



Address: #2033-1177 West Hastings Street,
Vancouver, BC V6E 3T4
Office Phone: 236-471-6061
Email: Strata@sterlingmgmt.ca

MINUTES OF COUNCIL MEETING
STRATA CORPORATION LMS 280 CHATEAU COMOX
HELD ON MONDAY MARCH 11TH, 2024 AT 7:00 P.M.
MEETING ROOM 1272 COMOX STREET, VANCOUVER BC

COUNCIL IN ATTENDANCE:

Kevin Wice	President
Don Davidson	Vice - President
Adriaan de Vries	Secretary
Sascha Bendt	Treasurer
John Rose	Member

PROPERTY MANAGER:

Edward Jang, CPRPM
Mandy Fong, Assistant Strata Manager
Sterling Management Services Ltd.

GUESTS:

Kim Adamson	Strata Lot #04
Russell Ker	Strata Lot #19
Iain Braidwood and Louise Hibbs	Strata Lot #16
Daichi Yamashita	Strata Lot #11
Benny Schuetze	Strata Lot #21

1. CALL TO ORDER

The meeting was called to order at 7:00 pm.

2. GUEST BUSINESS (If any)

An owner inquired if multiple quotes were received for the generator maintenance. Council instructed Sterling Management to seek multiple quotes for the generator maintenance

An owner requested a financial report of the EV project. Council advised a report will be shared with owners once the EV rebate has been received.



Address: #2033-1177 West Hastings Street,
Vancouver, BC V6E 3T4
Office Phone: 236-471-6061
Email: Strata@sterlingmgmt.ca

3. APPROVAL OF THE MINUTES OF THE COUNCIL MEETING HELD ON – December 4th 2023

An amendment was made to correct the minutes in section 3 from “to approve the minutes of the Strata Council Meeting of August 21, 2023” to “to approve the minutes of the Strata Council Meeting of September 18, 2023.”

It was then **MOVED** and **SECONDED** to approve the minutes of the Strata Council Meeting of December 4th 2023 pending those corrections. All in favor

MOTION CARRIED

4. FINANCIAL REPORT – November, December, January

The Treasurer highlighted numerous coding errors and outstanding corrections requested that had not yet been reflected in the financial statements. Council instructed Sterling Management to make the adjustments.

5 OLD BUSINESS

1) CRF Investment Options

Council discussed investment options for the Contingency Reserve Fund (CRF). As the January CRF balance was \$62K, and \$50K is the current insurance deductible, council decided not to make any changes to the CRF account at this time.

2) Appointment of Privacy Officer

Don Davidson volunteered to be Privacy Officer until the end of the year.

3) Spring Cleaning

Carpet cleaning for the lobby and hallways was scheduled for March 12th 2024.

Laundry dryer vent cleaning (from the inside and outside) is scheduled for April 5th 2024. Owners are reminded that access to individual units is required, and to coordinate with a neighbor or council if they are not available to provide access.



Address: #2033-1177 West Hastings Street,
Vancouver, BC V6E 3T4
Office Phone: 236-471-6061
Email: Strata@sterlingmngmt.ca

4) Maintenance Updates

Council discussed the replacement of lobby light bulbs. Some have been replaced and a council member volunteered to investigate the costs and replace others with more energy efficient light bulbs if needed.

Council discussed the drywall repairs. Repairs are complete with painting outstanding. A council member will be checking paint inventory and volunteered to repaint.

Council instructed Sterling Management to follow up on the outstanding pest control quotes for the west stairwell.

Council discussed the generator maintenance. Council instructed Sterling Management to seek additional quotes for the next service date, and to follow up with Cullen Diesel on generator items identified in the Depreciation Report 2024 Tactical Plan.

5) Depreciation Report

Council discussed additional items in the depreciation report that need investigation as outlined in the 2024 Tactical Plan.

Council instructed Sterling Management to obtain a quote for infrared scanning, and other electrical safety inspections as identified in the depreciation report.

Council instructed Sterling Management to obtain an official findings report or a quote for a report from TK Elevator on items identified in the depreciation report.

6) Membrane Inspection

A member of the Sub Committee presented the findings in the Engineering Investigation Parkade Condition Assessment. Council discussed the report and next steps. The report is posted on the Chateau Comox Website and attached to these Minutes.

Council instructed the Sub Committee and Sterling Management to obtain three quotes for the Design Phase based on the assessment.

7) Gas Cooking Appliances



Address: #2033-1177 West Hastings Street,
Vancouver, BC V6E 3T4
Office Phone: 236-471-6061
Email: Strata@sterlinggmt.ca

Council discussed metering gas cooking appliance consumption. A council member currently has one quote for \$2,200 per meter, and will be receiving other quotes.

Council discussed an owner's offer to pay a monthly fee calculated based on the estimated gas consumption of an average cooktop and actual costs incurred by the strata corporation. A council member volunteered to contact Fortis BC for an updated gas consumption average for cooktops and stoves.

8) Gas Fireplace

Council discussed metering gas fireplace consumption. A council member currently has one quote for \$2,200 per meter, and will be receiving other quotes.

9) EV Rebate and Charging Terminals

The EV Rebate has not been received.

Council discussed the chargers using electricity while not charging vehicles and costs incurred by the strata corporation. Council agreed the charging stations will be turned off while not in use.

10) Revised Meeting Dates

Sterling Management will email council with alternative meeting dates.

6. NEW BUSINESS

1) Window Washing Schedule

Council agreed to change the frequency of the window washing to twice a year. The owner of Strata Lot #04 has agreed to continue to manage this.

2) Window Replacement

Council discussed recent window replacement requests. Unit 403 had failed and been replaced. Unit 203 was reported as failed. Accurate Glass attended unit 203 and determined the window had not failed and was a humidity (owner) issue and not a strata issue.

Council will issue a survey to determine if any other units have failed windows.



Address: #2033-1177 West Hastings Street,
Vancouver, BC V6E 3T4
Office Phone: 236-471-6061
Email: Strata@sterlingmgmt.ca

3) Insurance Renewal

The Strata Corporation insurance has been renewed. There is a copy on the Chateau Comox Website and attached to these minutes.

4) Annual Fire Inspection

The fire inspection will be scheduled for June.

5) Electrical Planning Report

Council requested an overview from Sterling Management on the new requirement of the Strata Property Act. Sterling Management advised that all buildings in the lower mainland must complete an Electrical Planning Report. Council instructed Sterling Management to obtain quotes for incorporation into the next budget for the strata corporation.

6) Privacy Policy

Council has drafted a Privacy Policy which is now under review by Office of the Information and Privacy Commissioner for BC.

7) Key Inventory

Council discussed the current key inventory and potential updates and/or maintenance to the locks.

9) SGM Date

Council discussed holding a Special General Meeting to vote on bylaws and potential levies for work outlined in the depreciation report. More information will be provided.

Meeting Adjourn

The meeting was adjourned at 8:30PM



Residential Strata Program
Summary of Coverages - The Owners of Strata Plan LMS280

Insured: The Owners of Strata Plan LMS280, Chateau Comox
Sterling Management Services Ltd.

Policy Period: From: February 1, 2024 To: February 1, 2025

Location(s): 1272 Comox Street, Vancouver, BC V6E 1K7

Property Policy Number: CMW M0073
Effective: February 1, 2024

Description Of Coverages	Limits Of Liability	Deductibles
Property of Every Description – Per Occurrence, Form CMWM-APRIL-2023, Appraisal: Feb 1, 2024, Year of Cycle: 2	\$11,470,000.	\$10,000.
Business Interruption	Not Covered	
All Risks (All Losses Deductible)	\$11,470,000.	\$10,000.
Earthquake – Annual Aggregate	10%, Minimum \$100,000.	
Flood – Annual Aggregate	\$11,470,000.	\$25,000.
Water Damage	\$50,000.	
Sewer Backup	\$50,000.	
Exterior Glass Breakage - Frame Construction	\$250.	
Exterior Glass Breakage - All Other Construction	\$1,000.	
Commercial Glass Breakage	\$1,000.	
Canopy Glass Breakage	\$1,000.	
Master Key Coverage	\$2,500.	
Lock and Key Coverage	\$2,500.	
Illegal Drug Activity	\$50,000.	
All Losses arising from Vacant Units	\$50,000.	
Equipment Breakdown - By-laws Included	\$11,470,000.	\$1,000.
Business Interruption - Loss of Profits (Gross Rentals)	Not Covered	
Included Debris Removal; \$500,000 Water Damage; \$500,000 Ammonia Contamination; \$500,000 Hazardous Substances; \$500,000 Professional Fees; \$100,000 Contingent Business Interruption; \$100,000 Brands And Labels; \$100,000 Fungus Clean Up Or Removal Coverage; \$100,000 Service Interruption; \$250,000 Extra Expense; \$1,000,000 Expediting Expense	Included	
General Liability – Bodily Injury, Personal Injury and Property Damage Liability – Each Accident or Occurrence	\$10,000,000.	*\$1,000.
Products and Completed Operations – Aggregate Limit	\$10,000,000.	
Non-Owned Automobile	\$10,000,000.	
Advertising Injury Liability	\$10,000,000.	
Medical Payments – Each Person	\$50,000.	
Tenants' Legal Liability – Any One Premises	\$500,000.	\$1,000.
Voluntary Compensation Extension – Strata Volunteers Coverage (Weekly Indemnity of 2/3 of Employee's Weekly Wage, but not exceeding \$500/week & set at \$500/week for Volunteer Workers)	\$50,000.	
Strata Corporation Directors & Officers Liability – Annual Aggregate – Claims Made; Defense Costs Outside limit of liability - No limitation	\$10,000,000.	Nil
Included		Nil
Professional Liability Extension for Property Manager per Wrongful Act – Annual Aggregate – Claims Made		
Discrimination Defense Costs	Included	
Employment Practices Liability	Included	
Broad Form Money & Securities - Loss Inside & Outside Premises, Depositors Forgery, Fraud, Theft, Robbery or Burglary	Not Covered	
Employee Dishonesty, Coverage – Form A	Not Covered	
Pollution Liability – Each Pollution Event, Including Bodily Injury or Property Damage and Clean-up Costs	\$1,000,000.	\$10,000.
Aggregate (Master) Policy Limit	\$5,000,000.	
Terrorism and Sabotage Coverage	\$500,000.	\$2,500
Volunteer Accident Coverage	\$100,000.	7 Day Waiting Period
Principal Sum - \$100,000 Weekly Accident Indemnity - \$500 (maximum 52 weeks)		
Accident Expenses – various up to \$15,000. (please see wording) Dental Expenses \$5,000.		
Intellect Privacy & Data Breach		Nil.
Liability	\$100,000.	
Expense	\$50,000.	
Earthquake Deductible Buy-Down Coverage – Annual Aggregate	Not Covered	
Platinum Legal Services Retainer Contract	Aggregate Fees Cap per Legal Proceeding	
Per Claim – \$1,500,000 Term Aggregate	\$1,000,000.	
Note: The Legal Services Retainer Contract with Clark Wilson LLP is not a contract of insurance but is a Retainer agreement between the Strata Corporation and Clark Wilson LLP for Legal Services as described in the Contract.		
Premium is fully earned.		

Conditions – Property

- All Risks of direct physical loss or damage to property described at Location(s) of Risk shown above.
- Basis of Loss Settlement – Replacement Cost including by-laws
- Valuation Basis – Stated Amount
- Extended Replacement Cost – Not Covered
- Any Property additions, renovations or installation work will be subject to a limit of 15% of the insured value, with a maximum of \$1,000,000.

Notable Exclusions & Endorsements

- See Schedule of Forms
- Property Cyber and Data Endorsement / Property & Equipment Breakdown Communicable Disease Exclusion / Virus, Bacteria or Microorganism Exclusion / Declaration of Emergency Endorsement

Conditions – General Liability

- Property Manager is an Additional Named Insured for their management of the Strata Plan.
- '\$1,000. Bodily Injury Deductible shall be waived on the first bodily injury loss/claim if there is no prior bodily injury loss within 5 years from the effective date of the coverage term

Page 1 of 1

E&OE This document does not form part of the policy. For more specific details, please refer to the actual policy wordings.

700-2025 Willingdon Avenue, Burnaby, BC V5C0J3 T (604) 294-3301 F (604) 294-3003 TF (800) 263-3313

1



Engineering Investigation

Parkade Condition Assessment

LMS280

Chateau Comox

Absolute Building Science Strata Engineering Inc.
#408 – 4621 Canada Way | Burnaby, BC | V5G 4X8
Office: 604.780.1316 | Fax: 604.670.6056
Email: info@strataengineering.ca



Cover Letter

Absolute Building Science
Strata Engineering Inc.
#408 – 4621 Canada Way
Burnaby, BC V5G 4X8

March 7, 2024

Strata Plan LMS280
Chateau Comox
1272 Comox Street,
Vancouver, BC V6E 1K7

Attention: Edward Jang, Strata Property Manager of Sterling Management Services

RE: Parkade Condition Assessment for Strata Plan LMS280

Dear Mr. Jang,

The subject of this report is a review of the underground parking garage and its exterior waterproofing at Chateau Comox, a 21-unit and 8-storey mid-rise building constructed in 1992. Our investigation is aimed to visually identify deficiencies inside the parking garage and its exterior waterproofing to provide our recommendations on repair and maintenance strategies as appropriate.

This report describes our findings, analysis, and conclusions regarding the deficiencies, along with our recommendations. This report is based on observations made during our on-site inspection and our review of the relevant documents provided to us by the Strata.

Respectfully yours,

**Absolute Building Science
Strata Engineering Inc.**

Per:

David Shi, P.Eng., CEAIT
Senior Engineer



Table of Contents

Cover Letter	ii
Table of Contents.....	iii
1.0 Introduction.....	4
1.1 Background.....	4
1.2 Objectives	4
2.0 Methodology	4
2.1 Design Review	4
2.2 Field Review	4
2.2.1 Areas visually surveyed	5
3.0 Results.....	5
3.1 Building Information	5
3.2 Observations	6
4.0 Key Findings.....	16
5.0 Recommendations.....	16
Recommended Project Renewal Summary	17
5.1 Cost estimates (Comprehensive restoration Scope).....	17
5.2 Estimated Recommended Project Costs (Total)	17



1.0 Introduction

1.1 Background

Chateau Comox consists of an 8-storey residential building with 3 levels of underground parking garage constructed in 1992. The Strata has reported signs of water ingress within the parking garage and had repaired them with crack injections and similar methods in the past. Strata Engineering was engaged to conduct a Parkade Condition Assessment to assess its waterproofing membranes.

1.2 Objectives

The primary objective of this assessment is to identify the waterproofing membranes of the parking garage. In this report, we provide our findings and recommendations based on our investigation.

2.0 Methodology

2.1 Design Review

The following design documentation was made available for review:

- Depreciation Report, prepared by RDH Building Science and dated April 25, 2023.
- Visual Building Envelope Condition Assessment, prepared by RDH Building Science and dated September 30, 2018.
- Depreciation Report, prepared by RDH Building Science and dated January 23, 2015.
- Proposed Apartment Building, prepared by Hywel Jones Architect and dated May 3, 1991.

2.2 Field Review

The inspection was performed by David Shi, P.Eng. CEAIT, Senior Engineer, on January 24th, 2024 at 1272 Comox Street, Vancouver, BC. During the visual review, we inspected the inside of the parkade for water ingress.

The scope of our study does not include a specific review of design drawings for compliance of with the Vancouver Building By-law. We rely on design professionals to have prepared designs that comply with Code. However, for the code violations that were discovered on site, they have already been duly recorded within our report.



2.2.1 Areas visually surveyed

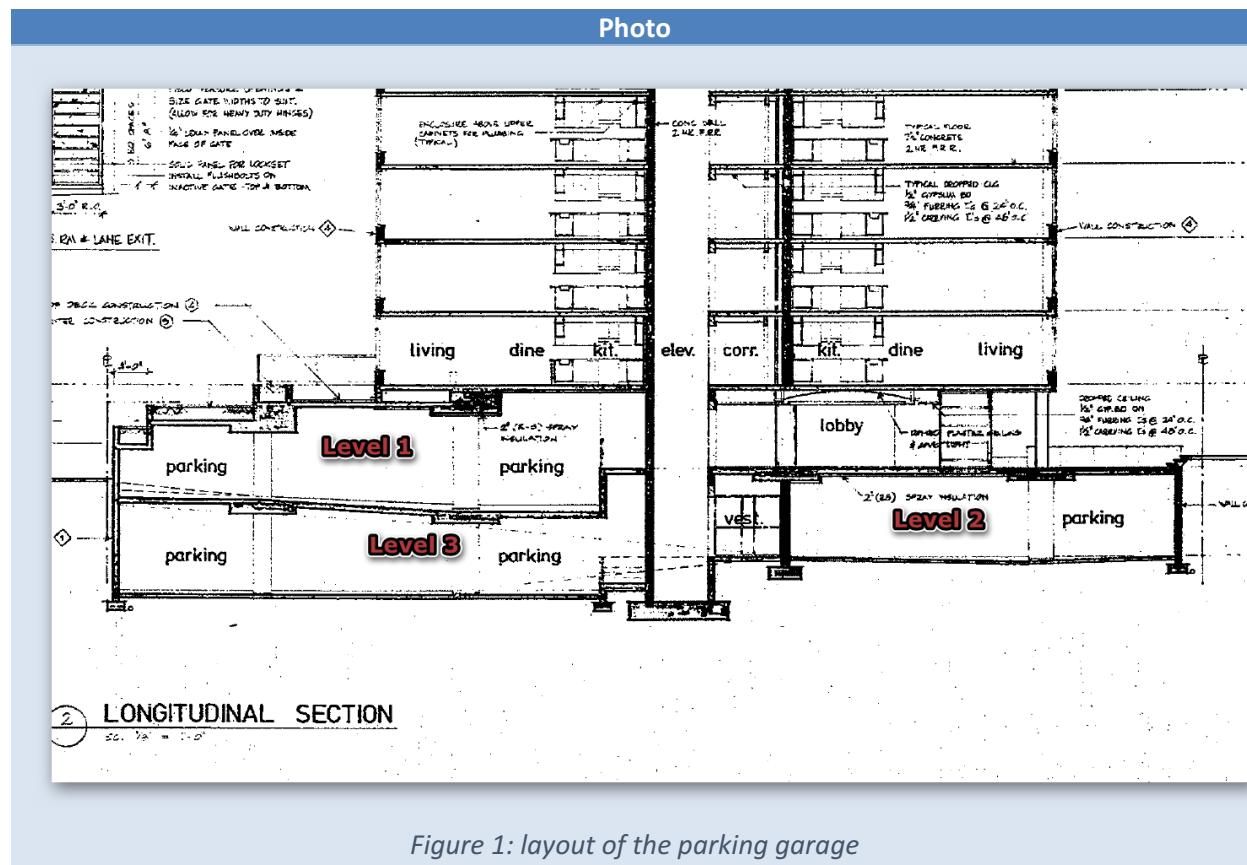
During the visual review, we visually inspected the inside of the parkade for water ingress. We were also provided access to Unit 204's patio which is situated directly above the parking garage.

3.0 Results

3.1 Building Information

Table 1: Building information.

Chateau Comox	
Municipal Address	1272 Comox Street, Vancouver, BC
Real Property Type	8-storey residential building 3 levels of underground parking garage
Units	21-units
Year of Construction	1992
Construction	Cast-in-place reinforced concrete structures throughout





3.2 Observations

Photo	Observations
	<p><u>Location:</u> Level 3 parking garage foundation wall pipe penetrations.</p> <p><u>Defect:</u> Efflorescence deposits indicating water ingress and failed waterproofing membrane.</p> <p><u>Remarks:</u> Efflorescence deposits indicate moisture is penetrating the foundation wall at pipe penetrations.</p>
	<p><u>Location:</u> Foundation wall pipe penetrations.</p> <p><u>Defect:</u> Efflorescence deposits indicating water ingress and failed waterproofing membrane.</p> <p><u>Remarks:</u> Efflorescence deposits indicate moisture is penetrating the foundation wall at pipe penetrations.</p>
	<p><u>Location:</u> Underside of slab pipe penetration.</p> <p><u>Defect:</u> Efflorescence deposits indicating water ingress and failed waterproofing membrane.</p> <p><u>Remarks:</u> Efflorescence deposits indicate moisture is penetrating the foundation wall at pipe penetrations.</p>



Photo	Observations
	<p><u>Location:</u> Second floor parkade ceiling.</p> <p><u>Defect:</u> Corrosion on piping.</p> <p><u>Remarks:</u> There may be water ingress in this location which has caused heavier than expected corrosion on the pipe and hardware.</p>

Figure 5

	<p><u>Location:</u> Between first and second floor of the parkade.</p> <p><u>Defect:</u> Efflorescence deposits.</p> <p><u>Remarks:</u> Efflorescence deposits indicate moisture is penetrating the foundation wall.</p>
--	--

Figure 6



Figure 7



Photo	Observations
	<p><u>Location:</u> Electrical room.</p> <p><u>Remarks:</u> Previous leaks have been sealed by polyurethane injections, which appears to have been effective in this location.</p>

Figure 8

	<p><u>Location:</u> Second floor parking garage.</p> <p><u>Defect:</u> Previous repairs.</p> <p><u>Remarks:</u> Past concrete leak repairs indicate a failed waterproofing membrane. Some of the repairs have been effective.</p>
--	---

Figure 9

	<p><u>Location:</u> Second floor parking garage.</p> <p><u>Defect:</u> Previous repairs.</p> <p><u>Remarks:</u> Past concrete leak repairs indicate a failed waterproofing membrane. Some of the repairs have been effective.</p>
--	---

Figure 10



Photo	Observations
	<p><u>Location:</u> First floor parking garage ceiling.</p> <p><u>Defect:</u> Failed previous repairs.</p> <p><u>Remarks:</u> Some previous repairs have failed, with visible water ingress dripping down.</p>

Figure 11

	<p><u>Location:</u> Ceiling within the level 3 of the parking garage.</p> <p><u>Defect:</u> Active water ingress and rusted intercom speaker.</p> <p><u>Remarks:</u> The water ingress is originating from Level 1 above, which does not currently have a traffic coating.</p>
--	--

Figure 12

	<p><u>Location:</u> Ceiling within the level 3 of the parking garage.</p> <p><u>Defect:</u> Active water ingress.</p> <p><u>Remarks:</u> The water ingress is originating from Level 1 above, which does not currently have a traffic coating.</p>
--	--

Figure 13



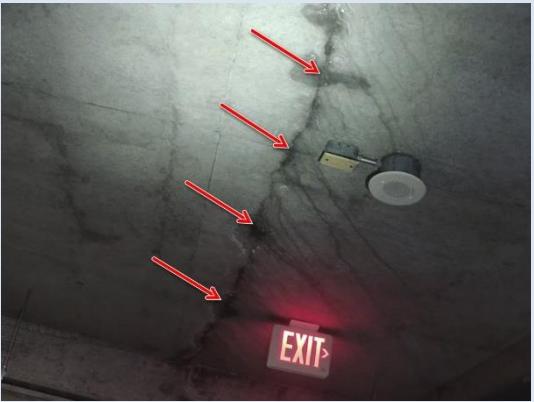
Photo	Observations
	<p><u>Location:</u> Ceiling within the level 3 of the parking garage.</p> <p><u>Defect:</u> Active water ingress.</p> <p><u>Remarks:</u> The water ingress is originating from Level 1 above, which does not currently have a traffic coating.</p>

Figure 14

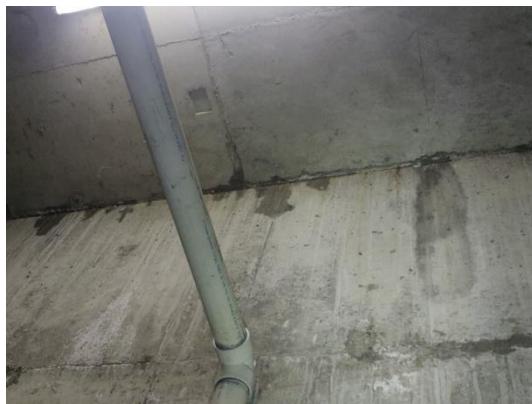


Figure 15

	<p><u>Location:</u> Wall to ceiling transition of the second to third floor ramp.</p> <p><u>Defect:</u> Efflorescence and active water ingress.</p> <p><u>Remarks:</u> Active water ingress observed at the underside of suspended slab to foundation wall interface.</p>
---	---

Figure 16



Photo	Observations
	<p><u>Location:</u> Base of foundation wall.</p> <p><u>Defect:</u> Active water ingress.</p> <p><u>Remarks:</u> Water is infiltrating through the exterior foundation walls.</p>

Figure 17

	<p><u>Location:</u> First floor level of the parking garage, by pedestrian entrance.</p> <p><u>Defect:</u> Active water ingress.</p> <p><u>Remarks:</u> Active water ingress observed at the underside of suspended slab. There is a planter above.</p>
--	---

Figure 18

	<p><u>Location:</u> First floor of the parking garage.</p> <p><u>Defect:</u> Active water ingress through the ceiling.</p> <p><u>Remarks:</u> Water is infiltrating through the planters above, the water is then penetrating the slab and entering the third level below.</p>
--	--

Figure 19



Photo	Observations
	<p><u>Location:</u> First floor-to-second floor ramp of the parking garage.</p> <p><u>Defect:</u> Active water ingress through the ceiling of the first floor trickles down the ramp towards the second floor.</p> <p><u>Remarks:</u> Water is infiltrating through the planters above, the water is then penetrating the slab and entering the third level below due to lack of a traffic coating.</p>

Figure 20



Figure 21

	<p><u>Location:</u> Parkade stairwell.</p> <p><u>Defect:</u> Active water ingress.</p> <p><u>Remarks:</u> Water is infiltrating through the exterior foundation walls.</p>
--	--

Figure 22



Photo	Observations
	<p><u>Location:</u> A general view of the front of the property.</p> <p><u>Remarks:</u> The waterproofing below has failed. Based on our observations from within the garage.</p>

Figure 23

	<p><u>Location:</u> A general view of typical walkways along the sides of the property.</p> <p><u>Remarks:</u> The waterproofing below has failed. Based on our observations from within the garage.</p>
--	--

Figure 24

	<p><u>Location:</u> Unit 204 planters.</p> <p><u>Defect:</u> The waterproofing below the planters have failed, based on our observations of the membrane under the pavers.</p> <p><u>Remarks:</u> The membrane has failed systemically.</p>
--	---

Figure 25



Photo	Observations
	<p><u>Location:</u> Unit 204 planters.</p> <p><u>Defect:</u> The waterproofing below the planters have failed, based on our observations of the membrane under the pavers.</p> <p><u>Remarks:</u> The membrane has failed systemically.</p>

Figure 26



Figure 27

	<p><u>Location:</u> Unit 204 patio.</p> <p><u>Defect:</u> The waterproofing membrane was observed to be in poor condition with many failures throughout.</p> <p><u>Remarks:</u> The membrane has failed systemically and requires replacement.</p>
--	--



Photo	Observations
	<p><u>Location:</u> Empty planter by Unit 204.</p> <p><u>Defect:</u> The waterproofing membrane is visible, it is in poor condition with poorly detailed transitions.</p> <p><u>Remarks:</u> The membrane in poor condition is likely causing water ingress.</p>

Figure 29

	<p><u>Location:</u> Interior flooring by the main entrance to the building.</p> <p><u>Defect:</u> Elevated relative moisture reading.</p> <p><u>Remarks:</u> The failed waterproofing might be allowing some water to travel under the front door. This would be addressed during a waterproofing membrane replacement projects. No other problems or damages were evident around the door.</p>
--	---

Figure 30

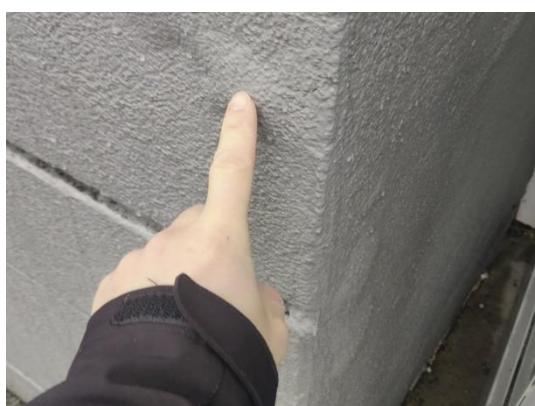


Figure 31



4.0 Key Findings

The following deficiencies were observed during the our inspection:

- Efflorescence deposits indicating prolonged water ingress
- Visible water ingress at the foundation walls and ceilings in various locations throughout the parkade
- The waterproofing membrane as observed from Unit 204's patio has failed throughout, and likely reflects the condition of the rest of the waterproofing system based on similar age and construction.
- Missing traffic coatings on the suspended slabs

The parking garage's waterproofing membrane is reported to be original to the construction of the building, i.e., 31 years old. During out inspection we lifted pavers in Unit 204 to inspect the membrane directly, the waterproofing membranes of the parking garage appear to be a liquid applied membrane. The membrane was flexible and still retained elasticity, however there are visible signs of failure in the form of water blisters below the membrane. This was also consistent with the systemic active water ingress we observed within the ceiling of the parking garage below. Generally, parkade liquid-applied waterproofing membranes under landscaping and pavers for below-grade parking garages have a service life of between 30-40 years, depending on design, the quality of materials used, and service conditions. Currently the waterproofing membranes of the parkade have reached their service life based on age and condition

The suspended slabs on the first floor level is missing a traffic coating, which is required to protect the level below it from water penetration through the slab against water brought in from the undercarriage of vehicles. The second floor is not situated over the level below due to the staggered configuration of the parking garage, and therefore the second and third floor slabs are situated on soil and do not require a traffic coating. Over time, water ingress into suspended floor slabs can cause structural damage in the form of rusting steel reinforcement and concrete spalling.

5.0 Recommendations

While the concrete structure of the parking garage can sustain water ingress for a period before significant deterioration occurs, the waterproofing membrane has failed and should be budgeted for replacement within the next 2-5 years. This would require removal of all landscaping, pavements atop the footprint of the parkade including planter areas, and patios to access to the membrane.



A traffic coating should be installed on the first floor level of the parking garage to protect the suspended slab from water ingress. Traffic coating should also be applied over various stairs leading to the parking garage as necessary. As part of a comprehensive parking garage waterproofing project.

Until such time that the waterproofing membrane can be comprehensively replaced, internal repairs for parking garage leaks such as polyurethane injections or crystalline waterproofing can be used to control active water leaks, however these are not effective in all situations and will never match the effectiveness of a full waterproofing replacement. For vertical surfaces such as the foundation walls, it may not be feasible to access the membranes for replacement due to the depth of the walls and proximity to neighboring properties. Leaks in the foundation walls can be repaired from the interior of the parking garage as necessary.

We have provided an opinion of probably cost based on our experience with projects of similar scope. Please note that the cost estimates are based on Class D (order of magnitude) cost estimates and may vary by up to 25%. An accurate construction cost can only be obtained in a formal tender process based on design documents.

Recommended Project Renewal Summary

5.1 Cost estimates (Comprehensive restoration Scope)

Component and description	Low-end Estimate	High-end Estimate
Comprehensive waterproofing membrane replacement	\$600,000	\$780,000
Traffic coating installation	\$40,000	\$52,000
Access and mobilization	\$50,000	\$65,000
Demolition	\$50,000	\$65,000
Sub-Total	\$740,000	\$962,000

Estimated Recommended Project Costs (Total)

Item	Costs	
	Low	High
Design, tendering, permits and legal fees	\$740,000	\$962,000
Construction Administration (8%)	\$32,000	\$32,000
Construction Contingency (10%)	\$70,004	\$91,005
GST (5%)	\$74,000	\$96,200
Total	\$961,804	\$1,240,265