

2013 Depreciation Report

Logan Lane, 2537 East Mall, Vancouver, BC



SUBMITTED TO The Owners, Strata Plan BCS1419
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PROJECT # 4194.10

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1. Introduction

RDH Building Engineering Ltd. (RDH) was retained by The Owners, Strata Plan BCS1419 (the Owners) to prepare a Depreciation Report (the Report) for the common property components (the Assets) at the residential townhouse buildings with a underground parking garage located at 2537 East Mall, Vancouver, BC and known as Logan Lane.

The purpose of the Report is to help the Owners, the strata council, and the management team to make informed decisions about the allocation of resources to the common property assets (such as roofs, windows, and cladding).

A presentation was held in with council in September and the Report was later updated to reflect feedback from council and management, particularly with regard to the selection of preferred funding models.

In order to prepare the Report, RDH acknowledges that there is no relationship between the employees at RDH and the strata corporation.

The information provided in the Report satisfies the requirements stipulated in the Strata Property Act. In addition to the requirements outlined in the legislation, RDH has developed an interactive software tool that enables the Owners to proactively manage their funding requirements and maintenance obligations.

This Report is provided as a PDF so that it can be readily printed and distributed. It represents a synopsis of many hundreds of pages of information. The supporting data are posted on a secure website at <http://bams.rdhbe.com>. The purpose of the website is to provide a tool to empower the strata council and management team to:

-> Track and monitor the health of the assets
-> Generate alternative funding scenarios
-> Keep the data current as projects are completed

The data is owned by the strata corporation and can be printed and/or exported to spreadsheets as required.

As the physical and financial status of the commonly owned assets changes, the Report will require updating. The BC legislation requires updates to the Report to be performed every three years.

A glossary of terms is included in the appendices.

2. Evaluation of Assets

A Depreciation Report should include two key parts: i) a “physical” assessment and ii) a “financial” assessment. Together these two sets of data provide the baseline of information regarding the current status of the assets on the site. Once the status of the assets has been determined, the data can be used to generate operational, tactical and strategic plans. The strategic plan is used to help guide the creation of possible funding scenarios. This process is summarized in the graphic below.

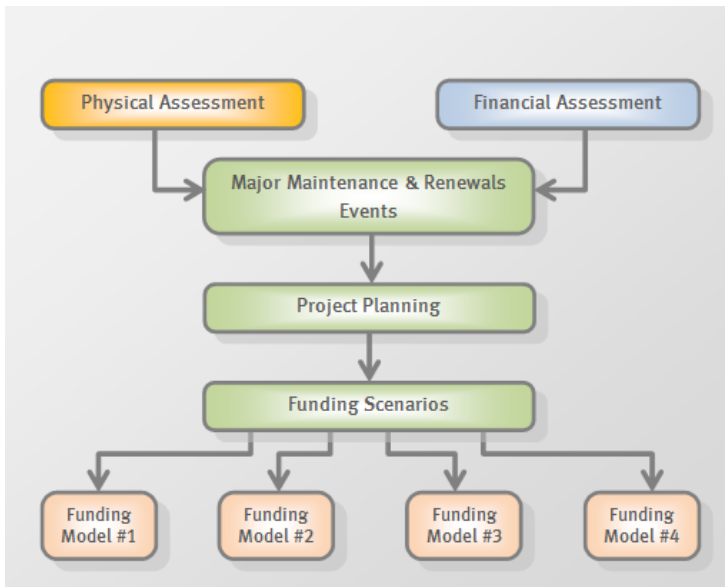


Fig. 2.1 Depreciation Report Process

The physical and financial assessments evaluate when major maintenance and renewals events are required, and how much they will cost.

Tentative project plans are developed for the next year, 5 years, 10 years and 30 years.

Funding models are built based on the strategic plan (30 years), and the Owners will choose to implement one model.

2.1. Physical Assessment

All assets are subject to physical deterioration as a result of the action of the elements, normal wear & tear, misuse & abuse and various other factors. Deterioration results in the need for maintenance, repair and renewal of assets. To this end, the physical assessment identifies the following:

- The inventory of common property assets.
- The effective age of the assets and the estimated remaining useful life of the assets.

The method of determining the physical health of the assets is based on discussions with facility representatives, a visual review of a representative sample of the assets in readily accessible locations, and review of readily available reference documents. No destructive testing was carried out on any of the assets, nor was the assets disassembled or subjected to confirmation of operational characteristics.

Over time, all assets move through a series of life cycle stages. In this regard, Logan Lane can be considered a “young” building where the majority of the assets date from the original construction and few significant major maintenance activities or renewals projects have occurred. A history of completed projects is provide in Table 2.1.1 below.

Table 2.1.1 History of completed projects.

Summary of Completed Projects – Listed by System	
<p>Enclosure</p> <ul style="list-style-type: none"> •••• Repairs to two entry landings (2013) •••• Replacement of parking garage swing door (2011) •••• Repainting at the building exterior (2012) 	<p>Sitework</p> <ul style="list-style-type: none"> •••• Upgrade of irrigation controller (2013) •••• Tree pruning (2012) •••• Purchase of small tractor (2011) •••• Repairs to parking garage membrane (2006)
<p>Mechanical</p> <ul style="list-style-type: none"> •••• Repair to small section of sanitary drainage system near stall 33 •••• Replacement of garage door mechanism (2010) •••• Replacement of make-up air motor (2013) 	<p>Electrical</p> <ul style="list-style-type: none"> •••• Upgraded fluorescent lighting in the parking garage to energy efficient T8 lamps(2012) •••• Upgraded portion of exterior lighting (2012)

The table below summarizes some of the key physical parameters of Logan Lane.

Table 2.1.2 Key Physical Parameters


Physical Parameters		
	Date of Original Construction	2005
	Gross Floor Area , including Parkade (ft ²)	147,400
	Stories Above Grade	3
	Number of Units	61
	Average Asset Age (Years)	8
	Average Remaining Service Life (Years)	20
	Total number of assets in inventory	67

Fig. 2.1.2 Sample Elevation: Building 4 South East Elevation

2.2. Financial Assessment

Owners will spend money for operating, reviewing, renewing and maintaining assets over their service lives. Sometimes more comprehensive renewal costs are also incurred. The financial assessment identifies the following:

- The current replacement costs of the assets and their future replacement costs.
- The status of the current Capital Reserve Fund (CRF) balance and how it relates to ongoing CRF requirements.
- The ability of the current budget to meet major maintenance and renewal needs.

Over the life of the assets, the costs associated with the stewardship of the assets can be distributed into three general categories: "Catch-up costs", "Keep-up costs" and "Get-ahead costs".

The Report is concerned primarily with the "Keep-up" costs. All costs are presented as "Class D" estimates. Soft costs, such as consulting fees and contingency allowances are not included.

Listed below is a summary of the key financial parameters of Logan Lane, which are used to develop funding scenarios and the tactical and strategic plans.

Table 2.2.1 Key Financial Parameters

Financial Parameters	
Fiscal Year End	November 30
Building Reproduction Cost	19,400,000
Operating Expenses Budget 2011/2012	\$196,558
Annual Reserve Allocation, as of November 2012	\$15,243
Accumulated Reserve Balance*	*\$155,986

* The balance in the reserve fund varies each month as funds are allocated from the operating budget and withdrawn for capital renewal projects and major maintenance activities. Accumulated reserve balance is current as of, August 2013.

3. Major Maintenance and Renewals

Maintenance includes work that is necessary to preserve the assets and to allow their continued use and function above a minimum acceptable level of performance. Maintenance reduces the risk that the assets fail to achieve their full service lives. Renewal includes the financial planning and logistics for the replacement of the assets as they reach the end of their useful service lives.

3.1. Maintenance Plan

The Strata Corporation's maintenance budget is \$104,320 per year, which represents approximately 53% of the annual operating budget. The strata corporation has 11 line items in the budget that are devoted to maintenance of the different systems, including a line item of \$23,500 for unspecified repairs and maintenance. The strata corporation has at least 3 maintenance service contracts, which cover the key systems, such as fire inspections, gardening and janitorial services.

The figure below contains a summary distribution of the current annual maintenance costs for Logan Lane.

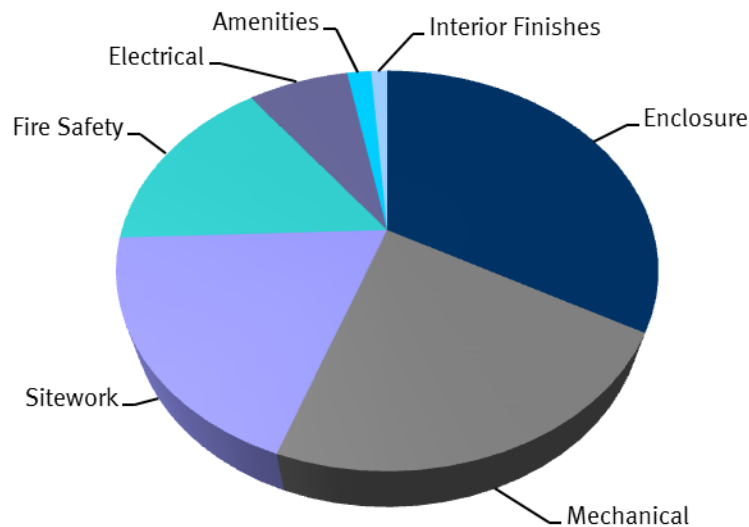


Fig. 3.1.1 Distribution of Annual Maintenance Costs

In February 2013 and May 2013, RDH conducted site reviews of a representative sample of the common elements at Logan Lane for the purpose of developing an inventory of common property assets and to estimate the useful remaining life of the assets.

While the Depreciation Report does not constitute a maintenance review, some observations regarding the general condition of the assets are made as part of the visual review. Listed below are examples of some observations made during the review.

- Deterioration at some entry landings.

Some preliminary investigation of the landings has been undertaken, however further investigation should be completed to better determine the scope and budget of any repairs.

The ongoing maintenance program provides guidelines for the necessary and sufficient maintenance of the assets over their useful lives.

The software also has the capability to monitor minor maintenance events and can be used to bundle and coordinate the implementation of maintenance work. This functionality is not included in the Report.

3.2. Renewals Plan

It has been estimated that the Strata Corporation will need to spend approximately \$6.5M in capital expenditures over the next 30 years. The following table indicates the distribution of the projected major maintenance and renewal costs within each system over the next 30 years. This will enable the Owners to better understand which asset groups will require the largest investment of the Owners' money over time.

Table 3.2.1 Costs Broken Down by System

System	Sample Assets	Current Dollars	Future Dollars (2% escalation)
Enclosure	Roofs, windows, doors, etc.	\$4,042,000	\$5,754,000
Electrical	Lighting, etc.	\$52,000	\$63,000
Mechanical	Plumbing, drainage, etc.	\$142,000	\$194,000
Fire Safety	Detection, egress, etc.	\$64,000	\$85,000
Interior Finishes	Doors, etc.	\$9,000	\$12,000
Amenities	Furnishings, etc.	\$12,000	\$18,000
Sitework	Retaining walls, Fencing, landscaping, etc.	\$282,000	\$396,000
Totals		\$4,603,000	\$6,522,000

A detailed inventory of assets can be found in Appendix B.

The figure below contains a summary distribution of the major maintenance and renewal costs for the next 10 years. Of the estimated \$6.5M in capital expenditures over the next 30 years, approximately \$500K is expected over the next 10 years. For Logan Lane, the majority of these costs are in the enclosure system.

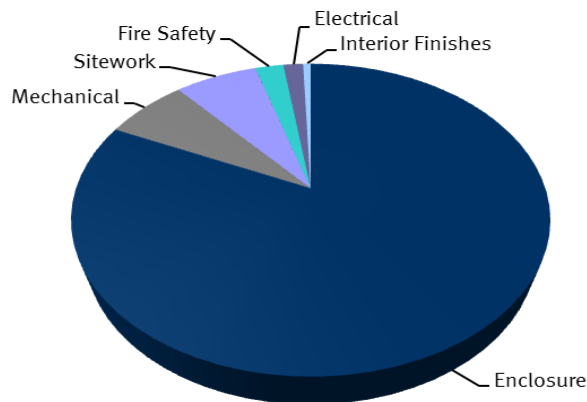


Fig. 3.2.1 Distribution of Major Maintenance and Renewal Costs Over the Next 10 years (2013 - 2022)

The cost implications of these events, together with scheduling considerations, are addressed in the following sections of the Report.

4. Project Planning

When making forecasts about future events and plans for these events, it is recommended that these are projected over three different planning horizons:

- **“Strategic”** (30 years): Since the average service life of many of the assets is approximately 25 years (such as roofs and windows) it is recognized that a long-range view enables the Owners to anticipate the majority of the future renewal projects.
- **“Tactical”** (5-10 years): A five year outlook enables the Owners to break up the strategic plan into manageable stages and to thereby bridge the annual operating budget with the long-range strategic plan. Most Owners do not consider ownership of their real estate investment beyond a 5-year term and are therefore only concerned about special levies that may arise during this time period.
- **“Operational”** (1 year): The annual operating period encompasses one fiscal cycle (12 months). The reserve allocation in the operating budget should reflect the majority of the projects in the tactical plan (5 years) and ideally should also contemplate some elements of the strategic plan (30 years).

The following sections identify all capital expenditures that are projected for Logan Lane with specific expenditures identified within the sections outlining the operation and tactical planning periods.

4.1. “Strategic” Planning Horizon

The chart below graphically illustrates the estimated major maintenance and renewal costs over the next 30 years and thereby provides a high-level overview of the longer term projected cash flow. The red bars indicate the years in which some renewal work is projected. Estimated maintenance costs (green bars) are generally more consistent from year-to-year.

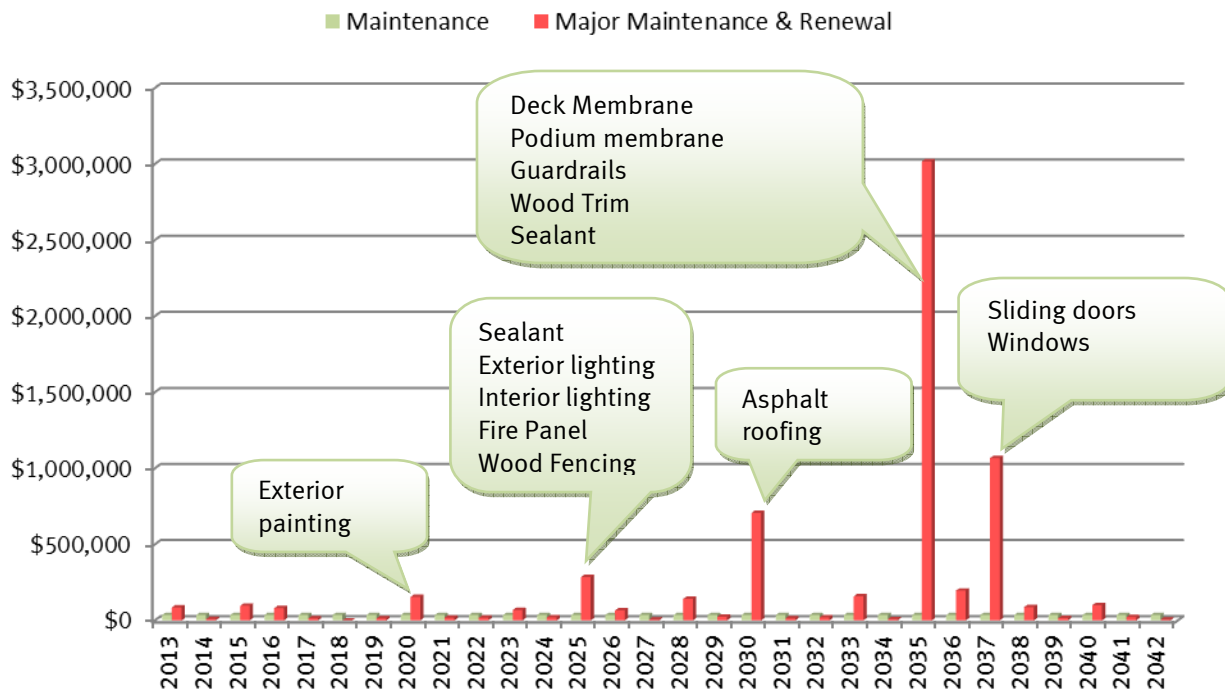


Fig. 4.1.1 Strategic Forecast (30 Years) with some projects identified

The fluctuation of major maintenance and renewal costs over the 30-year period is due to a variety of factors, such as:

- The different service lives for each of the range of assets in the asset inventory. For example, some assets may have a useful life of 5 years whereas other assets may have a useful life of 25 years.
- The different magnitude of renewal costs for each of the assets.
- The impact of different rehabilitation strategies to either replace assets or extend their useful service lives through major maintenance projects.
- The cumulative financial impact of inflation compounded annually over 30 years.

The actual timing of renewal projects will depend on the quality of maintenance and other factors, which either may result in earlier replacement or, in some cases, extend the life of the assets.

4.2. “Tactical” Planning Horizon

Although the tactical plan can be described as a single five year window the chart below provides the projected major maintenance and renewal costs for the next ten years so that the two five year windows can be reviewed. The bars indicate the years in which an event (or bundle of events) is most likely to occur as well as the total magnitude of major maintenance and renewal costs for that year.

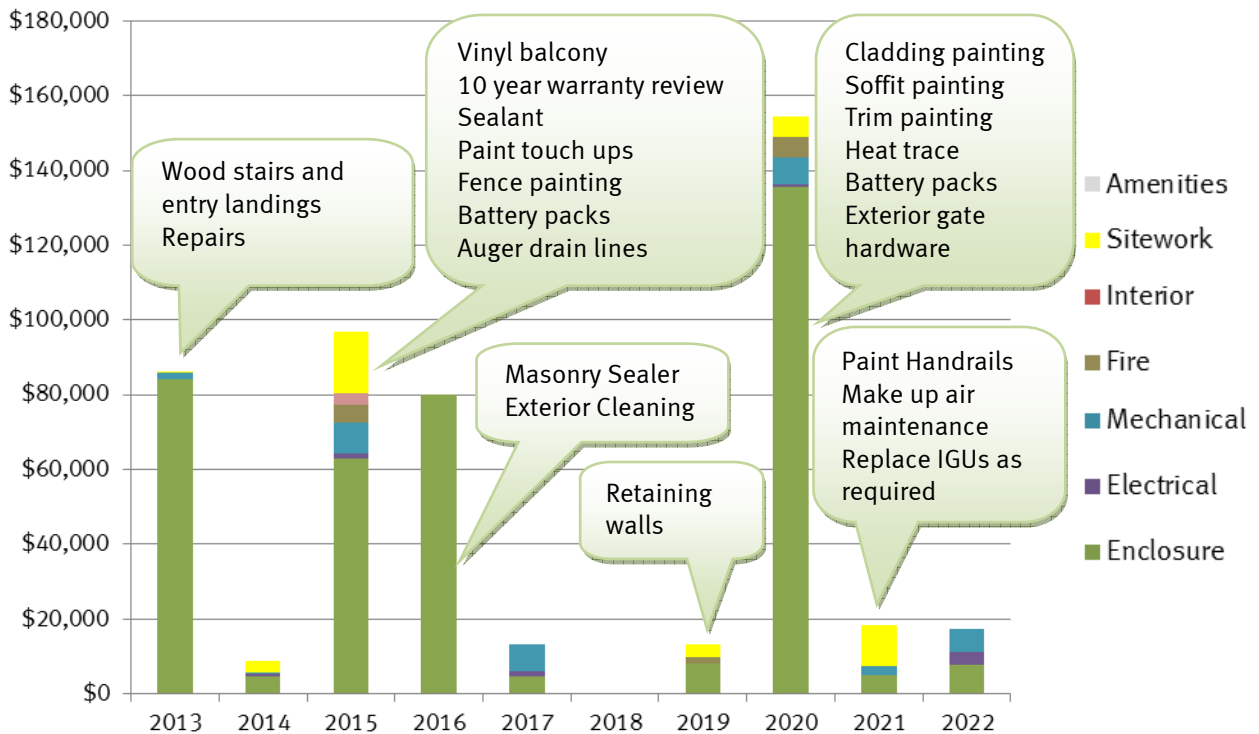


Fig. 4.2.1 10-Year Expenditure Forecast with some projects identified

The costs associated with the correction of any warranty defects are not included in the tactical plan.

Listed below are some of the key major maintenance activities and asset renewal projects contemplated in the preceding bar graph:

Group 1: Major Maintenance

This group of projects are intended to preserve the assets to achieve their full design life. In accordance with the Strata Property Act, any maintenance “...that usually occurs less often than once a year” is a capital expense.

- Augering and hydro-flushing of drain lines, including survey with a borescope camera.
- Cyclical cleaning of exterior assets such as fibre cement cladding, windows and masonry veneer
- Cleaning and infrared scanning of electrical equipment
- Further investigation into entry landings
- Commissioning of a warranty review, prior to expiry of the 10 year warranty
- Updating of Depreciation Report every three years

Group 2: Condition –Based Asset Renewal Projects

Listed below are asset renewal projects that may require additional investigation to confirm condition and eventual replacement schedules. Some of these projects are also discretionary and could potentially be postponed for reasonable periods with manageable risk.

- | | |
|---|---|
| → Reapplication of faded traffic markings on parking garage slab | → Recoating of wood fencing |
| → Cyclical replacement of insulated glazing units (IGUs), as required | → Recoating of steel doors |
| → Replacement of exterior sealant | → Replacement of make up air unit components |
| → Reapplication of masonry sealer | → Replacement of heat tracing components |
| → Replacement of gate hardware | → Replacement of general exhaust fan components |
| → Replacement of retaining wall sections, as required | → Cyclical replacement of electronic ballasts |
| → Recoating of exterior wood trim | → Replacement and repair of grounds keeping equipment, as required. |
| → Replacement of vinyl balcony membrane. | → Replacement of overhead gate motor and drive |
| → Recoating of exterior fibre cement cladding | → Replacement of dry sprinkler compressor |
| | → Repairs to entry landings |

Group 3: Time-Based Asset Renewal Projects

The following projects are considered those that can be reasonably predicted to coincide with the end of the useful service life of certain assets. These projects are non-discretionary and cannot be postponed without significant risk.

- Cyclical replacement of battery packs
- Replacement of fire detection equipment
- Replacement of batteries in fire egress equipment

Some projects will require refinement through a normal design process to further define the scope and budget prior to tendering the renewal project. “Class D” estimates have been provided in the Report and a number of general assumptions about the potential scopes of work were made when costs associated with these projects were generated.

Implementation steps for any renewal event will vary and may include an investigation to confirm existing construction and any design requirements included in the project scope. Various options, such as phasing, product choice, and project bundling are also typically evaluated as part of the design requirements. Through this process, the scope of work will be

finalized and the total project costs will be estimated for the Strata as a budget suitable for formal expenditure approval from the CRF. The costs associated with the investigation and design requirements are not included in the Report as the need and magnitude for this work varies with renewal activities and specific Owner needs.

4.3. “Operational” Planning Horizon

The further investigation and remediation of the wood entry landings and the localized repair of timber retaining walls/planters are projects forecast for the next fiscal year.

4.4. Project Implementation Strategies

As renewal projects are implemented the Strata Corporation will need to engage consultants and contractors to confirm the appropriate scopes of work, to develop specifications and to coordinate and supervise the work.

The Owners will need to consider several implementation strategies including:

-⇒ **Targeted Projects.** These are projects that are localized to particular portions of the building. Different exposure conditions and wear patterns may require that only some sections of the building require renewal at one point in time. For example: the doors with higher traffic would be replaced before doors that have low usage..
-⇒ **Phased Projects.** These are projects that are carried out in multiple stages rather than as a single coordinated project. For example: the sealant could be renewed on a few buildings in the first year and then on the other buildings in subsequent years. While phased projects can reduce the financial burden by spreading the costs over a longer period, the Owners will likely pay more over the long term due to the remobilization of contractors.
-⇒ **Comprehensive Projects.** These are projects that are implemented as one coordinated undertaking. Some of the major advantages of this approach are that the Owners can sometimes leverage the best economies of scale, shorten the overall duration and lower the overall costs. For example: the exterior wood trim is recoated in all locations around the building at the same time.
-⇒ **Bundled Projects.** Often it makes sense to bundle or combine various projects due to proximity, availability of skills, and funding needs. The major advantage of project bundling is that the Owners can leverage economies of scale and lower the overall costs rather than if these projects were completed as several, individual projects. For example: the exterior wood trim is repainted at the same time as the repainting of the cladding for the building or complex.

5. Funding Scenarios

The physical assessment and financial assessment have together provided a baseline of information for the Owners and management team to evaluate the current funding levels and to consider an appropriate funding strategy based on their tolerance for risk and desired standard of care for the property. RDH provides the tools but the funding level that the Owners choose is up to them as long as it meets the minimum legislative requirements.

5.1. Alternative Funding Scenarios

To help the Owners make an informed decision about their funding level, BAMS software is used to generate some alternative funding scenarios to compare the financial impact of different funding levels over the next 30 years. These scenarios serve as a sensitivity analysis to determine the size of the special levies that may occur as a result of different allocations to the CRF.

While there are many different scenarios that can be generated, the table below compares the following alternatives:

Table 5.1.1 Comparison of Different Funding Scenarios

	"A" Statutory	"B" Current	"C" Alternative-1 Stepped	"D" Progressive
Percent of Progressive Reserve	9 %	7 %	25 %	100 %
Reserve Allocation	\$ 0 to \$19,656	\$15,243	\$15,243 to \$60,000	\$223,000
Estimated Cost Per Suite				
- Per Month	\$0 to \$27	\$21	\$21 to \$82	\$305
- Per Year	\$0 to \$324	\$252	\$252 to \$984	\$3660
Estimated Cost Per Square Foot				
- Per Month	\$0 to \$0.01	\$0.01	\$0.01 to \$0.03	\$0.13
- Per Year	\$0 to \$0.13	\$0.10	\$0.10 to \$0.41	\$1.51
Number of Special Levies (over next 30 years)	17	20	9	1
Value of Special Levies, approx. (over next 30 years)	\$5.8M	\$5.9M	\$4.7M	\$125k
Assumed Inflation Rate	2 %	2 %	2 %	2 %
Assumed Interest Rate	1 %	1 %	1 %	1 %

..... ❖ **“A” “Statutory” Reserve Allocation.** This is the funding level that is required to meet the statutory requirements in BC. The Strata Property Act dictates that the reserve allocation will vary according to the reserve fund balance; therefore the reserve allocation is not linear. For comparison purposes, the table above shows the amount equal to 10% of the operating budget, this is the maximum that would be allocated to the reserve fund annually under this scenario.

..... ❖ **“B” Current Reserve Allocation.** This is the funding level that was approved by the Owners at the last Annual General Meeting and represents the status quo.

..... ❖ **“C” Alternative Reserve Allocation.** This represents a stepped funding model in which the contribution is raised from the 2013 contribution level to \$60,000 over a four year period. This model was suggested by the strata council and is just one of many possible scenarios for a new funding level in the next fiscal year.

..... ➤ **“D” Progressive Reserve Allocation.** The "progressive" reserve allocation is an idealistic target that many strata corporations are not able to meet. This is the annual allocation that would have been set aside since the first year of operations to ensure that the reserve balance is sufficient to avoid any special assessments over a 30-year period. In other words, the progressive reserve is equivalent to a fully funded reserve balance.

The funding scenarios are provided as a guide for the Owners. The Owners can use the BAMS software to create additional funding scenarios to assist in development of a scenario that is in alignment with their financial position. Based on the findings of the Report, the Strata Corporation is currently considered to be funding 7% of the progressive reserve level.

5.2. Minimum Funding Requirements

The Strata Property Act Regulations dictates that if the CRF closing balance is less than 25% of the operating budget, then the Strata Corporation must contribute either the difference between the balance and 25% of the operating budget, up to 10% of the operating budget (*Strata Property Act Regulation*, BC Reg 43/2000, Ch. 6.1).

The 2011/2012 annual operating budget is \$194,305, and the CRF balance at the beginning of the fiscal year is \$160,000. The CRF balance is greater than 25% of the operating budget. The Strata Corporation complies with the requirements of the Strata Property Act Regulations.

Although the Strata Corporation exceeds the statutory minimum contribution to the CRF, it is important to note that the statutory guideline is not a good measure of the financial preparedness of the corporation. If the Owners wish to avoid special levies, or to mitigate the financial hardship by reducing the number and size of the levies, then increases will need to be made over the upcoming years.

5.3. Funding Scenario “A” –Statutory

The first scenario verifies that there is currently enough money being committed to the CRF to meet BC legislation. It shows a variable annual reserve contribution over the 30-year planning horizon. 10 years of cash flow data are provided below for reference. Appendix E contains the full 30 years of cash flow data for each scenario or this information can be reviewed in the online BAMS software.

Table 5.3.1 Statutory Funding Model: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	\$155,986	\$0	\$0	\$1,560	\$86,050	\$1,000	\$70,496
2014	\$70,496	\$0	\$0	\$705	\$8,800	\$1,000	\$61,401
2015	\$61,401	\$0	\$35,985	\$614	\$97,000	\$1,000	\$0
2016	\$0	\$19,656	\$61,544	\$0	\$80,200	\$1,000	\$0
2017	\$0	\$19,656	\$0	\$0	\$13,200	\$1,000	\$5,456
2018	\$5,456	\$19,656	\$0	\$55	\$0	\$1,000	\$24,166
2019	\$24,166	\$19,656	\$0	\$242	\$13,200	\$1,000	\$29,864
2020	\$29,864	\$19,276	\$105,862	\$299	\$154,300	\$1,000	\$0
2021	\$0	\$19,656	\$0	\$0	\$18,350	\$1,000	\$306
2022	\$306	\$19,656	\$0	\$3	\$17,300	\$1,000	\$1,665

The figure below graphically illustrates the annual contributions (blue bars), the closing balance in the CRF (the purple line) and the size of the special levies (red bars) resulting from this funding level meeting the minimum statutory requirements.

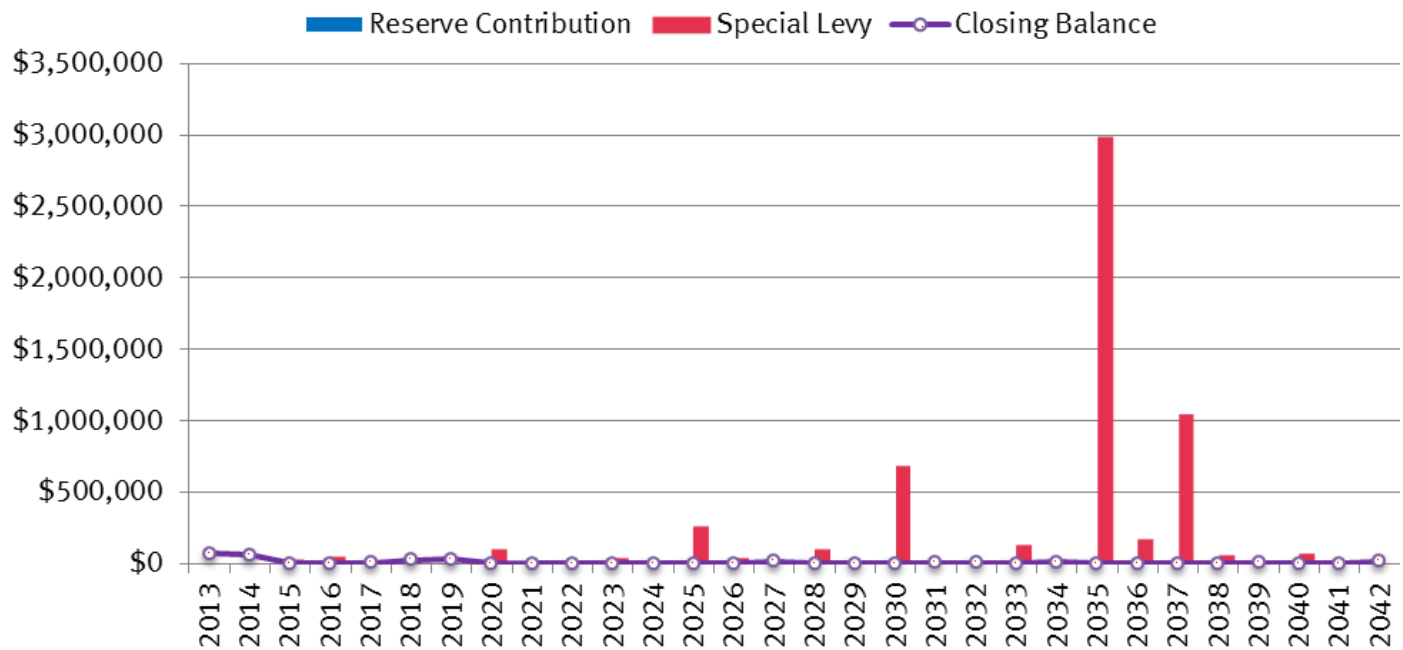


Fig. 5.3.1 Statutory Funding Model: Graphical Analysis

The BAMS software tool enables the strata council and management to explore alternate funding scenarios by adjusting the financial variables in the model (such as inflation rates and interest rates).

5.4. Funding Scenario “B” – Current (Status Quo)

Scenario “B” represents the current funding level approved by the Owners at the last general meeting (i.e., status quo) and is based on a fixed annual reserve contribution of \$15,243 and is summarized in the following cash flow table.

Table 5.4.1 Status Quo Funding Model: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	\$155,986	\$15,243	\$0	\$1,560	\$86,050	\$1,000	\$85,739
2014	\$85,739	\$15,243	\$0	\$857	\$8,800	\$1,000	\$92,039
2015	\$92,039	\$15,243	\$0	\$920	\$97,000	\$1,000	\$10,203
2016	\$10,203	\$15,243	\$60,652	\$102	\$80,200	\$1,000	\$5,000
2017	\$5,000	\$15,243	\$0	\$50	\$13,200	\$1,000	\$6,093
2018	\$6,093	\$15,243	\$0	\$61	\$0	\$1,000	\$20,397
2019	\$20,397	\$15,243	\$0	\$204	\$13,200	\$1,000	\$21,644
2020	\$21,644	\$15,243	\$123,197	\$216	\$154,300	\$1,000	\$5,000
2021	\$5,000	\$15,243	\$4,057	\$50	\$18,350	\$1,000	\$5,000
2022	\$5,000	\$15,243	\$3,007	\$50	\$17,300	\$1,000	\$5,000

The Owners are currently accustomed to monthly reserve allocations of approximately \$21 per suite per month (averaged). If the Owners were to continue to fund the CRF at this level, the Owners will need to raise approximately \$5.9M for special levies over the next 30 years.

The figure below provides a graphical illustration of the status quo funding scenario. The annual contribution into the reserve account is shown by the blue bars, the closing balance in the CRF is shown by the purple line and the special levies (to offset the shortfall in the reserve account) are shown as red bars.

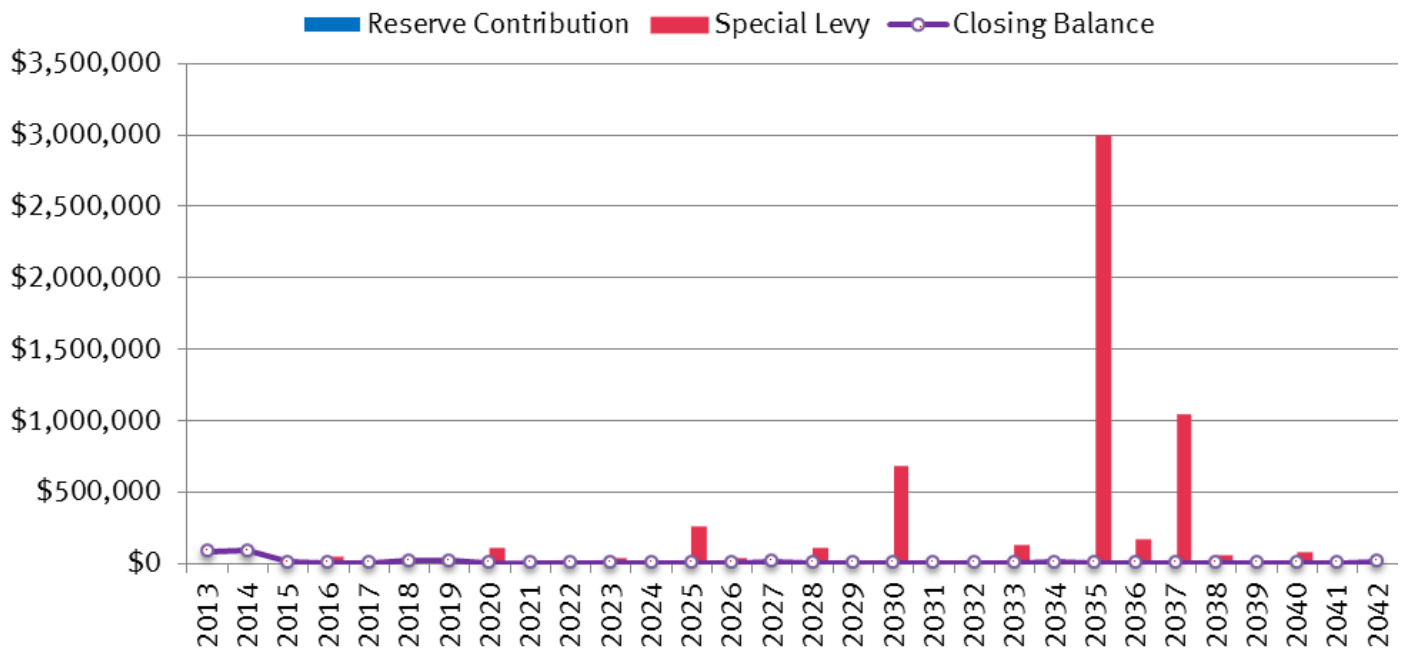


Fig. 5.4.1 Status Quo Funding Model: Graphical Analysis

The BAMS software tool enables the strata council and management to adjust the financial variables in this model (such as inflation rates and interest rates) and to generate additional models.

5.5. Funding Scenario “C” – Alternative

The next scenario is based on a stepped reserve contribution of \$15,243 increasing over 4 years to \$60,000 over the remaining year of the 30-year planning horizon. This represents a reserve contribution that is equivalent to approximately \$82 per suite per month based off of the \$60,000 contribution level.

Table 5.5.1 Alternative Funding Model: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	\$155,986	\$15,243	\$0	\$1,560	\$86,050	\$1000	\$85,739
2014	\$85,739	\$30,000	\$0	\$857	\$8,800	\$1000	\$106,796
2015	\$106,796	\$40,000	\$0	\$1,068	\$97,000	\$1000	\$49,864
2016	\$49,864	\$50,000	\$0	\$499	\$80,200	\$1000	\$19,163
2017	\$19,163	\$60,000	\$0	\$192	\$13,200	\$1,000	\$65,155
2018	\$65,155	\$60,000	\$0	\$652	\$0	\$1,000	\$124,806
2019	\$124,806	\$60,000	\$0	\$1,248	\$13,200	\$1,000	\$171,854
2020	\$171,854	\$60,000	\$0	\$1,719	\$154,300	\$1,000	\$78,273
2021	\$78,273	\$60,000	\$0	\$783	\$18,350	\$1,000	\$119,706
2022	\$119,706	\$60,000	\$0	\$1,197	\$17,300	\$1,000	\$162,603

While Scenario “C” does result in eliminating some of the smaller levies, it is still not adequate to offset all the special levies over the 30-year planning horizon. The figure below graphically illustrates the annual contributions (blue bars), the closing balance in the CRF (the purple line) and the size of the special levies (red bars) resulting from this funding level.

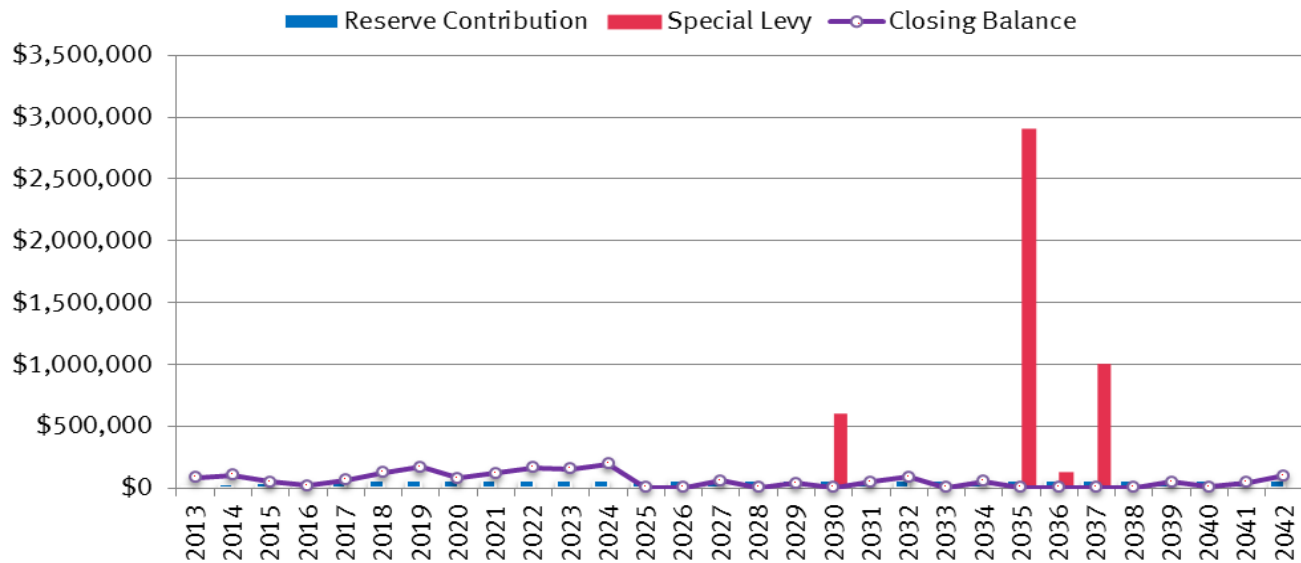


Fig. 5.5.1 Alternative Funding Model: Graphical Analysis

The BAMS software tool enables the strata council and management to adjust the financial variables in this model (such as inflation rates and interest rates) and to generate additional models.

5.6. Funding Scenario “D” – Progressive

The next scenario is based on a fixed annual reserve contribution of approximately **\$223,000** over the 30-year planning horizon. This represents a reserve contribution that is equivalent to approximately **\$305** per suite per month (averaged).

Table 5.6.1 Progressive Funding Model: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	\$155,986	\$223,000	\$0	\$1,560	\$86,050	\$1,000	\$293,496
2014	\$293,496	\$223,000	\$0	\$2,935	\$8,800	\$1,000	\$509,631
2015	\$509,631	\$223,000	\$0	\$5,096	\$97,000	\$1,000	\$639,727
2016	\$639,727	\$223,000	\$0	\$6,397	\$80,200	\$1,000	\$787,924
2017	\$787,924	\$223,000	\$0	\$7,879	\$13,200	\$1,000	\$1,004,604
2018	\$1,004,604	\$223,000	\$0	\$10,046	\$0	\$1,000	\$1,236,650
2019	\$1,236,650	\$223,000	\$0	\$12,366	\$13,200	\$1,000	\$1,457,816
2020	\$1,457,816	\$223,000	\$0	\$14,578	\$154,300	\$1,000	\$1,540,094
2021	\$1,540,094	\$223,000	\$0	\$15,401	\$18,350	\$1,000	\$1,759,145
2022	\$1,759,145	\$223,000	\$0	\$17,591	\$17,300	\$1,000	\$1,981,437

Scenario “D” offsets most special levies over the 30-year planning horizon. The figure below graphically illustrates the annual contributions (blue bars), the closing balance in the CRF (the purple line) and the size of the special levies (red bars) resulting from this funding level.

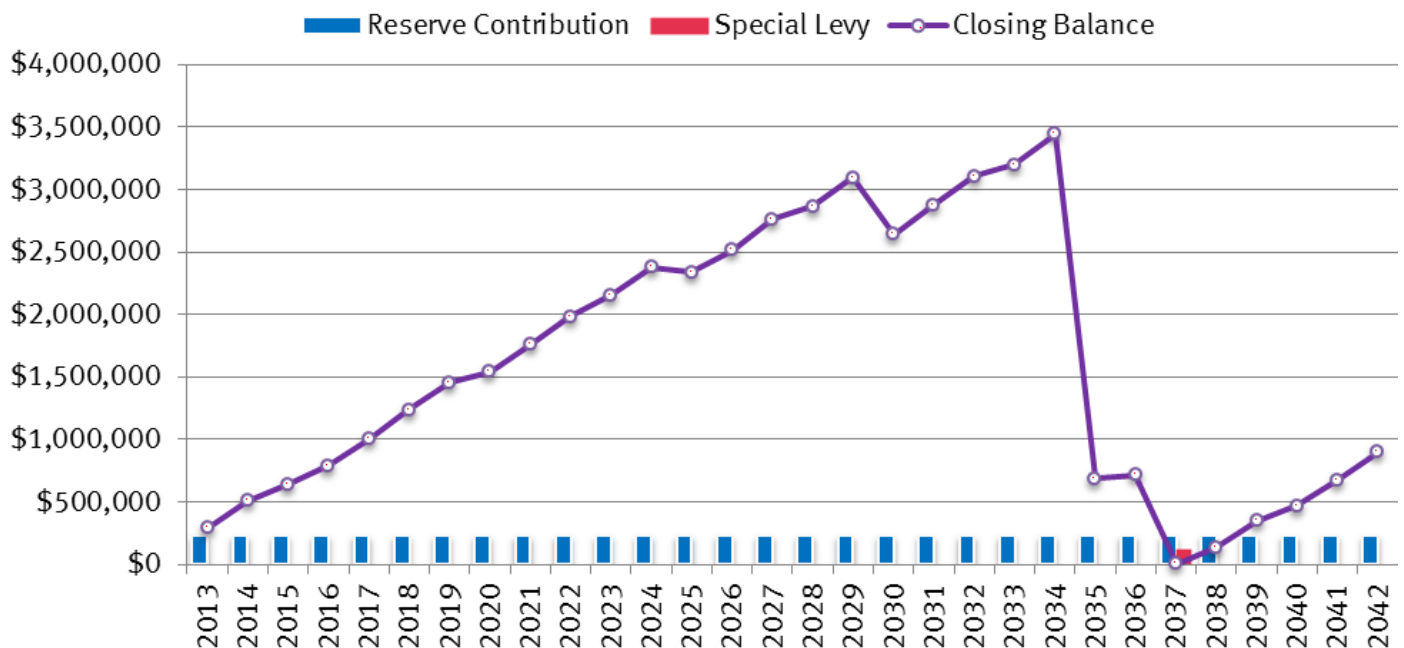


Fig. 5.6.1 Progressive Funding Model: Graphical Analysis

The BAMS software tool enables the strata council and management to adjust the financial variables in this model (such as inflation rates and interest rates) and to generate additional models.

5.7. Funding by Individual Owners

Notwithstanding which funding scenario may ultimately be selected by the Strata Corporation at the next general meeting, each owner can develop their own individual funding plans based on the renewal costs identified in the Report.

Since the Depreciation Report has identified approximately \$6.5M in capital reserve and major maintenance projects over the next 30 years, each of the 61 unit owners can estimate their personal share based on unit entitlements.

6. Next Steps

The following key recommendations are presented for the Owners consideration. The goal is to help the Owners move to a more objective basis of allocating CRF contributions for Logan Lane.

- **Assumptions.** Review the disclosures and disclaimers listed in the appendix of the Report. Understand how the assumptions can be updated over time as new information comes to light about the performance of the assets and as certain projects are completed. Seek clarification from RDH regarding any of the disclosures and disclaimers.
- **Funding Scenarios.** Review the alternative funding scenarios in the Report and develop scenarios for presentation to the Owners that are most likely to secure approval of the Owners.
- **Funding Levels.** Review the current annual reserve allocation levels relative to the funding levels illustrated in the Report.
- **Software Tool.** Utilize the web-based building asset management system on an ongoing basis to keep the data current and ensure that it is readily accessible to the council members and property manager.
- **Updates.** Plan for updates to the financial component of the Report at least once a year (such as reserve balances) and updates to the physical component of the Report in three years (such as remaining useful life of the assets). The online data can be updated at any time during the course of the year by authorized users.
- **Further Investigations.** Conduct additional condition investigations, as required, to refine the data.

RDH is available to assist the Owners with all aspects of the Report and the on-line BAMS software. Please contact our office with any questions or if you should require further information.

Sincerely,

RDH Building Engineering Ltd.



Lauren Stokes, Dipl.T.

Project Manager



Nicholas Smit, Dipl.T.

Building Asset Management Technologist

Appendix A

Glossary of Terms

Glossary

Annual Contribution – Funds allocated to the Reserve Fund each fiscal year. Sometimes referred to as the Annual Allocation. Determining the appropriate size of the Annual Allocation is aided with a Reserve Study (a Depreciation Report in B.C.).

Asset – An integrated assembly of multiple physical components, which requires periodic maintenance, repair and eventual renewal. Typical examples of assets are: roofs, boilers and hallway carpets.

Catch-up Costs - The costs associated with the accumulated backlog of deferred maintenance associated with the assets.

Classes of Cost Estimates - Until a project is actually constructed, a cost estimate represents the best judgement of the professional according to their experience and knowledge and the information available at the time. Its completeness and accuracy is influenced by many factors, including the project status and development stage. Estimates have a limited life and are subject to inflation and fluctuating market conditions. The precision of cost estimating is categorized into the following four classes and are as defined in guidelines prepared by the Association of Professional Engineers and Geoscientists of B.C. The percentage figures in parentheses refer to the level of precision or reliability of the cost estimates.

- **Class A Estimate** (±10-15%): A detailed estimate based on quantity take-offs from final drawings and specifications. It is used to evaluate tenders or as a basis of cost control during day-labour construction.
- **Class B Estimate** (±15-25%): An estimate prepared after site investigations and studies have been completed and the major systems defined. It is based on a project brief and preliminary design. It is used for obtaining effective project approval and for budgetary control.
- **Class C Estimate** (±25-40%): An estimate prepared with limited site information and based on probable conditions affecting the project. It represents the summation of all identifiable project elemental costs and is used for program planning, to establish a more specific definition of client needs and to obtain preliminary project approval.
- **Class D Estimate** (±50%): A preliminary estimate which, due to little or no site information, indicates the approximate magnitude of cost of the proposed project, based on the client's broad requirements. This overall cost estimate may be derived from lump sum or unit costs for a similar project. It may be used in developing long term capital plans and for preliminary discussion of proposed capital projects.

Closing Balance - Alternatively referred to as the Starting Balance. The balance of funds remaining in the reserve account at the end of a fiscal period (Fiscal year end, calendar year or study period). The Closing Balance becomes the Opening Balance for the subsequent fiscal period.

Contingency Costs - An allowance for unexpected or unforeseen costs that may impact monies required for projects to maintain or replace assets. (Not to be confused with costs of Renewal or Major Maintenance projects which are paid for out of the Reserve Fund (otherwise known the Contingency Reserve Fund.)

Current Dollars –dollars in the year they were actually received or paid, unadjusted for price changes.

Funding Model - A mathematical model used to establish an appropriate funding level for sustaining the assets in a building. Running a number of scenarios out of the funding model using different parameters

(such as inflation rates and interest rates) can serve as a sensitivity analysis to determine the financial impact of different funding levels.

Future Dollars - The projected cost of future asset renewal projects, which accounts for inflation and escalation factors.

Get Ahead costs - These are costs associated with adaptation of the building to counter the forces of retirement associated with different forms of obsolescence, such as:

- Functional obsolescence
- Legal obsolescence
- Style obsolescence

Some of the costs in this category are discretionary spending that result in either a change or an improvement to the existing strata building. This category includes projects to alter the physical plant for changes in use, codes and standards. Some typical examples include:

- Energy retrofits
- Code retrofits
- Hazardous material abatement
- Barrier free access retrofits
- Seismic Upgrades

Keep-up Costs - The monies required for renewal projects as each asset reaches the end of its useful service life. If an asset is not replaced at the end of its useful service life and is kept in operation, through targeted repairs, then these costs get reclassified into the “catch-up” category.

Major Maintenance – Any maintenance work for common expenses that usually occurs less often than once a year or that do not usually occur. Major maintenance provides for the preservation of assets to ensure that they achieve their full intended service life.

Opening Balance – Alternatively referred to as the Starting Balance. The amount of money in an account at the beginning of a fiscal period. Opening balances are derived from the balance sheet and are used in cash flow calculations in the Funding Model.

Operating Costs - Frequently recurring expenses that arise during the course of a single fiscal year and are paid from the operating budget as opposed to the Reserve Fund.

Operational Plan/Horizon (1 year) - The annual operating period encompasses one fiscal cycle (12 months). The Reserve Contribution in the operating budget should reflect the majority of the projects in the Tactical Plan (5 years) and ideally should also contemplate elements of the Strategic Plan (30 years).

Percent Funded - The ratio, at a particular point of time (typically the beginning of the fiscal year), of the actual or projected Reserve Fund balance to the accrued Reserve Fund balance, expressed as a percentage. For example: If the 100% funded balance is \$100,000 and there is \$76,000 in the Reserve Fund, the Reserve Fund is 76% funded.

Since funds can typically be allocated from one asset to another with ease, this parameter has no real meaning on an individual reserve component basis. The purpose of this parameter is to identify the relative strength or weakness of the entire Reserve Fund at a particular point in time. The value of this parameter is to provide a more stable measure of Reserve Fund strength, since cash in reserve may mean very different things to different governing bodies or owner groups.

- **Poor Level.** When the Percent Funded falls to 0% - 30%, the current reserves may be considered to be at a 'poor' level. At this funding level, Special Levies are common. This is also commonly known as the Unfunded or Special Levy Model. The Owner Group does not have a Reserve Fund balance that will cover expected renewal costs and the only recourse is to raise funds by Special Levies to cover those costs when they become due.
- **Fair Level.** If the Percent Funded level is 31 to 70% then the current reserve may be considered to be in a mid-range level.
- **Good Level.** If the Percent Funded level is 70% or higher this is likely to be considered 'strong' because cash flow problems are rare.

Renewal – The replacement of an Asset as it reaches the end of its useful service life.

Renewal Cost – The cost required to replace an Asset, which is paid from the Reserve Fund, Special Levy or combination thereof.

Reserve Contribution - The amount of money that is allocated to the Reserve Fund each fiscal year. Determining the appropriate size of the Reserve Contribution is aided with a Reserve Fund Study (Depreciation Report in B.C.).

Reserve Fund – Also known as the Contingency Reserve Fund. The account in which the accumulated Annual Contributions are deposited and from which costs are withdrawn for Renewal projects and Major Maintenance projects.

Reserve Income – The interest earned from investing the money deposited in the Reserve Fund.

Reserve Study - Also referred to as a Reserve Fund Study or Depreciation Report in BC.

- A long-range financial planning tool that identifies the current status of the owners' Reserve Fund and recommends a stable and equitable funding plan to offset the costs of anticipated future major expenditures associated with replacement of the assets and major maintenance.
- The purpose of the Reserve Study is to provide a plan for appropriate funding for renewal and major maintenance work.
- While Reserve Studies provide analysis of the timing, costs and funding for renewal projects, they should ideally be supported by a maintenance plan that assists the owners to plan for maintenance activities so that assets achieve their predicted service lives.

Special Levy - Also referred to as a "Special Assessment". A financial levy to be paid by the owner group to finance large-scale projects for major maintenance, repairs, renewal and rehabilitation of an asset, which occur as result of a shortfall in available funds and requires special decision making and approval procedures. A Reserve Study contains funding scenarios that assist the owners in long-range financial planning.

Strategic Horizon - The longest of the three planning horizons, which typically covers the full study period of 30 years and identifies the long-term needs of the assets.

Style Obsolescence - When an asset is no longer desirable because it has fallen out of popular fashion, its style is obsolete. Some assets, particularly interior furnishings, reflect fashion cycles and can become out-dated.

Tactical Plan/Horizon - A period of planning for asset Renewal projects and Major Maintenance projects, which typically extends five years from the current year.

Appendix B

Asset Inventory

Enclosure

Roofs & Decks

Encl 01 - Protected SBS Membrane Roof/Deck/Podium (Conventional Assembly) with Traffic-Bearing Surface



Location

Second story decks.

Description

SBS membrane overlaid with pavers traffic-bearing surface.

Planning Information

Service Life: 30
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2035

Encl 02 - Exposed SBS Membrane Roof



Location

Small roof above basement units and rear patios at building 5.

Description

Modified bituminous membrane at low-slope roof.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2030

Encl 03 - Fiber Cement Board Soffit



Location

Underside of balconies, roof overhangs and gazebo structures.

Description

Painted fiber-cement panel soffit.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Encl 04 - Protected SBS Membrane Roof/Deck/Podium (Conventional Assembly) with Landscaping



Location

Over parking garage suspended slab.

Description

SBS membrane overlaid with combination of drainage mat, pavers and intensive landscaping overburden.

Planning Information

Service Life: 30
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2035

Logan Lane
Asset Inventory

Encl 05 - Laminated Asphalt Shingle Roof



Location

All sloped roofing applications

Description

Laminated asphalt shingle over a membrane underlayment applied on plywood sheathing at sloped roof. Typically, gutters are provided at roof eaves to manage rainwater.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2030

Fall Protection

Encl 06 - Guardrail Aluminum



Location

Balcony and deck guards, and at stair locations.

Description

Aluminum posts and pickets functioning as a protective barrier at the open sides of stairs, landings, balconies, decks, or other locations to prevent accidental falls from one level to another.

Planning Information

Service Life: 30
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2035

Walls

Encl 07 - Fiber Cement Wall - Drained



Location

Majority of exterior wall cladding.

Description

Fiber cement cladding, shingle and panel in different areas, installed on wood strapping to create a drained cavity over the exterior sheathing membrane.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Encl 08 - Wood Trim



Location

Roof eaves, deck trim, post corners, window and door trim.

Description

Vertical and horizontal wood trim boards with coated surface for protection of the substrate and aesthetics.

Planning Information

Service Life: 30
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2035

Logan Lane

Asset Inventory

Encl 09 - Clay Masonry Veneer Wall



Location

Secondary exterior wall cladding.

Description

Clay masonry units applied as a veneer with a drained and vented cavity over exterior sheathing membrane.

Planning Information

Service Life: 50
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2055

Glazing Systems

Encl 10 - Vinyl Framed Window



Location

Throughout the building enclosure on all elevations.

Description

Vinyl framed windows with [double, triple] insulating glazing units, and [casement, awning, sliding] operators.

Planning Information

Service Life: 30
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 6
 Next Renewal Year: 2037

Doors

Encl 11 - Steel Swing Door



Location

Outdoor storage rooms in building 5.

Description

Hollow steel slab swing door.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2030

Encl 12 - Glazed Steel Swing Door



Location

Parking garage entrance doors.

Description

Steel swing door with wire mesh insulating glazing units.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2030

Logan Lane

Asset Inventory

Encl 13 - Glazed Metal Clad Swing Door



Location

Main entrance to suites, deck access for buildings four (front) and five (rear).

Description

Metal clad wood swing door with insulating glazing units.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2030

Encl 14 - Vinyl Framed Sliding Glass Door



Location

Access to patios and decks on applicable buildings.

Description

Sliding glass doors, double insulating glazing units, vinyl framing.

Planning Information

Service Life: 30
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 6
 Next Renewal Year: 2037

Balconies

Encl 15 - Wood Stairs & Landings



Location

Building 1 (2561 & 2565 East Mall, 2577 East Mall) Building 2 (2537 & 2541 East Mall, 2545 & 2549 East Mall, 2553 & 2557 East Mall) Building 3 6204 & 6208 Logan Lane, 6212 & 6216 Logan Lane, 6220 & 6224 Logan Lane, 6228 Logan Lane Building 4 6232 & 6236 Logan Lane, 6240 & 6244 Logan Lane, 6248 & 6252 Logan Lane, 6256 & 6260 Logan Lane

Description

Wood duck board landings over 2-ply SBS membrane on sheathing with pressure treated wood stairs. Two landings were replaced in 2013.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 25
 Next Renewal Year: 2013

Encl 16 - Exposed Vinyl Balcony Membrane



Location

Rear balconies building four and one balcony on building one.

Description

Sheet vinyl membrane applied over wood balcony sheathing.

Planning Information

Service Life: 10
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2015

Logan Lane
Asset Inventory

Parking Garage

Encl 17 - Slab-on-Grade [PLACEHOLDER]



Location

Throughout the parking garage.

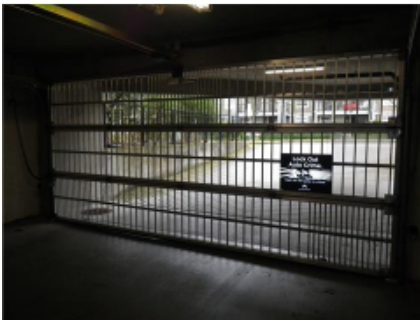
Description

Concrete slab on grade.

Planning Information

Service Life: 75
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2080

Encl 18 - Sectional Overhead Door - Metal



Location

Parking garage entrance.

Description

Pre-finished metal sectional overhead garage door.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2030

General & Inspections

Encl 19 - General & Inspections



Location

Throughout the building enclosure.

Description

Miscellaneous interior and exterior components, such as service penetrations and interface details, not related to any particular assembly. Warranty and general reviews.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 37
 Next Renewal Year: 2016

Encl 20 - Sealant



Location

At building enclosure penetrations and material interfaces.

Description

Sealant of various types located at joints between building enclosure assemblies, as well as around components and penetrations within building enclosure assemblies.

Planning Information

Service Life: 10
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2015

Electrical

Power Supply

Elec 01 - Distribution Transformer - Exterior [PLACEHOLDER]



Location

Fire lane.

Description

Pad mounted transformer. [Equipment is owned by BC Hydro].

Planning Information

Service Life: 45
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2050

Distribution

Elec 02 - Electrical Distribution



Location

Electrical room in Parking garage.

Description

Main disconnect switch; downstream switchboards, panelboards, breakers, switches, disconnects and wiring to mechanical, lighting and power loads throughout the building [and to individual suites through BC Hydro owned metering devices].

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Light Fixtures

Elec 03 - Exterior Light Fixtures



Location

Mounted to soffits, walls, an other exterior features.

Description

A variety of fixture and lamp types.

Planning Information

Service Life: 20
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2025

Elec 04 - Interior Light Fixtures



Location

Parking garage lighting, storage rooms and service rooms.

Description

A variety of fixture and lamp types.

Planning Information

Service Life: 20
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2025

Mechanical

Controls and End Devices

Mech 01 - Heat Tracing - Freeze Protection



Location

Electrical room and throughout parking garage.

Description

Heat trace controller for piping systems exposed to freezing; UL listed for pipe freeze protection on fire sprinkler system.

Planning Information

Service Life: 15
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2020

Mech 02 - Gas Detection - Parking Garage



Location

Stall 89, 13.

Description

VA301M Dual, electronic sensing devices for detection of dangerous gases, carbon monoxide (CO), (propane), (combustible fuels) , produced by vehicles and to activate the exhaust fans accordingly.

Planning Information

Service Life: 10
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2015

Mech 03 - HVAC Instrumentation



Location

Throughout the site.

Description

Thermostats, programmable thermostats, flow gauges, thermometers, metering equipment, gauges, and other field devices to monitor and regulate pressure and temperature in the HVAC and plumbing distribution systems.

Planning Information

Service Life: 20
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2025

Plumbing & Drainage

Mech 04 - Storm Drainage Collection



Location

Throughout the parking garage.

Description

Trench drains, catch basins and associated piping systems for rainwater runoff. Roof drains may be included with the roof assets.

Planning Information

Service Life: 40
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2045

Logan Lane

Asset Inventory

Mech 05 - Sanitary Drainage Collection

**Location**

Throughout the building.

Description

Piping, with joints, p-traps, and fittings.

Planning Information

Service Life: 50
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2055

Mech 06 - Cross Connection & Backflow Prevention

**Location**

Sprinkler room.

Description

Various types and sizes of backflow prevention valves, including vacuum breakers, double check, reduced pressure valves on systems.

Planning Information

Service Life: 20
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2025

Mech 07 - Exterior Roof and Area Drainage Collection

**Location**

Perimeter of exterior walls and underground structures.

Description

Underground tight piping forming part of a drainage system around perimeters of buildings, podiums and structures, intended for collection of downspout drains and hard surface area drainage. Not including aluminum downspouts and gutters.

Planning Information

Service Life: 40
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2045

Mech 08 - Perimeter and Foundation Drainage

**Location**

Perimeter of foundations.

Description

Piping forming part of a sub-surface drainage system around perimeters of underground structures.

Planning Information

Service Life: 40
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2045

Logan Lane

Asset Inventory

Mech 09 - Piping - Domestic Water Distribution



Location

Throughout the site.

Description

Domestic water distribution to each suite.

Planning Information

Service Life: 28
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2033

Mech 10 - Piping - Gas Distribution



Location

From the meters to each suite.

Description

Gas distribution system consisting of piping from meter to appliance. Piping inside townhouse is not Strata owned.

Planning Information

Service Life: 50
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2055

Mech 11 - Valves - Plumbing Flow Control and Directional



Location

Sprinkler room.

Description

Various types and sizes of valves, including pressure reducing valves, isolation valves, two-way and three way valves, circuit flow control valves and check valves to regulate the flow of water through domestic plumbing systems.

Planning Information

Service Life: 20
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2025

Heating & Cooling

Mech 12 - Electric Baseboard



Location

Service rooms.

Description

Standard grade, wall mounted, electric convector baseboard heaters with electrical fins for localized space heating and integral thermostat control.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Ventilation and Air-conditioning

Mech 13 - Make Up Air Unit - Small Unheated



Location

Near stalls 89, 33,35,14, and 1.

Description

In-line fans to supply make-up air to the interior of the building.

Planning Information

Service Life: 20
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2025

Mech 14 - Electric Duct Heater



Location

Near stalls 89, 33,35,14, and 1.

Description

Electric duct heaters, duct-mounted.

Planning Information

Service Life: 17
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2022

Mech 15 - Exhaust Fans Parking Garage - Propellor



Location

Stalls 95, 95.

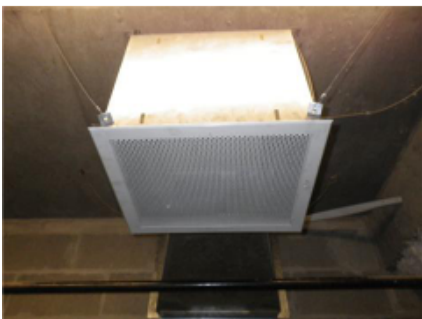
Description

Belt driven propellor exhaust fan mounted in exterior wall.

Planning Information

Service Life: 20
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2025

Mech 16 - General Exhaust Fan



Location

Garbage room, water manifold room, water entry room and electrical room.

Description

Exhaust fans mounted to the ceiling.

Planning Information

Service Life: 12
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2017

Logan Lane
Asset Inventory

Other

Mech 17 - Overhead Gate Motor



Location

Parking garage entrance.

Description

AC motor controlled by an electric operator.

Planning Information

Service Life: 20
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2025

Fire Safety

Controls

Fire 01 - Fire Alarm Panel - Addressable



Location

Electrical room.

Description

Quick Start, microprocessor and supervised unit.

Planning Information

Service Life: 20
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2025

Detection

Fire 02 - Fire Detection & Alarm



Location

Description

Smoke detectors, heat detectors, flow switches, tamper switches, horns, pull stations and other fixed apparatus field devices to detect fire and smoke conditions and initiate timely response.

Planning Information

Service Life: 20
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2025

Suppression

Fire 03 - Dry Sprinkler Compressor



Location

Sprinkler room.

Description

Swan compressor with 1 HP motor to maintain the pressure of air in the dry fire sprinkler lines.

Planning Information

Service Life: 14
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2019

Fire 04 - Portable Fire Extinguisher



Location

Strategic locations throughout the parking garage.

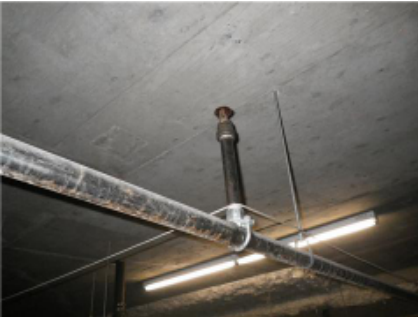
Description

Wall mounted, manually operated, 5lbs and 10lbs ABC type, pressurized vessels for controlled discharge of chemicals to extinguish small fires.

Planning Information

Service Life: 24
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2029

Fire 05 - Sprinkler System - Dry



Location

Throughout the parking garage.

Description

Exposed dry sprinklers, upright and sidewall sprinkler heads, steel piping.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Fire 06 - Sprinkler Valve Assembly - Dry



Location

Sprinkler room.

Description

Viking dry sprinkler valve, trim and gauges, steel piping.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Logan Lane
Asset Inventory

Egress

Fire 07 - Emergency Egress Equipment



Location

Throughout the interior spaces.

Description

Unit battery packs; exit signs.

Planning Information

Service Life: 20
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2025

Interior Finishes

Housekeeping

Finish 01 - General Housekeeping



Location

Throughout the building.

Description

Cleaning and care of miscellaneous brightwork, millwork, flooring glass and other interior finishes. Includes housekeeping equipment.

Planning Information

Service Life: 10
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2015

Doors

Finish 02 - Interior Swing Door - General



Location

Service and storage room doors.

Description

Solid wood core or hollow metal swing door hung in framed opening including hardware. Exterior door is considered separately as part of the building enclosure system.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Logan Lane
Asset Inventory

Amenities

Specialties

Amen 01 - Metal Screen Storage Locker



Location

Parking garage.

Description

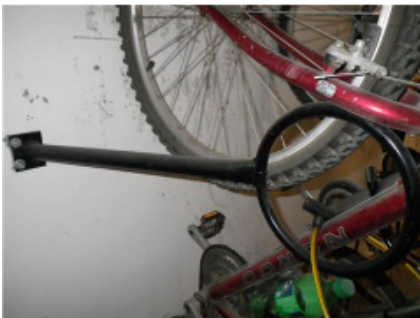
Interior galvanized chain link fencing enclosures for storage.

Planning Information

Service Life: 25
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2030

Furnishings

Amen 02 - Bicycle Rack



Location

Interior and exterior bike racks.

Description

Floor or wall mounted, steel or wood frame bicycle rack.

Planning Information

Service Life: 30
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2035

Amen 03 - Central Mailboxes



Location

Fire lane.

Description

Surface mounted, front or rear loading, brushed aluminum finish, extruded aluminum trim.

Planning Information

Service Life: 30
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2035

Amen 04 - Public Signage



Location

Throughout the property.

Description

Variety of permanently displayed information placards in the common areas of the building.

Planning Information

Service Life: 25
Installed Year: 2005
Chronological Age: 8
Effective Age: 8
Next Renewal Year: 2030

Sitework

Hard Landscaping

Site 01 - Concrete Masonry Retaining Wall



Location

Front of each building and rear of building 5.

Description

Masonry veneer with mortared joints and precast concrete cap.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Site 02 - Timber Retaining Wall



Location

Rear patios, backyard planters and other locations throughout the site.

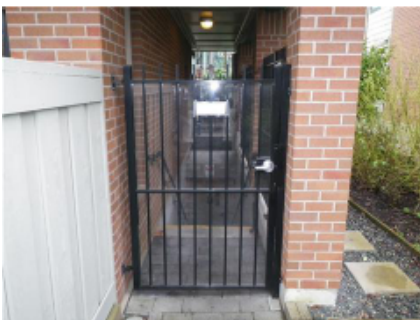
Description

Heavy timber retaining walls, various heights.

Planning Information

Service Life: 25
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2030

Site 03 - Metal Gate



Location

Parking garage stair access and at the front of units.

Description

Prefinished gates with hardware.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Site 04 - Site Guardrails



Location

At concrete stair locations.

Description

Painted steel tube guardrails.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Logan Lane

Asset Inventory

Site 05 - Concrete Paving



Location

Throughout the site.

Description

Concrete pavement, cast with control and construction joints, onto compacted gravel base.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Site 06 - Interlocking Unit Paving



Location

Fire lane, rear patios, entrance patios and several walkways

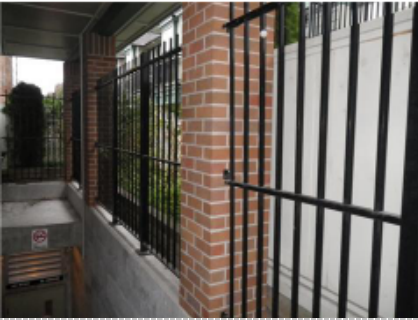
Description

Precast concrete unit pavers.

Planning Information

Service Life: 15
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 5
 Next Renewal Year: 2023

Site 07 - Metal Fencing



Location

Throughout the site, in front of suites and at parking garage stairwells.

Description

Rail and pickets metal fence with prefinished posts; gates with hardware.

Planning Information

Service Life: 40
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2045

Site 08 - Wood Fencing



Location

At rear patios, deck separations, and front separations at buildings two of the buildings.

Description

Painted wood fence with posts, rail, panel and trellis; gates with hardware.

Planning Information

Service Life: 20
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2025

Logan Lane
Asset Inventory

Soft Landscaping

Site 09 - Groundskeeping & Pest Control



Location

Throughout the site.

Description

Care of miscellaneous site furnishing, hard paved surfaces and landscaped areas.

Planning Information

Service Life: 5
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 3
 Next Renewal Year: 2015

Site 10 - Irrigation System



Location

Controller in electrical room with distribution throughout the soft landscaping.

Description

Controller with time clock, network of pipes, valves, and irrigation heads distributed around the soft landscaping. New controller 2013.

Planning Information

Service Life: 15
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 3
 Next Renewal Year: 2025

Site 11 - Soft Landscaping



Location

Throughout the property.

Description

Lawn, ground cover, shrubs, perennials and small trees.

Planning Information

Service Life: 15
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: -12
 Next Renewal Year: 2040

Site Services

Site 12 - Electrical Site Services



Location

From transformers to the building.

Description

Underground secondary distribution conduits and services from individual pad mounted transformers to building electrical rooms.

Planning Information

Service Life: 50
 Installed Year: 2005
 Chronological Age: 8
 Effective Age: 8
 Next Renewal Year: 2055

Logan Lane

Asset Inventory

Site 13 - Underground Mechanical Drainage and Water Services



Location

Sub surface site service.

Description

Sanitary sewer, storm drain and fire/domestic water supplies, from the property line to the building.

Planning Information

Service Life:	50
Installed Year:	2005
Chronological Age:	8
Effective Age:	8
Next Renewal Year:	2055

Appendix C

Asset Service Life Summary

Logan Lane

Asset Service Life Summary

Asset Ref	Asset Name	Chronological Age	Estimated Remaining SL
Enclosure			
Encl 01	Protected SBS Membrane Roof/Deck/Podium (Conventional Assembly) with Traffic-Bearing Surface	8	22
Encl 02	Exposed SBS Membrane Roof	8	17
Encl 03	Fiber Cement Board Soffit	8	32
Encl 04	Protected SBS Membrane Roof/Deck/Podium (Conventional Assembly) with Landscaping	8	22
Encl 05	Laminated Asphalt Shingle Roof	8	17
Encl 06	Guardrail Aluminum	8	22
Encl 07	Fiber Cement Wall - Drained	8	32
Encl 08	Wood Trim	8	22
Encl 09	Clay Masonry Veneer Wall	8	42
Encl 10	Vinyl Framed Window	8	24
Encl 11	Steel Swing Door	8	17
Encl 12	Glazed Steel Swing Door	8	17
Encl 13	Glazed Metal Clad Swing Door	8	17
Encl 14	Vinyl Framed Sliding Glass Door	8	24
Encl 15	Wood Stairs & Landings	8	0
Encl 16	Exposed Vinyl Balcony Membrane	8	2
Encl 17	Slab-on-Grade [PLACEHOLDER]	8	67
Encl 18	Sectional Overhead Door - Metal	8	17
Encl 19	General & Inspections	8	3
Encl 20	Sealant	8	2
Electrical			
Elec 01	Distribution Transformer - Exterior [PLACEHOLDER]	8	37
Elec 02	Electrical Distribution	8	32
Elec 03	Exterior Light Fixtures	8	12
Elec 04	Interior Light Fixtures	8	12
Mechanical			
Mech 01	Heat Tracing - Freeze Protection	8	7
Mech 02	Gas Detection - Parking Garage	8	2
Mech 03	HVAC Instrumentation	8	12
Mech 04	Storm Drainage Collection	8	32
Mech 05	Sanitary Drainage Collection	8	42
Mech 06	Cross Connection & Backflow Prevention	8	12
Mech 07	Exterior Roof and Area Drainage Collection	8	32

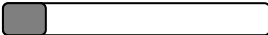
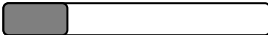
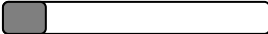
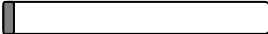
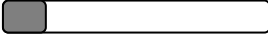
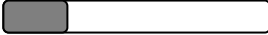
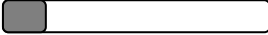


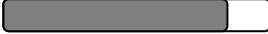


Logan Lane

Asset Service Life Summary

Asset Ref	Asset Name	Chronological Age	Estimated Remaining SL
Mech 08	Perimeter and Foundation Drainage	8	32
Mech 09	Piping - Domestic Water Distribution	8	20
Mech 10	Piping - Gas Distribution	8	42
Mech 11	Valves - Plumbing Flow Control and Directional	8	12
Mech 12	Electric Baseboard	8	32
Mech 13	Make Up Air Unit - Small Unheated	8	12
Mech 14	Electric Duct Heater	8	9
Mech 15	Exhaust Fans Parking Garage - Propellor	8	12
Mech 16	General Exhaust Fan	8	4
Mech 17	Overhead Gate Motor	8	12
Fire Safety			
Fire 01	Fire Alarm Panel - Addressable	8	12
Fire 02	Fire Detection & Alarm	8	12
Fire 03	Dry Sprinkler Compressor	8	6
Fire 04	Portable Fire Extinguisher	8	16
Fire 05	Sprinkler System - Dry	8	32
Fire 06	Sprinkler Valve Assembly - Dry	8	32
Fire 07	Emergency Egress Equipment	8	12
Interior Finishes			
Finish 01	General Housekeeping	8	2
Finish 02	Interior Swing Door - General	8	32
Amenities			
Amen 01	Metal Screen Storage Locker	8	17
Amen 02	Bicycle Rack	8	22
Amen 03	Central Mailboxes	8	22
Amen 04	Public Signage	8	17
Sitework			
Site 01	Concrete Masonry Retaining Wall	8	32
Site 02	Timber Retaining Wall	8	17
Site 03	Metal Gate	8	32
Site 04	Site Guardrails	8	32
Site 05	Concrete Paving	8	32
Site 06	Interlocking Unit Paving	8	10
Site 07	Metal Fencing	8	32

Logan Lane

Asset Service Life Summary

Asset Ref	Asset Name	Chronological Age	Estimated Remaining SL
Site 08	Wood Fencing	8 	12 
Site 09	Groundskeeping & Pest Control	8 	2 
Site 10	Irrigation System	8 	12 
Site 11	Soft Landscaping	8 	27 
Site 12	Electrical Site Services	8 	42 
Site 13	Underground Mechanical Drainage and Water Services	8 	42 

Appendix D

Disclosures and Disclaimers

Disclosures and Disclaimers

Condition of the Assets

The method of determining the physical condition of the assets is based on a visual review of a representative sampling of the assets in readily accessible locations, discussions with facility representatives, and review of readily available reference documents. No destructive testing or exploratory openings are carried out on any of the assets and the equipment is not disassembled, operated or subject to re-commissioning tests. The physical review is not a full “condition assessment” since operating, testing or exploratory openings are excluded from the scope of services.

Cost Estimating for Assets

- All estimates of costs are provided in future year dollars.
- All estimates of costs are Class D estimates intended for planning purposes and not for accounting or tender use. See Glossary of Terms for definition of Class D estimates.
- Actual costs will vary depending on several factors. The estimates assume economies of scale will be achieved by bundling work tasks together into larger renewal, repair or rehabilitation projects. Small tasks performed individually may exceed the estimates presented.
- Soft costs, such as consulting services and contingency allowances are not included in the budget estimates. When developing cost estimates for projects in greater detail for budgeting, each project should include appropriate soft costs - such as owner contingency, permit fees, engineering fees, etc. Depending on the sizes, scope and timing of individual projects, the magnitude of the soft costs will vary.
- Construction costs are subject to the vagaries of the marketplace. At the time of tender, costs may vary depending on the time of the year, contractor availability, and other factors.
- The estimates must be updated over time, further developed for scope of work and confirmed by competitive tender before any contracts are awarded.
- Detailed repair specifications are required to be prepared in order to confirm scopes of work and costs.
- The estimates do not include allowances for site specific access requirements or environmental concerns, which should be addressed on a project-by-project basis.
- Consideration may sometimes need to be given to costs arising from the impact of projects on occupancy use and facility operations.
- Replacement costs are typically based on like-for-like with a similar asset unless code or other circumstances require the replacement cost to include an upgrade.

Maintenance of the Assets:

- The maintenance checklists are not exhaustive and are intended as a framework for the ongoing refinement of the maintenance program.
- Work must only be carried out by appropriately qualified personnel who have the necessary and sufficient knowledge about the maintenance tasks and maintenance intervals.
- The manufacturers' latest printed instructions should take precedence in the event of any conflict with the maintenance checklists.
- The owners' maintenance staff and/or service contractors are responsible to verify what is contained in the manufacturers' documentation regarding recommended maintenance procedures and intervals.
- The maintenance checklists and maintenance intervals should be reviewed annually and adjusted, as required, to reflect the service environment, feedback from contractors, etc.

Specialist and Non-Specialist Reviews

Our personnel collect the asset inventory data for all the different systems, including mechanical, plumbing, fire safety, elevator, electrical, interior finishes and sitework. Our scope of services is to identify the assets within each system, determine their age and report on their reasonable service life-cycles according to accepted industry standards. RDH personnel do not make observations with regard to specialty building system conditions unless specifically addressed in our proposal.

Forecasting the Useful Service Life of Assets

The service life of assets can be affected by a variety of circumstances, including the following:

- The quality of the maintenance conducted on an asset will affect the service life of the asset. Poor maintenance can lead to a reduced service life and may result in the premature failure of an asset.
- Insurable losses (force majeure), such as earthquakes, fires and floods can shorten the life of an asset. These events are not considered in a depreciation report.
- Asset service life in a Depreciation Report is determined according to accepted industry standards.

Funding Models

The funding models for Depreciation Reports are based on a 30-year horizon and use “future year dollars termed” methodology. This methodology projects the costs (in future year dollars) over the planning horizon and not beyond the terminus year of the planning horizon. The current year is the starting year of the planning horizon. The term, therefore, matches the initial horizon and does not respect a shifting horizon. This means that in year 1 the funding scenarios will look forward for 30 years.

For example, in 2012 the model looks forward to 2042. In year two, it will be accurate for 29 years, as it is only looking forward to year 2042. When an update study is performed in three years, the revised funding scenarios will look forward 30 years from 2015 to 2045. Renewal and major maintenance projects that occur beyond the 30-year planning horizon are not considered in the scenarios; that is, those projects that occur beyond 30 years are unfunded in the funding scenarios.

Appendix E

Funding Scenario Cash Flow Tables

Statutory Funding Model: Cash Flow Table (30 Years)

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	\$155,986	\$0	\$0	\$1,560	\$86,050	\$1,000	\$70,496
2014	\$70,496	\$0	\$0	\$705	\$8,800	\$1,000	\$61,401
2015	\$61,401	\$0	\$35,985	\$614	\$97,000	\$1,000	\$0
2016	\$0	\$19,656	\$61,544	\$0	\$80,200	\$1,000	\$0
2017	\$0	\$19,656	\$0	\$0	\$13,200	\$1,000	\$5,456
2018	\$5,456	\$19,656	\$0	\$55	\$0	\$1,000	\$24,166
2019	\$24,166	\$19,656	\$0	\$242	\$13,200	\$1,000	\$29,864
2020	\$29,864	\$19,276	\$105,862	\$299	\$154,300	\$1,000	\$0
2021	\$0	\$19,656	\$0	\$0	\$18,350	\$1,000	\$306
2022	\$306	\$19,656	\$0	\$3	\$17,300	\$1,000	\$1,665
2023	\$1,665	\$19,656	\$48,263	\$17	\$68,600	\$1,000	\$0
2024	\$0	\$19,656	\$1,644	\$0	\$20,300	\$1,000	\$0
2025	\$0	\$19,656	\$266,544	\$0	\$285,200	\$1,000	\$0
2026	\$0	\$19,656	\$47,344	\$0	\$66,000	\$1,000	\$0
2027	\$0	\$19,656	\$0	\$0	\$5,700	\$1,000	\$12,956
2028	\$12,956	\$19,656	\$110,359	\$130	\$142,100	\$1,000	\$0
2029	\$0	\$19,656	\$5,594	\$0	\$24,250	\$1,000	\$0
2030	\$0	\$19,656	\$687,744	\$0	\$706,400	\$1,000	\$0
2031	\$0	\$19,656	\$0	\$0	\$14,000	\$1,000	\$4,656
2032	\$4,656	\$19,656	\$0	\$47	\$20,000	\$1,000	\$3,358
2033	\$3,358	\$19,656	\$136,552	\$34	\$158,600	\$1,000	\$0
2034	\$0	\$19,656	\$0	\$0	\$8,300	\$1,000	\$10,356
2035	\$10,356	\$19,656	\$2,988,085	\$104	\$3,017,200	\$1,000	\$0
2036	\$0	\$19,656	\$177,344	\$0	\$196,000	\$1,000	\$0
2037	\$0	\$19,656	\$1,048,394	\$0	\$1,067,050	\$1,000	\$0
2038	\$0	\$19,656	\$69,644	\$0	\$88,300	\$1,000	\$0
2039	\$0	\$19,656	\$0	\$0	\$15,600	\$1,000	\$3,056
2040	\$3,056	\$19,656	\$79,058	\$31	\$100,800	\$1,000	\$0
2041	\$0	\$19,656	\$2,744	\$0	\$21,400	\$1,000	\$0
2042	\$0	\$19,656	\$0	\$0	\$5,700	\$1,000	\$12,956

Status Quo Funding Model: Cash Flow Table (30 Years)

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	\$155,986	\$15,243	\$0	\$1,560	\$86,050	\$1,000	\$85,739
2014	\$85,739	\$15,243	\$0	\$857	\$8,800	\$1,000	\$92,039
2015	\$92,039	\$15,243	\$0	\$920	\$97,000	\$1,000	\$10,203
2016	\$10,203	\$15,243	\$60,652	\$102	\$80,200	\$1,000	\$5,000
2017	\$5,000	\$15,243	\$0	\$50	\$13,200	\$1,000	\$6,093
2018	\$6,093	\$15,243	\$0	\$61	\$0	\$1,000	\$20,397
2019	\$20,397	\$15,243	\$0	\$204	\$13,200	\$1,000	\$21,644
2020	\$21,644	\$15,243	\$123,197	\$216	\$154,300	\$1,000	\$5,000
2021	\$5,000	\$15,243	\$4,057	\$50	\$18,350	\$1,000	\$5,000
2022	\$5,000	\$15,243	\$3,007	\$50	\$17,300	\$1,000	\$5,000
2023	\$5,000	\$15,243	\$54,307	\$50	\$68,600	\$1,000	\$5,000
2024	\$5,000	\$15,243	\$6,007	\$50	\$20,300	\$1,000	\$5,000
2025	\$5,000	\$15,243	\$270,907	\$50	\$285,200	\$1,000	\$5,000
2026	\$5,000	\$15,243	\$51,707	\$50	\$66,000	\$1,000	\$5,000
2027	\$5,000	\$15,243	\$0	\$50	\$5,700	\$1,000	\$13,593
2028	\$13,593	\$15,243	\$119,128	\$136	\$142,100	\$1,000	\$5,000
2029	\$5,000	\$15,243	\$9,957	\$50	\$24,250	\$1,000	\$5,000
2030	\$5,000	\$15,243	\$692,107	\$50	\$706,400	\$1,000	\$5,000
2031	\$5,000	\$15,243	\$0	\$50	\$14,000	\$1,000	\$5,293
2032	\$5,293	\$15,243	\$5,411	\$53	\$20,000	\$1,000	\$5,000
2033	\$5,000	\$15,243	\$144,307	\$50	\$158,600	\$1,000	\$5,000
2034	\$5,000	\$15,243	\$0	\$50	\$8,300	\$1,000	\$10,993
2035	\$10,993	\$15,243	\$2,996,854	\$110	\$3,017,200	\$1,000	\$5,000
2036	\$5,000	\$15,243	\$181,707	\$50	\$196,000	\$1,000	\$5,000
2037	\$5,000	\$15,243	\$1,052,757	\$50	\$1,067,050	\$1,000	\$5,000
2038	\$5,000	\$15,243	\$74,007	\$50	\$88,300	\$1,000	\$5,000
2039	\$5,000	\$15,243	\$1,307	\$50	\$15,600	\$1,000	\$5,000
2040	\$5,000	\$15,243	\$86,507	\$50	\$100,800	\$1,000	\$5,000
2041	\$5,000	\$15,243	\$7,107	\$50	\$21,400	\$1,000	\$5,000
2042	\$5,000	\$15,243	\$0	\$50	\$5,700	\$1,000	\$13,593

Alternative Funding Model: Cash Flow Table (30 Years)

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	\$155,986	\$15,243	\$0	\$1,560	\$86,050	\$1,000	\$85,739
2014	\$85,739	\$30,000	\$0	\$857	\$8,800	\$1,000	\$106,796
2015	\$106,796	\$40,000	\$0	\$1,068	\$97,000	\$1,000	\$49,864
2016	\$49,864	\$50,000	\$0	\$499	\$80,200	\$1,000	\$19,163
2017	\$19,163	\$60,000	\$0	\$192	\$13,200	\$1,000	\$65,155
2018	\$65,155	\$60,000	\$0	\$652	\$0	\$1,000	\$124,806
2019	\$124,806	\$60,000	\$0	\$1,248	\$13,200	\$1,000	\$171,854
2020	\$171,854	\$60,000	\$0	\$1,719	\$154,300	\$1,000	\$78,273
2021	\$78,273	\$60,000	\$0	\$783	\$18,350	\$1,000	\$119,706
2022	\$119,706	\$60,000	\$0	\$1,197	\$17,300	\$1,000	\$162,603
2023	\$162,603	\$60,000	\$0	\$1,626	\$68,600	\$1,000	\$154,629
2024	\$154,629	\$60,000	\$0	\$1,546	\$20,300	\$1,000	\$194,875
2025	\$194,875	\$60,000	\$34,376	\$1,949	\$285,200	\$1,000	\$5,000
2026	\$5,000	\$60,000	\$6,950	\$50	\$66,000	\$1,000	\$5,000
2027	\$5,000	\$60,000	\$0	\$50	\$5,700	\$1,000	\$58,350
2028	\$58,350	\$60,000	\$29,167	\$584	\$142,100	\$1,000	\$5,000
2029	\$5,000	\$60,000	\$0	\$50	\$24,250	\$1,000	\$39,800
2030	\$39,800	\$60,000	\$612,202	\$398	\$706,400	\$1,000	\$5,000
2031	\$5,000	\$60,000	\$0	\$50	\$14,000	\$1,000	\$50,050
2032	\$50,050	\$60,000	\$0	\$501	\$20,000	\$1,000	\$89,551
2033	\$89,551	\$60,000	\$14,154	\$896	\$158,600	\$1,000	\$5,000
2034	\$5,000	\$60,000	\$0	\$50	\$8,300	\$1,000	\$55,750
2035	\$55,750	\$60,000	\$2,906,893	\$558	\$3,017,200	\$1,000	\$5,000
2036	\$5,000	\$60,000	\$136,950	\$50	\$196,000	\$1,000	\$5,000
2037	\$5,000	\$60,000	\$1,008,000	\$50	\$1,067,050	\$1,000	\$5,000
2038	\$5,000	\$60,000	\$29,250	\$50	\$88,300	\$1,000	\$5,000
2039	\$5,000	\$60,000	\$0	\$50	\$15,600	\$1,000	\$48,450
2040	\$48,450	\$60,000	\$0	\$485	\$100,800	\$1,000	\$7,135
2041	\$7,135	\$60,000	\$0	\$71	\$21,400	\$1,000	\$44,806
2042	\$44,806	\$60,000	\$0	\$448	\$5,700	\$1,000	\$98,554

Progressive Funding Model: Cash Flow Table (30 Years)

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2013	155986	223000	0	1559.86	86050	1000	293495.875
2014	293495.875	223000	0	2934.96	8800	1000	509630.8438
2015	509630.8438	223000	0	5096.31	97000	1000	639727.1875
2016	639727.1875	223000	0	6397.27	80200	1000	787924.4375
2017	\$787,924	\$223,000	\$0	\$7,879	\$13,200	\$1,000	\$1,004,604
2018	\$1,004,604	\$223,000	\$0	\$10,046	\$0	\$1,000	\$1,236,650
2019	\$1,236,650	\$223,000	\$0	\$12,366	\$13,200	\$1,000	\$1,457,816
2020	\$1,457,816	\$223,000	\$0	\$14,578	\$154,300	\$1,000	\$1,540,094
2021	\$1,540,094	\$223,000	\$0	\$15,401	\$18,350	\$1,000	\$1,759,145
2022	\$1,759,145	\$223,000	\$0	\$17,591	\$17,300	\$1,000	\$1,981,437
2023	\$1,981,437	\$223,000	\$0	\$19,814	\$68,600	\$1,000	\$2,154,651
2024	\$2,154,651	\$223,000	\$0	\$21,547	\$20,300	\$1,000	\$2,377,898
2025	\$2,377,898	\$223,000	\$0	\$23,779	\$285,200	\$1,000	\$2,338,477
2026	\$2,338,477	\$223,000	\$0	\$23,385	\$66,000	\$1,000	\$2,517,862
2027	\$2,517,862	\$223,000	\$0	\$25,179	\$5,700	\$1,000	\$2,759,340
2028	\$2,759,340	\$223,000	\$0	\$27,593	\$142,100	\$1,000	\$2,866,834
2029	\$2,866,834	\$223,000	\$0	\$28,668	\$24,250	\$1,000	\$3,093,252
2030	\$3,093,252	\$223,000	\$0	\$30,933	\$706,400	\$1,000	\$2,639,784
2031	\$2,639,784	\$223,000	\$0	\$26,398	\$14,000	\$1,000	\$2,874,182
2032	\$2,874,182	\$223,000	\$0	\$28,742	\$20,000	\$1,000	\$3,104,924
2033	\$3,104,924	\$223,000	\$0	\$31,049	\$158,600	\$1,000	\$3,199,373
2034	\$3,199,373	\$223,000	\$0	\$31,994	\$8,300	\$1,000	\$3,445,067
2035	\$3,445,067	\$223,000	\$0	\$34,451	\$3,017,200	\$1,000	\$684,318
2036	\$684,318	\$223,000	\$0	\$6,843	\$196,000	\$1,000	\$717,161
2037	\$717,161	\$223,000	\$125,718	\$7,172	\$1,067,050	\$1,000	\$5,000
2038	\$5,000	\$223,000	\$0	\$50	\$88,300	\$1,000	\$138,750
2039	\$138,750	\$223,000	\$0	\$1,388	\$15,600	\$1,000	\$346,538
2040	\$346,538	\$223,000	\$0	\$3,465	\$100,800	\$1,000	\$471,203
2041	\$471,203	\$223,000	\$0	\$4,712	\$21,400	\$1,000	\$676,515
2042	\$676,515	\$223,000	\$0	\$6,765	\$5,700	\$1,000	\$899,580

Appendix F

RDH Qualifications

DEPRECIATION REPORT

New regulations in British Columbia make Depreciation Reports mandatory for most strata corporations. RDH Building Engineering Ltd. offers building science and building asset management services from three offices in BC; Vancouver, Victoria, and Courtenay. RDH staff have broad practical experience assisting building owners with all aspects of planning for the long term stewardship of their building(s). Our reserve fund analysts, engineers, architects, and technologists have a wide variety of formal training—including building science, structural engineering, and mechanical engineering. To supplement our in-house expertise, we hire subconsultants for items such as elevator and swimming pool reviews. We believe that by using a team approach, we can ensure an appropriate level of thoroughness and quality.

We have prepared hundreds of Depreciation Reports and are recognized as industry leaders. David Albrice is a certified Professional Reserve Analyst and was one of the key people consulted when the legislation was drafted. He has an unrivaled depth of understanding of the physical, financial planning, and strata governance issues that need to be considered in the development of an effective Depreciation Report.

ABOUT US



David Albrice, B.Sc. URP, ARP, PRA

- Professional Reserve Analyst, APRA
- B.Sc. Urban and Regional Planning
- Associate Reserve Planner, REIC
- Project Manager on 100s of Facility Condition Assessments and Reserve Studies (Depreciation Reports)



Mike Wilson, P.Eng.

- B.Eng. & M.Eng., Structural Engineering
- Registered professional engineer, APEGBC
- 20 years experience as a consultant focused in the field of building science



Mark Will, Dipl.T., BA

- Dipl.T., Building Science Technology
- B.A., Economics
- 15 years experience in project management
- CHOA Board Member



Peter Fitch, C.Tech.

- UBC/UBCM Certified Professional program (audit only)
- Member of Applied Science Technologists & Technicians of British Columbia
- 30 years of experience in the mechanical design field



Phil Johnson, P.Eng.

- B.Sc. & M.Sc., Agricultural Engineering
- Registered professional engineer, APEGBC
- 20 years experience as a consultant focused in the field of building science



Matt Mulleray, P.Eng.

- B.A.Sc., Civil Engineering
- Dipl.T., Civil and Structural Engineering
- Registered professional engineer, APEGBC
- 10 years experience in bldg. science & engineering consulting





Harvey Goodman, P.Eng.

- B.A.Sc., Civil Engineering
- Registered professional engineer, APEGBC
- 20 years experience in building science consulting



Serge Desmarais, Architect AIBC, CP

- B.Arch.
- Registered architect, AIBC
- Certified Professional, UBC
- 30 years experience in building design and construction capital renewal projects



Jason Dunn, B.Arch.Sc., CCA

- B.Arch.Sc, Building Science Option
- Certified Construction Contract Administrator, CSC
- 10 years experience in building science consulting



Robin Breuer, A.Sc.T., RRO

- Dipl.T., Building Engineering Technology (Building Science Option)
- Registered Roof Observer, RCI Inc.
- 15 years experience in building science consulting



Lauren Stokes, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)
- 5 years experience in building science consulting



Rob Mathena, Dipl.T.

- Dipl.T., Technology in Building Engineering (Building Science Option)
- 15 years experience in building science consulting and construction



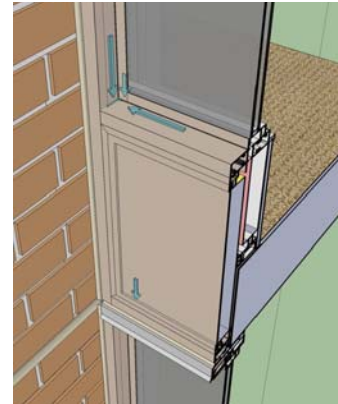
Tim Smith, A.Sc.T.

- Dipl.T., Civil Engineering Technologist
- Member of Applied Science Technologists & Technicians of British Columbia
- 5 years experience in building science consulting



Brandon Carreira, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)



We are committed to reducing our environmental impact. RDH participated in Climate Smart to evaluate and reduce our carbon footprint.



Jesus De Mesa, Dipl.T.

→ Dipl.T., Architectural & Building Engineering Technology (Building Science Option)



Alex Seto, Dipl.T.

→ Dipl.T., Architectural & Building Engineering Technology (Building Science Option)



Roma Santos, Dipl.T.

→ Dipl.T., Architectural & Building Engineering Technology (Building Science Option)



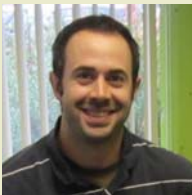
Nick Smit, Dipl.T.

→ Dipl.T., Architectural & Building Engineering Technology (Building Science Option)



Kingston Chow, EIT, Dipl.T.

→ B.Eng., Civil Engineering
→ Dipl.T., Civil Engineering



Jeff Coulombe, Dipl.T.

→ Dipl.T., Green Building & Renewable Energy

Administrators and Client Support



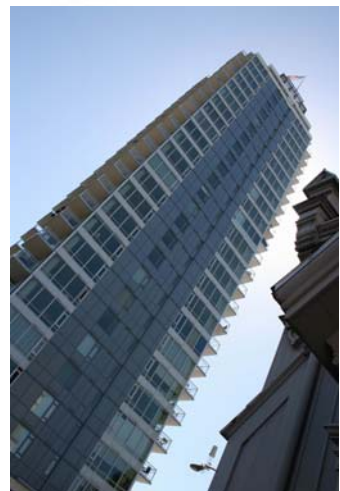
Vanessa Jumawan

→ 4 years experience in administration with engineering/architecture firm



Anna Qiu

→ Cert., Business Administration
→ 8 years experience in administration with engineering/architecture firm



Software Support and Programmers



Matthew Branch, P.Eng.

- B.Sc., Civil Engineering
- Registered professional engineer, APEGBC
- 12 years experience in engineering data analysis



Gary Zhang, B.Sc.

- B.Sc., Computer Science and Engineering
- 16 years experience in software development



Kan Ma, B.Sc.

- B.Sc., Computing Science
- 6 years experience in software development

Quantity Take-Offs



Andrea Corona, Dipl.

- Dipl., Small Craft Naval Architecture
- 25 years experience in architectural drafting



Roya Kiani Amin, B.Sc.

- B.Sc., Civil Engineering
- 5 years experience in architectural drafting
- 2 years experience in construction



Brigitte MacKenzie

- 3-year Apprenticeship Program, Germany
- 25 years experience in architectural drafting



Appendix G

Insurance Certificate

Aon Reed Stenhouse Inc.
 401 West Georgia Street, Suite 1200
 PO Box 3228 STN. TERMINAL
 Vancouver BC V6B 3X8
tel 604-688-4442 *fax* 604-682-4026

Amending Certificate No. : 320006772239

Re: Evidence of Insurance:

To Whom It May Concern

Insurance as described herein has been arranged on behalf of the Insured named herein under the following policy(ies) and as more fully described by the terms, conditions, exclusions and provisions contained in the said policy(ies) and any endorsements attached thereto.

Insured

RDH Building Engineering Ltd.
 224 West 8th Avenue
 Vancouver, BC V5Y 1N5

Coverage

Commercial General Liability	Insurer	Royal and Sun Alliance Insurance Co. of Canada	
Policy #	8141333		
Effective	01-Jun-2013	Expiry	02-May-2014
Limits of Liability	Bodily Injury & Property Damage, Each Occurrence \$5,000,000 Products and Completed Operations, Aggregate \$5,000,000 Personal Injury \$5,000,000 Advertising Liability \$5,000,000 Non-Owned Automobile Liability \$5,000,000 Legal Liability for Damage to Hired Automobiles \$50,000 Policy may be subject to a general aggregate and other aggregates where applicable		
Professional Liability	Insurer	Certain Underwriters At Lloyd's	
Policy #	QC1302155		
Effective	02-May-2013	Expiry	02-May-2014
Limits of Liability	Subject to aggregate where applicable		

Terms and / or Additional Coverage

Professional Liability
 Limit: \$2,000,000 Per Claim Limit / \$4,000,000 Aggregate Limit

THE POLICY CONTAINS A CLAUSE THAT MAY LIMIT THE AMOUNT PAYABLE
 OR, IN THE CASE OF AUTOMOBILE INSURANCE,
 THE POLICY CONTAINS A PARTIAL PAYMENT OF LOSS CLAUSE



Commercial General Liability

Products and Completed Operations
Broad Form Property Damage
Cross Liability
Contractual Liability

THIS CERTIFICATE CONSTITUTES A STATEMENT OF THE FACTS AS OF THE DATE OF ISSUANCE AND ARE SO REPRESENTED AND WARRANTED ONLY TO THE INSURED. OTHER PERSONS RELYING ON THIS CERTIFICATE DO SO AT THEIR OWN RISK.

Aon Reed Stenhouse Inc.

L Hadden

Dated : 30-May-2013
Issued By : Hadden,Lindsay D.
Tel : 604-443-2524

THE POLICY CONTAINS A CLAUSE THAT MAY LIMIT THE AMOUNT PAYABLE
OR, IN THE CASE OF AUTOMOBILE INSURANCE,
THE POLICY CONTAINS A PARTIAL PAYMENT OF LOSS CLAUSE