Depreciation Report

BCS3495 – Grand Central

Absolute Building Science Strata Engineering Inc.

Absolute Building Science Strata Engineering | #234 – 5589 Byrne Road, Burnaby, BC V5J 3J4 | Office: 604.780.1316 |Email: info@strataengineering.ca

Cover Letter

Absolute Building Science
Strata Engineering Inc.
#234 - 5589 Byrne Road
Burnaby, BC V3J 3J4

July 28, 2017

Strata Plan BCS3495
2968 – 2978 Glen Drive and 2975 Atlantic Avenue
Coquitlam, BC, V3B 0C4

RE: Depreciation Report for Strata Plan BCS3495
File No. B3495DR17

Dear Sirs or Mesdames,

The subject of this depreciation report consists of "Grand Central" – Strata Corporation Section, a 642-unit apartment and commercial complex constructed in 2009/2012/2014 and located at 2968 – 2978 Glen Drive and 2975 Atlantic Avenue in Coquitlam, BC. We are pleased to present you with the enclosed depreciation report, which we believe will serve as the basis of your reserve planning to help better equip your members for future expenditures.

The depreciation report describes the common property condition, and provides immediate and future replacement cost estimates. The replacement cost estimates serve as a basis for financial modeling and contingency reserve fund management. The depreciation report is a document prepared based on on-site inspections and financial analyses. The replacement cost estimates herein apply solely to property defined as common property, unless otherwise noted. This depreciation report is subject to the Assumptions and Limiting Conditions in Section 2.1. and to the Assumptions and Qualifications in Appendix C.

We have inspected the subject property and reviewed all documentations made available by the Strata Corporation. With extensive analyses performed in conjunction with all pertinent data, our cash flow models predict that the optimal reserve fund management includes the following:

1) Contributions of $153,180 to the CRF in the upcoming fiscal year; and
2) An increase of monthly fee allocations to the Contingency Reserve Fund by $10.93 per unit. (Note that this does not necessarily entail an increase in strata fees, but rather an increase in the allocations to the CRF within the annual budget.)

We are hereby delivering to you a report describing our study objectives, methods of research, results, and recommendations.

We appreciate the opportunity of compiling this depreciation report for you and would be honoured to provide you with reviews and updating services as required in future. If you have any questions, please do not hesitate to contact the undersigned.

Respectfully yours,

Absolute Building Science
Strata Engineering Inc.

BCS3495 – Grand Central
2968 – 2978 Glen Drive and 2975 Atlantic Avenue
Coquitlam, BC

Executive Summary

Property Statistics			
Municipal Address	2968 – 2978 Glen Drive and 2975 Atlantic Avenue, Coquitlam, BC		
Legal Description	Strata Plan BCS3495		
Real Property Type	Concrete-frame apartment and commercial complex		
Units	642		
Year of Construction	2009/2012/2014		
Designated Land Use	Multifamily residential and commercial mix use		
Reserve Fund Components	**Total of 60 components:** 2 Substructure components, 22 Shell components, 2 Interior finishes components, 22 Services components, 2 Furnishings component, 10 Site improvements components.		
Financial Statistics			
Date of Study	June 2nd and 5th 2017		
Critical Assumptions	The review is limited to readily accessible and visible building components and documents. Certain inaccessible, hidden problems may not be detected.		
Current Contingency Reserve Fund Balance	$258,381		
Future Replacement Costs	First 10 years: $1,234,536 Final 20 years: $23,452,733		
		Contributions	**Financial Strength**
CRF Contributions and Financial Strength Over 30-year Projection	Current investment schedule:	$2,139,000	9%
	Early investment schedule:	$21,700,344	100%
	Delayed investment schedule:	$21,793,110	100%
	Capped increase schedule:	$8,379,673	35%
	Capped special levies schedule:	$12,909,138	55%

Table of Contents

1. Introduction

1.1 Strata Development

A strata development divides land and buildings into parts for separate ownership with common features. The part of the property that an individual owns is known as the “strata lot”, whereas the remainder of the property is known as "common property”. Strata-titled properties, commonly known as condominiums, provide freehold ownership of a strata lot, together with the use of common property and facilities jointly owned with all strata units.

The strata development is administered by a Strata Corporation comprising of all owners within the strata development. The Strata Corporation is the decision-making body responsible for maintaining, managing, repairing, and insuring the common property and common assets. The Strata Corporation is also tasked with record-keeping responsibilities and must enforce its bylaws or rules.

The Strata Property Act[1] (the "**Act**"), bylaws, and Strata Plan of the corporation are the typical documents governing the operation of the Strata Corporation. They form the legal basis of the Strata Corporation and are generally enforceable in a court of law should the need arise.

As legislated within the Act, an executive body, known as a strata council, is elected annually by the strata owners to oversee the Strata Corporation during intervals between general meetings of all members. The strata council meets at regular intervals and makes decisions on behalf of and binding upon all owners for matters concerning the administration of the strata development that do not require the vote of the strata owners.

The strata council usually hires a strata manager or property manager for the management and maintenance of all common areas and facilities including the exterior of the buildings. The strata manager implements the decisions of the strata council, approves expenses, pays accounts according to the budget, administers the collection of monthly maintenance fees, and performs other like duties. In cases of self-managed stratas, the strata council directly oversees the management and maintenance of all common areas and facilities, assuming the duties of a strata manager.

[1] *Strata Property Act,* SBC 1998, c 43, as amended

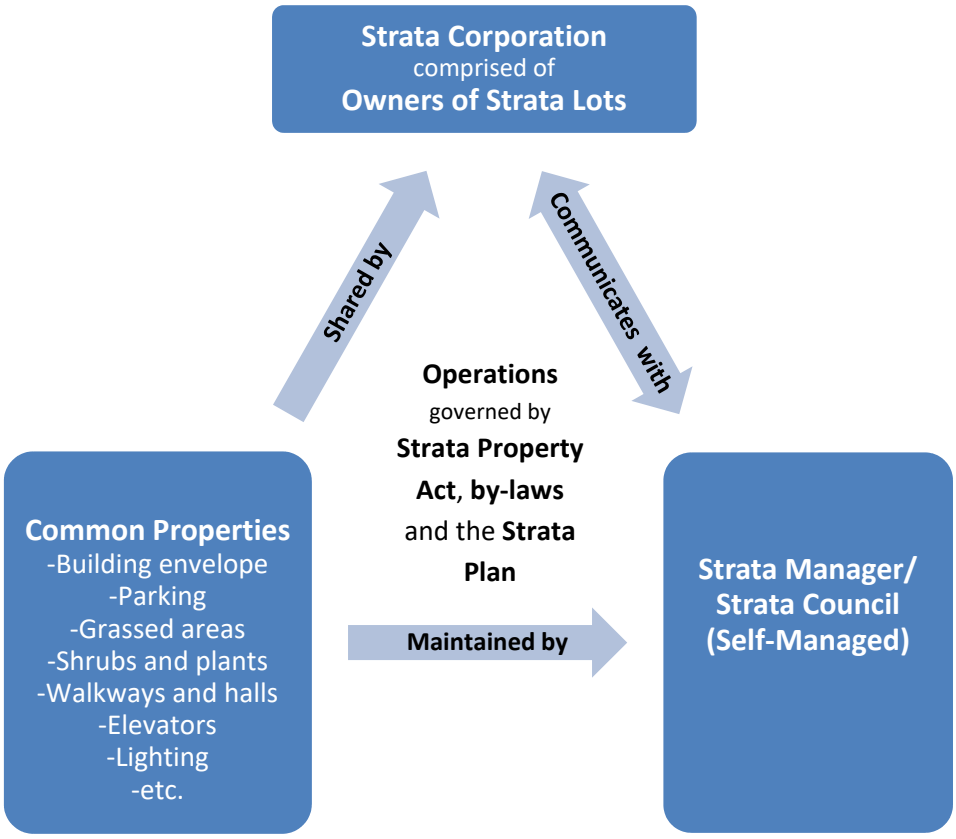


Figure 1: The strata community

1.2 Finances

In order to cover the costs of operating the strata, owners are assessed dues (termed maintenance fees or strata fees) for their proportionate share of the Strata Corporation's expenses based on their unit entitlement (a measure of the owner's allocated interest within the development). The strata fees are used to establish: 1) the operating fund, and 2) the contingency reserve fund.

1.2.1 Operating Fund

The operating fund is set up for expenses that relate to the common properties and common assets of the Strata Corporation that occurs at least once per year[2]. These are normally recurring administrative expenses or costs that relate to the routine maintenance of the common properties. Operating expenses are not taken into consideration for the purposes of this report.

[2] *Ibid*

1.2.2 Contingency Reserve Fund

The contingency reserve fund ("**CRF"**) is a separate fund required by the Act to cover expenditures that occur less than once per year or do not usually occur[3] (e.g. major repairs like roof repairs, machinery repairs, etc.). Budgeting for CRF expenditures and planning for adequate funding of the CRF is an important responsibility of the Strata Council. The CRF is required to be maintained in a separate account from the Operating Fund.

1.2.3 Special Levy

The Strata Corporation may raise money from the owners by means of a special levy for various reasons, the primary reason being that the CRF is insufficient to cover the Strata Corporation's existing or anticipated expenditures. A special levy must be approved by a resolution passed by a minimum 3/4 vote at an annual or special general meeting.

1.2.4 Legislation Governing the CRF

1.2.4.1 Contributions

Contributions to the CRF are approved in the annual budget by a majority vote of the owners and collected as a proportion of strata fees. Contributions to the CRF are not refundable to owners. Typically, the CRF may have contributions from current and previous strata lot owners. CRF contributions are based on the unit entitlement of each strata lot in the Strata Corporation.

Section 6.1 of the Strata Property Regulation (the **"Regulation"**) sets out a formula for the purposes of determining the amount of the annual contribution to the CRF, as follows[4]:

> **6.1** … the amount of the annual contribution to the CRF for a fiscal year, other than the fiscal year following the first annual general meeting, must be determined as follows:
>
> (a) if the amount of money in the CRF at the end of any fiscal year after the first annual general meeting is less than 25% of the total amount budgeted for the contribution to the operating fund for the fiscal year that has just ended, the annual contribution to the CRF for the current fiscal year must be at least the lesser of
>
> (i) 10% of the total amount budgeted for the contribution to the operating fund for the current fiscal year, and
>
> (ii) the amount required to bring the CRF to at least 25% of the total amount budgeted for the contribution to the operating fund for the current fiscal year;

[3] *Ibid*
[4] *Strata Property Regulation*, BC Reg. 238/2011, s 6.1, as amended

(b) if the amount of money in the CRF at the end of any fiscal year after the first annual general meeting is equal to or greater than 25% of the total amount budgeted for the contribution to the operating fund for the fiscal year that has just ended, additional contributions to the CRF may be made as part of the annual budget approval process after consideration of the depreciation report, if any, obtained under section 94 of the Act.

1.2.4.2 Expenditures

Expenditures from the CRF must be consistent with the purpose of the CRF. The expenditure can be approved by a majority vote if it is necessary to obtain a depreciation report or is related to the repair, maintenance or replacement, as recommended by a depreciation report, of common property, common assets or portions of a strata lot for which the Strata Corporation has taken responsibility by bylaw. In almost all other expenditures, a ¾ vote is required for approval.

1.2.4.3 Investing the CRF

The CRF can be invested or held in insured accounts with savings institutions in British Columbia and in those investments permitted by Strata Property Regulation 6.11. The CRF must be accounted for separately from other monies held by the Strata Corporation or separate section and must include any interest or income earned on the CRF.

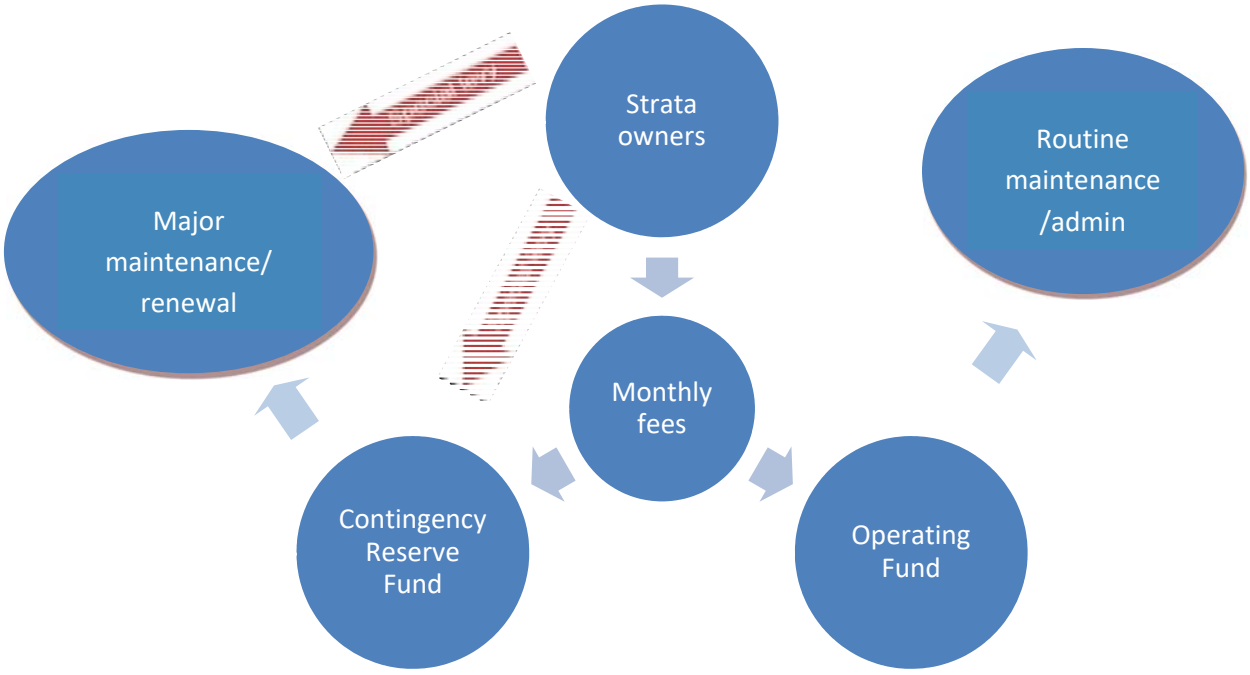


Figure 2: Financial structure of the strata community

1.3 Depreciation Reports

The depreciation report, also known as a reserve fund study, is a legislated planning requirement for Strata Corporations in British Columbia. Depreciation reports serve to guide and assist with long-term planning for CRF management. They are prepared after a thorough assessment of common properties and finances of the Strata Corporation, taking into account projected expenditures, replacement costs, and other factors.

Common properties for the purposes of a depreciation report include those items that comprise the common property, the common assets, the parts of a strata lot and/or limited common property that the Strata Corporation is responsible to maintain or repair under the Act[5], and the Strata Corporation's bylaws or an agreement with an owner, including, but not limited to, the following items:

- the building's structure;
- the building's exterior, including roofs, roof decks, doors, windows and skylights;
- the building's systems, including the electrical, heating, plumbing, fire protection and security systems;
- common amenities and facilities;
- parking facilities and roadways;
- utilities, including water and sewage;
- landscaping, including paths, sidewalks, fencing and irrigation;
- interior finishes, including floor covering and furnishings;
- green building components; and
- balconies and patios.

1.3.1 Benefits of a Depreciation Report

Some important benefits to a well-prepared depreciation report are listed as follows:

A. A depreciation report may assist the Strata Corporation in ensuring that the Strata Corporation complies with the Act. As discussed earlier, the Regulation[6] set out certain thresholds for the management of the CRF. The depreciation report recommends different cash-flow models that will balance expenditures and corresponding special levies to assist the Strata Corporation with maintaining such compliance.

[5] *Strata Property Act*, *supra* note 1
[6] *Strata Property Regulation*, *supra* note 3

B. A depreciation report presents various analysis and models illustrating the concept of reserve fund planning. It aids the strata in prioritizing capital replacement and maintenance expenditures, which may in turn optimize strata investments over time. The models underlying the analyses reflected in the depreciation report incorporate assumptions on return on investments, inflation, the accumulation of strata fee contributions, the timing and amount of special levies relative to the projected timing and future costs of major repairs and replacements.

C. A depreciation report provides a measure of a strata's "financial strength" in the form of a ration of the CRF to projected expenditures. Lending institutions, owners and prospective buyers, may look to the depreciation report to evaluate the likelihood, over time, of strata fee increases and special levies. Therefore, a depreciation report may assist in establishing credit, in personal financial planning, in appraising the value of a Strata Lot and in the negotiation of the purchase price of a Strata Lot.

D. A depreciation report may assist the Strata Corporation with the preservation of the common property value through establishing a timely major maintenance and replacement schedule. It identifies the condition of major items of the common property of a Strata Corporation and their estimated future maintenance/replacement costs. It also provides preventative maintenance recommendations, which can guide the strata council with respect to maintenance and repair which may extend the component's useful life.

E. A depreciation report may also identify risks to Strata Corporations, and potential expenditures not previously recognized, allowing for better planning. Many Strata Councils and Owners assume that their budgeted CRF contributions will adequately cover future expenditures. However, original estimates may be outdated, or may not account for modifications made since the complex was new.

1.3.2 Legislation Regarding the Depreciation Report

The depreciation report must be completed by a "qualified person" as defined in the Act[7]. It must be based upon on-site visual inspection, physical component inventory, summary of repairs and maintenance work on common property (for items that usually occur less than once per year or that do not usually occur), a financial forecasting section, and other information specified in the Regulation[8]. Beginning on December 13, 2012, a depreciation report is required to be obtained every 3 years by Strata Corporations consisting of more than 5 owners unless this requirement is waived by a ¾ vote at an annual or special general meeting. These details outlined within the Act[9] can be found in Appendix A.

[7] *Strata Property Act*, SBC 1998, c 43, s 94.1
[8] *Strata Property Regulation*, BC Reg. 238/2011, s 6.2
[9] *Strata Property Act,* SBC 1998, c 43, s 94

1.4 Objectives

This depreciation report can be used as a guide for establishing long term planning for management of common assets or properties listed in detail in Section 1.3. In this report we describe the following:

- Common properties the Strata Corporation owns;
- Condition of common properties in the Strata Corporation;
- Projected timeline for replacement or major maintenance and repairs of components of the common property of the Strata Corporation.
- Opening balance and projected balances of the CRF at year ends on various assumptions as set out in the report.
- Estimated current cost and inflation adjusted future cost of replacement or major maintenance and repairs of common property components.
- Five cash flow models projecting year by year for 30 years the funds available in the CRF relative to the projected future costs on various assumptions with respect to strata fee contributions to the CRF and special levies.

1.5 Intended Use

This depreciation report has been completed for the exclusive use of the Strata Corporation, Strata Plan BCS3495. No other party may rely on the report without explicit written approval of Strata Engineering. This depreciation report is subject to the assumptions and limiting conditions set out in Appendix C attached hereto.

2. Methods

A physical assessment and a financial assessment were first performed, providing information regarding the current status of the building. After determining the common properties, the data were used to generate different strategic plans.

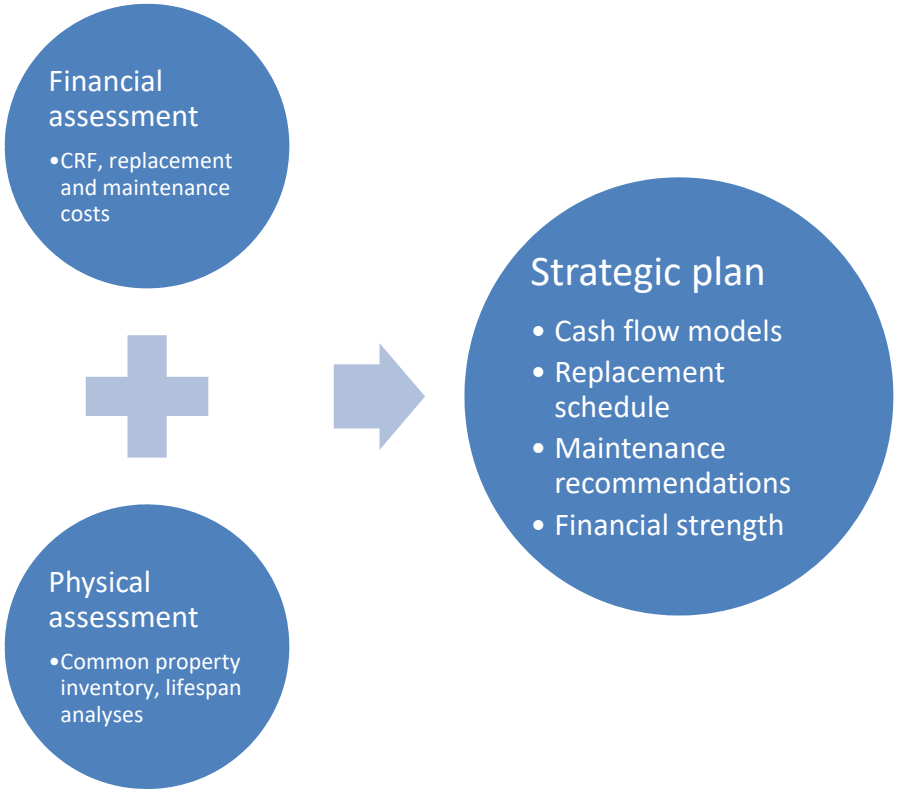


Figure 3: Formulation of the strategic plan

2.1 Assumptions and Limitations

This report contains recommendations based on information available for our review at the time of preparation. This is not a certification of compliance with past or present regulations. This depreciation report is to be read in its entirety and as a whole. No portion of this report can be severed or read independently of the other portions.

The work underlying this report was, by agreement with your strata council and in compliance with the provisions of the Act and Regulation, of limited scope. Given the constraints of the study, nature of building structures, future economic trends and a multitude of factors, there will always be uncertainty with respect to the assumptions underlying the remaining useful life of common property components, projected future expenditures, inflation and return on investments. This report cannot, and does not eliminate uncertainty regarding existing, or future defects in the common property, cost variations, unpredictable hazards, or losses in connection with the property.

Neither physical testing nor verification of conformance with design parameters or building codes were performed, unless specifically noted. Given the limitations of the physical study undertaken, only conditions visibly apparent during examination of a representative sample of components have been considered in this report.

Only specific information identified below has been reviewed. Absolute Building Science Strata Engineering (Strata Engineering) is not obligated to identify mistakes, or insufficiencies in the information obtained from the various sources or to verify the accuracy of the information.

The depreciation report estimates are subjective and are provided for approximate budgeting purposes only. The report should only be relied upon for general guidance and planning of the Strata Corporation. The figures are calculated based on our educated understanding of life cycle of building components and comparative analyses of similar properties over time. Accurate replacement costs for building components can only be obtained after proper design and tendering processes, with scopes of work established and contractors' obligations identified. The estimated time frame for undertaking replacement or maintenance work represents our opinion at the time of report preparation and may vary based on real-time conditions. Failure of an item, or an optimum repair or replacement process, may vary from our estimates. Additional engineering investigations are required for more certainty in establishing the scope of work and replacement requirements.

In issuing this report, Strata Engineering does not assume any of the duties, or liabilities of the original designers, builders or owners of the subject property. Owners, prospective purchasers, tenants, or others who use, or rely on the contents of this report, do so with the understanding that Strata Engineering cannot be held liable for damages which may be suffered with respect to the purchase, ownership, or use of the subject property.

2.2 Physical Assessment

2.2.1 Physical Inspection

A site visit was performed by Gheorghe Piscociu, P. Eng. and Diana Tarna-Bacosca, M.Eng. on June 2nd and 5th 2017 at 2968 – 2978 Glen Drive and 2975 Atlantic Avenue in Coquitlam, BC.

2.2.2 Documentation Review

The following documents were reviewed upon availability from the Strata Corporation:

- Architectural, structural, mechanical and electrical plans
- Bylaws and Strata plan
- Balance sheet (January 2016 – April 2017)
- Maintenance reports (2012 - 2016) and Depreciation Report (2015)
- Council Meeting minutes (2016 - 2017)

2.2.3 Inspection of Common Properties

2.2.3.1 Common Property Classification

Within this report, we classified the common properties assets according to the Uniformat II[10] system, specified by the National Institute of Standards and Technology. The Uniformat II system is organized into seven major building component divisions, with a letter assigned to each specific division. The building components inspected are classified into the following divisions[11] (examples of such components are indicated below):

1. ***Substructure:*** Slab on grade, underground garage and basement structures
2. ***Shell:*** Roof construction, exterior walls, exterior windows, balconies etc.
3. ***Interiors:*** Wall finishes, floor finishes, stairs, partitions etc.
4. ***Services:*** Elevators and lifts, HVAC, fire protection etc.
5. ***Equipment and furnishings:*** Commercial, institutional equipment, furniture etc.
6. ***Special construction and demolition:*** Special structures, integrated construction, special facilities etc.
7. ***Site improvements:*** Paving, landscaping, sewers etc.

2.2.3.2 Reserve Component Inventory

The reserve component inventory was compiled following the inspection and included in Section 3.2. It lists all common properties inspected, along with their quantities and life cycle indices.

2.2.4 Remaining Useful Life Estimation

The method of estimating the remaining useful life of common properties first necessitates the determination of their physical condition. The chronological age of any asset may not equate to its effective age. Some assets' lifetimes may have been prolonged by continued maintenance whereas others might have undergone rapid deterioration due to unforeseen circumstances or neglect.

In this depreciation report, the effective age of a common property is estimated via documentation review, discussion with facility representatives, and visual inspection. The total useful life is estimated based on industry standards of comparative improvements. The remaining useful life is thus represented by the following equation:

$$Remaining\ useful\ life\ =\ Estimated\ useful\ life\ -\ Effective\ age$$

[10] ASTM Uniformat II for Building Elements (E1557-97)
[11] Components belonging to certain divisions may not be inspected due to accessibility issues.

No destructive testing was carried out on any of the common properties, nor were the common properties disassembled or subjected to confirmation of functionality.

2.3 Financial Assessment

Over the life of every building, owners contribute towards operating, maintenance, and renewal costs of capital assets. Occasionally, more comprehensive rehabilitation costs are also incurred.

The financial assessment identifies the following:

- The current replacement costs of the common properties and their future replacement costs;
- The status of the current CRF balance and how it is impacted by ongoing CRF requirements; and
- The ability of the current budget to meet major maintenance renewal needs.

This depreciation report is primarily concerned with costs of building upkeep. Expenditures such as legal consultation fees and unforeseen emergency expenses are not included.

2.3.1 Future Replacement Cost Estimation

The future replacement cost estimation is performed using the current replacement cost compounded by an average inflation rate across the remaining useful life of the components. Replacement costs were estimated based on the cost data service provided by RSMeans Online[12] and our database collected over time. Inflation measurement in this depreciation report is based on construction indices rather than the widely quoted Consumer Price Index (CPI), which measures consumer goods. An average inflation rate was calculated based on changes in construction price index over a period of 25 years from 1990 to 2015. From the analysis, the inflation rate was found to be 2.6%.

2.3.2 Projected Cash Flow

The projected cash flow predicts how well the CRF would be able to cover necessary replacement costs over the next 30 years. There are five cash flow models presented here for your reference.

Model 1 (Current investment schedule): This model maintains the current method of funding the CRF and estimates future special levies based on current CRF contributions. This method has the effect of deferring the funding of replacement costs for your common properties to the date when such replacement is required, resulting in larger special levies and greater future financial burden.

[12] www.rsmeansonline.com

Model 2 (Early investment schedule): This model increases current CRF contributions rapidly over the next three years, such that no special levies will be required over the 30-year projection. Depending on interest rates, this method potentially allows for the greatest investment returns, maximizing financial strength.

Model 3 (Delayed investment schedule): This model increases current CRF contributions over a period of five years, such that no special levies will be required over the 30-year projection. This method still allows for a reasonable return on investment while maintaining financial strength.

Model 4 (Partially funded investment schedule – capped increase): This model increases current CRF contributions by a maximum of 140% in the next year. For the remaining 30-year projection, CRF contributions are increased annually by the current inflation rate.

Model 5 (Partially funded investment schedule – capped special levies): This model increases current CRF contributions over the next three years, such that the sum of all special levies for the 30-year projection is kept at $11,020,000 or less. For the remaining 30-year projection, CRF contributions are increased annually by the current inflation rate.

2.3.2.1 Current CRF Levels

Current CRF level is defined as the opening balance of the reserve account beginning the year in which the study took place. In this case, it is $258,381 beginning in February 2017. In cases where reserve accounts are unavailable, the current CRF level is calculated by summing the total amount of funds set aside for major replacement or repairs beginning the year during which the inspection is performed.

2.3.2.2 Special Levies

The Strata Corporation may raise money from the owners by means of a special levy for various reasons, the primary reason being that the CRF is insufficient to cover the Strata Corporation's existing or anticipated expenditures. A special levy must be approved by a resolution passed by a minimum 3/4 vote at an annual or special general meeting.

Within this report, special levies are calculated as the amount of money required to cover the shortfalls in the CRF after anticipated expenditures.

2.3.2.3 Investment Returns

For this report, the Strata Corporation's funds are placed with a savings account. Hence, investment returns are estimated to be 1.00% based on historical rates and current rates.

2.3.2.4 CRF Contributions

CRF contributions with all our cash flow models except the current model are set based on different calculations tailored to different scenarios.

2.3.2.5 Calculations

The closing balance for a given year was calculated as follows:

$$Closing\ balance = (CRF\ opening\ balance + CRF\ contributions + investment\ returns + Special\ levies) - Replacement\ expenses$$

2.3.3 Financial Strength

For this depreciation report, the analysis is performed primarily based upon the CRF of the Strata Corporation, and not accounting for operating expenses that are paid through the operating fund. Thus, the financial strength of the Strata Corporation is the proportion of replacement or maintenance expenses that can be covered by the CRF contributions and investment returns. The optimal CRF with maximized financial strength would be able to cover all expenses at any given time, resulting in no special levies over a specified period.

2.3.3.1 Reserve Requirements

Insufficiency in this depreciation report is determined by the percent of replacement expenses covered by special levies, given by the following formula:

$$\%\ Insufficiency = \frac{Special\ levies}{Replacement\ expenses} \times 100\%$$

Financial strength in this depreciation report is expressed in the following formula:

$$\%\ Financial\ strength = 100\% - \frac{Total\ special\ levies}{Total\ replacement\ expenses}$$

Hence, 100% strength means that no special levies are needed (insufficiency is 0%).

3. Results

3.1 Building Information

The building investigated was a 642-unit apartment and commercial complex built in 2009/2012/2014 for residential and commercial purposes. The key statistics of the building are presented in Table 1 below.

Table 1: Property statistics

Grand Central	
Municipal Address:	2968 – 2978 Glen Drive and 2975 Atlantic Avenue, Coquitlam, BC
Legal description	Strata Plan BCS3495
Real property type	Concrete-frame apartment and commercial complex
Units	642
Year of Construction	2009/2012/2014
Designated land use	Multifamily residential and commercial mix use
Reserve fund components	**Total of 60 components:** 2 Substructure components, 22 Shell components, 2 Interior finishes components, 22 Services components, 2 Furnishings component, 10 Site improvements components.

3.2 Reserve Components Inventory

The identified components were grouped into major categories according to the Uniformat II system. The schedule of common property components can be found on the next page. Detailed descriptions can be found in Appendix B (reserve component data sheets) and the major replacement schedule regarding the components can be found in Appendix D. The reserve components included within this budget is listed in the following table.

Table 2: Reserve Components

Components	Estimated Useful Life (years)	Effective Age (years)	Remaining Useful Life (years)
Phase 1			
Underground parkade structure	Building life	8	Building life
Waterproofing membrane	35	8	27
Roofing	30	8	22
Parapets on roof and roof terraces	Building life	8	Building life
Connected Structures	Building life	8	Building life
Connected Structures	Contingency	8	Contingency
Divider walls on patios and roof terraces	Building life	8	Building life
Exterior windows	40	8	32
Exterior windows	40	8	32
Caulking	10	8	2
Cladding	Building life	8	Building life
Cladding	Building life	8	Building life
Cladding	Building life	8	Building life
Exterior painting	10	8	2
Balcony flooring	24	8	16
Balcony railings	Building life	8	Building life
Patio and terraces flooring	Building life	8	Building life
Patio and terraces doors - sliding	35	8	27
Patio and terraces doors - swinging	35	8	27
Egress doors	30	8	22
Garage doors	30	8	22
Main entrance doors	30	8	22
Main entrance doors at commercial units	30	8	22
Service doors in parking areas	40	8	32
Unit entry doors	30	8	22
Electrical power service - high voltage substation	Contingency	8	Contingency
Electrical distribution equipment and cabling/wiring	Contingency	8	Contingency
Emergency generator	35	8	27
Access control systems	15	8	7
Fire Protection and Security Systems	Contingency	8	Contingency
Fire Protection and Security Systems	Contingency	8	Contingency
Fire Protection and Security Systems	30	8	22
Water distribution	Building life	8	Building life
Domestic water heaters	18	8	10
Water storage	25	8	17

Components	Estimated Useful Life (years)	Effective Age (years)	Remaining Useful Life (years)
Boilers	30	8	22
Plumbing system - booster pumps	15	8	7
Plumbing system – circulation/recirculation pumps	15	8	7
Sanitary drainage system	Contingency	8	Contingency
Storm water drainage system	Contingency	8	Contingency
Sump pumps	15	8	7
Sprinkler systems	Building life	8	Building life
Electric heating	30	8	22
Exhaust and ventilating system	25	8	17
HVAC systems in service/storage rooms	25	8	17
HVAC systems in parkade areas	25	8	17
A/C serving High Voltage room	20	8	12
Interior lighting fixtures	Contingency	8	Contingency
Exterior lighting fixtures	Contingency	8	Contingency
Pedestrian plaza around buildings at ground floor	Building life	8	Building life
Pedestrian walkways and stairs on roof top garden	Building life	8	Building life
Pedestrian walkway on roof top garden	Building life	8	Building life
Exterior paving at parking entrance and loading bay	Building life	8	Building life
Fencing	50	8	42
Exterior railings	Building life	8	Building life
Site lighting	Contingency	8	Contingency
Landscaping	Building life	8	Building life
Water features	Building life	8	Building life
Mechanical equipment for water feature	Building life	8	Building life
Phase 2			
Underground parkade structure	Building life	5	Building life
Waterproofing membrane	35	5	30
Roofing systems	30	5	25
Parapets on roof and roof terraces	Building life	5	Building life
Connected Structures	Building life	5	Building life
Connected Structures	Contingency	5	Contingency
Divider walls on patios and roof terraces	Building life	5	Building life
Exterior windows	40	5	35
Exterior windows	40	5	35
Caulking	10	5	5

Components	Estimated Useful Life (years)	Effective Age (years)	Remaining Useful Life (years)
Cladding	Building life	5	Building life
Cladding	Building life	5	Building life
Cladding	Building life	5	Building life
Exterior painting	10	5	5
Balcony flooring	24	5	19
Balcony railings	Building life	5	Building life
Patio and terraces flooring	Building life	5	Building life
Patio and terraces doors - sliding	35	5	30
Patio and terraces doors - swinging	35	5	30
Egress doors	30	5	25
Garage doors	30	5	25
Main entrance doors	30	5	25
Main entrance doors at commercial units	30	5	25
Service doors in parking areas	40	5	35
Unit entry doors	30	5	25
Electrical distribution - high voltage substation	Contingency	5	Contingency
Electrical distribution - equipment and cabling/wiring	Contingency	5	Contingency
Emergency generator	35	5	30
Access control systems (major update)	15	5	10
Fire Protection and Security Systems	Contingency	5	Contingency
Fire Protection and Security Systems	Contingency	5	Contingency
Fire Protection and Security Systems	30	5	25
Water distribution	Building life	5	Building life
Domestic water heaters	18	5	13
Water storage	25	5	20
Boilers	30	5	25
Plumbing system - booster pumps	15	5	10
Plumbing system – circulation/recirculation pumps	15	5	10
Sanitary drainage system	Contingency	5	Contingency
Storm water drainage system	Contingency	5	Contingency
Sump pumps	15	5	10
Sprinkler systems	Building life	5	Building life
Electric heating	30	5	25
Exhaust and ventilating system	25	5	20
HVAC systems in service/storage rooms	25	5	20
HVAC systems in parkade areas	25	5	20

Components	Estimated Useful Life (years)	Effective Age (years)	Remaining Useful Life (years)
A/C serving High Voltage room	20	5	15
Interior lighting fixtures	Contingency	5	Contingency
Exterior lighting fixtures	Contingency	5	Contingency
Pedestrian plaza around buildings at ground floor	Building life	5	Building life
Pedestrian walkways and stairs on roof top garden	Building life	5	Building life
Exterior paving at parking entrance and loading bay	Building life	5	Building life
Fencing	50	5	45
Exterior railings	Building life	5	Building life
Site lighting	Contingency	5	Contingency
Landscaping	Building life	5	Building life
Water features	Building life	5	Building life
Mechanical equipment for water features	Building life	5	Building life
Phase 3			
Underground parkade structure	Building life	3	Building life
Waterproofing membrane	35	3	32
Roofing systems	30	3	27
Parapets on roof and roof terraces	Building life	3	Building life
Connected Structures	Building life	3	Building life
Connected Structures	Contingency	3	Contingency
Divider walls on patios and roof terraces	Building life	3	Building life
Exterior windows	40	3	37
Caulking	10	3	7
Cladding	Building life	3	Building life
Cladding	Building life	3	Building life
Cladding	Building life	3	Building life
Exterior painting	10	3	7
Balcony flooring	24	3	21
Balcony railings	Building life	3	Building life
Patio and terrace flooring	Building life	3	Building life
Exterior stairs and ramp with railings	Building life	3	Building life
Patio and terraces doors - sliding	35	3	32
Balcony doors - swinging	35	3	32
Egress doors	30	3	27
Garage doors	30	3	27
Main entrance doors	30	3	27
Service doors in parkade areas	40	3	37
Unit entry doors	30	3	27

Components	Estimated Useful Life (years)	Effective Age (years)	Remaining Useful Life (years)
Electrical distribution - high voltage substation	Contingency	3	Contingency
Electrical distribution - equipment and cabling/wiring	Contingency	3	Contingency
Emergency generator	35	3	32
Access control systems (major update)	15	3	12
Fire Protection and Security Systems	Contingency	3	Contingency
Fire Protection and Security Systems	Contingency	3	Contingency
Fire Protection and Security Systems	30	3	27
Water distribution	Contingency	3	Building life
Domestic water heaters	18	3	15
Water storage	25	3	22
Boilers	30	3	27
Plumbing systems - booster pumps	15	3	12
Plumbing systems – circulation/recirculation pumps	15	3	12
Sanitary drainage system	Contingency	3	Contingency
Storm water drainage system	Contingency	3	Contingency
Sump pumps	15	3	12
Sprinkler systems	Building life	3	Building life
Electric heating	30	3	27
Exhaust and ventilating system	25	3	22
HVAC systems in service/storage rooms	25	3	22
HVAC systems in underground parking	25	3	22
A/C serving High Voltage room	20	3	17
Interior lighting fixtures	Contingency	3	Contingency
Exterior lighting fixtures	Contingency	3	Contingency
Pedestrian plaza around buildings at ground floor	Building life	3	Building life
Pedestrian walkways and stairs on roof top garden	Building life	3	Building life
Pedestrian walkway on roof top garden	Building life	3	Building life
Exterior paving at parking entrance and loading bay	Building life	3	Building life
Fencing	50	3	47
Exterior railings	Building life	3	Building life
Site lighting	Contingency	3	Contingency
Landscaping	Building life	3	Building life
Water features	Building life	3	Building life
Mechanical equipment for water features	Building life	3	Building life

3.3 Thirty-Year Cash Flow Models

Cash flow models allow you to tailor your budget to suit your own needs or financial abilities. We have provided five distinct cash flow models for the estimation of CRF contributions and special levies not accounting for preventive maintenance. In each of these models, calculations are based on the 2017 CRF opening balance of $258,381. In order to satisfy legal requirements, special levies are assessed to ensure the minimum closing balance of the CRF is 25% of the operating budget, or where there is a shortfall in covering replacement or repair expenses. In this case, the operating budget is $713,403 for 2017/2018 and in each subsequent year, the operating budget is estimated to increase 2.0% to account for inflation.

3.3.1 Model 1: Current Investment Schedule

In the current investment schedule, an annual CRF contribution $69,000 (as noted in the annual budget for 2017) is kept constant over the 30-year projection. Over the 30-year projection, twenty - two special levies, ranging from $10,364 to $6,908,093 are expected to be required to cover all replacement expenses. An investment return of $164,374 is obtained.

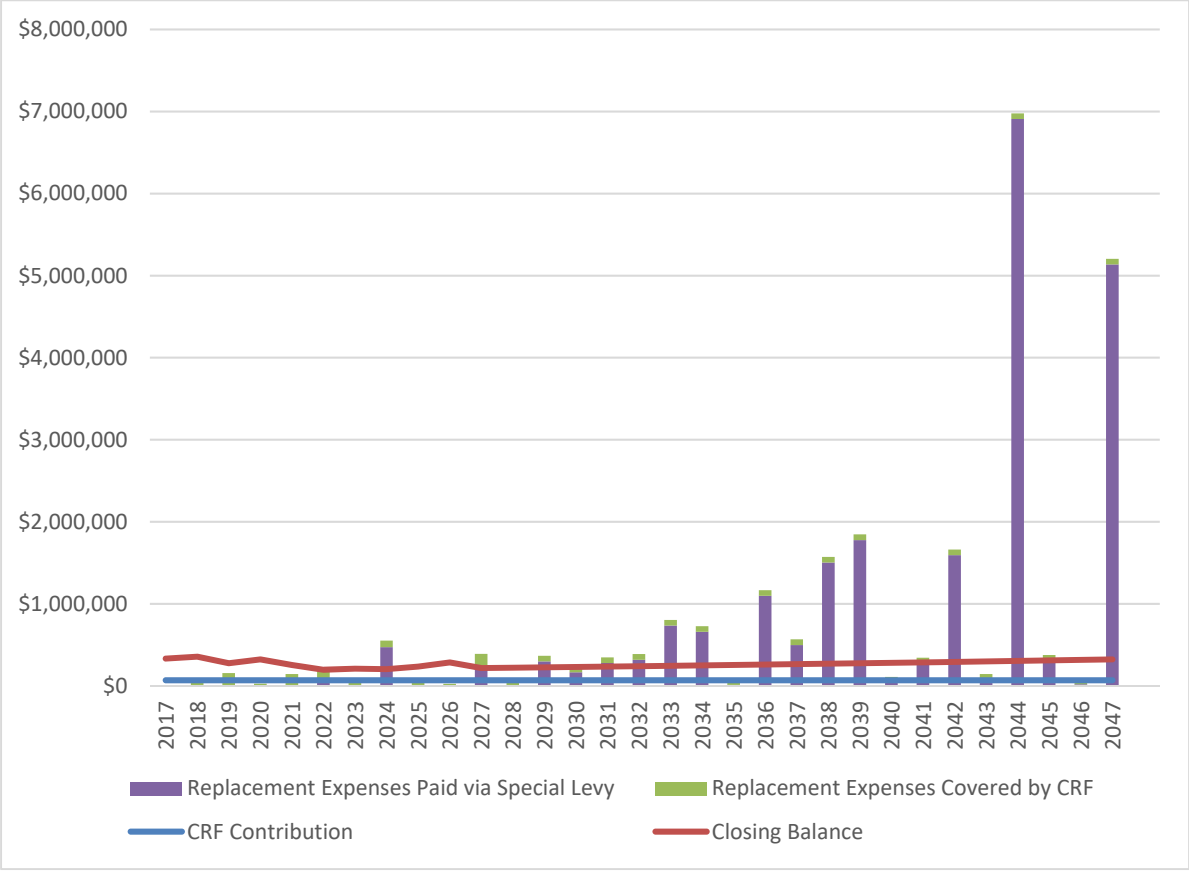


Figure 4: 30-year projection of CRF cash flow using current investment schedule

Table 3: Cash flow table for CRF with current investment schedule

Year	Opening balance	CRF contributions	Contribution changes	Investment returns	Replacement expenses	Special levies	Closing balance
2017	$258,381	$69,000		$5,168	$0	$0	$332,549
2018	$332,549	$69,000	0%	$6,651	$52,326	$0	$355,874
2019	$355,874	$69,000	0%	$7,117	$155,796	$0	$276,195
2020	$276,195	$69,000	0%	$5,524	$27,001	$0	$323,718
2021	$323,718	$69,000	0%	$6,474	$144,056	$0	$255,136
2022	$255,136	$69,000	0%	$5,103	$179,636	$47,311	$196,914
2023	$196,914	$69,000	0%	$3,938	$59,491	$0	$210,360
2024	$210,360	$69,000	0%	$4,207	$550,541	$471,842	$204,869
2025	$204,869	$69,000	0%	$4,097	$41,750	$0	$236,216
2026	$236,216	$69,000	0%	$4,724	$23,938	$0	$286,003
2027	$286,003	$69,000	0%	$5,720	$388,435	$245,120	$217,409
2028	$217,409	$69,000	0%	$4,348	$68,964	$0	$221,792
2029	$221,792	$69,000	0%	$4,436	$366,033	$296,997	$226,192
2030	$226,192	$69,000	0%	$4,524	$234,544	$165,544	$230,716
2031	$230,716	$69,000	0%	$4,614	$347,356	$278,356	$235,330
2032	$235,330	$69,000	0%	$4,707	$386,515	$317,515	$240,037
2033	$240,037	$69,000	0%	$4,801	$803,683	$734,683	$244,837
2034	$244,837	$69,000	0%	$4,897	$727,115	$658,115	$249,734
2035	$249,734	$69,000	0%	$4,995	$79,364	$10,364	$254,729
2036	$254,729	$69,000	0%	$5,095	$1,166,038	$1,097,038	$259,823
2037	$259,823	$69,000	0%	$5,196	$566,431	$497,431	$265,020
2038	$265,020	$69,000	0%	$5,300	$1,571,184	$1,502,184	$270,320
2039	$270,320	$69,000	0%	$5,406	$1,845,784	$1,776,784	$275,727
2040	$275,727	$69,000	0%	$5,515	$108,278	$39,278	$281,241
2041	$281,241	$69,000	0%	$5,625	$342,538	$273,538	$286,866
2042	$286,866	$69,000	0%	$5,737	$1,661,005	$1,592,005	$292,603
2043	$292,603	$69,000	0%	$5,852	$144,232	$75,232	$298,455
2044	$298,455	$69,000	0%	$5,969	$6,977,093	$6,908,093	$304,424
2045	$304,424	$69,000	0%	$6,088	$375,472	$306,472	$310,513
2046	$310,513	$69,000	0%	$6,210	$88,414	$19,414	$316,723
2047	$316,723	$69,000	0%	$6,334	$5,204,255	$5,135,255	$323,058

3.3.2 Model 2: Early Investment Schedule (Recommended)

In the early investment schedule, contributions to the initial opening balance in the CRF increase 122% per year over the next three years. Over the 30-year projection, no special levies are expected to be required. An investment return of $3,757,840 is obtained.

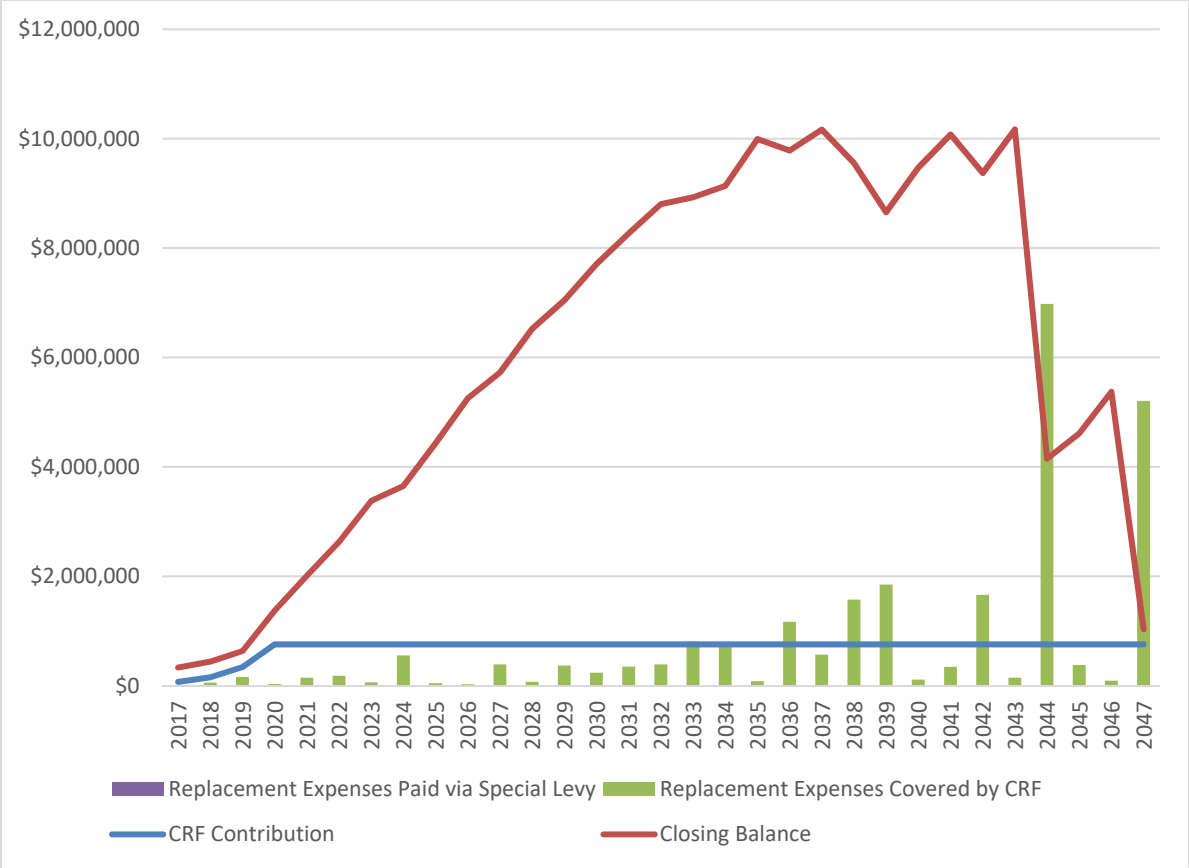


Figure 5: 30-year projection of CRF cash flow using early investment schedule

Table 4: Cash flow table for CRF with early investment schedule

Year	Opening balance	CRF contributions	Contribution changes	Investment returns	Replacement expenses	Special levies	Closing balance
2017	$258,381	$69,000		$5,168	$0	$0	$332,549
2018	$332,549	$153,180	122%	$6,651	$52,326	$0	$440,054
2019	$440,054	$340,060	122%	$8,801	$155,796	$0	$633,118
2020	$633,118	$754,932	122%	$12,662	$27,001	$0	$1,373,712
2021	$1,373,712	$754,932	0%	$27,474	$144,056	$0	$2,012,062
2022	$2,012,062	$754,932	0%	$40,241	$179,636	$0	$2,627,599
2023	$2,627,599	$754,932	0%	$52,552	$59,491	$0	$3,375,592
2024	$3,375,592	$754,932	0%	$67,512	$550,541	$0	$3,647,496
2025	$3,647,496	$754,932	0%	$72,950	$41,750	$0	$4,433,628
2026	$4,433,628	$754,932	0%	$88,673	$23,938	$0	$5,253,295
2027	$5,253,295	$754,932	0%	$105,066	$388,435	$0	$5,724,858
2028	$5,724,858	$754,932	0%	$114,497	$68,964	$0	$6,525,324
2029	$6,525,324	$754,932	0%	$130,506	$366,033	$0	$7,044,729
2030	$7,044,729	$754,932	0%	$140,895	$234,544	$0	$7,706,012
2031	$7,706,012	$754,932	0%	$154,120	$347,356	$0	$8,267,708
2032	$8,267,708	$754,932	0%	$165,354	$386,515	$0	$8,801,480
2033	$8,801,480	$754,932	0%	$176,030	$803,683	$0	$8,928,758
2034	$8,928,758	$754,932	0%	$178,575	$727,115	$0	$9,135,151
2035	$9,135,151	$754,932	0%	$182,703	$79,364	$0	$9,993,423
2036	$9,993,423	$754,932	0%	$199,868	$1,166,038	$0	$9,782,185
2037	$9,782,185	$754,932	0%	$195,644	$566,431	$0	$10,166,330
2038	$10,166,330	$754,932	0%	$203,327	$1,571,184	$0	$9,553,405
2039	$9,553,405	$754,932	0%	$191,068	$1,845,784	$0	$8,653,621
2040	$8,653,621	$754,932	0%	$173,072	$108,278	$0	$9,473,348
2041	$9,473,348	$754,932	0%	$189,467	$342,538	$0	$10,075,209
2042	$10,075,209	$754,932	0%	$201,504	$1,661,005	$0	$9,370,641
2043	$9,370,641	$754,932	0%	$187,413	$144,232	$0	$10,168,754
2044	$10,168,754	$754,932	0%	$203,375	$6,977,093	$0	$4,149,969
2045	$4,149,969	$754,932	0%	$82,999	$375,472	$0	$4,612,429
2046	$4,612,429	$754,932	0%	$92,249	$88,414	$0	$5,371,195
2047	$5,371,195	$754,932	0%	$107,424	$5,204,255	$0	$1,029,297

3.3.3 Model 3: Delayed Investment Schedule

In the delayed investment schedule, the CRF contributions to an initial opening balance of $258,381 are phased in over a period of five years at increases of 63% per year. Over the 30-year projection, no special levies are expected to be required. An investment return of $3,406,533 is obtained.

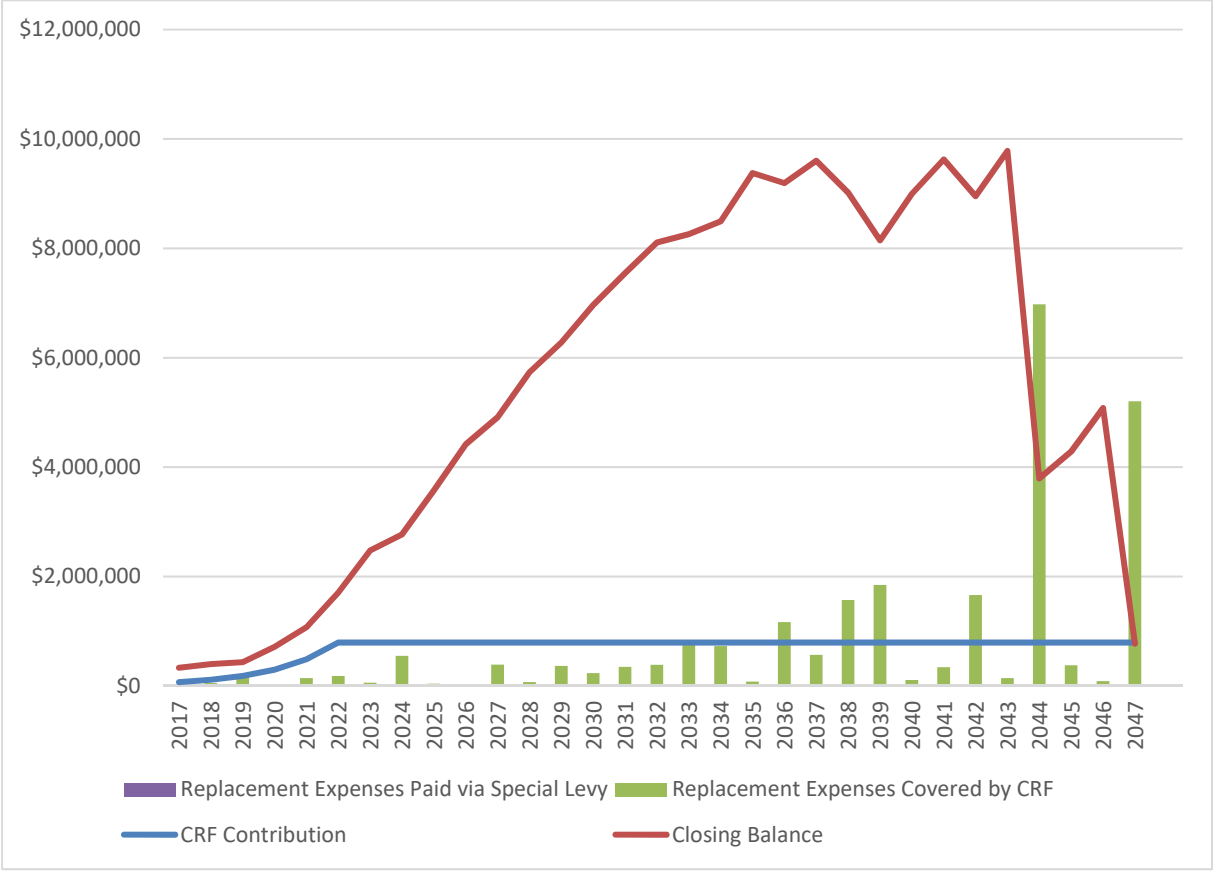


Figure 6: 30-year projection of CRF cash flow using delayed investment schedule

Table 5: Cash flow table for CRF with delayed investment schedule

Year	Opening balance	CRF contributions	Contribution changes	Investment returns	Replacement expenses	Special levies	Closing balance
2017	$258,381	$69,000		$5,168	$0	$0	$332,549
2018	$332,549	$112,470	63%	$6,651	$52,326	$0	$399,344
2019	$399,344	$183,326	63%	$7,987	$155,796	$0	$434,861
2020	$434,861	$298,822	63%	$8,697	$27,001	$0	$715,378
2021	$715,378	$487,079	63%	$14,308	$144,056	$0	$1,072,708
2022	$1,072,708	$793,939	63%	$21,454	$179,636	$0	$1,708,465
2023	$1,708,465	$793,939	0%	$34,169	$59,491	$0	$2,477,082
2024	$2,477,082	$793,939	0%	$49,542	$550,541	$0	$2,770,022
2025	$2,770,022	$793,939	0%	$55,400	$41,750	$0	$3,577,611
2026	$3,577,611	$793,939	0%	$71,552	$23,938	$0	$4,419,165
2027	$4,419,165	$793,939	0%	$88,383	$388,435	$0	$4,913,052
2028	$4,913,052	$793,939	0%	$98,261	$68,964	$0	$5,736,288
2029	$5,736,288	$793,939	0%	$114,726	$366,033	$0	$6,278,920
2030	$6,278,920	$793,939	0%	$125,578	$234,544	$0	$6,963,893
2031	$6,963,893	$793,939	0%	$139,278	$347,356	$0	$7,549,753
2032	$7,549,753	$793,939	0%	$150,995	$386,515	$0	$8,108,173
2033	$8,108,173	$793,939	0%	$162,163	$803,683	$0	$8,260,592
2034	$8,260,592	$793,939	0%	$165,212	$727,115	$0	$8,492,628
2035	$8,492,628	$793,939	0%	$169,853	$79,364	$0	$9,377,055
2036	$9,377,055	$793,939	0%	$187,541	$1,166,038	$0	$9,192,497
2037	$9,192,497	$793,939	0%	$183,850	$566,431	$0	$9,603,855
2038	$9,603,855	$793,939	0%	$192,077	$1,571,184	$0	$9,018,687
2039	$9,018,687	$793,939	0%	$180,374	$1,845,784	$0	$8,147,216
2040	$8,147,216	$793,939	0%	$162,944	$108,278	$0	$8,995,821
2041	$8,995,821	$793,939	0%	$179,916	$342,538	$0	$9,627,138
2042	$9,627,138	$793,939	0%	$192,543	$1,661,005	$0	$8,952,616
2043	$8,952,616	$793,939	0%	$179,052	$144,232	$0	$9,781,374
2044	$9,781,374	$793,939	0%	$195,627	$6,977,093	$0	$3,793,848
2045	$3,793,848	$793,939	0%	$75,877	$375,472	$0	$4,288,192
2046	$4,288,192	$793,939	0%	$85,764	$88,414	$0	$5,079,481
2047	$5,079,481	$793,939	0%	$101,590	$5,204,255	$0	$770,754

3.3.4 Model 4: Partially Funded Investment Schedule (Capped Increase)

In the capped increase investment schedule, contributions to the initial CRF opening balance are kept at a maximum increase of 170% over the next year, then increased by the current inflation rate for the remaining years. Over the 30-year projection, nine special levies, ranging from $2,916 to $6,448,594, are expected to be required. An investment return of $376,591 is obtained.

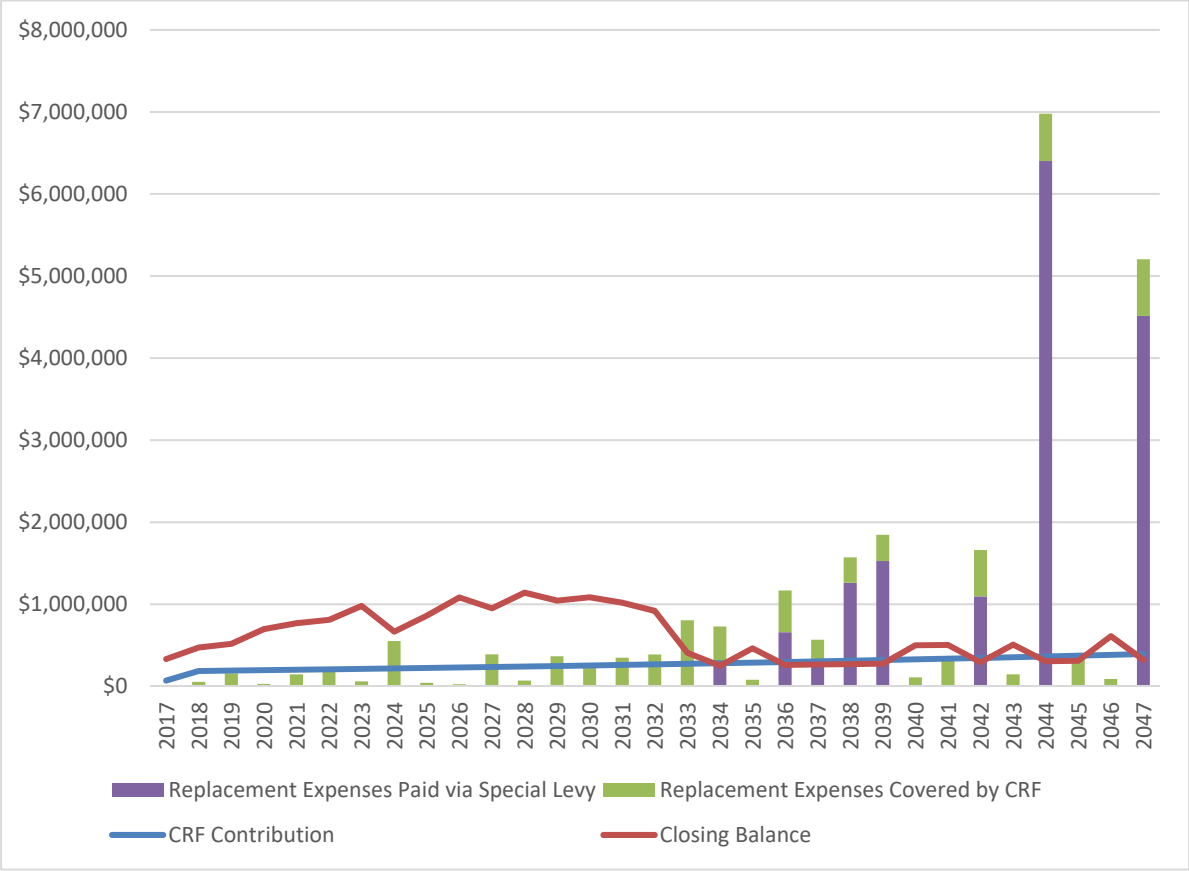


Figure 7: 30-year projection of CRF cash flow using capped increase investment schedule

Table 6: Cash flow table for CRF with capped increase investment schedule

Year	Opening balance	CRF contributions	Contribution changes	Investment returns	Replacement expenses	Special levies	Closing balance
2017	$258,381	$69,000		$5,168	$0	$0	$332,549
2018	$332,549	$186,300	170%	$6,651	$52,326	$0	$473,174
2019	$473,174	$191,144	2.6%	$9,463	$155,796	$0	$517,985
2020	$517,985	$196,114	2.6%	$10,360	$27,001	$0	$697,457
2021	$697,457	$201,212	2.6%	$13,949	$144,056	$0	$768,562
2022	$768,562	$206,444	2.6%	$15,371	$179,636	$0	$810,741
2023	$810,741	$211,812	2.6%	$16,215	$59,491	$0	$979,276
2024	$979,276	$217,319	2.6%	$19,586	$550,541	$0	$665,640
2025	$665,640	$222,969	2.6%	$13,313	$41,750	$0	$860,171
2026	$860,171	$228,766	2.6%	$17,203	$23,938	$0	$1,082,203
2027	$1,082,203	$234,714	2.6%	$21,644	$388,435	$0	$950,127
2028	$950,127	$240,817	2.6%	$19,003	$68,964	$0	$1,140,981
2029	$1,140,981	$247,078	2.6%	$22,820	$366,033	$0	$1,044,846
2030	$1,044,846	$253,502	2.6%	$20,897	$234,544	$0	$1,084,700
2031	$1,084,700	$260,093	2.6%	$21,694	$347,356	$0	$1,019,131
2032	$1,019,131	$266,855	2.6%	$20,383	$386,515	$0	$919,854
2033	$919,854	$273,794	2.6%	$18,397	$803,683	$0	$408,361
2034	$408,361	$280,912	2.6%	$8,167	$727,115	$279,408	$249,734
2035	$249,734	$288,216	2.6%	$4,995	$79,364	$0	$463,581
2036	$463,581	$295,710	2.6%	$9,272	$1,166,038	$657,300	$259,823
2037	$259,823	$303,398	2.6%	$5,196	$566,431	$263,033	$265,020
2038	$265,020	$311,286	2.6%	$5,300	$1,571,184	$1,259,898	$270,320
2039	$270,320	$319,380	2.6%	$5,406	$1,845,784	$1,526,404	$275,727
2040	$275,727	$327,684	2.6%	$5,515	$108,278	$0	$500,647
2041	$500,647	$336,203	2.6%	$10,013	$342,538	$0	$504,325
2042	$504,325	$344,945	2.6%	$10,087	$1,661,005	$1,094,251	$292,603
2043	$292,603	$353,913	2.6%	$5,852	$144,232	$0	$508,136
2044	$508,136	$363,115	2.6%	$10,163	$6,977,093	$6,400,103	$304,424
2045	$304,424	$372,556	2.6%	$6,088	$375,472	$2,916	$310,513
2046	$310,513	$382,242	2.6%	$6,210	$88,414	$0	$610,551
2047	$610,551	$392,181	2.6%	$12,211	$5,204,255	$4,512,370	$323,058

3.3.5 Model 5: Partially Funded Investment Schedule (Capped Special Levies)

In the capped special levies investment schedule, contributions to the initial CRF opening balance are increased 65% over the next three years such that the sum of all special levies over the 30-year projection is kept at $11,020,000 or less. For the remaining years, the annual CRF contributions are increased at the current inflation rate. Over the 30-year projection, four special levies, ranging from $497,040 to $5,979,762 are expected to be required. An investment return of $832,739 is obtained.

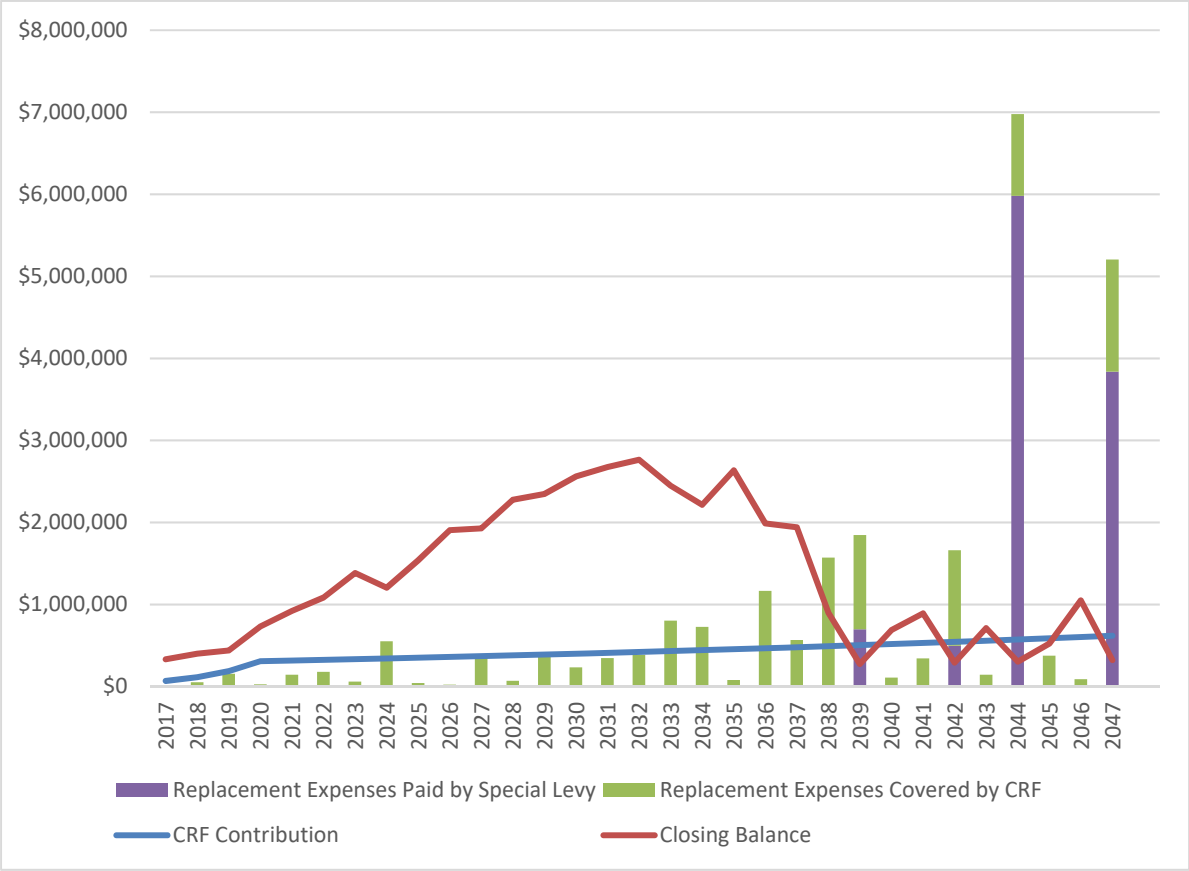


Figure 8: 30-year projection of CRF cash flow using capped special levies investment schedule

Table 7: Cash flow table for CRF with partially funded investment schedule

Year	Opening balance	CRF contributions	Contribution changes	Investment returns	Replacement expenses	Special levies	Closing balance
2017	$258,381	$69,000		$5,168	$0	$0	$332,549
2018	$332,549	$113,850	65%	$6,651	$52,326	$0	$400,724
2019	$400,724	$187,853	65%	$8,014	$155,796	$0	$440,795
2020	$440,795	$309,957	65%	$8,816	$27,001	$0	$732,566
2021	$732,566	$318,015	2.6%	$14,651	$144,056	$0	$921,176
2022	$921,176	$326,284	2.6%	$18,424	$179,636	$0	$1,086,247
2023	$1,086,247	$334,767	2.6%	$21,725	$59,491	$0	$1,383,248
2024	$1,383,248	$343,471	2.6%	$27,665	$550,541	$0	$1,203,844
2025	$1,203,844	$352,401	2.6%	$24,077	$41,750	$0	$1,538,572
2026	$1,538,572	$361,564	2.6%	$30,771	$23,938	$0	$1,906,970
2027	$1,906,970	$370,965	2.6%	$38,139	$388,435	$0	$1,927,639
2028	$1,927,639	$380,610	2.6%	$38,553	$68,964	$0	$2,277,837
2029	$2,277,837	$390,506	2.6%	$45,557	$366,033	$0	$2,347,866
2030	$2,347,866	$400,659	2.6%	$46,957	$234,544	$0	$2,560,938
2031	$2,560,938	$411,076	2.6%	$51,219	$347,356	$0	$2,675,876
2032	$2,675,876	$421,764	2.6%	$53,518	$386,515	$0	$2,764,643
2033	$2,764,643	$432,730	2.6%	$55,293	$803,683	$0	$2,448,982
2034	$2,448,982	$443,981	2.6%	$48,980	$727,115	$0	$2,214,827
2035	$2,214,827	$455,524	2.6%	$44,297	$79,364	$0	$2,635,284
2036	$2,635,284	$467,368	2.6%	$52,706	$1,166,038	$0	$1,989,319
2037	$1,989,319	$479,519	2.6%	$39,786	$566,431	$0	$1,942,194
2038	$1,942,194	$491,987	2.6%	$38,844	$1,571,184	$0	$901,840
2039	$901,840	$504,778	2.6%	$18,037	$1,845,784	$696,855	$275,727
2040	$275,727	$517,903	2.6%	$5,515	$108,278	$0	$690,866
2041	$690,866	$531,368	2.6%	$13,817	$342,538	$0	$893,513
2042	$893,513	$545,184	2.6%	$17,870	$1,661,005	$497,040	$292,603
2043	$292,603	$559,358	2.6%	$5,852	$144,232	$0	$713,581
2044	$713,581	$573,902	2.6%	$14,272	$6,977,093	$5,979,762	$304,424
2045	$304,424	$588,823	2.6%	$6,088	$375,472	$0	$523,865
2046	$523,865	$604,133	2.6%	$10,477	$88,414	$0	$1,050,060
2047	$1,050,060	$619,840	2.6%	$21,001	$5,204,255	$3,836,411	$323,058

4. Analysis

4.1 Investment Schedule Comparison

Apart from the current investment schedule, all other cash flow models propose increases to the CRF contributions in the next few years (in addition to matching inflation), eliminating or reducing special levies. Model 2 (the early investment schedule) and Model 3 (the delayed investment schedule) distinguish themselves in that no special levies will be required over the 30-year projection due to larger increases in CRF contributions. The figure below illustrates the outcome of each investment schedule (without preventive maintenance), along with the changes in CRF contributions.

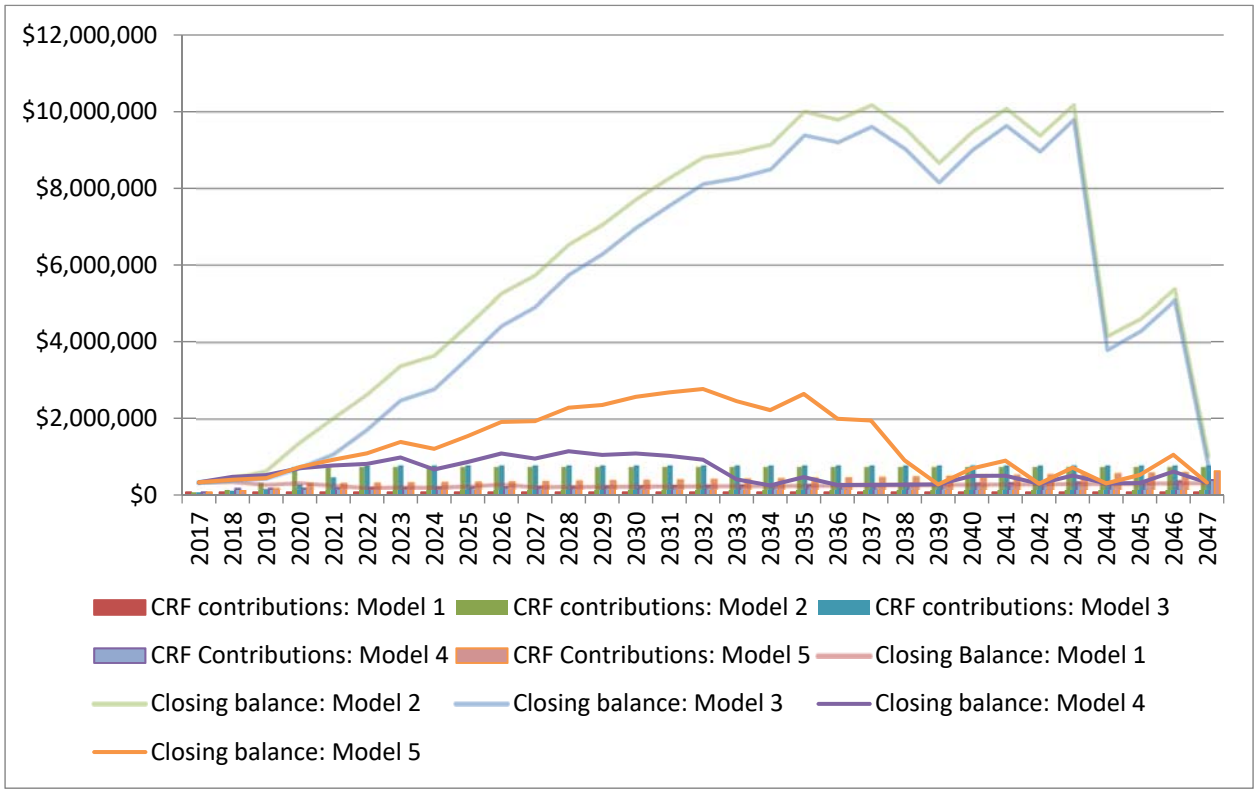


Figure 9: Comparison of CRF contributions and closing balances

Table 8: Summary of investment schedules

	Model 1: Current Model	Model 2: Early investment	Model 3: Delayed investment	Model 4: Capped Increase	Model 5: Capped Special Levies
Analysis for first 10 years					
Current CRF balance	$258,381	$258,381	$258,381	$258,381	$258,381
CRF contributions	$690,000	$5,846,766	$5,120,392	$1,931,079	$2,717,162
Investment returns	$53,004	$382,684	$274,928	$127,279	$165,962
Special levies	$519,153	$0	$0	$0	$0
Replacement expenses	$1,234,536	$1,234,536	$1,234,536	$1,234,536	$1,234,536
Financial strength	58%	100%	100%	100%	100%
Insufficiency	42%	0%	0%	0%	0%
Analysis for final 20 years					
Opening balance in year 11	$286,003	$5,253,295	$4,419,165	$1,082,203	$1,906,970
CRF contributions	$1,449,000	$15,853,579	$16,672,718	$6,448,594	$10,191,975
Investment returns	$111,370	$3,375,156	$3,131,605	$249,312	$666,777
Special levies	$21,929,418	$0	$0	$15,995,682	$11,010,069
Replacement expenses	$23,452,733	$23,452,733	$23,452,733	$23,452,733	$23,452,733
Financial strength	6%	100%	100%	32%	53%
Insufficiency	94%	0%	0%	68%	47%
Overall analysis (30-yr course)					
Opening balance in year 1	$258,381	$258,381	$258,381	$258,381	$258,381
CRF contributions	$2,139,000	$21,700,344	$21,793,110	$8,379,673	$12,909,138
Investment returns	$164,374	$3,757,840	$3,406,533	$376,591	$832,739
Special levies	$22,448,572	$0	$0	$15,995,682	$11,010,069
Replacement expenses	$24,687,269	$24,687,269	$24,687,269	$24,687,269	$24,687,269
Financial strength	9%	100%	100%	35%	55%
Insufficiency	91%	0%	0%	65%	45%
Closing balance in year 30	$323,058	$1,029,297	$770,754	$323,058	$323,058

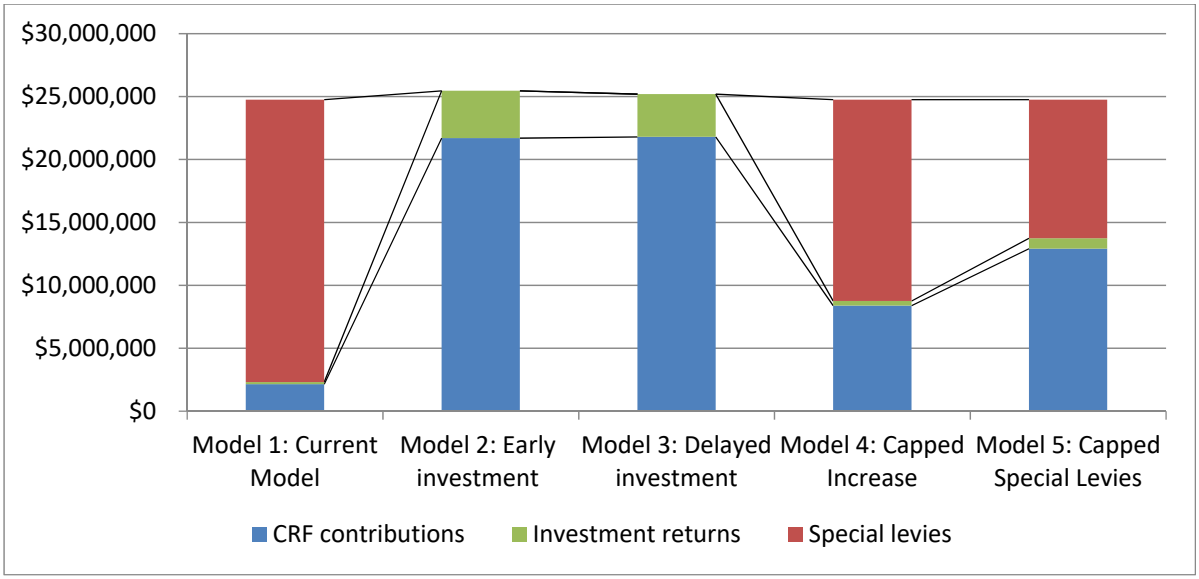


Figure 10: Comparison of financial models over 30-year projection

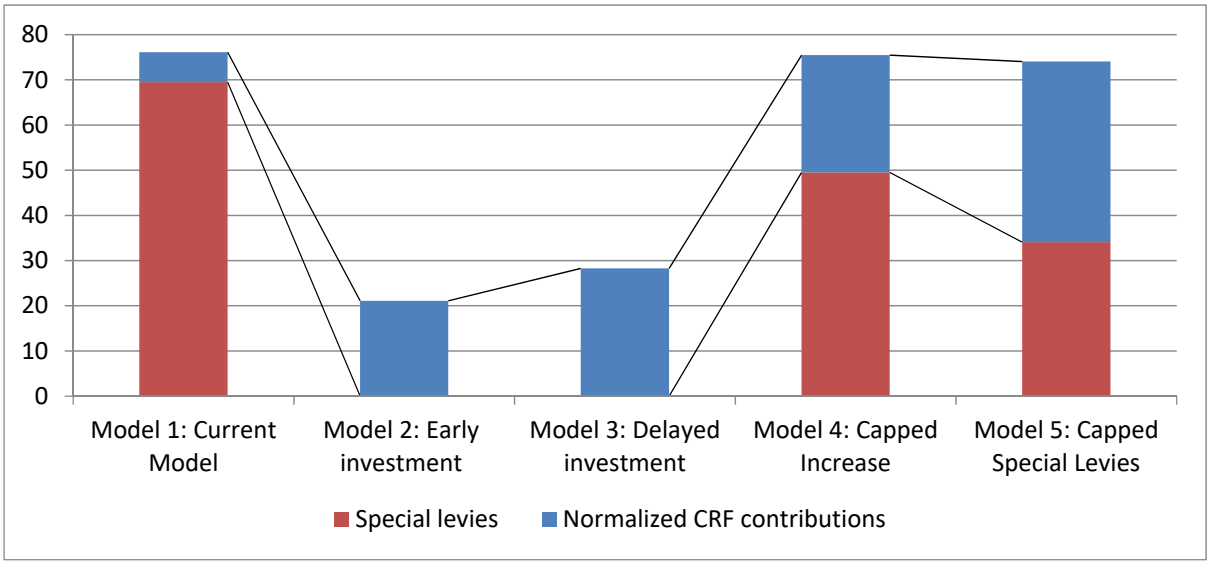


Figure 11: Normalized contributions

From Table 8 and Figures 9, 10, and 11 above, it is apparent that Model 2, the early investment schedule, has the highest rate of investment returns after the 30-year projection, at $3,757,840. Though Model 2 requires a surge in CRF contributions over the next three years, the normalized contribution amount is still the lowest of all investment schedules (Figure 11). The normalized contribution expresses both CRF contributions and Special levies standardized with respect to their closing balance in 30 years.

5. Recommendations

Given the aforementioned scenarios, the adoption of Cash Flow Model 2, the early investment schedule, is recommended because it has the potential to lead to the greatest amount of investment returns. Investing in the CRF at the earliest possible time is recommended because a greater delay in investment may lead to lower potential income from investment returns.

However, depending on various characteristics of the Strata Corporation, the consideration of Cash Flow Model 2 may not be adequate. The inclusion of additional models allows for flexibility in planning, even as some may appear to forecast larger special levies with less drastic increases to CRF contributions. Although these investment models will potentially lead to lower investment returns compared to Model 2, they may be more viable in the near term.

All of the aforementioned models together illustrate the concept of reserve fund planning. Earlier investments in the CRF leads to greater offsets in replacement expenses due to the return on investment. Ultimately, CRF increases may need to be balanced against prospects of future levies due to practical considerations.

The analysis presented within a depreciation report accounts for the financial position of the Strata Corporation in isolation. The models are not intended to guide personal investment decisions and do not account for the financial circumstances of the owners. The models aim to bring greater predictability to the timing and cost for replacements such that the Strata Corporation may prioritize and prepare for the expenditures at that time.

If your Strata Corporation has any additional concerns about the investment schedule, please do not hesitate to contact Strata Engineering so that a more feasible and reasonable solution may be determined to suit your specific needs.

.

Appendix A – Strata Property Act

[SBC 1998] CHAPTER 43

Part 6 — Finances

Division 1 — Operating Fund and Contingency Reserve Fund

Depreciation report

94 (1) In this section, **"qualified person"** has the meaning set out in the regulation.

(2) Subject to subsection (3), a Strata Corporation must obtain from a qualified person, on or before the following dates, a depreciation report estimating the repair and replacement cost for major items in the Strata Corporation and the expected life of those items:

(a) for the first time,

(i) December 14, 2013, in the case of a Strata Corporation that existed on December 14, 2011, or

(ii) the prescribed date, in all other cases;

(b) if the Strata Corporation has, before or after the coming into force of this section, obtained a depreciation report that complies with the requirements of this section, the date that is the prescribed period after the date on which that report was obtained;

(c) if the Strata Corporation has, under subsection (3) (a), waived the requirement under this subsection to obtain a depreciation report, the date that is the prescribed period after the date on which the resolution waiving the requirement was passed.

(3) A Strata Corporation need not comply with the requirement under subsection (2) to obtain a depreciation report on or before a certain date if

(a) the Strata Corporation, by a resolution passed by a 3/4 vote at an annual or special general meeting within the prescribed period, waives that requirement, or

(b) the Strata Corporation is a member of a prescribed class of Strata Corporations.

(4) A depreciation report referred to in subsection (2) must contain the information set out in the regulation.

Strata Property Act

STRATA PROPERTY REGULATION

Part 6 — Finances

Contributions to contingency reserve fund

6.1 For the purposes of section 93 of the **Act**, the amount of the annual contribution to the contingency reserve fund for a fiscal year, other than the fiscal year following the first annual general meeting, must be determined as follows:

(a) if the amount of money in the contingency reserve fund at the end of any fiscal year after the first annual general meeting is less than 25% of the total amount budgeted for the contribution to the operating fund for the fiscal year that has just ended, the annual contribution to the contingency reserve fund for the current fiscal year must be at least the lesser of

(i) 10% of the total amount budgeted for the contribution to the operating fund for the current fiscal year, and

(ii) the amount required to bring the contingency reserve fund to at least 25% of the total amount budgeted for the contribution to the operating fund for the current fiscal year;

(b) if the amount of money in the contingency reserve fund at the end of any fiscal year after the first annual general meeting is equal to or greater than 25% of the total amount budgeted for the contribution to the operating fund for the fiscal year that has just ended, additional contributions to the contingency reserve fund may be made as part of the annual budget approval process after consideration of the depreciation report, if any, obtained under section 94 of the **Act**.

[en. B.C. Reg. 238/2011, Sch. 1, s. 2.]

Depreciation report

6.2 (1) For the purposes of section 94 of the **Act**, a depreciation report must include all of the following:

(a) a physical component inventory and evaluation that complies with subsection (2);

(b) a summary of repairs and maintenance work for common expenses respecting the items isted in subsection (2) (b) that usually occur less often than once a year or that do not usually occur;

(c) a financial forecasting section that complies with subsection (3);

(d) the name of the person from whom the depreciation report was obtained and a description of

(i) that person's qualifications,

(ii) the error and omission insurance, if any, carried by that person, and

(iii) the relationship between that person and the Strata Corporation;

(e) the date of the report;

(f) any other information or analysis that the Strata Corporation or the person providing the depreciation report considers appropriate.

(2) For the purposes of subsection (1) (a) and (b) of this section, the physical component inventory and evaluation must

(a) be based on an on-site visual inspection of the site and, where practicable, of the items listed in paragraph (b) conducted by the person preparing the depreciation report,

(b) include a description and estimated service life over 30 years of those items that comprise the common property, the common assets and those parts of a strata lot or limited common property, or both, that the Strata Corporation is responsible to maintain or repair under the **Act**, the Strata Corporation's bylaws or an agreement with an owner, including, but not limited to, the following items:

(i) the building's structure;

(ii) the building's exterior, including roofs, roof decks, doors, windows and skylights;

(iii) the building's systems, including the electrical, heating, plumbing, fire protection and security systems;

(iv) common amenities and facilities;

(v) parking facilities and roadways;

(vi) utilities, including water and sewage;

(vii) landscaping, including paths, sidewalks, fencing and irrigation;

(viii) interior finishes, including floor covering and furnishings;

(ix) green building components;

(x) balconies and patios, and

(c) identify common property and limited common property that the strata lot owner, and not the Strata Corporation, is responsible to maintain and repair.

(3) For the purposes of subsection (1) (c), the financial forecasting section must include

(a) the anticipated maintenance, repair and replacement costs for common expenses that usually occur less often than once a year or that do not usually occur, projected over 30 years, beginning with the current or previous fiscal year of the Strata Corporation, of the items listed in subsection (2) (b),

(b) a description of the factors and assumptions, including interest rates and rates of inflation, used to calculate the costs referred to in paragraph (a),

(c) a description of how the contingency reserve fund is currently being funded,

(d) the current balance of the contingency reserve fund minus any expenditures that have been approved but not yet taken from the fund, and

(e) at least 3 cash-flow funding models for the contingency reserve fund relating to the maintenance, repair and replacement over 30 years, beginning with the current or previous fiscal year of the Strata Corporation, of the items listed in subsection (2) (b).

(4) For the purposes of subsection (3) (e), the cash-flow funding models may include any one or more of the following:

(a) balances of, contributions to and withdrawals from the contingency reserve fund;

(b) special levies;

(c) borrowings.

(5) If a Strata Corporation contributes to the contingency reserve fund based on a depreciation report, the contributions in respect of an item become part of the contingency reserve fund and may be spent for any purpose permitted under section 96 of the **Act**.

(6) For the purposes of section 94 (1) of the **Act**, **"qualified person"** means any person who has the knowledge and expertise to understand the individual components, scope and complexity of the Strata Corporation's common property, common assets and those parts of a strata lot or limited common property, or both, that the Strata Corporation is responsible to maintain or repair under the **Act**, the Strata Corporation's bylaws or an agreement with an owner and to prepare a depreciation report that complies with subsections (1) to (4).

(7) The following periods are prescribed:

(a) for the purposes of section 94 (2) (b) of the **Act**, 3 years;

(b) for the purposes of section 94 (2) (c) of the **Act**, 18 months;

(c) for the purposes of section 94 (3) (a) of the **Act**, the one year period immediately preceding the date on or before which the depreciation report is required to be obtained.

(8) A Strata Corporation is prescribed for the purposes of section 94 (3) (b) of the **Act** if and for so long as there are fewer than 5 strata lots in the strata plan.

[en. B.C. Reg. 238/2011, Sch. 1, s. 2.]

Appendix B – Component Data Sheets

List of Abbreviations	
DOI	Date of Installation
CA	Chronological Age
EUL	Estimated Useful Life
EA	Effective Age
RUL	Remaining Useful Life
Var	Various

Reserve Component A10100401	Underground parkade structure	
Properties	Walls, suspended slabs, floor slabs, columns	
Potential Deterioration	Settlement and seismic movement induce cracks into the concrete foundation. Water may infiltrate and its flow through the concrete leads to the corrosion of the reinforcing steel. The corrosion expands and causes concrete delamination, spalling, and dislodging.	
Condition Analysis	**Deterioration**	Cracks with efflorescence and water stains were observed at isolated locations.
	Repair History	Crack injections repairs were observed in several locations.
	Overall Condition	Good/Acceptable.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 10,000	2018	Contingency every 5 years.
Phase 2	$ 10,000	2018	Contingency every 5 years.
Phase 3	$ 10,000	2018	Contingency every 5 years.

Preventative Maintenance	Annual reviews for water ingress. Water ingress can be managed locally by sealing the leaking cracks. Repair and patch areas of delaminated or spalled concrete on floors and ceilings, seal joints and cracks, and apply and maintain a protective coating on floors.
Remarks	None.

Pictures

Cracks with efflorescence and water stains

Scaled concrete surface with delaminated coating on parkade floor

Reserve Component A10100502	Waterproofing membrane	
Properties	Waterproofing membrane beneath the roof garden over parkade	
Potential Deterioration	Over the life of a building, settlement, seismic movement, and corrosion will act to induce cracks in the concrete structure. These cracks may sometimes extend up to through the membrane and allow water ingress. In addition, aging and action of the overburden materials may cause the waterproofing properties to be compromised.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	35 years	8 years	27 years
Phase 2	2012	5 years	35 years	5 years	30 years
Phase 3	2014	3 years	35 years	3 years	32 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 1,929,750	2044	Full replacement.
Phase 2	$ 1,660,350	2047	Full replacement.
Phase 3	$ 1,395,975	2049	Full replacement.

Preventative Maintenance	Sometimes discontinuities within the waterproofing membrane can be economically repaired from the exterior. If not, the water ingress can be managed by sealing the leaking cracks in the concrete from the interior.
Remarks	None.

Pictures

Areas with waterproofing membrane

Repaired crack with water infiltration reoccurrence that denotes failure of the waterproofing membrane in the area

Reserve Component B30100105	Roofing systems	
Properties	Inverted roofing on towers	
Potential Deterioration	The great benefit of inverted roofs is that the insulation protects the membrane from extremes of weather, such as frost, UV exposure and the expansion and contraction that comes about from temperature cycles. However, water that does not drain is not likely to evaporate and will become stagnant that may affect the waterproofing properties over time.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good/Acceptable.

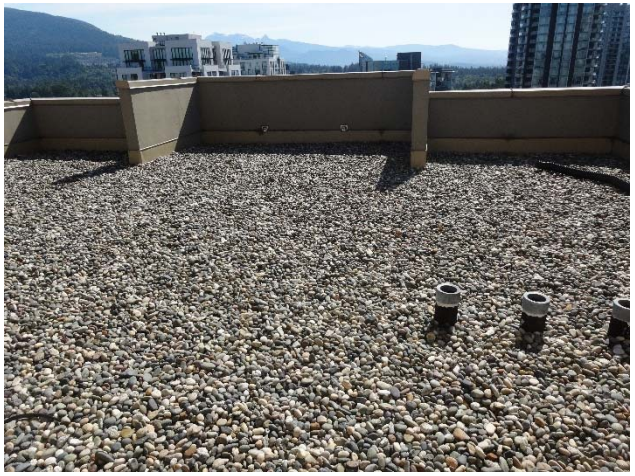
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 165,370	2039	Full replacement.
Phase 2	$ 85,928	2042	Full replacement.
Phase 3	$ 133,193	2044	Full replacement.

Preventative Maintenance	Some quantities of water may be trapped between insulation and waterproofing layer. Slopes should be constructed with most care, of at least 2%. Plants can block the flow of water off the roof. Identify any exposed areas of the roof, any bare spots are unprotected and can lead to rapid deterioration.
Remarks	None.

Pictures

Inverted roof



Inverted roof

Reserve Component B20100201	Parapets on roof and roof terraces	
Properties	Concrete enclosure	
Potential Deterioration	Prolonged exposure to weather elements and settlement may cause concrete parapets to crack.	
Condition Analysis	**Deterioration**	Cracks, some of them with evidence of water infiltration, were observed, especially at the joints with concrete walls.
	Repair History	Repaired cracks were observed at some cold joints.
	Overall Condition	Acceptable.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 5,000	2018	Contingency every 5 years.
Phase 2	$ 7,000	2018	Contingency every 5 years.
Phase 3	$ 5,000	2020	Contingency every 5 years.
Preventative Maintenance	Repair and seal the cracks. Apply protective paint.		
Remarks	None.		

Pictures

Crack and spalled coating

Crack and efflorescence at cold joint

Reserve Component B100100501	Connected Structures	
Properties	Concrete canopies at tower roofs	
Potential Deterioration	Plastic-shrinkage cracks are most common. Water may infiltrate and its flow through the concrete leads to the corrosion of the reinforcing steel. The corrosion expands and causes concrete delamination, spalling.	
Condition Analysis	**Deterioration**	Crack on both sides of canopy was observed in one instance. Missing storm drains causes water ponding that may leads to spalling and cracking of the concrete surface due to freeze/thaw cycles.
	Repair History	Not available.
	Overall Condition	Acceptable.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 3,000	2019	Contingency every 5 years.
Phase 2	$ 3,000	2022	Contingency every 5 years.
Phase 3	$ 3,000	2024	Contingency every 5 years.

Preventative Maintenance	Repair and patch areas of delaminated or spalled concrete, seal joints and cracks, and apply and maintain a protective coating.
Remarks	None.

Pictures

Crack extended through the entire thickness of the concrete canopy. Here view from underside.

Water ponding due to missing storm drains at the lowest point.

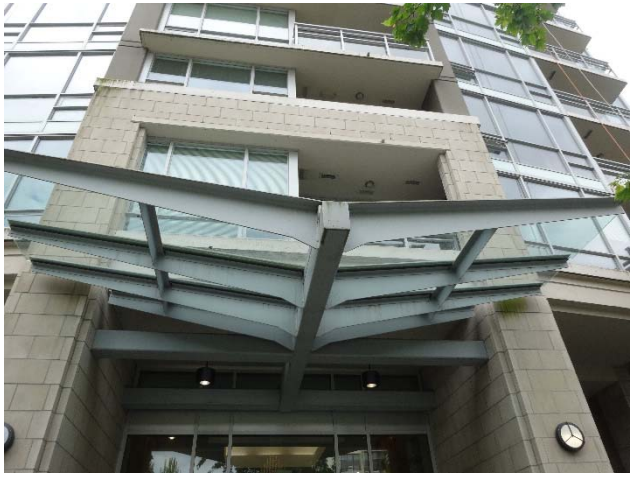
Reserve Component B100100502	Connected Structures	
Properties	Metal/glass cannopy assembly at main entrance	
Potential Deterioration	The junctions between the canopy and the building wall are prone to moisture ingress, which may cause premature deterioration of the building wall. Metal frame is prone to rust.	
Condition Analysis	**Deterioration**	Corrosion spots on metal frame were observed.
	Repair History	Not available.
	Overall Condition	Acceptable.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 3,000	2018	Contingency every 7 years.
Phase 2	$ 3,000	2018	Contingency every 7 years.
Phase 3	$ 3,000	2018	Contingency every 7 years.

Preventative Maintenance	Inspect every 2 years. Repair as needed. Repaint every 6-8 years.
Remarks	None.

Pictures



Main entrance canopy

Corrosion spots on metal frame

Reserve Component B20100702	Divider walls	
Properties	Glass divider walls on patios and roof terraces	
Potential Deterioration	The junctions between the divider wall and the building wall /balcony floor are prone to moisture ingress, which may cause premature deterioration of the building wall and balcony floor.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 5,000	2024	Contingency every 7 years.
Phase 2	$ 5,000	2024	Contingency every 7 years.
Phase 3	$ 5,000	2024	Contingency every 7 years.
Preventative Maintenance	Inspect every two years. Repair as needed.		
Remarks	None.		

Pictures

Dividing wall on roof terrace

Dividing wall on patio

Reserve Component B20200109	Exterior windows	
Properties	Aluminum storefront type of windows - residential	
Potential Deterioration	The thermal expansion coefficient of aluminum is 2.5 times that of glass, the large relative displacements often cause sealants to break.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

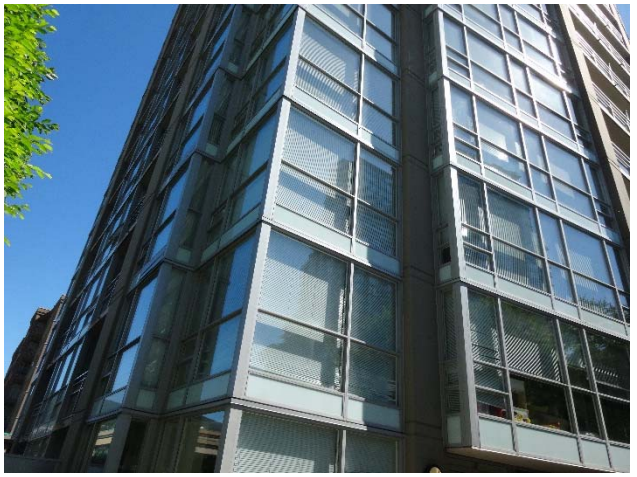
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	40 years	8 years	32 years
Phase 2	2012	5 years	40 years	5 years	35 years
Phase 3	2014	3 years	40 years	3 years	37 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 6,500	2027	Contingency every 7 years.
Phase 2	$ 7,000	2029	Contingency every 7 years.
Phase 3	$ 8,500	2031	Contingency every 7 years.

Preventative Maintenance	Typical windows require minimal maintenance. Window hardware should be cleaned and lubricated annually. Replace the units with failed frame sealants.
Remarks	None.

Pictures

Exterior windows - residential



Exterior windows - residential

Reserve Component B20200111	Exterior windows	
Properties	Aluminum storefront windows – commercial	
Potential Deterioration	One of the most common deterioration mechanisms in curtain wall systems is the degradation of glazing gaskets, depending on gasket type, prolonged exposure to UV can result in hardening, shrinkage, and crazing (cracking) of the gasket material. Deterioration of glazing gaskets can result in leaks.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	40 years	8 years	32 years
Phase 2	2012	5 years	40 years	5 years	35 years
Phase 3					

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 7,000	2030	Contingency every 7 years.
Phase 2	$ 4,000	2032	Contingency every 7 years.
Phase 3			

Preventative Maintenance	Typical windows require minimal maintenance. Mitre joint connections must be inspected regularly and joint sealer should be applied where necessary. Replace the units with failed frame gaskets.
Remarks	None.

Pictures

Storefront windows – commercial units

Storefront windows – commercial units

Reserve Component B20200402	Caulking	
Properties	Caulking	
Potential Deterioration	Common causes of sealant failures are loss of adhesion and cohesion, mostly due to imperfections of the material and application methods. Over time the sealants suffer degradation due to the loss of solvents and plasticizes, due to ultraviolet radiation and also due to ozone action.	
Condition Analysis	**Deterioration**	None observed where applied.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	10 years	8 years	2 years
Phase 2	2012	5 years	10 years	5 years	5 years
Phase 3	2014	3 years	10 years	3 years	7 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 20,000	2019	Partial replacement every 10 years.
Phase 2	$ 20,000	2022	Partial replacement every 10 years.
Phase 3	$ 20,000	2024	Partial replacement every 10 years.
Preventative Maintenance	Inspect, clean and properly replace deteriorated sealant based on manufacturer's instructions.		
Remarks	Caulking was missing in unit #3208, phase 2.		

Pictures

Missing caulking at unit #3208

Caulking between door/windows frames and ceiling

Reserve Component B20100109	Cladding	
Properties	Cultured stone veneer	
Potential Deterioration	Staining, discoloring, decay, and cracking may occur over time due to environmental effects (acid rain, pollution, cyclical changes of temperature). Also, metal connectors may rust over time. Mortar deterioration may also occur over time.	
Condition Analysis	**Deterioration**	Algae growth were observed.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 7,000	2024	Contingency every 7 years.
Phase 2	$ 7,000	2024	Contingency every 7 years.
Phase 3	$ 5,000	2024	Contingency every 7 years.

Preventative Maintenance	Once or twice a year inspect the stone veneer, and look for damaged stones, crack and loose mortar. Repoint if necessary. Clean with non-pressurized water every 3 years.
Remarks	None.

Pictures

Algae growth

Cultured tone veneer

Reserve Component B20100103	Cladding				
Properties	Brick veneer				
Potential Deterioration	Moisture absorption may lead to cracking, spalling, and flaking. Bowing, sweeping (horizontally bulging), leaning, may occur from settlement and sesimic movement. Joint mortar may fail in areas of excessive moisture, e.g. near leaking downspouts, below windows, etc. Metal component such as reinforcement, ties, or anchors are also susceptible to corrosion.				
Condition Analysis	**Deterioration**	None apparent.			
	Repair History	Not available.			
	Overall Condition	Good.			

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 5,000	2037	Contingency every 7 years.
Phase 2	$ 7,000	2040	Contingency every 7 years.
Phase 3	$ 2,000	2043	Contingency every 7 years.

Preventative Maintenance	Clean surfaces with water or cleaning solutions, every 5 years (use non-pressurized water). Review masonry for cracking, spalling, and loose units and repair as needed. Mortar joints may be repaired by re-pointing or "tuck pointing" (typically, every 15 years).
Remarks	None.

Pictures

Brick veneer

Brick veneer

Reserve Component B20100108	Cladding	
Properties	Exposed concrete structure	
Potential Deterioration	Exposed concrete areas, though painted, may deteriorate over long-term exposure due to the elements. Water, oxygen, chloride, or acid can lead to oxidation of the concrete and/or reinforcing steel. Cracks may develop in the weakened concrete, affecting the overall superstructure.	
Condition Analysis	**Deterioration**	Some hairline cracks were observed.
	Repair History	Repaired cracks at roof levels were observed.
	Overall Condition	Good/Acceptable.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 5,000	2019	Contingency every 7 years.
Phase 2	$ 5,000	2022	Contingency every 7 years.
Phase 3	$ 6,000	2024	Contingency every 7 years.

Preventative Maintenance	Power wash every 4-6 years. If a sealer or concrete coating has been used for aesthetics or to minimize moisture penetration, the sealer or coating will require reapplication (every 7 to 20 years).
Remarks	None.

Pictures

Cracks along cold joints

Diagonal crack

Reserve Component B20100801	Exterior painting	
Properties	Acrylic paint	
Potential Deterioration	Prolonged exposure to UV light (sunlight), moisture and freeze-thaw cycles cause fading of colors, chemical decomposition of the paint film, blistering, curling, peeling.	
Condition Analysis	**Deterioration**	Peeling paint were observed.
	Repair History	Not available.
	Overall Condition	Good/Acceptable.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	10 years	8 years	2 years
Phase 2	2012	5 years	10 years	5 years	5 years
Phase 3	2014	3 years	10 years	3 years	7 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 120,000	2019	Full replacement.
Phase 2	$ 120,000	2022	Full replacement.
Phase 3	$ 120,000	2024	Full replacement.

Preventative Maintenance	Clean annually with mild detergent solution and natural bristle brush. Remove the deteriorated paint and re-paint locally.
Remarks	None.

Pictures

Scratched and peeling paint

Exterior paint

Reserve Component B10100301	Balcony flooring	
Properties	Concrete balconies with liquid applied membrane	
Potential Deterioration	The most common deteriorations are mechanical damages that occur over time, resulting in localized erosion and scratching.	
Condition Analysis	**Deterioration**	Some balconies exhibit weathering on the liquid membrane surfaces.
	Repair History	Not available.
	Overall Condition	Good/Acceptable.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	24 years	8 years	16 years
Phase 2	2012	5 years	24 years	5 years	19 years
Phase 3	2014	3 years	24 years	3 years	21 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 474,000	2033	Full replacement.
Phase 2	$ 681,000	2036	Full replacement.
Phase 3	$ 753,000	2038	Full replacement.
Preventative Maintenance	Inspect every two years, patch locally.		
Remarks	None.		

Pictures

Liquid membrane on balcony decks

Weathering was observed where water is ponding

Reserve Component B20100501	Balcony railings	
Properties	Prefinished railings with glass inserts	
Potential Deterioration	Fasteners on metal railings may become loose over time, leading to detachment.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 10,000	2032	Contingency every 7 years.
Phase 2	$ 10,000	2035	Contingency every 7 years.
Phase 3	$ 10,000	2037	Contingency every 7 years.
Preventative Maintenance	Inspect every two years. Repair as needed.		
Remarks	None.		

Pictures

Balcony railings

Balcony railings

Reserve Component B10100704	Patio and terraces flooring				
Properties	Concrete unit pavers				
Potential Deterioration	The pavers are susceptible to cracking, spalling, and scaling of paver surface. Displacement of pavers usually indicate a problem with setting bed, mainly due to water stagnant and its freeze/thaw cycles. The waterproofing membrane may experience crack reflection (tearing of the membrane because of movement of cracks in the concrete substrate).				
Condition Analysis	**Deterioration**	None apparent.			
	Repair History	Not available.			
	Overall Condition	Good.			

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 7,000	2027	Contingency every 7 years.
Phase 2	$ 7,000	2030	Contingency every 7 years.
Phase 3	$ 7,000	2033	Contingency every 7 years.

Preventative Maintenance	Periodic review. Repair/replace the damaged pavers. Check drainage devices regularly for obstructions, remove accumulated debris and reset missing strainers. Review flashings and caulk seals for damage and deterioration, loss of adhesion, and gaps in terminations.
Remarks	None.

Pictures

Terrace flooring

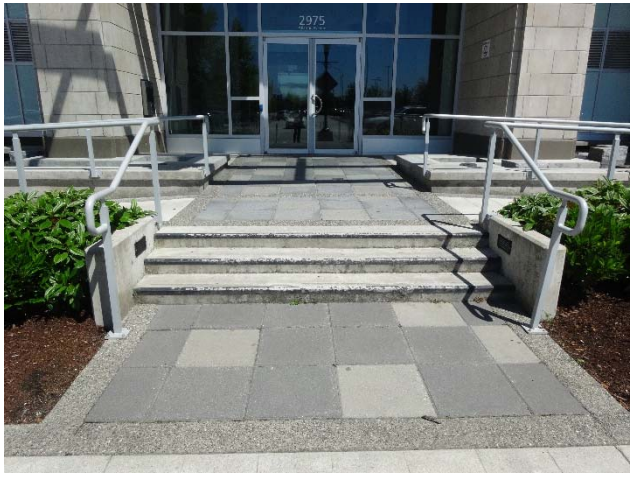
Terrace flooring

Reserve Component B10100501	Exterior stairs and ramp with railings				
Properties	Concrete stairs and ramp with railings				
Potential Deterioration	Over time movement of the sub-grade, such as settling or heaving, can crack concrete. Exposure to freezing and thawing can cause scaling, which can be made worse by the application of de-icing salts.				
Condition Analysis	**Deterioration**	None apparent.			
	Repair History	Not available.			
	Overall Condition	Good.			

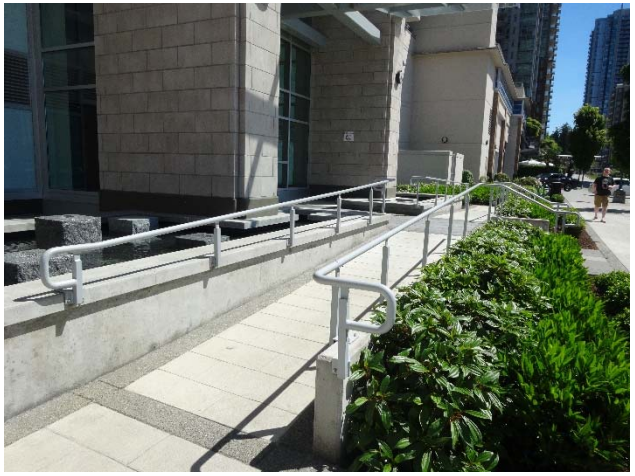
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1					
Phase 2					
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1			
Phase 2			
Phase 3	$ 6,000	2022	Contingency every 7 years.
Preventative Maintenance	Inspect annually and repair as necessary.		
Remarks	None.		

Pictures



Exterior stairs with railings



Ramp with railings

Reserve Component B20300501	Patio, balcony and terrace doors - sliding	
Properties	Aluminum slider doors with tempered glass	
Potential Deterioration	Door hardware such as rollers and locks may fail over time. Depending on the material, rollers may be subject to deterioration such as corrosion or breakage. Tracks may become misaligned, bent or worn. Roller and track deterioration are the most common factors leading to difficulties in operating the sliding doors.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

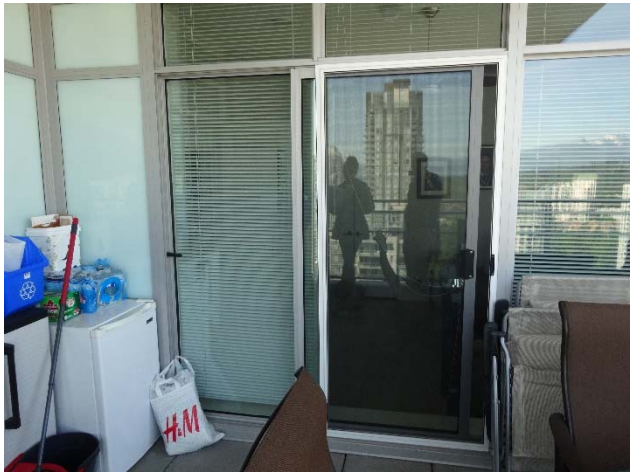
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	35 years	8 years	27 years
Phase 2	2012	5 years	35 years	5 years	30 years
Phase 3	2014	3 years	35 years	3 years	32 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 66,750	2044	Full replacement.
Phase 2	$ 84,550	2047	Full replacement.
Phase 3	$ 97,900	2049	Full replacement.

Preventative Maintenance	A general visual inspection of the door and frame finish should be periodically conducted. If the door doesn't slide smoothly, the rollers under the door either need adjusting or are shot. Scrub caked dirt and grime out of the track.
Remarks	None.

Pictures

Balcony sliding door



Terrace sliding door

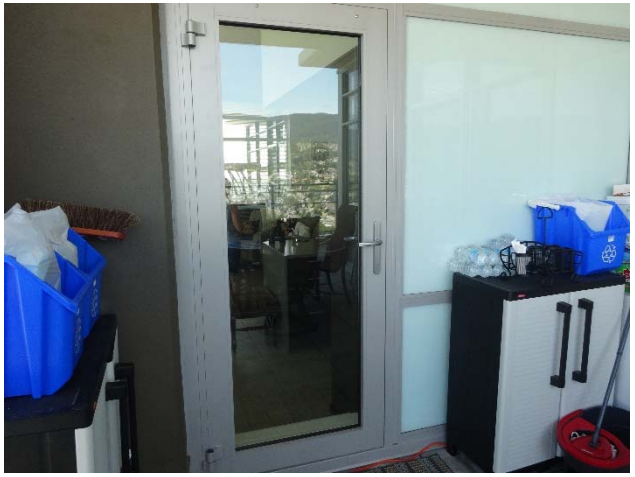
Reserve Component B20300505	Terrace and balcony doors - swinging	
Properties	Aluminum swinging door	
Potential Deterioration	Dirt and debris may become trapped in sills, leading to difficulties opening. Settling over time can cause distortion of door frame, which also leads to difficulties opening. Seals between the glass may fail, leading to a loss of energy efficiency.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	35 years	8 years	27 years
Phase 2	2012	5 years	35 years	5 years	30 years
Phase 3	2014	3 years	35 years	3 years	32 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 249,640	2044	Full replacement.
Phase 2	$ 358,660	2047	Full replacement.
Phase 3	$ 396,580	2049	Full replacement.

Preventative Maintenance	A general visual inspection of the door and frame finish should be periodically conducted. Check all closing devices for loose attaching screws, hinge pin wear, locksets, latch wear, or other notable defects.
Remarks	None.

Pictures



Swinging door on terrace

Swinging door on balcony

Reserve Component B20300103	Egress doors	
Properties	Metal fire doors	
Potential Deterioration	Hardware failure and poor latching may result from distortions in the door frame or loosening of the striker plate. Common deterioration for frames may include: bent or damaged sections, staining, oxidation/rusting or pitting, or loose anchorage system. Doors may become racked, warped or bent, and may exhibit rust on metal. Hinges may become broken or bent, the panic bar, latch, lock and bolt may be damaged and no longer functional.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

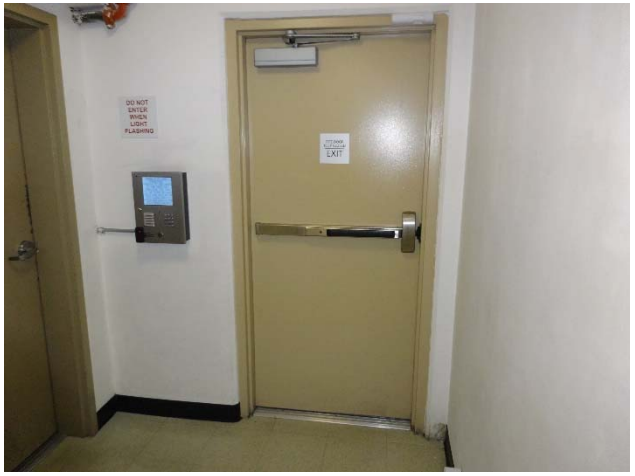
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 7,200	2039	Full replacement.
Phase 2	$ 3,600	2042	Full replacement.
Phase 3	$ 7,200	2044	Full replacement.

Preventative Maintenance	A general visual inspection of the door and frame finish should be periodically conducted. Check all closing devices for loose attaching screws, hinge pin wear, locksets, latch wear, or other notable defects.
Remarks	None.

Pictures

Metal fire door



Metal fire door

Reserve Component B20300406	Garage doors	
Properties	Metal grille overhead garage door	
Potential Deterioration	Mechanical and electrical components of the garage door may fail, leading to difficulty opening. Metallic components of garage door may also be prone to corrosion.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 18,000	2039	Full replacement.
Phase 2	$ 12,000	2042	Full replacement.
Phase 3	$ 12,000	2044	Full replacement.

Preventative Maintenance	Annual review should include: checking the operation from open to closed, lubrication of all moving parts, checking operating chain for excessive wear. Rust spots need to be sanded, primed and painted.
Remarks	None.

Pictures

Interior garage door

Garage door, motor and traction system

Reserve Component B20300101	Main entrance doors	
Properties	Aluminum glass swinging entrance doors	
Potential Deterioration	Drafts may occur due to lose or worn weather-stripping around doors. Hardware failure and poor latching may result from distortions in the door frame or loosening of the striker plate. Common deterioration for frames may include: bent or damaged sections, staining, oxidation/rusting or pitting, or loose anchorage system. Hinges may become broken or bent, the panic bar, latch, lock and bolt may be damaged and no longer functional.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

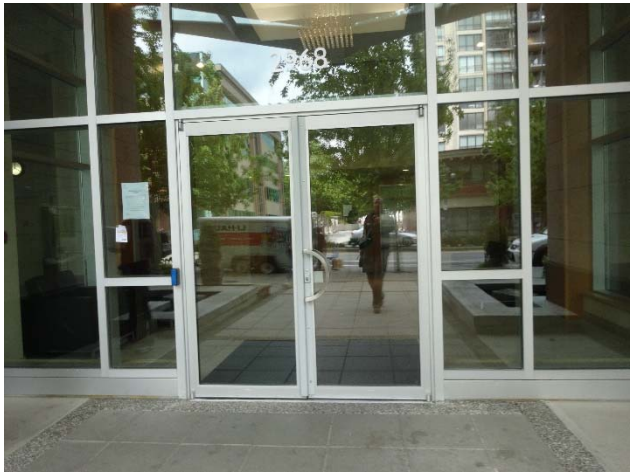
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 5,425	2039	Full replacement.
Phase 2	$ 5,425	2042	Full replacement.
Phase 3	$ 5,425	2044	Full replacement.

Preventative Maintenance	A general visual inspection of the door and frame finish should be periodically conducted. Check all closing devices for loose attaching screws, hinge pin wear, locksets, latch wear, or other notable defects.
Remarks	None.

Pictures

Main entrance door



Main entrance door

Reserve Component B20300111	Main entrance doors at commercial units				
Properties	Aluminum glass swinging entrance doors				
Potential Deterioration	Drafts may occur due to lose or worn weather-stripping around doors. Hardware failure and poor latching may result from distortions in the door frame or loosening of the striker plate. Common deterioration for frames may include: bent or damaged sections, staining, oxidation/rusting or pitting, or loose anchorage system. Hinges may become broken or bent, the panic bar, latch, lock and bolt may be damaged and no longer functional.				
Condition Analysis	**Deterioration**	None apparent.			
	Repair History	Not available.			
	Overall Condition	Good.			

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3					

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 54,400	2039	Full replacement.
Phase 2	$ 22,400	2042	Full replacement.
Phase 3			

Preventative Maintenance	A general visual inspection of the door and frame finish should be periodically conducted. Check all closing devices for loose attaching screws, hinge pin wear, locksets, latch wear, or other notable defects.
Remarks	None.

Pictures

Main entrance door at commercial unit

Main entrance door at commercial unit

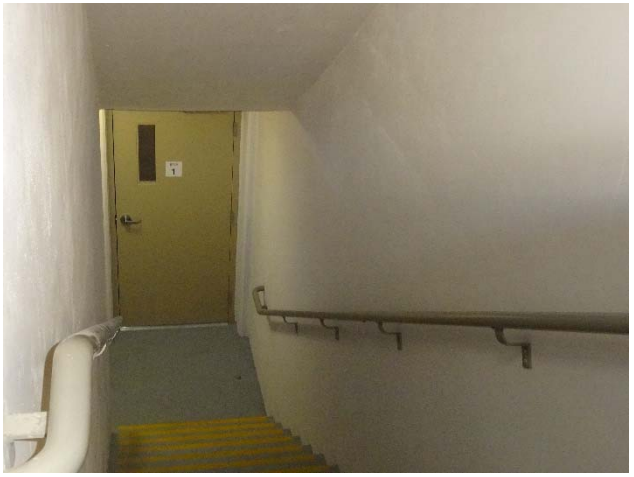
Reserve Component C10200101	Service doors in parkade areas	
Properties	Metal fire doors	
Potential Deterioration	Hardware failure and poor latching may result from distortions in the door frame or loosening of the striker plate. Common deterioration for frames may include: bent or damaged sections, staining, oxidation/rusting or pitting, or loose anchorage system. Doors may become racked, warped or bent, and may exhibit rust on metal. Hinges may become broken or bent, the panic bar, latch, lock and bolt may be damaged and no longer functional.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 26,400	2039	Full replacement.
Phase 2	$ 18,000	2042	Full replacement.
Phase 3	$ 18,000	2044	Full replacement.

Preventative Maintenance	A general visual inspection of the door and frame finish should be periodically conducted. Check all closing devices for loose attaching screws, hinge pin wear, locksets, latch wear, or other notable defects.
Remarks	None.

Pictures



Service door

Service door

Reserve Component C10200102	Unit entry doors	
Properties	Wooden doors	
Potential Deterioration	Common deterioration for frames may include: bent or damaged sections, staining, oxidation/rusting or pitting, or loose anchorage system. Doors may become racked, warped or bent, and may exhibit rust on metal. Hinges may become broken or bent, the panic bar, latch, lock and bolt may be damaged and no longer functional.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 258,000	2039	Full replacement.
Phase 2	$ 317,000	2042	Full replacement.
Phase 3	$ 368,000	2044	Full replacement.

Preventative Maintenance	A general visual inspection of the door and frame finish should be periodically conducted. Check all closing devices for loose attaching screws, hinge pin wear, locksets, latch wear, or other notable defects.
Remarks	None.

Pictures

Unit entry door

Unit entry door

Reserve Component D80100101	Electrical power service – high voltage substation	
Properties	High voltage substation	
Potential Deterioration	Dust and other contaminants may built up within the enclosures, on the energized equipment, on vents and fan grills. Seals and gaskets may deteriorate over time.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 2,000	2020	Contingency every 5 years.
Phase 2	$ 2,000	2020	Contingency every 5 years.
Phase 3	$ 2,000	2020	Contingency every 5 years.

Preventative Maintenance	Preventive maintained and testing are recommended every 3 years, performed by specialized personnel. Electrical rooms or vaults should be kept cleaned of dirt, and should be examined for water seepage, especially at the top of electrical equipment enclosures, since this is a common entry way.
Remarks	The budget for Electrical Distribution is split with Residential Section.

Pictures

High voltage substation

High voltage substation

Reserve Component D50100101	Electrical distribution – equipment and cabling/wiring	
Properties	Switch gear units, distribution panels, dedicated interupters, cabling/wiring	
Potential Deterioration	Bolts and connecting devices may corrode or overheat. Insulating deposits may built up on the energized contacts, leading to arcing and power disruption. Also, the devices may exhibit signs of corona, tracking, and thermal or physical damages.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

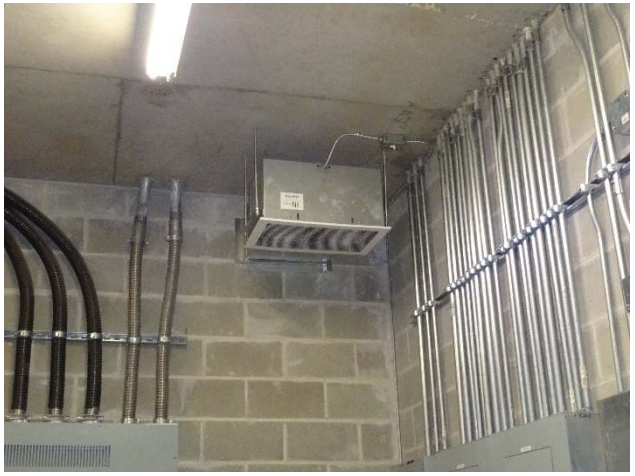
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 2,000	2020	Contingency every 3 years.
Phase 2	$ 2,000	2020	Contingency every 3 years.
Phase 3	$ 2,000	2020	Contingency every 3 years.

Preventative Maintenance	Preventive maintained and testing are recommended every 3 years, performed by specialized personnel. Electrical rooms or vaults should be kept cleaned of dirt, and examined for water seepage, especially at the top of electrical equipment enclosures. Prior to the planned maintenance, an infrared survey should be conducted to help identify areas that need specific and immediate attention.
Remarks	The budget for Electrical Distribution is split with Residential Section.

Pictures

Distribution panels



Cabling

Reserve Component D50900201	Emergency generator	
Properties	Emergency generator	
Potential Deterioration	The emergency generator may fail to start due to inaccurate settings or neglected maintenance. The most common reasons may involve battery failure, low coolant levels, low coolant temperature alarms, oil, fuel, or coolant leaks, air in the fuel system, breaker trip.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	35 years	8 years	27 years
Phase 2	2012	5 years	35 years	5 years	30 years
Phase 3	2014	3 years	35 years	3 years	32 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 125,000	2044	Full replacement.
Phase 2	$ 125,000	2047	Full replacement.
Phase 3	$ 125,000	2049	Full replacement.

Preventative Maintenance	Maintenance is performed by a licensed contractor and may include: exercising the generator on a monthly basis, reviews of cooling and fuel systems, of battery and charging system, the engine's belts, oil levels, air filters.
Remarks	None.

Pictures

Reserve Component D50300201	Access control systems (major update)	
Properties	Intercoms, video surveillance systems, FOB reading systems	
Potential Deterioration	The frequency of breakdowns may increase toward the end of its expected useful life, increasing the maintenance costs. The system may also become obsolete over time.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	15 years	8 years	7 years
Phase 2	2012	5 years	15 years	5 years	10 years
Phase 3	2014	3 years	15 years	3 years	12 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 30,000	2024	Full replacement.
Phase 2	$ 30,000	2027	Full replacement.
Phase 3	$ 30,000	2029	Full replacement.
Preventative Maintenance	Regular maintenance by a qualified technician.		
Remarks	The budget for Intercom and Security Systems is split with Residential Section.		

Pictures

Intercom panel


Video and security system

Reserve Component D90100101	Fire Protection and Security Systems	
Properties	Fire alarm system - fire alarm panel, annunciator, monitoring devices, pull stations, alarm bells, wiring	
Potential Deterioration	Increased frequency of failures while performing the tests may signal the necessity of replacement or upgrading.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 120,000	2021	Contingency every 10 years.
Phase 2	$ 120,000	2024	Contingency every 10 years.
Phase 3	$ 120,000	2027	Contingency every 10 years.

Preventative Maintenance	Annual inspections and testing as required, performed by a certified contractor.
Remarks	None.

Pictures

Annunciator panels

Emergency telephone both and pull station

Reserve Component D90100201	Fire Protection and Security Systems	
Properties	Emergency light fixtures and exit signs	
Potential Deterioration	The emergency lighting and exit signs may become obsolete and no longer meet the code requirements. Emergency lighting needs to be tested annually and batteries should be replaced as needed.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 10,000	2021	Contingency every 10 years.
Phase 2	$ 10,000	2024	Contingency every 10 years.
Phase 3	$ 10,000	2027	Contingency every 10 years.

Preventative Maintenance	Annual inspections and testing as required, performed by a licensed contractor, including but not limited to inspect for defects and deposits, pushing test button and observing light operation.
Remarks	None.

Pictures

Exit sign


Emergency light fixtures with battery pack

Reserve Component D90100102	Fire Protection and Security Systems	
Properties	Fire pumps, jokey pump, valves, control panels	
Potential Deterioration	Fire pumps are manufactured to have long life cycles if the proper maintenance measures are taken. Most common issues uncovered during the tests include: suction piping or impeller obstructions, drawing of air into the suction connection through leaks in the piping, and power failures.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 75,000	2039	Full replacement.
Phase 2	$ 75,000	2042	Full replacement.
Phase 3	$ 75,000	2044	Full replacement.

Preventative Maintenance	Fire pumps are subject to very specific inspection, testing and maintenance requirements to help ensure that they will function properly when needed, and should be performed by licensed contractors. The maintenance tests refer to alteration of environmental condition programmed to start pump and observation of operation for normal conditions.
Remarks	None.

Pictures

Fire pump assembly

Reserve Component D20200201	Water distribution				
Properties	Domestic cold and hot water distribution systems				
Potential Deterioration	Common domestic water piping materials include copper, CPVC, and PEX tubing. Over time, as the building ages, there could be seizing and leakage of valves. In case of copper piping, the persistent flow, combined with the soft quality of copper, and chemically-treated municipal water supplies, leads to a corrosion and pinholes appearance.				
Condition Analysis	**Deterioration**	None apparent.			
	Repair History	Not available.			
	Overall Condition	Good.			

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 15,000	2024	Contingency every 5 years.
Phase 2	$ 15,000	2027	Contingency every 5 years.
Phase 3	$ 15,000	2030	Contingency every 5 years.

Preventative Maintenance	Inspect copper piping annually for leaks, and for deterioration of water meter. Every 5 years, inspect to evaluate condition and adjust performance life based on findings.
Remarks	None.

Pictures

Water entry station

Water distribution piping

Reserve Component D30200106	Domestic water heaters	
Properties	Electric domestic water heaters	
Potential Deterioration	Typically, pitting corrosion occurs on the inner tank wall over time and may lead to water leakage. Failures of different parts (electronic controls, valves, etc.) do not lead to tank replacement and can be addressed separately.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	18 years	8 years	10 years
Phase 2	2012	5 years	18 years	5 years	13 years
Phase 3	2014	3 years	18 years	3 years	15 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 18,000	2027	Full replacement.
Phase 2	$ 24,000	2030	Full replacement.
Phase 3	$ 24,000	2032	Full replacement.

Preventative Maintenance	Annual inspection by a qualified technician. Replace degraded anode rods if are installed. Drain several gallons from tank to remove sediment. Manually check operation of safety valve. Check operation of aqua stat. Check amperage draw of upper and lower elements. Clean and tighten element connections.
Remarks	None.

Pictures

Electric water heaters

Electric water heater

Reserve Component D20200301	Water storage	
Properties	Domestic hot water storage tanks	
Potential Deterioration	Typically, pitting corrosion occurs on the inner tank wall over time and may lead to water leakage. Failures of different parts (electronic controls, valves, etc.) do not lead to tank replacement and can be addressed separately.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	25 years	13 years	12 years
Phase 2	2012	5 years	25 years	10 years	15 years
Phase 3	2014	3 years	25 years	8 years	17 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 36,000	2034	Full replacement.
Phase 2	$ 36,000	2037	Full replacement.
Phase 3	$ 36,000	2039	Full replacement.
Preventative Maintenance	Annual inspection by a qualified technician.		
Remarks	None.		

Pictures

Hot water tanks

Hot water tanks

Reserve Component D30200101	Boilers				
Properties	Heating boilers at mechanical penthouses				
Potential Deterioration	Boiler interior components are prone to corrosion and other forms of deterioration due to the high temperatures and im purities in the water. Heat exchangers, tubes and pipes may also suffer cra cking, erosion or clogging due to deposits in the water accumulating over long periods of time. Vents may also corrode with the passage of moist air.				
Condition Analysis	**Deterioration**	None apparent.			
	Repair History	Not available.			
	Overall Condition	Good.			

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 90,000	2039	Full replacement.
Phase 2	$ 90,000	2042	Full replacement.
Phase 3	$ 90,000	2044	Full replacement.

Preventative Maintenance	Annual inspection by a qualified technician.
Remarks	None.

Pictures

Boilers

Boilers

Reserve Component D10100106	Plumbing system	
Properties	Booster pumps	
Potential Deterioration	Gradual wear of the booster pumps is natural. The frequency of breakdowns and the cost of maintenance increases over time. Common failures include seal leakage, as well as casting and shaft breakage due to bearing overload caused by vibration or imbalance.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	15 years	8 years	7 years
Phase 2	2012	5 years	15 years	5 years	10 years
Phase 3	2014	3 years	15 years	3 years	12 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 23,000	2024	Full replacement.
Phase 2	$ 23,000	2027	Full replacement.
Phase 3	$ 23,000	2029	Full replacement.

Preventative Maintenance	Annual service is typically performed by specialized personnel and may include checking for normal operation observing any vibration or abnormal sounds, lubrication pump bearings, thermal imaging looking for above average heat.
Remarks	None.

Pictures

Booster pumps

Booster pumps

Reserve Component D10100107	Plumbing system	
Properties	Circulation/recirculation pumps	
Potential Deterioration	The most common failures include pipe corrosion, water leakage at valves and connections and failures of circulation pumps.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	15 years	8 years	7 years
Phase 2	2012	5 years	15 years	5 years	10 years
Phase 3	2014	3 years	15 years	3 years	12 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 6,000	2024	Full replacement.
Phase 2	$ 6,000	2027	Full replacement.
Phase 3	$ 6,000	2029	Full replacement.
Preventative Maintenance	Annual inspection by a qualified technician.		
Remarks	None.		

Pictures

Reserve Component D10100201	Plumbing system	
Properties	Sanitary drainage system - piping, cleanouts, manholes	
Potential Deterioration	Fats, Oil, and Grease (FOGs) from kitchen sinks causes most drain lines to clog. Non-organic material can become imbedded or attached to the FOG build-up inside the pipes, causing further blockage and back-up problems. From 1985, plumbers began to use specially designed plastic PVC pipes.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 5,000	2025	Contingency every 7 years.
Phase 2	$ 5,000	2028	Contingency every 7 years.
Phase 3	$ 5,000	2031	Contingency every 7 years.

Preventative Maintenance	System should be routinely cleaned and repaired. Proper drainage can be checked by filling sinks and observing the speed at which the water drains. If sinks drain slowly, the trap underneath can usually be opened for cleaning. If toilets drain slowly, a plunger or snake can be used to clear the obstruction.
Remarks	None.

Pictures

Sanitary pipes


Sanitary pipes

Reserve Component D10100301	Plumbing system	
Properties	Storm water drainage system - drains, piping, catch basins, manholes	
Potential Deterioration	Catch basins and storm drains that become clogged due to accumulated debris and sediment or due to collapsing because of settlement, can cause flooding and safety issues.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 7,000	2024	Contingency every 7 years.
Phase 2	$ 7,000	2027	Contingency every 7 years.
Phase 3	$ 7,000	2030	Contingency every 7 years.

Preventative Maintenance	Visual inspections at regular intervals. Sump pumps should be annually inspected and may include: flushingand pumping out the pit, inspection and lubrication of motors, inspection of check valves.
Remarks	None.

Pictures

Catch basin

Drainage pipe

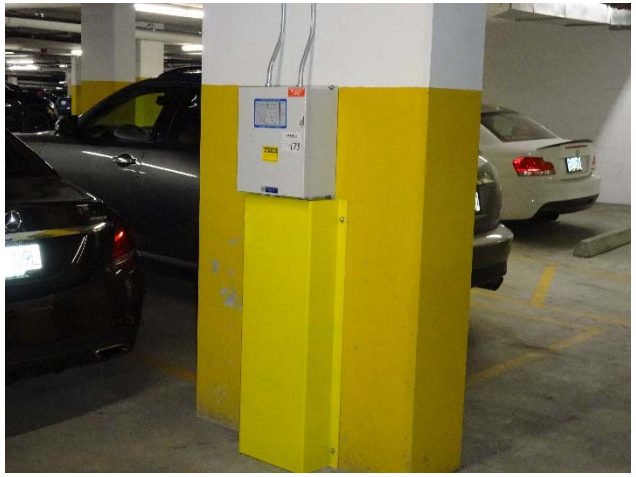
Reserve Component D10100302	Plumbing system	
Properties	Sump pumps	
Potential Deterioration	Because they work in a damp environment, sump pumps will gradually wear out over time and become less effective and more prone to failure. A common cause of sump pump failure is motor burn out, when the sump pump is being overworked. A failed motor bearing, cracks in the casing, debris in the impeller or a broken impeller can cause the casing to overheat. The float can get stuck due to debris in the sump basin.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	15 years	8 years	7 years
Phase 2	2012	5 years	15 years	5 years	10 years
Phase 3	2014	3 years	15 years	3 years	12 years

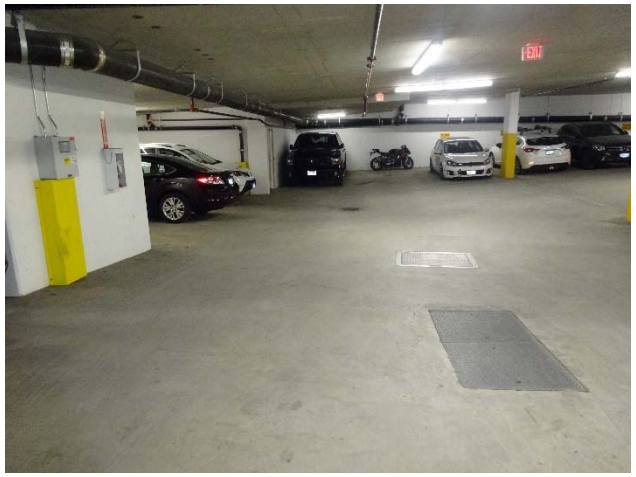
Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 8,000	2024	Full replacement.
Phase 2	$ 8,000	2027	Full replacement.
Phase 3	$ 8,000	2029	Full replacement.

Preventative Maintenance	It is recommended for the pump to be run every 2-3 months. Check the operation of the float to make sure it is not restricted. The pump, its check valve, activation switch and basin need to be cleaned as part of a regular maintenance program.
Remarks	None.

Pictures



Sump pump control panel



Sump containing submersible pumps

Reserve Component D40100201	Sprinkler systems	
Properties	Distribution piping, control valves, stanby pipes, air compressor	
Potential Deterioration	Corrosion or rust can weaken pipes and sprinkler heads and ultimately cause water release. Wet system pipes that are inadequately insulated can freeze and rupture during the winter months, rendering a sprinkler system inoperable and potentially causing severe damage once temperatures rises and pipes begin to thaw.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 10,000	2026	Contingency every 10 years.
Phase 2	$ 10,000	2029	Contingency every 10 years.
Phase 3	$ 10,000	2032	Contingency every 10 years.

Preventative Maintenance	Fire sprinkler systems are subject to very specific inspections, testing and maintenance requirements to help ensure that they will function properly when needed, and should be performed annually by licensed contractors. Conducting a thorough winterization inspection of a facility can help protect a Wet Pipe system from freezing.
Remarks	None.

Pictures

Sprinkler system – distribution piping and control valves

Sprinkler system - distribution piping and control valves

Reserve Component D30200501	Electric heating	
Properties	Electric baseboard heaters	
Potential Deterioration	Dust and debris can prevent electric baseboard heaters from working optimally, and in some cases will cause soot, smoke and the smell of burning. Loose wire connections, faulty thermostats, or other electrical faults in the systems may impair their functionality.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	30 years	8 years	22 years
Phase 2	2012	5 years	30 years	5 years	25 years
Phase 3	2014	3 years	30 years	3 years	27 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 13,000	2039	Full replacement.
Phase 2	$ 13,000	2042	Full replacement.
Phase 3	$ 13,000	2044	Full replacement.

Preventative Maintenance	Vacuum the fins or vents once a year prior to the heating season. Electric baseboards with corroded, overheated connections or burnt-out elements should be replaced. Repair/replace faulty thermostats as needed.
Remarks	None.

Pictures

Electric baseboard heater on corridor

Electric baseboard heater in exercise room

Reserve Component D30400201	Exhaust and ventilating system	
Properties	Make up air unit	
Potential Deterioration	Common issues with the make-up air unit may include: malfunctioning of the blower motor, failing ignition, tripped pressure switches, broken belt, control malfunctioning.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	25 years	8 years	17 years
Phase 2	2012	5 years	25 years	5 years	20 years
Phase 3	2014	3 years	25 years	3 years	22 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 30,000	2034	Full replacement.
Phase 2	$ 30,000	2037	Full replacement.
Phase 3	$ 30,000	2039	Full replacement.

Preventative Maintenance	Annual maintenance is provided by specialized personnel and should include: checking fan blades and dumpers for dirt accumulation and cleaning if necessary, checking fan bearing collar set screws for tightness, checking damper actuators for proper operation, checking belts for wear and adjusting tension or alignment, lubrication of bearings, checking and adjusting controls.
Remarks	None.

Pictures

Make up air unit

Make up air unit

Reserve Component D30100202	HVAC systems in storage/service rooms	
Properties	Exhaust fans in service/storage rooms	
Potential Deterioration	Typically, the malfunctioning and failures are caused by dirt accumulation. Over time, the exhaust fan may experience electrical motor breakdowns, or loose or defective components.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	25 years	8 years	17 years
Phase 2	2012	5 years	25 years	5 years	20 years
Phase 3	2014	3 years	25 years	3 years	22 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 10,000	2034	Full replacement.
Phase 2	$ 10,000	2037	Full replacement.
Phase 3	$ 10,000	2039	Full replacement.

Preventative Maintenance	Check cleanliness of the fan, switch operation. Repair as required. Check fan belt tension, wear and alignment. Replace if necessary to ensure proper operation. Check and adjust the controls.
Remarks	None.

Pictures

Exhaust fan in service room

Exhaust fan in storage room

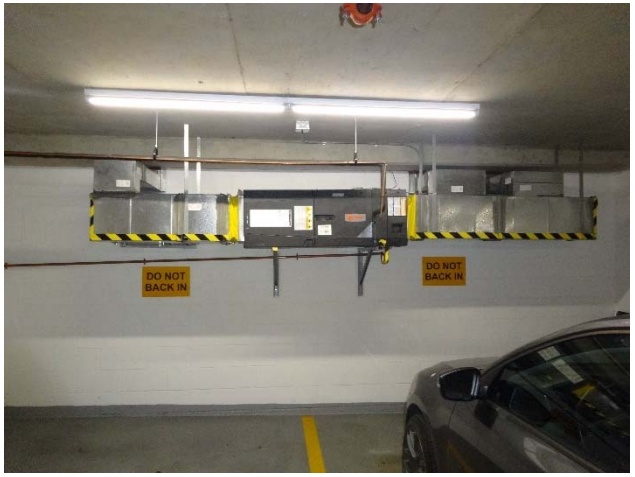
Reserve Component D30100201	HVAC systems in parkade area	
Properties	Exhaust fans, transfer air units, in parkade areas	
Potential Deterioration	Typically, the malfunctioning and failures are caused by dirt accumulation. Over time, the exhaust fan may experience electrical motor breakdowns, or loose or defective components.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	25 years	8 years	17 years
Phase 2	2012	5 years	25 years	5 years	20 years
Phase 3	2014	3 years	25 years	3 years	22 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 20,000	2034	Full replacement.
Phase 2	$ 20,000	2037	Full replacement.
Phase 3	$ 20,000	2037	Full replacement.

Preventative Maintenance	Annual maintenance may include: checking blades for dust buildup and clean if necessary, checking fan RPM to design specifications, checking belt tension, wear and alignment, bearing collar set screws to make sure that they are tight, lubricate fan bearings and motor. Measure motor amperage using a C clamp amprobe. Increased current flow may indicate that bearings are seizing.
Remarks	None.

Pictures



Transfer air unit


Exhaust fan in parkade

Reserve Component D40100101	Air conditioning systems	
Properties	A/C systems serving High Voltage rooms	
Potential Deterioration	As the system ages, the frequency of breakdowns and the cost of maintenance increases. Typical issues may include: failures of electrical motor, failures of compressor, leaking refrigerant, frozen coil due to dirt accumulation.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	20 years	8 years	12 years
Phase 2	2012	5 years	20 years	5 years	15 years
Phase 3	2014	3 years	20 years	3 years	17 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 35,000	2029	Full replacement.
Phase 2	$ 35,000	2032	Full replacement.
Phase 3	$ 35,000	2034	Full replacement.

Preventative Maintenance	Annual maintenance tasks may include: adjusting refrigerant charge, checking fan motor and compressor operation, checking controls, checking for excessive noise and vibration, inspection/replacement of air filters.
Remarks	None.

Pictures

A/C fans in High Voltage room

A/C fans in High Voltage room

Reserve Component E10100102	Interior lighting fixtures	
Properties	Light fixtures in parkade area and service/storage rooms	
Potential Deterioration	Lighting in parkade areas and service/storage rooms is generally replaced based on energy saving considerations or for better illumination. Over time the corrosion may occur on the casing.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 3,000	2024	Contingency every 7 years.
Phase 2	$ 3,000	2027	Contingency every 7 years.
Phase 3	$ 3,000	2030	Contingency every 7 years.

Preventative Maintenance	Maintenance service should be performed annually and typically include: removing of old lamps and cleaning the fixtures, inspecting wiring, contacts, terminals and sockets, installation of new lamps, putting back into service and testing the operation.
Remarks	None.

Pictures

Light fixture in parkade

Light fixture in service room

Reserve Component E10100201	Exterior lighting fixtures	
Properties	Light fixtures on building facades	
Potential Deterioration	Wall and soffit lighting is generally replaced based on aesthetic and energy saving considerations and/or for better illumination of the areas served. Over time the corrosion may occur on the casing or discoloring and yellowing may occur on the lens.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 6,000	2024	Contingency every 7 years.
Phase 2	$ 6,000	2027	Contingency every 7 years.
Phase 3	$ 6,000	2030	Contingency every 7 years.

Preventative Maintenance	Maintenance service should be performed annually and typically include: removing of old lamps and cleaning the fixtures, inspecting wiring, contacts, terminals and sockets, installation of new lamps, putting back into service and testing the operation.
Remarks	None.

Pictures

Light fixture on building facade

Light fixture on balcony

Reserve Component G20300101	Pedestrian plaza around buildings at ground floor	
Properties	Concrete unit pavers	
Potential Deterioration	Prolonged wear and tear as well as settlement may cause cracking, faulting, spalling, rutting, depressions, distorsions, etc.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 25,000	2024	Contingency every 7 years.
Phase 2	$ 10,000	2027	Contingency every 7 years.
Phase 3	$ 25,000	2030	Contingency every 7 years.
Preventative Maintenance	Inspect every two years, repair as needed.		
Remarks	None.		

Pictures

Concrete unit pavers on pedestrian plaza around buildings


Concrete unit pavers on pedestrian plaza around buildings

Reserve Component G20300105	Pedestrian walkways and stairs on roof top garden	
Properties	Cast in place concrete	
Potential Deterioration	Over time, settlement, and freeze-thaw cycles may lead to cracks and spalling. Also, salt or other de-icing products used for ice control in the winter may adversely affect the surface of the concrete.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

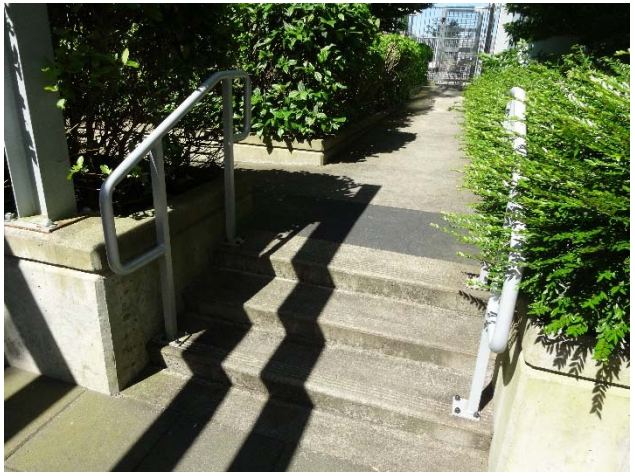
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 5,000	2024	Contingency every 7 years.
Phase 2	$ 5,000	2027	Contingency every 7 years.
Phase 3	$ 5,000	2030	Contingency every 7 years.

Preventative Maintenance	Stresses producing minor defects are constantly at work. Early detection and repair (patching, crack sealing, etc.) of minor defects is essential before they deteriorate into pavement failures requiring major repair expenditures.
Remarks	None.

Pictures

Pedestrian walkway on roof top garden



Concrete stairs

Reserve Component G20300103	Pedestrian walkway on roof top garden	
Properties	Concrete unit pavers	
Potential Deterioration	Prolonged wear and tear as well as settlement may cause cracks, spalling, faulting, depressions, distortions, etc. Faulty and loose units may pose tripping hazard.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

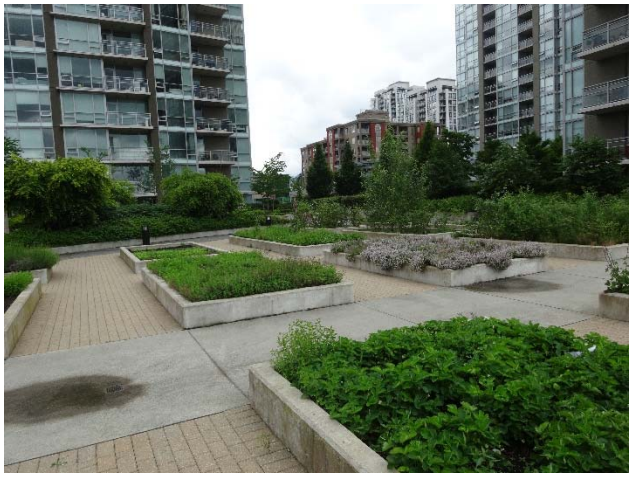
Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 3,000	2024	Contingency every 7 years.
Phase 2	$ 3,000	2027	Contingency every 7 years.
Phase 3	$ 3,000	2030	Contingency every 7 years.

Preventative Maintenance	Inspect every two years, repair as needed. Should some areas settle excessively, lift out the pavers in the low area and add sand to level the area out. Replace the broken units.
Remarks	None.

Pictures

Pedestrian walkway on roof top garden



Pedestrian walkway on roof top garden

Reserve Component G20100204	Exterior paving at parking entrance and loading bay	
Properties	Concrete paving	
Potential Deterioration	Failure of the concrete pavement such as: cracking, faulting, mud pumping, polished aggregate, etc. may occur over time due to repeat traffic, moisture (with its associated freeze/thaw cycles), as well as settlement of the underlayment.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 2,000	2024	Contingency every 7 years.
Phase 2	$ 2,000	2027	Contingency every 7 years.
Phase 3	$ 2,000	2030	Contingency every 7 years.

Preventative Maintenance	Stresses producing minor defects are constantly at work. Early detection and repair (patching, crack sealing, etc.) of minor defects is essential before they deteriorate into pavement failures requiring major repair expenditures.
Remarks	None.

Pictures

Concrete pavement in front of garage entrance

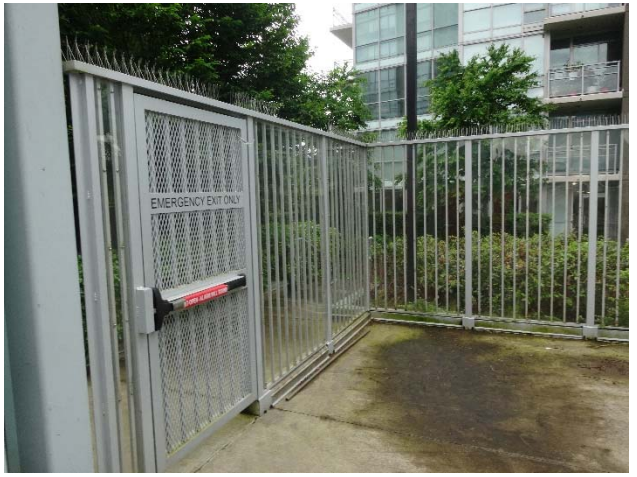
Reserve Component G20400101	Fencing	
Properties	Metal fence with gates	
Potential Deterioration	Settlement and mechanical impacts may lead to leaning, broken posts, or detachment..	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	50 years	8 years	42 years
Phase 2	2012	5 years	50 years	5 years	45 years
Phase 3	2014	3 years	50 years	3 years	47 years

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 0		
Phase 2	$ 0		
Phase 3	$ 0		

Preventative Maintenance	Periodically inspect fasteners, gate locks, hinges. Check posts for stability, soil erosion, etc. Repair/replace as needed.
Remarks	None.

Pictures



Metal fence with gate

Metal fence

Reserve Component G20400113	Exterior railings	
Properties	Prefinished aluminum with glass inserts	
Potential Deterioration	Fasteners on metal railings may become loose over time, leading to detachment.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 3,000	2024	Contingency every 7 years.
Phase 2	$ 3,000	2027	Contingency every 7 years.
Phase 3	$ 3,000	2030	Contingency every 7 years.

Preventative Maintenance	Periodically inspect fasteners. Check posts for stability, etc. Repair/replace as needed.
Remarks	None.

Pictures

Exterior railings

Exterior railings

Reserve Component G40200101	Site lighting	
Properties	External lighting	
Potential Deterioration	Site lighting is generally replaced based on aesthetic and energy saving considerations and/or for better illumination of the areas served. Over time the corrosion may occur on the casing or discoloring and yellowing may occur on the lens.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 2,000	2024	Contingency every 7 years.
Phase 2	$ 2,000	2027	Contingency every 7 years.
Phase 3	$ 2,000	2030	Contingency every 7 years.

Preventative Maintenance	Maintenance service should be performed annually and typically include: removing of old lamps and cleaning the fixtures, inspecting wiring, contacts, terminals and sockets, installation of new lamps, putting back into service and testing the operation.
Remarks	None.

Pictures

Post mounted light fixture

Light fixture on column

Reserve Component G20500501	Landscaping	
Properties	Plants, shrubs, trees, lawns, benches, planters	
Potential Deterioration	Due to vegetative growth, the landscaping should be periodically redesigned to integrate resource efficiency, site functionality, and aesthetics. Wooden installations may be prone to rot and distortion due to weathering. Irrigation systems and pumps for the pool may fail due to wear.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 3,000	2024	Contingency every 7 years.
Phase 2	$ 3,000	2027	Contingency every 7 years.
Phase 3	$ 3,000	2030	Contingency every 7 years.

Preventative Maintenance	Plants will need regular pruning and maintenance. Mechanical equipment such as pumps and irrigation systems will need regular servicing.
Remarks	The budget for Lanscaping is split with Residential Section.

Pictures

Landscaping

Landscaping

Reserve Component G20400601	Water features	
Properties	Aesthetic founatins - architectural components	
Potential Deterioration	Lack of maintenance not only leads to unsightly aesthetics in the form of biological growth or deterioration of the façade (efflorescence, spalling, or bubbling of coatings), but also it can lead to structural deterioration of the water feature itself or adjacent areas of the property or structure.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Building life	8 years	Building life
Phase 2	2012	5 years	Building life	5 years	Building life
Phase 3	2014	3 years	Building life	3 years	Building life

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 10,000	2027	Contingency every 10 years.
Phase 2	$ 10,000	2030	Contingency every 10 years.
Phase 3	$ 10,000	2033	Contingency every 10 years.

Preventative Maintenance	Maintenance service should be performed semi annually, and typically includes: draining of the fountain, cleaning scale from heads, cleaning of overflows and strainers. Repair any damaged water feature architectural components.
Remarks	None.

Pictures

Water features

Water features

Reserve Component G20400602	Mechanical equipment for water features	
Properties	Pumps, piping, valves	
Potential Deterioration	Components may fail from various causes. Water leaks may occur over time from broken pipes and valves. Pumps and hoses will wear out over time requiring replacement.	
Condition Analysis	**Deterioration**	None apparent.
	Repair History	Not available.
	Overall Condition	Good.

Life Cycle Analysis	DOI	CA	EUL	EA	RUL
Phase 1	2009	8 years	Contingency	8 years	Contingency
Phase 2	2012	5 years	Contingency	5 years	Contingency
Phase 3	2014	3 years	Contingency	3 years	Contingency

Cost Analysis	Current Cost	Starting Year	Funding Method
Phase 1	$ 4,000	2022	Contingency every 7 years.
Phase 2	$ 4,000	2025	Contingency every 7 years.
Phase 3	$ 4,000	2028	Contingency every 7 years.

Preventative Maintenance	Maintenance service should be performed semi annually, and typically includes: draining of the fountain. Some other maintenance operations include also: filter cleaning and repairs, inspection of pumps and piping. Special procedures at seasonal opening and closing should be followed.
Remarks	None.

Pictures

Water feature pumps


Water feature heaters

Appendix C – Assumptions and Qualifications

Preamble

This report is subject to the assumptions and qualifications outlined below and otherwise set out elsewhere in this report. Use of this report by any reader constitutes acceptance of these assumptions, qualification and the conditions outlined below and elsewhere in this report. The acceptance of this report also constitutes acceptance of responsibility for payment of the fee balance and any due costs to Strata Engineering.

Common Property Conditions

The determination of the physical condition of the common properties is solely based on a visual review of a representative sampling of all common properties in readily accessible locations after discussion with Strata Corporation representatives and a review of documentation provided by the Strata Corporation. No invasive testing or excavations were carried out on the site for the purposes of this report. Similarly, none of the equipment is disassembled, operated or subjected to any sort of functional testing. The physical inspection does not constitute a "technical audit" since extensive, comprehensive testing was not included in the scope of work.

Building Codes

The visual reviews were not conducted to determine whether common property construction meets or exceeds building code requirements and thus this depreciation report is exempt from all recommendations regarding build code requirements.

Cost Estimation for Common Properties

All cost estimates are performed in future year dollars. The estimates presented are solely intended for budgetary or planning purposes and not accounting for tender use. Actual costs will vary depending on a variety of factors. Most importantly, the estimates assume economies of scale and small operations will incur higher costs when performed individually. Miscellaneous costs such as consulting services and certain contingency allowances unrelated to building components are not included in the budget estimates. Cost estimates for actual projects should be developed in greater detail, accounting for owner contingency, permit fees, engineering fees etc. Construction costs may fluctuate, varying based on the time of year, contractor availability and other factors. These cost estimates must be updated over time and confirmed by competitive tender before any contracts are awarded. The cost estimates do not include allowances for site-specific access requirements or environmental concerns. Generally, replacement costs are based on like-for-like with a similar component except in face of building code modifications or external obsolescence.

Remaining Useful Life of Common Properties

Determination of the remaining useful life is based on the condition of the common properties assessed through a visual review and on the average lifespan of the same component by industry standards, Poor maintenance, insurable losses such as earthquakes, fires and floods can shorten the life of an asset. These unforeseen events are not accounted for in our calculation

Funding Models

The funding models for this depreciation report are calculated based on a 30-year horizon, beginning within the current year. A report performed in 2013 projects funding until 2043. The projected period is stationary and does not shift. Hence, in year 1, 2014, the projections will be valid for 29 years. The funding projections does not extend past 30 years and accuracy is only estimated by a +/- 30% error within the prescribed period of 30 years. Renewals and major maintenance projects occurring beyond the 30-year projection time frame are not considered in the given funding models.

Services Not Included

The agreed compensation for services rendered in preparing this report does not include fees for follow-up consultations and/or attendances to arbitrations or mediations, other than those outlined at the time of the acceptance of the given quote. Additional fees will have to be negotiated if personal appearances are required in connection with this report after its acceptance.

Services Included

Limited consulting or clarification regarding the content of this report or requested modifications shall be provided at no additional charge within one year of the completion of the draft report. Attendance of a final meeting with the strata council to clarify ramifications and concerns regarding the report will also be provided at no extra charge.

Currency

Unless otherwise noted, all estimates are expressed in Canadian currency.

Report Distribution, Third Party Liability

This report is intended sole and exclusive use of the Strata Corporation. Possession of a copy of the report shall not authorize use of the report for any purpose other than that noted in the agreement and/or report. This report shall not be distributed or communicated to unauthorized third parties in whole or in part without prior written consent of representative of the client as noted herein. Any liability, if any, of Strata Engineering is limited to the Strata Corporation only. Notwithstanding anything herein to the contrary, the Strata Corporation will forever indemnify and hold Strata Engineering along with its employees harmless from any claims by third parties related in any way to this report.

Information Provided by Third Parties

This report, its analysis and conclusions required information from various sources. Such information was believed to be reasonably reliable, accurate, and true. Strata Engineering shall not be responsible for the accuracy of any information used in this report that has been obtained from any source. No independent verification of factual data presented to Strata Engineering has been undertaken by Strata Engineering.

Modifications

Strata Engineering reserves the right at any time to alter statements, analyses, conclusions or value estimates, if additional facts pertinent to this report are discovered at any time. Strata Engineering is not responsible for any unauthorized alterations or distributions to the report. The report must not be abstracted and must be used in its entirety.

Measurements and Exhibits

The sketches, maps and photographs in the report are included solely for the purpose of assisting the reader in visualizing the assets and may not be to scale. All components assessed herein are assumed to be completed according to the architectural, structural, mechanical, electrical plans provided, unless otherwise noted. Any variation in land or building areas from those considered in the depreciation report may alter the estimates and in turn, the required funding. No legal survey, soil tests, engineering investigations, detailed quantity survey compilations, nor exhaustive physical examinations have been made. Accordingly, no responsibility is assumed concerning these matters or other technical and engineering techniques, which would be required to discover any inherent or hidden condition of the property.

Legal Concerns

The author is highly qualified in matters concerning the depreciation report itself but otherwise not qualified in legal affairs and does not purport to give legal advice. It is assumed that:

1) The legal description as well as the registered survey as stated herein is that which is recorded by the Registrar of the requisite Land Titles Office and are assumed correct;
2) Title to the property is good and marketable; and
3) Rights-of-way, easements or encroachments over other real property, are legally enforceable.

The distribution of cost and other estimates in this report apply only under the programme of utilization as identified in this report. The estimates herein must not be used in conjunction with any other forms of valuation or depreciation reports and may be invalid if so used.

The report is based, unless otherwise stated, on there being full compliance with all applicable federal, provincial and local environmental regulations, laws and restrictions.

Moreover, it is assumed that all required permits have been or can be obtained or renewed for any use considered herein. It is also assumed that the subject property is maintained and managed pursuant to prudent and competent ownership and management.

Environmental Concerns

Strata Engineering personnel are not qualified in aspects of surveying and environmental assessment. Unless otherwise stated in the report, it is assumed that the subject assets are not affected in any way by any adverse environmental conditions. Strata Engineering personnel are not qualified to detect potentially hazardous materials and/or substances which may adversely affect the value of the property. Hence, Strata Engineering shall not be held responsible for past or present, legal or physical deficiencies that may be found.

Furthermore, Strata Engineering personnel are not qualified to comment on environmental issues that may affect the market value of the property. These environmental issues include but are not limited to, the pollution or contamination of land, buildings, water, groundwater or air. Unless expressly stated, the property is assumed to be free and clear of pollutants and contaminants including, but not limited to, moulds or mildews or the conditions that might give rise to either. Strata Engineering and its assignees expressly deny any legal liability relating to the effect of environmental issues on the market value of the property assessed.

Physical Concerns

Strata Engineering shall not be held responsible for any costs incurred to investigate or correct any deficiencies of any type, which may be present in the real estate and/or real property described herein. It is assumed that there are no patent or latent defects in the subject improvements, that no objectionable materials are present and that the improvements are structurally, mechanically and electrically adequate and in need of no immediate repairs unless expressly noted within this report.

Appendix D – Replacement Schedule

The following table notes the recommended years of replacement for each component over the 30-year period. Please note that the years listed below may differ from the replacement years in Appendix B in order to optimize the financial models. The costs listed are the future replacement costs as determined by the inflation rates noted in Section 2.3.1.

Component	Current Cost	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Phase 1																																
Underground parkade structure	$10,000	-	$ 10,260	-	-	-	-	$ 11,665	-	-	-	-	$ 13,262	-	-	-	-	$ 15,078	-	-	-	-	$ 17,143	-	-	-	-	$ 19,491	-	-	-	-	-
Waterproofing membrane	$1,929,750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 3,859,045	-	-	-
Roofing	$185,370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 290,870	-	-	-	-	-	-	-	-
Parapets on roof and roof terraces	$5,000	-	$ 5,130	-	-	-	-	$ 5,832	-	-	-	-	$ 6,631	-	-	-	-	$ 7,539	-	-	-	-	$ 8,572	-	-	-	-	$ 9,745	-	-	-	-	-
Connected Structures	$3,000	-	-	$ 3,158	-	-	-	-	$ 3,590	-	-	-	-	$ 4,082	-	-	-	-	$ 4,641	-	-	-	$ 5,277	-	-	-	-	-	$ 5,999	-	-	-	-
Connected Structures	$3,000	-	$ 3,078	-	-	-	-	-	-	$ 3,684	-	-	-	-	-	-	$ 4,409	-	-	-	-	-	$ 5,277	-	-	-	-	-	-	-	$ 6,315	-	-
Divider walls on patios and roof terraces	$5,000	-	-	-	-	-	-	-	$ 5,984	-	-	-	-	-	-	$ 7,162	-	-	-	-	-	-	$ 8,572	-	-	-	-	-	-	$ 10,259	-	-	-
Exterior windows	$6,500	-	-	-	-	-	-	-	-	-	-	$ 8,402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior windows	$7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 9,773	-	-	-	-	-	-	$ 11,696	-	-	-	-	-	-	$ 13,998	-	-	-	-
Caulking	$20,000	-	-	$ 21,054	-	-	-	-	-	-	-	-	-	$ 27,214	-	-	-	-	-	-	-	-	-	$ 35,178	-	-	-	-	-	-	-	-	-
Cladding	$7,000	-	-	-	-	-	-	-	$ 8,378	-	-	-	-	-	-	$ 10,027	-	-	-	-	-	-	$ 12,000	-	-	-	-	-	-	$ 14,362	-	-	-
Cladding	$5,000	-	-	$ 5,263	-	-	-	-	-	-	$ 6,299	-	-	-	-	-	-	$ 7,539	-	-	-	$ 8,354	-	-	-	-	$ 9,023	-	$ 9,999	-	-	-	$ 10,799
Exterior painting	$120,000	-	-	$ 126,321	-	-	-	-	-	-	-	-	-	$ 163,286	-	-	-	-	-	-	-	-	-	$ 211,068	-	-	-	-	-	-	-	-	-
Balcony flooring	$474,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 714,720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Balcony railings	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 14,696	-	-	-	-	-	-	$ 17,589	-	-	-	-	-	-	-	$ 21,051	-
Patio and terraces flooring	$7,000	-	-	-	-	-	-	-	-	-	-	$ 9,048	-	-	-	-	-	-	$ 10,829	-	-	-	-	-	-	$ 12,961	-	-	-	-	-	-	-	-
Patio and terraces doors - sliding	$68,750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 133,484	-	-	-	-
Patio and terraces doors - swinging	$249,640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 499,221	-	-	-	-
Egress doors	$7,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 12,664	-	-	-	-	-	-	-	-	-
Garage doors	$18,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 31,660	-	-	-	-	-	-	-	-	-
Main entrance doors	$5,425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 9,542	-	-	-	-	-	-	-	-	-
Main entrance doors at commercial units	$54,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 95,684	-	-	-	-	-	-	-	-	-
Service doors in parking areas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit entry doors	$258,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 453,797	-	-	-	-	-	-	-	-	-
Electrical power service - high voltage substation	$7,000	-	-	-	$ 7,560	-	-	-	-	$ 8,596	-	-	-	-	$ 9,773	-	-	-	-	$ 11,111	-	-	-	-	-	$ 12,632	-	-	-	$ 14,362	-	-	-
Electrical distribution equipment and cabling/wiring	$5,000	-	-	-	$ 5,400	-	-	$ 5,832	-	-	-	-	$ 6,631	-	-	-	-	$ 7,539	-	-	-	-	$ 8,572	-	-	-	-	$ 9,745	-	-	-	-	-
Emergency generator	$125,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 249,970	-	-	-	-
Access control systems	$30,000	-	-	-	-	-	-	-	$ 35,905	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 52,767	-	-	-	-	-	-	-	-	-
Fire Protection and Security Systems	$120,000	-	-	-	-	$ 132,975	-	-	-	-	-	-	-	-	-	$ 171,888	-	-	-	-	-	-	-	-	-	$ 222,187	-	-	-	-	-	-	-
Fire Protection and Security Systems	$10,000	-	-	-	-	$ 11,081	-	-	-	-	-	-	-	-	-	$ 14,324	-	-	-	-	-	-	-	-	-	$ 18,516	-	-	-	-	-	-	-
Fire Protection and Security Systems	$75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 131,918	-	-	-	-	-	-	-	-	-
Water distribution	$15,000	-	-	-	-	-	-	-	$ 17,952	-	-	-	-	$ 20,411	-	-	-	-	$ 23,206	-	-	-	-	$ 26,384	-	-	-	-	$ 29,996	-	-	-	-
Domestic water heaters	$18,000	-	-	-	-	-	-	-	-	-	-	$ 23,267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 36,932	-	-
Water storage	$36,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 55,694	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boilers	$90,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 158,301	-	-	-	-	-	-	-	-	-
Plumbing system - booster pumps	$23,000	-	-	-	-	-	-	-	$ 27,527	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 40,455	-	-	-	-	-	-	-	-	-
Plumbing system - circulation pumps	$6,000	-	-	-	-	-	-	-	$ 7,181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 10,553	-	-	-	-	-	-	-	-	-
Sanitary drainage system	$5,000	-	-	-	-	-	-	-	-	$ 6,140	-	-	-	-	-	-	$ 7,348	-	-	-	-	-	-	$ 8,995	-	-	-	-	-	-	$ 10,526	-	-
Storm water drainage system	$7,000	-	-	-	-	-	-	-	$ 8,378	-	-	-	-	-	-	$ 10,027	-	-	-	-	-	-	$ 12,000	-	-	-	-	-	-	$ 14,362	-	-	-
Sump pumps	$8,000	-	-	-	-	-	-	-	$ 9,575	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 14,071	-	-	-	-	-	-	-	-	-
Sprinkler systems	$10,000	-	-	-	-	-	-	-	-	-	$ 12,599	-	-	-	-	-	-	-	-	-	$ 16,285	-	-	-	-	-	-	-	-	-	-	$ 21,051	-
Electric heating	$13,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 22,866	-	-	-	-	-	-	-	-	-
Exhaust and ventilating system	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 46,412	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HVAC systems in service/storage rooms	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 15,471	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HVAC systems in parkade areas	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 30,941	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A/C serving High Voltage room	$35,000	-	-	-	-	-	-	-	-	-	-	-	-	$ 47,625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior lighting fixtures	$3,000	-	-	-	-	-	-	-	$ 3,590	-	-	-	-	-	-	$ 4,297	-	-	-	-	-	-	$ 5,143	-	-	-	-	-	-	$ 6,155	-	-	-
Exterior lighting fixtures	$6,000	-	-	-	-	-	-	-	$ 7,181	-	-	-	-	-	-	$ 8,596	-	-	-	-	-	-	$ 10,286	-	-	-	-	-	-	$ 12,311	-	-	-
Pedestrian plaza around buildings at ground floor	$25,000	-	-	-	-	-	-	-	$ 29,921	-	-	-	-	-	-	$ 35,810	-	-	-	-	-	-	$ 42,858	-	-	-	-	-	-	$ 51,294	-	-	-
Pedestrian walkways and stairs on roof top garden	$5,000	-	-	-	-	-	-	-	$ 5,984	-	-	-	-	-	-	$ 7,162	-	-	-	-	-	-	$ 8,572	-	-	-	-	-	-	$ 10,259	-	-	-
Pedestrian walkway on roof top garden	$3,000	-	-	-	-	-	-	-	$ 3,590	-	-	-	-	-	-	$ 4,297	-	-	-	-	-	-	$ 5,143	-	-	-	-	-	-	$ 6,155	-	-	-
Exterior paving at parking entrance and loading bay	$2,000	-	-	-	-	-	-	-	$ 2,394	-	-	-	-	-	-	$ 2,865	-	-	-	-	-	-	$ 3,429	-	-	-	-	-	-	$ 4,104	-	-	-
Fencing		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior railings	$3,000	-	-	-	-	-	-	-	$ 3,590	-	-	-	-	-	-	$ 4,297	-	-	-	-	-	-	$ 5,143	-	-	-	-	-	-	$ 6,155	-	-	-
Site lighting	$2,000	-	-	-	-	-	-	-	$ 2,394	-	-	-	-	-	-	$ 2,865	-	-	-	-	-	-	$ 3,429	-	-	-	-	-	-	$ 4,104	-	-	-
Landscaping	$3,000	-	-	-	-	-	-	-	$ 3,590	-	-	-	-	-	-	$ 4,297	-	-	-	-	-	-	$ 5,143	-	-	-	-	-	-	$ 6,155	-	-	-
Water features	$10,000	-	-	-	-	-	-	-	-	-	-	$ 12,926	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 16,709	-	-	-	-	-	$ 21,598
Mechanical equipment for water feature	$4,000	-	-	-	-	-	$ 4,548	-	-	-	-	-	-	$ 5,443	-	-	-	-	-	-	-	$ 6,514	-	-	-	-	-	$ 7,796	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Underground parkade structure	$10,000	-	$ 10,260	-	-	-	-	$ 11,665	-	-	-	-	$ 13,262	-	-	-	-	$ 15,078	-	-	-	-	$ 17,143	-	-	-	-	$ 19,491	-	-	-	-	-
Waterproofing membrane	$1,660,350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 3,586,084
Roofing systems	$85,328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 103,237	-	-	-	-	-	-
Parapets on roof and roof terraces	$7,000	-	$ 7,182	-	-	-	-	-	$ 8,165	-	-	-	-	$ 9,284	-	-	-	-	$ 10,555	-	-	-	-	$ 12,000	-	-	-	-	$ 13,644	-	-	-	-
Connected Structures	$3,000	-	-	-	-	-	$ 3,411	-	-	-	-	$ 3,878	-	-	-	-	$ 4,409	-	-	-	-	$ 5,013	-	-	-	$ 5,699	-	-	-	-	-	$ 6,480	-
Connected Structures	$3,000	-	$ 3,078	-	-	-	-	-	-	$ 3,684	-	-	-	-	-	-	$ 4,409	-	-	-	-	-	$ 5,277	-	-	-	-	-	-	-	$ 6,315	-	-
Divider walls on patios and roof terraces	$5,000	-	-	-	-	-	-	-	$ 5,984	-	-	-	-	-	-	$ 7,162	-	-	-	-	-	-	$ 8,572	-	-	-	-	-	-	$ 10,259	-	-	-
Exterior windows	$7,000	-	-	-	-	-	-	-	-	-	-	-	-	$ 9,525	-	-	-	-	-	-	$ 11,400	-	-	-	-	-	-	$ 13,644	-	-	-	-	-
Exterior windows	$4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 5,879	-	-	-	-	-	-	$ 7,036	-	-	-	-	-	-	-	$ 8,420	-
Caulking	$20,000	-	-	-	-	-	$ 22,739	-	-	-	-	-	-	-	-	-	$ 29,393	-	-	-	-	-	-	-	-	-	$ 37,994	-	-	-	-	-	-	-
Cladding	$7,000	-	-	-	-	-	-	-	$ 8,378	-	-	-	-	-	-	$ 10,027	-	-	-	-	-	-	$ 12,000	-	-	-	-	-	-	$ 14,362	-	-	-	-
Cladding	$7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 12,632	-	-	-	-	-	-	$ 15,119
Cladding	$5,000	-	-	-	-	-	$ 5,685	-	-	-	-	-	-	$ 6,804	-	-	-	-	-	-	$ 8,143	-	-	-	-	-	-	$ 9,745	-	-	-	-	-
Exterior painting	$120,000	-	-	-	-	-	$ 136,433	-	-	-	-	-	-	-	-	-	$ 176,357	-	-	-	-	-	-	-	-	-	-	$ 227,963	-	-	-	-	-
Balcony flooring	$681,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 1,109,039	-	-	-	-	-	-	-	-	-	-	-	-
Balcony railings	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 15,873	-	-	-	-	-	-	$ 18,997	-	-	-	-	-	-
Patio and terraces flooring	$7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 9,773	-	-	-	-	-	-	$ 11,696	-	-	-	-	-	-	$ 13,998	-	-	-	-	-
Patio and terraces doors - sliding	$84,550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 182,614
Patio and terraces doors - swinging	$358,660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 774,647
Egress doors	$3,600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 6,839	-	-	-	-	-	-
Garage doors	$12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 22,796	-	-	-	-	-	-
Main entrance doors	$5,425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 10,306	-	-	-	-	-	-
Main entrance doors at commercial units	$22,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 42,553	-	-	-	-	-	-
Service doors in parking areas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit entry doors	$337,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 602,204	-	-	-	-	-	-
Electrical distribution - high voltage substation	$2,000	-	-	-	$ 2,160	-	-	-	-	$ 2,456	-	-	-	-	$ 2,792	-	-	-	-	$ 3,175	-	-	-	-	-	$ 3,609	-	-	-	$ 4,104	-	-	-
Electrical distribution - equipment and cabling/wiring	$2,000	-	-	-	$ 2,160	-	-	$ 2,333	-	-	$ 2,520	-	-	$ 2,721	-	-	$ 2,939	-	-	$ 3,175	-	-	$ 3,429	-	-	$ 3,703	-	-	$ 4,000	-	-	$ 4,320	-
Emergency generator	$125,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 269,980
Access control systems (major update)	$30,000	-	-	-	-	-	-	-	-	-	-	$ 38,779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 56,991	-	-	-	-	-	-
Fire Protection and Security Systems	$120,000	-	-	-	-	-	-	-	$ 143,619	-	-	-	-	-	-	-	-	-	$ 185,646	-	-	-	-	-	-	-	-	-	$ 239,972	-	-	-	-
Fire Protection and Security Systems	$10,000	-	-	-	-	-	-	-	$ 11,968	-	-	-	-	-	-	-	-	-	$ 15,471	-	-	-	-	-	-	-	-	-	$ 19,998	-	-	-	-
Fire Protection and Security Systems	$75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 142,477	-	-	-	-	-	-
Water distribution	$15,000	-	-	-	-	-	-	-	-	-	-	$ 19,389	-	-	-	-	$ 22,045	-	-	-	-	$ 25,063	-	-	-	-	$ 28,495	-	-	-	-	-	$ 32,398
Domestic water heaters	$24,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 33,506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water storage	$36,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 60,152	-	-	-	-	-	-	-	-	-	-	-
Boilers	$90,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 170,973	-	-	-	-	-	-
Plumbing system - booster pumps	$23,000	-	-	-	-	-	-	-	-	-	-	$ 29,730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 43,693	-	-	-	-	-	-
Plumbing system - circulation pumps	$6,000	-	-	-	-	-	-	-	-	-	-	$ 7,756	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 11,398	-	-	-	-	-	-
Sanitary drainage system	$5,000	-	-	-	-	-	-	-	-	-	-	-	$ 6,631	-	-	-	-	-	-	$ 7,936	-	-	-	-	-	-	$ 9,498	-	-	-	-	-	-
Storm water drainage system	$7,000	-	-	-	-	-	-	-	-	-	-	$ 9,048	-	-	-	-	-	-	$ 10,829	-	-	-	-	-	-	$ 12,961	-	-	-	-	-	-	-
Sump pumps	$8,000	-	-	-	-	-	-	-	-	-	-	$ 10,341	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 15,198	-	-	-	-	-	-
Sprinkler systems	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	$ 13,607	-	-	-	-	-	-	-	-	-	$ 17,589	-	-	-	-	-	-	-	-	-
Electric heating	$13,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 24,696	-	-	-	-	-	-
Exhaust and ventilating system	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 50,127	-	-	-	-	-	-	-	-	-	-	-
HVAC systems in service/storage rooms	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 16,709	-	-	-	-	-	-	-	-	-	-
HVAC systems in parkade areas	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 33,418	-	-	-	-	-	-	-	-	-	-
A/C serving High Voltage room	$35,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 51,437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior lighting fixtures	$3,000	-	-	-	-	-	-	-	-	-	-	$ 3,878	-	-	-	-	-	-	$ 4,641	-	-	-	-	-	-	$ 5,555	-	-	-	-	-	-	-
Exterior lighting fixtures	$6,000	-	-	-	-	-	-	-	-	-	-	$ 7,756	-	-	-	-	-	-	$ 9,282	-	-	-	-	-	-	$ 11,109	-	-	-	-	-	-	-
Pedestrian plaza around buildings at ground floor	$10,000	-	-	-	-	-	-	-	-	-	-	$ 12,926	-	-	-	-	-	-	$ 15,471	-	-	-	-	-	-	$ 18,516	-	-	-	-	-	-	-
Pedestrian walkways and stairs on roof top garden	$5,000	-	-	-	-	-	-	-	-	-	-	$ 6,463	-	-	-	-	-	-	$ 7,735	-	-	-	-	-	-	$ 9,258	-	-	-	-	-	-	-
Pedestrian walkway on roof top garden	$3,000	-	-	-	-	-	-	-	-	-	-	$ 3,878	-	-	-	-	-	-	$ 4,641	-	-	-	-	-	-	$ 5,555	-	-	-	-	-	-	-
Exterior paving at parking entrance and loading bay	$2,000	-	-	-	-	-	-	-	-	-	-	$ 2,585	-	-	-	-	-	-	$ 3,094	-	-	-	-	-	-	$ 3,703	-	-	-	-	-	-	-
Fencing		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior railings	$3,000	-	-	-	-	-	-	-	-	-	-	$ 3,878	-	-	-	-	-	-	$ 4,641	-	-	-	-	-	-	$ 5,555	-	-	-	-	-	-	-
Site lighting	$2,000	-	-	-	-	-	-	-	-	-	-	$ 2,585	-	-	-	-	-	-	$ 3,094	-	-	-	-	-	-	$ 3,703	-	-	-	-	-	-	-
Landscaping	$3,000	-	-	-	-	-	-	-	-	-	-	$ 3,878	-	-	-	-	-	-	$ 4,641	-	-	-	-	-	-	$ 5,555	-	-	-	-	-	-	-
Water features	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 13,961	-	-	-	-	-	-	-	-	-	-	$ 18,046	-	-	-	-	-	-	-
Mechanical equipment for water features	$4,000	-	-	-	-	-	-	-	-	$ 4,912	-	-	-	-	-	-	$ 5,879	-	-	-	-	-	-	$ 7,036	-	-	-	-	-	-	$ 8,420	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase 3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Underground parkade structure	$10,000	-	$ 10,260	-	-	-	-	$ 11,665	-	-	-	-	$ 13,262	-	-	-	-	$ 15,078	-	-	-	-	$ 17,143	-	-	-	-	$ 19,491	-	-	-	-	-
Waterproofing membrane	$1,385,975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roofing systems	$133,193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 266,355	-	-	-	-
Parapets on roof and roof terraces	$5,000	-	-	-	$ 5,400	-	-	-	-	$ 6,140	-	-	-	-	$ 6,980	-	-	-	-	$ 7,936	-	-	-	-	-	$ 9,023	-	-	-	$ 10,259	-	-	-
Connected Structures	$3,000	-	-	-	-	-	-	-	$ 3,590	-	-	-	-	$ 4,082	-	-	-	-	-	-	$ 4,886	-	-	-	-	-	-	$ 5,847	-	-	-	-	-
Connected Structures	$3,000	-	$ 3,078	-	-	-	-	-	-	$ 3,684	-	-	-	-	-	-	$ 4,409	-	-	-	-	-	$ 5,277	-	-	-	-	-	-	-	$ 6,315	-	-
Divider walls on patios and roof terraces	$5,000	-	-	-	-	-	-	-	$ 5,984	-	-	-	-	-	-	$ 7,162	-	-	-	-	-	-	$ 8,572	-	-	-	-	-	-	$ 10,259	-	-	-
Exterior windows	$8,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 12,175	-	-	-	-	-	-	$ 14,572	-	-	-	-	-	-	-	-	-	-
Caulking	$20,000	-	-	-	-	-	-	-	$ 23,937	-	-	-	-	-	-	-	-	-	$ 30,941	-	-	-	-	-	-	-	-	-	$ 39,995	-	-	-	-	-
Cladding	$5,000	-	-	-	-	-	-	-	$ 5,984	-	-	-	-	-	-	$ 7,162	-	-	-	-	-	-	$ 8,572	-	-	-	-	-	-	$ 10,259	-	-	-
Cladding	$2,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 3,898	-	-	-	-	-
Cladding	$6,000	-	-	-	-	-	-	-	$ 7,181	-	-	-	-	-	-	$ 8,596	-	-	-	-	-	-	$ 10,286	-	-	-	-	-	-	$ 12,311	-	-	-
Exterior painting	$120,000	-	-	-	-	-	-	-	$ 143,619	-	-	-	-	-	-	-	-	-	$ 185,646	-	-	-	-	-	-	-	-	-	$ 239,972	-	-	-	-
Balcony flooring	$753,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$ 1,290,891	-	-	-	-	-	-	-	-	-	-

Balcony railings	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$16,709	-	-	-	-	-	-	$19,998	-	-	-
Patio and terrace flooring	$7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$10,555	-	-	-	-	-	-	$12,632	-	-	-	-	-	-	$15,119
Exterior stairs and ramp with railings	$6,000	-	-	-	-	-	$6,822	-	-	-	-	-	-	$8,164	-	-	-	-	-	-	$9,771	-	-	-	-	-	-	$11,695	-	-	-	-
Patio and terraces doors - sliding	$97,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Balcony doors - swinging	$396,580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Egress doors	$7,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$14,398	-	-	-
Garage doors	$12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$23,997	-	-	-
Main entrance doors	$5,425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$10,849	-	-	-
Service doors in parkade areas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit entry doors	$368,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$735,913	-	-	-
Electrical distribution - high voltage substation	$2,000	-	-	-	$2,160	-	-	-	-	$2,456	-	-	-	-	$2,792	-	-	-	-	$3,175	-	-	-	-	$3,609	-	-	-	-	$4,104	-	-
Electrical distribution - equipment and cabling/wiring	$2,000	-	-	-	$2,160	-	-	$2,333	-	-	$2,520	-	-	$2,721	-	-	$2,939	-	-	$3,175	-	-	$3,429	-	-	$3,703	-	-	$4,000	-	-	$4,320
Emergency generator	$125,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Access control systems (major update)	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$41,883	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$61,553	-	-
Fire Protection and Security Systems	$120,000	-	-	-	-	-	-	-	-	-	-	$155,115	-	-	-	-	-	-	-	-	-	$200,507	-	-	-	-	-	-	-	-	-	$259,180
Fire Protection and Security Systems	$10,000	-	-	-	-	-	-	-	-	-	-	$12,926	-	-	-	-	-	-	-	-	-	$16,709	-	-	-	-	-	-	-	-	-	$21,598
Fire Protection and Security Systems	$75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$149,982	-	-	-
Water distribution	$15,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$20,941	-	-	-	-	$23,809	-	-	-	-	$27,070	-	-	-	-	$30,776	-	-
Domestic water heaters	$24,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$35,271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water storage	$36,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$63,321	-	-	-	-	-	-	-	-
Boilers	$90,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$179,979	-	-	-
Plumbing systems - booster pumps	$23,000	-	-	-	-	-	-	-	-	-	-	-	-	$31,297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$45,995	-	-	-
Plumbing systems - circulation pumps	$6,000	-	-	-	-	-	-	-	-	-	-	-	-	$8,164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$11,999	-	-	-
Sanitary drainage system	$5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$7,162	-	-	-	-	-	-	$8,572	-	-	-	-	-	-	$10,259	-	-
Storm water drainage system	$7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$9,773	-	-	-	-	-	-	$11,696	-	-	-	-	-	-	$13,998	-	-	-
Sump pumps	$8,000	-	-	-	-	-	-	-	-	-	-	-	-	$10,886	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$15,998	-	-	-
Sprinkler systems	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$14,696	-	-	-	-	-	-	-	-	-	$18,997	-	-	-	-	-
Electric heating	$13,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$25,997	-	-	-
Exhaust and ventilating system	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$52,767	-	-	-	-	-	-	-	-
HVAC systems in service/storage rooms	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$17,589	-	-	-	-	-	-	-	-
HVAC systems in underground parking	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$35,178	-	-	-	-	-	-	-	-
A/C serving High Voltage room	$35,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$54,147	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior lighting fixtures	$3,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$4,188	-	-	-	-	-	-	$5,013	-	-	-	-	-	-	$5,999	-	-	-
Exterior lighting fixtures	$6,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$8,377	-	-	-	-	-	-	$10,025	-	-	-	-	-	-	$11,999	-	-	-
Pedestrian plaza around buildings at ground floor	$25,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$34,902	-	-	-	-	-	-	$41,772	-	-	-	-	-	-	$49,994	-	-	-
Pedestrian walkways and stairs on roof top garden	$5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$6,980	-	-	-	-	-	-	$8,354	-	-	-	-	-	-	$9,999	-	-	-
Pedestrian walkway on roof top garden	$3,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$4,188	-	-	-	-	-	-	$5,013	-	-	-	-	-	-	$5,999	-	-	-
Exterior paving at parking entrance and loading bay	$2,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$2,792	-	-	-	-	-	-	$3,342	-	-	-	-	-	-	$4,000	-	-	-
Fencing	$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior railings	$3,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$4,188	-	-	-	-	-	-	$5,013	-	-	-	-	-	-	$5,999	-	-	-
Site lighting	$2,000	-	-	-	-	-	-	-	-	-	-	-	-	-	$2,792	-	-	-	-	-	-	$3,342	-	-	-	-	-	-	$4,000	-	-	-
Landscaping	$3,000	-	-	-	-	-	-	-	$3,590	-	-	-	-	-	$4,188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water features	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$15,078	-	-	-	-	-	-	-	-	-	$19,491	-	-	-	-
Mechanical equipment for water features	$4,000	-	-	-	-	-	-	-	-	-	-	-	$5,305	-	-	-	-	-	-	$6,349	-	-	-	-	-	-	$7,599	-	-	-	-	-
Total	$12,540,721	-	$52,326	$155,796	$27,001	$144,056	$179,636	$59,491	$550,541	$41,750	$23,938	$388,435	$68,964	$366,033	$234,544	$347,356	$386,515	$803,683	$727,115	$79,364	$1,166,038	$566,431	$1,571,184	$1,845,784	$108,278	$342,538	$1,661,005	$144,232	$6,977,093	$375,472	$88,414	$5,204,255