




XTR Building Services Ltd





“Exterior building envelope review & maintenance”



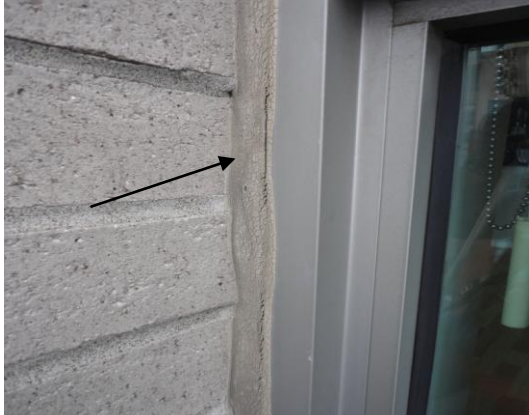
Attn: Douglas Mak


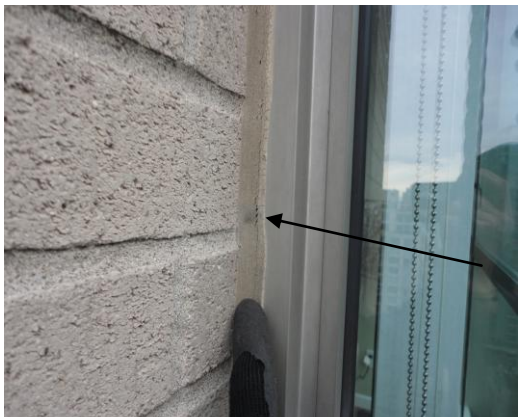


dmak@vancondo.com


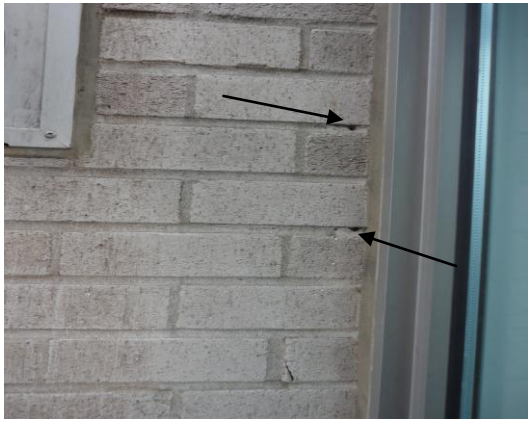


C/O Vancouver Condominium Services The Savoy- 928 Richard Street, Vancouver B.C





•		South Elevation: Drop # 1 At roof level sealant failure at cap flashing saddles. Organic growth on exterior brick.
•		South Elevation: At roof level sealant failure at metal to brick.
•		32 nd Floor PH: Rubber window gasket out of place.





<ul style="list-style-type: none"> • 		<p>32nd floor PH: Sealant missing at balcony saddle to prevent water running down the inside corner and damaging the brick mortar. Balcony membrane was not carried over the face of the balcony edge typical along the run. Sealant missing at railing mounts typical on this run.</p>
<ul style="list-style-type: none"> • 		<p>31st floor: Moisture in concrete and exposed forming left in concrete. Missing sealant at balcony saddle common along entire run. Sealant at the saddle connection would prevent water at this location.</p>
<ul style="list-style-type: none"> • 		<p>31st floor: Vent cover is missing.</p>
<ul style="list-style-type: none"> • 		<p>31st floor: Missing sealant at railing mounts and saddle connection. Membrane missing at balcony face.</p>


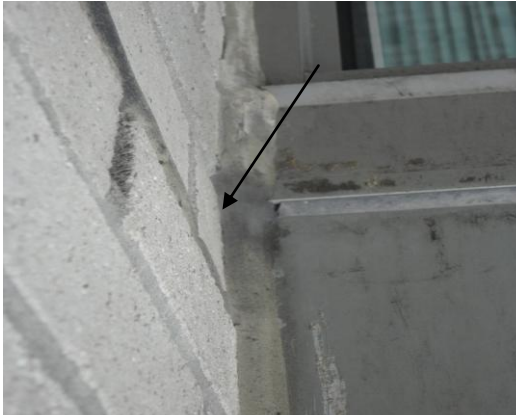


<ul style="list-style-type: none">•		<p>31st floor: Organic growth on balcony face and decks.</p>
<ul style="list-style-type: none">•		<p>30th floor: Caulking failures at metal panels between floors.</p>
<ul style="list-style-type: none">•		<p>29th floor: Sealant failure at window frame to brick transitions. Typical along entire run.</p>

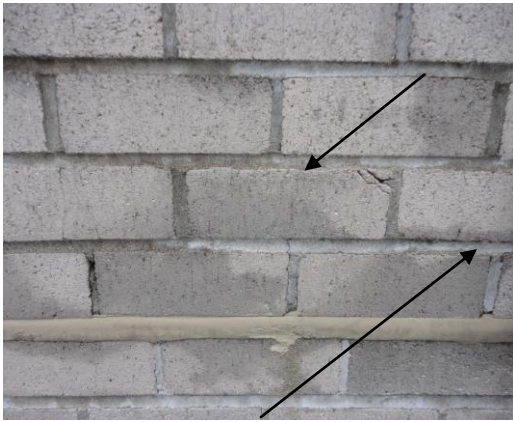

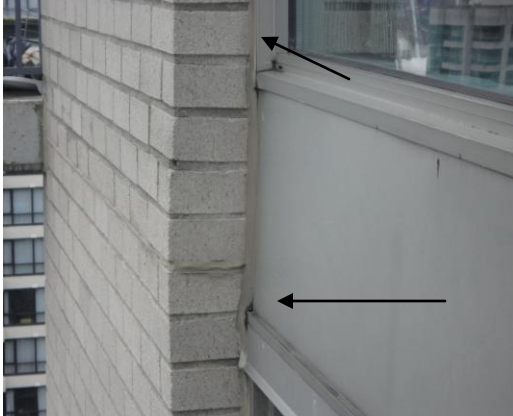

•		<p>29th floor: Sealant failure at brick to panel transitions between floors.</p>
•		<p>25th floor: Sealant failure at window to brick transition typical to this run.</p>
•		<p>19th floor: Failed sealant repair by others at outside corner of window bay. The wrong type of sealant was applied.</p>
•		<p>18th floor: Sealant failure at window jamb typical to this run.</p>




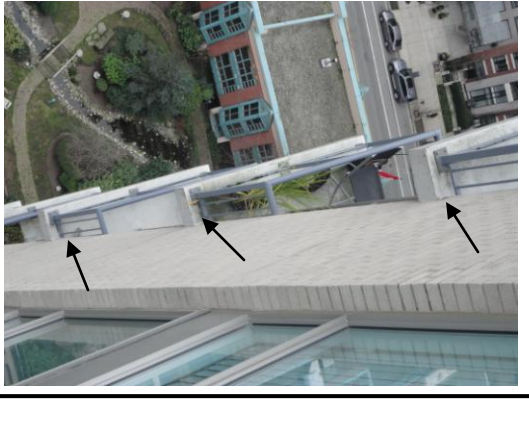
•		16 th floor: Typical sealant failure at window frames.
•		16 th floor holes in brick.
•		14 th floor: Missing sealant at window header.
•		14 th floor: Crack in brick.



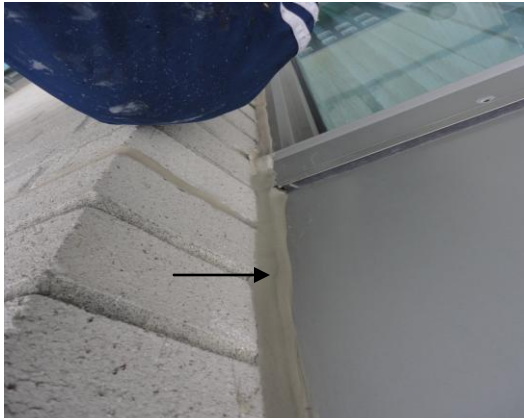

<ul style="list-style-type: none">•	 A photograph showing a close-up of a window jamb on the 13th floor. The window frame is white, and the surrounding wall is made of light-colored bricks. A black arrow points to a vertical gap between the window frame and the brickwork, indicating a sealant failure.	<p>13th floor sealant failure at window jamb.</p>
<ul style="list-style-type: none">•	 A photograph showing a close-up of the outside window frame on the 12th floor. The window frame is white, and the surrounding wall is made of light-colored bricks. A black arrow points to a gap between the window frame and the brickwork, indicating a sealant failure.	<p>12th floor: Sealant failure at outside window frame. Interior silicone applied by others.</p>
<ul style="list-style-type: none">•	 A photograph showing a close-up of a vent perimeter on the 11th floor. The vent is white and has a circular opening with a metal grate. The surrounding wall is made of light-colored bricks. A black arrow points to a gap between the vent frame and the brickwork, indicating a sealant failure.	<p>11th floor: Sealant failure at vent perimeter (pin holes and cracking of existing sealant)</p>
<ul style="list-style-type: none">•	 A photograph showing a close-up of a sealant failure and a crack in the brick on the 11th floor. The brick is light-colored and has a vertical crack. The sealant is white and has failed, creating a gap between the brick and the window frame. A black arrow points to the crack in the brick.	<p>11th floor: Sealant failure and crack in brick.</p>





•		<p>10th floor: Sealant failure at outside corner typical along this run.</p>
•		<p>10th floor: Sealant failure at panel joint and peel & stick membrane behind is melting.</p>
•		<p>10th floor: Clear silicone applied at bottom of panel has failed where rubber gasket is missing.</p>
•		<p>8th floor: Typical sealant failure at outside window corner.</p>

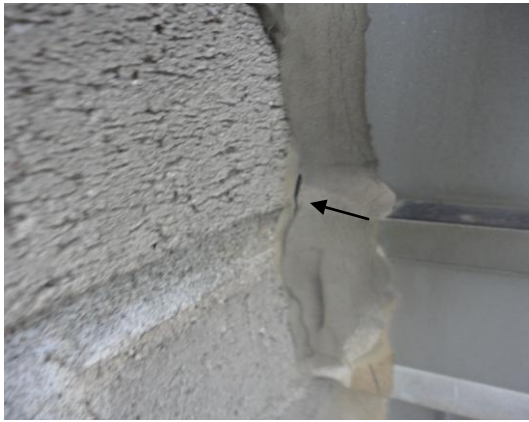



<ul style="list-style-type: none">•		<p>5th floor: Sealant failure at fireplace vent typical along this run. Crack in brick.</p>
<ul style="list-style-type: none">•		<p>3rd floor: sealant failing at window jamb.</p>
<ul style="list-style-type: none">•		<p>3rd floor: Crack in brick and window gasket out of place.</p>
<ul style="list-style-type: none">•		<p>P1: Back Alley Sealant missing at 3 sides of light fixture.</p>

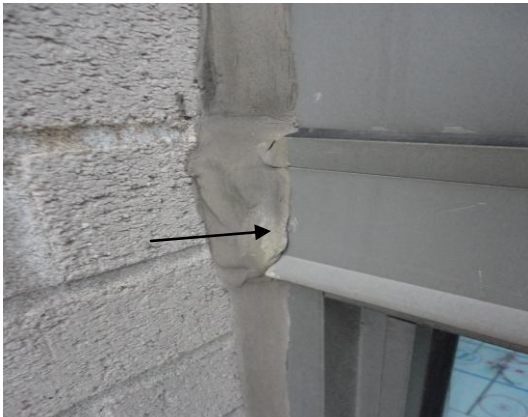



<ul style="list-style-type: none"> • 		<p>East Elevation drop #2: 30th floor:</p> <p>Multiple cracks in the brick work.</p>
<ul style="list-style-type: none"> • 		<p>29th Floor:</p> <p>Missing sealant at upper brick to deck transition. Waterproofing has been applied over the face of balcony slab. Sealant is missing at railing bases. Balcony membrane is very dirty.</p>
<ul style="list-style-type: none"> • 		<p>29th floor:</p> <p>Sealant failure at metal panel and window jamb typical along this run.</p>
<ul style="list-style-type: none"> • 		<p>28th floor:</p> <p>Sealant failure at window jamb. Organic growth on the brick and sealant (will cause premature failure of sealants).</p>





•		<p>27th floor: Sealant failure at window jamb and at panel. Algae growth and water retention at brick veneer.</p>
•		<p>27th floor: Panel gasket is short and should be sealed.</p>
•		<p>26th floor: Selant failure at window jamb and panel. Typical along this run.</p>
•		<p>26th floor: Sealant missing at all saddle connections along this run.</p>





•		23 rd floor: Crack in brick veneer.
•		23 rd floor: Sealant failing at vent perimeter.
•		23 rd floor: Sealant failure at window jamb typical along this run.
•		22 nd floor: Crack in brick veneer.



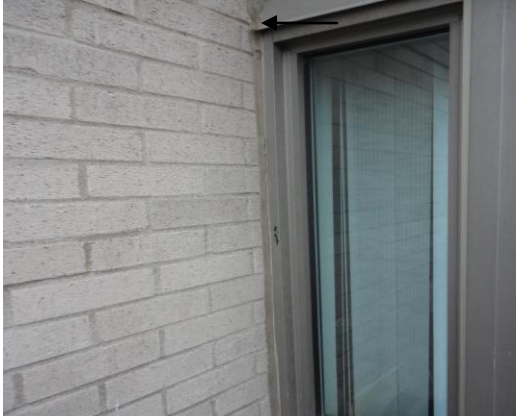
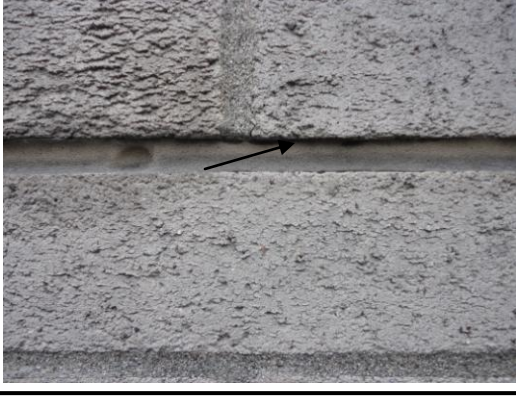
•		22 nd floor: Sealant failure and gasket to short at transition joint.
•		22 nd floor: Failed sealat at window jamb typical
•		22 nd and 21 st floor: Sealant failure at metal panel between floors.
•		20 th floor: Sealant failure at sill and jamb.





•		<p>19th floor: Failed sealant at metal panel to brick typical along this run.</p>
•		<p>19th floor: Sealant failure at panel to brick.</p>
•		<p>18th floor: Failed sealant at brick to brick joints typical along this run.</p>
•		<p>17th floor: Sealant failure at panel to brick. Gasket at window header short.</p>





•	 A close-up photograph showing a grey metal panel meeting a brick wall. A black arrow points to a significant gap and peeling of the white sealant at the junction.	<p>16th floor: Sealant failure at metal panel to brick.</p>
•	 A close-up photograph of a window opening. A black arrow points to a vertical gap where the sealant has failed between the window frame and the brickwork.	<p>16th floor: Sealant failure at panel right side of window opening.</p>
•	 A photograph showing a grey metal panel adjacent to a brick wall. Two black arrows point to gaps in the sealant at the top and bottom of the panel's edge.	<p>15th floor: Sealant failure at panel</p>
•	 A photograph of a window corner on the 14th floor. Two black arrows point to areas where the sealant has failed at the junction of the metal panel, a vent, and the window frame.	<p>14th Floor: Failed sealant at metal panel, vent and window frame.</p>

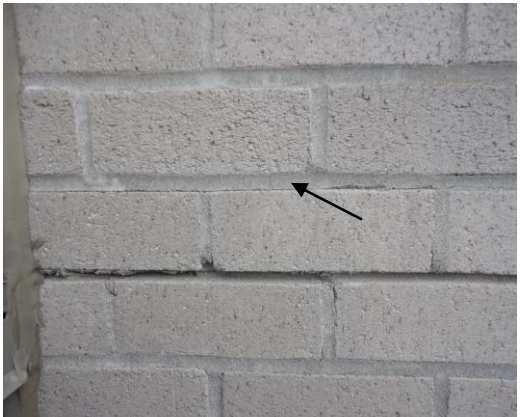



•		14 th floor: Failed sealant at vent
•		13 th floor: Failed sealant at window jambs and meta panel transitions.
•		13 th floor: Failed sealant at panel
•		12 th floor: Sealant failures at jamb detail.





•		10 th Floor: Failed sealant at panel
•		9 th floor: Sealant failure at brick to brick joints.
•		8 th floor: Failed sealant at jamb.
•		7 th floor: Failed sealant at jamb.

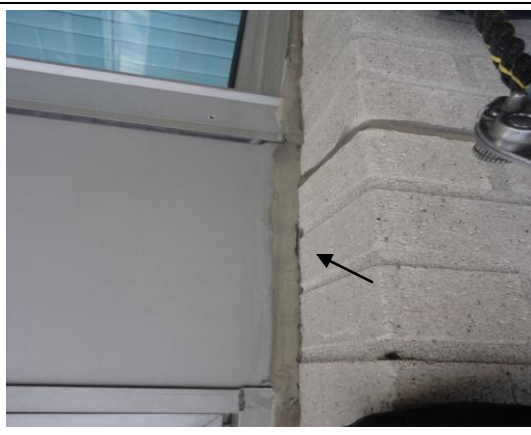



<ul style="list-style-type: none">•		<p>6th floor: Failed sealant at outside corner of the window frame.</p>
<ul style="list-style-type: none">•		<p>5th floor: Failed sealant at metal panel.</p>
<ul style="list-style-type: none">•		<p>4th floor: Failed sealant at brick to brick joint and at panels.</p>
<ul style="list-style-type: none">•		<p>4th floor: Brick to brick joint failing.</p>





<ul style="list-style-type: none">•		<p>3rd floor: Sealant failure at fireplace vent.</p>
<ul style="list-style-type: none">•		<p>3rd floor: sealant failure at metal panel</p>
<ul style="list-style-type: none">•		<p>North Elevation drop #3: 30th floor: Missing and failed sealant at vent</p>
<ul style="list-style-type: none">•		<p>30th floor: Failed sealant at panel</p>

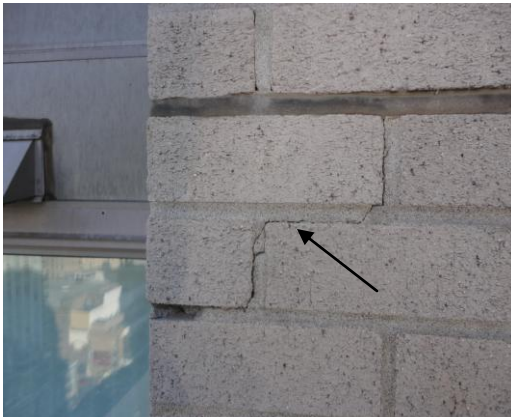



•		<p>29th floor: Failed sealant at panel to brick joints typical.</p>
•		<p>27th floor: Failed sealant at metal panel typical along this run and failed gasket repairs by others.</p>
•		<p>27th floor: Missing sealant at vertical joint all floors.</p>
•		<p>26th floor: Sealant missing at metal panel. Typical along entire run.</p>




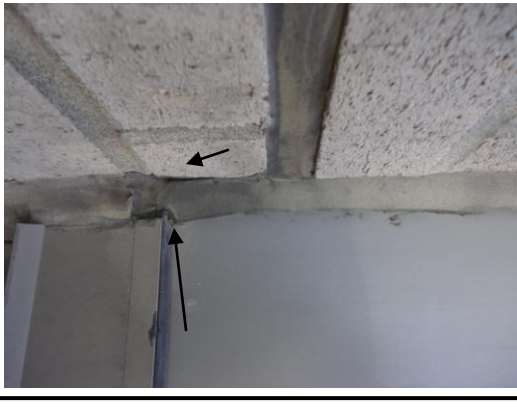
•		25 th floor : Crack in brick
•		23 rd floor: Sealant failure at panel and panel dented.
•		21 st floor: Failed sealat at panel and gasket repair needed.
•		20 th floor: Failed sealant at jamb and brick cracked.

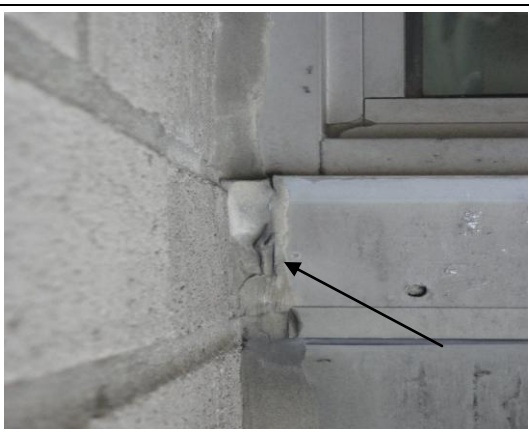
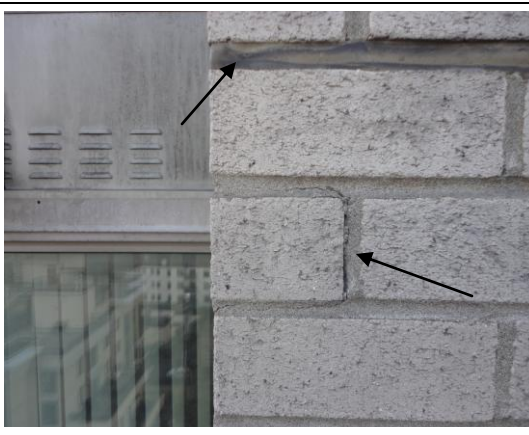
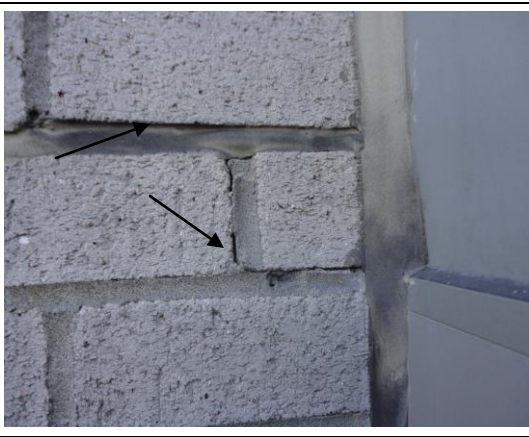
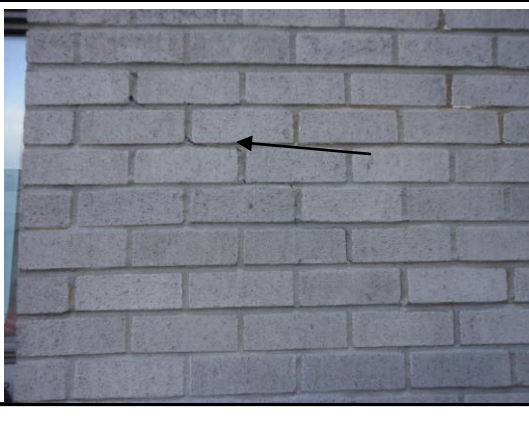
•		19 th floor: Failed sealant at panel
•		18 th floor: Failed sealant at panel
•		17 th floor: Sealant failing at panel.
•		16 th floor: Sealant failure at panel.

•		<p>15th floor: Sealant failure at panel to brick.</p>
•		<p>13th floor: Failed sealant at window jamb and at panel.</p>
•		<p>12th floor-4th floor: Sealant failure at jamb and at panel transitions.</p>
•		<p>3rd floor: Sealant missing at perimeter of sign and 4 holes in panel.</p>

<ul style="list-style-type: none">•		<p>West Elevation Entrance Drop #4: 32nd floor: Failed sealant at panel.</p>
<ul style="list-style-type: none">•		<p>32nd floor: Failed sealant at vent.</p>
<ul style="list-style-type: none">•		<p>30th Floor: Failed sealant at jamb.</p>
<ul style="list-style-type: none">•		<p>29th floor: Failed sealant at window jamb.</p>

•		<p>26th floor: Crack on brick veneer. Vents missing sealant entire run.</p>
•		<p>26th floor: Vents missing sealant.</p>
•		<p>24th floor: Crack on brick</p>
•		<p>22nd Floor: Failed sealant at panel typical along this run and short rubber gasket.</p>

<ul style="list-style-type: none">•		<p>21st floor: Sealant failure at rubber gasket repair.</p>
<ul style="list-style-type: none">•		<p>21st floor: Sealant failure at brick to brick joint.</p>
<ul style="list-style-type: none">•		<p>19th floor: Sealant failure at rubber gasket repair by others.</p>
<ul style="list-style-type: none">•		<p>19th floor: Sealant failure at window wall to brick transition.</p>

•		12 th floor: Failed sealant at window jamb.
•		12 th floor: Failed sealant at joint and crack in brick veneer.
•		11 th floor: Failed sealant at brick to brick joint and crack in brick veneer.
•		7 th floor: Poor picture crack in brick veneer



Summary and Recommendations:

The Savoy 928 Richard Street, Vancouver

Is a concrete High rise building with an exterior envelope composed of an exterior brick veneer and metal window wall with sealant transitions to prevent water ingress behind the rain-screen system. Also there are concrete balconies with a liquid applied waterproofing (traffic coating).

A quotation was submitted to the council on July 18, 2011. The quotation was based on replacing all the sealants at the various transitions on the high rise and town homes. For the council's benefit 4 drops were conducted on the high rise building to record the observations of the current condition of the exterior envelope.

It was observed that the sealant is failing at all the critical locations on the high rise. This report high lights all the locations of concern that need to be addressed on the building.

Examples:

- Brick to brick joints
- Window wall to brick
- Window wall outside corner details
- Balcony saddles (sealant missing)
- Fireplace vents
- Sealant missing at electrical boxes and light fixtures
- Crack repairs in brick veneer
- Waterproofing missing on exterior slab face of balconies as outlined.

In summary:

Due to the age of the sealants and the condition of some repairs completed by others it is recommended that the exterior sealants be replaced. Also to improve the performance of the brick veneer and the balcony membranes it is recommended that the exterior be cleaned and sealant be added where missing.

Quotation:

Scope of work:

Supply and install access (stages and boatswain chairs)

During the extent of the job include the strata and the management company on our liability insurance. Provide a fall protection plan and a site manager for the duration of the project.

Provide council with a progress report every two weeks.

The project will take 12 weeks to complete.

Cut out and replace all sealants at:

>Brick to brick joints

>Window wall to brick

>Window wall outside corners where sealant has failed and rubber seals are short.

>Fireplace vents

Add sealants at:

>Balcony saddle connections

>Balcony railing mounts

>Crack repairs in brick veneer

>At exposed light fixtures, hose bibs and electrical boxes

>Apply waterproofing where missing

Tower Price: \$123,488.00 + HST

Town houses: \$12,272.00 + HST

Additional to contract:

Power wash exterior:

Tower: \$15,000.00 + HST

Town Houses: \$6,000.00 + HST

If the council accepts this quotation before March 1, 2012 the price will be reduced by \$10,000.00.