604-888-ROOF
CONSULTANTS LTD.
ROOF TECH
INDEPENDENT CONSULTANTS & INSPECTORS
PHONE...604-888-7663 • FAX...604-882-7663

MAILING ADDRESS:
P.O. BOX 654, FORT LANGLEY, B.C. V1M 2S1
TOLL FREE...1-888-966-5888
WHISTLER...604-905-7663
Email rooftech2000@telus.net
http://www.rooftech2000.com

July 18, 2006

Cedarbrooke Village (LMS 531)
c/o: Baywest Management Corporation
#300 – 1770 Burrard Street
Vancouver, BC V6J 1M8

Attention: Ms. Tanya Millage
Ph: 604-257-0325 / Fax: 604-736-5044

Dear Madam:

Re: Cedarbrooke Village (LMS 531)
555 West 28th Street, North Vancouver, BC
Roof Evaluation Report
File Ref: 06-950

As per your request, we attended the site on June 29, 30, July 4 and 6, 2006. The following Roof Evaluation Report is the result of our field investigations.

Main Roof

With the exception of building 'X', the balance of the buildings' roofs consist of:
— 24" taper split shakes @ 10" exposure
— 15 lb felt over froe ends of shakes
— 1" X 4" strapping @ 10" on center on 2" X 6" rafters
— Eaves protection is 6 mil polyethylene or 30 lb felt.

All of the cedar roofs have the following typical deficiencies in common:

1. Most buildings have hundreds of metal shims installed at points where the shakes have developed splits that are in line over three or more courses and new splits developing.
2. Many of these shims are loose and subject to wind blow off.
3. Most buildings have hundreds of new splits that have developed that are in line over three or more courses and new splits developing.
4. All ridge capping has many nails backing out and are subject to blow off.
5. There is the odd broken or missing ridge cap sporadically throughout.
6. There is the odd missing shake or a portion of, sporadically throughout.
7. Most buildings have numerous shakes that are lifting due to wind and some twisting and lifting due to cross grain of the shake. Lifting is mostly at South and West exposures.
8. Some slopes have shakes where the wood is becoming punky and rotting. Building 'N' is the worst in this regard.

While the majority of these buildings have reached the point where the shake roofs are at or past their useful life span, we recommend that buildings 'A', 'B', 'N', 'R', 'S', 'T', 'U', 'V' and 'W' be the priority buildings, with roof replacement as soon as possible. These buildings have the greatest number of shims installed, new splits and cedar shakes in the worst condition. These buildings also have the greatest number of other previously described deficiencies. Given the vast number of new splits in line over three or more courses, the water proofing integrity of these buildings is totally reliant upon the under laying 15 lb perforated asphalt felt to shed water. Code calls for a minimum 1 1/4" offset between shakes of adjacent courses. These roofs are a two ply application and any in line breaks over three courses are subject to leaks.

The buildings that are in the best condition are buildings 'D', 'E' and 'Y'. These have the fewest shims, splits and other deficiencies. The balance of the buildings fall in between but are still at the retrofit stage.

Ventilation of Attic Cavities

The majority, but not all roofs have well vented attic cavities, utilizing gable end vents, passive roof top vents and grill type soffit vents. Some of the grill type soffit venting may have impeded air flow due to blockage from blown fibre insulation.

Buildings 'D' and 'Y' do not have gable end vents or soffit vents and share one passive roof vent between two units. Building 'E' has gable end vents but no soffit vents and shares one passive roof vent between two units.

The saving grace is that the cedar roofs breathe, allowing for a certain amount of air movement, thereby avoiding condensation problems. As can be seen in the photos, there is no indication of mould or mildew.

Note in the photos of these areas that trades working in the attics have removed insulation and not replaced it.

We recommend additional venting of buildings 'D', 'E' and 'Y' at the time of re-roofing.

Entry Canopy Roofs

These roofs consist of corrugated fiberglass panels nailed on 2" X 4" framing with a sheet metal cap. Most canopies have nails backing out, with the odd fiberglass panel loose and also metal caps which are subject to blow off. Some panels have been replaced.

Many of the 2" X 4" feet have collapsed allowing the canopy to rest on the shakes causing a damming effect with the build-up of debris in the subsequently created valley. There is a real danger of interior leakage from water backing up during a torrential down

pour or during a heavy snow and ice build-up. The wood framing is deteriorating in areas where debris has built-up. The worst is Building 'R' (Photo # 70) where dirt and debris has accumulated to an 8" height. We recommend rebuilding of these entry canopy roofs during the course of re-roofing.

Building 'X'

This roof consists of a 30 year, asphalt, laminate shingle nailed on a wood deck.

This roof is in excellent condition and has no major deficiencies. The zinc strip is loose at the ridge cap and subject to blow off and paint is peeling from the goose neck vents.

Carport Roofs

These roofs consist of 24" shake nailed with 15 lb perforated asphalt felt over froe ends on 2" X 6" tongue and groove wood deck.

1. These roofs have not been shimmed.
2. These roofs have some splits but overall are in fair condition,
3. Several roofs have been damaged by vehicular traffic and repaired.
4. The fascia boards sag and are no longer true at previously damaged areas.

In summary, we recommend that all cedar shake buildings except buildings 'D', 'E', 'Y' and carports be re-roofed at this time using a plywood deck over existing strapping and a 30 year laminate shingle to match previously re-roofed buildings.

Budgets

The following Budgets are based on our recommendations and reflect current re-roofing costs. They are presented as the priority group of buildings being an alternate, should it not be feasible to proceed with the majority of buildings at this time.

1.	Re-roof all Buildings except 'D', 'E', 'Y' & Carports	$421,950.00
2.	Miscellaneous Contingency estimated not to exceed 5% of the Budgets	$ 21,098.00
3.	Re-roof Specifications @ 0.5 % of the Budgets	$ 2,215.00
4.	Tender Copies of Specification, including distribution, estimated @ 20 copies @ $36.00 / copy	$ 720.00
5.	Roof Consulting, Inspection & Management @ 4.0 % of the Contract	$ 17,721.92
	TOTAL REQUIRED BUDGETS	$463,704.92 + GST

Budgets (Continued)

Alternate – 'Priority Buildings'

1.	Re-Roof Buildings 'A', 'B', 'N', 'R', 'S', 'T', 'U', 'V', & 'W'	$243,750.00
2.	Miscellaneous Contingency estimated not to exceed 5% of the Budgets	$ 12,188.00
3.	Re-roof Specifications @ 0.5 % of the Budgets	$ 1,280.00
4.	Tender Copies of Specification, including distribution, estimated @ 20 copies @ $36.00 / copy	$ 720.00
5.	Roof Consulting, Inspection & Management @ 4.0 % of the Contract	$ 10,237.52
	TOTAL REQUIRED BUDGETS	$268,175.52 + GST

It should be noted that we anticipate construction costs to increase by a minimum of 1% / month compounded over the next couple of years. This being the case, consideration should be given to Tender all the buildings at this time.

Should you have any questions, please contact the writer (604-230-7663 cel).

Sincerely yours,

S Davis fn.

J.P. Jansen, RRO

JPJ/sd (Eval 06-950 Baywest re Cedarbrook)

Attached: 112 Photos
: Aerial Photo
: Site Plan

Cedarbrooke Roof Replacement ad Repair Costs

Building Letter	Building No.	Roof Type	No. of Squares	Replacement Cost / sq.	Replacement Cost	Repair Cost / sq.	Repair Cost
A*	**900 N**	**1**	**36**	**$650**	**$ 23,400**	**$70**	**$ 2,520**
B*	**900 M**	**2**	**56**	**$650**	**$ 36,400**	**$70**	**$ 3,920**
C	900 S	3	27	$650	$ 17,550	$70	$ 1,890
D	800 W	OK	0	$650	$ -	$70	$ -
E	1000	OK	0	$650	$ -	$70	$ -
I	600 W	3	27	$650	$ 17,550	$70	$ 1,890
J	600 M	2	56	$650	$ 36,400	$70	$ 3,920
K	600 E	3	27	$650	$ 17,550	$70	$ 1,890
L	400 W	3	27	$650	$ 17,550	$70	$ 1,890
N*	**400 E**	**3**	**27**	**$650**	**$ 17,550**	**$70**	**$ 1,890**
O	500/1100 N	3	27	$650	$ 17,550	$70	$ 1,890
P	500/1100 M	2	56	$650	$ 36,400	$70	$ 3,920
Q	500/1100 S	3	27	$650	$ 17,550	$70	$ 1,890
R*	**300 S**	**1**	**36**	**$650**	**$ 23,400**	**$70**	**$ 2,520**
S*	**300 M**	**2**	**56**	**$650**	**$ 36,400**	**$70**	**$ 3,920**
T*	**300 N**	**1**	**36**	**$650**	**$ 23,400**	**$70**	**$ 2,520**
U*	**200 S**	**1**	**36**	**$650**	**$ 23,400**	**$70**	**$ 2,520**
V*	**200 M**	**2**	**56**	**$650**	**$ 36,400**	**$70**	**$ 3,920**
W*	**200 N**	**1**	**36**	**$650**	**$ 23,400**	**$70**	**$ 2,520**
X	100	asphalt	0	$650	$ -	$70	$ -
Y	800 E	OK	0	$650	$ -	$70	$ -
	TOTALS		**649**		**$ 421,850**		**$ 45,430**

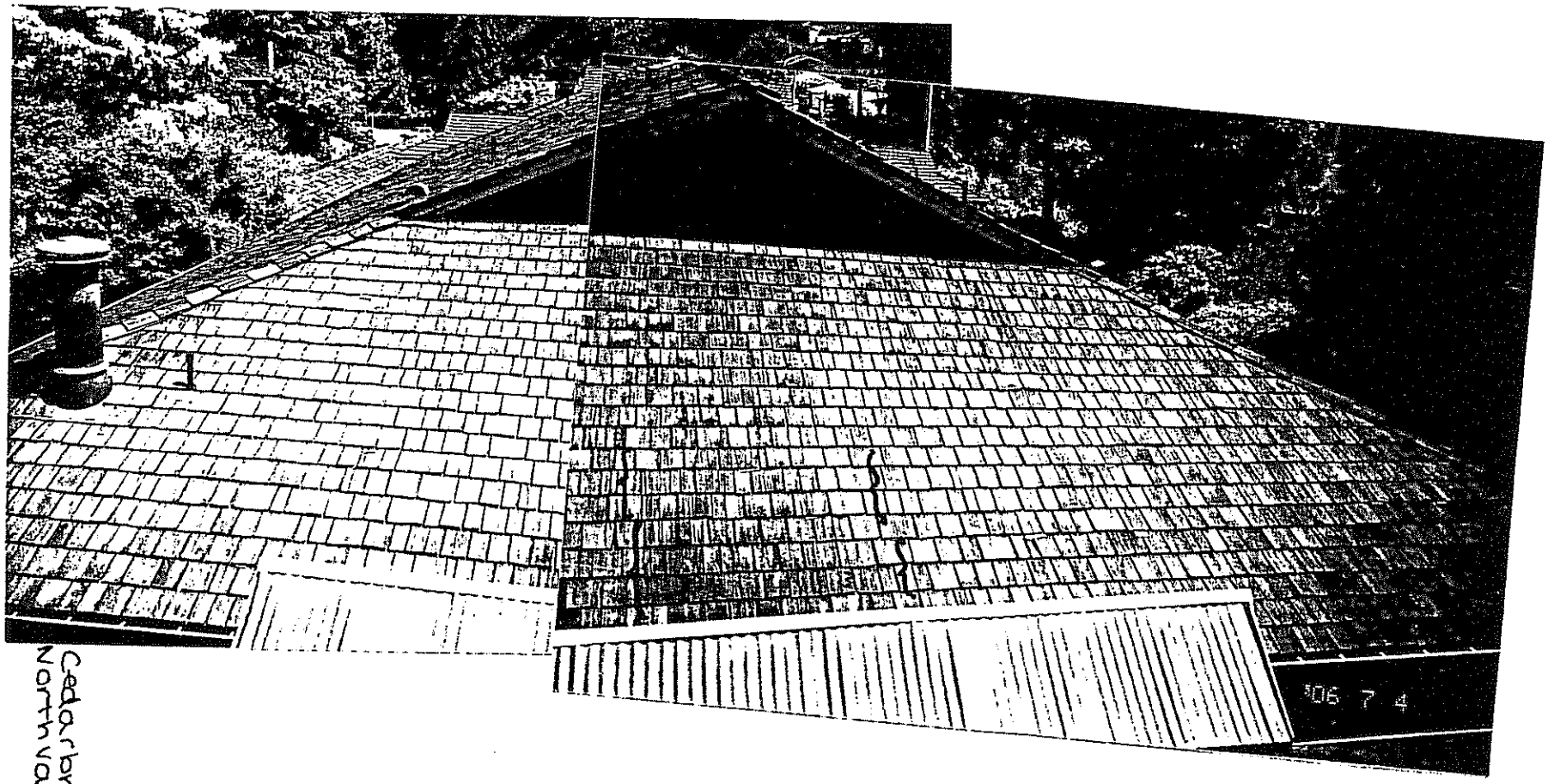
* means priority roof

additional costs

5% of budget for miscellaneous contingency
0.5% of budget for re-roof specifications
4.0% of the contract for roof consultation
$36.00 per copy of tender specifications

(1A)

(1B)



Cedarbrooke Village
North Vancouver, BC

Photos #1 through #25: Overview of existing shimmed roofs showing the general condition and variance between buildings of number of shims, loose shims and new splits over three or more courses.

ROOF TECH
604-538-ROOF
CONSULTANTS LTD.