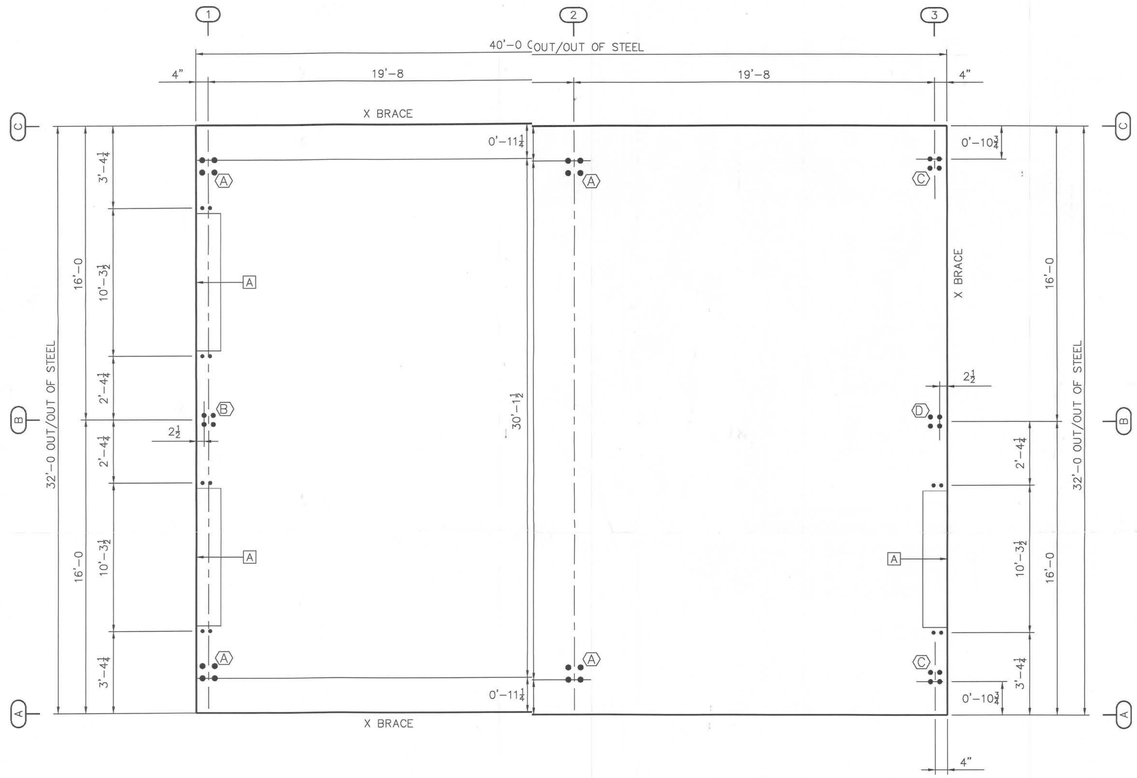
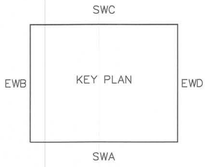
Anchor Rod Drawings

1) This drawing is for anchor rod placement only and is not foundation design.
2) Foundation must be square and level with all anchor rods true in size, location, and projection.
3) Projection shown must be held to keep threads clear of finished concrete.
4) This structural design data includes magnitude and location of design loads and support conditions, material properties, and type and size of major structural members necessary to show compliance with the Order Documents at the time of this issue. Any change to building loads or dimensions may change structural member sizes and locations shown. This structural design data will be supersedd and voided by any future mailing.
5) Anchor rod size is determined by shear and tension at the bottom of the base plate. The length of the anchor rod and method of load transfer to the foundaon are to be determined by the foundation engineer, and are not provided by the manufacturer.
6) Anchor rods are ASTM F1554 Gr. 36 material unless noted otherwise.
7) 3000 psi concrete compressive strength (f'c) is assumed for the purpose of column base plate design unless otherwise noted.

FINISH FLOOR AT ELEVATION 100'-0



ANCHOR ROD SETTING PLAN



ACCESSORY SCHEDULE			
MARK	DESCRIPTION	DETAIL	QUAN.
A	10'-0 X 10'-0 FRAMED OPENINGS	E	3

ANCHOR BOLTS TO BE DESIGNED BY FOUNDATION ENGINEER USING DIAMETERS SHOWN IN THIS TABLE.	
ANCHOR ROD DESCRIPTION	QUANTITY
GBR "ø DIAMETER X	28
ANC "ø DIAMETER X	16

Revision	Date	Description	By	Ck'd
1	01/21/20	No changes on this sheet		SNH

STAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	SJF 1/15/20
Checked by:	BKR 1/15/20
Project Engineer:	IRV
Job Number:	17-3-48260
Sheet Number:	F1 of 3

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certificatior is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this proect.

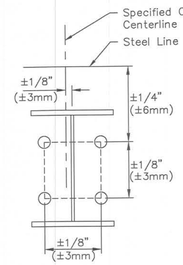
Vinay Joseph Thottunkal, P.E.
Florida P.E. 77970

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

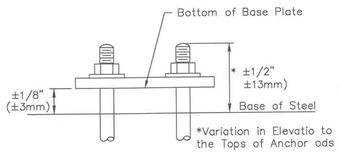
Drawing has been digitally signed.
Jan 22, 2020

VINAY JOSEPH THOTTUNKAL
LICENSE
No. 7970
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

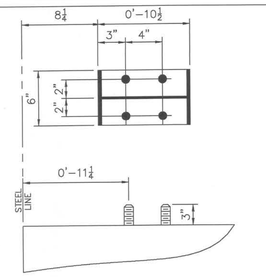
AISC CODE OF STANDARD PRACTICE TOLERANCES FOR SETTING ANCHOR RODS



ANCHOR ROD SETTING TOLERANCES

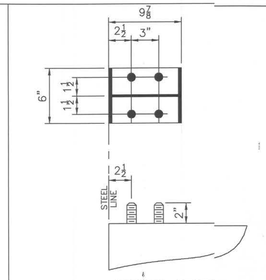


BASE PLATE AND ANCHOR ROD TOLERANCES



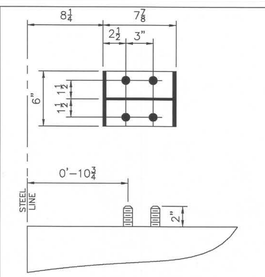
TYPICAL SECTION
¾" ø ANCHOR RODS

(A) BASE OF STEEL AT ELEV. 100'–0



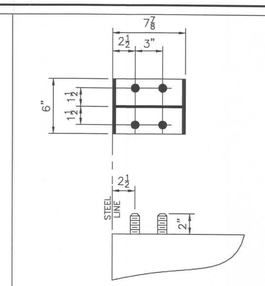
TYPICAL SECTION
ONE ø ANCHOR RODS

(B) BASE OF STEEL AT ELEV. 100'–0



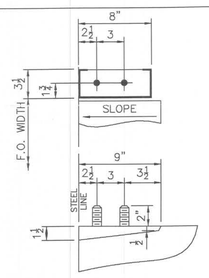
TYPICAL SECTION
ONE ø ANCHOR RODS

(C) BASE OF STEEL AT ELEV. 100'–0



TYPICAL SECTION
ONE ø ANCHOR RODS

(D) BASE OF STEEL AT ELEV. 100'–0



TYPICAL SECTION
ONE ø ANCHOR RODS

(E) BASE OF STEEL AT ELEV. 100'–0

Revision	Date	Description	By	Ck'd
1	01/21/20	No changes on this sheet		SNH

ASTAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
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Project Name & Location:
TRAVIS TUTEN
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Scale:	NOT TO SCALE
Drawn by:	SJF 1/15/20
Checked by:	BKR 1/15/20
Project Engineer:	LRV
Job Number:	17–B–4826D
Sheet Number:	F2 of 3

The engineer whose seal appears hereon is an empbyee for the manufacturer for the materials described herein. Said seal or certification is limied to the products designed and manufactured by manufactrer only. The undersigned enginner is not the overall engineer of record for this project.

Vinay Joseph Thottunkal, PE.
Florida P.E. 77970

Drawing has been digitally signed.
Jan 22, 2020

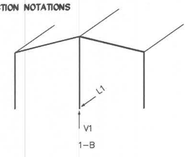
VINAY JOSEPH THOTTUNKAL
LICENSE
No. 77970
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

FRAME DESCRIPTION: Endwall EWB
USER NAME: LXVega
JOB NAME: 48260A
DATE: 1/15/20
FILE: REW3BL11
PAGE: EW-1

PATH: R:\jobs\Active\Eng\17-B-48260\ver01-lxvega\BLDG-A\run01\

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and klp-ft.
TIME: 08:31:27

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	1-B		
LOAD GROUP	H1	V1	L1
D	0.	0.2	0.
W+	0.	0.	3.3
W-	0.	0.	-3.6

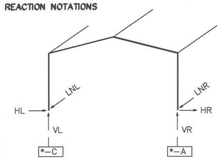
LOAD GROUP DESCRIPTION

D : DEAD LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W- : WIND LOAD AS AN OUTWARD ACTING SUCTION

FRAME ID #1
cs 32./14./24.583 20./110./
USER NAME: LXVega
JOB NAME: 48260A
DATE: 1/15/20
FILE: frames_1_2.fra
PAGE: 1-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 1 2
NOTES: (1) All reactions are in kips and klp-ft.
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.
TIME: 08:38:26

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 1 2

COLUMN	*-C			*-A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.3	1.2	0.0	-0.3	1.2	0.0
LL	1.2	4.7	0.0	-1.2	4.7	0.0
COLL	0.1	0.2	0.0	-0.1	0.2	0.0
WL1	-2.9	-9.6	0.0	-2.0	-6.6	0.0
WL2	-4.4	-1.6	0.0	-0.5	1.4	0.0
WL3	2.0	-6.6	0.0	2.9	-9.6	0.0
WL4	0.5	1.4	0.0	4.4	-1.6	0.0
LWL1	1.5	-8.2	0.0	-1.0	-7.5	0.0
RBUPLW	0.0	-1.2	-1.7	-0.0	-1.2	-1.7
LWL2	1.0	-7.5	0.0	-1.5	-8.2	0.0
LWL3	0.0	-0.2	0.0	0.6	0.5	0.0
LWL4	-0.6	0.5	0.0	-0.0	-0.2	0.0
RBDWLW	-0.0	1.2	0.0	0.0	1.2	0.0

LOAD GROUP DESCRIPTION

DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Wind from Left to Right with +GCpi
WL2 : Wind from Left to Right with -GCpi
WL3 : Wind from Right to Left with +GCpi
WL4 : Wind from Right to Left with -GCpi
LWL1 : Windward Corner Left with +GCpi
RBUPLW : Upward Acting Rod Brace Load from Long. Wind
LWL2 : Windward Corner Right with +GCpi
LWL3 : Windward Corner Left with -GCpi
LWL4 : Windward Corner Right with -GCpi
RBDWLW : Downward Acting Rod Brace Load from Long. Wind

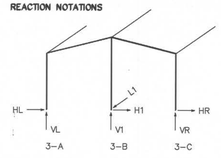
1

FRAME DESCRIPTION: Endwall EWD
USER NAME: LXVega
JOB NAME: 48260A
DATE: 1/15/20
FILE: REW4BLDG1
PAGE: EW-2

PATH: R:\jobs\Active\Eng\17-B-48260\ver01-lxvega\BLDG-A\run01\

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and klp-ft.
TIME: 08:31:27

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	3-A			3-B			3-C		
LOAD GROUP	HL	VL	LL	H1	V1	L1	HR	VR	LR
D	0.0	0.4	0.	0.	0.7	0.	0.0	0.4	0.
C	0.0	0.0	0.	0.	0.1	0.	0.0	0.0	0.
L	0.0	1.7	0.	0.	3.0	0.0	0.0	1.7	0.
W+	-0.1	-2.9	0.	0.	-4.9	3.3	0.1	-2.9	0.
W-	-0.1	-2.9	0.	0.	-4.9	-3.6	0.1	-2.9	0.
WR	-0.1	-2.9	0.	0.	-3.6	0.0	1.3	-4.2	0.
WL	-0.1	-2.9	0.	-1.2	-6.0	0.0	0.1	-1.8	0.

LOAD GROUP DESCRIPTION

D : DEAD LOAD
C : COLLATERAL LOAD
L : LIVE LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W- : WIND LOAD AS AN OUTWARD ACTING SUCTION
WR : WIND FORCE FROM THE RIGHT
WL : WIND FORCE FROM THE LEFT

NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).
a) A REACTION TABLE IS PROVIDED WITH THE REACTIONS FOR EACH LOAD GROUP.
b) RIGID FRAMES
(1) GABLED BUILDINGS
(a) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE LEFT SIDE OF THE BUILDING, AS SHOWN ON THE ANCHOR ROD DRAWING, FROM THE OUTSIDE OF THE BUILDING.
(b) INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE TO RIGHT SIDE.
(2) SINGLE SLOPE BUILDINGS
(a) LEFT COLUMN IS THE LOW SIDE COLUMN.
(b) RIGHT COLUMN IS THE HIGH SIDE COLUMN.
(c) INTERIOR COLUMNS ARE SPACED FROM LOW SIDE TO HIGH SIDE.
c) ENDWALLS
(1) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE WALL FROM THE OUTSIDE.
(2) INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGHT.
d) ANCHOR ROD SIZE IS DETERMINED BY SHEAR AND TENSION AT THE BOTTOM OF THE BASE PLATE. THE LENGTH OF THE ANCHOR ROD AND METHOD OF LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY THE FOUNDATION ENGINEER.
e) ANCHOR RODS ARE ASTM F1554 Gr. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
f) X-BRACING
(1) ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VALUES SHOWN IN THE REACTION TABLES.
(2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ AND RBDWEQ) DO NOT INCLUDE THE AMPLIFICATION FACTOR, Ω_0.
(3) FOR CANADA BUILDING CODE (NBC), WHEN X-BRACING IS PRESENT IN THE SIDEWALL OR ENDWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ & RBDWEQ) ARE MULTIPLIED BY FORCE REDUCTION FACTOR, Rd, WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO $I_E F_a S_a(0.2)$ IS GREATER THAN 0.45.
3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.
a) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUCH AS 2012 IBC, 2015 IBC, OR FLORIDA BUILDING CODE, THE WIND LOAD REACTIONS ARE AT A STRENGTH VALUE WITH A LOAD FACTOR OF 1.0.
b) FOR IBC CODES, THE SEISMIC REACTIONS PROVIDED ARE AT A STRENGTH LEVEL AND DO NOT CONTAIN THE RHO FACTOR.
c) FOR NBCC CODES, THE SEISMIC REACTIONS PROVIDED DO NOT CONTAIN THE $R_d R_o$ FACTOR.
THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

Revision	Date	By	Ck'd
1:	Date: 1/21/2020	SNH	

Description

STAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Customer: APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

Project Name & Location: TRAVIS TUTEN
LAKE CITY, FL 32064 US

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale: NOT TO SCALE
Drawn by: SJF 1/15/20
Checked by: BKR 1/15/20
Project Engineer: LRV
Job Number: 17-B-48160
Sheet Number: F3 of 3

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described hereh. Said seal or certification is linited to the products designec and manufactured by manufacturer only. The undersigned engneer is not the overall engineer of record for this project.

Vinay Joseph Thottunkal, P.E.
Florida P.E. 77970

Drawing has been digitally signed.
Jan 22, 2020

VINAY JOSEPH THOTTUNKAL
LICENSE
No. 77970
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Builder/Contractor Responsibilities

Drawing Validity – These drawings, supporting structural calculations and design certificatin are based on the order documents as of the date of these drawings. These documents desibe the material supplied by the manufacturer as of the date of these drawings. Any changes tthe order documents after the date on these drawings may void these drawings, supporting structual calculations and design certification. The Builder/Contractor is responsible for notifying tb building authority of all changes to the order documents which result in changes to the drawings,supporting structural calculations and design certification.

Builder Acceptance of Drawings – Approval of the manufacturer's drawings and design dαα affirms that the manufacturer has correctly interpreted and applied the requirements of the orde documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretions of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (April 2010 Section 4.4.1)

Code Official Approval – It is the responsibility of the Builder/Contractor to ensure that ll project plans and specifications comply with the applicable requirements of any governing buildingauthority. The Builder/Contractor is responsible for securing all required approvals and permits fromthe appropriate agency as required.

Building Erection – The Builder/Contractor is responsible for all erection of the steel andassociated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determed, furnished and installed by the erector (April 2010 Section 7.10.3) (CSA/S16–09 Section 2).

Discrepancies – Where discrepancies exist between the Metal Building plans and plans forother trades, the Metal Building plans will govern. (April 2010 Section 3.3)

Materials by Others – All interface and compatibility of any materials not furnished by th manufacturer are the responsibility of and to be coordinated by the Builder/Contractor o A/E firm. Unless specific design criteria concerning any interface between materials if furnished as part of the order documents, the manufacturers assumptions will govern.

Modification of the Metal Building from Plans – The Metal Building supplied by the manufcturer has been designed according to the Building Code and specifications and the loads shown onthis drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metl Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any hanges to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

Foundation Design
The Metal Building Manufacturer is not responsible for the design, materials and workmanhip of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only loation, diameter and projection of the anchor rods required to attach the Metal Building Systemto the foundation. It is the responsibility of the end customer to ensure that adequate provisics are made for specifying rod embedment, bearing values, tie rods and or other associated itels embedded in the concrete foundation, as well as foundation design for the loads imposedby the Metal Building System, other imposed loads, and the bearing capacity of the soil and othr conditions of the building site. (MBMA 06 Sections 3.2.2 and A3)

STAR BUILDING SYSTEMS®

For questions regarding the interpretation of the drawings, materials provided, or assembly of the parts:
- Call 1-800-879-7827 and ask for the "Field Service" department.
- Before or after normal hours, you may send an email to OKCSField.Service@StarBuildings.net. Please include the order no., brief description of the question, & contact name and phone number.

ENGINEERING DESIGN CRITERIA

Building Code	FLORIDA BUILDING CODE, 6TH EDITION (2017)
Building Risk Category	Agricultural (Category I)
Roof Dead Load	
Superimposed	2.12 psf
Collateral (0.50 psf Other)	0.50 psf
Roof Live Load	20.00 psf reduction allowed
Wind	
Ultimate Wind Speed (Vult)	110.00 mph
Nominal Wind Speed (Vasd)	85 mph (IBC section 1609.3.1)
Serviceability Wind Speed	76 mph
Wind Exposure Category	B
Internal Pressure Coef (GCpi)	0.18/-0.18

Wall Loads for components not provided by building manufacturer
Corner Areas (within 3.20' of corner) 21.76 psf pressure -29.14 Fpsf suction
Other Areas 21.76 psf pressure -23.61 Fpsf suction
These values are the maximum values required based on a 10 sq ft area.
Components with larger areas may have lower wind loads.

DEFLECTION CRITERIA

The material supplied by the manufacturer has been designed with the following minimum deflection criteria. The actual deflection may be less depending on actual load and actual member length.

BUILDING DEFLECTION LIMITS..... BLDG-A

Roof Limits	Rafters	Purlins	Panels
Live: L/	180	150	60
Serviceability Wind: L/	180	180	60
Total Gravity: L/	120	120	60
Total Uplift: L/	N/A	N/A	60

Frame Limits	Sidesway
Live: H/	60
Serviceability Wind: H/	60
Total Gravity: H/	60

Wall Limits	Limit
Total Wind Panels: L/	60
Total Wind Girts: L/	90
Total Wind EW Columns: L/	120

PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, ASTM A1011 SS, or ASTM A1011 HSLAS with a minimum yield point of 50 ksi. Material properties of hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with a minimum specified yield point of 50 ksi. Hot rolled angles, other than flange braces, conform to ASTM 36 minimum. Hollow structural shapes conform to ASTM A500 grade B, minimum yield point is 42 ksi for round HSS and 46 ksi for rectangular HSS.
Material properties of cold-formed light gage steel members conform to the requirements of ASTM A1011 SS Grade 55, ASTM A1011 HSLAS Grade 55 Class 1, ASTM A653 SS Grade 55, or ASTM A653 HSLAS Grade 55 Class 1 with a minimum yield point of 55 ksi. For Canada, material properties conform to CAN/CSA G40.20/G40.21 or equivalent.

All bolted joints with A325 Type 1 bolts are specified as snug-tightened joints in accordance with the Specification for Structural Joints Using ASTM A325 or A490 Bolts, December 31, 2009. Pre-tensioning methods, including turn-of-nut, calibrated wrench, twist-off-type tension-control bolts or direct-tension-indicator are NOT required. Installation inspection requirements for Snug Tight Bolts (Specification for Structural Joints Section 9.1) is suggested.

Design criteria as noted is as given within order documents and is applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the metal building manufacturer nor the certifying engineer declares or attests that the loads as designated are proper for local provisions that may apply or for site specific parameters. The design criteria is supplied by the builder, project owner, or an Architect and/or Engineer of Record for the overall construction project.

This project is designed using manufacturer's standard serviceability criteria. Generally this means that all deflections are within typical performance limits for normal occupancy and standard metal building products.

The use of the structure is limited to Occupancy Category I for structures representing a low hazard to humans; including agricultural facilities, temporary facilities and/or minor storage facilities. The resulting reduction in applied loads would explicitly exclude most industrial or commercial applications, high human occupancy or post disaster uses. Future use for any category other than Occupancy Category I will require investigation of the structure by a qualified design professional in order to determine any reinforcement that may be required.

This metal building system is designed as Enclosed Building. All exterior components (i.e. doors, windows, vents, etc.) must be designed to withstand the specified wind loading for the design of components and cladding in accordance with the specified building code.

Framed openings, walk doors, and open areas shall be located in the bay and elevation as shown in the erection drawings. The cutting or removal of girts shown on the erection drawings due to the addition of framed openings, walk doors, or open areas not shown may void the design certifications supplied by the metal building manufacturer.

Roof and wall panels have been designed in accordance with section 2222.4 of the Florida Building Code, 6th Florida (2017) Product approval numbers for the State of Florida, Department of Community Affairs per Product Rule 9B-72:
1. Panel Walls
   FL11917 PBR 26 gauge walls
2. Roofing Products
   FL11868 PBR 26 gauge roofs

Using 7" x 7" eave gutter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MBMA Metal Building Systems Manual. Downspout locations have not been located on these drawings. The downspouts are to be placed on the building sidewalls at a spacing not to exceed 40 feet with the first downspout from both ends of the gutter run within 20 feet of the end. Downspout spacing that does not exceed the maximum spacing will be in compliance with the building code. The gutter and downspout system as provided by the manufacturer is designed to accommodate 10 in/hr rainfall intensity.

The rigid frame at building A Frame Line 1 is designed as a non-expandable rigid frame. Corresponding frame reactions are calculated based upon actual tributary area.

Drawing Index

Download panel installation manuals from:
www.ncimanuals.com

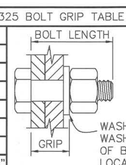
Descargue los manuales de instalación del panel desde:
www.ncimanuals.com

BUILDING DESCRIPTIONS

Building ID	Width	Length	Height	Slope
Building A	32'-0	40'-0	14'-0	3:12

½"ø A325 BOLT GRIP TABLE

GRIP	LENGTH
0 TO 9/16"	1 1/4" F.T.
Over 9/16" TO 1 1/16"	1 3/4" F.T.
Over 1 1/16" TO 1 5/16"	2"
Over 1 5/16" TO 1 9/16"	2 1/4"
Over 1 9/16" TO 1 13/16"	2 1/2"
Over 1 13/16" TO 2 1/16"	2 3/4"
LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS	
F.T. DENOTES FULLY THREADED	



NOTE: FULL THRED ENGAGEMENT IS DEMED TO HAVE BEEN MET HEN THE END OF THE BOLTIS FLUSH WITH THE FACE O THE NUT.

WASHER REQUIRED ONLY WHE SPECIFIED. WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR ATBOTH AT LOCATIONS NOTED ON ERECTIN DRAWINGS. ADD 5/32" FOR EACH WASHE TO MATERIAL THICKNESS TO DETRMINE GRIP.

Revision	Date	Description	By	Ck'd

STAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Customer: APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale: NOT TO SCALE
Drawn by: MFA 1/5/20
Checked by: SNH 1/21/20
Project Engineer: LRV
Job Number: 17-B-48260
Sheet Number: E1 of 6

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described heren. Said seal or certification is linited to the products designel and manufactured by manufcturer only.The undersigned engineer is not the overall engineer of record for this project.

Vinay Joseph Thottunkal, P.E.
Florida P.E. 77970

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Jan 22, 2020

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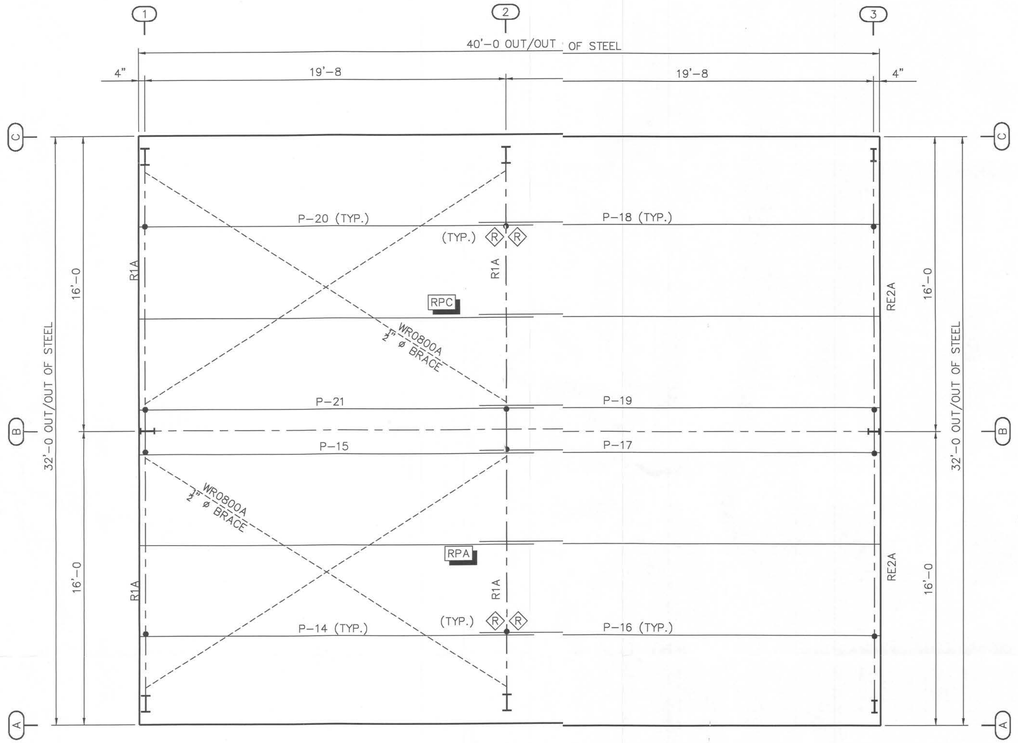
LICENSE
No. 77970
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

● – DENOTES: CLIP LOCATION
SC90 AT 8" PURLINS
SC92 AT 10" PURLINS
SC94 AT 12" PURLINS



ROOF FRAMING PLAN

SWC
EWB KEY PLAN EWD
SWA

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
Ⓠ	–0'–0¼"	Ⓣ	2'–5½"
Ⓢ	0'–3½"	Ⓤ	3'–1¼"
Ⓡ	1'–5½"	REFER TO CF01122	

Revision	Date	Description	By	Ck'd

ASTAR BUILDING SYSTEMS®
8600 SOUTH I–35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636–2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064–2470

Drawing Status:
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☐ For Approval Not For Construction
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/5/20
Checked by:	SNH 1/11/20
Project Engineer:	LRV
Job Number:	17–B–48260
Sheet Number:	E2 of 6

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Florida P.E. 77970

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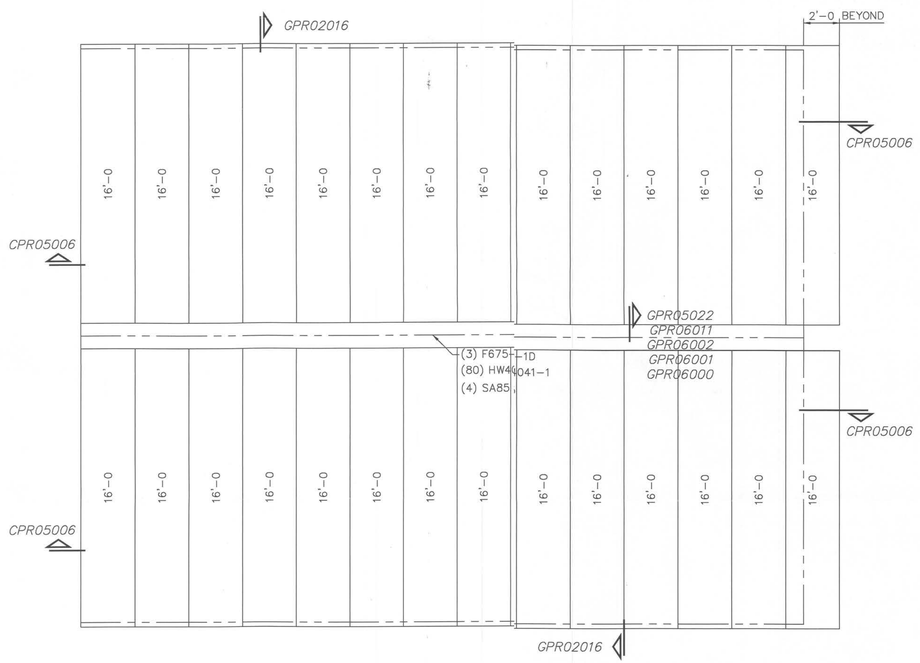
LICENSE
No. 77970
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

PBR ROOF PANELS ARE TO BE FIELD CUT IF THE PANELS EXTEND OUTSIDE OF THE ROOF PLANE, PANELS ARE NOT TO BE BACK LAPPED.

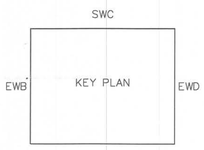
ROOF SHEETING PLANE 2
PANEL TYPE = PBR (CHARCOAL GRAY)
PANEL OVERHANG = 3"
FROM OUTER STEEL

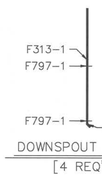


ROOF SHEETING PLAN

ROOF SHEETING PLANE 1
PANEL TYPE = PBR (CHARCOAL GRAY)
PANEL OVERHANG = 3"
FROM OUTER STEEL

Non-Standard Roof Panel Fasteners
#58 – Member fasteners are to be used for panel to secondary attachment.
#4 – Lap fasteners are to be used for panel to panel and panel to trim attachment.





DOWNSPOUT LAYOUT
[4 REQ'D]

DOWNSPOUTS ARE TO BE PLACED AT A SPACING NOT TO EXCEED 40'-0 WITH A DOWNSPOUT WITHIN 20'-0 OF EACH END OF THE GUTTER RUN.

Revision	Date	Description	By	Ck'd

ASTAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 635-2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation (Not For Construction)

Scale:	NOT TO SCALE
Drawn by:	MFA 1/15/20
Checked by:	SNH 1/21/20
Project Engineer:	LRV
Job Number:	17-B-48260
Sheet Number:	E3 of 6

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Florida P.E. 77970

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Jan 22, 2020

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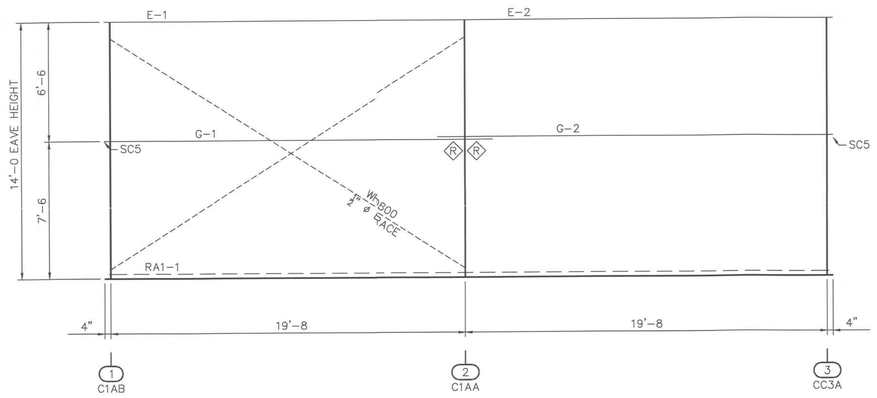
LICENSE
No. 77970
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Non-Standard Wall Panel Fasteners
#3 – Member fasteners are to be used for panel to secondary attachment.
#4 – Lap fasteners are to be used for panel to panel and panel to trim attachment.

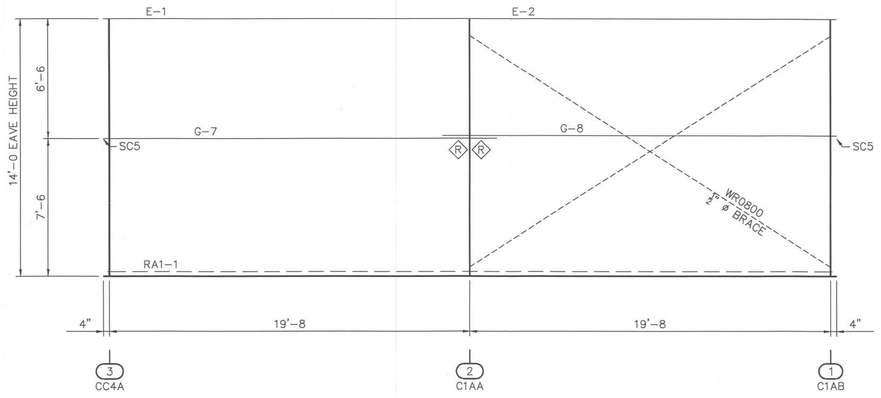
SCHEDULE OF ACCESSORIES

NO. REQD	DESCRIPTION
3	10'–0 X 10'–0 FACTORY LOCATED FRAMED OPENINGS
1	3070 KNOCK–DOWN WALK DOOR

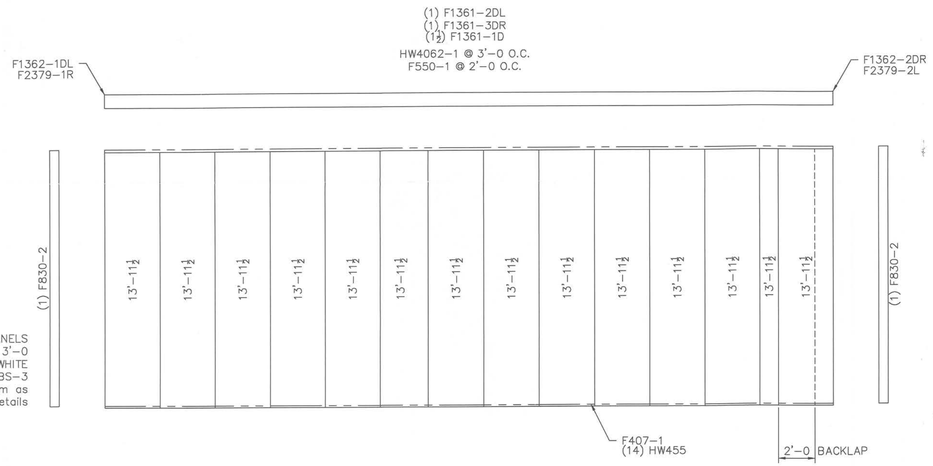
REFER TO DETAILS ON INSTALLATION OF WALK DOOR.
REFER TO DETAILS ON INSTALLATION OF FRAMED OPENINGS.
USE STANDARD WALL PROCEDURES TO ERECT THE SIDEWALL AND ENDWALL PANELS.



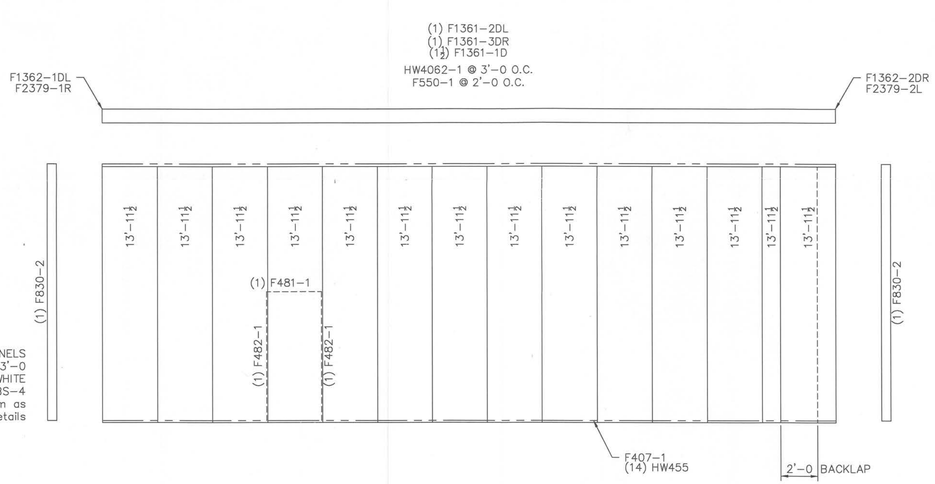
ELEVATION "SWA"



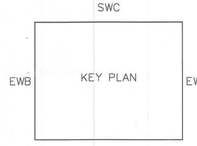
ELEVATION "SWC"



WALL SHEETING ELEVATION "SWA"
BLDG "A"



WALL SHEETING ELEVATION "SWC"
BLDG "A"



ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
C	–0'–0¼"	T	2'–5¾"
S	0'–3¾"	V	3'–1¼"
R	1'–5¾"	REFER TO CF01122	

Revision	Date	Description	By	Ck'd

ASTAR BUILDING SYSTEMS®
8600 SOUTH I–35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636–2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064–2470

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/15/20
Checked by:	SNH 1/21/20
Project Engineer:	LRV
Job Number:	17–B–48260
Sheet Number:	E4 of 6

Vinay Joseph Thottunkal, P.E.
Florida P.E. 77970

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Jan 22, 2020

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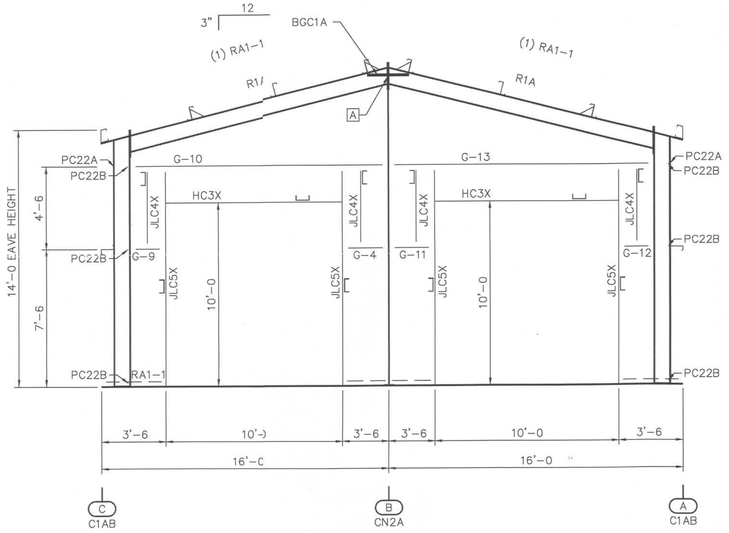
SPLICE BOLT TABLE					
CONN.	QTY.	SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(4)	¾ X 1¾	A325 B&N	0	0

APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
CN2A	224
C1AB	218
R1A	229

Non-Standard Wall Pnel Fasteners

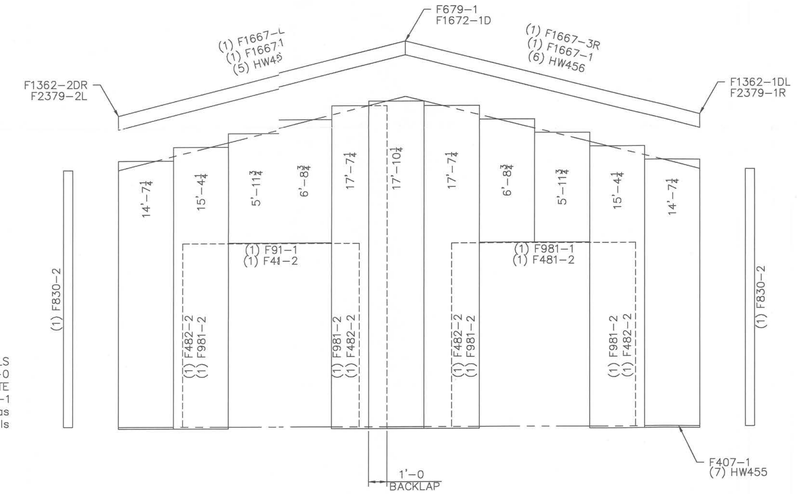
#3 – Member fasteners ar to be used for panel to secondary attachrent.

#4 – Lap fasteners are tobe used for panel to panel and panel to trimattachment.



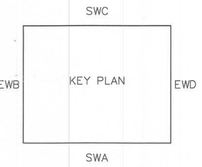
CL292– FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE ENDWALL COLUMNS, AT ALL GIRT ELEVATIONS. REFER TO DETAILS.

ELEVATION "EWB"



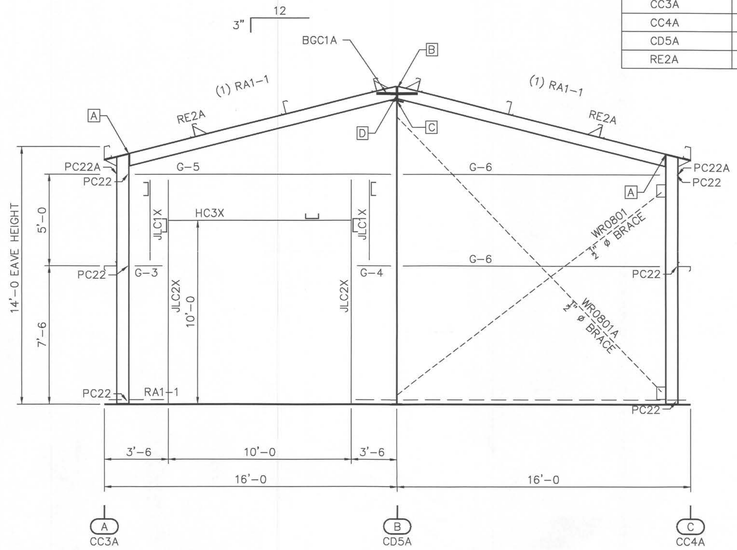
PBR WALL PANELS
PANEL COVERAGE = 3'–0
COLOR = POLAR WHITE
PANEL PKG. REQ'D. = PBS–1
Field Cut Panel and Trim as required per Construction Details

WALL SHEETING ELEVATION "EWB"
BLDG "A"



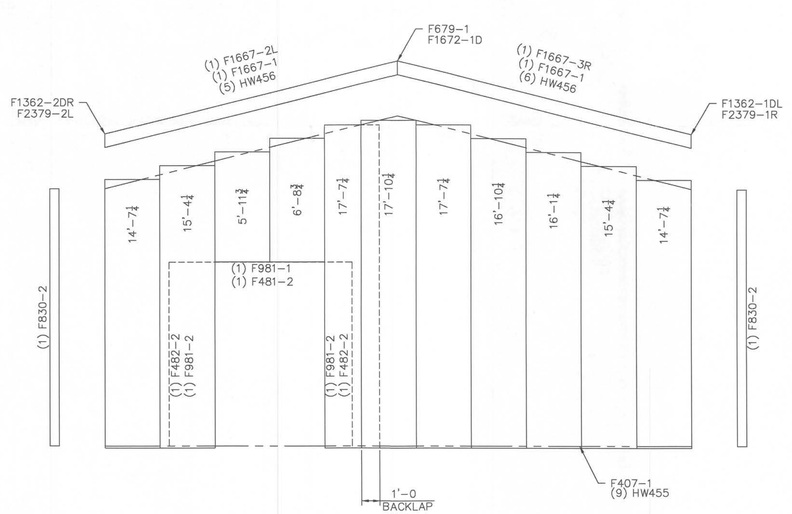
SPLICE BOLT TABLE					
CONN.	QTY.	SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(2)	½ X 1¾	A325 B&N	0	0
B	(4)	½ X 1¾	A325 B&N	4	0
C	(4)	½ X 1¾	A325 B&N	0	0
D	(4)	¾ X 1¾	A325 B&N	0	0

APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
CC3A	155
CC4A	164
CD5A	196
RE2A	168



CL292– FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE ENDWALL COLUMNS, AT ALL GIRT ELEVATIONS. REFER TO DETAILS.

ELEVATION "EWD"



PBR WALL PANELS
PANEL COVERAGE = 3'–0
COLOR = POLAR WHITE
PANEL PKG. REQ'D. = PBS–2
Field Cut Panel and Trim as required per Construction Details

WALL SHEETING ELEVATION "EWD"
BLDG "A"

Revision	Date	Description	By	Ck'd

ASTAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/5/20
Checked by:	SNH 1/21/20
Project Engineer:	LRV
Job Number:	17–B–48260
Sheet Number:	E5 of 6

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Vinay Joseph Thottunkal, P.E.
Florida P.E. 77970

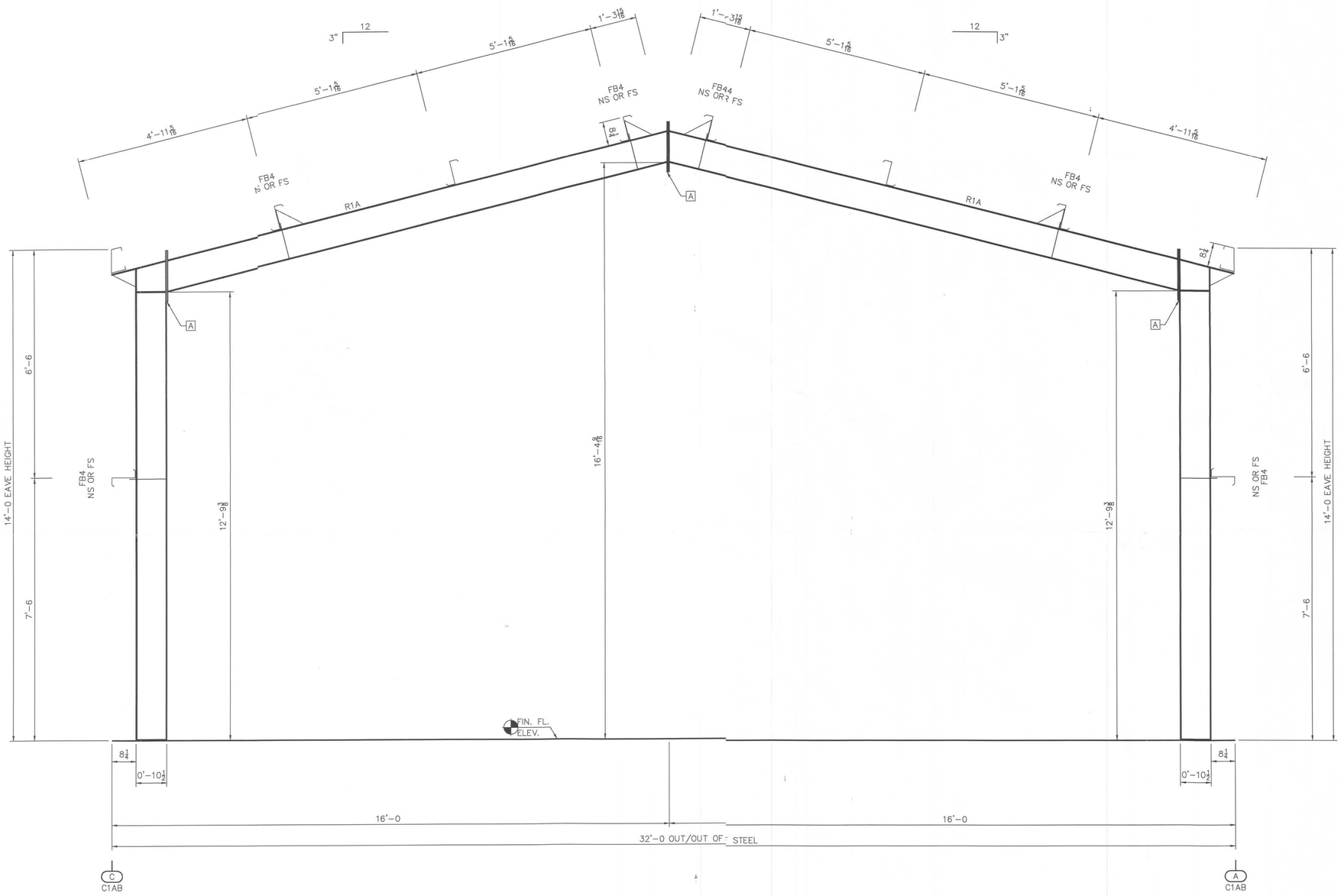
Drawing has been digitally signed.
Jan 22, 2021

VINAY JOSEPH THOTTUNKAL
LICENSE
No. 77970
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

GENERAL NOTES:
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.

APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
R1A	229
C1AB	218



CROSS SECTION AT FRAME LINES; "1" & "2"

SPLICE BOLT TABLE				
CONN.	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(8) 3/4 X 1 3/4	A325 B&N	0	0

Revision	Date	Description	By	Ck'd

STAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

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LIVE OAK, FL 32064-2470

Drawing Status:
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Scale: NOT TO SCALE
Drawn by: MFA 1/15/20
Checked by: SNH 1/21/20
Project Engineer: LRY
Job Number: 17-B-48260
Sheet Number: E6 of 6

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Florida P.E. 77970

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Jan 22, 2020

VINAY JOSEPH THOTTUNKAL
LICENSE No. 77970 STATE OF FLORIDA
PROFESSIONAL ENGINEER

Field Service Procedures

In Order To Give You Prompt Services And Keep Problems To A Minimum, Please Handle Any Shortages Or Back Charges In The Following Manner:

1. Carefully Check Your Packing List While Unloading.
2. Mark Any Items Which Appear To Be Missing And Notify The Field Service Department At The Number Shown In The Title Block As Soon As Possible. Calling Someone Else Could Delay The Proper Response.

INITIAL CLAIM:
In The Event Of An Error, The Customer Must Promptly Make A Written Or Verbal "Initial Claim" to The Manufacturer For The Correction Of Design, Drafting, Bill Of Materials Or Fabrication Error.
The "Initial Claim" Includes:

1. Description Of The Nature And Extent Of The Errors, Including Quantities.
2. Description Of The Nature And Extent Of Proposed Corrective Work, Including Estimated Man-Hours.
3. Materials To Be Purchased From Other Than the Manufacturer, Including Estimated Quantities and Cost.
4. Maximum Total Cost Of Proposed Corrective Work And Materials To Be Purchased From Other Than The Manufacturer.

SHORT MATERIALS:
Immediately Upon Delivery Of Materials, Quantities Are To Be Verified By The Customer Against Quantities That Are Billed On The Shipping Documents. Neither The Manufacturer Nor The Carrier Is Responsible For Material Shortages Against The Quantities Billed On The Shipping Documents If Such Shortages Are Not Noted On The Shipping Documents When The Material Is Delivered And Acknowledged By The Carrier's Agent. If The Carrier Is The Manufacturer, Claims For Shortages Are To Be Made By The Customer To The Common Carrier. If The Material Quantities Received Are Correct According To The Quantities Billed On The Shipping Documents, But Are Less Than The Quantities Ordered Or The Quantities That Are Necessary To Complete The Metal Building According To The Order Documents, Claim Is To Be Made To The Manufacturer.

DAMAGED OR DEFECTIVE MATERIAL:
Damaged Or Defective Material, Regardless Of The Degree Of Damage, Must be Noted On The Shipping Documents By The Customer And Acknowledged By The Carrier's Agent. The Manufacturer Is Not Responsible For Material Damaged In Unloading Of Packages Or Nested Materials, Including, But Not Limited To: Fasteners, Sheet Metal, "C" And "Z" Sections And Covering Panels That Become Wet And/Or Damaged By Water While In The Possession Of Others. Packaged Or Nested Material That Become Wet In Transit Must Be Unpacked, Unstacked And Dried By The Customer. If The Carrier Is The Manufacturer, The Customer Must Make Claim For Damaged Directly To The Manufacturer. If The Carrier Is A Common Carrier, The Customer Must Make The Claim For Damage To The Common Carrier. The Manufacturer Is Not Liable For Any Claim Whatsoever Including, But Not Limited To Labor Charges Of Consequential Damages Resulting From Customer's Use Of Damaged Or Defective Materials That Can Be Detected By Visual Inspection.

EXCESSIVE MATERIAL:
The Manufacturer Reserves The Right To Recover Any Material Delivered In Excess Of Those Required By The Order Documents.

OIL CANNING IS NOT A CAUSE FOR REJECTION

Types Of Finishes

SHOP PRIMED STEEL:
All Structural Members Of The Metal Building System Not Fabricated Of Corrosion Resistant Material Or Protected By A Corrosion Resistant Coating Are Painted With One Coat Of Shop Primer Meeting The Performance Requirements Of SSPC Paint Specification No.15. The Coat Of Shop Primer Is Intended To Protect The Steel Framing For Only A Short Period Of Exposure To Ordinary Atmospheric Conditions. Shop Primed Steel Which Is Stored In The Field Pending Erection Should Be Kept Free Of The Ground And So Positioned As To Minimize Water Holding Pockets, Dust, Mud And Other Contamination Of The Primer Film. Repairs Of Damaged To Primed Surfaces And/Or Removal Of Foreign Material Due To Improper Field Storage Or Site Conditions Are Not The Responsibility Of The Manufacturer. The Manufacturer Is Not Responsible For Deterioration Of The Shop Coat Of Primer Or Corrosion That May Result From Exposure To Atmospheric And Environmental Conditions, Nor The Compatibility Of The Primer To Any Field Applied Coating. Minor Abrasions To The Shop Coat (Including Galvanizing) Caused By Handling, Loading, Shipping, Unloading And Erection After Painting Or Galvanizing Are Unavoidable. (MBMA 2012, Chapter IV 4.2.4).

GALVALUME:
Galvalume Is The Trade Name For A Patented Steel Sheet And Coil Product Having A Coating Of Corrosion Resistant Aluminum-Zinc Alloy. The Mixture Is Balanced To Obtain The Coating That Retains The Corrosion Resistance And Heat Reflectivity Of Aluminum And Galvanic Protection Of Zinc. The Best Properties Of Both Aluminum And Zinc Are Combined In This Coating And Offer Added Service Life For The Building.

Pre-Painted:
Using Galvalume Steel As A Substrate, Pre-Painted Steel Is Given An Additional Rust Inhibitor Primer Coat. This Primer Coat Further Increases The Corrosion Resistance. These Coatings Are Applied To The Exterior Surface Of The Panels And A Wash Coat Designed Only For Interior Use, Is Applied On The Opposite Side. Galvalume And Pre-Painted Steel Can Give Excellent Service For Many Years If A Few Rules Concerning Their Care And Maintenance Are Observed. All Of These Finishes Are Equally Subject To Damage And Corrosion When Care Is Not Provided.

PAINT AND COATING MAINTENANCE:
Remove Smudge Marks From Bare Galvalume:
Formula 409 Has Proven To Be Somewhat Effective. Lightly Rub With A Clean Cloth And Rinse With Water. Do Not Rub More Than Required To Remove Smudge Marks. No Product Will Remove All Smudge Marks.
Remove Rust Stains:
Soft Scrub Without Bleach Has Proven To be Somewhat Effective. Rub With A Soft Cloth And Rinse With Water. Do Not Rub More Than Required To Remove Stain. No Product Will Completely Remove Rust Stains.
To Touch-Up Scratches In Paint (Not Bare Metal):
Clean Area To Be Painted With Mild Detergent. Rinse Thoroughly And Dry. Using A Small Artist's Brush, Lightly Apply A Minimal Amount Of Color Matched Touch-Up Pain Required To Fill/Cover The Scratch. Contact The Building Manufacturer For Assistance With Ordering/Purchasing Touch-Up Paint As Needed.

Authorization FoCorrective Work

Normal Erection Opertions Include The Correction Of Minor Misfits By Amounts Of Reaming, Chipping, Wding Or Cutting And The Drawing Of Elements Into Line Through The Use Of rift Pins. Errors That Cannot Be Corrected By The Foregoing Means Or Which Reqe Major Changes In The Member Configuration Should Be Reported ImmediatelyTo The Owner And The Fabricator By The Erector, To Enable Whoever Is Responsib Either To Correct The Error Or Approve The Most Efficient And Economical Metrd Of Correction To Be Used By Others. (AISC 303-10, Section 7.14). If The:rror Is The Fault Of The Manufacturer An "Authorization For Corrective Work" Mus Be Issued In Writing By The Manufacturer To Authorize The Corrective Work At ACost Not To Exceed The Maximum Total Cost Set Forth. Alternative CorrectiveWork Other Than That Proposed In The "Initial Claim" May Be Directed By The nufacturer In The "Authorization Of Corrective Work". Only The Field Service Deprtment May Authorize Corrective Work.

FINAL CLAIM:
The "Final Claim" In riting Must Be Forwarded By The Customer To The Manufacturer Within :0 Days Of The Completion Of The Corrective Work Authorized By The Mnufacturer.

THE "FINAL CLAIM" NST INCLUDE:

1. Actual Numbe Of Man-Hours By Dated Of Direct Labor Use On Corrective Work And Acal Hourly Rate Of Pay.
2. Taxes And Inirance On Total Actual Direct Labor.
3. Other Direct osts On Actual Direct Labor.
4. Cost Of Mateals (Not Minor Supplies) Authorized By The Manufacturer To Be Purchase From Other Than The Manufacturer, Including Copies Of Paid Invoices.
5. Total Actual irect Cost Of Corrective Work (Sum Of 1, 2, 3, And 4). The "Final ClaimsAre Credited To The Customer By The Manufacturer In The Amount Not o Exceed The Lesser Of The Maximum Total Cost Set Forth In The "Authrization For Corrective Work" Or The Total Direct Cost Of Corrective Wk.

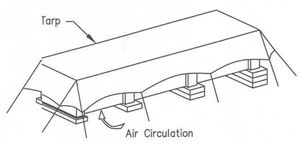
** IMPORTANT NOTE *
Cost Of Equipment (ental Or Depreciation), Small Tools, Supervision, Overhead And Profit Are Not bjected To Claims.

SHIPMENT ARRIVAL ME:
Every Effort Will Be ade To See That The Carrier Arrives At The Jobsite On The Requested Hour. Manfacturer Makes No Warranty And Accepts No Responsibility For Costs AssociateWith A Shipment Not Arriving At The Requested Time Unless A Separate Agreemet Has Been Made In Writing For A Guaranteed Arrival Time.

Damage From Ondensation Or Trapped Water

It Is Extremely Imptant That The Panels Be Monitored For Evidence Or Trapped Water Or Moisture ondensation While Awaiting Erection. High Humidity Conditions With Temperature Cling Will Cause Condensation Between Panels Within The Bundle. Condensatio Can Occur Frequently Near The Sea Coast Or Other Large Bodies Of Water.

If Jobsite Covers Ar Used, They Should Be Tied Away From The Bundle At Corners To Allow Ai Circulation Around The Bundle. This Will Help Prevent Moisture Evaporatin From The Ground Or Building Floor From Condensing On The Panels. Plastic Or ther Impermeable Covers Are Not Recommended. Immediate Action Is Required I The Panels Are Found To Be Wet From Any Cause. The Bundles Must Be Opned And Each Panel Un-Stacked And Thoroughly Dried On Both Sides. Re-Staxing The Panel At A Slight Angle To Each Other To Prevent Nesting Will Allow A Circulation And Assist In Keeping The Panel Dry. In Severe Conditions Large Fas Can Be Used To Circulate Air Between The Un-Stacked Panels And Accelere Drying. Damage To The panel Coating Occurs When Panels Become Wet And A: Allowed To stay wet. damage Can Occur To Nested Panels Within 24 to 48 Hrs. This Damage Shows Corrosion And Discoloration Of The Panel Surface And Commonly Called Wet Storage. Stain, Zinc Oxidation, Or "White Rust".



A Softening Of The aint Film Can Occur With Pre-Painted Steel Under Wet Storage Conditions nd The Durability Of The Panel Finish Substantially Decrease. Bare Galvanized AnGalvalume Panels React More Quickly To Surface Oxidation Since They Lack Th Additional Protection Of Paint. Zinc Coated Or Galvalume Panels Under Norm Exposure Form A Zinc Aluminum Oxide Film On Their Surface Allowing A low Oxidation Process Called "Weathering" To Occur That Inhibits Further Corsion. In Nested Bundles Constant Contact Of The Panels With Condensed Or Trapp Water Prevents This Weathering Process.

Rapid Oxidation Of e Zinc or Zinc Aluminum Coating Can Now Occur And May Lead To "Red Rust"n A Short Time. If Discoloration Or Stains Are Minor A Household Cleaner (The Type Used On Porcelain Sinks And Bathtubs May Be Used To Remove Stins. Wire Brushing Or Abrasive Materials Should be Avoided Since Scratching ORemoval Of The Coating Could Occur. Panel With Significant Damage Should Be eplaced By The Buyer Prior To Erection.

Unloading, Handling And Storage

STRUCTURAL:
A Great Amount Of Time And Trouble Can Be Saved If The Building Parts Are Unloaded At The Building Site According To A Pre-Arranged Plan. Proper Location And Handling Of Components Will Eliminate Unnecessary Handling.

NOTE:
Piece Marks Are Stenciled On The Primary Structural Members At The Lower End, 1'-0" From The End. Inspect All Shipments Prior To Releasing The Tie-downs For Loads That May Have Shifted During Transit.

REMEMBER SAFETY FIRST:
Blocking Under Columns And Rafters Protect The Splice Plates And The Slab From Damage During The Unloading Process. It Also Facilitates The Placing Of Slings And Cables Around Members For Later Lifting And Allows Members To Be Bolted Together Into Sub-assemblies While On The Ground. Extra Care Should Always Be Exercised In The Unloading Operation To Prevent Injuries From Handling Steel And To Prevent Damage To Materials And The Concrete Slab. If Water Is Allowed To Remain For Extended Periods In Bundles Of Primed Parts Such As Girts, Purlins, Etc., The Pigment Will Fade And The Paint Will Gradually Soften Reducing Its Bond To The Steel. Therefore, Upon Receipt Of A Job, All Bundles Of Primed Parts Should Be Stored At An Angle To Allow Any Trapped Water To Drain Away And Permit Air Circulation For Drying. Puddles Of Water Should Not Be Allowed To Collect And Remain On Columns Or Rafters For Same Reason.

The Coat Of Shop Primer Is Intended To Protect The Steel Framing Only For A Short Period Of Exposure To Ordinary Atmospheric Conditions. The Coat Of Shop Primer Does Not Provide The Uniformity Of Appearance, Or The Durability And Corrosion Resistance Of A Field Applied Finish Coat Of Paint Over Shop Primer.

Safety Commitment

The Builder/Contractor Is Responsible For Applying And Observing All Pertinent Safety Rules And OSHA Standards As Applicable.

The Building Manufacturer Has A Commitment To Manufacture Quality Building Components That Can Be Safely Erected. However The Safety Commitment And Job Site Practices Of The Erector Are Beyond The Control Of The Building Manufacturer.

It Is Strongly Recommended That Safe Working Conditions And Accident Prevention Practices Be The Top Priority Of Any Job Site.

Local, State And Federal Safety And health Standards, Whether Standard Statuary Or Customary, Should Always Be Followed To Help Ensure Worker Safety.

Make Sure All Employees Know The Safest And Most Productive Way Of Erecting A Building. Emergency Procedures Should Be Known To All Employees. Daily Meetings Highlighting Safety Procedures Are Also Recommended. The Use Of Hard Hats, Rubber Sole Shoes For Roof Work, Proper Equipment For Handling Material And Safety Nets Where Applicable Are Recommended

For The Purposes Of Determining Lift Requirements, No Bundle Supplied By The Manufacturer Will Exceed 4,000 Pounds. For Further Information Also reference The Bill Of Materials For Individual Member Weights Of Structural Members. If Additional Information Is Required Contact The Field Service Department.

ICE AND SNOW REMOVAL:
Excessive Ice And Snow Removal Should Be Removed From The Roof Immediately To Prevent Damage To Roof And Possible Collapse. Do Not Use Metal Tools To remove The Ice Or Snow As This Can Damage The Paint And/Or Galvalume Coatings. Also Be Careful Around Pipes And Flashing's.
Be Extremely Careful If Your Roof Has Light Transmitting Panels. These Panels Will Not Support A Person's Weight And Will Be Difficult Or Impossible To See If They Are Covered With Ice Or Snow. See MBMA Low-Rise Building Systems Manual, Appendix A8 For Details On Snow Removal Procedures. These Procedures Should Commence When Half Of The Design Roof Snow Load Is Realized.

DEBRIS REMOVAL:
Any Foreign Debris Such As Sawdust,Dirt, Leaves, Animal Droppings, Etc. Will Cause Corrosion Of The Roof, Gutters, Trim, Etc. If Left On The Building Surface For A Long Enough Time. The Roof Should Be Periodically Inspected For Such Conditions And If Found, They Should Be Rectified In A Manner Consistent With These Roof Maintenance Guidelines. Never Allow Treated Lumber Or Concrete/Mortar/Grout To Come In Contact With Roof Panels, Especially Galvalume For Extended Periods Of Time.

PERIODIC INSPECTION:
All High-Strength Shall Be Periodically Be Inspected For Tightness. Particularly In Crane Buildings And After Seismic Or Wind Activity. The Crane Manufacturer Will Specify A Minimum Period But It Should Not Exceed Two Years.

DRAINAGE:

1. Keep Roof Free Of Debris And Keep Debris Out Of Gutter To Allow Water Quickly Drain From The Roof.
2. Do Not Use Wood Blocking To Hold Equipment Off The Panel Seams. This Blocks The Flow Of Water And Hold Moisture.
3. Do Not Allow Rooftop AC Units Or Evaporative Coolers To Drain Onto The Roof.
4. Anything That Traps Or Holds Moisture On A Roof Will Cause Premature Corrosion.

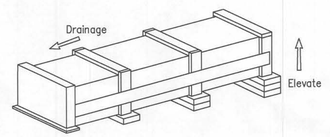
Roof And Wall Panels

Manufacturer's Roof And Wall Panels Include Color Coated, Galvalume, And Galvanized, Provide Excellent Service Under Widely Varied Conditions. All Unloading And Erection Personnel Should Fully Understand That These Panels Are Quality Merchandise, Which Merits Cautious Care And Handling.

UNDER NO CIRCUMSTANCES SHOULD PANELS BE HANDLED ROUGHLY
Packages Of Sheets Should Be Lifted Off The Truck With Extreme Care Taken To Ensure That No Damage Occurs To Ends Of The Sheets Or to Side Ribs. The Packages Should Be Stored Off The Ground Sufficiently High To Allow Air Circulation Underneath The Packages. This Avoids Ground Moisture And Deters People From Walking On The Packages. One End Of The Package Should Be Elevated To Encourage Drainage In Case Of Rain. The Manufacturer Exercises Caution During Fabrication An Shipping Operations To Ensure That All Panel Stock Is Kept Dry. However Due To Climatic Conditions, Water Formed By Condensation Of Humid Air Become Trapped Between Sheets. Water Can Also Be Trapped Between The Stacked Sheets When Exposed To Rain. This May Discoloration Caused By Trapped Moisture. The Stain Is Usually Superficial And Has Little Effect On The Appearance Or Service Life Of The Panels As Long As It Not Permitted To Remain On The Panel. However, Moisture In Contact With The Surface Of The panel Over An Extended Period Can Severely Attack The Finish And Reduce The Effective Service Life. See R1-07 Titled "Damage From Condensation Or Trapped Water".

CAUTION:
Care Should Always Be Taken When Walking On Panels. Use Safety Lines And Net When Necessary. Panels Are Slippery, Wipe Dry Any Moisture Or Surface Material That Has Puddle From Bundles Stored On A Slope. Dew, Frost, Or Other Forms Of Moisture Greatly Increase The Slipperiness Of The Panels. Always Assume Panel Surface Is Slippery And Act Accordingly. Never Walk Of Step On Skylights Or Translucent Panels.

Use Wood Blocking To Elevate And Slope The Panels In A Manner That Allows Moisture To Drain. Wood Blocking Placed Between Bundles Will Provide Additional Air Circulation. When Handling Or Uncrating The Panels, Lift Rather Than Slide Them Apart. Burred Edges May Scratch The Coated Surfaces When Sheets Are Slid Over One Another. Never Allow Panels To Be Walked On While On The Ground.



Roof Maintenance Guidelines

1. Inspect Roof For Damage After Heavy Storms.

2. Inspect And Reseal As Necessary All Roof Curbs And Other Penetrations With Urethane Sealant.

3. Always Get Manufacturer Approval Before Making Any Modifications To The Roof.

4. Repaint Any Areas That Are Susceptible To Rust As Required.

5. When Performing Roof Maintenance, Always Take The Following Precautions:
   a. Use Fall Protection And Other Safety Protection As Required.
   b. Do Not Walk On Roof Flashing Such As Gutter, Rake, Hip Or Ridge Flash.
   c. Do Not Walk On Light Transmitting Panels (LTP's). They Will Not Support A Person's Weight.
   d. Guard All LTP's And Roof Openings.
   e. Step Only In The Panel Flat Directly On Or In Close Proximity To A Supporting Roof Structural.

6. After Other Trades Have Been On The Roof For Any Reason, Inspect The Roof For Damage Caused By Workers Including Chemical Or Solvent Spills, Scratches In The Paint Or Galvalume Coating, Excessive Foot Traffic And Punctures. Make Sure That All Debris Or Scrap Left Behind By Workers Is Removed From The Roof Immediately. Avoid Using Cutoff Saws And Welding Equipment Over The Roof. The Roof Must Adequately Protected.

FOOT TRAFFIC:
Keep Foot Traffic To A Minimum. Heavy Foot Traffic Can Cause Ponding On Low Pitched Roofs. This Is Particularly True Just Upslope From The Eave And At Endlaps.
Always Walk In The Flat Of The Panel Near A Supporting Roof Structural. Do Not Walk On Trim Or In Gutters.
On Bare Galvalume Roofs, Excessive Foot Traffic May Cause Black Burnish Marks. If Regular Foot Traffic Is Planned For A Roof, Provisions Should Be Made For A Properly Designed And Installed Walkway System. In Order To Limit Access To The Roof, Roof Hatches Or Access Ladders Should Be Locked At All Times. A Sign Posted At The Access Site Stating That Only Authorized Personnel Are Allowed On The Roof. In Addition A Log Book Should Be Kept Of All Visits To The Roof And The Reason For Such Visits.

DISSIMILAR METALS:
Never Allow Your Roof To Come In Contact With, Or Water Runoff From Any Dissimilar Metal Including But Not Limited To:
Copper, Lead Or Graphite, This Includes Copper And Arsenic Salts Used In Treated Lumber, Calcium Used In Concrete, Mortar And Grout.

Roof And Wall Panel Damage During Construction

The Quality Of Workmanship In Steel Construction Practices And Handling Methods Used During The Construction Of The Metal Building Can Significantly Affect The Appearance And Performance Of The Building Panels. Panel Damage During Construction Can Be The Result Of Faulty Installation Methods And/or Carelessness.

Overdriven Fasteners Cause Indentations Or Shallow Pockets In The Panel Around The Fastener Head. Rain Water Or Condensation Moisture Combined With Atmospheric Pollutants (principally Sulfur Dioxides) And Dirt Particles Collect In These Pockets. The Combination Of Pollutants And Water Creates Acid Solutions That Will Cause Corrosion Damage To The Panel And Fastener. Rain May Wash Some Pollutants Away, But Moisture In Form Of High Humidity Can Keep These Areas Wet And Continue The Problem. Overdriving The Fastener Also Forces The Sealing Washer From Under The Head Creating A Leak At This Point. Proper Torque Adjustment Of The Screw Gun Or Preferably The Use Of A Depth Gauge Will Eliminate The Problem Of Overdriven Fasteners.

It Is Extremely Important That All Drill Shavings From The Installation Of Panel Fasteners And Fillings From The Saw Cutting Of Panels Be Removed From The Panel Surface. Corrosion Can Occur In A Matter Of Hours When These Shavings Or Fillings Are Not Removed And Are In Contact With Water Or Condensed Moisture. When Panels Are Pre-Drilled Or Cut In The Stack Prior To Erection All Shavings Must Be Cleaned From Both Sides Of The Panel To Prevent Corrosion Of The Panel By These Particles. It Is Imperative That The Roof Be Swept Clean At Least Daily And Certainly At Job Completion. The Final Cleaning Of The Roof Should Be Done Prior To Installing The Gutter So That The Shavings Are Not Deposited Into The Gutter And Left To Corrode. Any Other Foreign Objects Or Debris Left By Construction Personnel Should Also Be Removed From The Roof During The Erection Of The Roof And The Installation Of Such Equipment As Air Condition Units, Etc..

Personnel Walking On The Panel Can Cause Damage. Workmen Should Step Or Walk In The Broad Flat Areas Of The Panel And Avoid Stepping On The Panel Ends And Edges Which Can Be Bent By Careless Handling. If This Damage Is Severe, The Edges Must Be Straighten Prior To Erection Since The Appearance And/or Weather Tightness Of The Panel Could Be Affected. Dragging One Panel Across Another Can Cut Or Abrade The Coating Causing Unsightly Marks On The Panel Surface.

Attempts To Erect Panels During Windy Conditions Should Be Avoided To Prevent Damage And Of Safety Considerations.

Leaving Dirt Piled Against The Exterior Wall Panels At The Foundation Will Cause Panel Damage. This Dirt May Be Wet Or At Least Contain Some Moisture. Mud May Have Splashed Onto The Wall During Construction. Corrosion Damage May Occur Where This Dirt Or Mud Contacts The Panel. In Areas Where Lime Stabilization Of The Soil Is Required, Corrosion Damage From The Soil's Content Will Be Accelerated And Most Likely Be Severe. All Dirt Must Be Removed From The Panel Walls At The Time Of Completion Of Work. Pre-Painted Panels May Require Touch-up If The Coating Has Been Damaged During Handling Or Erection.

The Appearance Of The Building May Be Affected If Damaged Spots Or Scratches Are Located In Highly Visible Places Such As Around Doors, Windows, Etc.. If Damage Is Extensive Then Replacement Of The Entire Panel Should Be Considered.

Never Step On Light Transmitting Panels (LTP's) Or Unattended Roof Panels

Panels May Collapse If Not Properly Secured

Roof Panels Must Be Completely Attached To The Purlins And To Panels On Either Side Before They Can Be A Safe Walking Surface. Light Transmitting Panels LTP's) Translucent Panels Can Never Be Considered As A Walking Surface.

Partially Attached Or Unattached Panels Should Never Be Walked On!

Do Not:

1. Step On Rib At Edge Of Panel.

2. Step Near Crease In Rib At Edge Of Panel.

3. Step Within 5 Feet Of Edge On Unsecured Panel.

A Single Roof Panel Must Never Be Used As A Work Platform. An OSHA Approved Runway Should Be Used For Work Platforms. (Consult OSHA Safety And Health Regulations For The Construction Industry). Safety First!

ASTAR BUILDING SYSTEMS®
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OKLAHOMA CITY, OK 73149
(405) 636-2010

Revision	Date	Description	By	Ck'd

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

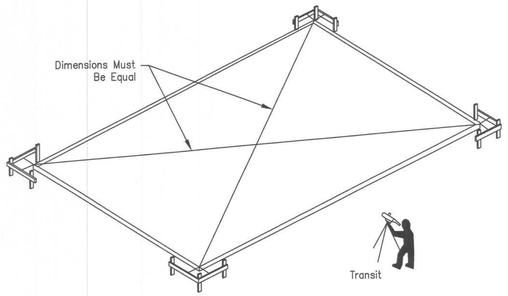
Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE	
Drawn by:	MFA	1/16/10
Checked by:	SNH	1/21/10
Project Engineer:		
Job Number:	17-B-48260	
Sheet Number:	R1 of 13	

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Building Anchorage

1. To Determine That The Foundation Is Square, Measure Diagonal Dimensions To Be Sure They Are Of Equal Length.
2. To Determine That The Foundation Is Level, Set Up A Transit Or Level And Use A Level Rod To Obtain The Elevation At All Columns.
3. Carefully Check The Location Of All Anchor Rods Against The Anchor Rod Setting Plan Furnished By The Manufacturer. All Dimensions Must Be Identical To Assure A Proper Start-up.

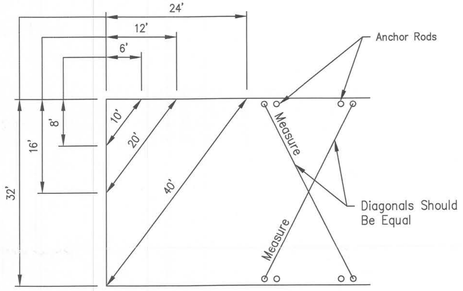


Pre-Erection Notes:

The Following Notes, Procedures And Suggested Recommendations Are Important Parts Of The Pre-Erection Process.

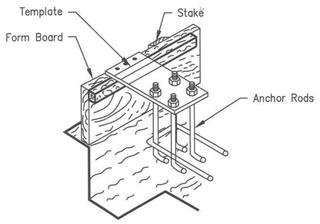
1.) Prior To The Time The Erection Crew Arrives, A Responsible Person Should Check The Job Site For Foundation Readiness, Square, And Accuracy And Anchor Rod Size And Location.

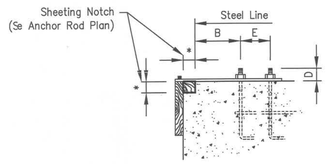
The Drawing Shown Below Indicates A Method Which May Be Used To Check The Foundation And Bolts For Square.



Measure Along Adjacent Sides Of Foundation Using A Pair Of Dimensions Shown. If The Diagonal Distance Between These Points Is As Noted, The Corner Is Square. Diagonal Measurements Between Opposite Anchor Rods Will Indicate If These Bolts Are Set Square.

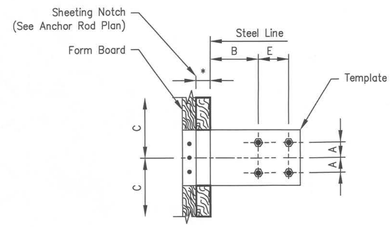
It Is Extremely Important That Anchor Rods Are Placed Accurately And In Accordance With The Anchor Rod Setting Plan. All Anchor Rods Should Be Held In Place With A Template Or Similar Means, So That They Will Remain Plumb And In Correct Location During The Placement Of The Concrete. A Final Check Should Be Made After Completion Of The Concrete Work And Prior To The Steel Installation. This Will Allow Necessary Corrections To Be Made Before Costly Installation Labor And Equipment Arrives.





Sheeting Notch Shown But May Not Be Required (See Anchor Rod Plan)

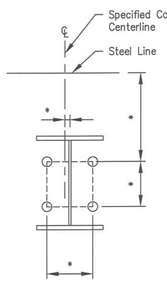
Projection Of Anchor Rods (D) Given On Anchor Rod Plan



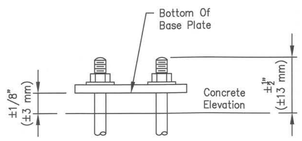
Dimensions A, B, And C Given On Anchor Rod Plan

AISC Code Of Standard Practice For Steel Building And Bridges Tolerances For Setting Anchor Rods

Anchor Rod Diameter, Inches (mm)	*Horizontal Variation, Inches (mm)
¾" and ⅞" (19 And 22 mm)	1/4" (6 mm)
1", 1¼", 1½" (25, 31, 38 mm)	3/8" (10 mm)
1¾", 2", 2½" (44, 50, 63 mm)	1/2" (13 mm)



ACHOR ROD SETTING TOLERANCES



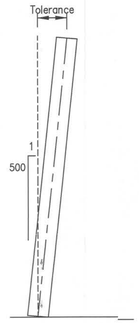
BASE PLATE AND ANCHOR ROD TOLERANCES

* Horizontal Variations Vary Depending On Anchor Rod Diameter. See Above

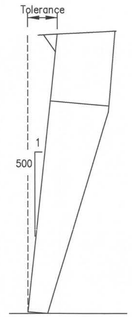
Erection Tolerances

ERECTION BRACING:
It Is The Responsibility Of The Erector To Determine, Furnish And Install All Temporary Supports Such As Temporary Guys, Beams, Falsework, Cribbing, Or Other Elements Required For The Erection Operation (In Accordance With Section 7.10.3 Of ANSI/AISSC 303, Code Of Standard Practice For Steel Building And Bridges).

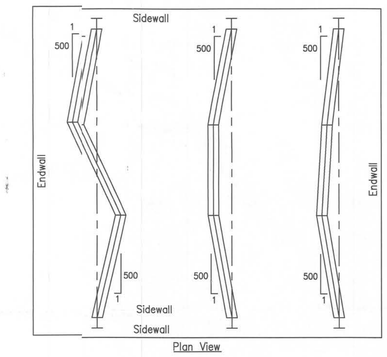
COLUMN ALIGNMENT TOLERANCES



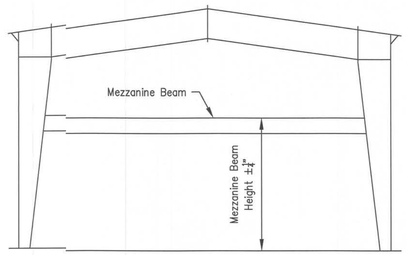
Height	Tolerance (±) H/500
10'	1/4"
12'	5/16"
15'	3/8"
20'	1/2"
25'	5/8"
30'	3/4"
45'	1 1/16"
60'	1 7/16"



ALIGNMENT TOLERANCE FOR MEMBERS WITH FIELD SPLICES



MEZZANINE BEAM HEIGHT TOLERANCE



General Erection Notes

1.) All Structural Framing Members, Purlins, Girts, Clips, Flange Braces, Bolts, Bracing Systems, Roof And Wall Panels, Etc. Must Be Installed As Shown On Erection Drawings.

2.) It Is Extremely Important, Especially During Construction, That Panels At The Eaves, Rakes And Ridges Be Kept Secure.

Panel Cautions And Notes

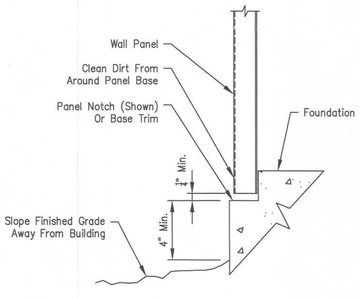
To Minimize Potential Of Corrosive Action At The Bottom Edge Of Wall Panels, The Contractor Must Assure That The Following Procedures Are Followed:

1.) The Concrete Foundation Should Be Cured For A Minimum Of Seven (7) Days Before Wall Panels Are Installed. (Uncured Concrete Is Highly Alkaline And Metal Panels Can Undergo Varying Degrees Of Corrosive Attack When In Direct Contact With The Concrete.) After The First Week Of The Curing Cycle, The Reaction Between Metallic Coatings On Steel And The Concrete Is Essentially Halted.

2.) Top Of Finish Grade At Building To Be A Minimum Of Four (4) Inches Below Bottom Of Panel.

3.) Finish Grade Is To Slope Away From Building To Ensure Proper Drainage.

4.) Upon Completion Of Finish Grading, All Dirt Is To Be Cleaned From Around Base Of Wall Panel Where It May Have Collected In Panel Notch Or On Base Trim.



Fastener Installation

Correct Fastener Installation Is One Of The Most Critical Steps When Installing Roof/Wall Panels. Drive The Fastener In Until It Is Tight And The Washer Is Firmly Seated. Do Not Overdrive Fasteners.
A Slight Extrusion Of Neoprene Around The Washer Is A Good Visual Tightness Check. Always Use The Proper Tool To Install Fasteners. A Fastener Driver (Screw Gun) With A RPM Of 1700-2000 Should Be Used For Self-Drilling Screws. A 500-600 RPM Fastener Driver Should Be Used For Self-Tapping Screws. Discard Worn Sockets, These Can Cause The Fastener To Wobble During Installation.

Note: Always Remove Metal Filings From Surface Of Panels At The End Of Each Work Period. Rusting Filings Can Destroy The Paint Finish And Void Any Warranty.

Correct Compression Of Sealing Washer | Too Tight Compression Of Sealing Washer | Too Loose Compression Of Sealing Washer

Tape And Tube Sealant

Proper Tape And Tube Sealant Application Is Critical To The Weather Tightness Of A Building. Tape Sealant Should Not Be Stretched When Installed. Apply Only To Clean, Dry Surfaces. Keep Only Enough Sealants On The Roof That Can Be Installed In A Day. During Warm Weather, Store Sealants In A Cool Dry Place. During Cold Weather (below 60°) Sealants Must Be Kept Warm (60°-90°) Until Application. After Tape Sealant Has Been Applied, Keep Protective Paper In Place Until Panel Is Ready To Be Installed.

Important Note

All Details, Recommendations And Suggestions Contained In This Erection Guide Of This Drawings Set Are For General Guidelines Only, And Not Meant To Be All-inclusive. Industry Accepted Installation Practices With Regard To All Areas Not Specifically Discussed In This Section Should Be Followed. Only Experienced, Knowledgeable Installers Familiar With Accepted Practices Should Be Used To Assure A Quality Project.

It Is Emphasized That The Manufacturer Is Only A Manufacturer Of Metal Building Components And Is Not Engaged In The Installation Of Its Products. Opinions Expressed By The Manufacturer About Installation Practices Noted In The Erection Guide Are Intended To Represent Only A Guide. Both The Quality And Safety Of Installation And The Ultimate Customer Satisfaction With The Completed Building Are Determined By The Experience, Expertise, And Skills Of The Installation Crews, As Well As The Equipment Available For Handling The Materials. Actual Installation Operations, Techniques And Site Conditions Are Beyond The Manufacturers Control.

Revision	Date	Description	By	Ck'd

STAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

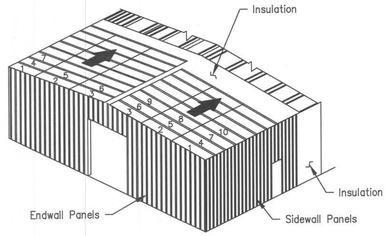
Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/16/20
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17-B-4826
Sheet Number:	R2 of 13

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

PBR Roof Panels

For PBR Roofs With Ridge Panels, It Is Recommended That Both Sides Of The Ridge Be Sheeted Simultaneously. This Will Keep The Insulation Covered For The Maximum Amount Of Time And The Panel Ribs Can Be Kept In Proper Alignment For The Ridge Panel. This Is Critical On The PBR Panels So That The Ridge Caps Can Be Properly Installed. Check For Proper Coverage As The Sheeting Progresses.



Install The First Run Of Roof Panels Across The Building From Eave To Eave Or Eave To Ridge. To Allow Proper Installation Of The Rake Trim, The Starting Location For The First Panel Must Be As Shown In The Rake Details Included With The Erection Drawings. When The First Run Is Properly Located And Aligned With The Correct Endlaps And Eave Overhangs, Fasten To Purlins. Roof Panels Should Be Installed So That The Sidelap Is In A Direction Away From Prevailing Wind. Refer To Appropriate Lap Details Included With The Erection Drawings.

Install Remaining Roof Insulation And Panels. To Avoid Accumulative Error Due To Panel Coverage Gain Or Loss, Properly Align Each Panel Before It Is Fastened. Occasional Checks Should Be Made To Ensure That Correct Panel Coverage Is Maintained. Special Attention Should Be Given To Fastener, Sealant and Closure Requirements. Refer To Details Included With The Erection Drawings.

At Finishing End Of Roof, The Last panels May Require Field Modification For Installation Of Rake Trim. Refer To Rake Details Included With The Erection Drawings. DO NOT BACK LAP THROUGH FASTENED ROOF PANELS.

NOTE: Roof Types And Installation Requirements Will Vary. Refer To The Appropriate Details For Specific Panel Used.

IMPORTANT: Loose Fasteners, Blind Rivets, Drill shavings, Etc.. Must Be Removed From The Roof To Guard Against Corrosion.

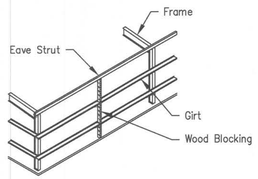
Wall Panels

Proper Horizontal And Vertical Alignment Of Supporting Structure (Girts Or Other Framing) Is The Responsibility Of The Installer. Failure To Align The Secondary members Properly Prior To Wall Installation Can Have A Direct Impact On The Final Appearance And Performance Of The Installed Wall System For Which The Metal Building Manufacturer Is Not Responsible.

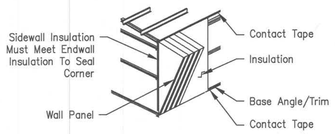
Before Installing Wall Panels, The Girts Must Be Aligned To A Level Position So That There Is No Visible Sag. This Should Be Done Directly Ahead Of Panel Installation.

Girt Leveling May Be Accomplished By Standing A Section Of Gable Angle Vertically Against The Outside Girt Flanges At Approximate Mid-bay Location. When Girts Are Level, Attach The Girt Flanges To The Angle With Vise Grip Pliers Or Temporary Screws. Wood Blocking Cut To Fit The Spaces May Also Be Used For Alignment.

Note:
Temporary Girt Blocking Is Not Recommended On Concealed Fastener Panels. The Removal Of The Blocks After Panel Installation Can Cause Oil Canning.

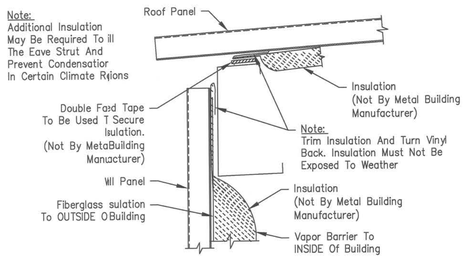


Note:
Wall Panel Type And Installation Details Will Vary. Refer To The Erection Drawings And Details For The Specific Panel Used For Your Building.

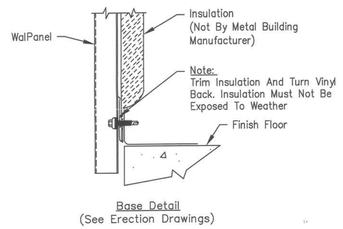


If Walls Are To Be Insulated With Blanket Insulation Over Girt Girt Flanges, Base And Eave, Place A Continuous Run Of Contact Tape Along The Eave Strut And Base Member.

Note:
At The Base, Cut Off The Insulation A Minimum Of ½" Above The Bottom Of The Wall Panel. This Will Prevent The Insulation From Hanging Below The Wall Panel And Wicking Moisture.



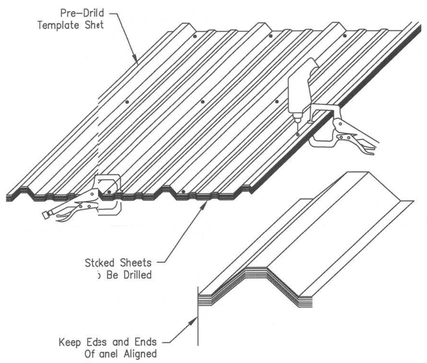
Eave Detail
(See Erection Drawings)



Base Detail
(See Erection Drawings)

Sidewall Panel Should Be Installed So That The Panel Sidelap Is In A Direction Away From The Prevailing Wind. Refer To Appropriate Lap Detail Included With Erection Drawgs.)

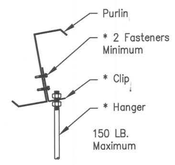
Note:
Check Periodically To Ensure That All Panels Are Aligned And Plumb.



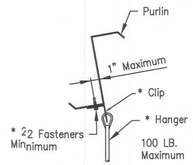
Screw Alignment Panel
(Through Fastened Panel Only)

Note:
After Drilling anels, It Is Important To Clean Metal Filings Off All Panel Surfaces, Including Beteen Panels That Are Not Installed That Day, To Avoid Rust Stains.

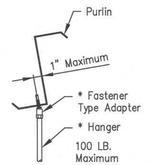
Suggested Method Of Purlin Attachment For Building Accessories



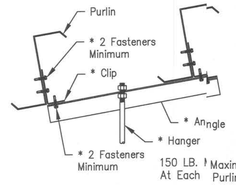
Clip Connection To Purlin Web



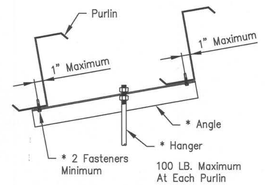
Clip Connection To Purlin Flange



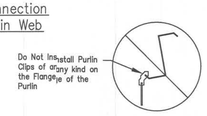
Fastener Type Adapter To Purlin Flange



Clip Connection To Purlin Web



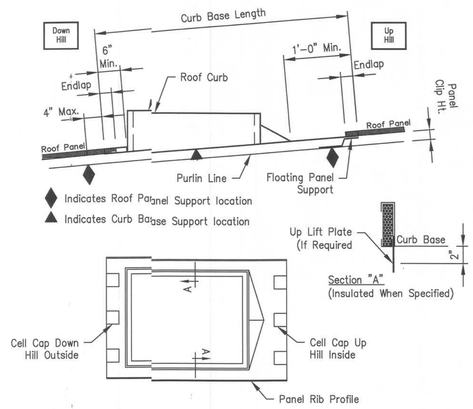
Angle Connection To Purlin Flange



* Denotes Material Not Provided By Metal Building Manufacturer.

The Total Hanger Load Shall Not Exceed The Design Collateral Load For The Building. Example:
5'-0 (Purlin Spacing) X 5'-0 (Hanger Spacing) X 6 PSF (collateral Load) = 150 Lbs.
See Cover Sheet For Design Collateral Load For This Building.
Note: If The Building Is Designed For 0 PSF Collateral Load, Then Adding Any Suspended System (i.e. Duct Work, Piping, Lights, Ceilings, Etc.) Will Correspondingly Reduce The Design Live Load.

Roof Curbs When Not Supplied By Building Manufacturer



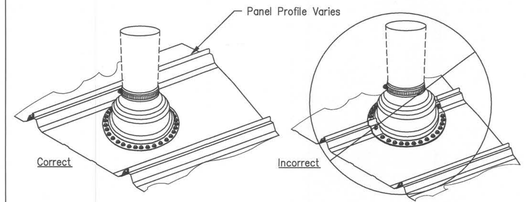
The Curb Details Shown Illustrate The Building Manufacturers Recommended Curb Style And Installation Method. It Is The Erector/Installer's Responsibility To Provide The Proper Curb Style And Install Them In Accordance With The Procedures Established By These Details. Failure By The Erector/Installer To Follow These Recommendations May Result In The Curbs Damaging The Roof System Or Excluded From Warranties.

All Roof Curbs To Be:
1. .080 Aluminum Or 18 Ga. Stainless Steel (No Galvalume® Or Galvanized).
2. Panel Rib To Panel Rib (No Flat Skirt Or Lay-Over Curbs).
3. Installed With Down Hill End Over Panel And Up Hill End Under Panel Application For Water Flow At Panel Splice.
4. Up Lift Prevention For Clip Applied Roof Systems Are Required If:
   a. Wind Loads Exceed 110 MPH.
   b. Curb Base Crosses A Purlin.
5. Supported on (4) Sides By Primary Or Secondary Framing.
6. Maximum Single Curb Weight Recommended Is 1500 Lbs.

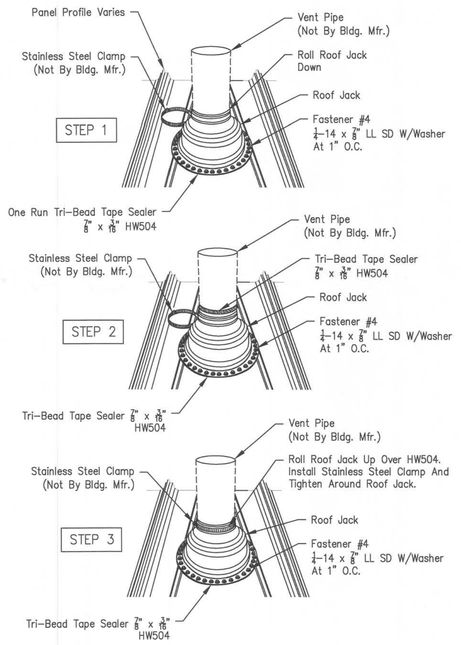
Roof Jack Installation when Not Supplied By Building Manufacturer

General Installation Notes

- Do Not Use Galvanized Roof Jacks, Lead Hats, Or Other Residential Grade Roof Jacks. These Roof Jacks Do Not Have 20 Year Service Life And In Case Of Lead Hats Will Cause Galvanic Corrosion Of The Roof Panel.
- Use EPDM Rubber Roof Jacks With An Integral Aluminum Band Bonded Into The Perimeter Of The Base. EPDM Roof Jacks Have A Temperature Range From −65°F To 212°F. Use Silicone Roof Jacks For High Temperatures. Silicone Roof Jacks Have A Temperature Range Of −100°F To 437°F.
- Retrofit Roof Jacks Are Available For Applications In Which The Top Of The Pipe Is Inaccessible, Eliminating The Possibility Of Sliding The Roof Jack Over The Top Of The Pipe.
- Do Not Use Tube Sealant To Seal The Roof Jack To The Roof Panels. Use Roll Tape Sealer Between The Roof Jack And The Roof Panel And Attach The Roof Jack To The Roof Panel With Fastener #4 1" – 14 X 5/8" LL SD W/washer At 1" O.C. Around The Base Of The Roof Jack. See Table Below For Quantities.
- Trim The Top Of The Roof Jack To Fit Over The Pipe, Roll Down The Roof Jack Over The Pipe And Apply Tape Sealer For The Perimeter Of The Roof Jack Base Between The Roof Jack And The Roof Panel. Apply Tape Sealer Around The Pipe And Install A Stainless Steel Clamp (Not By Bldg. Mfr.) Over The Top Of The Roof Jack And Firmly Tighten To Form A Secure Compression Seal.
- If The Pipe Diameter Is So Large To Block The Flow Of Water Down The Roof Panel, A Flat Base Roof Curb Must Be Installed Into The Roof And The Roof Jack Will Be Sealed To The Curb. A Two Piece Curb May Be Required When The Top Of The Pipe Is Inaccessible.
- In Northern Climates, The Pipe Penetration Should Be Protected From Moving Ice Or Snow With A Snow Retention System Immediately Up Slope From The Pipe.



Install Pipe In Center To Allow Base Of Roof Jack To Lay Flat on Panel. Cannot Encompass More Than 75% Of Panel.



Revision	Date	Description	By	Ck'd

STAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Project Name & Location:
TRAVIS TUTEN
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LIVE OAK, FL 32064-2470

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Drawn by:	MFA 1/16/20
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17-B-48260
Sheet Number:	R3 of 13

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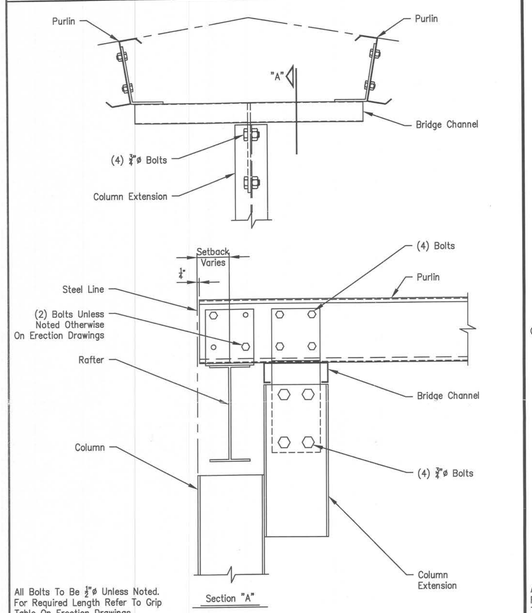
Rigid Frame Endwall - Non-Load Bearing Column - Inside Column Extension to Bridge Channel Between Peak Purlins - Flush

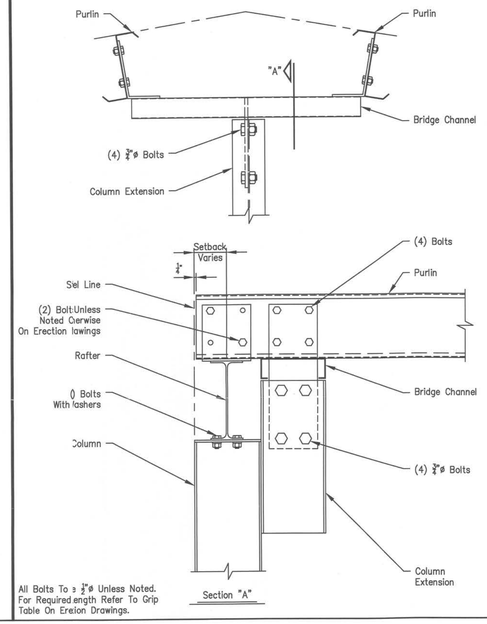
Page EF08134 | Date Mar '15 | Rev 00



All Bolts To Be ¾"ø Unless Noted. For Required Length Refer To Grip Table On Erection Drawings.

Bearin Frame Endwall - Inside Column Extension to Bridge Channel Between Peak Purlins (Symmetrical) - Flush

Page EF07123 | Date Mar '15 | Rev 00

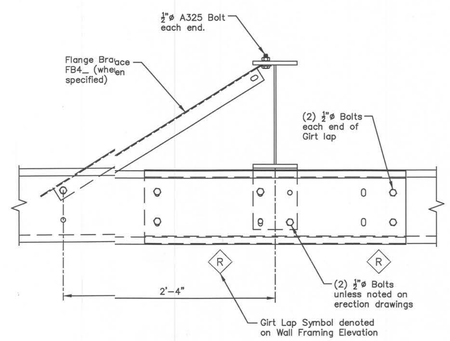


All Bolts To ɜ ¾"ø Unless Noted. For Required ength Refer To Grip Table On Ereion Drawings.

By-Pass Girt to Column ı - Standard Connection - Flange Brace FB4_

Page CF01124 | Date May '19 | Rev 02

Erection Note
Lap and attachment of Girt varies refer to "Elevation Plan" and Lap Detail for requirements.

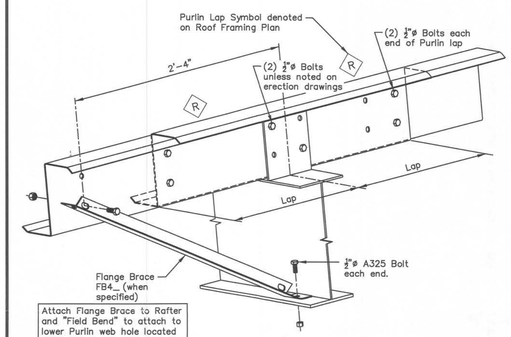


Erection Note
Flange Braces may be req uired one or both sides of Column.
For requirements, and loca ations at Main Frame and Rigid Fram me in Endwall refer to "Cross Sec tion".
For requirements, and loca ations at Bearing Frame Endwall refe er to "Elevation Plan".

Purlin to Rafter - Standard Connection - Flange Brace FB4_

Page CF02036 | Date May '19 | Rev 01

Erection Note
Lap and attachment of Purlin varies refer to Roof Plan and Lap Detail for requirements.

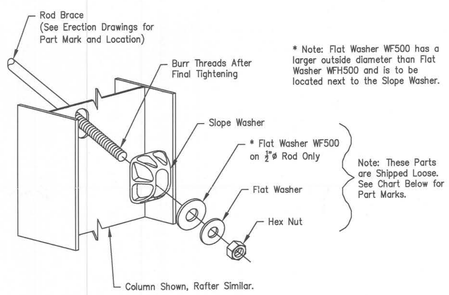


Attach Flange Brace to Rafter and "Field Bend" to attach to lower Purlin web hole located 2'-4" from center of Rafter.

Erection Note
Flange Braces may be required one or both sides of Rafter.
For requirements, and locations at Main Frame and Rigid Frame in Endwall refer to "Cross Section".
For requirements, and locations at Bearing Frame Endwall refer to "Roof Plan".

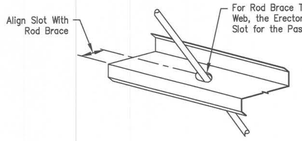
Rod Brace Attachment at Web

Page PF04101 | Date May '17 | Rev 03



* Note: Flat Washer WF500 has a larger outside diameter than Flat Washer WFH500 and is to be located next to the Slope Washer.

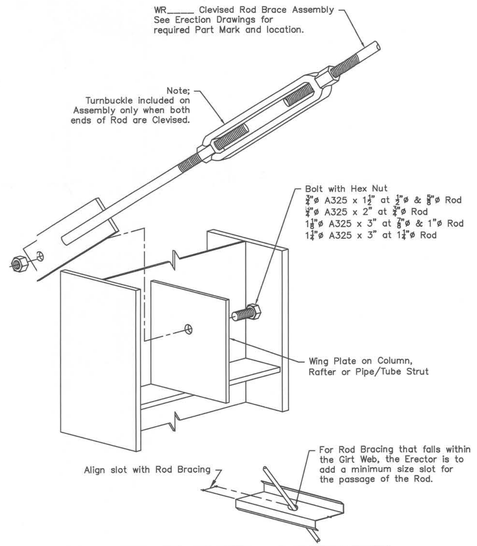
Note: These Parts are Shipped Loose. See Chart Below for Part Marks.



Part Marks for Rod Brace Assembly					
Rod Brace Diameter	Rod Brace	Slope Washer	* Flat Washer	Flat Washer	Hex Nut
½"ø	WR08____	WS110	* WF500	WFH500	HSN500
⅝"ø	WR10____	WS110	None	WFH625	HSN625
¾"ø	WR12____	WS120	None	WFH750	HSN750
⅞"ø	WR14____	WS120	None	WFH875	HSN875
1"ø	WR16____	WS130	None	WFH1000	HSN1000

Single Clevised Rod Brace attachment

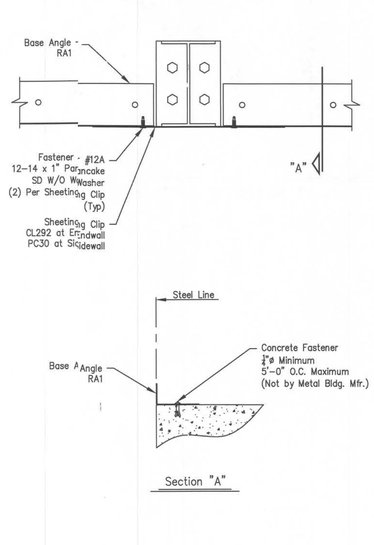
Page PF04113 | Date May '19 | Rev 03



ERECTION NOTE: DETAIL SHOWN AT COLUMN AND IS SIMILAR AT RAFTER OR PIPE/TUBE STRUT.

Column Base Angle Detail With Flush Column

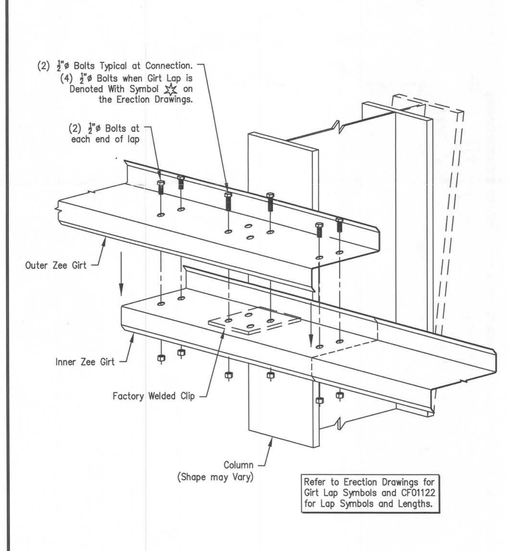
Page BF01005 | Date Apr '16 | Rev 00



Base framing is supplied in standard lengths. Modifications such as cutting at columns or openings, ı are to be handled in the field.

Girt Connection At Bypass Column

Page CF01120 | Date Jun '16 | Rev 02



Refer to Erection Drawings for Girt Lap Symbols and CF01122 for Lap Symbols and Lengths.

All Bolts to be ¾"ø Unless Noted. For Required Length Refer to Grip Table on Erection Drawings.

Revision	Date	By	Ck'd	Description

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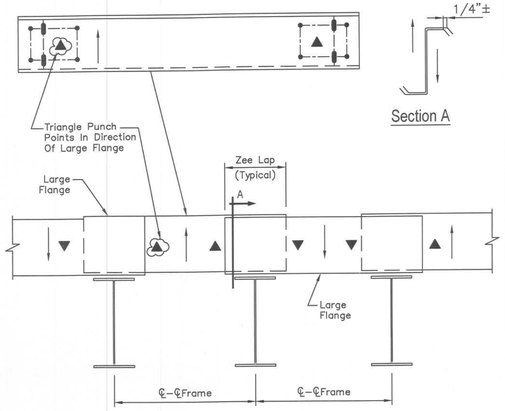
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17-B-48260
Sheet Number:	R4 of 13

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer s not the overall engineer of record for this project.

Bypass Zee Installation

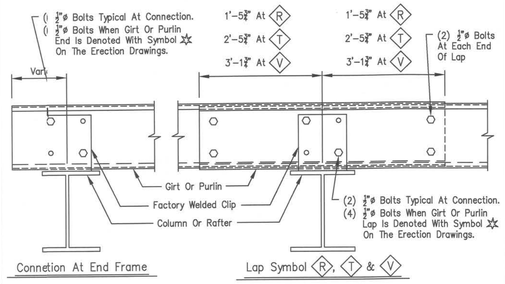
Page CF01121 | Date Apr '19 | Rev 01

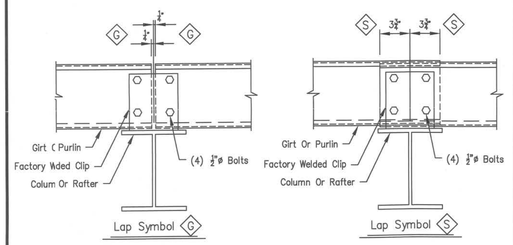


The large leg of the Zee must be alternated from top to bottom in order to nest the member correctly. A triangle has been added to the end of the Zee near the connection holes, that will point to the large leg of the member.

Girt And Purlin Connection At Bypass Column And Rafter

Page CF01122 | Date Jul '17 | Rev 03





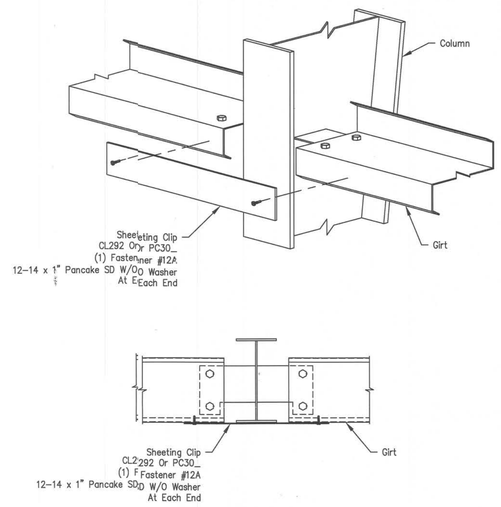
ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
G	–0'–0½"	T	2'–5½"
S	0'–3½"	V	3'–1½"
R	1'–5½"		

Refer to Erection Drawings for Lap Symbol at Girt and Purlin Connection.

All Bolts to be ¾"ø Unless Noted. For Required Length Refer to Grip Table on Erection Drawings.

Girts At Column Flush Sidewall Or Endwall Girts

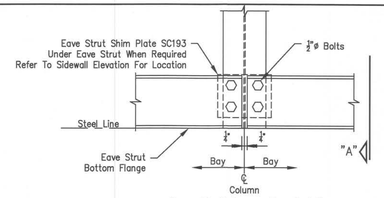
Page CF01123 | Date Apr '19 | Rev 02



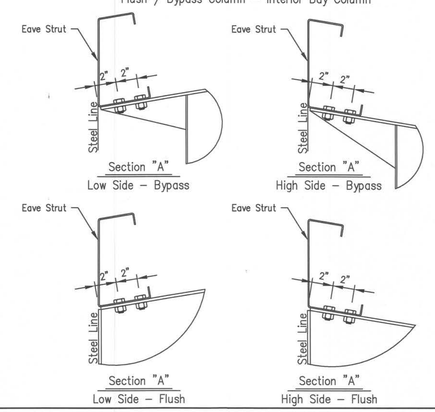
Notes:
Zee Girt Shown
Cee Girt Similar
All Bolts To Be ¾"ø Unless Noted.
For Required Length Refer To Grip Table On Erection Drawings.

Eave Strut Connection Flush / Bypass Column - Interior Bay Column - Roof Slope 4½:12 Or Less

Page CF02030 | Date Sep '17 | Rev 02

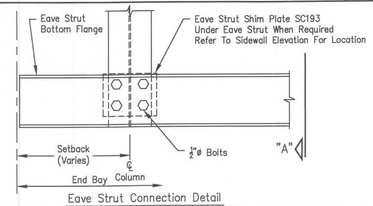


Eave Strut Connection Detail
Flush / Bypass Column – Interior Bay Column

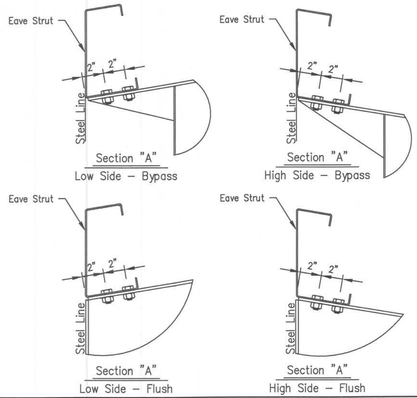


Eave Strut Connection Flush / Bypass Column - End Bay Column - Roof Slope 4½:12 Or Less

Page CF02033 | Date Sep '17 | Rev 04

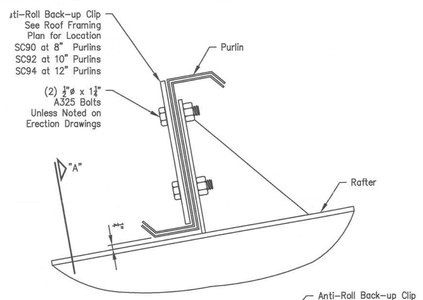


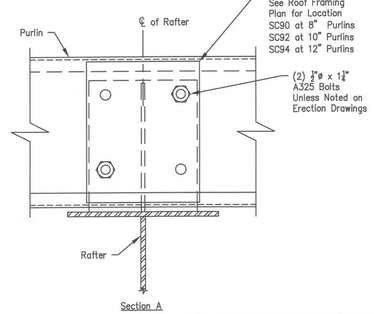
Eave Strut Connection Detail
Flush / Bypass Column – End Bay Column



Purlin with Anti-Roll Back-up Clip at Rafter

Page CF02035 | Date Dec '14 | Rev 04

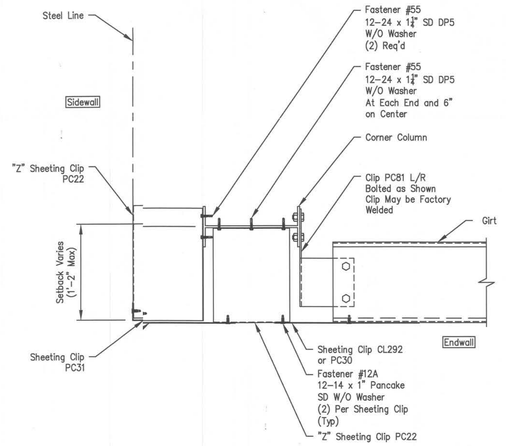




Section A

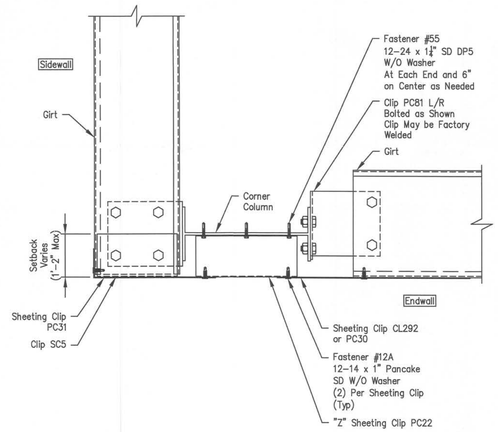
Bypass Sidewall and Endwall Girts - No Sidewall Girt - Variable Frame Setback - Endwall Girt Attaches to Inner Column Flange

Page EF03517 | Date Feb '17 | Rev 00



Bypass Sidewall Girts and Flush Endwall Girts at Corner Column Endwall Girt Attaches to Inner Column Flange

Page EF03700 | Date Jan '16 | Rev 01



Note:
Zee Girt Shown
Cee Girt Similar

All Bolts To Be ¾"ø Unless Noted.
For Required Length Refer To Grip Table On Erection Drawings.

Revision	Date	Description	By	Ck'd

ASTAR BUILDING SYSTEMS®
8600 SOUTH I–35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636–2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064–2470

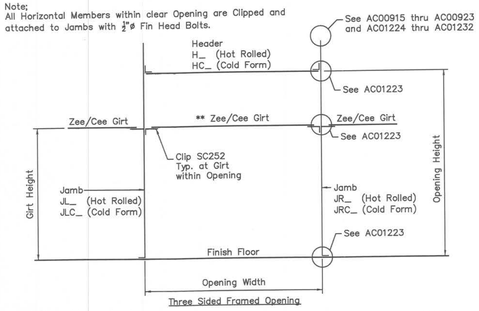
Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/16/20
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17–B–48260
Sheet Number:	R5 of 13

Welded Clips - Framed Opening Connections - Cold Form and Hot Rolled Cee - Three and Four Sided Openings

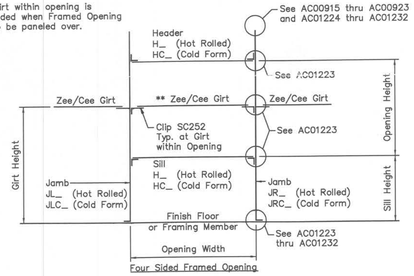
Page AC01220 | Date May '19 | Rev 02

Note;
All Horizontal Members within clear Opening are Clipped and attached to Jambs with ¾"ø Fin Head Bolts.



Three Sided Framed Opening

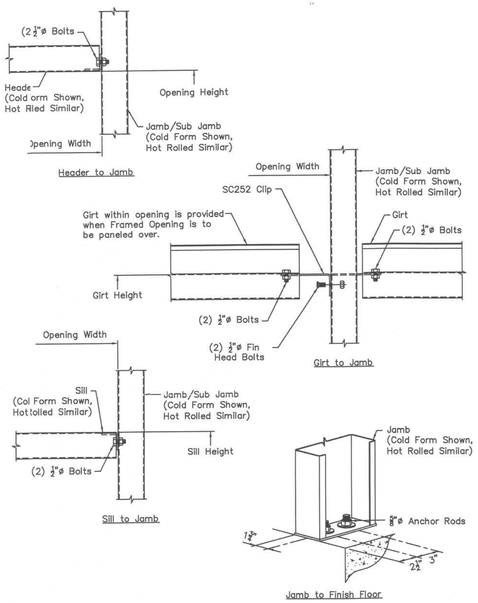
** Girt within opening is provided when Framed Opening is to be paneled over.



Four Sided Framed Opening

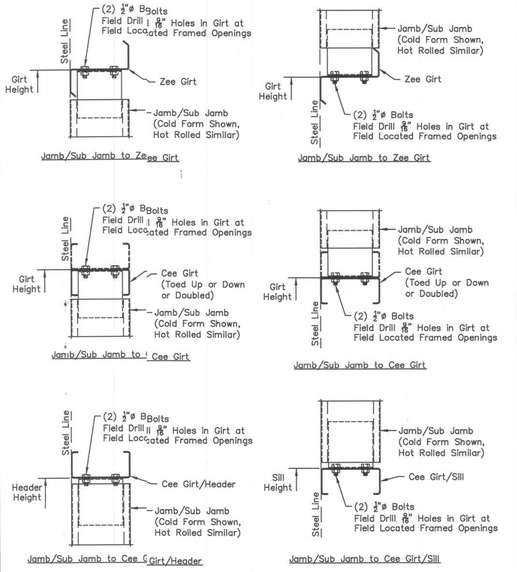
Welde Clips - Framed Opening Connections - Cold Form and Hot Rolled Base, Girt, Header, and Sill to Jamb

Page AC01223 | Date May '19 | Rev 02



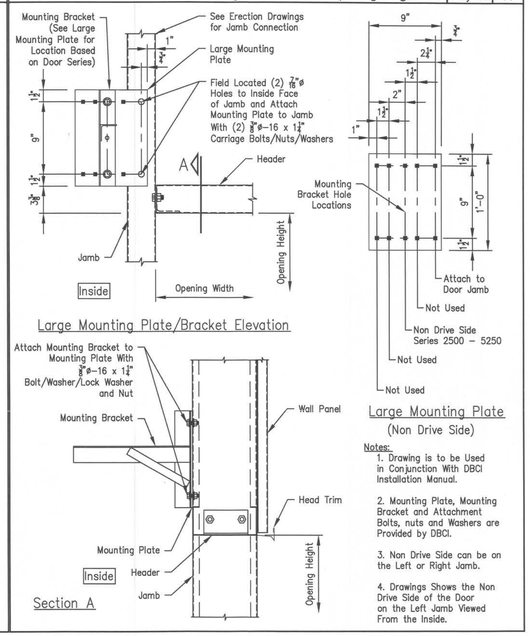
Welded Clips - Framed Opening Connections - Cold Form and Hot Rolled Jamb/Sub Jamb to Zee/Cee Girt or Header/Sill

Page AC01224 | Date May '19 | Rev 01



DBCI Roll Up Door - Series 2500 Thru 5250 - Non Drive Side Large Mounting Plate / Mounting Bracket Header Attaches to Jamb Extending Above Framed Opening Height

Page AC00821 | Date May '17 | Rev 00



Large Mounting Plate/Bracket Elevation

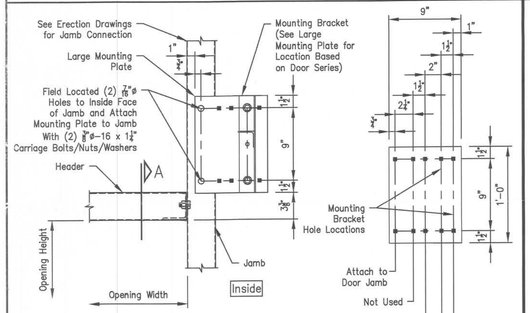
Section A

Large Mounting Plate
(Non Drive Side)

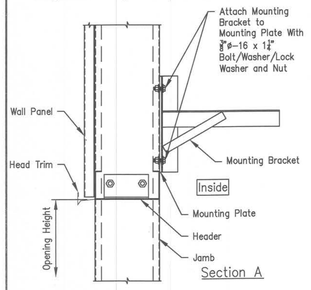
Notes:
1. Drawing is to be Used in Conjunction With DBCI Installation Manual.
2. Mounting Plate, Mounting Bracket and Attachment Bolts, nuts and Washers are Provided by DBCI.
3. Non Drive Side can be on the Left or Right Jamb.
4. Drawings Shows the Non Drive Side of the Door on the Left Jamb Viewed From the Inside.

DBCI Roll Up Door - Series 1900 Thru 5250 - Drive Side Large Mounting Plate / Mounting Bracket Header Attaches to Jamb Extending Above Framed Opening Height

Page AC00822 | Date May '17 | Rev 00



Large Mounting Plate/Bracket Elevation



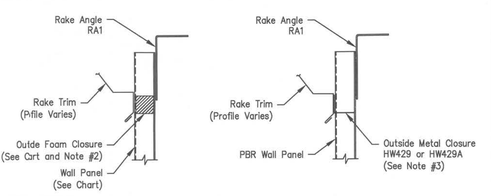
Section A

Large Mounting Plate
(Drive Side)

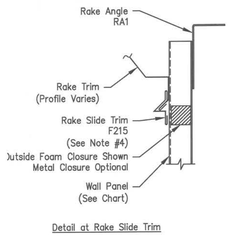
Notes:
1. Drawing is to be Used In Conjunction With DBCI Installation Manual.
2. Mounting Plate, Mounting Bracket and Attachment Bolts, Nuts and Washer Provided by DBCI.
3. Drive Side can be on the Left or Right Jamb.
4. Drawing Shows the Drive Side of the Door on the Right Jamb Viewed From the Inside.

ingle Skin Wall Panel Outside Closure Requirements at Rake

Page GD06003 | Date Feb '19 | Rev 02



Notc
1. Oside Panel Closures are Required at all Sheeted Endwalls.
2. PR Wall Panel Outside Foam Closures HW456 Required for Roof Slope 4:12 or Less and HW422 fc Roof Slope Greater Than 4:12. Field Form/Notch HW422 to Panel Profile.
3. PR Wall Panel Outside Metal Closure HW429 for Roof Slope 0 :12 Thru 1½ :12 and HW429A for Rbf Slope Greater Than 3½ :12 Thru 4½ :12.
4. Rke Slide Trim Required for All Standing Seam Roofs and at Screw Down Roof Runs Greater Than 100'–0"
5. Fim Closures are Required when Job Requires Air Infiltration or Sealed Wall Requirements, See GD16002.

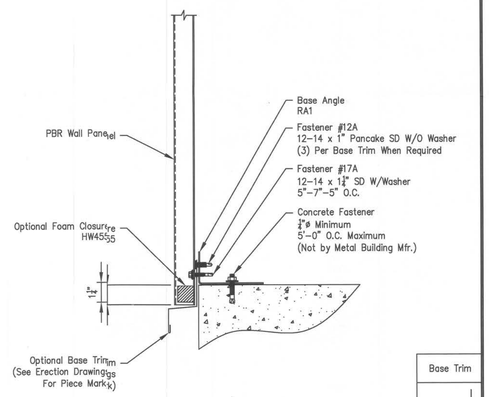


Detail at Rake Slide Trim

Wall Panel	Foam Closure
PBR	HW456/HW422
AVP	HW465
PBU	HW460
VistaShadow	HW465
NuWall	HW424
PBC	HW462
PBD	HW463
ShadowRib	HW412
Designer Series (Fluted Only)	HW4037
RBR (Reverse Rolled PBR)	HW455
RBU (Reverse Rolled PBU)	HW459
7.2	HW461

PBR Wall Panel Base Angle Without Panel Recess

Page PW02101 | Date Apr '18 | Rev 02

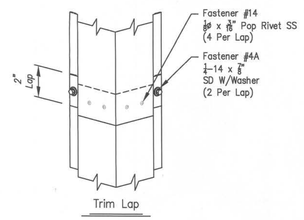


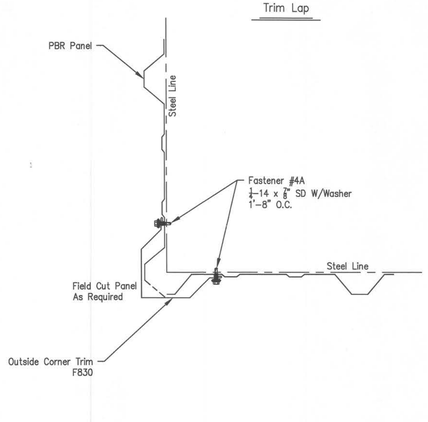
Base Trim
F406
F407
F408

Wall panel must be held off of base trim a minimum of ¼" to prevent bottom of wall panel from rusting.

PBR Wall Panel Outside Corner - On Module

Page PW03001 | Date Apr '19 | Rev 08





Revision	Date	By	Ck'd	Description

ASTAR BUILDING SYSTEMS®
8600 SOUTH I–35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636–2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064–2470

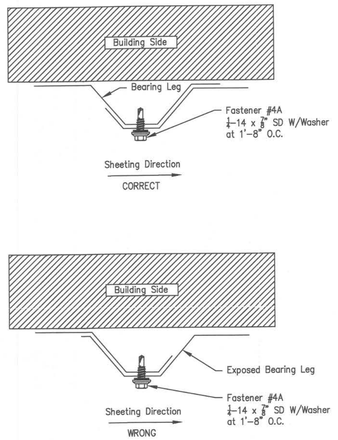
Drawing Status:
☐ Preliminary, Not For Construction
☐ For Approval Not For Construction
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/16/20
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17–B–48260
Sheet Number:	R6 of 13

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufactuer only. The undersigned engineer is not the overall engineer of record for this project.

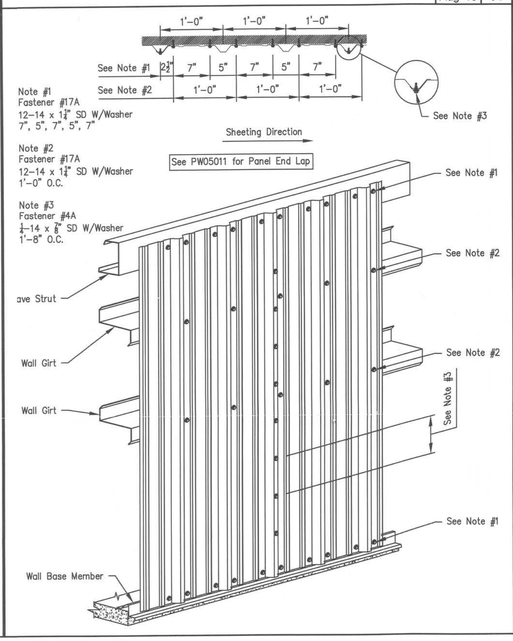
PBR Wall Panel
Panel Side Lap

Page PW05002 | Date Mar '19 | Rev 03



PBR Wall Panel
Fastener Location

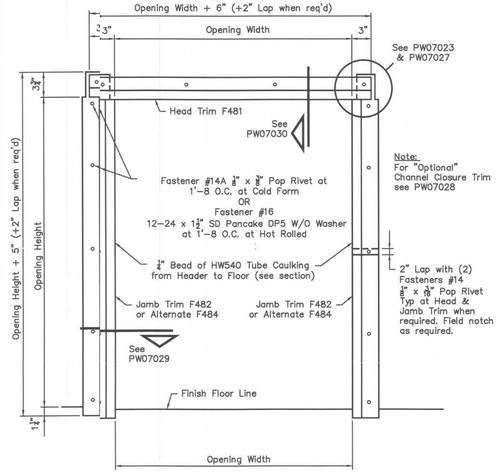
Page PW05003 | Date Aug '15 | Rev 04



PBR Wall Panel - Three Sided Framed Opening - Trim Installation with Field Notch Panel at Head Trim

Page PW07022 | Date Apr '19 | Rev 04

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



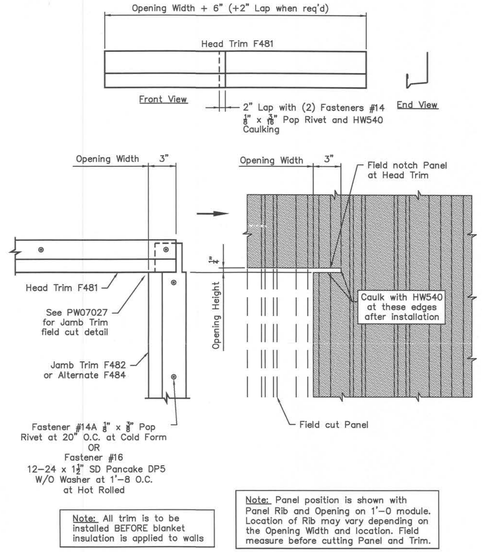
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening
Field Notch Panel at Head Trim

Page PW07023 | Date Apr '19 | Rev 04

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



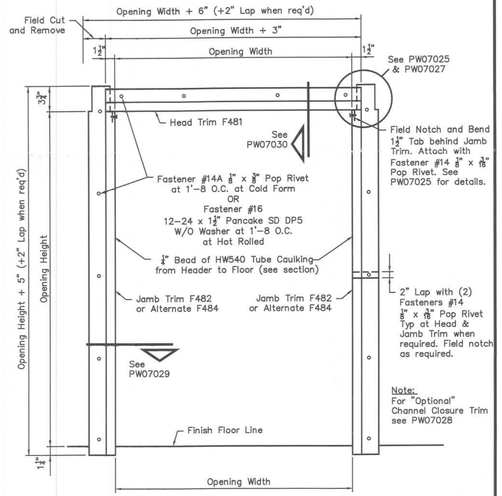
Note: All trim is to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib and Opening on 1'–0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Three Sided Framed Opening - Trim Installation with Field Notch and Bend Tabs at Head Trim

Page PW07024 | Date Apr '19 | Rev 04

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



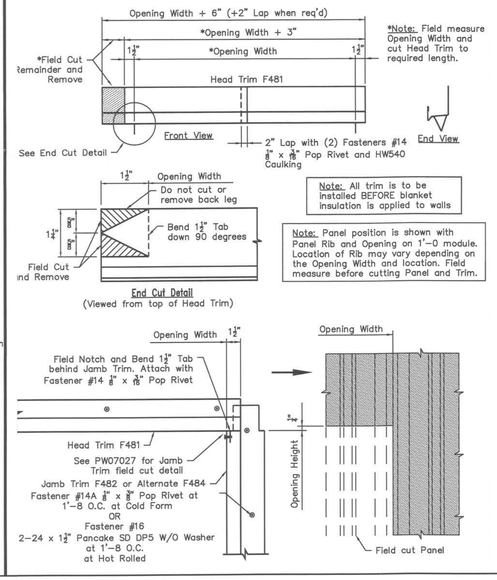
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening - Field Notch and Bend Tabs at Head Trim

Page PW07025 | Date Apr '19 | Rev 04

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.

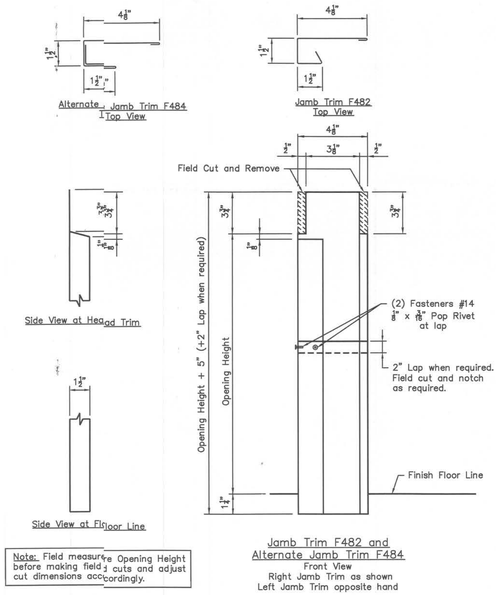


Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Opening on 1'–0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Three Sided Framed Opening
Jamb Trim Field Cut Details

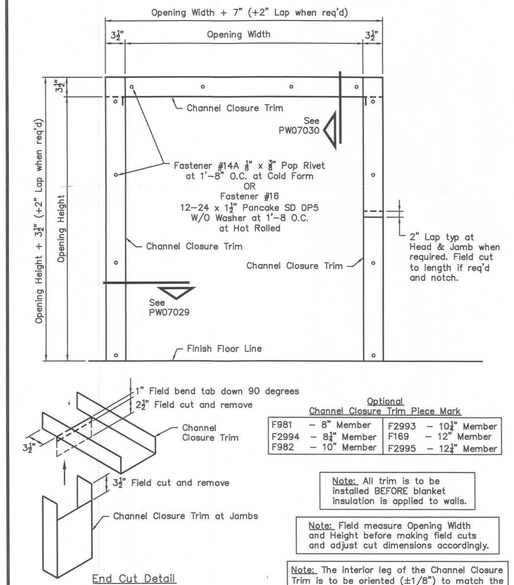
Page PW07027 | Date May '19 | Rev 03



Note: Field measure the Opening Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening
"Optional" Channel Closure Trim

Page PW07028 | Date May '19 | Rev 04



Optional Channel Closure Trim Piece Mark

F981	– 8" Member	F2993	– 10½" Member
F2994	– 8½" Member	F169	– 12" Member
F982	– 10" Member	F2995	– 12½" Member

Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

Note: The interior leg of the Channel Closure Trim is to be oriented (±1/8") to match the interior leg of the Header or Jamb.

Revision	Date	By	Ck'd	Description

ASTAR BUILDING SYSTEMS®
8600 SOUTH I–35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636–2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064–2470

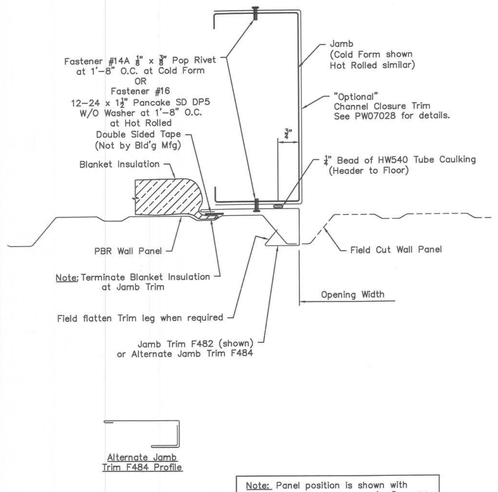
Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/16/20
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17–B–8260
Sheet Number:	R7 of 13

The engineer whose seal appears hereon is an employee for the manufacturer or the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project

PBR Wall Panel - Three Sided Framed Opening - Jamb Trim Installation

Page PW07029 | Date Apr '19 | Rev 04

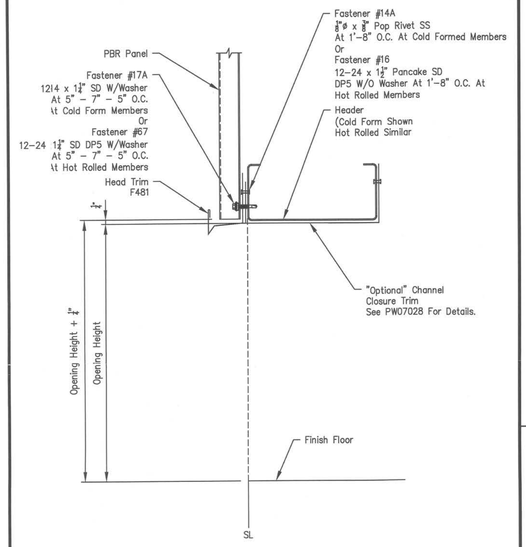


Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Opening on 1'-0" module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

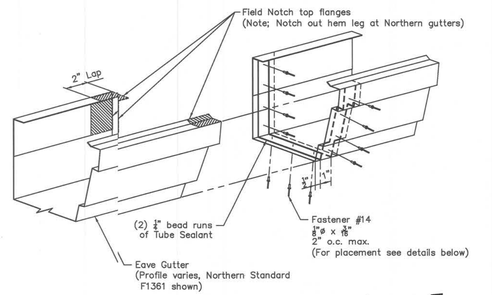
PBR Wall Panel - Three Sided Framed Opening Head Trim Installation

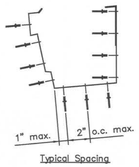
Page PW07030 | Date Oct '19 | Rev 03



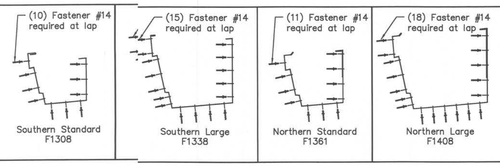
PBR Roof - Eave Gutter End Lap Installation

Page CPR04002 | Date May '19 | Rev 04



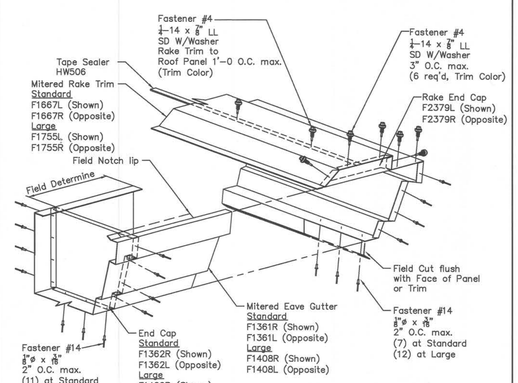


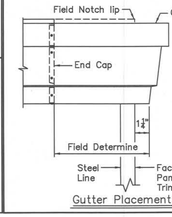
Typical Spacing



PBR Roof Panel - Northern Standard And Northern Large Low Eave Rake Corner with Eave Gutter - 1¼" Wall Panel

Page CPR04010 | Date May '19 | Rev 07





Gutter Placement

1.) Apply Tube Sealant to End Cap bottom and side tabs. Install Cap at a field determined distance in from the end of the Gutter. Inspect after installing and seal any gaps with Tube Sealant.

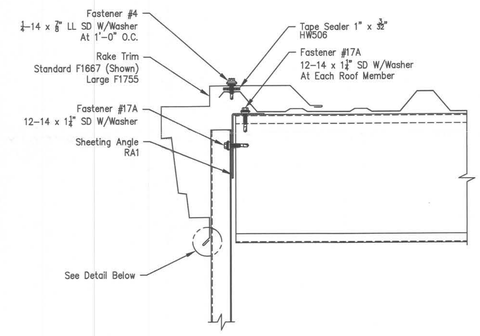
2.) Attach Eave Gutter to Roof Panel locating end 1¼" past face of Panel or Trim. (See Gutter Placement)

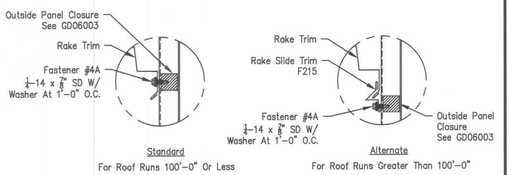
3.) Align edges of Eave Gutter and Rake Trim and attach Rake Trim as shown. Apply Tube Sealant along edges to seal.

4.) See Eave and Rake Construction Details included with Erection Drawings for attachment of Eave Gutter and Rake Trim to Roof and Walls.

PBR Roof Panel - Northern Standard And Northern Large Cascading Rake Trim - Sheeted Wall

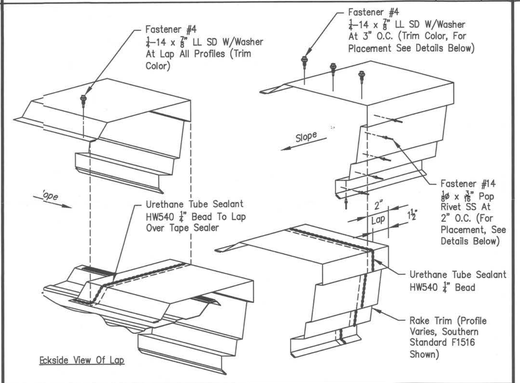
Page CPR05006 | Date May '19 | Rev 04



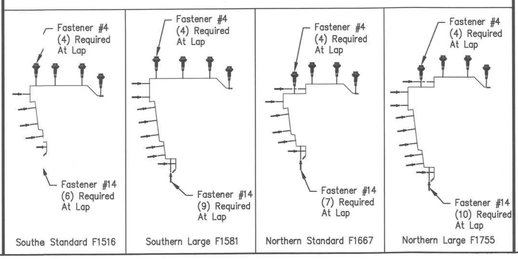


PBR Roof Panel - Cascading Rake Trim End Lap Installation Detail - 1¼" Wall Panel

Page CPR05010 | Date May '19 | Rev 04

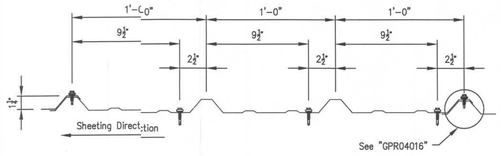


Eckside View Of Lap

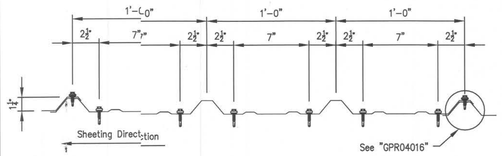


PBR Roof Panel - Fastener And Tape Sealant Location

Page GPR00011 | Date Apr '19 | Rev 01



All Roof Members Except As Noted Below

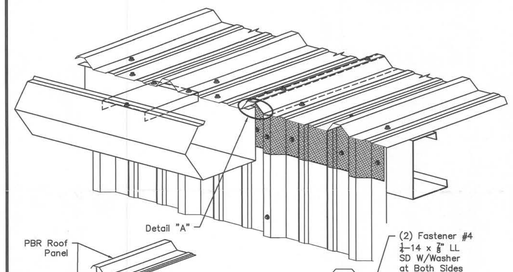


At Eave Strut, Panel End Lap And Peak Purlin

Note:
Screw patterns shown satisfy U.L. 90 requirements for roof.

Die-Formed Metal Eave Closure - PBR Wall & Roof Panel - Northern Standard Gutter

Page GPR02016 | Date Apr '19 | Rev 07

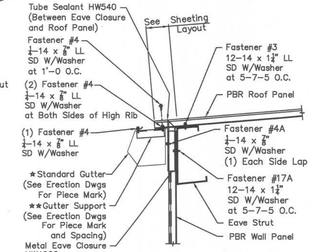


DETAIL "A"
Eave Panel Side Lap

* Piece Mark	
Trim Profile	Standard
Cascading	F1361
Classic	F391
Contoured	F2061
Signature	F394

** Piece Mark		
Trim Profile	<= 1:12	> 1:12
Cascading	F312	F550
Classic	F312	F550
Contoured	F2111	F550
Signature	F312	F550

Flashing profile may vary dependent upon project order. Attachment as illustrated are applicable for all profiles



SECTION AT EAVE W/ STANDARD GUTTER

Revision	Date	By	Ck'd	Description

ASTAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

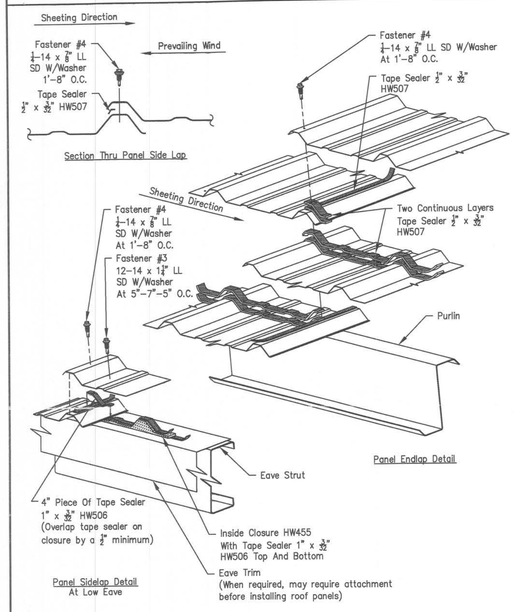
Drawing Status:
☐ Preliminary, (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	MFA 1/16/20
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17-B-4826¢
Sheet Number:	R8 of 13

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

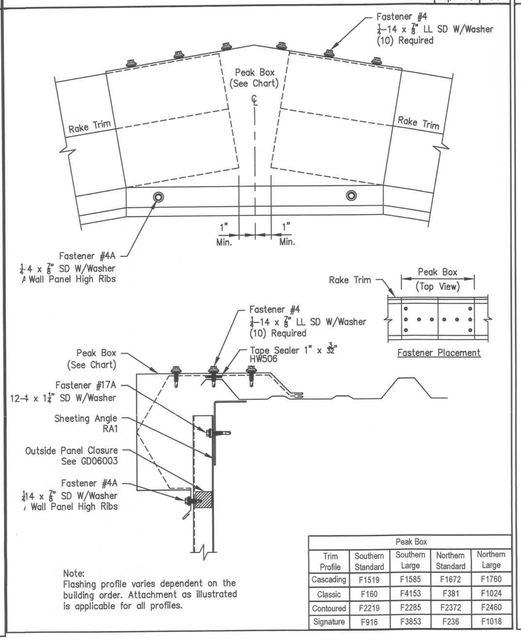
PBR Roof Panel
Side Lap And End Lap Details

Page GPR04016 | Date Apr '19 | Rev 04



PBR Roof Panel
Peak Box At Fixed Ridge

Page GPR05001 | Date Apr '19 | Rev 06

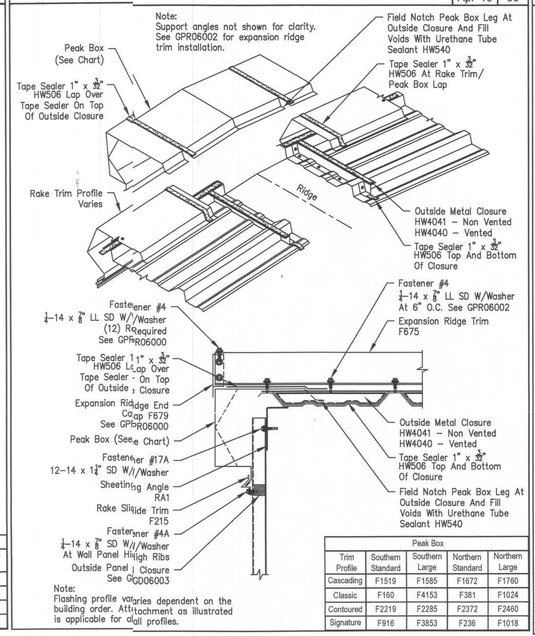


Note:
Flashing profile varies dependent on the building order. Attachment as illustrated is applicable for all profiles.

Peak Box				
Trim Profile	Southern Standard	Southern Large	Northern Standard	Northern Large
Cascading	F1519	F1585	F1672	F1760
Classic	F160	F4153	F381	F1024
Contoured	F2219	F2285	F2372	F2460
Signature	F916	F3853	F236	F1018

PBR Roof Panel
Peak Box At Expansion Ridge

Page GPR05022 | Date Apr '19 | Rev 00

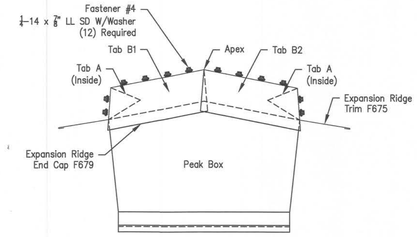


Note:
Flashing profile varies dependent on the building order. Attachment as illustrated is applicable for all profiles.

Peak Box				
Trim Profile	Southern Standard	Southern Large	Northern Standard	Northern Large
Cascading	F1519	F1585	F1672	F1760
Classic	F160	F4153	F381	F1024
Contoured	F2219	F2285	F2372	F2460
Signature	F916	F3853	F236	F1018

PBR Roof Panel
Expansion Ridge End Cap Assembly

Page GPR06000 | Date Apr '19 | Rev 01

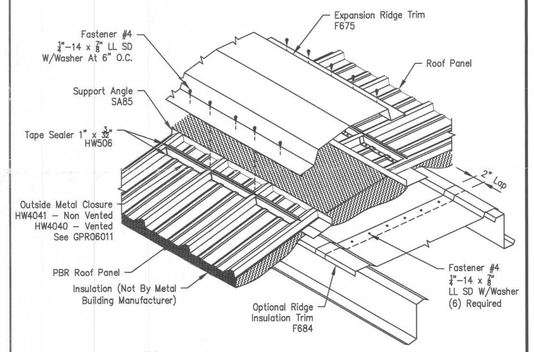


Expansion Ridge End Cap Assembly

1. Apply (2) runs of urethane tube sealant HW540 along vertical and horizontal surfaces of expansion end cap.
2. Place end cap inside expansion ridge trim, allowing the end cap to conform to the ridge trim profile. Do not deform the top of the ridge by exerting too much pressure.
3. Make sure that tab is even with, but not resting on top of the peak box. Tab 'A' must be able to pivot in front of the peak box because of panel contraction.
4. Using a screwdriver, insert the blade in the apex of tabs 'B1' and 'B2, twist the blade enough to cause tab 'B1' to spread slightly away from tab 'B2'.
5. Secure the end cap to the ridge flashing with (12) Fastener #4 1/4-14 x 7/8" LL SD W/Washer as shown.

PBR Roof Panel
Expansion Ridge Detail

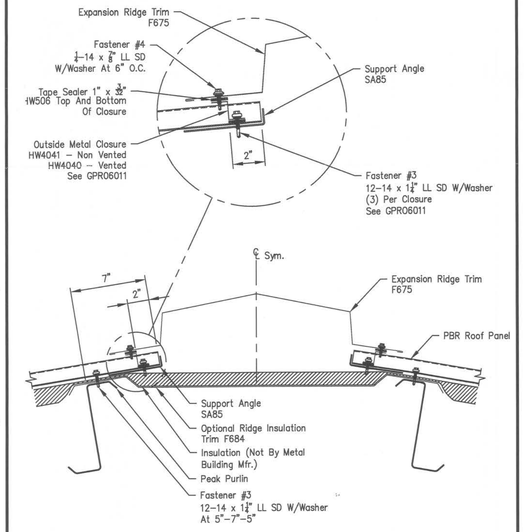
Page GPR06001 | Date Apr '19 | Rev 04



Note:
Install optional ridge insulation trim F684 as insulation and roof sheeting is being applied. Temporary attachment, if required, is not by metal building manufacturer.

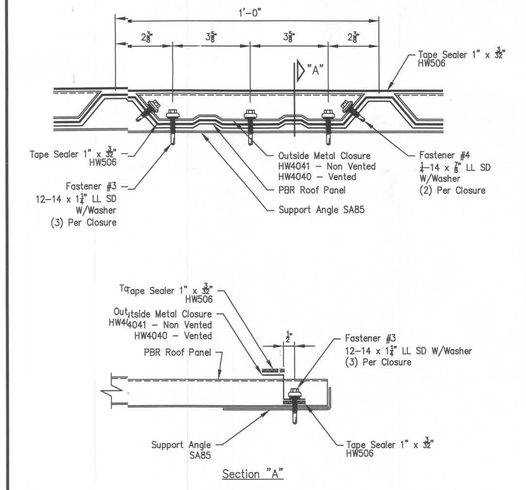
PBR Roof Panel
Section Thru Expansion Ridge

Page GPR06002 | Date Apr '19 | Rev 05



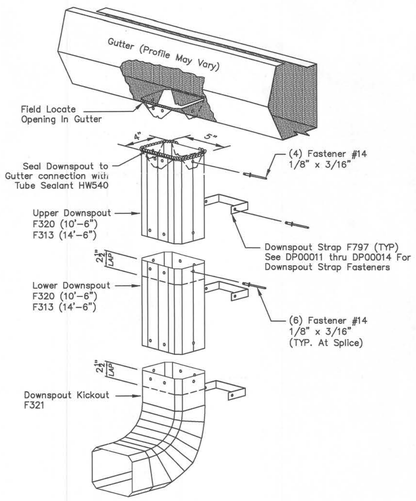
PBR Roof Panel
Expansion Ridge - Metal Closure

Page GPR06011 | Date Apr '19 | Rev 03



Roll Form Downspout Layout

Page DP00001 | Date Apr '19 | Rev 03



Note:
1. Refer to the building erection drawings for the spacing of the downspouts.
2. Locate all downspouts over a panel major rib if possible.
3. A field splice is required for eave heights greater than 16'-0". Always measure the required length starting at the swaged end. After cutting to length, insert the swaged end of the cut downspout into the top of the lower downspout.
4. Downspout straps F797 are Located at the bottom of a downspout, below a splice, and at mid point of downspout longer than 10'-6". See DP00011 thru DP00014 for downspout strap fasteners.

STAR BUILDING SYSTEMS®
8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 635-2010

Revision	Date	By	Ck'd

Description

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

☐ For Construction Permit
☒ For Erector Installation
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)

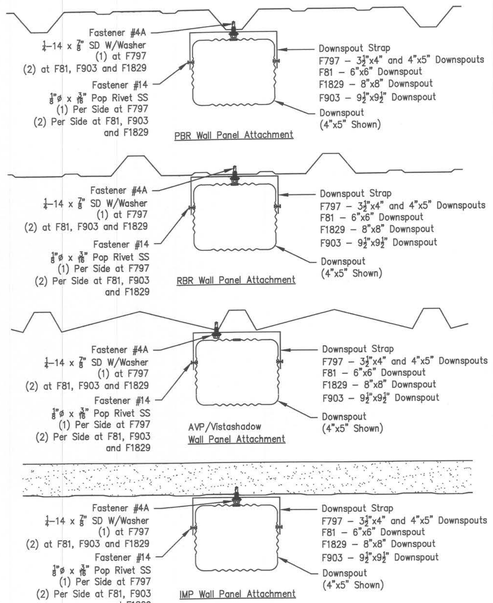
Drawing Status:

Scale: NOT TO SCALE
Drawn by: MFA 1/16/20
Checked by: SNH 1/21/20
Project Engineer:
Job Number: 17-B-41260
Sheet Number: R9 of 13

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Downspout Strap Attachment
PBR, RBR, AVP, Vistashadow, & IMP Fully Sheeted Wall

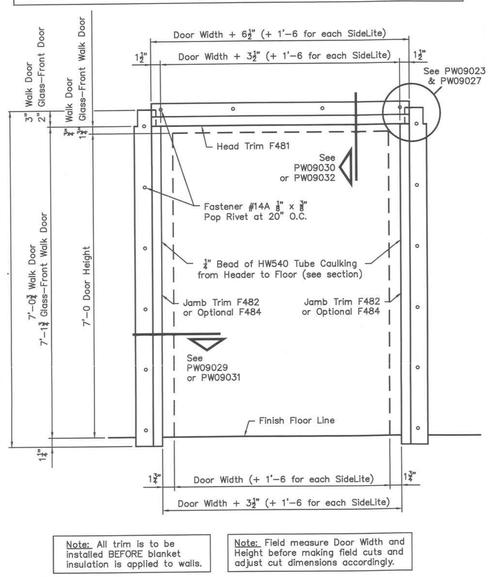
Page DP00011 | Date Feb '17 | Rev 03



BR Wall Panel - Walk Door & Glass-Front Walk Door - Trim Installation with Field Notch Panel at Head Trim

Page PW09022 | Date Apr '19 | Rev 02

Note: Trim installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.



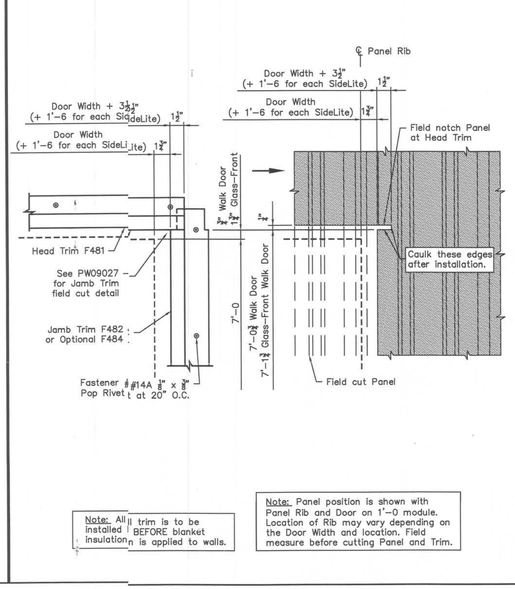
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Door Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Walk Door And Glass-Front Walk Door Field Notch Panel at Head Trim

Page PW09023 | Date May '19 | Rev 01

Note: Trim Installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.



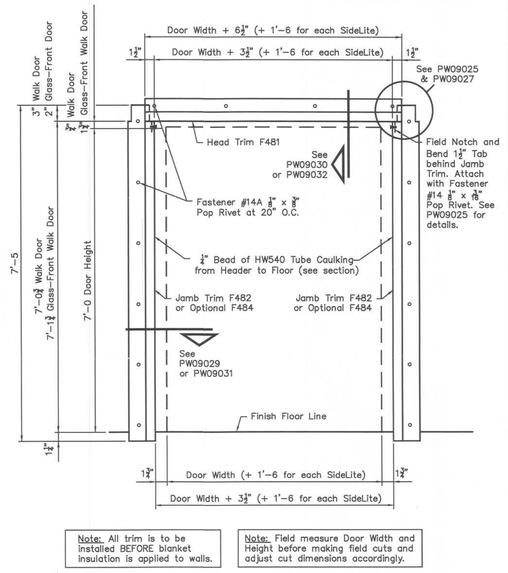
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Door on 1'–0 module. Location of Rib may vary depending on the Door Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Walk Door & Glass-Front Walk Door - Trim Installation with Field Notch and Bend Tabs at Head Trim

Page PW09024 | Date Apr '19 | Rev 02

Note: Trim Installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.



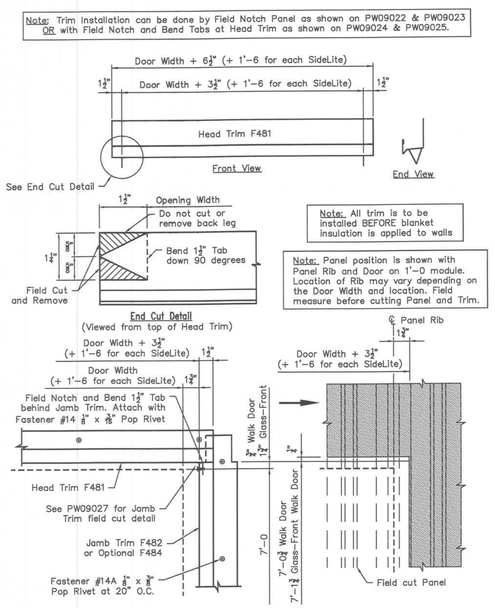
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Door Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Walk Door And Glass-Front Walk Door - Field Notch and Bend Tabs at Head Trim

Page PW09025 | Date May '19 | Rev 01

Note: Trim Installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.

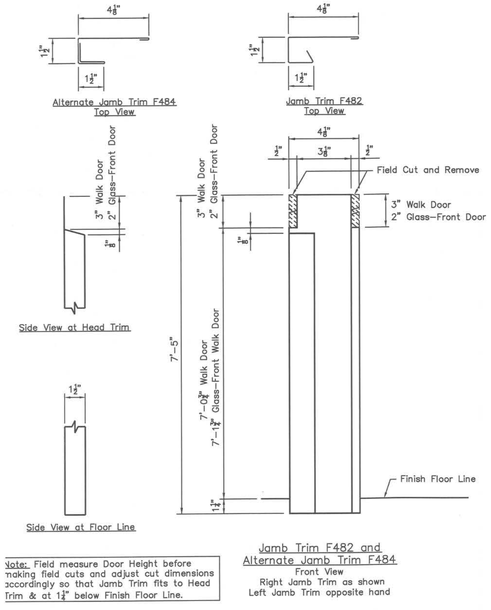


Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Door on 1'–0 module. Location of Rib may vary depending on the Door Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Walk Door And Glass-Front Walk Door Jamb Trim Field Cut Details

Page PW09027 | Date May '19 | Rev 02

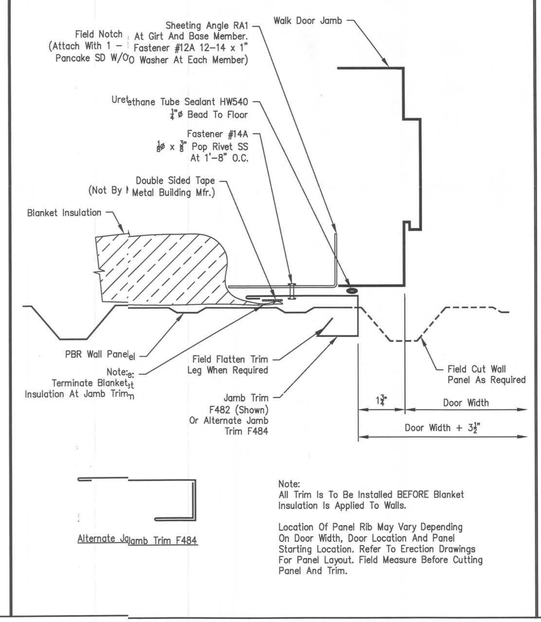


Note: Field measure Door Height before making field cuts and adjust cut dimensions accordingly so that Jamb Trim fits to Head Trim & at 1½" below Finish Floor Line.

Jamb Trim F482 and Alternate Jamb Trim F484
Front View
Right Jamb Trim as shown
Left Jamb Trim opposite hand

PBR Wall Panel - Knock Down DoorJamb Trim Installation

Page PW09031 | Date Apr '19 | Rev 06

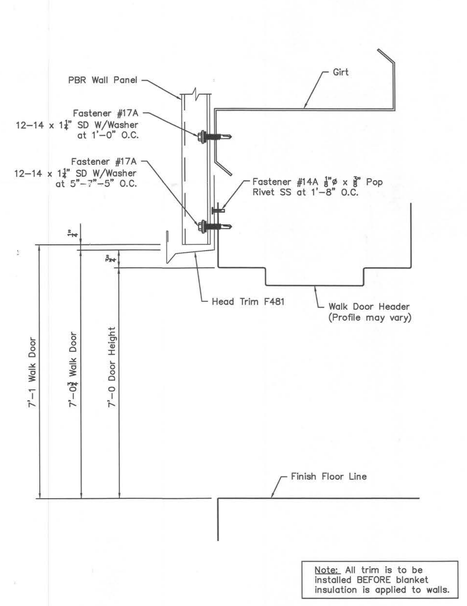


Note:
All Trim Is To Be Installed BEFORE Blanket Insulation Is Applied To Walls.

Location Of Panel Rib May Vary Depending On Door Width, Door Location And Panel Starting Location. Refer To Erection Drawings For Panel Layout. Field Measure Before Cutting Panel And Trim.

PBR Wall Panel - Knock Down Walk Door - Head Trim Installation

Page PW09032 | Date May '19 | Rev 03



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

ASTAR BUILDING SYSTEMS®
8600 SOUTH I–35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636–2010

Revision	Date	By	Ck'd

Description

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064–2470

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE		
Drawn by:	MFA	1/16/20	
Checked by:	SNH	1/21/20	
Project Engineer:			
Job Number:	17–B–8260		
Sheet Number:	R10 of 13		

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

PBR Roof Panel - Perimeter Trim Reference
Cascading Northern Standard Trim

Page CPR00003 | Date May '19 | Rev 06

	Gutter	Gutter Lap	Gutter Cap	Expansion Cover	Gutter Support
	F1361	2" Lap	F1362	F1364/F1363	F312 or F550
	Fastener #4 1/4–14 x 7/8" LL SD W/Washer 1'–0" O.C. Roof Color	52" Tube Sealant (11) Fastener #14 Trim Color	23" Tube Sealant (11) Fastener #14 Trim Color	(7) Fastener #14 Trim Color	(2) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Roof Color (1) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color
12" Wall Panel	Rake	Rake Lap	Rake Cap		Peak Box
	F1667	2" Lap	F2379/F1502		F1672
	Fastener #4 1/4–14 x 7/8" LL SD W/Washer 1'–0" O.C. Fastener #4A 1/4–14 x 7/8" SD W/Washer 1'–0" O.C. Trim Color	28" Tube Sealant (7) Fastener #14 (4) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color	30" Tube Sealant (6) Fastener #14 (4) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color		(12) Fastener #4 1/4–14 x 7/8" LL SD W/Washer (3) Fastener #4A 1/4–14 x 7/8" SD W/Washer Trim Color
12" Wall Panel	Highside	Highside Lap	Outside Corner	Inside Corner	
	F1953	2" Lap	Right as Shown	Field Work	
	Fastener #4 1/4–14 x 7/8" LL SD W/Washer 1'–0" O.C. #4A Screw 1/4–14 x 7/8" SD W/Washer 1'–0" O.C. Trim Color	28" Tube Sealant (9) Fastener #14 (3) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color	34" Tube Sealant (8) Fastener #14 (6) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color	34" Tube Sealant (4) Fastener #4 1/4–14 x 7/8" LL SD W/Washer At 3" O.C. Trim Color	
	Outside Corner	Inside Corner	Outside Corner	Inside Corner	
	Right as shown	Field Work	Field Work	Field Work	
	28" Tube Sealant (18) Fastener #14 (6) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color	28" Tube Sealant (12) Fastener #14 (2) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color	28" Tube Sealant (12) Fastener #14 Trim Color	28" Tube Sealant (12) Fastener #14 Trim Color	

PBR Roof Perimeter Trim Reference
Trim Fastener and Sealants

Page CPR00008 | Date May '18 | Rev 09

	SCULPTURED EAVE	EAVE TRIM LAP	EAVE TRIM CAP	Closure Vented Ridge	Metal Closure
	F1434	2" LAP	F1435	HW4040	HW4041
	Fastener #14A 5'–0" O.C. Fastener #4A 1/4–14 x 7/8" SD W/Washer 1'–0" O.C. Trim Color	(6) Fastener #14 2'–0" Tube Sealant	(6) Fastener #14 1'–6" Tube Sealant	(3) Fastener #3 12–14 x 1" LL SD W/Washer (2) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Roof Color 2'–4" Tape Mastic	(3) Fastener #3 12–14 x 1" LL SD W/Washer (2) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Roof Color 2'–4" Tape Mastic
	Eansion Ridge Trim	Ridge Closure	Flat Eave Trim	Inside Closure	Outside Closure
	F875	F679	F2955	HW455	HW456
	Fitener #4 1–14 x 7/8" LL SD W/Washer 2 runs at 8" O.C. (16"center #4 1/4–14 x 7/8" LL SD W/Washer er lap Trim Color '–8" Tube Sealant	2'–4" Tube Caulking (12) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Trim Color	9" Tube Sealant (2) #14 per lap #14A 1'–0" O.C. w/closure Trim Color		
	Irapet Rake Trim	Rake Slide Trim	Ridge Cap	Parapet High Side	Sheeting Angle Longitudinal Ridge
	F852	F215	F52	F326	SA85
	–3" Tube Sealant (3) atener #4 1/4–14 x 7/8" L SD W/Washer Trim Color	Fastener #4A 1/4–14 x 7/8" SD W/Washer 1'–0" O.C. Trim Color	10'–1" Tape Mastic (12) Fastener #3 12–14 x 1½" LL SD W/Washer (6) Fastener #4 1/4–14 x 7/8" LL SD W/Washer Panel Color	2'–8" Tube Sealant (2) Fastener #14 & (5) Fastener #4 1/4–14 x 7/8" LL SD W/Washer per Lap Fastener #4 1/4–14 x 7/8" LL SD W/Washer 1'–0" O.C. Trim Color	20'–0" Long

Fasteners

Page G000004 | Date Jul '17 | Rev 05

Fastener #14
1/8" x 3/16" Pop Rivet Stainless Steel

Fastener #14A
1/8" x 3/8" Pop Rivet Stainless Steel

Fastener #24
8 x 5/8" Nibbed Driller

Fastener #35
#14 x 1 1/8" O.D. Bonded Washer

Fastener #43L
L.T.P. Member Screw (Long Life) 1/4"–14 x 1 1/4" 5/16" Hex Washer Head W/ 1 1/8" O.D. Washer

Fastener #44L
L.T.P. Stitch Screw (Long Life) 1/4"–14 x 7/8" 5/16" Hex Washer Head W/ 1 1/8" O.D. Washer

Fastener #225
3/16" x 9/16" Closed End Rivet

Fastener #228
10 x 1/2" Grommet Washer

Fastener #271
8–18 x 1/2" Trim Screw

Fastener HW3999
#6 x 1" Rubber Grommet 1/4" Hex Head w/ Washer

Note: Refer to bill of materials for specific job requirements.

Tape Sealer And Tube Sealant

Page G000005 | Date Apr '19 | Rev 05

TRI–BEAD TAPE SEALER HW504
1/8" X 7/8" X 25'–0"

FLAT TAPE SEALER HW507
3/32" X 1/2" X 50'–0"

TAPE SEALER – SWAGED HW515
1/8" X 2 1/4" X 6"
6"
BattenLok HS SuperLok

TRIPLE BEAD TAPE SEALER HW502
1/8" X 2 1/2" X 20'–0"

FLAT TAPE SEALER HW506
3/32" X 1" X 45'–0"

URETHANE TUBE SEALANT
HW540 (White)
HW541 (Gray)
HW542 (Bronze)
Note: 25'–0" per Tube at 1/4" Bead

TAPE SEALER MINOR RIB HW512
4"
7/32" X 1/8" X 4"

NON–SKINNING BUTYL TUBE (VAPOR SEALANT)
IMP7100 (WHITE)
Note: 12'–6" per Tube at 3/8" Bead

DEKSTRIP 7" WIDE = HW5227
DEKSTRIP 9" WIDE = HW5228
DEKSTRIP 12" WIDE = HW5229
DEKSTRIP 18" WIDE = HW5226
COLOR = Gray
SCREWS 2" O.C. MAX. PERIMETER TAPE SEALER BOTH SIDES
URETHANE TUBE SEALANT HW540 EACH END
TERMINATION STRIP HW5305 EACH END (1" Wide x 4'–0" Long Alum.)

2" WIDE X 24 GA. STRAPPING
- FL470 – 25'–0" Roll Galvalume Plus Only
- FL471 – 100'–0" Roll Galvalume Plus Only
- FL569 – 500'–0" Roll Galvalume Plus or White Wash Coat

FLEXIBLE MEMBRANE (EPDM)
16" or 24"
- HW520 – 16" x 50'–0" Roll
- HW521 – 24" x 50'–0" Roll

NOTE: Refer to bill of materials for specific job requirements

PBR, PBU, AVP, Vistashadow, RBR, RBU
Panel Fasteners

Page G000006 | Date May '19 | Rev 09

Wall Fasteners

Member Screw
Fastener #17A
12–14 x 1 1/4" Hex Washer Head w/washer

Member Screw Optional
Fastener #17B
12–14 x 1 1/2" Hex Washer Head w/washer

Member Screw Optional
Fastener #28
12–14 x 2" Hex Washer Head w/washer

Stitch Screw
Fastener #4A
1/4–14 x 7/8" Hex Washer Head w/washer

Roof Fasteners
Long Life (Optional at Wall)

Member Screw
Fastener #3
12–14 x 1 1/4" Hex Washer Head w/washer

Member Screw Optional
Fastener #3A
12–14 x 1 1/2" Hex Washer Head w/washer

Member Screw Optional
Fastener #58
12–14 x 2" Hex Washer Head w/washer

Stitch Screw
Fastener #4
1/4–14 x 7/8" Hex Washer Head w/washer

NOTE: Refer to bill of materials for specific job requirements

Various Fasteners

Page G000009 | Date Nov '16 | Rev 11

Fastener #17
12–14 x 1" SD W/Washer Hex Head

Fastener #38
1/4–14 x 7/8" SD W/O Washer Hex Head

Fastener #12A
12–14 x 1" Pancake SD W/O Washer

Fitener #55
1–24 x 1 1/2" SD DP5 W/O Washer Hex Head

Fastener #70
12–24 x 1 1/2" SD DP5 W/O Washer Hex Head

Fastener #142
1/4–14 x 1 1/2" SD W/O Washer Hex Head

Fastener #76
12–14 x 2" SD W/O Washer Hex Head

Fastener #61
12–14 x 1 1/4" SD W/O Washer Hex Head

Fastener #1B
1/4–14 x 1 1/2" SD W/O Washer Hex Head

Fastener #16
12–24 x 1 1/2" Pancake SD DP5 W/O Washer

NOTE: Refer to Bill of Materials for Specific job Requirements

Fastener #46
1/4–14 x 7/8" LL ST Type B W/Washer Hex Head

Revision	Date	Description	By	Ck'd

ASTAR BUILDING SYSTEMS®
8600 SOUTH I–35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636–2010

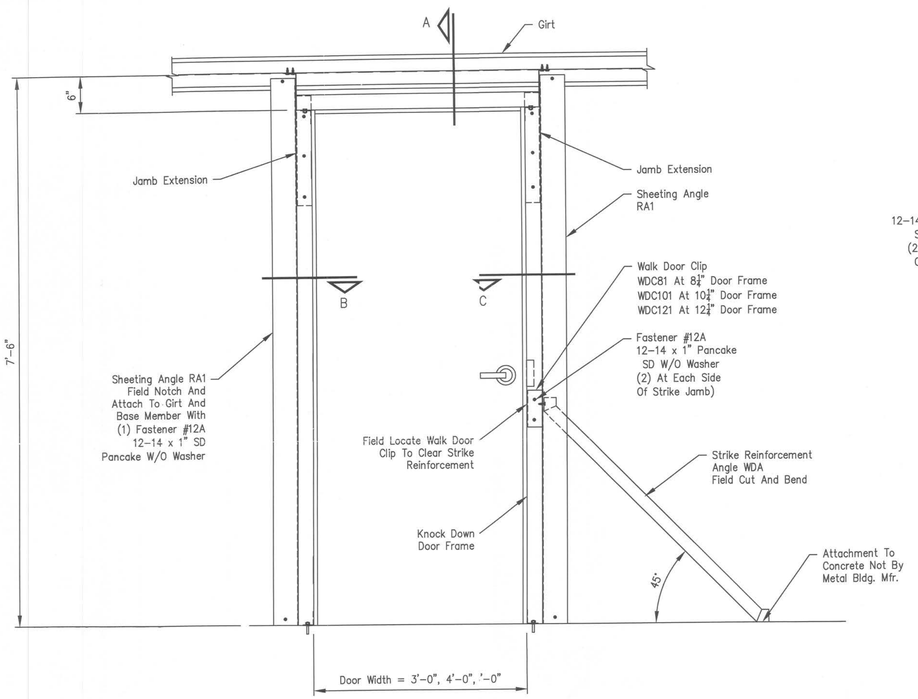
Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064–2470

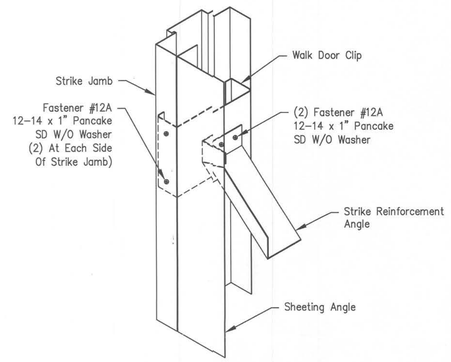
Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE	
Drawn by:	MFA	1/16/20
Checked by:	SNH	1/21/20
Project Engineer:		
Job Number:	17–B–41260	
Sheet Number:	R11 of 13	

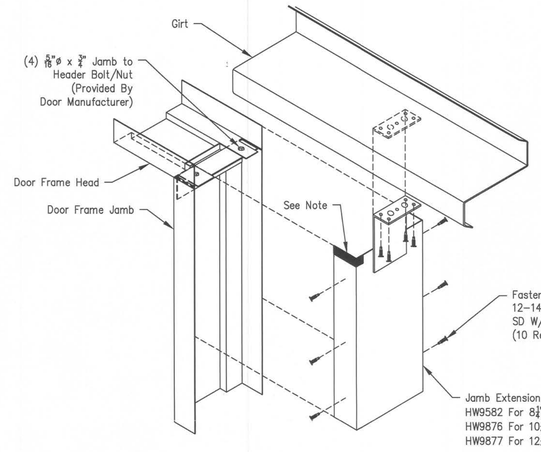
The engineer whose sea appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned enjineer is not the overall engineer of record for this project.



Door Elevation



Walk Door Clip/Strike Reinforcement Angle Isometric



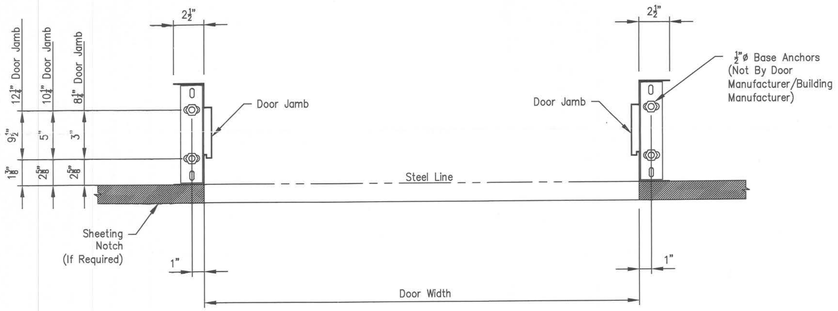
Door Jamb Extension Isometric

(2) Door Jamb Extensions Are Required For All Knock Down Doors.

Extend Door Jamb Extension To The 7'-6" Girt Elevation And Attach To The Web Of The Girt With (4) Fastener #12A, Attach Door Jamb Extension Channel To Door Jamb With (6) Fastener #12A.

For Girt Elevations Above 7'-6" Refer To AC05132 For Door Jamb Extension Requirements.

Note:
If Girt Has A 3½" Flange, Field Notch Jamb Extension Channel To Clear Girt Lip. Do Not Notch Girt Lip.

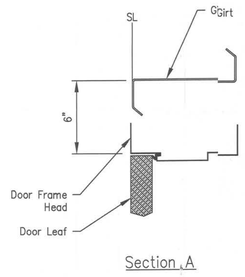


The Adequacy Of The ½"ø Base Anchor Is Not The Responsiility Of The Building Manufacturer. The Adequacy Of These Base Anchors Should Be Determine By A Qualified Foundation Engineer.

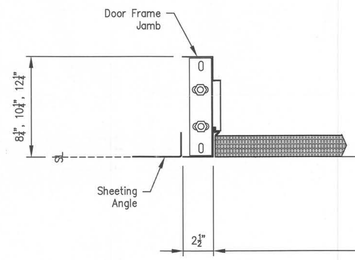
Verify Door Jamb Base Clip Dimensions With Patterns Show Prior To Placement Of Door Anchors And Adjust Patterns If Needed.

Note: 12¼" Frames May Not Have Kerf Door Frame Feature epending On Door Manufacturer.

Knock Down Door Anchor lacement



Section A



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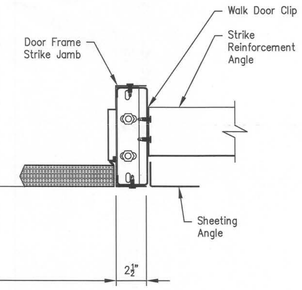


Section C

Rev	Date	Description	By	Ck'd

8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

ASTAR BUILDING SYSTEMS®

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

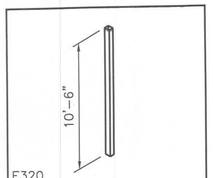
Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

Drawing Status:
☐ For Construction Permit
☒ For Erector Installation
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)

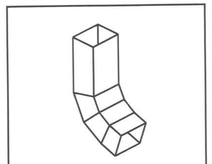
Scale:	NOT TO SCALE
Drawn by:	MFA 1/16/20
Checked by:	SNH 1/21/20
Project Engineer:	
Job Number:	17-B-48260
Sheet Number:	R12 of 13

Knock Down Door - Girt At 7'-6" Without Low Girt

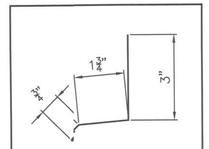
Page	
C05200	
Date	Rev
Nov '18	00



F320
Downspout



F321
Downspout Elbow



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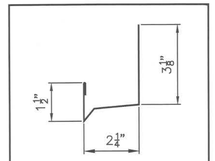
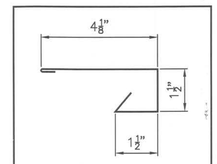
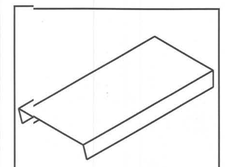
Base Trir



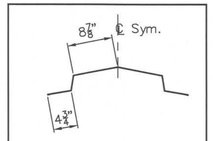
F481
Framed Opening Head Trim



F482
Framed Opening Jamb Trim



F5550
Gutter Support



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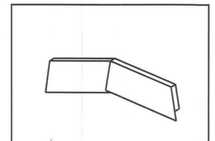
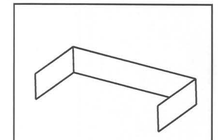
Expansion Ridge Trim



F679
Ridge End Cap



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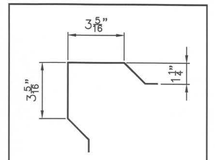
Downspout Strap



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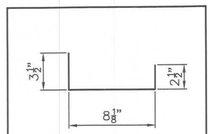
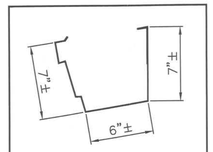
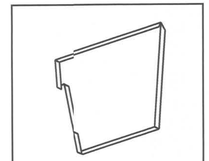
Outside Corner Trim



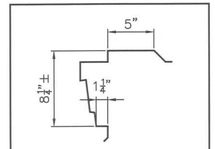
F981
Channel Closure Trim



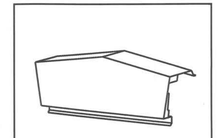
F1361
Gutter



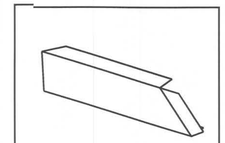
F1362
Gutter Ed Cap



F1667
Rake Trim



F1672
Peak Box



F22379
Rake Trim End Closure

Revision	Date	Description	By	Ck'd

8600 SOUTH I-35 SERVICE RD.
OKLAHOMA CITY, OK 73149
(405) 636-2010

STAR BUILDING SYSTEMS®

Project Name & Location:
TRAVIS TUTEN
LAKE CITY, FL 32064 US

Customer:
APEX METAL BUILDING SYSTEMS
LIVE OAK, FL 32064-2470

Drawing Status:
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☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale:	NOT TO SCALE	
Drawn by:	MFA	1/16/20
Checked by:	SNH	1/21/20
Project Engineer:		
Job Number:	17-B--8260	
Sheet Number:	R13 of 13	

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