U.S. DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY National Flood Insurance Program

ELEVATION CERTIFICATE

Important: Read the instructions on pages 1-9.

OMB No. 1660-0008 Expiration Date: July 31, 2015

AND THE RESIDENCE OF THE SECOND					Market of Francisco		
A1 Building Owner's Nam	o Clong Pogor		A - PROPER	TY INFORMA	TION	EXCESS CONTRACTOR	SURANCE COMPANY USE
						Number:	
3919 W. 27 th Street				Compai	ny NAIC Number;		
City Panama City		indian in the second	State FL	ZIP Code 32	405	THE STREET	wall and report of
A3. Property Description (I Lots 12-18, Block 8, Replat			er, Legal Descri	ption, etc.)	1 4 41 2	nej u i	partition of the same
A4. Building Use (e.g., Re: A5. Latitude/Longitude: La A6. Attach at least 2 photo A7. Building Diagram Num A8. For a building with a ci a) Square footage of b) Number of perman or enclosure(s) with c) Total net area of flo d) Engineered flood of	t. 30d11'51.590" graphs of the buber 7 rawlspace or encrawlspace or entitle flood opening in 1.0 foot above openings?	Long. 85d42'39.118" illding if the Certificate is beclosure(s): aclosure(s) 2416 gs in the crawlspace e adjacent grade 9	eing used to ob sq ft sq in	A9. For a bu a) Squa b) Num withi c) Tota d) Engi	nce. ilding with an atta are footage of atta ber of permanen n 1.0 foot above I net area of flood ineered flood ope	ached gara ached gara t flood ope adjacent g d openings enings?	age <u>N/A</u> sq ft enings in the attached garage grade <u>N/A</u>
Service Water Co.	SEC	IION B - FLOOD INSC	RANCE RAT	E WAP (FIRW) INFORMATIC	N	ar 1.cr (24) ii do 1.11
B1. NFIP Community Name Bay County 120004	& Community N		County Name County Unincor	porated Area	and budger a	B3. State Florida	е
B4. Map/Panel Number 12005C0329	B5. Suffix H	B6. FIRM Index Date 6-2-09	B7. FIRM Effective/Re 6-2-	vised Date	B8. Flood Zone(s) AE		Base Flood Elevation(s) (Zone AO, use base flood depth) 8
B11. Indicate elevation datu B12. Is the building located Designation Date:	n a Coastal Ban	ier Resources System (Cl	BRS) area or Ot CBRS [herwise Protect OPA	ededur	erdeki ini e ve bu	☐ Yes
C2. Elevations – Zones A1– below according to the b Benchmark Utilized: <u>US</u> Indicate elevation datum	cate will be requing A30, AE, AH, A consideration of the consideration o	specified in Item A7. In Pu	he building is co / (with BFE), AR uerto Rico only, rtical Datum: <u>N</u> h h) below. □ N	k, AR/A, AR/AE, enter meters. AVD 1988	AR/A1-A30, AR NAVD 1988 □ C	/AH, AR/A	rce:
					Check		surement used.
		nt, crawlspace, or enclosu	re floor)	4.8		⊠ feet	☐ meters
b) Top of the next higher		l	A	15.2		∫ feet ∫	☐ meters ☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only) N/A N/A			CONCLUS SERVE	☐ feet	☐ meters		
d) Attached garage (top of slab) e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)			feet	meters			
f) Lowest adjacent (finished) grade next to building (LAG) 4.4				✓ feet	☐ meters		
 g) Highest adjacent (finish) h) Lowest adjacent grade 		to building (HAG) tion of deck or stairs, inclu	uding structural	4.7 support 4.6			☐ meters ☐ meters
		N D – SURVEYOR, E			CERTIFICATION	ON	A Physica Later Box of Figure
This certification is to be sign information. I certify that the I understand that any false Sign Check here if comment Check here if attachment	information on t statement may b s are provided o	his Certificate represents of punishable by fine or impose the back of form. Were the back of form.	my best efforts t prisonment unde	to interpret the c er 18 U.S. Code ngitude in Section	lata available. , Section 1001. on A provided by		PLACE SEAL
Certifier's Name Linda Mari	e Riggins		Licer	nse Number LS	5934		HERE
Title Land Surveyor Company Name A. T. Survey, Inc.					7	of the second	
Address 2401 Frankford Avenue City Panama City State FL ZIP Code 32405					.A	rell/men	
Signature South	rico	Date 4-1-14	Tele	phone (850) 76	63-6471		4-1-14 LS 5934

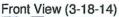
IMPORTANT: In these spaces,	, copy the corresponding information	n from Section A.	FOR INSURANCE COMPANY USE
	opt., Unit, Suite, and/or Bldg. No.) or P.O. Ro		Policy Number:
City Panama City	State F	FL ZIP Code 32405	Company NAIC Number:
SECTIO	ON D - SURVEYOR, ENGINEER, OR	ARCHITECT CERTIFICATION	ON (CONTINUED)
Copy both sides of this Elevation Co	ertificate for (1) community official, (2) insura	ance agent/company, and (3) but	ilding owner.
The elevation of the exterior nower l	the garage doors are engineered Flood Solu	or electrical outlets is 9.4 feet. T	he elevation of the exterior air conditioner ur nber 2412-F (each vent covers 274 square
Signature Schollen	ion angles buildings a to	Date 4-1-14	 Autsch et toget 2 ghote graphs of the bride fest san Opropint Number 7
SECTION E - BUILDING EL	EVATION INFORMATION (SURVEY	NOT REQUIRED) FOR ZON	IE AO AND ZONE A (WITHOUT BFE)
and C. For Items E1–E4, use natural E1. Provide elevation information grade (HAG) and the lowest at a) Top of bottom floor (including b) Top of bottom floor	adjacent grade (LAG). Ing basement, crawlspace, or enclosure) is a grade basement, crawlspace, or enclosure) is a grade the permanent flood openings provided in Sens) of the building is feet is feet meters [and/or equipment servicing the building is bith number is available, is the top of the bott Unknown. The local official must certify the property owner (or own orized representative who completes Section tements in Sections A, B, and E are correct rized Representative's Name	ent used. In Puerto Rico only, en boxes to show whether the elevation of the state	ter meters. ation is above or below the highest adjacent eters above or below the HAG. eters above or below the LAG. ges 8–9 of Instructions), the next higher floo below the HAG. above or below the HAG. above or below the HAG. with the community's floodplain management
	ence (1 one of the control of the co	00.163759V	Check here if attachm
es a Handal Second	SECTION G - COMMUNITY I	INFORMATION (OPTIONAL	CATTOR CONTROL OF SOME BOARD OF STREET TO SO
f this Elevation Certificate. Complete to 1. The information in Section 0 is authorized by law to certificate. A community official complete.	aw or ordinance to administer the community the applicable item(s) and sign below. Check	solutions of the elevation date of the date of the elevation date of the elevation data of (without a FEMA-issued or control of the elevation data).	once can complete Sections A, B, C (or E), and G8–G10. In Puerto Rico only, enter meters. a licensed surveyor, engineer, or architect win the Comments area below.)
G4. Permit Number 810 - 016 3	G5. Date Permit Issued 5-7-10	G6. Date Certificate	Of Compliance/Occupancy Issued
7. This permit has been issued for:8. Elevation of as-built lowest floor9. BFE or (in Zone AO) depth of flo10. Community's design flood elevation	(including basement) of the building:oding at the building site:	Intial Improvement	s Datum
ocal Official's Name	S. vo. Secretary & screen numbers and secretary	Title	Ing to School or The Control of the
Community Name	Branco Humber Co Base	Telephone	
signature / /	C/H/III	Date	- 3 3 - 3 - 3 - 3 - 3 - 3
ay VJ	1 / 1 / 17		

ELEVATION CERTIFICATE, page 3

Building Photographs See Instructions for Item A6.

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3919 W. 27th Street			Policy Number:	
City Panama City	State FL	ZIP Code 32405	Company NAIC Number:	

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 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." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.





Rear View (3-18-14)



ELEVATION CERTIFICATE, adde 3

Building Photographs See Instructions for them A6.

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FOR INSURANCE COMPANY USE	y the corresponding information from Section A.	BRPORTENT: In those spaces, cop
Pulloy Numited	라, Surrey au tror Bldg. Po.) or P.O. House and Box No.	kaldeg Siere kater (mdudino fot or 2019 W. 27° Siere
Congrey IANG Number	State PL LaP Code \$2465	Olly Panama Olly

trusing the Elevation Confersion obtain OFIP aload insurance, affix at least 2 building phorographs ballow according to the instructions for hem A5, identity all photographs with document "Front View" and "Rear View"; and, it required, "Right Side View" and 1 an Side View." When applicable, photographs must show the toundation with representative examples of the flood openings or vents, as

Indicated in Secreto AB. If submitting more piletographs than will all on this orige, use the Continuation Page. ront View (3-18-14)

CERTIFICATION OF ENGINEERED FLOOD OPENINGS (FEMA TB-1 August 2008)

I do hereby certify that the FLOOD SOLUTIONS LLC Flood Vent properly installed and sized in accordance with Federal Emergency Management Agency's (FEMA's) National Flood Program regulations is designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for entry and exit of floodwater during floods up to and including the base 100-year flood.

I also do hereby certify that I calculated the Non Engineered Net Free Air and Engineered Opening size for each model and size of FLOOD SOLUTIONS LLC flood vents. The results of the calculations are recorded in the table below. The Engineered size opening calculation was performed using the formula in FEMA Technical Bulletin 1 – August 2008, Openings in Foundation Walls for Buildings Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program (NFIP) and ASCE/SEI 24-05, Flood Resistance Design and Construction.

I measured the Non Engineered Net Free Air by calculating the minimum distance between the top blade and the top of the vent times the clear opening width of the vent; plus the minimum distance between the bottom blade and the bottom of the vent the clear opening width of the vent; plus the minimum distance between each blade times the number of spaces between the blades in vent times the clear opening width of the vent.

I used the formula in TB 1 – August 2008 ($A^o = 0.033 \, [1/C] \, RA\hat{e}$) to determine the Engineered Opening size for each model listed below. I used the following assumptions: $A^o = total$ net area of openings required (in^2); 0.033 = coefficient corresponding to a factor of safety of 5.0 ($in^2 \, hr/ft^3$); c = 0.40 opening coefficient (ASCE 24 Table 2-3 "rectangular, long axis horizontal, short axis vertical unobstructed during design flood") or C = 0.35 (square unobstructed during design flood); $R = 5 \, ft/hr$ worst case rate of rise and fall; and $A\hat{e} = 1 \, ft^2$ total enclosed area.

Note: When the horizontal dimension is twice or more the vertical dimension, use 0.4; as the dimensions approach a square, interpolate from 0,4 to 0.35.

A° / Aê = 0.033 [1/C] R = 0.033 [1/0.40 for rectangle, long axis horizontal] = 0.4125 in² per ft² or A° / Aê = 0.033 [1/C] R = 0.033 [1 / 0.35 for square] = .4719 in² per ft²

Each individual opening, and any louvers, screens, or other covers, shall be designed to allow automatic entry and exit of floodwaters during design flood or lesser flood conditions; there shall be a minimum of two openings on different sides of each enclosed area; if a structure has more than one enclosed area below the DFE, each area shall have openings; openings shall not be less than 3 inches in any direction in the plane of the wall; the bottom of each required opening shall be no more than 1 ft. above the adjacent grade; the difference between the exterior and interior floodwater levels shall not exceed 1 ft. during base flood conditions; in the absence of reliable data on the rates of rise and fall, assume a rate of rise and fall of 5ft/hr; where data or analysis indicated more rapid rates of rise and fall, the total net area of the required openings shall be increased to account for the higher rates of rise and fall.

MODEL Number Flood Solutions:	SIZE of OPENING: (WIDTH X HEIGHT)	Net Free Air (square inches):	ENGINEERED OPENING Each vent covers: (square ft.)
1412-F	14-1/2" x 12"	67	145
1509-F	16"x 9-1/2"	55	131
1608-F	16" x 8"	51	124
1608-D	16" x 8"	51	124
1608-C	16" x 8"	65	158
1616-F	16" x 16"	104	221
1616-D	16" x 16"	102	216
2412-F	24" x 12"	113	274
2412-D	24" x 12"	110	267
2416-F	24" x 16"	156	362
2416-D	24" x 16"	154	357
3208-F	32" x 8"	104	252
3208-D	32" x 8"	104	252

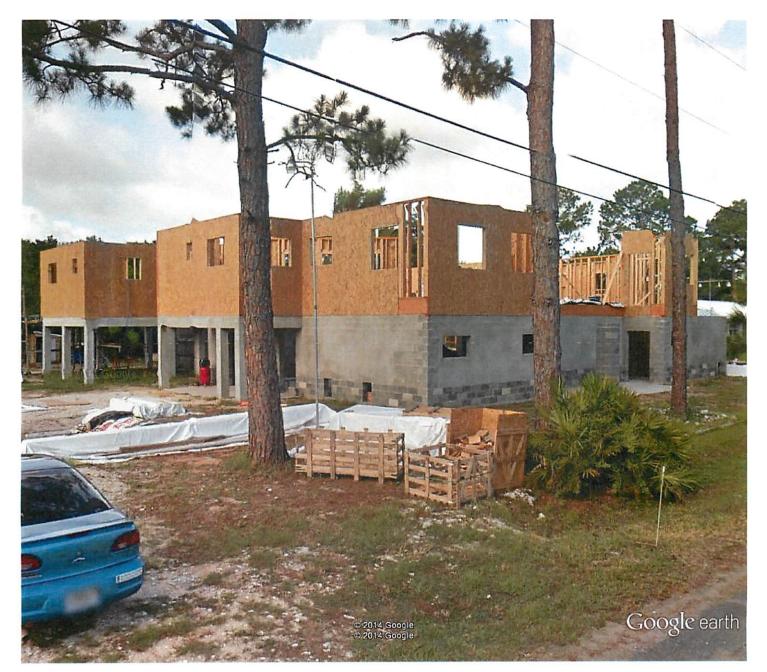
SIGNATURE:		
NAME <u>: DANIEL G</u>	FARABAUGH	
TYPE OF LICENSE:	PROFESSIONAL ENGINEER	
STATE <u>: FLORIDA</u>	LICENSE NUMBER: 48349	

DAN FARABAUGH, P.E.
FARABAUGH ENGINEERING AND TESTING, INC.
401 WIDE DR., McKEESPORT, PA 15135
PHONE: 412-751-4001 FAX: 412-751-4003





feet _______10 meters 3



feet meters 2





feet 8 meters 2



feet _____9 meters

