Depreciation Study Report for Sandborne Woods

Prepared for:
Strata Plan LMS 259
c/o Baywest Management Corporation
13468 – 77th Avenue
Surrey, BC
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Project Number:
VAN-00203248-01

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1. Introduction

1.1 Terms of Reference

Upon the request of Ms. Sylvien Mak, Strata Manager with Baywest Management Corporation, on behalf of Strata Plan LMS 259, **exp** Services Inc. (**exp**) submitted proposal 12Z-01070 (rev 2012-10-11) for the preparation of a Depreciation Study report. The subject property is comprised of two 4-storey residential buildings situated atop a 2-level below-grade concrete parking structure, located at 7345 Sandborne Avenue, Burnaby, BC.

As authorized by Ms. Sylvien Mak, Strata Manager with Baywest Management Corporation, on behalf of Strata Plan LMS 259, **exp** was commissioned to conduct a visual review of the condominium common elements, and prepare a Depreciation Study report. Common elements include Common Property, Common Assets, and those parts of a Strata lot or limited common property that the Strata Corporation repairs or maintains. The following report summarizes the findings and recommendations of the Depreciation Study report.

This report presents our recommendations for the Strata Plan LMS 259's annual contribution for the fiscal year starts May 1st.

1.2 Scope of Work

The objective of a Depreciation Study is, in broad terms, to provide a realistic appraisal of the funds required for the purposes of undertaking major repairs to, or replacement of, various common element building components.

Stratas are legally required by the Strata Property Act to establish and maintain a contingency reserve fund, to accommodate major capital expenditures necessary for repair and/or replacement of the common elements. Recent changes to the Strata Property Act, enacted December 13th, 2011, by the B.C. Provincial Government, require Strata Corporations to engage a qualified individual to conduct a Depreciation Study, and to provide periodic updates to evaluate the Fund's adequacy.

The detailed scope of work described in our proposal and carried out by **exp** is briefly summarized as follows.

1. Review of available construction and maintenance documents (including addenda, change orders, etc.) provided by Strata Plan LMS 259 to become familiar with the individual building systems and prepare an inventory of common elements, including a quantity take-off for each element.

2. Conduct a visual review of the common element components, in order to evaluate their present conditions, and estimate remaining life expectancies of these components. The review of common elements is limited to ground level areas, amenity areas, roof and interior review of select suites.

3. Prepare estimates of current (i.e., 2013) repair and/or replacement costs, as appropriate for each common element component, based upon our observations and experience.

4. Provide two (2) copies of our report on the foregoing. The report is to include a list of reserve fund components, their estimated lifespans, estimated current repair/replacement costs, repair/ replacement forecast over the next 30-year period and 3 options of cash flow chart indicating the annual contributions required and annual reserve fund balances over a thirty-year (30) period.

1.3 Building Information

The Strata Plan LMS 259 building is located at 7345 Sandborne Avenue in Burnaby, BC. The complex consists of two 4-storey wood frame residential buildings with a total of fifty (50) residential suites with two (2) levels of below-grade residential parking. The building is approximately twenty-three (23) years old (constructed circa 1990).

The building is predominantly clad with vinyl siding. The main roofs of both buildings consist of wood-trussed, sloped assemblies with asphalt shingles.

Typical elevation

Typical elevation

Please note that the interior components of each suite are not common element items and, therefore, do not form part of this Depreciation Study.

1.4 Report Composition

This report is divided into five (5) chapters. Chapter 2 discusses our approach to evaluating and assessing both the remaining lives and replacement costs of all major common elements. Chapters 3, discusses the condition of the individual common element components, based on our limited visual review. Chapter 4 addresses the issue of forecasting major expenditures required to maintain all of the common element components of the complex. The assumptions and methodology used in constructing the thirty (30) year forecast are also explained, and suggested cash flow charts for the reserve fund over the next thirty (30) years are presented. Finally, a brief summary is presented in Chapter 5.

1.5 Documentation

The following documentation was provided to **exp** for review:

Description	Author	Date
Architectural drawings, Foundation Permit Application, A0 – A30.	Lutz Associates.	Dec. 22, 1989.
Electrical drawings, Revised as per Architectural Revisions, E1 – E10.	SRC Engineering Consultants.	July 5, 1990.
Mechanical drawings, M1 – M13 Mechanical as-builts, Revised as per Architectural Revisions.	SRC Engineering Consultants.	July 12, 1990.
Mechanical drawings (gas), M1 – M13 Gas as-builts, Issued for Pricing.	SRC Engineering Consultants.	Feb. 26, 1990.
Mechanical drawings (plumbing), M1 – M13 Plumbing as-builts, Issued for Pricing.	SRC Engineering Consultants.	Feb. 26, 1990.
Building Envelope Condition Assessment.	JRS Engineering Building Envelope Consultants.	Feb. 12, 2010.

2. Building Element Assessments

2.1 Introduction

Common element components were visually reviewed on site as part of this Depreciation Study. The site visit was conducted on February 1st, 2013. **Exp** was represented by David Wiese and Michael Peet.

The following sections briefly describe our approach to evaluating major common elements examined with respect to their normal life expectancies, assessing the remaining life expectancies (that account for the present age and/or condition of the element), and estimating the current, i.e., 2013, anticipated repair and/or replacement cost. Our evaluation of these factors is summarized in Table 1 at the end of Chapter 4 of this report. This table should be reviewed in conjunction with the following sections.

2.2 Remaining Life

The normal life expectancy of any one component has been determined on the basis of our site visit, our past experience with buildings and construction of a similar nature. For the purposes of this Study, the present age of the elements has been assumed based on visual observations.

We have estimated the remaining life expectancy for the common elements as observed during our review of the Strata Plan LMS 259 building and related assets. Our judgment of normal and remaining life expectancies assumes that a reasonable amount of timely and proper maintenance is provided during the lifespan of the components. It should be noted that life expectancy will depend on the use and maintenance of the building components. It is important that the building and related assets be inspected regularly to determine whether all components are performing as anticipated and to take appropriate corrective measures in the event that they are not. It is possible that components may be replaced before the end of their service lives to serve needs other than maintaining their functionality. Such conditions (e.g., building improvements) are not taken into account in this Study.

Under normal circumstances “Remaining Life” is the arithmetical difference between “Normal Life” and “Present Age”. However, in some instances, due to either premature failure or superior performance and durability, the “Remaining Life” of an element may be modified to account for its present condition.

The assessments made herein are based upon visual review only. No form of testing has been conducted. Accordingly, the projections are subjective in nature and represent only our professional opinion.

For some elements, exterior brick cladding as an example, the normal life expectancy equals or exceeds the design life of the condominium building itself. In these instances we recommend that an allowance for partial repair of the total element be allowed for on a regular basis.

2.3 Replacement Cost

Quantity take-offs were conducted on a unit measurement basis, e.g., area (square foot), or per item/job, e.g., one overhead garage door. The type of construction was determined from available information and, where this was deemed inadequate, the details of construction were assumed to be that which would typically be done for the specific detail under consideration.

The estimates are based on normal life expectancy and do not include repairs that may be required due to unusual circumstances, improper use of facilities, or "Acts of God". It should be noted that costs will vary from year to year, for several reasons, and that these costs should be updated periodically to reflect current market conditions.

"Replacement Cost" is generally based upon complete removal and replacement of the element in question. Where a contingency has been made for only partial repair (and not replacement), we have identified this in the report. Replacement costs are typically higher than similar items for new construction, since additional effort is required to remove and dispose of existing systems and to protect components that must remain.

The costs presented are current replacement and/or repair costs, i.e., in 2013 dollars. We have not allowed for the expense of professional consulting services to prepare specifications and to review remedial work. However, in our opinion, it may be desirable to retain professional consulting services to help ensure that high quality replacement work is conducted. We expect our estimates to be reasonably accurate when compared to an average of reasonable bids from professional contractors for a given repair/replacement item.

Our cost projections are based upon the following:

- past experience and records of similar construction and remedial work;
- discussions with various contractors and/or material suppliers where appropriate;
- "Means Building Construction Cost Data", published by R.S. Means Company, Inc., Kingston, MA, and

No allowance has been made for costs associated with disruption of use of facility, costs due to non-availability of current system or material (obsolescence), or costs related to changes in legislation (e.g., safety code changes, disposal costs, etc.).

3. Building Condition Visual Review

3.1 Introduction

As part of this Depreciation Study, we conducted an on-site cursory visual review of various common element building components in an attempt to identify any deficiencies (or outstanding performance) and assess the remaining life of each component. The following sections discuss only a sampling of items, as well as items for which significant deficiencies were present or for which the remaining life varies from the normal life expectancy as listed in Table 1. All other components not listed below can be assumed to be performing adequately and, therefore, require no adjustment to their life expectancies.

In the following sections we have provided some typical samples of deficiencies and/or deterioration which we noted during our site review. These examples are not intended to be a complete listing of all of the areas affected, but rather to provide an indication as to the types of deficiencies and/or conditions present on site.

In addition to some major repairs, rehabilitation and refurbishment of the common elements are presently required and have been allocated for the next several years. Our on-site review identifies a need for some localized repairs and/or partial replacement of various common elements at this time. Such repairs and/or replacements are typically minor in nature and are generally covered as part of the operating budget. Localized or minor repairs to the remaining common element components that are required at this time as outlined in the report below should be covered as part of the operating budget or under an item we have included “Miscellaneous Contingency”, an expenditure which we have allotted to undertake localized repairs as required.

3.2 Site Elements

3.2.1 Timber Retaining Walls, Steps and Edging

Wood timbers are used as landscape retaining walls, steps and edgings in the northwest and south west areas of the site. Typically, the service life of exposed wood retaining wall components is 15 years. Observed existing conditions of wood components demonstrates that service life has been exceeded.

Existing wood deterioration was observed in several landscape timbers located in the northwest and southwest areas of the site. Immediate replacement of several components should be undertaken.

We have provided a cost, as outlined in Table 1 - Cost Summary, for the periodic replacement of deteriorated landscape timber elements.

We note that removal and reinstallation, or replacement, of landscape elements will be required as part of future replacement of the existing parking garage waterproofing membrane, which is expected to occur within the duration covered by this Study.

Stepped timber retaining walls in northwest yard.

Timber steps at southwest yard.

Observed existing wood deterioration in timber retaining wall.

Observed existing wood deterioration in timber edging beside steps.

3.2.2 Concrete Pedestrian and Landscape Components

Landscaping concrete elements in the central courtyard were observed to consist of cast-in-place concrete planters and retaining walls, and cast-in-place concrete flat pavement and steps.

The hardscape site elements were generally observed to be in serviceable condition at this time. The hardscape site elements should not require replacement over the duration of this Study and possibly for the expected service life of this development. However, occasionally we expect localized repair of damaged concrete from such occurrences as physical impacts, shrinkage cracks, settlement, spalling etc.

We have provided a cost, as outlined in Table 1 - Cost Summary, for the periodic localized repair of hardscape elements.

We note that the removal and reinstallation or replacement of landscaping concrete components will be required as part of the replacement of the waterproofing membrane, which is expected to require replacement within the duration covered by this Study. Such costs are included in the 2nd level suspended slab waterproofing membrane replacement costs.

3.2.3 Metal Picket Fencing and Swing Gates

Pre-finished metal picket fencing is located sporadically throughout the site, mostly between buildings. All observed picket-style fencing and swing gates were generally observed to be in good condition.

We have provided a cost for the eventual replacement of pre-finished metal picket fencing and related hardware, as outlined in Table 1 - Replacement Cost Summary.

3.2.4 Exterior Light Fixtures

The building exterior is illuminated by several typical fixture types:

1. Globe-type fixtures (2) at vehicle entrance to parking garage ramp;
2. Globe-type fixtures (2) at pedestrian entrance to courtyard;
3. Globe-type fixtures (2) in courtyard;
4. Pedestal-type fixture in planter.

Illumination at vehicle entrance.

Illumination at pedestrian entrance.

Illumination at interior courtyard.

Illumination at interior courtyard.

All observed site lighting was generally observed to be in serviceable condition.

We have provided a cost for eventual removal and replacement of exterior lighting systems, as outlined in Table 1 - Cost Summary. We note the maintenance costs of light fixtures such as touch-up painting and replacement of bulbs is to be conducted from the Operating Budget.

3.3 Below-grade Assemblies

3.3.1 Superstructure

The two multi-storey wood-frame residential buildings sit upon a below-grade, cast-in-place reinforced concrete, 2-level parking garage structure. The structural system is predominately comprised of perimeter shear walls and slab-bands, with a concrete reinforced suspended slab as its roof. The lowest floor of the parking garage is a concrete slab-on-grade. In general, the superstructure of the parking garage was observed to be in serviceable condition. However, several on-going moisture ingress issues through the concrete suspended slab were observed.

No major deformation or obvious signs of structural distress was observed at the time of the review. The superstructure is not expected to require replacement for the duration of this Study timeframe, and probably not for the entire expected service life of the building, provided necessary repairs and maintenance are carried out, and the waterproofing and weather protection of the superstructure is maintained and renewed as required.

3.3.2 Lower Parking Level: Slab-on-grade Concrete

The lowest level of the below-grade parking garage is slab-on-grade concrete. The condition of the slab-on-grade floor was observed to be in serviceable condition. Some concrete shrinkage cracks were observed.

The slab on-grade assembly on the P2 level is expected to last the lifetime of the building and, therefore, complete replacement is not anticipated to be required. We have not included any allowance for localized crack repair as it may occur, as this repair work is to be funded from the Operating Budget, i.e. frequency of less than a year.

Concrete drive aisle.

3.3.3 Parking Garage: Concrete Suspended Slab

The below-grade wall and floor slab assemblies of the parking garage are reinforced concrete structures. These concrete assemblies are generally in serviceable condition and are expected to last the lifetime of the building. However, we recommend localized repairs occasionally for these concrete components due to physical damage; i.e. cracks creating potential for moisture ingress. We have not included any allowance for such localized repair as this work is to be conducted out of the Operating Budget.

However, several active leaks were observed through the at-grade suspended concrete slab. Epoxy was observed to have been injected into cracks in several areas, some still leaking. Metal trays were observed hanging from the suspended concrete ceiling in some areas to divert some of the actively leaking water.

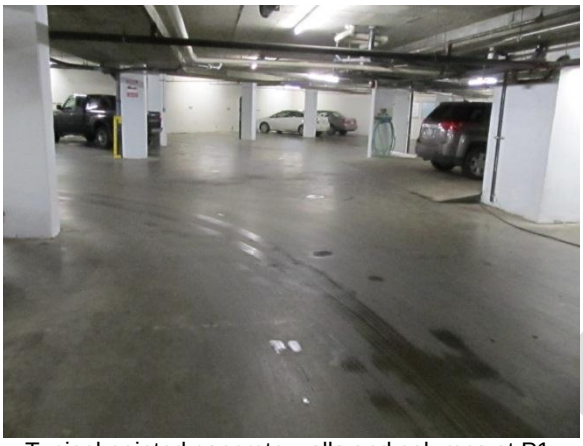
The existing waterproofing membrane on the at-grade concrete suspended slab was not visible for review due to installation of landscaping elements. According to observed existing leaks through the at-grade concrete suspended slab of the parking structure, waterproofing membrane replacement work should be considered soon.

Epoxy-filled cracks on underside of at-grade concrete suspended slab.

Water diverter trays suspended from concrete suspended slab ceiling.

3.3.4 Painted Below-grade Concrete Components

Overall, the painted finishes on below-grade concrete assemblies and components such as concrete walls, columns, ceilings, stairwells and partition walls, including line paintings and stenciled signage, were found to be in good condition.



Typical painted concrete walls and columns at P1.

Typical painted concrete walls and columns at intermediate parking level.

Painted concrete wall at storage lockers.

Typical painted concrete stairwell.

We have provided a cost for re-painting concrete elements of the garage, including concrete walls, columns, ceilings, stairwells and partition walls, including line paintings and stenciled signage. We have also included for minor concrete repairs as required prior to re-painting as outlined in Table 1 – Cost Summary.

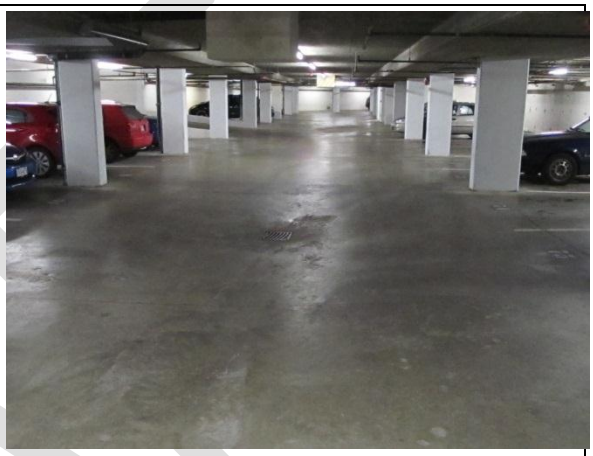
3.3.5 Drive Aisles in Parking Garage

Existing concrete sealer was typically not observed on parking garage floors P1 and P2.

We recommend installation of a concrete sealer on drive aisles and parking stalls throughout the parking garage.

We have provided a cost for application of concrete sealer on drive aisles and parking stalls throughout the parking garage, as outlined in Table 1 - Cost Summary. We note that maintenance costs to repair concrete cracks as they may occur, is to be funded from the Operating Budget.

P1 drive aisle.



P2 drive aisle.

3.4 Building Envelope and Exterior Building Elements

The existing wood stick framing of the exterior wall assemblies of Sandborne Woods is expected to remain serviceable for its entire service life of the building. Therefore, we have not included an allowance for the complete removal and replacement of wood stick framing.

Sandborne Woods is predominantly clad with vinyl siding, having been installed over original wood board cladding in approximately 2000. Some exposed areas of wood cladding remain, typically at patio and balcony areas located under cover, and on the inside surfaces of roof deck guardwalls. Areas of stucco cladding were also observed, typically in some exterior corridor areas, elevator shaft walls and electrical room walls.

3.4.1 Vinyl-sided Exterior Wall Assembly

The exterior wall area at Sandborne Woods is predominantly clad with vinyl siding. Installation of sheet metal through-wall flashings was not observed.

In general, the vinyl siding was visually observed to be in serviceable condition. Materials testing or moisture content testing was not carried out for this review.

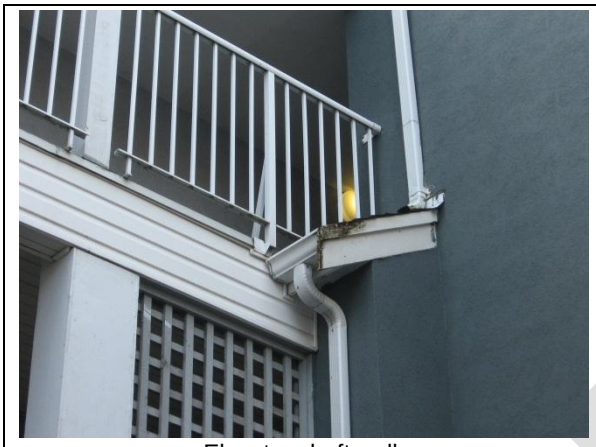
Typical elevation.

Typical elevation.

We not have provided a cost for the periodic localized repair of vinyl siding, as it is expected to be funded from the Operating Budget.

3.4.2 Stucco-clad Wall Assembly

Existing non-rainscreen stucco cladding was observed on common corridor walls and ceilings, on elevator shaft walls and on above-grade electrical room walls.



Elevator shaft wall.

Typical exterior corridor.

Stucco cladding on elevator shaft wall.

Electrical room and typical elevator entrance.

The average life expectancy of face-sealed cementitious stucco is in the range of 30 years. We have provided a cost for re-painting stucco-clad walls every 10 years, as outlined in Table 1 – Cost Summary.

3.4.3 Wood Board Siding

Painted wood board siding was observed on interior surfaces of roof deck guardwalls.

Typical roof deck.

Typical interior side of roof deck guardwall.

Painted wood board siding was observed on exterior walls of patios and undercover balconies of upper floors.

Typical wood board-sided patio walls.

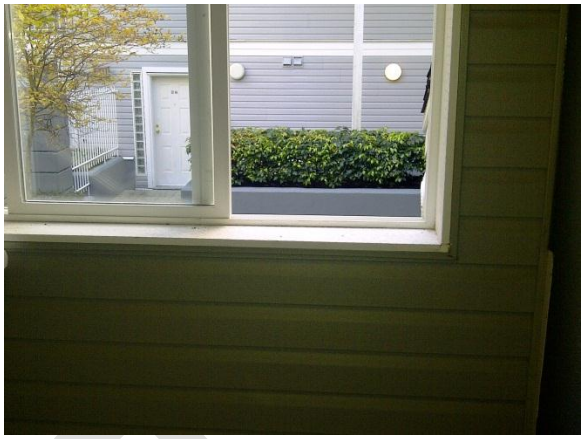
Typical wood board-sided balcony walls.

The average life expectancy of painted wood board siding is in the range of 20-25 years. We have provided a cost for the replacement of painted wood board siding, as outlined in Table 1 – Cost Summary.

3.4.4 Window Assemblies

Prefinished aluminum-framed sliding double-pane IGU windows are featured throughout.

Typical sliding window.



Typical sliding window.

Based on our review of select suites within the building, reviewed windows were generally found to be in serviceable condition for their present age.

The normal life expectancy of these windows is typically about 25-30 years. We have provided a cost for replacement, as outlined in Table 1 – Cost Summary.

3.4.5 Glass Blocks

Glass block accents are featured adjacent to front entrance doors to suites. Mortar joints that were reviewed were observed to be in need of maintenance.

Typical glass block orientation.

Typical glass block.

The normal life expectancy of unit glass block is typically about 50 years. We have provided a cost for replacement of glass blocks, and re-pointing maintenance of mortar joints, as outlined in Table 1 – Cost Summary.

3.4.6 Sliding Glass Doors at Patios and Balconies

Deck and balcony access is provided by metal frame, double paned sliding glass doors. They are protected from exterior environmental conditions by balconies above (except top floor). All that were reviewed were observed to be in serviceable condition.

Typical sliding glass door.

We have provided a cost for replacement of existing sliding glass doors, as outlined in Table 1 - Cost Summary.

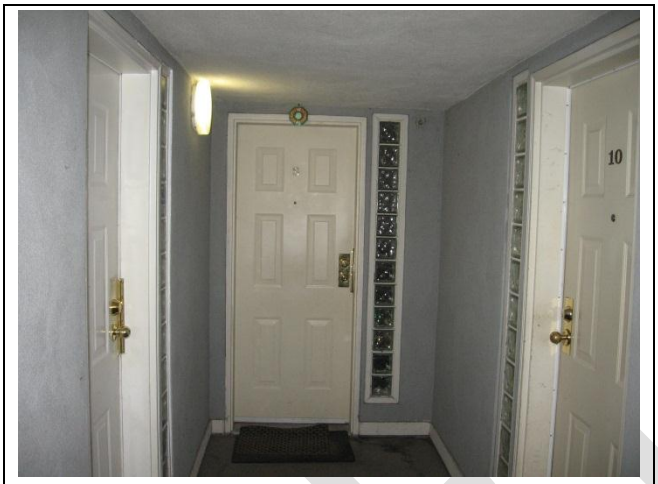
3.4.7 Patio/ Balcony Swing Doors

Typical patios/ balconies feature wood frame, metal-clad swing doors with a double-glazed panel. At the time of the review doors that were reviewed were generally observed to be in serviceable condition. The recent JRS BECA 2010 report indicated a couple of balcony swing doors that were observed to not fully seal around their perimeter.

We have provided a cost for replacement of metal-clad glazed swing doors at typical patio/ balcony locations, as outlined in Table 1 - Cost Summary.

3.4.8 Wood Frame, Recessed Metal-clad Swing Doors at Suite Entrances

Wood frame, insulated metal-clad recessed panel swing doors are typically featured at suite entrances off exterior corridors.



Typical suite front entrance door.

We have provided a cost for replacement of suite entrance doors, as outlined in Table 1 - Cost Summary.

3.4.9 Metal Frame, Flat-panel Metal-clad Swing Doors

Several areas throughout the parking garage feature metal framed, flat-panel metal-clad swing doors. Exterior locations include parking garage exits.

Exit door from parking garage.

We have provided a cost for replacement of metal frame, insulated flat-panel metal-clad swing doors at typical exterior locations of pedestrian exits from the building, as outlined in Table 1 - Cost Summary.

3.4.10 Storefront Glazing with Swing Doors

Community Room access is provided through commercial-style metal frame storefront glazing with swing doors.

Storefront glazing at amenity room.

The normal service life of commercial-style metal frame strorefront glazing and doors is in the order of 25 years.

We have provided a cost for the removal and replacement of metal frame strorefront glazing and doors, as outlined in Table 1 – Cost Summary.

3.4.11 Exterior Joint Sealant

Exterior joint sealants are typically found at interfaces between dissimilar cladding types or different assemblies. Other typical locations are at window, door and vent penetrations.

The recent JRS BECA 2010 report comments that existing sealant was “generally not well applied or failing”.

The normal service life of exterior joint sealants (the types installed in the lower mainland) is in the order of 10 to 15 years. We have provided a cost for the removal and replacement of exterior joint sealant (at interfaces, transitions and penetrations), as outlined in Table 1 – Cost Summary.

3.4.12 Vent Penetrations

Vent penetrations for bathroom fans and clothes dryers were observed installed in exterior wall assemblies.

Typical bathroom fan, kitchen hood fan and/or dryer vent penetrations.

It is not anticipated that sheet metal ventilation shafts within interior spaces of the buildings will require replacement during the intended lifespan of this development. In the previous Item 3.4.11 Exterior Sealant, we have provided a cost to replace sealant beads at vent penetrations through exterior walls.

The cost to replace existing vent covers would likely be included with future replacement of exterior cladding.

We not have not provided a cost for scheduled maintenance to keep existing vent covers free of debris, as it is expected to be funded from the Operating Budget.

3.4.13 Sloped Roof Assembly

The majority of townhouse clusters feature sloped roof assemblies topped with asphalt shingles.

Existing asphalt shingles on sloped roof assemblies.

We have provided a cost for the eventual replacement of asphalt shingles, including associated metal flashings and tie-ins to existing low-slope membrane roof areas, as outlined in Table 1 – Cost Summary.

3.4.14 SBS Low-slope Roof

Many areas of SBS-membraned low-slope roof areas are featured throughout the buildings, especially at exterior corridors and at exterior stairs.

Existing SBS-membraned low-slope roof areas.

We have provided a cost for the eventual replacement of 2-ply SBS-membraned roof areas, as outlined in Table 1 - Cost Summary.

3.4.15 Residential Roof Decks

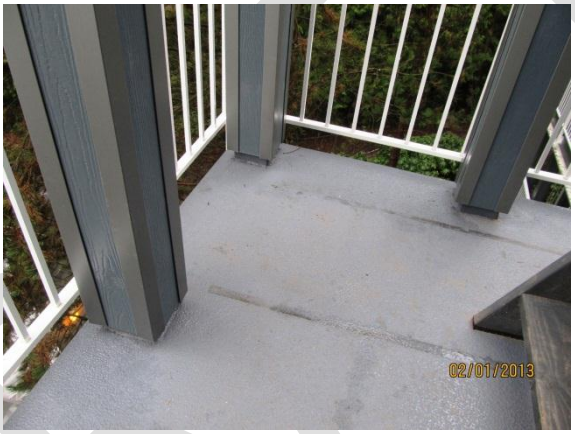
Six (6) units feature wood frame low-slope roof deck assemblies. According to the 2010 JRS BECA report, all but one deck has been replaced with an SBS assembly since original construction. The remaining roof deck was, as of 2010, still the original BUR assembly.

Existing roof deck membranes were not reviewed by **exp** for this exercise.

We have provided a cost for the replacement of roof deck membranes, as outlined in Table 1 - Cost Summary.

3.4.16 Balcony Membranes

Liquid-applied waterproof coating is typically featured on balcony decks. All balcony membranes were replaced in 2013.



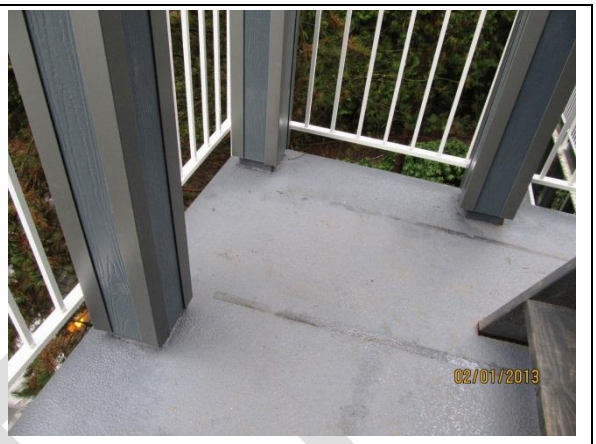
Typical balcony membrane.

We have provided a cost for the eventual replacement of liquid-applied waterproof coating at balconies, as outlined in Table 1 - Cost Summary.

3.4.17 Balcony Railings

Pre-finished side-mounted metal picket railings are located at typical balconies. All balcony railings were replaced in 2013.

Typical stacked balconies.



Typical balcony railing.

We have provided a cost for the eventual replacement of side-mounted metal picket railings at balconies, as outlined in Table 1 - Cost Summary.

3.4.18 Wood-framed Roof Deck Guardwalls

Wood frame guardwalls capped with sheet metal drip-edge cap flashings, are featured at residential roof decks. Interior sides of the guardwalls are clad with painted vertical orientation wood boards. Some interior surfaces have been re-clad with vinyl siding panels. The exterior sides of guardwalls are clad with horizontal vinyl siding.

Typical roof deck.

Typical roof deck.

The service life of wood framing of roof deck guardwalls may exceed the duration of this Study. Sheet metal cap flashing replacement intervals are covered elsewhere.

We have provided a cost for the replacement of interior and exterior finishes of the wood frame guardwalls, including cap flashing replacement, as outlined in Table 1 – Cost Summary.

3.4.19 Patterned Concrete Topping for Exterior Corridors

Textured concrete topping is featured on exterior corridors located on the concrete suspended slab of the below-grade parking structure. The patterned concrete transitions to liquid-applied membrane in wood framed corridor areas.

Typical imprinted concrete topping.

Typical imprinted concrete topping.

Existing textured concrete is not anticipated to require replacement during the timeframe of this Study. We have provided a cost for re-application of protective coating, as outlined in Table 1 – Cost Summary.

The removal and replacement of this textured concrete topping will be required as part of the replacement of the parking garage waterproofing membrane, which is expected to require replacement within the duration covered by this Study. Such costs are included in the 2nd level suspended slab waterproofing membrane replacement costs.

We not have provided a cost for the repairs, as this is expected to be funded from the Operating Budget.

3.4.20 Wood-framed Exterior Corridors

Liquid-applied deck coating is featured on exterior corridors located in wood framed areas of the complex. Wood framed corridors transition to textured concrete in areas atop the concrete parking garage structure.

Typical liquid-applied membrane on wood-framed exterior corridors.

Transition between exterior corridor surface treatments.

Existing wood-framed structure of the exterior corridors is not anticipated to require replacement during the timeframe of this Study.

We have provided a cost for re-application of liquid-applied membrane to exterior corridors, as outlined in Table 1 – Cost Summary.

We not have provided a cost for the repairs, as this is expected to be funded from the Operating Budget.

3.4.21 Wood Frame Exterior Stair Assemblies

Liquid-applied deck coating is featured on wood-frame exterior stairs featured as means of egress at exterior wood-framed corridors.

Wood-framed exterior stairs.

Wood-framed exterior stairs.

We have provided a cost for the replacement of exterior wood-frame stair structures, considering their high pedestrian traffic volume and full exposure to wet weather.

We have also provided a cost for re-application of liquid-applied deck coating, as outlined in Table 1 – Cost Summary.

3.4.22 Wood Frame Ladder-stair Assemblies

Access to suite roof decks is provided by painted wood-framed ladder from the balcony through a clear plastic domed roof hatch.

Wood-framed ladder-stairs to typical roof deck.

Wood-framed ladder-stairs to typical roof deck.

Existing wood-framed ladder-stair structures are not anticipated to require replacement during the timeframe of this Study due to their present location under full cover of the roof. However, repainting of these ladder units is included as an allowance in the Operating Budget.

3.4.23 Metal Railings at Exterior Corridors & Stairs

Pre-finished, metal picket, top-mounted guardrails are features at exterior corridors and stair assemblies.

Typical metal picket guardrails.

Typical metal picket guardrails.

We have provided a cost for the eventual replacement of metal picket railings (recommended side-mounted) at exterior corridors and stairs, as outlined in Table 1 - Cost Summary.

3.5 Interior Building Elements

3.5.1 Cabinetry in Community Room

Modular cabinetry with laminate countertops are featured in the Community Room.

Modular cabinetry in Community Room.

We have provided a cost for the eventual removal and replacement of existing modular cabinetry and laminate c/tops, as outlined in Table 1 - Cost Summary.

3.5.2 Floor Finishes in Community Room

A combination of ceramic tile and carpet is featured in the Community Room. On the day of **exp**'s review protective plastic was installed over existing carpet for a repair job.

Ceramic tile floor in Community Room.

Protective plastic covered existing carpet in Community Room during room repairs.

Complete removal and replacement of the carpeting is generally required every 10 to 15 years, depending on pedestrian traffic loads. We have provided a cost for removal and replacement of the carpet in the common area corridors, as outlined in Table 1 - Cost Summary.

Ceramic tile is not anticipated to require replacement during the timeframe of this Study. We have provided a cost for grout replacement. However, cost for occasional replacement of broken tiles is to be funded from the Operating Budget.

3.5.3 Suspended Acoustic Panel Ceiling in Community Room

A suspended ceiling with acoustic panels is featured in the Community Room.

Suspended ceiling with acoustic panels.

Suspended ceiling with acoustic panels.

We have provided a cost for the eventual replacement of suspended acoustic panel ceiling, as outlined in Table 1 - Cost Summary.

3.5.4 Painted Gypsum-board Walls

The common area Community Room features painted gypsum board walls.

Community Room.

Gypsum board is not generally anticipated to require replacement over the intended lifespan the building. We have provided a cost for repainting existing gypsum board panels, as outlined in Table 1 - Cost Summary.

3.5.5 Interior Service Doors

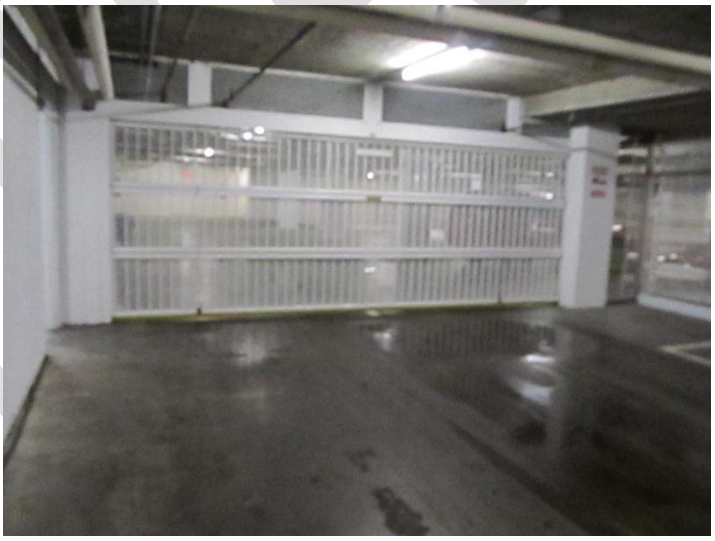
Metal frame, metal-clad flat-panel swing doors are featured at interior core elevator/ stairwell lobbies, throughout the parking garage and at utility/ storage rooms. Existing corrosion was observed on metal frames of some doors at parking garage storage lockers.

The normal life expectancy of typical metal swing doors is typically about 20 years. We have provided an allowance for the replacement of these utility room metal swing doors, as outlined in Table 1 – Cost Summary.

Maintenance cost for removal of existing corrosion on metal frames/ doors is to be funded from the Operating Budget.

3.5.6 Metal grate, Segmented Panel, Overhead Vehicle Access Door

A pre-finished, metal grille, segmented, overhead door with electric assist motor is used at the vehicle access entrance into secured area of the parking garage.



Vehicle-access security overhead door.

We have provided a cost for the eventual replacement of this vehicle-access overhead door, as outlined in Table 1 - Cost Summary. Refer to the Electrical portion of this report for the predicted life expectancy of typical electric-assist motors.

3.6 Mechanical System

There are no heating boilers in this building. Heating for individual suites is accomplished by electric baseboard.

3.6.1 Domestic Hot Water Piping

It is assumed from the era in which Sandborne Woods was constructed that copper pipes were used for water distribution. Methods of destructive testing were not employed to provide verification.

The normal life expectancy of domestic water distribution piping of this type is in the order of 50 years.

We have provided a cost for removal and replacement of the domestic water piping throughout Sandborne Woods, as outlined in Table 1 - Cost Summary.

3.6.2 Electric Hot Water Storage Tank (in Community Room)

5 Imp gallons storage, 14" dia., 1.5 KW element, 120/1/60, c/w fibreglass insulation. Manuf ref Jetglas M6U5S. Contingency for major repairs to and/or replacement of the domestic hot water storage tank.

The normal life expectancy of hot water storage tanks of this type is in the order of 15 to 20 years. Therefore, we do not anticipate any major problems with the storage tank for several years, if they are properly serviced and maintained.

We have provided a cost for removal and replacement of the domestic hot water storage tank, as outlined in Table 1 - Cost Summary.

3.6.3 C.O. Detector

To start parking areas exhaust fan FE-3 @ 50 p.p.m. level. Manuf ref. Nova 580RA or equal. Contingency for repairs to and/or replacement of the C.O. detector.

The normal life expectancy is approximately 15 to 20 years and based on our observations, we expect this unit may remain serviceable for several years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

Gas monitor in parking garage.

3.6.4 Air Compressor for Sprinkler System

Sprinkler system air compressor c/w all necessar6y controls and relays. 100 psi single stage 1 hp 208/3/60. Manuf ref. Quincy or equal. Contingency for repairs to and/or replacement of the sprinkler system air compressor.

The normal life expectancy is approximately 25 to 30 years and based on our observations, we expect this unit may remain serviceable for many more years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.5 Exhaust fan for Upper and Lower Parking Areas

FE-3: Upper parking area exhaust fan. Wall-mounted belt driven propeller fan c/w fan guard and local disconnect switch. 14,000 cfm @ 0.250 Wg. E.S.P., 11.7 Sones, Controlled by time clock/ C.O. detector. 1.5 hp, 208/3/60. Manuf ref. Penn Breezeway BF42 or equal.

Fans of this type have an average life expectancy of 25 to 30 years. Based on our observations, we expect that this fan should be able to remain in service for several more years, if properly maintained and serviced.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

Exhaust fan in lower parking garage.

Controller for Exhaust fan in lower parking garage.

3.6.6 Exhaust Fan for Elevator Machine Room

FE-5: Elevator machine room cabinet exhaust fan. Ceiling hung, plug-in motor. c/w B.D.D., wall cap reverse acting thermostat to start fan @ 85^{o}F and stop fan @ 75^{o}F. 220 cfm @ 0.125" Wg E.S.P. 3 Sones, 105 Watts, 120/1/60. Manuf Ref Penn Zephyr Z8 or equal.

The normal life expectancy is 15 to 20 years. We expect these units to remain serviceable for many years if properly maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.7 Exhaust Fan in Refuse Room

FE-6: refuse cabinet exhaust fan. Ceiling hung plug-in motor. c/w B.D.D. 750 cfm @ 0.250" Wg. E.E.P., 4.5 Sones, 480 Watts, 120/1/60. Manuf Ref. Penn Z12RA or equal.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.8 Exhaust Fan in Storage Locker

FE-7: Storage locker cabinet exhaust fan. Same as FE-6 except for duty 300 cfm @ 0.25" Wg. E.S.P., 3.8 Sones, 130 Watts, 120/1/60. Manuf Ref Penn Z10RA or equal.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.9 Exhaust Fan for Workshop

FE-8: Storage and workshop in-line cabinet exhaust fan. Same as FE-6 except for duty 560 cfm @ 0.25" Wg., E.S.P., 7.5 Sones, 545 Watts, 120/1/60. Manuf ref Penn Z11TDA or equal.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.10 Exhaust Fan for Community Room

FE-9: Community Room in-line cabinet exhaust fan. Same as FE-6 except for duty 1300 cfm @ 0.25" Wg., E.S.P., 5.7 Sones, 1/4 hp, 120/1/60 c/w variable speed control. Manuf ref Penn Z14TDA or equal.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.11 Exhaust Fan for Lower Parking Area

FS-1: Lower parking area supply fan. Belt driven centrifugal in-line fan c/w channel support, vibration isolators, insulated housing, local disconnect switch. 15,000 cfm @0.36" Wg., S.P., 650 rpm, 13.0 Sones, interlocked with FE-4 and controlled by one common time clock/ C.O. detector. 5 hp @ 208/3/60. Manuf ref Penn Centrex Inliner fan SX335B or equal.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.12 Exhaust Fan for Workshop & Vestibule

FS-2: Workshop and vestibules in-line cabinet supply fan. Plug-in motor 360 cfm @0.25" Wg. E.S.P. 4.8 Sones, 185 Watts, 120/1/60. Manuf ref Penn Z9 or equal.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.13 Submersible Sewage Pump

Duplex storm system. Domestic submersible sewage pumps. 2" N.P.T. vertical discharge c/w wall-mounted control panel and ho-level alarm. Pump duty each, 56 gpm @ 10 ft head, to handle 1-1/2" solid, 1/3 hp 115/1/60. Provide sufficient cable length to run into motor control panel. Pump to be cast iron w/ oil-filled mech. Seal c/w Mercury liquid-level controls, 50-ft cable. Manuf ref Barnes SE331 or equal.

The normal life expectancy is in the order of 25 to 30 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.14 Exhaust Fan for Lower Parking Area

FS-1: Lower parking area supply fan. Belt driven centrifugal in-line fan c/w channel support, vibration isolators, insulated housing, local disconnect switch. 15,000 cfm @0.36" Wg., S.P., 650 rpm, 13.0 Sones, interlocked with FE-4 and controlled by one common time clock/ C.O. detector. 5 hp @ 208/3/60. Manuf ref Penn Centrex Inliner fan SX335B or equal.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.15 Submersible Sewage Pump

P-5, 6: Sanitary duplex pump system. Heavy duty submersible sewage pumps. All as P-1, P-2 except 3" N.P.T., 75 US gpm @ 60 ft head, to handle 2" dia solid, 3 hp, 208/3/60 c/w slide-away coupling, guardrails.

Control panel same as P-1, P-2 except c/w overload protection. Manuf ref Barnes DB-5032 or equal. Control to operate pump P-1 at low level and pumps P-1, P-2 prior to high level alarm. High-level alarm to sound when overflow tank is used.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.6.16 Sanitary Back-up Pump

P7 Sanitary Back-up Pump. To be kept in mech room. Duty same as P-5 or P-6. Pump to be complete and ready to replace either P-5 or P-6, only requiring hook-up.

The normal life expectancy is in the order of 20 to 25 years. The unit appears to be of original installation, and we expect this unit to remain serviceable for many years, if properly serviced and maintained.

We have provided a cost for removal and replacement, as outlined in Table 1 - Cost Summary.

3.7 Electrical Elements

3.7.1 Main Power

The main electrical power is 1600A, 120/208V, 3-phase, 4W.

The normal life expectancy of the main disconnect is in the order of 60 years. The equipment reviewed appears to be an original installation and we expect these units to remain serviceable for many more years, if properly serviced and maintained.

We have not provided a cost for removal and replacement of this equipment as it is too far removed from the intended timespan of this exercise.

3.7.2 Distribution Systems

From supplied Electrical drawings dated July 5, 1990, distribution is achieved via the following:

1. 400A, 3-phase: MSA #1, 10 suites
2. 400A, 3-phase: MSA #2, 10 suites
3. 600A, 3-phase: MSA #3, 14 suites
4. 600A, 3-phase: MSA #4, 16 suites
5. 400A, 3-phase:
    a. 200A: Panels A & B
    b. 200A: Panels C & D
    c. 100A: Elevator machine room #1
    d. 100A: Elevator machine room #2
    e. 100A: Panel W - Workshop

Exp observed that on-site conditions differ from supplied Electrical drawings in that MSA #3 services 12 suites rather than 14, and MSA #4 services 18 suites rather than 16. These observed conditions leave MSA #3 under-serviced, and MSA #4 over-serviced, according to supplied Electrical drawings. **Exp** recommends review of the existing distribution network by a qualified Electrical Engineer.

Also, MSA #3 was not located in Electrical Room #2 in the Upper Parking Level as indicated on sheet E3 of the Electrical drawings. It was observed to be under wood frame exit stairs beside suite 2A. The floor of this room was observed to be bare soil, not concrete. Again, **exp** recommends review by a qualified Electrical Engineer.

The normal life expectancy of the main disconnect is in the order of 60 years. The equipment reviewed appears to be an original installation and we expect these units to remain serviceable for many more years, if properly serviced and maintained.

We have not provided a cost for removal and replacement of this equipment as it is too far removed from the intended timespan of this exercise.

3.7.3 Interior and Exterior Lighting

Stairwells and service/locker rooms are generally illuminated with ceiling mounted fluorescent lighting fixtures. The Community Room is also illuminated with ceiling mounted fluorescent lighting fixtures. All reviewed fluorescent lighting fixtures generally appear to be in serviceable condition and should remain so for several more years.

The underground parking garage is illuminated with fluorescent lighting fixtures. The lighting provided in the parking garage generally appears to be adequate and the condition of the fixtures can be considered serviceable, and we anticipate they will remain so for several more years.

Refer to Item 3.2.4 for Exterior Light Fixtures.

We have provided a cost for removal and replacement of interior lighting systems, as outlined in Table 1 - Replacement Cost Summary.

3.7.4 Miscellaneous Electrical Equipment

An allowance of $15,000 has been made for repairs or replacement of miscellaneous electrical equipment.

4. Reserve Fund Thirty-Year Forecast

4.1 Overview

The Strata Property Act requires that a Strata corporation establish and maintain a separate fund(s) to accommodate major capital expenditures required to maintain (less frequent than 1 year), repair and/or replace the common elements. Further, the Act requires that the Strata collect, from the unit-owners, contributions to this Contingency Reserve Fund which are calculated on the basis of expected maintenance, repair and replacement costs, and the life expectancy of the common elements. This requires a prediction of future events.

Establishing the amounts necessary to properly fund the reserves is one of the most difficult tasks facing condominiums. The Strata Council is often confronted with two apparently conflicting mandates. Firstly, they must keep common element fees low and, secondly, they must maintain the condominium assets in a reasonable state of repair and avoid special assessments. The estimates in the following tables, based on an engineered approach, provide a rational plan for accumulating reserves for future repair and replacement. This relies on costs based on available information, the current state of knowledge of performance of building systems, present technology and on commonly used economic factors.

In Table 1, at the end of this chapter, we have summarized the pertinent information to be used in forecasting future capital expenditures for all of the major maintainable common element components of Strata Plan LMS 259. Table 1 provides a list of items included in the study, a brief description of these elements, their estimated normal and remaining lives, and their respective replacement costs.

Table 2 presents our projections for annual expenditures, interest income, required contributions (for the corporation as a whole), and reserve fund balance forecast over a thirty-year (30) period for one select interest/inflation rate scenario. The following sections explain the methodology used and assumptions made in constructing the thirty-year (30) repair/replacement forecast.

Table 3 presents the Cash Flow Table

Table 4 present the Contribution Table

4.2 Thirty-Year (30) Repair/Replacement Forecast

Table 2 is an idealized thirty-year (30) cash flow plan for the contingency reserve fund of Strata Plan LMS 259 that has been constructed for the common elements as they presently exist.

Based upon the projections of remaining life for each common element component, a repair or replacement cost for that item is entered into the appropriate column of Table 2 as an expenditure. The cost inserted into any particular column is the *future value* of the element's *current replacement cost* that is listed in Table 1. We have used a constant annual inflation rate of 2% (displayed at the top of Table 2) and standard annuity formulas to determine the future value of remedial work. The expenditures are then summed for each year to arrive at a figure for "Total Expenditures". For elements with large repair/replacement costs, we have elected to phase the remedial work over several years instead of one, where possible. This results in a saving on annual contributions, especially for mature buildings, and also reflects a more probable repair strategy. The effect of the Goods and Services Sales Tax (GST) is shown separately.

"Interest Income" is generated from two components: from reserve fund monies already on deposit; and from the Strata's annual contributions. For the purpose of this Depreciation Study, we have assumed a constant interest rate of 3% which is displayed at the top of Table 2. It is further assumed that expenditures for any one year are incurred at the end of the first quarter of that year, whereupon the reserve fund deposits on which interest is generated are reduced. Our analysis presupposes that the "Strata's Annual Contribution" is deposited in twelve (12) equal payments at the end of each month. We recommend that all interest be reinvested in the reserve fund to offset increases in annual contributions.

The end-of-year "Reserve Fund Balance" is calculated as the sum of the previous year's "Reserve Fund Balance" (or "Present Reserve Fund" in the case of year one), "Total Expenditures", "Goods and Services Sales Tax", "Interest Income", "Corporation's Annual Contribution", and any "Special Assessment".

It is our opinion that the actual reserve fund contributions should be determined by the Council of Strata plan LMS 259 (using our recommendations as a guide), in consort with their property management firm and accountant, to properly reflect the perceived needs and planning objectives set out by the Council. We have provided 3 different reserve fund models per the requirements of the legislation. *In the funding model we have presented, we have made recommendations for funding levels that should ensure that adequate reserve funds are accumulated to pay for major capital expenditures over the next thirty (30) years.* We have determined the "Strata's Annual Contribution" requirement on the basis that the "Reserve Fund Balance" for each of the remaining thirty (30) years must never result in a deficit or zero balance. We do not recommend that reserves be maintained at or near a "zero" balance in case some unforeseen repair arises requiring emergency expenditures.

Please note that this study must not be relied upon on its own, without regular periodic updating. We also recommend that firm quotes be obtained from reputable contractors for the required rehabilitation work to more accurately establish the exact figure for any special assessment.

4.3 Assumptions and Limitations

It must be emphasized that, in preparing a Depreciation Study report, many predictions of future events are required. The rationale behind projecting life expectancy and current repair/replacement costs has already been explained in Chapter 2.

In order to predict the future repair/replacement costs, we firmly believe it is necessary to account for the influence of inflation on construction costs. **Exp** has reviewed the overall escalation of residential construction costs, as reflected in certain statistical indicators, as well as fluctuations in interest rates in Canada over the past years. We have assumed that an average construction cost rate of inflation will be in effect over the remaining life of the condominium complex. The value of 2% has been used in the model in table 2, as an annual inflation figure.

Similarly, to properly account for the interest a reserve fund will earn on deposits, we have presented a 3% rate of interest for Table 2. It is our opinion that this represents a conservative figure and will likely not result in underfunding of reserves.

As a result of changing economic conditions as well as the many assumptions and limited visual sampling of common elements involved in developing a thirty-year (30) repair/replacement forecast, a Depreciation Study cannot be expected to be one hundred percent accurate. We recommend that Strata Plan LMS 259 review and update this study as required by the Condominium Act and regulations every three (3) years.

4.4 Investment Planning

We recommend that Strata Plan LMS 259 review the Repair/Replacement Forecast with their accountant and/or financial manager in order to maximize returns on their reserve fund. **Exp** has assumed a single interest rate that, in our opinion, is on the conservative side. By varying deposits between investment vehicles it may be possible to obtain higher market rates and thus increase interest income and slightly reduce required contributions. However, this approach must take into account that high risk investments must be avoided.

5. Summary

Exp Services Inc. was retained by the Strata Plan LMS 259 to conduct a Depreciation Study Report of the future repair and replacement requirements for this condominium's common element components, as defined by the Scope of Work in this report.

Based upon our visual reviews conducted on site, we have evaluated the present condition of, and estimated the remaining life expectancy for, the condominium's common elements. We have also prepared estimates of current repair and/or replacement costs for the common elements that, in our opinion, should be accounted for in Strata's reserve fund. An idealized thirty-year (30) repair/replacement forecast has been constructed that presents our short term recommendation for annual reserve fund contributions by the Strata. We have accounted for the condominium corporation's present reserve fund balance and have attempted to account for the influences of inflation and rates of return on investments. It is assumed that regular preventative maintenance will be carried out over the life of the condominium.

It is our opinion that the actual reserve fund contributions should be determined by Strata Plan LMS 259 (using our recommendations as a guide), in consort with their property management firm and accountant, to properly reflect the perceived needs and planning objectives set out by the Strata. We have provided 3 different reserve fund models per the requirements of the legislation. *In the reserve fund models we have presented, we have made recommendations for funding levels that should ensure that adequate reserve funds are accumulated to pay for major capital expenditures over the next thirty (30) years.* We have determined the "Strata's Annual Contribution" requirement on the basis that the "Reserve Fund Balance" for each of the remaining thirty (30) years must never result in a deficit or zero (0) balance. We do not recommend that reserves be maintained at or near a "zero" balance in case some unforeseen repair arises requiring emergency expenditures.

Please note that this Depreciation Study must not be relied upon by itself, without regular updating. We also recommend that firm quotes be obtained from reputable contractors for the required rehabilitation work to more accurately establish the exact figure for any special assessment.

It is our further recommendation that the Strata Directors review the contents of this report in consort with their property manager and accountant or financial manager to:

- ensure that there is no duplication between reserve fund and operating (repair and maintenance) budgets, and;
- determine the most appropriate low-risk investment vehicles to maximize return and still meet the cash flow requirements, and;
- establish the required reserve fund contributions to properly reflect the perceived needs and planning objectives of the Strata. In view of the facts that

both our projections for component life expectancy and replacement cost, and that our assumptions regarding interest and inflation rates cannot be one hundred percent accurate over the long term, we recommend that the Strata's reserve fund be re-evaluated a minimum of every three (3) years as required by the governing regulation, to reflect the latest expenditures and planning goals of Strata Plan LMS 259.

Exp Services Inc.

Appendix A:
Asset Inventory and Cost Summary

Table 1 - Asset Inventory and Cost Summary

Item #	System/Assembly/Components	Comments & Action Recommendations	Estimated Year of Acquisition	Service Life/ Action Frequency (yrs.)	Present Age (yrs.)	Remaining Life/ Years until next action (yrs.)	2013 Cost of Action
	Site Elements						
3.2.1a	Timber retaining walls, steps & edging.	Immediate replacement of wood timber elements. The replacement is overdue. This item is to capture the immediate replacement action for this component. For future replacement actions, please see item 3.2.1b	1990	23	23	0	$7,500
3.2.1b	Timber retaining walls, steps & edging.	Replacement of wood timber elements is expected approximately every 15 years. This item reflects the replacement to be conducted in 2013.	2013	15	0	15	$7,500
3.2.2	Hardscape concrete components: pedestrian sidewalks and landscape planters.	Replacement or major remediation of Hardscape Elements is not expected to be required for the duration of the Study, or during the service life of the building. (*refer also to 3.3.3b for waterproof membrane*	1990	100	23	77	NA
3.2.2	Hardscape concrete components: pedestrian sidewalks and landscape planters.	An allowance to cover any costs for incidental damages and maintenance activities such as cleaning and painting of the hardscape elements	2005	10	8	2	$2,500
3.2.3	Metal picket fencing & gates.	Replacement or major remediation of metal picket fencing and gates is not expected to be required for the duration of the Study, or during the service life of this development. *Localized repair and maintenance of metal picket fencing and gates may be required annually (from Operating Budget).* Commonly, the metal picket fencing and gates are replaced for aestetics purpose, which we do not believe to occur at Sandborne Woods within the duration of this study period.	1990	60	23	37	$18,000
3.2.4	Exterior light fixtures.	An allowance for eventual replacement of landscape lighting throughout plantings.	1990	30	23	7	$5,000
	Below-grade and At-grade Assemblies						
3.3.1	Superstructure	Replacement or major remediation of the below-grade superstructure is not expected to be required for the duration of this Study or during the service lives of the buildings.	1990	100	23	77	NA
3.3.2	Lower Parking Level: Slab-on-grade Concrete Floor	Replacement or major remediation of the slab-on-grade concrete floor assembly is not expected to be required for the duration of this Study or the service lives of the buildings, except for localized repair of settlement cracks. *Annual allowance to carry out parking garage concrete repairs to the slab-on-grade will come from the Operating Budget.*	1990	100	23	77	NA
3.3.3a	Below-grade Parking Garage: Concrete Suspended Slab	Replacement or major remediation of the below-grade concrete assemblies and components is not expected to be required for the duration of this Study or during the service life of the buildings, except for localized repair of cracks (from Operating Budget).	1990	100	23	77	NA
3.3.3b	Below-grade Parking Garage: Concrete Suspended Slab	We note the existing parkade suspended slab on P1 level is not installed with traffic coating. It is recommended to install traffic membrane to the suspended concrete slab, Level P1, to avoid any damage to the concrete suspended slab. This item captures the initial installation of traffic coating within 2 years. Future replacement of this component are covered in Item 3.3.3c	1990	25	23	2	$56,000
3.3.3c	Below-grade Parking Garage: Concrete Suspended Slab	Recoating of traffic coating. The -2 indicated under present age represents this action item is a future requirement.	2015	15	-2	17	$35,000

Table 1 - Asset Inventory and Cost Summary

Item #	System/Assembly/Components	Comments & Action Recommendations	Estimated Year of Acquisition	Service Life/ Action Frequency (yrs.)	Present Age (yrs.)	Remaining Life/ Years until next action (yrs.)	2013 Cost of Action
3.3.4a	At-grade Concrete Suspended Slab Assembly	Replacement of podium deck waterproofing, due to the current water ingress issues observed, includes removal of paving and landscaping overburden to expose concrete roof deck. An allowance is included to conduct repair to the top concrete surface. Remove and replace membrane and reinstate hardscape, growing medium and vegetation.	1990	25	23	2	$660,000
3.3.4b	At-grade Concrete Suspended Slab Assembly	Assuming the replacement of the podium deck waterproofing is conducted by retaining a professional and proper maintenance the waterproofing should perform adequately for 30 years and more.	2015	30	-2	32	$660,000
3.3.5	Painted Interior Finishes - Below-grade Concrete Assemblies and Components	Repainting of walls, columns and ceilings of parking garage, including exposed pipes and stenciling, etc. (42,800 sf) **Exp** assumes that these interior concrete surfaces have been repainted once; we assume it was last done in 2005.	2005	15	8	7	$85,600
	Building Envelope and Exterior Building Elements						
3.4.1.1	Exterior wall assembly - Vinyl Siding	Considering the vinyl siding was overclad and not replaced, we expect a replacement of cladding by 2020 along with other exterior wall assemblies. We are intending to conduct this in 3 phases. This item covers the cost of Phase 1 in 2020. The life cycle is normally in 30 years.	2000	20	13	7	$500,000
3.4.1.2	Exterior wall assembly - Vinyl Siding	Considering the vinyl siding was overclad and not replaced, we expect a replacement of cladding by 2020 along with other exterior wall assemblies. We are intending to conduct this in 3 phases. This item covers the cost of Phase 2 in 2023	2000	23	13	10	$500,000
3.4.1.3	Exterior wall assembly - Vinyl Siding	Considering the vinyl siding was overclad and not replaced, we expect a replacement of cladding by 2020 along with other exterior wall assemblies. We are intending to conduct this in 3 phases. This item covers the cost of Phase 3 in 2026	2000	26	13	13	$500,000
3.4.2	Exterior wall assembly - Stucco Cladding	Periodic maintenance, such as filling chipped areas of stucco, will come from the Operating Budget.	1990	30	23	7	$62,500
3.4.3	Exterior wall assembly - Wood board siding	Replacement of woodboard siding with rainscreen equivalent. *Periodic maintenance, such as replacement of deteriorated boards, to be funded from Operating*	1990	30	23	7	$62,500
3.4.4.1	Windows: Metal frame double pane; typical suites.	Removal and replacement of windows including new frames, hardware, IGUs and head/ sill flashings. With regular maintenance and provided there are no issues this could be accordingly postponed. Usually window replacements occur with exterior cladding replacement. We are assuming to conduct this in 3 phases. This item covers the cost of Phase 1 in 2020	1990	30	23	7	$330,000
3.4.4.2	Windows: Metal frame double pane; typical suites.	Removal and replacement of windows including new frames, hardware, IGUs and head/ sill flashings. With regular maintenance and provided there are no issues this could be accordingly postponed. Usually window replacements occur with exterior cladding replacement. We are assuming to conduct this in 3 phases. This item covers the cost of Phase 2 in 2023	1990	33	23	10	$330,000
3.4.4.3	Windows: Metal frame double pane; typical suites.	Removal and replacement of windows including new frames, hardware, IGUs and head/ sill flashings. With regular maintenance and provided there are no issues this could be accordingly postponed. Usually window replacements occur with exterior cladding replacement. We are assuming to conduct this in 3 phases. This item covers the cost of Phase 3 in 2026	1990	36	23	13	$330,000
3.4.5.1	Glass block in-filled wall areas.	We anticipate existing glass block assemblies requiring removal and reinsallation along with the exterior wall assembly restoration. Replacement of glass blocks as such is not required for the duration of the study.	1990	60	23	37	$25,000

Table 1 - Asset Inventory and Cost Summary

Item #	System/Assembly/Components	Comments & Action Recommendations	Estimated Year of Acquisition	Service Life/ Action Frequency (yrs.)	Present Age (yrs.)	Remaining Life/ Years until next action (yrs.)	2013 Cost of Action
3.4.5.2	Glass block mortar replacement.	Immediate action of re-pointing maintenance or replacement of mortar joints between glass blocks. JRS BECA report (2010) indicates deteriorated mortar joints in glass block assemblies.	1990	23	23	0	$7,500
3.4.5.3	Glass block mortar replacement.	Re-pointing maintenance or replacement of mortar joints between glass blocks every 15 years, assuming re pointing will be conducted in 2013 per item above.	2013	15	0	15	$7,500
3.4.6.1	Doors: Metal frame sliding glass doors (SGD) with double pane IGU. Location: typical patios & balconies.	Removal and replacement of failed SGD units, including new frames and hardware and sheet metal head flashings. We are assuming to conduct this in 3 phases along with the exterior wall and window replacements. This item covers the cost of Phase 1 in 2020	1990	30	23	7	$62,000
3.4.6.2	Doors: Metal frame sliding glass doors (SGD) with double pane IGU. Location: typical patios & balconies.	Removal and replacement of failed SGD units, including new frames and hardware and sheet metal head flashings. We are assuming to conduct this in 3 phases along with the exterior wall and window replacements. This item covers the cost of Phase 2 in 2023	1990	33	23	10	$62,000
3.4.6.3	Doors: Metal frame sliding glass doors (SGD) with double pane IGU. Location: typical patios & balconies.	Removal and replacement of failed SGD units, including new frames and hardware and sheet metal head flashings. We are assuming to conduct this in 3 phases along with the exterior wall and window replacements. This item covers the cost of Phase 3 in 2026	1990	36	23	13	$62,000
3.4.7	Doors: Wood frame, metal-clad (with glass insert) swing doors . Location: typical patios/ balconies.	Removal and replacement of wood frame, metal-clad (with glass insert) swing doors. In JRS BECA report (2010) two balcony swing doors were observed not to seal tightly when closed.	1990	25	23	2	$48,000
3.4.8	Doors: Wood frame, insulated metal-clad recessed panel entrance doors. Location: typical suite main entrances.	Replacement of typical main entrance doors of suites. Typically these doors are shielded from wind-driven rain by exterior corridor roof overhangs.	1990	30	23	7	$75,000
3.4.9	Doors: Metal frame, insulated metal-clad flat panel exit doors. Location: typical exits from parking garage.	Replacement of typical main entrance doors of suites. Typically these doors are shielded from wind-driven rain by exterior corridor roof overhangs.	1990	30	23	7	$75,000
3.4.10	Doors: metal frame storefront-glazed swing doors. Location: Community Room	Removal and replacement of Community Room storefront glazing c/w swing doors.	1990	25	23	2	$11,250
3.4.11.1	Exterior Joint Sealant: Between dis-similar materials. Location: throughout.	Allowance to replace the exterior joint sealant at interfaces of dis-similar materials and transition of the assemblies in the exterior building envelope, assuming the joint sealant is replaced this year per above item.	2000	15	13	2	$22,500
3.4.11.2.1	Exterior Joint Sealant: Windows & Doors	Allowance for the removal and replacement of exterior sealant around window and door perimeters throughout the buildings, assuming the replacement of joint sealant is conducted per above item.	2000	15	13	2	$119,790
3.4.13.1a	Roofing Systems: Steep Slope Roof on wood-trusses with asphalt shingles. Location: Bldg A	Based on our review, we understand the sloped roof asphalt shingles would require replacement immediately. Allowance for the removal and replacement of asphalt shingles for Bldg A included here.	1990	23	23	0	$256,000
3.4.13.1b	Roofing Systems: Steep Slope Roof on wood-trusses with asphalt shingles. Location: Bldg A	Further to the immediate replacement this year, based on the typical life cycle, the asphalt roof shingles of Bldg A may require replacement every 30 years	2013	30	0	30	$256,000
3.4.13.2a	Roofing Systems: Steep Slope Roof on wood-trusses with asphalt shingles. Location: Bldg B	Based on our review, we understand the sloped roof asphalt shingles would require replacement immediately. Allowance for the removal and replacement of asphalt shingles for Bldg A included here.	1990	23	23	0	$528,000
3.4.13.2b	Roofing Systems: Steep Slope Roof on wood-trusses with asphalt shingles. Location: Bldg B	Further to the immediate replacement this year, based on the typical life cycle the asphalt roof shingles of Bldg B may require replacement every 30 years	2013	30	0	30	$528,000

Table 1 - Asset Inventory and Cost Summary

Item #	System/Assembly/Components	Comments & Action Recommendations	Estimated Year of Acquisition	Service Life/ Action Frequency (yrs.)	Present Age (yrs.)	Remaining Life/ Years until next action (yrs.)	2013 Cost of Action
3.4.14	Roofing System: SBS low-slope roof assembly. Location: Bldgs A & B including elevator roof	Immeidate replacement of the low slope roof assembly is recommended. Allowance is provided for the removal and replacement of SBS membrane roofing system at these locations, including metal cap flashings.	1990	25	23	2	$123,000
3.4.15a	Five (5) Low-slope Roof Decks: - wood slat deck boards on neoprene pucks - 2-ply SBS membrane.	Allowance to replace SBS membrane, including replacement of sheet metal cap flashings on guardwalls, and removal and replacement of wood decking boards.	2009	25	4	21	$93,750
3.4.15b	One (1) Low-Slope Roof Deck: - wood slat deck boards on neoprene pucks - Built-up roof membrane (BUR).	Allowance to replacement of SBS membrane, including replacement of sheet metal cap flashings on guardwalls, and removal and replacement of wood decking boards.	1990	25	23	2	$18,750
3.4.16a	Balcony Deck Waterproofing System - liquid-applied waterproofing membrane .	Though the normal service life of the traffic coating per industry standard is 15 years, the replacement of the traffic coating can be extended to 30 years provided proper maintenance is conducted including recoating of the membrane every alternate 15 years and conducting immediate repairs on damages including wear and tear. Based on the cost of work conducted in 2013 by Centra. Regular maintenance may extend the service life of the membrane.	2013	30	0	30	$550,000
3.4.16b	Balcony Deck Waterproofing System - liquid-applied waterproofing membrane .	An allowance for re-coating and maintenance of the traffic coating membrane on the balcony deck surfaces every alternate 15 years	2013	15	0	15	$200,000
3.4.17	Balcony Railings: Side-mounted pre-finished metal picket railings. Location: typical	Removal and replacement of metal picket balcony railings. Based on the cost of work conducted in 2013 by Centra.	2013	30	0	30	$200,000
3.4.18a	Roof Deck Guardwalls: wood-frame, wood board-sided guardwalls. Location: roof decks.	Replacement of wood framing of guardwalls is not anticipated during the duration of this Study. However, replacement of wood board siding (interior side) may be required.	1990	30	23	7	$40,000
3.4.18b	Roof Deck Guardwalls: wood-frame, wood board-sided guardwalls. Location: roof decks.	Re-painting of rooftop deck woodboard-clad guardwalls (interior side only). The year 2005 is assumed.	2005	10	8	2	$4,000
3.4.19a	Patterned concrete-topped exterior corridors (on top of concrete parking garage structure).	Replacement of patterned concrete topping in common corridors (on top of concrete parking garage structure).	1990	30	23	7	$37,500
3.4.20a	Wood frame exterior corridors c/w liquid-applied waterproof coating as pedestrian traffic surface.	Though the normal service life of the traffic coating per industry standard is 15 years, the replacement of the traffic coating can be extended to 30 years provided proper maintenance is conducted including recoating of the membrane every alternate 15 years and conducting immediate repairs on damages including wear and tear.	2013	30	0	30	$32,800
3.4.20b	Wood frame exterior corridors c/w liquid-applied waterproof coating as pedestrian traffic surface.	Recoating of traffic coating every alternate 15 years as part of the maintenance.	2013	15	0	15	$12,300
3.4.21a	Wood frame exterior exit stair assemblies.	Replacement of the exterior exit wood stairs.	1990	60	23	37	$24,000
3.4.21b	Wood frame exterior exit stair assemblies.	Replacement of the traffic coating is recommended every 30 years provided proper maintenance is conducted including recoating of the membrane every alternate 15 years and conducting immediate repairs on damages including wear and tear.	2013	15	0	15	$8,000
3.4.21b	Wood frame exterior exit stair assemblies.	Recoating of traffic coating every alternate 15 years as part of the maintenance.	2013	15	0	15	$3,000
3.4.22	Wood frame ladder-stair assemblies.	Replacement of ladder-stair assemblies. (*It is reasoned that these wood frame ladder-stair assemblies should not require replacement due to their protected locations.) Assumed ladder re-painting falls under*	1990	60	23	37	$6,000

Table 1 - Asset Inventory and Cost Summary

Item #	System/Assembly/Components	Comments & Action Recommendations	Estimated Year of Acquisition	Service Life/ Action Frequency (yrs.)	Present Age (yrs.)	Remaining Life/ Years until next action (yrs.)	2013 Cost of Action
3.4.23	Metal picket top-mounted railings at exterior corridors and stairs.	Replacement of metal picket railings at exterior stair assemblies. (*It is reasoned that the wood framing of these exterior exit stair assemblies should not require replacement during the lifespan of these buildings*.)	2013	30	0	30	$5,400
	Interior Building Elements						
3.5.1	Community Room: Cabinetry.	An allowance for eventual complete replacement of cabinetry and c/tops.	1990	35	23	12	$5,000
3.5.2a	Community Room Floor Finish: Carpeting	Removal and replacement of carpeting.	2005	15	8	7	$26,250
3.5.2b	Community Room Floor Finish: Ceramic Tiles.	Removal and replacement of ceramic tiles is not anticipated for the duration of this Study. An allowance for grout replacement is included.	1990	35	23	12	$2,000
3.5.3	Interior Finish of Community Room Ceiling: suspended acoustic panels.	Replace acoustic ceiling panels (retain existing metal frame suspended structure).	1990	25	23	2	$2,850
3.5.4	Interior Painted Finishes of gypsum-boarded walls in Community Room.	Repaint gypsum board walls. (*Note: Normal Lifespan value is for re-painting, not replacement of gypsum board panels*). We assume they were painted in 2005 per 15-year life cycle	2005	15	8	7	$2,080
3.5.5	Interior Service Doors: metal frame, metal-clad flat-panel swing doors.	An allowance for the replacement of typical metal-clad flat-panel utility swing doors.	1990	35	23	12	$45,000
3.5.6	Doors: Exterior metal frame segmented panel overhead vehicle	Removal and replacement of segmented overhead door.	1990	40	23	17	$8,000
	Mechanical Systems						
3.6.2	HWT-2: CSA-approved domestic electric hot water tank Location: Community room.	5 Imp gallons storage, 14" dia., 1.5 KW element, 120/1/60, c/w fibreglass insulation. Manuf ref Jetglas M6U5S. Contingency for replacement of domestic hot water storage tank.	1990	20	23	-3	$1,000
3.6.3	CO detector	CO detector to start exhaust fan FE-3 @ 50 p.p.m. level. Manuf ref. Nova 580RA or equal. Contingency for replacement of the C.O. detector.	1990	20	23	-3	$1,000
3.6.4	Sprinkler system air compressor.	Sprinkler system air compressor c/w all necessary controls and relays. 100 psi single stage 1 hp 208/3/60. Manuf ref. Quincy or equal.	1990	25	23	2	$1,000
3.6.5a	FE-3: Upper parking area exhaust fan. Wall-mounted belt driven propeller fan c/w fan guard and local disconnect switch.	14,000 cfm @ 0.250 Wg. E.S.P., 11.7 Sones, Controlled by time clock/ C.O. detector. 1.5 hp, 208/3/60. Manuf ref. Penn Breezeway BF42 or equal.	1990	25	23	2	$5,000
3.6.5b	FE-4: Lower parking area exhaust fan. Same as FE-3 and interlocked with FS-1.	Same as above.	1990	25	23	2	$5,000
3.6.6	FE-5: Elevator machine room cabinet exhaust fan. Ceiling hung, plug-in motor.	c/w B.D.D., wall cap reverse acting thermostat to start fan @ 85^{o}F and stop fan @ 75^{o}F. 220 cfm @ 0.125" Wg E.S.P. 3 Sones, 105 Watts, 120/1/60. Manuf Ref Penn Zephyr Z8 or equal.	1990	25	23	2	$1,000
3.6.7	FE-6: refuse cabinet exhaust fan. Ceiling hung plug-in motor.	c/w B.D.D. 750 cfm @ 0.250" Wg. E.E.P., 4.5 Sones, 480 Watts, 120/1/60. Manuf Ref. Penn Z12RA or equal.	1990	25	23	2	$500
3.6.8	FE-7: Storage locker cabinet exhaust fan.	Same as FE-6 except for duty 300 cfm @ 0.25" Wg. E.S.P., 3.8 Sones, 130 Watts, 120/1/60. Manuf Ref Penn Z10RA or equal.	1990	25	23	2	$500
3.6.9	FE-8: Storage and workshop in-line cabinet exhaust fan.	Same as FE-6 except for duty 560 cfm @ 0.25" Wg., E.S.P., 7.5 Sones, 545 Watts, 120/1/60. Manuf ref Penn Z11TDA or equal.	1990	25	23	2	$500

Table 1 - Asset Inventory and Cost Summary

Item #	System/Assembly/Components	Comments & Action Recommendations	Estimated Year of Acquisition	Service Life/ Action Frequency (yrs.)	Present Age (yrs.)	Remaining Life/ Years until next action (yrs.)	2013 Cost of Action
3.6.10	FE-9: Community Room in-line cabinet exhaust fan.	Same as FE-6 except for duty 1300 cfm @ 0.25" Wg., E.S.P., 5.7 Sones, 1/4 hp, 120/1/60 c/w variable speed control. Manuf ref Penn Z14TDA or equal.	1990	25	23	2	$500
3.6.11	FS-1: Lower parking area supply fan. Belt driven centrifugal in-line fan c/w channel support, vibration isolators, insulated housing, local disconnect switch.	15,000 cfm @0.36" Wg., S.P., 650 rpm, 13.0 Sones, interlocked with FE-4 and controlled by one common time clock/ C.O. detector. 5 hp @ 208/3/60. Manuf ref Penn Centrex Inliner fan SX335B or equal.	1990	25	23	2	$5,000
3.6.12	FS-2: Workshop and vestibules in-line cabinet supply fan.	Plug-in motor 360 cfm @0.25" Wg. E.S.P. 4.8 Sones, 185 Watts, 120/1/60. Manuf ref Penn Z9 or equal.	1990	25	23	2	$2,500
3.6.13	P-1, 2: Duplex storm system. Domestic submersible sewage pumps. 2" N.P.T. vertical discharge c/w wall-mounted control panel and hi level alarm.	Pump duty each, 56 gpm @ 10 ft head, to handle 1-1/2" solid, 1/3 hp 115/1/60. Provide sufficient cable length to run into motor control panel. Pump to be cast iron w/ oil-filled mech. Seal c/w Mercury liquid-level controls, 50-ft cable. Manuf ref Barnes SE331 or equal.	1990	35	23	12	$10,000
3.6.14	P-1, 2 Exhaust fans for lower parking area.	Control panel suitable for outdoor mounting, to be weather-proof and vandal-proof. Control panel to include main circuit breakers, H.O.A. alternator, control transformer, hi-level alarm bell, run lights and all necessary starters, relays, disconnects requiring only power hook-up to panel and pumps for complete operation. Manuf ref Barnes DBC-1011 or equal. Control to operate pump P-1 at low level and pumps P-1, P-2 prior to high-level alarm.	1990	25	23	2	$5,000
3.6.15	P-5, 6: Sanitary duplex pump system. Heavy duty submersible sewage pumps.	All as P-1, P-2 except 3" N.P.T., 75 US gpm @ 60 ft head, to handle 2" dia solid, 3 hp, 208/3/60 c/w slide-away coupling, guardrails.	1990	35	23	12	$10,000
3.6.16	P7 Sanitary Back-up Pump.	To be kept in mech room. Duty same as P-5 or P-6. Pump to be complete and ready to replace either P-5 or P-6, only requiring hook-up.	1990	35	23	12	$1,500
	Electrical Systems						
3.7.1	Main Disconnect	Contingency for the replacement of the main disconnect with equivalent models.	1990	60	23	37	$60,000
3.7.2	Distribution Systems	Contingency for the replacement of the distribution panel boards with equivalent models.	1990	60	23	37	$36,000
3.7.3	Interior and Exterior Lighting	Contingency for the replacement of the interior lighting fixtures.	1990	25	23	2	$15,000
3.7.4	Miscellaneous Electrical Items	Contingency for the replacement of misc controls and other components.	1990	25	23	2	$60,000
	Elevator Systems						
3.8.1	Passenger elevators	Replacement of both passenger elevators. Replacement of elevator cabs (2) not intended for lifespan of these buildings.	1990	60	23	37	$150,000
3.8.2	Elevator car	Refurbish cabs in both elevators to improve aesthetics.	1990	30	23	7	$16,000
	Miscellaneous Contingency						
3.9.1	Reserve fund update study	Allowance for a Reserve Fund Study with a site visit, as required every 3 years.	2013	3	0	3	$4,000
3.9.3	Building envelope condition assessment	Allowance to conduct periodic building envelope condition assessment review	2010	6	3	3	$6,000
Notes:							
	1. The values presented in the above table are based on the assumption that a reasonable amount of proper and timely maintenance is provided over the life span of the components. The cost for regular maintenance should be provided for in the operating budget.						
	2. It has been assumed that a comprehensive maintenance contract for items such as elevators and mechanical systems will be maintained throughout the life of the building.						

Appendix B:
Funding Model 1

VAN-00203248-01-A0
Depreciation Study for Strata Plan LMS 259
Sandborne Woods, Burnaby, BC

Appendix B - Funding Model 1
Table 2 - 30 Year Repair/Replacement Forecast

Assumed Interest Rate = 3.00% **Assumed Inflation Rate = 2.00%** **Present Reserve Fund = $101,910**
Closing balance as of February 28, 2013

#	Element	2013	2014	2015	2016	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
	Site Elements																															
3.2.1a	Timber retaining walls, steps & edging.	$ 7,500.00																														
3.2.1b	Timber retaining walls, steps & edging.																$ 10,094.01															$ 13,585.21
3.2.2	Hardscape concrete components:																															
3.2.2	Hardscape concrete components:			$ 2,601.00										$ 3,170.60										$ 3,864.95								
3.2.3	Metal picket fencing & gates.																															
3.2.4	Exterior light fixtures.								$ 5,743.43																							
	Below-grade and At-grade																															
3.3.1	Superstructure																															
3.3.2	Lower Parking Level: Slab-on-grade																															
3.3.3a	Below-grade Parking Garage: Concrete																															
3.3.3b	Below-grade Parking Garage: Concrete			$ 58,262.40																									$ 95,585.64			
3.3.3c	Below-grade Parking Garage: Concrete																		$ 49,008.45													
3.3.4a	At-grade Concrete Suspended Slab			$ 686,664.00																												
3.3.4b	At-grade Concrete Suspended Slab																															
3.3.5	Painted Interior Finishes - Below-grade								$ 98,327.49															$ 132,335.86								
	Building Envelope and Exterior																															
3.4.1.1	Exterior wall assembly - Vinyl Siding								$ 574,342.83																							
3.4.1.2	Exterior wall assembly - Vinyl Siding											$ 609,497.21																				
3.4.1.3	Exterior wall assembly - Vinyl Siding														$ 646,803.32																	
3.4.2	Exterior wall assembly - Stucco								$ 71,792.85																							
3.4.3	Exterior wall assembly - Wood board								$ 71,792.85																							
3.4.4.1	Windows: Metal frame double pane;								$ 379,066.27																							
3.4.4.2	Windows: Metal frame double pane;											$ 402,268.16																				
3.4.4.3	Windows: Metal frame double pane;														$ 426,890.19																	
3.4.5.1	Glass block in-filled wall areas.																															
3.4.5.2	Glass block mortar replacement.	$ 7,500.00																							$ 11,826.74							
3.4.5.3	Glass block mortar replacement.																$ 10,094.01															$ 13,585.21
3.4.6.1	Doors: Metal frame sliding glass doors								$ 71,218.51																							
3.4.6.2	Doors: Metal frame sliding glass doors											$ 75,577.65																				
3.4.6.3	Doors: Metal frame sliding glass doors														$ 80,203.61																	
3.4.7	Doors: Wood frame, metal-clad (with			$ 49,939.20																									$ 81,930.55			
3.4.8	Doors: Wood frame, insulated metal-								$ 86,151.43																							
3.4.9	Doors: Metal frame, insulated metal-								$ 86,151.43																							
3.4.10	Doors: metal frame storefront-glazed			$ 11,704.50																									$ 19,202.47			
3.4.11.1	Exterior Joint Sealant:			$ 23,409.00															$ 31,505.43													
3.4.11.2.1	Exterior Joint Sealant:			$ 124,629.52															$ 167,734.92													
3.4.13.1a	Roofing Systems: Steep Slope Roof on	$ 256,000.00																														
3.4.13.1b	Roofing Systems: Steep Slope Roof on																															$ 463,708.57
3.4.13.2a	Roofing Systems: Steep Slope Roof on	$ 528,000.00																														
3.4.13.2b	Roofing Systems: Steep Slope Roof on																															$ 956,398.92
3.4.14	Roofing System: SBS low-slope roof			$ 127,969.20																									$ 209,947.04			
3.4.15a	Five (5) Low-slope Roof Decks:																						$ 142,093.72									
3.4.15b	One (1) Low-Slope Roof Deck:			$ 19,507.50																									$ 32,004.12			
3.4.16a	Balcony Deck Waterproofing System																															$ 996,248.87
3.4.16b	Balcony Deck Waterproofing System																$ 269,173.67															
3.4.17	Balcony Railings:																															$ 362,272.32
3.4.18a	Roof Deck Guardwalls: wood-frame,								$ 45,947.43																							
3.4.18b	Roof Deck Guardwalls: wood-frame,			$ 4,161.60										$ 5,072.97										$ 6,183.92								
3.4.19a	Patterned concrete-topped exterior								$ 43,075.71																							
3.4.20a	Wood frame exterior corridors c/w																															$ 59,412.66
3.4.20b	Wood frame exterior corridors c/w																$ 16,554.18															
3.4.21a	Wood frame exterior exit stair																															
3.4.21b	Wood frame exterior exit stair																$ 10,766.95															$ 14,490.89
3.4.21b	Wood frame exterior exit stair																$ 4,037.61															$ 5,434.08
3.4.22	Wood frame ladder-stair assemblies.																															
3.4.23	Metal picket top-mounted railings at																															$ 9,781.35
	Interior Building Elements																															
3.5.1	Community Room: Cabinetry.													$ 6,341.21																		
3.5.2a	Community Room Floor Finish:								$ 30,153.00															$ 40,581.97								
3.5.2b	Community Room Floor Finish:													$ 2,536.48																		
3.5.3	Interior Finish of Community Room			$ 2,965.14																									$ 4,864.63			
3.5.4	Interior Painted Finishes of gypsum-								$ 2,389.27															$ 3,215.64								
3.5.5	Interior Service Doors: metal frame,													$ 57,070.88																		
3.5.6	Doors: Exterior metal frame segmented																		$ 11,201.93													
	Mechanical Systems																															
3.6.2	HWT-2: CSA-approved domestic	$ 1,000.00																	$ 1,400.24													
3.6.3	CO detector	$ 1,000.00																	$ 1,400.24													
3.6.4	Sprinkler system air compressor.			$ 1,040.40																									$ 1,706.89			
3.6.5a	FE-3: Upper parking area exhaust fan.			$ 5,202.00																									$ 8,534.43			
3.6.5b	FE-4: Lower parking area exhaust fan.			$ 5,202.00																									$ 8,534.43			
3.6.6	FE-5: Elevator machine room cabinet			$ 1,040.40																									$ 1,706.89			
3.6.7	FE-6: refuse cabinet exhaust fan.			$ 520.20																									$ 853.44			
3.6.8	FE-7: Storage locker cabinet exhaust			$ 520.20																									$ 853.44			
3.6.9	FE-8: Storage and workshop in-line			$ 520.20																									$ 853.44			
3.6.10	FE-9: Community Room in-line cabinet			$ 520.20																									$ 853.44			
3.6.11	FS-1: Lower parking area supply fan.			$ 5,202.00																									$ 8,534.43			
3.6.12	FS-2: Workshop and vestibules in-line			$ 2,601.00																									$ 4,267.22			
3.6.13	P-1, 2: Duplex storm system. Domestic													$ 12,682.42																		
3.6.14	P-1, 2 Exhaust fans for lower parking			$ 5,202.00																									$ 8,534.43			
3.6.15	P-5, 6: Sanitary duplex pump system.													$ 12,682.42																		
3.6.16	P7 Sanitary Back-up Pump.													$ 1,902.36																		
	Electrical Systems																															
3.7.1	Main Disconnect																															
3.7.2	Distribution Systems																															
3.7.3	Interior and Exterior Lighting			$ 15,606.00																									$ 25,603.30			
3.7.4	Miscellaneous Electrical Items			$ 62,424.00																									$ 102,413.19			
	Elevator Systems																															
3.8.1	Passenger elevators																															
3.8.2	Elevator car								$ 18,378.97																							
	Miscellaneous Contingency																															
3.9.1	Reserve fund update study				$ 4,244.83			$ 4,504.65			$ 4,780.37			$ 5,072.97			$ 5,383.47			$ 5,712.98			$ 6,062.67	$ 6,183.92		$ 6,433.75			$ 6,827.55			$ 7,245.45
3.9.3	Building envelope condition				$ 6,367.25						$ 7,170.56						$ 8,075.21						$ 9,094.00						$ 10,241.32			
Total Expenditures		**-$801,000**	**$0**	**-$1,217,414**	**-$10,612**	**$0**	**$0**	**-$4,505**	**-$1,584,531**	**$0**	**-$11,951**	**-$1,087,343**	**$0**	**-$106,532**	**-$1,153,897**	**$0**	**-$334,179**	**$0**	**-$262,251**	**-$5,713**	**$0**	**$0**	**-$157,250**	**-$192,366**	**-$11,827**	**-$6,434**	**$0**	**$0**	**-$633,852**	**$0**	**$0**	**-$2,902,164**
GST + PST on Materials and Equipments (assume 40%)		**-$62,478**	**$0**	**-$94,958**	**-$828**	**$0**	**$0**	**-$351**	**-$123,593**	**$0**	**-$932**	**-$84,813**	**$0**	**-$8,310**	**-$90,004**	**$0**	**-$26,066**	**$0**	**-$20,456**	**-$446**	**$0**	**$0**	**-$12,266**	**-$15,005**	**-$922**	**-$502**	**$0**	**$0**	**-$49,440**	**$0**	**$0**	**-$226,369**
Corporation's Annual Contribution		**$14,500**	**$14,790**	**$15,086**	**$15,388**	**$15,695**	**$16,009**	**$16,329**	**$16,656**	**$16,989**	**$17,329**	**$17,675**	**$18,029**	**$18,390**	**$18,757**	**$19,132**	**$19,515**	**$19,905**	**$20,304**	**$20,710**	**$21,124**	**$21,546**	**$21,977**	**$22,417**	**$22,865**	**$23,322**	**$23,789**	**$24,265**	**$24,750**	**$25,245**	**$25,750**	**$26,265**
Special Assessment		**$755,000**		**$1,280,000**					**$1,640,000**			**$1,130,000**		**$80,000**	**$1,225,000**		**$325,000**		**$235,000**					**$85,000**	**$185,000**					**$580,000**			**$3,050,000**
Interest Income		**$967**	**$476**	**$391**	**$268**	**$567**	**$1,066**	**$1,479**	**$665**	**$448**	**$690**	**$245**	**$411**	**$434**	**$318**	**$506**	**$478**	**$650**	**$528**	**$332**	**$927**	**$1,604**	**$801**	**$343**	**$352**	**$627**	**$1,309**	**$2,079**	**$972**	**$534**	**$1,325**	**$807**
Annual Reserve Fund Balances ($)		**$8,899**	**$24,165**	**$7,270**	**$11,485**	**$27,748**	**$44,823**	**$57,776**	**$6,972**	**$24,409**	**$29,544**	**$5,309**	**$23,749**	**$7,731**	**$7,905**	**$27,543**	**$12,291**	**$32,846**	**$5,971**	**$20,854**	**$42,905**	**$66,055**	**$4,318**	**$4,707**	**$15,175**	**$32,189**	**$57,287**	**$83,630**	**$6,059**	**$31,839**	**$58,914**	**$7,453**
Annual Contribution Increase (%)		**N/A**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

Funding Model 1
Table 3 - Cash Flow Table

Opening Balance of the Contingency Reserve Fund (Year End Balance 2012)	**$101,910**
Minimum Reserve Fund Balance (as indicated in this table)	**$4,318**
Assumed Annual Inflation Rate for Reserve Fund Expenditures	**2%**
Assumed Annual Interest Rate for interest earned on the Reserve Fund	**3%**

Year	Opening Ballance	Recommended Annual Contribution	Percentage Increase in Recommended Annual Contribution	Estimated Interest Earned	Estimated Inflation Adjusted Expenditures	Required Special Assessment	Closing Balance
2013	$101,910	$14,500	N/A	$967	-$863,478	$755,000	$8,899
2014	$8,899	$14,790	$0	$476	$0	$0	$24,165
2015	$24,165	$15,086	$0	$391	-$1,312,372	$1,280,000	$7,270
2016	$7,270	$15,388	$0	$268	-$11,440	$0	$11,485
2017	$11,485	$15,695	$0	$567	$0	$0	$27,748
2018	$27,748	$16,009	$0	$1,066	$0	$0	$44,823
2019	$44,823	$16,329	$0	$1,479	-$4,856	$0	$57,776
2020	$57,776	$16,656	$0	$665	-$1,708,125	$1,640,000	$6,972
2021	$6,972	$16,989	$0	$448	$0	$0	$24,409
2022	$24,409	$17,329	$0	$690	-$12,883	$0	$29,544
2023	$29,544	$17,675	$0	$245	-$1,172,156	$1,130,000	$5,309
2024	$5,309	$18,029	$0	$411	$0	$0	$23,749
2025	$23,749	$18,390	$0	$434	-$114,842	$80,000	$7,731
2026	$7,731	$18,757	$0	$318	-$1,243,901	$1,225,000	$7,905
2027	$7,905	$19,132	$0	$506	$0	$0	$27,543
2028	$27,543	$19,515	$0	$478	-$360,245	$325,000	$12,291
2029	$12,291	$19,905	$0	$650	$0	$0	$32,846
2030	$32,846	$20,304	$0	$528	-$282,707	$235,000	$5,971
2031	$5,971	$20,710	$0	$332	-$6,159	$0	$20,854
2032	$20,854	$21,124	$0	$927	$0	$0	$42,905
2033	$42,905	$21,546	$0	$1,604	$0	$0	$66,055
2034	$66,055	$21,977	$0	$801	-$169,516	$85,000	$4,318
2035	$4,318	$22,417	$0	$343	-$207,371	$185,000	$4,707
2036	$4,707	$22,865	$0	$352	-$12,749	$0	$15,175
2037	$15,175	$23,322	$0	$627	-$6,936	$0	$32,189
2038	$32,189	$23,789	$0	$1,309	$0	$0	$57,287
2039	$57,287	$24,265	$0	$2,079	$0	$0	$83,630
2040	$83,630	$24,750	$0	$972	-$683,293	$580,000	$6,059
2041	$6,059	$25,245	$0	$534	$0	$0	$31,839
2042	$31,839	$25,750	$0	$1,325	$0	$0	$58,914

Funding Model 1
Table 4 - Contribution Table

Year	A Recommended Annual Contribution	Percentage Increase Over Previous Year	B Other Contributions (e.g. special assessment, loan)	A + B Total Contibution Each Year to Reserve Fund
2013	$14,500	N/A	$755,000	$769,500
2014	$14,790	2%	$0	$14,790
2015	$15,086	2%	$1,280,000	$1,295,086
2016	$15,388	2%	$0	$15,388
2017	$15,695	2%	$0	$15,695
2018	$16,009	2%	$0	$16,009
2019	$16,329	2%	$0	$16,329
2020	$16,656	2%	$1,640,000	$1,656,656
2021	$16,989	2%	$0	$16,989
2022	$17,329	2%	$0	$17,329
2023	$17,675	2%	$1,130,000	$1,147,675
2024	$18,029	2%	$0	$18,029
2025	$18,390	2%	$80,000	$98,390
2026	$18,757	2%	$1,225,000	$1,243,757
2027	$19,132	2%	$0	$19,132
2028	$19,515	2%	$325,000	$344,515
2029	$19,905	2%	$0	$19,905
2030	$20,304	2%	$235,000	$255,304
2031	$20,710	2%	$0	$20,710
2032	$21,124	2%	$0	$21,124
2033	$21,546	2%	$0	$21,546
2034	$21,977	2%	$85,000	$106,977
2035	$22,417	2%	$185,000	$207,417
2036	$22,865	2%	$0	$22,865
2037	$23,322	2%	$0	$23,322
2038	$23,789	2%	$0	$23,789
2039	$24,265	2%	$0	$24,265
2040	$24,750	2%	$580,000	$604,750
2041	$25,245	2%	$0	$25,245
2042	$25,750	2%	$0	$25,750

Appendix C:
Funding Model 2

VAN-00203248-01-A0
Depreciation Study for Strata Plan LMS 259
Sandborne Woods, Burnaby, BC

Appendix C - Funding Model 2
Table 2 - 30 Year Repair/Replacement Forecast

Assumed Interest Rate = 3.00% **Assumed Inflation Rate = 2.00%** **Present Reserve Fund = $101,910**
Closing balance as of February 28, 2013

#	Element	2013	2014	2015	2016	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
	Site Elements																															
3.2.1a	Timber retaining walls, steps & edging.	$ 7,500.00																														
3.2.1b	Timber retaining walls, steps & edging.																$ 10,094.01															$ 13,585.21
3.2.2	Hardscape concrete components:																															
3.2.2	Hardscape concrete components:			$ 2,601.00										$ 3,170.60										$ 3,864.95								
3.2.3	Metal picket fencing & gates.																															
3.2.4	Exterior light fixtures.								$ 5,743.43																							
	Below-grade and At-grade																															
3.3.1	Superstructure																															
3.3.2	Lower Parking Level: Slab-on-grade																															
3.3.3a	Below-grade Parking Garage: Concrete																															
3.3.3b	Below-grade Parking Garage: Concrete			$ 58,262.40																									$ 95,585.64			
3.3.3c	Below-grade Parking Garage: Concrete																		$ 49,008.45													
3.3.4a	At-grade Concrete Suspended Slab			$ 686,664.00																												
3.3.4b	At-grade Concrete Suspended Slab																															
3.3.5	Painted Interior Finishes - Below-grade								$ 98,327.49															$ 132,335.86								
	Building Envelope and Exterior																															
3.4.1.1	Exterior wall assembly - Vinyl Siding								$ 574,342.83																							
3.4.1.2	Exterior wall assembly - Vinyl Siding											$ 609,497.21																				
3.4.1.3	Exterior wall assembly - Vinyl Siding														$ 646,803.32																	
3.4.2	Exterior wall assembly - Stucco								$ 71,792.85																							
3.4.3	Exterior wall assembly - Wood board								$ 71,792.85																							
3.4.4.1	Windows: Metal frame double pane;								$ 379,066.27																							
3.4.4.2	Windows: Metal frame double pane;											$ 402,268.16																				
3.4.4.3	Windows: Metal frame double pane;														$ 426,890.19																	
3.4.5.1	Glass block in-filled wall areas.																															
3.4.5.2	Glass block mortar replacement.	$ 7,500.00																							$ 11,826.74							
3.4.5.3	Glass block mortar replacement.																$ 10,094.01															$ 13,585.21
3.4.6.1	Doors: Metal frame sliding glass doors								$ 71,218.51																							
3.4.6.2	Doors: Metal frame sliding glass doors											$ 75,577.65																				
3.4.6.3	Doors: Metal frame sliding glass doors														$ 80,203.61																	
3.4.7	Doors: Wood frame, metal-clad (with			$ 49,939.20																									$ 81,930.55			
3.4.8	Doors: Wood frame, insulated metal-								$ 86,151.43																							
3.4.9	Doors: Metal frame, insulated metal-								$ 86,151.43																							
3.4.10	Doors: metal frame storefront-glazed			$ 11,704.50																									$ 19,202.47			
3.4.11.1	Exterior Joint Sealant:			$ 23,409.00															$ 31,505.43													
3.4.11.2.1	Exterior Joint Sealant:			$ 124,629.52															$ 167,734.92													
3.4.13.1a	Roofing Systems: Steep Slope Roof on	$ 256,000.00																														
3.4.13.1b	Roofing Systems: Steep Slope Roof on																															$ 463,708.57
3.4.13.2a	Roofing Systems: Steep Slope Roof on	$ 528,000.00																														
3.4.13.2b	Roofing Systems: Steep Slope Roof on																															$ 956,398.92
3.4.14	Roofing System: SBS low-slope roof			$ 127,969.20																									$ 209,947.04			
3.4.15a	Five (5) Low-slope Roof Decks:																						$ 142,093.72									
3.4.15b	One (1) Low-Slope Roof Deck:			$ 19,507.50																									$ 32,004.12			
3.4.16a	Balcony Deck Waterproofing System																															$ 996,248.87
3.4.16b	Balcony Deck Waterproofing System																$ 269,173.67															
3.4.17	Balcony Railings:																															$ 362,272.32
3.4.18a	Roof Deck Guardwalls: wood-frame,								$ 45,947.43																							
3.4.18b	Roof Deck Guardwalls: wood-frame,			$ 4,161.60										$ 5,072.97										$ 6,183.92								
3.4.19a	Patterned concrete-topped exterior								$ 43,075.71																							
3.4.20a	Wood frame exterior corridors c/w																															$ 59,412.66
3.4.20b	Wood frame exterior corridors c/w																$ 16,554.18															
3.4.21a	Wood frame exterior exit stair																															
3.4.21b	Wood frame exterior exit stair																$ 10,766.95															$ 14,490.89
3.4.21b	Wood frame exterior exit stair																$ 4,037.61															$ 5,434.08
3.4.22	Wood frame ladder-stair assemblies.																															
3.4.23	Metal picket top-mounted railings at																															$ 9,781.35
	Interior Building Elements																															
3.5.1	Community Room: Cabinetry.													$ 6,341.21																		
3.5.2a	Community Room Floor Finish:								$ 30,153.00															$ 40,581.97								
3.5.2b	Community Room Floor Finish:													$ 2,536.48																		
3.5.3	Interior Finish of Community Room			$ 2,965.14																									$ 4,864.63			
3.5.4	Interior Painted Finishes of gypsum-								$ 2,389.27															$ 3,215.64								
3.5.5	Interior Service Doors: metal frame,													$ 57,070.88																		
3.5.6	Doors: Exterior metal frame segmented																		$ 11,201.93													
	Mechanical Systems																															
3.6.2	HWT-2: CSA-approved domestic	$ 1,000.00																	$ 1,400.24													
3.6.3	CO detector	$ 1,000.00																	$ 1,400.24													
3.6.4	Sprinkler system air compressor.			$ 1,040.40																									$ 1,706.89			
3.6.5a	FE-3: Upper parking area exhaust fan.			$ 5,202.00																									$ 8,534.43			
3.6.5b	FE-4: Lower parking area exhaust fan.			$ 5,202.00																									$ 8,534.43			
3.6.6	FE-5: Elevator machine room cabinet			$ 1,040.40																									$ 1,706.89			
3.6.7	FE-6: refuse cabinet exhaust fan.			$ 520.20																									$ 853.44			
3.6.8	FE-7: Storage locker cabinet exhaust			$ 520.20																									$ 853.44			
3.6.9	FE-8: Storage and workshop in-line			$ 520.20																									$ 853.44			
3.6.10	FE-9: Community Room in-line cabinet			$ 520.20																									$ 853.44			
3.6.11	FS-1: Lower parking area supply fan.			$ 5,202.00																									$ 8,534.43			
3.6.12	FS-2: Workshop and vestibules in-line			$ 2,601.00																									$ 4,267.22			
3.6.13	P-1, 2: Duplex storm system. Domestic													$ 12,682.42																		
3.6.14	P-1, 2 Exhaust fans for lower parking			$ 5,202.00																									$ 8,534.43			
3.6.15	P-5, 6: Sanitary duplex pump system.													$ 12,682.42																		
3.6.16	P7 Sanitary Back-up Pump.													$ 1,902.36																		
	Electrical Systems																															
3.7.1	Main Disconnect																															
3.7.2	Distribution Systems																															
3.7.3	Interior and Exterior Lighting			$ 15,606.00																									$ 25,603.30			
3.7.4	Miscellaneous Electrical Items			$ 62,424.00																									$ 102,413.19			
	Elevator Systems																															
3.8.1	Passenger elevators																															
3.8.2	Elevator car								$ 18,378.97																							
	Miscellaneous Contingency																															
3.9.1	Reserve fund update study				$ 4,244.83			$ 4,504.65			$ 4,780.37			$ 5,072.97			$ 5,383.47			$ 5,712.98			$ 6,062.67	$ 6,183.92		$ 6,433.75			$ 6,827.55			$ 7,245.45
3.9.3	Building envelope condition				$ 6,367.25						$ 7,170.56						$ 8,075.21						$ 9,094.00						$ 10,241.32			
Total Expenditures		**-$801,000**	**$0**	**-$1,217,414**	**-$10,612**	**$0**	**$0**	**-$4,505**	**-$1,584,531**	**$0**	**-$11,951**	**-$1,087,343**	**$0**	**-$106,532**	**-$1,153,897**	**$0**	**-$334,179**	**$0**	**-$262,251**	**-$5,713**	**$0**	**$0**	**-$157,250**	**-$192,366**	**-$11,827**	**-$6,434**	**$0**	**$0**	**-$633,852**	**$0**	**$0**	**-$2,902,164**
GST + PST on Materials and Equipments (assume 40%)		**-$62,478**	**$0**	**-$94,958**	**-$828**	**$0**	**$0**	**-$351**	**-$123,593**	**$0**	**-$932**	**-$84,813**	**$0**	**-$8,310**	**-$90,004**	**$0**	**-$26,066**	**$0**	**-$20,456**	**-$446**	**$0**	**$0**	**-$12,266**	**-$15,005**	**-$922**	**-$502**	**$0**	**$0**	**-$49,440**	**$0**	**$0**	**-$226,369**
Corporation's Annual Contribution		**$40,000**	**$42,000**	**$44,100**	**$46,305**	**$48,620**	**$51,051**	**$53,604**	**$56,284**	**$59,098**	**$62,053**	**$65,156**	**$68,414**	**$71,834**	**$75,426**	**$79,197**	**$83,157**	**$87,315**	**$91,681**	**$96,265**	**$101,078**	**$106,132**	**$111,439**	**$117,010**	**$122,861**	**$129,004**	**$135,454**	**$142,227**	**$149,338**	**$156,805**	**$164,645**	**$172,878**
Special Assessment		**$725,000**		**$1,225,000**					**$1,455,000**			**$995,000**			**$1,140,000**		**$195,000**		**$100,000**													**$3,050,000**
Interest Income		**$1,321**	**$727**	**$968**	**$681**	**$1,913**	**$3,483**	**$5,067**	**$2,281**	**$973**	**$2,548**	**$903**	**$1,123**	**$1,562**	**$1,300**	**$1,300**	**$1,808**	**$1,420**	**$1,990**	**$1,395**	**$4,384**	**$7,662**	**$7,344**	**$5,018**	**$6,927**	**$10,704**	**$14,989**	**$19,659**	**$9,153**	**$8,823**	**$13,969**	**$17,731**
Annual Reserve Fund Balances ($)		**$4,753**	**$47,480**	**$5,176**	**$40,722**	**$91,255**	**$145,790**	**$199,605**	**$5,045**	**$65,116**	**$116,835**	**$5,738**	**$75,275**	**$33,829**	**$6,654**	**$87,152**	**$6,872**	**$95,607**	**$6,571**	**$98,072**	**$203,534**	**$317,328**	**$266,595**	**$181,253**	**$298,292**	**$431,064**	**$581,508**	**$743,394**	**$218,592**	**$384,220**	**$562,835**	**$674,911**
Annual Contribution Increase (%)		**N/A**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**

Funding Model 2
Table 3 - Cash Flow Table

Opening Balance of the Contingency Reserve Fund (Year End Balance 2012)	**$101,910**
Minimum Reserve Fund Balance (as indicated in this table)	**$4,753**
Assumed Annual Inflation Rate for Reserve Fund Expenditures	**2%**
Assumed Annual Interest Rate for interest earned on the Reserve Fund	**3%**

Year	Opening Ballance	Recommended Annual Contribution	Percentage Increase in Recommended Annual Contribution	Estimated Interest Earned	Estimated Inflation Adjusted Expenditures	Required Special Assessment	Closing Balance
2013	$101,910	$40,000	N/A	$1,321	-$863,478	$725,000	$4,753
2014	$4,753	$42,000	$0	$727	$0	$0	$47,480
2015	$47,480	$44,100	$0	$968	-$1,312,372	$1,225,000	$5,176
2016	$5,176	$46,305	$0	$681	-$11,440	$0	$40,722
2017	$40,722	$48,620	$0	$1,913	$0	$0	$91,255
2018	$91,255	$51,051	$0	$3,483	$0	$0	$145,790
2019	$145,790	$53,604	$0	$5,067	-$4,856	$0	$199,605
2020	$199,605	$56,284	$0	$2,281	-$1,708,125	$1,455,000	$5,045
2021	$5,045	$59,098	$0	$973	$0	$0	$65,116
2022	$65,116	$62,053	$0	$2,548	-$12,883	$0	$116,835
2023	$116,835	$65,156	$0	$903	-$1,172,156	$995,000	$5,738
2024	$5,738	$68,414	$0	$1,123	$0	$0	$75,275
2025	$75,275	$71,834	$0	$1,562	-$114,842	$0	$33,829
2026	$33,829	$75,426	$0	$1,300	-$1,243,901	$1,140,000	$6,654
2027	$6,654	$79,197	$0	$1,300	$0	$0	$87,152
2028	$87,152	$83,157	$0	$1,808	-$360,245	$195,000	$6,872
2029	$6,872	$87,315	$0	$1,420	$0	$0	$95,607
2030	$95,607	$91,681	$0	$1,990	-$282,707	$100,000	$6,571
2031	$6,571	$96,265	$0	$1,395	-$6,159	$0	$98,072
2032	$98,072	$101,078	$0	$4,384	$0	$0	$203,534
2033	$203,534	$106,132	$0	$7,662	$0	$0	$317,328
2034	$317,328	$111,439	$0	$7,344	-$169,516	$0	$266,595
2035	$266,595	$117,010	$0	$5,018	-$207,371	$0	$181,253
2036	$181,253	$122,861	$0	$6,927	-$12,749	$0	$298,292
2037	$298,292	$129,004	$0	$10,704	-$6,936	$0	$431,064
2038	$431,064	$135,454	$0	$14,989	$0	$0	$581,508
2039	$581,508	$142,227	$0	$19,659	$0	$0	$743,394
2040	$743,394	$149,338	$0	$9,153	-$683,293	$0	$218,592
2041	$218,592	$156,805	$0	$8,823	$0	$0	$384,220
2042	$384,220	$164,645	$0	$13,969	$0	$0	$562,835

Funding Model 2
Table 4 - Contribution Table

Year	A Recommended Annual Contribution	Percentage Increase Over Previous Year	B Other Contributions (e.g. special assessment, loan)	A + B Total Contibution Each Year to Reserve Fund
2013	$40,000	N/A	$725,000	$765,000
2014	$42,000	5%	$0	$42,000
2015	$44,100	5%	$1,225,000	$1,269,100
2016	$46,305	5%	$0	$46,305
2017	$48,620	5%	$0	$48,620
2018	$51,051	5%	$0	$51,051
2019	$53,604	5%	$0	$53,604
2020	$56,284	5%	$1,455,000	$1,511,284
2021	$59,098	5%	$0	$59,098
2022	$62,053	5%	$0	$62,053
2023	$65,156	5%	$995,000	$1,060,156
2024	$68,414	5%	$0	$68,414
2025	$71,834	5%	$0	$71,834
2026	$75,426	5%	$1,140,000	$1,215,426
2027	$79,197	5%	$0	$79,197
2028	$83,157	5%	$195,000	$278,157
2029	$87,315	5%	$0	$87,315
2030	$91,681	5%	$100,000	$191,681
2031	$96,265	5%	$0	$96,265
2032	$101,078	5%	$0	$101,078
2033	$106,132	5%	$0	$106,132
2034	$111,439	5%	$0	$111,439
2035	$117,010	5%	$0	$117,010
2036	$122,861	5%	$0	$122,861
2037	$129,004	5%	$0	$129,004
2038	$135,454	5%	$0	$135,454
2039	$142,227	5%	$0	$142,227
2040	$149,338	5%	$0	$149,338
2041	$156,805	5%	$0	$156,805
2042	$164,645	5%	$0	$164,645

Appendix D:
Funding Model 3

VAN-00203248-01-A0
Depreciation Study for Strata Plan LMS 259
Sandborne Woods, Burnaby, BC

Appendix D - Funding Model 3
Table 2 - 30 Year Repair/Replacement Forecast

Assumed Interest Rate = 3.00% **Assumed Inflation Rate = 2.00%** **Present Reserve Fund = $101,910**
Closing balance as of February 28, 2013

#	Element	2013	2014	2015	2016	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
	Site Elements																															
3.2.1a	Timber retaining walls, steps & edging.	$ 7,500.00																														
3.2.1b	Timber retaining walls, steps & edging.																$ 10,094.01															$ 13,585.21
3.2.2	Hardscape concrete components:																															
3.2.2	Hardscape concrete components:			$ 2,601.00										$ 3,170.60										$ 3,864.95								
3.2.3	Metal picket fencing & gates.																															
3.2.4	Exterior light fixtures.								$ 5,743.43																							
	Below-grade and At-grade																															
3.3.1	Superstructure																															
3.3.2	Lower Parking Level: Slab-on-grade																															
3.3.3a	Below-grade Parking Garage: Concrete																															
3.3.3b	Below-grade Parking Garage: Concrete			$ 58,262.40																									$ 95,585.64			
3.3.3c	Below-grade Parking Garage: Concrete																		$ 49,008.45													
3.3.4a	At-grade Concrete Suspended Slab			$ 686,664.00																												
3.3.4b	At-grade Concrete Suspended Slab																															
3.3.5	Painted Interior Finishes - Below-grade								$ 98,327.49															$ 132,335.86								
	Building Envelope and Exterior																															
3.4.1.1	Exterior wall assembly - Vinyl Siding								$ 574,342.83																							
3.4.1.2	Exterior wall assembly - Vinyl Siding											$ 609,497.21																				
3.4.1.3	Exterior wall assembly - Vinyl Siding														$ 646,803.32																	
3.4.2	Exterior wall assembly - Stucco								$ 71,792.85																							
3.4.3	Exterior wall assembly - Wood board								$ 71,792.85																							
3.4.4.1	Windows: Metal frame double pane;								$ 379,066.27																							
3.4.4.2	Windows: Metal frame double pane;											$ 402,268.16																				
3.4.4.3	Windows: Metal frame double pane;														$ 426,890.19																	
3.4.5.1	Glass block in-filled wall areas.																															
3.4.5.2	Glass block mortar replacement.	$ 7,500.00																							$ 11,826.74							
3.4.5.3	Glass block mortar replacement.																$ 10,094.01															$ 13,585.21
3.4.6.1	Doors: Metal frame sliding glass doors								$ 71,218.51																							
3.4.6.2	Doors: Metal frame sliding glass doors											$ 75,577.65																				
3.4.6.3	Doors: Metal frame sliding glass doors														$ 80,203.61																	
3.4.7	Doors: Wood frame, metal-clad (with			$ 49,939.20																									$ 81,930.55			
3.4.8	Doors: Wood frame, insulated metal-								$ 86,151.43																							
3.4.9	Doors: Metal frame, insulated metal-								$ 86,151.43																							
3.4.10	Doors: metal frame storefront-glazed			$ 11,704.50																									$ 19,202.47			
3.4.11.1	Exterior Joint Sealant:			$ 23,409.00															$ 31,505.43													
3.4.11.2.1	Exterior Joint Sealant:			$ 124,629.52															$ 167,734.92													
3.4.13.1a	Roofing Systems: Steep Slope Roof on	$ 256,000.00																														
3.4.13.1b	Roofing Systems: Steep Slope Roof on																															$ 463,708.57
3.4.13.2a	Roofing Systems: Steep Slope Roof on	$ 528,000.00																														
3.4.13.2b	Roofing Systems: Steep Slope Roof on																															$ 956,398.92
3.4.14	Roofing System: SBS low-slope roof			$ 127,969.20																									$ 209,947.04			
3.4.15a	Five (5) Low-slope Roof Decks:																						$ 142,093.72									
3.4.15b	One (1) Low-Slope Roof Deck:			$ 19,507.50																									$ 32,004.12			
3.4.16a	Balcony Deck Waterproofing System																															$ 996,248.87
3.4.16b	Balcony Deck Waterproofing System																$ 269,173.67															
3.4.17	Balcony Railings:																															$ 362,272.32
3.4.18a	Roof Deck Guardwalls: wood-frame,								$ 45,947.43																							
3.4.18b	Roof Deck Guardwalls: wood-frame,			$ 4,161.60										$ 5,072.97										$ 6,183.92								
3.4.19a	Patterned concrete-topped exterior								$ 43,075.71																							
3.4.20a	Wood frame exterior corridors c/w																															$ 59,412.66
3.4.20b	Wood frame exterior corridors c/w																$ 16,554.18															
3.4.21a	Wood frame exterior exit stair																															
3.4.21b	Wood frame exterior exit stair																$ 10,766.95															$ 14,490.89
3.4.21b	Wood frame exterior exit stair																$ 4,037.61															$ 5,434.08
3.4.22	Wood frame ladder-stair assemblies.																															
3.4.23	Metal picket top-mounted railings at																															$ 9,781.35
	Interior Building Elements																															
3.5.1	Community Room: Cabinetry.													$ 6,341.21																		
3.5.2a	Community Room Floor Finish:								$ 30,153.00															$ 40,581.97								
3.5.2b	Community Room Floor Finish:													$ 2,536.48																		
3.5.3	Interior Finish of Community Room			$ 2,965.14																									$ 4,864.63			
3.5.4	Interior Painted Finishes of gypsum-								$ 2,389.27															$ 3,215.64								
3.5.5	Interior Service Doors: metal frame,													$ 57,070.88																		
3.5.6	Doors: Exterior metal frame segmented																		$ 11,201.93													
	Mechanical Systems																															
3.6.2	HWT-2: CSA-approved domestic	$ 1,000.00																	$ 1,400.24													
3.6.3	CO detector	$ 1,000.00																	$ 1,400.24													
3.6.4	Sprinkler system air compressor.			$ 1,040.40																									$ 1,706.89			
3.6.5a	FE-3: Upper parking area exhaust fan.			$ 5,202.00																									$ 8,534.43			
3.6.5b	FE-4: Lower parking area exhaust fan.			$ 5,202.00																									$ 8,534.43			
3.6.6	FE-5: Elevator machine room cabinet			$ 1,040.40																									$ 1,706.89			
3.6.7	FE-6: refuse cabinet exhaust fan.			$ 520.20																									$ 853.44			
3.6.8	FE-7: Storage locker cabinet exhaust			$ 520.20																									$ 853.44			
3.6.9	FE-8: Storage and workshop in-line			$ 520.20																									$ 853.44			
3.6.10	FE-9: Community Room in-line cabinet			$ 520.20																									$ 853.44			
3.6.11	FS-1: Lower parking area supply fan.			$ 5,202.00																									$ 8,534.43			
3.6.12	FS-2: Workshop and vestibules in-line			$ 2,601.00																									$ 4,267.22			
3.6.13	P-1, 2: Duplex storm system. Domestic													$ 12,682.42																		
3.6.14	P-1, 2 Exhaust fans for lower parking			$ 5,202.00																									$ 8,534.43			
3.6.15	P-5, 6: Sanitary duplex pump system.													$ 12,682.42																		
3.6.16	P7 Sanitary Back-up Pump.													$ 1,902.36																		
	Electrical Systems																															
3.7.1	Main Disconnect																															
3.7.2	Distribution Systems																															
3.7.3	Interior and Exterior Lighting			$ 15,606.00																									$ 25,603.30			
3.7.4	Miscellaneous Electrical Items			$ 62,424.00																									$ 102,413.19			
	Elevator Systems																															
3.8.1	Passenger elevators																															
3.8.2	Elevator car								$ 18,378.97																							
	Miscellaneous Contingency																															
3.9.1	Reserve fund update study				$ 4,244.83			$ 4,504.65			$ 4,780.37			$ 5,072.97			$ 5,383.47			$ 5,712.98			$ 6,062.67	$ 6,183.92		$ 6,433.75			$ 6,827.55			$ 7,245.45
3.9.3	Building envelope condition				$ 6,367.25						$ 7,170.56						$ 8,075.21						$ 9,094.00						$ 10,241.32			
Total Expenditures		**-$801,000**	**$0**	**-$1,217,414**	**-$10,612**	**$0**	**$0**	**-$4,505**	**-$1,584,531**	**$0**	**-$11,951**	**-$1,087,343**	**$0**	**-$106,532**	**-$1,153,897**	**$0**	**-$334,179**	**$0**	**-$262,251**	**-$5,713**	**$0**	**$0**	**-$157,250**	**-$192,366**	**-$11,827**	**-$6,434**	**$0**	**$0**	**-$633,852**	**$0**	**$0**	**-$2,902,164**
GST + PST on Materials and Equipments (assume 40%)		**-$62,478**	**$0**	**-$94,958**	**-$828**	**$0**	**$0**	**-$351**	**-$123,593**	**$0**	**-$932**	**-$84,813**	**$0**	**-$8,310**	**-$90,004**	**$0**	**-$26,066**	**$0**	**-$20,456**	**-$446**	**$0**	**$0**	**-$12,266**	**-$15,005**	**-$922**	**-$502**	**$0**	**$0**	**-$49,440**	**$0**	**$0**	**-$226,369**
Corporation's Annual Contribution		**$60,000**	**$63,000**	**$66,150**	**$69,458**	**$72,930**	**$76,577**	**$80,406**	**$84,426**	**$88,647**	**$93,080**	**$97,734**	**$102,620**	**$107,751**	**$113,139**	**$118,796**	**$124,736**	**$130,972**	**$137,521**	**$144,397**	**$151,617**	**$159,198**	**$167,158**	**$175,516**	**$184,291**	**$193,506**	**$203,181**	**$213,340**	**$224,007**	**$235,208**	**$246,968**	**$259,317**
Special Assessment		**$710,000**		**$1,175,000**					**$1,325,000**			**$895,000**			**$1,030,000**		**$115,000**																**$3,050,000**
Interest Income		**$1,598**	**$1,179**	**$1,475**	**$997**	**$2,942**	**$5,300**	**$7,733**	**$3,460**	**$1,511**	**$4,022**	**$1,355**	**$1,593**	**$2,320**	**$2,358**	**$1,848**	**$2,686**	**$2,103**	**$2,978**	**$2,004**	**$6,377**	**$11,288**	**$12,731**	**$12,302**	**$16,252**	**$22,224**	**$28,867**	**$36,065**	**$28,270**	**$30,845**	**$39,100**	**$46,188**
Annual Reserve Fund Balances ($)		**$10,030**	**$74,209**	**$4,462**	**$63,476**	**$139,348**	**$221,226**	**$304,509**	**$9,270**	**$99,428**	**$183,647**	**$5,580**	**$109,793**	**$105,022**	**$6,618**	**$127,262**	**$9,439**	**$142,515**	**$307**	**$140,550**	**$298,544**	**$469,030**	**$479,403**	**$459,850**	**$647,645**	**$856,439**	**$1,088,487**	**$1,337,893**	**$906,878**	**$1,172,931**	**$1,458,999**	**$1,685,971**
Annual Contribution Increase (%)		**N/A**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**	**5%**

Funding Model 3
Table 3 - Cash Flow Table

Opening Balance of the Contingency Reserve Fund (Year End Balance 2012)	**$101,910**
Minimum Reserve Fund Balance (as indicated in this table)	**$307**
Assumed Annual Inflation Rate for Reserve Fund Expenditures	**2%**
Assumed Annual Interest Rate for interest earned on the Reserve Fund	**3%**

Year	Opening Ballance	Recommended Annual Contribution	Percentage Increase in Recommended Annual Contribution	Estimated Interest Earned	Estimated Inflation Adjusted Expenditures	Required Special Assessment	Closing Balance
2013	$101,910	$60,000	N/A	$1,598	-$863,478	$710,000	$10,030
2014	$10,030	$63,000	$0	$1,179	$0	$0	$74,209
2015	$74,209	$66,150	$0	$1,475	-$1,312,372	$1,175,000	$4,462
2016	$4,462	$69,458	$0	$997	-$11,440	$0	$63,476
2017	$63,476	$72,930	$0	$2,942	$0	$0	$139,348
2018	$139,348	$76,577	$0	$5,300	$0	$0	$221,226
2019	$221,226	$80,406	$0	$7,733	-$4,856	$0	$304,509
2020	$304,509	$84,426	$0	$3,460	-$1,708,125	$1,325,000	$9,270
2021	$9,270	$88,647	$0	$1,511	$0	$0	$99,428
2022	$99,428	$93,080	$0	$4,022	-$12,883	$0	$183,647
2023	$183,647	$97,734	$0	$1,355	-$1,172,156	$895,000	$5,580
2024	$5,580	$102,620	$0	$1,593	$0	$0	$109,793
2025	$109,793	$107,751	$0	$2,320	-$114,842	$0	$105,022
2026	$105,022	$113,139	$0	$2,358	-$1,243,901	$1,030,000	$6,618
2027	$6,618	$118,796	$0	$1,848	$0	$0	$127,262
2028	$127,262	$124,736	$0	$2,686	-$360,245	$115,000	$9,439
2029	$9,439	$130,972	$0	$2,103	$0	$0	$142,515
2030	$142,515	$137,521	$0	$2,978	-$282,707	$0	$307
2031	$307	$144,397	$0	$2,004	-$6,159	$0	$140,550
2032	$140,550	$151,617	$0	$6,377	$0	$0	$298,544
2033	$298,544	$159,198	$0	$11,288	$0	$0	$469,030
2034	$469,030	$167,158	$0	$12,731	-$169,516	$0	$479,403
2035	$479,403	$175,516	$0	$12,302	-$207,371	$0	$459,850
2036	$459,850	$184,291	$0	$16,252	-$12,749	$0	$647,645
2037	$647,645	$193,506	$0	$22,224	-$6,936	$0	$856,439
2038	$856,439	$203,181	$0	$28,867	$0	$0	$1,088,487
2039	$1,088,487	$213,340	$0	$36,065	$0	$0	$1,337,893
2040	$1,337,893	$224,007	$0	$28,270	-$683,293	$0	$906,878
2041	$906,878	$235,208	$0	$30,845	$0	$0	$1,172,931
2042	$1,172,931	$246,968	$0	$39,100	$0	$0	$1,458,999

Funding Model 3
Table 4 - Contribution Table

Year	A Recommended Annual Contribution	Percentage Increase Over Previous Year	B Other Contributions (e.g. special assessment, loan)	A + B Total Contibution Each Year to Reserve Fund
2013	$60,000	N/A	$710,000	$770,000
2014	$63,000	5%	$0	$63,000
2015	$66,150	5%	$1,175,000	$1,241,150
2016	$69,458	5%	$0	$69,458
2017	$72,930	5%	$0	$72,930
2018	$76,577	5%	$0	$76,577
2019	$80,406	5%	$0	$80,406
2020	$84,426	5%	$1,325,000	$1,409,426
2021	$88,647	5%	$0	$88,647
2022	$93,080	5%	$0	$93,080
2023	$97,734	5%	$895,000	$992,734
2024	$102,620	5%	$0	$102,620
2025	$107,751	5%	$0	$107,751
2026	$113,139	5%	$1,030,000	$1,143,139
2027	$118,796	5%	$0	$118,796
2028	$124,736	5%	$115,000	$239,736
2029	$130,972	5%	$0	$130,972
2030	$137,521	5%	$0	$137,521
2031	$144,397	5%	$0	$144,397
2032	$151,617	5%	$0	$151,617
2033	$159,198	5%	$0	$159,198
2034	$167,158	5%	$0	$167,158
2035	$175,516	5%	$0	$175,516
2036	$184,291	5%	$0	$184,291
2037	$193,506	5%	$0	$193,506
2038	$203,181	5%	$0	$203,181
2039	$213,340	5%	$0	$213,340
2040	$224,007	5%	$0	$224,007
2041	$235,208	5%	$0	$235,208
2042	$246,968	5%	$0	$246,968