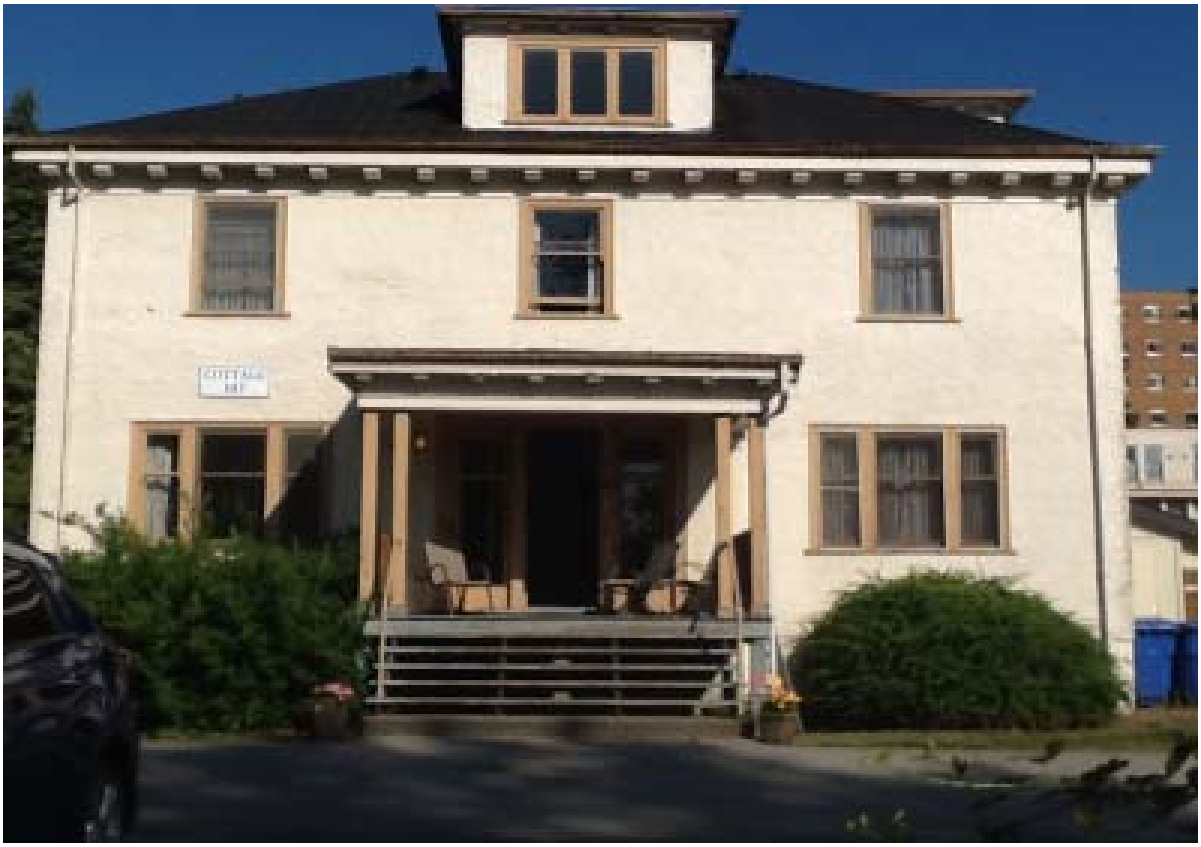
Building Condition Assessment Report

Asset	C3b - Holly Drive Cottage 107
Address	Riverview Lands, 2601 Lougheed Highway, Coquitlam, BC. V5C 4J2
Construction Year	1920.
Size (Gross Floor Area)	3,600 Sq.Ft.
Asset Type	RV_Cottage 107 etc., 2 Story Vinyl Siding & 15% Brick Veneer / Wood Frame
Floors Above Ground.	2
Report Date	October 2013



Executive Summary

Cottage 107 is one of nine residences that were initially constructed to accommodate various site staff. This Cottage was constructed in 1920 and is two-storey hip roofed wood frame and stucco exterior residence. The Cottage is 334.44 m2 and is centrally located, close to site services and several major BCHMS facilities. Cottage 107 was given a "Good" rating in the previous Heritage Evaluation. This Cottage is currently occupied by PHSA, FPS. PHSA have requested to renew their tenancy for a further five year term.

This report assumes a continuation of the current use (or previous use if building is vacant) and does not include costs associated with a change of use of the building.

Summary Results of Assessment: C3b - Holly Drive Cottage 107

Replacement Costs	Renewal Costs	FCI
$644,300.00	$352,200.00	55%

Definitions:

• **Replacement Cost:** The combined costs (construction only - soft costs are not included) to replace all the components in the building without demolition and rebuilding. This number is arrived at from RS Means and other sources then verified (validated) by the persons doing the building assessments.

• **Renewal Cost:** The combined costs (construction only - soft costs are not included) of all the identified renewal needs.

• **Facility Condition Index (FCI)**: a ratio of renewal costs divided by replacement costs

• **FCI Level Definitions:**
o Good: 0%-5%
o Fair: 6%-10%
o Poor: 11%-30%
o Critical: greater than 30%

A10 Foundations

Component	**1**	Overall Condition	Poor
Last Major Action Year	1920.		
Replacement Value	$40,000		
What & Where	Reinforced cast in place concrete.		
Commentary (Condition ...)	Visual signs of water ingress.		

Action	**1.**
Action Type	Replacement
Action Cost	$30,000
Action Year	2014.
Brief Description	Repair perimeter drainage.
Commentary	Investigate source of basement water ingress and repair as required. Consider Consultant Study to address seismic and overall building conditions.

A20 Basement Construction

Component	**1**	Overall Condition	Fair
Last Major Action Year	1920.		
Replacement Value	$50,000		
What & Where	Reinforced Slab on excavated grade. Footings and foundations reinforced, cast in place with posts and beams to support wood frame system above.		
Commentary (Condition ...)	There are visual signs of water ingress.		

Action	**1.**
Action Type	Study
Action Cost	$0
Action Year	2014.
Brief Description	Footings and foundation's are reinforced concrete cast in place, exposed floor joist with bridging.
Commentary	Consider Consultant Study to address seismic and overall building structural conditions. See "Foundations".

B10 Superstructure

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$30,000
What & Where	Wood Frame
Commentary (Condition ...)	The building's framing system appears to consist of standard dimensional lumber, joists, studs and beams visible in basement; however, upper floors were not verified due to the presence of architectural finishes. The gravity load resistance system has provided acceptable performance levels.

Action	1.
Action Type	Study
Action Cost	$0
Action Year	2014.
Brief Description	The structural system for the above grade portion of the building is wood framing, which would be typical for this building type/era.
Commentary	The gravity load resistance system has provided acceptable performance levels. Consider Consultant Study to address seismic and overall building structural conditions. See "Foundations".

B2010 Exterior Walls

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$150,000
What & Where	The majority of the above grade walls have been clad with stucco (rock dash), painted.
Commentary (Condition ...)	Combination painted stucco finish with wood trim/components. Some rot visible at various locations. Re &re as required and paint all wood/timber components.

Action	1.
Action Type	Repair
Action Cost	$70,000
Action Year	2014.
Brief Description	Some rot visible at various locations. Re &re as required and paint all wood/timber components.
Commentary	Consider Consultant Study to address heritage requirements, seismic and overall building conditions.

B2020 Exterior Windows

Component	1	Overall Condition	Fair

Last Major Action Year	1920.
Replacement Value	$35,000
What & Where	Exterior wood casement single glazed windows. (28)
Commentary (Condition ...)	Mix of vertical slide with fixed above, hinged and awning types.

Action	1.
Action Type	Replacement
Action Cost	$35,000
Action Year	2018.
Brief Description	Replace windows.
Commentary	The windows in this building are of varying assembly types. • Very old wood framed, single glazed. Consider Consultant Study to address heritage requirements, seismic and overall building conditions to determine and receive new window types.

B2030 Exterior Doors

Component	1	Overall Condition	Fair

Last Major Action Year	1920.
Replacement Value	$7,000
What & Where	Exterior doors (3)
Commentary (Condition ...)	1 front entrance, wood with lite in door with side lites. 1 rear wood with lite. 1 basement, wood.

Action	1.
Action Type	Replacement
Action Cost	$7,000
Action Year	2018.
Brief Description	Replace exterior doors.
Commentary	Doors are beyond life cycle. Condition is fair to poor. Consider Consultant Study to address heritage requirements, seismic and overall building conditions to determine and receive new door types.

B30 Roofing

Component	1	Overall Condition	Good

Last Major Action Year	2005.
Replacement Value	$30,000
What & Where	Cross hipped roof.
Commentary (Condition ...)	Asphalt shingled roof with SBS membrane roof over front entrance canopy roof.

Action	1.
Action Type	Replacement
Action Cost	$30,000
Action Year	2030.
Brief Description	Replace roof.
Commentary	

C1010 Partitions

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$45,000
What & Where	Non-load bearing walls.
Commentary (Condition ...)	Mix of lath and plaster and wood cladding, painted.

Action	1.
Action Type	Repair
Action Cost	$5,000
Action Year	2018.
Brief Description	
Commentary	

C1020 Interior Doors

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$50,000
What & Where	Interior doors.
Commentary (Condition ...)	Original wood raised panel doors and frames. Interior and closet doors solid wood with wood frames.

Action	1.
Action Type	Replacement
Action Cost	$50,000
Action Year	2018.
Brief Description	Overall good condition.
Commentary	Wood doors and frames. No FIre Resistance Rating.

C1030 Fittings

Component	1	Overall Condition	Fair
Last Major Action Year	1920.		
Replacement Value	$25,000		
What & Where	Kitchen cabinets and countertops.		
Commentary (Condition ...)	Veneer surfaced particle board cabinets and laminate counters. Paint surfaced plywood cabinets and laminate countertops.		

Action	1.
Action Type	Replacement
Action Cost	$25,000
Action Year	2018.
Brief Description	Replace fittings.
Commentary	Fittings would require upgrades based on occupancy needs.

C20 Stairs

Component	1	Overall Condition	Good
Last Major Action Year	1920.		
Replacement Value	$16,000		
What & Where	Interior and exterior stairs.		
Commentary (Condition ...)	1 exterior concrete stair, to basement 1 exterior wood frame stair, front entry 1 interior wood frame central stair, vinyl finish with vinyl nosings.		

Action	1.
Action Type	Maintenance
Action Cost	$5,000
Action Year	2014.
Brief Description	
Commentary	Re & re surfaces as required.

C3010 Wall Finishes

Component	1	Overall Condition	Fair

Last Major Action Year	1920.
Replacement Value	$12,000
What & Where	Lath and plaster with architectural features.
Commentary (Condition ...)	Mild cracks visible with minor splitting. Crown mouldings wainscotting and architectural features, painted throughout.

Action	1.
Action Type	Repair
Action Cost	$5,000
Action Year	2014.
Brief Description	Interior lath and plaster, walls, painted Mild cracks visible throughout.
Commentary	Ensure any/all compromised walls are reinstated to maintain integrity and finish. Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.

C3020 Floor Finishes

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$30,000
What & Where	Floor finishes.
Commentary (Condition ...)	Mix of exposed concrete in basement, sheet good vinyl, hardwood and carpet.

Action	1.
Action Type	Replacement
Action Cost	$30,000
Action Year	2018.
Brief Description	Targeted flooring replacement.
Commentary	Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.

C3030 Ceiling Finishes

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$17,000
What & Where	Ceiling finishes throughout.
Commentary (Condition ...)	Mix of lath and plaster, smooth,painted. Lath and plaster, coffered,smooth, painted and tongue and grooved wood, painted.

Action	1.
Action Type	Repair
Action Cost	$3,000
Action Year	2018.
Brief Description	Targeted ceiling repairs and paint.
Commentary	Repair damaged ceiling. Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.

D2010 Plumbing Fixtures

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$12,000
What & Where	Bathroom, laundry and kitchen fixtures.
Commentary (Condition ...)	Overall in good condition.

Action	1.
Action Type	Replacement
Action Cost	$12,000
Action Year	2018.
Brief Description	Update fixtures with water efficient type units.
Commentary	Mostly original units. Era, finishes and types vary. Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D2020 Domestic Water Distribution

Component	1	Overall Condition	Good

Last Major Action Year	2011.
Replacement Value	$5,000
What & Where	Main supply in basement with PRV. Washer has thrust arresters installed on supply lines.
Commentary (Condition ...)	1/2 inch copper supply with Inline PRV to each floor with flexible and non-flexible connections to each fixture.

Action	1.
Action Type	Replacement
Action Cost	$5,000
Action Year	2018.
Brief Description	Domestic water distribution.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D2030 Sanitary Waste

Component	1	Overall Condition	Good

Last Major Action Year	2010.
Replacement Value	$4,000
What & Where	Sanitary sewer from building to street.
Commentary (Condition ...)	Gravity based risers leading to sewer pipe in the basement.

Action	1.
Action Type	Replacement
Action Cost	$4,000
Action Year	2018.
Brief Description	Sanitary waste lines.
Commentary	Assess at time of Consultant Domestic Water Distribution study.

D2040 Rain Water Drainage

Component	1	Overall Co	od
Last Major Action Year	1920.		
Replacement Value	$2,000		
What & Where	Gravity based storm system terminating in main collector on site.		
Commentary (Condition ...)	Gutters, rain water leaders to perimeter drainage system.		

Action	1.
Action Type	Replacement
Action Cost	$2,000
Action Year	2018.
Brief Description	Repair rain water drainage system as required.
Commentary	Pitched and flat roofs have aluminum gutters and rainwater leaders to perimeter footing drain system.

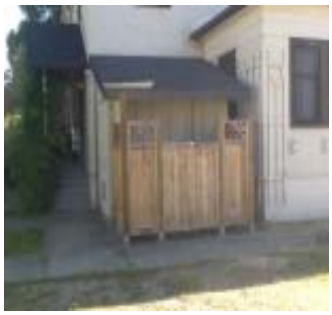
D2095 Domestic Water Heaters

Component	1	Overall Condition	Good
Last Major Action Year	2012.		
Replacement Value	$1,200		
What & Where	"Spacesaver" 40 gallon domestic hot water tank.		
Commentary (Condition ...)	New 2012.		

Action	1.
Action Type	Replacement
Action Cost	$1,500
Action Year	2020.
Brief Description	Replace hot water tank.
Commentary	Hot water tank is located in basement. Replace at first sign of leaking.

D3012 Gas Supply System

Component	1	Overall Condition	Good



Last Major Action Year	2012.
Replacement Value	$6,000
What & Where	Exterior mechanical/fuel storage room. 3 - 150 lb. propane fuel storage tanks, interconnected.
Commentary (Condition ...)	Propane fuel storage forms part of new hot water heat source installation. Tanks monitored and filled by service provider.

Action	1.
Action Type	Maintenance
Action Cost	$1,000
Action Year	2014.
Brief Description	Annual preventative/predictive maintenance.
Commentary	Service should be maintained for optimal performance.

D3026 Heating Generating Auxiliary Equipment

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$3,600
What & Where	Cast iron heat radiators and/or fin tube heat registers throughout cottage. Wood burning fireplace.
Commentary (Condition ...)	Existing radiators have been retro-fitted to new DHW heating system. Note: Wood burning fireplace has been decommissioned.

Action	1.
Action Type	Maintenance
Action Cost	$1,000
Action Year	2014.
Brief Description	Cast iron and/or fin tube hot water heat registers.
Commentary	Re and re as required at first sign of leaking.

D3027 Heating Generating Equipment & Piping Insulation

Component	1	Overall Condition	Good

Last Major Action Year	2011.
Replacement Value	$6,000
What & Where	Viessmann vitodene 100 propane gas fired wall mounted condensing boiler (located in outside mechanical room), with heat exchanger in basement.
Commentary (Condition ...)	Hot water piping(new 2011) to cast iron and/or fin tube heat registers.

Action 1.

Action Type	Maintenance
Action Cost	$1,000
Action Year	2014.
Brief Description	Heat exchanger c/w booster pump.
Commentary	Heat exchanger installed as auxiliary to increase capacity of on demand heat. Service should be maintained for optimal performance.

D3045 Exhaust Ventilation Systems

Component	1	Overall Condition	Good

Last Major Action Year	1920.
Replacement Value	$3,000
What & Where	Roof vents, kitchen exhaust, dryer exhaust and mechanical room exhaust.
Commentary (Condition ...)	Preventative and predictive maintenance practices should be set in place.

Action 1.

Action Type	Replacement
Action Cost	$3,000
Action Year	2020.
Brief Description	
Commentary	

D3055 Fin Tube Radiation

Component	**1**	Overall Condition	Fair
Last Major Action Year	1920.		
Replacement Value	$5,000		
What & Where	Hot water cast iron radiators.		
Commentary (Condition ...)	Appear to be in fair condition.		

Action	**1**
Action Type	Maintenance
Action Cost	$1,000
Action Year	2014.
Brief Description	Hot water fed cast iron radiators. Appear to be in fair condition.
Commentary	Replace radiators at first sign of leaking.

D3060 Controls And Instrumentation

Component	**1**	Overall Condition	Good
Last Major Action Year	1920.		
Replacement Value	$7,000		
What & Where	Manual controls on cast iron radiators throughout building.		
Commentary (Condition ...)	Original equipment with some upgrades.		

Action	**1.**
Action Type	Replacement
Action Cost	$7,000
Action Year	2018.
Brief Description	Original equipment with some upgrades.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D5010 Electrical Service And Distribution

Component	1	Overall Condition	Good
Last Major Action Year	2000.		
Replacement Value	$10,000		
What & Where	125 amp 120/208 panel with smart meter in basement.		
Commentary (Condition ...)	Consider Infra red scanning of electrical system.		

Action	1.
Action Type	Maintenance
Action Cost	$1,000
Action Year	2014.
Brief Description	
Commentary	

D5021 Branch Wiring

Component	1	Overall Condition	Good
Last Major Action Year	1920.		
Replacement Value	$14,000		
What & Where	Insulated copper wiring (2 wire).		
Commentary (Condition ...)	Typically not visible.		

Action	1.
Action Type	Study
Action Cost	$1,200
Action Year	2014.
Brief Description	All wiring devices (interior & exterior) should be tested for correct wiring polarity and retentive force. Any defective devices should be replaced.
Commentary	Existing electrical is 2 wire only. Electrical system upgrade should be considered. Consider a Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D5022 Lighting Equipment

Component	1	Overall Condition	Good
Last Major Action Year	1920.		
Replacement Value	$3,500		
What & Where	Fixtures typically original to construction of building.		
Commentary (Condition ...)	Mix of metal halide, fluorescent and incandescent.		

Action	1.
Action Type	Replacement
Action Cost	$3,500
Action Year	2018.
Brief Description	Lighting - General With advances in technology, there are opportunities for energy savings that will offset the cost of lighting retrofits. For example, the cost of LED lighting, which uses far less energy than traditional fluorescent or incandescent lights has reduced drastically, and may be an economical choice. Also, T-5 fluorescent fixtures use less energy than T-8 fixtures.
Commentary	Undertake a lighting study or energy audit to investigate/determine energy savings. Consider a Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D5031 Public Address And Music System

Component	1	Overall Condition	Good
Last Major Action Year	2010.		
Replacement Value	$3,000		
What & Where	PPA system panel located in basement with devices located centrally in building.		
Commentary (Condition ...)	Monitored by Palladin Security on site.		

Action	1.
Action Type	Maintenance
Action Cost	$3,000
Action Year	2018.
Brief Description	
Commentary	

D5033 Telephone Systems

Component	1	Overall Condition	Good
Last Major Action Year	2000.		
Replacement Value	$1,000		
What & Where	Service provider equipment in basement, handset at various locations in building.		
Commentary (Condition ...)	Phone system provided and maintained by service provider (Telus typically).		

Action	1.
Action Type	Replacement
Action Cost	$1,000
Action Year	2025.
Brief Description	
Commentary	

D5037 Fire Alarm System

Component	1	Overall Condition	Good
Last Major Action Year	2010.		
Replacement Value	$3,000		
What & Where	Fire alarm panel ("Notifier") with monitoring equipment located in basement. Interconnected smoke detectors each floor. Fire bells each floor with pull station centralized.		
Commentary (Condition ...)	Fire Alarm system is regularly tested by service provider as required by code. Altogether, the fire alarm system is in good condition and may require additional periodic maintenance.		

Action	1.
Action Type	Replacement
Action Cost	$3,000
Action Year	2035.
Brief Description	
Commentary	

D5038 Security Systems

Component	1	Overall Condition	Good
Last Major Action Year	2000.		
Replacement Value	$2,000		
What & Where	Panic/duress stations located at strategic locations.		
Commentary (Condition ...)	Monitored by Palladin Security on site.		

Action	1.
Action Type	Replacement
Action Cost	$2,000
Action Year	2025.
Brief Description	
Commentary	

D5091 Exit & Emergency Light Systems

Component	1	Overall Condition	Poor
Last Major Action Year	1920.		
Replacement Value	$3,000		
What & Where	No Exit & Emergency Light Systems.		
Commentary (Condition ...)	Consult local authority having jurisdiction to confirm requirements.		

Action	1.
Action Type	Install
Action Cost	$3,000
Action Year	2014.
Brief Description	
Commentary	

E1090 Other Equipment

Component	1	Overall Condition	Good
Last Major Action Year	2005.		
Replacement Value	$3,000		
What & Where	1 range with hood exhaust, 1 refrigerator and portable dishwasher in kitchen on main floor. Washer/dryer in basement.		
Commentary (Condition ...)	Overall good condition.		

E2010 Fixed Furnishings

Component	1	Overall Condition	Good
Last Major Action Year	1920.		
Replacement Value	$10,000		
What & Where	Millwork Throughout.		
Commentary (Condition ...)			

Action	1.
Action Type	Maintenance
Action Cost	$1,000
Action Year	2018.
Brief Description	
Commentary	