

**LEGEND:**

- Zone 1 = Field of Roof
- Zone 2 = Perimeter
- Zone 3 = Corner
- $\theta$  = Degrees / angle of plane of roof from horizontal
- $h$  = Eave or Mean Roof Height
- $w$  = Building Lesser Plan Dimension
- $a$  = Perimeter/Corner Zone Width
- $2 \times (a)$  = Corner Zone Length for Roof Heights above 60 feet

**Notes:**

**Perimeter Zone width (a) is the smaller of the following:**

Roofs Less Than or Equal to 60 feet in Height

- Building Lesser Plan Dimension ( $w$ ) x .10
- or
- Building Eave Height ( $h$ ) x .40
- Subject to a minimum of 4% of lesser plan dimension or 3 feet

Roofs Greater Than 60 feet in Height

- Building Lesser Plan Dimension ( $w$ ) x .10
- Subject to minimum of 3 feet
- Corner Areas (Zone 3) are L-shaped with width = ( $a$ ) and length = 2 times ( $a$ )

Roofs with continuous parapet walls along the perimeter, Zone 3 areas may be treated as zone 2 where:

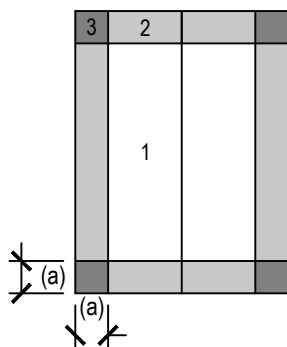
- Perimeter parapets are continuous and are greater than or equal to 3 feet in height
- Roof height is greater than 60 feet with roof slope less than or equal to  $10^\circ$  ( $2'' : 12''$ )
- Roof height is less than or equal to 60 feet with roof slope less than or equal to  $7^\circ$  ( $1\frac{1}{2}'' : 12''$ )

Supplemental securement is required within all Perimeter and Corner Zones areas in accordance with IB Roof Systems General Requirements Sections 4.9, 4.10, 4.11, 4.12 and 4.13, Roof Assembly Specifications and Construction Details.

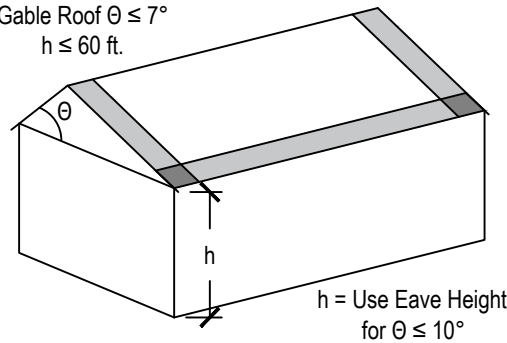
- a. Mechanically Attached Systems: Refer to Tables A-7, A-8, A-9, and Construction Details MA-AT-08, MA-AT-09, MA-AT-10, MA-AT-11, MA-AT-12, MA-AT-13, MA-AT-14, and MA-AT-15 for additional information.
- b. Fully Adhered Systems: Refer to Tables A-2, A-4, A-7, and Construction Details FA-AT-16, FA-AT-17, FA-AT-18, FA-AT-19, and FA-AT-20 for additional information.
- c. Induction Welded Systems: Refer to Tables A-5, A-7, A-11 and Construction Details IW-AT-13, IW-AT-14, IW-AT-15, IW-AT-16, and IW-AT-17 for additional information.
- d. Ballasted / Paver Systems: Refer to Construction Details BA-AT-01, BA-AT-02, BA-AT-03, and BA-AT-04 for additional assembly requirements.

The above is intended for general information purposes and is not all-inclusive. Additional requirements and guidelines may apply and should be reviewed by the Project Designer and Roofing Contractor to address specific building conditions and applicable code requirements. Refer to ASCE-7 and FM LPDS 1-28 and 1-29 as required by the Authority Having Jurisdiction for additional information.

<b>Scale:</b> NTS	<b>Detail Name:</b> <b>Perimeter &amp; Corner Zones - Low Slope per ASCE 7-10</b>	<b>Detail Number:</b> <b>MS - 01</b>
<b>Submitted By:</b> Address: Telephone:		<b>Project:</b> Address:



Gable Roof  $\theta \leq 7^\circ$   
 $h \leq 60$  ft.



**LEGEND:**

□ Zone 1 = Field of Roof

■ Zone 2 = Perimeter

■ Zone 3 = Corner

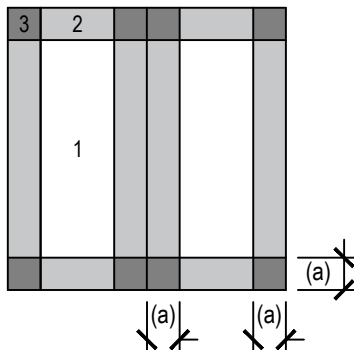
$\theta$  = Degrees / angle of plane of roof from horizontal

$h$  = Eave or Mean Roof Height

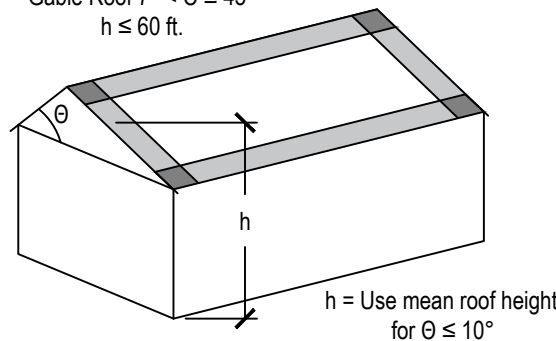
$w$  = Building Lesser Plan Dimension

$a$  = Perimeter/Corner Zone Width

$2 \times (a)$  = Corner Zone Length for Roof Heights above 60 feet



Gable Roof  $7^\circ < \theta \leq 45^\circ$   
 $h \leq 60$  ft.



**Notes:**

**Perimeter Zone width (a) is the smaller of the following:**

Roofs Less Than or Equal to 60 feet in Height

- Building Lesser Plan Dimension ( $w$ ) x .10
- or
- Building Eave Height ( $h$ ) x .40
- Subject to a minimum of 4% of lesser plan dimension or 3 feet

Roofs Greater Than 60 feet in Height

- Building Lesser Plan Dimension ( $w$ ) x .10
- Subject to minimum of 3 feet
- Corner Areas (Zone 3) are L-shaped with width = ( $a$ ) and length = 2 times ( $a$ )

Roofs with continuous parapet walls along the perimeter, Zone 3 areas may be treated as zone 2 where:

- Perimeter parapets are continuous and are greater than or equal to 3 feet in height
- Roof height is greater than 60 feet with roof slope less than or equal to  $10^\circ$  ( $2'' : 12''$ )
- Roof height is less than or equal to 60 feet with roof slope less than or equal to  $7^\circ$  ( $1\text{-}1/2'' : 12''$ )

Supplemental securement is required within all Perimeter and Corner Zones areas in accordance with IB Roof Systems General Requirements Sections 4.9, 4.10, 4.11, 4.12 and 4.13, Roof Assembly Specifications and Construction Details.

- a. Mechanically Attached Systems: Refer to Tables A-7, A-8, A-9, and Construction Details MA-AT-08, MA-AT-09, MA-AT-10, MA-AT-11, MA-AT-12, MA-AT-13, MA-AT-14, and MA-AT-15 for additional information.
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- d. Ballasted / Paver Systems: Refer to Construction Details BA-AT-01, BA-AT-02, BA-AT-03, and BA-AT-04 for additional assembly requirements.

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**Scale:**

NTS

**Detail Name:**

**Perimeter & Corner Zone - Steep Slope per ASCE 7-10**

**Detail Number:**

**MS - 02**

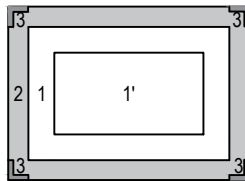
**Submitted By:**

Address:  
Telephone:

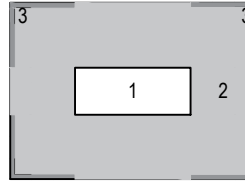
**Project:**

Address:

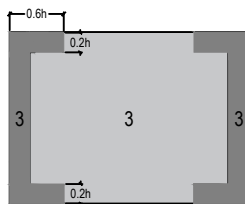
**Wind Pressures on a Low-Slope Roof with eave height ( $h$ )  $\leq$  60 feet: Up to four wind pressure zones may be present and depending on the horizontal dimensions and the eave height, five zone layouts are possible.**



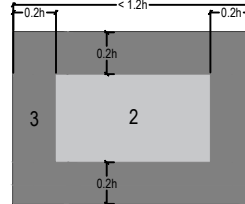
Roof with smaller horizontal dimensions  $> 2.4h$ :  
all four zones present



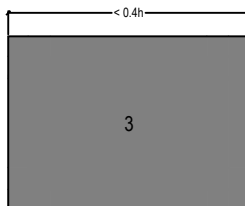
Roof with smaller horizontal dimensions  $> 1.2h$  but  $< 2.4h$ :  
Zone 1' does not exist



Roof with smaller horizontal dimension  $< 1.2h$  and larger horizontal dimension  $> 1.2h$ :  
Zones 1 and 1' do not exist



Roof with larger horizontal dimension  $< 1.2h$  and smaller horizontal dimensions  $> 0.4h$ :  
Zones 1 and 1' do not exist



Roof with larger horizontal dimension  $\leq 0.4h$ :  
Zones 1, 1' and 2 do not exist

Zone 1' = Field of Roof - interior  
 Zone 1 = Field of Roof - exterior  
 Zone 2 = Perimeter  
 Zone 3 = Corner  
 $h$  = Eave or Mean Roof Height  
 $0.2h$  = Horizontal dimension 0.2 times height  
 $0.4h$  = Horizontal dimension 0.4 times height  
 $0.6h$  = Horizontal dimension 0.6 times height  
 $1.2h$  = Horizontal dimension 1.2 times height  
 $2.4h$  = Horizontal dimension 2.4 times height

Roofs with continuous parapet walls along the perimeter, Zone 3 areas may be treated as zone 2 where:

- Perimeter parapets are continuous and are greater than or equal to 3 feet in height
- Roof height is greater than 60 feet with roof slope less than or equal to  $10^\circ$  ( $2'' : 12''$ )
- Roof height is less than or equal to 60 feet with roof slope less than or equal to  $7^\circ$  ( $1\text{-}1/2'' : 12''$ )

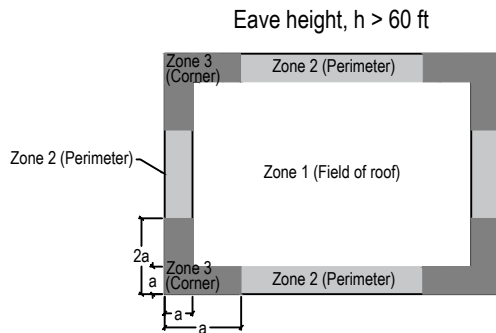
Supplemental securement is required within all Perimeter and Corner Zones areas in accordance with IB Roof Systems General Requirements Sections 4.9, 4.10, 4.11, 4.12 and 4.13, Roof Assembly Specifications and Construction Details.

- a. Mechanically Attached Systems: Refer to Tables A-7, A-8, A-9, and Construction Details MA-AT-08, MA-AT-09, MA-AT-10, MA-AT-11, MA-AT-12, MA-AT-13, MA-AT-14, and MA-AT-15 for additional information.
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- d. Ballasted / Paver Systems: Refer to Construction Details BA-AT-01, BA-AT-02, BA-AT-03, and BA-AT-04 for additional assembly requirements.

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<b>Scale:</b> NTS	<b>Detail Name:</b> <b><i>Perimeter &amp; Corner Zone - Low Slope <math>\leq</math> 60 ft per ASCE 7-16</i></b>	<b>Detail Number:</b> <b><i>MS - 03</i></b>
<b>Submitted By:</b> Address: Telephone:		<b>Project:</b> Address:

**Wind Pressures on a Low-Slope Roof with eave height (h) ≥ 60 feet: Up to three wind pressure zones may be present.**



Zone 1' = Field of Roof - interior  
 Zone 1 = Field of Roof - exterior  
 Zone 2 = Perimeter  
 Zone 3 = Corner  
 $h$  = Eave or Mean Roof Height  
 $0.2h$  = Horizontal dimension 0.2 times height  
 $0.4h$  = Horizontal dimension 0.4 times height  
 $0.6h$  = Horizontal dimension 0.6 times height  
 $1.2h$  = Horizontal dimension 1.2 times height  
 $2.4h$  = Horizontal dimension 2.4 times height

Roof with larger horizontal dimension $\leq 0.4h$ : Zones 1, 1' and 2 do not exist		LEGEND
<b>Roofs Greater Than 60 feet in Height</b>		
<ul style="list-style-type: none"> <li>Building Lesser Plan Dimension (w) x .10</li> <li>Subject to minimum of 3 feet</li> <li>- Corner Areas (Zone 3) are L-shaped with width = (a) and length = 2 times (a)</li> </ul>		
<b>Roofs with continuous parapet walls along the perimeter, Zone 3 areas may be treated as zone 2 where:</b>		
<ul style="list-style-type: none"> <li>Perimeter parapets are continuous and are greater than or equal to 3 feet in height</li> <li>Roof height is greater than 60 feet</li> </ul>		
Supplemental securement is required within all Perimeter and Corner Zones areas in accordance with IB Roof Systems General Requirements Sections 4.9, 4.10, 4.11, 4.12 and 4.13, Roof Assembly Specifications and Construction Details.		
a. <u>Mechanically Attached Systems</u> : Refer to Tables A-7, A-8, A-9, and Construction Details MA-AT-08, MA-AT-09, MA-AT-10, MA-AT-11, MA-AT-12, MA-AT-13, MA-AT-14, and MA-AT-15 for additional information.		
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<b>Scale:</b> NTS	<b>Detail Name:</b> <b><i>Perimeter &amp; Corner Zone - Low Slope ≥ 60 ft per ASCE 7-16</i></b>	<b>Detail Number:</b> <b><i>MS - 04</i></b>
<b>Submitted By:</b> Address: Telephone:		<b>Project:</b> Address: