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YP BEST SERVICES
12170 SW 128th Ct. Ste 101. Miami, FL 33186

Lab. Certificate # 22-0120.06

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Roofing application standard (RAS) no.117 standard requirements for bonding or mechanical attachment of insulation panels and mechanical attachment of anchor and/or base sheets to substrates.

Contractor: **MG Excellent SVS Corp**

Address: **9841 SW 73rd Ct Miami, FL 33156** **Permit: BL2022-1028**

Mean Height (ft):	**21.5**	Approval:	**24-0822.02 Page 24**
Parapet Height (ft):	**3.0**	Roof Deck:	**5/8" Plywood**
Bldg Width (ft):	**58.0**	System type:	**E(4) Option 2**
Bldg Length (ft):	**90.0**	Base Sheet:	**GAFGLAS #75 Base Sheet**
Risk Category:	**II**	Fastener Description:	**12 ga annular ring shank nails and 1-5/8" min. tin caps.**
Exposure Category:	**C**		

Location:1

Note: All information provided by roofing contractor

Anchor or Base Sheet Attachment – New Construction/Reroof Applications

		Product Approval max design pressure (-psf)	**52.50**
from RAS 128	(-) psf	Anchor/base sheet (in)	**39.37**
Zone 1':	**41**	Side lap width (in):	**4.0**
Zone 1:	**71**	Side lap anchor spacing O.C (in)	**6.0**
Zone 2:	**94**	Side lap row	**1**
Zone 3:	**128**	Center sheet anchor spacing O.C	**6.0**
		Center sheet rows	**2**

A. CALCULATION WIDTH OF SHEET FOR ONE NET SQUARE (100 ft2)

1. Net Width Sheet (ft):

Net Width (ft) = ((Sheet width) - (Side Lap Width))/12

Net Width (ft) = **2.948**

2. Net Length to Make One Square (100 ft^2):

Net Length = (100 ft2)/Net Width

Net Length (ft)= **33.927**

B. DETERMINE THE NUMBER OF FASTENERS PER SQUARE

General Equation

(1 Fastener/A) x (12in/ft) x ((B/row)x(C/square) = D

Where:

A = Specified Fastener spacing LAP	**6**
A2 = Specified fastener spacing (FIELD/ROW)	**6**
B = Net Length (ft) to make one square	**33.9**
C= Number of rows having spacing A (FIELD/ROW)	**1**
C2 = Number of rows having spacing A2 (FIELD/ROW)	**2**
D = Number of fasteners per square	

SIDE LAP ROW: D = **67.85** Fasteners /Square

CENTER LAP ROW: D = **135.71** Fasteners /Square

Total Number of fasteners per Square (every 100 ft^2)

SIDE LAP ROW + CENTER ROW = **204**

TOTAL SQUARE FEET PER FASTENER

(100ft2)/(SIDE LAP ROW+CENTER ROW)= **0.491**

DETERMINE THE FASTENER VALUE

GENERAL EQUATION

fy = **25.79 lbf**

fy = Fastener Value

fy = (max design pressure) x (ft^2 per fastener)

Determine anchor/base sheet fastener spacing to meet pressure in the elevated pressure zones of the roof

GENERAL EQUATION

FS = (Fy x 144) / (P x RS)

FS = fastener spacing (in)

Fy = fastener value (lbf)

P = max design pressure (psf)

RS = row spacing (in)

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Note: Row spacing (RS) is the Net Width of sheet divided by number of rows. The Net Width is the width of base sheet less the side lap distance.

Contractor: **MG Excellent SVS Corp** **Permit: BL2022-1028**

Address: **9841 SW 73rd Ct Miami, FL 33156** **Location:1**

Total Number of rows from NOA = **3** fastener rows

From previous calculations:

Net Width (ft) = **35.37** in

Row spacing = **11.79** in

3 fastener rows

Wind Uplift Pressures:				**Fastener Spacing (in)**	**By Calculation**	
Zone 1:	71	psf	FS= 4.437		4.0	in
Zone 2:	94	psf	FS= 3.351		3.0	in
Zone 3:	128	psf	FS= 2.461		2.0	in

Adding (1) ONE extra row to NOA row requirement: **4** fastener rows

New Row spacing = **8.84** in

Zone 1:	71	psf	FS= 5.92	5.00	in
Zone 2:	94	psf	FS= 4.47	4.00	in
Zone 3:	128	psf	FS= 3.28	3.00	in

Adding (2) two extra row to NOA row requirement: **5** fastener rows

New Row spacing = **7.07** in

Zone 1:	71	psf	FS= 7.39	7.00	in
Zone 2:	94	psf	FS= 5.59	5.00	in
Zone 3:	128	psf	FS= 4.10	4.00	in

Notes:

If the parapet walls are ≥ 3 ft on the roof, the wind pressures are the same on Corners P(3) as they are for Perimeters P(2)
All fractions shall be rounded down to the next whole number.
The minimum fastener separation shall not be less than 4 in. o.c.
For steel deck applications, fastener spacing shall be in increments of 6 in. o.c

Fastener Spacing Results:

Extrapolation from: Z1'

	Design Pressure		Head Lap FS	Center Rows	Center Rows FS
FOR SECTION C	Zone 1':	**41**	4 in O.C.	2	4 in O.C. Staggered
	Zone 1:	**71**	4 in O.C.	2	4 in O.C. Staggered
	Zone 2:	**94**	4 in O.C.	3	4 in O.C. Staggered
	Zone 3:	**128**	4 in O.C.	4	4 in O.C. Staggered

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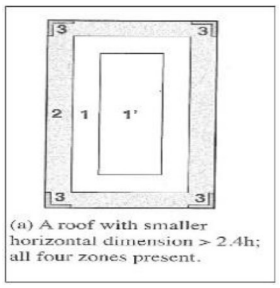
10/22/2025

Alaym Aguilar P.E.
FL. REG. #92154

Roof zone layout (a)



(a) A roof with smaller horizontal dimension > 2.4h; all four zones present.

Zone 3 0.6*H x 0.2*H
Zone 2 0.6*H
Zone 1 0.6*H

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Contractor: **MG Excellent SVS Corp**

Address: **9841 SW 73rd Ct Miami, FL 33156** **Permit: BL2022-1028**

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Parapet Height (ft):	**3.0**	Roof Deck:	**5/8" Plywood**
Bldg Width (ft):	**12.0**	System type:	**E(4) Option 2**
Bldg Length (ft):	**20.0**	Base Sheet:	**GAFGLAS #75 Base Sheet**
Risk Category:	**II**	Fastener Description:	**12 ga annular ring shank nails and 1-5/8" min. tin caps.**
Exposure Category:	**C**		

Location:2

Note: All information provided by roofing contractor

Anchor or Base Sheet Attachment – New Construction/Reroof Applications

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from RAS 128	(-) psf	Anchor/base sheet (in)	**39.37**
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Zone 1:	**71**	Side lap anchor spacing O.C (in)	**6.0**
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Contractor: **MG Excellent SVS Corp** **Permit: BL2022-1028**

Address: **9841 SW 73rd Ct Miami, FL 33156** **Location:2**

Total Number of rows from NOA = **3** fastener rows

From previous calculations:

Net Width (ft) = **35.37** in

Row spacing = **11.79** in

3 fastener rows

Wind Uplift Pressures:				**Fastener Spacing (in)**	**By Calculation**	
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	Zone 1:	**71**			
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Alaym Aguilar P.E.
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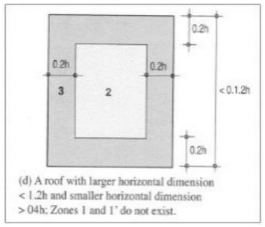
Roof zone layout (d)



(d) A roof with larger horizontal dimension < 1.2h and smaller horizontal dimension > 04h; Zones 1 and 1' do not exist.

Zone 3 0.6*H x 0.2*H
Zone 2 0.6*H
Zone 1 0.6*H

Florida Building Code 8th Edition (2023)

High Velocity Hurricane Zone Uniform Roofing Application Form for Village of Pinecrest

Section A (General Information)

Master Permit Number: BL2022-1028 Process Number: _____

Contractor's Name: MG Excellent SVS Corp

Job Address: 9841 SW 73 CT Pinecrest, FL 33156

ROOF CATEGORY

☒ Low Slope ☐ Mechanically Fastened Tile ☐ Mortar / Adhesive Set Tile

☐ Asphaltic Shingles ☐ Metal Panel/ Shingles ☐ Wood Shingles / Shakes

ROOF TYPE

☒ New Roof ☐ Repair ☐ Maintenance ☐ Reroofing ☐ Recovering

ROOF SYSTEM INFORMATION

Low Slope Roof Area (ft^2)	Steep Sloped Roof Area (ft^2)	Total (ft^2)
3,910		3,910

Are there gas vents on the roof? Yes [X] No [ ] If Yes what type? [ ] Natural [ ] LPX

Is there an existing roof top Solar System? [ ] Yes [X] No If yes will it be reinstalled? [ ] Yes [ ] No

Section B (Roof Plan)

Sketch Roof Plan: Illustrate all levels and sections, roof drains, scuppers, overflow scuppers and overflow drains. Include dimensions of sections and levels, clearly identify dimensions of elevated pressure zones and location of parapets.