

Anchor Rod Setting Plan

Finished Floor at Elevation 100'-0"

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 This structural design data will be superseded and voided by any future mailing.
- 5) Anchor rod size as noted on the drawings has been 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. Anchor rods are not provided by the metal building 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.

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Revision	Date	Description
0	08/08/24	Issued For Construction

QIE Building Co.

Customer:
 OE SUPPLY COMPANY
 9600 W. FIFTH AVE
 LAKEWOOD, CO 80232-6358 US

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61306-9645 US

Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

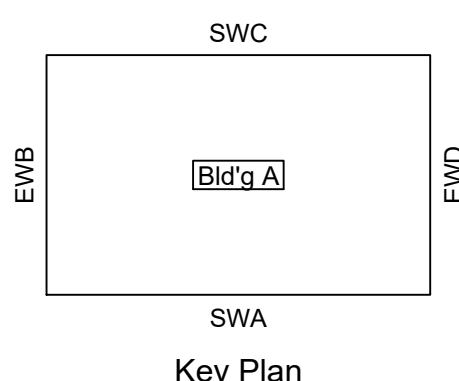
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 Drawn by: ASP 8/8/24
 Checked by: MXN 8/8/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: F1 of 4

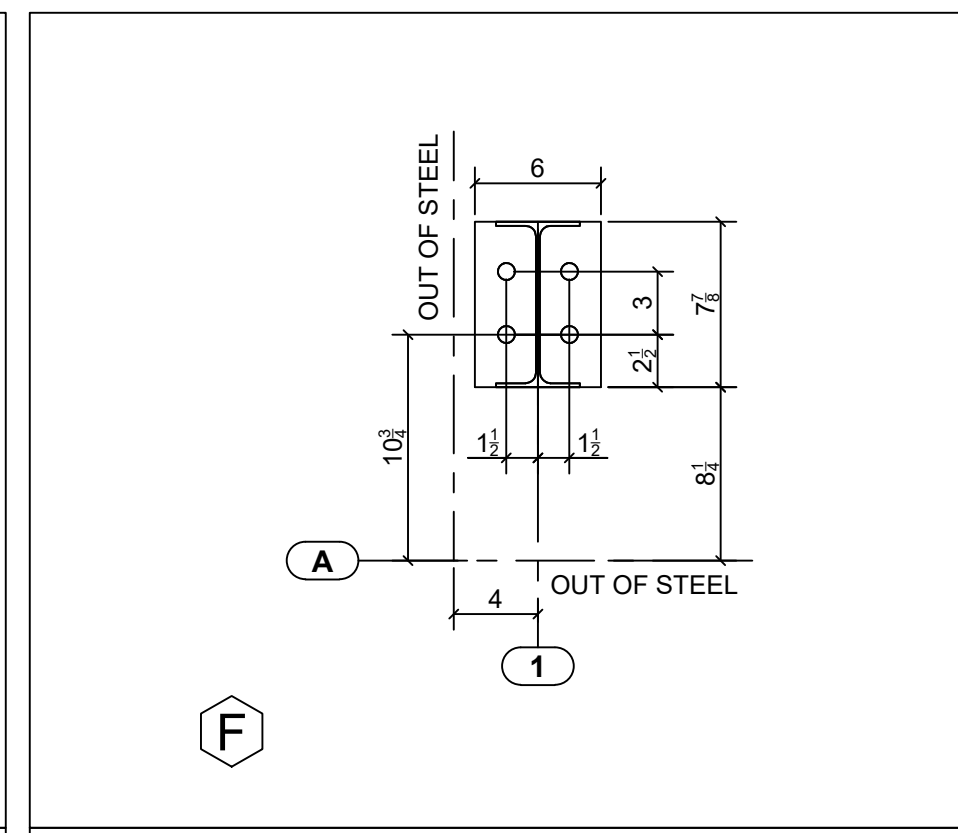
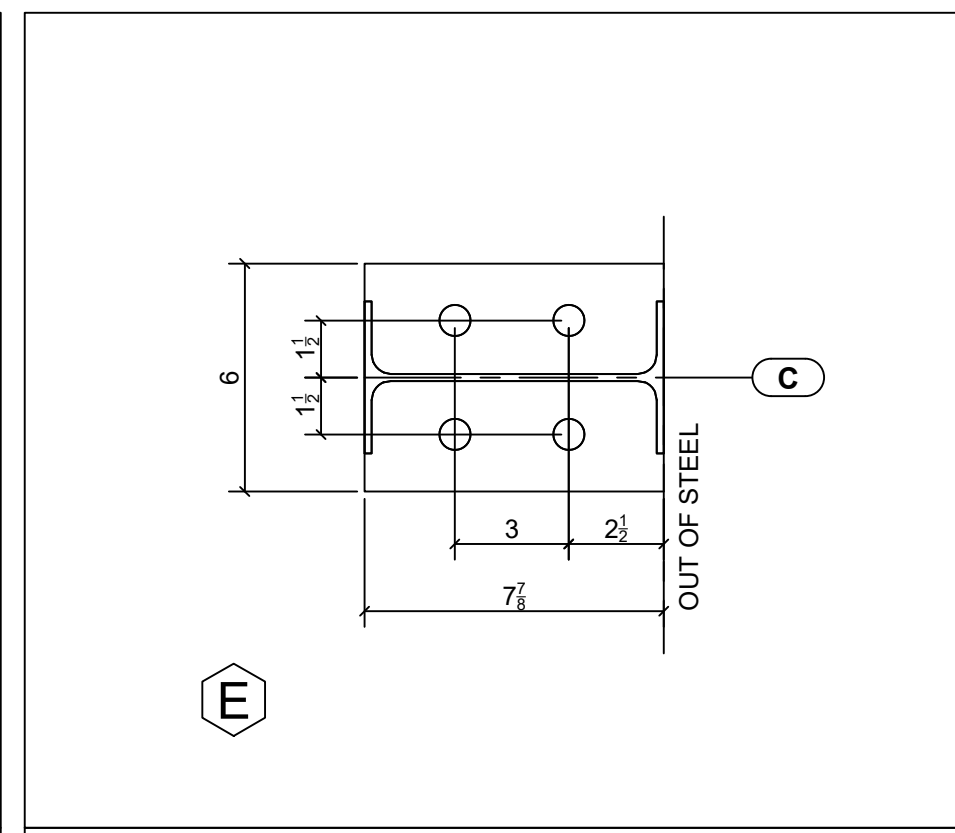
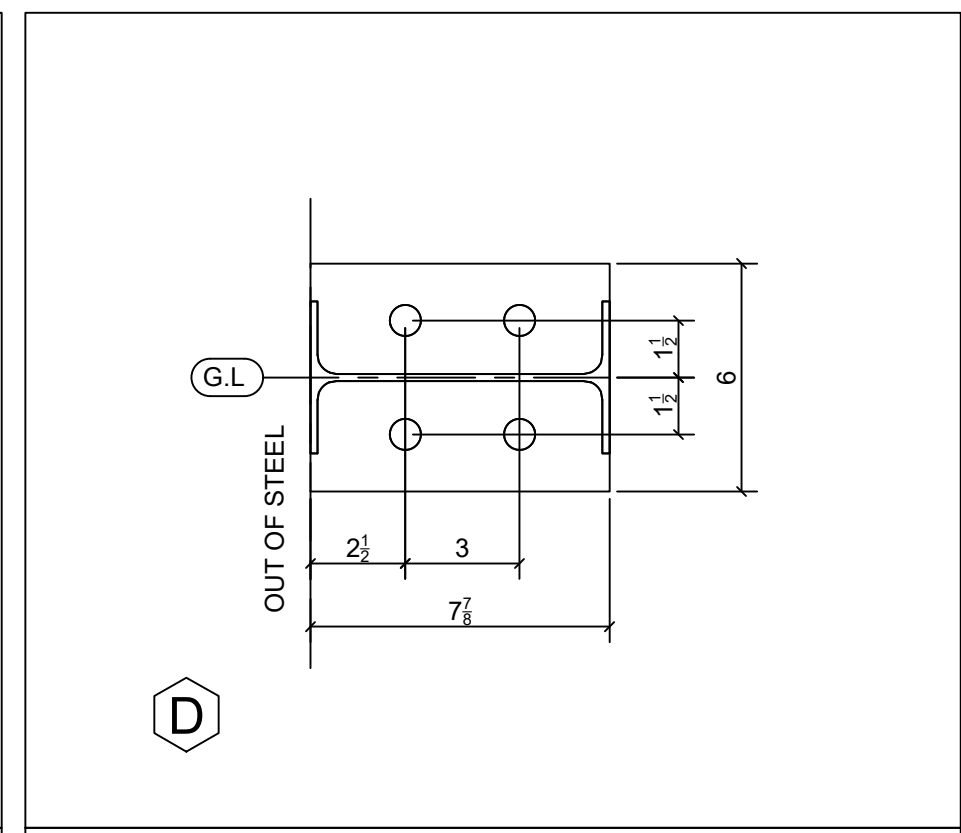
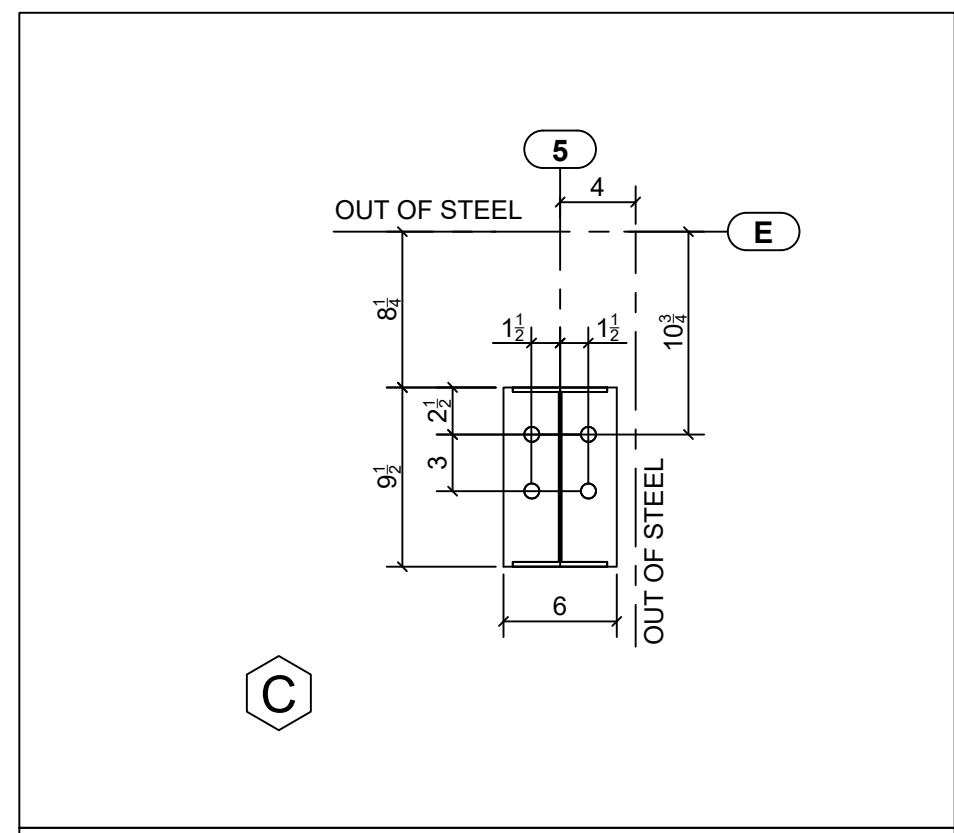
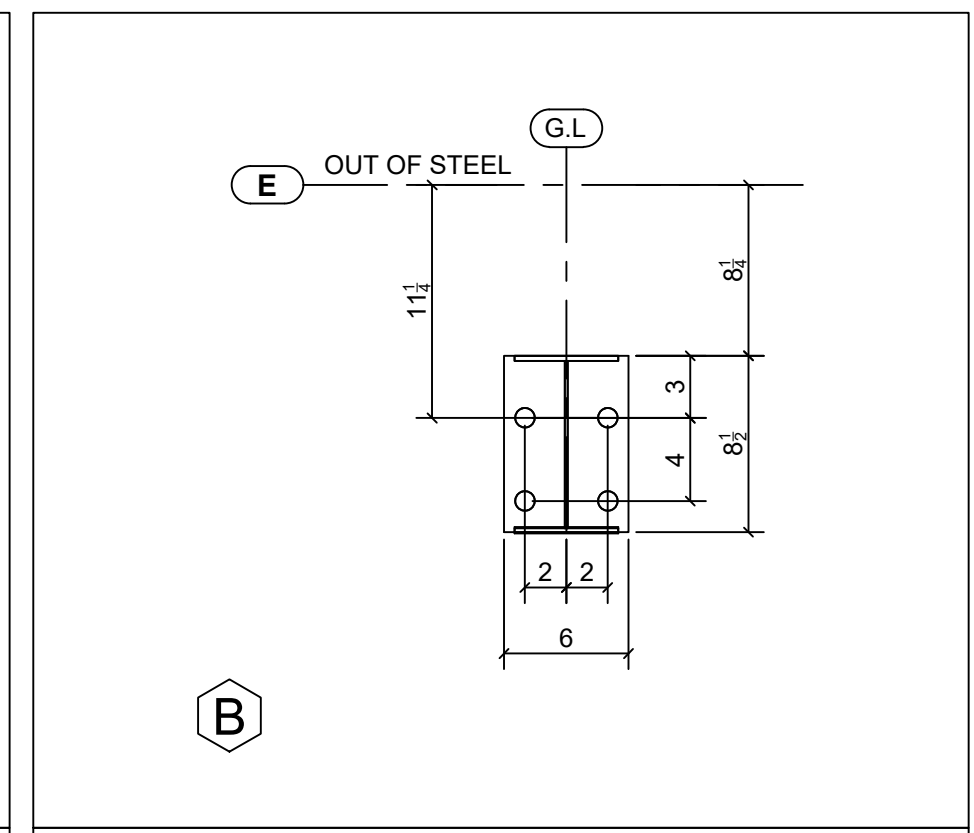
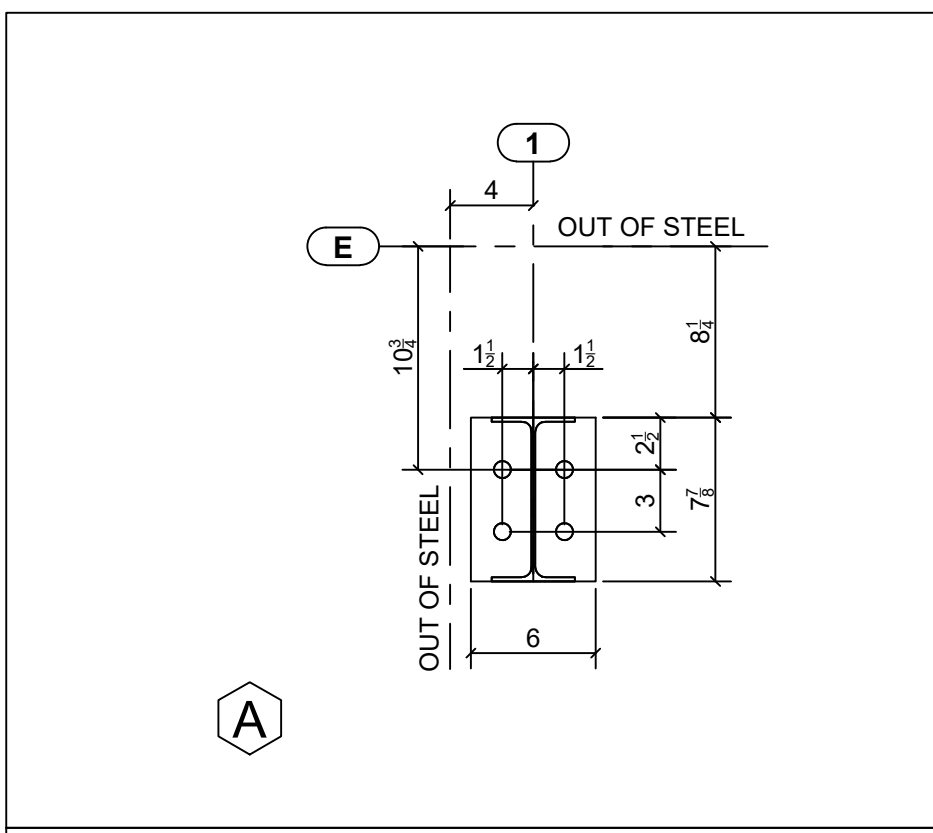
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

YUANGANG (BILL) LI, S.E.
 ILLINOIS S.E. 081-008395

YUANGANG (BILL) LI, S.E.
 081-008395
 Aug 19, 2024
 STATE OF ILLINOIS
 LICENSED STRUCTURAL ENGINEER

MARK	DESCRIPTION	DETAIL	QUAN.
A	14'-0" X 14'-0" FRAMED OPENING	(K)	1
B	14'-0" X 12'-0" FRAMED OPENING	(K)	3
C	3'-4" X 7'-2" FRAMED OPENING	(K)	1





BASE PLATE SIZE = 6"W x 7 1/2"L x 1/2" THICK
ANCHOR ROD SIZE = 1/2" DIA.
ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"

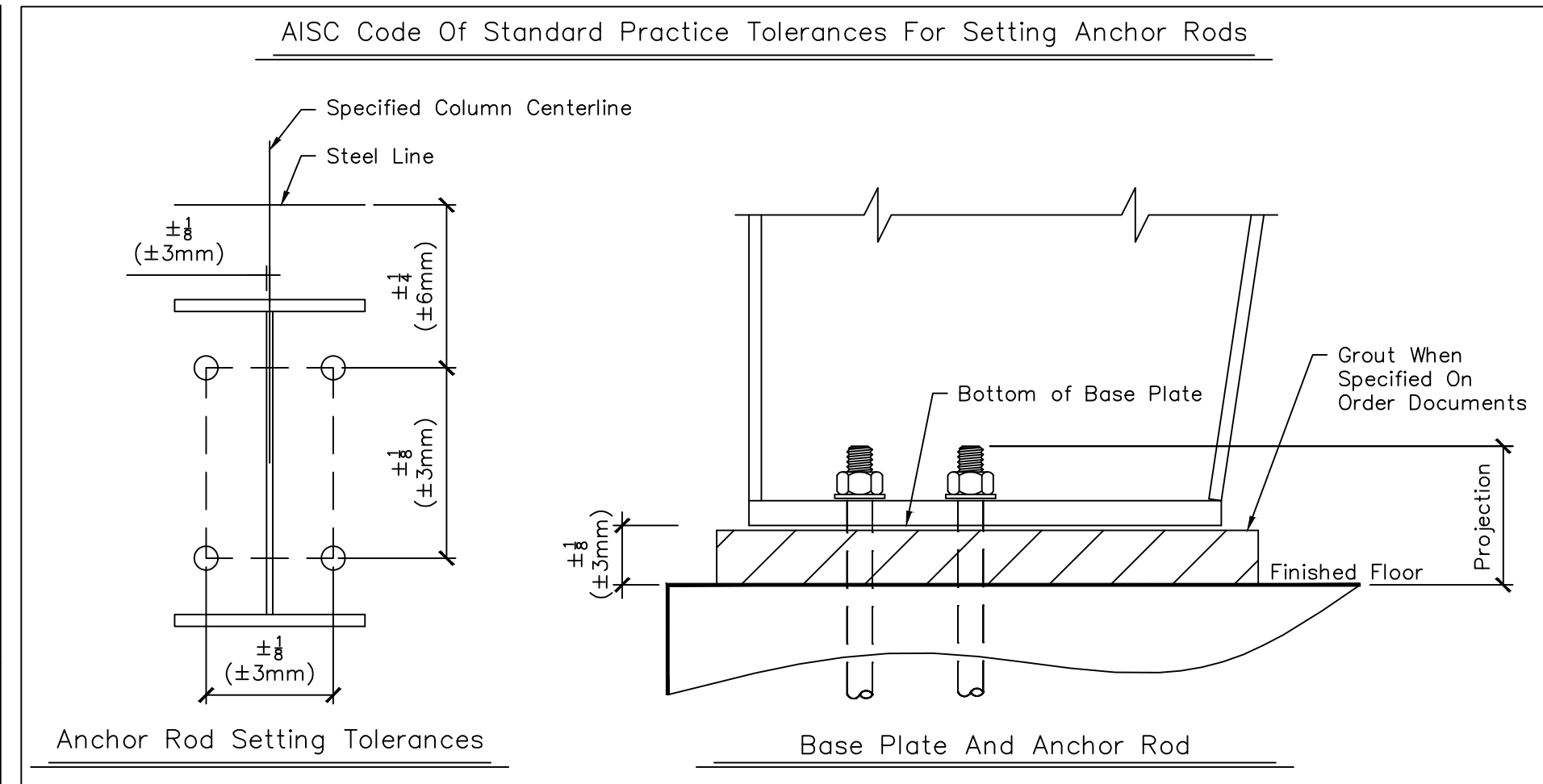
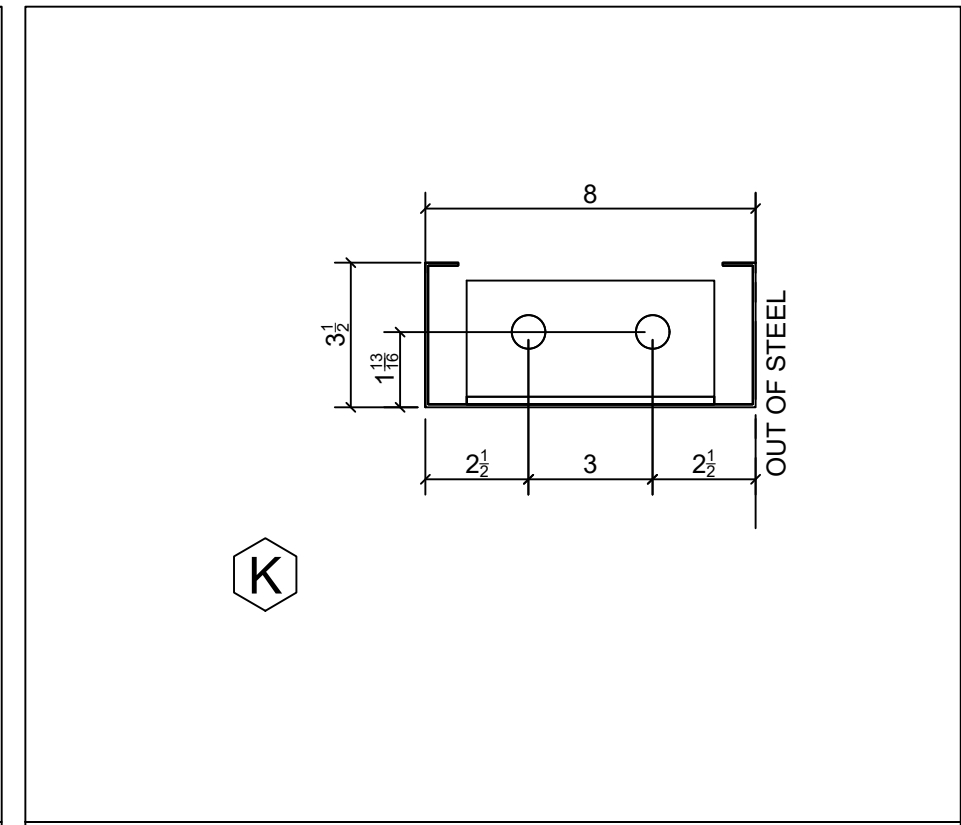
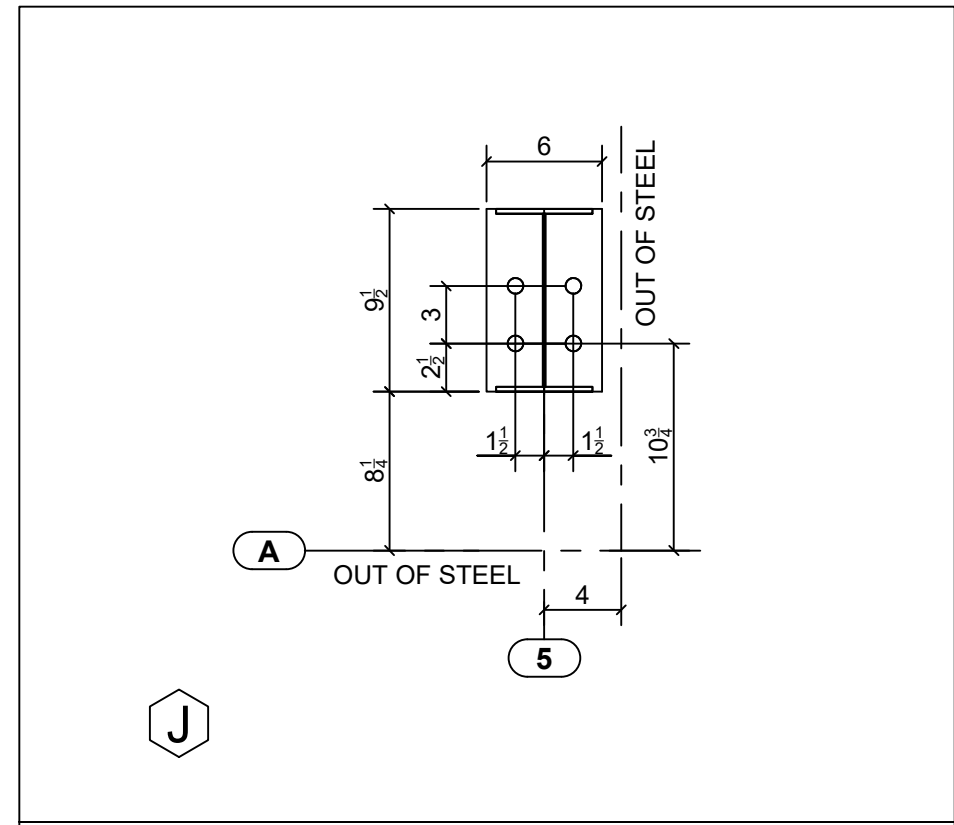
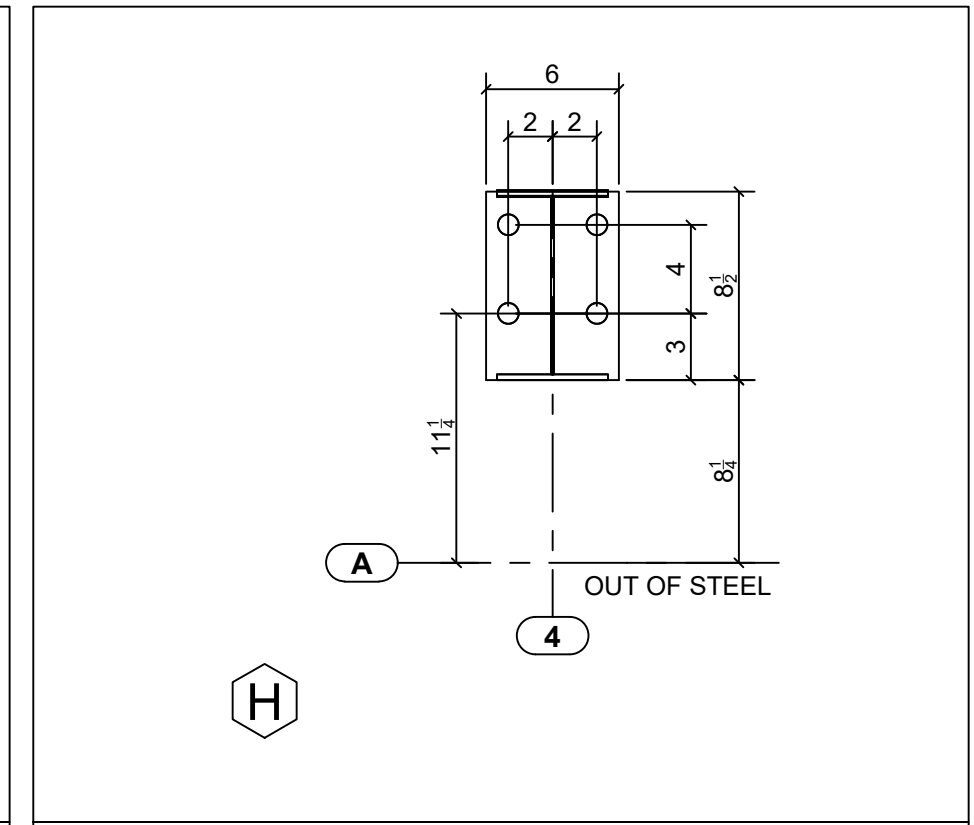
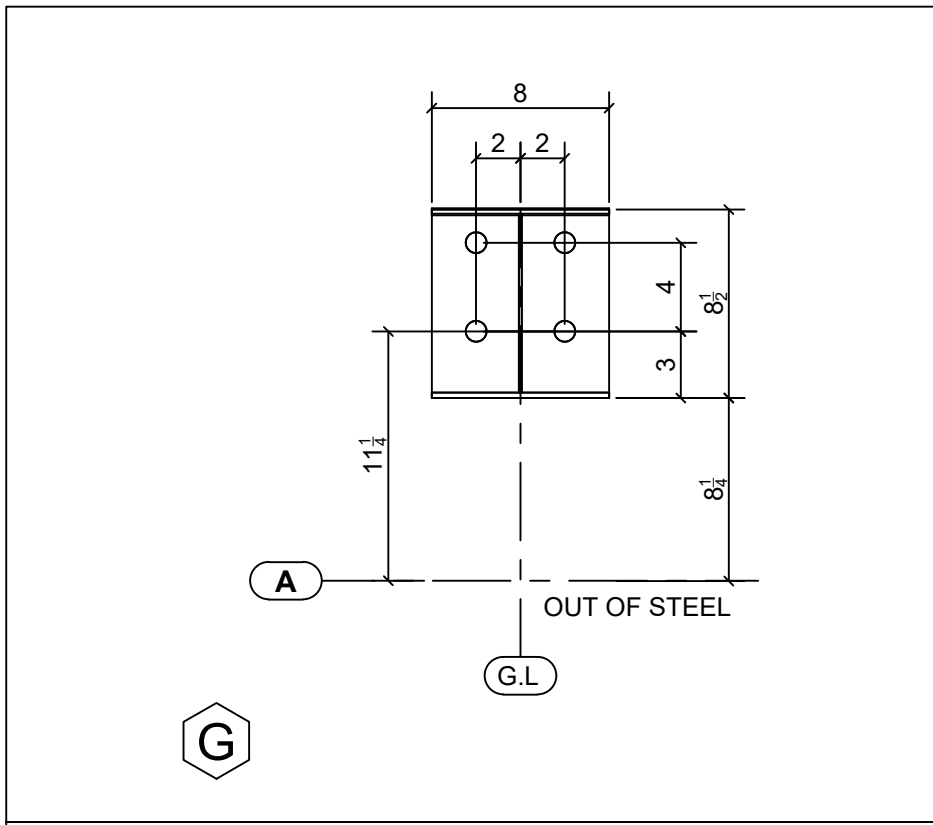
BASE PLATE SIZE = 6"W x 8 1/2"L x 1/2" THICK
ANCHOR ROD SIZE = 1/2" DIA.
ANCHOR ROD PROJECTION = 3"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"

BASE PLATE SIZE = 6"W x 9 1/2"L x 1/2" THICK
ANCHOR ROD SIZE = 1/2" DIA.
ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"

BASE PLATE SIZE = 6"W x 7 1/2"L x 1/2" THICK
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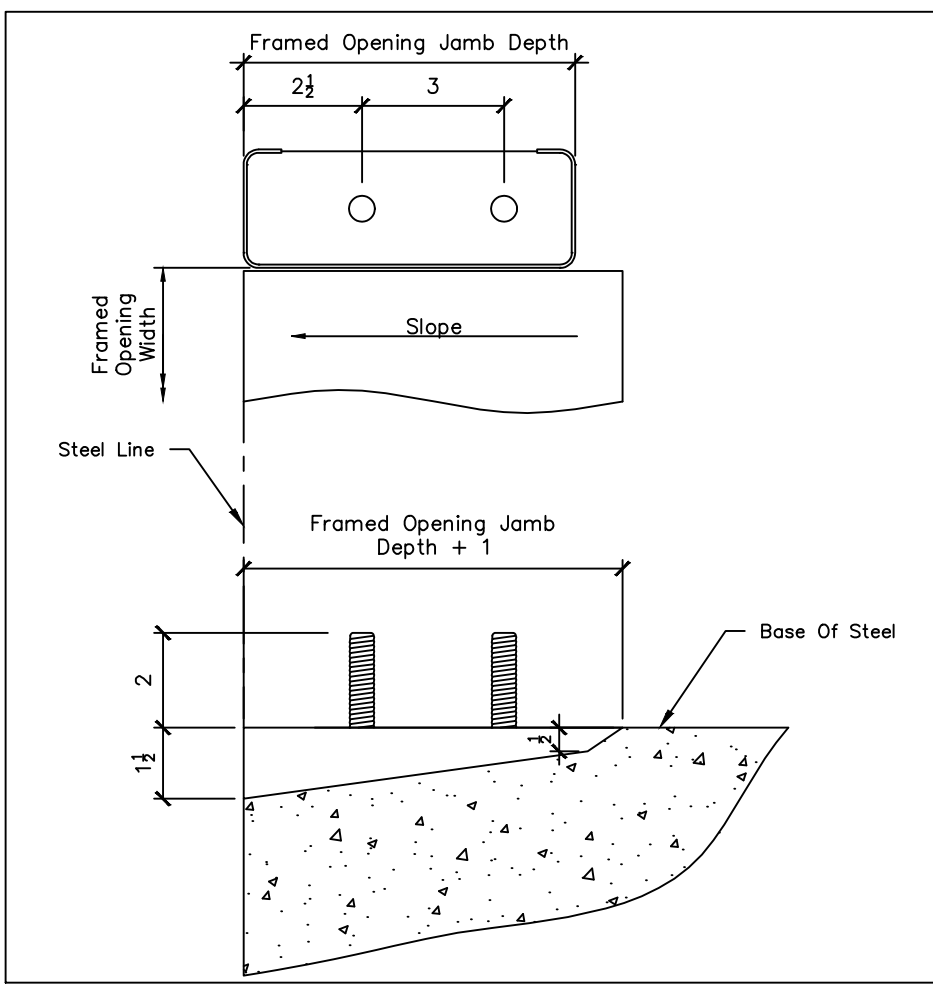


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ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"

BASE PLATE SIZE = 6"W x 5 1/2"L x 1/2" THICK
ANCHOR ROD SIZE = 1/2" DIA.
ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"



Revision	Date	Description
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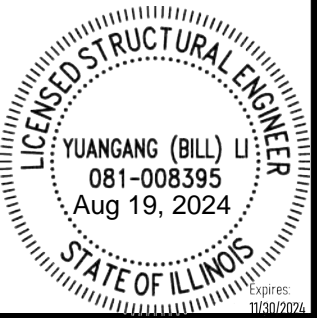
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Customer: QIE SUPPLY COMPANY 9600 W. FIFTELL AVE LAKEWOOD, CO 80232-6358 US	Drawing Status: <input checked="" type="checkbox"/> Issued For Approval <input type="checkbox"/> Issued For Construction <input type="checkbox"/> Issued For Permit

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 Drawn by: ASP 8/8/24
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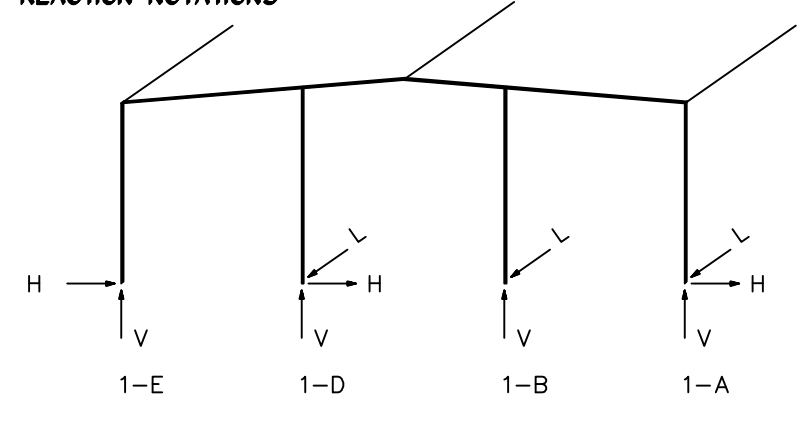
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YUANGANG (BILL) LI, S.E.
 ILLINOIS S.E. 081-008395

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REACTION NOTATIONS

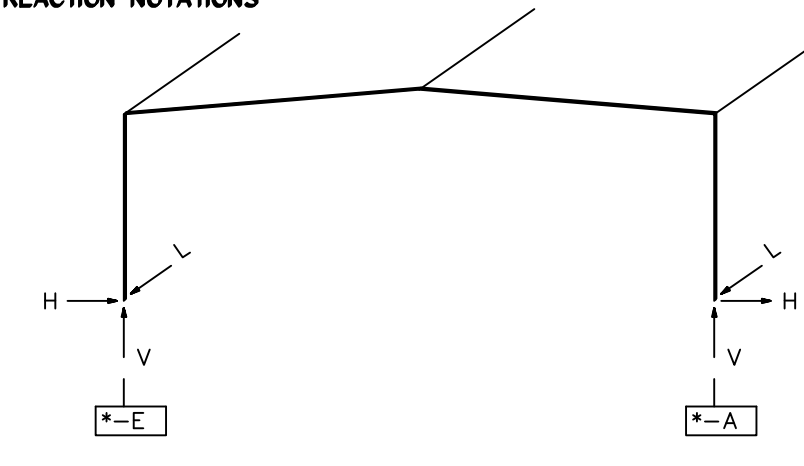


LOAD GROUP REACTION TABLE

LOAD GROUP	1-E			1-D			1-B			1-A		
	H	V	L	H	V	L	H	V	L	H	V	L
D	0.0	0.4	0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	0.4	0.0
C	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.1	0.0
L	0.0	1.4	0.0	0.0	3.7	0.0	0.0	3.7	0.0	0.0	1.4	0.0
S	0.0	1.4	0.0	0.0	3.7	0.0	0.0	3.7	0.0	0.0	1.4	0.0
SBAL	0.0	1.0	0.0	0.0	2.6	0.0	0.0	2.6	0.0	0.0	1.0	0.0
SUR	0.0	1.0	0.0	0.0	3.3	0.0	0.0	1.1	0.0	0.0	0.2	0.0
SUL	0.0	0.2	0.0	0.0	1.1	0.0	0.0	3.3	0.0	0.0	1.0	0.0
W+	-0.1	-3.0	0.0	0.0	-7.5	2.7	0.0	-7.5	2.7	0.1	-3.0	1.2
W-	-0.1	-3.0	0.0	0.0	-7.5	-2.9	0.0	-7.5	-2.9	0.1	-3.0	-1.5
WR	-0.1	-1.4	0.0	1.6	-9.1	0.0	0.0	-7.5	0.0	0.1	-3.0	0.0
WL	-1.7	-4.7	0.0	0.0	-5.7	0.0	0.0	-7.5	0.0	0.1	-3.0	0.0
ER	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EL	-0.1	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

- LOAD GROUP DESCRIPTION
- D : Dead load
 - C : Collateral load
 - L : Live load
 - S : Uniform snow load
 - SBAL : Balanced roof snow
 - SUR : Unbalanced snow - Wind from right to left
 - SUL : Unbalanced snow - Wind from left to right
 - 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
 - ER : Seismic force from right
 - EL : Seismic force from left
 - E+ : Seismic force acting inward
 - E- : Seismic force acting outward

REACTION NOTATIONS

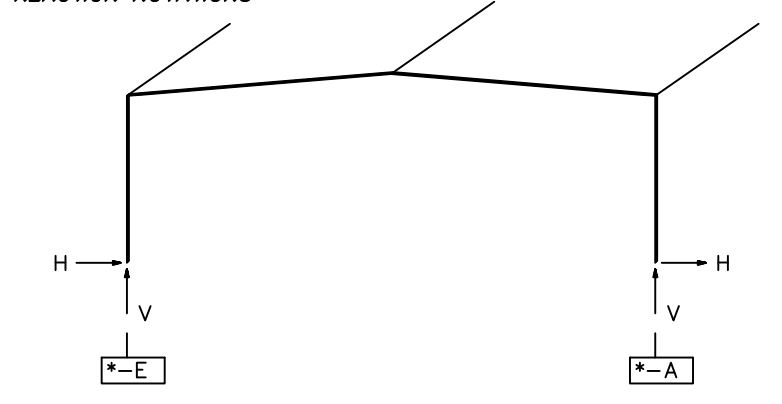


LOAD GROUP REACTION TABLE GRIDLINES * = 4

LOAD GROUP	*E			*A		
	H	V	L	H	V	L
LS	2.3	6.9	-0.0	-2.3	3.9	-0.0
RBDWLW	-0.0	2.9	-0.0	0.0	2.9	-0.0

- LOAD GROUP DESCRIPTION
- LS : Unbalanced Left Roof Snow Load
 - RBDWLW : Downward Acting Rod Brace Load from Long. Wind

REACTION NOTATIONS

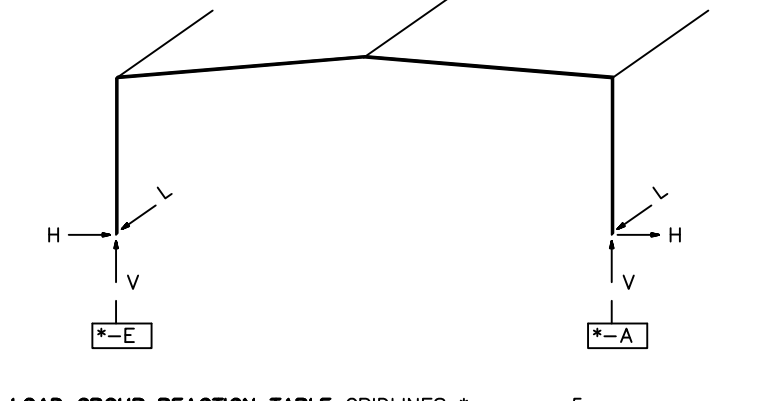


LOAD GROUP REACTION TABLE GRIDLINES * = 2 3

LOAD GROUP	*E			*A		
	H	V	L	H	V	L
DL	0.6	1.7	-0.0	-0.6	1.7	-0.0
COLL	0.2	0.5	-0.0	-0.2	0.5	-0.0
SNOW	4.2	10.0	-0.0	-4.2	10.0	-0.0
LL	2.5	6.0	-0.0	-2.5	6.0	-0.0
EQ	-0.1	-0.1	-0.0	-0.1	0.1	-0.0
WL1	-5.1	-9.5	-0.0	0.5	-6.2	-0.0
WL2	-4.6	-5.5	-0.0	0.0	-2.2	-0.0
LWL1	-1.0	-8.7	-0.0	1.3	-7.0	-0.0
LWL2	-1.3	-7.0	-0.0	1.0	-8.7	-0.0
LWL3	-0.6	-4.7	-0.0	0.9	-3.0	-0.0
LWL4	-0.9	-3.0	-0.0	0.6	-4.7	-0.0
WL3	-0.6	-6.2	-0.0	5.2	-9.5	-0.0
WL4	-0.1	-2.2	-0.0	4.7	-5.5	-0.0
SBAL	2.9	7.0	-0.0	-2.9	7.0	-0.0
RS	2.4	3.9	-0.0	-2.4	7.0	-0.0
LS	2.4	7.0	-0.0	-2.4	3.9	-0.0

- LOAD GROUP DESCRIPTION
- DL : Roof Dead Load
 - COLL : Roof Collateral Load
 - SNOW : Roof Snow Load
 - LL : Roof Live Load
 - EQ : Lateral Seismic Load [parallel to plane of frame]
 - WL1 : Wind from Left to Right with +Gcpi
 - WL2 : Wind from Left to Right with -Gcpi
 - LWL1 : Windward Corner Left with +Gcpi
 - LWL2 : Windward Corner Right with +Gcpi
 - LWL3 : Windward Corner Left with -Gcpi
 - LWL4 : Windward Corner Right with -Gcpi
 - WL3 : Wind from Right to Left with +Gcpi
 - WL4 : Wind from Right to Left with -Gcpi
 - SBAL : Code Calculated Balanced Roof Snow Load
 - RS : Unbalanced Right Roof Snow Load
 - LS : Unbalanced Left Roof Snow Load

REACTION NOTATIONS

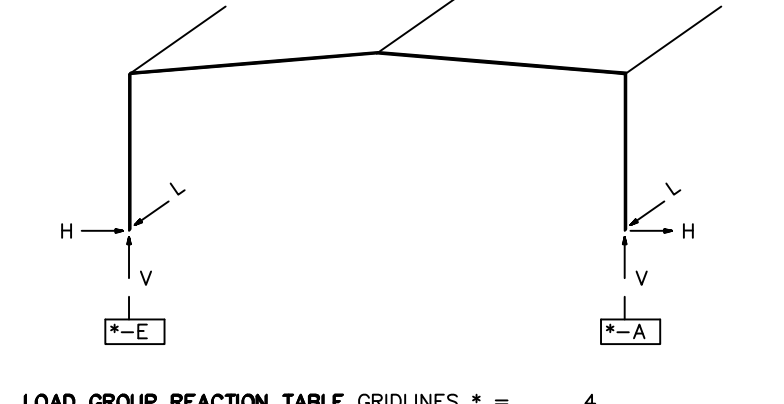


LOAD GROUP REACTION TABLE GRIDLINES * = 5

LOAD GROUP	*E			*A		
	H	V	L	H	V	L
DL	0.3	1.1	-0.0	-0.3	1.1	-0.0
COLL	0.1	0.3	-0.0	-0.1	0.3	-0.0
SNOW	2.0	5.1	-0.0	-2.0	5.1	-0.0
LL	1.4	3.5	-0.0	-1.4	3.5	-0.0
RBDWEQ	-0.0	0.5	-0.0	0.0	0.5	-0.0
EQ	-0.1	-0.1	-0.0	-0.1	0.1	-0.0
RBUPEQ	0.0	-0.5	-0.6	-0.0	-0.5	-0.6
WL1	-3.7	-6.8	-0.0	0.2	-4.2	-0.0
WL2	-3.5	-4.8	-0.0	0.0	-2.1	-0.0
WL3	-0.2	-4.2	-0.0	3.7	-6.8	-0.0
WL4	-0.0	-2.1	-0.0	3.5	-4.8	-0.0
LWL1	-0.9	-6.2	-0.0	1.1	-4.8	-0.0
RBUPLW	0.0	-2.9	-3.5	-0.0	-2.9	-3.5
LWL2	-1.1	-4.8	-0.0	0.9	-6.2	-0.0
LWL3	-0.7	-4.2	-0.0	1.0	-2.8	-0.0
LWL4	-1.0	-2.8	-0.0	0.7	-4.2	-0.0
SBAL	1.4	3.6	-0.0	-1.4	3.6	-0.0
RS	1.1	2.0	-0.0	-1.1	3.6	-0.0

- LOAD GROUP DESCRIPTION
- DL : Roof Dead Load
 - COLL : Roof Collateral Load
 - SNOW : Roof Snow Load
 - LL : Roof Live Load
 - RBDWEQ : Downward Acting Rod Brace Load from Long. Seismic
 - EQ : Lateral Seismic Load [parallel to plane of frame]
 - RBUPEQ : Upward Acting Rod Brace Load from Long. Seismic
 - 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
 - SBAL : Code Calculated Balanced Roof Snow Load
 - RS : Unbalanced Right Roof Snow Load

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 4

LOAD GROUP	*E			*A		
	H	V	L	H	V	L
DL	0.6	1.7	-0.0	-0.6	1.7	-0.0
COLL	0.2	0.5	-0.0	-0.2	0.5	-0.0
SNOW	4.0	9.9	-0.0	-4.0	9.9	-0.0
LL	2.4	5.9	-0.0	-2.4	5.9	-0.0
RBDWEQ	-0.0	0.5	-0.0	0.0	0.5	-0.0
EQ	-0.1	-0.1	-0.0	-0.1	0.1	-0.0
RBUPEQ	0.0	-0.5	-0.6	-0.0	-0.5	-0.6
WL1	-5.0	-9.4	-0.0	0.4	-6.1	-0.0
WL2	-4.6	-5.5	-0.0	0.0	-2.2	-0.0
WL3	-0.4	-6.1	-0.0	5.0	-9.4	-0.0
WL4	-0.0	-2.2	-0.0	4.6	-5.5	-0.0
LWL1	-1.0	-8.6	-0.0	1.2	-7.0	-0.0
RBUPLW	0.0	-2.9	-3.5	-0.0	-2.9	-3.5
LWL2	-1.2	-7.0	-0.0	1.0	-8.6	-0.0
LWL3	-0.5	-4.7	-0.0	0.8	-3.0	-0.0
LWL4	-0.8	-3.0	-0.0	0.5	-4.7	-0.0
SBAL	2.8	6.9	-0.0	-2.8	6.9	-0.0
RS	2.3	3.9	-0.0	-2.3	6.9	-0.0

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- DL : Roof Dead Load
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 - 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
 - SBAL : Code Calculated Balanced Roof Snow Load
 - RS : Unbalanced Right Roof Snow Load

NOTES

- 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.
- THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).
 - A REACTION TABLE IS PROVIDED WITH THE REACTIONS FOR EACH LOAD GROUP.
 - RIGID FRAMES
 - GABLE BUILDINGS
 - 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.
 - INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE TO RIGHT SIDE.
 - SINGLE SLOPE BUILDINGS
 - LEFT COLUMN IS THE LOW SIDE COLUMN.
 - RIGHT COLUMN IS THE HIGH SIDE COLUMN.
 - INTERIOR COLUMNS ARE SPACED FROM LOW SIDE TO HIGH SIDE.
 - ENDWALLS
 - LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE WALL FROM THE OUTSIDE.
 - INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGHT.
 - 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.
 - ANCHOR RODS ARE ASTM F1554 Gr. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
 - X-BRACING
 - ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VALUES SHOWN IN THE REACTION TABLES.
 - 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 .
 - 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, R_d , WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO ($f_s \leq 0.2$) IS GREATER THAN 0.45.
 - 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.
 - 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 LEVEL WITH A LOAD FACTOR OF 1.0.
 - FOR IBC CODES, THE SEISMIC REACTIONS PROVIDED ARE AT A STRENGTH LEVEL AND DO NOT CONTAIN THE RHO FACTOR.
 - FOR NBCC CODES, THE SEISMIC REACTIONS PROVIDED DO NOT CONTAIN THE R_d 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.

By	ASP	MXN

Date	Description
08/08/24	Issued For Construction

Customer: **QIE Building Co.**
 OF SUPPLY COMPANY
 9600 W. LEWELL AVE
 LAKWOOD, CO 80232-6358 US

Project Name & Location:
 ALYX KEMP
 613 E GRANIT ST
 GRANVILLE, IL 61306-9645 US

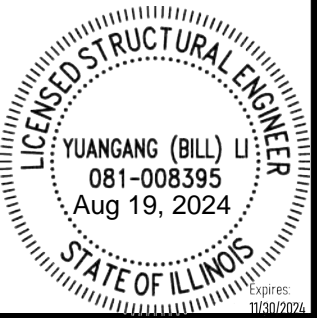
Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

Scale: NOT TO SCALE
 Drawn by: ASP 8/8/24
 Checked by: MXN 8/8/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: F3 of 4

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.

YUANGANG (BILL) LI, S.E.
 ILLINOIS S.E. 081-008395

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FRAME ID #5 USER NAME: ejalvarado DATE: 08/01/24 PAGE: 5-3
 cs 50./16./10.167 20./110./ JOB NAME: 71294A FILE: frame_5.fra
 SUPPORT REACTIONS FOR EACH LOAD GROUP
 *LOCATION: Gridlines: 5
 NOTES: (1) All reactions are in kips and kip-ft. TIME: 15:00:57
 (2) The seismic overstrength factor (Omega) is not included in the "RBDWEQ" and "RBUPEQ" Load Group reactions.
 Seismic "BASE-ONLY" combination reactions include an overstrength factor of: 2.500
 (3) Primary wind load cases are not concurrent.
 (4) X-bracing reactions (RBDWLW and RBUPEQ) are combined with LWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 5

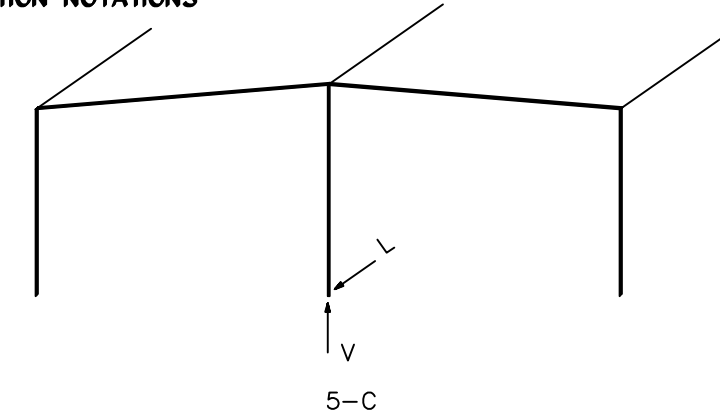
LOAD GROUP	*-E			*-A		
	H	V	L	H	V	L
LS	1.1	3.6	-0.0	-1.1	2.0	-0.0
RBDWLW	-0.0	2.9	-0.0	0.0	2.9	-0.0

LOAD GROUP DESCRIPTION

LS : Unbalanced Left Roof Snow Load
 RBDWLW : Downward Acting Rod Brace Load from Long. Wind

FRAME DESCRIPTION: USER NAME: ejalvara DATE: 08/01/24 PAGE: EW-2
 Endwall EWD JOB NAME: 71294A FILE: REW4BLDG1
 PATH: R:\jobs\Active\Eng\19-B-71294\ver01-ejalvarado\BLDG-A\run01\
 SUPPORT REACTIONS FOR EACH LOAD GROUP
 NOTE: All reactions are in kips and kip-ft. TIME: 14:34:47

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

LOAD GROUP	5-C		
	H	V	L
D	0.	1.4	0.0
C	0.	0.3	0.0
L	0.	5.3	-0.1
S	0.	5.6	-0.1
W+	0.	6.6	3.8
W-	0.	6.6	-4.5
E+	0.	0.	0.1
E-	0.	0.	-0.1

LOAD GROUP DESCRIPTION

D : Dead load
 C : Collateral load
 L : Live load
 S : Uniform snow load
 W+ : Wind load as an inward acting pressure
 W- : Wind load as an outward acting suction
 E+ : Seismic force acting inward
 E- : Seismic force acting outward

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, d_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, R_d , WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO $I_e S_s(0.2)$ 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.

By	ASP	MXN

Date	08/08/24

Revision	0

QIE Building Co.

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61306-9845 US

Customer:
 OE SUPPLY COMPANY
 9600 W LEWELL AVE
 LAKEWOOD, CO 80232-6358 US

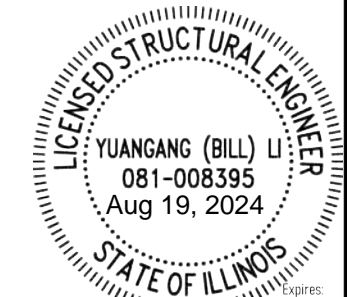
Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

Scale: NOT TO SCALE
 Drawn by: ASP 8/8/24
 Checked by: MXN 8/8/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: F4 of 4

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YUANGANG (BILL) LI, S.E.
 ILLINOIS S.E. 081-008395

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Builder/Contractor Responsibilities

Drawing Validity- These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the 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 data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice Sept 86 Section 4.2.1) (Mar 05 Section 4.4.1)

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

Building Erection - The Builder/Contractor is responsible for all erection of the steel and associated 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 determined, furnished and installed by the erector (AISC Code of Standard Practice Sept 86 Section 7.9.1) (Mar 05 Section 7.10.3) (CSA/S16-09 Section 29).

Discrepancies - Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice Sept 86 Section 3.3) (Mar 05 Section 3.3)

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

Modification of the Metal Building from Plans - The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this 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 Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes 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 workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA 06 Sections 3.2.2 and A3)

Shimming - In accordance with Section 6.10 of Chapter 4 Common Industry Practices in the Metal Building Systems Manual, shimming is a normal part of erection and is not subject to claim.



DESIGN CRITERIA

Job Number 19-B-71294
 Builder QE SUPPLY COMPANY-199351
 Jobsite Location ALYX KEMP, GRANVILLE, IL

Building Code 2021 IBC
 Building Risk Category Normal (Risk Category II)
 Roof Dead Load
 Superimposed 2.15 psf
 Collateral 1.00 psf
 (1.00 psf Other)
 Roof Live Load 20.00 psf reduction allowed

Snow
 Ground Snow Load (Pg) 20.00 psf
 Snow Importance Factor (I) .. 1.00
 Snow Exposure Factor (Ce) .. 1.00
 Thermal Factor (Ct) 1.00
 Sloped Roof Snow (Ps) 14.00 psf
 Minimum Roof Snow Load (Fm) : 20.00 psf

Wind
 Ultimate Wind Speed (Vult) .. 110 mph
 Nominal Wind Speed (Vasd) .. 85 mph (IBC section 1609.3.1)
 Serviceability Wind Speed .. 75 mph
 Ground Elevation Factor 0.97 (701 ft ASL)
 Wind Exposure Category C
 Exposure Coefficient (MFRS): 0.860
 Enclosure Classification ... Enclosed Building
 Internal Pressure Coef (Gcpi): 0.18/-0.18
 Wall Loads for components not provided by building manufacturer
 Zone 5 Areas (within 5.00' of corner) : 23.85 psf pressure -31.80 psf suction
 Zone 4 Areas (away from corners) : 23.85 psf pressure -25.84 psf suction
 These values are the maximum values required based on a 10 sq ft area.
 Components with larger areas may have lower wind loads.

Seismic
 Seismic Importance Factor (Ie): 1.00
 Seismic Design Category B
 Soil Site Class D Stiff Soil (Default)
 Ss 0.139 g Sds 0.149 g
 Sl 0.073 g Ssl 0.117 g
 Analysis Procedure Equivalent Lateral Force
 Column Line All
 Basic Force Resisting System H
 Response Modification Coefficient (R) 3.00
 Seismic Response Coefficient (Cs) 0.05
 Design Base Shear in kips (V) 1.15
 Basic Structural System (from ASCE 7-16 Table 12.2-1)
 H - Steel System not Specifically Detailed for Seismic Resistance

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, or ASTM A1011 with 55 ksi min. yield, except flanges wider than 12" and thicker than 3/8", all flanges thicker than 1", and all webs thicker than 3/8" are 50 ksi min. yield. Rod X-bracing conforms to ASTM A529 or ASTM A572 with 50 ksi min. yield. Cable X-bracing conforms to ASTM A475 7 Strand Extra High-Strength grade. Hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with 50 ksi min. yield. Hot rolled angles, other than flange braces, conform to ASTM A36 minimum. Round and rectangular HSS conforms to ASTM A500 Grade B. Cold-formed steel secondary framing Members conform to ASTM A1011 or ASTM A653 Grade 55 with 55 ksi min. yield. For Canada, material properties conform to CAN/CSA G40.20/G40.21 or equivalent.

Unless otherwise noted, special inspection of fabricated items is not required. Per IBC section 1704.2.5.1, fabricator is approved to perform such work without special inspection through maintenance of IAS AC 472 certification MB-136.

All bolted joints with A325 Type 1 bolts are specified as snug-tightened joints in accordance with the most recent edition of the RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts. 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.

This metal building system is designed as an Enclosed Building. Exterior and/or operable components including, but not limited to, doors, windows, vents, etc. ("components") must be designed to withstand the required component and cladding wind pressures specified by the building code. In order to maintain the metal building system's Enclosed Building condition, all Components shall be closed when wind velocities reach half the designed wind load for the metal building system as shown on the drawings and design criteria documentation. Failure to maintain the metal building system's Enclosed Building condition will violate and void all warranties and certifications applicable to the material supplied by the metal building manufacturer.

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.

Using 8.1" x 6.31" eave gutter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MEMA 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 80 feet with the first downspout from both ends of the gutter run within 40 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 6.7 in/hr rainfall intensity.

The framing at A, side D is NOT designed to receive a future bay addition. Corresponding frame reactions are calculated based upon actual tributary area. This frame is designed to span clear between exterior columns, as such, the rafter is expected to deflect downward and upward due to vertical loads (i.e. gravity, wind, etc.). When an endwall column is present under the non-expandable frame, the standard top-of-column connection to the rafter will not allow for vertical movement. Hence, the endwall column is adequately designed as load bearing. Reactions for the endwall column will reflect vertical loads. Removal of the endwall column under the non-expandable frame is allowed as the frame is adequately designed to span clear between exterior columns under specified vertical deflection limits.

DEFLECTION CRITERIA

Job Number 19-B-71294
 Builder QE SUPPLY COMPANY-199351
 Jobsite Location ALYX KEMP, GRANVILLE, IL

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
Snow: L/	180	180	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
Snow: H/	60
Serviceability Wind: H/	60
Seismic Drift: H/	40
Total Gravity: H/	60
Service Seismic: H/	40

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

The Service Seismic limit as shown here is at service level loads.

Drawing Index		Ch'd	USR
Page	Description	By	ASP
F1	Anchor Rod Setting Plan		
F2	Anchor Rod Details		
F3-F4	Reactions		
E1	Cover Sheet		
E2	Primary Steel Location Plan		
E3	Roof Framing Plan		
E4	Roof Sheeting Plan		
E5	Sidewall Framing & Sheeting SWA		
E6	Sidewall Framing & Sheeting SWC		
E7	Endwall Framing & Sheeting EWB		
E8	Endwall Framing & Sheeting EWD		
E9	Cross Section at Frame Line 2 & 3		
E10	Cross Section at Frame Line 4		
E11	Cross Section at Frame Line 5		
E12	Connection Detail		
R1-R3	Erection Guides		
R4-R11	Construction Drawings		

Date	Revision	Description
08/17/24	0	Issued For Construction

Date	Revision	Description
08/17/24	0	Issued For Construction

QE Building Co.

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Customer:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

Building Descriptions			
Building ID	Width	Length	Height
Building A	50'-0	80'-0	16'-0



Download panel installation manuals from:
www.CBBmanuals.com

Descargue los manuales de instalacion del panel desde:
www.CBBmanuals.com

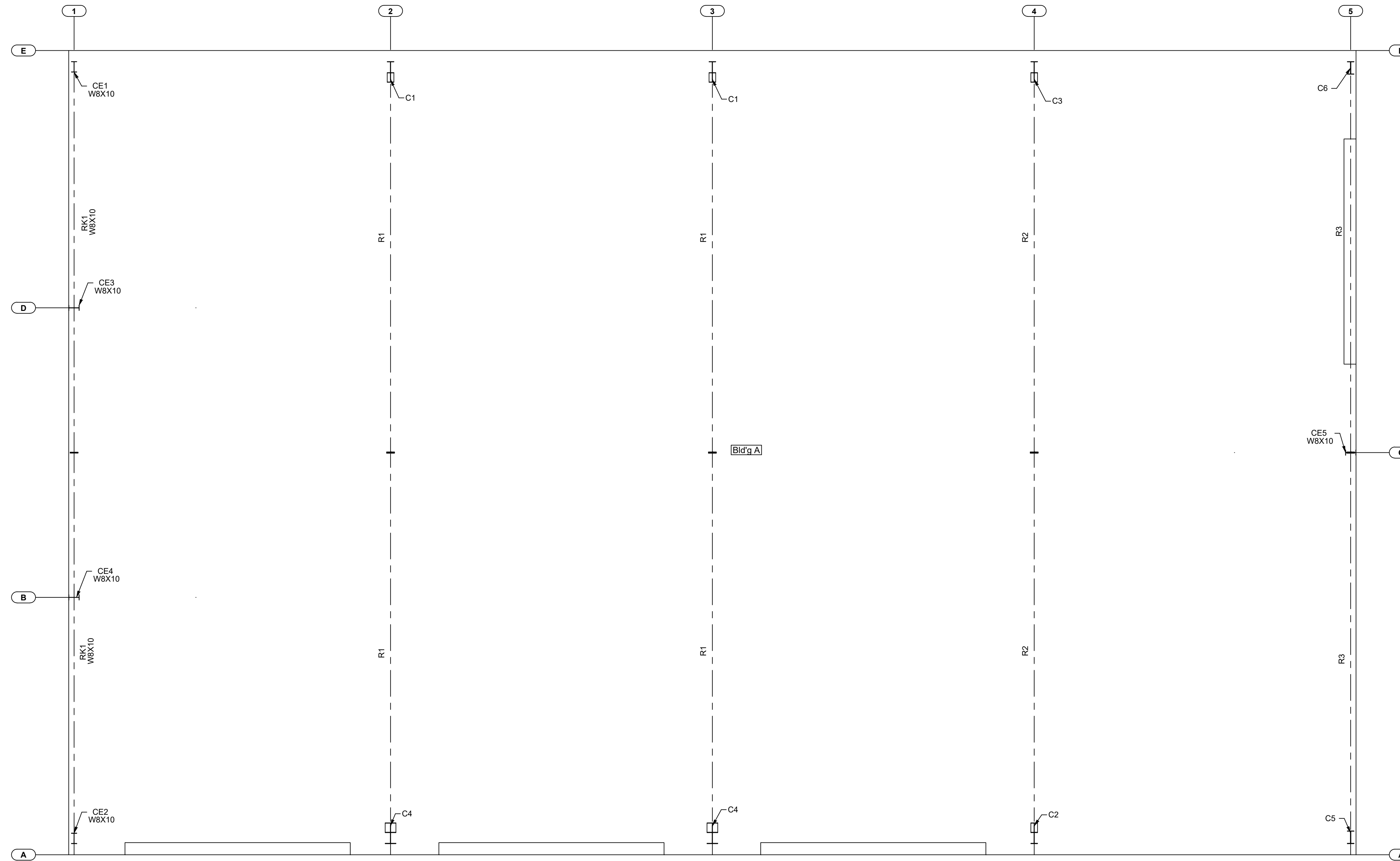
1/2" DIA. A325 BOLT GRIP TABLE		BOLT LENGTH	NOTE: FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.
GRIP	LENGTH		
0 TO 9/16"	1 1/4" F.T.		
Over 9/16" TO 1 1/16"	1 3/4" F.T.		
Over 1 1/16" TO 1 5/16"	2"		
Over 1 5/16" TO 1 9/16"	2 1/4"		
Over 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

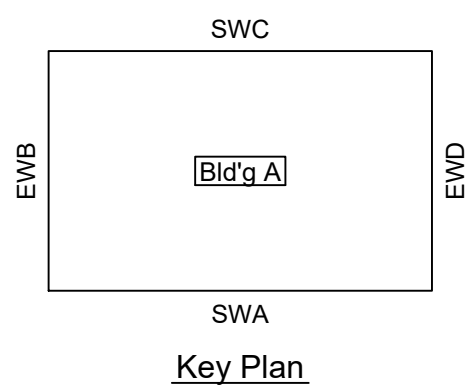
WASHER REQUIRED ONLY WHEN SPECIFIED. WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS. ADD 5/32" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.

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Primary Steel Location Plan



Revision	Date	Description	By	Ck'd
0	08/17/24	Issued For Construction	ASP	USR

QIE Building Co.

Customer:
ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Project Name & Location:
ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

Scale: NOT TO SCALE

Drawn by: ASP 8/17/24

Checked by: USR 8/17/24

Project Engineer: EJA

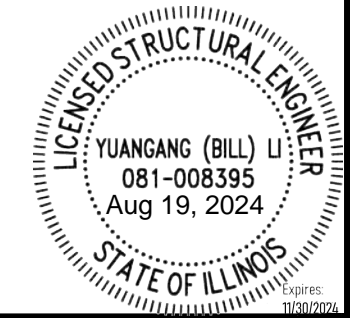
Job Number: 19-B-71294

Sheet Number: E2 of 12

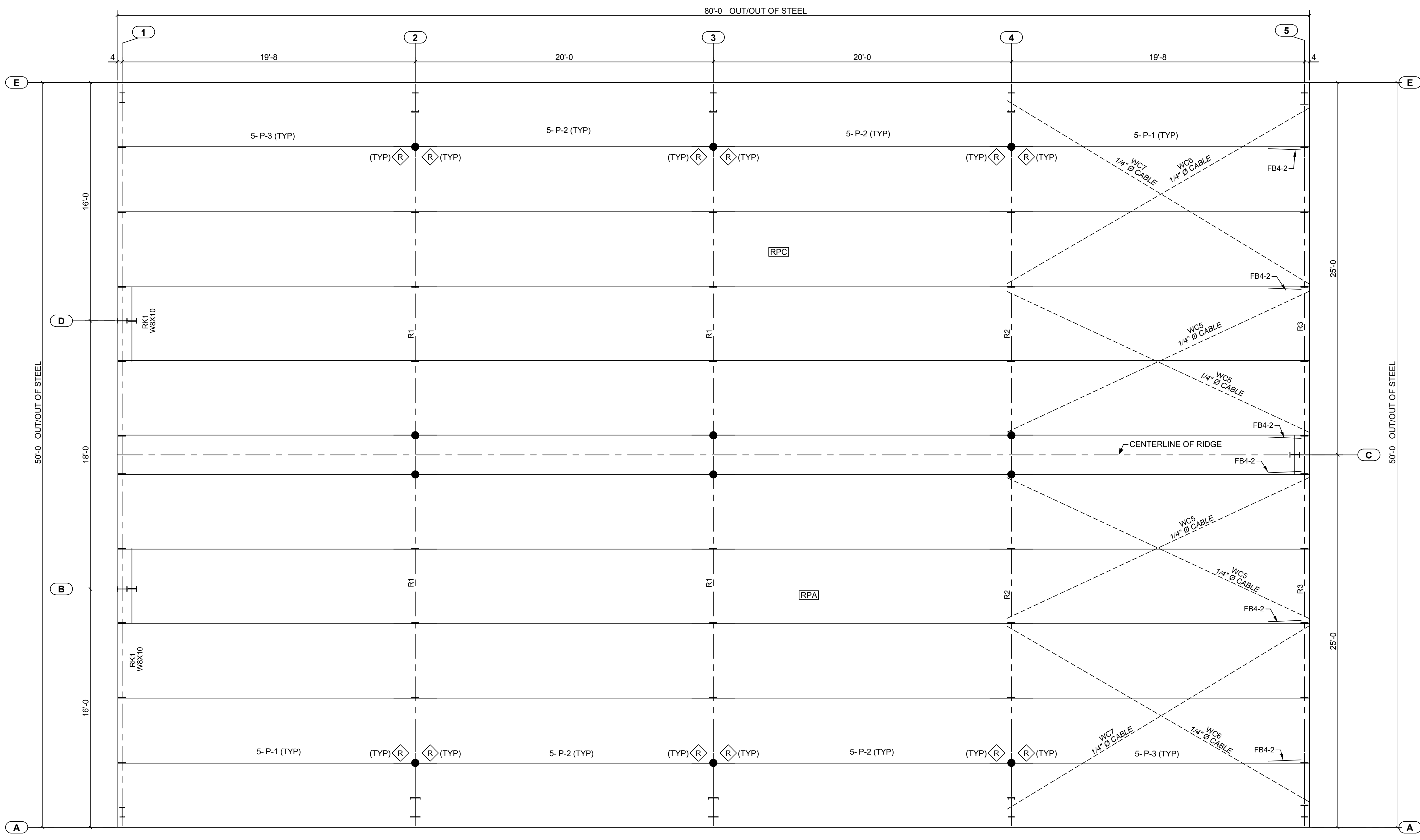
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YUANGANG (BILL) LI, S.E.
ILLINOIS S.E. 081-008395

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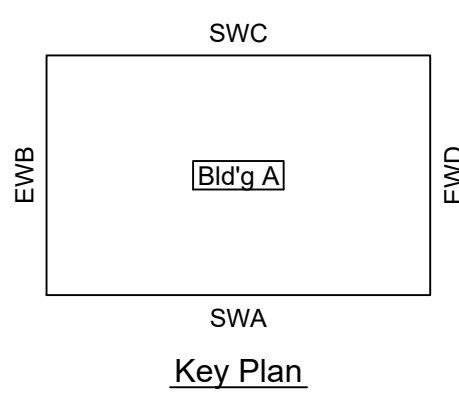


● DENOTES CLIP LOCATION
 SC90 AT 8" PURLINS
 SC92 AT 10" PURLINS
 SC94 AT 12" PURLINS



Roof Framing Plan

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
	0'-0 1/4"		2'-5 3/4"
	0'-3 3/4"		3'-1 3/4"
	1'-5 3/4"	REFER TO CF01122	



Revision	Date	Description	By	Ck'd
0	08/17/24	Issued For Construction	ASP	USR

	Project Name & Location: ALYX KEMP 613 E GRANT ST GRANVILLE, IL 61326-9645 US
	Customer: ALYX KEMP 613 E GRANT ST GRANVILLE, IL 61326-9645 US

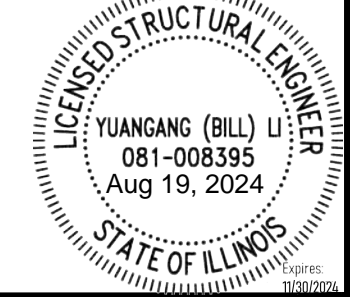
Drawing Status: Issued For Approval (Not For Construction) Issued For Construction Issued For Permit

Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: E3 of 12

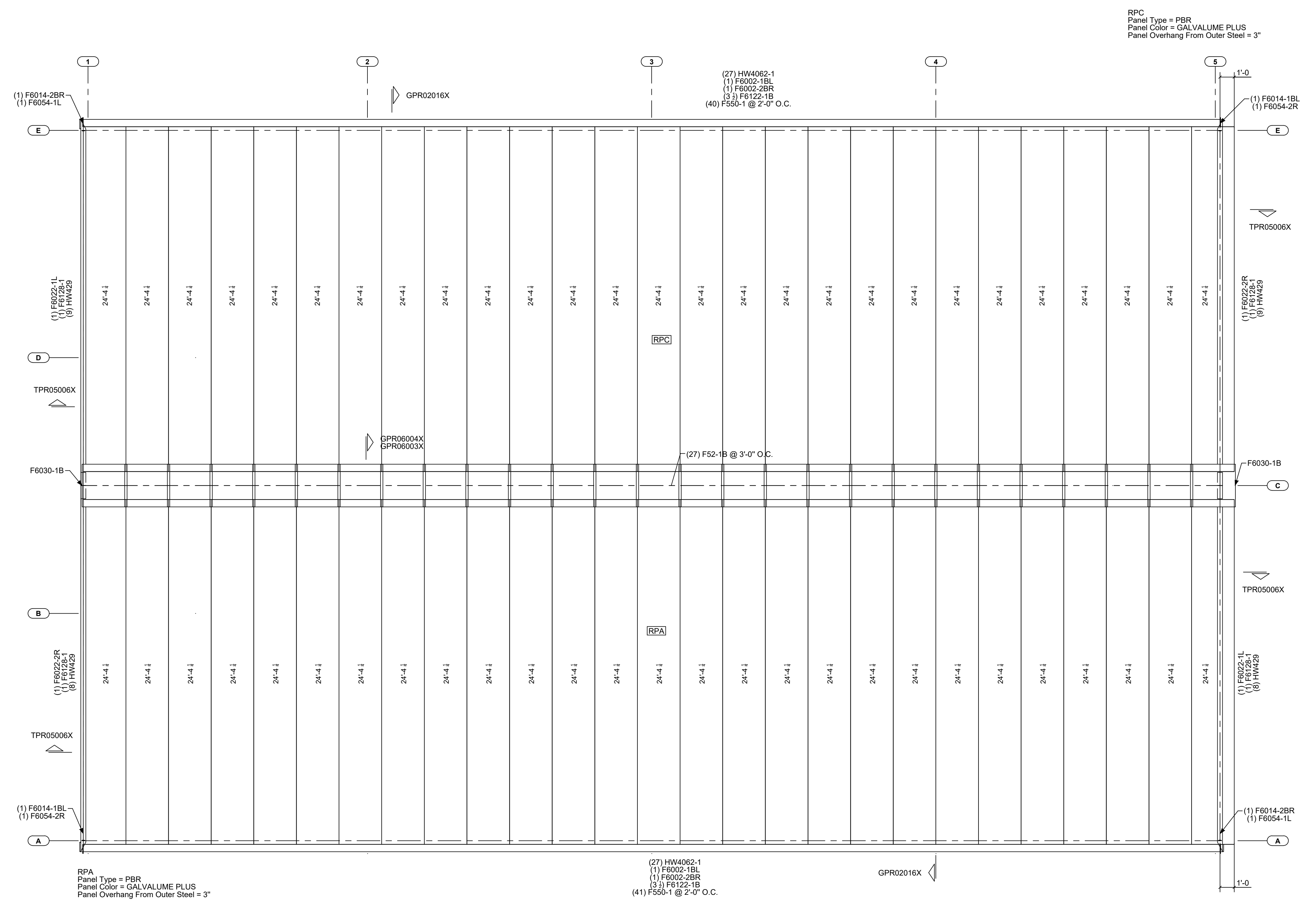
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PBR ROOF PANELS ARE TO BE FIELD CUT IF THE PANELS EXTEND OUTSIDE OF THE ROOF PLANE. PANELS ARE NOT TO BE BACK LAPPED.

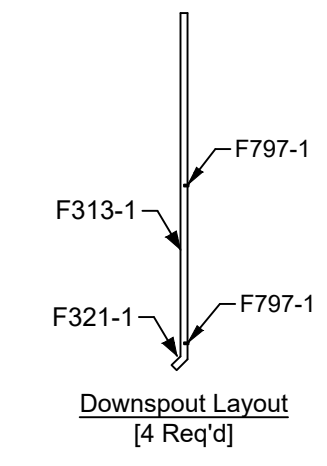
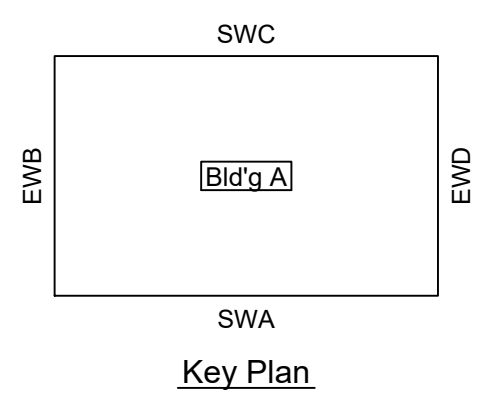


RPC
Panel Type = PBR
Panel Color = GALVALUME PLUS
Panel Overhang From Outer Steel = 3"

RPA
Panel Type = PBR
Panel Color = GALVALUME PLUS
Panel Overhang From Outer Steel = 3"

(27) HW4062-1
(1) F6002-1BL
(1) F6002-2BR
(3) F6122-1B
(41) F550-1 @ 2'-0" O.C.

Roof Sheeting Plan



Revision	Date	Description	By	Ck'd
0	08/17/24	Issued For Construction	ASP	USR

QIE Building Co.

Customer:
ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Project Name & Location:
ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

Scale: NOT TO SCALE

Drawn by: ASP 8/17/24

Checked by: USR 8/17/24

Project Engineer: EJA

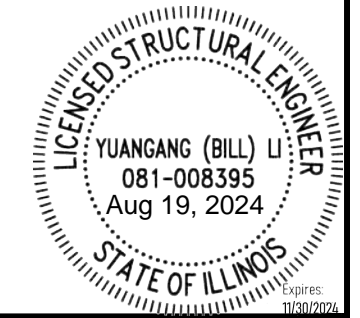
Job Number: 19-B-71294

Sheet Number: E4 of 12

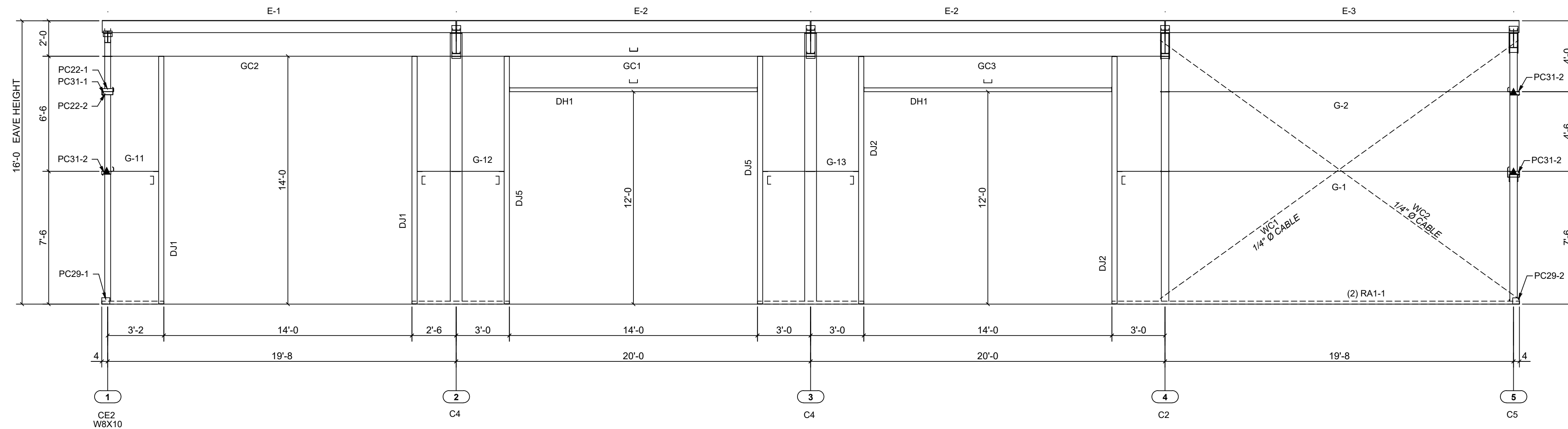
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ILLINOIS S.E. 081-008395

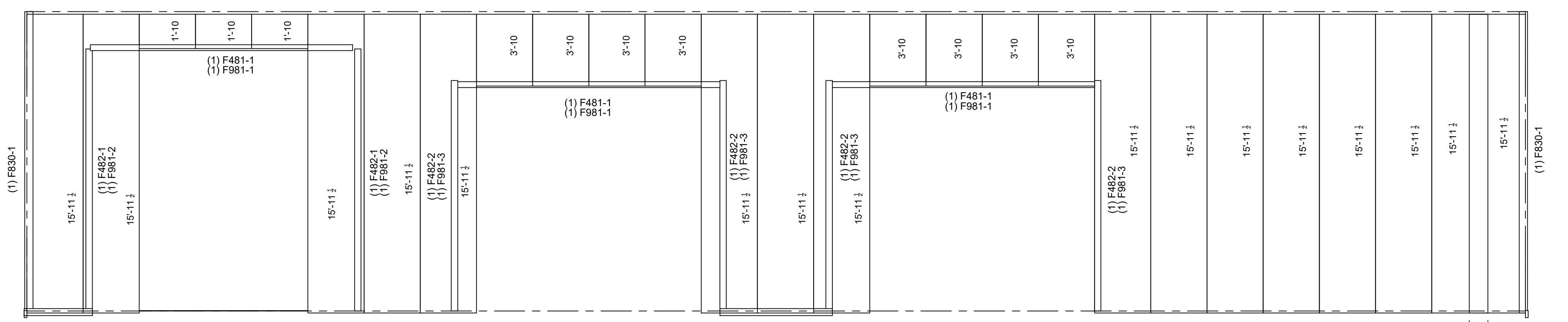
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▲ — DENOTES: (4) 1/2" Ø BOLTS AT PURLIN OR GIRT CONNECTION TO CLIP. REFER TO CF01122



Sidewall Framing SWA at Grid Line A

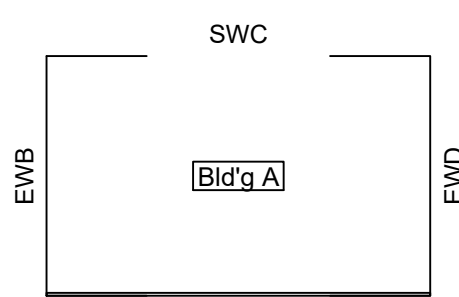


PBR Wall Panels
 Panel Coverage = 3'-0"
 Panel Color = S200 CHARCOAL GRAY
 Panel Pkg. Req'd. = PBS-3
 Field Cut Panel and Trim as required per Construction Details

(2) F406-1
 (16) HW455

Sidewall Sheeting SWA

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
	0'-0 1/4"		2'-5 3/4"
	0'-3 3/4"		3'-1 3/4"
	1'-5 3/4"	REFER TO CF01122	



Key Plan

Revision	Date	Description	By	Ck'd
0	08/17/24	Issued For Construction	ASP	USR

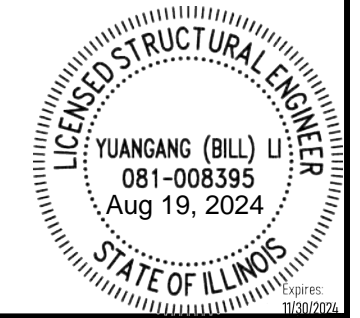
	Customer: ALYX KEMP 613 E GRANT ST GRANVILLE, IL 61326-9645 US	Project Name & Location: ALYX KEMP 613 E GRANT ST GRANVILLE, IL 61326-9645 US
	Drawing Status: <input type="checkbox"/> Issued For Approval <input checked="" type="checkbox"/> Issued For Construction <input type="checkbox"/> Issued For Permit	

Scale:	NOT TO SCALE
Drawn by:	ASP 8/17/24
Checked by:	USR 8/17/24
Project Engineer:	EJA
Job Number:	19-B-71294
Sheet Number:	E5 of 12

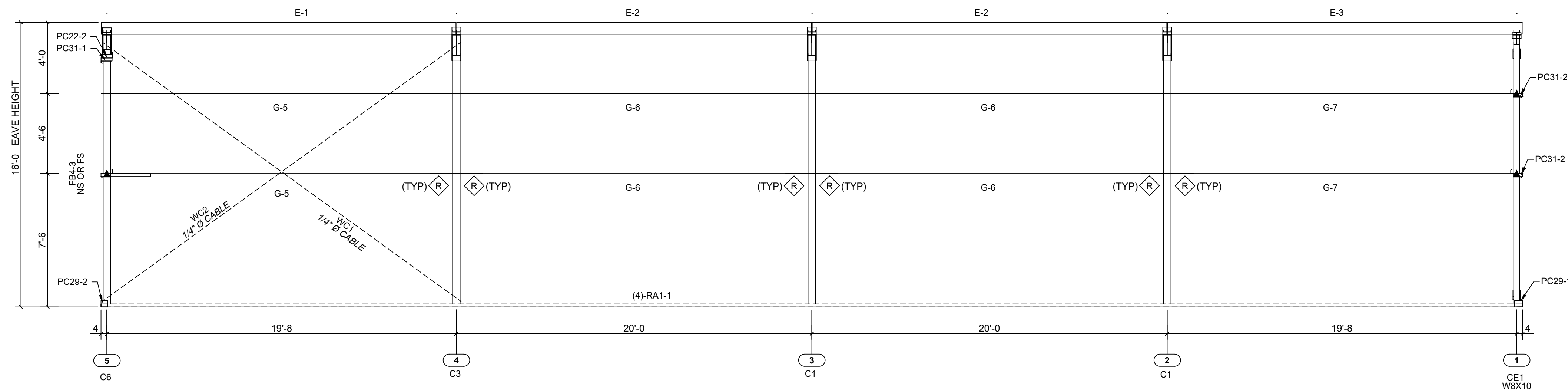
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 ILLINOIS S.E. 081-008395

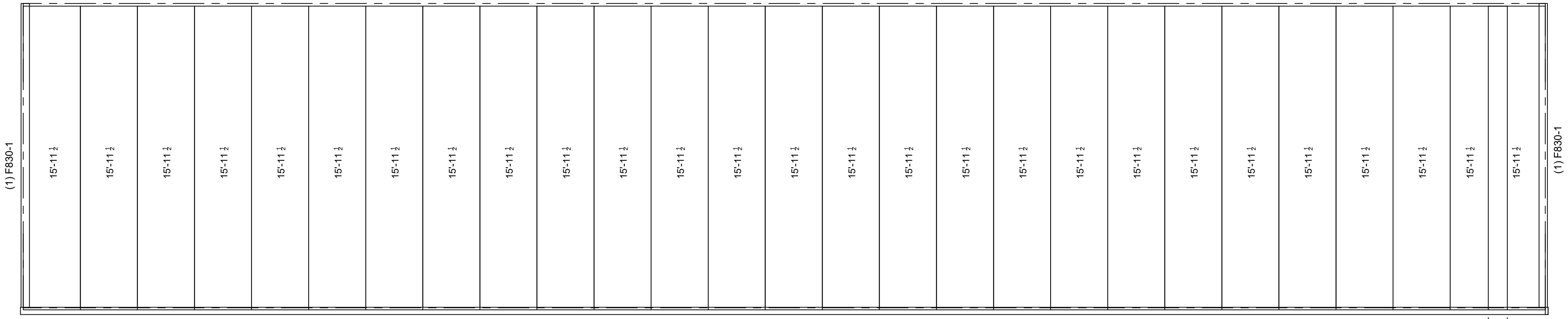
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▲ — DENOTES: (4) 1/2" Ø BOLTS AT PURLIN OR GIRT CONNECTION TO CLIP. REFER TO CF01122



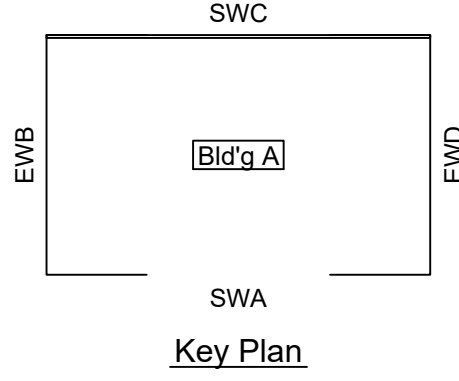
Sidewall Framing SWC at Grid Line E



Sidewall Sheeting SWC

PBR Wall Panels
 Panel Coverage = 3'-0"
 Panel Color = S200 CHARCOAL GRAY
 Panel Pkg. Req'd. = PBS-4
 Field Cut Panel and Trim as required per Construction Details

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
	0'-0 1/4"		2'-5 3/4"
	0'-3 3/4"		3'-1 3/4"
	1'-5 3/4"	REFER TO CF01122	



Key Plan

Revision	Date	Description	By	Ch'd
0	08/17/24	Issued For Construction	ASP	USR

QIE Building Co.

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Customer:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

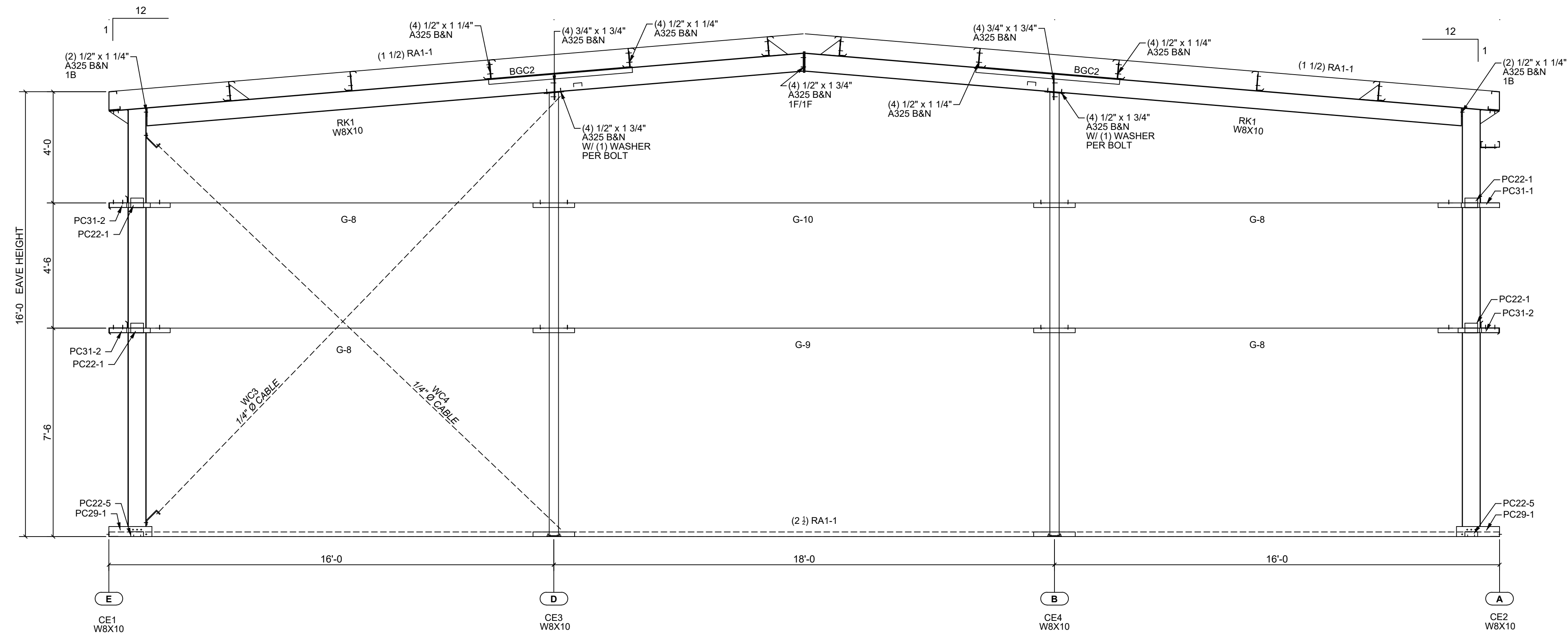
Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: E6 of 12

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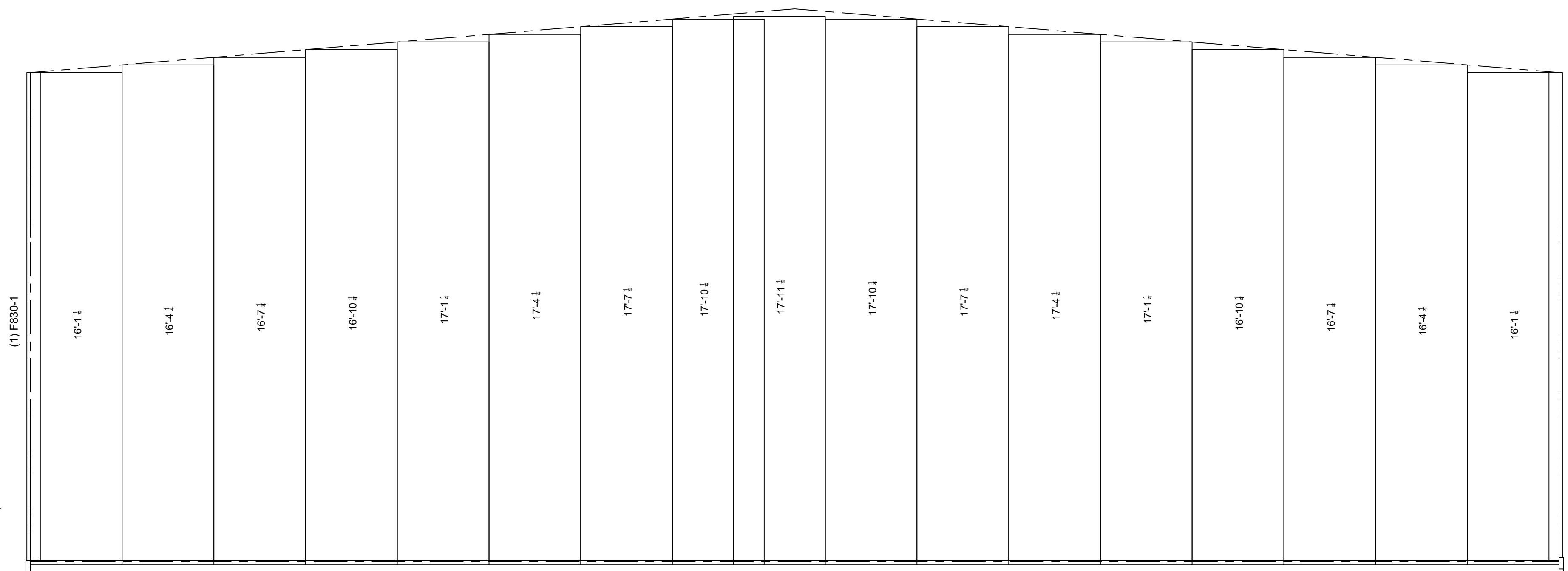
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 ILLINOIS S.E. 081-008395

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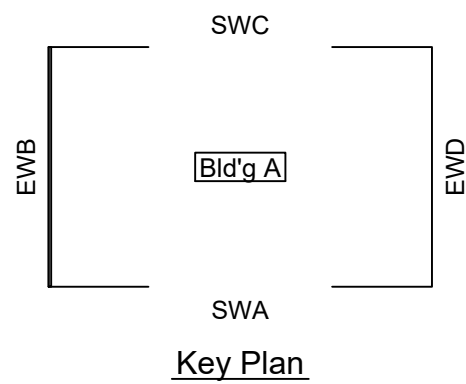


Endwall Framing EWB at Grid Line 1



Endwall Sheeting EWB

PBR Wall Panels
 Panel Coverage = 3'-0"
 Panel Color = S200 CHARCOAL GRAY
 Panel Pkg. Res'd = PBS-1
 Field Cut Panel and Trim as
 required per Construction Details



Revision	Date	Description
0	08/17/24	Issued For Construction

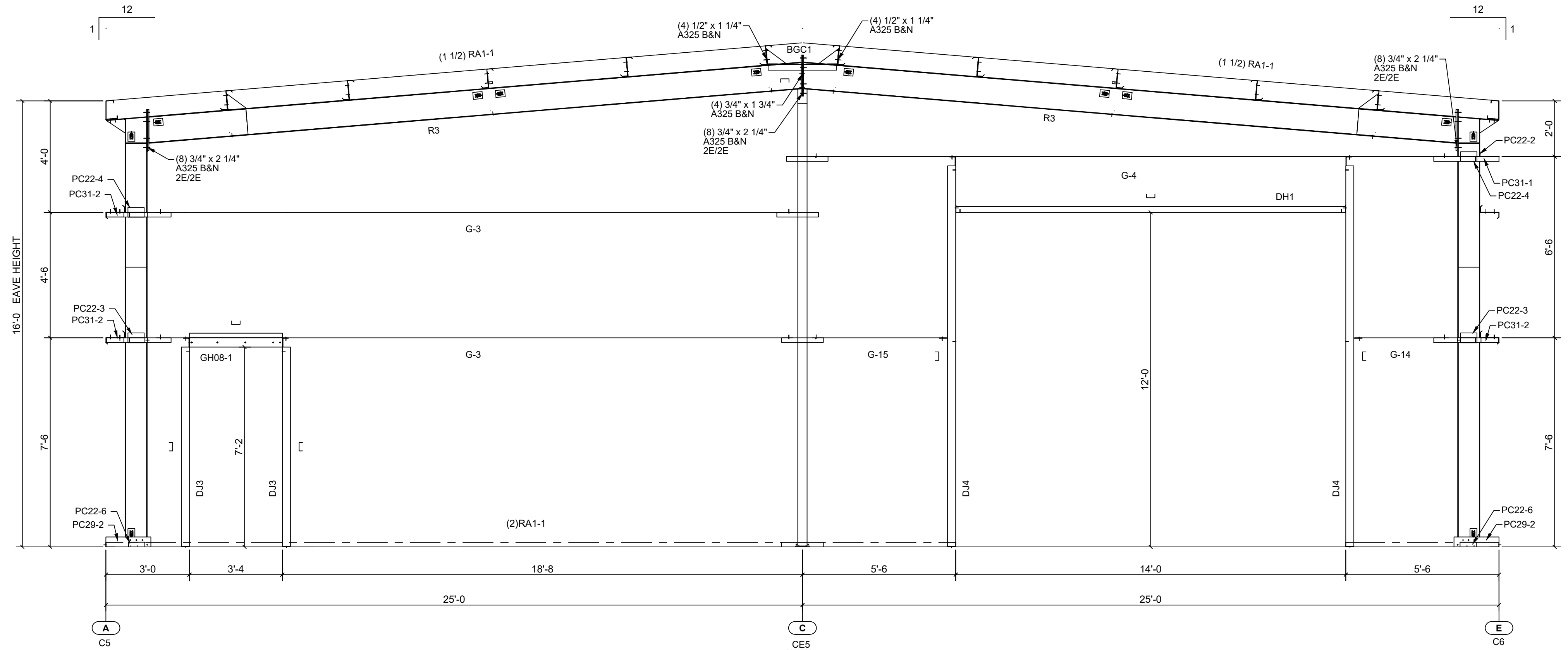
Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: E7 of 12

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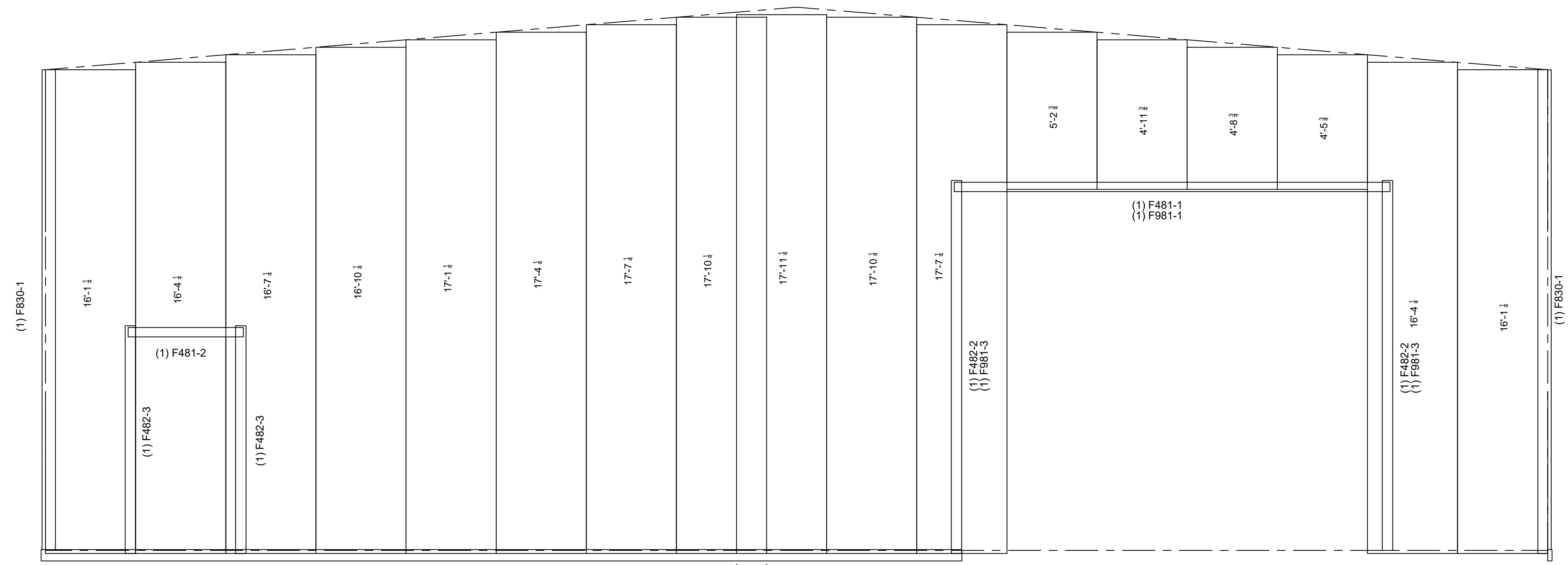
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 ILLINOIS S.E. 081-008395

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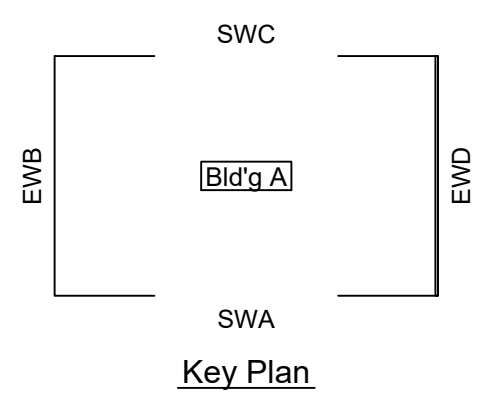


Endwall Framing EWD at Grid Line 5



PBR Wall Panels
 Panel Coverage = 3'-0"
 Panel Color = S200 CHARCOAL GRAY
 Panel Pkg. Req'd. = PBS-2
 Field Cut Panel and Trim as
 required per Construction Details

Endwall Sheeting EWD



Revision	Date	Description
0	08/17/24	Issued For Construction

QIE Building Co.

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Customer:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

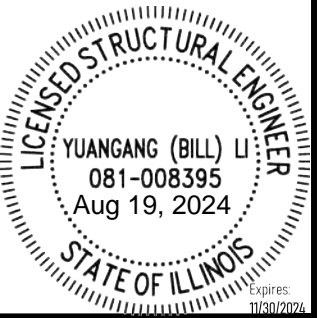
Drawing Status:
 Issued For Approval (Not For Construction)
 Issued For Permit

Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: E8 of 12

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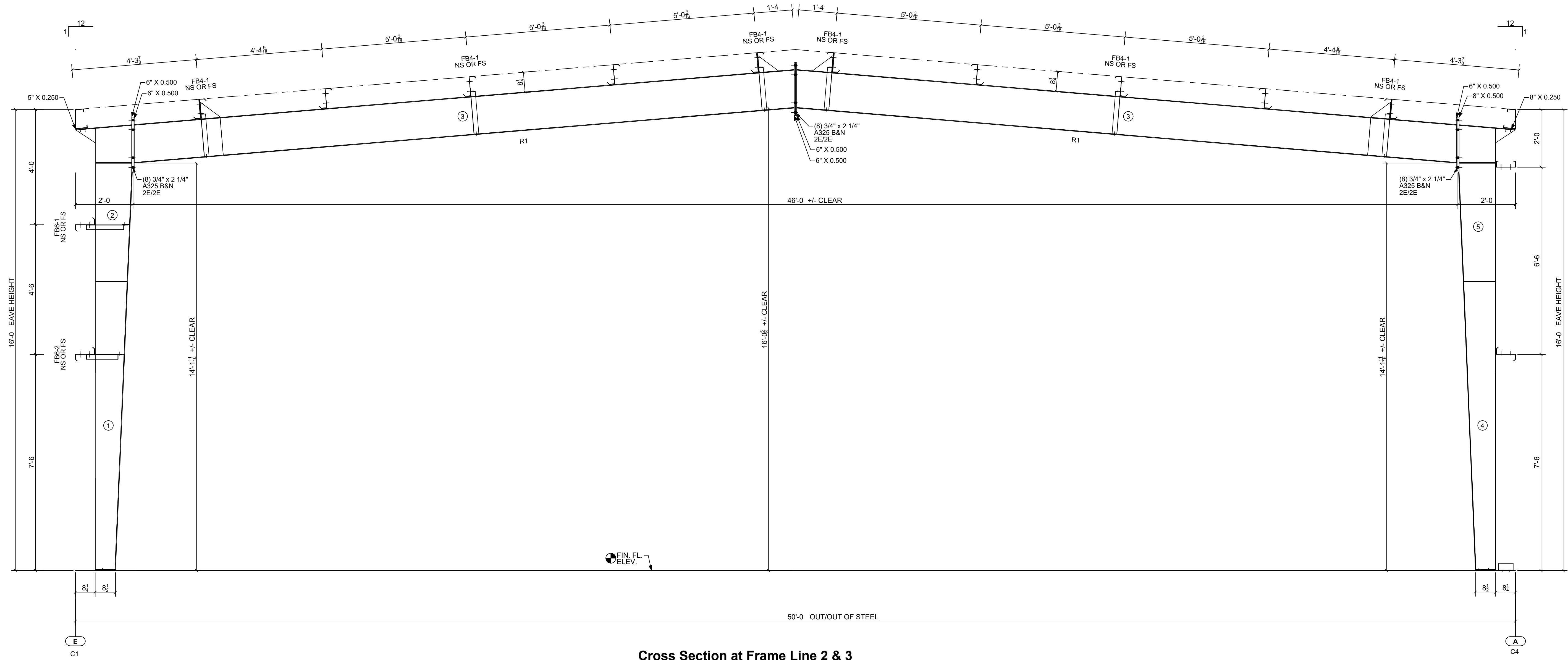
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 ILLINOIS S.E. 081-008395

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APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
R1	408
C1	266
C4	355

GENERAL NOTES
 FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).
 VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



Cross Section at Frame Line 2 & 3

Revision	Date	Description
0	08/17/24	Issued For Construction

QIE Building Co.

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Customer:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Drawing Status:
 Issued For Approval (Not For Construction)
 Issued For Permit

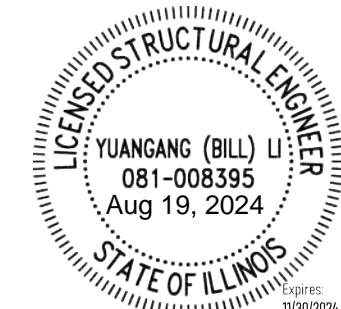
Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: E9 of 12

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YUANGANG (BILL) LI, S.E.
 ILLINOIS S.E. 081-008395

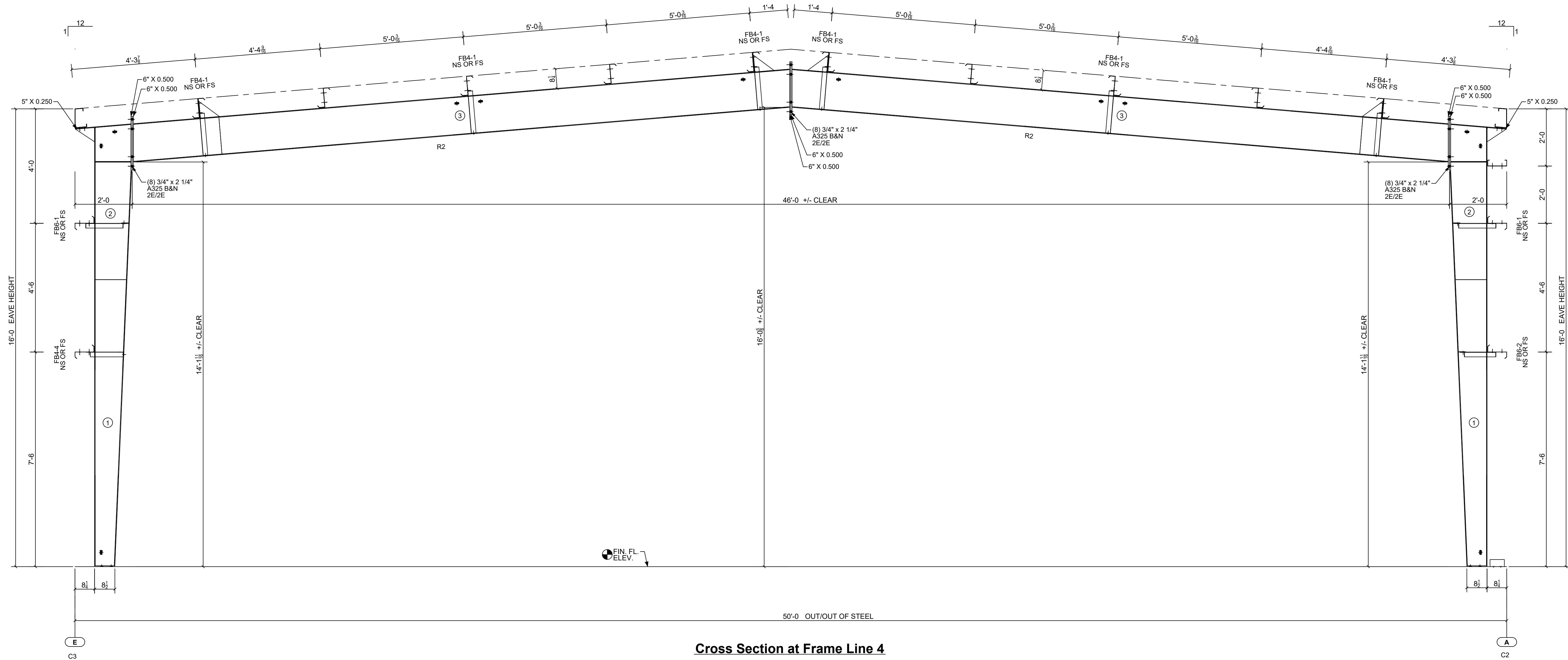
PRIMARY BUILT-UP MEMBER SIZES							
MARK	OUTSIDE FLG		INSIDE FLG		WEB		
	THICK	WIDTH	THICK	WIDTH	THICK	START DEPTH	END DEPTH
①	0.2500	5"	0.2500	5"	0.1340	8.0000	13.0704
②	0.2500	5"	0.2500	5"	0.1850	13.0704	15.0000
③	0.2500	5"	0.2500	5"	0.1340	15.5000	15.5000
④	0.2500	8"	0.2500	8"	0.1340	8.0000	13.0704
⑤	0.2500	8"	0.2500	8"	0.1850	13.0704	15.0000

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APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
R2	408
C2	268
C3	265

GENERAL NOTES
 FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).
 VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



Cross Section at Frame Line 4

Revision	Date	Description
0	08/17/24	Issued For Construction

QIE Building Co.

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Customer:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

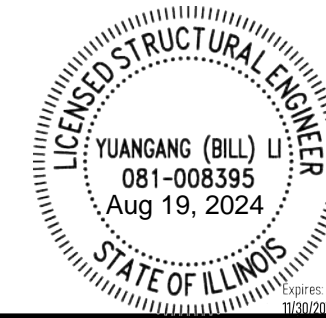
Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: E10 of 12

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 ILLINOIS S.E. 081-008395

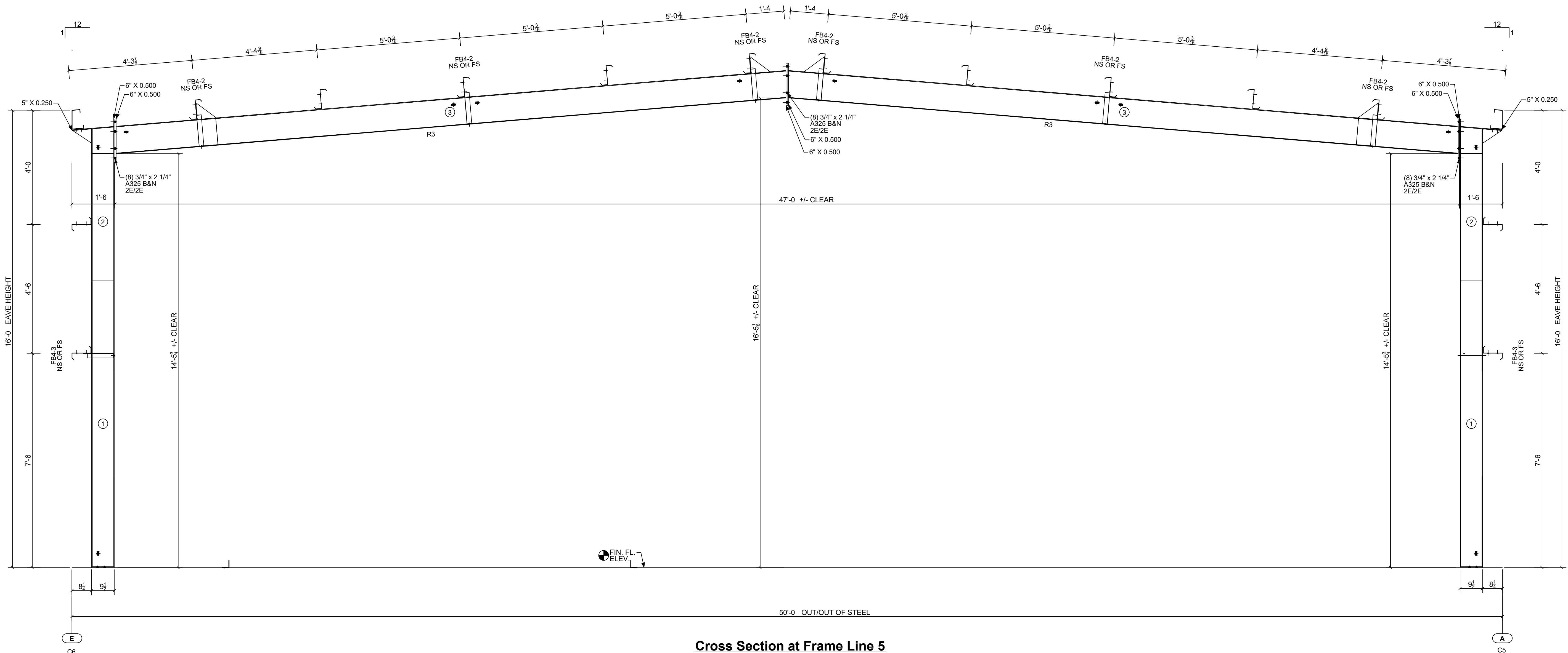
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PRIMARY BUILT-UP MEMBER SIZES							
MARK	OUTSIDE FLG THICK	OUTSIDE FLG WIDTH	INSIDE FLG THICK	INSIDE FLG WIDTH	WEB THICK	WEB START DEPTH	WEB END DEPTH
①	0.2500	5"	0.2500	5"	0.1340	8.0000	13.0704
②	0.2500	5"	0.2500	5"	0.1850	13.0704	15.0000
③	0.2500	5"	0.2500	5"	0.1340	15.5000	15.5000



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
R3	362
C5	248
C6	248
CE5	196



Cross Section at Frame Line 5

Revision	Date	Description
0	08/17/24	Issued For Construction

QIE Building Co.

Customer:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Drawing Status:
 Issued For Approval (Not For Construction)
 Issued For Construction
 Issued For Permit

Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: E11 of 12

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 ILLINOIS S.E. 081-008395

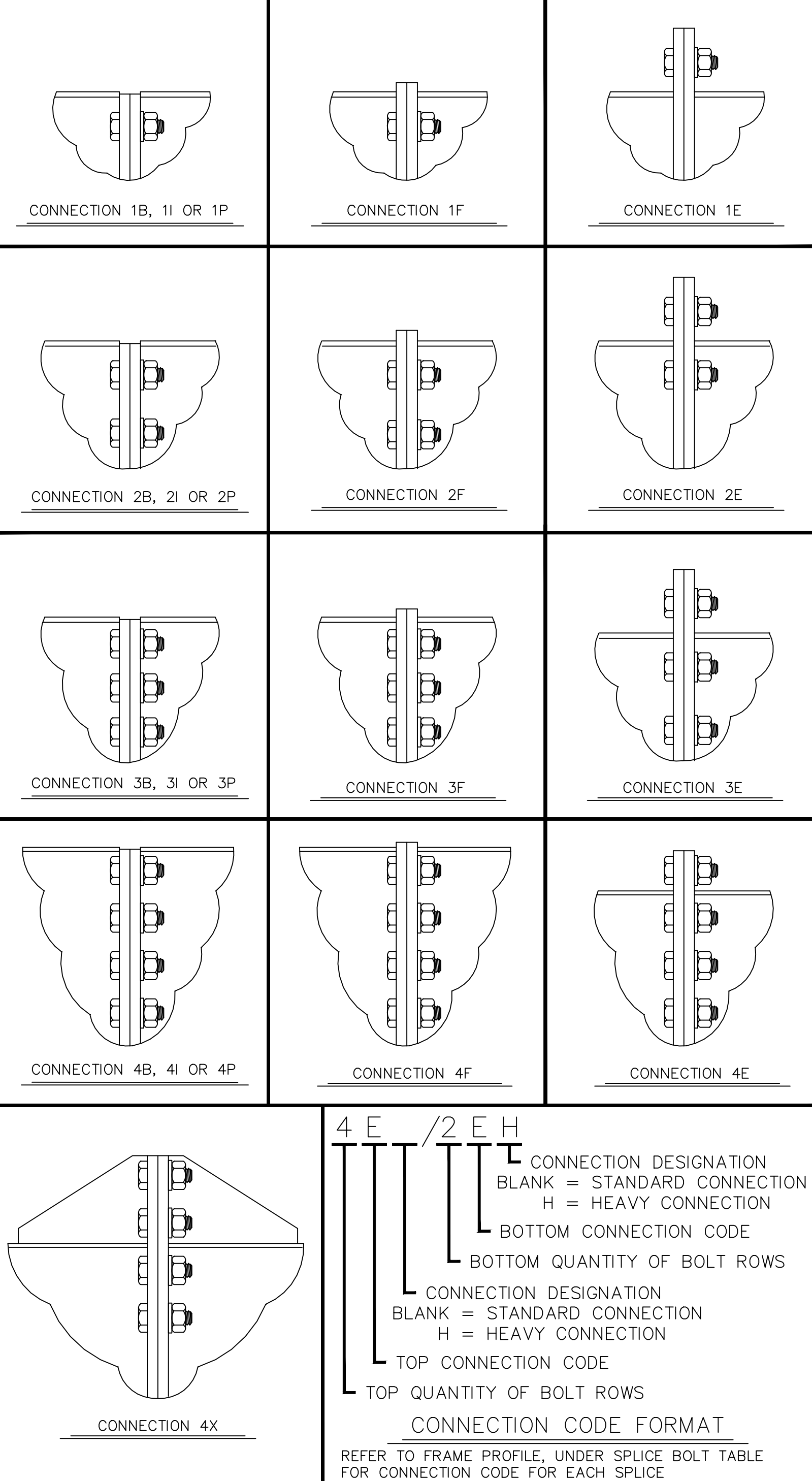
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PRIMARY BUILT-UP MEMBER SIZES						
MARK	OUTSIDE FLG THICK	OUTSIDE FLG WIDTH	INSIDE FLG THICK	INSIDE FLG WIDTH	WEB THICK	WEB START DEPTH / END DEPTH
①	0.2500	5"	0.2500	5"	0.1340	9.0000 / 9.0000
②	0.2500	5"	0.2500	5"	0.2500	9.0000 / 9.0000
③	0.2500	5"	0.2500	5"	0.1340	11.0000 / 11.0000



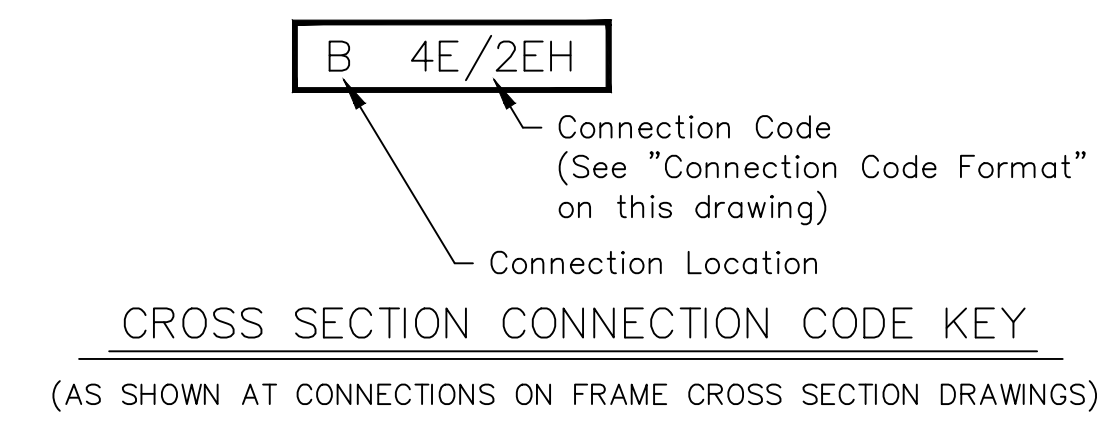
By	ASP	USR
Date	08/17/24	
Revision	0	

CONNECTION CODES
 (FOR TOP AND BOTTOM BOLT PATTERN)

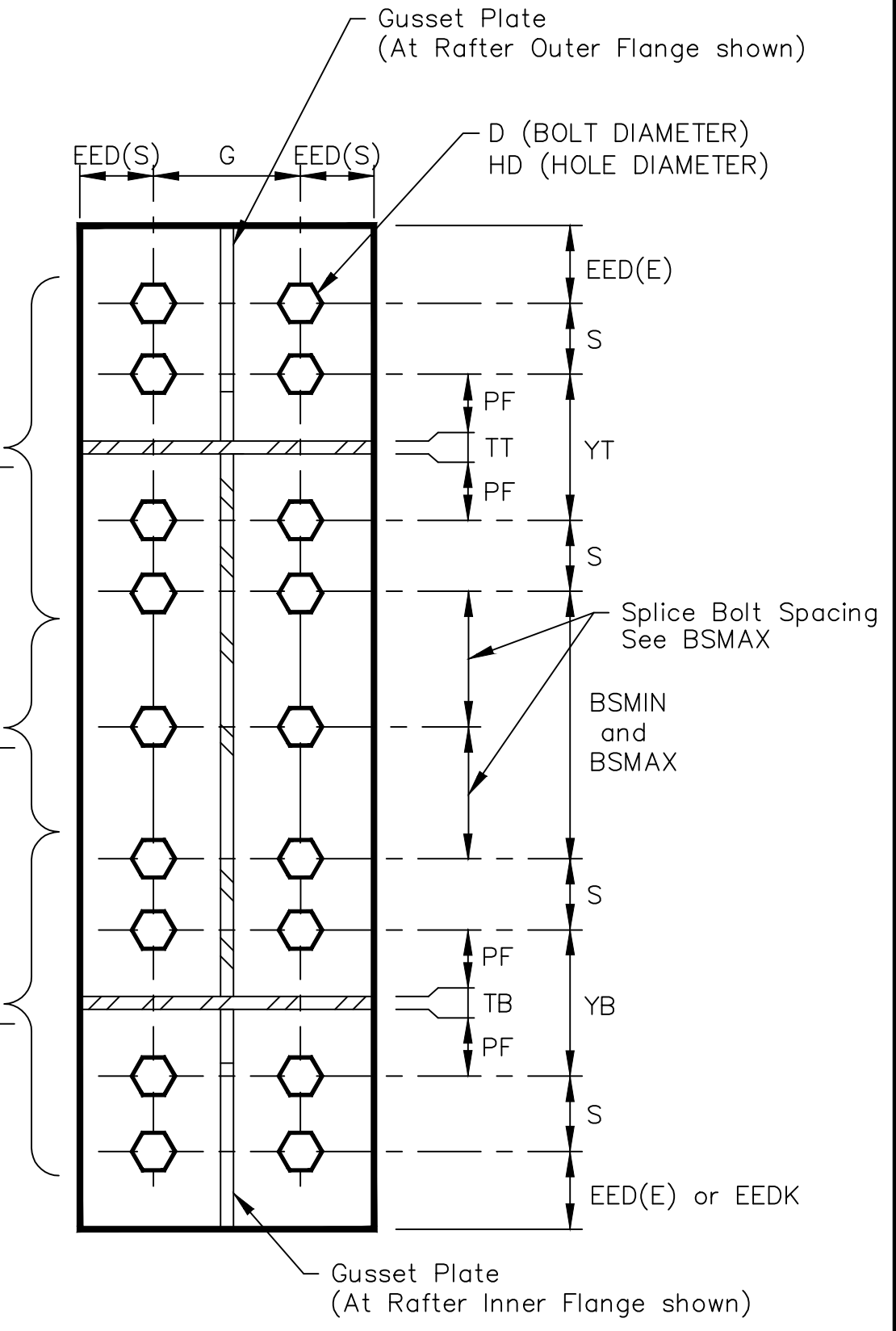
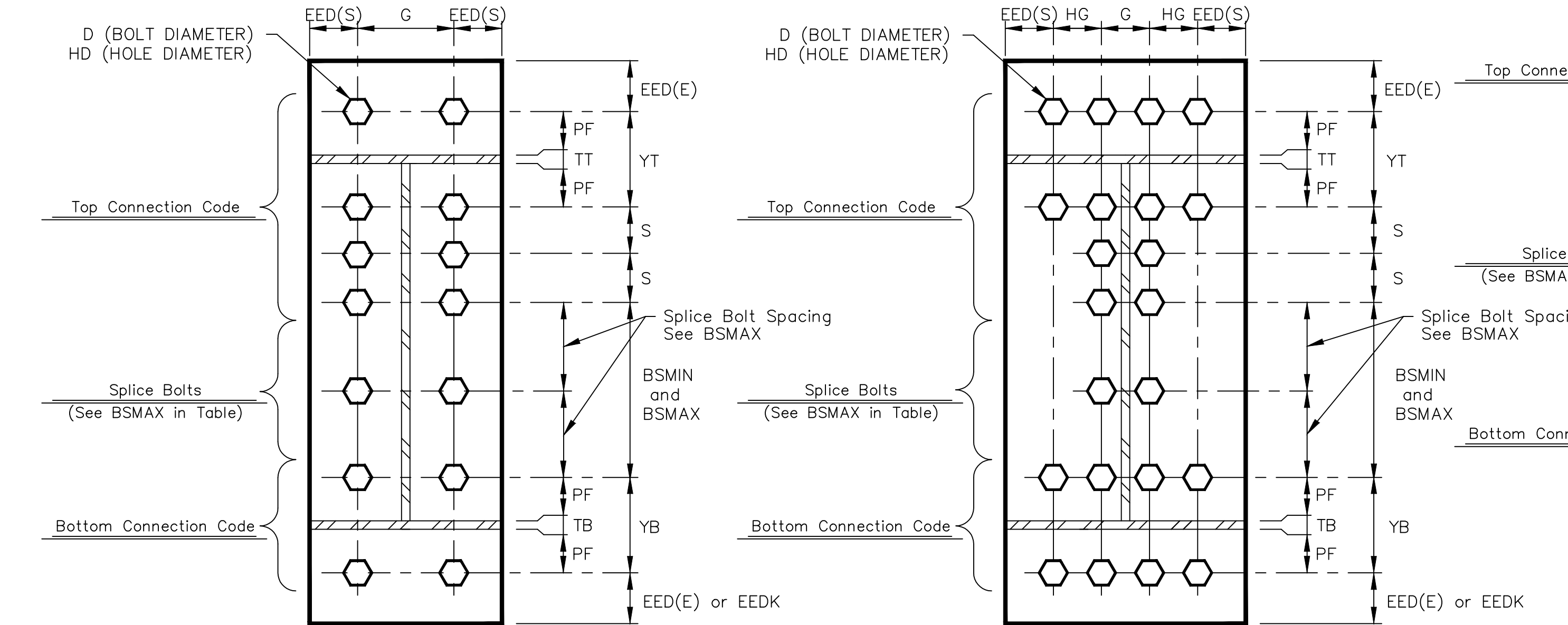


NAME	DESCRIPTION FOR A325 BOLT DIMENSIONS	A325 CONNECTION BOLT DIMENSIONS						
		1/2"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
D	DIAMETER OF THE BOLT	1/2"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
HD	BOLT HOLE DIAMETER	9/16"	13/16"	15/16"	1 1/16"	1 5/16"	1 9/16"	
G	BOLT GAUGE	2 1/2"	3"	4"	3 1/2"	4"	5 1/2"	
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITHOUT WASHER	1"	1 1/8"	1 7/8"	1 1/4"	1 3/8"	2 1/8"	
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITH WASHER	3/4"	7/8"	1 5/8"	7/8"	7/8"	1 7/8"	
HG	HEAVY CONN. BOLT GAUGE	N/A	2 1/4"	2 5/8"	3"	3 3/4"	4"	
S	NORMAL BOLT SPACING	2 1/2"	3"	3 1/4"	3 1/2"	4"	4 1/2"	
BSMIN	MINIMUM SPACING BETWEEN TOP & BOTTOM SETS OF BOLTS	1 1/2"	2 1/4"	2 5/8"	3"	3 3/4"	4"	
BSMAX	MAXIMUM BOLT SPACING BETWEEN TOP AND BOTTOM SETS OF BOLTS ON CONNECTION PLATES	SPLICE BOLT SPACING { 1/2 BSMAX (±1/16") WHEN BSMAX = 2'-0" TO 4'-0" 1/3 BSMAX (±1/16") WHEN BSMAX = 4'-0" TO 6'-0" (NOT TO EXCEED 2'-0") } { 1/4 BSMAX (±1/16") WHEN BSMAX = 6'-0" TO 8'-0"						
BFGD	MINIMUM BOLT-TO-FLANGE CLEARANCE AT OUT OF NUT SEE BOLT AT FLANGE DETAIL	1 1/2"	1 3/4"	1 7/8"	2 1/4"	2 1/2"	2 3/4"	
PF	MINIMUM BOLT-TO-FLANGE CLEARANCE AT CONNECTION PLATE SEE BOLT AT FLANGE DETAIL	(BFGD + RNWT) PF INSIDE OF FLANGE IS INCREASED BASED ON THE YT & YB VALUE. PF FOR CONNECTION B, F, I AND P ARE THE SAME AS USED ON CONNECTION E						
NWT	NUT AND WASHER THICKNESS	SEE BOLT AT FLANGE DETAIL. NUT THICKNESS IS EQUAL TO THE BOLT DIAMETER AND .15625" WASHER THICKNESS IS USED EVEN IF A WASHER IS NOT REQUIRED.						
RNWT	RISE ON NUT AND WASHER THICKNESS	REFER TO FRAME CROSS SECTION DRAWING FOR LARGEST FLANGE THICKNESS EITHER SIDE OF THE CONNECTION.						
TT	THICKNESS TOP FLANGE							
TB	THICKNESS BOTTOM FLANGE							
YT	BOLT SPACING TOP (ROUND UP TO NEXT 1/2", MIN = S)	3" + TT	3 1/2" + TT	3 3/4" + TT	4 1/2" + TT	5" + TT	5 1/2" + TT	
YB	BOLT SPACING BOTTOM (ROUND UP TO NEXT 1/2", MIN = S)	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	
EED(E)	MINIMUM END EDGE DIMENSION	1 1/4"	1 1/4"	1 1/2"	1 3/4"	2 1/4"	2 5/8"	
EED(S)	MINIMUM SIDE EDGE DIMENSION	3/4"	1"	1 1/8"	1 1/4"	1 5/8"	2 1/4"	
EEDK	END EDGE DIMENSION AT KNEE CONNECTION	1 3/8"	1 3/8"	1 5/8"	1 7/8"	2 3/8"	2 3/4"	
BCWM	MINIMUM BOLT CLEARANCE FROM A FLANGE OR WEB WELD	WITHOUT WASHER	7/16"	5/8"	3/4"	13/16"	1"	1 3/8"
		WITH HARDENED WASHER	9/16"	3/4"	7/8"	1"	1 1/4"	1 1/2"
WCSM	MINIMUM WIDTH OF CONNECTION PLATE (Standard Connection)	5"	6"	8"	8"	10"	12"	
WCHM	MINIMUM WIDTH OF CONNECTION PLATE (Heavy Connection)	N/A	10"	12"	12"	16"	18"	
TCMIN	MINIMUM THICKNESS OF CONNECTION PLATE	1/4"	3/8"	7/16"	1/2"	5/8"	1"	

CONNECTION BOLT DATA
 REFER TO 05-12-11 & 05-12-12 FOR BOLT LENGTH



Flange Brace Material Schedule	
Part Mark	Material
FB4_	L 2" x 2" x 14 Ga.
FB5_	L 2" x 2" x 14 Ga.
FB6_	L 2" x 2" x 8"
FB7_	L 2 1/2" x 2 1/2" x 3/16"



CONNECTION CODE DESCRIPTION

B = THIS DESCRIPTION CODE IS USED TO DEFINE SHEAR CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP FLANGE. CONNECTION PLATE LENGTH MUST BE A MINIMUM OF HALF THE RAFTER WEB DEPTH AND SHALL NOT EXCEED THE RAFTER TOTAL DEPTH.

E = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH ONE SET OUTSIDE THE TOP OR BOTTOM FLANGE AND THE REMAINING SETS ARE LOCATED INSIDE THE TOP OR BOTTOM FLANGE.

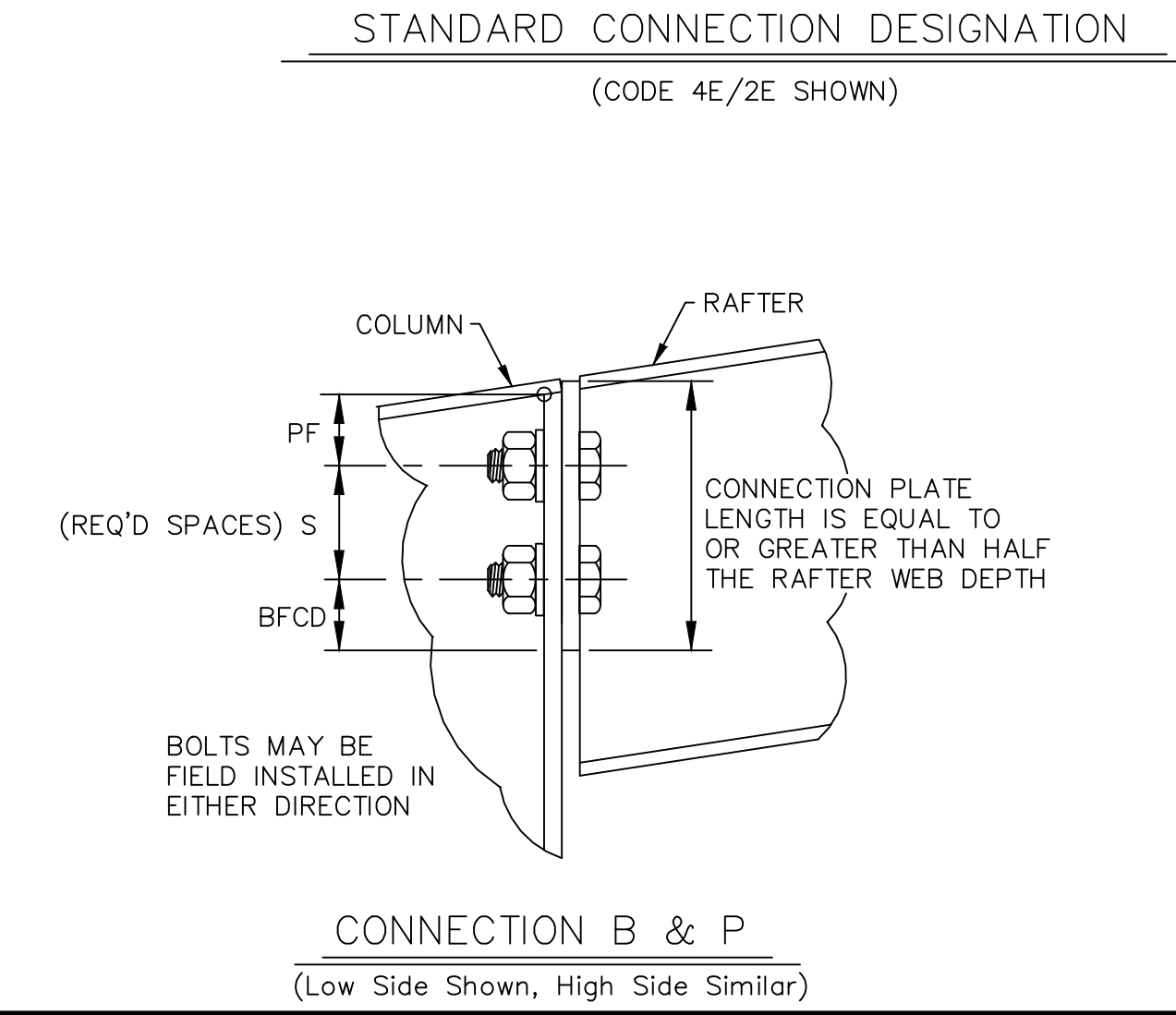
F = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP OR BOTTOM FLANGE AND CONNECTION PLATE PROJECTS 1/2" BEYOND THE TOP OR BOTTOM FLANGE.

I = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP OR BOTTOM FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP OR BOTTOM FLANGE.

P = THIS DESCRIPTION CODE IS USED TO DEFINE SHEAR CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP FLANGE. CONNECTION PLATE LENGTH MUST BE A MINIMUM OF HALF THE RAFTER WEB DEPTH AND SHALL NOT EXCEED THE RAFTER TOTAL DEPTH.

4X = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH TWO SETS EACH SIDE OF THE TOP OR BOTTOM FLANGE WITH A GUSSET PLATE OUTSIDE THE TOP AND BOTTOM FLANGE OR COLUMN CAP PLATE.

GUSSET PLATE SIZE AND THICKNESS DETERMINED BY "EDS" OR DESIGN ENGINEER AND LISTED ON FRAME PROFILE. (SEE PAGE 13-05-17 AND 10-30-22)



NOTE:

THIS PAGE PROVIDED AS GENERAL INFORMATION, REFER TO 10-30-18 THRU 10-30-38 FOR THE EXACT CALCULATIONS OF THE CONNECTION DIMENSIONS.

REFER TO FRAME PROFILE UNDER SPLICE BOLT TABLE FOR CONNECTION CODE FOR EACH SPLICE.

Scale: NOT TO SCALE

Drawn by: ASP 8/17/24

Checked by: USR 8/17/24

Project Engineer: EJA

Job Number: 19-B-71294

Sheet Number: E12 of 12

The engineer whose seal appears hereon is an employee for the manufacturer, Cornerstone Building Brands or one of its affiliates, 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.

YUANGANG (BILL) LI, S.E.
 ILLINOIS S.E. 081-008395

Customer: ALYX KEMP, 613 E. GRANT ST., GRANVILLE, IL 61326-9645 US

Building Co. QIE

Project Name & Location: ALYX KEMP, 613 E. GRANT ST., GRANVILLE, IL 61326-9645 US

Issued For Approval: (Not For Construction)

Issued For Permit: (Not For Construction)

Issued For Construction: (Not For Construction)



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:

- Carefully Check Your Packing List While Unloading.
- 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:
- Description Of The Nature And Extent Of The Errors, Including Quantities.
 - Description Of The Nature And Extent Of Proposed Corrective Work, Including Estimated Man-Hours.
 - Materials To Be Purchased From Other Than The Manufacturer, Including Estimated Quantities and Cost.
 - 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

Authorization For Corrective Work

Normal Erection Operations Include The Correction Of Minor Misfits By Amounts Of Reaming, Chipping, Welding Or Cutting And The Drawing Of Elements Into Line Through The Use Of Drift Pins. Errors That Cannot Be Corrected By The Foregoing Means Or Which Require Major Changes In The Member Configuration Should Be Reported Immediately To The Owner And The Fabricator By The Erector, To Enable Whoever Is Responsible Either To Correct The Error Or Approve The Most Efficient And Economical Method Of Correction To Be Used By Others. (AISC 303-10, Section 7.14). If The Error Is The Fault Of The Manufacturer An "Authorization For Corrective Work" Must Be Issued In Writing By The Manufacturer To Authorize The Corrective Work At A Cost Not To Exceed The Maximum Total Cost Set Forth. Alternative Corrective Work Other Than That Proposed In The "Initial Claim" May Be Directed By The Manufacturer In The "Authorization Of Corrective Work". Only The Field Service Department May Authorize Corrective Work.

FINAL CLAIM:
The "Final Claim" In Writing Must Be Forwarded By The Customer To The Manufacturer Within (10) Days Of The Completion Of The Corrective Work Authorized By The Manufacturer.

- THE "FINAL CLAIM" MUST INCLUDE:**
- Actual Number Of Man-Hours By Dated Of Direct Labor Use On Corrective Work And Actual Hourly Rate Of Pay.
 - Taxes And Insurance On Total Actual Direct Labor.
 - Other Direct Costs On Actual Direct Labor.
 - Cost Of Materials (Not Minor Supplies) Authorized By The Manufacturer To Be Purchased From Other Than The Manufacturer, Including Copies Of Paid Invoices.
 - Total Actual Direct Cost Of Corrective Work (Sum Of 1, 2, 3, And 4). The "Final Claims Are Credited To The Customer By The Manufacturer In The Amount Not To Exceed The Lesser Of The Maximum Total Cost Set Forth In The "Authorization For Corrective Work" Or The Total Direct Cost Of Corrective Work.

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

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

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 Some 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.

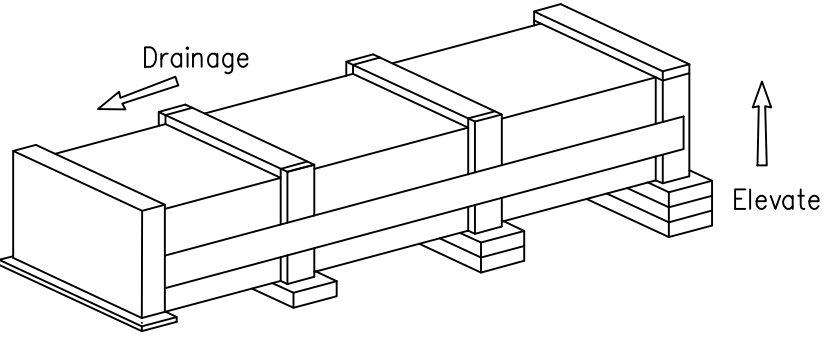
Roof And Wall Panels

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 Off 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 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 Filings From The Saw Cutting Of Panels Be Removed From The Panel Surface. Corrosion Can Occur In A Matter Of Hours When These Shavings Or Filings 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 Straightened 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.

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.

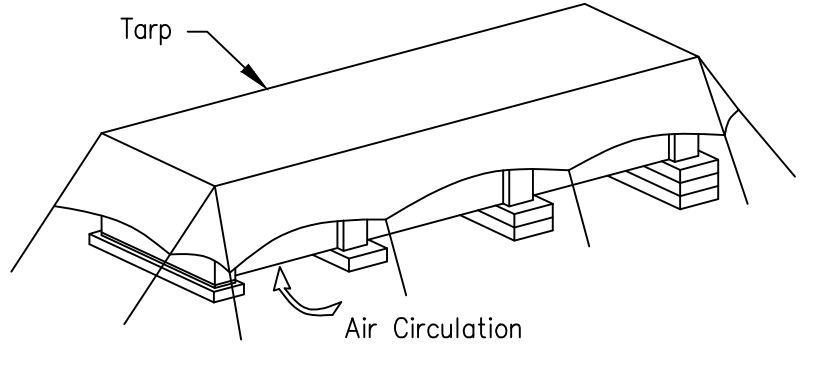
Pre-Painted:
Using Galvalume Steel As A Substrate, Pre-Painted Steel Is Given An Additional Rust Inhibitor Primer Coat. This Primer Coat Further Increases The Corrosion Resistance. These Coatings Are Applied To The Exterior Surface Of The Panels And A Wash Coat Designed Only For Interior Use, Is Applied 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.

Damage From Condensation Or Trapped Water

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

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



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

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

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

Roof Maintenance Guidelines

- Inspect Roof For Damage After Heavy Storms.
- Inspect And Reseal As Necessary All Roof Curbs And Other Penetrations With Urethane Sealant.
- Always Get Manufacturer Approval Before Making Any Modifications To The Roof.
- Repaint Any Areas That Are Susceptible To Rust As Required.
- When Performing Roof Maintenance, Always Take The Following Precautions:
 - Use Fall Protection And Other Safety Protection As Required.
 - Do Not Walk On Roof Flashing Such As Gutter, Rake, Hip Or Ridge Flash.
 - Do Not Walk On Light Transmitting Panels (LTP's). They Will Not Support A Person's Weight.
 - Guard All LTP's And Roof Openings.
 - Step Only In The Panel Flat Directly On Or In Close Proximity To A Supporting Roof Structural.
- 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.

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:

- Step On Rib At Edge Of Panel.
- Step Near Crease In Rib At Edge Of Panel.
- 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!

YUANGANG (BILL) LI, S.E.
ILLINOIS S.E. 081-008395

This item has been electronically signed and sealed by Yuangang (Bill) Li, S.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

Ck'd	MXN								
	ASP								
By	ASP								
	Issued For Construction								
Date	08/17/24								
Revision	0								

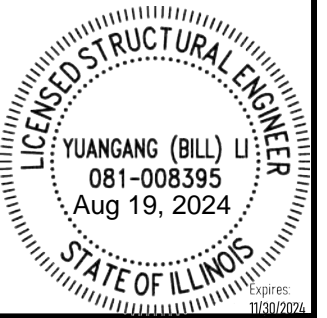
QIE Building Co.

Project Name & Location:
ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Customer:
ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

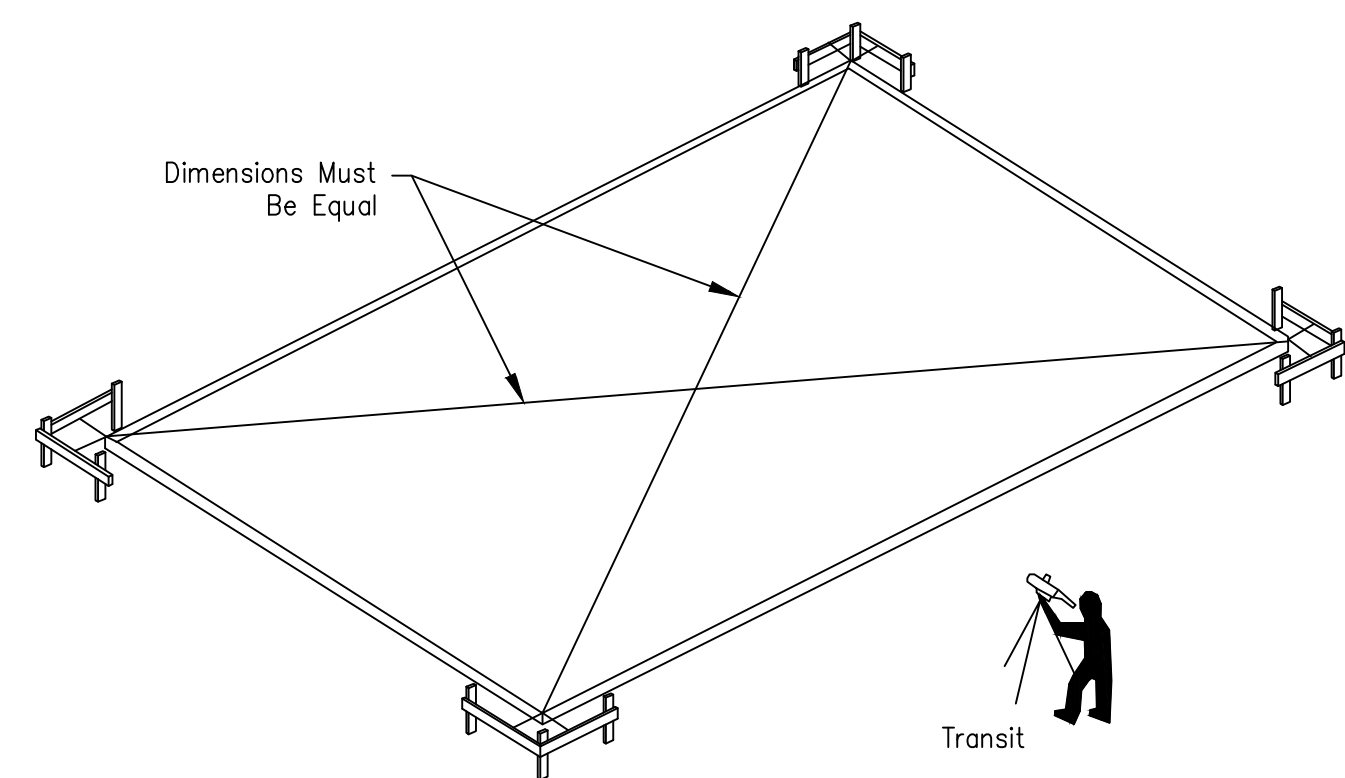
Drawing Status:
 Issued For Approval (Not For Construction)
 Issued For Construction
 Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	ASP 8/17/24
Checked by:	USR 8/17/24
Project Engineer:	EJA
Job Number:	19-B-71294
Sheet Number:	R1 of 11
The engineer whose seal appears hereon is an employee for the manufacturer, Cornerstone Building Brands or one of its affiliates, 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.	
YUANGANG (BILL) LI, S.E. ILLINOIS S.E. 081-008395	

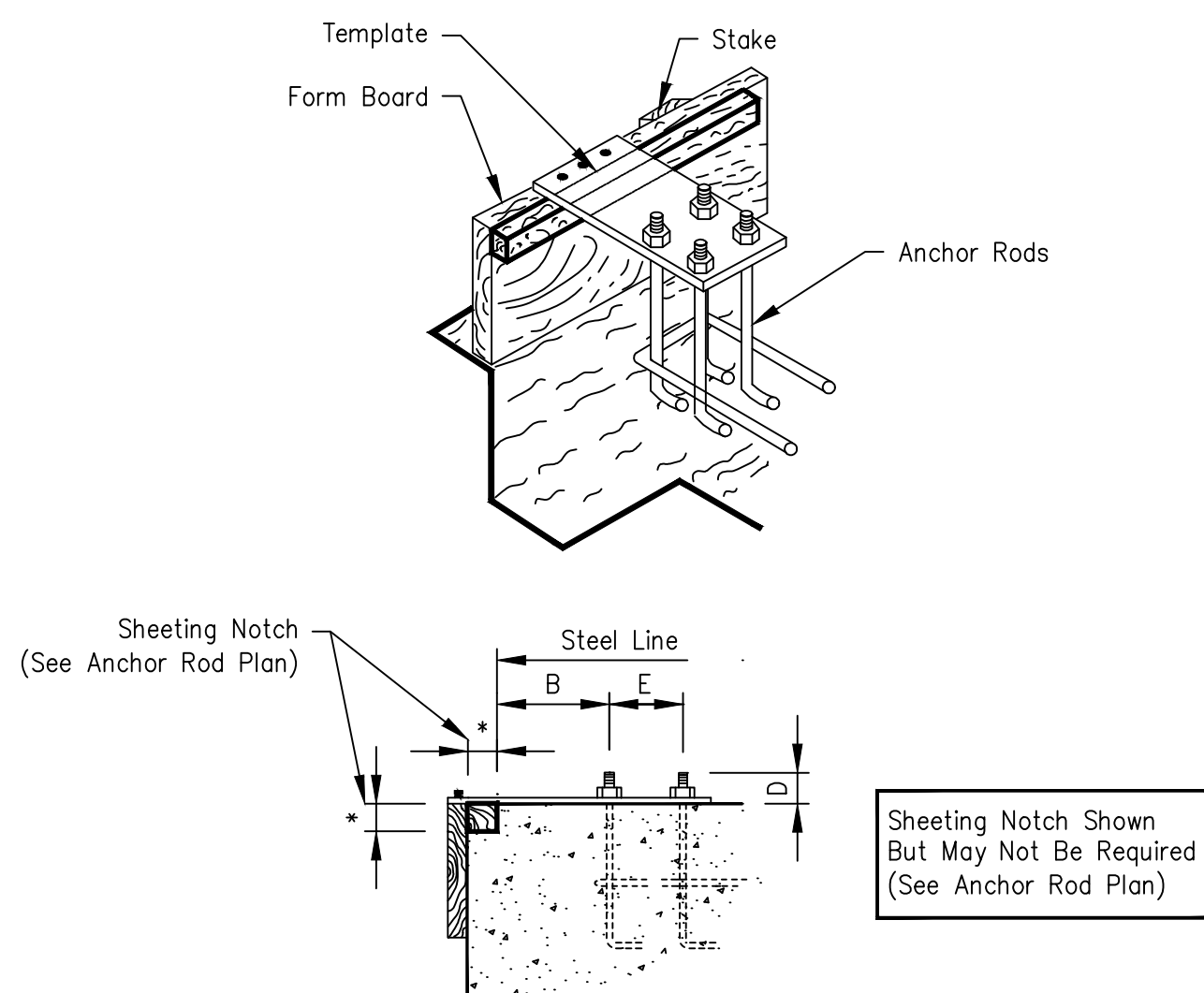


Building Anchorage

- To Determine That The Foundation Is Square, Measure Diagonal Dimensions To Be Sure They Are Of Equal Length.
- 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.
- 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.



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.



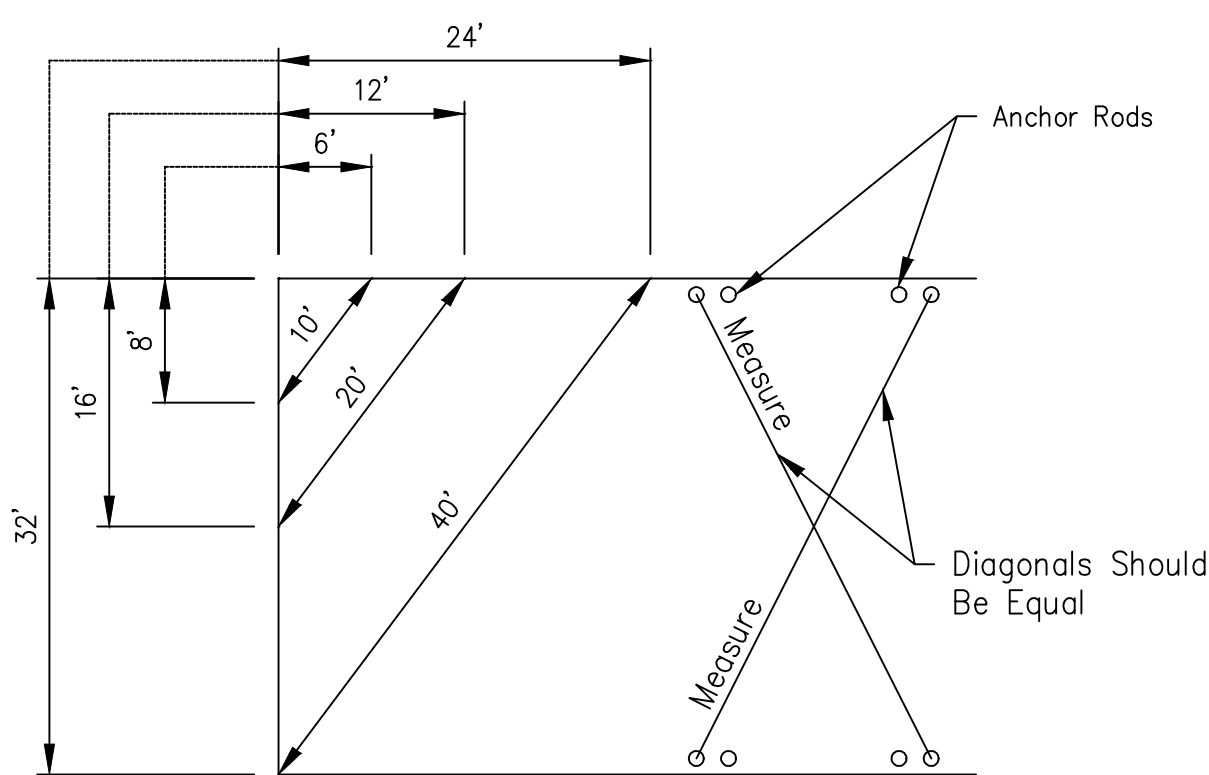
Projection Of Anchor Rods (D) Given On Anchor Rod Plan

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.

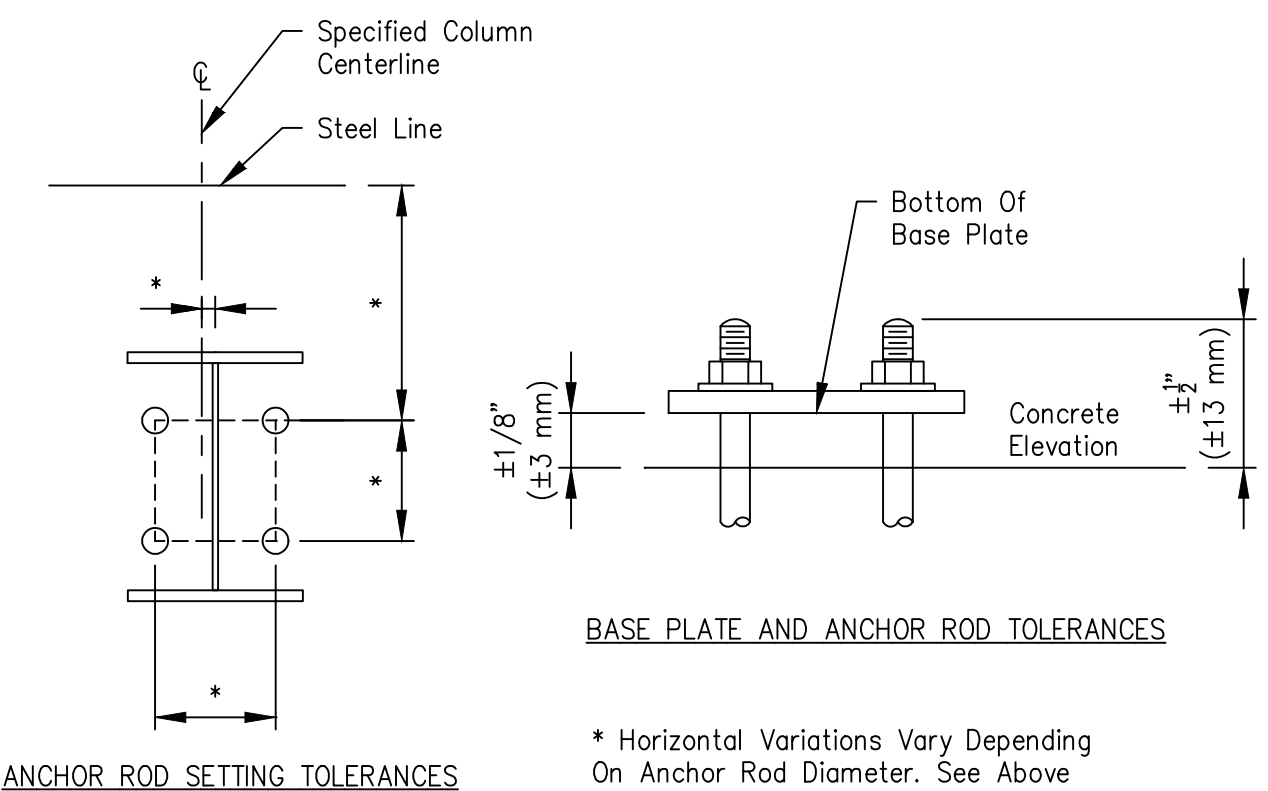


Measure Along Adjacent Sides Of Foundation Using A Pair Of Dimensions Shown. If The Diagonal Distance Between These Points Is As Noted, The Corner Is Square. Diagonal Measurements Between Opposite Anchor Rods Will Indicate If These Bolts Are Set Square.

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

Anchor Rod Diameter, Inches (mm) *Horizontal Variation, Inches (mm)

3/8" and 1/2" (19 And 22 mm)	1/4" (6 mm)
1", 1 1/4", 1 1/2" (25, 31, 38 mm)	3/8" (10 mm)
1 3/4", 2", 2 1/2" (44, 50, 63 mm)	1/2" (13 mm)

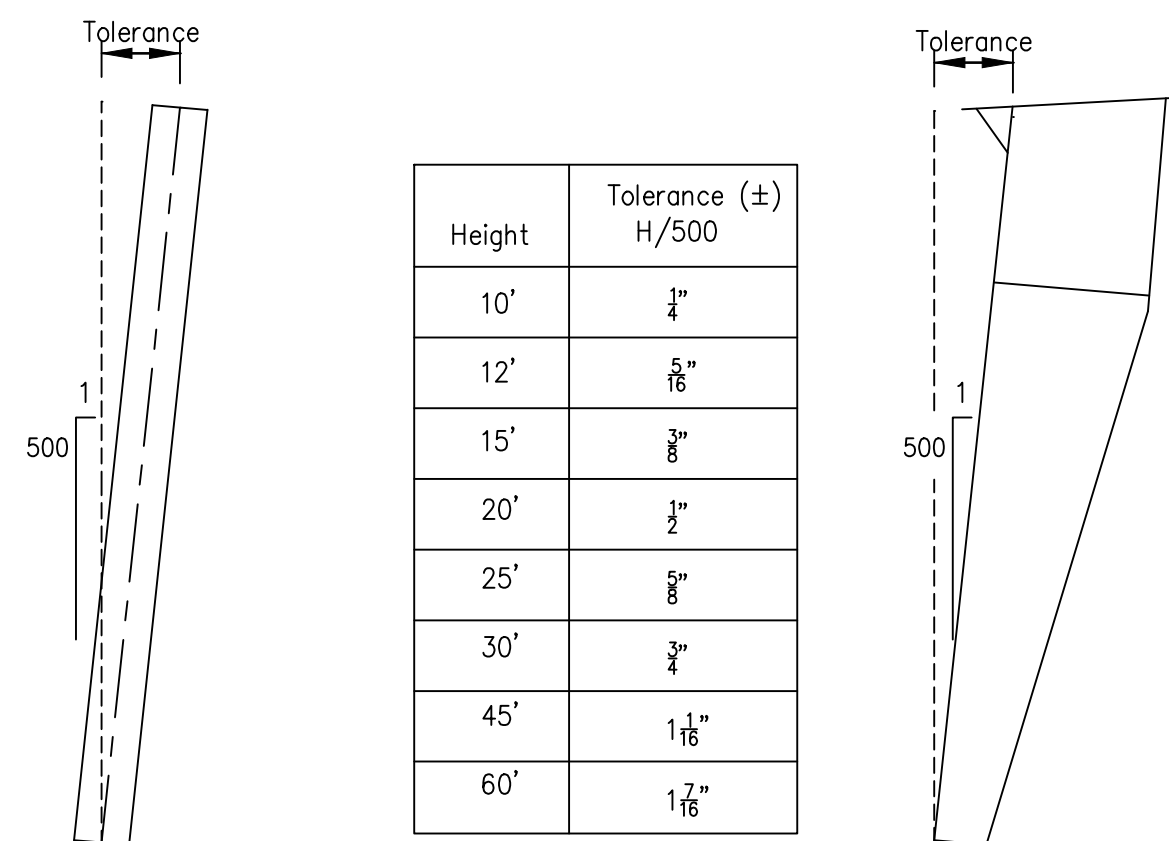


Erection Tolerances

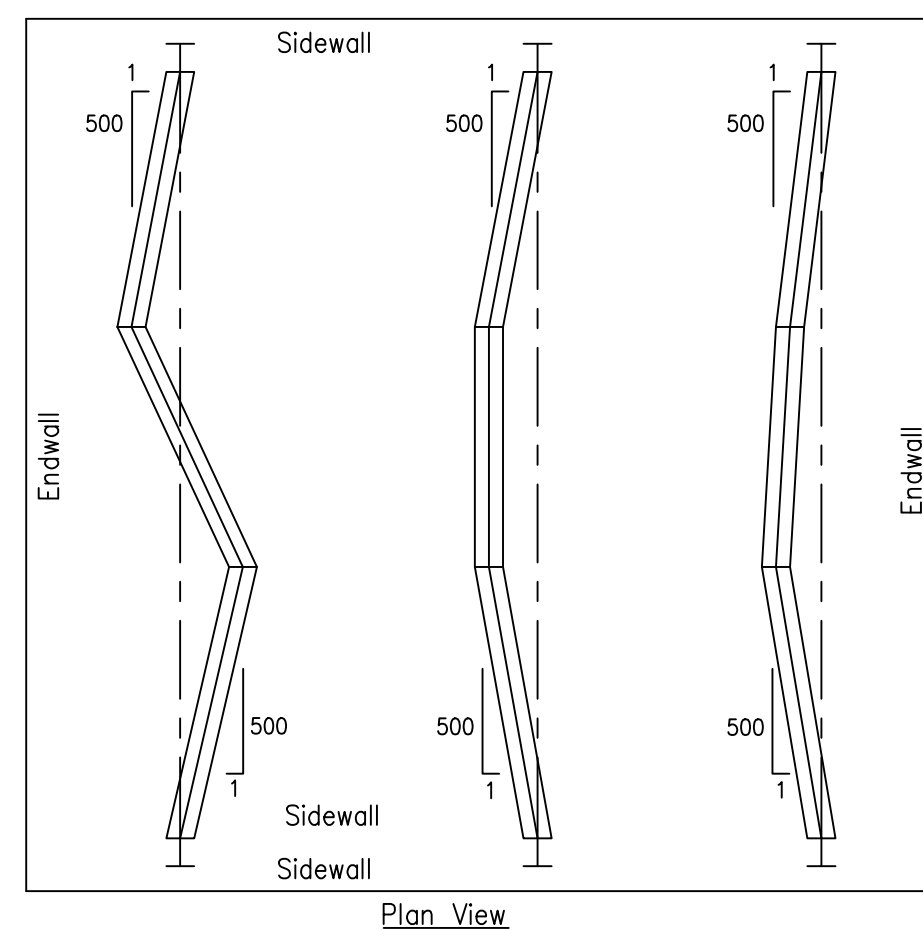
ERECTION BRACING:

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/AISC 303, Code Of Standard Practice For Steel Building And Bridges).

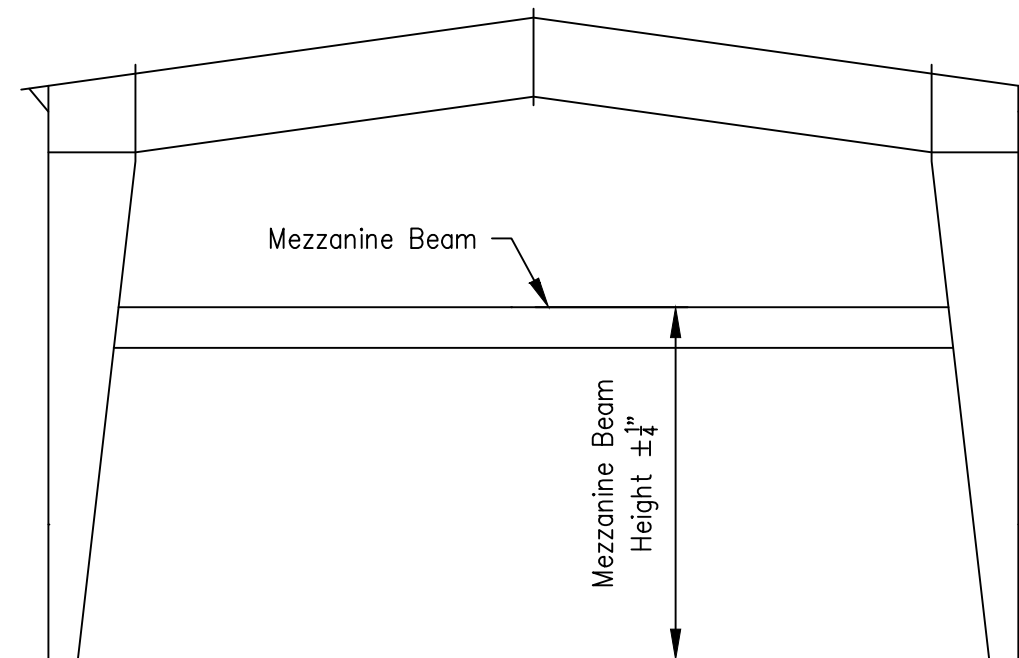
COLUMN ALIGNMENT TOLERANCES



ALIGNMENT TOLERANCE FOR MEMBERS WITH FIELD SPLICES



MEZZANINE BEAM HEIGHT TOLERANCE



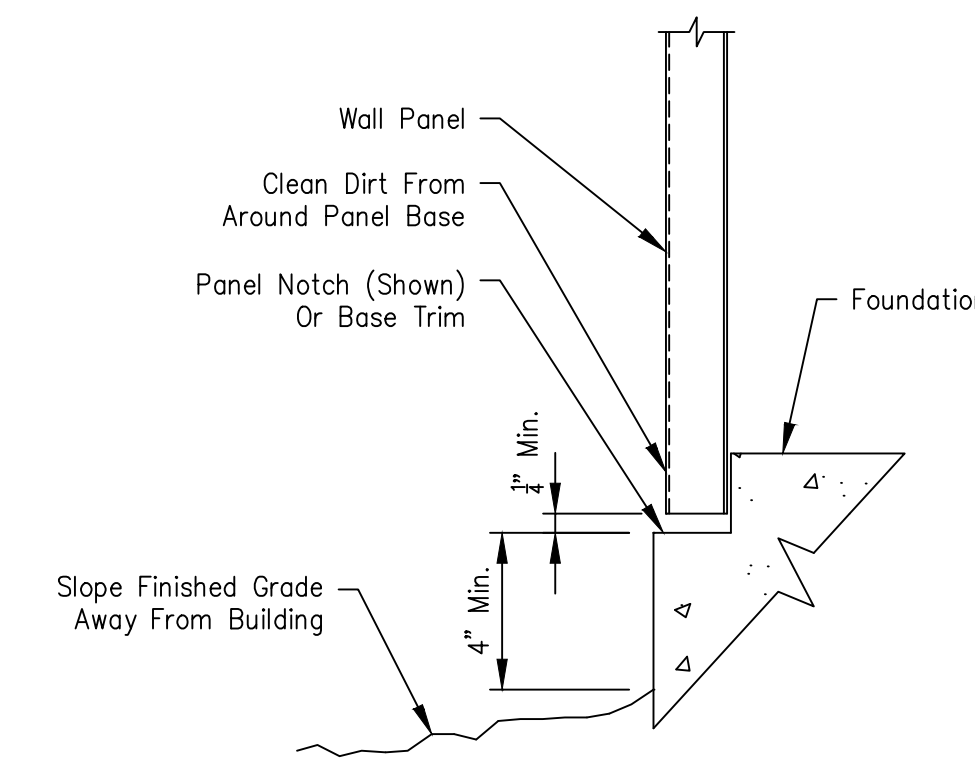
General Erection Notes

- 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.
- 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:

- 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.
- Top Of Finish Grade At Building To Be A Minimum Of Four (4) Inches Below Bottom Of Panel.
- Finish Grade Is To Slope Away From Building To Ensure Proper Drainage.
- 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.



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.

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Revision	0	Date	08/17/24	Description	Issued For Construction
By	ASP	MXN			
Ck'd					

Customer: ALYX KEMP, 613 E GRANT ST, GRANVILLE, IL 61326-9645 US

Project Name & Location: ALYX KEMP, 613 E GRANT ST, GRANVILLE, IL 61326-9645 US

Drawing Status: Issued For Approval (Not For Construction) Issued For Construction Issued For Permit

Scale: NOT TO SCALE

Drawn by: ASP 8/17/24

Checked by: USR 8/17/24

Project Engineer: EJA

Job Number: 19-B-71294

Sheet Number: R2 of 11

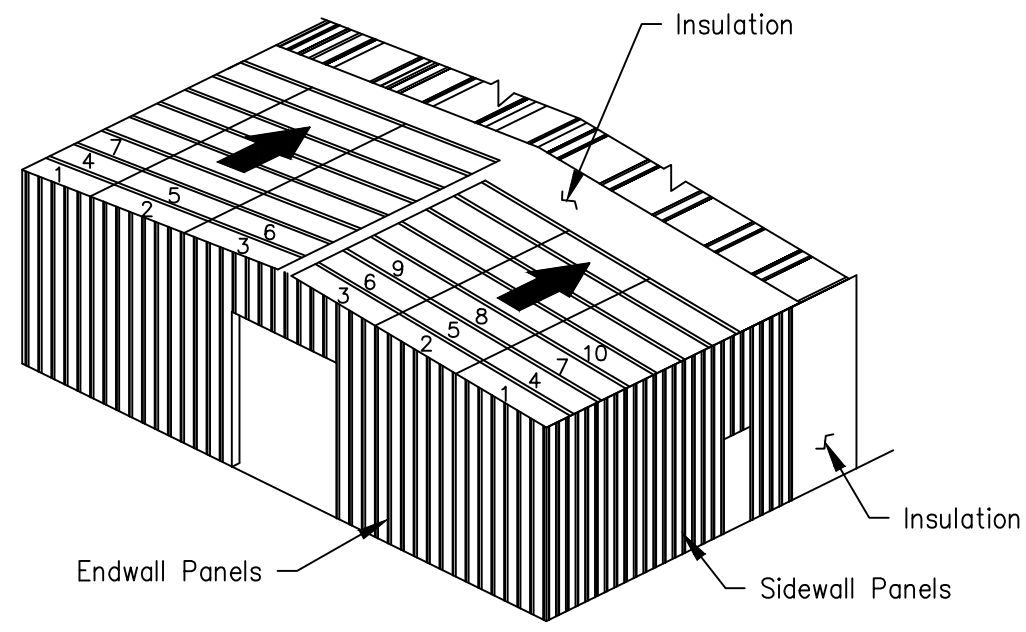
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PBR Roof Panels

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.

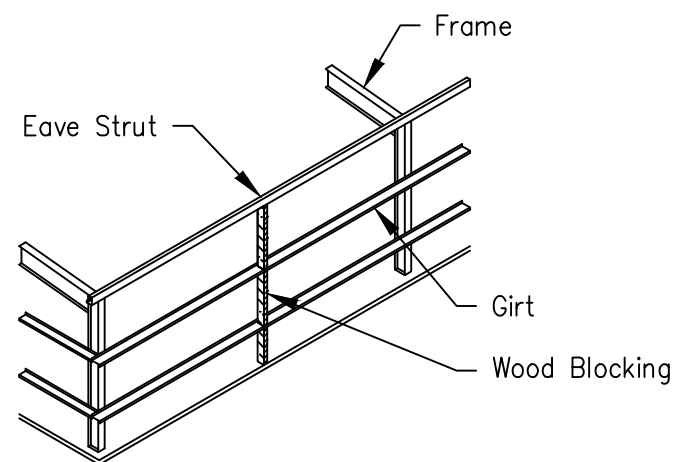
Wall Panels

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.

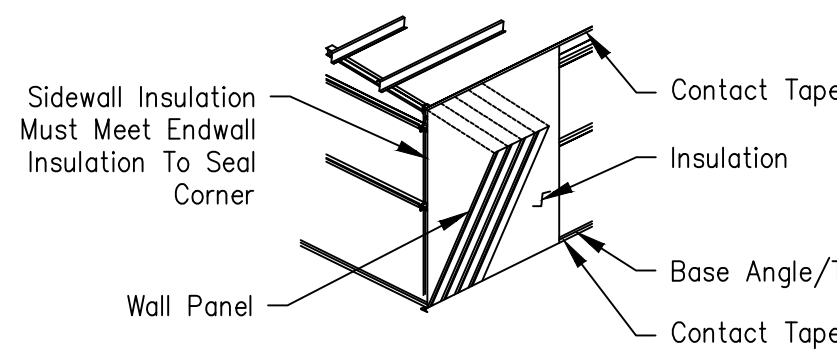
Before Installing Wall Panels, The Girts Must Be Aligned To A Level Position So That There Is No Visible Sag. This Should Be Done Directly Ahead Of Panel Installation.

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.



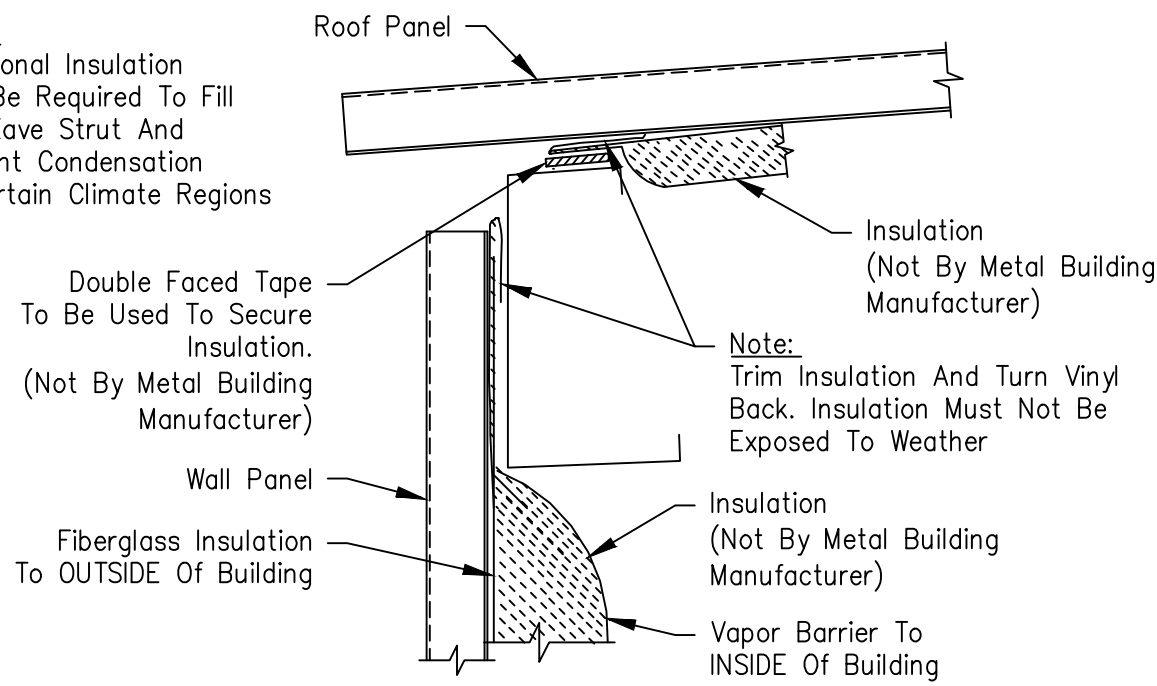
Note: Wall Panel Type And Installation Details Will Vary. Refer To The Erection Drawings And Details For The Specific Panel Used For Your Building.



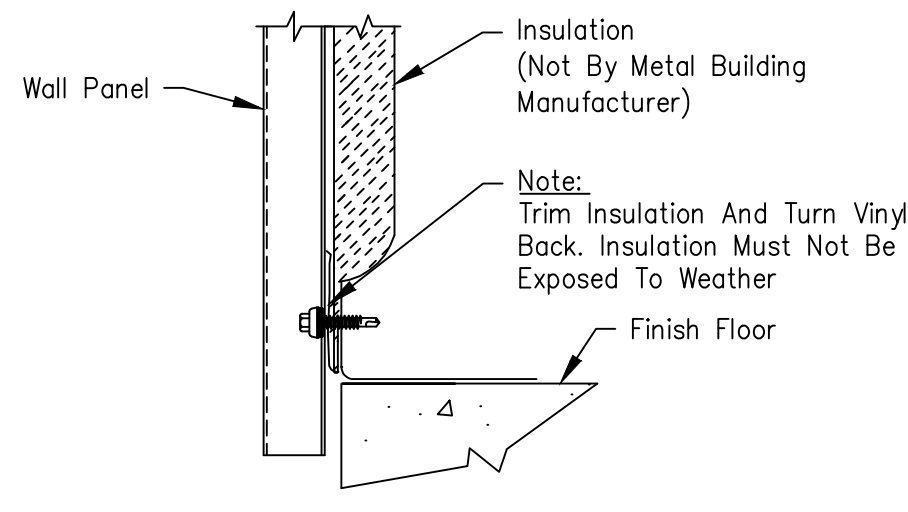
If Walls Are To Be Insulated With Blanket Insulation Over Girt Girt Flanges, Base And Eave, Place A Continuous Run Of Contact Tape Along The Eave Strut And Base Member.

Note: At The Base, Cut Off The Insulation A Minimum Of 1/2" Above The Bottom Of The Wall Panel. This Will Prevent The Insulation From Hanging Below The Wall Panel And Wicking Moisture.

Note: Additional Insulation May Be Required To Fill The Eave Strut And Prevent Condensation In Certain Climate Regions



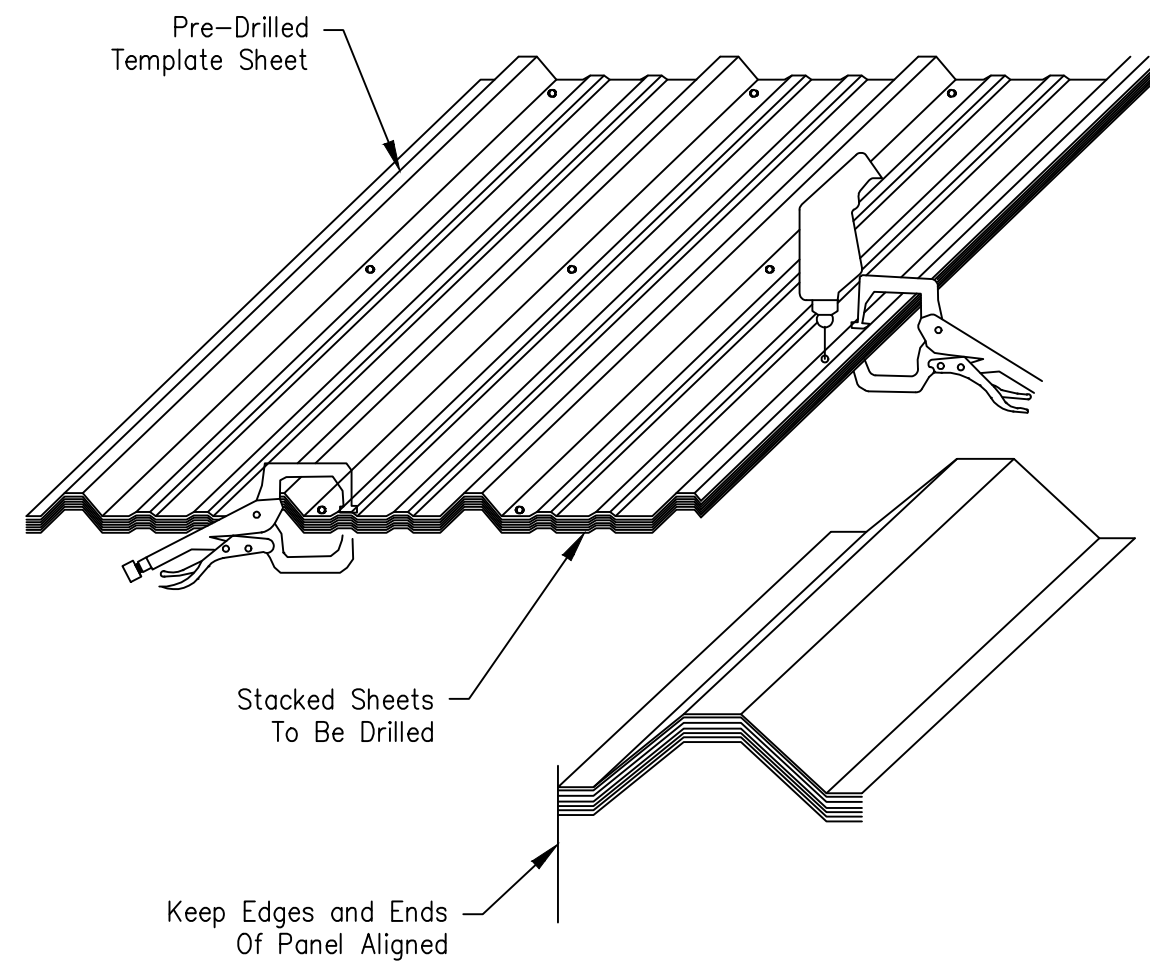
Eave Detail
(See Erection Drawings)



Base Detail
(See Erection Drawings)

Sidewall Panels 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 Drawings.)

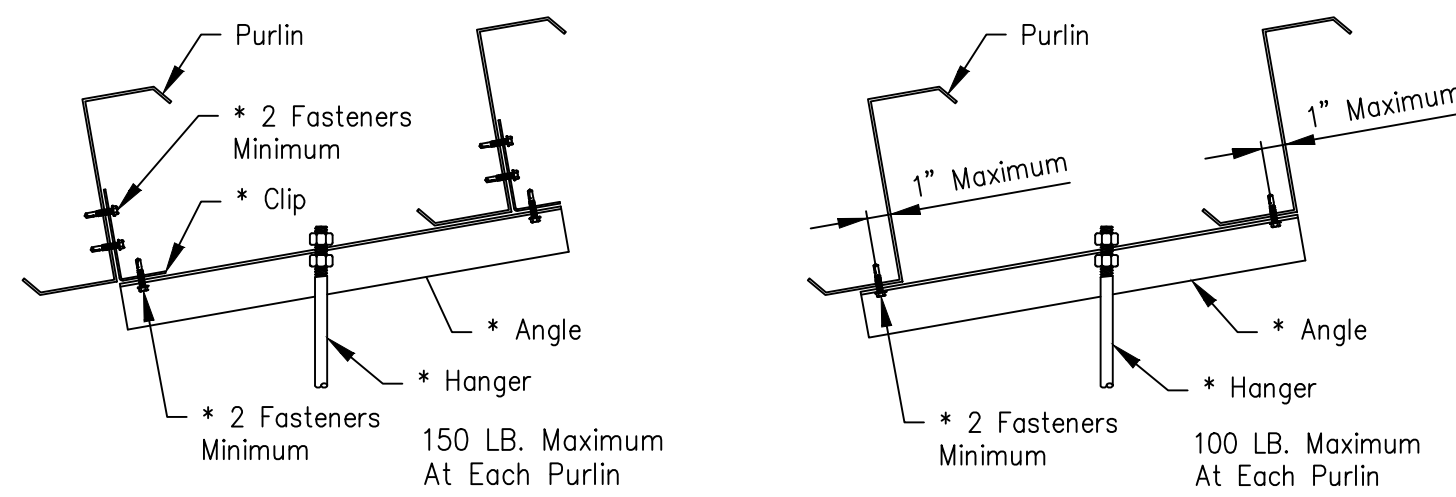
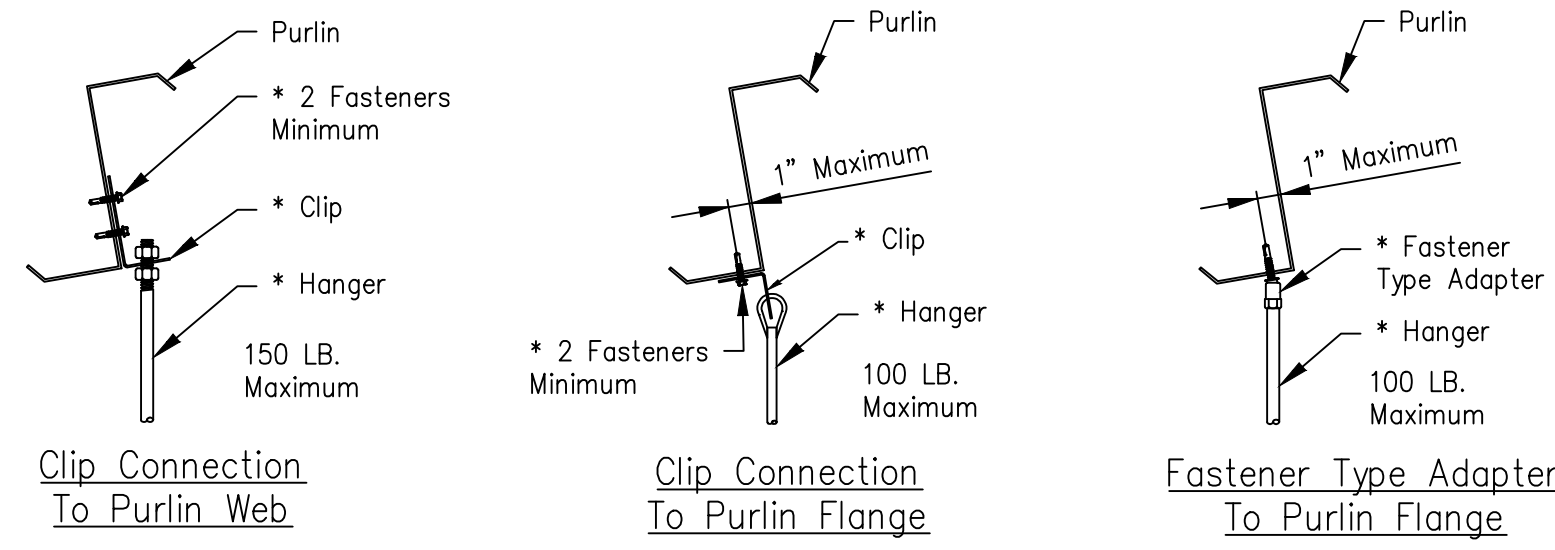
Note: Check Periodically To Ensure That All Panels Are Aligned And Plumb.



Screw Alignment Panel
(Through Fastened Panel Only)

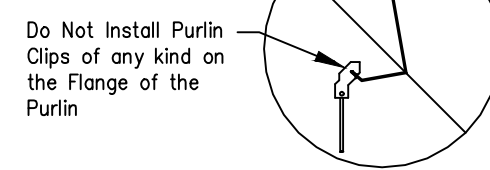
Note: After Drilling Panels, It Is Important To Clean Metal Filings Off All Panel Surfaces, Including Between Panels That Are Not Installed That Day, To Avoid Rust Stains.

Suggested Method Of Purlin Attachment For Building Accessories



Clip Connection To Purlin Web

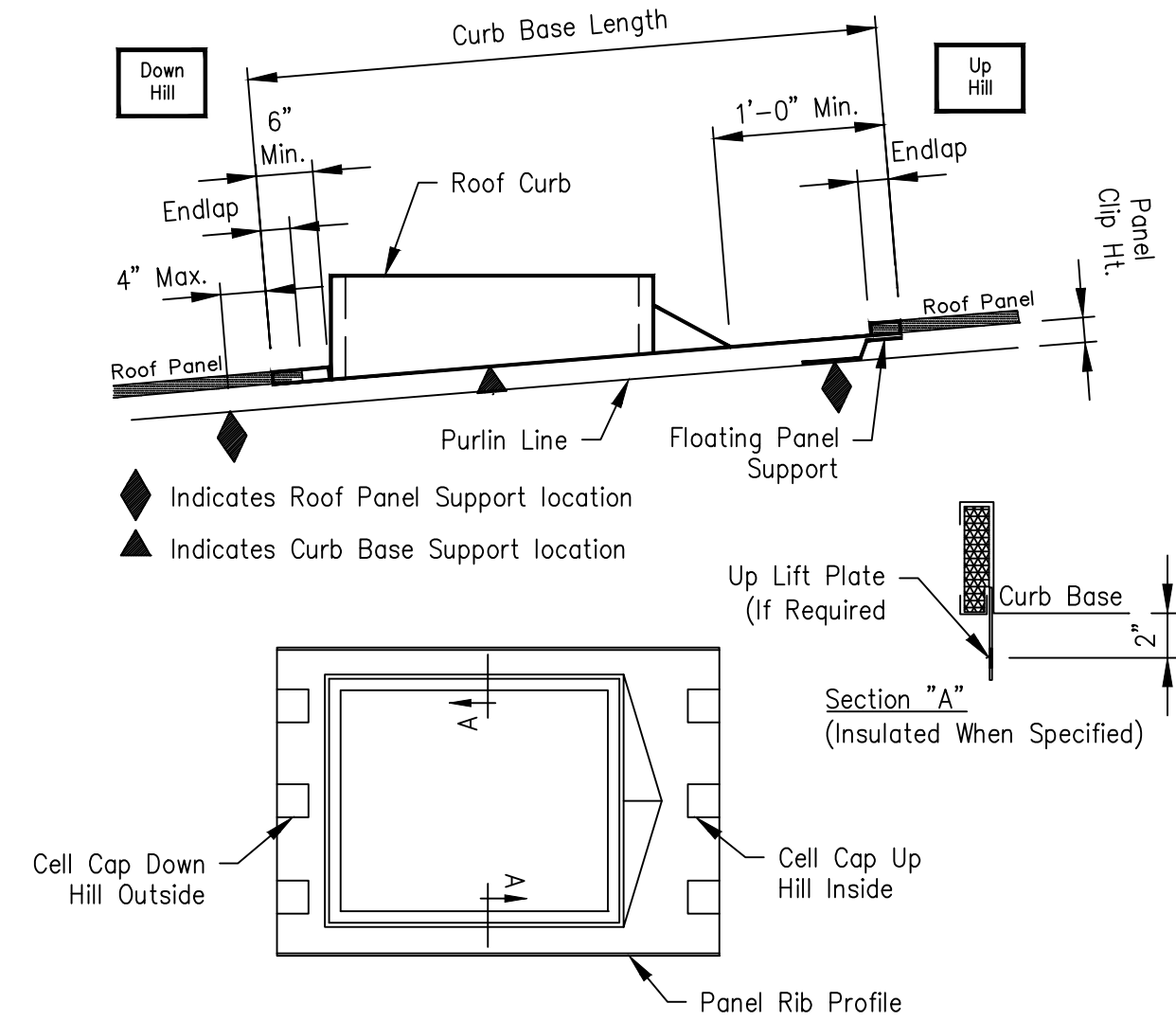
Angle Connection To Purlin Flange



* 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



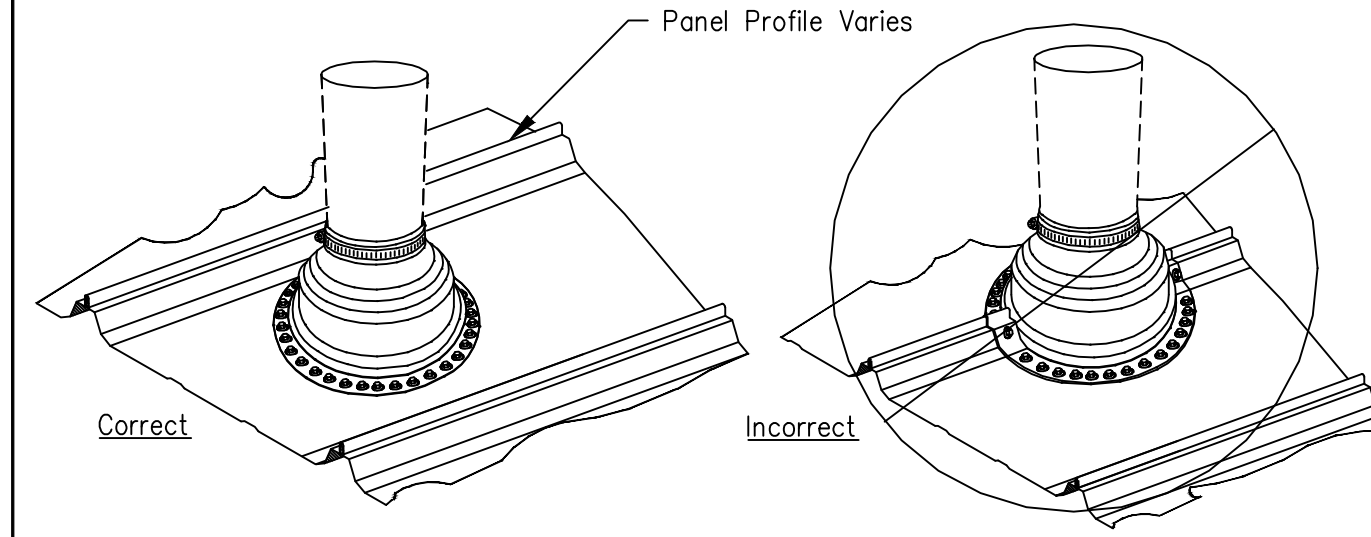
The Curb Details Shown Illustrate The Building Manufacturers Recommended Curb Style And Installation Method. It Is The Erector/Installer's Responsibility To Provide The Proper Curb Style And Install Them In Accordance With The Procedures Established By These Details. Failure By The Erector/Installer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

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

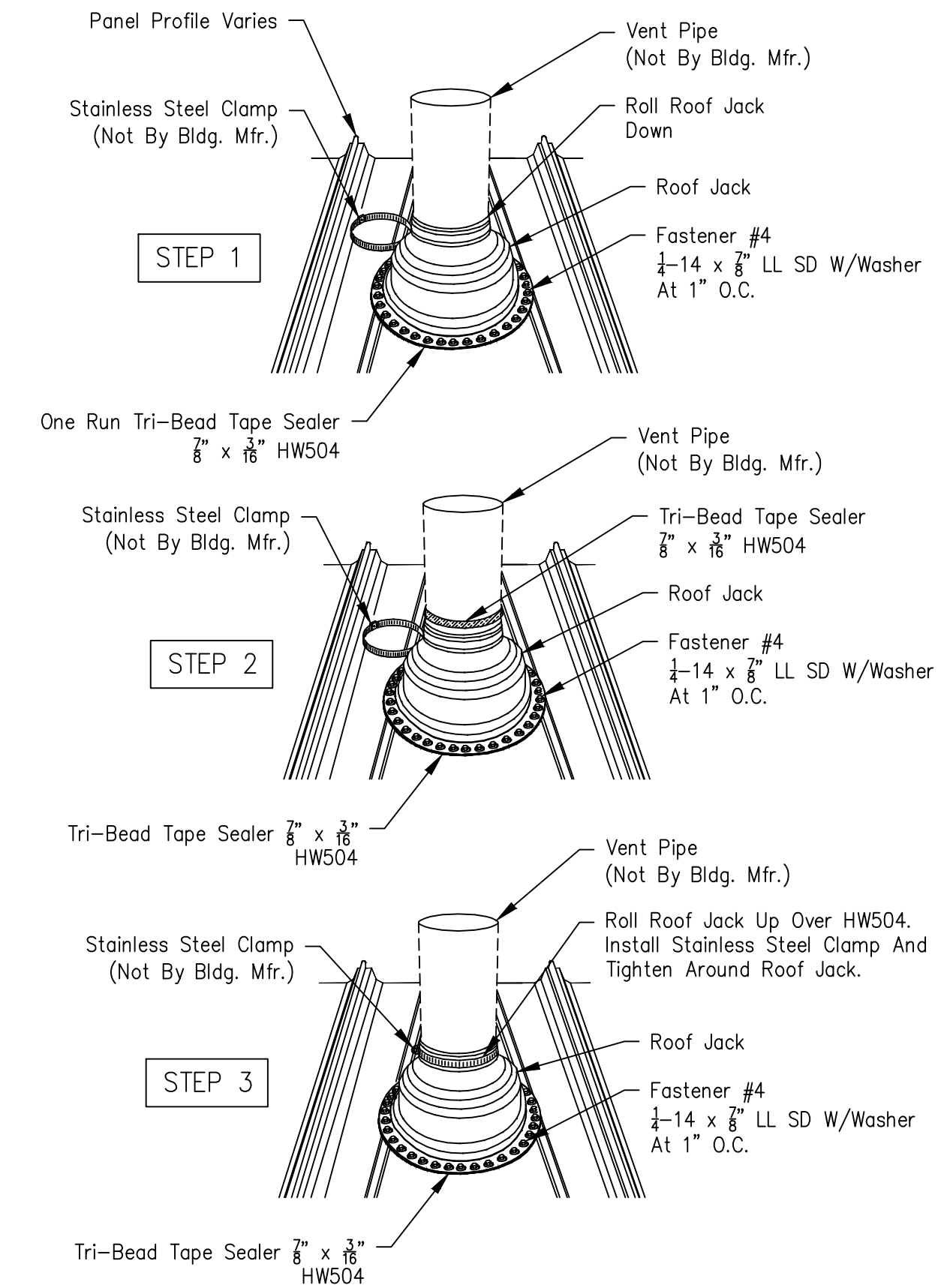
Roof Jack Installation when Not Supplied By Building Manufacturer

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 1/4" x 7/8" 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.



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QIE Building Co.

Project Name & Location:
ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

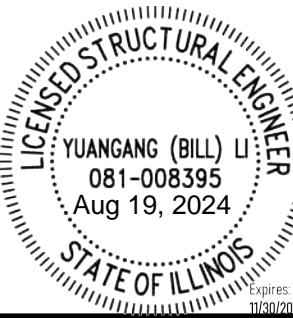
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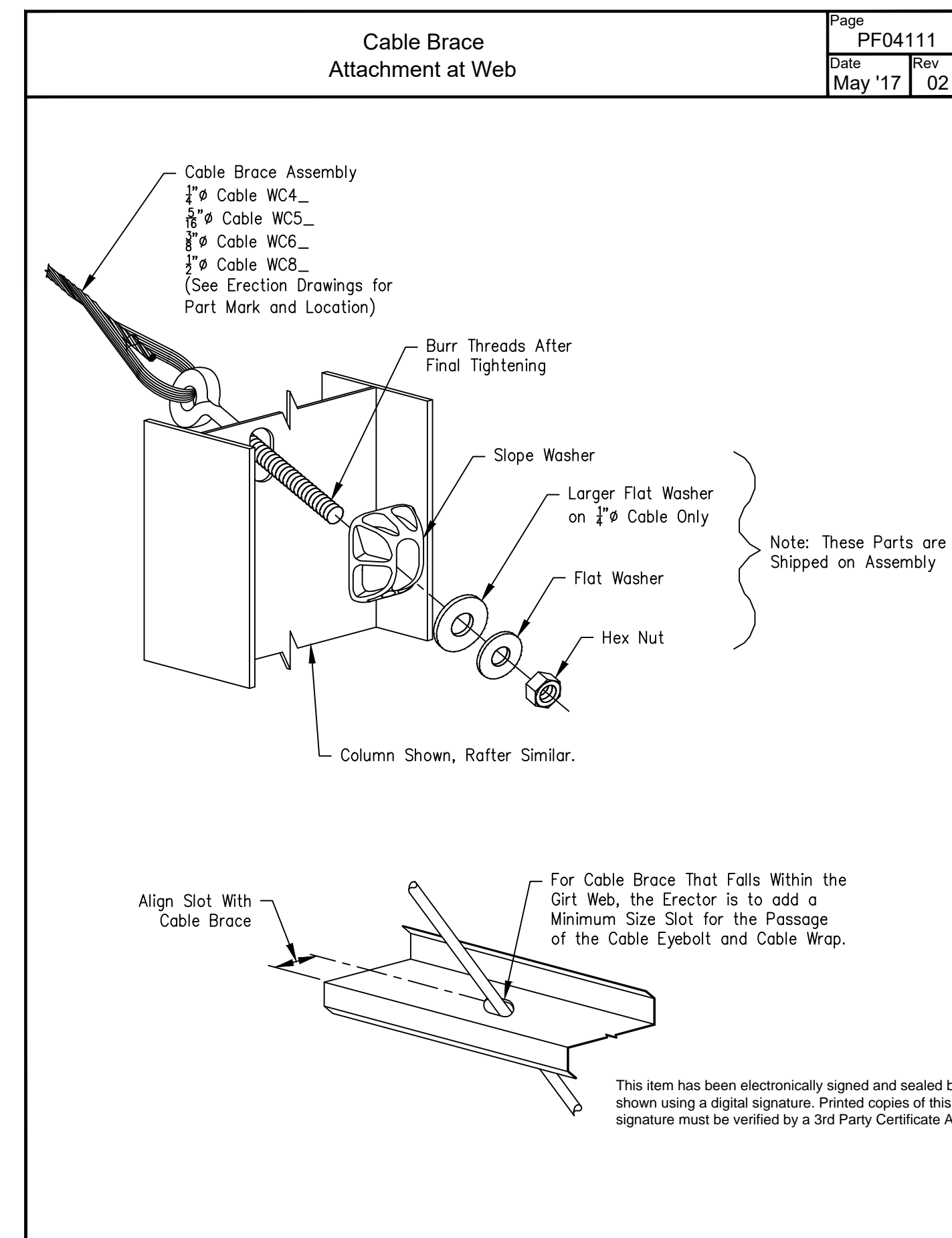
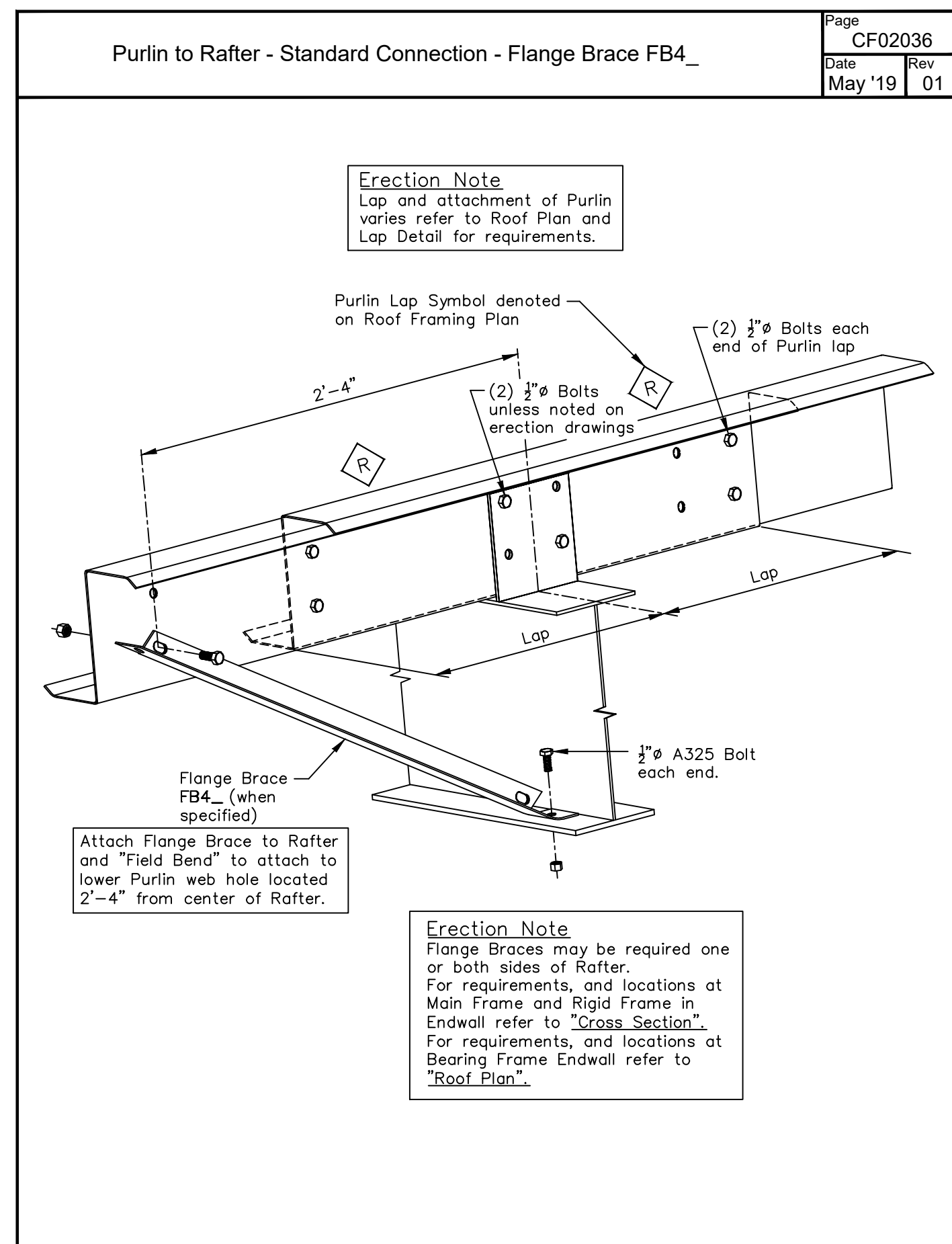
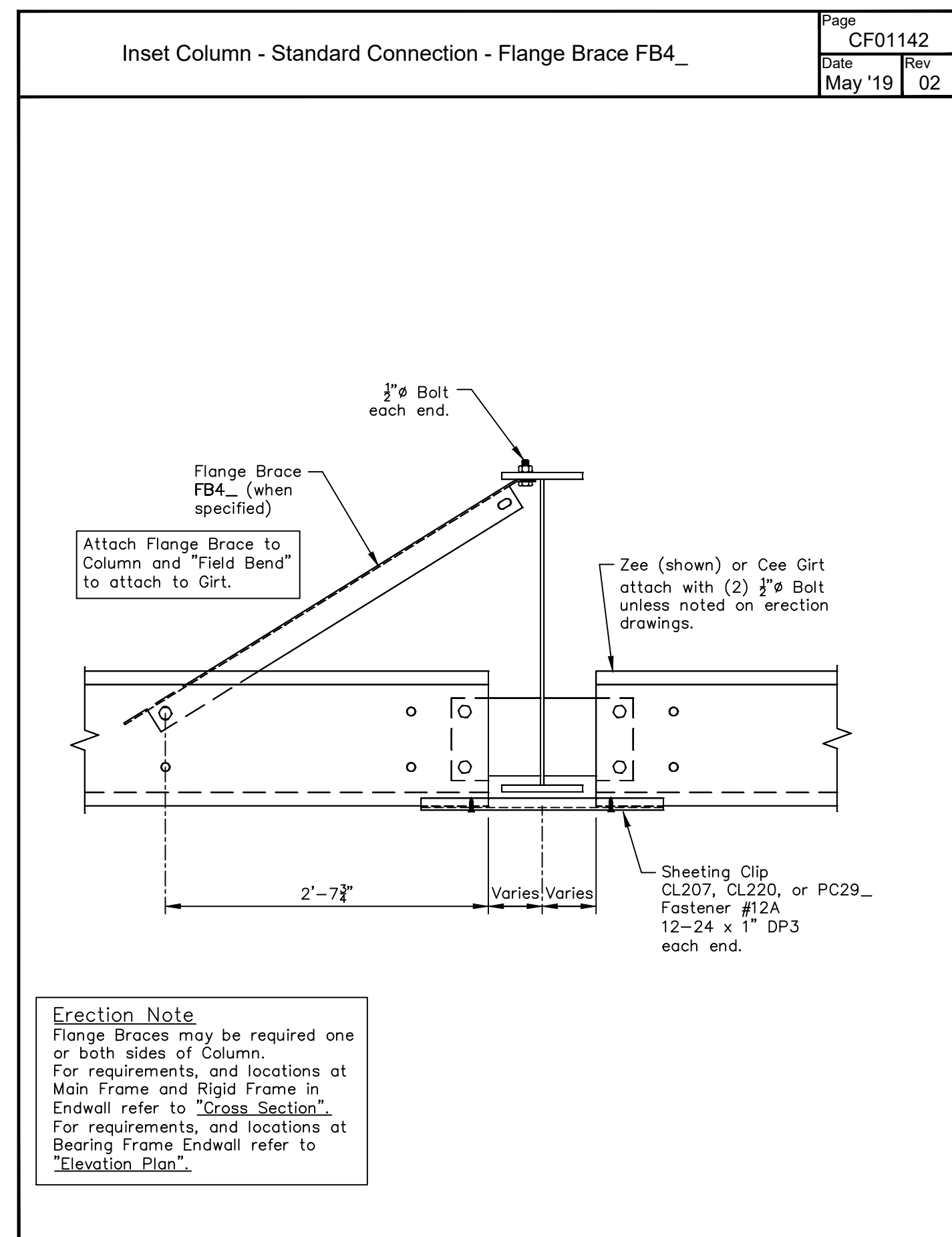
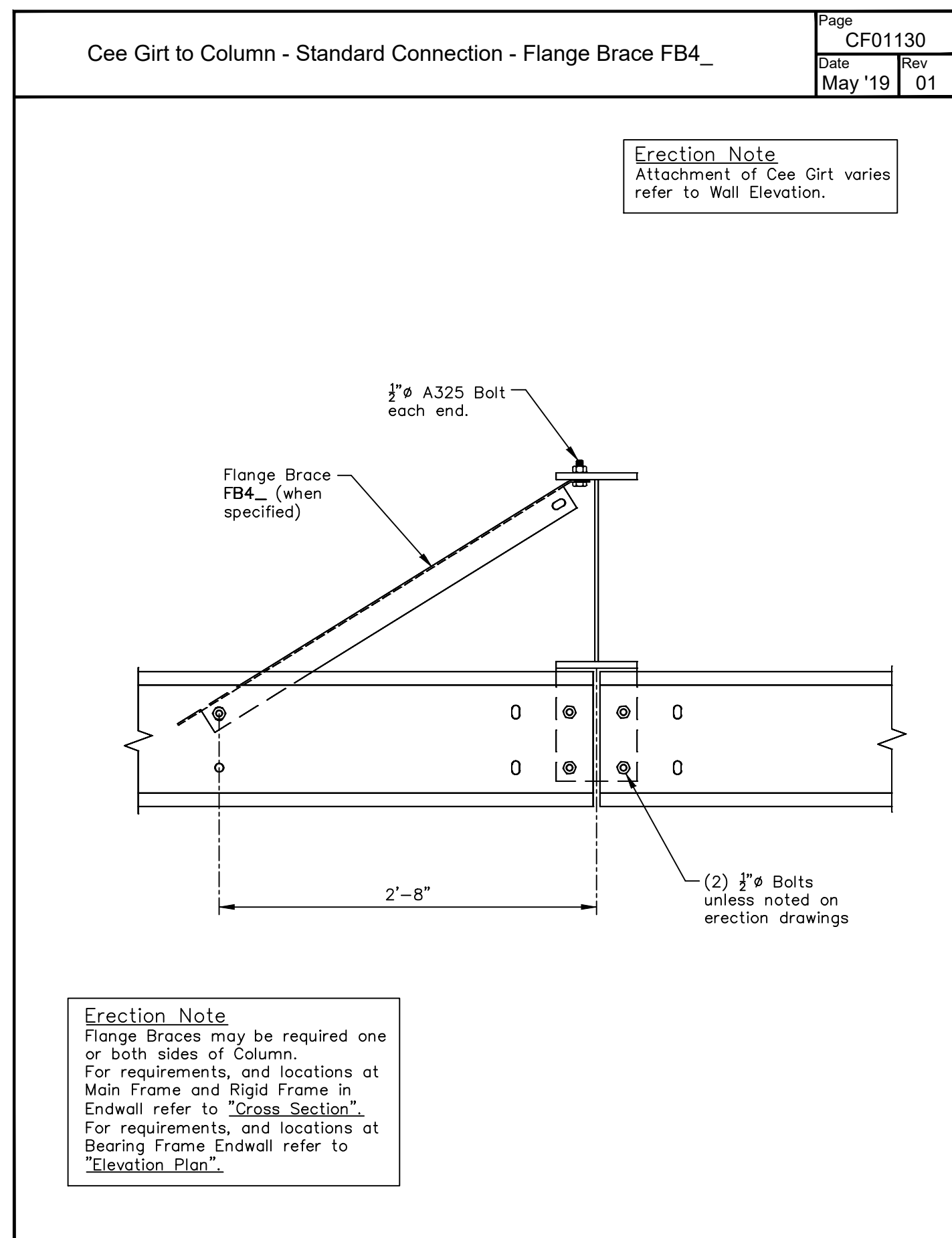
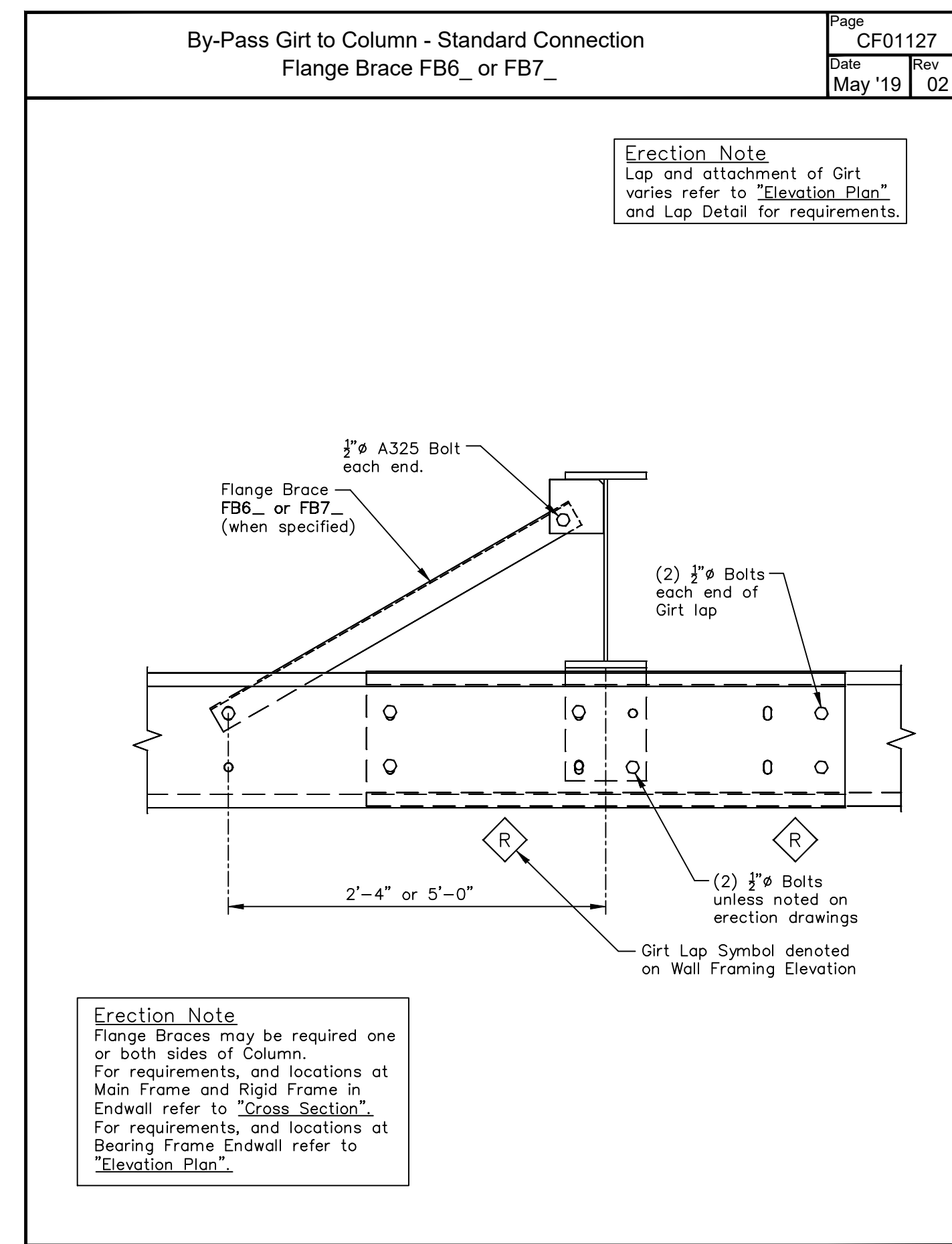
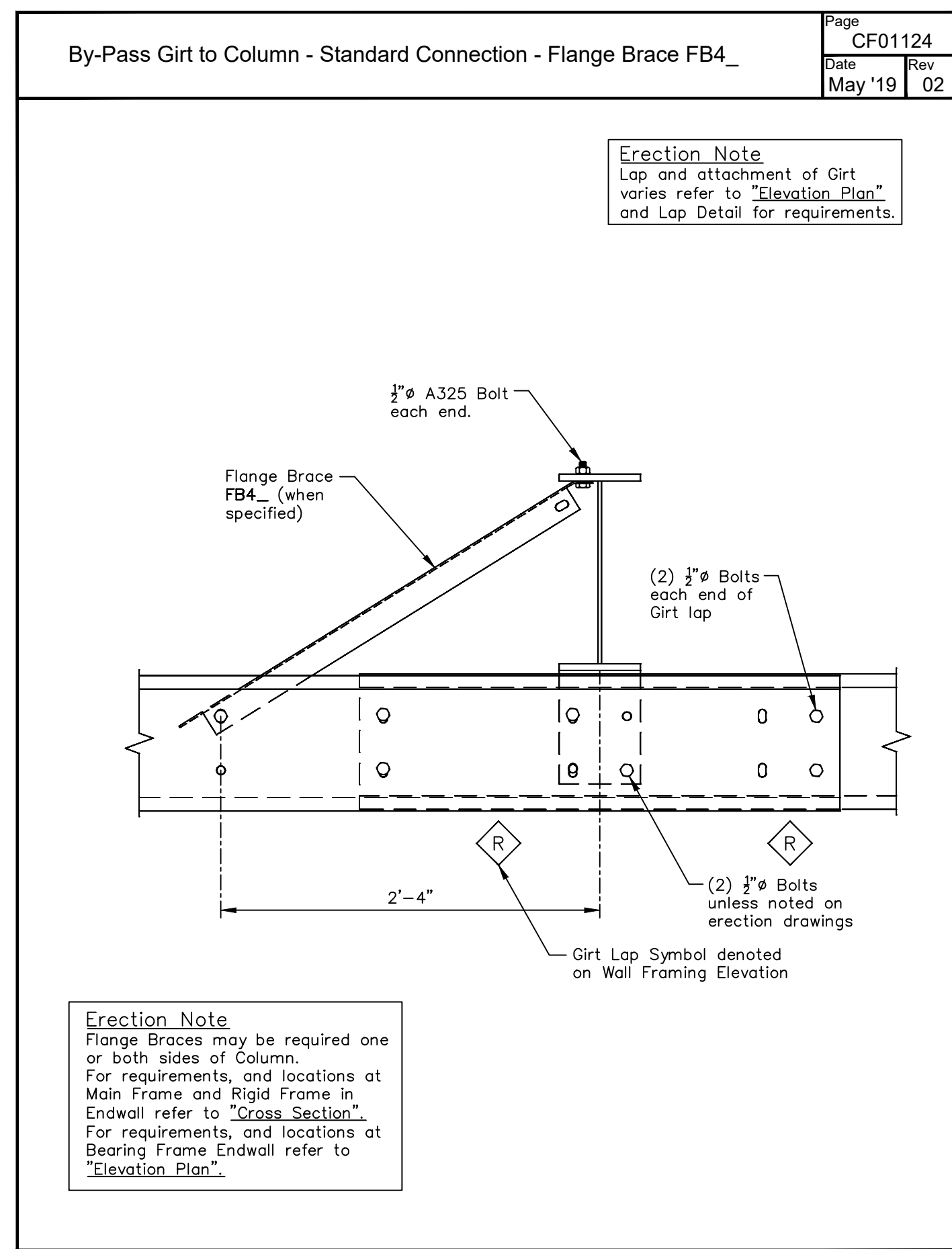
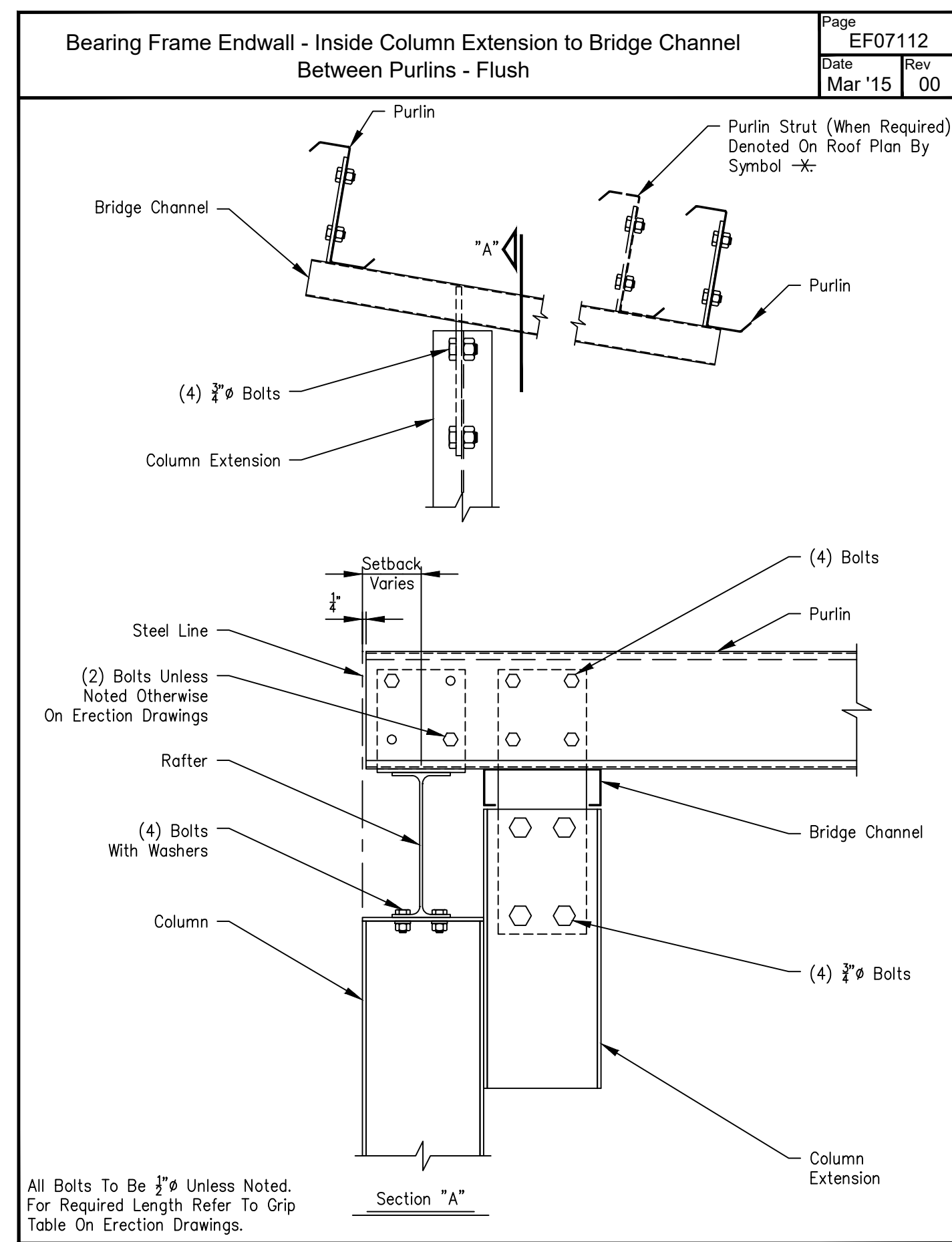
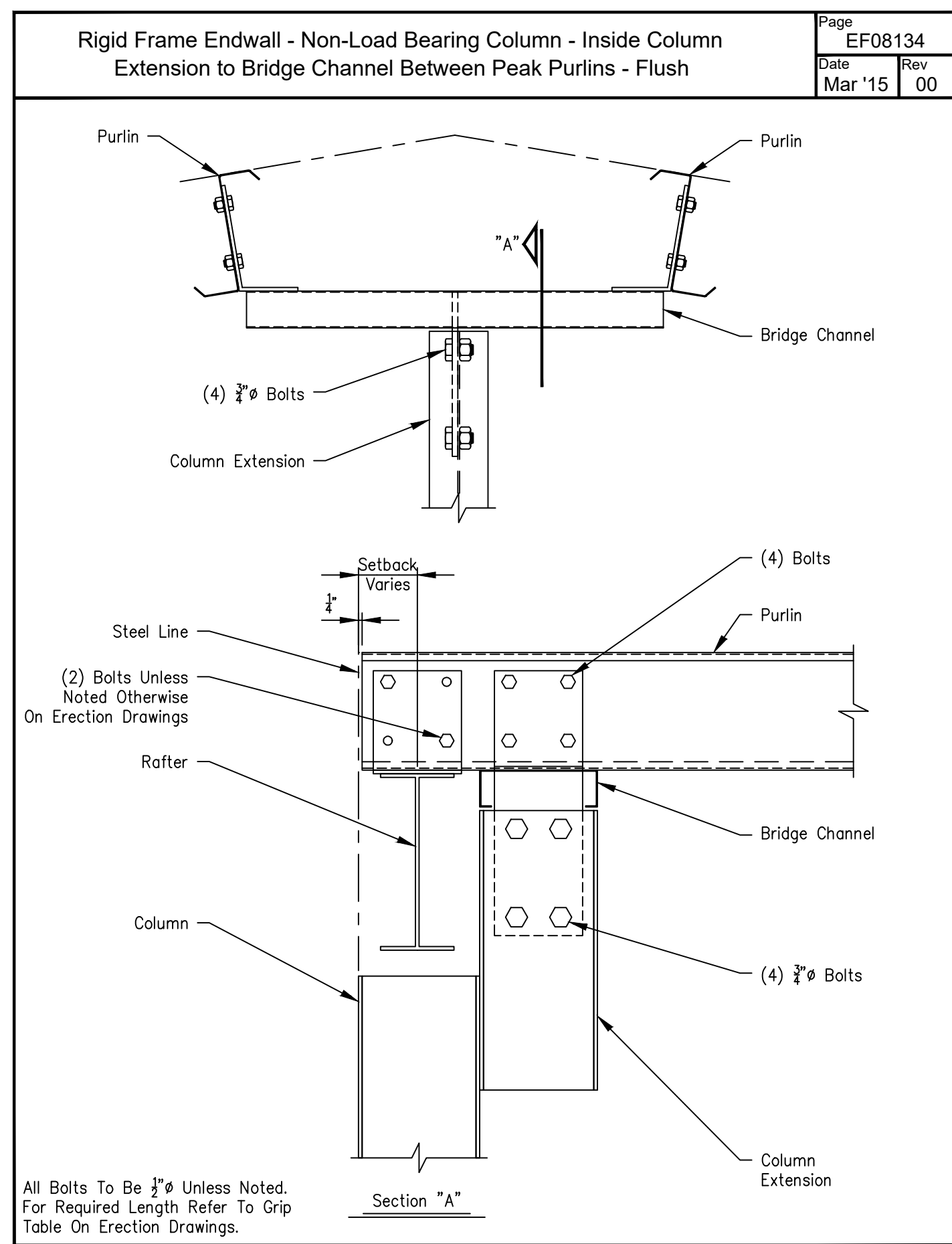
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Scale: NOT TO SCALE
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 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: R3 of 11

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ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Customer:
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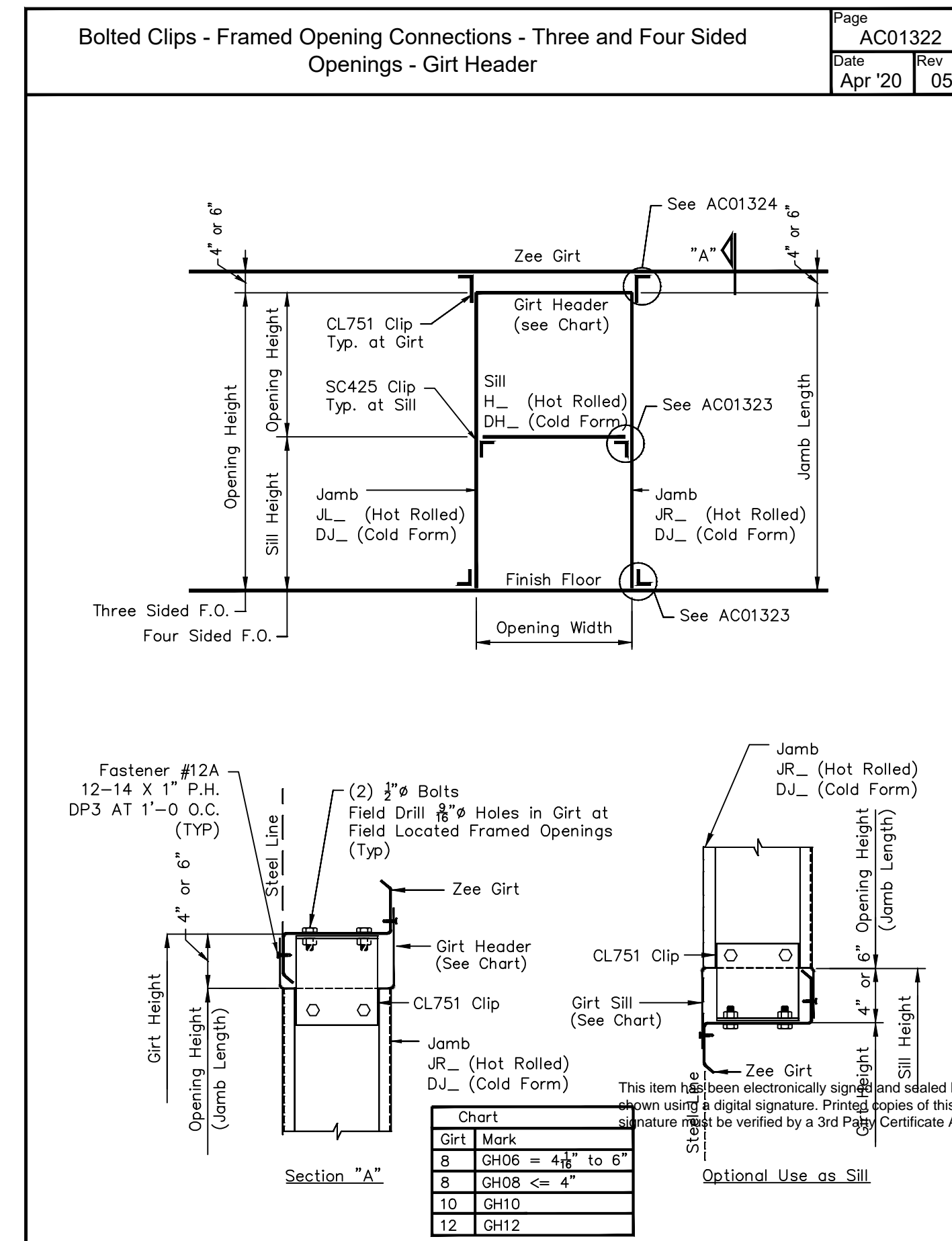
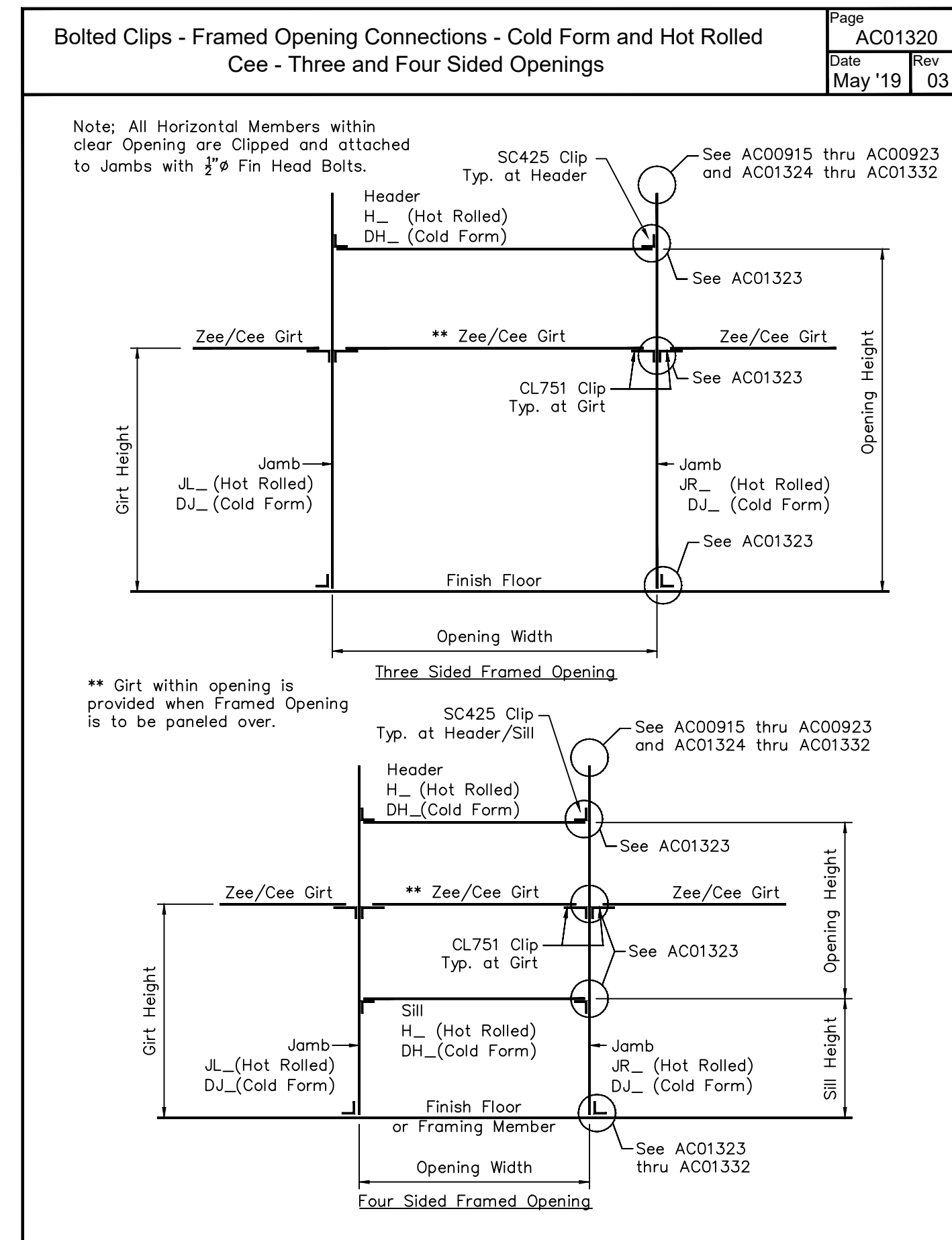
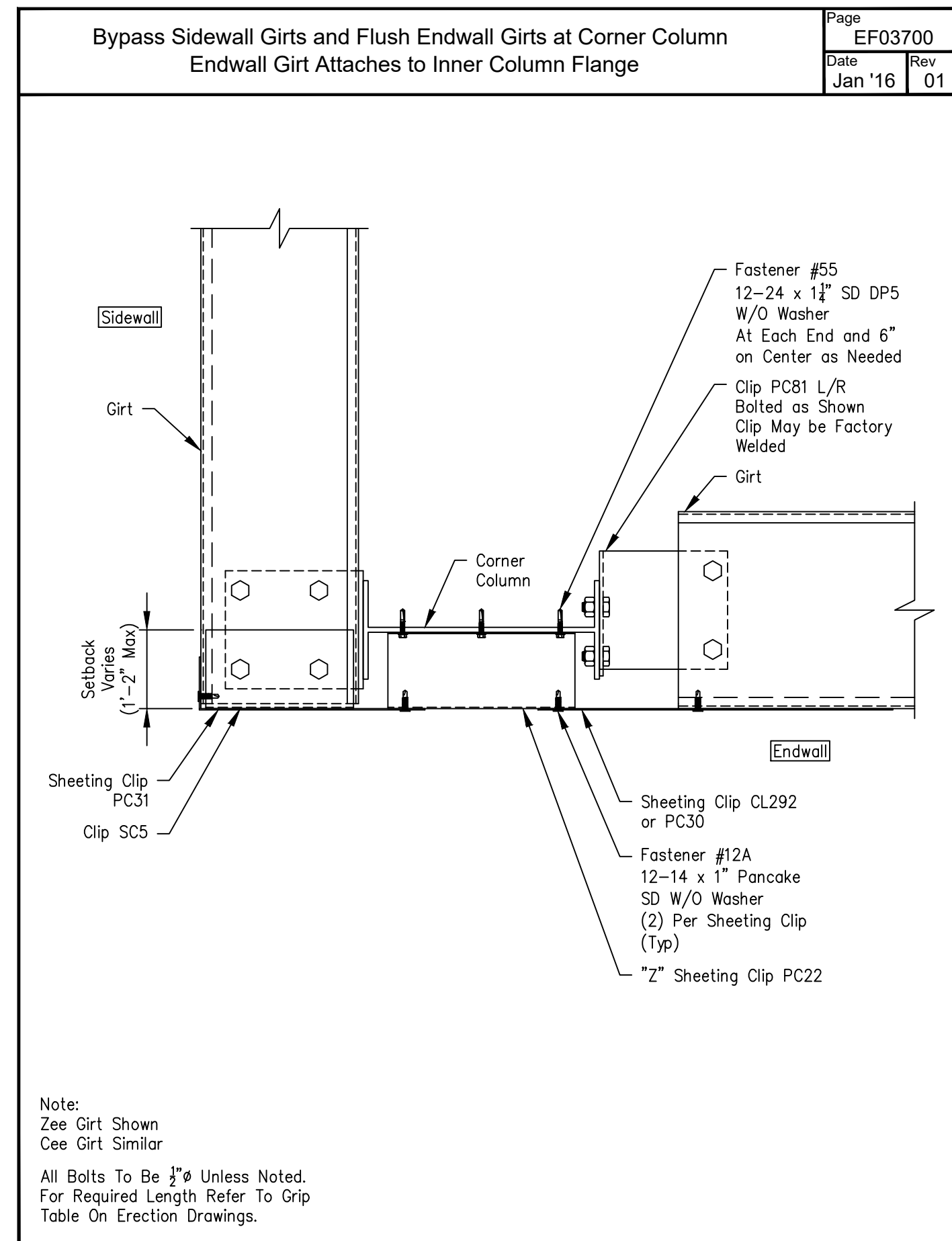
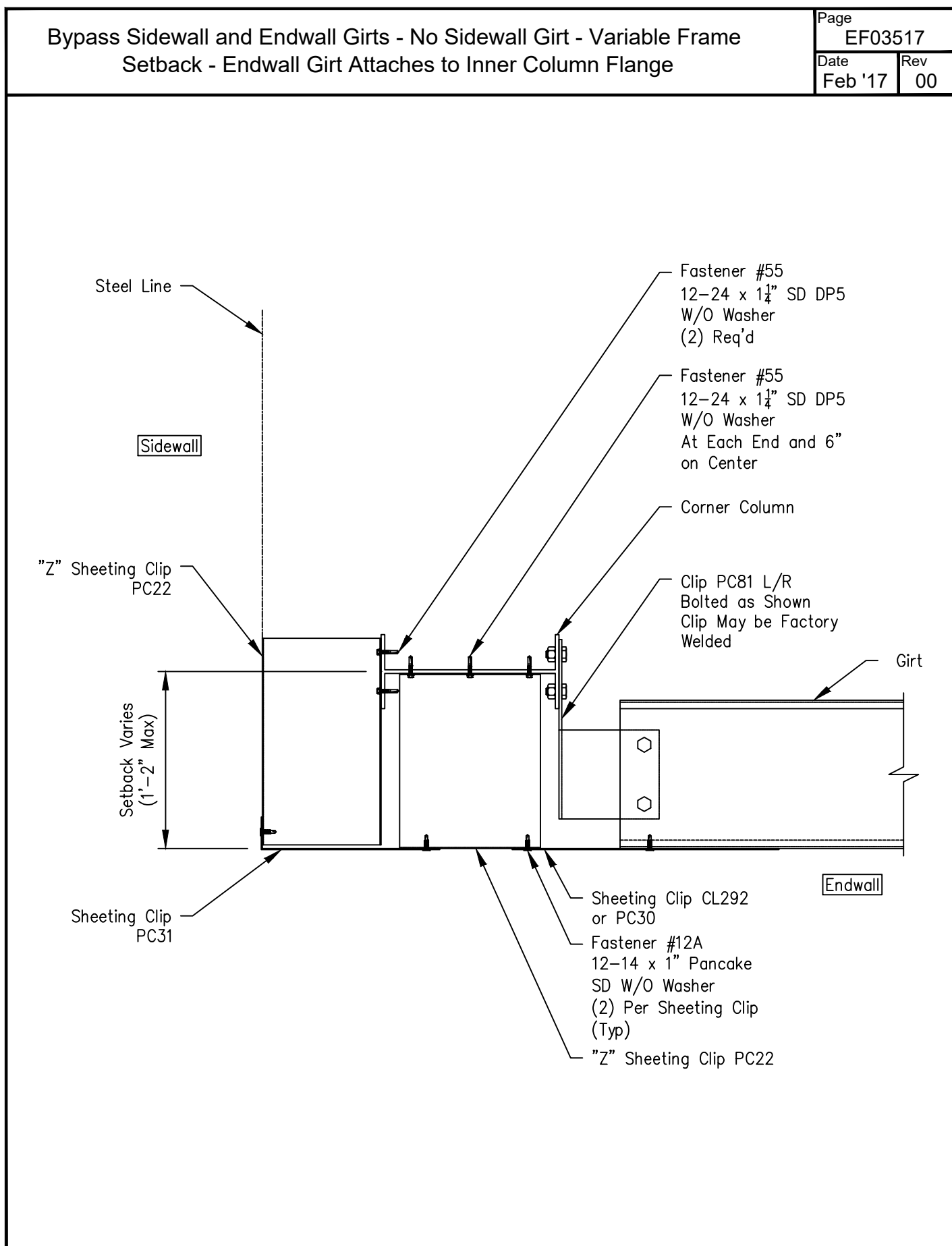
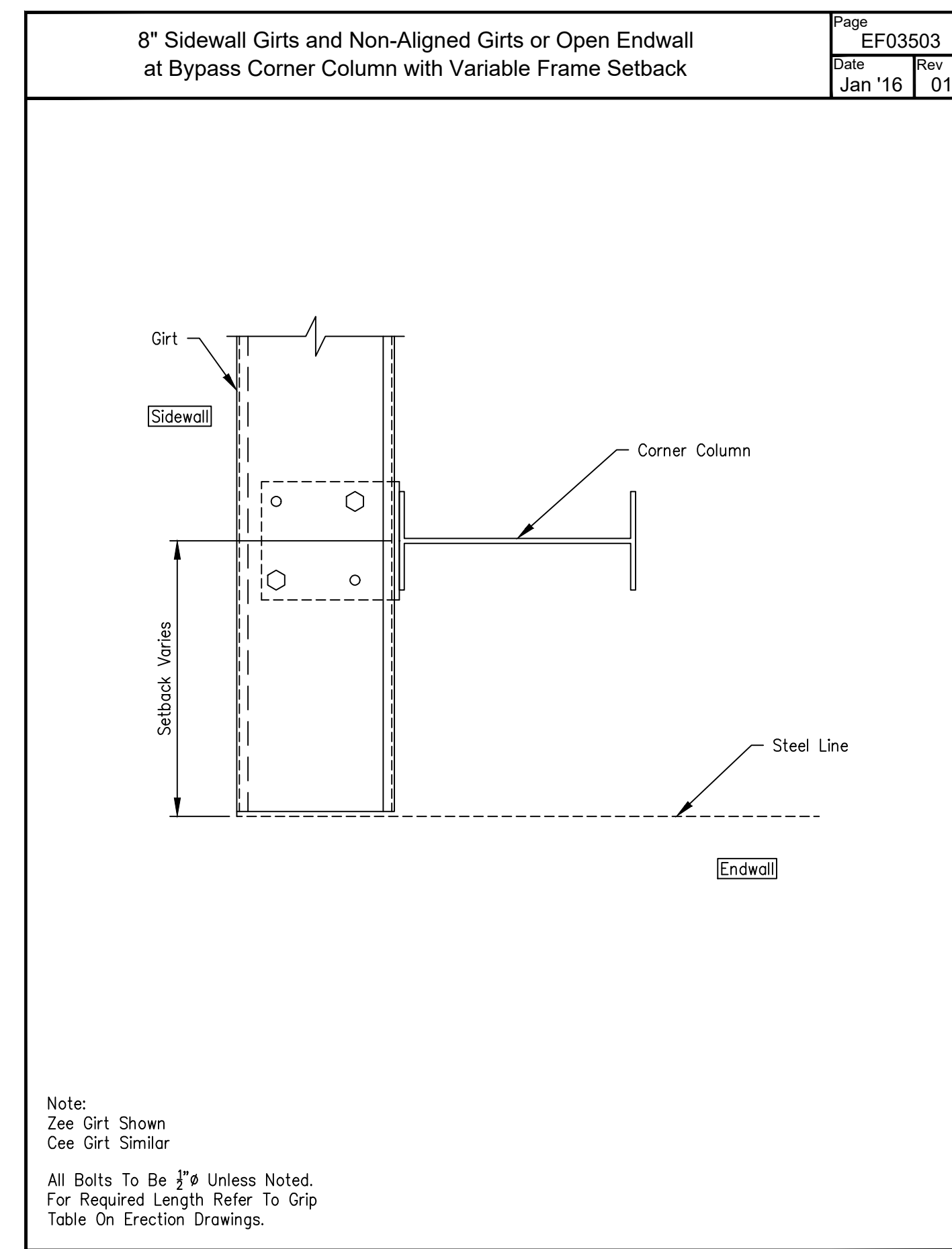
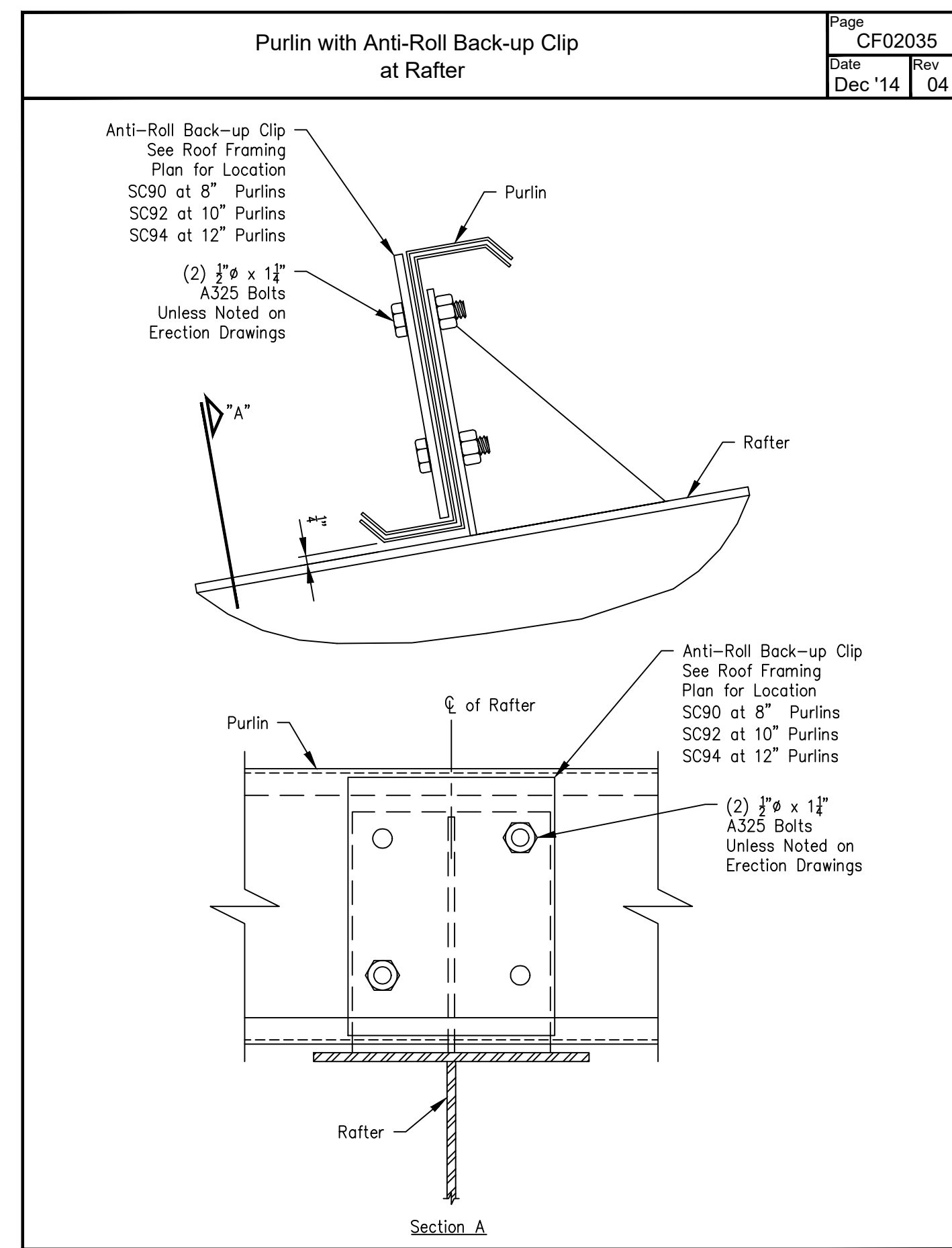
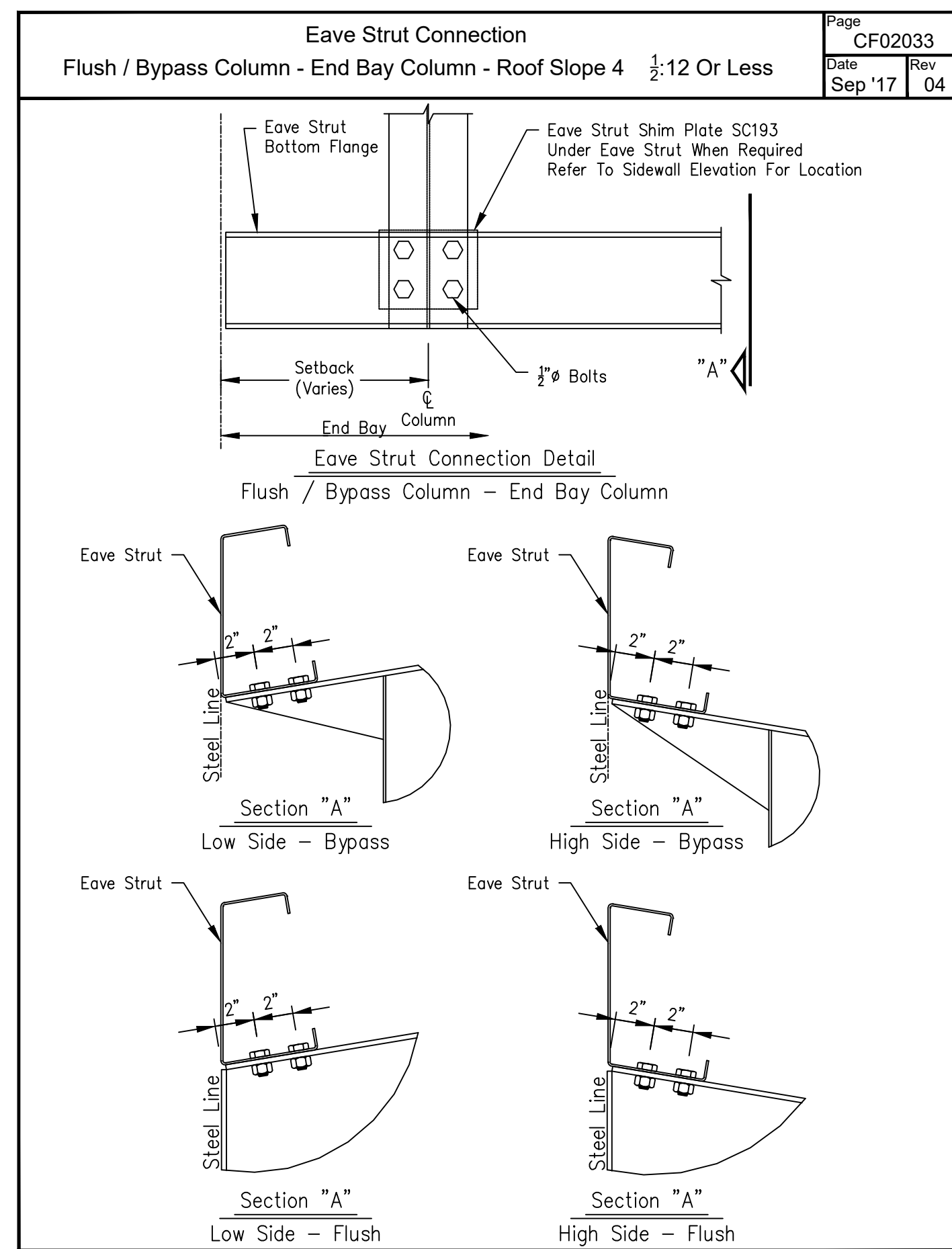
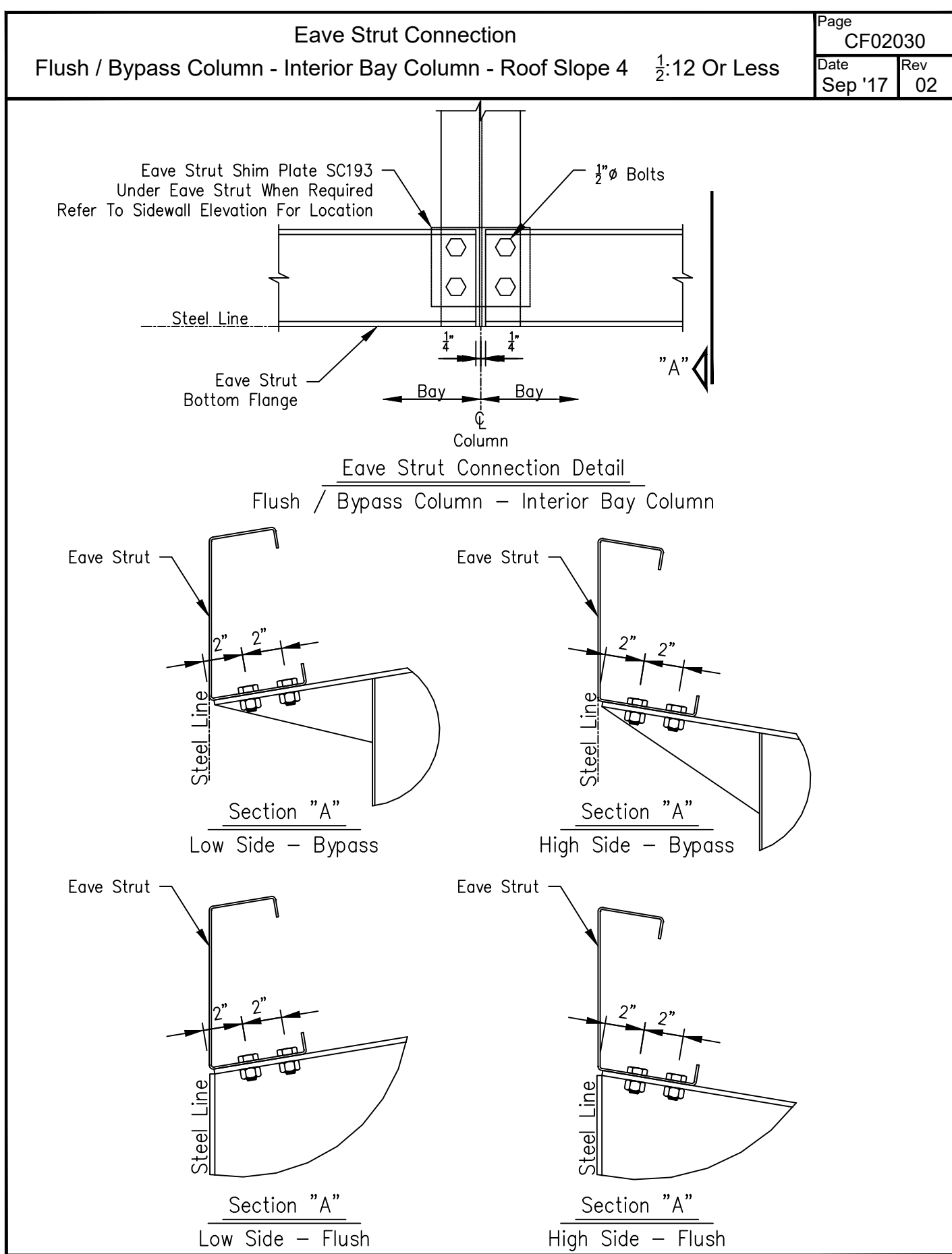
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Drawn by: ASP 8/17/24
Checked by: USR 8/17/24
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Sheet Number: R4 of 11

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YUANGANG (BILL) LI, S.E.
081-008395
Aug 19, 2024
STATE OF ILLINOIS



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Checked by: USR 8/17/24

Project Engineer: EJA

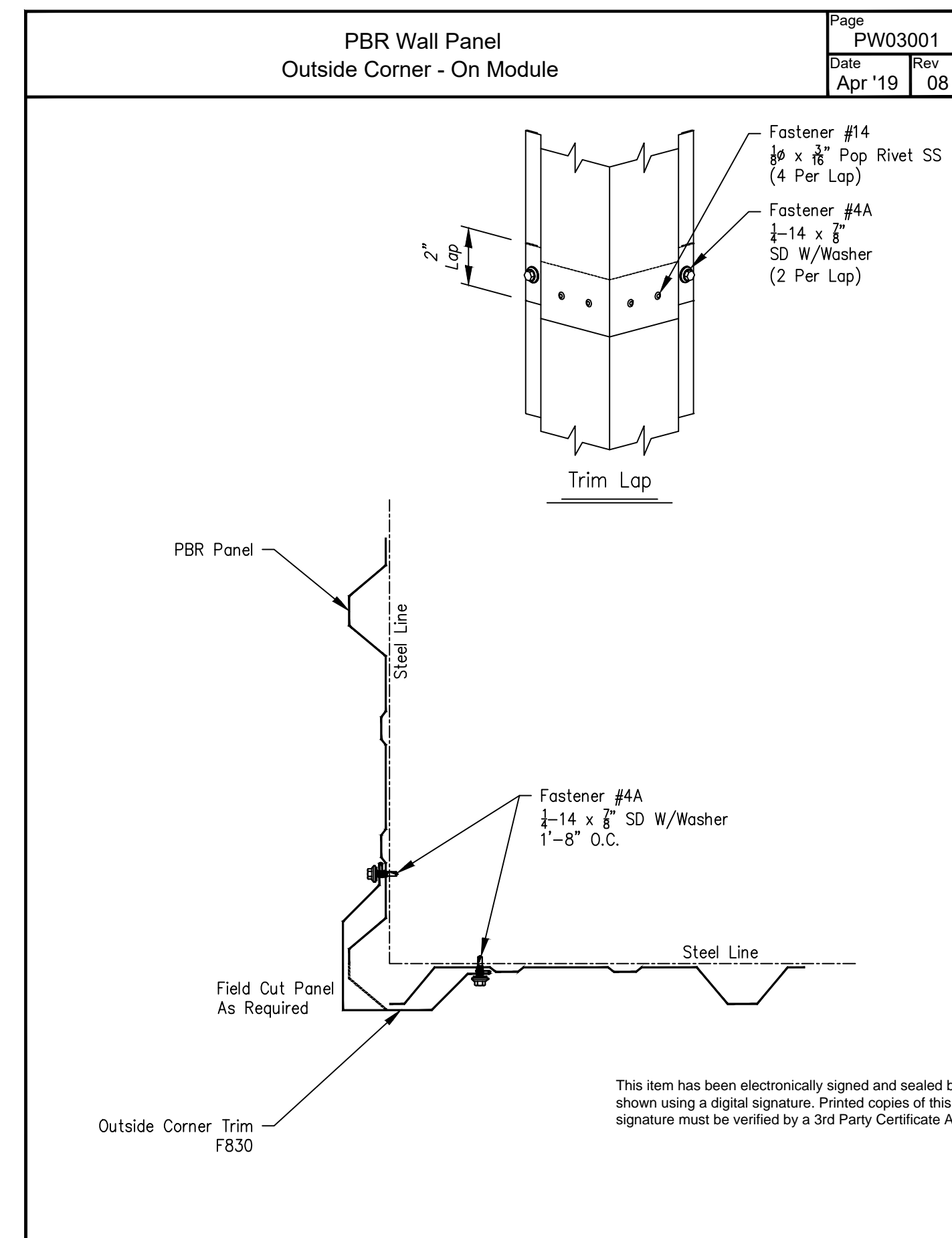
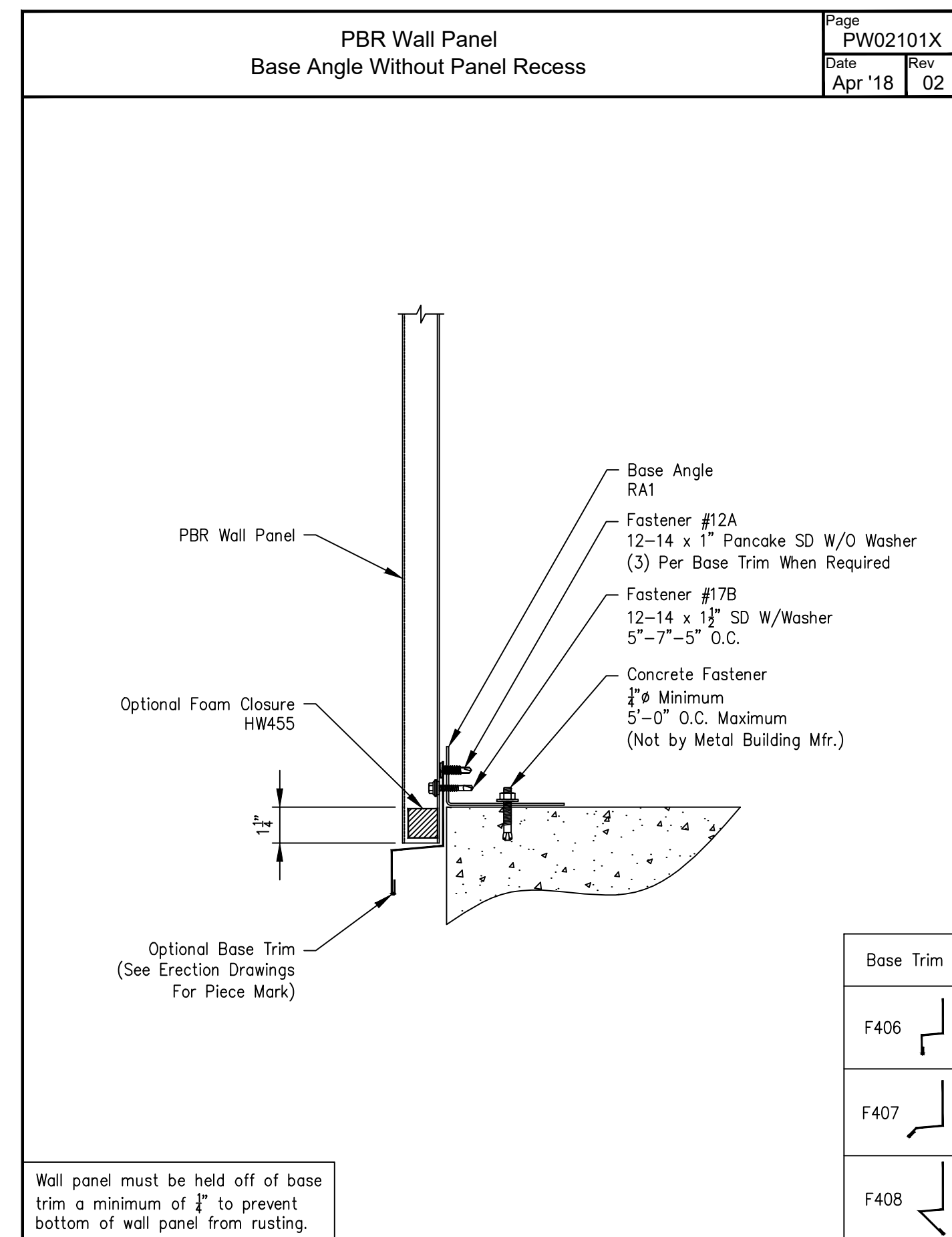
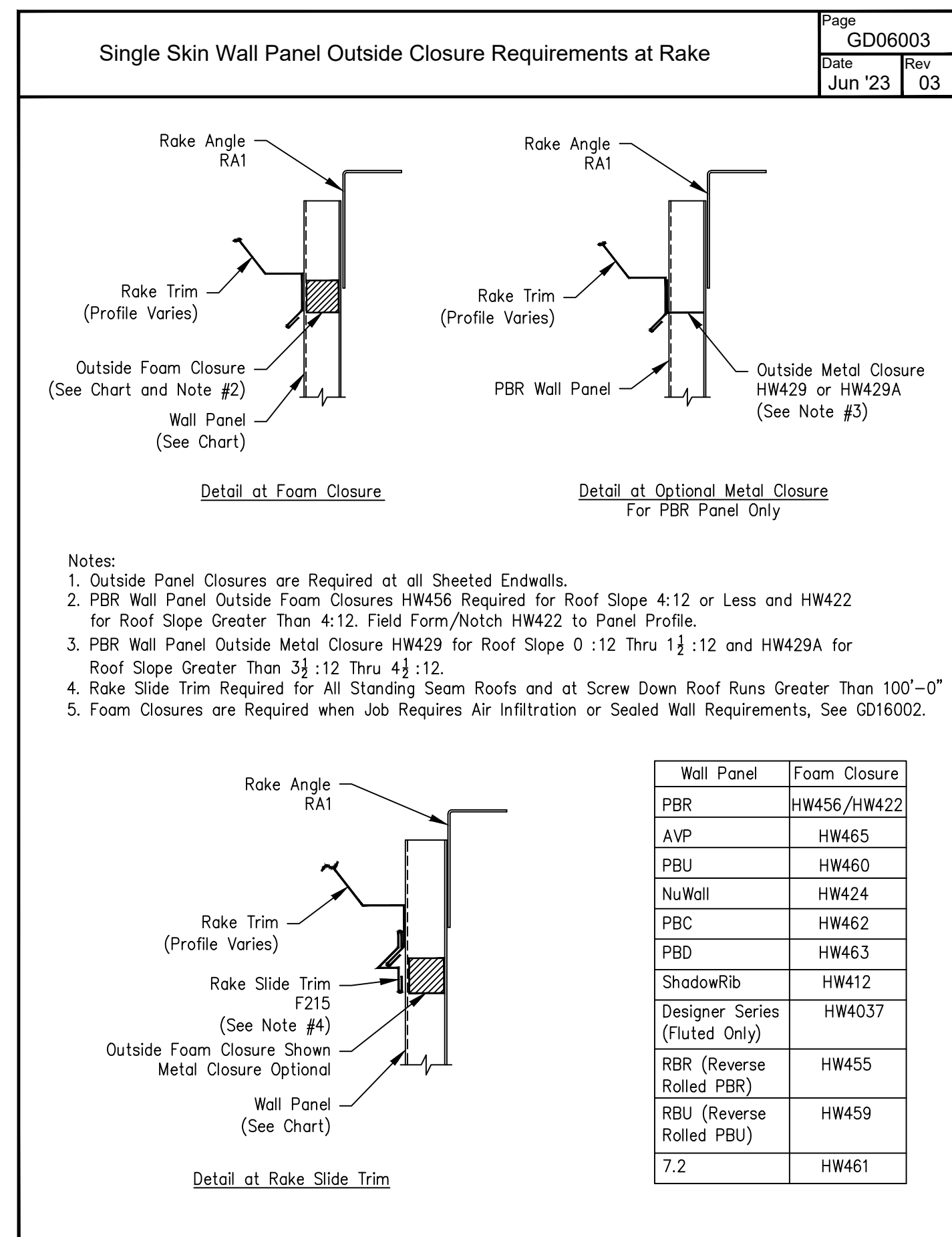
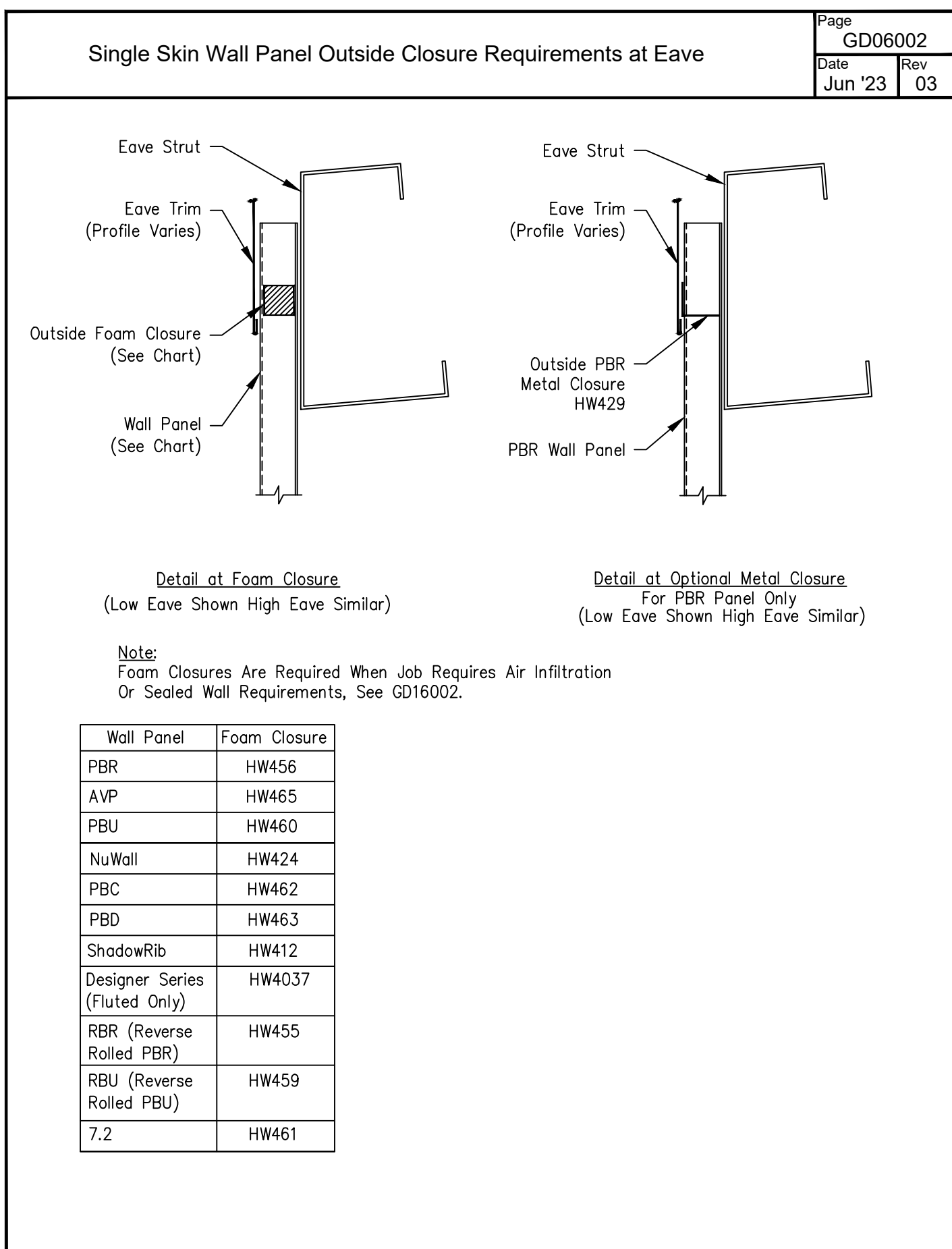
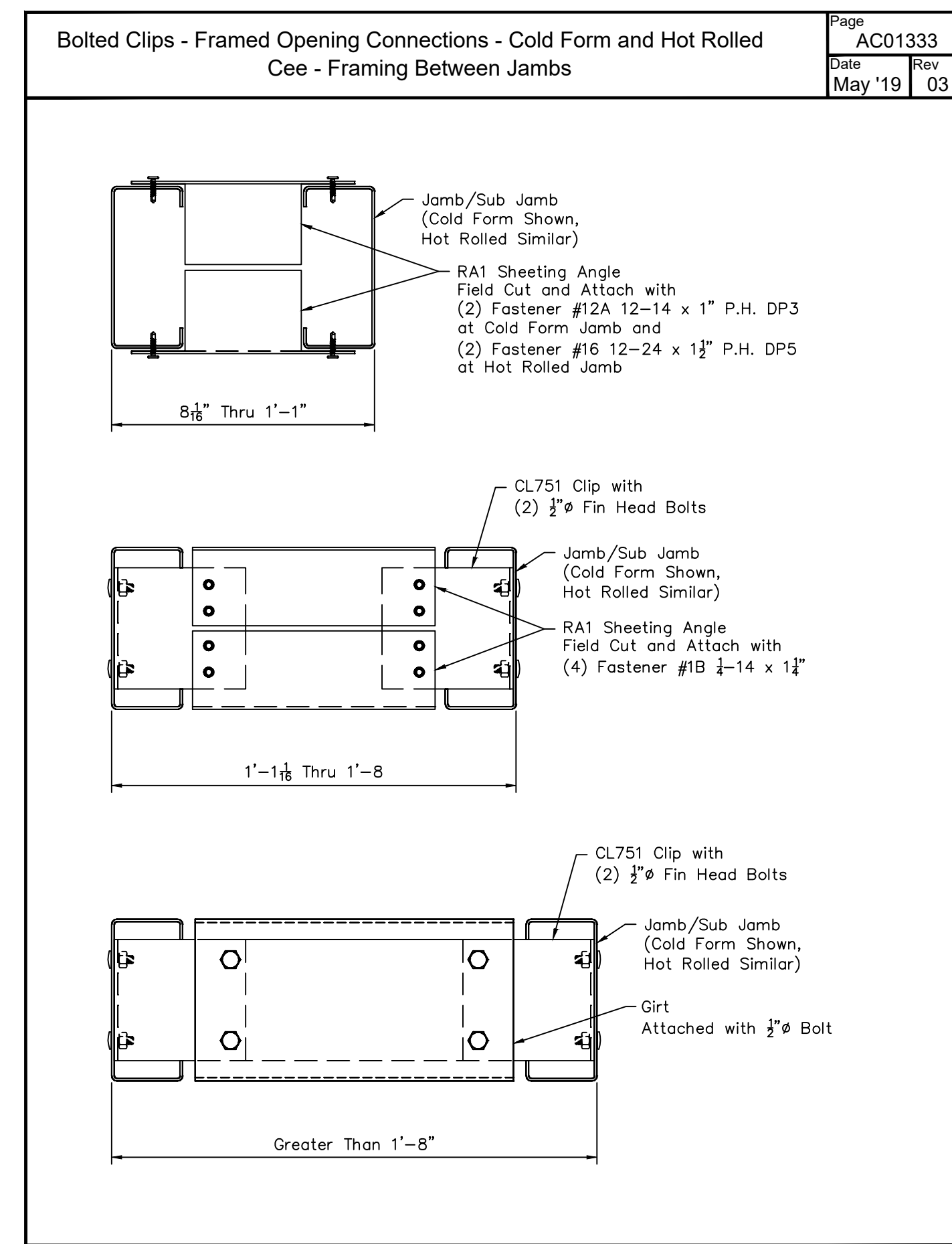
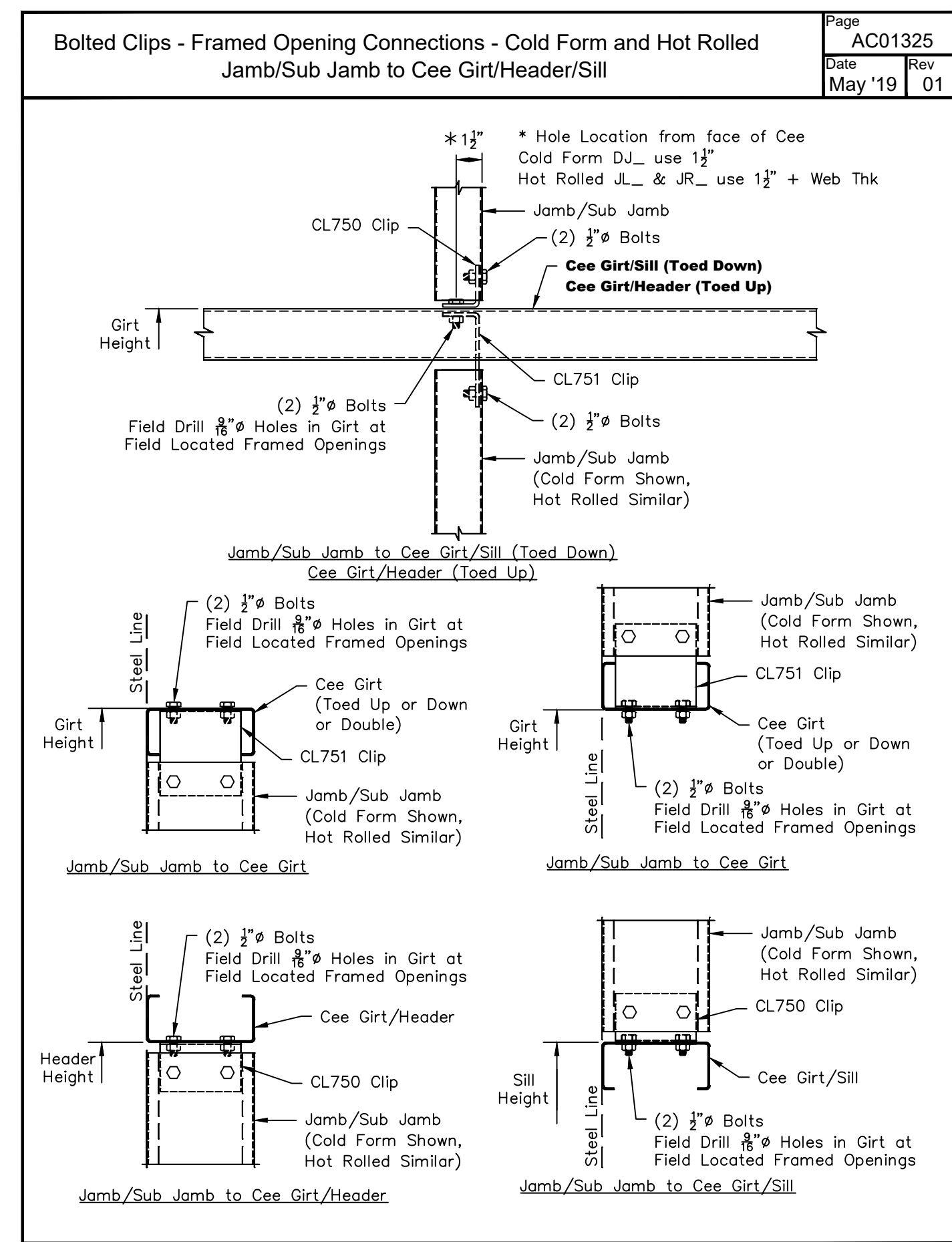
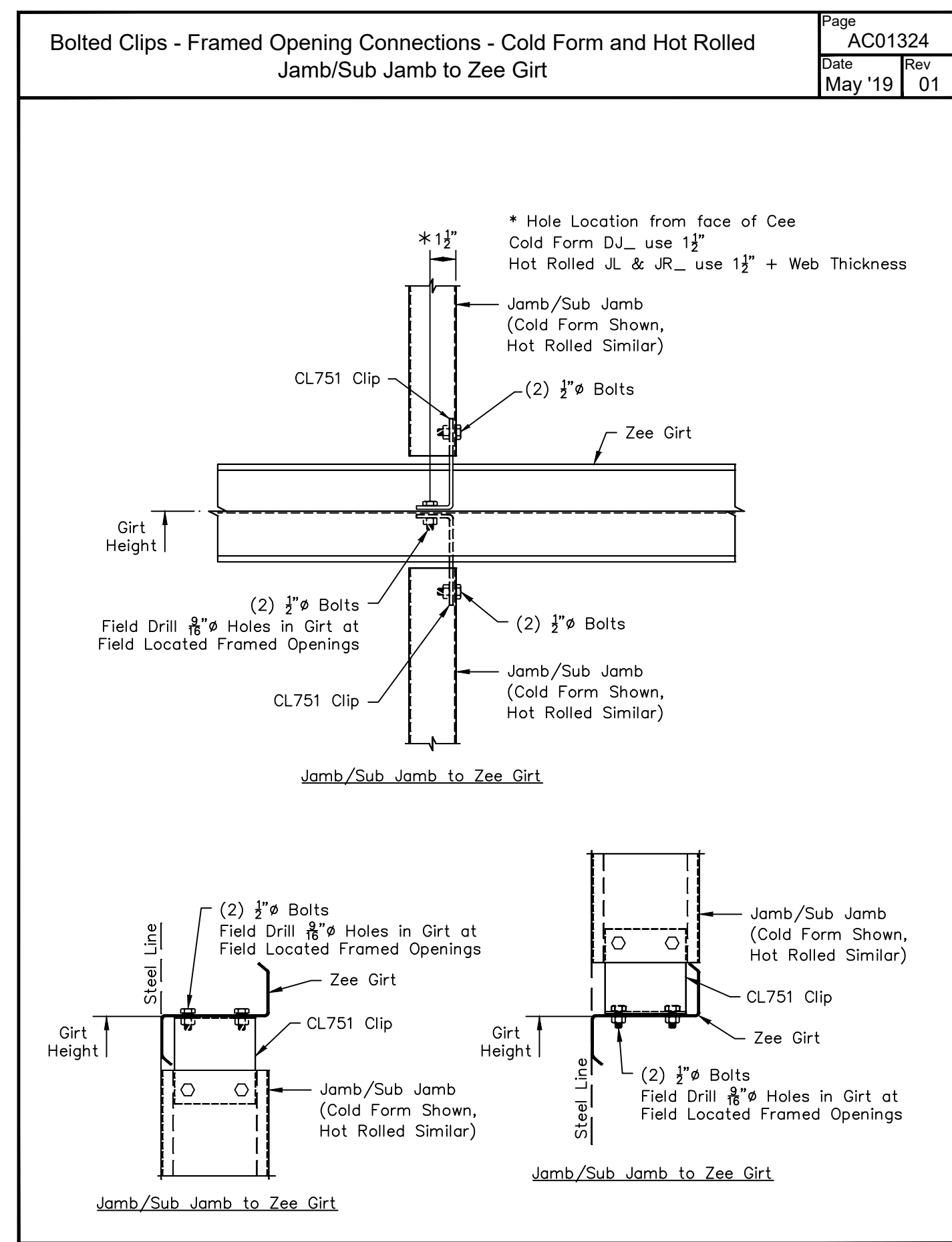
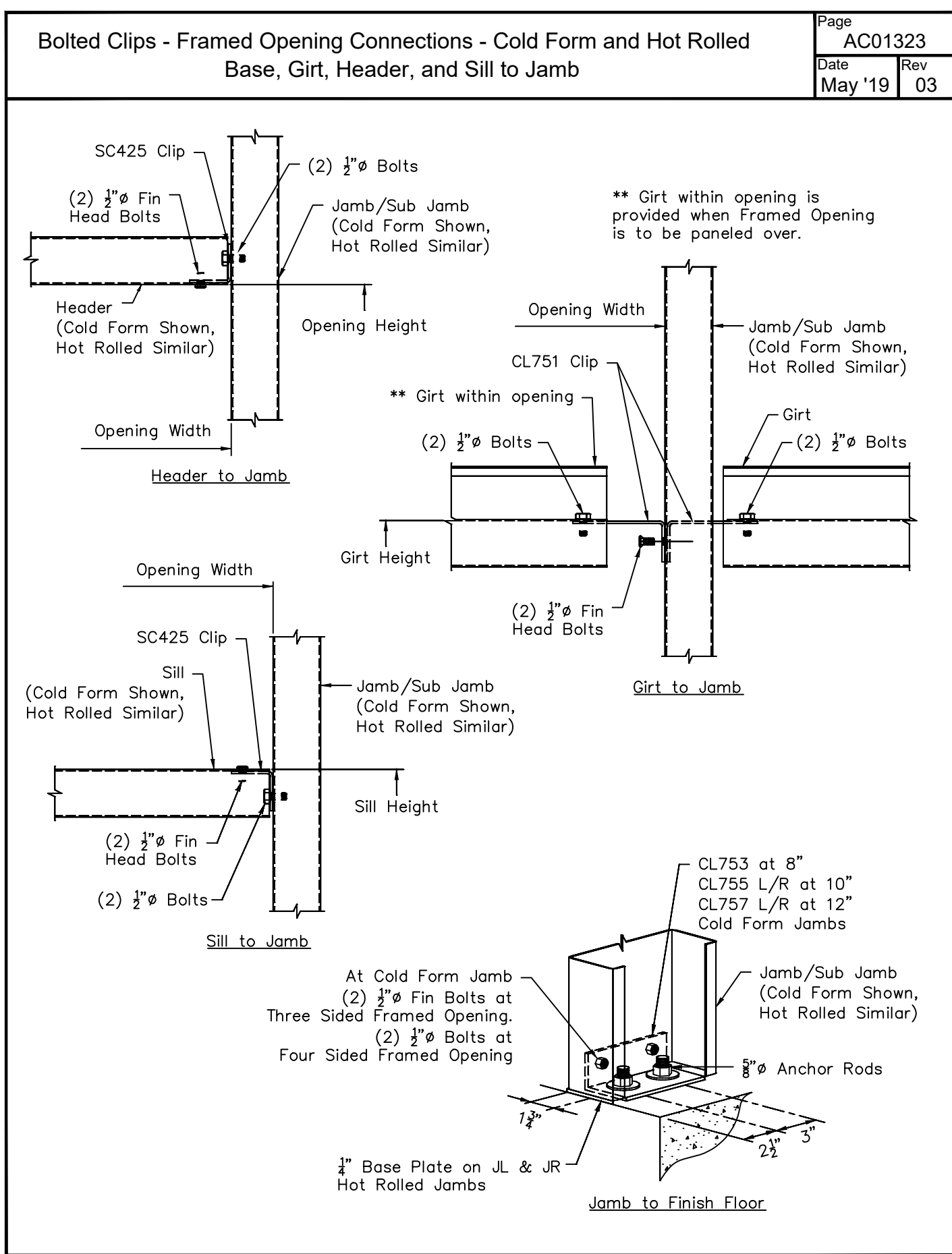
Job Number: 19-B-71294

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Project Name & Location:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

Customer:
 ALYX KEMP
 613 E GRANT ST
 GRANVILLE, IL 61326-9645 US

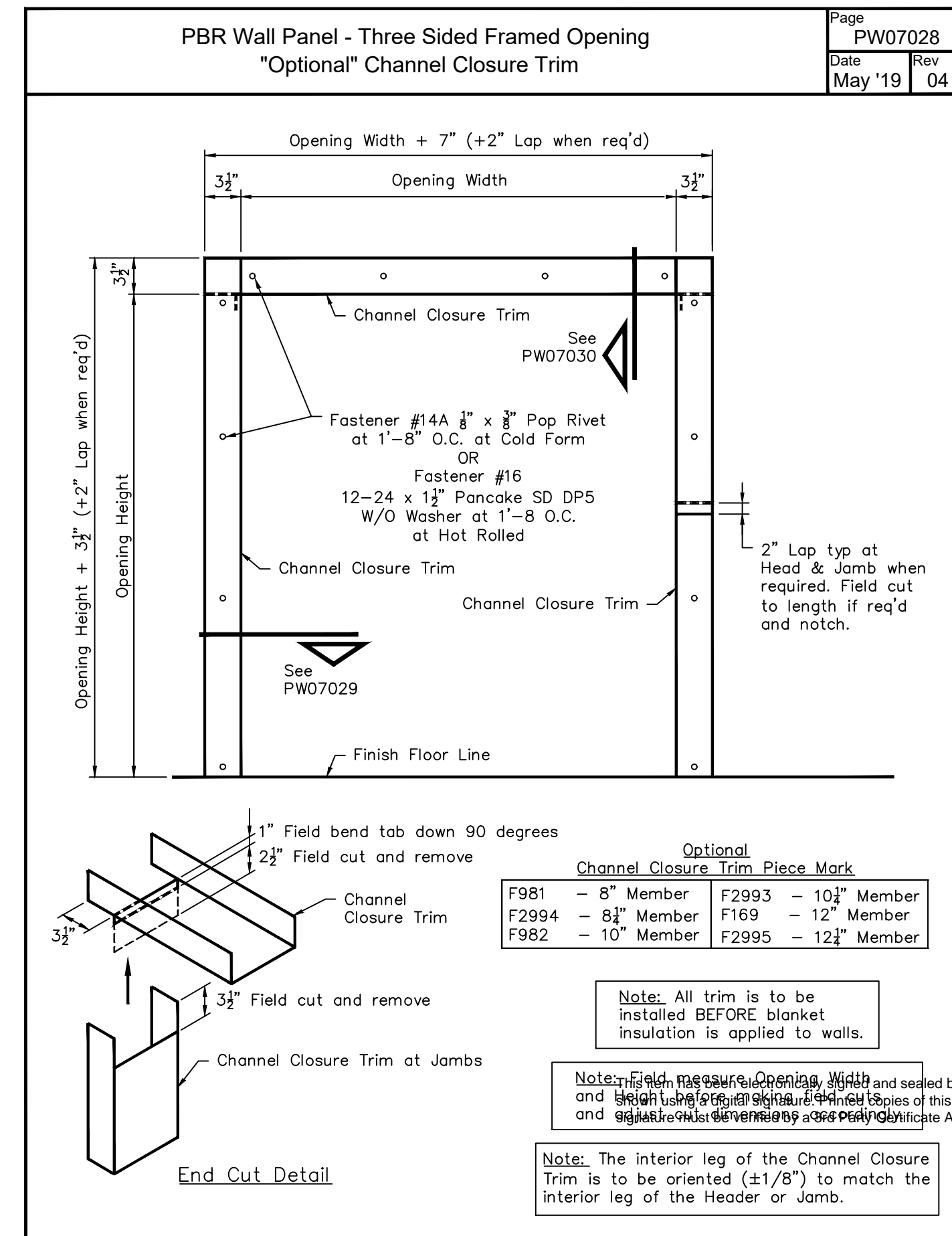
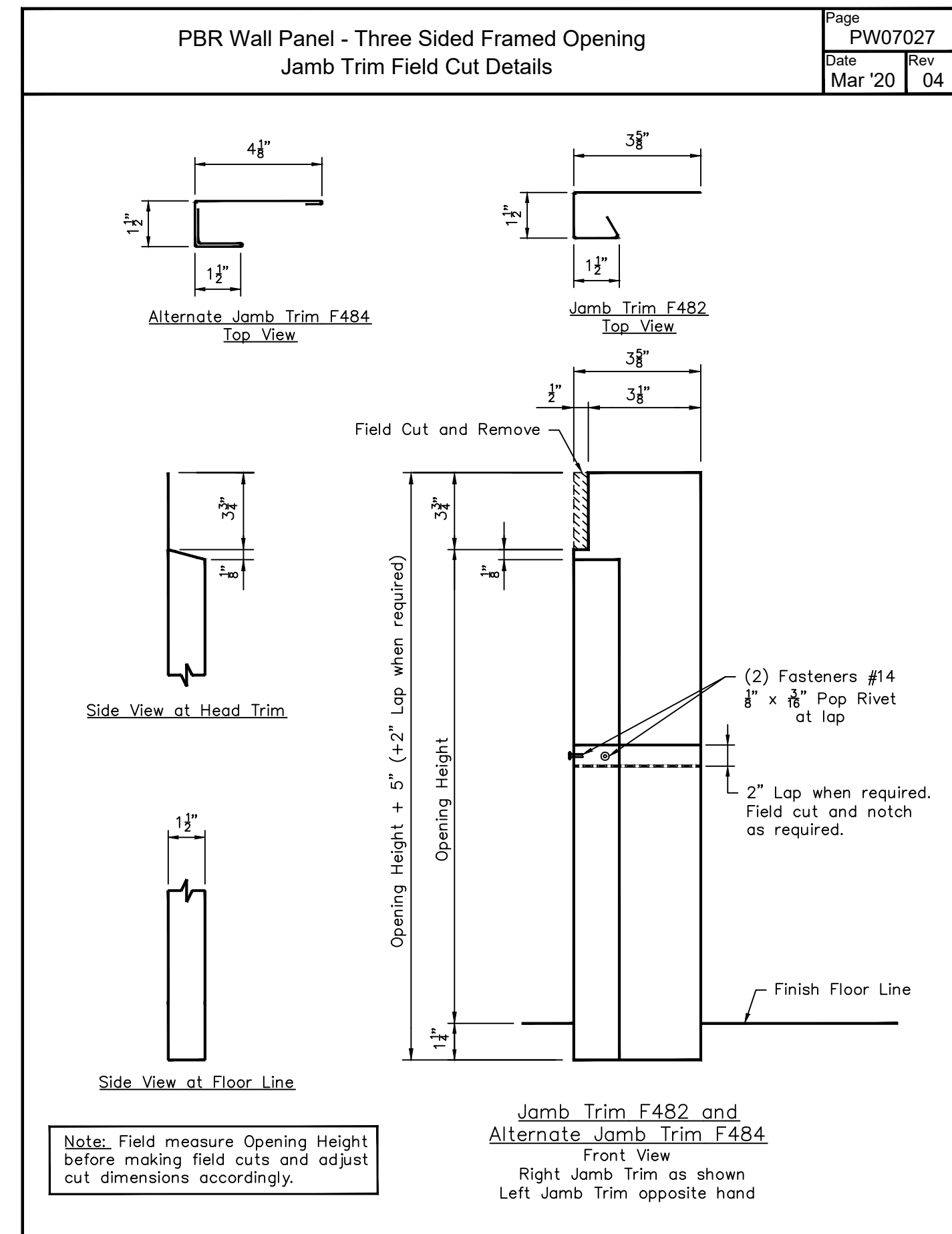
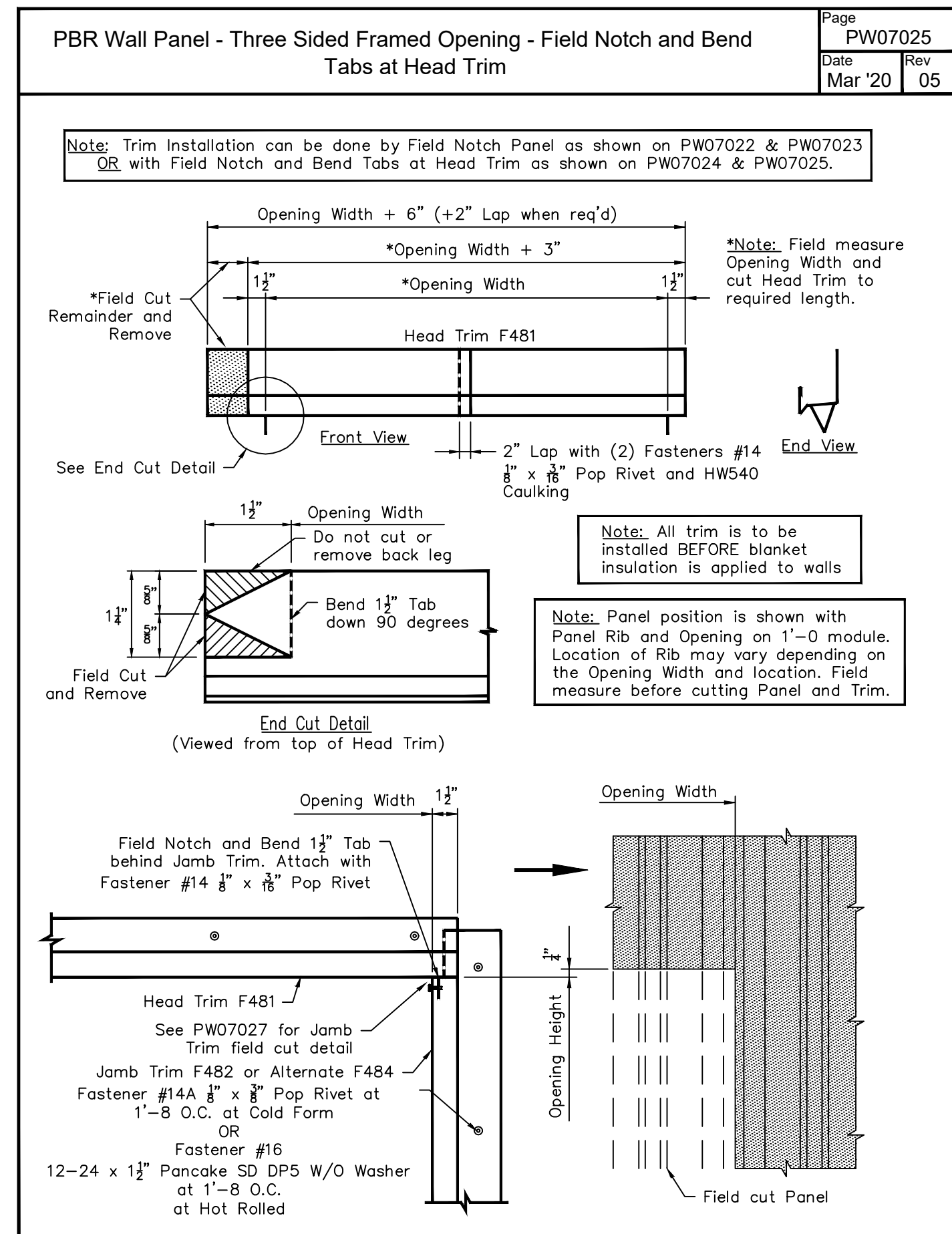
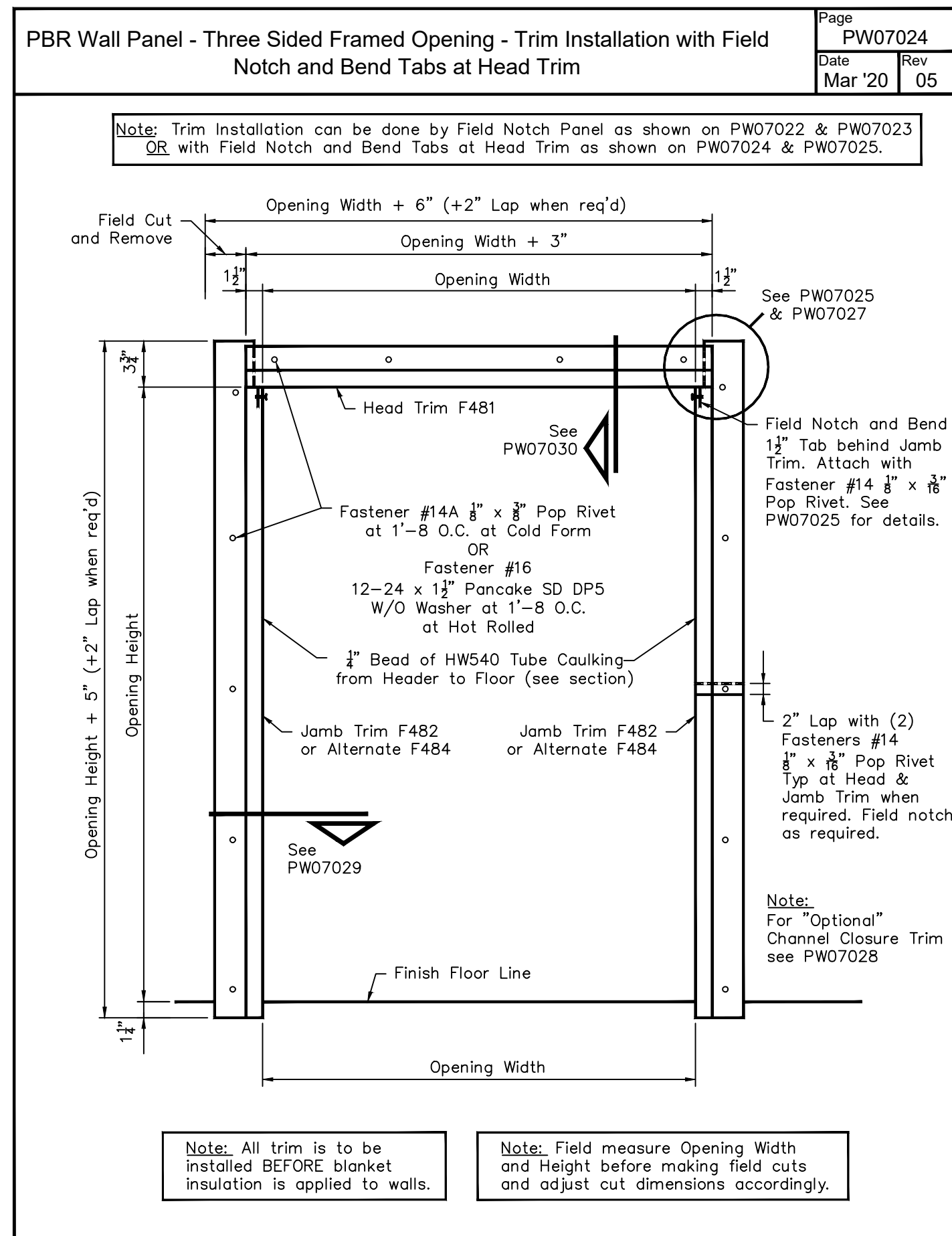
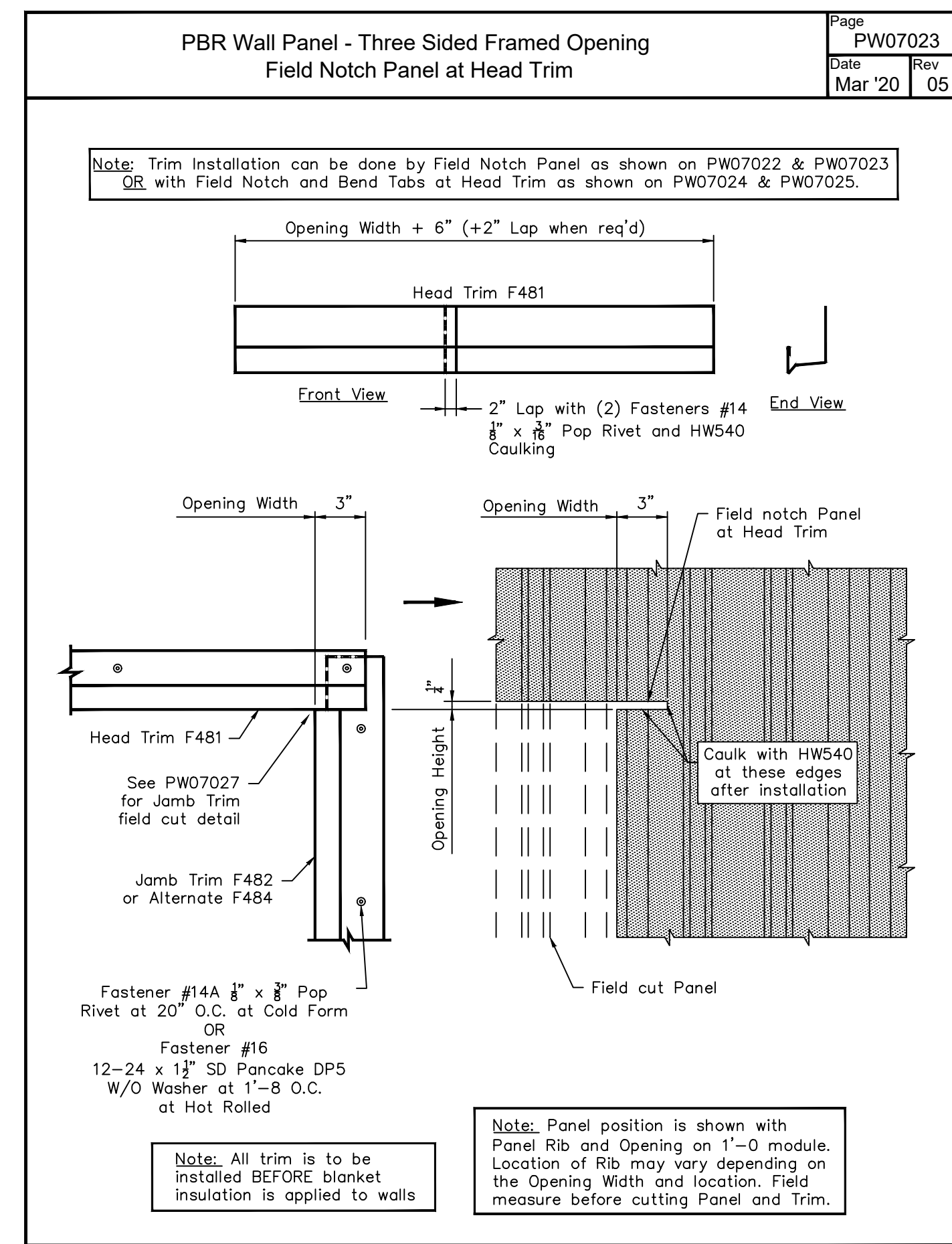
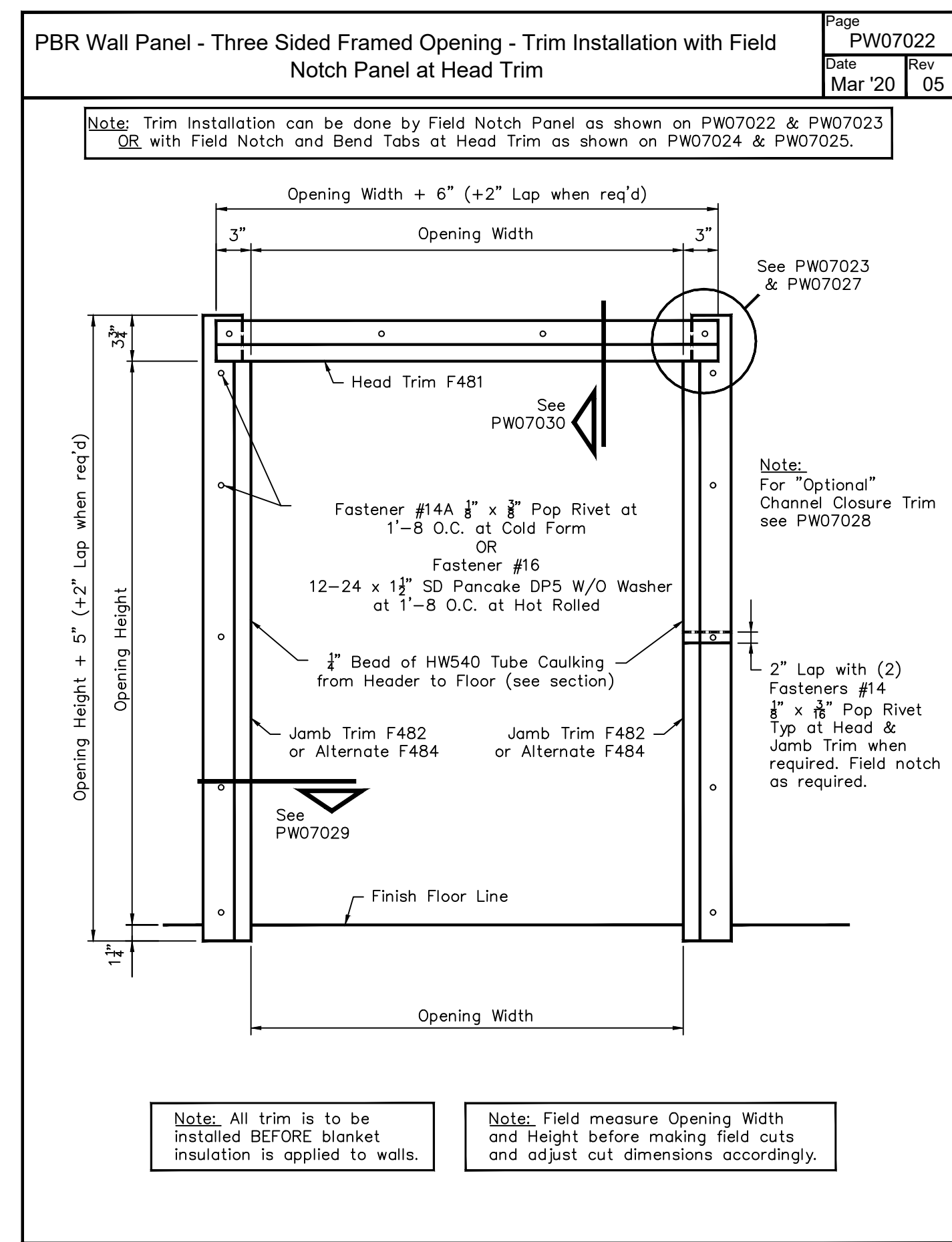
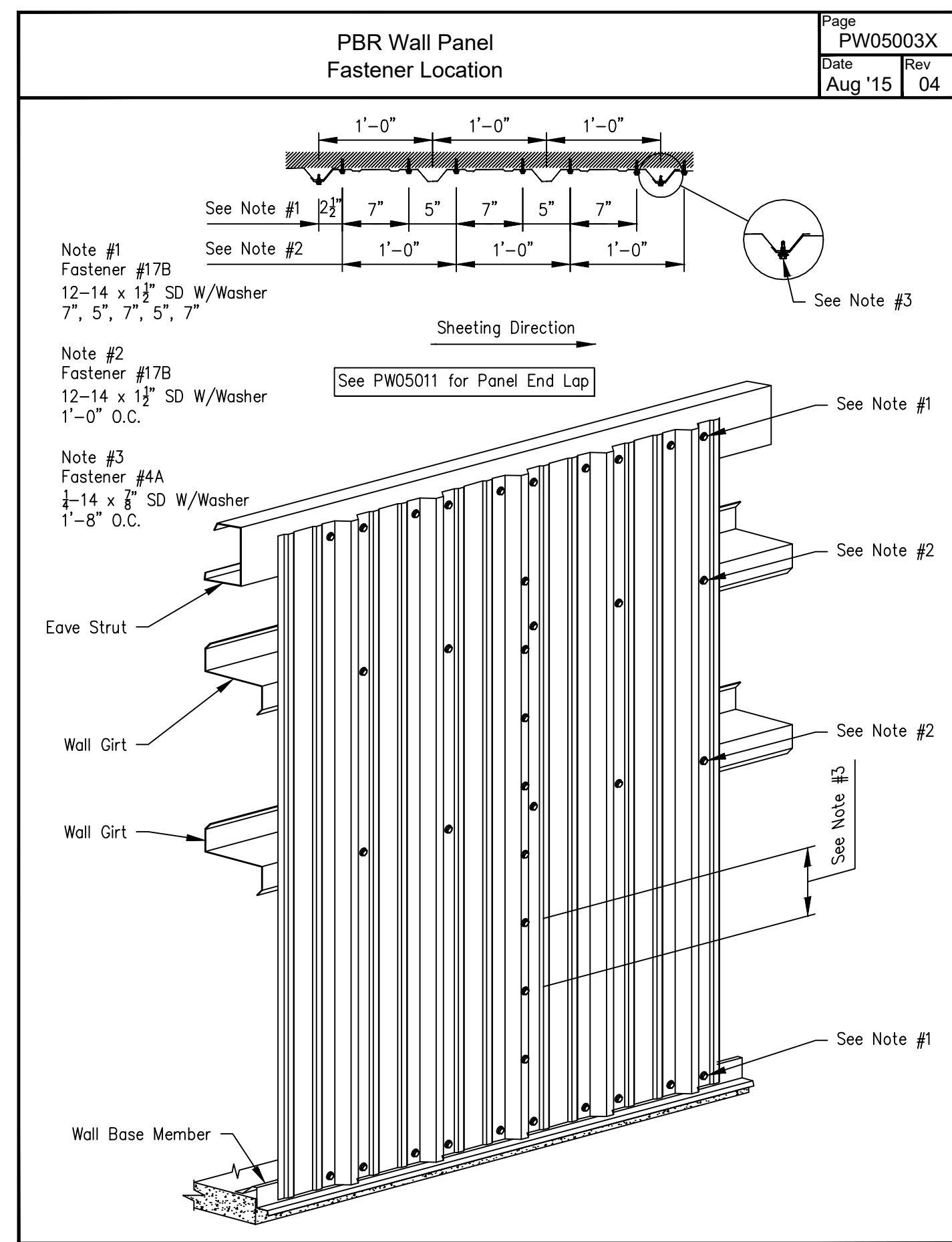
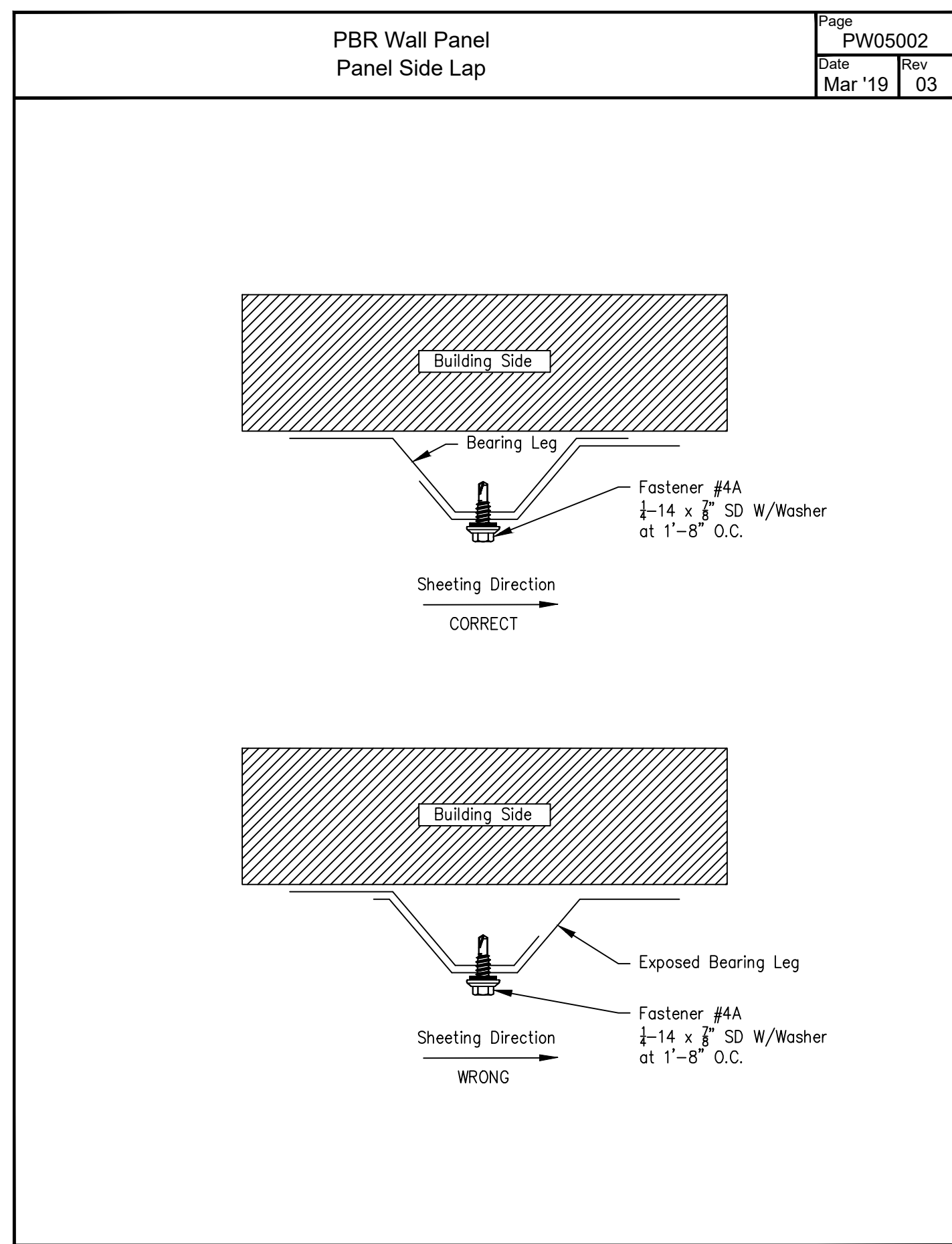
Drawing Status:
 Issued For Approval
 Issued For Construction
 Issued For Permit

Scale: NOT TO SCALE
 Drawn by: ASP 8/17/24
 Checked by: USR 8/17/24
 Project Engineer: EJA
 Job Number: 19-B-71294
 Sheet Number: R7 of 11

The engineer whose seal appears hereon is an employee for the manufacturer, Cornerstone Building Brands or one of its affiliates, 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.

YUANGANG (BILL) LI, S.E.
 ILLINOIS S.E. 081-008395

YUANGANG (BILL) LI, S.E.
 081-008395
 Aug 19, 2024
 STATE OF ILLINOIS



By	ASP	MXN
Date	08/17/24	
Revision	0	
Description	Issued For Construction	

Customer: ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Project Name & Location: ALYX KEMP
613 E GRANT ST
GRANVILLE, IL 61326-9645 US

Scale: NOT TO SCALE

Drawn by: ASP 8/17/24

Checked by: USR 8/17/24

Project Engineer: EJA

Job Number: 19-B-71294

Sheet Number: R8 of 11

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YUANGANG (BILL) LI, S.E.
ILLINOIS S.E. 081-008395

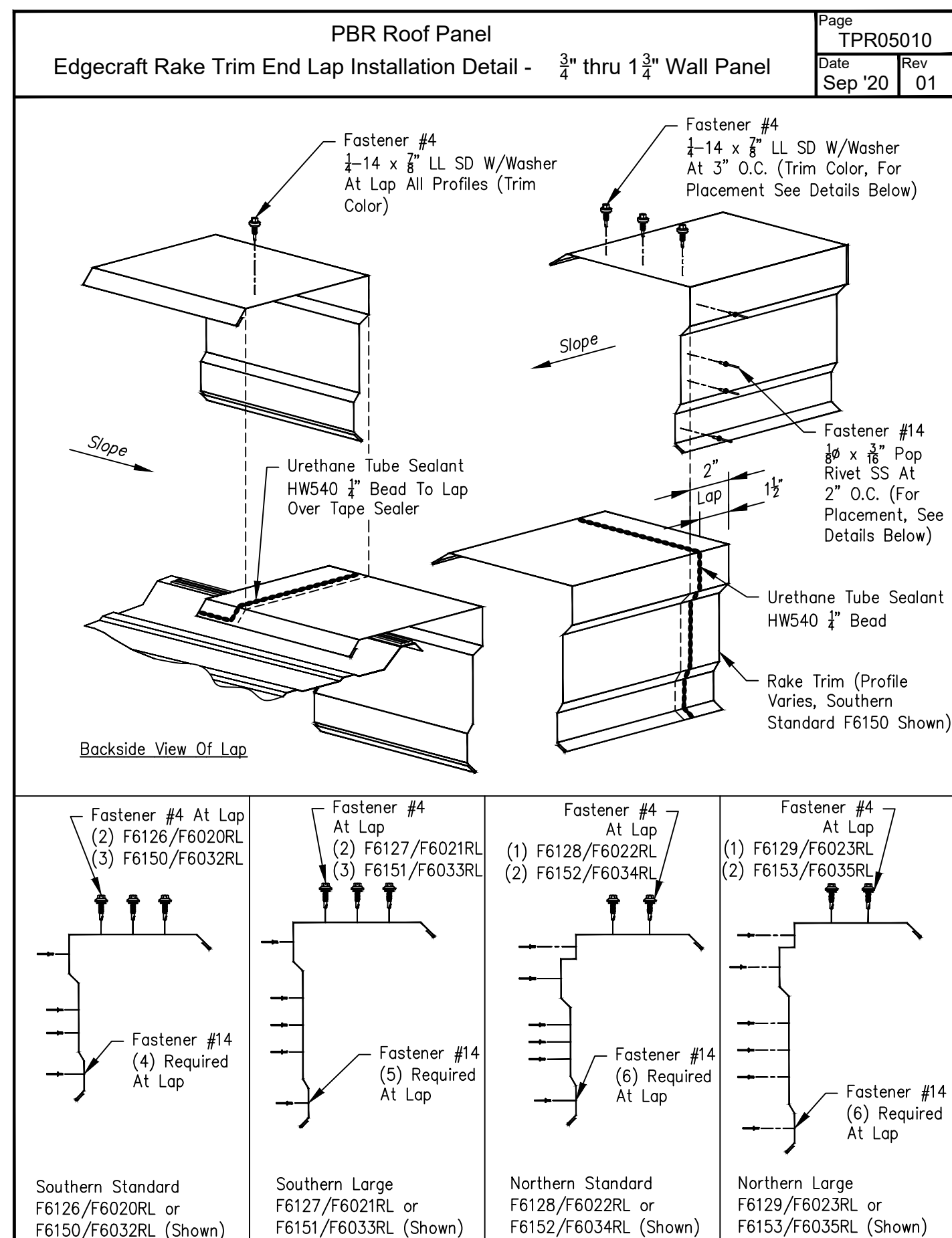
YUANGANG (BILL) LI, S.E.
081-008395
Aug 19, 2024

Fasteners			Page G000004
Date	Rev		
Jul '17	05		
Fastener #14 	Fastener #14A 	Fastener #24 	
Fastener #35 	Fastener #43L 	Fastener #44L 	
Fastener #226 	Fastener #228 	Fastener #271 	
Fastener HW399 			
Note: Refer to bill of materials for specific job requirements.			

Tape Sealer And Tube Sealant			Page G000005
Date	Rev		
Feb '24	07		
TRI-BEAD TAPE SEALER 1/8" x 3/8" 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"	
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"	BattenLok HS SuperLok 	
URETHANE TUBE SEALANT HW540 (White) HW541 (Gray) HW542 (Bronze) Note: 25'-0" per Tube at 1/4" Bead	TAPE SEALER MINOR RIB HW512 7/32" x 1 3/8" x 4"	NON-SKINNING BUTYL TUBE (VAPOR SEALANT) IMP7100 (WHITE) 12'-6" per Tube at 3/8" Bead HW549 (WHITE) 25'-0" per Tube at 1/4" 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 • 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, RBR And RBU Panel Fasteners			Page G000006
Date	Rev		
Jun '23	10		
Wall Fasteners	Roof Fasteners Long Life (Optional at Wall)		
Member Screw Fastener #17A 12-14 x 1 1/2" 5/8" Hex Washer Head w/washer 	Member Screw Fastener #3 12-14 x 1 1/2" 5/8" Hex Washer Head w/washer 		
Member Screw Optional Fastener #17B 12-14 x 1 1/2" 5/8" Hex Washer Head w/washer 	Member Screw Optional Fastener #3A 12-14 x 1 1/2" 5/8" Hex Washer Head w/washer 		
Member Screw Optional Fastener #28 12-14 x 2" 5/8" Hex Washer Head w/washer 	Member Screw Optional Fastener #58 12-14 x 2" 5/8" Hex Washer Head w/washer 		
Stitch Screw Fastener #4A 1/2-14 x 3/4" 5/8" Hex Washer Head w/washer 	Stitch Screw Fastener #4 1/2-14 x 3/4" 5/8" Hex Washer Head w/washer 		
NOTE: Refer to bill of materials for specific job requirements			

Various Fasteners			Page G000009
Date	Rev		
Nov '16	11		
Fastener #17 12-14 x 1" SD W/Washer 5/8" Hex Head 	Fastener #38 1/2-14 x 5/8" SD W/O Washer 5/8" Hex Head 		
	Fastener #12A 12-14 x 1" Pancake SD W/O Washer 		
Fastener #55 12-24 x 1 1/2" SD DP5 W/O Washer 5/8" Hex Head 	Fastener #70 12-24 x 1 1/2" SD DP5 W/O Washer 5/8" Hex Head 	Fastener #142 1/2-14 x 1 1/2" SD W/O Washer 5/8" Hex Head 	
Fastener #76 12-14 x 2" SD W/O Washer 5/8" Hex Head 	Fastener #61 12-14 x 1 1/2" SD W/O Washer 5/8" Hex Head 	Fastener #1B 1/2-14 x 1 1/2" SD W/O Washer 5/8" 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 1/2-14 x 5/8" LL ST Type B W/Washer 5/8" Hex Head 	



By	ASP	MXN
Description	Issued For Construction	
Date	08/17/24	
Revision	0	
Project Name & Location: ALYX KEMP 613 E GRANT ST GRANVILLE, IL 61326-9645 US		
Customer: ALYX KEMP 613 E GRANT ST GRANVILLE, IL 61326-9645 US		
Drawing Status: <input type="checkbox"/> Issued For Approval (Not For Construction) <input checked="" type="checkbox"/> Issued For Construction <input type="checkbox"/> Issued For Permit		
Scale: NOT TO SCALE Drawn by: ASP 8/17/24 Checked by: USR 8/17/24 Project Engineer: EJA Job Number: 19-B-71294 Sheet Number: R11 of 11		
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YUANGANG (BILL) LI, S.E. ILLINOIS S.E. 081-008395		

This item has been electronically signed and sealed by Yuangang (Bill) Li, S.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

