

**Architectural Ultra High Performance Concrete (A/UHPC)
Facade Panel System**

APPROVAL APPLIES TO SINGLE OR MULTIPLE UNIT INSTALLATIONS
 MAX. DESIGN LOAD = + 120 PSF
 - 120 PSF

MIN. PANEL THICKNESS = 5/8 IN.
 MAX. PANEL SIZE= 58-1/2" WIDE X 143-1/2" HIGH

RAINSCREEN SYSTEM WITH PANEL JOINTS ITEM #6 IS RATED FOR LARGE AND SMALL MISSILE IMPACT AND CAN BE INSTALLED DIRECTLY TO WOOD/METAL STUDS, EACH AT 16" O.C. AS EXTERIOR CLADDING.

RAINSCREEN SYSTEM WITHOUT PANEL JOINTS IS NOT RATED FOR IMPACT AND SHALL ONLY BE INSTALLED IN FRONT OF CONCRETE OR MASONRY WALLS OR 1/2" (5-PLY) PLYWOOD OR OTHER APPROVED SHEATHING SUPPORTED BY WOOD/METAL STUDS, EACH AT 16" O.C. SHEATHING SHALL BE ATTACHED TO FRAMING STUDS IN ACCORDANCE WITH FBC.

ADEQUACY OF STRUCTURE RECEIVING RAINSCREEN SYSTEM SHALL BE CHECKED BY A LICENSED DESIGN PROFESSIONAL IN ACCORDANCE WITH THE CURRENT EDITION OF THE IRC/IBC.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AND 2018 INTERNATIONAL BUILDING CODE (IBC).

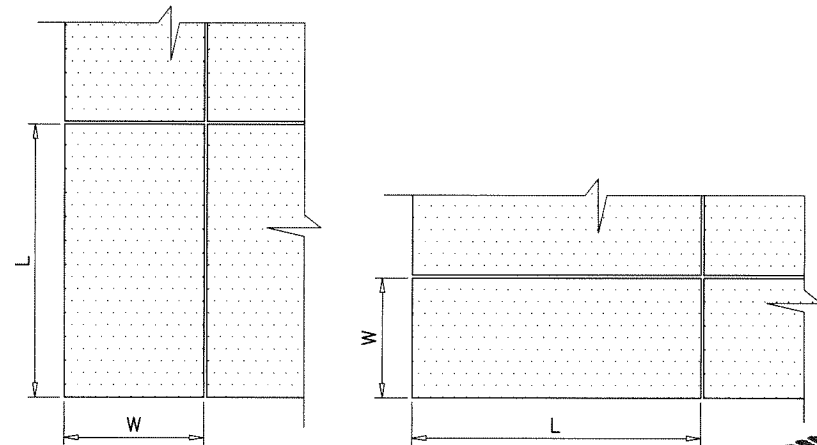
ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2018 IRC/IBC.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

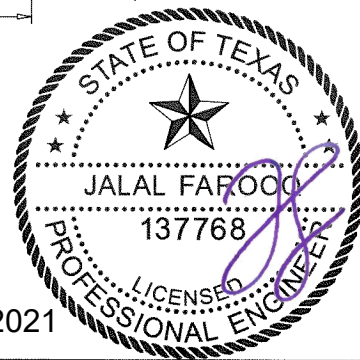
TESTING IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE.
 LARGE MISSILE IMPACT TEST, TAS 201-94.
 CYCLIC WIND PRESSURE TEST, TAS 203-94.
 STATIC AIR PRESSURE TEST, TAS 202-94.



NOTE:
 WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.

TYPICAL ELEVATION
 INSTALLATIONS AT STEEL/WOOD STUD FRAMING SYSTEM
 OR AT CONCRETE/MASONRY WALLS
 SEE SHEETS 3 AND 4 FOR INSTALLATION DETAILS

Sealed: 5/10/2021



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AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 262-6978 FAX. (305) 264-8100

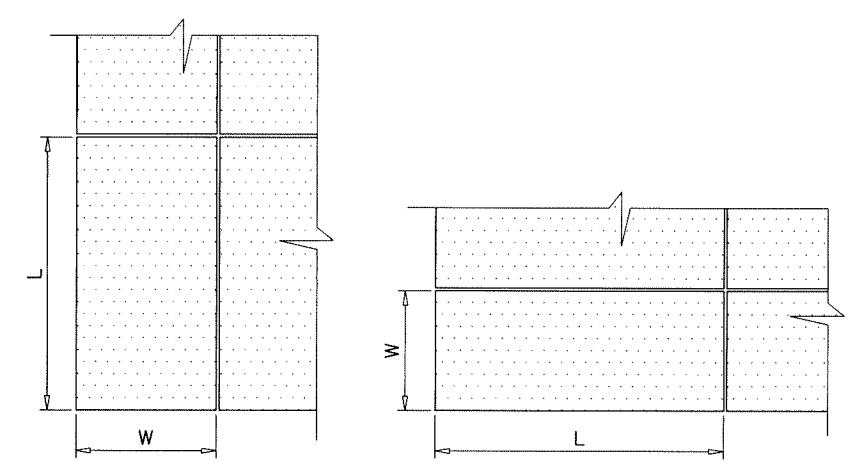
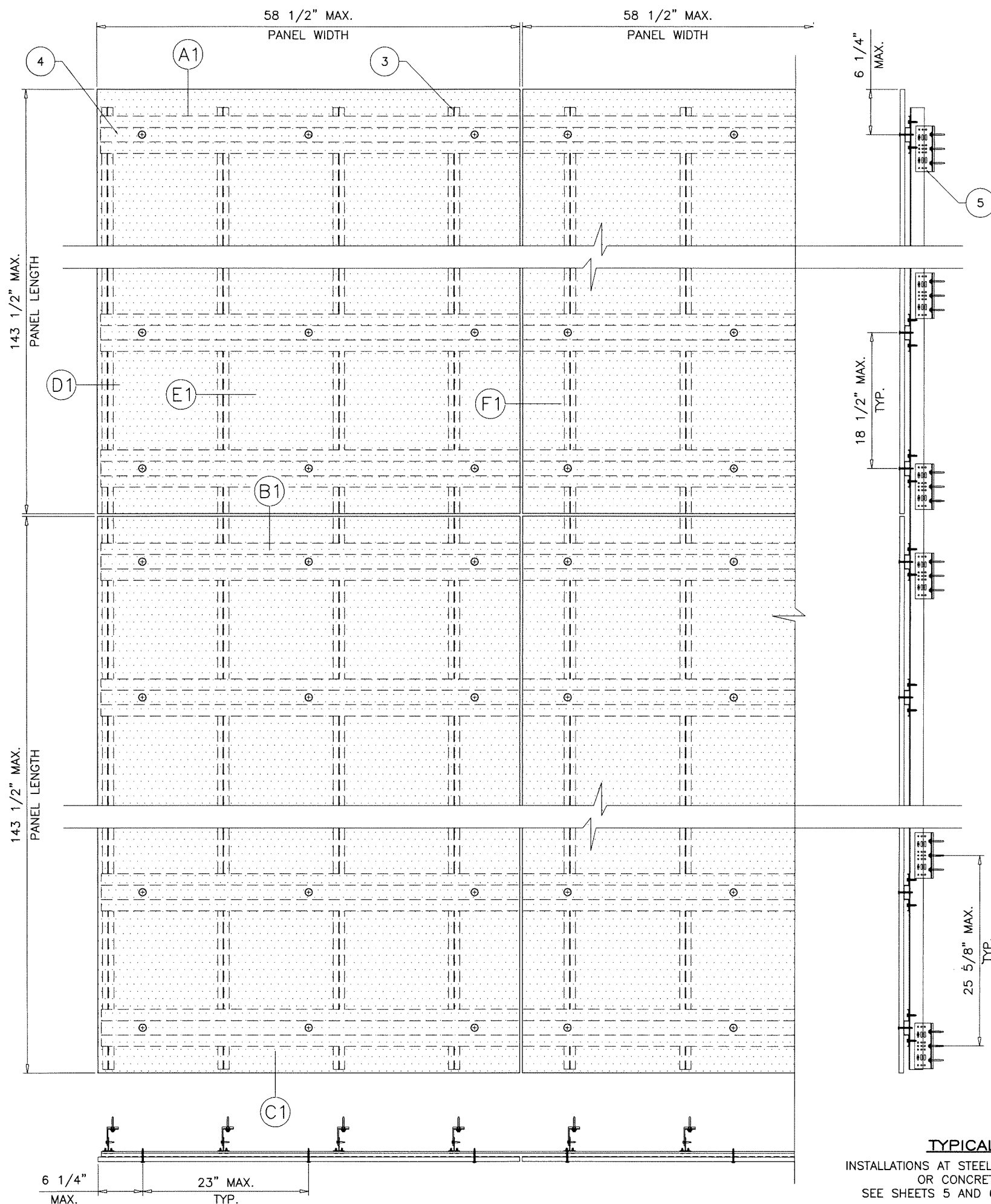
Architectural Ultra High Perf. Conc. (A/UHPC) Facade Panel Sys.
TAKTL, LLC.
 230 Braddock Avenue
 Keystone Commons, Portal 9
 Turtle Creek, PA 15145
 Tel. (412) 486-1600

revisions:	no.	date	by	description

date: 04-05-21
 scale: 3/4"=1'-0"
 dr. by: TARIQ
 chk. by:

drawing no.
21-30T
 sheet 1 of 9

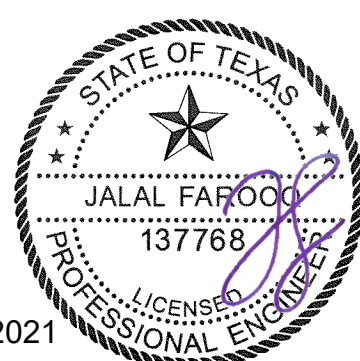
RAINSCREEN\21-30T-TKL



NOTE:
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TYPICAL ELEVATION
INSTALLATIONS AT STEEL/WOOD STUD FRAMING SYSTEM
OR CONCRETE/MASONRY WALLS
SEE SHEETS 5 AND 6 FOR INSTALLATION DETAILS

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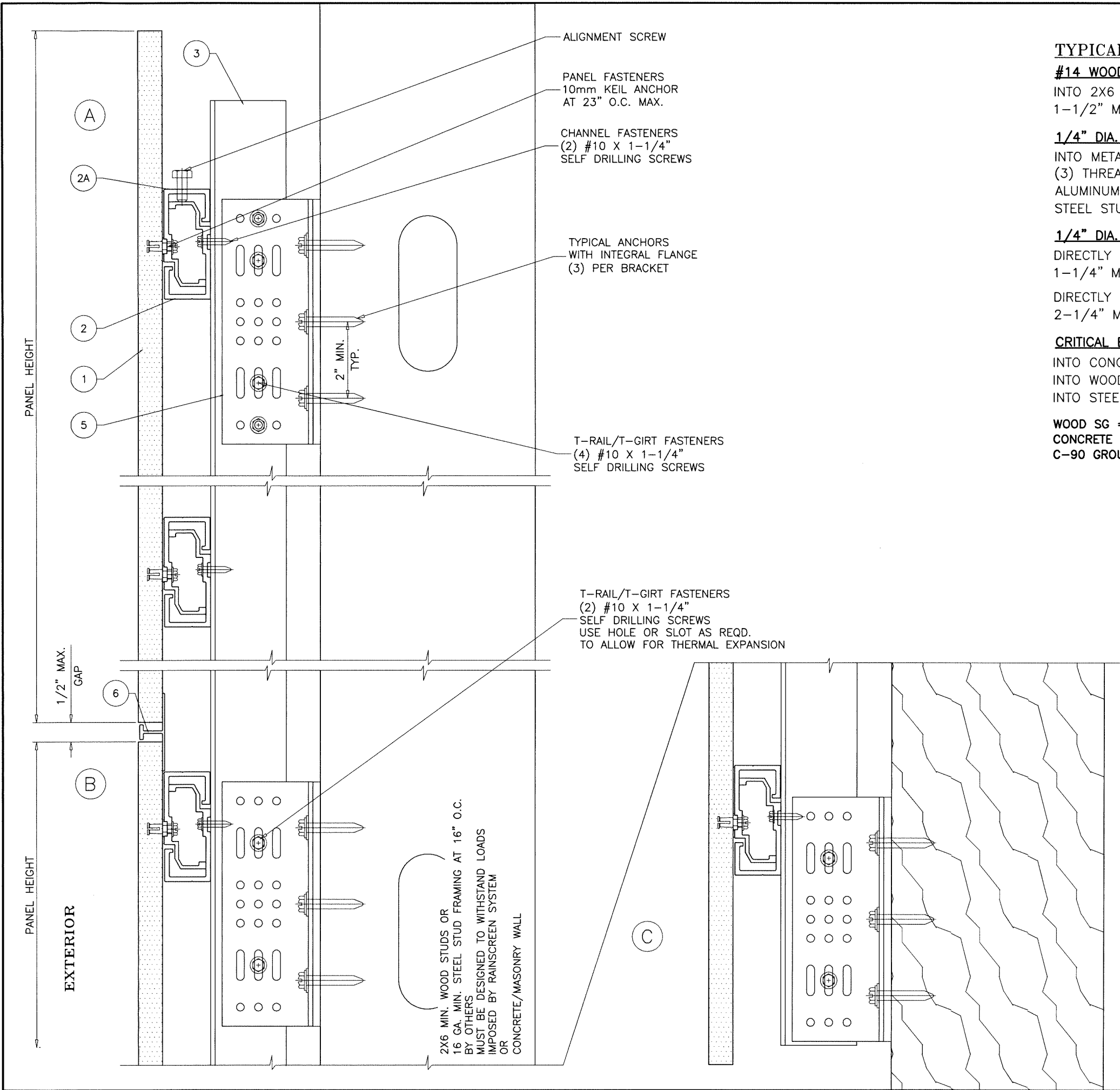
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TYPICAL ANCHORS: SEE ELEV. FOR SPACING

#14 WOOD SCREWS

INTO 2X6 WOOD STUDS
1-1/2" MIN. PENETRATION INTO WOOD

1/4" DIA. ST. STEEL SELF-DRILLING SCREWS (CONDITION A MIN.)

INTO METAL STRUCTURES
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL STUDS: 16 GA. MIN. (Fy = 36 KSI MIN.)

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

DIRECTLY INTO CONCRETE WALL
1-1/4" MIN. EMBED INTO CONCRETE
DIRECTLY INTO BLOCK WALL
2-1/4" MIN. EMBED INTO GROUT-FILLED BLOCKS

CRITICAL EDGE DISTANCE

INTO CONCRETE AND BLOCKS = 2-1/2" MIN.
INTO WOOD STUDS = 3/4" MIN.
INTO STEEL STUDS = 3/4" MIN.

WOOD SG = 0.55 MIN.
CONCRETE f'c = 3000 PSI MIN.
C-90 GROUT-FILLED BLOCK AT f'm = 2000 PSI MIN.



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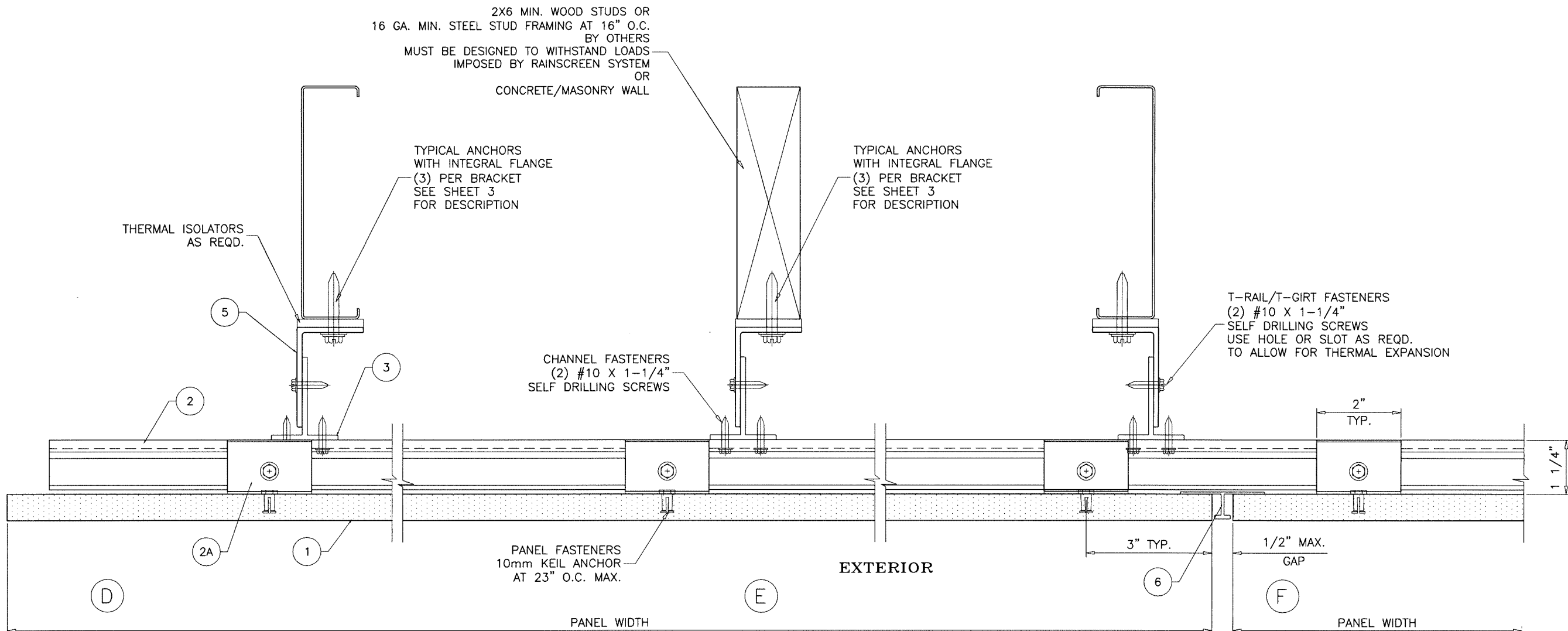
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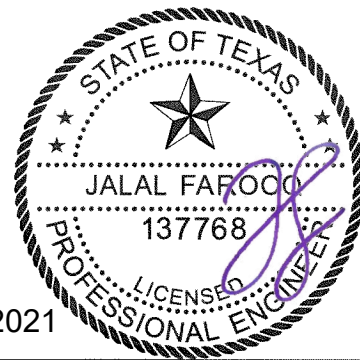


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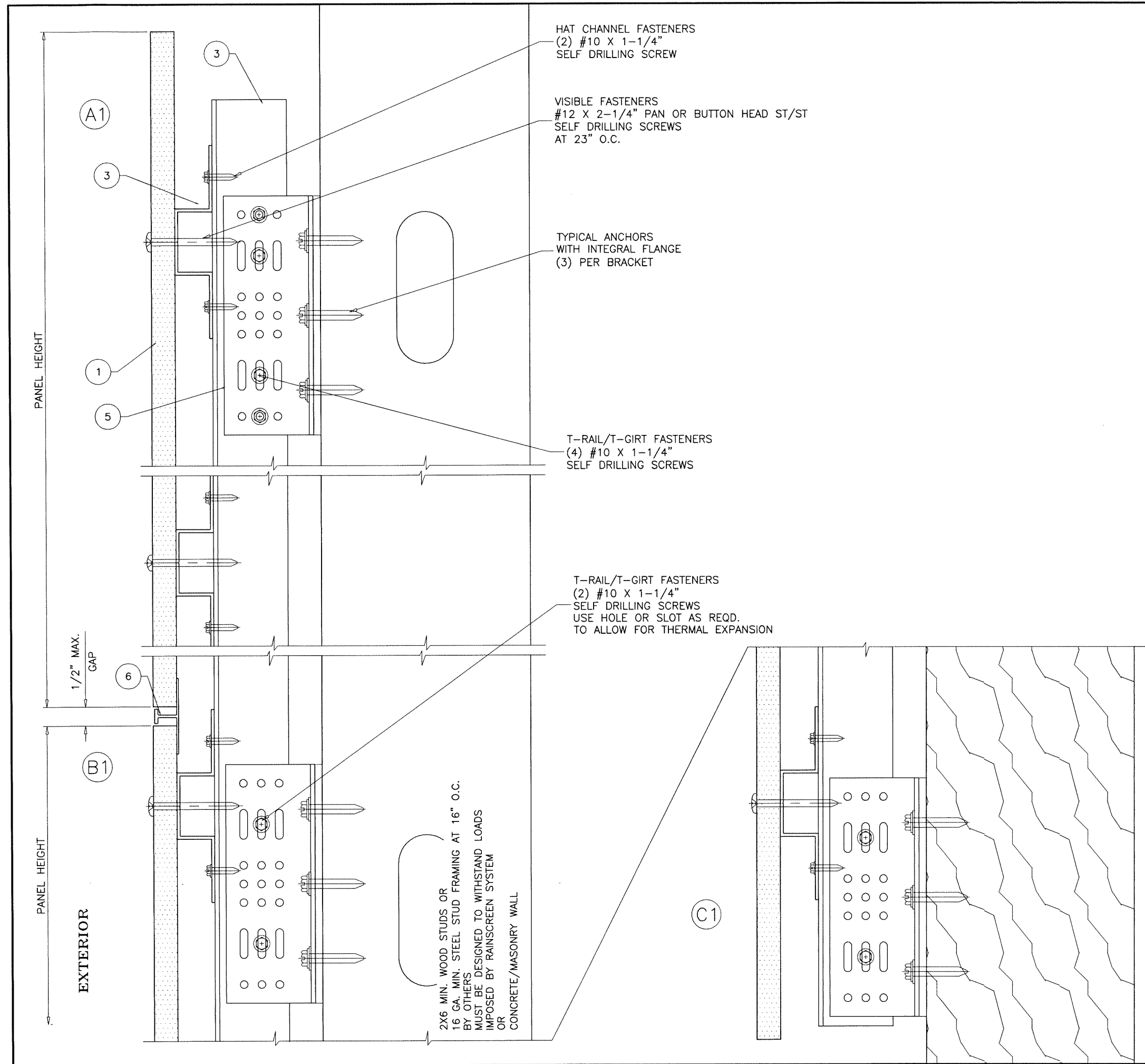
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RAINSCREEN\21-30T-TKL



HAT CHANNEL FASTENERS
 (2) #10 X 1-1/4"
 SELF DRILLING SCREW

VISIBLE FASTENERS
 #12 X 2-1/4" PAN OR BUTTON HEAD ST/ST
 SELF DRILLING SCREWS
 AT 23" O.C.

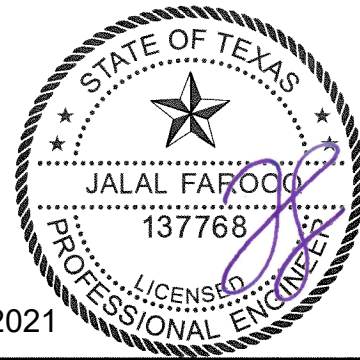
TYPICAL ANCHORS
 WITH INTEGRAL FLANGE
 (3) PER BRACKET

T-RAIL/T-GIRT FASTENERS
 (4) #10 X 1-1/4"
 SELF DRILLING SCREWS

T-RAIL/T-GIRT FASTENERS
 (2) #10 X 1-1/4"
 SELF DRILLING SCREWS
 USE HOLE OR SLOT AS REQD.
 TO ALLOW FOR THERMAL EXPANSION

2X6 MIN. WOOD STUDS OR
 16 GA. MIN. STEEL STUD FRAMING AT 16" O.C.
 MUST BE DESIGNED TO WITHSTAND LOADS
 IMPOSED BY RAINSCREEN SYSTEM
 OR
 CONCRETE/MASONRY WALL

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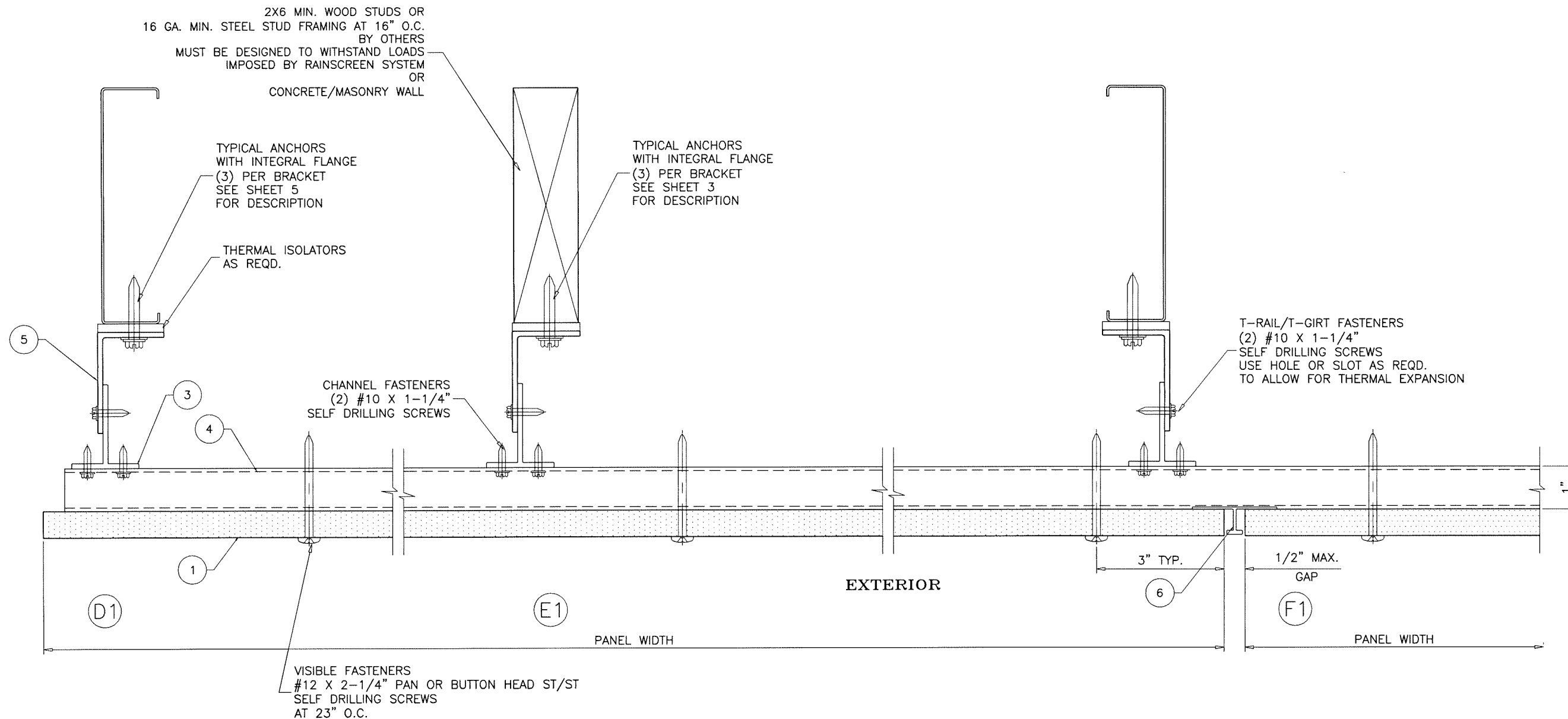
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2X6 MIN. WOOD STUDS OR
16 GA. MIN. STEEL STUD FRAMING AT 16" O.C.
BY OTHERS
MUST BE DESIGNED TO WITHSTAND LOADS
IMPOSED BY RAINSCREEN SYSTEM
OR
CONCRETE/MASONRY WALL

TYPICAL ANCHORS
WITH INTEGRAL FLANGE
(3) PER BRACKET
SEE SHEET 5
FOR DESCRIPTION

THERMAL ISOLATORS
AS REQD.

TYPICAL ANCHORS
WITH INTEGRAL FLANGE
(3) PER BRACKET
SEE SHEET 3
FOR DESCRIPTION

CHANNEL FASTENERS
(2) #10 X 1-1/4"
SELF DRILLING SCREWS

T-RAIL/T-GIRT FASTENERS
(2) #10 X 1-1/4"
SELF DRILLING SCREWS
USE HOLE OR SLOT AS REQD.
TO ALLOW FOR THERMAL EXPANSION

VISIBLE FASTENERS
#12 X 2-1/4" PAN OR BUTTON HEAD ST/ST
SELF DRILLING SCREWS
AT 23" O.C.

EXTERIOR

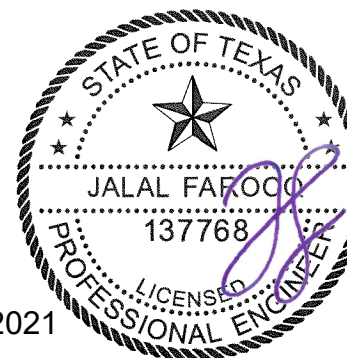
PANEL WIDTH

PANEL WIDTH

3" TYP.

1/2" MAX.
GAP

1"



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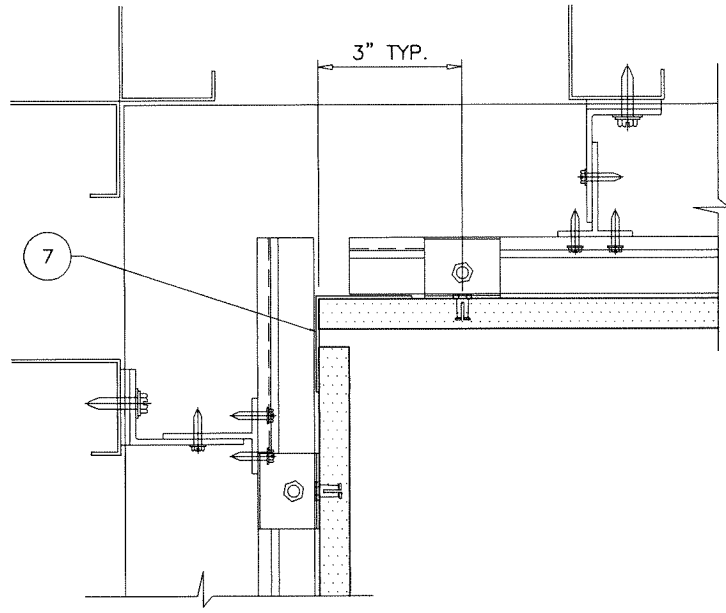
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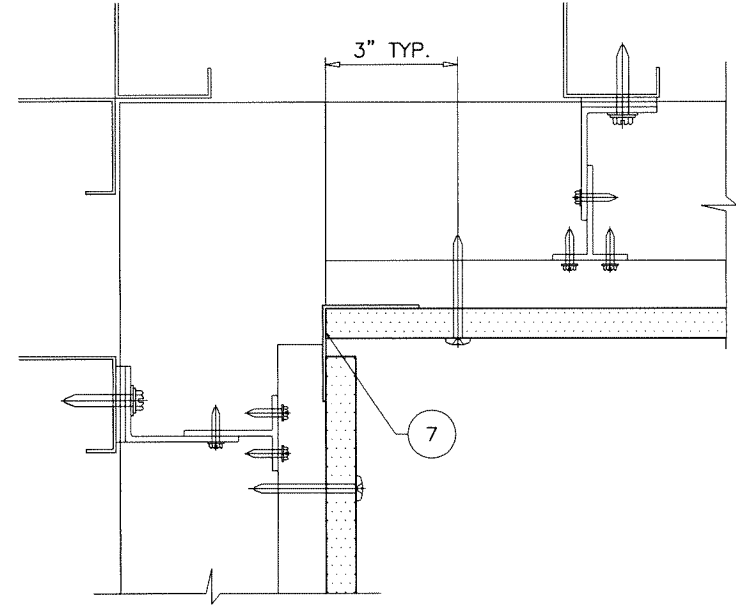
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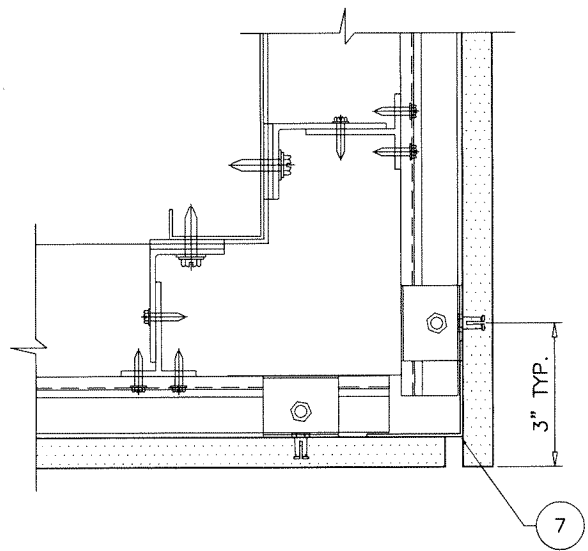
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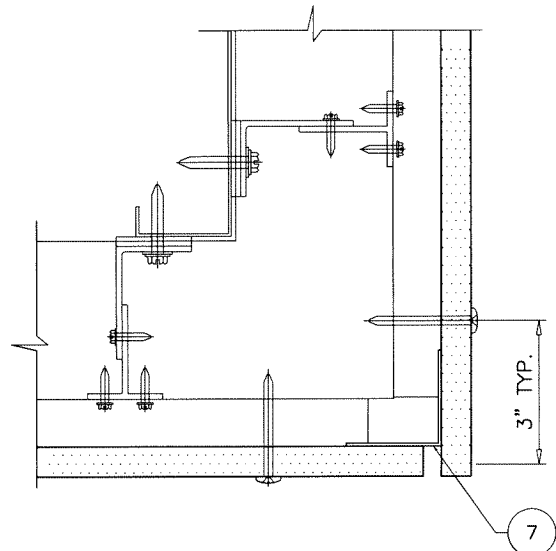
INSIDE CORNER DETAIL
CONCEALED FASTENERS



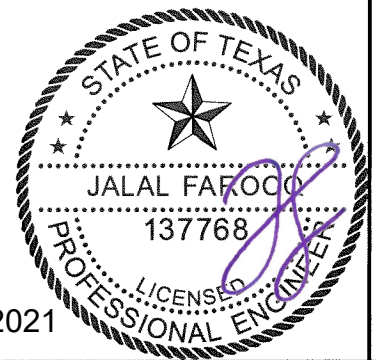
INSIDE CORNER DETAIL
EXPOSED FASTENERS




OUTSIDE CORNER DETAIL
CONCEALED FASTENERS



OUTSIDE CORNER DETAIL
EXPOSED FASTENERS



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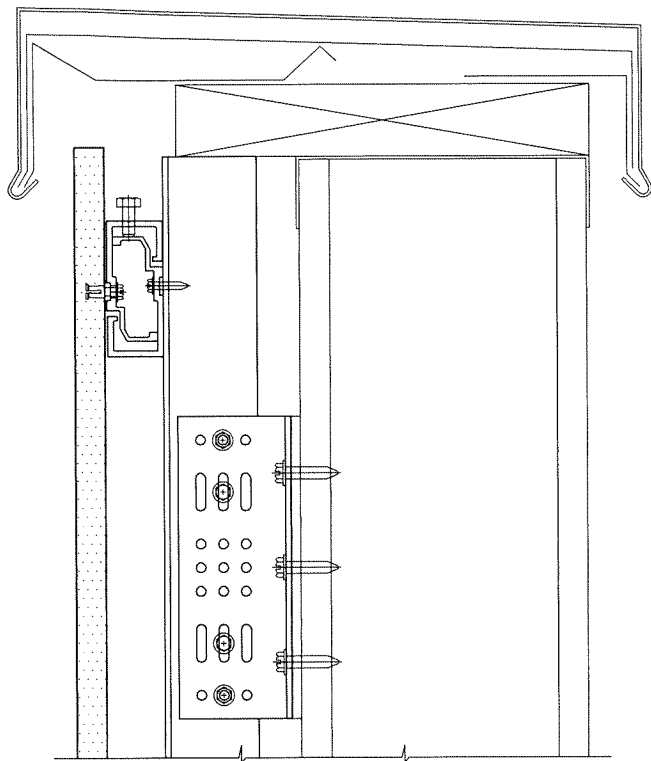
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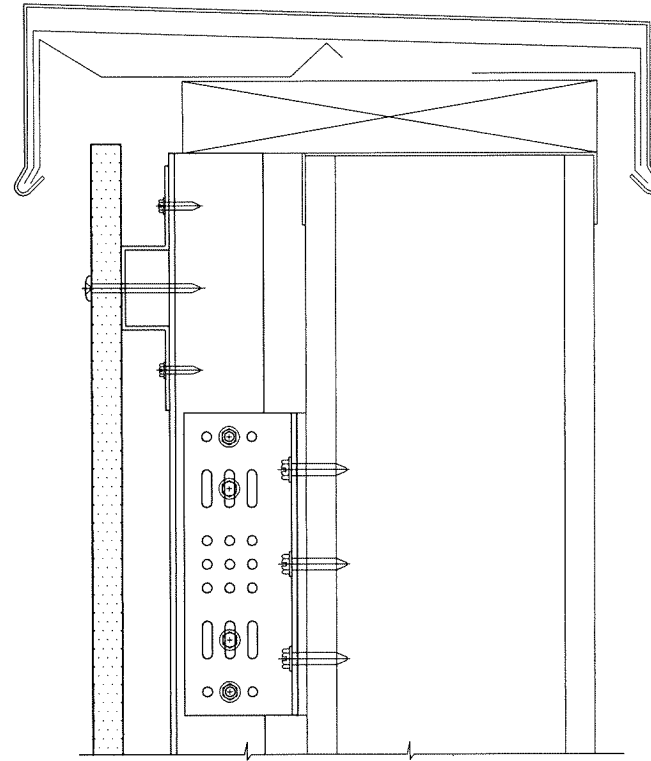
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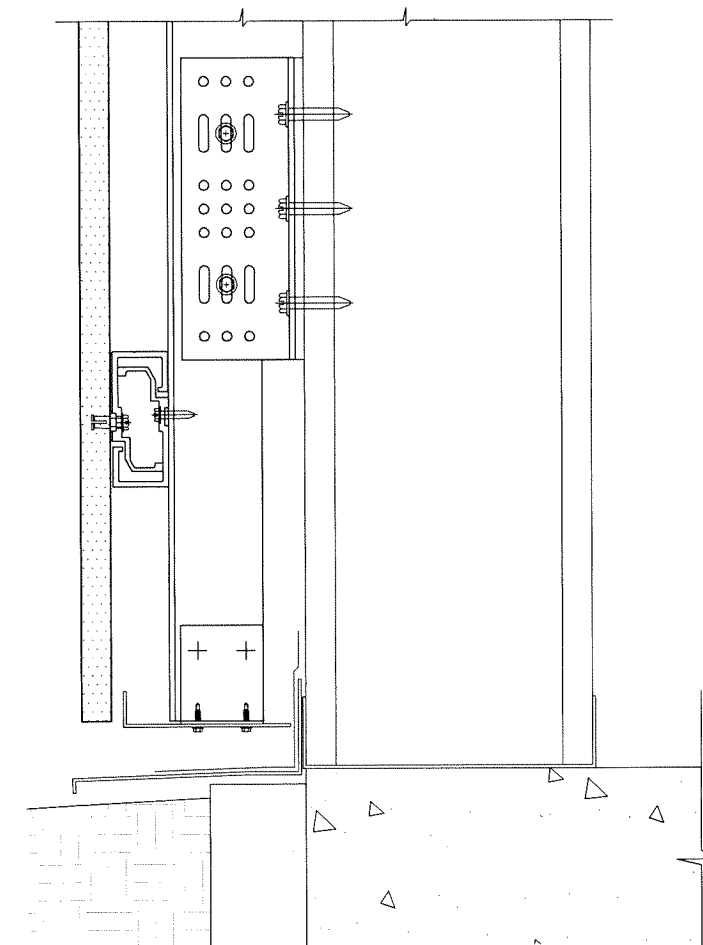
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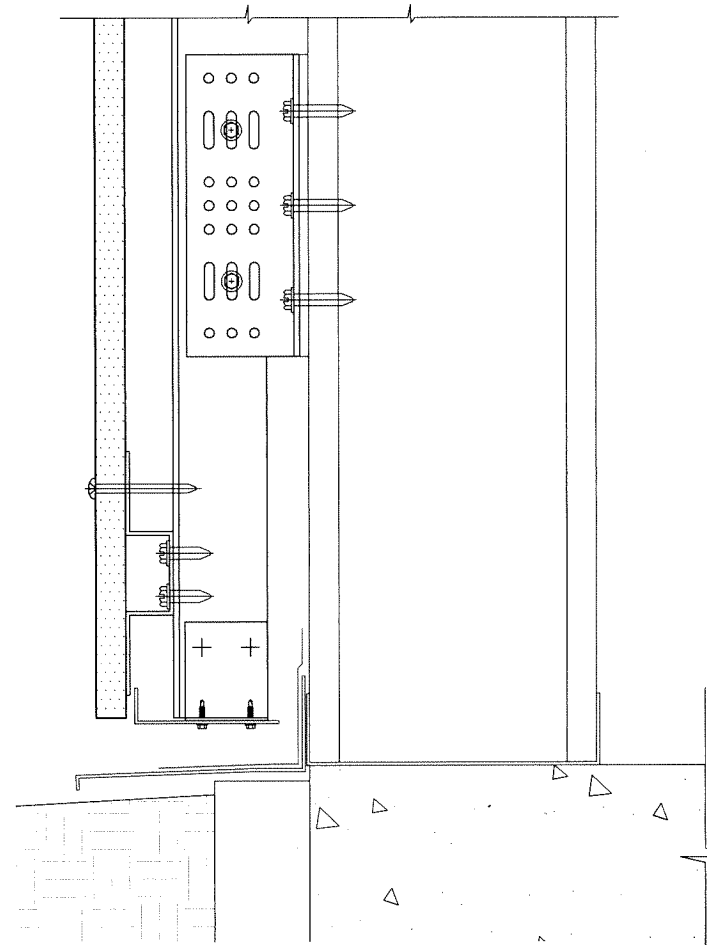
TOP TERMINATION DETAIL
CONCEALED FASTENERS



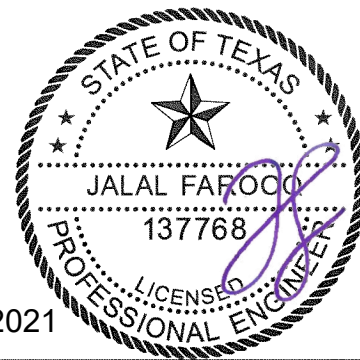
TOP TERMINATION DETAIL
EXPOSED FASTENERS



BOTTOM TERMINATION DETAIL
CONCEALED FASTENERS



BOTTOM TERMINATION DETAIL
EXPOSED FASTENERS



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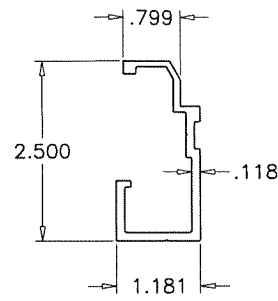
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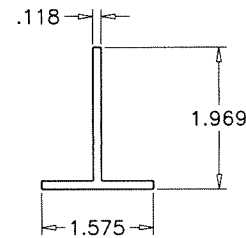
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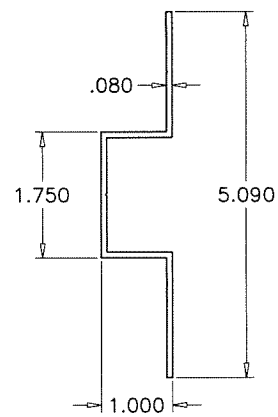
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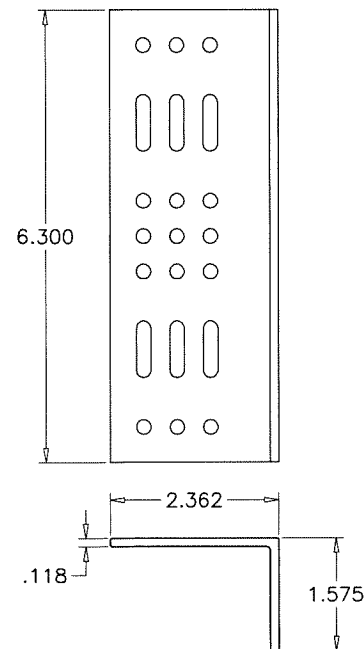
2 C-SHAPE HORIZ. RAIL
2A C-SHAPE CLIP



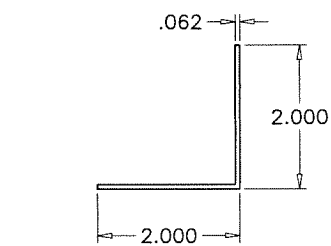
3 VERTICAL T-RAIL/T-GIRT



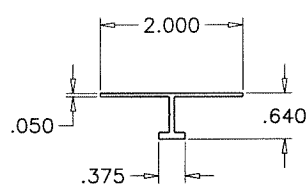
4 HORIZ. HAT CHANNEL



5 WALL BRACKET

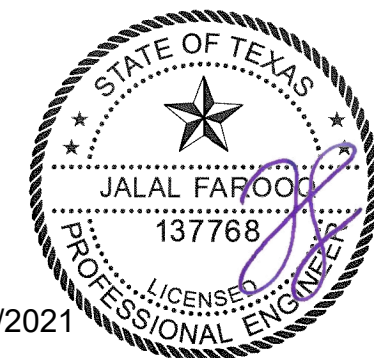


7 CORNER ANGLE



6 PANEL JOINT

ITEM NO.	WEIGHT	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	7.14 Lbs/Sq. Ft.	AS REQD.	UHPC PANEL	-	AR FIBER GLASS MESH REINF. CAST ULTRA HIGH PERFORMANCE CONC.
2	RL-TAK-CP-1	AS REQD.	C-SHAPE HORIZONTAL RAIL	6005-T5	TAKTL, LLC.
2A	RL-TAK-CP-1	AS REQD.	C-SHAPE CLIP, 2" LONG	6005-T5	TAKTL, LLC.
3	T40/50/3	AS REQD.	VERTICAL T-RAIL/T-GIRT	6063-T6	RAINSCREEN MATERIALS
4	HS1	AS REQD.	HORIZONTAL HAT CHANNEL	6063-T6	RAINSCREEN MATERIALS
5	WB1-160-6X15	AS REQD.	WALL BRACKET	6063-T6	RAINSCREEN MATERIALS
6	-	AS REQD.	PANEL JOINT	6063-T5	REQD. ONLY AT LARGE/SMALL MISSILE IMPACT RESISTANT SYSTEMS
7	-	AS REQD.	CORNER ANGLE	6063-T6	-



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