

1

CONSTRUCTION PACKAGE FOR COLD FORMED STEEL BUILDING
CREATED FOR NOLAN CANNON
JOB NUMBER 98733405



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CONSTRUCTION PACKAGE NOTES

This construction package is to be used in conjunction with the created order for the job. All lengths and piece marks of materials in this package will correspond to an item in the order. For example, on the Sidewall A girt layout, there will likely be an item with a piece mark of SGA1. This will correspond to a line item in the order with the piece mark of SGA1. Products that do not include a piece mark will be marked with the product code.

All girt layout and sheeting layouts drawings in this construction package are exterior views, and in these illustrations, components are drawn as if viewed from the outside of the building.

All drawings in this construction package are for reference only, and are to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

CONSTRUCTION NOTIFICATIONS

The following items will require non-typical installation that will take extra time and care during the construction process. Please take precautions.

Some opening headers in building do not match girt size in wall. In these cases, standard header installation will not be possible, and header will need to be rotated with web of header pointed to outside of building instead of pointing down.

IMPORTANT

IN ADDITION TO THIS DOCUMENT, YOU SHOULD ALSO HAVE THE FOLLOWING BUILDING SPECIFIC DOCUMENTS FROM YOUR BUILDING REPRESENTATIVE:

ENGINEERING PLAN
COPY OF THE ORDER

FOR MORE INFORMATION TO HELP MAKE COLD FORMED CONSTRUCTION EASIER, PLEASE SEE THE BELOW LINKS:



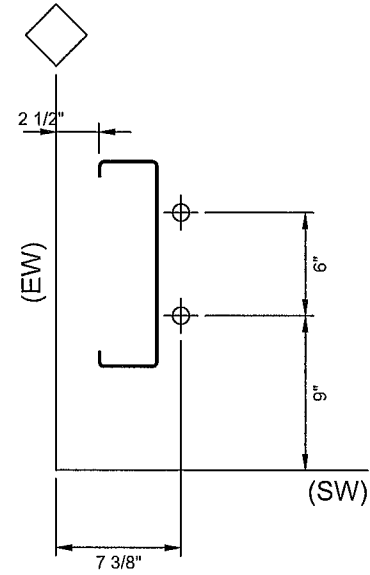
INSTALLATION MANUALS
<http://bit.ly/ACTInstallManuals>



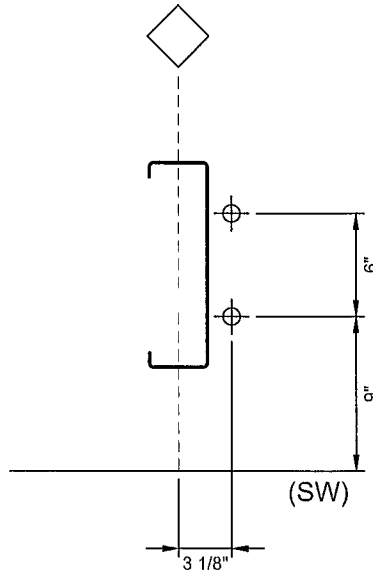
CONSTRUCTION VIDEOS
<http://bit.ly/ACTConstructionVids>



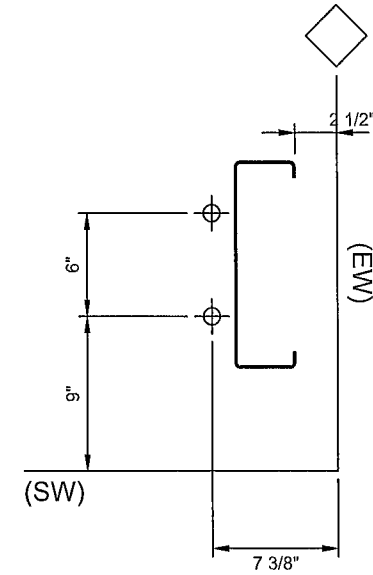
HINTS AND TIPS
<http://bit.ly/ACTConstructionTips>



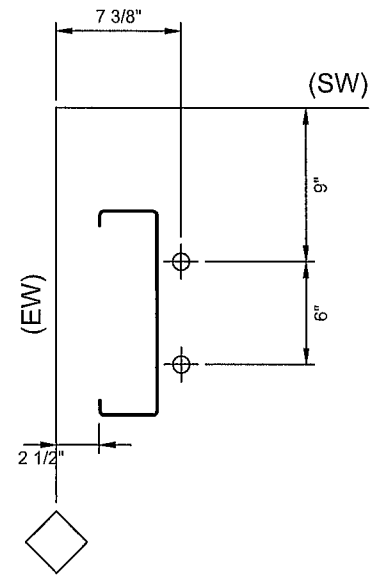
A



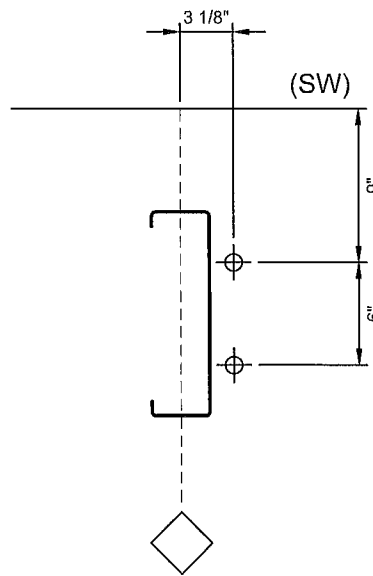
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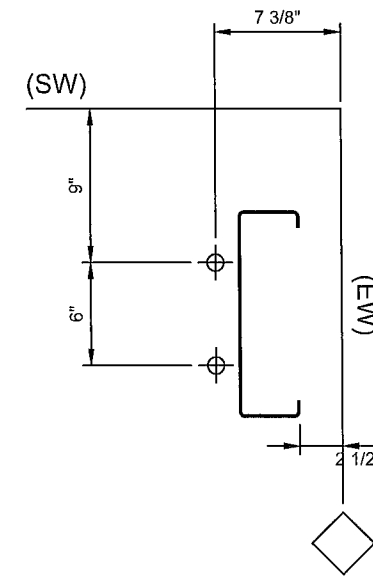
C



D



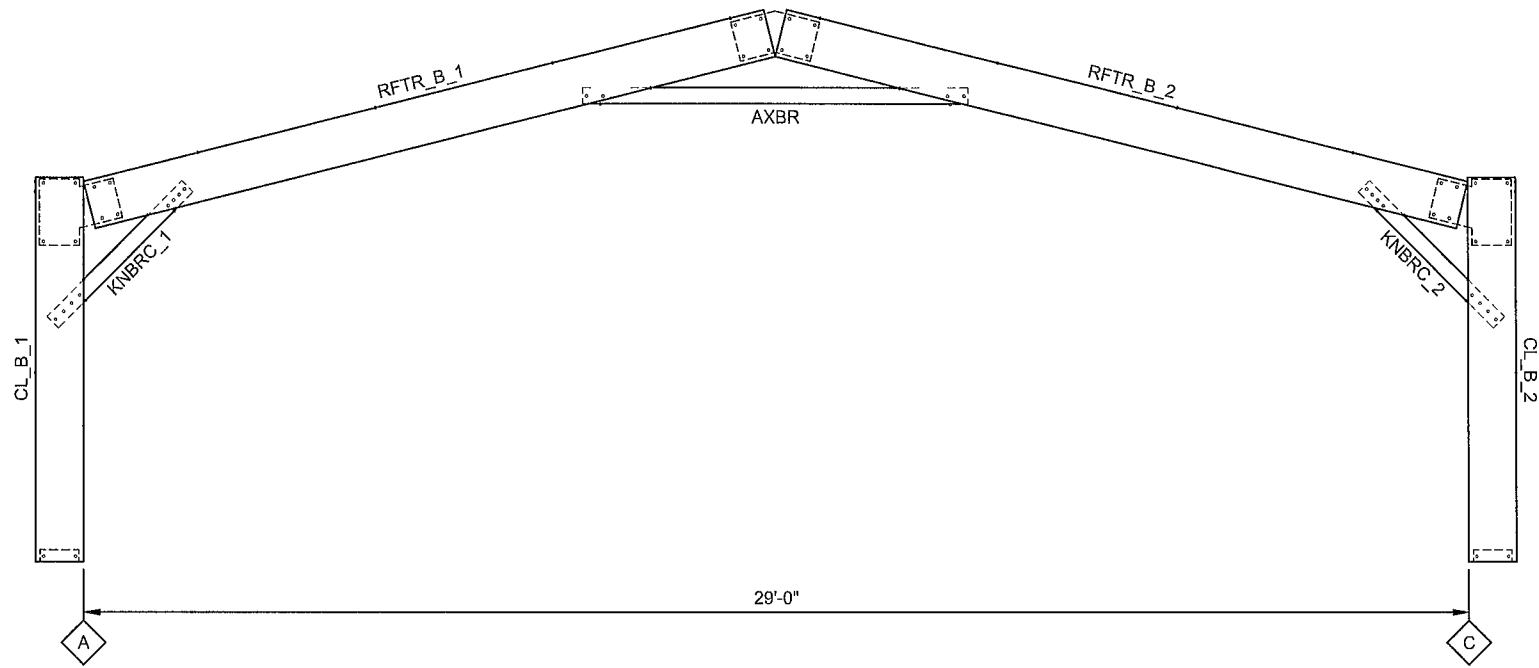
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F

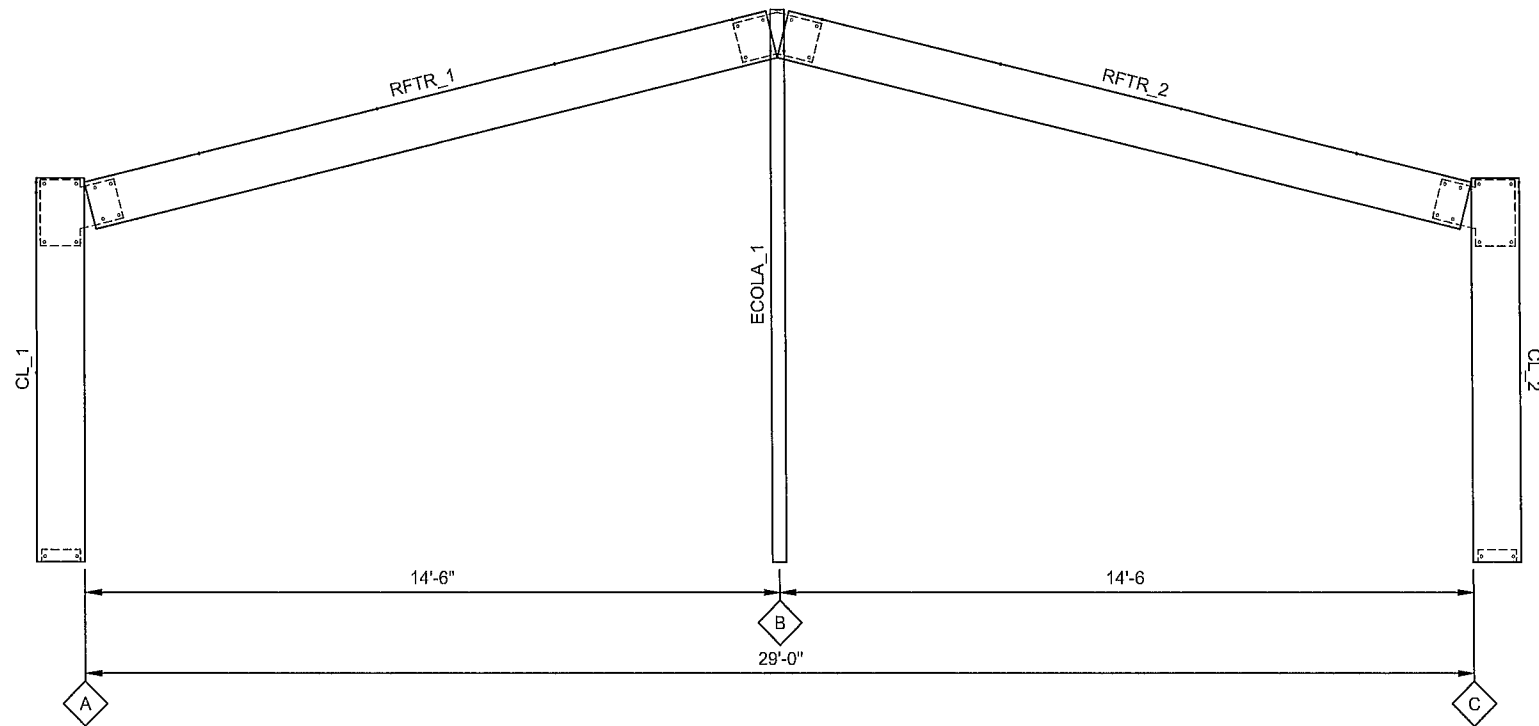
This illustration is for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

MEMBER TABLE		
Mark	Product	Length
AXBR	4" x 14ga CEE	8' - 1"
CL_1	12" x 12ga CEE	7' - 11 1/4"
CL_2	12" x 12ga CEE	7' - 11 1/4"
CL_B_1	12" x 12ga CEE	7' - 11 1/4"
CL_B_2	12" x 12ga CEE	7' - 11 1/4"
ECOLA_1	10" x 14ga CEE	11' - 5 3/8"
KNBRC_1	4" x 14ga CEE	3' - 11 3/4"
KNBRC_2	4" x 14ga CEE	3' - 11 3/4"
RFTR_1	12" x 12ga CEE	14' - 8 3/8"
RFTR_2	12" x 12ga CEE	14' - 8 3/8"
RFTR_B_1	12" x 12ga CEE	14' - 8 3/8"
RFTR_B_2	12" x 12ga CEE	14' - 8 3/8"



2 Portal Section
5 SCALE: 1/4" = 1'-0"

Frame Lines 2 and 3

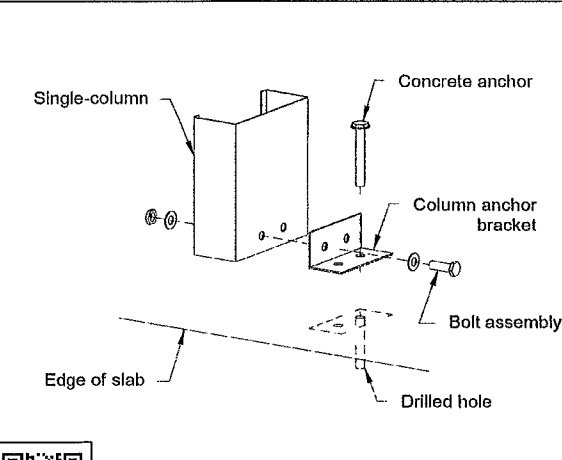


1 Portal Section
5 SCALE: 1/4" = 1'-0"

Frame Line 1

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Single-column


Concrete anchor

Column anchor bracket

Bolt assembly

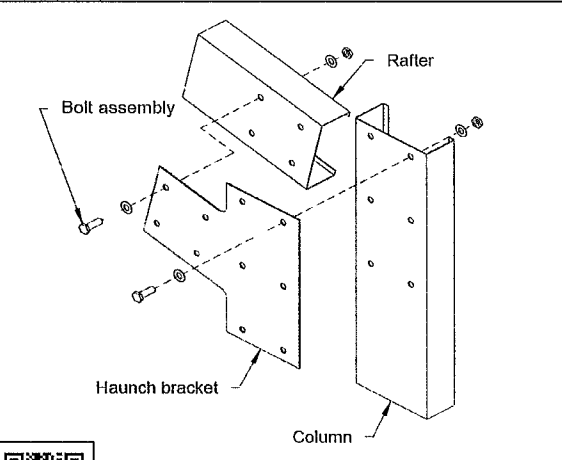
Edge of slab

Drilled hole



Single Base Bracket

<https://r.actbs.com/g/abs525>




Bolt assembly

Rafter

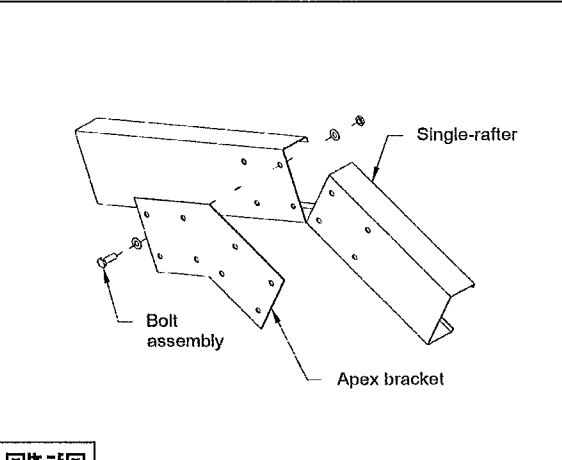
Haunch bracket

Column



Single Haunch Bracket


<https://r.actbs.com/g/abs265>



Bolt assembly

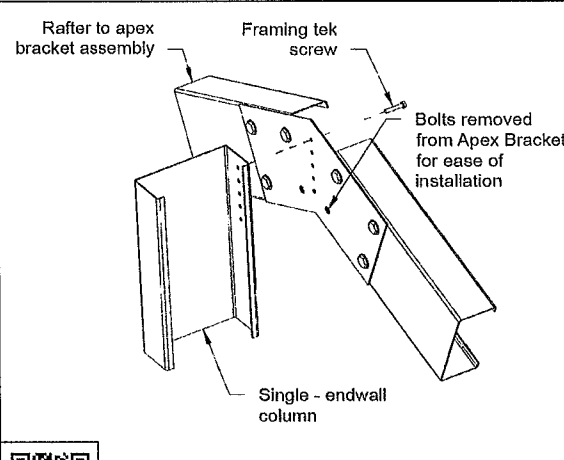
Single-rafter

Apex bracket



Single Apex Bracket

<https://r.actbs.com/g/abs021>




Rafter to apex bracket assembly

Framing tek screw

Bolts removed from Apex Bracket for ease of installation

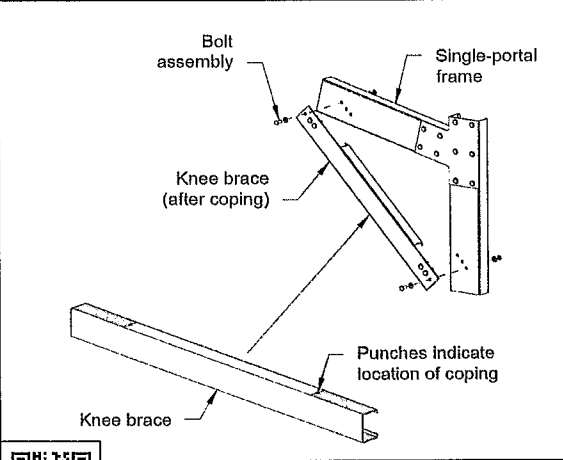
Single-endwall column

Single-rafter



Endwall Column to Rafter Peak

<https://r.actbs.com/g/abs181>




Bolt assembly

Single-portal frame

Knee brace (after coping)

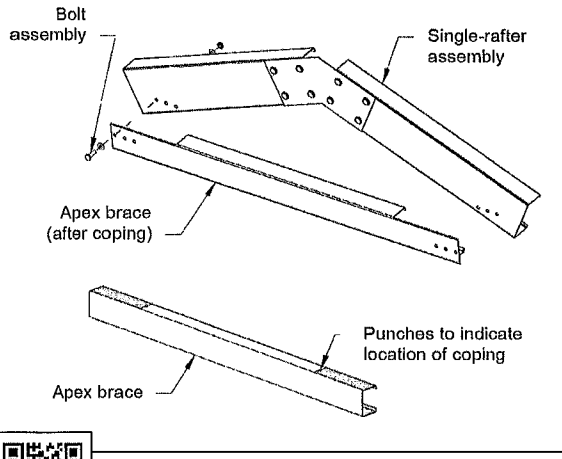
Punches indicate location of coping

Knee brace



Single Knee Brace

<https://r.actbs.com/g/abs289>




Bolt assembly

Single-rafter assembly

Apex brace (after coping)

Punches to indicate location of coping

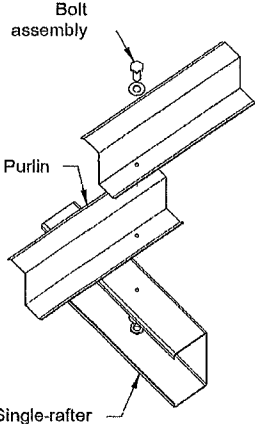
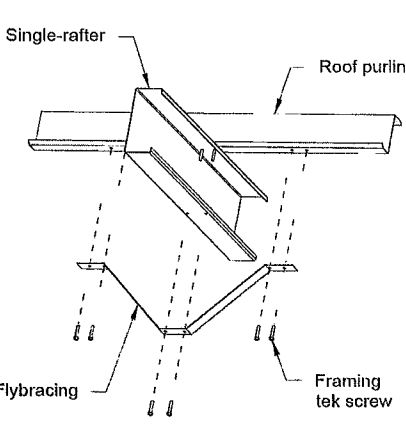
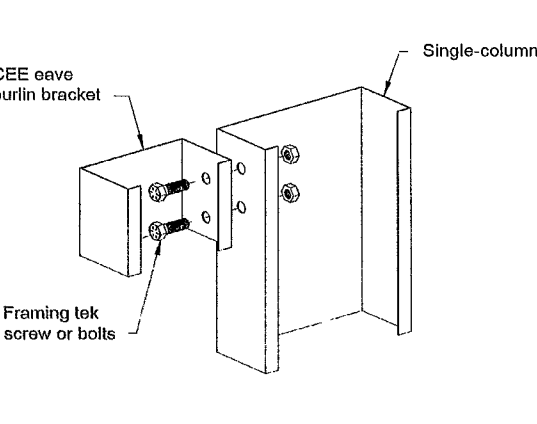
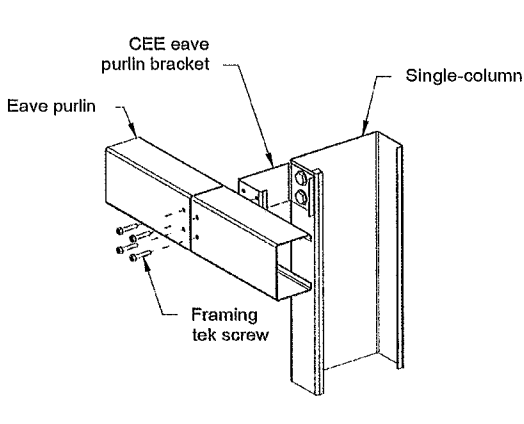
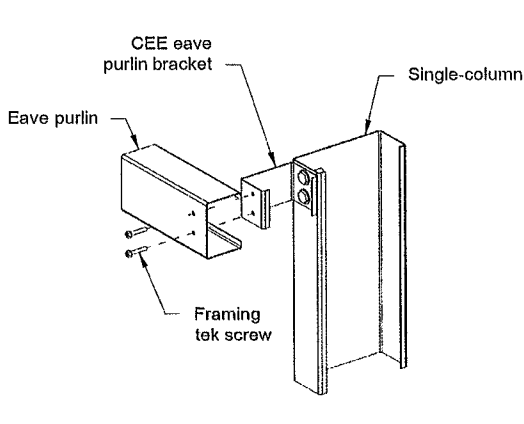





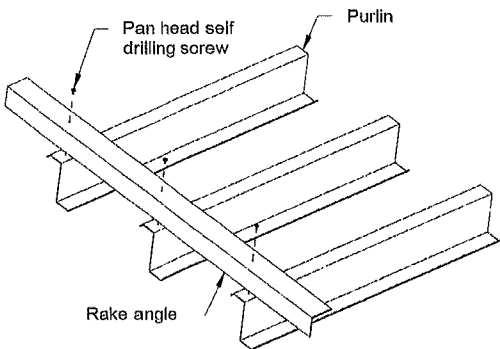
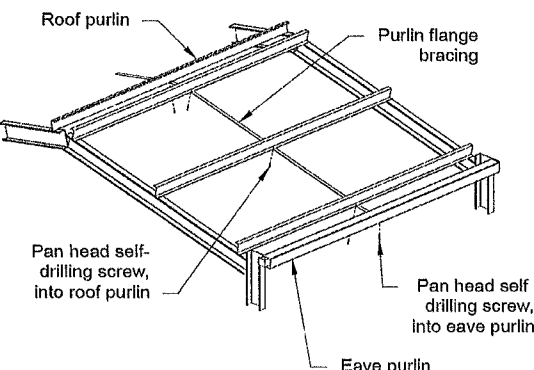


Apex brace



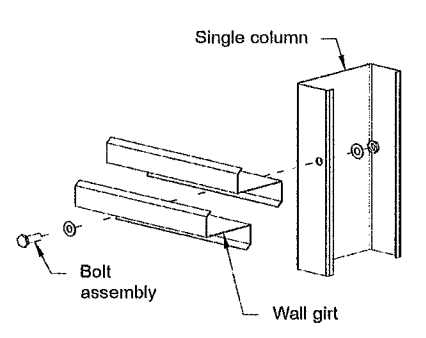
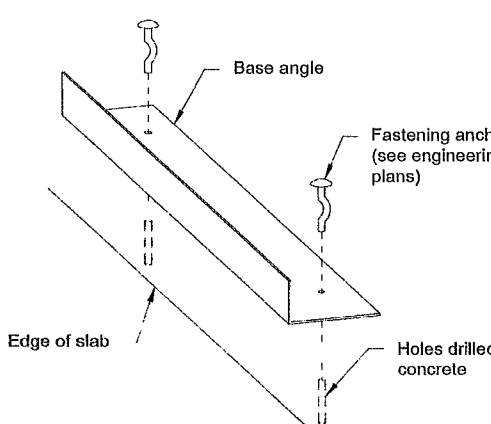
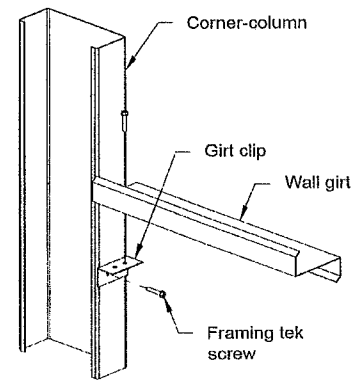
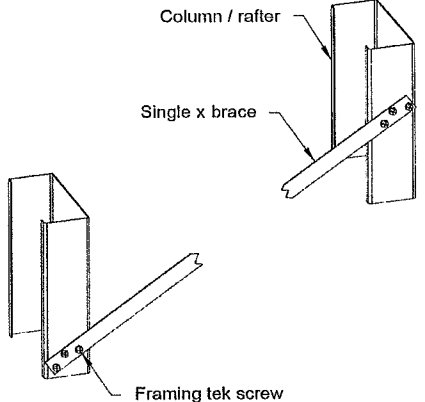
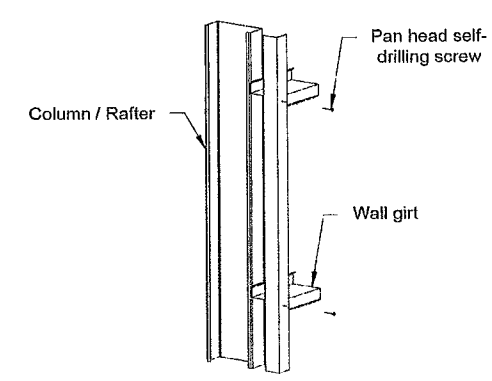





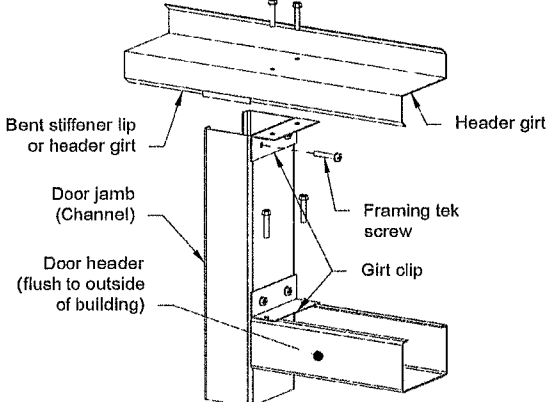
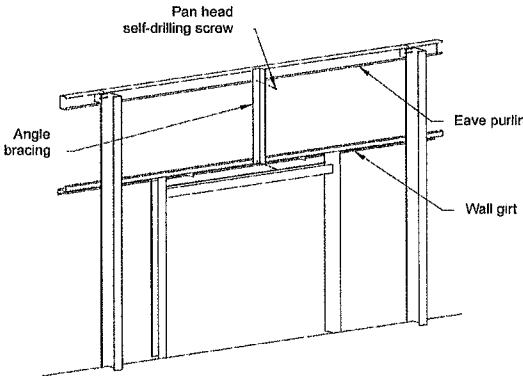


Single Apex Brace

<https://r.actbs.com/g/abs009>

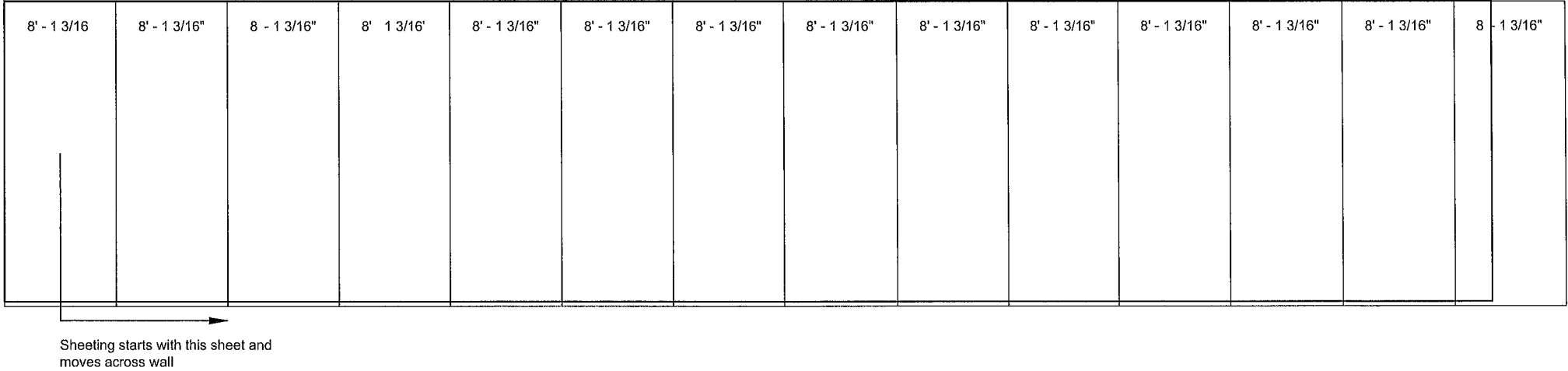
This illustration is for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

 <p>Bolt assembly Purlin Single-rafter</p>	 <p>Single-rafter Roof purlin Flybracing Framing tek screw</p>	 <p>CEE eave purlin bracket Framing tek screw or bolts Single-column</p>	 <p>CEE eave purlin bracket Eave purlin Framing tek screw Single-column</p>	 <p>CEE eave purlin bracket Eave purlin Framing tek screw Single-column</p>
 <p>Purlin Rafter Single</p> <p>https://r.actbs.com/g/abs453</p>	 <p>Flybrace Rafter Single</p> <p>https://r.actbs.com/g/abs207</p>	 <p>Eave Purlin Bracket Single CEE</p> <p>https://r.actbs.com/g/abs085</p>	 <p>Eave Purlin Single CEE</p> <p>https://r.actbs.com/g/abs076</p>	 <p>Eave Purlin End CEE</p> <p>https://r.actbs.com/g/abs075</p>
 <p>Pan head self-drilling screw Purlin Rake angle</p>	 <p>Roof purlin Purlin flange bracing Pan head self-drilling screw, into roof purlin Pan head self-drilling screw, into eave purlin Eave purlin</p>			
 <p>Rake Angle</p> <p>https://r.actbs.com/g/abs465</p>	 <p>Purlin Flange Bracing</p> <p>https://r.actbs.com/g/abs441</p>			

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 <p>Single column</p> <p>Bolt assembly</p> <p>Wall girt</p>	 <p>Base angle</p> <p>Fastening anchors (see engineering plans)</p> <p>Edge of slab</p> <p>Holes drilled in concrete</p>	 <p>Corner-column</p> <p>Girt clip</p> <p>Wall girt</p> <p>Framing tek screw</p>	 <p>Column / rafter</p> <p>Single x brace</p> <p>Framing tek screw</p>	 <p>Column / Rafter</p> <p>Pan head self-drilling screw</p> <p>Wall girt</p>
 <p>Girt Column Single</p> <p>https://r.actbs.com/g/abs221</p>	 <p>Base Angle</p> <p>https://r.actbs.com/g/abs025</p>	 <p>Endwall Girt To Column</p> <p>https://r.actbs.com/g/abs241</p>	 <p>X-Bracing</p> <p>https://r.actbs.com/g/abs545</p>	 <p>Corner Angle</p> <p>https://r.actbs.com/g/abs061</p>
 <p>Bent stiffener lip or header girt</p> <p>Header girt</p> <p>Door jamb (Channel)</p> <p>Door header (flush to outside of building)</p> <p>Framing tek screw</p> <p>Girt clip</p>	 <p>Pan head self-drilling screw</p> <p>Angle bracing</p> <p>Eave purlin</p> <p>Wall girt</p>			
 <p>Jamb to Header Girt</p> <p>https://r.actbs.com/g/abs517</p>	 <p>Door Opening with Bracing</p> <p>https://r.actbs.com/g/abs435</p>			

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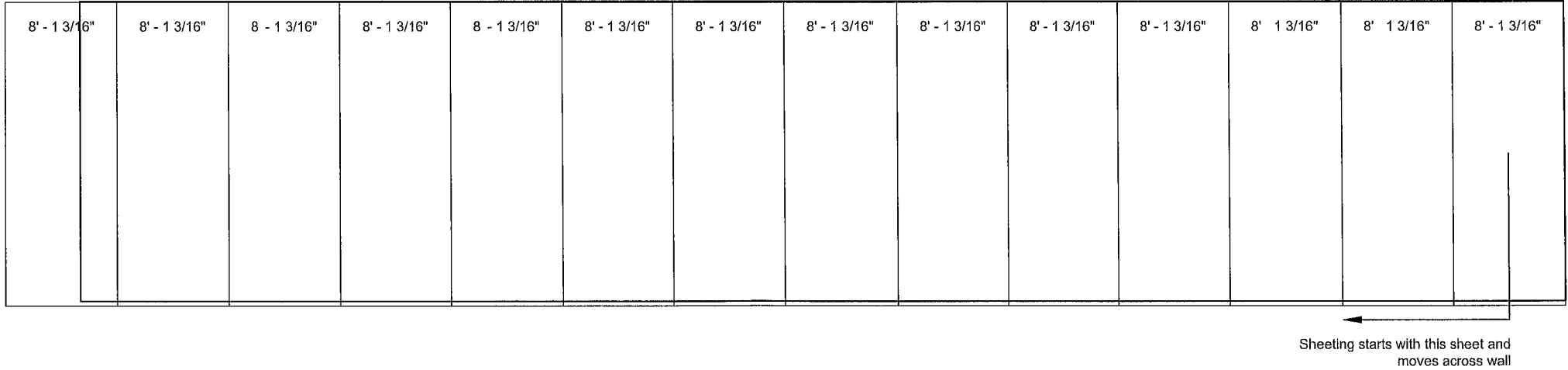


2
13

Sidewall B Sheeting Layout

SCALE: 1/4" = 1'-0"

Frame Line C



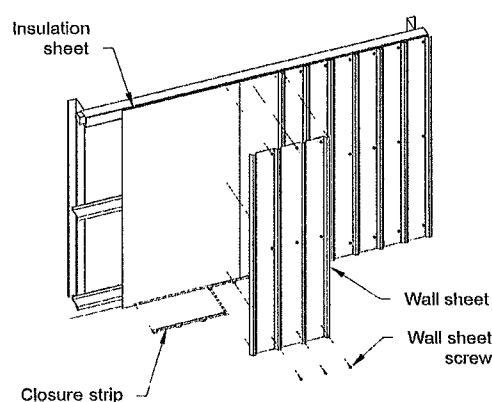
1
13

Sidewall A Sheeting Layout

SCALE: 1/4" = 1'-0"

Frame Line A

This illustration is for reference only and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.



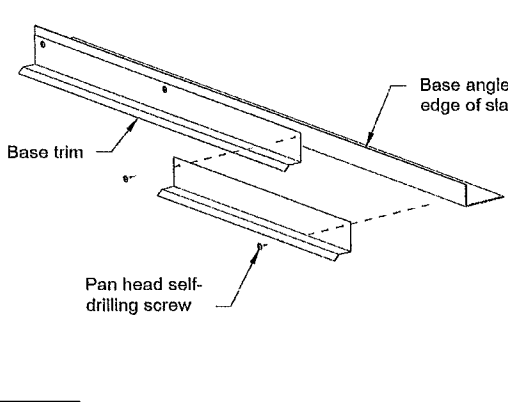
Insulation sheet

Wall sheet

Wall sheet screw

Closure strip

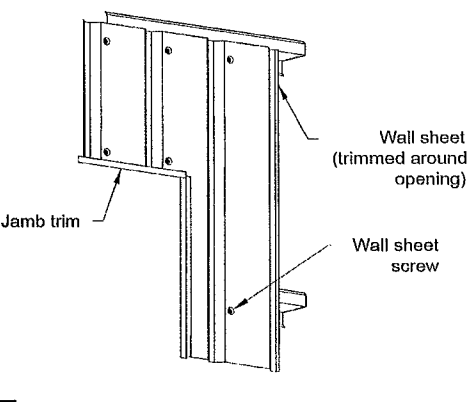
Jamb trim



Base trim

Base angle/edge of slab

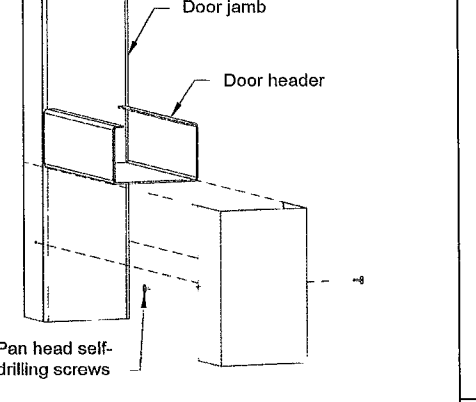
Pan head self-drilling screw



Wall sheet (trimmed around opening)

Wall sheet screw

Jamb trim

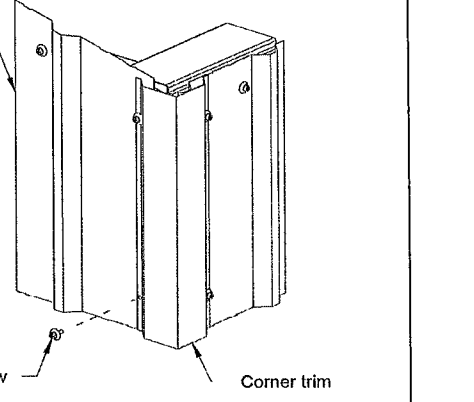


Door jamb

Door header

Pan head self-drilling screws

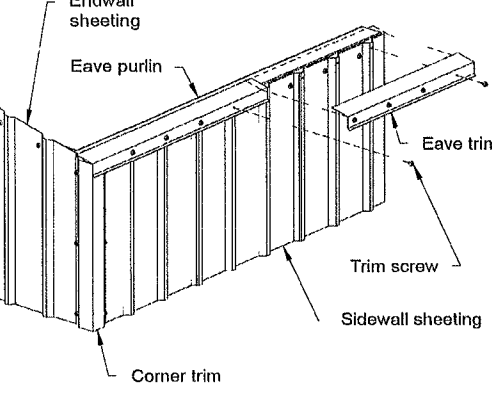
Jamb trim



Wall sheeting

Trim screw

Corner trim



Endwall sheeting

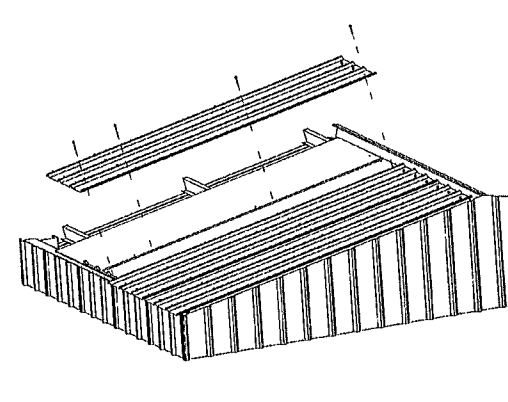
Eave purlin

Eave trim

Trim screw

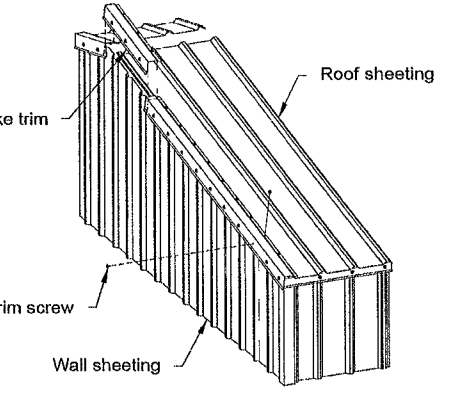
Sidewall sheeting

Corner trim



Roof sheeting

Wall sheeting

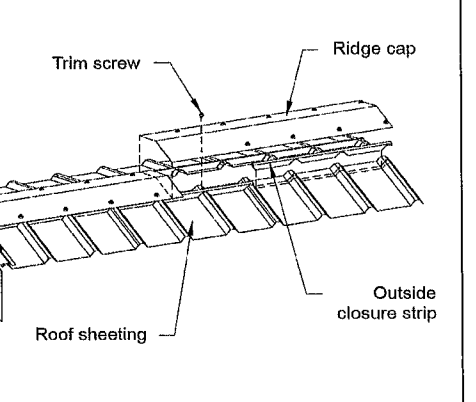


Rake trim

Roof sheeting

Trim screw

Wall sheeting

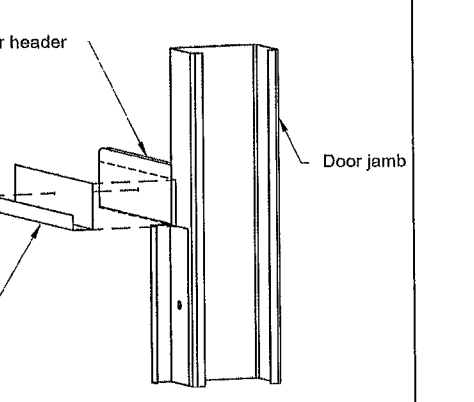


Trim screw

Ridge cap

Roof sheeting

Outside closure strip

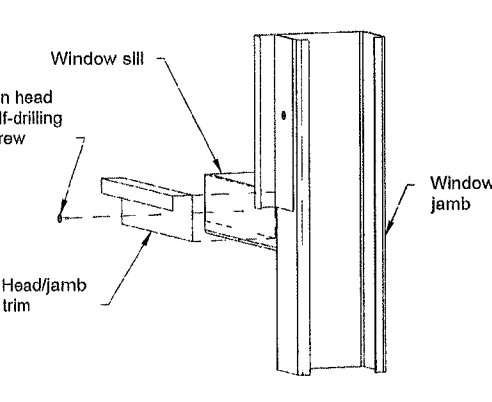


Door header

Door jamb

Pan head self-drilling screw

Head/jamb trim



Window sill

Pan head self-drilling screw

Window jamb

Head/jamb trim

Sheeting Layout Details

JOBNO VLIT98733405
SHEET 15 of 16

DATE 12/10/2024
SCALE N/A

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Order Code	Qty	Length	Supplier	Description	Usage	Piece Mark
	1	--	MBCI	3070M Insulated Metal Walk Door with Door Knob and Lock	3070M Insulated Metal Walk Door with Door Knob and Lock (1)	
1000-0060615	28	16' - 7 3/16"	MBCI	PBR Panel 26G P-WHITE	Roof Sheeting (28)	
1000-0060627	28	8' - 1 3/16"	MBCI	PBR Panel 26G CHARCOL	Sidewall A Sheeting (14); Sidewall B Sheeting (14)	
1000-0060627	2	8' - 6 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-11-1 (1); Endwall B Sheeting-11-1 (1)	
1000-0060627	2	8' - 9 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-01-1 (1); Endwall B Sheeting-01-1 (1)	
1000-0060627	2	9' - 3 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-10-1 (1); Endwall B Sheeting-10-1 (1)	
1000-0060627	2	9' - 6 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-02-1 (1); Endwall B Sheeting-02-1 (1)	
1000-0060627	2	10' - 0 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-09-1 (1); Endwall B Sheeting-09-1 (1)	
1000-0060627	2	10' - 3 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-03-1 (1); Endwall B Sheeting-03-1 (1)	
1000-0060627	2	10' - 9 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-08-1 (1); Endwall B Sheeting-08-1 (1)	
1000-0060627	2	11' - 0 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-04-1 (1); Endwall B Sheeting-04-1 (1)	
1000-0060627	2	11' - 6 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-07-1 (1); Endwall B Sheeting-07-1 (1)	
1000-0060627	2	11' - 9 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-05-1 (1); Endwall B Sheeting-05-1 (1)	
1000-0060627	2	12' - 0 1/2"	MBCI	PBR Panel 26G CHARCOL	Endwall A Sheeting-06-1 (1); Endwall B Sheeting-06-1 (1)	
5100-0068082	1	11' - 5 3/8"	MBCI	10x3.5 CEE 14G Red Oxide	Endwall A Column 1 (1)	ECOLA_1
5100-0068082	1	11' - 5 3/8"	MBCI	10x3.5 CEE 14G Red Oxide	Endwall B Column 1 (1)	ECOLB_1
5100-0068290	2	7' - 11 1/4"	MBCI	12x3.5 CEE 12G Red Oxide	Column (2)	CL_1
5100-0068290	2	7' - 11 1/4"	MBCI	12x3.5 CEE 12G Red Oxide	Column (2)	CL_2
5100-0068290	2	7' - 11 1/4"	MBCI	12x3.5 CEE 12G Red Oxide	Column, punched for braces (2)	CL_B_1
5100-0068290	2	7' - 11 1/4"	MBCI	12x3.5 CEE 12G Red Oxide	Column, punched for braces (2)	CL_B_2
5100-0068290	2	14' - 8 3/8"	MBCI	12x3.5 CEE 12G Red Oxide	Rafter (2)	RFTR_1
5100-0068290	2	14' - 8 3/8"	MBCI	12x3.5 CEE 12G Red Oxide	Rafter (2)	RFTR_2
5100-0068290	2	14' - 8 3/8"	MBCI	12x3.5 CEE 12G Red Oxide	Rafter, punched for braces (2)	RFTR_B_1
5100-0068290	2	14' - 8 3/8"	MBCI	12x3.5 CEE 12G Red Oxide	Rafter, punched for braces (2)	RFTR_B_2
5100-0068682	2	3' - 11 3/4"	MBCI	4X2-1/2 CEE 14G Red Oxide	Knee Brace (2)	KNBRC_1
5100-0068682	2	3' - 11 3/4"	MBCI	4X2-1/2 CEE 14G Red Oxide	Knee Brace (2)	KNBRC_2
5100-0068682	2	8' - 1"	MBCI	4X2-1/2 CEE 14G Red Oxide	Apex Brace (2)	AXBR
5200-0068904	1	10' - 2"	MBCI	6X2-1/8X2-3/8 ZEE 12G Red Oxide	Endwall A Girt (1)	EG01
5200-0068904	1	12' - 7 1/16"	MBCI	6X2-1/8X2-3/8 ZEE 12G Red Oxide	Endwall A Girt (1)	EG02
5200-0068904	1	14' - 7 1/4"	MBCI	6X2-1/8X2-3/8 ZEE 12G Red Oxide	Endwall B Girt (1)	EG03
5200-0068904	1	14' - 7 1/4"	MBCI	6X2-1/8X2-3/8 ZEE 12G Red Oxide	Endwall B Girt (1)	EG04
5200-0068904	1	15' - 6"	MBCI	6X2-1/8X2-3/8 ZEE 12G Red Oxide	Endwall A Girt (1)	EG05

Order Code	Qty	Length	Supplier	Description	Usage	Piece Mark
8704-0505333	18	50' - 0"	MBCI	HW505 3/8X3/32 TAPE SEALR-ROLL (Tape Sealant 3/8 x 3/32 x 50ft Single Bead)	Roll Mastic (18)	
8953-0740618	3	100' - 0"	MBCI	CFB STRAPPING 1.5"X100' 14G Red Oxide	Consolidated Short Pieces (3)	
9000-0508071	250	--	MBCI	1: DP3 1/4-14X1 WW (14-14 X 1 Screw Tek Hex Plated CL3 H/Duty)	Framing Screws - Endwall Column to Endwall Rafter (16), X-Bracing (32), Girts (26), Eave Purlins (24), Flybracing (24); Fastener Wastage (19)	
9000-0508982	250	--	MBCI	12: PANCAKE-DP3 10-16X1 NW (10x1in Pancake Head Screw)	Pancake Head Screws - X-Bracing (4), Girt and Purlin Flange Bracing (50), Corner Angle (4), Rake Angle (20), Base Trim (100), Eave Trim (24), Opening Jamb/Header Trim (13); Fastener Wastage (33)	
9000-0515856	750	--	MBCI	3A: DP3 12-14X1-1/2 WW LL P-WHITE (12-14 x 1-1/2" Long Life Driller)	Roof Sheeting Screws (560); Fastener Wastage (84)	
9000-0515868	1000	--	MBCI	3A: DP3 12-14X1-1/2 WW LL CHARCOL (12-14 x 1-1/2" Long Life Driller)	Wall Sheeting Screws (722); Fastener Wastage (109)	
9000-0516092	1000	--	MBCI	4: LAP TEK 1/4-14X7/8 WW LL P-WHITE (1/4"-14 x 7/8" Long Life Lap TEK Fastener)	Stitch Screws - Roof Sheeting (442), Eave Trim (84), Rake Trim (144), Ridge Cap (84); Fastener Wastage (114)	
9000-0516104	750	--	MBCI	4: LAP TEK 1/4-14X7/8 WW LL CHARCOL (1/4"-14 x 7/8" Long Life Lap TEK Fastener)	Stitch Screws - Wall Sheeting (448), Corner Trim (48); Fastener Wastage (75)	
9200-0510799	250	--	MBCI	14A: RIVET-POP 1/8X3/8 SS P-WHITE (1/8" x 0.525" Pop Rivet)	Pop Rivets - Rake Trim (8); Fastener Wastage (2)	
9300-1198647	156	--	MBCI	HWF3545 5/8X1-3/4 A325 Bolt W/A563 Nut (5/8X1-3/4 Bolt & Nut - Plated)	Bolts - Column Anchor Brackets (16), Haunch Bracket (64), Apex Bracket (32), Knee Braces (32), Apex Braces (8), Endwall Column Anchor Brackets (4)	
9300-1232900	58	--	MBCI	HWF363 1/2X1-1/4 A325 BOLT A563 NUT (1/2 X 1 Bolt & Nut - Plated)	Bolts - Girts (10), Purlins (32), Eave Purlins (16)	
9302-0740529	30	--	MBCI	CFB CONCRETE ANCHOR 1/2"X3"	Concrete Anchors - Sidewall Columns (16), Endwall Columns (4), Girt Flange Bracing (10)	
9401-0519160	58	--	MBCI	HW390 1/2" Flat Washer	Bolts - Girts (10), Purlins (32), Eave Purlins (16)	
DEL	1	--	MBCI	Delivery Fee	Delivery Fee	
ST	1	--	MBCI	--- Sub Total ---	--- Sub Total ---	
GT	1	--	--	--- Grand Total ---	--- Grand Total ---	

SCREW CONNECTION DESIGN

ds = Nominal screw diameter (in.)
Ω Omega = 3.0
Pns = Nominal shear strength per screw (lbs.)
Pnt = Nominal tension strength per screw (lbs.)
Pnot = Nominal pull-out strength per screw (lbs.)
Pnov = Nominal pull-over strength per screw (lbs.)
g1 = nominal gauge of member in contact with the screw head (in.)
t1 = Thickness of member in contact with the screw head (in.)
g2 = nominal gauge of member NOT in contact with the screw head (in.)
t2 = Thickness of member NOT in contact with the screw head (in.)
Fu1 = Tensile strength of member in contact with the screw head (lbs.)
Fu2 = Tensile strength of member NOT in contact with the screw head (lbs.)

NOTATIONS

ROOF PANEL (PBR-Panel 26G)				WALL PANEL (PBR-Panel 26G)			
g1 =	26			g1 =	26		
g2 =	16			g2 =	12		
t1 =	0.0179			t1 =	0.0179		
t2 =	0.057			t2 =	0.1046		
Fu1 =	80000			Fu1 =	80000		
Fu2 =	67000			Fu2 =	67000		
Screw # =	12			Screw # =	12		
ds (in.) =	0.216			ds (in.) =	0.216		

ALLOWABLE SHEAR BASED ON CONNECTED MATERIALS:
t2/t1 = 3.18

Pns (eq. E4.3.1-4) =	835	Pns (eq. E4.3.1-4) =	835
Allowable Shear per Screw (Ω Omega = 3.0):	278	Allowable Shear per Screw =	278

ALLOWABLE SHEAR BASED ON SCREW:

Allowable Shear per Screw =	625	Allowable Shear per Screw =	625
Design Shear per Screw =	278	Design Shear per Screw =	278

ALLOWABLE TENSION BASED ON CONNECTED MATERIALS:

Pullout Strength, Pnot (eq. E4.4.1.1) =	701	1287
Pullover Strength, Pnov (eq. E4.4.2.1) =	537	537
Allowable Tension per Screw (lbs.) =	179	179
Nominal Screw Tension Strength (lbs) =	860	860

This item has been electronically signed and sealed by Coleman D. Larsen, 12/17/24 using a Digital Signature.

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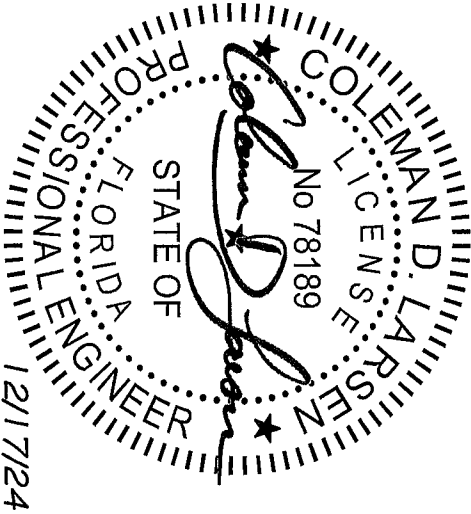




TABLE 5 - ALLOWABLE UNIFORM LIVE LOADS FOR 78" PANEL (psf) 12244413

SPAN TYPE	LOAD TYPE	29 GAUGE (Fy = 50 KSI)										26 GAUGE (Fy = 50 KSI)									
		SPAN IN FEET										SPAN IN FEET									
		2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0
SIMPLE	NEGATIVE WIND LOAD	277.0	95.0	54.0	35.0	24.0	8.0	301.0	124.0	75.0	48.0	33.0	25.0								
	LIVE LOAD/DEFLECTION	113.0	50.0	22.0	11.0	7.0	4.0	165.0	62.0	35.0	18.0	10.0	7.0								
2-SPAN	NEGATIVE WIND LOAD	133.0	63.0	36.0	24.0	16.0	12.0	231.0	107.0	60.0	45.0	38.0	27.0	20.0							
	LIVE LOAD/DEFLECTION	100.0	47.0	27.0	18.0	12.0	9.0	173.0	80.0	45.0	28.0	15.0	10.0	7.0							
3-SPAN	NEGATIVE WIND LOAD	159.0	77.0	45.0	29.0	20.0	15.0	261.0	131.0	75.0	48.0	33.0	25.0								
	LIVE LOAD/DEFLECTION	116.0	56.0	34.0	21.0	12.0	8.0	211.0	96.0	56.0	33.0	19.0	13.0	9.0							
4-SPAN	NEGATIVE WIND LOAD	151.0	72.0	43.0	28.0	19.0	15.0	264.0	123.0	71.0	45.0	32.0	23.0								
	LIVE LOAD/DEFLECTION	113.0	54.0	32.0	21.0	13.0	8.0	196.0	82.0	53.0	34.0	20.0	13.0								

SPAN TYPE	LOAD TYPE	24 GAUGE (Fy = 50 KSI)										22 GAUGE (Fy = 50 KSI)									
		SPAN IN FEET										SPAN IN FEET									
		2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0
SIMPLE	NEGATIVE WIND LOAD	331.0	147.0	83.0	53.0	37.0	27.0	377.0	168.0	94.0	60.0	42.0	31.0								
	LIVE LOAD/DEFLECTION	244.0	106.0	51.0	26.0	15.0	10.0	330.0	147.0	67.0	34.0	20.0	12.0								
2-SPAN	NEGATIVE WIND LOAD	313.0	143.0	81.0	52.0	36.0	27.0	368.0	165.0	93.0	60.0	41.0	31.0								
	LIVE LOAD/DEFLECTION	236.0	107.0	61.0	36.0	27.0	20.0	277.0	124.0	70.0	45.0	31.0	23.0								
3-SPAN	NEGATIVE WIND LOAD	365.0	176.0	100.0	64.0	45.0	33.0	311.0	207.0	117.0	75.0	52.0	39.0								
	LIVE LOAD/DEFLECTION	266.0	132.0	75.0	46.0	32.0	17.0	233.0	155.0	80.0	53.0	31.0	19.0								
4-SPAN	NEGATIVE WIND LOAD	361.0	165.0	83.0	60.0	43.0	31.0	428.0	193.0	109.0	71.0	49.0	36.0								
	LIVE LOAD/DEFLECTION	271.0	124.0	70.0	45.0	29.0	18.0	321.0	145.0	82.0	53.0	32.0	20.0								

For St = 1 foot = 304.8 mm, 1 ksi = 6.89 MPa, 1 psi = 0.0479 kN/m².

- 1. Allowable loads are based on equal span lengths and Fy of 50 KSI for 29 and 26 gauge and Fy of 50 KSI for 24 and 22 gauge.
- 2. Live load is allowable live load based on combined bending + shear stress.
- 3. Wind load is allowable wind load based on combined bending + shear and has been increased by 33.33%.
- 4. Deflection loads are limited by a maximum deflection ratio of L/240 of span or maximum combined bending + shear stress from live load.
- 5. Weight of the panel has not been deducted from allowable loads.
- 6. Load table values do not address web crippling requirements, (see Table 4), or connection of panel to substrate, (fastener pullout/bulover).
- 7. Minimum bearing length of 1.5" required.
- 8. See page Figure 3 for fastener location.

FOUNDATION DESIGN

CONCRETE STRENGTH (f'c): 2500 psi
REINF. YIELD STRENGTH: 60000 psi
ALLOW SOIL PRESSURE. 1500 psf

NOTE: FOOTING SHALL EXTEND BELOW LOCAL FROST DEPTH. CONSULT
LOCAL BUILDING DEPARTMENT FOR REQUIREMENTS.

ENDWALL CONTINUOUS FOOTING

CONCRETE SLAB THICKNESS 4 in. (MIN.)
DEPTH OF FTG. BELOW GRADE 12 in. (MIN.)
DESIGN SOIL PRESSURE 1350 psf
FOOTING WIDTH 12 IN (MIN.)
FOOTING DEPTH 12 IN (MIN)
DOWNWARD LOAD AT ENDWALL COLUMN 1747 lbs.
FOOTING AREA REQUIRED 1.3 ft.^2
NET UPLIFT LOAD FROM ENDWALL COLUMN 1874 lbs.
NET UPLIFT FROM ENDWALL X-BRACE 378 lbs.
DESIGN d top 10.0 in.
DESIGN d bottom 8.5 in.
LENGTH FTG. REQ'D. (DL+RL) 1.3 ft. OK
LENGTH FTG REQ'D (UPLIFT) 6.8 ft. OK

	TOP	BOTTOM	(ACTUAL MOMENT AT ANCHOR BOLT LOCATION = 1595 FT.-LBS., f(t) top = 66 psi AND f(r) = 375 psi, THEREFORE DESIGN ANCHOR BOLTS IN UNCRACKED CONCRETE (SEE CALC PG. F4) (FROM A.C.I. FLEXURE TABLES)
Mu DESIGN MOMENT (ft.-lbs.).	2234	480	
AREA OF STEEL REQ.	0.12	0.03	
AREA OF STL. PROVIDED	0.07	0.02	
	0.20	0.20	OK

USE ----> 12" WIDE BY 12" DEEP FOOTING W/ (1)-#4 TOP AND (1)-#4 BTM.
(NO SHEAR REINF. REQ'D)

[illegible]

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WALL GIRT DESIGN

SIDEWALL 'A' AND 'B' GIRT DESIGN		
MEMBER SIZE USED -->		6in x 2 125/2.375in 16G ZEE
ALL BAYS		
BAY WIDTH (ft.)	13.33	
MAX. GIRT SPAN (ft.)	13.33	
TRIB. WIDTH (ft.)	4.00	
INWARD DISTRIBUTED LOAD (lbs./ft.)	67	
OUTWARD DISTRIBUTED LOAD (lbs./ft.)	73	
DESIGN INWARD BENDING MOMENT Mu (ft.-lbs.):	2524	
DESIGN INWARD END SHEAR (lbs.):	474	
DESIGN OUTWARD BENDING MOMENT Mu (ft.-lbs.):	2717	
DESIGN OUTWARD END SHEAR (lbs.)	519	
GIRT BRACING LOCATIONS		
INSIDE FLANGE UNBRACED LENGTH (FT)	M/S	
(Min values from NASPEC Section C3 1) -->	6.67	
+Min allow (ft.-lbs.):	4718	
-Min allow (ft.-lbs.):	4336	
OK		
INWARD DEFLECTION (in.):	0.41	
= (L/384)		
OUTWARD DEFLECTION (in.):	0.45	
= (L/351)		

ENDWALL 'A' GIRT DESIGN		
MEMBER SIZE USED -->		6in x 2 125/2.375in 12G ZEE
BAY #1	BAY #2	
BAY WIDTH (ft.)	14.50	
MAX GIRT SPAN (ft.)	14.50	
TRIB. WIDTH (ft.)	6.00	
INWARD DISTRIBUTED LOAD (lbs./ft.)	96	
OUTWARD DISTRIBUTED LOAD (lbs./ft.)	106	
DESIGN INWARD BENDING MOMENT Mu (ft.-lbs.):	4246	
DESIGN INWARD END SHEAR (lbs.):	727	
DESIGN OUTWARD BENDING MOMENT Mu (ft.-lbs.):	4668	
DESIGN OUTWARD END SHEAR (lbs.)	799	
GIRT BRACING LOCATIONS		
INSIDE FLANGE UNBRACED LENGTH (FT):	M/S	
(Min values from NASPEC Section C3 1) -->	7.25	
+Min allow (ft.-lbs.):	9500	
-Min allow (ft.-lbs.):	7500	
OK		
INWARD DEFLECTION (in.):	0.48	
= (L/359)	= (L/359)	
OUTWARD DEFLECTION (in)	0.53	
= (L/326)	= (L/326)	

ENDWALL 'B' GIRT DESIGN		
6in x 2 125/2.375in 12G ZEE		
BAY #1	BAY #2	
BAY WIDTH (ft.)	14.50	
MAX GIRT SPAN (ft.)	14.50	
TRIB. WIDTH (ft.)	6.00	
INWARD DISTRIBUTED LOAD (lbs./ft.)	96	
OUTWARD DISTRIBUTED LOAD (lbs./ft.)	106	
DESIGN INWARD BENDING MOMENT Mu (ft.-lbs.):	4246	
DESIGN INWARD END SHEAR (lbs.):	727	
DESIGN OUTWARD BENDING MOMENT Mu (ft.-lbs.):	4668	
DESIGN OUTWARD END SHEAR (lbs.)	799	
GIRT BRACING LOCATIONS		
INSIDE FLANGE UNBRACED LENGTH (FT):	M/S	
(Min values from NASPEC Section C3 1) -->	7.25	
+Min allow (ft.-lbs.):	9500	
-Min allow (ft.-lbs.):	7500	
OK		
INWARD DEFLECTION (in.):	0.48	
= (L/359)	= (L/359)	
OUTWARD DEFLECTION (in.)	0.53	
= (L/326)	= (L/326)	

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'ROOF' TOTAL SHEAR FORCE, ASD, LBS.:		701	(SHEETING DIAPHRAGM ACTION USED TO RESIST LOAD)
PANEL #:		1	
PANEL WIDTH (ft.):		40.00	
PANEL WIDTH RELATIVE STIFFNESS:		1600	
HEIGHT (ft.):		16.49	
MAX. PANEL SHEAR FORCE, ASD (lbs.):		701	
PANEL SHEAR, ASD (plf):		18	
ALLOWABLE PANEL SHEAR, ASD (plf):		215	
		OK	
REACTION AT PANEL END, ASD:		289	

FRAME BRACE END SCREW CONNECTION DESIGN

Brace results apply at Frames 2, 3

- Gable Frame Columns: Single 12in x 3.5in 12G CEE
- Gable Frame Rafters: Single 12in x 3.5in 12G CEE
- Gable Frame Typ. Knee Braces: Single 4in x 2.5in 14G CEE
- Gable Frame Apex Braces: Single 4in x 2.5in 14G CEE
- Knee Brace Vert. Intersection Dimension per Detail A/2 (ft.): 5' - 4 1/4"
- Knee Brace Horiz. Intersection Dimension per Detail A/2 (ft.): 1' - 11 1/2"
- Apex Brace Horiz. Intersection Dimension per Detail B/2 (ft.): 3' - 11 1/4"

Screw Size: #14
Ultimate Single Shear Screw Strength (lbs.): 2450
 $\Omega = 2.5$

	n Screws	R3d (group effect factor)	V single screw (lbs.)	P (design allowable, lbs.)
Knee Brace	22	0.63	518	11406
Apex Brace	10	0.68	558	5577

MAX. KNEE BRACE FORCE (lbs.): 11133 (INSTALL (22) #14 SCREWS AT EACH END OF EACH KNEE BRACE)

MAX. APEX BRACE FORCE (lbs.): 5227 (INSTALL (10) #14 SCREWS AT EACH END OF EACH APEX BRACE)

FRAME BRACE END ALTERNATE BOLT CONNECTION DESIGN

- NOTATIONS
- Fu = Tensile strength of connected part (psi)
 - Fy = Yield strength of connected part (psi)
 - db = Nominal bolt diameter (in.)
 - g1 = Nominal gauge of thinnest connected part (in.)
 - t1 = Thickness of thinnest connected part (in.)
 - Pn = Nominal bearing strength per bolt (lbs.)

ALLOWABLE SHEAR BASED ON CONNECTED MATERIALS:

Fu (psi) = 70000 db = 0.625
Fy (psi) = 55000 g1 = 14
d/t = 8.93 t1 = 0.07
C = 3.00
Pn = 9188

Allowable shear based on connected material bearing (lbs.): 3700

Bolt Grade: A325
Allowable shear based on A325 bolt in shear (lbs.): 8283

Allowable Shear on Each Bolt (lbs.): 3700

* MAX. KNEE BRACE FORCE (lbs.): 11133 (USE MIN. (4) 5/8" DIAM. A325 BOLTS AT EACH END OF EACH KNEE BRACE)

* MAX. APEX BRACE FORCE (lbs.): 5227 (USE MIN. (2) 5/8" DIAM. A325 BOLTS AT EACH END OF EACH APEX BRACE)

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Load Combinations (continued)

Description		PDelta	SRSS	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
38	IBC 16-15 (a) 3			DL	0.6	OL3	0.6				
39	IBC 16-15 (a) 4			DL	0.6	OL4	0.6				
40	IBC 16-15 (a) 5			DL	0.6	OL5	0.6				
41	IBC 16-15 (a) 6			DL	0.6	OL6	0.6				
42	IBC 16-15 (a) 7			DL	0.6	OL7	0.6				
43	IBC 16-15 (a) 8			DL	0.6	OL8	0.6				
44	IBC 16-16 (a) 1			DL	0.6	15	0.7				
45	IBC 16-16 (a) 2			DL	0.6	16	0.7				

Envelope Joint Reactions

Joint		X[lb]	LC	Y[lb]	LC	Moment[ft-lb]		LC
1	C1B	max	2383	24	4191	4	0	36
2	C1B	min	-1411	36	-1478	36	-0	23
3	C2B	max	1411	40	4191	4	0	42
4	C2B	min	-2383	20	-1478	40	-0	25
5	Total	max	2140	42	8381	4	0	38
6	Total	min	-2140	10	-2447	36	-0	25

Envelope Member Section Forces

Member		Sec	Axial[lb]		LC	Shear[lb]	LC	Moment[ft-lb]		LC
1	C1	1	max	4191	4	2383	24	0		36
2		1	min	-1478	36	-1411	36	-0		23
3	C1	2	max	2372	38	2840	36	0		15
4		2	min	-4212	25	-5550	4	-0		38
5	C2	1	max	4191	4	1411	40	0		42
6		1	min	-1478	40	-2383	20	-0		25
7	C2	2	max	2372	42	5550	4	0		39
8		2	min	-4212	21	-2840	40	-0		15
9	KB1	1	max	11133	4	0	45	0		1
10		1	min	-4929	36	0	1	0		1
11	KB1	2	max	11133	4	0	45	0		1
12		2	min	-4929	36	0	1	0		1
13	KB2	1	max	11133	4	0	45	0		1
14		1	min	-4929	40	0	1	0		1
15	KB2	2	max	11133	4	0	45	0		1
16		2	min	-4929	40	0	1	0		1
17	AB	1	max	1036	40	0	45	0		1
18		1	min	-5227	4	0	1	0		1
19	AB	2	max	1036	40	0	45	0		1
20		2	min	-5227	4	0	1	0		1
21	LR1	1	max	3242	36	2808	24	0		14
22		1	min	-6329	25	-1789	38	-0		21
23	LR1	2	max	7324	4	1831	4	0		36
24		2	min	-2164	36	-851	42	-0		4
25	LR2	1	max	3242	40	1789	42	0		43
26		1	min	-6329	21	-2808	20	-0		11
27	LR2	2	max	7324	4	851	38	0		40
28		2	min	-2164	40	-1831	4	-0		4

Cold Formed Steel Properties

Label		E[psi]	G[psi]	Nu	Therm/(1E5 F)	Density[lb/ft^3]	Yield[psi]	Fu[psi]
1	CF_STL	29500000	11300000	0.3	0.65	490	55000	70000

Joint Coordinates

Label		X[ft]		Y[ft]	
1	C1B		1.000		0.000
2	C1T		1.000		7.220
3	C2B		31.002		0.000
4	C2T		31.002		7.220
5	APX		16.001		10.970
6	KB1B		1.000		5.090
7	KB1T		3.840		7.930
8	KB2B		31.002		5.090
9	KB2T		28.161		7.930
10	ABA		10.668		9.636
11	ABB		21.334		9.636

Member Primary Data

Label		I Joint	J Joint	Shape	Type	DesignList	Material	DesignRules
1	C1	C1B	C1T	12in x 3.5in 12G CEE	Beam	CS	CF_STL	Typical
2	C2	C2B	C2T	12in x 3.5in 12G CEE	Beam	CS	CF_STL	Typical
3	KB1	KB1B	KB1T	4in x 2.5in 14G CEE	Beam	CS	CF_STL	Typical
4	KB2	KB2B	KB2T	4in x 2.5in 14G CEE	Beam	CS	CF_STL	Typical
5	AB	ABA	ABB	4in x 2.5in 14G CEE	Beam	CS	CF_STL	Typical
6	LR1	C4T	APX	12in x 3.5in 12G CEE	Beam	CS	CF_STL	Typical
7	LR2	C2T	APX	12in x 3.5in 12G CEE	Beam	CS	CF_STL	Typical

Member Advanced Data

Label		I Release	J Release	I Offset[ft]	J Offset[ft]	Physical
1	C1		PIN	0.000	0.000	Yes
2	C2		PIN	0.000	0.000	Yes
3	KB1		PIN	0.000	0.000	
4	KB2		PIN	0.000	0.000	
5	AB		PIN	0.000	0.000	
6	LR1		PIN	0.499	0.000	Yes
7	LR2		PIN	0.499	0.000	Yes

Cold Formed Steel Design Parameters

Label		Shape	Length[ft]	Lb y-y [ft]	Lcomp top[ft]	Lcomp bottom[ft]	L-Torque [ft]	K-in
1	C1	12in x 3.5in 12G CEE	7.220	4.000	7.220	4.000	4.000	0.8
2	C2	12in x 3.5in 12G CEE	7.220	4.000	4.000	7.220	4.000	0.8
3	KB1	4in x 2.5in 14G CEE	4.016	4.016	4.016	4.016	4.016	
4	KB2	4in x 2.5in 14G CEE	4.016	4.016	4.016	4.016	4.016	
5	AB	4in x 2.5in 14G CEE	10.666	10.666	10.666	10.666	10.666	
6	LR1	12in x 3.5in 12G CEE	15.462	3.837	7.750	3.837	3.837	0.8
7	LR2	12in x 3.5in 12G CEE	15.462	3.837	3.837	7.750	3.837	0.8

Member Distributor Loads (BLC 9 : Wind To Right - Downward Ballooning)

Member Label		Direction	Start Mag[lb/ft]	End Mag[lb/ft]	Start Loc[ft/%]	End Loc[ft/%]
1	C1	X	176.835	176.835	0.000	7.220
2	C2	X	213.970	213.970	0.000	7.220
3	LR2	X	49.787	49.787	-0.000	15.462
4	LR2	Y	199.149	199.149	-0.000	15.462

Member Distributor Loads (BLC 10 : Wind To Right - Downward Deflation)

Member Label		Direction	Start Mag[lb/ft]	End Mag[lb/ft]	Start Loc[ft/%]	End Loc[ft/%]
1	C1	X	304.156	304.156	0.000	7.220
2	C2	X	86.649	86.649	0.000	7.220
3	LR1	X	10.262	10.262	-0.000	15.462
4	LR1	Y	-41.047	-41.047	-0.000	15.462
5	LR2	X	18.907	18.907	-0.000	15.462
6	LR2	Y	75.630	75.630	-0.000	15.462

Member Distributor Loads (BLC 11 : Wind To Left - Upward Ballooning)

Member Label		Direction	Start Mag[lb/ft]	End Mag[lb/ft]	Start Loc[ft/%]	End Loc[ft/%]
1	C1	X	-213.970	-213.970	0.000	7.220
2	C2	X	-176.835	-176.835	0.000	7.220
3	LR1	X	-49.787	-49.787	-0.000	15.462
4	LR1	Y	199.149	199.149	-0.000	15.462
5	LR2	X	58.352	58.352	-0.000	15.462
6	LR2	Y	233.407	233.407	-0.000	15.462

Member Distributor Loads (BLC 12 : Wind To Left - Upward Deflation)

Member Label		Direction	Start Mag[lb/ft]	End Mag[lb/ft]	Start Loc[ft/%]	End Loc[ft/%]
1	C1	X	-86.649	-86.649	0.000	7.220
2	C2	X	-304.156	-304.156	0.000	7.220
3	LR1	X	-18.907	-18.907	-0.000	15.462
4	LR1	Y	75.630	75.630	-0.000	15.462
5	LR2	X	27.472	27.472	-0.000	15.462
6	LR2	Y	109.887	109.887	-0.000	15.462

Member Distributor Loads (BLC 13 : Wind To Left - Downward Ballooning)

Member Label		Direction	Start Mag[lb/ft]	End Mag[lb/ft]	Start Loc[ft/%]	End Loc[ft/%]
1	C1	X	-213.970	-213.970	0.000	7.220
2	C2	X	-176.835	-176.835	0.000	7.220
3	LR1	X	-49.787	-49.787	-0.000	15.462
4	LR1	Y	199.149	199.149	-0.000	15.462

Member Distributor Loads (BLC 14 : Wind To Left - Downward Deflation)

Member Label		Direction	Start Mag[lb/ft]	End Mag[lb/ft]	Start Loc[ft/%]	End Loc[ft/%]
1	C1	X	-86.649	-86.649	0.000	7.220
2	C2	X	-304.156	-304.156	0.000	7.220
3	LR1	X	-18.907	-18.907	-0.000	15.462
4	LR1	Y	75.630	75.630	-0.000	15.462
5	LR2	X	-10.262	-10.262	-0.000	15.462
6	LR2	Y	-41.047	-41.047	-0.000	15.462

LATERAL LOADS:
SEISMIC LOADS:

(Based on ASCE 7-16, Chapter 12, using Site Class "D" and Risk Category "II")				
Short Period		1-sec. Period		
PERP TO SIDEWALL (TRANSVERSE)	PERP TO ENDWALL (LONGITUDINAL)	PERP TO SIDEWALL		PERP TO ENDWALL
Ss: 0.088	0.088	S1: 0.052	0.052	
Fa: 1.600	1.600	Fv 2.400	2.400	
$S_{MS} = (F_a \times S_s) =$ 0.141	0.141	$S_{M1} =$ 0.125	0.125	
$S_{DS} = (2/3) \times S_{MS} =$ 0.094	0.094	$S_{D1} =$ 0.083	0.083	
R = 3.0	3.0	3.0	3.0	
REDUNDANCY FACTOR, rho = 1.00	1.00	1.00	1.00	
SEISMIC IMPORTANCE FACTOR, Ie = 1.00	1.00	1.00	1.00	
Cs = 0.031	0.031	0.027	0.027	
Eh = Cs x W x rho = 0.031 W	0.031 W	0.027 W	0.027 W	
Eh (ASD) = Eh * .7 = 0.021 W	0.021 W	0.018 W	0.018 W	

W =TOTAL SEISMIC DESIGN DEAD LOAD (lbs.) =
LATERAL SYSTEM SEISMIC SHEAR EFFECT, Eh (lbs.) =

SEISMIC DESIGN CATEGORY (FOR BOTH PERIODS PER SEC. 1613.5,6.1):	.8 x Ts =	0.71	(ASCE 11.4.6)
	Ta (sec.) =	0.20	(ASCE 12.8.2.1)

WIND LOADS:

ULTIMATE WIND SPEED (mph) = 120
EXPOSURE = C
VELOCITY EXPOSURE COEFFICIENT, Kz = 0.850
BUILDING ENCLOSURE TYPE: ENCLOSED
WIND TOPOGRAPHICAL FACTOR, Kt = 1.000
WIND DIRECTIONALITY FACTOR, Kd = 0.850
MEAN ROOF HEIGHT (ft.). 10.00
GROUND ELEVATION FACTOR, Ke = 0.995

ULTIMATE WIND PRESSURE (psf): 26.49

MAIN FORCE RESISTING SYSTEM (MFRS) DESIGN WIND PRESSURES (Perp. to Sidewall):

	G * Cp ± Gcpi	ULTIMATE WIND PRESSURE (psf)	
Coefficient for Windward Wall Ballooning.	0.500	13.25	(pressure)
Coefficient for Leeward Wall Ballooning:	-0.605	-16.03	(suction)
Coefficient for Windward Roof Upward Ballooning:	-0.680	-18.02	(suction)
Coefficient for Leeward Roof Upward Ballooning:	-0.580	-15.38	(suction)
Coefficient for Windward Roof Downward Ballooning:	0.000	0.00	
Coefficient for Leeward Roof Downward Ballooning:	-0.580	-15.38	(suction)
Coefficient for Windward Wall Deflation:	0.860	22.78	(pressure)
Coefficient for Leeward Wall Deflation:	-0.245	-6.49	(suction)
Coefficient for Windward Roof Upward Deflation:	-0.320	-8.48	(suction)
Coefficient for Leeward Roof Upward Deflation	-0.220	-5.84	(suction)
Coefficient for Windward Roof Downward Deflation	0.120	3.17	(pressure)
Coefficient for Leeward Roof Downward Deflation:	-0.220	-5.84	(suction)

ALLOWABLE STRESS LATERAL SYSTEM WIND FORCE PERP. TO SIDEWALLS, W (lbs.) = 3168

MAIN FORCE RESISTING SYSTEM (MFRS) DESIGN WIND PRESSURES (Perp. to Endwall):

Int. Zone Wall Pressure Horz. Coefficient: 1.105
Int. Zone Endwall Ultimate Wind Pressure (psf). 29.27

ALLOWABLE STRESS LATERAL SYSTEM WIND FORCE PERP. TO ENDWALLS, W (lbs.) = 2706

CLADDING AND COMPONENT ALLOWABLE STRESS DESIGN WIND PRESSURES

Element	G Cp ± Gcpi (FIELD)		Pressures (psf)	
	INWARD	OUTWARD	INWARD	OUTWARD
Roof Purlins	0.549	-1.305	8.72	20.74
Sidewall Girts:	1.052	-1.152	16.71	18.30
Endwall Girts:	1.007	-1.107	16.00	17.59
Endwall Columns:	0.957	-1.057	15.21	16.80

STRUCTURAL CALCULATIONS FOR:

Nolan Cannon Building
434 NW Corwin Glen Dr
lake city, FL 32055
Job # VLIT98733405

(32' WIDE X 40' LONG BUILDING
WITH 8' EAVE HEIGHT
AND 3:12 ROOF PITCH)

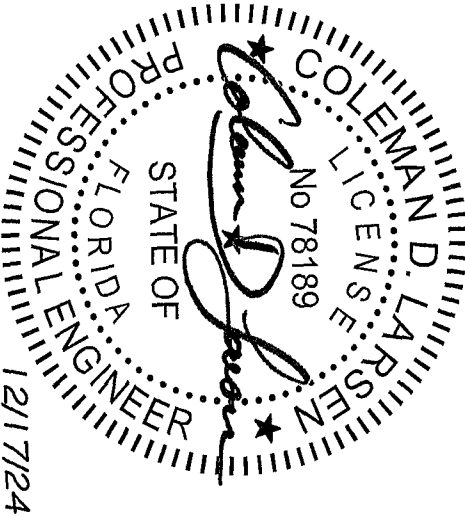
INDEX TO CALCULATIONS

Governing Code -- 8th Ed. (2023) Florida Building Code (Load Combinations per 8th Ed. (2023) FBC Section 1605.3.1)

Sheet #	Contents
M1, M2	Design Parameters, Loadings
A1 - A7	Clearspan Frame Analysis & Design
A8	Frame Brace End Connections
B1, B2	Lateral Force Resistance Analysis and Design
C1 - C3	Purlin, Girt, and Endwall Column Analysis and Design
C4	Opening Framing Design
F1 - F4	Foundation and Concrete Anchor Design
P1, P2	Roof & Wall Panel Information and Screw Capacities

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Distributor:
General Steel

Structural Engineering by:
Centerline Structural Engineering
284 N 110 W
Vineyard, UT 84059
engsupport@actbuildingsystems.com

STRUCTURAL GENERAL NOTES

1. GOVERNING CODE: 8th ED. (2023) FLORIDA BUILDING CODE

2. DRAWING OWNERSHIP:

THESE DRAWINGS ARE JOINTLY OWNED BY CORNERSTONE (COR) AND CENTERLINE STRUCTURAL ENGINEERING. DRAWINGS ARE PROVIDED FOR THE SOLE PURPOSE OF OBTAINING BUILDING PERMITS. ENGINEERING SEAL IS VALID FOR THE CONSTRUCTION OF A SINGLE BUILDING AT THE JOB ADDRESS SHOWN IN DRAWING TITLEBLOCK. ANY OTHER USE OF THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM COR AND CENTERLINE STRUCTURAL ENGINEERING IS PROHIBITED.

3. DRAWING SEAL REQUIREMENTS:

THESE DRAWINGS ARE NOT VALID UNLESS 1) THE SEAL (STAMP) ON A PAPER COPY IS WET SIGNED IN INK BY THE ENGINEER, OR 2) THE PAPER COPIES ARE OF A DRAWING DIGITALLY SIGNED BY THE ENGINEER, OR 3) THE ELECTRONIC FILE OF THE DRAWING IS DIGITALLY SIGNED BY THE ENGINEER. IF A COPY OF THESE DRAWINGS IS DISTRIBUTED WITHOUT EITHER A PROPER WET SIGNATURE OR A DIGITAL SIGNATURE, THE DRAWING IS CONSIDERED INVALID. IF A COPY OF THESE DRAWINGS IS DISTRIBUTED WITHOUT EITHER A PROPER WET SIGNATURE OR A DIGITAL SIGNATURE, THE DRAWING IS CONSIDERED INVALID. THE ENGINEER ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR DRAWINGS CONSIDERED INVALID AS NOTED ABOVE.

4. CONTRACTOR RESPONSIBILITIES:

CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND DIMENSIONS. CENTERLINE STRUCTURAL ENGINEERING (ENGINEER) SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS PRIOR TO START OF WORK.

CONTRACTOR MUST SUBMIT IN WRITING ANY REQUEST FOR MODIFICATION TO THE PLANS AND/OR SPECIFICATIONS AND NO STRUCTURAL CHANGES FROM THE APPROVED PLANS SHALL BE MADE IN THE FIELD UNLESS, PRIOR TO MAKING CHANGES, WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. SHOP DRAWINGS SUBMITTED TO THE ENGINEER FOR REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS IT IS NOTED THAT SPECIFIC CHANGES ARE BEING REQUESTED. IF CHANGES ARE MADE WITHOUT WRITTEN APPROVAL, SUCH CHANGES SHALL BE THE LEGAL AND FINANCIAL RESPONSIBILITY OF THE CONTRACTOR OR SUB-CONTRACTORS INVOLVED AND IT SHALL BE THEIR FULL RESPONSIBILITY TO REPLACE OR REPAIR THE CONDITION AS DIRECTED BY THE ENGINEER.

CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING, OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING ERECTION. THESE TEMPORARY PROVISIONS SHALL REMAIN IN PLACE UNTIL SUFFICIENT PERMANENT MEMBERS ARE ERECTED TO INSURE THE SAFETY OF PARTIALLY ERECTED STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR MEETING ALL LAWS REGULATING THE ERECTION OF STEEL BUILDINGS.

THESE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. BUILDING IS NOT CONSIDERED COMPLETE UNTIL THE INSTALLATION OF ALL COMPONENTS AND DETAILS SHOWN HEREIN ARE INSTALLED ACCORDING TO THE DRAWINGS.

5. ENGINEERING:

THE SUPPLYING OF STAMPED ENGINEERING CALCULATIONS AND DRAWINGS FOR THIS METAL BUILDING DOES NOT IMPLY OR CONSTITUTE AN AGREEMENT THAT CENTERLINE STRUCTURAL ENGINEERING IS ACTING AS THE ENGINEER OR ARCHITECT OF RECORD OR THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR THE WHOLE OF THE PROJECT.

THIS BUILDING HAS BEEN REVIEWED BY CENTERLINE STRUCTURAL ENGINEERING FOR CONFORMITY ONLY TO THE STRUCTURAL DESIGN PORTIONS OF THE GOVERNING CODE. THE BUILDING OWNER IS RESPONSIBLE TO SEEK PROFESSIONAL ADVICE IN ADDRESSING ANY OTHER CODE REQUIREMENTS (INCLUDING, BUT NOT LIMITED TO, FIRE AND LIFE SAFETY, ENVIRONMENTAL, ACCESSIBILITY, OR ELECTRICAL) THAT MAY APPLY TO THIS PROJECT.

DRAWINGS SCALES INDICATED ON DRAWINGS ARE APPROXIMATE AND INTENDED TO BE USED FOR REFERENCE ONLY. DO NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES.

THESE DOCUMENTS ARE STAMPED ONLY AS TO THE COMPONENTS FURNISHED BY COR. IT IS THE RESPONSIBILITY OF THE PURCHASER TO COORDINATE DRAWINGS PROVIDED BY CENTERLINE STRUCTURAL ENGINEERING WITH OTHER PLANS AND/OR OTHER COMPONENTS THAT ARE PART OF THE OVERALL PROJECT. IN CASES OF DISCREPANCIES, DRAWINGS PROVIDED BY CENTERLINE STRUCTURAL ENGINEERING SHALL GOVERN. THE UNDERSIGNED ENGINEER WILL NOT SUPERVISE THE FABRICATION OR ERECTION OF THIS STRUCTURE. ANY OBSERVATION VISITS TO THE PROJECT SITE BY THE UNDERSIGNED ENGINEER ARE NOT TO BE CONSTRUED AS BEING INSPECTIONS FOR THE CONSTRUCTION OF ANY COMPONENT OF THIS BUILDING.

6. INSPECTIONS:

NO SPECIAL INSPECTIONS ARE REQUIRED BY THE GOVERNING CODE ON THIS JOB. ALL SPECIAL INSPECTIONS AND ANY OTHER ADDITIONAL INSPECTIONS REQUESTED BY BUILDING DEPARTMENT SHALL BE AT OWNER'S EXPENSE.

7. SOIL REQUIREMENTS:

ALLOWABLE SOIL BEARING VALUE INDICATED ON DRAWING SHEET 1 OCCURS AT 12" BELOW FINISH GRADE, OR EXISTING NATURAL GRADE, OR AT FROST DEPTH SPECIFIED BY BUILDING DEPARTMENT, WHICHEVER IS THE LOWEST ELEVATION. FOUNDATION DESIGN SHOWN ASSUMES BOTTOM OF FOOTING BEARS ON NATIVE SOILS.

FOUNDATION DESIGN SHOWN DOES NOT ACCOUNT FOR EXPANSIVE SOIL CONDITIONS OR FOR CONCRETE THAT WILL BE EXPOSED TO SULFATE CONTAINING SOLUTIONS OR CHLORIDES. OWNER SHALL CONTACT ENGINEER PRIOR TO CONSTRUCTION IF ANY OF THESE CONDITIONS EXIST.

8. CONCRETE REQUIREMENTS:

ALL CONCRETE SHALL HAVE A MIN. 28-DAY STRENGTH OF 2500 psi. HIGHER STRENGTH CONCRETE MAY BE USED, AT OWNER'S DISCRETION, FOR FINISH AND DURABILITY PURPOSES. CEMENT SHALL COMPLY WITH ASTM C150, TYPE 2, AND SHALL CONTAIN NO FLYASH.

ALL CONCRETE PLACEMENT SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE", WHICH IS HEREBY MADE A PART OF THESE DOCUMENTS.

CONCRETE REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60 FOR #4 BARS AND LARGER, GRADE 40 FOR #3 BARS. WELDED WIRE MESH SHALL CONFORM TO ASTM A185 (Fy MIN. OF 70 ksi). ALL FOOTING REINFORCING BARS TO BE CONTINUOUS AROUND CORNERS. LAP SPLICE FOOTING REINFORCING MIDWAY BETWEEN COLUMNS. ALL LAP SPLICES TO BE 48 BAR DIAMETERS MIN., U.N.O.

CONCRETE GRADE BEAMS, THICKENED SLAB EDGES, PIERS, AND SPREAD FOOTINGS SHALL BE POURED ONTO UNDISTURBED, NATIVE SOIL WHICH IS FREE FROM ANY MATERIAL THAT WILL ADVERSELY AFFECT THE MIN. ALLOWABLE SOIL BEARING PRESSURE SPECIFIED ON SHEET 1.

CONCRETE ANCHOR INSTALLATION SHALL BE DONE IN ACCORDANCE WITH ICC REPORT ESR-3889, SECTION 4.3

9. STRUCTURAL STEEL REQUIREMENTS:

ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 (Fy MIN OF 36000 psi), U.N.O. ALL BOLTS SHALL CONFORM TO ASTM A325, U.N.O. BOLT HOLE DIAMETERS SHALL BE 1/16" LARGER THAN NOMINAL BOLT DIAMETER. ALL INSTALLATION SHALL BE IN ACCORDANCE WITH AISC "CODE OF STANDARD PRACTICE". NO WELDING IS REQUIRED ON THIS JOB.

10. LIGHT GAUGE STRUCTURAL STEEL REQUIREMENTS:

ALL LIGHT GAUGE STEEL FRAMING MATERIAL AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".

ALL LIGHT GAUGE STEEL MATERIAL SHALL CONFORM TO ASTM A653 HAVING A MINIMUM YIELD STRENGTH OF 55000 psi. THE GRADE AND ASTM SPECIFICATION NUMBER SHALL BE INDICATED BY PAINTING, DECAL, TAGGING, OR OTHER SUITABLE MEANS, ON EACH LIFT OR BUNDLE OF FABRICATED ELEMENTS.

UNLESS NOTED OTHERWISE, CEE, ZEE, AND CHANNEL MEMBERS' WEB AND FLANGE DIMENSIONS (IN INCHES) SHALL BE AS NOTED IN DETAILS IN THE FOLLOWING FORMAT: [WEB DEPTH]in x [FLANGE WIDTH]in [GAUGE]G. FOR ZEES WITH UNEQUAL FLANGES, THE WIDTHS FOR BOTH FLANGES WILL BE LISTED, SEPARATED BY A " / ". MIN. FLANGE STIFFENER LIPS SHALL BE 0.813" FOR 12G CEES, 0.800" FOR 14G CEES, 0.773" FOR 16G CEES, 0.900" FOR 12G ZEES, 0.750" FOR 14G ZEES, AND 0.750" FOR 16G ZEES. ALL BEND RADIUSES SHALL BE .1875" FOR ANGLES, THE FIRST TWO NUMBERS ARE THE LEG DIMENSIONS.

DECIMAL THICKNESS OF THE DELIVERED LIGHT GAUGE STEEL MATERIAL, ACCORDING TO NOMINAL GAUGES, SHALL MEET OR EXCEED 95% THE FOLLOWING DESIGN VALUES:

GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.
10	0.135	14	0.070	18	0.048
12	0.105	16	0.059	20	0.036

EXCEPT AS SHOWN ON DRAWINGS, CEE COLUMN AND RAFTER MEMBERS SHALL NOT BE DRILLED OR NOTCHED WITHOUT PRIOR APPROVAL OF THE ENGINEER. DOOR JAMB, ROOF PURLIN, AND WALL GIRT ENDS MAY HAVE FLANGES COPED 3" MAX. IF CONNECTION IS MADE TO PERPENDICULAR MEMBER PER DETAIL E/8, ROUND HOLES MAY BE DRILLED THROUGH ANY GIRT OR PURLIN MEMBER WITHIN THE MIDDLE THIRD OF THE DEPTH OF THAT MEMBER AND NOT WITHIN 24" OF MEMBER END (FIELD-DRILLED BOLT HOLES INDICATED AT ENDS OF KNEE OR APEX BRACE WEBS AND SHOP-PUNCHED HOLES IN BRACE FLANGES EXCEPTED).

ALL BOLTS USED TO CONNECT LIGHT GAUGE MATERIAL SHALL CONFORM TO ASTM A325. BOLTS TO BE SNUG TIGHT PER THE RCSC AND AISC SPECIFICATIONS, UNLESS SPECIFICALLY NOTED OTHERWISE. BOLTS SHALL BE SPACED NO LESS THAN 3 BOLT DIAMETERS BETWEEN CENTERS. DISTANCE FROM BOLT CENTER TO THE END OR EDGE OF ANY LIGHT GAUGE MEMBER SHALL BE A MIN. OF 1.5 BOLT DIAMETERS. ALL SCREWS USED TO CONNECT LIGHT GAUGE MATERIAL SHALL BE SELF-DRILLING SCREWS AND SHALL HAVE A MIN. TENSILE BREAKING STRENGTH OF 100,000 psi. SCREWS SHALL BE SPACED NO LESS THAN 1" O.C. AND EDGE OR END DISTANCE SHALL NOT BE LESS THAN 1" UNLESS NOTED OTHERWISE, ALL REFERENCES TO 'SCREWS' CONNECTING MATERIAL THICKER THAN 20 ga. SHALL BE MIN. #14 SCREWS AND SHALL HAVE MIN. 14 THREADS PER INCH.

SCREW ROOT DIAMETERS SHALL NOT BE LESS THAN: #14 SCREW. .200" #12 SCREW. .177" #10 SCREW. .153"

11. STEEL ROOF AND WALL PANELS (CLADDING):

LIGHT GAUGE STEEL ROOF AND WALL PANELS SHALL CONFORM TO ASTM A653 AND THE STEEL DECK INSTITUTE SPECIFICATIONS AND HAVE A MIN. YIELD STRENGTH OF 80000 psi.

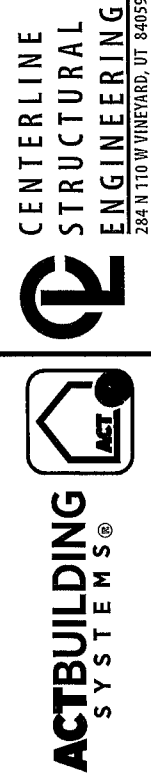
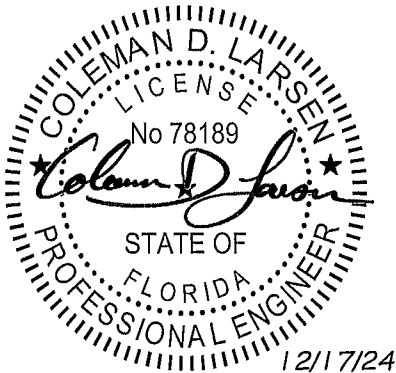
DECIMAL THICKNESSES, ACCORDING TO NOMINAL GAUGES, SHALL MEET OR EXCEED THE FOLLOWING:

IN.	GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.
	22	0.0299	26	0.0179	29	0.0135
	24	0.0239	28	0.0149	30	0.0120

SEE DETAILS H/9 AND I/9 FOR ROOF AND WALL PANEL FASTENER TYPES AND SPACINGS.

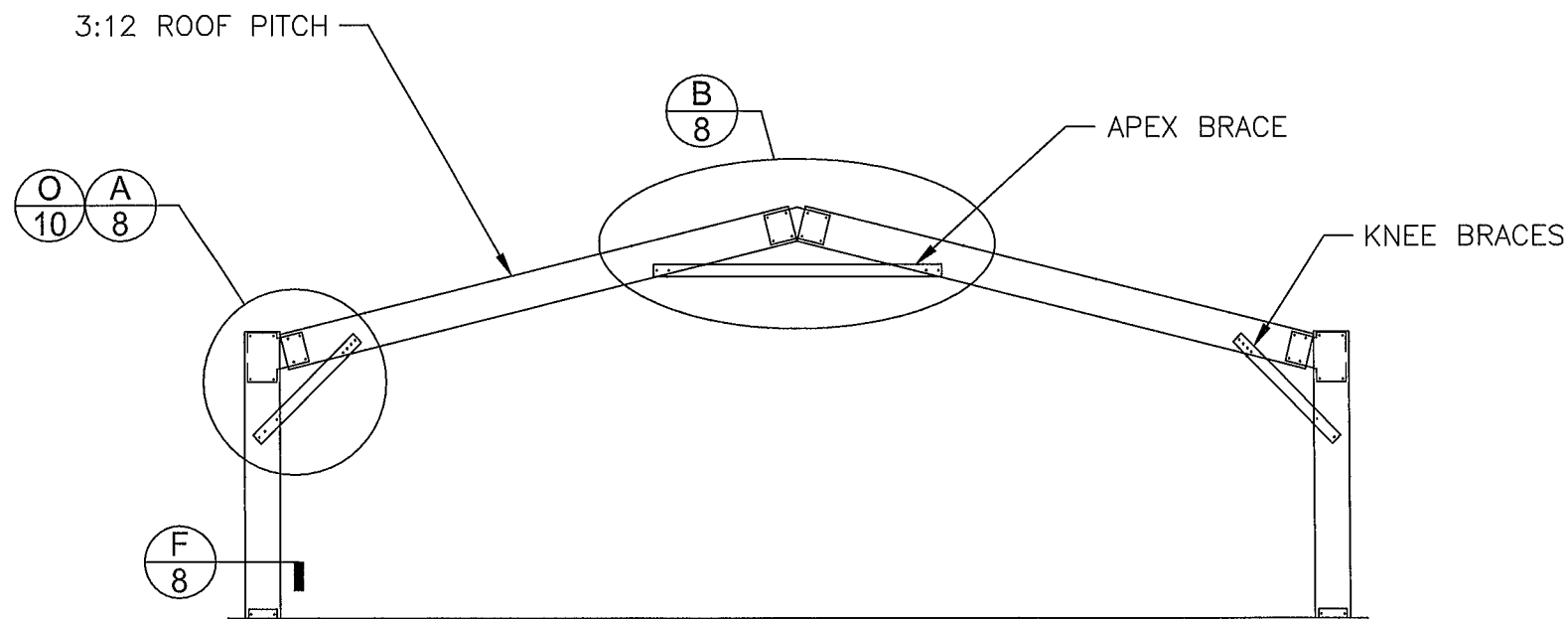
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General Steel
Nolan Cannon
434 NW Corwin Glen Dr
lake city, FL 32055

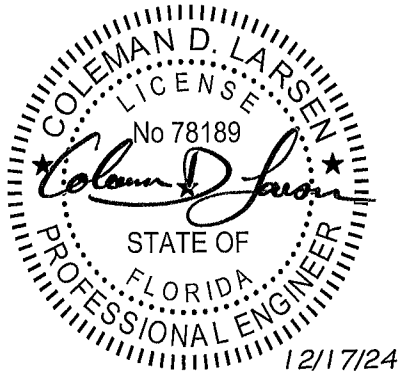
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DRAWN		
CHECKED		
DATE 12/12/2024		
JOB NO. VLI198733405		
SHEET 13 OF 13		



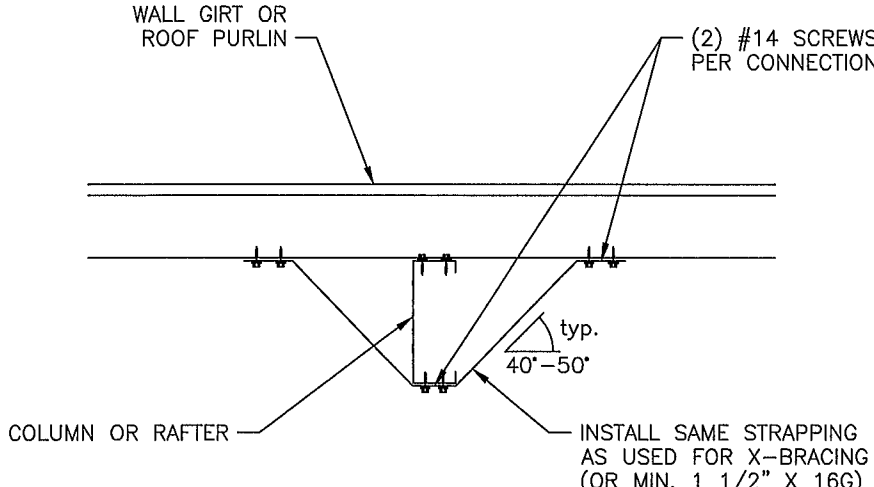
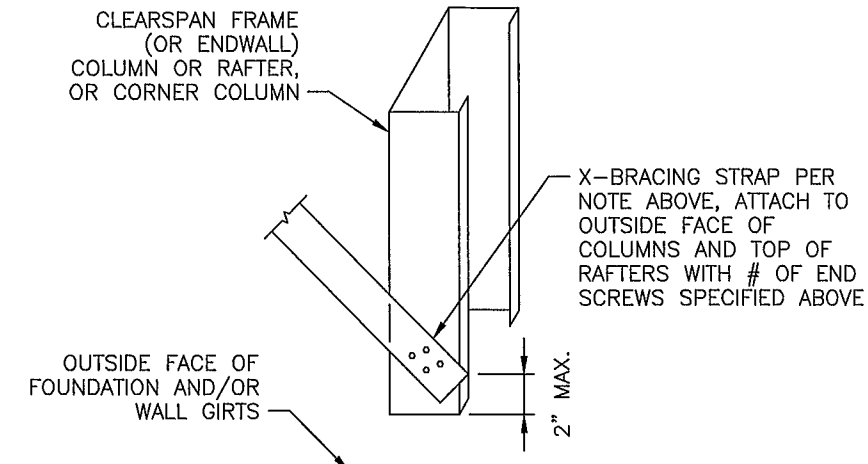
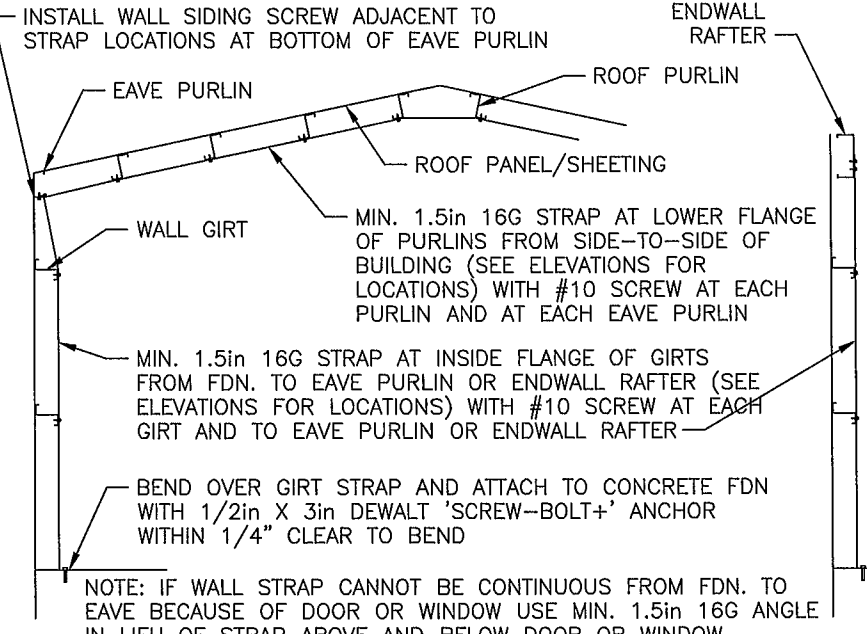
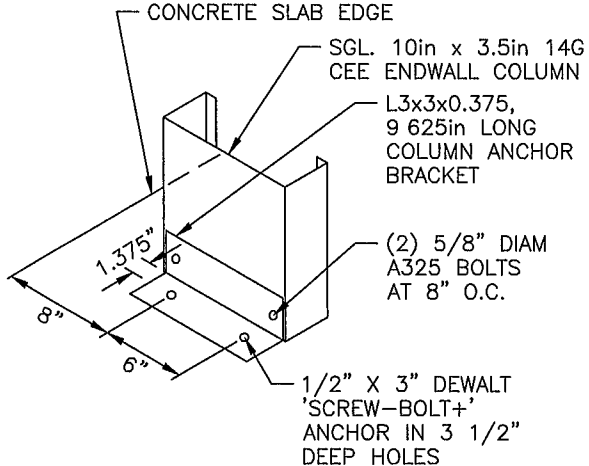
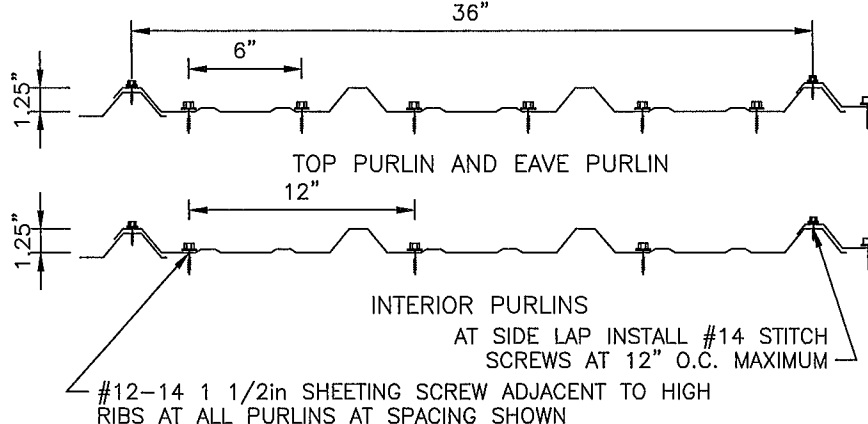
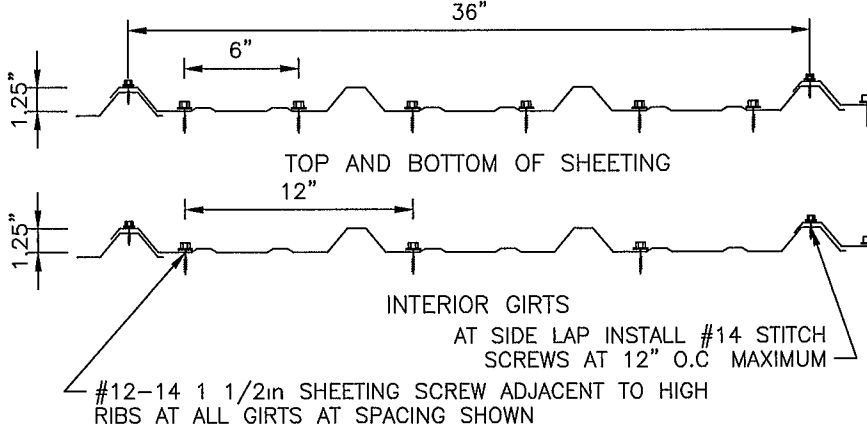
1 TYP. FRAME CROSS-SECTION
11 SCALE: 3/16" = 1'-0" FRAMES 2, 3

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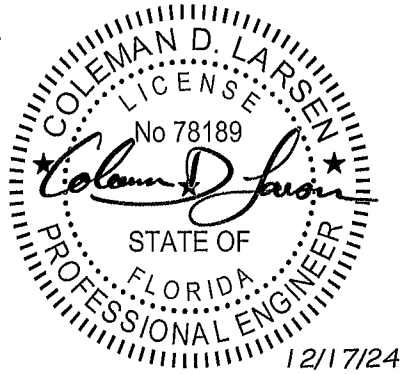


CENTERLINE STRUCTURAL ENGINEERING 284 N 110 W VINEYARD, UT 84059	
General Steel Nolan Cannon 434 NW Corwin Glen Dr lake city, FL 32055	
DISTRIBUTOR:	
JOB NAME:	
JOB ADDRESS:	
DRAWN	
CHECKED	
DATE	12/12/2024
JOB NO.	VLIT98733405
SHEET	11 of 13

<p>NOTE: SEE ROOF FRAMING PLAN AND ELEVATIONS FOR LOCATIONS OF FLYBRACING</p>  <p>WALL GIRT OR ROOF PURLIN</p> <p>(2) #14 SCREWS PER CONNECTION</p> <p>COLUMN OR RAFTER</p> <p>typ. 40°-50°</p> <p>INSTALL SAME STRAPPING AS USED FOR X-BRACING (OR MIN. 1 1/2" X 16G)</p>	<p>ENDWALLS: SGL. 1 5/8 in 14G STRAP WITH (4) #14 SCREWS AT EACH END</p>  <p>CLEARSPAN FRAME (OR ENDWALL) COLUMN OR RAFTER, OR CORNER COLUMN</p> <p>X-BRACING STRAP PER NOTE ABOVE, ATTACH TO OUTSIDE FACE OF COLUMNS AND TOP OF RAFTERS WITH # OF END SCREWS SPECIFIED ABOVE</p> <p>OUTSIDE FACE OF FOUNDATION AND/OR WALL GIRTS</p> <p>2" MAX.</p> <p>NOTES: 1) CONNECT STRAP AT TOP OF ADJACENT COLUMN OR RAFTER IN SAME MANNER 2) IF DOUBLE STRAPS ARE SPECIFIED ABOVE, INSTALL SIDE-BY-SIDE, NOT ON TOP OF EACH OTHER.</p>	 <p>INSTALL WALL SIDING SCREW ADJACENT TO STRAP LOCATIONS AT BOTTOM OF EAVE PURLIN</p> <p>ENDWALL RAFTER</p> <p>EAVE PURLIN</p> <p>ROOF PURLIN</p> <p>ROOF PANEL/SHEETING</p> <p>WALL GIRT</p> <p>MIN. 1.5in 16G STRAP AT LOWER FLANGE OF PURLINS FROM SIDE-TO-SIDE OF BUILDING (SEE ELEVATIONS FOR LOCATIONS) WITH #10 SCREW AT EACH PURLIN AND AT EACH EAVE PURLIN</p> <p>MIN. 1.5in 16G STRAP AT INSIDE FLANGE OF GIRTS FROM FDN. TO EAVE PURLIN OR ENDWALL RAFTER (SEE ELEVATIONS FOR LOCATIONS) WITH #10 SCREW AT EACH GIRT AND TO EAVE PURLIN OR ENDWALL RAFTER</p> <p>BEND OVER GIRT STRAP AND ATTACH TO CONCRETE FDN WITH 1/2in X 3in DEWALT 'SCREW-BOLT+' ANCHOR WITHIN 1/4" CLEAR TO BEND</p> <p>NOTE: IF WALL STRAP CANNOT BE CONTINUOUS FROM FDN. TO EAVE BECAUSE OF DOOR OR WINDOW USE MIN. 1.5in 16G ANGLE IN LIEU OF STRAP ABOVE AND BELOW DOOR OR WINDOW.</p>
<p>L</p> <p>FLYBRACING CONNECTION</p>	<p>M</p> <p>ROOF AND WALL X-BRACING CONNECTION</p>	<p>N</p> <p>PURLIN AND GIRT FLANGE BRACING</p>
 <p>CONCRETE SLAB EDGE</p> <p>SGL. 10in x 3.5in 14G CEE ENDWALL COLUMN</p> <p>L3x3x0.375, 9 625in LONG COLUMN ANCHOR BRACKET</p> <p>(2) 5/8" DIAM A325 BOLTS AT 8" O.C.</p> <p>1/2" X 3" DEWALT 'SCREW-BOLT+' ANCHOR IN 3 1/2" DEEP HOLES</p> <p>NOTE: CENTER ALL BOLTS ON COLUMN ANCHOR BRACKET LENGTHS. BRACKET MAY BE PLACED ON EITHER SIDE OF COLUMN.</p>	<p>NOTE: ONLY STRUCTURAL INFORMATION IS INCLUDED IN THIS DETAIL. CONSULT PANEL MANUFACTURER FOR ADD'L WEATHERTIGHTNESS RECOMMENDATIONS.</p>  <p>36"</p> <p>6"</p> <p>1 1/2"</p> <p>TOP PURLIN AND EAVE PURLIN</p> <p>12"</p> <p>INTERIOR PURLINS</p> <p>AT SIDE LAP INSTALL #14 STITCH SCREWS AT 12" O.C. MAXIMUM</p> <p>#12-14 1 1/2in SHEETING SCREW ADJACENT TO HIGH RIBS AT ALL PURLINS AT SPACING SHOWN</p> <p>Cornerstone PBR-Panel 26G</p> <p>$I_x(t) = 0.0367 \ln^4/ft$ $S_x(t) = 0.0367 \ln^3/ft$ $F_y = 80 \text{ ksi}$ $I_x(b) = 0.0317 \ln^4/ft$ $S_x(b) = 0.0458 \ln^3/ft$</p>	<p>NOTE: ONLY STRUCTURAL INFORMATION IS INCLUDED IN THIS DETAIL. CONSULT PANEL MANUFACTURER FOR ADD'L WEATHERTIGHTNESS RECOMMENDATIONS</p>  <p>36"</p> <p>6"</p> <p>1 1/2"</p> <p>TOP AND BOTTOM OF SHEETING</p> <p>12"</p> <p>INTERIOR GIRTS</p> <p>AT SIDE LAP INSTALL #14 STITCH SCREWS AT 12" O.C. MAXIMUM</p> <p>#12-14 1 1/2in SHEETING SCREW ADJACENT TO HIGH RIBS AT ALL GIRTS AT SPACING SHOWN</p> <p>Cornerstone PBR-Panel 26G</p> <p>$I_x(t) = 0.0367 \ln^4/ft$ $S_x(t) = 0.0367 \ln^3/ft$ $F_y = 80 \text{ ksi}$ $I_x(b) = 0.0317 \ln^4/ft$ $S_x(b) = 0.0458 \ln^3/ft$</p>
<p>G1</p> <p>ENDWALL COLUMN BASE DETAIL</p>	<p>H</p> <p>ROOF SHEETING</p>	<p>I</p> <p>WALL SHEETING</p>

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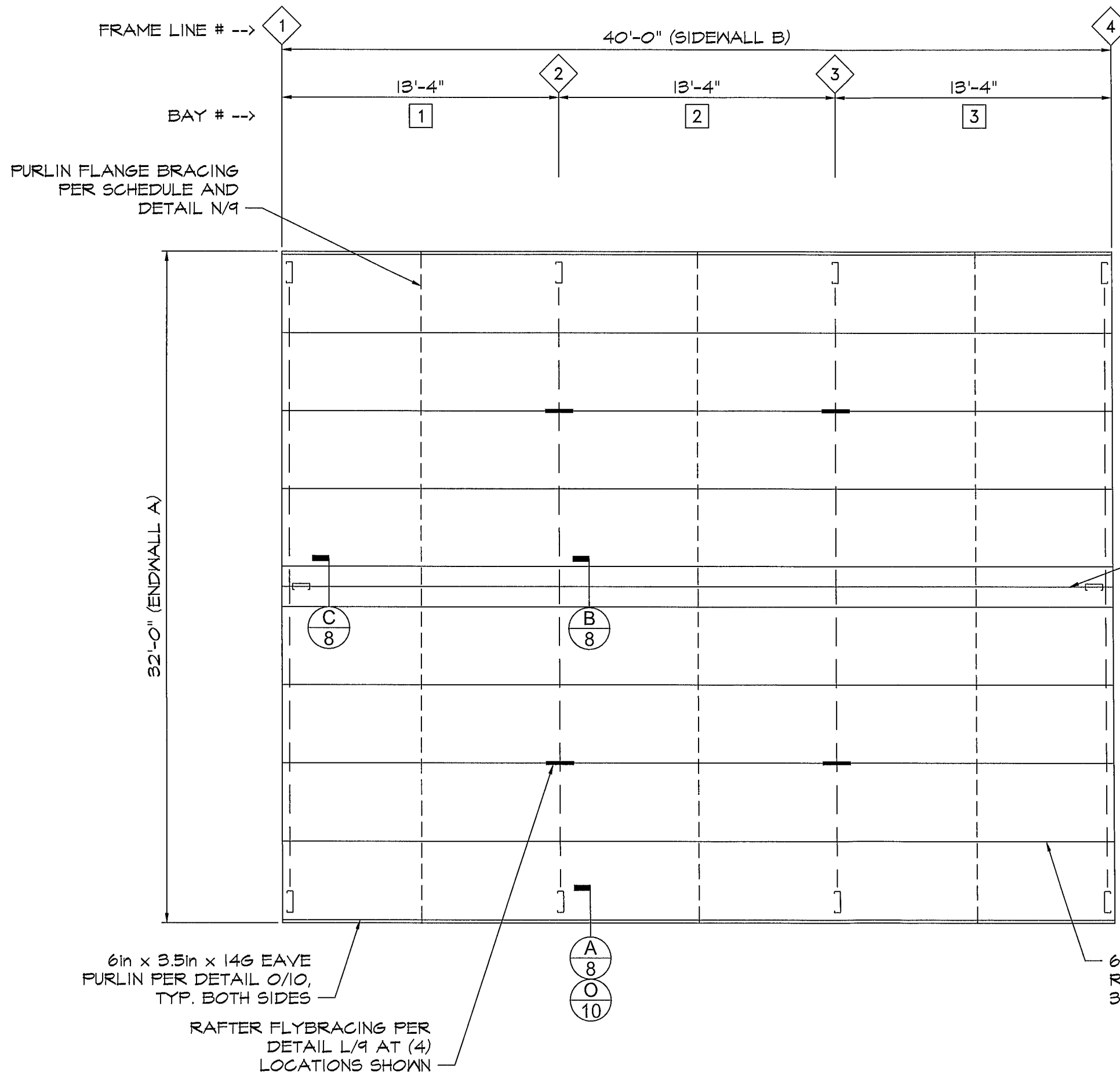
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SHEET
9
OF
13



ROOF DIAPHRAGM NOTE
 ROOF SHEETING IS USED AS DIAPHRAGM
 TO BRACE THE BUILDING AND IS NOT TO
 BE CUT UNDER ANY CIRCUMSTANCES

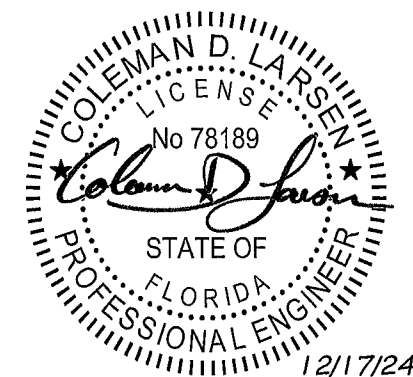
**PURLIN FLANGE
BRACING SCHEDULE**

	BAY #1	BAY #2	BAY #3
Main Roof	M/S	M/S	M/S

M/S = MIDSPAN

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6in x 3.5in x 14G EAVE
PURLIN PER DETAIL O/10,
TYP. BOTH SIDES

RAFTER FLYBRACING PER
DETAIL L/9 AT (4)
LOCATIONS SHOWN

6in x 2.125/2.375in 16G ZEE
ROOF PURLINS SPACED AT
3'-10 1/16" O.C.

1 ROOF FRAMING PLAN
 SCALE: 3/16" = 1'-0"

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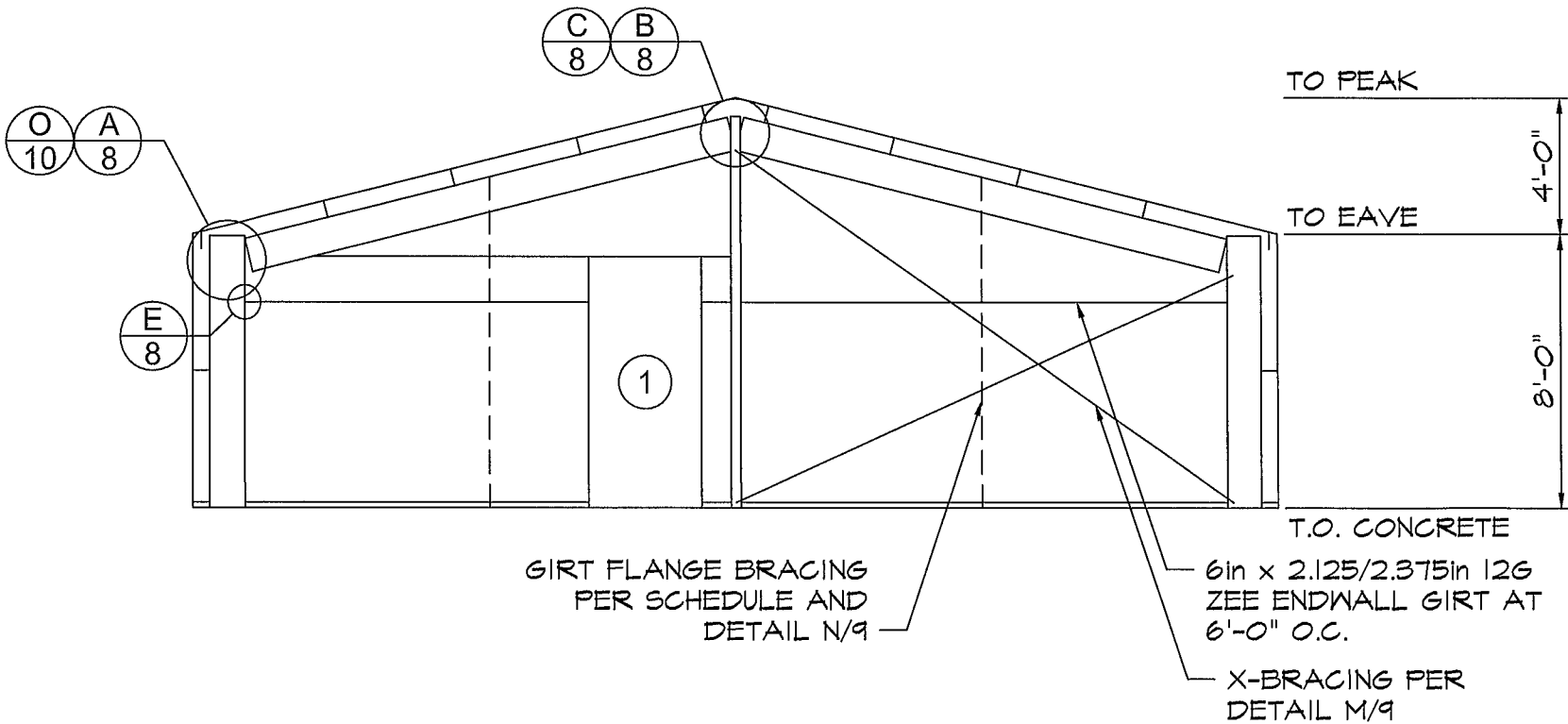
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GIRT FLANGE BRACING SCHEDULE		
	BAY #1	BAY #2
Endwall 'A'	M/S	M/S

M/S = MIDSPAN



1

5

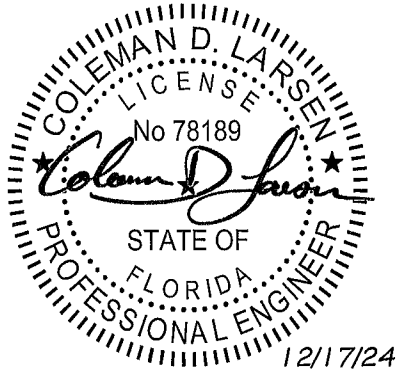
ENDWALL 'A' INTERIOR ELEVATION

SCALE: 3/16" = 1'-0"

FRAME #1

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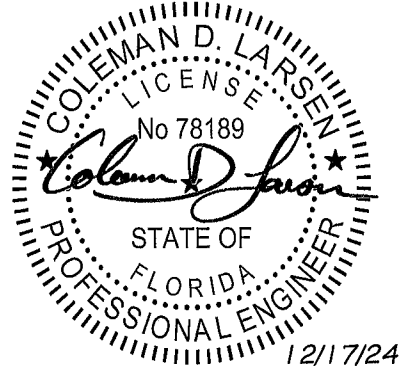
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OF

13

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GIRT FLANGE
BRACING SCHEDULE

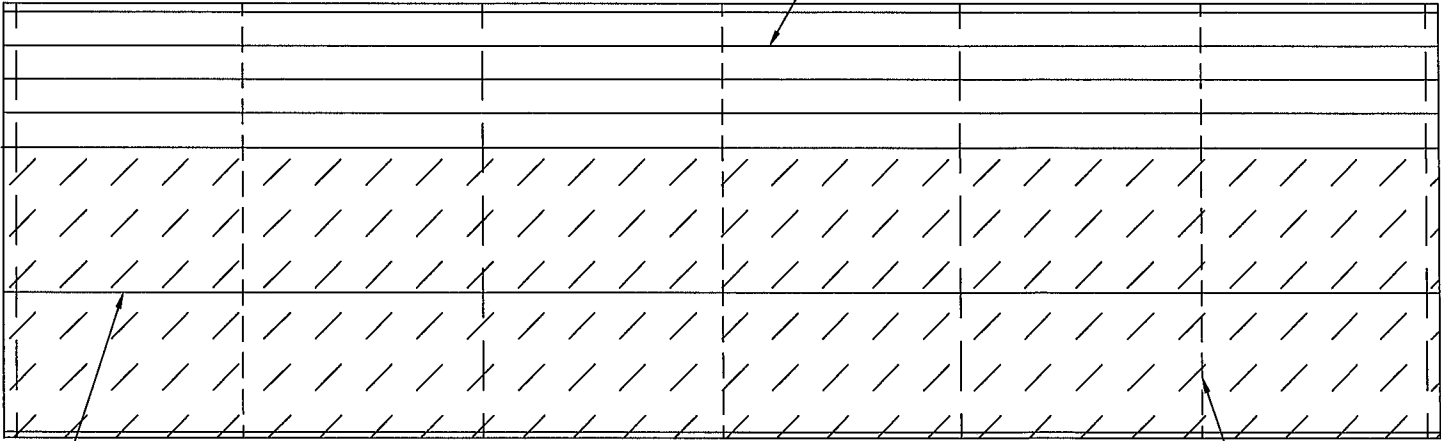
	BAY #1	BAY #2	BAY #3
Sidewall 'A'	M/S	M/S	M/S

M/S = MIDSPAN

DIAPHRAGM SCHEDULE
SHEETING IN DIAPHRAGM SECTIONS (SHOWN
AS HATCHED AREA ON ELEVATIONS) NOT
TO BE CUT UNDER ANY CIRCUMSTANCES

WALL	DISTANCE FROM WALL EDGE
Sidewall 'A'	0.0'-40.0'

ROOF PURLINS PER ROOF
FRAMING PLAN 1/7



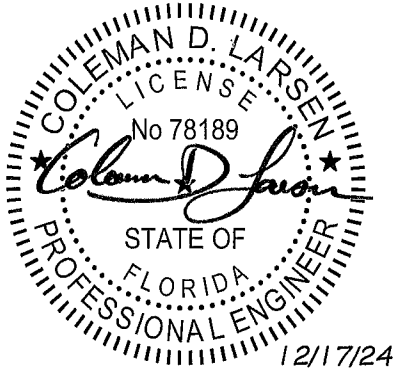
6in x 2.125/2.375in 16G
ZEE SIDEWALL GIRTS
SPACED AT 4'-0" O.C.

GIRT FLANGE BRACING
PER SCHEDULE AND
DETAIL N/9

1
3
SIDEWALL 'A' EXTERIOR ELEVATION
SCALE: 3/16" = 1'-0"

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COMPONENT DIAGRAM					
<div><div><div>CEE</div><div>FLANGE</div><div>WEB</div></div><div><div>ZEE</div><div>FLANGE</div><div>WEB</div></div><div><div>CHANNEL</div><div>FLANGE</div><div>WEB</div></div><div>STIFFENER LIP</div></div> <div>TYP. = TYPICAL U.N.O. = UNLESS NOTED OTHERWISE</div>					
WALL OPENING SCHEDULE					
DOOR	WIDTH	HEIGHT	OPENING TYPE	HEADER GIRT	OPENING JAMBS
①	3'-4"	7'-4"	PERSONNEL DOOR	SINGLE	---
NOTES: 1) ALL OPENINGS AND ACCESSORIES SHALL BE CAPABLE OF SUPPORTING ALL WIND PRESSURES PERPENDICULAR TO THE SURFACE (GENERATED BY WINDS AT THE SPEED AND EXPOSURE INDICATED ABOVE) BY SPANNING BETWEEN THE JAMBS.					
DEFLECTION LIMITS					
PORTAL FRAME (HORZ):		L/100 (BRN)			
PORTAL FRAME (VERT):		L/240 (BRN)			
PURLINS:		L/240 (BRN)			
GIRTS:		L/240 (BRN)			
EW WIND COLUMNS:		L/240 (BRN)			
WALL PANEL:		L/240 (BRN)			

IMPORTANT: IN ADDITION TO THESE ENGINEERING PLANS (WHICH ALWAYS TAKE PRECEDENCE), YOU SHOULD HAVE THE FOLLOWING FROM ACT BUILDING SYSTEMS:

- CONSTRUCTION PACKAGE
- INSTALLATION MANUALS
- CONSTRUCTION VIDEOS

PLEASE CONTACT YOUR SALES REP IF YOU HAVE NOT RECEIVED THESE PRIOR TO STARTING CONSTRUCTION.

PROJECT DESIGN CRITERIA

ROOF DEAD LOAD: 3 psf
ROOF COLLATERAL LOAD: 3 psf
GROUND SNOW LOAD: 0 psf
ROOF SNOW LOAD: 0 psf
ROOF LIVE LOAD: 20 psf
WIND SPEED: 120 mph
WIND EXPOSURE: C
Ss: 0.088 Sds: 0.094
SI: 0.052 Sdi: 0.083
SEISMIC DESIGN CATEGORY:
A (for both periods)
R transverse: 3.0 R longitudinal: 3.0
RISK CATEGORY: II
SOIL BEARING PRESSURE: 1500 psf

WIND DESIGN OF LATERAL FORCE-RESISTING SYSTEMS IS BASED ON THE DIRECTIONAL DESIGN PROCEDURE OF ASCE 7-22, CHAPTER 27

SEISMIC DESIGN OF LATERAL FORCE-RESISTING SYSTEMS ARE AS FOLLOWS:
-- TRANSVERSE: ORDINARY STEEL MOMENT FRAME (SEISMIC DESIGN IS BASED ON ASCE 07-22, SECTIONS 12.1 - 12.13)
-- LONGITUDINAL: ORDINARY STEEL BRACED FRAME. (SEISMIC DESIGN IS PERFORMED USING THE SIMPLIFIED DESIGN PROCEDURE (ASCE 07-22, SECTION 12.14).

DESIGN BASE SHEAR: IS SHOWN ON CALCULATION SHEET M2.

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