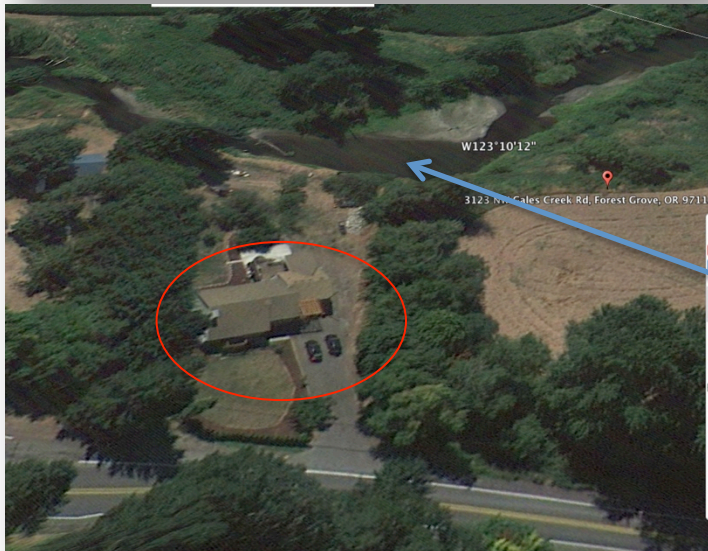


Forest Grove, OR Non-Compliance



Facts:

- Elevated using FEMA Funds
- Not NFIP compliant
- County in violation potentially
- Home owner paying the price

Gales Creek

"A8 & A9" Identifying Non-Compliance

06/11/2009 15:42 5033597915 MEREDITH KRIEGER PAGE 02

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expires March 31, 2012

Important: Read the instructions on pages 1-9.

SECTION A - PROPERTY INFORMATION

City Forest Grove State OR ZIP Code 97116

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Tax Parcel 1N427B000800

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential

A5. Latitude/Longitude: Lat. 45°32'30.8" Long. 123°10'0.8" Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) 1908 sq ft

b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 18

c) Total net area of flood openings in A8.b 1469 sq in

d) Engineered flood openings? ☐ Yes ☒ No

A9. For a building with an attached garage:

a) Square footage of attached garage 0 sq ft

b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 0

c) Total net area of flood openings in A9.b 0 sq in

d) Engineered flood openings? ☐ Yes ☒ No

Surveyor omitted diagram

- EC shows that the enclosed space is short 439 sq.in of flood venting coverage
- Air vents were miss-rated as well, but Surveyor was accurate
- NFIP Lowest rated floor becomes the enclosure floor below the BFE

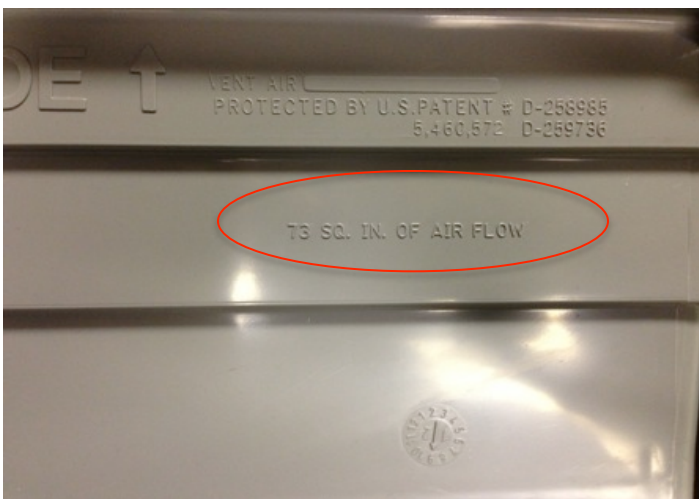
Miss-Rated Air Vents



Flaps must be broken off



Inserts are not allowed



- Original Thinking 18 x 128 sq.in = 2,304 sq.in
- 73 sq.in NET not 128 sq.in GROSS
- Actual Flood Venting coverage 1,314 sq.in
- Flood Vents must be passive

Section "B" FIRM Info

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Washington County, OR 410238		B2. County Name Washington		B3. State OR	
B4. Map/Panel Number 410238 0291	B5. Suffix b	B6. FIRM Index Date Feb 18, 2005	B7. FIRM Panel Effective/Revised Date Sept 30, 1982	B8. Flood Zone(s) A5	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 204.5
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other (Describe) _____					
B11. Indicate elevation datum used for BFE in Item B9: <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other (Describe) _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Designation Date _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

"A5" Flood Zone. Any Flood Zone with a "A" in front of it will require flood vents
BFE: 204.5

Section "C" Elevations Identifying Non-Compliance

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete Items C2.a-h below according to the building diagram specified in Item A7. Use the same datum as the BFE.
 Benchmark Utilized Washington County BM 231 Vertical Datum NGVD 1929(47) el 205.77
 Conversion/Comments _____

		Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	<u>200.3</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
b) Top of the next higher floor	<u>207.5</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
c) Bottom of the lowest horizontal structural member (V Zones only)	<u>N/A.</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
d) Attached garage (top of slab)	<u>N/A.</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	<u>206.5</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
f) Lowest adjacent (finished) grade next to building (LAG)	<u>201.2</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
g) Highest adjacent (finished) grade next to building (HAG)	<u>202.2</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	<u>200.1</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)

- Because the LAG (f) is 10.8" lower than the Top of Bottom Floor (e) this space is sub-grade
- f) Cannot be greater than e)
- Lowest rated floor is 200.3 which equals a -4 (BFE 204.5 – 200.3)

B9. Base Flood Elevation(s) (Zone AO, use base flood depth)

204.5

Summary of Issues

- Not Enough Flood Venting
- Subgrade enclosed space below the BFE
- Lowest rated floor a -4

Non-Compliance - Before Premium

Premium Calculations					
COVERAGE	DEDUCT	INS. AMT.	RATES	PREMIUM	DISCOUNT/ BUYBACK
Building	1000	60,000	2.460	1,476	
Added		90,000	1.130	1,017	
Building Totals:		150,000		2,493	0
Contents		0	.850	0	
Added		0	.190	0	
Contents Totals:		0		0	0
Total Building and Contents:				2,493	0

Policy Term:	1	
Expense Constant:		0
ICC Premium:		34.00
Community Discount:		.00
Community Probation Charge:		0
Annual Premium:		2,527.00
Policy Service Fee:		40
Total Annual Due:		2,567.00

Other Deductible Options:

(Please Select the Deductible Option You Want)

	Building	Contents	Premium
—	1,000		\$2,567.00
—	2,000		\$2,405.00
—	3,000		\$2,280.00
—	4,000		\$2,156.00
—	5,000		\$2,031.00

\$150,000 Building Coverage
Annual Premium: \$2,567

Homeowner Pays!

Fixing The Issues

CHECK LIST FOR INFORMATION REQUIRED TO ISSUE A

NEW BUSINESS SUBMIT POLICY

- ☒ Application - Completed and signed by an Agent.
- ☒ Elevation Certificate - Completed and signed by an Engineer/Surveyor.
- ☒ Recent Photos of the front and back of the entire building or construction drawings if the building is under construction.
- ☒ Variance Form or Statement of no Variance.
- ☒ Elevated Building Determination Form (for all elevated buildings).
- ☐ Certified letter from a qualifying official verifying that the enclosure is designed/built with breakaway walls is required if the enclosure is 300 sq. ft. or more using masonry walls and represented as being breakaway.
- ☒ Full Premium

Additional Information Required - If Marked below:

- ☐ Please provide the deductible requested on the application.
- ☐ Please provide a list of machinery/equipment and appliances in the enclosure/basement on the application.
(This is required since the EC shows M & E (C3e) at an elevation below the BFE. Please identify what the surveyor has indicated.
- ☐ Please send a signed statement that the elevation certificate address and the application address are the same.
Please provide both addresses on the verification.
C3a on EC must show as the crawl space/enclosure floor and the C3b as the next higher floor.
- ☒ Other - please see below:

Comments:

This quote is rated as a basement foundation due to there being more than 5ft between floors and the lowest floor being below ground on all sides.

This quote assumes there is no machinery or equipment in the below grade area.

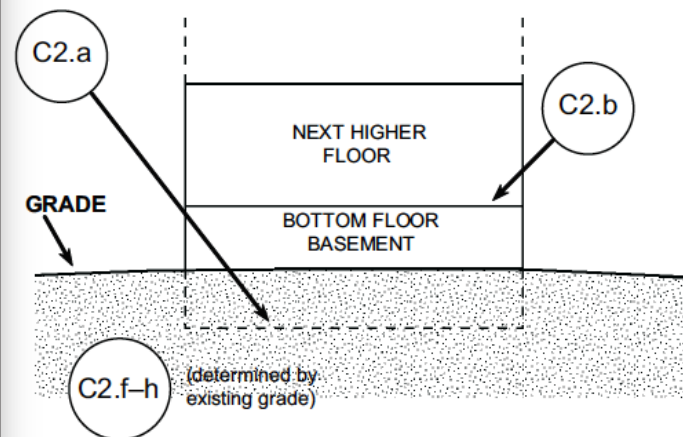
Please be advised if any of the information used to rate this quote changes or is incorrect this quote is void.

Thank you!

DIAGRAM 2

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*



1. Must Eliminate Sub-Grade Space

Diagram 2 Current



BFE: 204.5

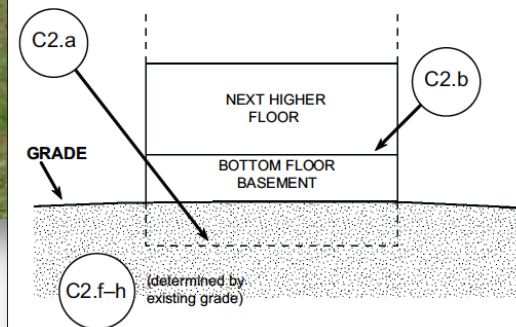
LAG: 201.2'

Top of Bottom Floor: 200.3'
NFIP Lowest Rated Floor -4

DIAGRAM 2

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*



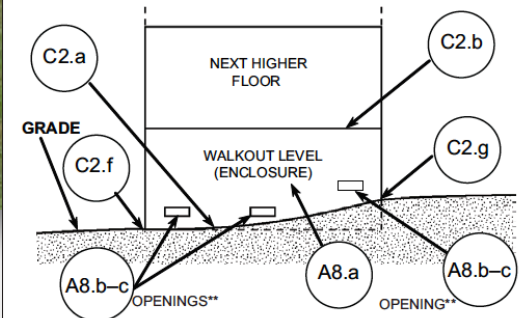
Now Diagram 7



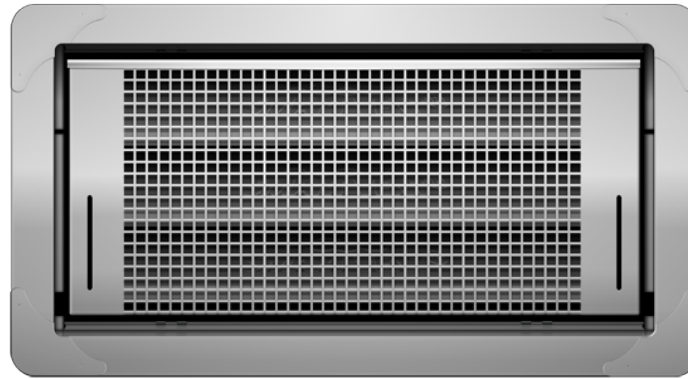
DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.



Compliant Flood Vent Retro-Fit



- ICC-ES Certified for 200 sq.ft each
- $1908 \text{ sq.ft} / 200 = 9.54$ Rounded to **10 Vents**
- Louvers open and close with temperature change

Summary of Fixes

- Excavated 10.8" of soil to lower the LAG below the Top of Bottom floor
Changed Building Diagram to a 7
- Retrofitted in (10) ICC-ES Certified Engineered Openings
Now fully compliant with FEMA & Building Codes
- Enclosed Area Below BFE Now NFIP Exempt From Rating
Lowest Rated Floor 207.5' +3!

Results



Compliance - After Premium

\$150,000 Building Coverage
Annual Premium: \$279

89%
Reduction!

COMMUNITY	Current Community Number: 410238 0291 B FIRM Date: 9-30-1982 Program Type: Regular County: UNINCORPORATED AREAS COUNTY Current Flood Zone: A05 Current BFE: Flood Zone Det Number: 12014006		Grandfathered: No Grandfathering Grandfathered Community Number: Grandfathered Flood Zone:	
	Occupancy: Single Family Building Use: Main House/Building Building Description: Single Family Home Foundation: Above Grade Crawlspace Number of Floors: Two Floors Condo Form of Ownership: No Number of Units: 0 Condo Description: Not a Condo Location of Contents:		Date of Construction Source: Original Construction Date of Construction: 5-1-2009 Building in Course of Construction: No Building Walled & Roofed: Building Over Water: Not over Water Located on Federal Land: No Principal Residence: Yes Estimated Replacement Cost: \$150,000 Replacement Cost Ratio: 100%	
ELEVATION INFO	Building Floodproofed: No Elevation Certificate Date: 6-11-2009 Date Photos Taken: 5-10-2013 Building Diagram Number: 8 Floodproofed Elevation: Top of Bottom Floor Elevation:	Base Flood Elevation: 204.5 Lowest Floor Elevation: 207.5 Next Higher Floor Elevation: 207.5 Lowest Adjacent Grade: 201.1 Highest Adjacent Grade: 202.2 Attached Garage Elevation:	Lowest Floor - Base Flood = 207.5 204.5	Elevation Difference + 3.0

COVERAGE FOR	BASIC LIMITS			ADDITIONAL LIMITS			DEDUCTIBLE	PREMIUM CALCULATIONS		
	AMOUNT	RATE	PREMIUM	AMOUNT	RATE	PREMIUM		DEDUCTIBLE DECREASE	TOTAL AMOUNT	TOTAL ANNUAL PREMIUM
Building	\$60,000	0.27	\$162	\$90,000	0.08	\$72	\$1,000	\$0	\$150,000	\$234
Contents	\$0	0.00	\$0	\$0	0.00	\$0		\$0	\$0	\$0

DEDUCTIBLE OPTIONS		
BUILDING	CONTENTS	PREMIUM
\$1,000	\$0	\$279
\$2,000	\$0	\$264
\$3,000	\$0	\$252
\$4,000	\$0	\$240
\$5,000	\$0	\$229

Annual Subtotal:	\$234
ICC Premium:	\$5
Sub Total:	\$239
CRS Discount: 0%	\$0
Policy Fee:	\$40
Probation Surcharge:	\$0
Total Premium:	\$279

FULL PREMIUM MUST ACCOMPANY APPLICATION

The statements contained herein are correct to the best of my knowledge. The property owner and I understand that any false statements may be punishable by fine or imprisonment under applicable federal law.

Signature of Agent/Producer:  Date: 5-10-2013

FP v13.050.53.1
 Printed By: gailt

Signature of Insured (Optional) _____ Date _____

Page 1 of 3
 Print Date: 5-10-2013

Recap

- Estimated Cost For Retrofit: \$5,000
- Owner Saves \$2,288 a year
- ROI a little over 2 years
- 30 year savings \$68,640
- Could have been avoided

Do it right the first time!