

BOARD OF VARIANCE

Thursday, February 9, 2023 Council Chambers, Richmond City Hall 7:00 p.m.

CALL TO ORDER

MINUTES

BOV-3 Adoption of the minutes of the meetings of the Board of Variance held on May 29, 2019.

1. BOARD OF VARIANCE APPEAL – 9800 PENDLETON ROAD BV 22-026289

(File Ref. No. BV 22-026289) (REDMS No. 7079464)

BOV-7

See Page BOV-7 for staff memorandum

Applicant:	Barry Wosk
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Address: 9800 Pendleton Road

Purpose: The applicant has submitted an appeal to the Board of Variance on behalf of the property owner, to permit expansion of a second-storey deck. This would require varying the following provisions of Zoning Bylaw 8500:

To reduce the minimum required rear yard setback under the "Single Detached (RS1/E)" zone for a portion of the second-storey from 9.15 m (30.0 feet) to 8.04 m (26.4 feet) to allow for the expansion of usable deck space.

Order of Proceedings:

1. Presentation from the applicant

Pg. # ITEM

- 2. Written submissions
- 3. Public submissions
- 4. Board deliberation

ADJOURNMENT



Minutes

Board of Variance

Wednesday, May 29, 2019

Place:	Council Chambers Richmond City Hall
Present:	Kailin Che Diana Dickey Sheng Zhong
	Acting Secretary to the Board - Claudia Jesson
Absent:	Sheldon Nider Dalip Sandhu
Call to Order:	The meeting was called to order at 7:07 p.m.

CALL TO ORDER

ELECTION OF CHAIR

The Secretary to the Board called for nominations for the election of a Chair to the Board of Variance.

It was moved and seconded *That Diana Dickey be elected as Chair of the Board of Variance.*

CARRIED

MINUTES

It was moved and seconded That the minutes of the meeting of the Board of Variance held on April 19, 2018, be adopted.

CARRIED

1.

BOV - 3

Board of Variance Wednesday, May 29, 2019

1. BOARD OF VARIANCE APPEAL (PHIL AND MICHELE ISAAK – 8351 PIGOTT ROAD)

(File Ref. No. BV 19-858915) (REDMS No.6176078)

ADDRESS: 8351 Pigott Road

PURPOSE: The applicant has submitted an appeal to the Board of Variance for the property at 8351 Pigott Road in order to vary the following provisions of Zoning Bylaw 8500:

 Reduce the minimum required side yard setback (Section 4.7.8) from 1.2 m for portions of the principal building which do not exceed 5.0 m in height to 0 m.

Applicant's Comments

Michele and Phil Isaak provided a brief overview of the application to the Board of Variance and noted that:

- the application is being considered due to an issue with a neighbour from previous years regarding a tree in the backyard;
- an inspector came to the door and advised that a complaint was received regarding their carport and as it is not compliant with the City's zoning bylaws they would be required to submit building plans and seek approval;
- plans were submitted and approved; however the approved design was not feasible as it did not allow enough space to fit the car, therefore they did not change the existing carport;
- the neighbours on either side of their property have been consulted and they received no complaints regarding the carport;
- it is extra storage space for them as well as protecting cars from the weather as they do not have a garage; and
- the issue has re-surfaced recently as the file was still open and an inspector advised that a variance would be required to keep the existing structure.

Board of Variance Wednesday, May 29, 2019

Board Discussion

In answer to questions from members of the Board, Mr. and Mrs. Isaak and staff provided the following information:

- the building plans submitted to the City were approved; however not feasible as it does not fit a car;
- the temporary structure that was originally erected was not attractive or structurally sound to withstand various weather types;
- there is a shed in the backyard that is not structurally capable of holding a car; and
- the only concern with the current structure is compliance with the BC Building Code, for that reason there is a 1.2 m setback in place.

Written Submission

None.

Gallery Comments

None.

Board Deliberation

None.

Board Decision

It was moved and seconded

That the appeal application to vary the provisions of Zoning Bylaw 8500 to reduce the minimum required side yard setback (Section 4.7.8) from 1.2 m for portions of the principal building which do not exceed 5.0 m in height to 0 m for 8351 Pigott Road be granted.

CARRIED

Board of Variance Wednesday, May 29, 2019

ADJOURNMENT

It was moved and seconded *That the meeting adjourn (7:31 p.m.).*

CARRIED

Certified a true and correct copy of the Minutes of the Regular meeting of the Council of the City of Richmond held on Wednesday, May 29, 2019.

Diana Dickey Chair Claudia Jesson Acting Secretary to the Board



Re:	Board of Variance Appeal (Barry Wosk - 9800 Per	ndleton	Road)
From:	Wayne Craig Director, Development	File:	BV 22-026289
To:	Board of Variance	Date:	January 23, 2023
т	Deard of Variance	Deter	

Purpose

The subject property contains a single-detached house that is currently under construction. A Building Permit (BP 22-007721) was issued in June 2022 for the construction of a single-detached home at 9800 Pendleton Road. The building is currently being constructed according to approved plans.

Barry Wosk has submitted an appeal to the Board of Variance on behalf of the property owner, Serena K Lusk, to permit expansion of a second-storey deck. This would require varying the following provisions of Zoning Bylaw 8500:

1. Reduce the minimum required rear yard setback under the "Single Detached (RS1/E)" zone for a portion of the second-storey from 9.15 m (30.0 feet) to 8.04 m (26.4 feet) to allow for the expansion of usable deck space.

The existing second-storey deck, which is approved under the Building Permit, is built on top of a ground level porch and projects 3.8 m (12.3 feet) from the rear face of the house. Both the porch and second-storey deck are compliant with the first-storey rear yard setback requirement, however a portion of the deck projects into the second-storey rear yard setback. As such, a safety railing is placed along this setback line, rendering a portion of the deck space unusable. Permitting the reduced setback would allow the applicant to apply for a Building Permit to move the safety railing to the edge of the deck, expanding the usable portion of the deck.

A location map and aerial map of the subject property are provided in Attachment 1. Information and rationale submitted in conjunction with the Board of Variance appeal are provided in Attachment 2. A copy of the drawings submitted showing the requested variance are provided in Attachment 3. The original building permit package is provided in Attachment 4.

Findings of Fact

The following table provides the regulatory context of the subject application at 9800 Pendleton Road (Attachment 1), selected property features and the proposed variance.

	Existing	Proposed	
Site Size:	668 m ²	No change	
Land Use:	Single Family Residential	No change	
OCP Designation:	Neighbourhood Residential	No change	
Zoning:	Single Detached (RS1/E)	No change	
	Required	Proposed	Variance
Rear Yard Setback (2 nd Storey)	Min. 9.15 m (30.0 feet)	8.04 m (26.4 feet)	Yes



Staff Comments

Zoning Bylaw 8500 establishes a minimum rear yard setback for residential dwellings. The "Single Detached (RS1/E)" zone establishes a minimum rear yard for the subject property as:

- 7.32 m (24.0 feet) for 60 per cent of the rear wall of the first-storey, and 9.15 m (30.0 feet) for 40 per cent of the rear wall of the first-storey.
- 9.15 m (30.0 feet) for the second-storey.

The deck complies with all other technical requirements contained in the "Single Detached (RS1/E)" zone. Extending the railing to the outer edge to allow the additional space to be usable would result in the deck encroaching 1.1 m (3.6 feet) into the required rear yard setback of 9.15 m (30.0 feet).

The structure, as built, is fully compliant with the BC Building Code (BCBC). Should the Board of Variance grant the request by the applicant, the applicant would be required to apply for an additional Building Permit with the City of Richmond to address the relocation of the guard railing and ensure compliance with the BCBC is maintained.

Conclusion

The applicant has submitted an appeal to the Board of Variance for 9800 Pendleton Road in order to vary the second-storey rear yard setback (Section 8.1.6.6) for the extension of the usable space of the existing second-storey deck. The proposal is being forwarded to the Board of Variance for consideration.

At the conclusion of the hearing for an application, the Board may:

- Grant or deny the order requested by the applicant and provide reasons.
- Request further information from the applicant, City staff, or any person who has made a submission to the Board in respect to the application and adjourn the meeting.
- Reserve its decision and provide a written decision at a later date.

Wayne Craig Director, Development (604-247-4625)

WC/ac

Attachments: Attachment 1: Location Map/Aerial Map Attachment 2: Hardship Rationale Attachment 3: Variance Package Attachment 4: Building Permit Drawing Package

Attachment 1



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BV 22-026289

Original Date: 01/04/23

Revision Date:

Note: Dimensions are in METRES

Explanation of Hardship

We have tried to be good neighbours by designing our home with more than double the required side setbacks (9' vs. 4') so as to not be encroaching on adjacent homes. This has had the effect of making our home narrower but longer. Despite this our first floor wall is nearly 15' from the required rear yard setback and our second floor wall is over 8' from the required rear setback. In other words, the house walls are nowhere near the setbacks.

Our approved patio cover/second floor deck extends 12'4" from the back of the house. This is well within the main floor setback, however, it crosses over the top floor setback. The net result is that we are forced to put our safety railing in the middle of our deck.

In addition to losing utilization of more than 30% of our available deck space we also believe this will be unsightly as viewed from both our yard and our neighbours' yards (i.e., a portion of the deck space will appear unfinished or an afterthought).

Mitigating factors:

- 1. The deck structure is already approved and built, i.e., we will not be building any further structure. This is simply a matter of where the safety railing is positioned on the existing deck.
- 2. The railing will consist of mostly glass, meaning there will be no visible obstructions. This will help maintain a feeling of openness in the area which we believe is the intent of the setback requirements.
- 3. We have letters from three adjacent neighbours (attached) in support of this variance.

August 24, 2022

To whom it may concern:

My name is ewchuk and I am the registered owner of the house at 9780 Pendleton Road

I have been advised by our neighbour, currently building at 9800 Pendleton Road, of their intention to apply for a setback variance with respect to their second-floor deck in the back yard and I support this application.

I can be reached for any questions at 604785-2214 or (phone)

Sandshew 2 hot mail - com (e-mail)

Sincerely,

Jand Aleadel

(sign here)

August 24, 2022

To whom it may concern:

My name is <u>Rebecca</u> Fune and I am the registered owner of the house at 9820 Pendleton Road.

I have been advised by our neighbour, currently building at 9800 Pendleton Road, of their intention to apply for a setback variance with respect to their second-floor deck in the back yard and I support this application.

I can be reached for any questions at <u>604 - 961 - 0868</u> or (phone)

rebecca fung 0806 é gmail, com. (e-mail)

Sincerely,

ence

(sign here)

August 24, 2022

To whom it may concern:

My name is <u>Keith</u> Chan and I am the registered owner of the house at 4651 Pendlebury Road.

I have been advised by our neighbour, currently building at 9800 Pendleton Road, of their intention to apply for a setback variance with respect to their second-floor deck in the back yard and I support this application.

I can be reached for any questions at 604 - 765 - 6076 or (phone)

Keithlora Qoutlock. com. (e-mail)

Sincerely,

(sign here)

Attachment 3

PERMEABLE CALCULATION AREAS: LOT AREA : 7,202,37 FT^2 (669,10 M^2) 2,816,11 FT² LESS SFD FOOTPRINT: 582,78 FT² LESS DRIVEWAY / FRONT WALKWAY: 475,14 FT² LESS SIDE YARDS (A + B); 701,61 FT² LESS OPEN REAR PATIOS / POOL(A + B + C); 2,626,73 FT² PERMEABLE AREAS : REQ'D PERMEABLE AREAS : 30 % PROPOSED PERMEABLE AREAS : 36,47 %

TOTAL DRIVEWAY / WALKWAY - 582,78 FT^2 DRIVEWAY WITHIN 6M SETBACK - 523,04 FT2

FRONT YARD LANDSCAPING REQUIREMENTS FRONTAGE AREA = VIA, COMPLITER (PROPERTY LINES SLIGHTLY ANGLED) = $6M \times |8,292M = |09,752M^2) |, |8|, 40 FT^2$

> REQUIRED LANDSCAPE AREA : $55\% \times 1,181,40 FT^2 = 649,77 FT^2,$

PROPOSED FRONT YARD LANDSCAPED AREA WITHIN 6M = LOT AREA 1,181,40 FT² LESS DRIVEWAY 523,04 FT² = LANDSCAPED AREA 658,36 FT^2 = 55,73%

PROPOSED VARIANCE

APPLICANT IS REQUESTING FOR CONSIDERATION TO EXTEND THE DECK HANDRAILS BEYOND THE TOP FLOOR SETBACK REQUIREMENT,

REAR YARD SETBACK CALCULATIONS. REQUIRED REAR SETBACKS : MAIN FLOOR : 20% x 36,5805M = 7,316IM - 24 FT 10P FLOOR; 25% x 36,5805M = 9,145M - 30 FT

CONTINUOUS WALL LENGTH CALCULATION.

WALL LENGTH PERMITTED : 55% \times 36,58 M = 20,1196 M - 66 FT (WEST SIDE) WALL LENGTH PERMITTED : 55% \times 36,58M = 20,119M - 66 FT (EAST SIDE)



SITE PLAN & ROOFING LAYOUT

SCALE | / 8'' = | ' - 0''

LEGEND:

denotes	conifer
denotes	deciduous
denotes	round catch basin
denotes	catch basin
denotes	water meter
denotes	inspection chamber
denotes	lamp standard
	denotes denotes denotes denotes denotes denotes

NOTE:

Use	site	Benchm	nark	Tag	#681
for	const	truction	elev	ration	control.

EXISTING ROAD CENTRE LINE GRADE ELEV. ; 1.13MO EXISTING AVERAGE LOT GRADE ELEV, : 1,21M \bigcirc PROPOSED AVERAGE LOT GRADE ELEV. : 1.37M FINISHED GRADE AT HOUSE CORNERS ELEV .: 1.61M () TOP OF SLAB ELEV, = $|.8|M, \bigcirc$ BUILDING HEIGHT MEASURED FROM : 1,43M





 \leq $\omega ~ \omega t$ ZM ZM 510E 18,39M x 1 23 72



SCALE |/ 4'' = |'-0''



Attachment 4



ADDRESS : 980 LEGAL : LOT ZONE : RSI/1	O PENDLETON ROAD, RICHMOND, BC 71, SEC 26-4-7, NWD PLAN 46200 5			
FCL: 2.9m GSC - Area A				
DESIGN ANALYSIS: LOT AREA <u>FAR :</u> PERMITTED : PROPOSED:	: 7,202,37 FT ² - (669,10 M) : 3,410,71 FT ² - (316,85 M ²) : 3,410,71 FT ² - (316,85 M ²)			
SITE COVERAGE: PERMITTED (45%) PROPOSED EXTERIOR COVERS GARAGE (ACTUAL)	3,241.07 Ft ² - (301.10 M) 2,816.11 Ft ² - (261.62 M ²) 340.25 Ft ² - (31.61 M ²) 535.50 Ft ² - (49.75 M ²)			
CONTRACTOR TO VERIFY ADJUST IF REQUIRED. DESIGNER NOT RESPONS	ALL DIMENSIONS AND TO SIBLE FOR ANY ERRORS FOUND			
ALL WORKS SHALL CONI CODE AND 9.32 and 9.3 BUILDING CODE AND CIT BYLAW.	FORM TO 2012 BC BUILDING 56 OF PART 9, 2014 BC Y OF RICHMOND ZONING			
MECHANICAL VENTILATIC AS PER CODE, INSTALL &	PN, PLUMBING AND ELECTRICAL PADIANT HEATING SYSTEM.			
* THIS PLAN MUST BE CHECKED BY A STRUCTURAL				

3" CONCRETE SLAB TRANULAR FIL

CLIMATE ZONE 4 STEP 3 - (BC ENERGY STEP CODE)

RSI=7.58

AFUE=95%

Seer=14

EF=0.79

RSI=5.14

USI

HSPF, or

SEER

EF or

, date/dratel/mbn/signy

% eff

BC ENERGY COMPLIANCE REPORT - PERFORMANCE PATHS FOR PART 9 BUILDINGS Pre-Construction

BC ENERGY COMPLIANCE REPORT - PERFORMANCE PATHS FOR PART 9 BUILDINGS Revised July 15, 2020

For Buildings Complying with Subsection 9.36.5. or 9.36.6. of the 2018 BC Building Code (see BCBC Article 2.2.8.3. of Division C)							
A: PROJECT INFORM	ATION						
Building Permit #:		Building Type*:	ingle Detac	hed 🚽			
Builder:	Nuhaus Homes Ltd.	If Other, Please Specify:					
Project Address:	9800 Pendleton Road	Number of Dwelling Units:		1			
Municipality / District:	Richmond	Climate Zone:	4	- Less than 3000			
Postal Code:	V7E 4N1	Heating Degree Days:		2,800			
PID or Legal Description	004 173 988	Floor Area of Conditioned Space	(m2):	319.10			
BC Building Code Perfo (Select boxes that appl	BC Building Code Performance Compliance Path: (Select boxes that apply) *Building Type must be selected in order to auto populate this report correctly*						
9.36.6.	Complete Sections A, B, D, & E						
9.36.5., NOT com	plying with Step Code 🛛 🛶 Com	plete Sections A, B, C, & E					
9.36.5., complying	g with Step Code Com	plete Sections A, B, C, D & E					
Software Name:	Hot2000 Version: 11.	11 Climatic Data (Location):	Vanco	ouver INTL			
B: BUILDING CHARACTERI	STICS SUMMARY (see BCBC Clause 2.2.8.3.(2)(b) of Division C)					
	Details (Assembly / System	n Type / Fuel Type / Etc.)		eff RSI , USI, SHGC, etc			
Exterior Walls &	2x6@16OC R24 batt insulation		Effective	RSI=2.49-3.49			
Floor Headers	TJI 11 7/8 @16OC R24 batt insulation		RSI	RSI=4.22-4.31			
Roof / Ceilings	Truss 2x4@24OC R50 insulation		Effective RSI	RSI=7.71-8.69			
Foundation Walls, Headers, & Slabs	Slab- R16 rigid insulatin		Effective RSI	RSI=2.82			
	Slab Is: Below OR Above Frost	Line Heated OR Unheate	d				

Floors Over TJI 11 7/8@16OC R40 batt insulation

DWR: 17.1 %

exterior - WRB taped and seal

IRV- 60% sensible heat recovery

Based on information provided by the builder and drawings prepared by

ng Condensing boiler, Natural Gas

& Doors Hinged doors with glazing = USI 1.80 SHGC 0.21

ombination with condensing boiler, Natural Gas

Fenestration Windows - USI 1.40 SHGC = 0.24

Unheated Spaces 2x10@16OC R28 batt insulation

Air Barrier System & interior- polyethyelene

(Heating & Cooling) Air conditioner, Electricity

Location

Space Conditioni

Service Wate

Ventilati

Other Ener

Impacting Feature

Heati

	• •	•		6.5.	
Proposed	House Energy Consun	nption (GJ/year)	Reference House Rat	ted Energy Ta	rget (GJ/year)
HVAC			HVAC		
Hot Water He	eating		Hot Water Heating		
SUM		-	SUM		-
he airtightness valu	e used in the energy m	nodel calculations for the	e Proposed house is:		
4.5 ACH @ 50Pa	3.5 ACH @ 50Pa	OR Tested At	ACH @ 50Pa		
he above calculatio	n was performed in c	ompliance with Subsecti	ion 9.36.5. of Division B	:	Yes No
: 9.36.6. ENERGY STEP	CODE COMPLIANCE (se	e BCBC Sentence 2.2.8.3.(3	B) of Division C)		
omplete this sectio	n if using the Energy S	itep Code Compliance Pa	ath in Subsection 9.36.6	5.	
using 9.36.5 to com	ply with 9.36.6, print	and manually fill in the t	able below. The table be	elow auto-fill	s from the calculator
vorksheets and the f	ields cannot be overw	ritten.			
Rated Energy Cons	umption (GJ/year):	Proposed House 72	Reference House	92	HDD: 2,800
/letric			Units	Required	Proposed
Step Code Level			Step 1, 2, 3, 4, or 5	3	3
Aechanical Energy U	se Intensity (MEUI)		kWh/(m²·year)	55 (max)	62
RS Rating % Lower Th	an EnerGuide Reference	House, where applicable	%	20 (mi	n) 22.1
hermal Energy Dem	and Intensity (TEDI)		kWh/(m²·year)	30 (max)	46
djusted TEDI			kWh/(m²·year)	36 (max)	46
uilding Envelope %	Better		%	10 (max)	11
Airtightness in Air Ch	anges per Hour at 50 I	Pa differential	ACH @ 50 Pa	2.5 (max)	2.5
-			Step Code	Design Requi	rements Met: Ye
elect one: Subsection 9.36.	5., e Planning Package (P	HPP), version 9 or newei	r, and the energy model	was prepare	d by
a Certified Passiv The EnerGuide R The applicable re The " <u>Instructions</u> BC Energy Compl	ating System (ERS), ve quirements of NECB P for Modelling Attache iance Reports Instruct	rsion 15 or newer, or art 8 and the City of Van ad Ground Oriented Part ion Manual)	onsultant, Icouver Energy Modellin <u>9 Resdiential Buildings</u> '	ng Guidelines. ' (found in Se	ction 6 of the
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Dated (YYYY/MM/DD)



SUPPLEMENTARY INFORMATION

Supplementary information is not required for Code Compliance but may be requested by the local municipality/district. Where applicable, all metrics within Section F are calculated with baseloads included. If required, complete the applicable sections below.

OTHER ENERGY MODELLING METRICS

#	Metric	Units	Reference House	Proposed House
11	Iormalized Leakage Area (NLA) @10Pa	cm2/m2	1.32	1.32
2 F	ated Greenhouse Gas Emissions	kg/year	4889	3600
3 F	ated Greenhouse Gas Intensity	kg/m2/year	15.32	11
41	ated Energy Use Intensity	GJ/m2/year	0.37	0.31
5 F	eak Thermal Load (PTL)	W/m2	30	-
6	% of the Building's Conditioned Space Served by Space- Cooling Equipment	%	N/A	More than 50%
7 9	6 Lower Than Reference House With Baseloads Included	%	N/A	17.8%

#	Energy Source	Reference House Energy Consumption (GJ/year)	Proposed House Energy Consumption (GJ/year)
	Electricity	31.10	29.70
	Natural Gas	86.6	67.6
	Propane	-	-
8	District Energy	N/A	-
	On-Site Renewables	N/A	-
	Other:	-	-
	Total	117.7	97.3

PENDING	
	BUILTGREEN [®] , Level:
	Certified Passive House
	CHBA Net Zero House

OPTIONAL CERTIFICATIONS

PENDING ENERGY STAR[®] for New Homes LEED[®] for Homes R2000 Other:

BCBC 2018 REVISIONS 2 3 - EFFECTIVE 2019-12-12 Revised July 15, 2020

BCBC 2018 REVISIONS 2 3 - EFFECTIVE 2019-12-12 Revised July 15, 2020

BOV - 18

COMPONENTS WITH AN AIR BARRIER MATERIAL

-INTERIOR WALL INTERFACE

INTERIOR WALLS THAT MEET EXTERIOR WALLS OR CEILINGS WITH AN INTERIOR PLANE OF AIR TIGHTNESS MUST BE MADE AIRTIGHT BY EITHER SEALING ALL JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL, OR MAINTAINING THE CONTINUITY OF THE AIR BARRIER SYSTEM THROUGH THE INTERIOR

-RIM JOIST

WALL

ALL JOINTS AT THE RIM JOIST ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL

-CANTILEVERED FLOOR

CANTILEVERED FLOORS AND FLOORS OVER UNHEATED SPACES / EXTERIOR SPACE MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS AND / OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL

-WINDOW HEAD

THE INTERFACE BETWEEN WINDOW HEAD/ JAMB AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER IN THE WALL AND WINDOW, THE REQUIREMENT ALSO APPLIES TO DOORS AND SKYLIGHTS

-WINDOW SILL

TEMPERATURES

THE INTERFACE BETWEEN WINDOW SILL AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER MATERIAL IN THE WALL AND THE WINDOW, THE REQUIREMENT ALSO APPLIES TO DOORS AND SKYLIGHTS

-MECHANICAL FLUES AND CHIMNEYS

STEEL-LINED CHIMNEYS THAT PENETRATE THE BUILDING ENVELOPE MUST BE MADE AIRTIGHT BY BLOCKING THE VOID BETWEEN REQUIRED CLEARANCES FOR METAL CHIMNEYS AND SURROUNDING CONSTRUCTION WITH SHEET METAL AND SEALANT CAPABLE OF WITHSTANDING HIGH

AIRTIGHT BY EITHER SEALING THE AIR BARRIER MATERIAL TO THE VENT STACK PIPE WITH A COMPATIBLE MATERIAL OR SHEATHING TAPE, OR INSTALLING A RUBBER GASKET OR PREFABRICATED ROOF FLASHING AT THE PENETRATION OF THE PLANE OF AIRTIGHTNESS AND SEALING IT TO THE TOP PLATE

-SKYLIGHTS

THE INTERFACE BETWEEN THE SKYLIGHT AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER MATERIAL IN THE WALL AND THE SKYLIGHT

-WALL TO CEILING

ALL JOINTS AT THE TRANSITION BETWEEN THE ABOVE GRADE WALL AND CEILING MUST BE MADE AIRTIGHT BY SEALING AL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS AND/OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL

-WALL VENTED DUCTS

DUCT PENETRATIONS THROUGH THE BUILDING ENVELOPE MUST HAVE AN AIRTIGHT SEAL

WALLS, INCLUDING ELECTRICAL OUTLETS, WIRING, SWITCHES, AND RECESSED FIXTURES THROUGH THE PLANE OF AIRTIGHTNESS MUST BE AIRTIGHT OPTIONS INCLUDE USING A COMPONENT THAT IS DESIGNED TO BE AIRTIGHT AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL, OR BY COVERING THE COMPONENT WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL

SPECIFIC REQUIREMENTS

-EFFECTIVE INSULATION OF CEILINGS, WALLS AND FLOORS MEET THE REQUIREMENTS OF TABLE 9.36.2.6.A AND TABLE 9.36.2.6.B FOR THE CORRECT CLIMATE ZONE

-THE THERMAL CHARACTERISTICS OF WINDOWS, DOORS AND SKYLIGHTS MEET THE REQUIREMENTS OF TABLE 9.36.2.7.A.B. AND C FOR

THE CORRECT CLIMATE ZONE

-EFFECTIVE INSULATION OF FOUNDATIONS MEET THE REQUIREMENTS OF TABLE 9.36.2.8.A OR B FOR THE CORRECT CLIMATE ZONE

-DUCTS LOCATED OUTSIDE THE THERMAL ENCLOSURE ARE SEALED AND INSULATED TO THE EXTERIOR WALL INSULATION REQUIREMENTS

-DAMPERS ARE INSTALLED AT AIR INLETS AND EXHAUSTS WHERE REQUIRED -PIPING FOR HEATING OR COOLING SYSTEMS IS LOCATED WITHIN THE THERMAL ENCLOSURE OR ARE FULLY INSULATED

-HVAC EQUIPMENT IS LOCATED WITHIN THERMAL ENCLOSURE OR DESIGNATED TO BE INSTALLED OUTSIDE OF THERMAL ENCLOSURE

-TEMPERATURE CONTROLS ARE INSTALLED ON HEATING AND COOLING EQUIPMENT -INDOOR POOLS ARE COVERED OR HAVE AN HRV/DEHUMIDIFIER

-HVAC AND SWH EQUIPMENT MEET MINIMUM PERFORMANCE REQUIREMENTS DETERMINED IN TABLES 9,36,3,10, AND 9,36,4,2

-SERVICE WATER HEATING PIPES ARE INSULATED AT THE INLET AND OUTLET OF STORAGE TANKS -SERVICE WATER HEATERS HAVE TEMPERATURE CONTROLS -THE AIR BARRIER DETAILS, AND LOCATIONS HAVE BEEN IDENTIFIED

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PERMEABLE CALCULATION AREAS: LOT AREA : 7,202,37 FT^2 (669,10 M^2) 2,816,11 FT² LESS SED FOOTPRINT: 582,78 FT² LESS DRIVEWAY / FRONT WALKWAY: 475,14 FT² LESS SIDE YARDS (A + B); 701,61 FT² LESS OPEN REAR PATIOS / POOL(A + B + C); 2,626,73 FT² PERMEABLE AREAS : REQ'D PERMEABLE AREAS : 30 % PROPOSED PERMEABLE AREAS : 36,47 %



TOTAL DRIVEWAY / WALKWAY - 582,78 FT^2 DRIVEWAY WITHIN 6M SETBACK - 523,04 FT²

FRONT YARD LANDSCAPING REQUIREMENTS FRONTAGE AREA = VIA, COMPLITER (PROPERTY LINES SLIGHTLY ANGLED) = $6M \times 18.292M = 109.752M^2$) 1,181.40 FT²

> REQUIRED LANDSCAPE AREA : $55\% \times 1,181.40 FT^2 = 649.77 FT^2$

PROPOSED FRONT YARD LANDSCAPED AREA WITHIN 6M = LOT AREA 1,181,40 FT² LESS DRIVEWAY 523,04 FT² = LANDSCAPED AREA 658,36 FT^2 = 55,73%

REAR YARD SETBACK CALCULATIONS. REQUIRED REAR SETBACKS : MAIN FLOOR : 20% x 36,5805M = 7,316IM - 24 FT 10P FLOOR; 25% x 36,5805M = 9,145M - 30 FT

CONTINUOUS WALL LENGTH CALCULATION.

WALL LENGTH PERMITTED : 55% \times 36,58 M = 20,1196 M - 66 FT (WEST SIDE) WALL LENGTH PERMITTED : 55% \times 36,58M = 20,119M - 66 FT (EAST SIDE)



SITE PLAN & ROOFING LAYOUT

SCALE | / 8'' = | ' - 0''

LEGEND:

denotes	conifer
denotes	deciduous
denotes	round catch basin
denotes	catch basin
denotes	water meter
denotes	inspection chamber
denotes	lamp standard
	denotes denotes denotes denotes denotes denotes

NOTE:

Use	site	Benchm	nark	Tag	#681	
for	const	ruction	elev	ration	control	٠

EXISTING ROAD CENTRE LINE GRADE ELEV. ; 1.13MO EXISTING AVERAGE LOT GRADE ELEV, ; 1,21M \bigcirc PROPOSED AVERAGE LOT GRADE ELEV. : 1,37M () FINISHED GRADE AT HOUSE CORNERS ELEV .: 1.61M () TOP OF SLAB ELEV, = $|.8|M, \bigcirc$ BUILDING HEIGHT MEASURED FROM : 1,43M





 \leq Q Q L ZM ZM 510E 18,39M x 1 23 72



BOV - 20



RAIN SCREEN DETAILS

SCALE |/ 411 = |'-011

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LOT AREA:	7,202,37 FT ² (669,10M ²)
ALLOWABLE FAR:	3,410,71 FT ²
ACTUAL FAR;	3,410,71 FT ²
FA	R; 1,940,36 FT ²
PATIOS/PORCH:	340,25 FT ²
GARAGE ACTUAL	$535,50FT^2$
SITE COVERA	$GE: 2,8 6,1 FT^2$

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TOP FLOOR PLAN (9 FT CEILING)

SCALE | / 4'' = | ' - O''

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SPECIFICATIONS: THE INSTALLATION OF THE ROCK VENEER TO COMPLY WITH 2012 BCBC

APPLICATION:

I. APPLY 15 LB. FELT PAPER USING $\frac{1}{2}$ " GALVANISED ROOFING NAILS OR STAPLES.

2. APPLY METAL LATH, TO WOOD JAMBS WITH PLYWOOD SHEATHING USING MIN. I $\frac{1}{2}$ " GALVANISED ROOFING NAILS OR STAPLES,

3. APPLY MORTAR SCATCH COAT, FORCING MORTAR INTO THE LATH AND COMPLETELY COVER THE MORTAR FOR AN OVERALL THICKNESS OF $\frac{3}{8}$ ".

4. SELECT ROCK OR VENEER ROCK APPLY THE MORTAR SETTING BED TO THE BACK SIDE, APPROX. $\frac{1}{2}$ " THICK, AND PLACE EACH ROCK ON THE THE MORTAR FACE. 5 ,FILL IN THE GAPS BETWEEN THE ROCK VENEERS USING A

GROUT BAG, AFTER THE THE FIRMNESS HAS SET THEN USE A BLUNT INSTRUMENT TO RACK OUT THE ROUGH PIECES. 6 .APPLY A MASONARY SEALER FOR ADDITIONAL PROTECTION,

LEGEND UNPROTECTED OPENINGS: EXISITING GRADE ELEVATION FROM TOPOGRAPHICAL PLAN FINISHED GRADE ELEVATION E * ALL ELEVATIONS SHOWN IN METRIC

ROCK VENEER ROCK DETAIL :

4,0M (13,123 FT)

19'-84'' [6,000m] ZONING SET BACK $\widetilde{\Delta}$ 20'-11[:] 20'-11: 20'-PROPOSED SET BACK

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5 .FILL IN THE GAPS BETWEEN THE ROCK VENEERS USING A GROUT BAG. AFTER THE THE FIRMNESS HAS SET THEN USE A BLUNT INSTRUMENT TO RACK OUT THE ROUGH PIECES. 6 .APPLY A MASONARY SEALER FOR ADDITIONAL PROTECTION.

LEGENT	UNPROTECTED OPENINGS:
E	EXISITNG GRADE ELEVATION FROM TOPOGRAPHICAL PLAN
	FINISHED GRADE ELEVATION * ALL ELEVATIONS SHOWN IN METRIC
	* ALL ELEVATIONS SHOWN IN METRIC

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ACTUAL LOT CALCULATION

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TOTAL (DRIVEWAY) HARD SURFACE AREA CALCULATION