

Building Envelope Maintenance Report

August 2007

Fairview Court
906-932 14th Ave, 3001-37 Laurel St.
Vancouver, BC

VR 2289

Conducted by:

BEMCO
Services Ltd.
Building Envelope Maintenance

Introduction

We have conducted a building envelope maintenance review of the townhouses that make up Fairview Court located at 906-932 14th Ave, 3001-37 Laurel St. in Vancouver, BC. The review was conducted on August 8, 2007 in order to evaluate the current condition of materials, and as the basis for the following observations and recommendations. This review was not invasive, and did not include the removal or destructive testing of any areas of the building.

The review is intended to report the condition of materials visible at the time of inspection. It should be noted, that while every effort has been made to identify defects, we do not guarantee that every potential problem has been itemized in the review. When the maintenance work is conducted on this building any additional issues that might be discovered should also be attended to.

Overview

This complex underwent a building envelope retrofit, which was completed in 2005. In general, the building exterior appeared in good condition. However, there are some minor exterior maintenance issues that should be attended to at this time.

This project consists of a four-story wood frame buildings clad with stucco, Hardi-Board, and wood trims.

The stucco and Hardi-Board sections are constructed as a rainscreen system. Moisture that may find its way behind the rainscreen systems is allowed to drain to the exterior at the base of walls. Although rainscreens have a higher degree of forgiveness with regard to water intrusion than other systems, it is still important to minimize the potential for moisture to penetrate the cladding. The buildings are constructed over a concrete parking garage.

The ground level walkways and patios of the complex have been constructed using exposed aggregate concrete and are typically drained to internal drains. The upper balcony decks are wood sleeper decks over an SBS membrane and drain into an internal drainage system.

The following information outlines the general condition of particular materials, as well as noting specific areas of concern. Photographs and site observations are included in the appendix.

Roof and Gutters

The sloped roof areas were constructed using asphalt shingles, which drain into a perimeter gutter system and were in good condition at this time. The majority of gutters were clean with some debris present in a few locations.

The roof and gutter areas should be checked on a regular basis (quarterly) for ponding water, plugged drains or the presence of leaves and debris. Any irregularities should be reported to the appropriate personnel.

Balcony Decks, Patios and Walkways

The balcony decks are wood sleeper decks with SBS membrane underneath and are in good condition. There is one deck with a broken wood board. The decks drain into an internal drainage system, which appears to be clean and free flowing.

The front entrance decks are vinyl. These were in good condition with the exception that some were dirty around the edges.

The ground level patio decks and walkways have been constructed using exposed aggregate and concrete slab. There were cracks in some locations and various amounts of dirt, algae and organic growth were present.

The residents should clean and inspect the decks and balconies regularly. Plant and organic growth should also be removed from between pavers and at deck perimeters. Regular cleaning of decks and balconies not only helps to extend the life expectancy of the materials, it also provides an excellent opportunity for owners to assess the condition of these areas and ensure they are draining properly.

It is recommended that plants and planters be kept from direct contact with deck surfaces, as they tend to retain moisture and increase the rate of deterioration. Also, mats that hold water can increase the growth of mold or mildew on the deck surface. Mats that are open or breathable are less likely to facilitate organic growth. It is important for owners to inspect the deck surface beneath mats, carpets or planters on a regular basis.

Flashings

Flashings are used extensively throughout this complex in various locations such as window heads, windowsills, thru-wall, base and cap flashings. These flashings were in good condition with no signs of damage at this time.

Windows

The windows are vinyl framed double glazed units with operable lights and vented along the sill through exterior weep holes. Overall, the windows appeared in good condition. At the bottom corner of some vertical joints between the window frames and trim boards the sealant was starting to separate. All weep holes that were inspected were clear. The sealed units appeared intact, and on those windows that were open, the gasket around the operable light was in satisfactory condition.

Weep holes in the window track should be kept clear of debris, and should be checked when cleaning windows.

Vents

The majority of the vents around this complex were generally clear, with a few appearing to be partially plugged or plugged.

Regular cleaning is recommended in order to remove built up of lint in the vents and vent covers. Residents should be reminded to clean out their dryer lint traps regularly, which will help to minimize the build up of lint at exterior vent screens. It is important that a regular program be implemented to clean the exterior vent covers as well as to arrange for professional cleaning of the dryer ducting. A poorly maintained dryer vent can lead to moisture problems and staining within the building.

Sealants

Sealant has been used in a number of locations on the exterior of the building, such as window perimeters, joints between dissimilar materials, wall penetrations, and the ends of saddle flashings. Generally, the sealant was in good condition with a few locations where the sealant was separating or failing at this time. These locations are noted in the site observations.

Residents should be instructed to check all easily accessible sealant on the exterior of their units on a regular basis.

Hardi-Board

The Hardi-Board cladding on this complex is constructed as a rainscreen system that incorporates a drainage cavity, which allows incidental moisture to drain at the base of the walls. This cladding system appeared in good condition, is clean and showed no signs of defects or damage at this time.

Stucco

The stucco walls have been installed as a rainscreen system with a drainage cavity behind the stucco, and thru wall flashings at floor lines.

The stucco walls appeared in good condition from a maintenance standpoint at this time. There were a few cracks noted throughout the complex, most of which appear to be minor and since the stucco walls have been constructed as a rainscreen, it is suggested that they be monitored for any indication of moisture ingress.

Wood Trims

Wood trim has been used around some windows, doors, and fascias. Overall, the wood was in good condition and not showing signs of deterioration.

In order to protect wood, it should be kept clean, painted and sealed. It is important to repaint wood in a timely manner. Allowing old paint to crack, blister and peel permits moisture to penetrate the wood. This can lead to further paint failure, wood decay, and swelling or warping of the wood. Repainting should be considered when the exterior surface begins to show wear.

Parkade

The parkade of this complex was in good condition with a normal amount of cracks present, some of which have efflorescence present. It was apparent that some patching and crack repair has been conducted. It is suggested that the efflorescence be cleaned from where it exists and these cracks be monitored for moisture ingress.

Miscellaneous

The landscaping around this complex looks good and generally doesn't appear to be encroaching on the buildings. It is a good policy to keep trees and plant growth from contact with the exterior of the buildings. Plants tend to hold moisture, and reduce drying and should be trimmed to avoid contact with the exterior wall surfaces.

Summary

In general, the building appears in good condition. However, some issues should be dealt with in order to maintain the exterior components of the complex.

The following is a list of the items to be attended to:

- Replace separated and missing sealant.
- Clean partially plugged and plugged vents.
- Clean deck surfaces where required. (Owners)
- Clean efflorescence and monitor cracks in parkade.
- Replace railing gaskets.
- Repair broken deck board.

Appendix

- **Homeowner Inspection Information**
- **Site Observations**
- **Photographs**

ON-SITE PERSONNEL / OWNER INSPECTIONS

Item To Inspected	Inspection Frequency	Inspect for
Roofing	Quarterly	A cursory monthly check is intended to spot physical damage or drainage problems. This check is purely a visual inspection.
Flashings	Semi annual	Physical damage. Look for flashing which may have been damaged or bent by gardeners, window cleaners or other operations around the building.
Decks / Drains & Gutters	Quarterly	Drain blockage, or physical damage. Individual deck drains and troughs should be checked frequently during the rainy season, and when debris is most prevalent in the fall. Check the membrane surface for cracks or splits when cleaning or sweeping. Check the soffit above for water stains.
Sealants	Semi annual	Look for damage or obvious sealant failure when cleaning windows or decks.
Paint	Semi annual	Observe condition of paint when cleaning windows or decks. Look for peeling or blistering paint.
Windows	Semi annual	Observe condition of hardware and weep holes when cleaning windows. Clear any dirt or debris from weep holes. Check sealant at mitered corners.
Vents	Semi annual	Regular cleaning of dryer lint screens will reduce the necessity to clean the exterior vent covers. Dirty or blocked exterior covers can lead to moisture accumulation in the vent pipe, and cause leakage and deterioration
Plants	Annual	Plants growing directly adjacent to or in contact with the building exterior can reduce the drying potential of the exterior cladding, and increase the likelihood of problems. Keep plants and shrubs away from exterior walls.
Doors	Annual	Doors should be checked in order to assess the hardware, and the perimeter seals. Poorly operating mechanisms or weatherstripping should be repaired or replaced.
Cladding	Annual	Visually observe the condition of the exterior materials, looking for any signs of damage or deterioration.

Notes:

Site Observations

- Unit # 908-
 - Vent screen missing

- Unit # 912-
 - Sealant separating at stucco to wood trim in SE corner

- Unit # 916-
 - Cracks at cold joint connection (concrete paver to patio)

- Unit # 918-
 - Stucco at left entrance column cracking.

- Unit # 920-
 - Vinyl patio dirty
 - Vents plugged
 - Loose glass panel gasket at railing of front steps.

- Unit # 928-
 - Sealant separating above entrance door (stucco to wood), and at bay window.

- Unit # 930-
 - Sealant separating above entrance door (stucco to wood)
 - vents plugged

- Unit # 932-
 - Sealant separating above entrance door (stucco to wood)
 - lower concrete deck dirty

- Unit # 3001-
 - Cracks in stucco at entrance on right
 - Vent plugged
 - Sealant separating at bay windows at stucco to wood

- Unit # 3003-
 - Glass panel gasket at railing starting to come loose.

- Unit # 3005-
 - Vent plugged
 - Sealant separating at upper balcony connection

- Unit # 3007-
 - Skylight sealant failing

- Unit # 3011-
 - East facing green stucco wall has efflorescence present (gutter has debris present)
 - Weather stripping at deck door missing
 - Sealant separating at stucco to wood and fading at deck door.

- Unit # 3017-
 - Missing paint at wood trim (on south bay window by gutter) & missing sealant
 - Sealant separating at stucco to wood trim

- Unit # 3019-
 - Gap at balcony connection

- Unit # 3031-
 - Vent partially plugged

- Unit # 3035-
 - Wood deck board broken

Fairview Court- Photographs 2007

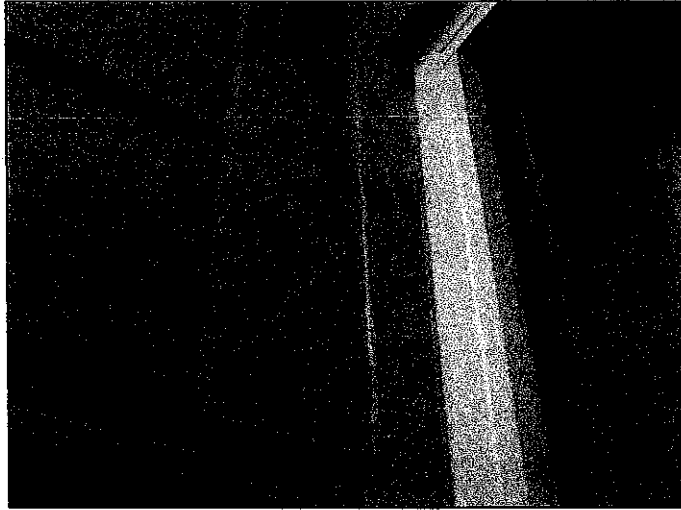


Photo #1- Sealant separating.



Photo #2- Vent plugged.



Photo #3- Crack in concrete.

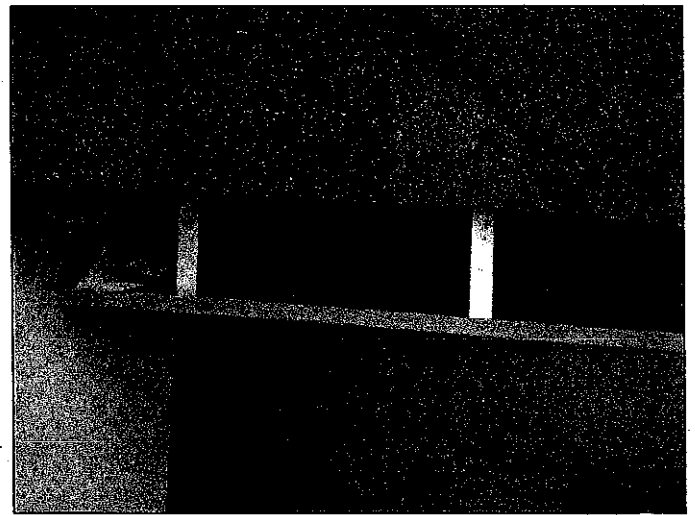


Photo #4- Debris in gutter.

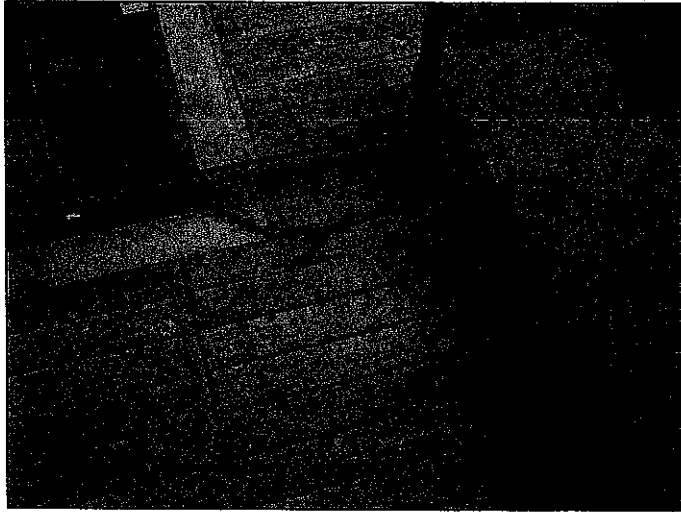


Photo #5- Broken wood deck board.



Photo #6- Vents detaching.

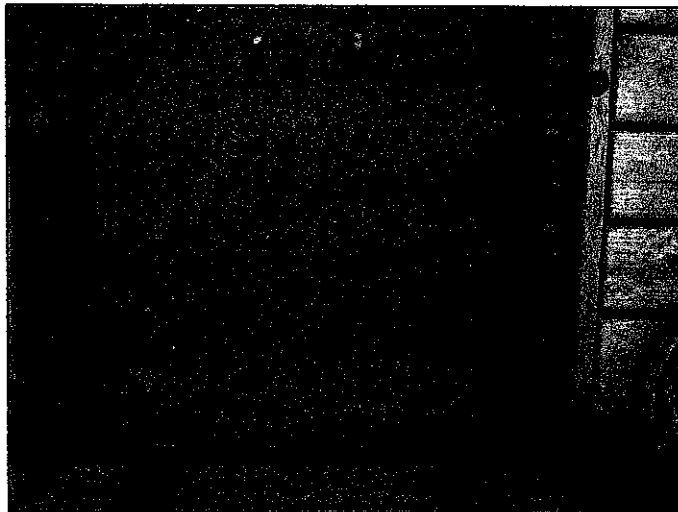


Photo #7- SBS Membrane under sleeper decks.

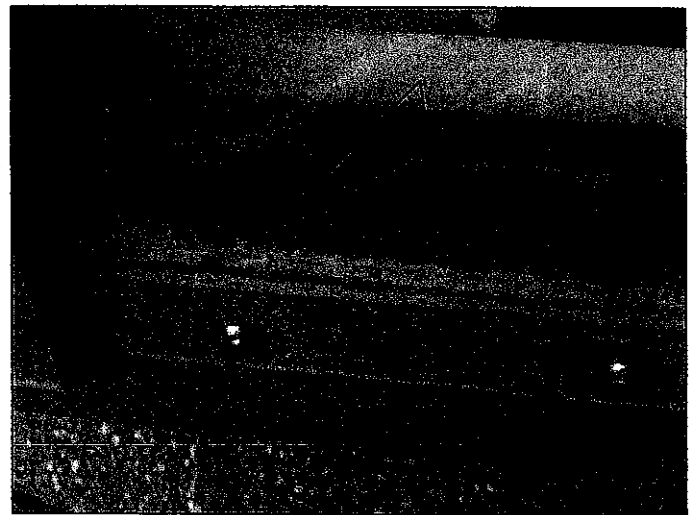


Photo #8- Sealant failure at skylight.

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Photo #9- Vent screen missing.

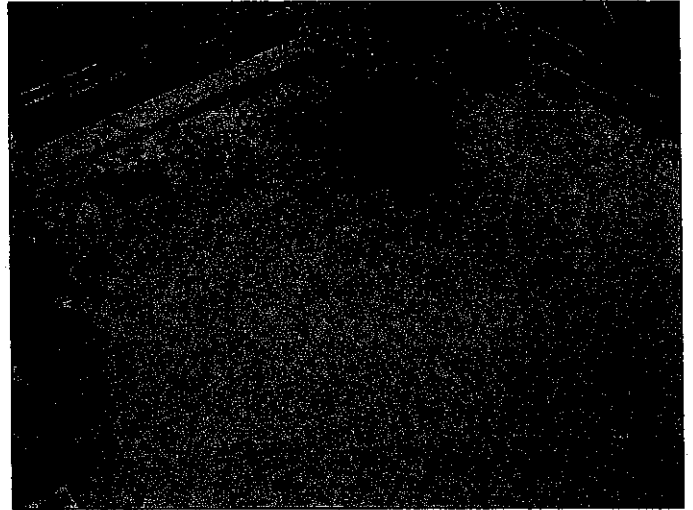


Photo #10- Deck dirty.



Photo #11- Trim missing paint and sealant.

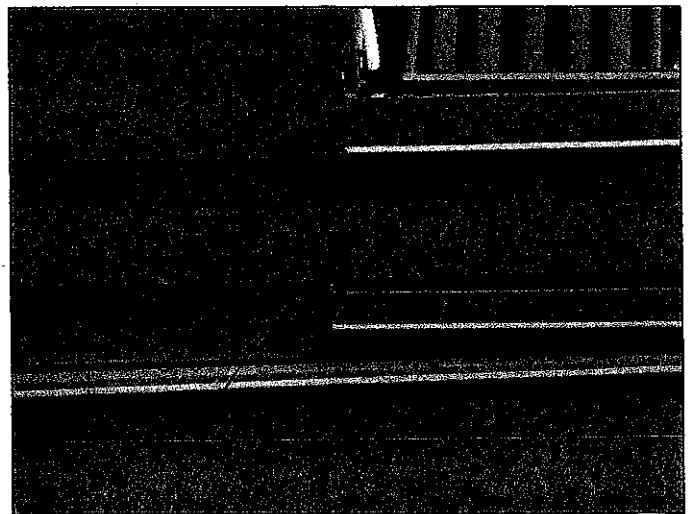


Photo #12- Gap at balcony connection.



Photo #13- Gasket loose.