



# INSULATED ROOF PATIO COVER WITH OPEN WALLS

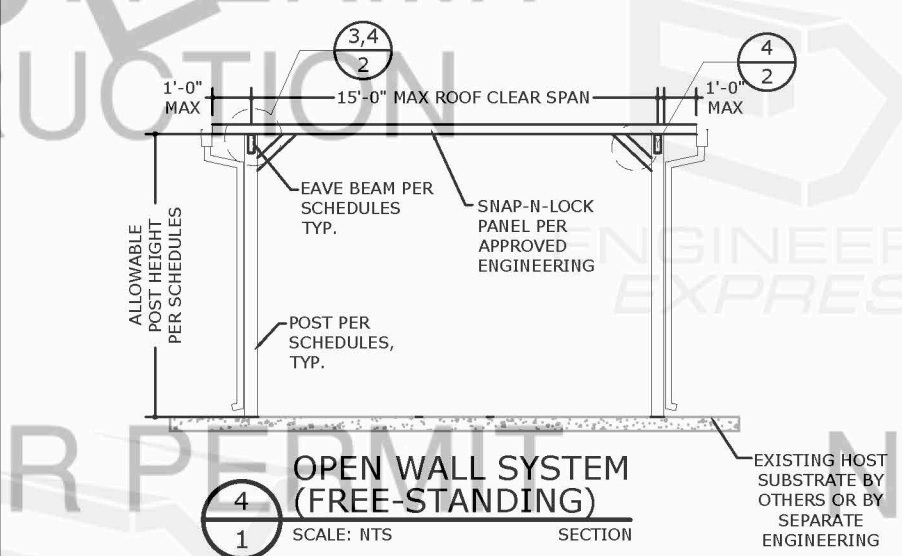
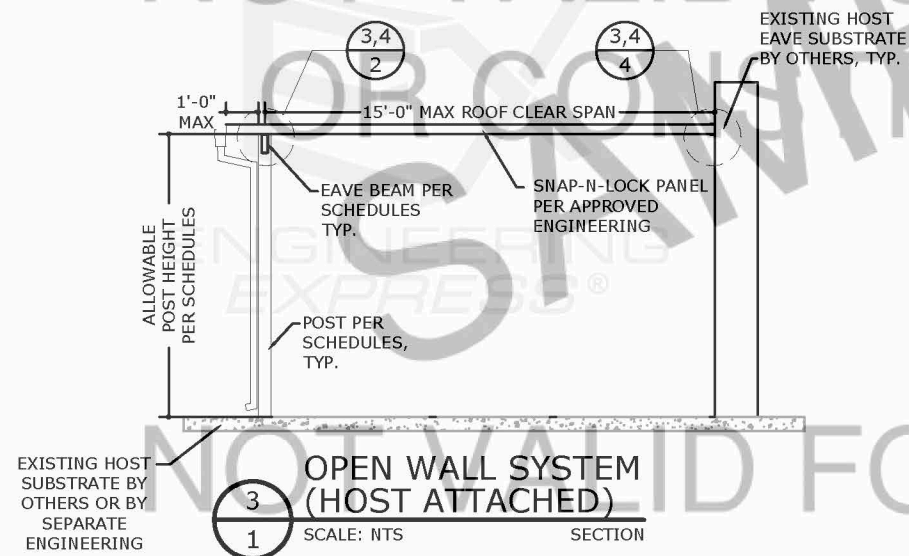
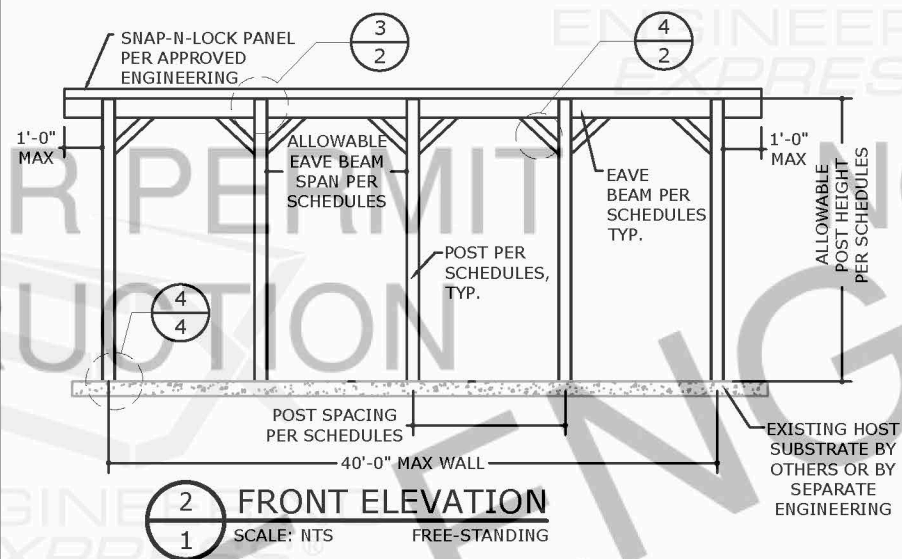
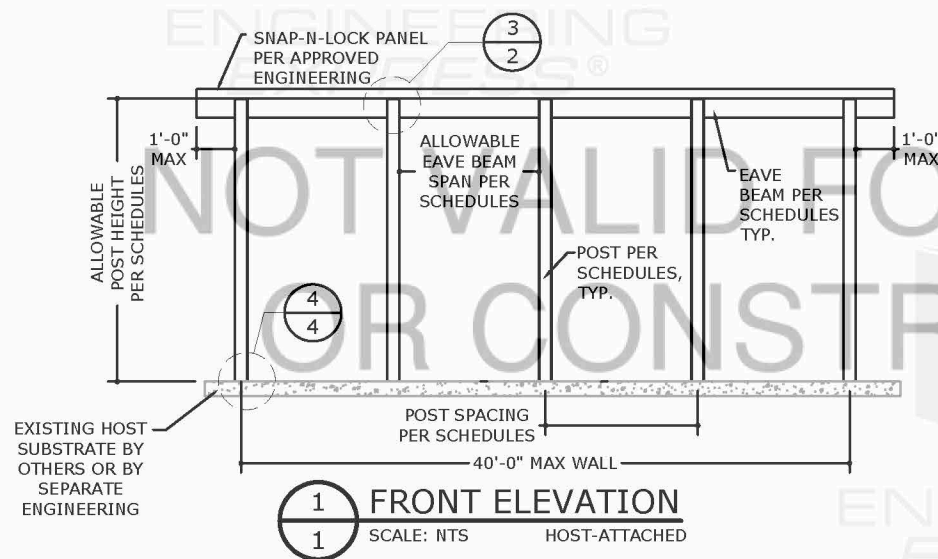
PERFORMANCE EVALUATION  
FREESTANDING OR HOST ATTACHED, UP TO 12' & 15' SPAN

THIS IS A NON-SITE-SPECIFIC PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION

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## DESIGN NOTES:

1. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE FLORIDA BUILDING CODE 8TH (2023) EDITION, 2012/2015/2018/2021 IBC/IRC, AS WELL AS CURRENT VERSIONS OF THE MN, NC, NJ, NY, OH, SC, & VA BUILDING CODES AS APPLICABLE. CODE ENFORCED COMPLIES WITH STATE OF SEAL AND IF MULTIPLE VERSIONS LISTED THEN MOST STRINGENT APPLIES.
2. DESIGN SHALL UTILIZE ASD DESIGN METHOD USING ASCE 7-22 OR ASCE 7-16 BASED ON APPLICABLE CODE.
3. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE AMENDMENTS WHICH MAY APPLY. DESIGN CRITERIA OR SPANS BEYOND STATED HEREIN MAY REQUIRE ADDITIONAL SITE SPECIFIC SEALED ENGINEERING.
4. SEISMIC DESIGN SHALL BE CONSIDERED WHEN REVIEWING FOR EACH USE USING LOAD TABLE LIMITATIONS PROVIDED.
5. THE EXISTING HOST STRUCTURE MUST BE CAPABLE OF SUPPORTING THE LOADED ENCLOSURE AS DETERMINED BY OTHERS OR BY SPECIAL ENGINEERING. NO WARRANTY IS CONTAINED HEREIN.
6. THIS STRUCTURE SHALL REMAIN OPEN (NO SCREENS OR WALLS) WITHOUT ADDITIONAL ENGINEERING.

## GENERAL NOTES:

1. STRUCTURE SHALL BE FABRICATED IN ACCORDANCE WITH ALL GOVERNING CODES. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE AMENDMENTS WHICH MAY APPLY.
2. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.

## MATERIAL:

3. ALUMINUM MEMBERS ANCHORS SHALL BE SPACED WITH 2xDIAMETER END DISTANCE AND 2.5xDIAMETER MIN. SPACING TO ADJACENT ANCHORS, UNLESS NOTED OTHERWISE.
4. ALL CONCRETE ANCHORS SHALL BE INSTALLED TO NON-CRACKED CONCRETE ONLY.
5. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
6. ALL ALUMINUM SHALL BE 6063-T6 ALLOY AND TEMPER UNLESS NOTED OTHERWISE.
7. ALL CONCRETE TO REACH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 7 DAYS.

## CONNECTIONS:

7. ALL FASTENERS TO BE #12 OR GREATER SAE GRADE 5 UNLESS NOTED OTHERWISE. FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.7.2 BY THE ALUMINUM ASSOCIATION, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
8. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE AS NOTED HEREIN. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.

## OTHER:

9. ENGINEER SEAL AFFIXED HERETO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
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(813) 855-2627

INSULATED PATIO COVER

ROOF OVER OPEN WALL ROOM SYSTEMS

PERFORMANCE EVALUATION

| REMARKS                    | PROJECT | DATE     | DRWN | CHKD |
|----------------------------|---------|----------|------|------|
| ORIGINAL PROJECT (20-2529) | TT      | 05/28/20 | FB   | FB   |
| REVISION (20-2529)         | AEM     | 10/08/20 | FB   | FB   |
| FBG 2023 (23-69317)        | CLV     | 12/19/23 | CCB  | CCB  |
| ADD 2X8 BEAM               | CCB     | 2/04/25  | CCB  | CCB  |

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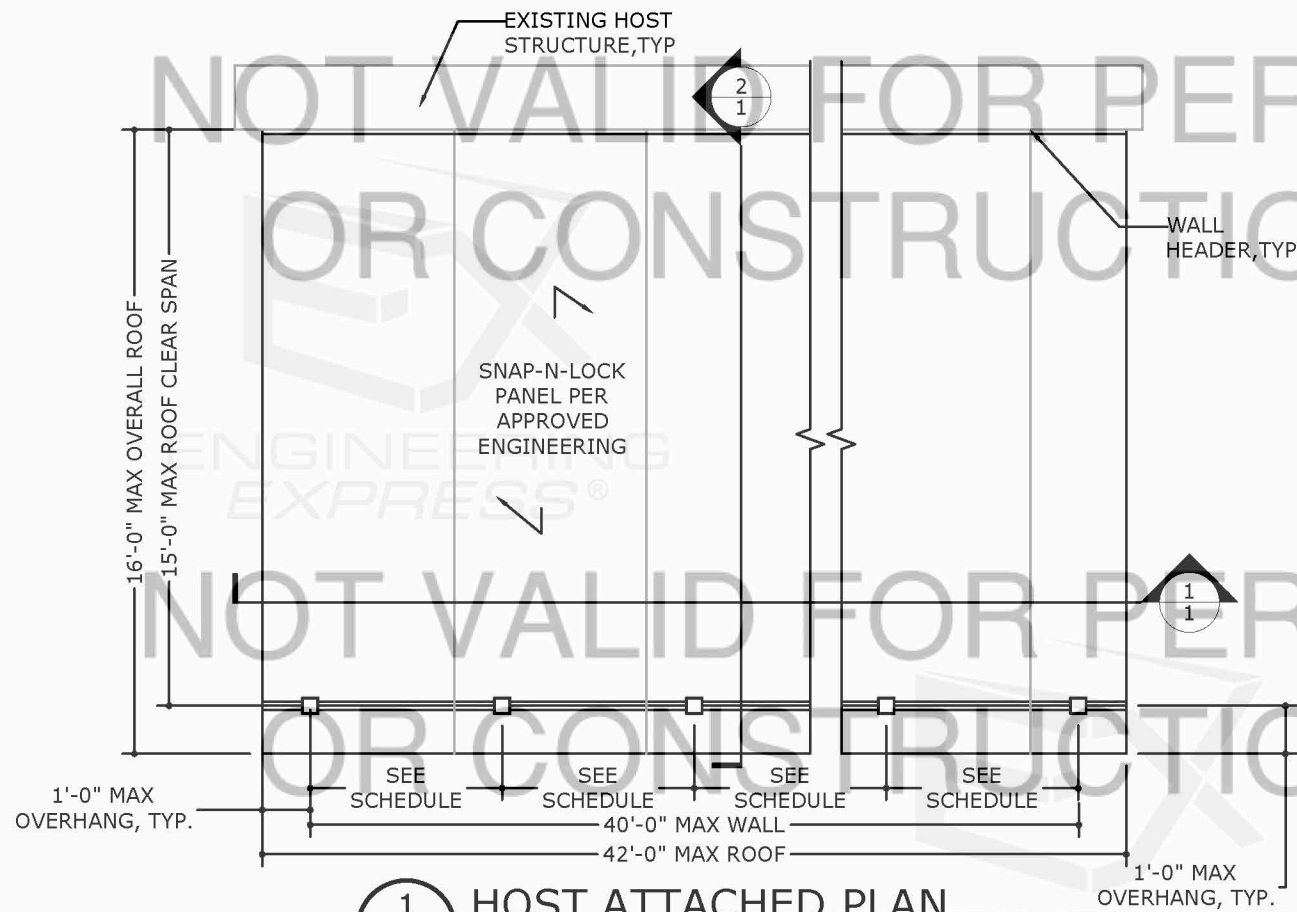
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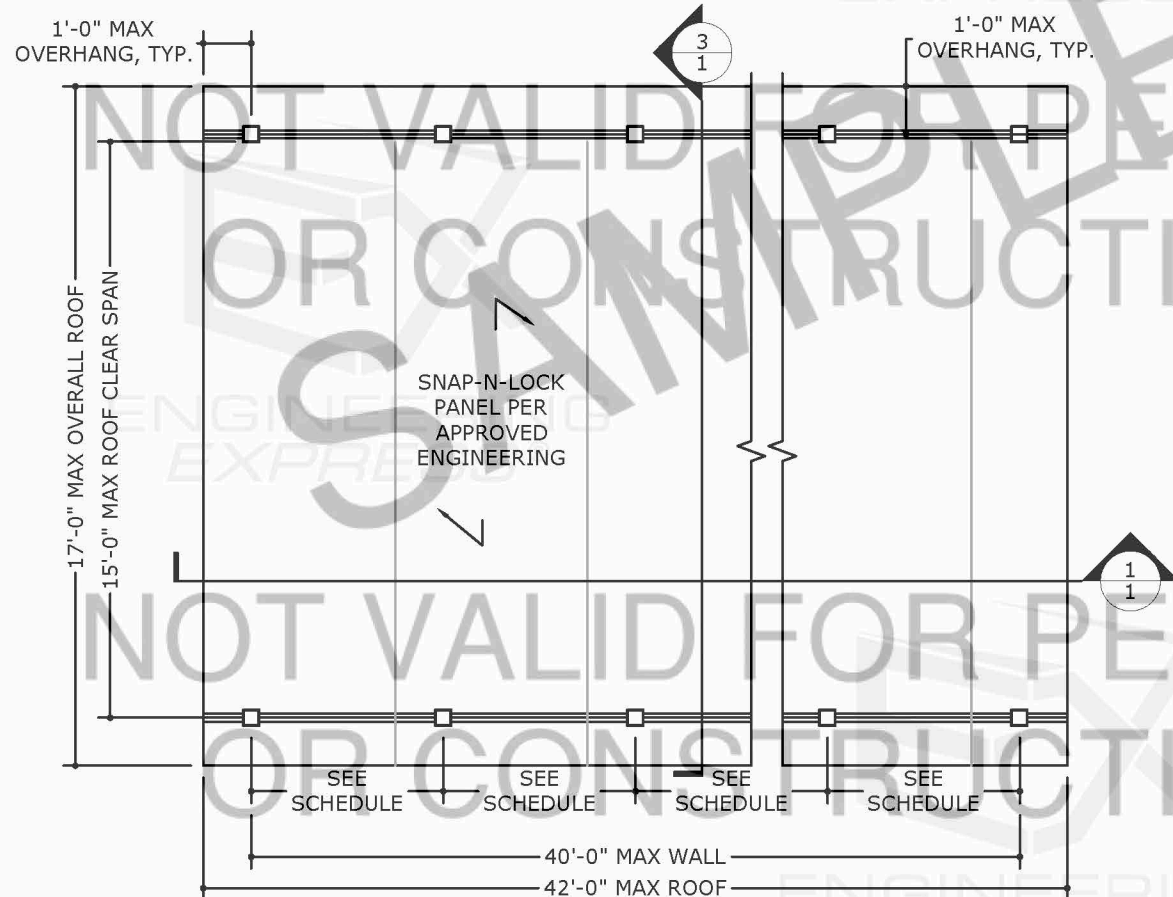
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1 OF 1

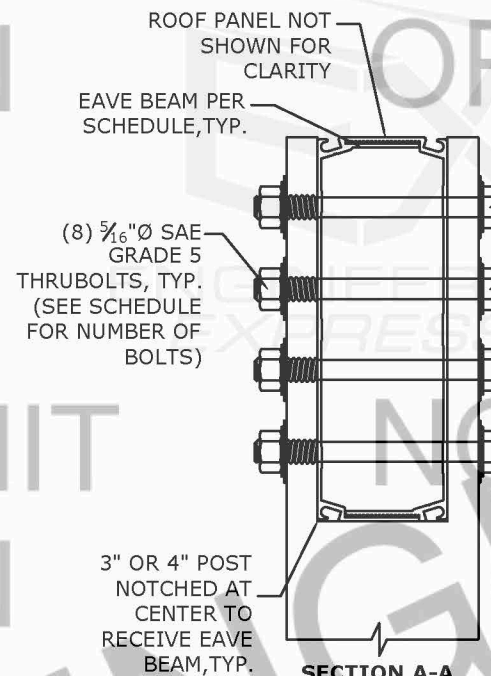
2/5/2025 9:57 AM  
COLBYBENIN\AEC\projects\colbybernard\p\downloads\23-69317 - work\drawings & cad\23-69317b - structural rips open room systems.dwg



1 HOST ATTACHED PLAN  
2 SCALE: NTS PLAN VIEW



2 FREE-STANDING PLAN  
2 SCALE: NTS PLAN VIEW



SECTION A-A

0.80" MIN.  
SPACING BETWEEN  
BOLTS, TYP.

0.80" MIN.  
SPACING BETWEEN  
BOLTS, TYP.

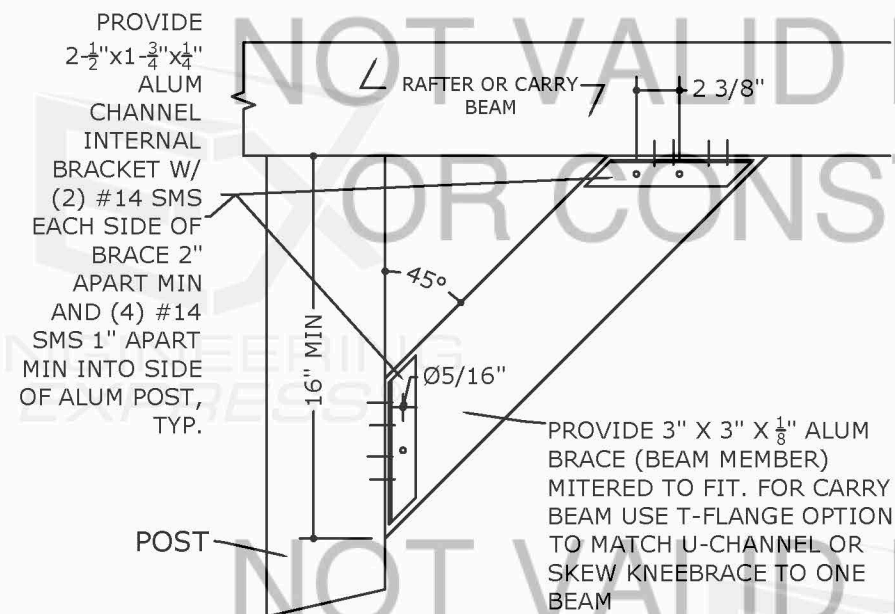
(8) 5/16" Ø SAE GRADE  
5 THRUBOLTS, TYP.  
(SEE SCHEDULE FOR  
NUMBER OF BOLTS)

EAVE BEAM PER  
SCHEDULE, TYP.

3" OR 4" POST  
NOTCHED AT  
CENTER TO  
RECEIVE EAVE  
BEAM, TYP.

SECTION B-B

3 EAVE BEAM CONNECTION  
2 SCALE: NTS SECTION/ELEVATION



4 CROSS BRACING DETAIL  
2 SCALE: NTS ELEVATION

NOTE: KNEEBRACES SHALL BE PROVIDED IN BOTH DIRECTIONS AT ALL SUPPORTING POSTS

NOTE: MITRE KNEEBRACES TO FIT AROUND PURLINS AT RAFTER CONNECTION POINTS AS NEEDED. MAINTAIN ANCHORAGE INTEGRITY.

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(813) 855-2627

INSULATED PATIO COVER  
ROOF OVER OPEN WALL ROOM SYSTEMS  
PERFORMANCE EVALUATION

| REMARKS                     | PROJECT | DATE     | DRWN | CHKD |
|-----------------------------|---------|----------|------|------|
| ORIGINAL PROJECT (20-25726) | TT      | 05/28/20 | TT   | FB   |
| REVISION (20-25226)         | AEM     | 10/08/20 | FB   | FB   |
| FBG 2023 (23-69317)         | CLV     | 12/19/23 | CCB  | CCB  |
| ADD 2X8 BEAM                | CCB     | 2/04/25  | CCB  | CCB  |

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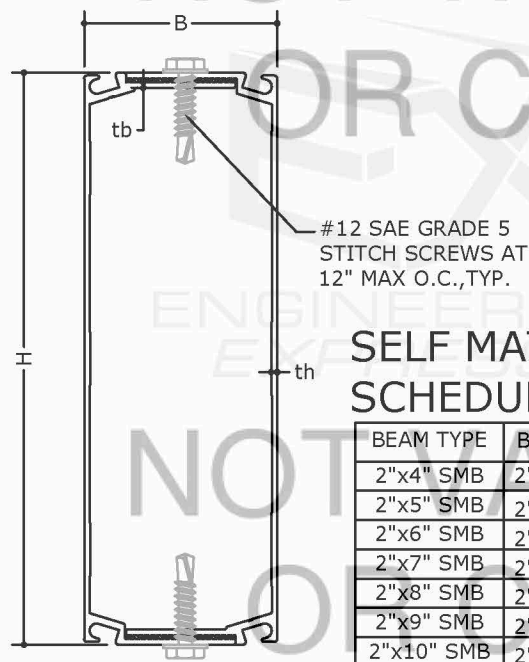
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2 OF 2

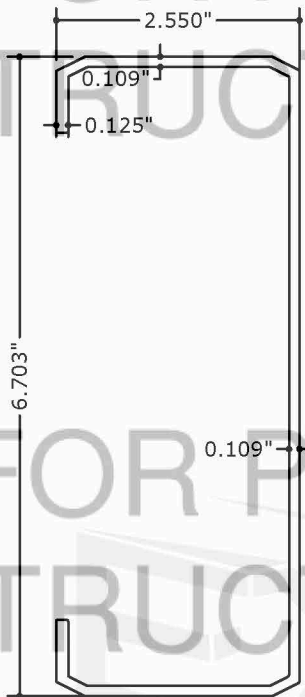
EXTRUSIONS- COMPONENTS



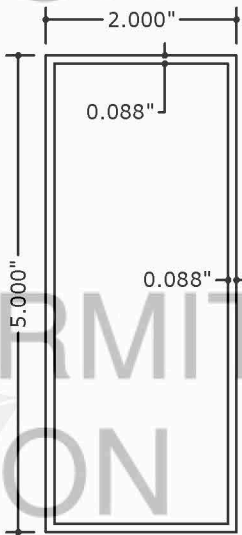
SELF MATING BEAM SCHEDULE:

| BEAM TYPE  | B  | H   | tb     | th     |
|------------|----|-----|--------|--------|
| 2"x4" SMB  | 2" | 4"  | 0.056" | 0.046" |
| 2"x5" SMB  | 2" | 5"  | 0.058" | 0.050" |
| 2"x6" SMB  | 2" | 6"  | 0.060" | 0.065" |
| 2"x7" SMB  | 2" | 7"  | 0.060" | 0.057" |
| 2"x8" SMB  | 2" | 8"  | 0.105" | 0.075" |
| 2"x9" SMB  | 2" | 9"  | 0.112" | 0.072" |
| 2"x10" SMB | 2" | 10" | 0.187" | 0.092" |

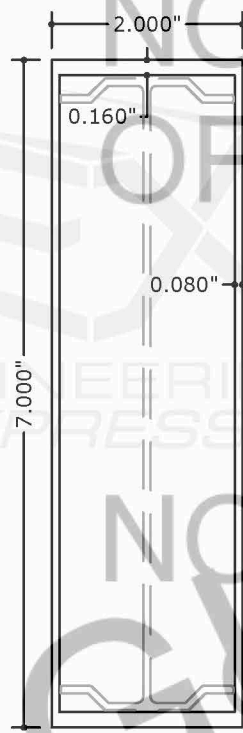
A 2"x4" - 2"x10" SELF MATING BEAMS



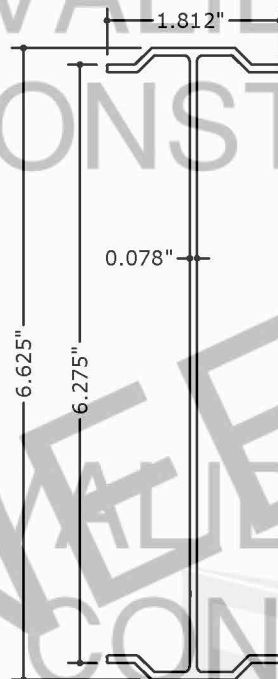
B 6.7 C-BEAM



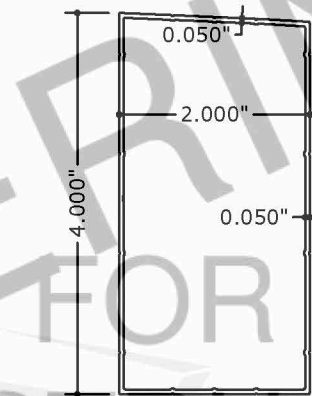
C1 2"x5" EDGE BEAM



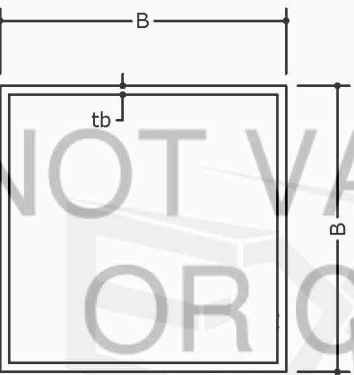
C2a 2"x7" EDGE BEAM



C2b 2"x7" EDGE BEAM REINFORCEMENT



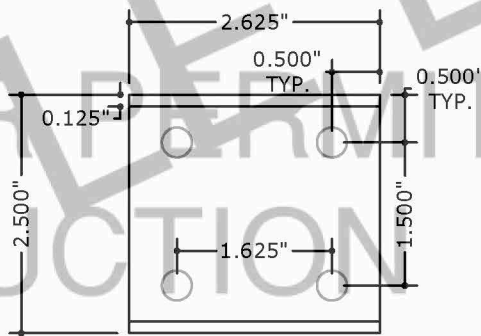
D 2"x4" TILT BEAM  
2.5 DEGREE TILT SLOPE  
NOMINAL HEIGHT DIFFERENTIAL (0.1"+-)



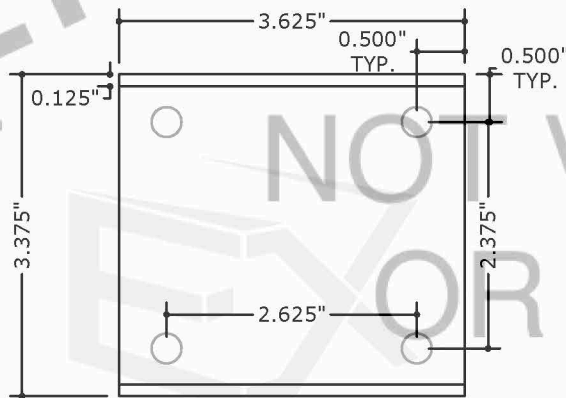
SQUARE POST SCHEDULE:

| BEAM TYPE    | B  | tb     |
|--------------|----|--------|
| 3"x3"x0.093" | 3" | 0.093" |
| 3"x3"x1/8"   | 3" | 0.125" |
| 4"x4"x1/8"   | 4" | 0.125" |

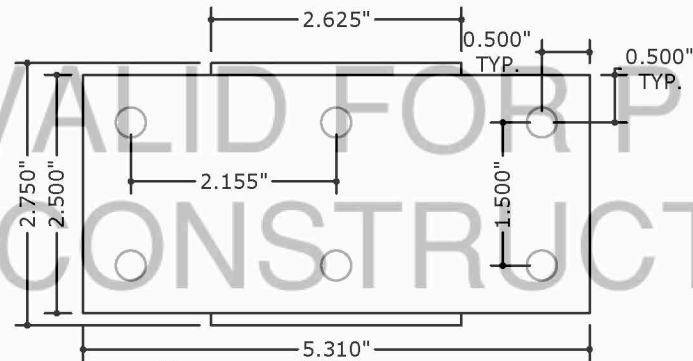
E 3" & 4" SQUARE POST



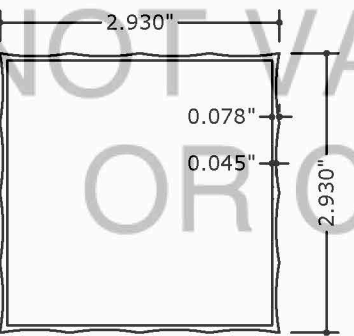
F 3" U-CLIP



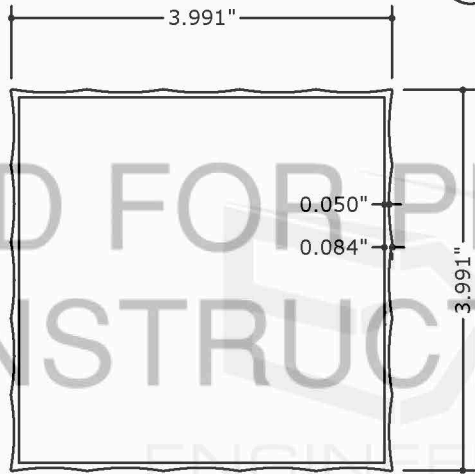
G 4" U-CLIP



H 3" EXTENDED U-CLIP



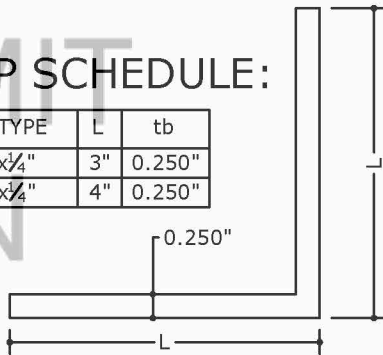
I 3" & 4" FLUTED POST



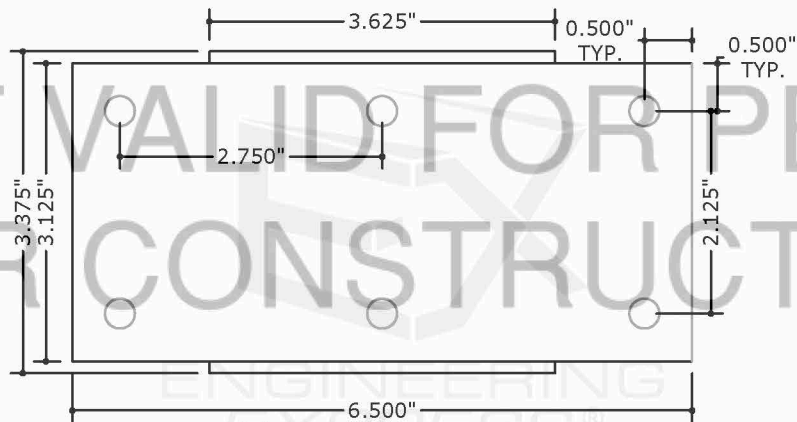
J 3" & 4" FLUTED POST

CLIP SCHEDULE:

| BEAM TYPE | L  | tb     |
|-----------|----|--------|
| 3"x1/4"   | 3" | 0.250" |
| 4"x1/4"   | 4" | 0.250" |



K CLIP ANGLE



L 4" EXTENDED U-CLIP

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INSULATED PATIO COVER  
ROOF OVER OPEN WALL ROOM SYSTEMS  
PERFORMANCE EVALUATION

| REMARKS         | PROJECT  | DATE     | DRWN | CHKD |
|-----------------|----------|----------|------|------|
| ORIGINAL        | 20-25226 | 05/28/20 | TT   | FB   |
| REVISION        | 20-25226 | 10/08/20 | AEM  | FB   |
| 2023 (23-69317) |          | 12/19/23 | CLV  | CCB  |
| ADD 2X8 BEAM    |          | 2/04/25  | CCB  |      |

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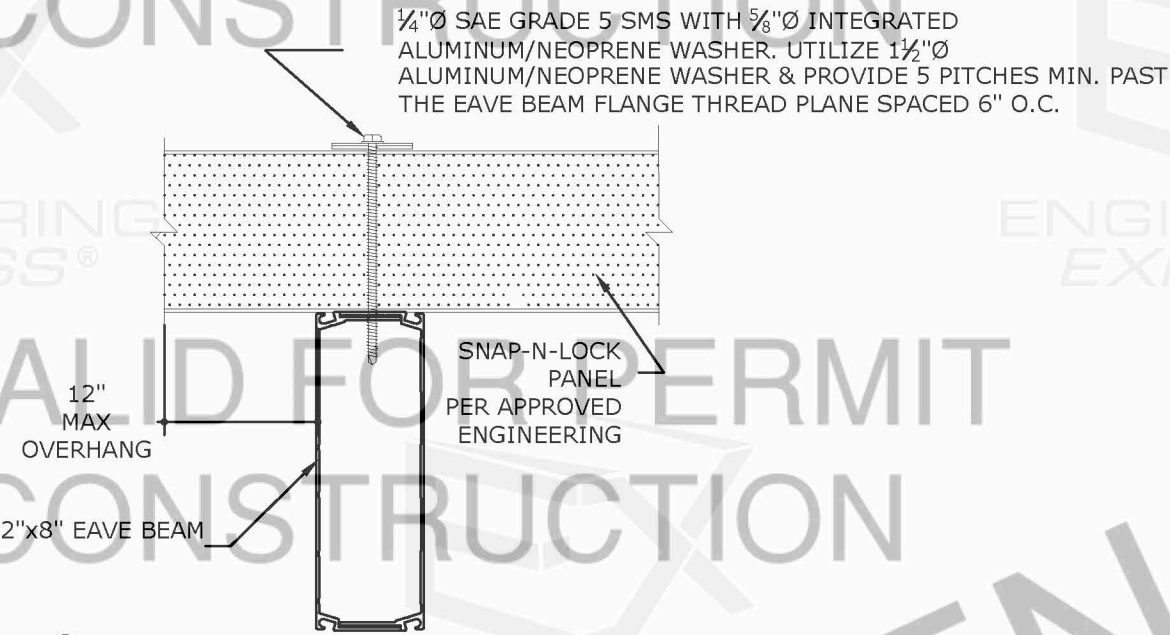
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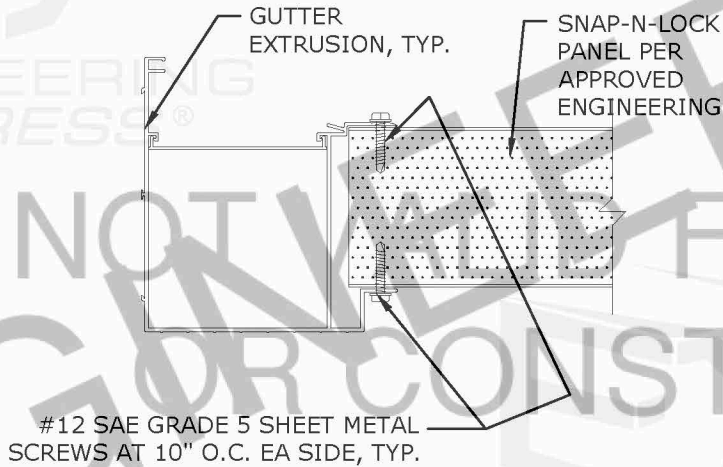
ROOF CONNECTIONS

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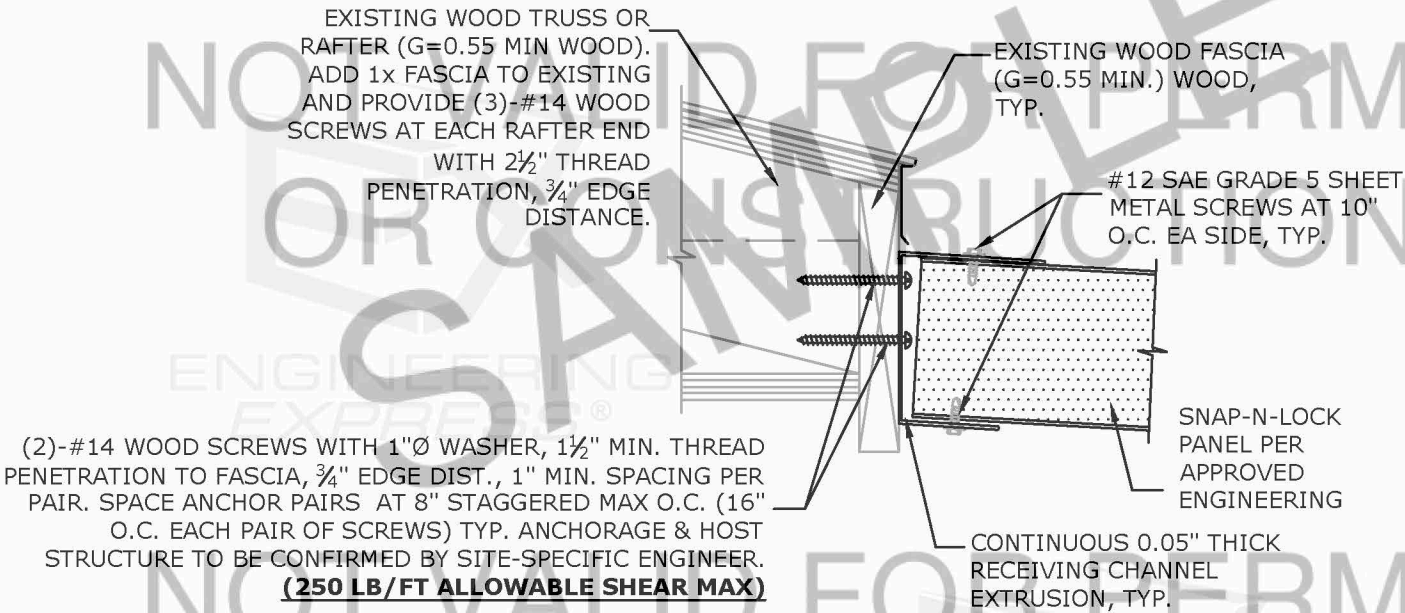
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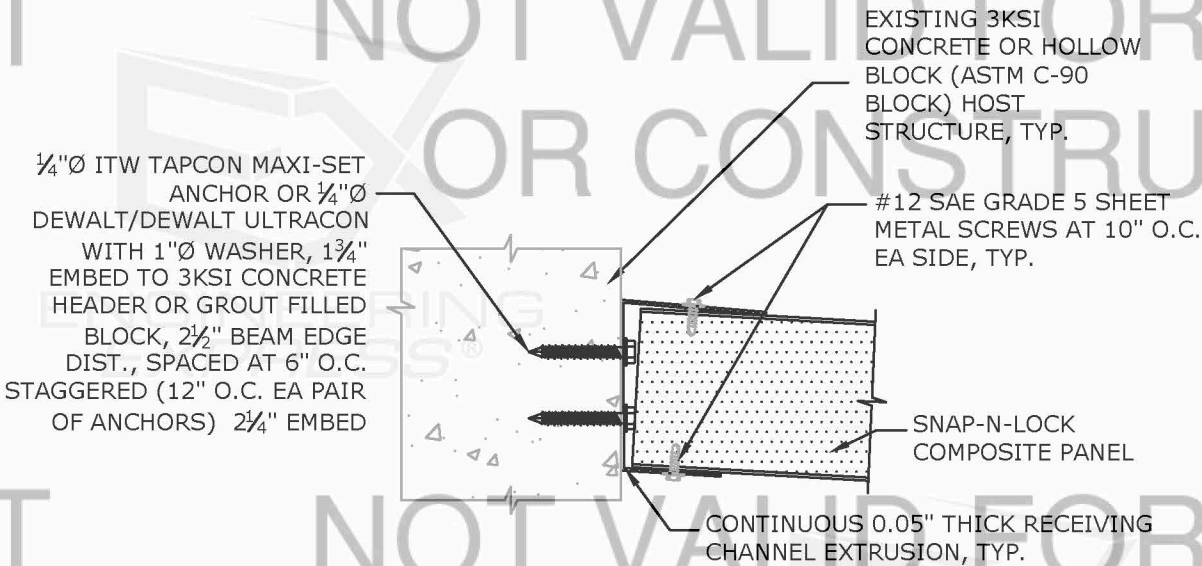
1 ROOF PANEL TO EAVE BEAM  
3" = 1'-0"



2 ROOF PANEL GUTTER DETAIL  
3" = 1'-0"



3 ROOF PANEL TO WOOD  
HOST STRUCTURE  
3" = 1'-0"



4 ROOF PANEL TO CONC. OR  
BLOCK HOST STRUCTURE  
3" = 1'-0"

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INSULATED PATIO COVER  
ROOF OVER OPEN WALL ROOM SYSTEMS  
PERFORMANCE EVALUATION

| REMARKS                      | DATE     | DRWN | CHKD |
|------------------------------|----------|------|------|
| ORIGINAL PROJECT (20-25-226) | 05/28/20 | TT   | FB   |
| REVISION (20-25-226)         | 10/08/20 | AEM  | FB   |
| FBG 2023 (23-69317)          | 12/19/23 | CLV  | CCB  |
| ADD 2X8 BEAM                 | 2/04/25  | CCB  |      |

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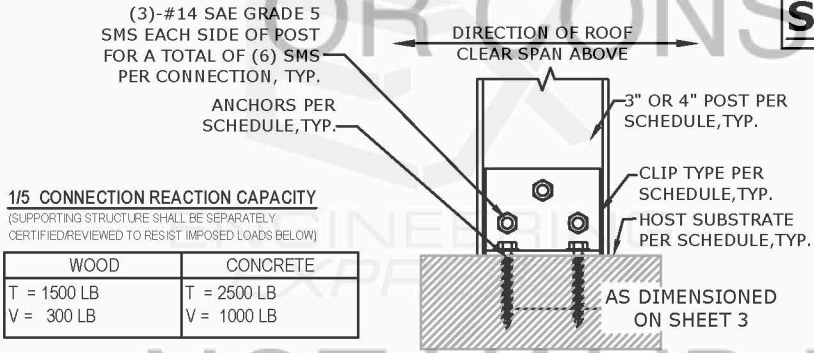
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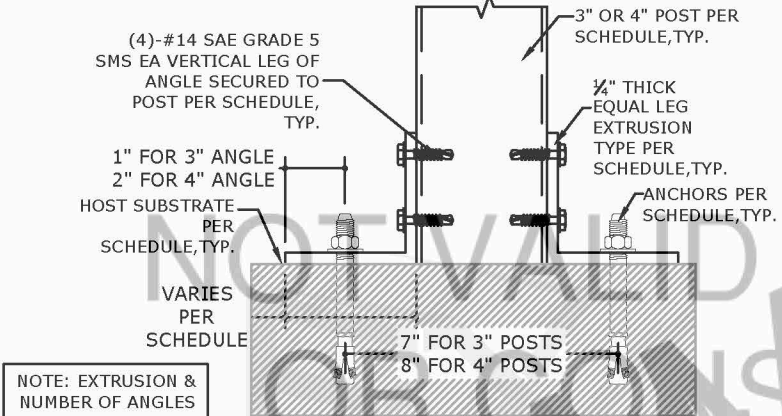
POST BASE CONNECTION OPTIONS

HOST ATTACHED SYSTEMS  
POST SPACING ≤6 FT MAX O.C.

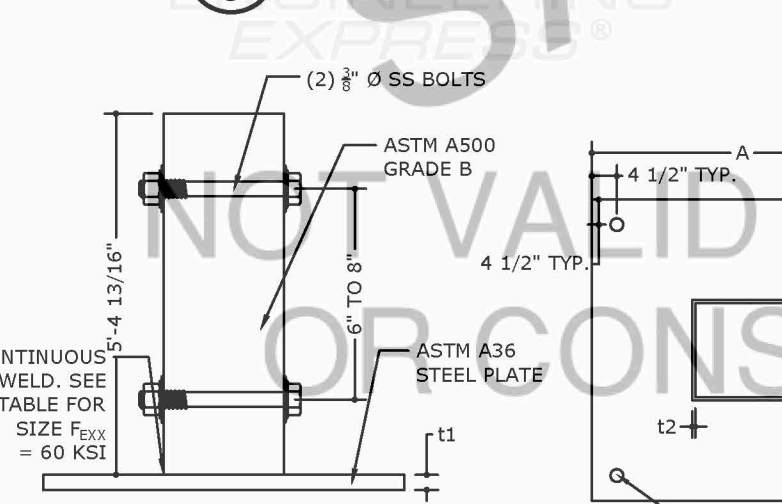


TO CALCULATE YOUR SITE-SPECIFIC UPLIFT FORCE, MULTIPLY THE NET UPLIFT FORCE X TRIBUTARY AREA FOR EACH POST HOLDS DOWN, WHICH INCLUDES HALF OF THE SPAN PLUS FULL OVERHANG. CONSULT WITH A DESIGN PROFESSIONAL IF AT ALL IN QUESTION OR USE THE MOST CRITICAL DESIGN CRITERIA & STRONGEST CONNECTION.

HOST ATTACHED  
SYSTEMS POST  
SPACING >6 FT  
MAX O.C.



ALUMINUM ANGLE  
TIE-DOWN CONNECTION



WELDED STEEL BASEPLATE

SIZE ALL FOOTINGS &  
REINFORCEMENT PER  
SITE SPECIFIC REQUIREMENTS

U-CLIP CONNECTION DIRECTIVE:

(SEE HOST ATTACHED POST BASE SCHEDULE FOR APPLICABILITY OF THESE CLIP TYPES)

| EXTRUSION TYPE       | ANCHOR (QTY.) | SUBSTRATE         | ANCHOR DESCRIPTION   |
|----------------------|---------------|-------------------|--|
| 3" U-CLIP            | (4) PER CLIP  | 3KSI MIN. CONC.   | 1/4"Ø DEWALT ULTRACONS WITH 3/4"Ø MIN WASHER, 1 1/4" EMBED, 4" EDGE DISTANCE, 1 1/2" MIN. SPACING.               |
| 3" U-CLIP (EXTENDED) | (6) PER CLIP  |                   |  |
| 4" U-CLIP            | (4) PER CLIP  | WOOD (G=0.55 MIN) | 1/4"Ø LAG SCREWS WITH 3/4"Ø MIN WASHER, 2 1/2" MIN. THREAD PENETRATION, 3/4" EDGE DISTANCE, 1 1/2" MIN. SPACING. |
| 4" U-CLIP (EXTENDED) | (6) PER CLIP  |                   |  |

3/5 CONNECTION REACTION CAPACITY

(SUPPORTING STRUCTURE SHALL BE SEPARATELY CERTIFIED/REVIEWED TO RESIST IMPOSED LOADS BELOW)

| WOOD                      | CONCRETE                   |
|---------------------------|----------------------------|
| T = 1000 LB<br>V = 150 LB | T = 2750 LB<br>V = 3000 LB |

TO CALCULATE YOUR SITE-SPECIFIC UPLIFT FORCE, MULTIPLY THE NET UPLIFT FORCE X TRIBUTARY AREA FOR EACH POST HOLDS DOWN, WHICH INCLUDES HALF OF THE SPAN PLUS FULL OVERHANG. CONSULT WITH A DESIGN PROFESSIONAL IF AT ALL IN QUESTION OR USE THE MOST CRITICAL DESIGN CRITERIA & STRONGEST CONNECTION.

ALUMINUM TIE-DOWN ANGLE DIRECTIVE:

(SEE HOST ATTACHED /FREE STANDING POST BASE TIE-DOWN SCHEDULE FOR APPLICABILITY OF THESE CLIP TYPES)

| EXTRUSION TYPE        | ANCHOR (QTY.)         | SUBSTRATE         | ANCHOR DESCRIPTION  |
|-----------------------|-----------------------|-------------------|---|
| (2)-3"x3"x3/4" ANGLES | 1 PER ANGLE (2 TOTAL) | 3KSI MIN. CONC.   | 3/8"Ø HILTI KWIK BOLT 3 WITH 1 1/2"Ø WASHER, 3 1/2" EMBED, 9" MIN. EDGE DISTANCE, 4.95" MIN SPACING FOR 3" POSTS AND 5.95" MIN SPACING FOR 4" POSTS, TYP.               |
| (4)-3"x3"x3/4" ANGLES | 1 PER ANGLE (4 TOTAL) |                   |   |
| (2)-4"x4"x3/4" ANGLES | 1 PER ANGLE (2 TOTAL) | WOOD (G=0.55 MIN) | 3/8"Ø LAG SCREWS WITH 1 1/2"Ø MIN WASHER, 2 3/8" MIN. THREAD PENETRATION, 3/4" EDGE DISTANCE, 4.95" MIN. SPACING FOR 3" POSTS AND 5.95" MIN. SPACING FOR 4" POSTS, TYP. |
| (4)-4"x4"x3/4" ANGLES | 1 PER ANGLE (4 TOTAL) |                   |   |

| ALLOWED ON MAX. CONSTRAINED FOOTING SIZE D (IN) | PLATE SIZE A (IN) | PLATE THICKNESS t1 (IN) | STUB POST SIZE B (IN) | STUB POST THICKNESS t2 (IN) | MINIMUM WELD SIZE | MAXIMUM DIMENSION OF LONG SIDE OF CANOPY (FT) |
|---|-------------------|-------------------------|-----------------------|-----------------------------|-------------------|---|
| 24  | 12                | 0.375                   | 2.5                   | 0.125                       | 0.125             | 20  |

NOTE:

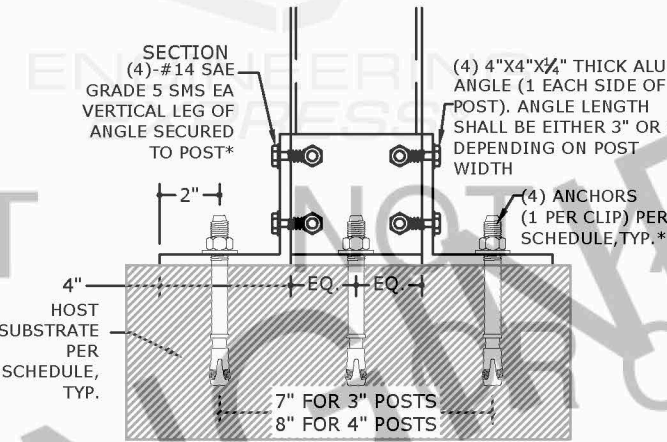
- WELDED MOMENT-RESISTING STEEL BASE PLATE, ALTERNATIVE TO POST EMBEDMENT IN CONCRETE FOOTING WHERE APPLICABLE. WELDED POST BRACKET MUST BE FABRICATED IN ACCORDANCE FB/C/IBC SECTION 1704.2.5.1 BY AN APPROVED FABRICATOR TO THE SATISFACTION OF THE CODE OFFICIAL
- CONNECTION CHECKED FOR PURE BENDING
- MAXIMUM DIMENSION OF LONG SIDE OF CANOPY TO COMPLY WITH MAXIMUM ALLOWABLE SPANS IN MASTER CHARTS
- ANALYSIS FOR MAXIMUM FREESTANDING CANOPY SIZE TAKING 115 MPH Vult WIND SPEED, EXPOSURE 'C', POST HEIGHT = 10 FT & BEAM DEPTH 8 IN. HOST ATTACHED CANOPY VALID UP TO 150MPH EXPOSURE 'C'.
- ADDITIONAL ENGINEERING REQUIRED BEYOND THIS WIND LIMIT.

2/5 CONNECTION REACTION CAPACITY

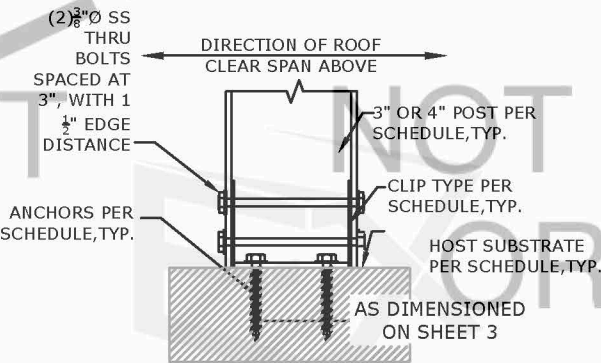
(SUPPORTING STRUCTURE SHALL BE SEPARATELY CERTIFIED/REVIEWED TO RESIST IMPOSED LOADS BELOW)

| WOOD                      | CONCRETE                   |
|---------------------------|----------------------------|
| T = 2000 LB<br>V = 600 LB | T = 4500 LB<br>V = 3000 LB |

TO CALCULATE YOUR SITE-SPECIFIC UPLIFT FORCE, MULTIPLY THE NET UPLIFT FORCE X TRIBUTARY AREA FOR EACH POST HOLDS DOWN, WHICH INCLUDES HALF OF THE SPAN PLUS FULL OVERHANG. CONSULT WITH A DESIGN PROFESSIONAL IF AT ALL IN QUESTION OR USE THE MOST CRITICAL DESIGN CRITERIA & STRONGEST CONNECTION.



ALUMINUM ANGLE  
TIE-DOWN CONNECTION



U-CLIP CONNECTION

NOTE: THIS TABLE IS APPLICABLE FOR POST INSTALLATIONS WITH POST TRIBUTARY AREAS LESS THAN OR EQUAL TO 169 SQUARE FEET

U-CLIP CONNECTION DIRECTIVE:

(SEE HOST ATTACHED POST BASE SCHEDULE FOR APPLICABILITY OF THESE CLIP TYPES)

| EXTRUSION TYPE | ANCHOR (QTY.) | SUBSTRATE         | ANCHOR DESCRIPTION   |
|----------------|---------------|-------------------|--|
| 3" U-CLIP      | (2) PER CLIP  | 3KSI MIN. CONC.   | 1/4"Ø DEWALT ULTRACONS WITH 3/4"Ø MIN WASHER, 1 1/4" EMBED, 4" EDGE DISTANCE, 1 1/2" MIN. SPACING.               |
| 4" U-CLIP      | (2) PER CLIP  |                   |  |
|                |               | WOOD (G=0.55 MIN) | 1/4"Ø LAG SCREWS WITH 3/4"Ø MIN WASHER, 2 1/2" MIN. THREAD PENETRATION, 3/4" EDGE DISTANCE, 1 1/2" MIN. SPACING. |

HOST ATTACHED SYSTEMS  
POST SPACING ≤6 FT MAX O.C.

4/5 CONNECTION REACTION CAPACITY

(SUPPORTING STRUCTURE SHALL BE SEPARATELY CERTIFIED/REVIEWED TO RESIST IMPOSED LOADS BELOW)

| WOOD                      | CONCRETE                   |
|---------------------------|----------------------------|
| T = 1250 LB<br>V = 250 LB | T = 2000 LB<br>V = 1000 LB |

TO CALCULATE YOUR SITE-SPECIFIC UPLIFT FORCE, MULTIPLY THE NET UPLIFT FORCE X TRIBUTARY AREA FOR EACH POST HOLDS DOWN, WHICH INCLUDES HALF OF THE SPAN PLUS FULL OVERHANG. CONSULT WITH A DESIGN PROFESSIONAL IF AT ALL IN QUESTION OR USE THE MOST CRITICAL DESIGN CRITERIA & STRONGEST CONNECTION.

NOTE: FOR FREESTANDING CONFIGURATIONS INSTALLED WITH WIND VELOCITY REQUIREMENTS >= 165MPH, EXPOSURE 'C' WITH BOTH PANEL & BEAM SPANS GREATER THAN 12 FEET (OR POST TRIBUTARY AREA GREATER THAN 169 SQUARE FEET):

UTILIZE 5/8" HILTI HIT-ICE+HAS ANCHORS (1 1/2"Ø WASHER) WITH 4 3/4" EMBEDMENT, 7" MIN EDGE DISTANCE AND SPACED ACCORDING TO DETAIL 1/5. ATTACHMENTS OF CLIP LEGS TO POST SHALL UTILIZE (5) #14 SAE GR 5 SMS PER CLIP. THESE CONFIGURATIONS ARE APPROVED FOR INSTALLATIONS TO 3KSI CONCRETE ONLY. ALTERNATE SUBSTRATE INSTALLATIONS WITH THESE SPANS SHALL BE DESIGNED ON A SITE SPECIFIC BASIS.

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(813) 855-2627

INSULATED PATIO COVER  
ROOF OVER OPEN WALL ROOM SYSTEMS  
PERFORMANCE EVALUATION

| DATE     | DRWN | CHKD | REMARKS                     |
|----------|------|------|-----------------------------|
| 05/28/20 | TT   | FB   | ORIGINAL PROJECT (20-25226) |
| 10/08/20 | AEM  | FB   | REVISION (20-25226)         |
| 12/19/23 | CLV  | CCB  | FBG 2023 (23-69317)         |
| 2/04/25  | CCB  | CCB  | ADD 2X8 BEAM                |

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SCALE: NTS UNLESS NOTED

5

FREESTANDING SYSTEM & HOST-ATTACHED ALLOWABLE POST HEIGHT

| COLUMN TYPE                       | MAX ROOF SPAN S (FT) | GRAVITY/UPLIFT ASD DESIGN LOAD (PSF) | LATERAL ASD WIND LOAD (PSF) | MAXIMUM COLUMN SPACING (FT) |       |        |        |        |        |
|-----------------------------------|----------------------|--------------------------------------|-----------------------------|-----------------------------|-------|--------|--------|--------|--------|
|                                   |                      |                                      |                             | 6'-0"                       | 8'-0" | 10'-0" | 12'-0" | 14'-0" | 15'-0" |
|                                   |                      |                                      |                             | ALLOWABLE POST HEIGHT (FT)  |       |        |        |        |        |
| 3"x3" Fluted Post (Unbraced) 10ft | 12'-0"               | 10 PSF                               | 20 PSF                      | 8'-5"                       | 4'-5" | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 6'-10"                      | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 6'-0"                       | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 5'-4"                       | -     | -      | -      | -      | -      |
|                                   |                      | 20 PSF                               | 20 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      | 30 PSF                               | 20 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   | 15'-0"               | 10 PSF                               | 20 PSF                      | 6'-4"                       | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 5'-2"                       | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 4'-6"                       | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      | 20 PSF                               | 20 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      | 30 PSF                               | 20 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   | 15'-0"               | 40 PSF                               | 20 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -     | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -     | -      | -      | -      | -      |

| COLUMN TYPE                       | MAX ROOF SPAN S (FT) | GRAVITY/UPLIFT ASD DESIGN LOAD (PSF) | LATERAL ASD WIND LOAD (PSF) | MAXIMUM COLUMN SPACING (FT) |        |        |        |        |        |
|-----------------------------------|----------------------|--------------------------------------|-----------------------------|-----------------------------|--------|--------|--------|--------|--------|
|                                   |                      |                                      |                             | 6'-0"                       | 8'-0"  | 10'-0" | 12'-0" | 14'-0" | 15'-0" |
|                                   |                      |                                      |                             | ALLOWABLE POST HEIGHT (FT)  |        |        |        |        |        |
| 4"x4" Fluted Post (Unbraced) 10ft | 12'-0"               | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 9'-6"  |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 9'-9"  | 8'-8"  | 8'-3"  |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 8'-9"  | 7'-9"  | 7'-4"  |
|                                   |                      | 20 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 8'-9"  | 8'-0"  |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 8'-7"  | 7'-2"  | 6'-6"  |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 9'-0"  | 7'-5"  | 6'-2"  | 5'-8"  |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 9'-10" | 8'-1"  | 6'-8"  | 5'-6"  | 5'-0"  |
|                                   |                      | 30 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 9'-9"  | 7'-3"  | 5'-3"  | 4'-4"  |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 8'-0"  | 6'-0"  | 4'-3"  | -      |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 9'-2"  | 6'-11" | 5'-2"  | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 8'-2"  | 6'-2"  | 4'-7"  | -      | -      |
|                                   | 15'-0"               | 40 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 6'-9"  | 4'-0"  | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 8'-4"  | 5'-6"  | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 7'-3"  | 4'-10" | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 9'-5"                       | 6'-6"  | 4'-3"  | -      | -      | -      |
|                                   |                      | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 9'-5"  | 8'-10" |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 9'-3"  | 8'-2"  | 7'-8"  |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 9'-6"  | 8'-3"  | 7'-3"  | 6'-10" |
|                                   |                      | 20 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 9'-2"  | 7'-3"  | 6'-5"  |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 9'-4"  | 7'-6"  | 6'-0"  | 5'-3"  |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 8'-1"  | 6'-6"  | 5'-1"  | 4'-6"  |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 9'-2"  | 7'-3"  | 5'-9"  | 4'-7"  | 4'-1"  |
|                                   | 30 PSF               | 20 PSF                               | 10'-0"                      | 10'-0"                      | 7'-10" | 5'-2"  | -      | -      | -      |
|                                   |                      | 30 PSF                               | 10'-0"                      | 9'-2"                       | 6'-5"  | 4'-3"  | -      | -      | -      |
|                                   |                      | 40 PSF                               | 10'-0"                      | 8'-0"                       | 5'-7"  | -      | -      | -      | -      |
|                                   |                      | 50 PSF                               | 10'-0"                      | 7'-1"                       | 5'-0"  | -      | -      | -      | -      |
|                                   | 40 PSF               | 20 PSF                               | 10'-0"                      | 8'-0"                       | 4'-3"  | -      | -      | -      | -      |
|                                   |                      | 30 PSF                               | 10'-0"                      | 6'-6"                       | -      | -      | -      | -      | -      |
|                                   |                      | 40 PSF                               | 10'-0"                      | 9'-2"                       | 5'-8"  | -      | -      | -      | -      |
|                                   |                      | 50 PSF                               | 8'-2"                       | 5'-0"                       | -      | -      | -      | -      | -      |

| COLUMN TYPE                       | MAX ROOF SPAN S (FT) | GRAVITY/UPLIFT ASD DESIGN LOAD (PSF) | LATERAL ASD WIND LOAD (PSF) | MAXIMUM COLUMN SPACING (FT) |        |        |        |        |        |
|-----------------------------------|----------------------|--------------------------------------|-----------------------------|-----------------------------|--------|--------|--------|--------|--------|
|                                   |                      |                                      |                             | 6'-0"                       | 8'-0"  | 10'-0" | 12'-0" | 14'-0" | 15'-0" |
|                                   |                      |                                      |                             | ALLOWABLE POST HEIGHT (FT)  |        |        |        |        |        |
| 3"x3"x0.093" Post (Unbraced) 10ft | 12'-0"               | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 7'-11" | 5'-4"  | 4'-3"  |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 9'-0"  | 6'-5"  | 4'-4"  | -      |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 7'-9"  | 5'-7"  | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 9'-5"  | 7'-0"  | 5'-0"  | -      | -      |
|                                   |                      | 20 PSF                               | 20 PSF                      | 10'-0"                      | 4'-5"  | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 9'-1"                       | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 7'-11"                      | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 7'-1"                       | -      | -      | -      | -      | -      |
|                                   |                      | 30 PSF                               | 20 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   | 15'-0"               | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 8'-6"  | 5'-2"  | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 7'-0"  | 4'-3"  | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 9'-0"  | 6'-0"  | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 8'-0"  | 5'-4"  | -      | -      | -      |
|                                   |                      | 20 PSF                               | 20 PSF                      | 7'-4"                       | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 6'-0"                       | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 5'-2"                       | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 4'-7"                       | -      | -      | -      | -      | -      |
|                                   |                      | 30 PSF                               | 20 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   | 15'-0"               | 40 PSF                               | 20 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -      | -      | -      | -      | -      |

| COLUMN TYPE                     | MAX ROOF SPAN S (FT) | GRAVITY/UPLIFT ASD DESIGN LOAD (PSF) | LATERAL ASD WIND LOAD (PSF) | MAXIMUM COLUMN SPACING (FT) |        |        |        |        |        |
|---------------------------------|----------------------|--------------------------------------|-----------------------------|-----------------------------|--------|--------|--------|--------|--------|
|                                 |                      |                                      |                             | 6'-0"                       | 8'-0"  | 10'-0" | 12'-0" | 14'-0" | 15'-0" |
|                                 |                      |                                      |                             | ALLOWABLE POST HEIGHT (FT)  |        |        |        |        |        |
| 4"x4"x1/8" Post (Unbraced) 10ft | 12'-0"               | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      | 20 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 9'-4"  |
|                                 |                      | 30 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 9'-6"  | 7'-9"  |
|                                 |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 7'-9"  | 6'-4"  |
|                                 |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 9'-5"  | 6'-9"  | 5'-6"  |
|                                 |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 8'-5"  | 6'-0"  | 5'-0"  |
|                                 | 15'-0"               | 40 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 7'-2"  | -      | -      |
|                                 |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 5'-10" | -      | -      |
|                                 |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 8'-9"  | 5'-1"  | -      | -      |
|                                 |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 7'-10" | 4'-6"  | -      | -      |
|                                 |                      | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      | 20 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 10'-0" |
|                                 |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 10'-0" | 9'-7"  |
|                                 |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 9'-5"  | 8'-4"  |
|                                 |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 8'-5"  | 7'-5"  | -      |
|                                 | 30 PSF               | 20 PSF                               | 10'-0"                      | 10'-0"                      | 10'-0" | 9'-4"  | 5'-2"  | -      | -      |
|                                 |                      | 30 PSF                               | 10'-0"                      | 10'-0"                      | 10'-0" | 7'-8"  | 4'-3"  | -      | -      |
|                                 |                      | 40 PSF                               | 10'-0"                      | 10'-0"                      | 10'-0" | 6'-8"  | -      | -      | -      |
|                                 |                      | 50 PSF                               | 10'-0"                      | 10'-0"                      | 9'-1"  | 6'-0"  | -      | -      | -      |
|                                 | 40 PSF               | 20 PSF                               | 10'-0"                      | 10'-0"                      | 7'-6"  | -      | -      | -      | -      |
|                                 |                      | 30 PSF                               | 10'-0"                      | 10'-0"                      | 6'-2"  | -      | -      | -      | -      |
|                                 |                      | 40 PSF                               | 10'-0"                      | 10'-0"                      | 5'-4"  | -      | -      | -      | -      |
|                                 |                      | 50 PSF                               | 10'-0"                      | 9'-2"                       | 4'-9"  | -      | -      | -      | -      |

| COLUMN TYPE                       | MAX ROOF SPAN S (FT) | GRAVITY/UPLIFT ASD DESIGN LOAD (PSF) | LATERAL ASD WIND LOAD (PSF) | MAXIMUM COLUMN SPACING (FT) |        |        |        |        |        |
|-----------------------------------|----------------------|--------------------------------------|-----------------------------|-----------------------------|--------|--------|--------|--------|--------|
|                                   |                      |                                      |                             | 6'-0"                       | 8'-0"  | 10'-0" | 12'-0" | 14'-0" | 15'-0" |
|                                   |                      |                                      |                             | ALLOWABLE POST HEIGHT (FT)  |        |        |        |        |        |
| 3"x3" Fluted Post (Unbraced) 10ft | 12'-0"               | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 9'-9"  | 8'-7"  |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 8'-0"  | 7'-0"  |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 8'-9"  | 6'-11" | 6'-1"  |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 9'-11" | 7'-10" | 6'-2"  | 5'-5"  |
|                                   |                      | 20 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 5'-5"  | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 8'-8"  | 4'-5"  | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 7'-6"  | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 6'-8"  | -      | -      | -      | -      |
|                                   |                      | 30 PSF                               | 20 PSF                      | 9'-7"                       | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 7'-10"                      | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 6'-9"                       | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 6'-1"                       | -      | -      | -      | -      | -      |
|                                   |                      | 40 PSF                               | 20 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   | 15'-0"               | 10 PSF                               | 20 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 10'-0" | 7'-2"  | 5'-11" |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 10'-0" | 10'-0" | 8'-2"  | 5'-10" | 4'-10" |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 10'-0" | 9'-6"  | 7'-1"  | 5'-1"  | 4'-2"  |
|                                   |                      |                                      | 50 PSF                      | 10'-0"                      | 10'-0" | 8'-6"  | 6'-4"  | 4'-6"  | -      |
|                                   |                      | 20 PSF                               | 20 PSF                      | 10'-0"                      | 6'-8"  | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | 10'-0"                      | 5'-5"  | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | 10'-0"                      | 4'-9"  | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | 9'-0"                       | 4'-3"  | -      | -      | -      | -      |
|                                   |                      | 30 PSF                               | 20 PSF                      | 4'-6"                       | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 30 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 40 PSF                      | -                           | -      | -      | -      | -      | -      |
|                                   |                      |                                      | 50 PSF                      | -                           | -      | -      | -      | -      | -      |
| 40 PSF                            | 20 PSF               | -                                    | -                           | -                           | -      | -      | -      |        |        |
|                                   | 30 PSF               | -                                    | -                           | -                           | -      | -      | -      |        |        |
|                                   | 40 PSF               | -                                    | -                           | -                           | -      | -      | -      |        |        |
|                                   | 50 PSF               | -                                    | -                           | -                           | -      | -      | -      |        |        |



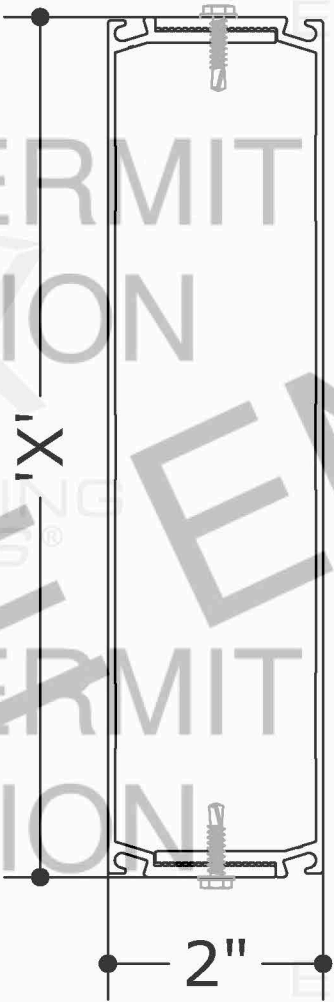
FREESTANDING & HOST ATTACHED SYSTEM EAVE BEAM SPANS

| Beam Type      | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x4" SMB Beam | 20 PSF          | 7'-0"              | 6'-5"  | 6'-0"  | 5'-7"  | 5'-3"  |                    |
|                | 30 PSF          | 5'-9"              | 5'-3"  | 4'-10" | 4'-6"  | 4'-3"  |                    |
|                | 40 PSF          | 5'-0"              | 4'-6"  | 4'-2"  | 4'-0"  | 3'-8"  |                    |
|                | 50 PSF          | 4'-5"              | 4'-1"  | 3'-9"  | 3'-6"  | 3'-4"  |                    |

| Beam Type      | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x5" SMS Beam | 20 PSF          | 8'-4"              | 7'-8"  | 7'-1"  | 6'-7"  | 6'-3"  |                    |
|                | 30 PSF          | 6'-10"             | 6'-3"  | 5'-9"  | 5'-5"  | 5'-1"  |                    |
|                | 40 PSF          | 6'-0"              | 5'-5"  | 5'-0"  | 4'-8"  | 4'-5"  |                    |
|                | 50 PSF          | 5'-4"              | 4'-10" | 4'-6"  | 4'-2"  | 4'-0"  |                    |

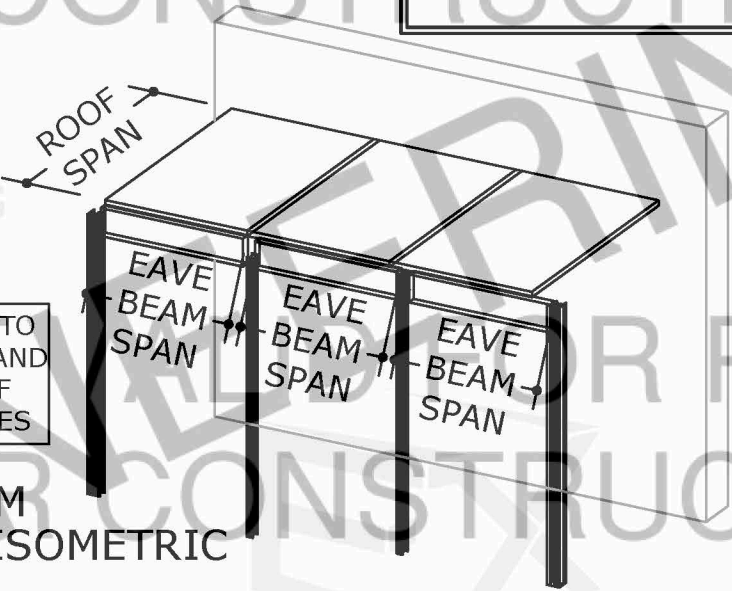
| Beam Type      | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x6" SMS Beam | 20 PSF          | 10'-7"             | 9'-8"  | 9'-0"  | 8'-4"  | 7'-11" |                    |
|                | 30 PSF          | 8'-8"              | 7'-11" | 7'-3"  | 6'-10" | 6'-5"  |                    |
|                | 40 PSF          | 7'-6"              | 6'-10" | 6'-4"  | 5'-11" | 5'-7"  |                    |
|                | 50 PSF          | 6'-8"              | 6'-1"  | 5'-8"  | 5'-3"  | 5'-0"  |                    |

| Beam Type      | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x7" SMS Beam | 20 PSF          | 10'-11"            | 10'-0" | 9'-2"  | 8'-7"  | 8'-1"  |                    |
|                | 30 PSF          | 8'-11"             | 8'-1"  | 7'-6"  | 7'-0"  | 6'-7"  |                    |
|                | 40 PSF          | 7'-8"              | 7'-0"  | 6'-6"  | 6'-1"  | 5'-9"  |                    |
|                | 50 PSF          | 6'-11"             | 6'-3"  | 5'-10" | 5'-5"  | 5'-2"  |                    |



\*THIS DETAIL APPLIES TO BOTH HOST ATTACHED AND FREE-STANDING ROOF OVER OPEN STRUCTURES

EAVE-BEAM SPACING ISOMETRIC



- TABLE NOTES:**
- 2015 ALUMINUM DESIGN MANUAL, ALLOWABLE STRESS DESIGN METHOD USED IN ALL TABLES.
  - DEFLECTION LIMIT = L/120
  - 2PSF DEAD LOAD CONSIDERED IN CALCULATIONS.
  - POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH ASCE 7-22 OR ASCE 7-16 BASED ON APPLICABLE CODE.

| Beam Type      | Roof Load (psf) | Max Roof Span (ft) |        |         |        |        | Max Beam Span (ft) |
|----------------|-----------------|--------------------|--------|---------|--------|--------|--------------------|
|                |                 | 8'-0"              | 10'-0" | 12'-0"  | 14'-0" | 16'-0" |                    |
| 2"x8" SMS Beam | 20 PSF          | 15'-0"             | 15'-0" | 14'-6"  | 13'-6" | 12'-9" |                    |
|                | 30 PSF          | 14'-0"             | 12'-9" | 11'-10" | 11'-1" | 10'-5" |                    |
|                | 40 PSF          | 12'-1"             | 11'-1" | 10'-3"  | 9'-7"  | 9'-0"  |                    |
|                | 50 PSF          | 10'-10"            | 9'-11" | 9'-2"   | 8'-7"  | 8'-1"  |                    |

| Beam Type      | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x9" SMS Beam | 20 PSF          | 15'-0"             | 15'-0" | 15'-0" | 15'-0" | 14'-2" |                    |
|                | 30 PSF          | 15'-0"             | 14'-2" | 13'-1" | 12'-3" | 11'-7" |                    |
|                | 40 PSF          | 13'-5"             | 12'-3" | 11'-4" | 10'-8" | 10'-0" |                    |
|                | 50 PSF          | 12'-0"             | 11'-0" | 10'-2" | 9'-6"  | 9'-0"  |                    |

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INSULATED PATIO COVER  
ROOF OVER OPEN WALL ROOM SYSTEMS  
PERFORMANCE EVALUATION

| REMARKS                      | DRWN | CHKD | DATE     |
|------------------------------|------|------|----------|
| ORIGINAL PROJECT (20-25-226) | TT   | FB   | 05/28/20 |
| REVISION (20-25226)          | AEM  | FB   | 10/08/20 |
| FBG 2023 (23-69317)          | CLV  | CCB  | 12/19/23 |
| ADD 2X8 BEAM                 | CCB  | CCB  | 2/04/25  |

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23-69317

SCALE: NTS UNLESS NOTED

7



| Beam Type       | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|-----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                 |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x10" SMB Beam | 20 PSF          | 15'-0"             | 15'-0" | 15'-0" | 15'-0" | 15'-0" |                    |
|                 | 30 PSF          | 15'-0"             | 15'-0" | 15'-0" | 15'-0" | 15'-0" |                    |
|                 | 40 PSF          | 15'-0"             | 15'-0" | 15'-0" | 15'-0" | 14'-2" |                    |
|                 | 50 PSF          | 15'-0"             | 15'-0" | 14'-4" | 13'-5" | 12'-8" |                    |



2"x10" SELF MATING BEAMS

FREESTANDING & HOST ATTACHED SYSTEM EAVE BEAM SPANS

| Beam Type       | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|-----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                 |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x5" Edge Beam | 20 PSF          | 12'-7"             | 11'-6" | 10'-8" | 10'-0" | 9'-5"  |                    |
|                 | 30 PSF          | 10'-3"             | 9'-5"  | 8'-8"  | 8'-1"  | 7'-8"  |                    |
|                 | 40 PSF          | 8'-11"             | 8'-1"  | 7'-6"  | 7'-0"  | 6'-8"  |                    |
|                 | 50 PSF          | 8'-0"              | 7'-3"  | 6'-9"  | 6'-3"  | 6'-0"  |                    |



2"x5" EDGE BEAM

| Beam Type       | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|-----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                 |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x8" Edge Beam | 20 PSF          | 15'-0"             | 15'-0" | 15'-0" | 15'-0" | 15'-0" |                    |
|                 | 30 PSF          | 15'-0"             | 15'-0" | 14'-6" | 13'-7" | 12'-9" |                    |
|                 | 40 PSF          | 14'-10"            | 13'-7" | 12'-6" | 11'-9" | 11'-1" |                    |
|                 | 50 PSF          | 13'-3"             | 12'-1" | 11'-3" | 10'-6" | 9'-7"  |                    |



2"x8" EDGE BEAM

| Beam Type       | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|-----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                 |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x7" Edge Beam | 20 PSF          | 15'-0"             | 15'-0" | 15'-0" | 14'-3" | 13'-5" |                    |
|                 | 30 PSF          | 14'-9"             | 13'-5" | 12'-5" | 11'-8" | 11'-0" |                    |
|                 | 40 PSF          | 12'-9"             | 11'-8" | 10'-9" | 10'-1" | 9'-6"  |                    |
|                 | 50 PSF          | 11'-5"             | 10'-5" | 9'-8"  | 9'-0"  | 8'-6"  |                    |



2"x7" EDGE BEAM

| Beam Type  | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|            |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 6.7 C-Beam | 20 PSF          | 14'-2"             | 13'-0" | 12'-0" | 11'-2" | 10'-7" |                    |
|            | 30 PSF          | 11'-7"             | 10'-7" | 9'-9"  | 9'-2"  | 8'-7"  |                    |
|            | 40 PSF          | 10'-0"             | 9'-2"  | 8'-5"  | 7'-11" | 7'-5"  |                    |
|            | 50 PSF          | 9'-0"              | 8'-2"  | 7'-7"  | 7'-1"  | 6'-8"  |                    |



6.7 C-BEAM

| Beam Type                  | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|----------------------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                            |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x7" Reinforced Edge Beam | 20 PSF          | 15'-0"             | 15'-0" | 15'-0" | 15'-0" | 15'-0" |                    |
|                            | 30 PSF          | 15'-0"             | 15'-0" | 15'-0" | 14'-2" | 13'-5" |                    |
|                            | 40 PSF          | 15'-0"             | 14'-2" | 13'-2" | 12'-4" | 11'-7" |                    |
|                            | 50 PSF          | 13'-11"            | 12'-8" | 11'-9" | 11'-0" | 10'-4" |                    |



2"x7" REINFORCED EDGE BEAM

| Beam Type       | Roof Load (psf) | Max Roof Span (ft) |        |        |        |        | Max Beam Span (ft) |
|-----------------|-----------------|--------------------|--------|--------|--------|--------|--------------------|
|                 |                 | 8'-0"              | 10'-0" | 12'-0" | 14'-0" | 16'-0" |                    |
| 2"x4" Tilt Beam | 20 PSF          | 7'-7"              | 6'-11" | 6'-5"  | 6'-0"  | 5'-8"  |                    |
|                 | 30 PSF          | 6'-2"              | 5'-8"  | 5'-3"  | 4'-10" | 4'-7"  |                    |
|                 | 40 PSF          | 5'-4"              | 4'-10" | 4'-6"  | 4'-3"  | 4'-0"  |                    |
|                 | 50 PSF          | 4'-9"              | 4'-4"  | 4'-0"  | 3'-9"  | 3'-7"  |                    |



4" TILT BEAM

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PERFORMANCE EVALUATION

| REMARKS                     | DRWN | CHKD | DATE     |
|-----------------------------|------|------|----------|
| ORIGINAL PROJECT (20-25726) | TT   | FB   | 06/28/20 |
| REVISION (20-25226)         | AEM  | FB   | 10/08/20 |
| FBC 2023 (23-69317)         | CLV  | CCB  | 12/19/23 |
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