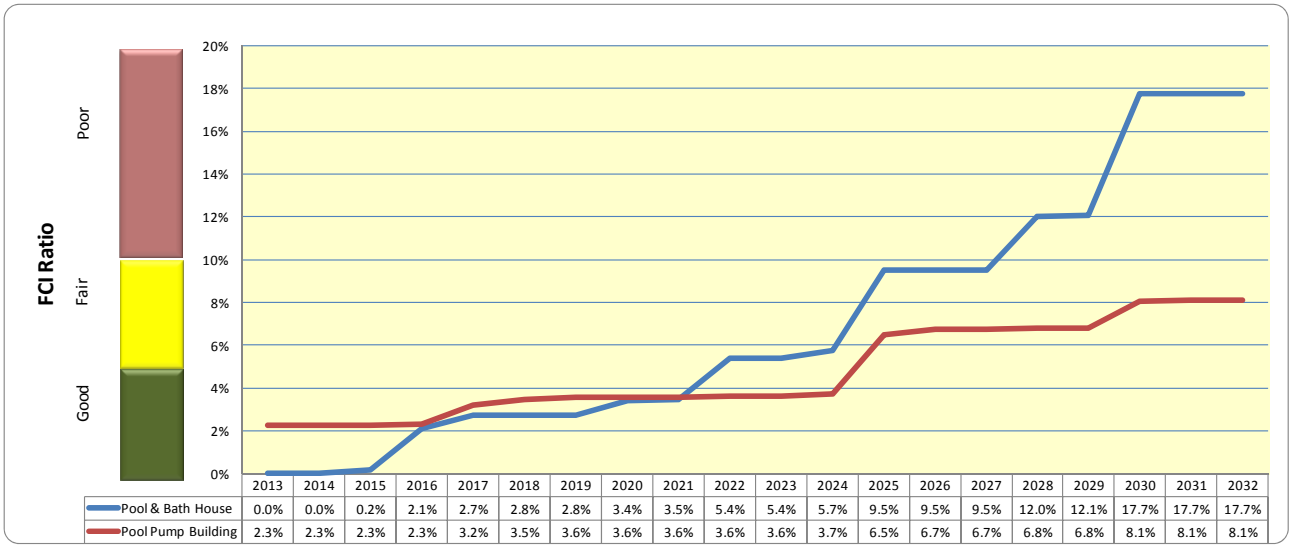
Chart EX-4 Year by Year Effects of FCI over the Study Period



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Pool & Bath House	0.0%	0.0%	0.2%	1.9%	0.6%	0.0%	0.0%	0.6%	0.1%	1.9%	0.0%	0.3%	3.8%	0.0%	0.0%	2.5%	0.1%	5.7%	0.0%	0.0%
Pool Pump Building	2.3%	0.0%	0.0%	0.1%	0.9%	0.3%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%	2.8%	0.3%	0.0%	0.1%	0.0%	1.2%	0.1%	0.0%

Chart EX-5 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 actions and deferred maintenance each year. The buildings start in GOOD condition until the year 2022 for the Pool & Bath House and the year 2025 for the Pool Pump Building where they then fall into the FAIR condition rating. The Pool & Bath House building continues to fall in the POOR condition rating in year 2028.

Chart EX-5 Cumulative Effects of FCI over the Study Period



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Pool & Bath House	0.0%	0.0%	0.2%	2.1%	2.7%	2.8%	2.8%	3.4%	3.5%	5.4%	5.4%	5.7%	9.5%	9.5%	9.5%	12.0%	12.1%	17.7%	17.7%	17.7%
Pool Pump Building	2.3%	2.3%	2.3%	2.3%	3.2%	3.5%	3.6%	3.6%	3.6%	3.6%	3.6%	3.7%	6.5%	6.7%	6.7%	6.8%	6.8%	8.1%	8.1%	8.1%

PRIORITIZATION OF WORK

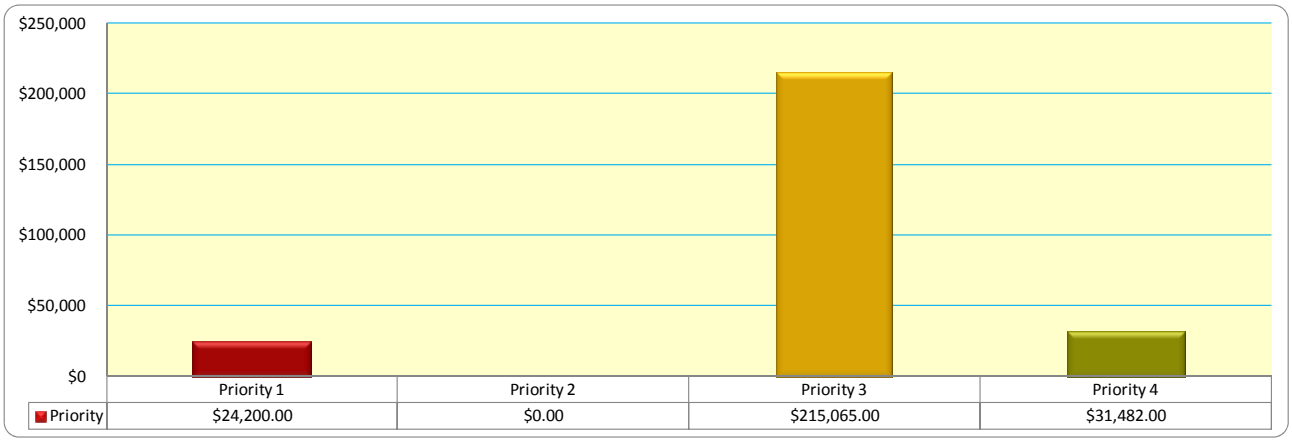
Faithful+Gould has prioritized the identified work in order to assist with analyzing the deficiencies found during the assessments. The following Priorities are shown below:

Priority 1 Life Safety/Code Compliance/ADA:	• Compromises staff or public safety or when a system requires to be upgraded to comply with current codes and standards
Priority 2 Currently Critical:	• A system or component is inoperable or compromised and requires immediate action
Priority 3 Necessary / Not Critical:	• Maintain the integrity of the facility or component and replace those items, which have exceeded their expected useful life
Priority 4 Image/Reputation:	• Used to maintain the appearance of a system due to image/reputation

Charts EX-6 and EX-7 illustrate the breakdown of expenditure according the priority coding providing an opportunity to strategically plan and effectively direct funding to the highest priority for each building.

Pool & Bath House

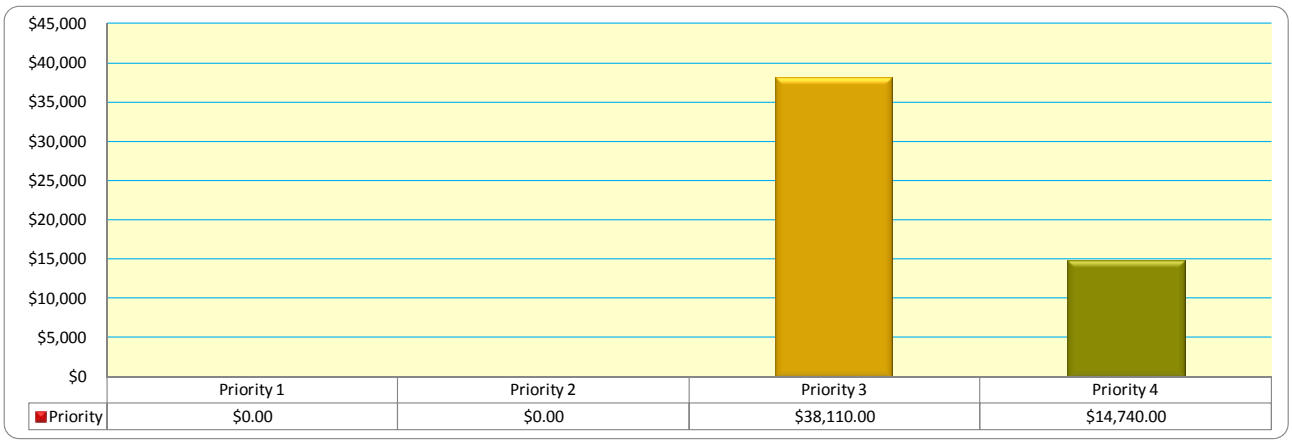
Chart EX-6 Cumulative Prioritization of Work



Priority 3 appears to require the most amount of expenditure in this study. This category illustrates that the work which needs to be undertaken is associated with necessary works to maintain the integrity of the building and replace equipment that has exceeded their EUL.

Pool Pump Building

Chart EX-7 Cumulative Prioritization of Work

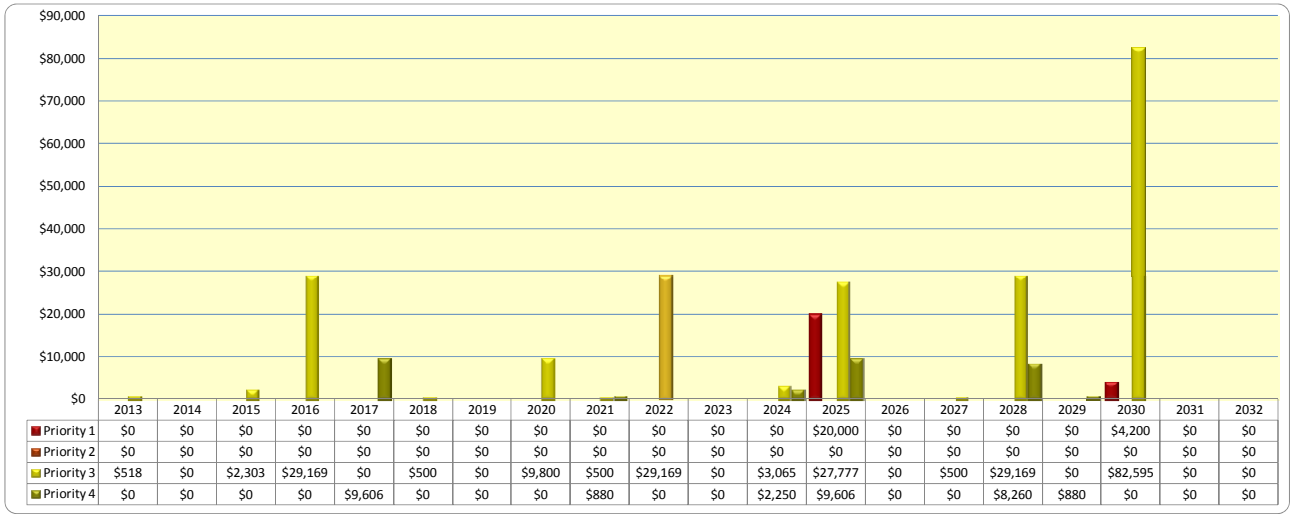


Priority 3 appears to require the most expenditure in this study. This category illustrates that the work which needs to be undertaken is associated with assets coming to the end of their EUL.

Charts EX-8 and EX-9 illustrate the expenditure per priority code, per each year within the 20 year study period.

Pool & Bath House

Chart EX-8 Year by Year Cumulative Prioritization of Work

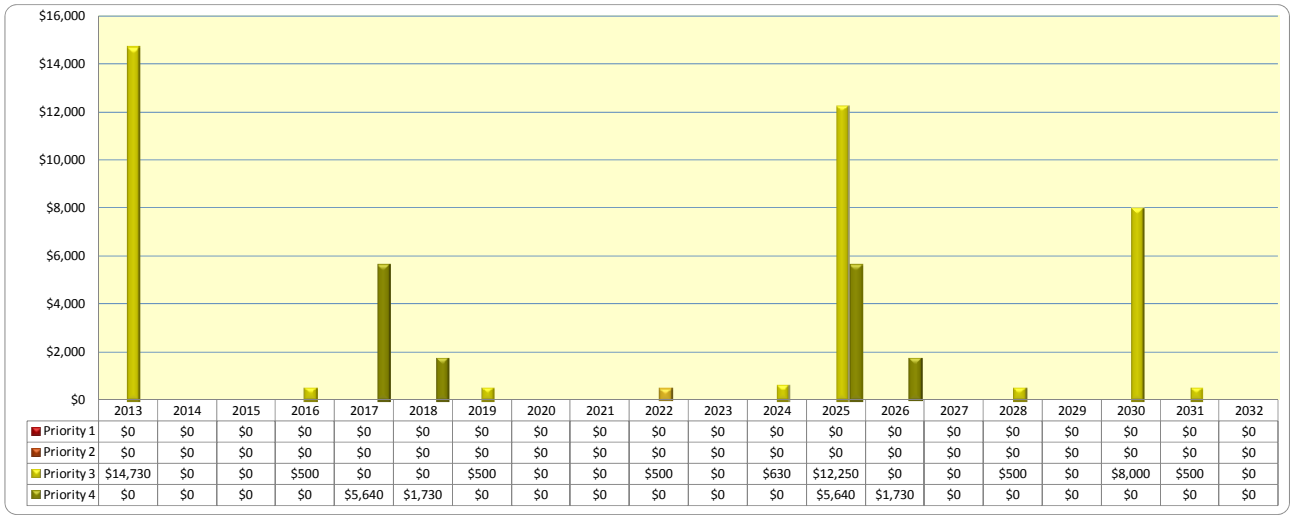


	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Priority 1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20,000	$0	$0	$0	$0	$4,200	$0	$0
Priority 2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Priority 3	$518	$0	$2,303	$29,169	$0	$500	$0	$9,800	$500	$29,169	$0	$3,065	$27,777	$0	$500	$29,169	$0	$82,595	$0	$0
Priority 4	$0	$0	$0	$0	$9,606	$0	$0	$0	$880	$0	$0	$2,250	$9,606	$0	$0	$8,260	$880	$0	$0	$0

Chart EX-8 illustrates that there is one key year for Priority 3 coding, towards the end of the study period in year 2030.

Pool Pump Building

Chart EX-9 Year by Year Cumulative Prioritization of Work



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Priority 1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Priority 2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Priority 3	$14,730	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$630	$12,250	$0	$0	$500	$0	$8,000	$500	$0
Priority 4	$0	$0	$0	$0	$5,640	$1,730	$0	$0	$0	$0	$0	$0	$5,640	$1,730	$0	$0	$0	$0	$0	$0

Chart EX-9 illustrates that there are three key years for Priority 3 at the start, mid-term and end of the expenditure period.

PLAN TYPES

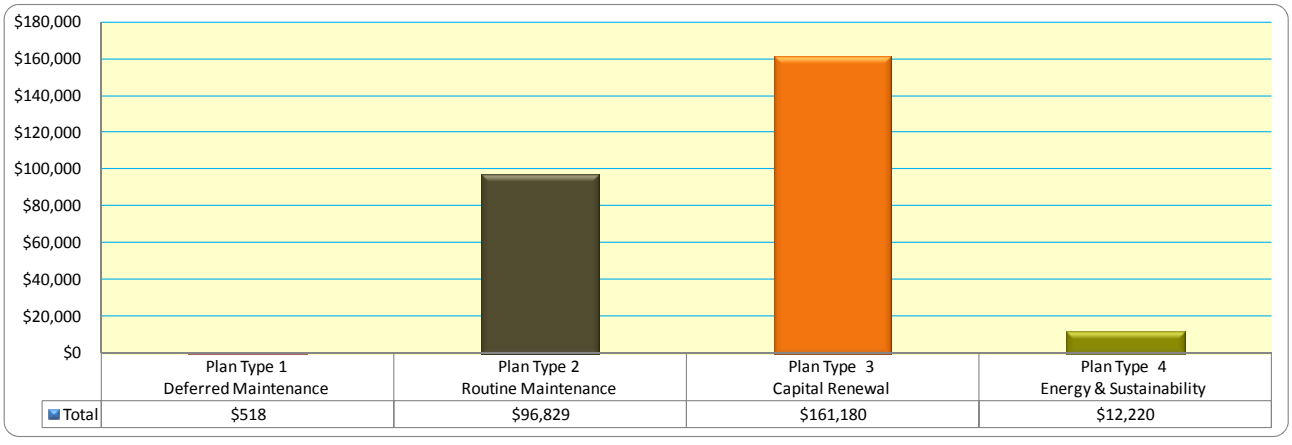
Faithful+Gould has prioritized the identified work according to the Plan Type or deficiency categories in order to assist with analyzing the deficiencies found during the assessments. The following Plan Types are shown below:

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

Charts EX-10 and EX-11 illustrate the amount of expenditure, per category within the 20 year study period.

Pool & Bath House

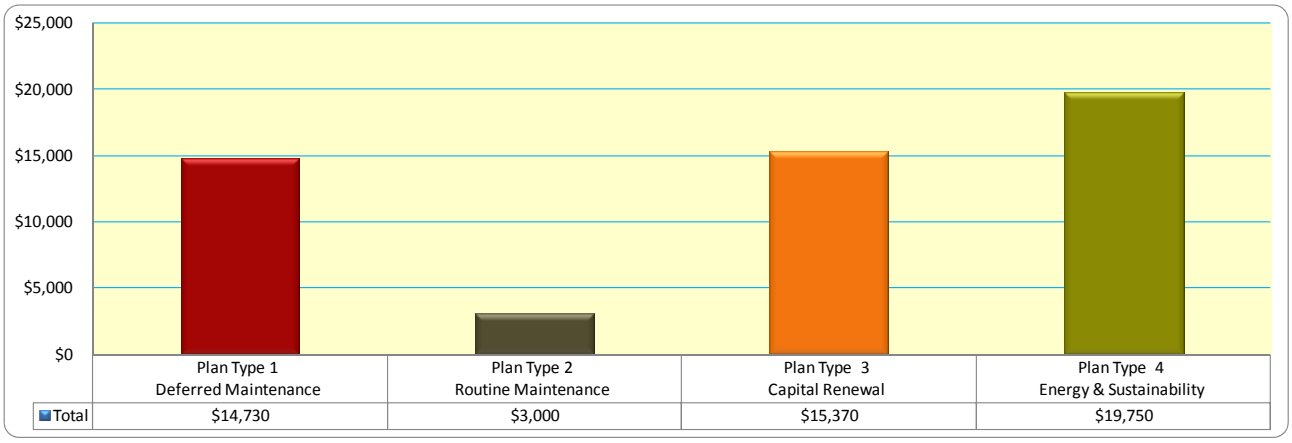
Chart EX-10 Cumulative Expenditure per Category of Works



Plan Type 3 – Capital Renewal appears to require the most amount of expenditure in this study.

Pool Pump Building

Chart EX-11 Cumulative Expenditure per Category of Works

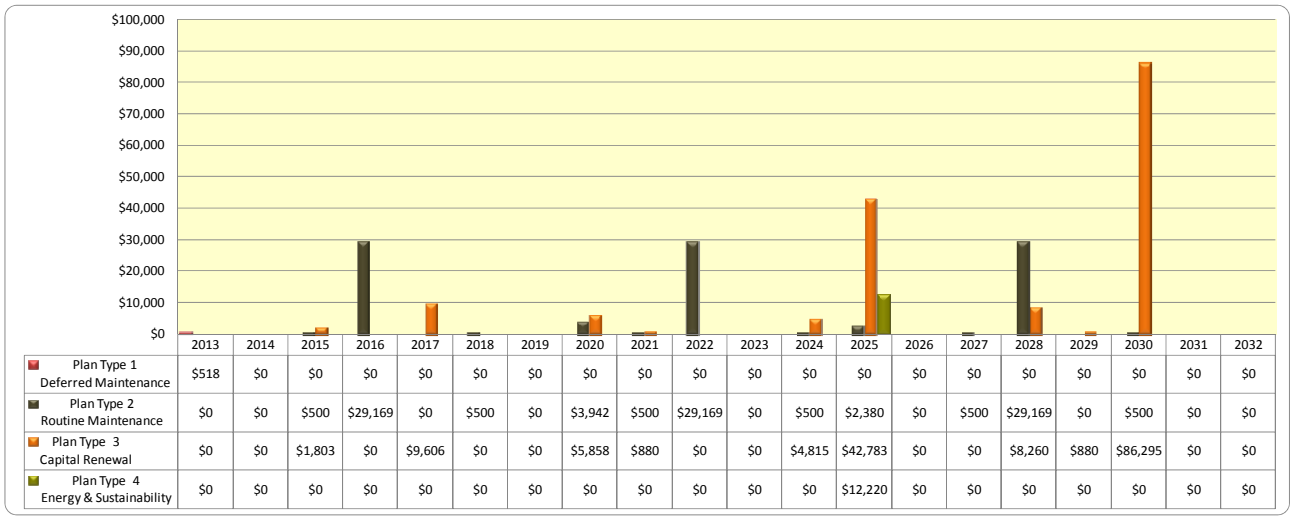


Plan Type 4 – Capital Renewal appears to require the most expenditure in this study.

Charts EX-12 and EX-13 illustrate the amount of expenditure, per category, per each year within the 20 year study period.

Pool & Bath House

Chart EX-12 Year by Year Cumulative Expenditure per Category of Works

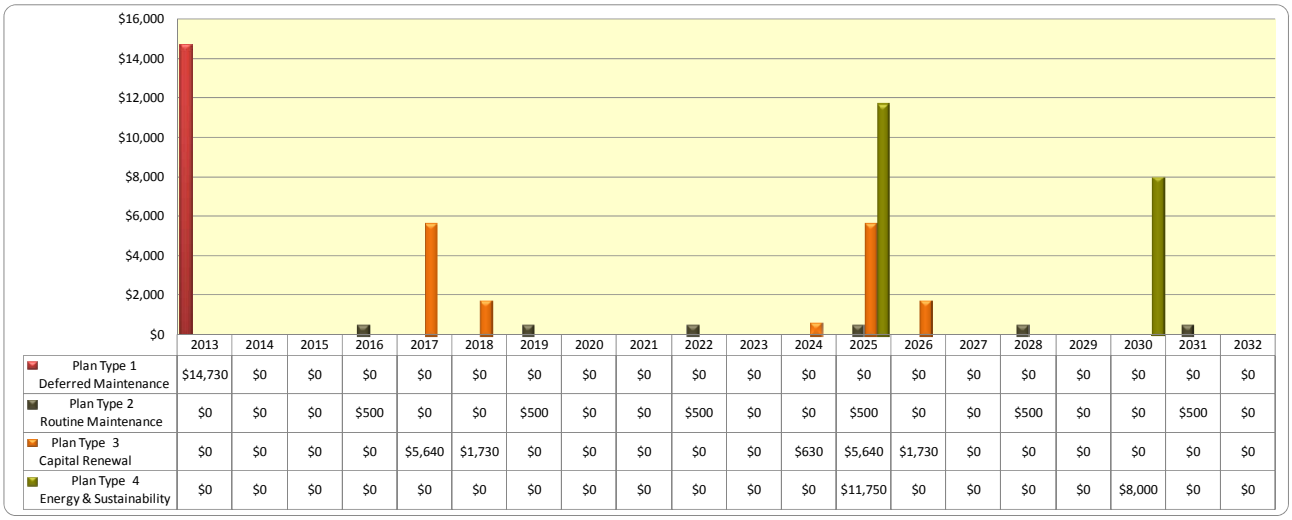


	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Plan Type 1 Deferred Maintenance	$518	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plan Type 2 Routine Maintenance	$0	$0	$500	$29,169	$0	$500	$0	$3,942	$500	$29,169	$0	$500	$2,380	$0	$500	$29,169	$0	$500	$0	$0
Plan Type 3 Capital Renewal	$0	$0	$1,803	$0	$9,606	$0	$0	$5,858	$880	$0	$0	$4,815	$42,783	$0	$0	$8,260	$880	$86,295	$0	$0
Plan Type 4 Energy & Sustainability	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,220	$0	$0	$0	$0	$0	$0	$0

Chart EX-12 illustrates that there is one key year for Plan Type 3 coding, towards the end of the study period in year 2030.

Pool Pump Building

Chart EX-13 Year by Year Cumulative Expenditure per Category of Works



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Plan Type 1 Deferred Maintenance	$14,730	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plan Type 2 Routine Maintenance	$0	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0
Plan Type 3 Capital Renewal	$0	$0	$0	$0	$5,640	$1,730	$0	$0	$0	$0	$0	$630	$5,640	$1,730	$0	$0	$0	$0	$0	$0
Plan Type 4 Energy & Sustainability	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$11,750	$0	$0	$0	$0	$8,000	$0	$0

Chart EX-13 illustrates that there is one key year for Plan Type 1 coding, at the end of the study period in year 2013.

SECTION 2 - A SUBSTRUCTURE

A10 FOUNDATIONS

DESCRIPTION

The description of the respective structural systems for each building are based upon our review of available drawings (none available for Pool Pump Building), and our observation of exposed portions of the building structure. The drawings reviewed can be found in Appendix D.

A1010 STANDARD FOUNDATIONS

Pool & Bath House and Pool Pump Building

A1011 Wall Foundations

The reviewed drawings indicate that the Pool and Bath House consisted of load bearing CMU walls are founded on a series of mild-steel reinforced cast-in-place concrete spread footings.

Based on the age of the pool pump house building and the sizing, type and anticipated loads of the superstructure systems and our visual observation of geotechnical conditions, we anticipate that the building walls are founded on a series of mild-steel reinforced cast-in-place concrete spread footings.

A1030 SLABS-ON-GRADE

Pool & Bath House and Pool Pump Building

A1031 Standard Slab on Grade

Both buildings consisted of cast-in-place concrete slab-on-grade, (reference Photographs 1 and 26 in Appendix B) reinforced with welded wire fabric and supported via concrete strip foundations. The floor slabs were placed over a vapor retarder and compacted gravel fill, with the thickness of the slabs being approximately 4" thick.

CONDITION

A1010 STANDARD FOUNDATIONS

Pool & Bath House and Pool Pump Building

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

Pool & Bath House and Pool Pump Building

A1031 Standard Slab on Grade

The cast-in-place concrete slabs appeared to be in fair to good condition. We do not anticipate any expenditure during the cost study period, which relates to its replacement. However the Pool Pump Buildings slab contained cracks running throughout the slab which appear to have been previously ground down (reference Photograph 27 in Appendix B). We do not anticipate a full concrete slab replacement; however we do recommend repairing the concrete with suitable epoxy repair system. The cost of this work falls below the threshold level and therefore has not been included in the expenditures for the study period.

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 each building are 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

Pool & Bath House and Pool Pump Building

B1022 Pitched Roof Construction

The Pool & Bath House's steep-sloped sections consisted of laminated wood joists with tongue and groove decking (reference Photograph 2 in Appendix B). The joists ran from north to south at the Pool & Bath House and contained laminated wood joists with cross bracing and blocking between. Furthermore the joists are run directly from the ridge beam supported by the perimeter load bearing CMU wall constructions.

The Pool Pump Building contained common wood trusses which formed a steep-sloped gable roof construction. The wood trusses are exposed and the underside of the wood panel deck is visible (reference Photograph 28 in Appendix B). The roof coverings for both buildings can be viewed in the roof covering section of this report

CONDITION

B1020 ROOF CONSTRUCTION

Pool & Bath House and Pool Pump Building

B1022 Pitched Roof Construction

The steep-sloped roof and fascia constructions at both buildings appeared to be in good condition. There were no visible signs of failure or deterioration noted. We do not anticipate any expenditure during the cost study period.

B20 EXTERIOR ENCLOSURES

DESCRIPTION

The description of the respective exterior enclosures for each building are 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

Pool & Bath House and Pool Pump Building

B2011 Exterior Wall Construction

The Pool and Bath House building contained steel columns at each perimeter corner supporting laminated wood beams supporting the roof structure with Concrete Masonry Unit (CMU) exterior wall fill. The CMU are formed in a running bond formation and have a painted stucco textured exterior finished surface (reference Photograph 3 in Appendix B). On the north and south elevation there are two smaller portions of the wall which contain a stone assembly on wood stud constructed walls.

The Pool & Bath House contained a celestory detail (reference Photograph 4 in Appendix B) at each elevation of the roof level which contained a 1" x 4" wood screen and large windows at the gable ends.

The Pump House Building contained wood wall panel siding on a wood stud wall backing (reference Photograph 29 in Appendix B) which contained a painted finish at all elevations (reference Photograph 32 Appendix B).

B2020 EXTERIOR WINDOWS

Pool & Bath House and Pool Pump Building

B2021 Windows

The Pool & Bath House contained aluminum fixed dual pane window units at all elevation (reference Photograph 4 in Appendix B). The Pool Pump Building contained steel fixed single pane window units at the south elevation (reference Photograph 30 in Appendix B). The outer perimeter of the window frame and the exterior wall construction is sealed with variable thickness urethane sealant.

Pool & Bath House

B2023 Storefronts

The building contains brown anodized aluminum storefront system with a dual pane glazing at the north and south elevations (reference Photograph 5 in Appendix B). The storefront system incorporates the payment desk window area at the north elevation. The storefront contains caulking where it meets the exterior wall construction.

B2030 EXTERIOR DOORS

Pool & Bath House

B2031 Glazed Doors & Entrances

The building contained single brown anodized aluminum insulated glazed entrance doors with pull and push bars at the east and west entrances to the office (reference Photograph 4 in Appendix B).

Pool & Bath House

B2039 Other Doors & Entrances

The building contained single and double hollow metal door sets with painted finished surfaces (reference Photograph 6 in Appendix B). Door hardware consisted of lever door handles.

Pool Pump Building

B2032 Solid Exterior Doors

The building contained single and double painted solid wood doors (reference Photographs 32 and 33 in Appendix B). Door hardware consisted of knob style handles.

CONDITION

B2010 EXTERIOR WALLS

Pool & Bath House and Pool Pump Building

B2011 Exterior Wall Construction

The exterior wall systems at the Pool & Bath House appeared to be in good condition with generally no major signs of deterioration, water ingress or general failure noted. The painted finish at each of the wall types appeared to be in fair to good condition. We believe the building was last painted in 2009, based on a typical EUL of eight-years for exterior paint we recommend repainting is undertaken on cyclical basis throughout the twenty-year study period.

The wood wall panels at the Pool Pump Building are in fair condition. We are unaware of when this building was constructed, however based on their observed condition and the current use as a shelter to pool pump equipment; we do not anticipate a requirement to replace the wood paneling during the cost study period. We do recommend reducing landscaping levels below the exterior wood panel walls and constructing a "gravel drainage strip" 6” below wood panel wall finish to reduce dampness near walls.

We believe the building was last painted in 2009, based on a typical EUL of eight-years for exterior paint we recommend repainting is undertaken on cyclical basis throughout the twenty-year study period.

B2020 EXTERIOR WINDOWS

Pool & Bath House and Pool Pump Building

B2021 Windows

The exterior window units at the Pool & Bath House appeared to be in good condition with no deficiencies found. With a typical EUL of thirty-years and current observed conditions we do not anticipate a requirement for their replacement during the study period. The caulking at the window perimeters appeared to be in good condition. With a typical EUL of fifteen-years replacement will fall mid-term of the study period.

The exterior window units at the Pool Pump Building appeared to be in poor condition. We anticipate that they will need to be replaced during the first part of the twenty-year study period.

Pool & Bath House

B2023 Storefronts

The storefront system appeared to be in good condition with no deficiencies found. With a typical EUL of thirty-years we do not anticipate a requirement for its replacement during the study period. The caulking at the storefront perimeters appeared to be in good condition. With a typical EUL of fifteen-years replacement will fall mid-term of the study period.

B2030 EXTERIOR DOORS

Hamilton Pool & Bath House

B2031 Glazed Doors & Entrances

The glazed exterior door sets appeared to be in good condition, with no issues reported. Replacement will not be required within the study period.

Pool Pump Building

B2032 Solid Exterior Doors

The painted solid wood doors appeared to be in poor condition (reference Photograph 35 in Appendix B). Replacement is anticipated during the beginning portion of the study period. Repainting along with the exterior elevation repainting works will be necessary.

Pool & Bath House

B2039 Other Doors & Entrances

The hollow metal doors appeared to be generally in fair to good condition. However the single and double hollow metal door hardware has corroded at their exterior surfaces due to exposure to moisture (reference Photograph 7 in Appendix B).

Based on a typical EUL of thirty-years the hardware should be outside of the study period. However we recommend that the door hardware is replaced at the midterm of the study period due to the current condition. Repainting along with the exterior elevation repainting works will be necessary throughout the study period.

B30 ROOFING

DESCRIPTION

B3010 ROOF COVERINGS

Pool & Bath House and Pool Pump Building

B3011 Roof Finishes

The facility contained four low-sloped roof areas; these roof areas are located at different buildings, and are shown on the following aerial plan:

Overview of Roof Locations & Configurations at the Pool & Bath House

Overview of Roof Locations & Configurations at the Pool Pump Building

The steep-sloped roof areas 1, through 4 contain asphalt shingles on a wood decking (reference Photographs 3 and 33 in Appendix B). There is no specific storm water drainage present at any of the roof levels; rain water is discharged over the edge to the ground below.

CONDITION

B3010 ROOF COVERINGS

Pool & Bath House and Pool Pump Building

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 assessed at ground level.

The asphalt roof covering on the Pool & Bath House appeared to be in good condition, as it was newly installed in 2009. Based on a typical EUL of twenty-years we anticipate the roof covering should be replaced late in the study period.

The asphalt roof covering on the Pool Pump Building appeared to be in poor condition. As far as we are aware there are no current issues regarding water ingress however the shingles are deteriorating and have vegetation growing between the voids (reference Photograph 34 in Appendix B). We do not know when this roof covering was installed, however based on observed conditions we recommend replacement at the beginning of the twenty-year 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).

Pool & Bath House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repaint exterior wall surfaces	2,280	SF	$1.88	$4,286	2017	4
B2011	Exterior Wall Construction	Repaint exterior wall surfaces	2,280	SF	$1.88	$4,286	2025	4
B2021	Windows	Replace sealant at perimeter of windows and door frames	228	LF	$11.25	$2,565	2024	3
B2039	Other doors & entrances	Replace door hardware on hollow metal doors	6	EACH	$375	$2,250	2024	4
		Total Anticipated Expenditure for B Shell				$13,387		

Pool Pump Building

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B1022	Pitched Roof Construction	Remove and replace damaged fascia board	1	LS	$1,000	$1,000	2013	3
B2011	Exterior Wall Construction	Reduce landscape at perimeter of building and install a gravel barrier	1	LS	$800	$800	2013	3
B2011	Exterior Wall Construction	Repaint exterior wall surfaces*	3,000	SF	$1.88	$5,640	2017	4
B2011	Exterior Wall Construction	Repaint exterior wall surfaces*	3,000	SF	$1.88	$5,640	2025	4
B2021	Windows	Replace single pane window units	12	SF	$78.50	$942	2013	3
B2021	Windows	Replace sealant at perimeter of windows and door frames	56	LF	$11.25	$630	2024	3
B2032	Solid Exterior Doors	Replace double solid core wood door	1	EACH	$3,119	$3,119	2013	3
B2032	Solid Exterior Doors	Replace single solid core wood door	2	EACH	$1,750	$3,500	2013	3

B3011	Roof Finishes	Replace asphalt shingle roof covering	779	SF	$6.25	$4,869	2013	3
		Total Anticipated Expenditure for B Shell				$26,140		

* Costs includes cost of repainting miscellaneous structures associated with the Pool Pump Building

SECTION 4 - C INTERIORS

C10 INTERIOR CONSTRUCTION

DESCRIPTION

C1010 PARTITIONS

Pool & Bath House

C1011 Fixed Partitions

The buildings contained wood stud wall as well as CMU interior wall constructions to separate changing rooms, restrooms, and utility rooms (reference Photograph 2 in Appendix B).

C1030 FITTINGS SPECIALTIES

Pool & Bath House

C1031 Fabricated Toilet Partitions

The changing rooms contained floor mounted plastic fixed partitions for water closet cubicles, urinals, changing areas, and shower screens (reference Photographs 8 in Appendix B).

CONDITION

C1010 PARTITIONS

Pool & Bath House

C1011 Fixed Partitions

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

C1030 FITTINGS SPECIALTIES

Pool & Bath House

C1031 Fabricated Toilet Partitions

The fabricated cubicles appeared to be in good condition however based on a typical EUL of twenty-years we anticipate the partitions should be replaced late in the study period.

C30 INTERIOR FINISHES

DESCRIPTION

C3010 WALL FINISHES

Pool & Bath House

C3012 Wall Finishes to Interior Walls

Interior walls at the Pool & Bath House generally contained painted gypsum board surfaces and painted CMU wall finish in the office (reference Photograph 9 in Appendix B). The changing rooms and restrooms within the Pool & Bath House Building contained 4" x 4" ceramic wall tiles with grout present (reference Photograph 10 and 15 in Appendix B).

C3020 FLOOR FINISHES

Pool & Bath House

C3023 Hardeners and Sealers

The building appears to contain sealed concrete floors within the office (reference Photograph 1 in Appendix B) and utility rooms. The restrooms, changing rooms and family rooms contained epoxy floor coating (reference Photograph 12 in Appendix B).

C3030 CEILING FINISHES

Pool & Bath House and Pool Pump Building

C3031 Ceiling Finishes

There are no ceiling finishes installed within the buildings. The underside of the roof joists and deck has a stained surface in the Pool & Bath House (reference Photograph 2 in Appendix B). The Pool Pump House building is similar; however the exposed roof structure has a painted finish (reference Photograph 28 in Appendix B).

CONDITION

C3010 WALL FINISHES

Pool & Bath House and Pool Pump House

C3012 Wall Finishes to Interior Walls

Interior wall finishes appeared to be in good condition generally throughout the buildings. 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 2017 and then every eight-years after to maintain the appearance of the interior of the building.

Pool & Bath House

The ceramic wall tiles and grout appeared to be in good condition and are suitable for their use. We anticipate that the ceramic wall tiles will last beyond the study period; however we do recommend re-grouting the tile late in the study period to maintain its appearance. The cost to repair the grout falls below the threshold level and therefore has not been included in the study period.

C3020 FLOOR FINISHES

Pool & Bath House

C3023 Hardeners and Sealers

The sealed concrete floors appeared to be in fair condition. Based on a typical EUL of eight-years we anticipate the sealers should be reapplied two different times during the twenty year study period beginning in 2021.

On site personnel instructed us that they are applying a new epoxy floor coating within the week of which we assessed the building and had already procured the new product. We anticipate this will endure the typical EUL of this type of floor sealing which is fifteen-years. Therefore we anticipate a requirement to reapply epoxy floor coating late in the study period.

C3030 CEILING FINISHES

Pool & Bath House and Pool Pump Building

C3031 Ceiling Finishes

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. This includes the painted and stained underside of the roof structure also.

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).

Pool & Bath House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	2,830	SF	$1.88	$5,320	2017	4
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	2,830	SF	$1.88	$5,320	2025	4
C3023	Hardeners and Sealers	Replace seal coating concrete floor finish in office	352	SF	$2.50	$880	2021	4
C3023	Hardeners and Sealers	Replace seal coating concrete floor finish in office	352	SF	$2.50	$880	2029	4
C3023	Hardeners and Sealers	Replace epoxy floor covering within the restrooms and family rooms	1,652	SF	$5.00	$8,260	2028	4
		Total Anticipated Expenditure for C Interiors				$20,660		

Pool Pump Building

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	920	SF	$1.88	$1,730	2018	4
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	920	SF	$1.88	$1,730	2028	4
		Total Anticipated Expenditure for C Interiors				$3,460		

SECTION 5 - D SERVICES

D20 PLUMBING

DESCRIPTION

D2010 PLUMBING FIXTURES

Pool & Bath House

D2011 Water Closets

The building contained wall mounted tank-less vitreous china water closets (reference Photograph 11 in Appendix B).

D2012 Urinals

The building contained vitreous china wall hung urinals, within the men's changing room (reference Photograph 12 in Appendix B).

D2013 Lavatories

The building contained wall mounted vitreous china lavatories within the restrooms, and changing areas (reference Photograph 13 in Appendix B). The lavatories generally consisted of swan neck, single-handle, non-metered faucets. Water is supplied via copper pipe work and drained through PVC pipe work and fittings.

D2014 Sinks

We noted a single fiberglass utility sink within the utility room. We also noted a counter top single bowl stainless steel self rimming kitchen sink within the office area.

Pool Pump Building

D2016 Wash Fountains

The building contained a wall mounted eye wash and shower unit on the exterior of the building (reference Photograph 36 in Appendix B).

Pool & Bath House

D2017 Showers

The changing rooms contained communal showers. The shower controls and shower heads are wall mounted (reference Photograph 10 in Appendix B).

D2018 Drinking Fountains and Coolers

The building contained one free standing drinking fountain unit with two stainless steel spouts and water basins (reference Photograph 14 in Appendix B). The drinking fountain was located at the south west side of the main Pool & Bath House building.

D2020 DOMESTIC WATER DISTRIBUTION

Pool & Bath House and Pool Pump Building

D2021 Cold Water Service

Cold water piping throughout the buildings consisted of copper and PVC systems. 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 buildings at the north east side of the building through a 2" diameter pipe. A back flow preventer is present.

Pool & Bath House

D2022 Hot Water Service

Domestic hot water was present at the Pool & Bath House for use within restroom and changing areas. The hot water is generated via two gas fueled domestic water heaters (reference Photograph 15 in Appendix B).

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

Table D20-1 Summary of the Domestic Water Heating Equipment at the Pool & Bath House

Location	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	≈ Year of Installation
Utility Room	A.O. Smith	BTH-300	137129	Natural Gas	130 Gallons	2009
Utility Room	A.O. Smith	BTH-300	135891	Natural Gas	130 Gallons	2009
Office/ Under Sink	Chronomite	E-30	Unknown	Electric	NA	2009

D2030 SANITARY WASTE

Pool & Bath House and Pool Pump Building

D2031 Waste Piping

Waste piping was not directly inspected at each of the buildings, however based on the age of the buildings and typical construction methods available at the time of construction, the piping is suspected to be partially cast iron and PVC. The restrooms and changing areas contained floor drains at the shower areas. We assumed that the buildings waste piping is tied to horizontal mains that are routed out of the building via gravity drain lines to site sanitary lines at the perimeter of the building.

D2090 OTHER PLUMBING SYSTEMS

Pool Pump Building

D2094 Pool Piping and Equipment

The pool equipment consisted of two filters, and chlorine equipment. We observed two fiberglass filters .Pipe work consisted of 3" diameter PVC schedule 40 piping (reference Photograph 37 in Appendix B), which connecting the equipment, as well as to and from the pool, as far as we are aware. The chlorine equipment was located in a separate small building located just to the west of the Pool Pump Building and consisted of a sodium hypochlorite tank. The room was vented through aluminum wall louvers in the structure.

Table D20-2 provides a summary of the sand filters:

Table D20-2 Summary of Sand Filters

Location	Equipment Type	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	≈ Year of Installation
Pool Pump House	Filter	Unknown	Unknown	Unknown	Electric	Unknown	Assumed 2010
Pool Pump House	Filter	Unknown	Unknown	Unknown	Electric	Unknown	Assumed 2010

Unknown = Access limited or equipment had no name plates present.
Assumed = Based on size of unit and area it serves / or possible year installed.

Table D20-3 provides a summary of the pumps:

Table D20-3 Summary of Circulation Pumps

Location	Equipment Type	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	≈ Year of Installation
Pool Pump House	Pool Water Circulation Pump	Unknown	Unknown	Unknown	Electric	15 HP	Assumed 2010
Pool Pump House	Chlorine Feed Pump	Unknown	Unknown	Unknown	Electric	Assumed 1.5 HP	Assumed 2010
Pool Pump House	Activity Pool Booster Pump	Unknown	Unknown	Unknown	Electric	3 HP	Assumed 2010
Pool Pump House	Activity Pool Booster Pump	Unknown	Unknown	Unknown	Electric	1.5 HP	Assumed 2010
Pool Pump House	Acid Feed Pump	Unknown	Unknown	Unknown	Electric	Assumed 1.5 HP	Assumed 2010

Unknown = Access limited or equipment had no name plates present.
Assumed = Based on size of unit and area it serves / or possible year installed.

CONDITION

D2010 PLUMBING FIXTURES

Pool & Bath House

D2011 Water Closets

The water closets appeared to be in good condition. The water closets flushed properly and did not have any cracks in the china. We anticipate that there will be no requirement for their replacement during the twenty- year study period. However we do recommend the flush valves are rebuilt mid to late term during the study period to maintain optimal performance.

D2012 Urinals

The urinal's appeared to be in good condition. The urinal's flushed properly and did not have any cracks in the china. We anticipate that there will be no requirement for their replacement during the twenty- year study period. However we do recommend the flush valves are rebuilt mid to late term during the study period to maintain optimal performance.

D2013 Lavatories

The lavatories appeared to be in good condition. We anticipate that there will be no requirement for their replacement during the twenty- year 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 stainless steel sink appeared to be in good condition. 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.

Pool Pump Building

D2016 Wash Fountains

The wall mounted eye wash unit appeared to be in fair condition. We did not test the unit, however along with regular maintenance; we do not anticipate a requirement for its replacement during the study period.

Pool & Bath House

D2017 Showers

The shower heads, controls and components within the building appeared to be in good condition and operating satisfactory. However we assume them to be original and with a typical EUL of twenty-years, they will be beyond their EUL late in the study period. We recommended replacing the shower mixing valves mid-term and a full replacement late in the study period.

D2018 Drinking Fountains and Coolers

The drinking fountain appeared to be in good condition. We anticipate that there will be no requirement for its replacement during the study period.

D2020 DOMESTIC WATER DISTRIBUTION

Pool & Bath House and Pool Pump Building

D2021 Cold Water Service

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

Pool & Bath House

D2022 Hot Water Service

The domestic water heater appeared to be in good condition. It was observed to be functional and operating correctly, however water heaters generally have a typical EUL of twenty-years therefore we recommend replacement late in the study period to maintain its efficiency and operation.

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

D2030 SANITARY WASTE

Pool & Bath House and Pool Pump Building

D2031 Waste Piping

No visually apparent problems with the sanitary waste piping were observed either of the buildings. We do not anticipate any expenditure within the cost study period.

D2090 OTHER PLUMBING SYSTEMS

Pool Pump Building

D2094 Pool Piping and Equipment

The pool equipment all appeared to be in good condition. It was confirmed that the filters and pumps are all working correctly without any issues. Equipment such as this has a typical EUL of twenty-years and therefore a full replacement is expected to fall at the end of the cost study period.

D40 FIRE PROTECTION

DESCRIPTION

D4010 SPRINKLERS

Pool & Bath House

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 south east elevation. The water main incoming is a 6" line at the point of service.

D4030 FIRE PROTECTION SPECIALTIES

Pool & Bath House and Pool Pump Building

D4031 Fire Extinguishers

Multipurpose portable wall mounted handheld fire extinguishers were provided throughout the buildings (reference Photographs 17 and 39 in Appendix B).

CONDITION

D4010 SPRINKLERS

Pool & Bath House

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

Pool & Bath House and Pool Pump Building

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 July 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 each of the building systems. The electrical systems include the service entrance equipment, panel boards, safety switches, lighting fixtures, and security systems.

D5010 ELECTRICAL SERVICE & DISTRIBUTION

Pool & Bath House and Pool Pump Building

D5012 Low Tension Service & Dist.

The main incoming service for the site is routed from the meter to the Main Distribution Panel (MDP) at the Pool & Bath House and is manufactured by Cutler-Hammer and is rated at 240/120 volts at 200-amps, 1-phase, 3-wire. Branch panels are located throughout both buildings and are rated at varying amps (reference Photographs 18 and 40 in Appendix B).

D5020 LIGHTING & BRANCH WIRING

Pool & Bath House and Pool Pump Building

D5021 Branch Wiring Devices

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

D5022 Lighting Equipment

The interior lighting within is provided mainly by 4' strip single (reference Photographs 19 and 41 in Appendix B) and double lamped fluorescent fixtures which are surface mounted or hung from the roof structure (reference Photograph 20 in Appendix B). The florescent fixtures all contained T8 32W lamps and electronic ballasts. All of the room lighting is controlled via local switching in the respective rooms.

D5030 COMMUNICATIONS & SECURITY

Pool & Bath House

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 office area and is manufactured by Simplex. The FACP model is 4008 (reference Photograph 22 in Appendix B). Addressable devices are located throughout the building such as smoke detectors, pull stations and fire bell. We understand that the system is monitored by Bay Alarm Company.

D5038 Security and Detection Systems

The building contains an intruder alarm system, which consists of a simplex alarm (reference Photograph 23 in Appendix B). The alarm panel is located in the office area. We understand that the security system is also monitored by Bay Alarm and Security Systems.

D5090 OTHER ELECTRICAL SYSTEMS

Pool & Bath House

D5092 Emergency Light & Power Systems

An 'Illuminator' emergency battery powered backup lighting system is installed (reference Photograph 24 in Appendix B). Emergency exit lighting is provided at exit routes from the building.

CONDITION

D5010 ELECTRICAL SERVICE AND DISTRIBUTION

Pool & Bath House and Pool Pump Building

D5012 Low Tension Service & Dist.

The major electrical equipment items appeared to be in good 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

Pool & Bath House and Pool Pump Building

D5021 Branch Wiring Devices

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

D5022 Lighting Equipment

The interior lighting was observed 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 recently installed 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

Pool & Bath House

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 twenty-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 good condition. We are unaware of any issues with the system. Based on a typical EUL of ten-years replacement is recommended based on industry standards mid and late term in the study period.

D5090 OTHER ELECTRICAL SYSTEMS

Pool & Bath House and Pool Pump Building

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).

Pool & Bath House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D2011	Water closets	Re-build flush valves (water closets)	7	EACH	$238	$1,666	2025	3
D2012	Urinals	Re-build flush valves (urinals)	3	EACH	$238	$714	2025	3
D2013	Lavatories	Replace faucets (lavatories)	6	EACH	$225	$1,350	2020	3
D2013	Lavatories	Replace faucets (lavatories)	6	EACH	$225	$1,350	2030	3
D2014	Sinks	Replace faucets (faucets)	1	EACH	$225	$225	2020	3
D2014	Sinks	Replace faucets (faucets)	1	EACH	$225	$225	2030	3
D2017	Showers	Replace mixing valves	9	EACH	$438	$3,942	2020	3
D2017	Showers	Replace shower systems	9	EACH	$665	$5,985	2030	3
D2022	Hot Water Service	Replace hot water heater	130	GAL	$47	$6,110	2025	3
D2022	Hot Water Service	Replace hot water heater	130	GAL	$47	$3,110	2025	3
D4011	Sprinkler Water Supply	Replace sprinkler heads	4,000	SF	$1.05	$4,200	2030	1
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2015	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2018	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2021	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2024	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2027	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2030	3

D5037	Fire Alarm System	Replace fire alarm system	4000	SF	$5.00	$20,000	2025	1
D5038	Security and Detection System	Replace intruder alarm system	4000	SF	$.62	$2,480	2020	3
D5038	Security and Detection System	Replace intruder alarm system	4000	SF	$.62	$2,480	2030	3
		Total Anticipated Expenditure for D Services				$59,837		

Pool Pump Building

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D2094	Pool Piping and Equipment	Replace pool filter	1	LS	$4,000	$4,000	2030	3
D2094	Pool Piping and Equipment	Replace pool filter	1	LS	$4,000	$4,000	2030	3
D2094	Distribution Systems	Replace pool circulation pump (15-hp)	1	EACH	$7,500	$7,500	2025	3
D2094	Distribution Systems	Replace pool feed pump (1.5-hp)	1	EACH	$750	$750	2025	3
D2094	Distribution Systems	Replace pool feed pump (1.5-hp)	1	EACH	$750	$750	2025	3
D2094	Distribution Systems	Replace pool booster pump (1.5-hp)	1	EACH	$750	$750	2025	3
D2094	Distribution Systems	Replace pool booster pump (3-hp)	1	EACH	$2,000	$2,000	2025	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2013	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2016	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2019	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2022	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2025	3
D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2028	3

D5012	Low Tension Service Dist.	Preventative maintenance of the electrical system	1	LS	$500	$500	2031	3
		Total Anticipated Expenditure for D Services				$22,750		

SECTION 6 - E EQUIPMENT & FURNISHINGS

E20 FURNISHINGS

DESCRIPTION

E2010 FIXED FURNISHINGS

Pool & Bath House

E2012 Fixed Casework

The building contained wood constructed fixed casework within the office area consisting of a laminated wood L shaped countertop (reference Photograph 25 in Appendix B). The counters generally consisted of hardwood frames and plywood panels with plastic laminated finished panels and worktops.

CONDITION

E2010 FIXED FURNISHINGS

Pool & Bath House

E2012 Fixed Casework

The fixed casework appeared to be in good condition and suitable for their use. With a typical EUL of twenty-years replacement is recommended late term during the twenty-year 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).

Pool & Bath House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
E2012	Fixed Casework	Replace L shaped counter and cabinets at office	18	LF	$600	8,400	2030	3
		Total Anticipated Expenditure for D Services				$8,400		

SECTION 7 - G BUILDING SITEWORK

G20 SITE IMPROVEMENTS

DESCRIPTION

G2020 PARKING LOTS

Pool & Bath House

G2021 Bases and Sub-Bases

The site consisted of a small parking lot just east of the Pool & Bath House (reference Photograph 55 in Appendix B). The parking lot has 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 side of facility	1,202 SY	2	2

G2030 PEDESTRIAN PAVING

Pool & Bath House

G2031 Paving & Surfacing

The building contained cast-in-place concrete paving surrounding both of the buildings. We assume it's over an aggregate base (reference Photographs 43 and 45 in Appendix B). There was also decorative paving stones present that lead from the pool area to the changing facilities and office (reference Photograph 48 in Appendix B).

Pool & Bath House

G2033 Exterior Steps

The pool complex contained cast-in-place concrete steps as well as stone steps along the south elevation at pool level (reference Photographs 49 and 50 in Appendix D). The steps allowed access from the pool level up to street level.

G2040 SITE DEVELOPMENT

Pool & Bath House

G2041 Fences & Gates

The building contained a 6' high metal post chain link fence at the facility perimeter as well as a metal painted fence (reference Photographs 51 and 52 in Appendix B).

G2046 Fountains, Pools, & Watercourses

The facility contained two exterior heated rectangular-shaped swimming pools which are used for both competition and recreational use (reference Photograph 44 in Appendix B). The facility includes a large swimming pool and a smaller activity pool which has a shallow play area and access ramp. The following is information about each pool taken from the reviewed drawings were possible:

Swimming Pool

- Approximate pool size 75' (length) x 60' (width)
- Pool surface area 4,481 square feet
- Pool volume 185,053 gallons

Activity Pool

- Approximate pool size 60' (length) x 33' (width)
- Pool surface area 1,778 square feet
- Pool volume 12,000 gallons

Pool Pump House

G2049 Miscellaneous Structures

Adjacent to the pool pump house are two small support buildings. The first building is a shelter for a chlorine tank constructed of painted CMU exterior walls and wood joist roof construction with a plywood deck and asphalt roll roofing. The second building acts as a pool chemical shelter with a wood framed constructing with wood roof joists and a plywood deck with asphalt roll roofing.

G2050 LANDSCAPING

Pool & Bath House

G2056 Planters

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

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 distributed throughout the site.

CONDITION

G2020 PARKING LOTS

Pool & Bath House

G2021 Bases and Sub-Bases

The asphalt paved areas throughout the parking lot appeared to be in fair to good condition. 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, starting at the start of the study period. We recommend undertaking asphalt mill and overlay to include restriping pavement every twenty years.

G2030 PEDESTRIAN PAVING

Pool & Bath House

G2031 Paving & Surfacing

The concrete pavements appeared to be generally in good condition with a few isolated areas of cracking in the sealant (reference Photograph 46 in Appendix B). 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 two replacement periods into the buildings expenditures.

Pool & Bath House

G2033 Exterior Steps

The cast-in-place concrete and stone 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.

G2040 SITE DEVELOPMENT

Pool & Bath House

G2041 Fences & Gates

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

G2046 Fountains, Pools, & Watercourses

The pool generally appeared to be in good condition and well maintained. We recommend that the pool coating is re-applied multiple times in the study period, we have calculated four replacement periods into the buildings expenditures.

Pool Pump House

G2049 Miscellaneous Structures

The miscellaneous structures appeared to be in generally good condition. We have added the cost of the exterior painting to be included in the Pool Pump House to be completed at the same time. The asphalt roll roof covering appeared to be in good condition, as it was newly installed in 2009. Based on a typical EUL of forty-years we do not anticipate the roof covering being replaced in the study period.

G2050 LANDSCAPING

Pool & Bath House

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.

G40 SITE ELECTRICAL UTILITIES

DESCRIPTION

G4010 ELECTRICAL DISTRIBUTION

Pool & Bath House

G4014 Solar Power Supply

The facility has a field of solar panels which contribute to the heating of the swimming pool water. We understand that the system was recently installed in 2010. The system is manufactured by Heliocol Solar Pool Heating.

G4020 SITE LIGHTING

Pool & Bath House

G4021 Fixtures & Transformers

Exterior lighting at the pool area consisted of 25' high pole lighting (reference Photograph 53 in Appendix B) which generally contained two large high pressure sodium light fixtures per pole and two smaller floodlights. There are also a number 0f 4' tall lighted bollards that provide pathway lighting (reference Photograph 51 in Appendix B).

CONDITION

G4010 ELECTRICAL DISTRIBUTION

Pool & Bath House and Pool Pump House

G4014 Solar Power Supply

The solar power system appeared to be in good condition, having been recently installed.

G4020 SITE LIGHTING

G4021 Fixtures & Transformers

Pool & Bath House

The exterior lights fixtures appeared to be in good condition as they were recently installed. Based on a typical EUL of twenty-years replacement is recommended based on industry standards the final year 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).

Pool & Pump House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping	1,202	SY	$1.50	$1,803	2015	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping	1,202	SY	$1.50	$1,803	2020	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping	1,202	SY	$1.50	$1,803	2025	3
G2021	Bases and Sub-Bases	Asphalt mill and overlay to include re-striping	1,202	SY	$15.00	$18,030	2030	3
G2031	Paving & Surfaces	Replace sealant to paving construction joints	46	LF	$11.25	$518	2013	3
G2031	Paving & Surfaces	Replace sealant to paving construction joints	1011	LF	$11.25	$11,374	2025	3
G2046	Fountains, Pools & Watercourses	Reapplication of pool coating	10,500	SF	$4.50	$29,169	2016	3
G2046	Fountains, Pools & Watercourses	Reapplication of pool coating	10,500	SF	$4.50	$29,169	2022	3
G2046	Fountains, Pools & Watercourses	Reapplication of pool coating	10,500	SF	$4.50	$29,169	2028	3
G4021	Fixtures & Transformers	Replace pole site lighting	7	EACH	$4,375	$30,625	2030	3
G4021	Fixtures & Transformers	Replace bollard site lighting	20	EACH	$750	$15,000	2030	3
		Total Anticipated Expenditure for G Building Sitework				$168,463		

Appendix A

Twenty-Year Expenditure Forecast 2013 - 2032

FAITHFUL+GOULD
CONSTRUCTIVE EXPERTISE

20 YEAR EXPENDITURE FORECAST

Pool & Bath House
203 El Bonito Drive
Hamilton, CA

FAITHFUL+GOULD

Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total	Total	Combined Total
						$			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
									Deferred	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Deferred	Scheduled	
A. SUBSTRUCTURE																															
							A. SUBSTRUCTURE SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
B. SHELL																															
B2011	Repaint exterior wall surfaces	8	4	2,280.00	SF	$1.88	Capital Renewal	4	$0	$0	$0	$0	$4,286	$0	$0	$0	$0	$0	$0	$0	$4,286	$0	$0	$0	$0	$0	$0	$0	$0	$8,572	$8,572
B2021	Replace sealant at perimeter of windows and door frames	15	11	228.00	LF	$11.25	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,565	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,565	$2,565
B2039	Replace door hardware at hollow metal doors	20	11	6.00	EACH	$375.00	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,250	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,250	$2,250
							B. SHELL SUB-TOTALS		$0	$0	$0	$0	$4,286	$0	$0	$0	$0	$0	$0	$4,815	$4,286	$0	$0	$0	$0	$0	$0	$0	$0	$13,387	$13,387
C. INTERIORS																															
C3012	Repaint interior wall and ceiling surfaces	8	4	2,830.00	SF	$1.88	Capital Renewal	4	$0	$0	$0	$0	$5,320	$0	$0	$0	$0	$0	$0	$0	$5,320	$0	$0	$0	$0	$0	$0	$0	$0	$10,640	$10,640
C3023	Replace seal coating concrete floor finish	15	8	352.00	SF	$2.50	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$0	$880	$0	$0	$0	$0	$0	$0	$0	$880	$0	$0	$0	$0	$1,760	$1,760
C3023	Replace epoxy floor covering	15	15	1,652.00	SF	$5.00	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,260	$0	$0	$0	$0	$0	$8,260	$8,260
							C. INTERIORS SUB-TOTALS		$0	$0	$0	$0	$5,320	$0	$0	$0	$880	$0	$0	$0	$5,320	$0	$0	$8,260	$880	$0	$0	$0	$0	$20,660	$20,660
D. SERVICES																															
D2011	Rebuild flush valves (water closets)	15	12	7.00	EACH	$238.00	Routine Maintenance	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,666	$0	$0	$0	$0	$0	$0	$0	$0	$1,666	$1,666
D2012	Rebuild flush valves (urinals)	15	12	3.00	EACH	$238.00	Routine Maintenance	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$714	$0	$0	$0	$0	$0	$0	$0	$0	$714	$714
D2013	Replace faucets (lavatories)	10	7	6.00	EACH	$225.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$1,350	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,350	$0	$0	$0	$2,700	$2,700
D2013	Replace faucets (sinks)	10	7	1.00	EACH	$225.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$225	$0	$0	$0	$0	$0	$0	$0	$0	$0	$225	$0	$0	$0	$450	$450
D2017	Replace shower mixing valves	10	7	9.00	EACH	$438.00	Routine Maintenance	3	$0	$0	$0	$0	$0	$0	$0	$3,942	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,942	$3,942
D2017	Replace shower systems	20	17	9.00	EACH	$665.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,985	$0	$0	$0	$5,985	$5,985
D2022	Replace hot water heater	15	12	130.00	GAL	$47.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,110	$0	$0	$0	$0	$0	$0	$0	$0	$6,110	$6,110
D2022	Replace hot water heater	15	12	130.00	GAL	$47.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,110	$0	$0	$0	$0	$0	$0	$0	$0	$6,110	$6,110
D4011	Replace sprinkler heads	20	17	4,000.00	SF	$1.05	Capital Renewal	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,200	$0	$0	$0	$4,200	$4,200
D5012	Preventative maintenance of the electrical system	3	2	1.00	LS	$500.00	Routine Maintenance	3	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$0	$500	$0	$0	$500	$0	$0	$3,000	$3,000
D5037	Replace fire alarm system	15	12	4,000.00	SF	$5.00	Capital Renewal	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20,000	$0	$0	$0	$0	$0	$0	$0	$0	$20,000	$20,000
D5038	Replace intruder alarm system	10	7	4,000.00	SF	$0.62	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$2,480	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,480	$0	$0	$0	$4,960	$4,960
							D. SERVICES SUB-TOTALS		$0	$0	$500	$0	$0	$500	$0	$7,997	$500	$0	$0	$500	$34,600	$0	$500	$0	$0	$14,740	$0	$0	$59,837	$59,837
E. EQUIPMENT & FURNISHING																															
E2012	Replace L shaped counter and cabinets at office	20	17	18.00	LF	$600.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,400	$0	$0	$0	$8,400	$8,400
							E. EQUIPMENT & FURNISHING SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,400	$0	$0	$0	$8,400	$8,400
F. SPECIAL CONSTRUCTION AND DEMOLITION																															
																													$0		
							F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
G. BUILDING SITEWORK																															
G2021	Undertake seal coating including re-stripping at the parking lot	5	2	1,202.00	SY	$1.50	Capital Renewal	3	$0	$0	$1,803	$0	$0	$0	$0	$1,803	$0	$0	$0	$0	$1,803	$0	$0	$0	$0	$0	$0	$0	$0	$5,409	$5,409
G2021	Asphalt mill and overlay to include re-striping	20	17	1,202.00	SY	$15.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$18,030	$0	$0	$0	$18,030	$18,030
G2031	Replace sealant to paving construction joints	15	0	46.00	LF	$11.25	Deferred Maintenance	3	$518	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$518	$0	$518
G2031	Replace sealant to paving construction joints	15	12	1,011.00	LF	$11.25	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$11,374	$0	$0	$0	$0	$0	$0	$0	$0	$11,374	$11,374
G2046	Reapplication of pool coating	6	3	10,500.00	SF	$4.50	Routine Maintenance	3	$0	$0	$0	$29,169	$0	$0	$0	$0	$0	$0	$29,169	$0	$0	$0	$0	$0	$29,169	$0	$0	$0	$0	$87,507	$87,507
G4021	Replace pole site lighting	20	17	7.00	EACH	$4,375.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,625	$0	$0	$0	$30,625	$30,625
G4021	Replace bollard site lighting	20	17	20.00	EACH	$750.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15,000	$0	$0	$0	$15,000	$15,000
							G. BUILDING SITEWORK SUB-TOTALS		$518	$0	$1,803	$29,169	$0	$0	$0	$1,803	$0	$29,169	$0	$0	$13,177	$0	$0	$29,169	$0	$63,655	$0	$0	$518	$167,945	$168,463
Z. GENERAL																															
																													$0		
							Z. GENERAL SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
							Expenditure Totals per Year		$518	$0	$2,303	$29,169	$9,606	$500	$0	$9,800	$1,380	$29,169	$0	$5,315	$57,383	$0	$500	$37,429	$880	$86,795	$0	$0	$518	$270,229	$270,747
							Total Cost (Inflated @ 4% per Yr.)		$518	$0	$2,491	$32,811	$11,238	$608	$0	$12,896	$1,889	$41,517	$0	$8,182	$91,872	$0	$866	$67,408	$1,648	$169,068	$0	$0	$518	$442,493	$443,011

20 YEAR EXPENDITURE FORECAST

Pool Pump Building
203 El Bonito Drive
Novato, CA

FAITHFUL+GOULD

Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total	Total	Combined Total
						$			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
									Deferred	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Deferred	Scheduled	
A. SUBSTRUCTURE																															
							A. SUBSTRUCTURE SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
B. SHELL																															
B1022	Remove and replace damaged fascia board	N/A	0	1.00	LS	$1,000.00	Deferred Maintenance	3	$1,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$1,000
B2011	Reduce landscape at perimeter of building and insert a gravel barrier	NA	0	1.00	LS	$800.00	Deferred Maintenance	3	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$800
B2011	Repaint exterior wall surfaces	8	4	3,000.00	SF	$1.88	Capital Renewal	4	$0	$0	$0	$0	$5,640	$0	$0	$0	$0	$0	$0	$0	$0	$5,640	$0	$0	$0	$0	$0	$0	$0	$11,280	$11,280
B2021	Replace sealant at perimeter of windows and door frames	15	11	56.00	LF	$11.25	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$630	$0	$0	$0	$0	$0	$0	$0	$0	$630	$630
B2021	Replace single pane window units	30	0	12.00	SF	$78.50	Deferred Maintenance	3	$942	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$942	$0	$942
B2032	Replace double solid core wood door	25	0	1.00	EACH	$3,119.00	Deferred Maintenance	3	$3,119	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,119	$0	$3,119
B2032	Replace single solid core wood door	25	0	2.00	EACH	$1,750.00	Deferred Maintenance	3	$3,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,500	$0	$3,500
B3011	Replace asphalt shingle roof covering	40	0	779.00	SF	$6.25	Deferred Maintenance	3	$4,869	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,869	$0	$4,869
							B. SHELL SUB-TOTALS		$14,230	$0	$0	$0	$5,640	$0	$0	$0	$0	$0	$0	$0	$630	$5,640	$0	$0	$0	$0	$0	$0	$0	$14,230	$11,910	$26,140
C. INTERIORS																															
C3012	Repaint interior wall and ceiling surfaces	8	5	920.00	SF	$1.88	Capital Renewal	4	$0	$0	$0	$0	$0	$1,730	$0	$0	$0	$0	$0	$0	$0	$1,730	$0	$0	$0	$0	$0	$0	$0	$3,460	$3,460
							C. INTERIORS SUB-TOTALS		$0	$0	$0	$0	$0	$1,730	$0	$0	$0	$0	$0	$0	$0	$1,730	$0	$0	$0	$0	$0	$0	$0	$0	$3,460	$3,460
D. SERVICES																															
D2094	Replace pool filters	20	12	2.00	LS	$4,000.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$8,000	$8,000
D2094	Replace pool circulating pump (15-hp)	15	12	1.00	EACH	$7,500.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,500	$0	$0	$0	$0	$0	$0	$0	$7,500	$7,500
D2094	Replace pool feed pumps (1.5-hp)	15	12	3.00	EACH	$750.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,250	$0	$0	$0	$0	$0	$0	$0	$2,250	$2,250
D2094	Replace pool booster pumps (3-hp)	15	12	1.00	EACH	$2,000.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	$0	$0	$0	$0	$0	$2,000	$2,000
D5012	Preventative maintenance on electrical equipment	3	0	1.00	LS	$500.00	Deferred Maintenance	3	$500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
D5012	Preventative maintenance on electrical equipment	3	3	1.00	LS	$500.00	Routine Maintenance	3	$0	$0	$0	$500	$0	$0	$500	$0	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$0	$0	$3,000	$3,000
							D. SERVICES SUB-TOTALS		$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$12,250	$0	$0	$500	$0	$8,000	$500	$0	$0	$22,750	$22,750
E. EQUIPMENT & FURNISHING																															
							E. EQUIPMENT & FURNISHING SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
F. SPECIAL CONSTRUCTION AND DEMOLITION																															
							F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
G. BUILDING SITEWORK																															
							G. BUILDING SITEWORK SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Z. GENERAL																															
							Z. GENERAL SUB-TOTALS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
							Expenditure Totals per Year		$14,730	$0	$0	$500	$5,640	$1,730	$500	$0	$0	$500	$0	$630	$17,890	$1,730	$0	$500	$0	$8,000	$500	$0	$14,230	$38,120	$52,350
							Total Cost (Inflated @ 4% per Yr.)		$14,730	$0	$0	$562	$6,598	$2,105	$633	$0	$0	$712	$0	$970	$28,642	$2,881	$0	$900	$0	$15,583	$1,013	$0	$14,730	$60,599	$75,329

Appendix B
Photographs

FAITHFUL+GOULD
CONSTRUCTIVE EXPERTISE

Pool & Bath House

Photograph No. 1

View of the concrete slab-on-grade with expansion joint.

Photograph No. 2

View of the wood plank-and-beam roof deck and timber beam roof construction. Also shows open changing room partition.

Photograph No. 3

View of the steel and wood wall mounted canopy. Also shows exterior CMU wall construction with stucco finish and exterior hollow metal prefinished door surfaces.
Also shows the asphalt shingle roof covering.

Photograph No. 4

View of the clerestory window system that spans the top portion of the building. Also shows single glazed aluminum door.

Photograph No. 5

View of a glazed storefront section on the south west corner of the building.

Photograph No. 6

View of two single hollow metal painted doors.

Photograph No. 7

View of the corroded door hardware on hollow metal doors.

Photograph No. 8

View of fixed toilet partitions within the men's restroom.

Photograph No. 9

View of the painted CMU wall finish within the office.

Photograph No. 10

View of ceramic wall tile finish within restrooms. Also a view of the showers.

Photograph No. 11

View of ADA compliant vitreous china wall mounted water closet.

Photograph No. 12

View of vitreous china urinals wall mounted urinals. Also shows the epoxy floor coating.

Photograph No. 13

View of vitreous china wall mounted sinks.

Photograph No. 14

View of the floor mounted drinking fountains.

Photograph No. 15

View of two natural gas domestic water heaters.

Photograph No. 16

View of insulated hot water pipes for the heating system.

Photograph No. 17

View of a fire extinguisher located in the utility room.

Photograph No. 18

View of the main panelboard for the building.

Photograph No. 19

View of a 4' strip light fixture located in the changing rooms.

Photograph No. 20

View of surface mounted spotlamp fixtures.

Photograph No. 21

View of the building's telephone system.

Photograph No. 22

View of the fire alarm control panel.

Photograph No. 23

View of the intruder alarm located within the office area.

Photograph No. 24

View of a backup emergency light system.

Photograph No. 25

View of the fixed casework present within the office.

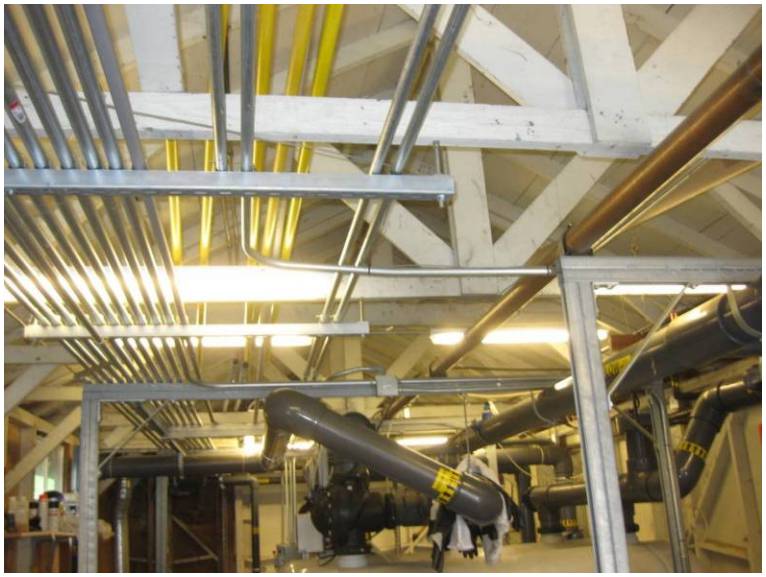
Pool Pump Building

Photograph No. 26

View of the concrete slab-on-grade floor.

Photograph No. 27

View of the cracking in concrete floor slab.



Photograph No. 28

View of the pitched wood truss roof construction.

Photograph No. 29

View of the wood stud frame. Also shows the plywood siding completing the exterior wall construction.

Photograph No. 30

View of a wood cased single glazed window.

Photograph No. 31

View of a wood vented gable end present at both gable elevations.

Photograph No. 32

View of a single painted wood exterior door. Also shows painted vertical board siding.

Photograph No. 33

View of an exterior double painted wood door. Also shows the asphalt shingle roof covering and the paving around pump house.

Photograph No. 34

View of a weathered fascia board and build up of vegetation on roof covering.

Photograph No. 35

Interior view of the double painted wood door.

Photograph No. 36

View of the exterior wall mounted emergency eye wash and shower.

Photograph No. 37

View of the pipework for the pump system.

Photograph No. 38

View of a flue.

Photograph No. 39

View of the fire extinguisher.

Photograph No. 40

View of two panelboards within the pump house.

Photograph No. 41

View of a 4’ strip bracket mounted light fixture.

Photograph No. 42

View of an exterior wall mounted wall pack light fixture.

Photograph No. 43

View of the site showing adjacent buildings, site paving and larger centrifugal exhaust fan.

Exterior Areas

Photograph No. 44

View of the pools showing steps and handrails.

Photograph No. 45

View of the paving surrounding pool areas.

Photograph No. 46

View of deteriorated sealant, present between some paving slabs.

Photograph No. 47

View of a site drain recessed into paving slabs.

Photograph No. 48

View of decorative paving stones.

Photograph No. 49

View of site steps leading to nearby parking lot.

Photograph No. 50

View of another set of site steps.

Photograph No. 51

View of site lighting for sidewalk. Also shows galvanized steel chainlink fence around pool area.

Photograph No. 52

View of the painted metal fence.

Photograph No. 53

View of the 25’ high pole moutned site lighting.

Photograph No. 54

View of the parking lot accessed from 203 El Bonito Drive.

Photograph No. 55

View of the parking lot situated on site. Contains two regular and two ADA stalls.

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 Pool & Bath House	Hamilton Pool & Bath House	Utility Room	D2022	Hot Water Service	Water Heater	A. O. Smith	BTH-300	137129		Natural Gas	130 Gallons			2009
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Utility Room	D2022	Hot Water Service	Water Heater	A. O. Smith	BTH-300	135891		Natural Gas	130 Gallons			2009
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Office / Under Sink	D2022	Hot Water Service	Water Heater	Chronomite	E-30	Unknown		Electric	N/A			2009
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Pool Pump House	D2094	Pool Piping and Equipment	Sand Filter	Unknown	Unknown	Unknown		Electric	Unknown			Assumed 2010
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Pool Pump House	D2094	Pool Piping and Equipment	Sand Filter	Unknown	Unknown	Unknown		Electric	Unknown			Assumed 2010
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Pool Pump House	D2094	Pool Piping and Equipment	Pool Water Circulation Pump	Unknown	Unknown	Unknown		Electric	15 HP			Assumed 2010
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Pool Pump House	D2094	Pool Piping and Equipment	Chlorine Feed Pump	Unknown	Unknown	Unknown		Electric	1.5 HP			Assumed 2010
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Pool Pump House	D2094	Pool Piping and Equipment	Activity Pool Booster Pump	Unknown	Unknown	Unknown		Electric	3 HP			Assumed 2010
Hamilton Pool & Bath House	Hamilton Pool & Bath House	Pool Pump House	D2094	Pool Piping and Equipment	Activity Pool Booster Pump	Unknown	Unknown	Unknown		Electric	1.5 HP			Assumed 2010

Appendix D

Document Review and
Warranty Information

FAITHFUL+GOULD

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:

Hamilton Pool (Electronic Format):

Architectural Drawings A-2.1 through A-9.1, dated October 2008 by Field Paoli

Structural Drawings S1.01 through S8.02, dated October 2008 by Field Paoli

Electrical Drawings E0.1 through E7.1, dated October 2008 by Field Paoli

Plumbing Drawings P0.1 through P5.1, dated October 2008 by Field Paoli

Aquatics Drawings DP-1 through MR-6, dated October 2008 by Field Paoli

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 = 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.