P 64CP 07764 ELEVATION CERTIFICATE

1660-0008 ebruary 28, 2009

Federal Emergency Management Agency

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National Flood Insurance Progr	am	Important	Read the	instructior	is on pag	ges 1-8. 6	7 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
			TION A - PR	OPERTY II	VFORMA	TION	For Insurance Company Use:
A1. Building Owner's Name BROWNLEE, CLVIN AND LEANN			Policy Number				
A2. Building Street Address (11935 E. BARBARY COAST	including Apt., RD.	Unit, Suite, and/or I	Bldg. No.) or P	.O. Route ar	nd Box No.	- 64	Company NAIC Number
City TUCSON State	e AZ ZIP Co	de 85749					
A3. Property Description (Lot TAX CODE 205-50-0740 SE	and Block Nur CTION 5, T14	nbers, Tax Parcel N S, R16E OF THE 0	lumber, Legal SILA AND SAL	Description, T RIVER M	etc.) ERIDIAN, F	PIMA COUNTY, A	Z
 A4. Building Use (e.g., Resident A5. Latitude/Longitude: Lat. 3/2 A6. Attach at least 2 photogration A7. Building Diagram Number A8. For a building with a crawnian Square footage of crawn by No. of permanent floorenclosure(s) walls with compact of the control of the contro	12.2438 Long. The build of the	-110.7354 ding if the Certificat losure(s), provide closure(s) the crawl space or ove adjacent grade 8.b	e is being use N/A sq ft N/A N/A sq	d to obtain fl A9 in	ood insurar For a bui a) Squa b) No. c walls c) Total	Horizontal Datum noe. Ilding with an attac are footage of attac of permanent flood within 1.0 foot ab net area of flood	ched garage, provide: ched garage 650 sq ft d openings in the attached garage ove adjacent grade 6 openings in A9.b 1200 sq in
D4 NEID Comment N		ION B - FLOOD			P (FIRM)	INFORMATION	The second secon
B1. NFIP Community Name & Pima County /040073	Community Nu	ımber	B2. County N PIMA COUNT				B3. State AZ
B4. Map/Panel Number 04019C 2280	B5. Suffix	B6. FIRM Index Date 2/8/99		FIRM Pane ve/Revised I 2/8/99		B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 2626.0
C1. Building elevations are bas *A new Elevation Certificate C2. Elevations – Zones A1-A30 below according to the build	ed on: [will be require , AE, AH, A (w	ith BFE), VE, V1-V3	wings* n of the buildir	☐ Buildin	g Under Co	onstruction*	ED) Market Finished Construction H. AR/AO. Complete Items C2.a-g
Benchmark Utilized RM25 Conversion/Comments	1 Vertical Datu	m NGVD29					
a) Top of bottom floor (including	ng basement, c	rawl space, or enclo	osure floor)_	2626.5		eck the measuren	
b) Top of the next higherc) Bottom of the lowest h		ural mombor ()/ Zor	oc only)	N/A	The second secon	meters (Puert	2.2
d) Attached garage (top of		urai member (v 201	ies offiy)	2626.5		☐ meters (Puert ☐ meters (Puert	
e) Lowest elevation of ma (Describe type of equip			e building	N/A		meters (Puert	
f) Lowest adjacent (finish				2525.7		meters (Puert	o Rico only)
g) Highest adjacent (finish	ned) grade (HA	(G)		2626.1		meters (Puert	o Rico only)
	SECTION	N D - SURVEYOR	R, ENGINEE	R, OR ARC	HITECT	CERTIFICATIO	N
This certification is to be signed information. I certify that the in I understand that any false state	formation on th	is Certificate repres	ents my best	efforts to inte	rpret the d	ata available	on .
☐ Check here if comments ar							AFD LAND SUS
Certifier's Name RICHARD M.	PEARSON			License Ni	ımber AZ.	REG NO. 26929	HERE
Title LAND SURVEYOR		Company Nam	e ALL TERR	AIN SURVE	YING		RICHARD MERRILL
Address 4380 N. CAMINO DE	CARRILLO	City TUCSON		State AZ	ZIP Code	e 85750	PEARSON 6

Date 5/21/07

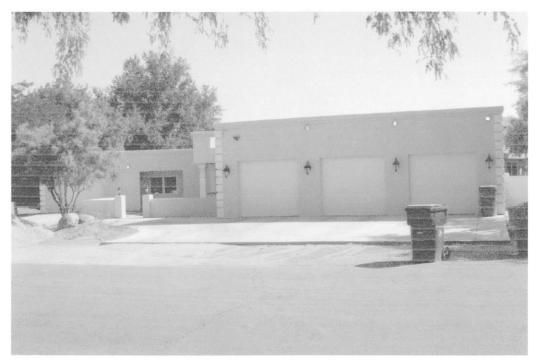
Telephone 520 299-5808

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BF For Zones AO and A (without BFE), complete items E1-E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, if and C. For Items E1-E4, use natural grade, if available. Check the measurement used. In Peutro Ricco only, enter meletrs. E1. Provide celevation information for the foliowing and check the appropriate boxes to show whether the elevation is above or below the highest adjac grade (HAG) and the lowest adjacent grade (LAG). a) Top of bottom floor (including basement, crawl space, or enclosure) is feet meters above or below the HAG. b) Top of bottom floor (including basement, crawl space, or enclosure) is feet				0.9.5392	Salari Indian
SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED) SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED) Copy both sides of this Elevation Certificate for (1) community official. (2) insurance agent/company, and (3) building owner. Comments MEASURED 6.53/1.15/1446g.in. =100.94.in. PER VENT being door rated as 200 sq. in. see engineered flood openings certificate by Steve Under R.P.E. USED 200 SO. In. FOR CALCULATIONS PER VENT CERT there is no servicing epipment for the gardge. SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BE For Zones AO and A (without BFE), complete leans E1-E5. if the Certificate is intended to support a LOMA or LOMA-F required, complete Sections A, I and C. For items E1-E4. use natural grade, if swarisbe. Check the measurement used. In Puerto Ricco only, enter melens. E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the HAG. grade (HAG) and the lowest adaption grades (HAG). a) Top of bottoms floor (including basement, crawl space, or enclosure) is [feet	IMPORTANT: In these spaces, co	opy the corresponding inform	ation from Section A.		
SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED) Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner. Comments MEASURED 63x41 th/144sq in =100 sq in, PER VENT being door rated as 200 sq in, see engineered flood openings certificate by Steve Unit of R.P.E. USED 200 SCI IN, FOR CALCULATIONS PER VENT: C20 there is no servicing equipment for the glavings. Signification of the Full DINING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BE SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BE For Zones AO and A (without BFE), complete items E1-E5. If the Certificate is intended to support a LOMA or LOMA-F request, complete Sections A. I and G. For Items E1-E4, use natural grade, if available. Check the measurement used. In Puerto Ricc only, enter meters. E1-Provide elevation information for the following and check the appropriate boxes to show whether the televation is above or below the Highest aging grade (HAC) and the lowest adjacent grade (LAG). a) Toor of bottom floor (including basement, crawl space, or enclosure) is	11935 E. BARBARY COAST RD.		, Route and Box No.		
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SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BE For Zones AO and A (without BFE), complete items E1-E5. If the Certificate is intended to support a LOMA or LOWE-F request, complete Sections A, if and C. For items E1-E4, use natural grade, if available. Check the measurement used in Pruetro Rico only, enter meters, and C. For items E1-E4, use natural grade, if available. Check the measurement tused in Pruetro Rico only, enter meters, and C. For items E1-E4, use natural grade (LAG), a) Top of bottom floor (including basement, crawl space, or enclosure) is a) Top of bottom floor (including basement, crawl space, or enclosure) is b) Top of bottom floor (including basement, crawl space, or enclosure) is b) Top of bottom floor (including basement, crawl space, or enclosure) is b) Top of bottom floor (including basement, crawl space, or enclosure) is c) Top of bottom floor (including basement, crawl space, or enclosure) is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building is c) Top of platform of machinery and/or equipment servicing the building top of the b	Signatore & (M.Z.		Date 5-21-07		□ Check here if attachments
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Signature Date Telephone Comments Check here if atta	and C. For Items E1-E4, use natural green and C. For Section 1. Top of bottom floor (including the b) Top of bottom floor (including the b) Top of bottom floor (including the clevation C2.b in the diagrams) of C. Attached garage (top of slab) is E4. Top of platform of machinery and E5. Zone AO only: If no flood depth rordinance? Yes No ESECTION The property owner or owner's authorized authorized and Communication in the statement of the communication in the communic	the following and check the measure the following and check the appropriate the grade (LAG). Dosement, crawl space, or enclosure passement, crawl space, or enclosure ermanent flood openings provided in of the building is feet meters for equipment servicing the building number is available, is the top of the Unknown. The local official must F-PROPERTY OWNER (OR Contents in Sections A, B, and E are contents in Sections A, B, and E are contents of the grade for the contents in Sections A, B, and E are contents of the contents in Sections A, B, and E are contents of the contents in Sections A, B, and E are contents of the conten	ate boxes to show whether the lis feet) is feet) is feet) is feet Section A Items 8 and/or 9 (seet meters above or seed above or feet bottom floor elevated in according to the lis feet bottom floor elevated in second certify this information in Second feet DWNER'S REPRESENTATE ections A, B, and E for Zone A	only, enter meters abe elevation is about meters absee page 8 of Instrumental above the HAG. meters above rdance with the control of the Instrumental above the	ove or below the highest adjacent ove or below the HAG. ove or below the LAG. ructions), the next higher floor AG. ove or below the HAG. ommunity's floodplain management
Check here if atta	Address		City	State	ZIP Code
SECTION G - COMMUNITY INFORMATION (OPTIONAL) The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8. and G9. G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or archite is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.) G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO. G3. The following information (Items G4G9.) is provided for community floodplain management purposes. G4. Permit Number G5. Date Permit Issued G6. Date Certificate Of Compliance/Occupancy Issued G7. This permit has been issued for: New Construction Substantial Improvement G8. Elevation of as-built lowest floor (including basement) of the building: Get meters (PR) Datum G9. BFE or (in Zone AO) depth of flooding at the building site: Get meters (PR) Datum Local Official's Name Telephone Signature Date	Signature		Date	Telephone	
SECTION G - COMMUNITY INFORMATION (OPTIONAL) The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8. and G9. G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or archite is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.) G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO. G3. The following information (Items G4G9.) is provided for community floodplain management purposes. G4. Permit Number G5. Date Permit Issued G6. Date Certificate Of Compliance/Occupancy Issued G7. This permit has been issued for: New Construction Substantial Improvement G8. Elevation of as-built lowest floor (including basement) of the building: Get meters (PR) Datum G9. BFE or (in Zone AO) depth of flooding at the building site: Get meters (PR) Datum Local Official's Name Telephone Signature Date	Comments				
The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8. and G9. G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or archite is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.) G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO. G3. The following information (Items G4G9.) is provided for community floodplain management purposes. G4. Permit Number G5. Date Permit Issued G6. Date Certificate Of Compliance/Occupancy Issued G7. This permit has been issued for: New Construction Substantial Improvement G8. Elevation of as-built lowest floor (including basement) of the building: Meters (PR) Datum G9. BFE or (in Zone AO) depth of flooding at the building site: Meters (PR) Datum Local Official's Name Title Community Name Telephone Signature Date		SECTION C. COMMUNI	TV INFORMATION (ORTH	ONAL	☐ Check here if attachment
and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8. and G9. G1.	The local official who is authorized by lay				n complete Sections A, B, C (or E),
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G8. Elevation of as-built lowest floor (including basement) of the building: feet	G4. Permit Number	G5. Date Permit Issued	G6. Date Cert	tificate Of Compli	ance/Occupancy Issued
Community Name Telephone Date	G8. Elevation of as-built lowest floor (incl	luding basement) of the building:	feet		
Signature Date	Local Official's Name		Title		
	Community Name		Telephone		
Comments	Signature		Date		
The William Control of the Control o	Comments				

Building Photographs See Instructions for Item A6.

	For Insurance Company Use:
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 11935 E. BARBARY COAST RD.	Policy Number
City TUCSON State AZ ZIP Code 85749	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two building photographs below according to the instructions for Item A6. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." If submitting more photographs than will fit on this page, use the Continuation Page, following.



FRONT VIEW

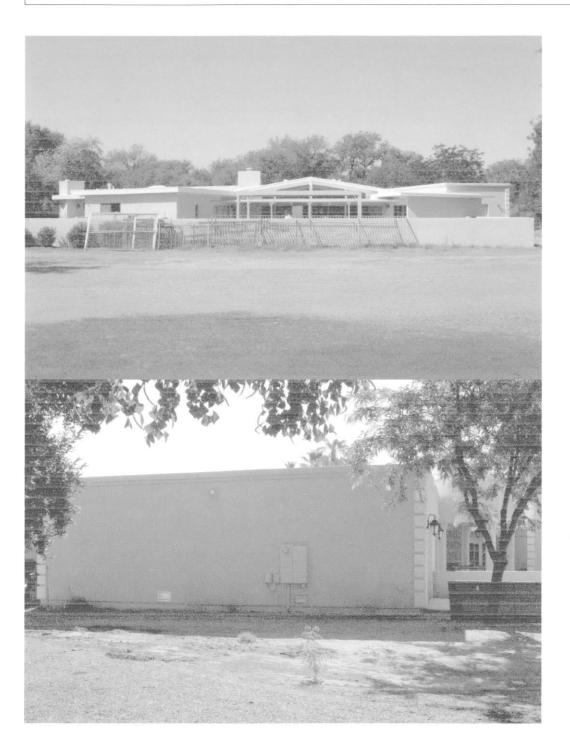


LEFT

Building Photographs Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 11935 E. BARBARY COAST RD.	Policy Number
City TUCSON State AZ ZIP Code 85749	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View."



REAR

LEFT SIDE VIEW

Engineered Flood Openings Certificate To satisfy requirements of the National Flood Insurance Program

This certification must be submitted to, and kept on file by, the local jurisdiction's permit authority. A copy should be retained by the owner to demonstrate compliance in order to receive the best flood insurance rating.

The Smart VENT® and Flood VENT™ Foundation Flood Vent is certified as meeting the flood opening requirements for engineered openings as set forth in the Federal Emergency Management Agency's National Flood Insurance Program regulations (44 CFR 60.3(c)(5)) and ASCE 24-98, provided it is installed according to the those references, as summarized below. Flood openings are required in enclosures below elevated buildings, attached and detached garages, and accessory structures that meet the required limitations. For a copy of the report documenting this certification dated June 21, 2002, and a copy of the National Evaluation Service report NER 624, contact Smart VENT, Inc., at 877/441-8368 or visit:

www.smartvent.com

I do hereby certify that the Smart VENT® Louvered Foundation Flood Vent and the FloodVENT™ Insulated Foundation Flood Vent opening (s) is designed for installation in buildings, will allow for the automatic equalizing of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater during floods up to and including the base (100-year) flood. One Smart VENT® or one FloodVENT™ for every 200 Sq.Ft. of enclosed area will provide sufficient hydrostatic pressure equalization during a flood provided the installation limitations and instructions are followed as listed below. To Calculate the required number of Smart VENTS® or FloodVENTS™ divide the Square Feet of enclosed area by 200.

Installation Limitations and Instructions

- The Smart VENT® or FloodVENT™ unit provides sufficient automatic equalization of hydrostatic pressure on walls and
 foundations of buildings located in flood hazard areas where the rate of rise is expected to be less than or approximately 5 feet
 per hour.
- Enclosed areas below otherwise elevated buildings, non-elevated attached and detached garages, and certain non-elevated accessory structures located in flood hazard areas are to be used solely for parking of vehicles, building access, or storage.
- Each enclosed area shall have at least two flood openings, installed on different sides of the enclosed area.
- The bottom of the flood openings shall be no more than one foot above the adjacent finished ground level.
- 5. Installation must be in accordance with manufacturer's instructions.

"REFERENCE ONLY" From FEMA TB 1-93 Guidance for Engineered Openings Openings in Foundation Walls

National Flood Insurance Program (NFIP) Technical Bulletin TB 1-93

"In situations where it is not feasible or desirable to meet the openings criteria stated previously, a design professional (registered engineer or architect) may design and certify openings. This section provides guidance for such engineered designs. For openings not meeting all four requirements for non-engineered openings listed on page 2 and 3 of TB 1-93, certification by a registered professional engineer or architect is required. Such certification must be submitted to, and kept on file by, the community. These certifications must assure community officials that the openings are designed in accordance with accepted standards of practice. A certification may be affixed to the design drawings or submitted separately. It must include appropriate certification language, and the name, title, address, signature, type of license, license number, and professional seal of the certifier." (TB 1-93 is available through Smart VENT® or online at www.fema.gov)



NOV 2 1 2003

Michael Graham General Manager, SmartVENT 200 Warrick Avenue Glassboro, NJ 080208

Dear Mr. Graham:

I am writing in response to your letter of August 11, 2003 to Paul Tertell, an engineer on my staff. Your letter concerns the use of engineered openings in foundation walls in Special Flood Hazard Areas and the use the SmartVENT product. Your letter states that there is a lack of awareness that flood openings can be engineered and certified. In addition, you make specific suggestions concerning: 1) the elevation certificate, 2) NFIP Insurance Agents Manual, and 3) a Broadcast Advisory to NFIP Stakeholders. Enclosed in your letter is an evaluation report, NER-624, that addresses the flood vents that your company manufactures. With the transition to the International Building Codes, the International Code Council (ICC) Evaluation Services now issues evaluation reports. NER-624 is a legacy report from the transition from the National Evaluation Service to the ICC Evaluation Service.

Concerning your suggestions about increasing the awareness of engineering openings, FEMA will consider your suggestions, but may determine that another course of action is more appropriate. We will keep you apprised as to our decision in this matter but please understand that we are prohibited from promoting or helping to market specific products. However, I would like to discuss the information you have provided about the SmartVENT products.

Evaluation reports are often used by building officials as evidence of the compliance of a specific product or material with the requirements of a model building code or standard. As with all evaluation reports, the local building official, or the authority having jurisdiction, makes the final determination as to the appropriateness and acceptability of using the material or product in a specific application.

Communities that participate in the National Flood Insurance Program (NFIP) must adopt and enforce ordinances that meet or exceed requirements described in 44 CFR. The NFIP regulations require that all enclosures below the Base Flood Elevation (BFE) in A zones be designed to allow for the automatic equalization of hydrostatic forces during a flood event. Section 60.3(c)(5) of the NFIP regulations states that a community shall:

Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are used solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

More detailed guidance on meeting this requirement is provided in FEMA NFIP Technical Bulletin 1-93, Openings in Foundation Walls.

The Federal Emergency Management Agency (FEMA) has determined that this evaluation report, NER-624, is sufficient to demonstrate the following:

If determined appropriate by the authority having jurisdiction and when used under the conditions of use described in NER-624, the two products, Model #1540-520 and #1540-510, meet the minimum NFIP floodplain management requirements (CFR 60.3 (c)(5)) with respect to flood openings for enclosed areas for the purpose of equalizing hydrostatic pressure resulting from flooding. Specifically, the jurisdiction may use this report to determine that the flood flow rate permits one vent to vent up to 200 square feet of enclosed area. This acceptance, on the part of FEMA in no way alters other conditions required for flood openings as called for in the NFIP regulations, local floodplain ordinances and building codes, as well as applicable national standards (such as ASCE 24-98), and model building codes, such as the International Code Council Building Code Series. These requirements include, but are not limited to, having at least two flood opening vents for every enclosed area and placing the bottom of such vents no more than 12 inches above grade.

Thank you for sending us information concerning this new evaluation report and for your commitment to developing products intended to reduce future exposure to flood damage.

Sincerely

Clifford E. Oliver

Special Assistant to the Director

Mitigation Division

prt

FPUP 04- 418E U.S. DEPARTMENT OF HOMELAND SECURITY ELEVATION CERTIFICATE

Federal Emergency Management Agency

	of.
1-8.	OF AN

National Flood Insurance Program	iii poi teiit.	rtodd tho i	notiuotion	a ou hai	ges 1-8.	SPERANCE PROPERTY OF THE PROPE
colombia della compania	SEC	TION A - PRO	OPERTY IN	IFORMA	TION	For Insurance Company Use:
A1. Building Owner's Name BROWNLEE, CLVIN AND LEANN			T6 6 3	4104	1255	Policy Number
A2. Building Street Address (including A 11935 E. BARBARY COAST RD.	pt., Unit, Suite, and/or E	3ldg. No.) or P.	O. Route an	d Box No.	Duran, All biko,	Company NAIC Number
City TUCSON State AZ ZIP	Code 85749	y is will be	Digition 1	IV BE4	negul mya l	e du Garballa e senci
A3. Property Description (Lot and Block TAX CODE 205-50-0740 SECTION 5, T	Numbers, Tax Parcel N 14 S, R16E OF THE C	lumber, Legal I SILA AND SAL	Description, T RIVER ME	etc.) ERIDIAN,	PIMA COUNTY, AZ	ranger per granger per page per per per per per per per per per pe
A4. Building Use (e.g., Residential, Non-A5. Latitude/Longitude: Lat. 32.2438 Lo. A6. Attach at least 2 photographs of the A7. Building Diagram Number 1	ong. <u>-110.7354</u> building if the Certificat		to obtain flo	od insura	Horizontal Datum:	□ NAD 1927 □ NAD 1983
A8. For a building with a crawl space or a) Square footage of crawl space o b) No. of permanent flood openings enclosure(s) walls within 1.0 foot c) Total net area of flood openings	r enclosure(s) s in the crawl space or above adjacent grade in A8.b	<u>N/A</u> sq ft <u>N/A</u> <u>N/A</u> sq i	e nicasufen approprata n	a) Squa b) No. walls c) Tota	are footage of attac of permanent flood s within 1.0 foot abo I net area of flood o	openings in the attached garage ove adjacent grade 7 openings in A9.b 1400 sq in
acades () delow the Live	CTION B - FLOOD	INSURANCE	RATE MA	P (FIRM) INFORMATION	by Legion Editori Noor (include)
B1. NFIP Community Name & Community Pima County /040073	y Number	B2. County Na PIMA COUNT		teat [7]	The state of the s	B3. State AZ
B4. Map/Panel Number B5. Suffix 04019C 2280 K	B6. FIRM Index Date 2/8/99	12/10/2014 12:00	FIRM Pane e/Revised D 2/8/99	11-00	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 2626.0
 Indicate elevation datum used for BF Is the building located in a Coastal B Designation Date N/A 	arrier Resources Syste	GVD 1929 m (CBRS) area □ CBRS	NAVD 1s or Otherwis	988 [se Protect A	Other (Describe)	nede ad □Yes No
	ION C - BUILDING E		NFORMA	TION (SL	JRVEY REQUIR	ED) AverbbA
 Building elevations are based on: *A new Elevation Certificate will be red Elevations – Zones A1-A30, AE, AH, A below according to the building diagram Benchmark Utilized RM251 Vertical Elevations/Comments 	A (with BFE), VE, V1-V3 m specified in Item A7. Datum <u>NGVD29</u>	n of the buildin 80, V (with BFE	g is complet), AR, AR/A	e. AR/AE, A	onstruction* AR/A1-A30, AR/AH	☑ Finished Construction , AR/AO. Complete Items C2.a-g
7. 12. 13. 14.				Ch	eck the measurem	ent used.
 Top of bottom floor (including basemer b) Top of the next higher floor c) Bottom of the lowest horizontal standard d) Attached garage (top of slab) e) Lowest elevation of machinery or (Describe type of equipment in Company of the company of	ructural member (V Zor	nes only)	2626.5 N/A. N/A. 2626.5 N/A.	☐ feet☐ ☐ fee	meters (Puerto meters meters (Puerto meters meters (Puerto meters met	Price only) Rice only) Rice only)
f) Lowest adjacent (finished) grade (g) Highest adjacent (finished) grade			2525.7 2626.1	⊠ feet ⊠ feet	meters (Puerto	
SECT This certification is to be signed and seale information. I certify that the information of understand that any false statement may Check here if comments are provided	n this Certificate repres be punishable by fine of	ngineer, or arcl	nitect author	ized by lav	w to certify elevation	

Certifier's Name RICHARD M. PEARSON

License Number AZ. REG NO. 26929

Title LAND SURVEYOR

Company Name ALL TERRAIN SURVEYING

Address 4380 N. CAMINO DE CARRILLO

City TUCSON

State AZ ZIP Code 85750

Date 5/21/07

Telephone 520 299-5808



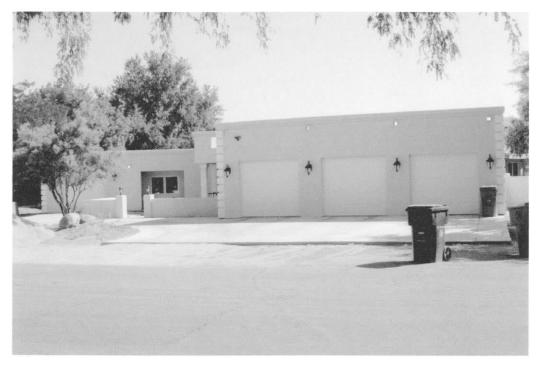
			Late Contraction	SALVED ACTO
	e spaces, copy the corresponding			For Insurance Company Use:
Building Street Address (in 11935 E. BARBARY COA	ncluding Apt., Unit, Suite, and/or Bldg. No ST RD.	.) or P.O. Route and Box I	No.	Policy Number
City TUCSON State AZ	ZIP Code 85749			Company NAIC Number
212.7	SECTION D - SURVEYOR, ENGIN	EER, OR ARCHITECT	CERTIFICATION (CON	TINUED)
Copy both sides of this Ele	evation Certificate for (1) community offici	al, (2) insurance agent/cor	mpany, and (3) building owr	ner.
Urich R.P.E. USED 200 SQ. IN. FOR C	0.63'x1.1'x144sq.in. =100 sq.in. PER VE ALCULATIONS PER VENT equipment for the garage.	NT being door rated as 20	00 sq.in. see engineered floo	od openings certificate by Steven M.
Signature l l	n P	Date 5-21-	07	□ Check here if attachments □ Check here if attac
1	DING ELEVATION INFORMATION	SURVEY NOT REQUI	RED) FOR ZONE AO A	
a) Top of bottom flob Top of bottom flob Top of bottom flob E2. For Building Diagram (elevation C2.b in the E3. Attached garage (to E4. Top of platform of medical E5. Zone AO only: If no	e lowest adjacent grade (LAG). or (including basement, crawl space, or er or (including basement, crawl space, or er or (including basement, crawl space, or er or se 6-8 with permanent flood openings pro or diagrams) of the building is p of slab) is feet lachinery and/or equipment servicing the lachinery and/or equipment servicing the lachines No Unknown. The local office	nclosure) is ovided in Section A Items 8	☐ feet ☐ meters ☐ a B and/or 9 (see page 8 of In: ☐ above or ☐ below the H ☐ below the HAG. ☐ feet ☐ meters ☐ above ted in accordance with the e	bove or below the LAG. structions), the next higher floor HAG. ve or below the HAG.
	SECTION F - PROPERTY OWNER	(OR OWNER'S REPR	RESENTATIVE) CERTIF	ICATION
or Zone AO must sign her	ner's authorized representative who comp e. The statements in Sections A, B, and b er's Authorized Representative's Name			ZIP Code
Signature		Date	Telephon	e
Comments				
Comments				
				☐ Check here if attachmer
	SECTION G - CON	MUNITY INFORMATION	ON (OPTIONAL)	
nd G of this Elevation Cert The information ir is authorized by la A community office	norized by law or ordinance to administer of incidential complete the applicable item(s) and section C was taken from other docume aw to certify elevation information. (Indicatial completed Section E for a building local remation (Items G4G9.) is provided for contraction.	nd sign below. Check the ntation that has been sign te the source and date of ated in Zone A (without a l	measurement used in Item ed and sealed by a licensed the elevation data in the Co FEMA-issued or community	s G8. and G9. d surveyor, engineer, or architect who mments area below.)
G4. Permit Number	G5. Date Permit Issued	G6	. Date Certificate Of Compl	iance/Occupancy Issued
9. BFE or (in Zone AO) de	sued for: New Construction est floor (including basement) of the build pth of flooding at the building site:		nent t	
Local Official's Name		Title		
Community Name		Telephor	ie	
Signature		Date		
Comments				

Building Photographs

See Instructions for Item A6.

	For Insurance Company Use:
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 11935 E. BARBARY COAST RD.	Policy Number
City TUCSON State AZ ZIP Code 85749	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two building photographs below according to the instructions for Item A6. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." If submitting more photographs than will fit on this page, use the Continuation Page, following.



FRONT

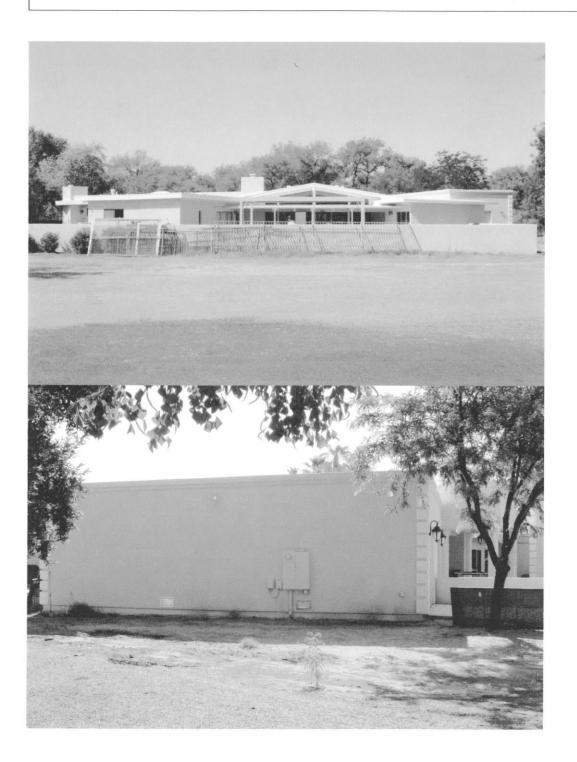


RIGHT SIDE VIEW

Building Photographs Continuation Page

	For Insurance Company Use:
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 11935 E. BARBARY COAST RD.	Policy Number
City TUCSON State AZ ZIP Code 85749	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View."



REAR

LEFT

Engineered Flood Openings Certificate To satisfy requirements of the National Flood Insurance Program

This certification must be submitted to, and kept on file by, the local jurisdiction's permit authority. A copy should be retained by the owner to demonstrate compliance in order to receive the best flood insurance rating.

The Smart VENT® and Flood VENT™ Foundation Flood Vent is certified as meeting the flood opening requirements for engineered openings as set forth in the Federal Emergency Management Agency's National Flood Insurance Program regulations (44 CFR 60.3(c)(5)) and ASCE 24-98, provided it is installed according to the those references, as summarized below. Flood openings are required in enclosures below elevated buildings, attached and detached garages, and accessory structures that meet the required limitations. For a copy of the report documenting this certification dated June 21, 2002, and a copy of the National Evaluation Service report NER 624, contact Smart VENT, Inc., at 877/441-8368 or visit:

www.smartvent.com

I do hereby certify that the Smart VENT® Louvered Foundation Flood Vent and the FloodVENT™ Insulated Foundation Flood Vent opening (s) is designed for installation in buildings, will allow for the automatic equalizing of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater during floods up to and including the base (100-year) flood. One Smart VENT® or one FloodVENT™ for every 200 Sq.Ft. of enclosed area will provide sufficient hydrostatic pressure equalization during a flood provided the installation limitations and instructions are followed as listed below. To Calculate the required number of Smart VENTS® or FloodVENTS™ divide the Square Feet of enclosed area by 200.

Feet of enclosed area by 200.

Example: A 2000 Sq.Ft. enclosed area requires 10 vents. 2000 Sq.Ft / 200 = 10 Vents

Signature

Title

Series Project Englished Propessional Englisher

License Number

OS 6/7/-E

*Project Name

*Project Address 11935 6. Barray Coast Po.

*Project Address 11935 6. Barray Coast Po.

Required Fields

Professional Seal

Installation Limitations and Instructions

- The Smart VENT® or FloodVENT™ unit provides sufficient automatic equalization of hydrostatic pressure on walls and
 foundations of buildings located in flood hazard areas where the rate of rise is expected to be less than or approximately 5 feet
 per hour.
- Enclosed areas below otherwise elevated buildings, non-elevated attached and detached garages, and certain non-elevated accessory structures located in flood hazard areas are to be used solely for parking of vehicles, building access, or storage.
- Each enclosed area shall have at least two flood openings, installed on different sides of the enclosed area.
- 4. The bottom of the flood openings shall be no more than one foot above the adjacent finished ground level.
- Installation must be in accordance with manufacturer's instructions.

"REFERENCE ONLY" From FEMA TB 1-93 Guidance for Engineered Openings Openings in Foundation Walls

National Flood Insurance Program (NFIP) Technical Bulletin TB 1-93

"In situations where it is not feasible or desirable to meet the openings criteria stated previously, a design professional (registered engineer or architect) may design and certify openings. This section provides guidance for such engineered designs. For openings not meeting all four requirements for non-engineered openings listed on page 2 and 3 of TB 1-93, certification by a registered professional engineer or architect is required. Such certification must be submitted to, and kept on file by, the community. These certifications must assure community officials that the openings are designed in accordance with accepted standards of practice. A certification may be affixed to the design drawings or submitted separately. It must include appropriate certification language, and the name, title, address, signature, type of license, license number, and professional seal of the certifier." (TB 1-93 is available through Smart VBNT® or online at www.fema.gov)



NOV 2 1 2003

Michael Graham General Manager, SmartVENT 200 Warrick Avenue Glassboro, NJ 080208

Dear Mr. Graham:

I am writing in response to your letter of August 11, 2003 to Paul Tertell, an engineer on my staff. Your letter concerns the use of engineered openings in foundation walls in Special Flood Hazard Areas and the use the SmartVENT product. Your letter states that there is a lack of awareness that flood openings can be engineered and certified. In addition, you make specific suggestions concerning: 1) the elevation certificate, 2) NFIP Insurance Agents Manual, and 3) a Broadcast Advisory to NFIP Stakeholders. Enclosed in your letter is an evaluation report, NER-624, that addresses the flood vents that your company manufactures. With the transition to the International Building Codes, the International Code Council (ICC) Evaluation Services now issues evaluation reports. NER-624 is a legacy report from the transition from the National Evaluation Service to the ICC Evaluation Service.

Concerning your suggestions about increasing the awareness of engineering openings, FEMA will consider your suggestions, but may determine that another course of action is more appropriate. We will keep you apprised as to our decision in this matter but please understand that we are prohibited from promoting or helping to market specific products. However, I would like to discuss the information you have provided about the SmartVENT products.

Evaluation reports are often used by building officials as evidence of the compliance of a specific product or material with the requirements of a model building code or standard. As with all evaluation reports, the local building official, or the authority having jurisdiction, makes the final determination as to the appropriateness and acceptability of using the material or product in a specific application.

Communities that participate in the National Flood Insurance Program (NFIP) must adopt and enforce ordinances that meet or exceed requirements described in 44 CFR. The NFIP regulations require that all enclosures below the Base Flood Elevation (BFE) in A zones be designed to allow for the automatic equalization of hydrostatic forces during a flood event. Section 60.3(c)(5) of the NFIP regulations states that a community shall:

Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are used solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

More detailed guidance on meeting this requirement is provided in FEMA NFIP Technical Bulletin 1-93, Openings in Foundation Walls.

The Federal Emergency Management Agency (FEMA) has determined that this evaluation report, NER-624, is sufficient to demonstrate the following:

If determined appropriate by the authority having jurisdiction and when used under the conditions of use described in NER-624, the two products, Model #1540-520 and #1540-510, meet the minimum NFIP floodplain management requirements (CFR 60.3 (c)(5)) with respect to flood openings for enclosed areas for the purpose of equalizing hydrostatic pressure resulting from flooding. Specifically, the jurisdiction may use this report to determine that the flood flow rate permits one vent to vent up to 200 square feet of enclosed area. This acceptance, on the part of FEMA in no way alters other conditions required for flood openings as called for in the NFIP regulations, local floodplain ordinances and building codes, as well as applicable national standards (such as ASCE 24-98), and model building codes, such as the International Code Council Building Code Series. These requirements include, but are not limited to, having at least two flood opening vents for every enclosed area and placing the bottom of such vents no more than 12 inches above grade.

Thank you for sending us information concerning this new evaluation report and for your commitment to developing products intended to reduce future exposure to flood damage.

Sincerely

Clifford E. Oliver

Special Assistant to the Director

Mitigation Division

prt