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

# **ELEVATION CERTIFICATE**

Important: Follow the instructions on pages 1-9.

	SEC	TION A - PROPERTY			n an an tha an		RANCE COMPANY USE
A1. Building Own		HON A - PROPERTI	INFO	MIATION		Policy Nun	
Mr & Mrs Arrison							
A2. Building Stree Box No.	et Address (in	cluding Apt., Unit, Suite	e, and/	or Bldg. No.) or P.O	. Route and	Company I	NAIC Number:
408 North Mansfie	ld Avenue						
City Margate				State New Jersey		ZIP Code 08402	
	crintion (Lot a	nd Block Numbers, Ta	v Parce	and the second	escription etc.)	00402	
	LOT: 29		x T aroc	er Number, Legar De			
A4. Building Use (	e.g., Resider	tial, Non-Residential, A	Additior	n, Accessory, etc.)	Residential 1 and	d Half Story	
A5. Latitude/Longi	tude: Lat.	39*19'55"	Long.	74*30'38"	Horizontal Datur	n: 🗌 NAD	1927 🗙 NAD 1983
A6. Attach at least	t 2 photograp	hs of the building if the	Certifi	cate is being used t	o obtain flood insur	ance.	
A7. Building Diagr	am Number	8					
A8. For a building	with a crawls	pace or enclosure(s):					
a) Square foo	tage of crawl	space or enclosure(s)		1,238 sq ft			
b) Number of	permanent flo	ood openings in the cra	wlspac	ce or enclosure(s) w	vithin 1.0 foot above	adjacent gr	ade 7
		penings in A8.b 1,4					
d) Engineered							
			5				
A9. For a building v							
a) Square foot	age of attach	ed garage 0		sq ft			
b) Number of	permanent flo	od openings in the atta	ached g	garage within 1.0 fo	ot above adjacent g	grade	0
c) Total net are	ea of flood op	enings in A9.b	0	sq in			÷
d) Engineered	flood opening	gs? 🗌 Yes 🗙 No	D				
	85						
B1. NFIP Communi		CTION B - FLOOD IN	ISUKA	B2. County Name		TION	B3. State
Margate 345304	ty Name a of			Atlantic			New Jersey
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date		IRM Panel ffective/	B8. Flood Zone(s)	B9. Bas (Zor	se Flood Elevation(s) ne AO, use Base
345304-0001	с	06/19/1971		evised Date /1983	A8	Floo 10.00	od Depth)
B10. Indicate the se	ource of the E	Base Flood Elevation (E	I BFE) da	ata or base flood de	pth entered in Item	 B9:	
		Community Determ			na series de la construir de l	2.6.1	
B11. Indicate eleva	tion datum us	ed for BFE in Item B9:	XN	GVD 1929 🔲 NA	.VD 1988 🔲 Oth	ner/Source:	
B12. Is the building	located in a	Coastal Barrier Resour	rces Sy	vstem (CBRS) area	or Otherwise Prote	cted Area (C	DPA)? 🗌 Yes 🔀 No
Designation D	ate:		BRS	Ο ΟΡΑ			Successed School St
	2 <del></del>			- PATING S			

State       ZIP Code       Company NAIC Number         rgate       New Jersey       Odd22       Company NAIC Number         SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)         1. Building elevations are based on:       Construction Drawings*       Building Under Construction*       Finished Construction         A new Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), XR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO.       Complete levations exacted to the building digrams specified in Item A7. In Puerts Rice only, enter meters.         Benchmark Utilized: Private Benchmarks       Vertical Datum. NGVD 1929       Indicate elevation ature used for the elevations in items a) through h) below.         Not 01 202       INAVD 1988       Other/Source:       Datum used for the levations must be the same as that used for the BFE.       Check the measurement used.         a) Top of bottom floor (including basement, crawlspace, or enclosure floor)       7. 94       Stett       meters         b) Top of the next higher floor       13. 46       Stett       meters         c) Bottom of the lowest horizontal structural member (V Zones only)       N/A.       Stett       meters         d) Attached garage (top of slab)       N/A.       Stett       meters         f) Lowest digacent (finished) grade next to building (LAG)       8. 3       Stett       meters         g) Highest adjacent (fi	ELEVATION CERTIFICATE			OMB No. 1660-0008 Expiration Date: November 30, 201
B North Mansfield Avenue       State       ZIP Code       Company NAIC Number         y       SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)       Image: Company NAIC Number         1. Building elevations are based on:       Construction Travings*       Building Inder Construction*       Finished Construction*         * A new Elevation Certificate will be required when construction of the building is complete.       Elevations - Zones A1–A30, AE, AH, A (will BFE), VE, V1–V30, V (with BFE), AR, AR/A, ARAE, AR/A1–A30, AR/AH, AR/AO.         Complete Items C2.a-h below according to the building diagram specified in Item A7. In Puetro Rice only, enter meters.       Benchmark Ublice! Private Benchmarks.       Vertical Datum: NGDV 1929         Indicate elevation datum used for the elevations in items a) through h) below.       NGV 1929       NAVD 1988       Other/Source:         Datum used for building elevations must be the same as that used for the BFE.       Check the measurement used.       a) Top of bottom floor (including basement, crawlspace, or enclosure floor)       7. 94       K feet    meters         b) Top of the next higher floor       13, 46       K feet    meters       b) Top of the next higher floor       13, 46       K feet    meters         c) Bottom of the lowest torizontal structural member (V Zones only)       N/A.       K feet    meters       K) Antached garage (top of slab)       13, 46       K feet    meters         c) Lowest adjacent (inished) grade next to building (LAG)	MPORTANT: In these spaces, copy the correspo	onding information from Se	ction A.	FOR INSURANCE COMPANY US
Image:     New Jersey     08402       SECTION C – BULDING ELEVATION INFORMATION (SURVEY REQUIRED)       1. 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.     Elevations – Zones A1–A30, AE, AH, A (with BFE), VL V30, V (with BFE), AR, AR/A, AR/AE, ARA1–A30, AR/AH, AR/AO.       Complete litems C2a-h below according to the building diagram specified in Item A7. In Puerto Rice only. AR/AH, AR/AO.     Complete litems C2a-h below according to the building diagram specified in Item A7. In Puerto Rice only. AR/AH, AR/AO.       Exervation at used for the elevations in items a) through h) below.     Netro 1929     Noto 1929       Datum used for building elevations must be the same as that used for the BFE.     Check the measurement used.       a) Top of bottom floor (including basement, crawispace, or enclosure floor)     7. 94     Sfeet    meters       b) Top of the next higher floor     13. 46     Sfeet    meters       c) Bottom of the lowest horizontal structural member (V Zones only)     N/A.     Sfeet    meters       e) Lowest adjacent (inshed) grade next to building (LAG)     8. 1     Sfeet    meters       g) Highest adjacent (inshed) grade next to building (HAG)     8. 3     Sfeet    meters       g) Highest adjacent (inshed) grade next to building durading the data available. Lowest adjacent (inshed) reactificate represents my bote of fords to interport the data available. Understan	Building Street Address (including Apt., Unit, Suite, 08 North Mansfield Avenue	and/or Bldg. No.) or P.O. Ro	ute and Box No.	Policy Number:
SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)         1. 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.       .       .       .         2. Elevations – Zones A1–A30, AR/AH, AR/AC       .	City	State ZIP	Code	Company NAIC Number
1. 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.       2. Elevations – Zones A1–A30, AR/AH, AR/AD.         Complete terms C2 a–h below according to the building diagram specified in them A7. In Puttor Rico only, enter meters.       Benchmark Utilized: "Private Benchmarks	largate	New Jersey 084	.02	
*A new Elevation Certificate will be required when construction of the building is complete. 2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, VI-V30, V (with BFE), AR, AR/A, AR/AE, AR/A–A30, AR/AH, AR/AO, Complete Items C2.a – b below according to the building diagram specifical intem A7. In Puetro Rico only, enter meters. Benchmark Ullized: Private Benchmarks Vertical Datum: NGVD 1929 Indicate elevation datum used for the elevations in items a) through h) below. [ X NOV 1929 INAVD 1988 ChenerSource: Datum used for building elevations must be the same as that used for the BFE. Check the measurement used. a) Top of bottom floor (including basement, crawlspace, or enclosure floor) 7.94 [X feet ] meters b) Top of the next higher floor () 13,46 [X feet ] meters c) Bottom floor (including basement, crawlspace, or enclosure floor) N/A. [X feet ] meters b) Top of the next higher floor () Attached garage (top of slab) [X A. [X feet ] meters b) Top of the lowest horizontal structural member (V Zones only) N/A. [X feet ] meters b) Lowest elevation of machinery or equipment servicing the building () Describe type of equipment and location in Comments) [Y Lowest adjacent (finished) grade next to building (HAG) [X Lowest adjacent (finished) grade next to building (HAG) [X Lowest adjacent (finished) grade next to building (HAG) [X Lowest adjacent finished) grade next to building (HAG) [X Lowest adjacent finished) grade next to building (HAG) [X Lowest adjacent finished) grade next to building (HAG) [X Lowest adjacent finished] state represents my best efforts to interpret the data available. Lundorstand that any fase terment may be any of more improvement under 18 U. S. Code, Section 1004. [X Lowest adjacent finished] structured surveyor, engineer, or architect authorized by law to certify elevation information. [X Lowest adjacent finished] structured surveyor, engineer, or architect authorized by law to certify dise terment may be any other information on this Certify Reserves (Refort 10 Catia available. Lundorstand	SECTION C – BUILDIN	IG ELEVATION INFORMA	TION (SURVEY RE	EQUIRED)
2. 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. In Puerto Rico only, enter meters. Benchmark Vullized. Private Benchmarks				iction* X Finished Construction
Complete Items C2.a-h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.         Benchmark Utilized: Private Benchmarks       Vertical Datum: NGVD 1929         Indicate elevation datum used for the elevations in items a) through h) below.       Image: Complete Items C2.a-h below according to the source:         Datum used for building elevations must be the same as that used for the BFE.       Check the measurement used.         a) Top of bottom floor (including basement, crawlspace, or enclosure floor)       7. 94       Image: Check the measurement used.         a) Top of the next higher floor       13. 46       Image: Check the measurement used.         c) Bottom of the lowest horizontal structural member (V Zones only)       N/A.       Image: Check the meters         d) Attached garage (top of slab)       Image: Check the meters       Image: Check the meters         g) Lowest elevation of machinery or equipment servicing the building       13. 46       Image: Check the meters         g) Lowest adjacent (inished) grade next to building (HAG)       8. 1       Image: Check the meters         g) Highest adjacent grade at sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.       Image: Check there if attachments.         erritemant may be purisibable by find or inprivationment under 18 U.S. Code, Section 1001.       Image: Check there if attachments.         rifier's Name       License Number       Place			<b>U</b>	
Indicate elevation datum used for the elevations in items a) through h) below.	Complete Items C2.a-h below according to the	e building diagram specified	in Item A7. In Puerte	
☑ NGVD 1929 □ NAVD 1988 □ Other/Source:         Datum used for building elevations must be the same as that used for the BFE.         a) Top of bottom floor (including basement, crawlspace, or enclosure floor)       7. 94       ☑ feet □ meters         b) Top of the next higher floor       13, 46       ☑ feet □ meters         c) Bottom of the lowest horizontal structural member (V Zones only)       N/A.       ☑ feet □ meters         d) Attached garage (top of slab)			0	1
Datum used for building elevations must be the same as that used for the BFE.       Check the measurement used.         a) Top of bottom floor (including basement, crawlspace, or enclosure floor)       7.94       If feet meters         b) Top of the next higher floor       13.46       If feet meters         c) Bottom of the lowest horizontal structural member (V Zones only)       N/A       If feet meters         d) Attached garage (top of slab)       N/A       If feet meters         e) Lowest elevation of machinery or equipment servicing the building (LAG)       8.1       If feet meters         g) Highest adjacent (finished) grade next to building (LAG)       8.3       If feet meters         g) Highest adjacent (finished) grade next to building (HAG)       8.3       If feet meters         h) Lowest adjacent grade at lowest elevation of deck or stairs, including       N/A.       If feet meters         structural support       SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION       If get meters         is certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to carify elevation information.       Integret meters         et all tude and longitude in Section A provided by a licensed land surveyor?       Yes In No       Check here if attachments.         triffer's Name       License Number       Date       Telephone       Seai         here       Understand M			W.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)       7.94       ☑ feet       ☐ meters         b) Top of the next higher floor       13.46       ☑ feet       ☐ meters         c) Bottom of the lowest horizontal structural member (V Zones only)       N/A.       ☑ feet       ☐ meters         d) Attached garage (top of slab)       N/A.       ☑ feet       ☐ meters         e) Lowest elevation of machinery or equipment servicing the building       13.46       ☑ feet       ☐ meters         e) Lowest adjacent (finished) grade next to building (LAG)       8.1       ☑ feet       ☐ meters         g) Highest adjacent (finished) grade next to building (HAG)       8.3       ☑ feet       ☐ meters         h) Lowest adjacent (inished) grade next to building (HAG)       8.3       ☑ feet       ☐ meters         structural support       SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION       Immeters       Immeters         is carification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.       Imformation on this Certificate represents my best efforts to interpret the data available.       Iunderstand that any false         terment may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.       Iunderstand that any false       Secai         refers       South Viriginia Avenue       Iunderstand that any fa			RE	
b) Top of the next higher floor       13. 46       Image: feet im	Batam used for banang elevations must be th		л <u>с</u> .	Check the measurement used.
c) Bottom of the lowest horizontal structural member (V Zones only)       N/A.       □ let the image of the ima	a) Top of bottom floor (including basement, c	rawlspace, or enclosure floor	)7. <u>94</u>	X feet 🗌 meters
d) Attached garage (top of slab)	b) Top of the next higher floor		<u> </u>	X feet 🔲 meters
d) Attached garage (top of slab)       N/A.       X feet       meters         e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)       13. 46       X feet       meters         f) Lowest adjacent (finished) grade next to building (LAG)       8. 1       X feet       meters         g) Highest adjacent (finished) grade next to building (HAG)       8. 3       X feet       meters         h) Lowest adjacent (finished) grade a lowest elevation of deck or stairs, including structural support       N/A.       X feet       meters         b) Lowest adjacent (finished) grade at lowest elevation of deck or stairs, including structural support       N/A.       X feet       meters         structural support       SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION       X feet       meters         is certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. Information on this Certificate represents my best offorts to interpret the data available. I understand that any false teament may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.       Interstand that any false teament may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.       X check here if attachments.         rtific's Name bert J. Catalano ~ Land Surveyor       18612       K       K       K         g       Mue       State       ZIP Code	c) Bottom of the lowest horizontal structural m	nember (V Zones only)	N/A	 ⊠ feet
e) Lowest elevation of machinery or equipment servicing the building 13.46			N/A	
f)       Lowest adjacent (finished) grade next to building (LAG)       8.1       Image: Test adjacent (finished) grade next to building (HAG)         g)       Highest adjacent (finished) grade next to building (HAG)       8.3       Image: Test adjacent (finished) grade next to building (HAG)         h)       Lowest adjacent grade at lowest elevation of deck or stairs, including structural support       Image: Test adjacent (finished) grade next to building (HAG)       Image: Test adjacent (finished) grade next to building (HAG)         is certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.       Image: Test adjacent (finished) grade next to building (LAG)         is certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.       Image: Test adjacent (finished) grade next to building (LAG)         is certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.       Image: Test adjacent (finished) grade next to building (LAG)         is certification is to be signed and sealed by a land surveyor?       Image: Test adjacent (finished) grade next to building (LAG)       Image: Test adjacent (finished) grade next to building (LAG)         is certification is to be signed and sealed by a land surveyor?       Image: Test adjacent (finished) grade next to building (LAG)       Image: Test adjacent (finished) grade next to building (LAG)         is certification is to be signed and sealed by a licensed land surv	e) Lowest elevation of machinery or equipment	nt servicing the building n Comments)	13. 46	
g) Highest adjacent (finished) grade next to building (HAG)			8.1	I feet meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including       N/A.       Image: Text of the start of the s				
Structural support       SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION         is certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.         entity that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false thement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.         are latitude and longitude in Section A provided by a licensed land surveyor?       Image: Section 1001.         are latitude and longitude in Section A provided by a licensed land surveyor?       Image: Section 1001.         are latitude and longitude in Section A provided by a licensed land surveyor?       Image: Section 1001.         are latitude and longitude in Section A provided by a license Number       Image: Section 1001.         bert J. Catalano ~ Land Surveyor       18612         e       Image: Section 18612         gend       Image: Section 18612         gend       Image: Section 18612         gend       State       ZIP Code         gend tail City       State       ZIP Code         gend to City       Date       Telephone         nature       Date       Telephone         10/06/2016       (609) 345-1887         Image: Section scene to N.G.V.D. (1929 Datum) maintained benchmarks by Catalano Surveys. Flood openings shown in sections A8 and	<b>,</b>	<b>.</b> ,	100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100	
is certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. ertify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false teament may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. ere latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments. ritifer's Name License Number bert J. Catalano ~ Land Surveyor 18612 e mer mpany Name talano Surveys dress South Virginia Avenue y antic City nature Date 10/06/2016 (609) 345-1887 mments (including type of equipment and location, per C2(e), if applicable) elevations refer to N.G.V.D. (1929 Datum) maintained benchmarks by Catalano Surveys. Flood openings shown in sections A8 and if any are gross opening area. These values may be increased in accordance with FEMA Technical Bulletin I-93 or decreased as wn on Field Notes by Catalano Surveys. Lowest part of machinery is either the H.V.A.C. units or duct work, if accessible to direct		or deck or stairs, including		
ertify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false terment may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. ere latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments. rtifier's Name License Number bert J. Catalano ~ Land Surveyor 18612 e mmany Name Latano Surveys Place Seal Here V antic City Date Date 10/06/2016 (609) 345-1887 Place Ce Date New Jersey Date 10/06/2016 (609) 345-1887 Place Seal Here	SECTION D - SURVE	YOR, ENGINEER, OR ARC	HITECT CERTIFIC	CATION
ere latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments.  rtifier's Name bert J. Catalano ~ Land Surveyor  e mer mpany Name talano Surveys dress South Virginia Avenue  y antire Date 10/06/2016 Cege New Jersey Date Telephone 10/06/2016 Cege New Jersey Date Date Telephone 10/06/2016 Cege New Jersey Date Date Date Date Date Date Date Date	certify that the information on this Certificate repre	sents my best efforts to inter	pret the data availat	law to certify elevation information. ble. I understand that any false
bert J. Catalano ~ Land Surveyor 18612 e mpany Name talano Surveys dress South Virginia Avenue y antic City nature Date 10/06/2016 Date 10/06/2016 Code New Jersey Date 10/06/2016 Code New Jersey New Jersey Date 10/06/2016 Code New Jersey Date 10/06/2016 Code New Jersey Date 10/06/2016 Code New Jersey Code New Jersey Date 10/06/2016 Code New Jersey Date 10/06/2016 Code New Jersey Code New Jersey Code Code New Jersey Code Code New Jersey Code Co				Check here if attachments.
mer mpany Name talano Surveys dress South Virginia Avenue y antic City nature Date 10/06/2016 Date 10/06/2016 City Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey Date 10/06/2016 City New Jersey City	Certifier's Name Robert J. Catalano ~ Land Surveyor			
talano Surveys       Seal         dress       South Virginia Avenue         y       State       ZIP Code         nature       Date       Telephone         10/06/2016       (609) 345-1887         naments (including type of equipment and location, per C2(e), if applicable)         elevations refer to N.G.V.D. (1929 Datum) maintained benchmarks by Catalano Surveys. Flood openings shown in sections A8 and if any are gross opening area. These values may be increased in accordance with FEMA Technical Bulletin I-93 or decreased as wn on Field Notes by Catalano Surveys. Lowest part of machinery is either the H.V.A.C. units or duct work, if accessible to direct	ītle Dwner			
South Virginia Avenue       State       ZIP Code         Antic City       New Jersey       08401         nature       Date       Telephone         10/06/2016       (609) 345-1887         mments (including type of equipment and location, per C2(e), if applicable)       Elevations refer to N.G.V.D. (1929 Datum) maintained benchmarks by Catalano Surveys. Flood openings shown in sections A8 and if any are gross opening area. These values may be increased in accordance with FEMA Technical Bulletin I-93 or decreased as wn on Field Notes by Catalano Surveys. Lowest part of machinery is either the H.V.A.C. units or duct work, if accessible to direct	Company Name Catalano Surveys			Seal
New Jersey       08401         nature       Date 10/06/2016       Telephone (609) 345-1887         nments (including type of equipment and location, per C2(e), if applicable)       Immediate and the second	Address 2 South Virginia Avenue		******	– Here
nature Date Telephone 10/06/2016 (609) 345-1887 mments (including type of equipment and location, per C2(e), if applicable) elevations refer to N.G.V.D. (1929 Datum) maintained benchmarks by Catalano Surveys. Flood openings shown in sections A8 and if any are gross opening area. These values may be increased in accordance with FEMA Technical Bulletin I-93 or decreased as wn on Field Notes by Catalano Surveys. Lowest part of machinery is either the H.V.A.C. units or duct work, if accessible to direct	City Atlantic City TA A A			-
10/06/2016 (609) 345-1887 mments (including type of equipment and location, per C2(e), if applicable) elevations refer to N.G.V.D. (1929 Datum) maintained benchmarks by Catalano Surveys. Flood openings shown in sections A8 and if any are gross opening area. These values may be increased in accordance with FEMA Technical Bulletin I-93 or decreased as wn on Field Notes by Catalano Surveys. Lowest part of machinery is either the H.V.A.C. units or duct work, if accessible to direct				_
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	Il elevations refer to N.G.V.D. (1929 Datum) mainta 9, if any are gross opening area. These values ma	ained benchmarks by Catalar ay be increased in accordanc	e with FEMA Techn	ical Bulletin I-93 or decreased as
	neasurement. See Photos for furthur detail .	• Sufficient de la constitución de la const		

ELEVATION CERTIFICATE			OMB No. 1660- Expiration Date	November 30, 2018
IMPORTANT: In these spaces, cop				ICE COMPANY USE
Building Street Address (including A 408 North Mansfield Avenue	pt., Unit, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number	
City Margate	State New Jersey	ZIP Code 08402	Company NAIC	Number
SECTION E	- BUILDING ELEVATION INFO FOR ZONE AO AND ZON		OT REQUIRED)	
For Zones AO and A (without BFE), complete Sections A, B,and C. For It enter meters.				
<ul> <li>E1. Provide elevation information fo the highest adjacent grade (HA) a) Top of bottom floor (including</li> </ul>	G) and the lowest adjacent grade (L	priate boxes to show whe .AG).	ther the elevation is	above or below
crawlspace, or enclosure) is	·	feet 🗌 me	eters 🔲 above or	below the HAG.
<li>b) Top of bottom floor (including crawlspace, or enclosure) is</li>	) basement,	feet 🗌 me	eters 🔲 above or	below the LAG.
2. For Building Diagrams 6–9 with		d in Section A Items 8 and	l/or 9 (see pages 1-	2 of Instructions),
the next higher floor (elevation ( the diagrams) of the building is		feet 🗌 me	eters 🗌 above or	below the HAG.
E3. Attached garage (top of slab) is		feet 🗌 me	eters above or	below the HAG.
<ol> <li>Top of platform of machinery an servicing the building is</li> </ol>	d/or equipment	feet me	eters above or	below the HAG.
E5. Zone AO only: If no flood depth floodplain management ordinance	number is available, is the top of the core of the cor			
SECTION F -	PROPERTY OWNER (OR OWNE	R'S REPRESENTATIVE	CERTIFICATION	
The property owner or owner's autho community-issued BFE) or Zone AO Property Owner or Owner's Authorize	nust sign here. The statements in a	s Sections A, B, and E for Sections A, B, and E are	Zone A (without a F correct to the best o	EMA-issued or f my knowledge.
		Sik	04-4-	ZIP Code
ddress		City	State	
Signature		Date	Telephone	
comments	1			

ELEVATION CERTIFICATE			OMB No. 1660-0008 Expiration Date: November 30, 2018
IMPORTANT: In these spaces, copy the corr	esponding information	from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, S 408 N MANSFIELD AVENUE	uite, and/or Bldg. No.) o	r P.O. Route and Box	No. Policy Number:
City MARGATE	State New Jersey	ZIP Code 08402	Company NAIC Number
SECTIO	ON G - COMMUNITY IN	FORMATION (OPTIC	DNAL)
The local official who is authorized by law or or Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, en	Certificate. Complete tl		
			gned and sealed by a licensed surveyor, icate the source and date of the elevation
G2. A community official completed Sect or Zone AO.	ion E for a building local	ed in Zone A (without	a FEMA-issued or community-issued BFE)
G3. The following information (Items G4-	-G10) is provided for co	mmunity floodplain ma	nagement purposes.
G4. Permit Number	G5. Date Permit Issue	ed	G6. Date Certificate of Compliance/Occupancy Issued
G7. This permit has been issued for:	New Construction	Substantial Improvem	ent
G8. Elevation of as-built lowest floor (including of the building:	g basement)		feet meters
G9. BFE or (in Zone AO) depth of flooding at	the building site:	,	feet meters Datum
G10. Community's design flood elevation:			feet meters Datum
Local Official's Name		Title CFM	
JIM GALANTINO Community Name			
		Telephone 609-822-197	74
Signature		Date 10/31/201	
Comments (including/type of equipment and loc			
Comments (including/type of equipment and loc	cation, per C2(e), if appl	icable)	
			Check here if attachments.

L

## **ELEVATION CERTIFICATE**

## **BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Un	it, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:	
408 North Mansfield Avenue				
City	State	ZIP Code	Company NAIC Number	
Margate	New Jersey	08402		

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.



#### Photo One Caption

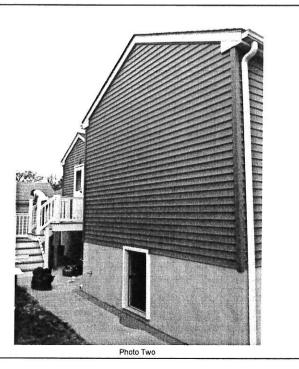


Photo Two Caption

# **ELEVATION CERTIFICATE**

## **BUILDING PHOTOGRAPHS**

Continuation Page

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including 408 North Mansfield Avenue	Apt., Unit, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:	
City	State	ZIP Code	Company NAIC Number	
Margate	New Jersey	08402		

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." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.



Photo One Caption

Photo One



Photo Two Caption \*\*Smart Vent Model #~ 1540-510



DIVISION: 08 00 00—OPENINGS SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

**REPORT HOLDER:** 

# **SMARTVENT PRODUCTS, INC.**

430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071

**EVALUATION SUBJECT:** 

# SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514



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ESR-2074

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DIVISION: 08 00 00—OPENINGS Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMARTVENT PRODUCTS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (877) 441-8368 www.smartvent.com info@smartvent.com

#### **EVALUATION SUBJECT:**

SMART VENT<sup>®</sup> AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514

#### **1.0 EVALUATION SCOPE**

Compliance with the following codes:

- 2015, 2012, 2009 and 2006 *International Building Code*<sup>®</sup> (IBC)
- 2015, 2012, 2009 and 2006 International Residential Code<sup>®</sup> (IRC)
- 2013 Abu Dhabi International Building Code (ADIBC)<sup>†</sup>

 $^{\dagger} \text{The ADIBC}$  is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

#### Properties evaluated:

- Physical operation
- Water flow

#### 2.0 USES

The Smart Vent<sup>®</sup> units are engineered mechanically operated flood vents (FVs) employed to equalize hydrostatic pressure on walls of enclosures subject to rising or falling flood waters. Certain models also allow natural ventilation.

#### 3.0 DESCRIPTION

#### 3.1 General:

When subjected to rising water, the Smart Vent<sup>®</sup> FVs internal floats are activated, then pivot open to allow flow in either direction to equalize water level and hydrostatic pressure from one side of the foundation to the other. The FV pivoting door is normally held in the closed position by a buoyant release device. When subjected to rising water,

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the buoyant release device causes the unit to unlatch, allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. Smart Vent<sup>®</sup> Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT<sup>®</sup> Stacking Model #1540-511 and FloodVENT<sup>®</sup> Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

#### 3.2 Engineered Opening:

The FVs comply with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)] for a maximum rate of rise and fall of 5.0 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Smart Vent FVs must be installed in accordance with Section 4.0.

#### 3.3 Ventilation:

The SmartVENT<sup>®</sup> Model #1540-510 and SmartVENT<sup>®</sup> Overhead Door Model #1540-514 both have screen covers with <sup>1</sup>/<sub>4</sub>-inch-by-<sup>1</sup>/<sub>4</sub>-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm<sup>2</sup>) of net free area to supply natural ventilation. The SmartVENT<sup>®</sup> Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm<sup>2</sup>) of net free area to supply natural ventilation. Other FVs recognized in this report do not offer natural ventilation.

#### 4.0 DESIGN AND INSTALLATION

SmartVENT<sup>®</sup> and FloodVENT<sup>®</sup> are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code and this report. Installation clips allow mounting in masonry and concrete walls of any thickness. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Smart Vent<sup>®</sup> FVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one FV for every 200 square feet (18.6 m<sup>2</sup>) of enclosed area, except that the SmartVENT<sup>®</sup> Stacking Model #1540-511 and FloodVENT<sup>®</sup> Stacking Model #1540-521 must be

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installed with a minimum of one FV for every 400 square feet  $(37.2 \text{ m}^2)$  of enclosed area.

- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final grade or floor and finished exterior grade immediately under each opening.

#### 5.0 CONDITIONS OF USE

The Smart Vent<sup>®</sup> FVs described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

**5.1** The Smart Vent<sup>®</sup> FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern.

**5.2** The Smart Vent<sup>®</sup> FVs must not be used in the place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

#### 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015.

### 7.0 IDENTIFICATION

The Smart VENT<sup>®</sup> models recognized in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.) 200	
FloodVENT <sup>®</sup>	1540-520	15 <sup>3</sup> /4" X 7 <sup>3</sup> /4"		
SmartVENT <sup>®</sup>	1540-510	15 <sup>3</sup> /4" X 7 <sup>3</sup> /4"	200	
FloodVENT <sup>®</sup> Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200	
SmartVENT <sup>®</sup> Overhead Door	1540-514	15 <sup>3</sup> /4" X 7 <sup>3</sup> /4"	200	
Wood Wall FloodVENT <sup>®</sup>	1540-570	14" X 8 <sup>3</sup> / <sub>4</sub> "	200	
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 <sup>3</sup> / <sub>4</sub> "	200	
SmartVENT <sup>®</sup> Stacker	1540-511	16" X 16"	400	
FloodVent <sup>®</sup> Stacker	1540-521	16" X 16"	400	

TABLE 1-MODEL SIZES

For SI: 1 inch = 25.4 mm; 1 square foot =  $m^2$ 

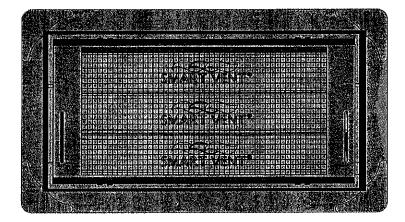


FIGURE 1-SMART VENT: MODEL 1540-510

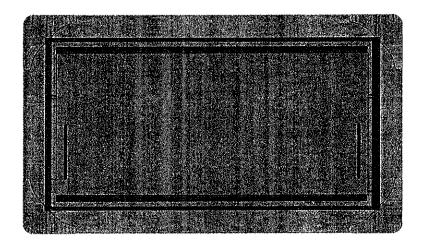


FIGURE 2-SMART VENT MODEL 1540-520

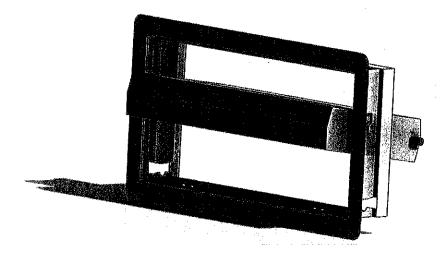


FIGURE 3-SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN