

Owners of Strata #2720's

C/O Roger Taylor
#417 545 Manchester Rd.
Victoria, BC

Attention: Roger Taylor

Dear: Owners of Strata #2720's,

Re: Annual maintenance review of your buildings located at 545 Manchester and 520 Dunedin St. Victoria, BC.

We have completed the annual review of the building envelope. In accordance with the Owner's instructions and as per our recommendations, a more extensive review was carried out. In addition to this comprehensive and intrusive building review, we completed a window test.

This report outlines the results of the review and paints a clearer picture of the building's condition. In my opinion the results show that the maintenance program is performing very well. Provided the Owners continue with the same diligence, the maintenance program could be continued without significant increase in risk for another five to ten years.

Maintenance Recommended

Completed in conjunction with this report

- Install door stops to all stairwell doors for Hampton Court and Churchill Place
- Cleaning of all perimeter drainage
- Repairs to perimeter drainage and installation of clean outs
- Cleaning of all deck and roof drains
- Cleaning of all plumbing stacks
- Cleaning of both roofs
- Power washing & painting of Churchill Place

Authorized and/or in progress

- Repair loose and open seams on roof
- Replacement of fire doors

General

- Notices sent to owners and/or tenants requesting them to report any signs of water ingress. In particular, any water on the soffits above the decks.



Future:

- Install a liquid-applied membrane or replace the vinyl on the three decks identified in this report. If weather permits this should be completed this year.
- Create a schedule for the installation of a liquid-applied membrane to all decks. This work could be completed all at one time, or prioritized and completed over several years. It would be most cost effective to complete at least ten decks in the same area at one time. I recommend starting this program in the summer months of 2011.
- I recommend annual cleaning of the sump pumps related to the building's drainage system and a full cleaning of the entire system (including all roof and deck drains) again in 2013.

General Overview

This review included the targeting of specific items as well as the normal visual inspection of the buildings. Below is a list of the specific areas targeted and the results. Following are our recommendations.

Stucco

Our review included opening more areas of stucco than in prior years. I have included a table of areas opened:

Exterior Stucco

Churchill Place (520 Dunedin)

CP Entry	Entry @ Front Door	Dry	10.8-12%
CP 108	Visible from ground	Dry	
CP 201	Inside Balcony	Dry	
CP 205	Inside Balcony	Dry	
CP 207	Inside Balcony	Dry	
CP 208	Visible from ground	Dry	
CP 210	Visible from ground	Beam dry but water stain	17-18%
CP 212	Visible from ground	Dry	
CP 407	Inside Balcony	Cladding stucco mid 17-19%. Corner only 9-10% Outside beam dry	17-19%
CP 408	Inside Balcony	Dry	

Hampton Court (545 Manchester)

HC 209	Visible from ground	Dry	
HC 214	Visible from ground	Dry	
HC 217	Visible from ground	Dry	
HC 309	Visible from ground	Dry	



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Stucco Cont.

Two items came to our attention following our review.

Firstly, areas of the front (south) of 520 Dunedin removed were larger than we had previously opened, allowing a better look at the fasteners securing the wire to the building. It appears as if the wire has not been secured as per best practices. The nail pattern is poor and not all fasteners are in the correct position. This would explain a higher amount of cracking than normal. We cannot determine if this is a limited concern or typical of all of the wire installed. Visual inspection of the buildings indicates no significant signs of stucco slipping, movement, or buckling that would indicate a concern due to poor securing of the wire to the building. My guess is that without some other force or event, the stucco will remain intact and functioning as it has up until now. On a positive note the cracking can be attributed to a known installation cause rather than an unknown or unfound cause. This removes some of the doubt about the functioning of the stucco and gives us a clearer picture of the overall condition.

Secondly, in all areas where the stucco was removed (including areas with significant cracks) the building paper is showing very little sign of deterioration. We found areas that the paper had been wet on one or more occasions and evidence that some wetting is on the back of the paper and/or the front of the sheathing. These areas all tested dry at the time of the review. In all cases, the paper continues to retain sufficient integrity to afford a fair to good measure of protection.

The owners have installed a coating to the entire building of 520 Dunedin and intend to do the same for 545 Manchester next spring. This was completed in conjunction with my recommendation to “*go over each wall and seal the larger cracks with a good quality polyurethane caulking*”. The coating will help seal the hairline cracks, improve the overall appearance and stop any water penetration through the stucco. While we remain concerned with the cladding in general, all indications are that it is performing well.

Windows

We removed the interior drywall, vapour barrier, insulation, exterior cladding (stucco), and building paper around three windows to facilitate window testing. The testing was carried out by an independent company, Service First Ltd. Please find a copy of their report appended to the end of ours.

The conclusion of the test is that the window miter and glazing seals are intact and functioning as expected.

Doors

We inspected all of the exterior doors, all of the fire doors, and interior common doors excluding closets, storage areas, and individual unit doors. We found nine fire doors that should be replaced, as they have lost integrity. Since fire doors fall under the category of “life and safety” items in a building, I recommend the Owners replace the doors in the immediate future to ensure the safety of the building’s occupants in case of fire.



Churchill Place (520 Dunedin) – Doors

Location	Notes	
1st Floor	Stairwell doors are good	Needs small drywall repair near 111
2nd Floor	Stairwell doors are good	Needs door stop/small drywall repair near 202.
3rd Floor	Stairwell doors are good	Needs door stop/small drywall repair near 302 and 311.
4th Floor	Stairwell doors are good	

Hampton Court (545 Manchester) – Doors

Location	Notes	
1st Floor (near 101)	Stairwell door should be replaced. Needs door stop.	Outside Right Hand Swing Door 35-1/2" x 83-1/8" Window 6-1/4" x 20" x 1-3/4"
1st Floor (near 117)	Stairwell door should be replaced. Needs door stop.	Outside Left Hand Swing Door 35-1/2" x 83-1/4" Window 6-1/4" x 20" x 1-3/4"
2nd Floor (near 201)	Stairwell door should be replaced. Needs door stop.	Outside Right Hand Swing Door 35-1/2" x 83-1/8" Window 6-1/4" x 20" x 1-3/4"
2nd Floor (near 217)	Stairwell door should be replaced. Needs door stop.	Outside Left Hand Swing Door 35-1/2" x 83-3/8" Window 6-1/4" x 20" x 1-3/4"
3rd Floor (near 301)	Stairwell door should be replaced. Needs door stop.	Outside Right Hand Swing Door 35-1/2" x 83-1/8" Window 6-1/4" x 20" x 1-3/4"
3rd Floor (near 317)	Stairwell door should be replaced. Needs door stop.	Outside Left Hand Swing Door 35-1/2" x 83 Window 6-1/4" x 20" x 1-3/4"
4th Floor	Stairwell doors are good.	
Stairwell Outside Exit (near 101)	Stairwell door should be replaced. Needs door stop.	Outside Right Hand Swing Door 35-1/2" x 83-1/8" No Window
Stairwell Outside Exit (near 117)	Stairwell door should be replaced. Needs door stop.	Outside Left Hand Swing Door 35-1/2" x 83-1/8" No Window
Elevator Exit (into parkade)	1st of 2 doors should be replaced.	

Deck Membranes

Removal of the soffit under sixteen decks showed signs of some water penetration in three. Two of the three registered as wet and one was dry at the time of the review. Previously we had reported on some cuts and abrasions in the membrane. The age of the membrane is likely the cause of this moisture.



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Two options present themselves. The deck membranes could be replaced or they could be repaired and sealed with a liquid-applied membrane. Proper replacement of the deck membrane would be a significant undertaking while sealing them with a liquid coating would be considerably less expensive. The advantage of the replacement option would normally be longevity. In the future if the building is remediated, all of the deck membranes would be replaced despite how recently they had been re-done. Thus replacing the vinyl decking with a new vinyl membrane may not be cost effective for the long term.

I recommend, at a minimum, the decks are sealed with a liquid applied membrane that is compatible with the vinyl. The three decks that had shown signs of water penetration (309, 311, and 404 Churchill Place), should be done within the year and the remaining decks could be done within the next few years. It is important that any punctures, tears or soft spots are reported and inspected. This way, the sealing of deck membranes can be prioritized, if needed.

Exhaust Vents

We removed the stucco, building paper, and drywall from the wall system around a selected number of exhaust vents. There were no significant signs of water ingress or ongoing wetting. All areas tested in the normal range.

I recommend continuing to maintain the vents and expect there may be increasing amounts of costs to maintain (and/or repair) in the future.

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Interior Testing

We removed drywall to access the wall system for three separate reasons; testing of the window, areas we had concerns or reports of, and some random targeted areas. The results are as listed below.

Interior Drywall

Churchill Place (520 Dunedin)

CP 108	Living Room Window	Dry	7.3-11%
	Kitchen Window 1	Dry	9.4-10.3%
	Kitchen Window 2	Dry	11-11.7%
	Bedroom Window	Dry	7.7-15.2%
CP 205	Living Room Window	Dry	8.5-12.5%
	Living Room Common Wall	Dry	
	Bedroom Window	Dry	
CP 212	Bedroom Window	High moisture reading not due to window failure, but maintenance and cleaning of slider drains.	8.5-49%
	Bedroom 2 Window	Water marks on framing are old	
CP 401	Living Room Window	Dry	7.3-10.5%
	Master BR Window	Dry	8.6-10%
	Bedroom 2 Window	Dry	7.2-10.5%
	Kitchen Walls x 2	Dry	11-11.2%
CP 408	Living Room Slider	Dry	8.6-8.9%
	Kitchen Window	Dry	8.5-10%
	Master BR Window	Dry	14.0%

Hampton Court (545 Manchester)

HC 211	Kitchen Window	Dry	
	Kitchen Common Wall (sink side)	Dry	
	Exterior Wall (back of exterior sprinkler head)	Checked for internal sprinkler leaks, but showed dry	8-9.4%
HC 214	Living Room Window	Dry	7.7-8.8%
	Master BR Window	Water marks on framing are old	9.4-17%
HC 217	Master BR Window	Dry	
	Bedroom 2 Window	Dry	
HC 417	Master Bedroom	Dry	8.6-10.6%



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Interior Testing

The results of our testing supports this report's conclusions that the building envelope is performing well.

Drainage

We cleared the roof drains, deck drains, membrane drains, perimeter drains, sumps and lines. In some areas around the buildings we found damaged or blocked drains. These were repaired and clean-outs installed at the repair sites to assist with future cleaning.

I recommend an annual cleaning of the sumps and surface drains. I further recommend another full cleaning in three years (2013).

Conclusion

This year we completed a more extensive review to obtain a better understanding of the overall condition and functioning of the building envelope. We included areas that were a concern, as they had not been fully tested or reviewed previously. The review was completed after a mild winter. It was noted that despite indications of wetting to the front of the building paper and the front of the sheathing, the majority of the tests showed normal moisture levels. While some rot and deterioration were evident there were no indications of significant, systematic, or consistent failures that would require further review or more repairs at this time. The results of this review indicate that the building envelope is being maintained at a level sufficient to protect the building from excessive water ingress and any of the damage related to that. I'm comfortable in suggesting that the maintenance program is performing well enough; that in my opinion it could be continued for at least another five years to ten years, provided it is administered as diligently as in the past. The deck membrane repairs would be the next priority in the maintenance program.

For further information or clarification please feel free to contact me at 479-8050, or alternatively at 858-9161.

Yours truly,

D. A. Downs
Per DougLes Consulting Services Inc.

SFL

Service First Ltd.

9-2064 Henry Ave. West, Sidney, BC. V8L 5Y1

Phone: 250-656-3091 Fax: 250-656-3025

Test Report

Field Performance of Windows Performed in General Conformance with ASTM E 1105-00 (08)

Location:

545 Manchester

Victoria, BC

Job #

Presented to:

Doug Downs

C/O Doug Les Consulting

667 Beaver Lake Road

Victoria, BC V8Z 5N9

June 09, 2010

E:\Word Data\Building\545 Manchester June 09-10.DOC

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General

Testing Agency

Service First Ltd. 9–2064 Henry Ave. West, Sidney, BC. V8L 5Y1

Requester of Test

Doug Les Consulting

Date & Time of Test

June 09, 2010

Date of Report

July 07, 2010

Identification & Location of Building

545 Manchester, Victoria, BC

Description of Test Specimen

Manufacturer

Almetco Windows

Model & Operation Type

Horizontal sliding

Dimensions

See individual reports

Materials

Red enameled aluminum

Location of Test Specimen within the Building

See individual reports

Age of Test Specimen

1992

Drawings

Drawings, Construction Details, Weather Stripping, Etc.

See Appendix 'A' (no shop drawings supplied)

Sampling Procedure

Test Methodology

Service First Ltd. fabricated a mask of clear acrylic or vinyl, which was attached to the interior face of the room of the door or window being tested with duct tape. Air was then exhausted from in-between the mask and the specimen until the specified pressure differential was achieved. A calibrated spray rack was placed on the exterior side of the window that delivered a uniform water spray as required by ASTM E 1105 – 00 (08).

Test Parameters

Static Air Pressure Differential Used

See individual reports

Water Spray Data

Rack was calibrated @ 43psi. Water pressure utilized on site was 20psi.

Uniform or Cyclical

Cyclical

If Cyclical – Number of Duration's Used

4 – 5 minute durations used

Location of Test Chamber

Sealed on interior face of the wall

Test to Conform To Particular Test Specification (Describe the Standard)

ASTM E 1105-00-08

Test Conditions

Temperature, Wind Speed, Direction, Barometric Pressure

Temperature 18°C, wind N/A, B.P. 101.00 kPa

Test Results

Record all Water Penetration

In these water infiltration tests, the fixed and operable sections of the window including mullions, couplings, jambs, sill, head and window / wall interface were tested.

Test-1, June 09, 2010, 217 North-East Facing Bedroom Window

In this test one 71" X 72" XO/OO window was tested. A negative pressure differential of 200pa was applied to the interior of the test chamber and the water spray rack was turned on. Water quickly filled the horizontal mullion, and the test was stopped. The sliding sash was taped off using duct tape on the exterior between the sash and the perimeter, and the exterior drain holes were taped off on the exterior to prevent water from accumulating too quickly in the sill track. The test resumed for the full four cycles with no visible evidence of water infiltration through the window frame or the window-wall interface.

Test-2, June 09, 2010, 214 North-East Facing Bedroom Window

In this test one 71" X 72" XO/OO window was tested. The sliding sash was taped off using duct tape on the exterior between the sash and the perimeter, and the exterior drain holes were taped off on the sill to prevent water from accumulating too quickly in the sill track. A negative pressure differential of 300pa was applied to the interior of the test chamber and the water spray rack was turned on. The test ran for the full four cycles with no visible evidence of water infiltration through the window frame or the window-wall interface.

Test-3, June 09, 2010, 212 North-East Facing Bedroom Window 'Churchill Building'

In this test one 71" X 72" XO/OO window was tested. The sliding sash was taped off using duct tape on the exterior between the sash and the perimeter, and the exterior drain holes were taped off on the sill to prevent water from accumulating too quickly in the sill track. A negative pressure differential of 150pa was applied to the interior of the test chamber and the water spray rack was turned on. The test ran for the full four cycles with no visible evidence of water infiltration through the window frame or the window-wall interface.

Compliance Standard

Statement That Tests Were Conducted in Accordance with the Test Method.

Testing for ***water penetration*** was conducted in general accordance with ASTM E 1105 – 00 (08) “Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Curtain Walls and Doors by Uniform or Cyclic Static Air Pressure Difference”.

Disclaimer

Limitation of Liability

The information contained in this test report are the findings resulting from tests conducted in accordance with the ASTM standard test method (the “Test Method”) referred to in section 8.1 of this report. This report was prepared at the request of the client referred to herein and the express written consent of SFL Service First Ltd. (“Service First”) must be obtained before all or any part of the content of this report can be used for any purpose by anyone except the client referred to in the report.

Test results do not determine the suitability of the windows for the building in which they are installed and they do not determine the suitability of the method used for the window installation. Not all windows in the building were tested: the results are from a random sampling only. Accordingly, the test results should be interpreted by a qualified building envelope specialist with experience in the interpretation of test results under the Test Method. Test results reflect the state the windows only at the specific testing date set out in the test results and the actual performance of the windows may vary after the test date. Certain factors, including but not limited to, exterior and interior finishes after the test date can affect the performance of the windows after testing.

Service First makes no warranties or representations regarding the use of or the fitness for any purpose of the results of the report other than as an expression of test results carried out under the Test Method. Otherwise, the user of this report assumes the entire risk related to the use of the data and Service First disclaims any and all warranties, express or implied, including, without limitation, any warranty that this report is suitable or fit for any particular purpose, whether or not such purpose has been made known to Service First. In no event will Service First or its directors, officers, shareholders, employees, or agents be liable to any user for direct, indirect, incidental, consequential, special or exemplary damages or loss of profit resulting from the content of or the use or misuse of the data in this report

TEST RESULTS SHOULD BE INTERPRETED BY A QUALIFIED BUILDING ENVELOPE SPECIALIST.

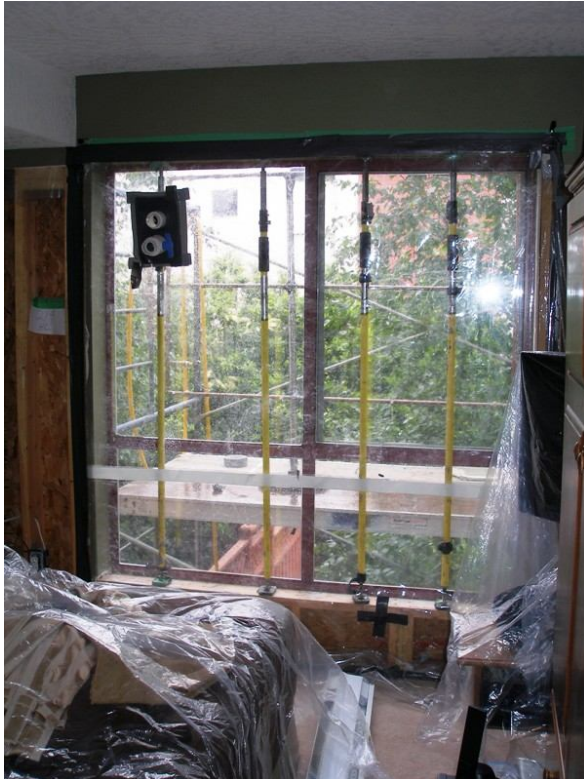
Submitted By: Service First LTD.

Patrick van Adrichem, Technician

Appendix A



Test 1



Test 2



Test 3