Reserve Fund Study Marina Place, Strata Plan VR 447 1181 – 1199 West 7th Avenue and 2250 – 2268 Alder Street, Vancouver, B.C.



Presented to:

The Owners of Strata Plan VR 447, Marina Place C/o Pacific Quorum Properties Inc.
Attention: Ms. Christine Turner, Property Manager # 430 – 1200 W. 73rd Ave Vancouver, BC V6P 6G5

McArthur Vantell Limited Report # 1499.500

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1.0 Introduction

1.1 Terms of Reference

McArthur Vantell Limited (MVL) was retained by Ms. Christine Turner, Property Manager at Pacific Quorum Properties Inc, to prepare a Reserve Fund Study (Depreciation Report) for Strata Plan VR 447, Marina Place, located at 1181 – 1199 West 7th Avenue and 2250 – 2268 Alder Street in Vancouver.

1.2 Scope of Service

Project Overview

MVL provides Reserve Fund Studies to Owners, to assist them in determining the contributions to the Reserve Fund which are appropriate for each individual property. Some property management firms, accountants and appraisers prepare Reserve Fund Studies based on design drawings and specifications, and on the "textbook" life expectancies of the components of the complex. Unfortunately, construction deficiencies, which cannot be identified on the drawings, often result in the failure of components prior to the expiry of the "textbook" lifespans. In our opinion, the predicted life expectancies of the components of the complex must be based on an engineering assessment of the actual "as-built" and "as-maintained" conditions. Only in this way can one establish realistic reserve fund allocations.

The reserve fund study is performed after a condition assessment of common area facility systems, including the building enclosure – roofs, exterior walls, mechanical, electrical, plumbing, fire and life safety systems, elevator and landscaping. This assessment includes a review of the design drawings and specifications, and a limited visual review of the complex in order to ascertain whether or not the various components of the building or complex have been constructed in accordance with the drawings and specifications. This limited visual review also allows us to determine the existing conditions of the various components and enables us to estimate their expected lifespans. We then prepare estimates of renewal (replacement) costs, based on our observations and experience. Our final report will include: a list of the major components; their estimated lifespans; replacement costs in current dollars; and a calculated annual contribution, which will be based on current interest and inflation rates, and on the existing reserves. This will assist the Strata in determining the appropriate annual contributions to the contingency reserve found to avoid special levies, if possible, for a period of 30 years.

SCOPE OF WORK

The scope of our work included visual reviews of major components and systems to observe and document existing conditions, and interviews with Site representatives. The major components and systems observed include Site improvements, building structure, building envelope, common interior elements, a representative sampling of residential units, mechanical and electrical systems, and life safety / fire protection systems.

Our proposed scope of services is as follows:

- 1. Review of the design drawings and specifications provided by you to acquaint us with the various systems. Review of maintenance records of the building.
- 2. Visual examination of the complex by our team of qualified, licensed consultants to develop a general assessment of the "as constructed" condition of the various building components and systems. The Reserve Study is not a building envelope condition assessment (BECA). However MVL did complete a limited BECA prior to as part of the study. The BECA was based on a more thorough visual review, but did not include a moisture probe survey, test openings or dismantling of enclosure components. We retained qualified mechanical and electrical consultants to conduct a visual review of those systems. This review includes, but is not limited to the following items:
 - building enclosure;
 - exterior wall systems, including doors and windows;
 - roof system, flashing and caulking, downspouts and gutters;
 - balconies, flashing and caulking and drainage system;
 - mechanical system, HVAC;
 - electrical system including heating, exterior lighting;
 - fire and life safety systems;
 - typical suite;
 - Common area finishes, furnishings and equipment;
 - Parking garage and patios;
 - exterior walkways and landscaping.
- 3. Our report includes financial forecasting tables (up to three, 30 year Cash Flow charts) that will assist the Strata in determining the necessary annual contribution to the contingency reserve, which will include a listing of the components, estimated lifespans, anticipated maintenance, repair and replacement costs (in current year dollars).
- 4. Our report includes a maintenance chart with required activities organized into annual schedules. Inspection Checklists for the maintenance activities are included.
- 5. MVL will discuss this report with you, however, subsequent meetings, structural analysis, material sampling and testing, quantity surveys, our detailed opinions as to the reasons for any deficiencies and detailed recommendations for repairs are not within the scope of this proposal. These services, along with others, can be provided at a later date, if required.

6. At this point, we do not anticipate that there is need for investigation openings, however, any changes to the scope of work and associated fees will be reported to you prior to commencing work.

1.3 Limiting Conditions

- 1. McArthur Vantell Limited (MVL) shall not be responsible for the impact of any design or construction defects, whether or not described in the Report, or any unknown factors that might adversely affect the accuracy our projections. Opinions and recommendations in the Report will be rendered in accordance with generally accepted professional standards are based a review of the original construction drawings, information obtained during our cursory visual review of building components and information provided by the Strata and Property Manager. Legal surveys, soil tests, detailed engineering calculations and/or a quantity survey are not within the scope of the Report.
- 2. The Report is prepared for the exclusive use of the Client and may not be used or relied upon by any other party, without our written consent. We accept no responsibility for damages suffered by a third party resulting from unauthorized use if the Report.
- 3. The Report relates solely to the services for which MVL has been retained and shall not be used or relied upon by the client or any third-party for any variation or extension of the services, any other project or any other purpose.
- 4. Nothing in the Report is or is intended to act as a guarantee or express warranty regarding any matter herein.

1.4 Basic Information

The following information was provided to MVL:

- 1. McArthur Vantell Ltd. Depreciation Report Questionnaire.
- 2. Bylaws Strata Corporation VR 447 last revised May 15, 2010.
- 3. Aqua-Thermal Consultants (1999) Ltd 'Roof Membrane Survey, Marina Place, Vancouver' report date July 27, 2001 and accompanying contract tender document.
- 4. Gordon Spratt & Associates Ltd, March 29, 1994 'Marina Place, 1181-1199 West 7th Avenue, Vancouver, B. C. Installation of Wood Siding' letter report with several accompanying contractor bids.
- 5. Several spreadsheet printouts and hand written copies of maintenance and renovation details as received from strata representatives.

- 6. Balance Sheet (accrual), Income Statement (accrual) and Budget Comparison Cash Flow (Accrual) statements for VR447 Marina Place (VR 447), all dated June 2012 and as received from strata representative.
- 7. Drawings as obtained from the City of Vancouver Micrographics Department; addresses 2250 Alder (permit # B426785, page 0101), 1195 W 7th (permit numbers B81925/page 0101, 81915/ pages 103, 203 and 303).

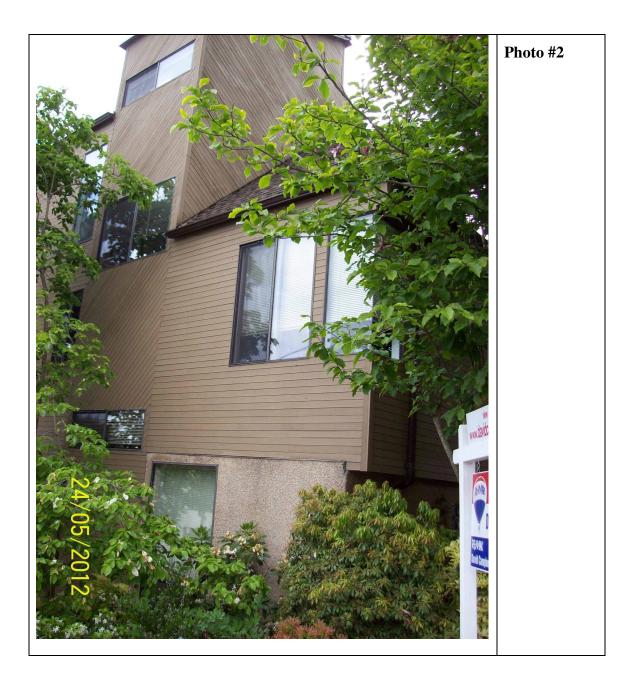
1.5 Property/Building Description

Marina Place, constructed circa 1977, consists of two buildings surrounding a large interior courtyard with a total of 20, two-storey residential townhouse units on a one level parking garage (photo 1 & 2). The exterior cladding is stucco and cedar siding.

The field investigations consisted of a review of building drawings (obtained from the City of Vancouver), a number of site visits by McArthur Vantell Limited (MVL) in May and June 2012. We also spoke to a number of Owners, particularly Ms. Jane Evans who showed us around the complex and provided valuable information of Strata Maintenance & Renewals activities.



Photo #1



According to the information provided, the recent renewals (capital improvements at Marina Place) include:

- Flat roof and roof deck replacement began approx. 13 years ago and continued through to the present.
- o Courtyard membrane replacement and upgrade in 2003.
- o Sloped roof shingle replacement in 2001.
- o Cedar horizontal siding replacement in 1994.

2.0 Inventory and Assessment of Assets

2.1 Building Envelope



Item: 1a and b

Description: Flat roofs and decks

Location: On both buildings

Age: Average age is approximately 50% @ 12

years & 50% @ 3 years.

Service Life: 25 years

Comments: The roofing system consists of a SBS two

ply membrane with a granular surface; the decks are protected by wood deck boards

(responsibility of the unit owners).

The metal frame, glazed guardrail system requires little maintenance other than periodic cleaning and re-sealing of

fasteners.



Description: Sloped roofs

Location: On both buildings

Service Life: 30 years

Age: Age is 11 years

Comments: The roof is an ashphalt based, laminate

shingle roof.

The current shingle roof has replaced he

original cedar shakes.



Description: Cedar horizontal siding

Location: On both buildings

Service Life: 40 years

Age: Age is 18 years





Comments: This siding has replaced the original

cedar shake siding.

Maintenance includes periodic re-staining,

every 10 years.

Item: 4

Description: Original rock-dash stucco siding,

re-surfacing or painting.

Location: On both buildings

Service Life: 50 years

Age: Age is 35 years

Comments: This stucco siding is very durable and,

unless it is mechanically damaged, has

an indefinite service life.

Recommend regular cleaning and re-surfacing or painting, as required.

Item: 5

Description: Windows and Sliding Glass doors.

Location: On both buildings

Service Life: 30 years

Age: 35 years

Comments: These windows and patio doors are

original and by today's standards not

thermally efficient.

The normal service life is predicated on the hermetic seal of the double glazed

sealed units.

When seals fail condensation occurs

between the glass panes.

The life of sealed units ranges from 25 to

40 years.

Note: The large capital expenditures that the Strata is considering currently (special Levy), the replacement of the Windows has not been included in Table, nor has a replacement allowance been included in approximately 35 years for the windows

(to be installed in 2012).







Item: 6

Description: Entry and Other Swing Doors

Location: On both buildings

Service Life: 45 years

Age: 35 years

Comments: These doors have a long life but over time

the hardware and door finishes deteriorate through normal use. The normal practice is to replace the door slabs and hardware, as required.



Item: 7

Description: Sloped Glazing/Skylights

Location: On both buildings and on most units.

Service Life: 30 years

Age: 35 years

Comments: Same comments as Item #5.

Also, many of these sealed units have condensation between the glass panes.

2.2 Site/Courtyard

Item: 8

Description: Landscaping/Fences

Location: Courtyard

Service Life: N/A

Age: N/A

Comments: Repairs and re-planting on "as required"

basis – Operating Budget.

Item: 9

Description: Courtyard, Planters and PG Membrane

Location: Ground level between the two buildings.

Service Life: 30 years



Age: 9 years

Comments: This courtyard area was renovated nine

years ago.

This pond was replaced with a fountain and running water under the upper

building two years ago.

The tiles will require periodic re-sealing of

joints.

2.3 **Mechanical & Electrical**

Item: 10

Description: **Electrical Services**

Location: both buildings

Age: 35 years

Service Life: N/A

Comments: The electrical services include the wiring

> in the individual units, the unit breaker panels, and the building main breakers. The electrical services have an indefinite service life with few components that

need replacing or service work.

Item: 11

Mechanical Services Description:

Location: both buildings

Age: 35 years

Service Life: N/A

Comments: Mechanical system & fountain pump -

contingency

Item: 12

Gas Fireplaces Description:

West 7th Building only. Location:

Age: N/A





Service Life: N/A

Comments: Gas supplied by local provider.

Repair/replace "as required" - no

allowance.

Note: Gas supply to West 7th Bldg only

Item: 13

Description: Sewer & Water

Location: both buildings

Age: 35 years

Service Life: N/A

Comments: Sewer and water piping and fittings within

the units and on the property. These items are very durable but there is a cost associated with minor repairs and

damage that can occur over the life of the

building.

2.4 Significant Building Enclosure Maintenance Items

Item: 14

Description: Re-staining of cedar siding.

Location: Both buildings

Service Life: 10 years

Comments: This item is a periodic cost to maintain

the cedar cladding (10 year cycle).

Item: 15

Description: Re-caulking of exterior cladding,

doors, skylights & sloped glazing

Location: both buildings

Age: 5 years

Service Life: 10 years

This item is a periodic cost to maintain Comments:

the exterior cladding seals. The envelope design requires that the exterior seals

be well maintained.

2.5 **Fire Protection**



05/06/2012

Item: 16

Fire Suppression System Description:

Location: Underground areas/parkade

Age: 35 years

Service Life: N/A

This item has an indefinite service life:

Comments: cost for periodic inspections (operating

budget).

Item: 17

Description: Fire extinguishers

Location: Underground parkade electrical room

N/A Age:

Service Life: N/A

Comments: Inspection made on an annual basis

and service/replacement as required

(operating budget).

Item: 18

Emergency Lighting Description:

Location: Underground parkade electrical room

Service Life: N/A

Comments: Inspection made on an annual basis

and service/replacement as required

(operating budget).

3.0 Maintenance of Building Envelope Components – Owner Inspections

A Maintenance Program of Building Envelope Components should be incorporated into the ongoing operation of the building, to assist Owners in maintain/improve the current condition of the building and extending the life of their building enclosure. It is recommended that professional annual reviews should be included in the program.

As well, Owners should initiate periodic inspections, carefully recorded, so that appropriate action can be taken.

This is an ongoing process and as such the maintenance plan will require updating, usually every two to three years.

The following Owner Inspections are not intended to replace the Annual inspections. The frequency of inspection stated, is a minimum and should be increased to conditions warrant. The guidelines listed are for individual owners and should not be confused with the guidelines for professional annual reviews. Any maintenance work performed on the building should be reviewed by a consultant in order to avoid affecting existing warranties. See Appendix A for Owner Inspection Checklists.

Owner Inspections

Roofing/Drainage

The flat roofing system consists of a SBS two ply membrane with a granular surface; the decks are protected by wood deck boards. The sloped roof is an asphalt based, laminate shingle roof.

Semi-annual maintenance plan should be implemented to address the roof related issues. All roof areas should be reviewed in the spring and in the fall as well as after any significant weather event. This check is purely a visual inspection, looking for signs of plug drains are physical damage.

The metal frame, glazed guardrail system requires little maintenance other than periodic cleaning and re-sealing of fasteners. Check for loose glazing, loose fasteners and any other damage.

Exterior Walls

The horizontal cedar siding replaced the original cedar shake siding. Maintenance includes periodic re-staining (every 10 years).

Stucco is very durable and, unless it is mechanically damaged, it has an indefinite service life. Recommend regular cleaning and re-surfacing or painting, as required.

Frequent maintenance is required to ensure a continuous barrier to water penetration, especially at interfaces or joints in the stucco or at through-wall projections such as vents.

It is often at these details where water is able to penetrate the cladding and cause damage. Locations particularly susceptible to water ingress include:

- Window and door openings
- o Cracked or otherwise deteriorated caulking sealant
- o Through-wall projections such as vents
- o Flashings that are loose or damaged
- Vertical and horizontal expansion joints
- o Balcony/wall intersections
- o Below balcony or roof drains
- o Cracks in the finish material

Exterior walls should be inspected semi-annually, early in the spring and in the fall. Areas that appear stained, wet, cracked, or generally in poor condition should be identified for further assessment by a Consultant. Any materials and/or methods used to repair the exterior walls should be recommended by a Consultant.

Windows and Balcony Doors

Observe condition of hardware and weep holes when cleaning windows/doors. Clear any dirt or debris from weep holes and clean dirt from window tracks regularly. Check for cracked or otherwise deteriorated caulking sealant.

Swing and Entry Doors

Doors should be checked in order to assess the hardware and perimeter seals for operating mechanisms are weatherstripping should be repaired or replaced. Check for cracked or otherwise deteriorated caulking sealant.

Skylights/Sloped glazing

Observe any obstructions to drainage and have any dirt or debris removed to keep drainage clear. Check for cracked or otherwise deteriorated caulking sealant.

Courtyard/Parking Garage

The courtyard was renovated nine years ago, including the replacement of the membrane over the parking garage, the removal of a pond (replaced with a fountain and small stream under the upper building). The walking surface requires periodic re-sealing of joints.

The underground reinforced concrete parking garage should be inspected at least once a year. The inspection should focus on active leakage and cracks in walls and the ceiling as well as in the traffic surface.

4.0 Reserve Fund Study – Estimate of Probable Costs

Reserve Fund Study Table

The Table provides a general listing of the inventory of assets, including building components, site services, notes the approximate age typical expected service life (TSL), and remaining useful life based on conditions observed and information gathered during the assessment. Capital replacement reserve costs are based on the anticipated action required for each component over the next 30 years.

The financial analysis presented on the reserve fund study tables, reports on the depreciation of assets, the current replacement costs, future replacement costs. Current reserve fund requirements you to reserve fund accumulations future reserve fund requirements and future reserve fund assessment or contributions. Opinions of probable cost (in 2012 dollars) are provided over an evaluation period of 30 years for major operational maintenance expenditures and for renewals (capital replacements). (Note: Soft costs, such as consultant's fees, code reviews and value added taxes are not included).

Financial Input

The balance of the Capital Reserve Fund, as of June 2012, was reportedly \$175,585.81. A contribution of \$28,000 is anticipated to be added to the Reserve Fund during the 2011-2012 fiscal year.

Based on our findings of the additional annual contributions to the Capital Reserve Fund may not be required to offset the anticipated costs of future repair and replacement of building components.

Note: The large capital expenditures that the Strata is considering currently (special Levy), the replacement of the Windows has not been included in Table, nor has a replacement allowance been included in approximately 35 years for the windows (to be installed in 2012).

The following assumptions have been incorporated into the Table:

Interest is earned at a rate of 1.25% (based on a current rate from the Bank of Canada, as of October 2011). Interest is tax free and is re-invested into the Reserve Fund.

Annual inflation is 1.20% (based on the current yearly inflation rate as recorded by Statistics Canada 2012).

The level of contributions outlined in the Table is considered adequate to cover the costs of repair and replacement of building elements over the next 30 years. We

recommend that the contribution levels be reviewed annually so that adjustments can be made to reflect actual costs of work, changes to timing and cost of work expected for the coming year, and the effects of actual interest and inflation rates
We trust this report is satisfactory. Please contact the undersigned should you have any questions regarding this report.
McArthur Vantell Limited
Gary Brown, P.Eng. Project Engineer

Art McArthur, P.Eng. Senior Engineer