



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

TAKTL LLC

**230 Braddock Avenue, Portal 9, Keystone Commons
Turtle Creek, PA 15145**

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Architectural Ultra High Performance Concrete (A|UHPC) Façade Panel Systems

APPROVAL DOCUMENT: Drawing No. **21-08D**, titled “Architectural Ultra High Performance Concrete (A|UHPC) Façade Panel Systems”, sheets 1 thru 9 of 9, dated 01/29/2021, with revision A dated 06/28/2021, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E. on 07/22/2021, bearing the Miami-Dade County Product Control approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series and following statements: “ASTM C1186, Type A compliant” and “Miami-Dade County Product Control Approved”, unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**



NOA No. 21-0408.05
Expiration Date: August 26, 2026
Approval Date: August 26, 2021
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **21-08D**, titled “Architectural Ultra High Performance Concrete (A|UHPC) Façade Panel Systems”, sheets 1 thru 9 of 9, dated 01/29/2021, with revision A dated 06/28/2021, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E. on 07/22/2021.

B. TESTS

1. Test reports on Uniform Static Air Pressure Test, loading per FBC **TAS 202-94** along with marked-up drawings and installation diagram of TAKTL UHPC Undercut (Concealed) Anchors and Visible (Face) Fasteners Systems, prepared by Intertek, Test Report No. **K6908.01-501-18 R0**, dated 11/04/2020, signed and sealed by Vinu J. Abraham, P.E.
2. Test reports on Large Missile Impact Test per FBC, **TAS 201-94** and Cyclic Wind Pressure Loading per FBC, **TAS 203-94** along with marked-up drawings and installation diagram of TAKTL UHPC Undercut (Concealed) Anchors and Visible (Face) Fasteners Systems, prepared by Intertek, Test Report No. **L5717.01-501-18 R0**, dated 01/14/2021, signed and sealed by Vinu J. Abraham, P.E.
3. Test report on Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheets per ASTM C1185-08 (2012) and Standard Specification for Flat Fiber-Cement Sheets per ASTM C1186-08 (2012) for Type A of TAKTL UHPC Sheets, prepared by Architectural Testing, Test Report No. **C4044.02-106-14**, dated 05/17/2013, signed Gary Hartman, P.E.
4. Test report on Surface Burning Characteristics of 5/8” thick TAKTL A/UHPC panel with AR glass mesh, per ASTM E84-17, prepared by Intertek, Test Reports No. **H8206.01-121-24**, dated 01/22/2018, signed and by Ethan Grove.
5. Test report on Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C of TAKTL Architectural VHPC, per ASTM E136-16a, prepared by QAI Laboratories, Test Report No. **RJ6038F-1**, dated 02/27/2008, signed by Greg Banasky and Brian Ortega.



Carlos M. Utrera, P.E.

Product Control Examiner

NOA No. 21-0408.05

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C. CALCULATIONS

1. Reduced designed pressure, horizontal rail and wall bracket spacing based on minimum wall system recovery prepared by Al-Farooq Corporation, dated 07/22/2021, signed and sealed by Jalal Farooq, P.E.
2. Anchor calculations prepared by Al-Farooq Corporation, dated 02/16/2021, signed and sealed by Jalal Farooq, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

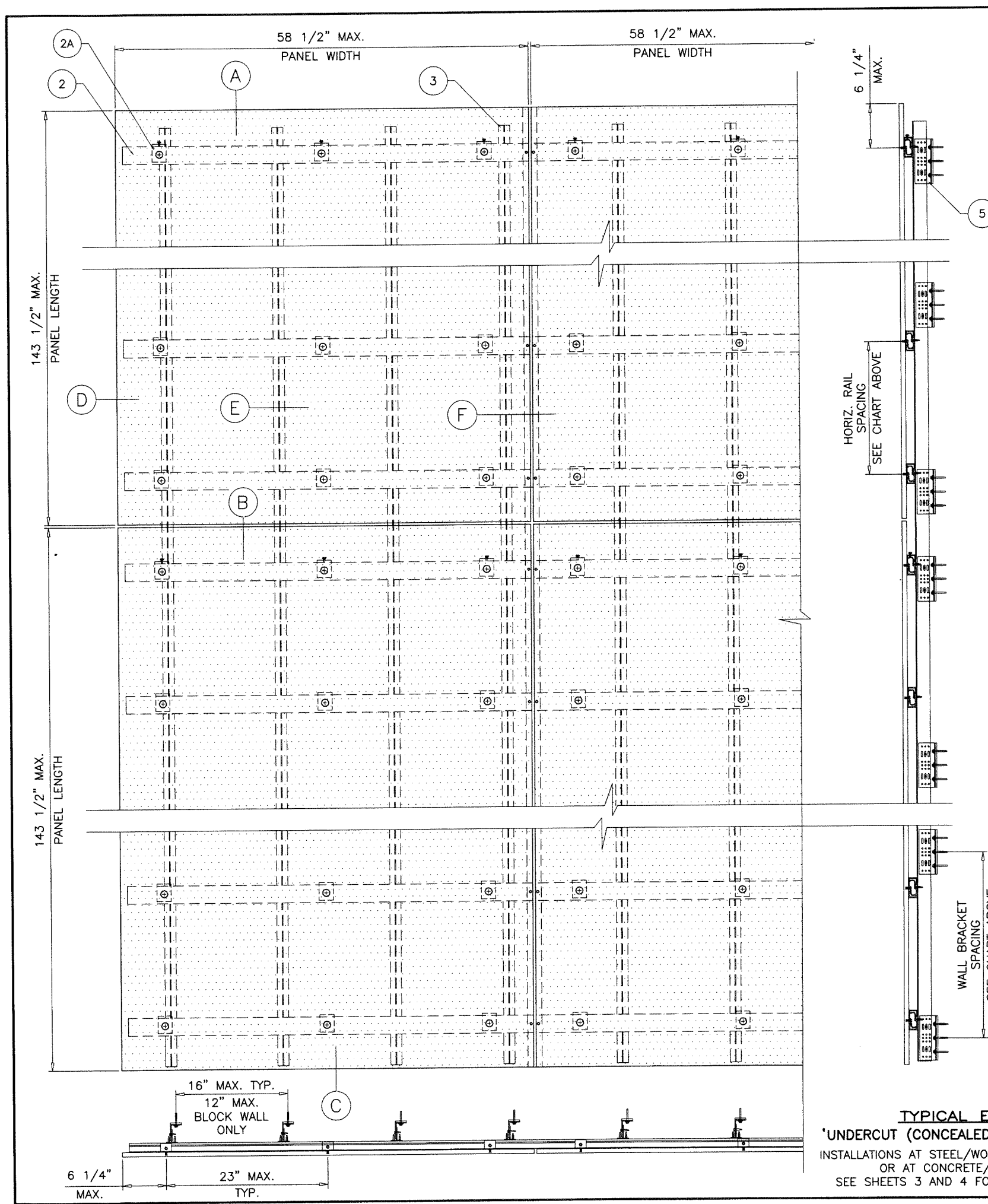
1. None.

F. STATEMENTS

1. Statement letter of code conformance to the 7th edition (2020) of the FBC and of no financial interest, issued by Al-Farooq Corporation, dated 02/16/2021, signed and sealed by Jalal Farooq, P.E.



Carlos M. Utrera, P.E.
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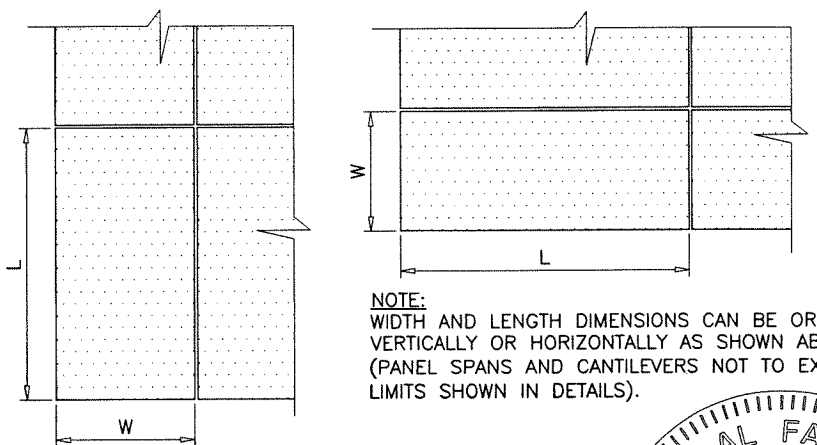
TYPICAL ELEVATION
'UNDERCUT (CONCEALED) FASTENERS SYSTEM'
INSTALLATIONS AT STEEL/WOOD STUD FRAMING SYSTEM
OR AT CONCRETE/MASONRY WALLS
SEE SHEETS 3 AND 4 FOR INSTALLATION DETAILS

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

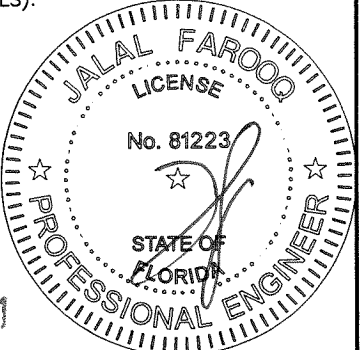
APPROVAL APPLIES TO SINGLE OR MULTIPLE UNIT INSTALLATIONS
MIN. PANEL THICKNESS = 5/8 IN.
MAX. PANEL SIZE= 58-1/2" WIDE X 143-1/2" HIGH

HORIZ. RAIL/HAT CHANNEL SPACING	WALL BRACKET SPACING	MAX. DESIGN LOAD
18-1/2"	25-5/8"	100.5 PSF
15-1/2"	21-1/2"	120.0 PSF

1. FACADE PANEL SYSTEM ANCHORED TO WALLS AS EXTERIOR CLADDING. WALLS TO BE DESIGNED FOR LOADS AND DEFLECTION LIMITS IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE.
2. THIS SYSTEM WITH JOINT REINFORCING CHANNELS (ITEM #6) RATED FOR LARGE AND SMALL MISSILE IMPACT AND CAN BE INSTALLED IN FRONT OF MIAMI-DADE COUNTY APPROVED SHEATHING SUPPORTED BY WOOD/METAL STUDS, EACH AT 16" O.C.
3. THIS SYSTEM WITHOUT JOINT REINFORCING CHANNELS IS NOT RATED FOR IMPACT AND SHALL ONLY BE INSTALLED IN FRONT OF CONCRETE OR MASONRY WALLS OR 5/8" (5-PLY) PLYWOOD SUPPORTED BY WOOD/METAL STUDS, EACH AT 16" O.C.
4. SHEATHING/PLYWOOD SHALL BE ATTACHED TO FRAMING STUDS IN ACCORDANCE WITH FBC.
5. WATER BARRIER REQUIREMENTS AND ADEQUACY OF STRUCTURE RECEIVING FACADE PANEL SYSTEM SHALL BE CHECKED BY A LICENSED DESIGN PROFESSIONAL IN ACCORDANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE.
6. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
7. 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.
8. MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.
9. 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.
10. DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.



PRODUCT APPROVED
as complying with the Florida
Building Code
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Approval Date 08/26/2021
By *[Signature]*
Miami-Dade Product Control



JUL 22 2021

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

Architectural Ultra High Perf. Conc. (A/UHPC) Facade Panel Sys.

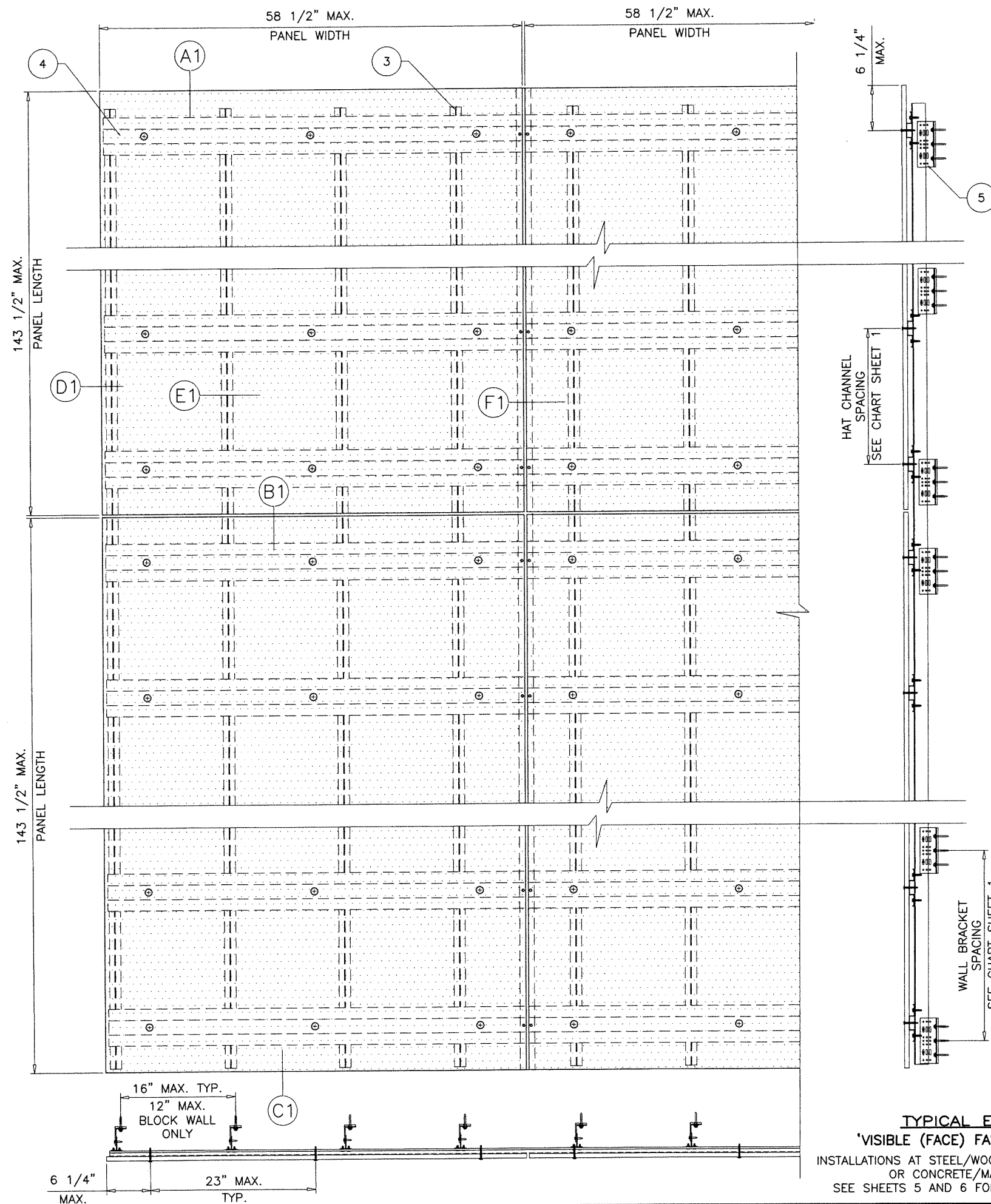
TAKTL, LLC.
230 Braddock Avenue
Keystone Commons, Portal 9
Turtle Creek, PA 15145
Tel. (412) 486-1600

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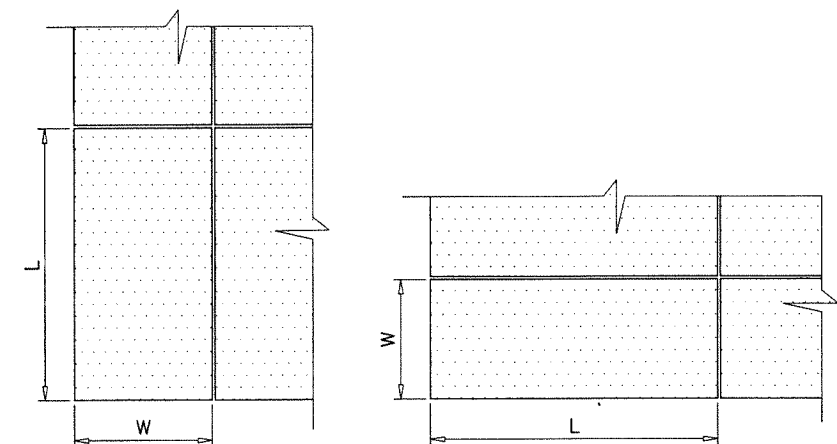
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drawing no.
21-08D

sheet 1 of 9

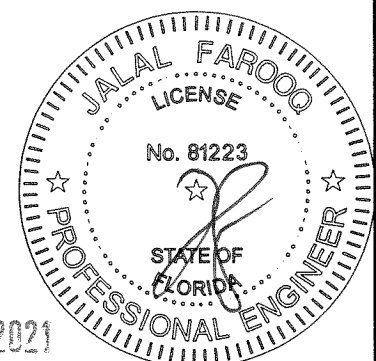


TYPICAL ELEVATION
'VISIBLE (FACE) FASTENERS SYSTEM'
 INSTALLATIONS AT STEEL/WOOD STUD FRAMING SYSTEM
 OR CONCRETE/MASONRY WALLS
 SEE SHEETS 5 AND 6 FOR INSTALLATION DETAILS



NOTE:
 WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED
 VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.
 (PANEL SPANS AND CANTILEVERS NOT TO EXCEED
 LIMITS SHOWN IN DETAILS).

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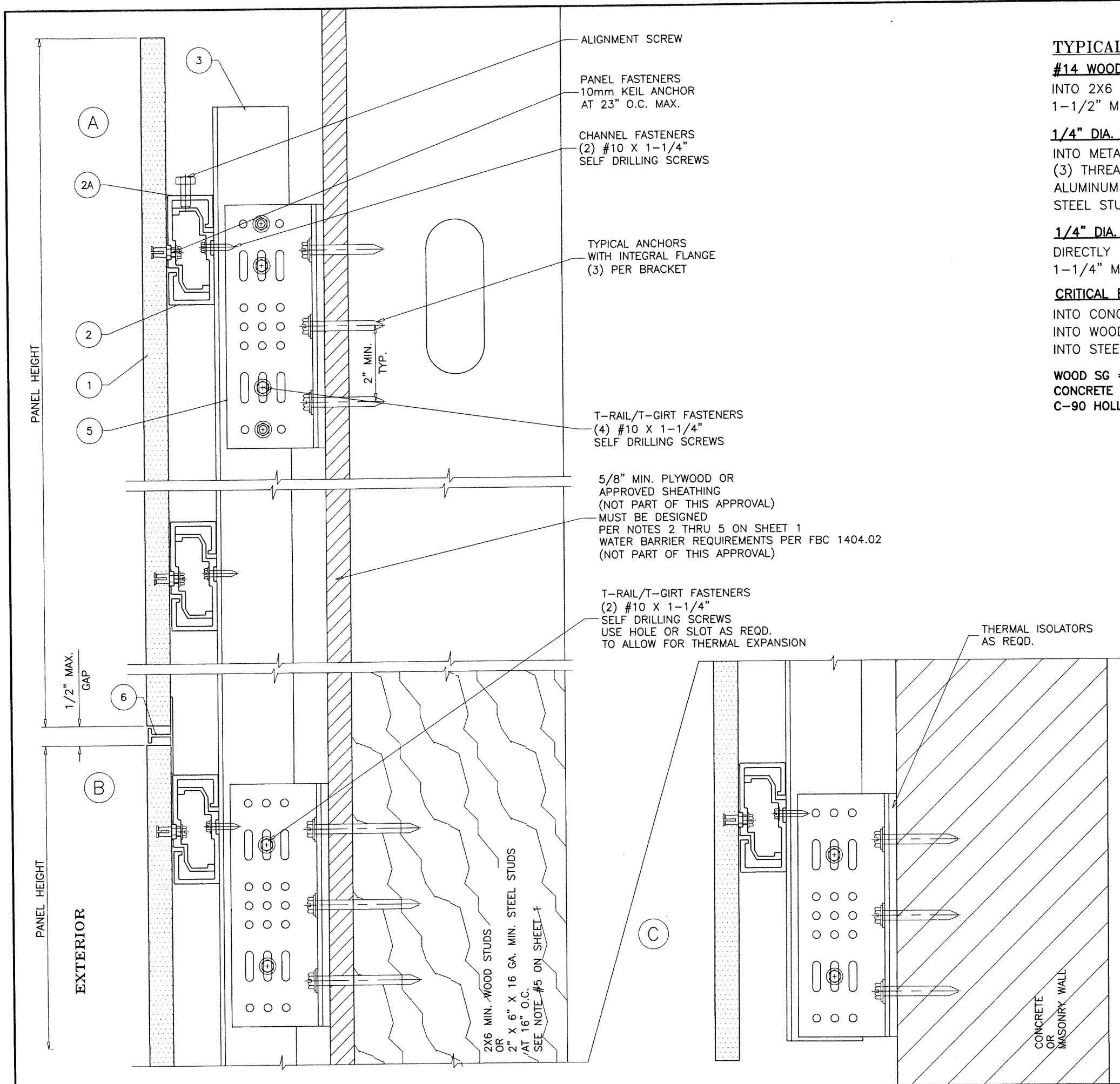
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21-08D
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TYPICAL ANCHORS: SEE ELEV. FOR SPACING

#14 WOOD SCREWS

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

1/4" DIA. ST. STEEL SELF-DRILLING SCREWS

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 = 50 KSI MIN.)

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

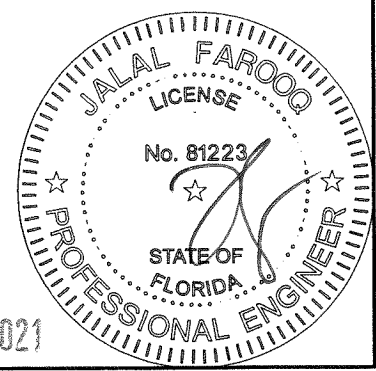
DIRECTLY INTO CONCRETE OR BLOCK WALL
1-1/4" MIN. EMBED INTO CONCRETE OR BLOCKS

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 HOLLOW/FILLED BLOCKS f'm = 2000 PSI MIN.

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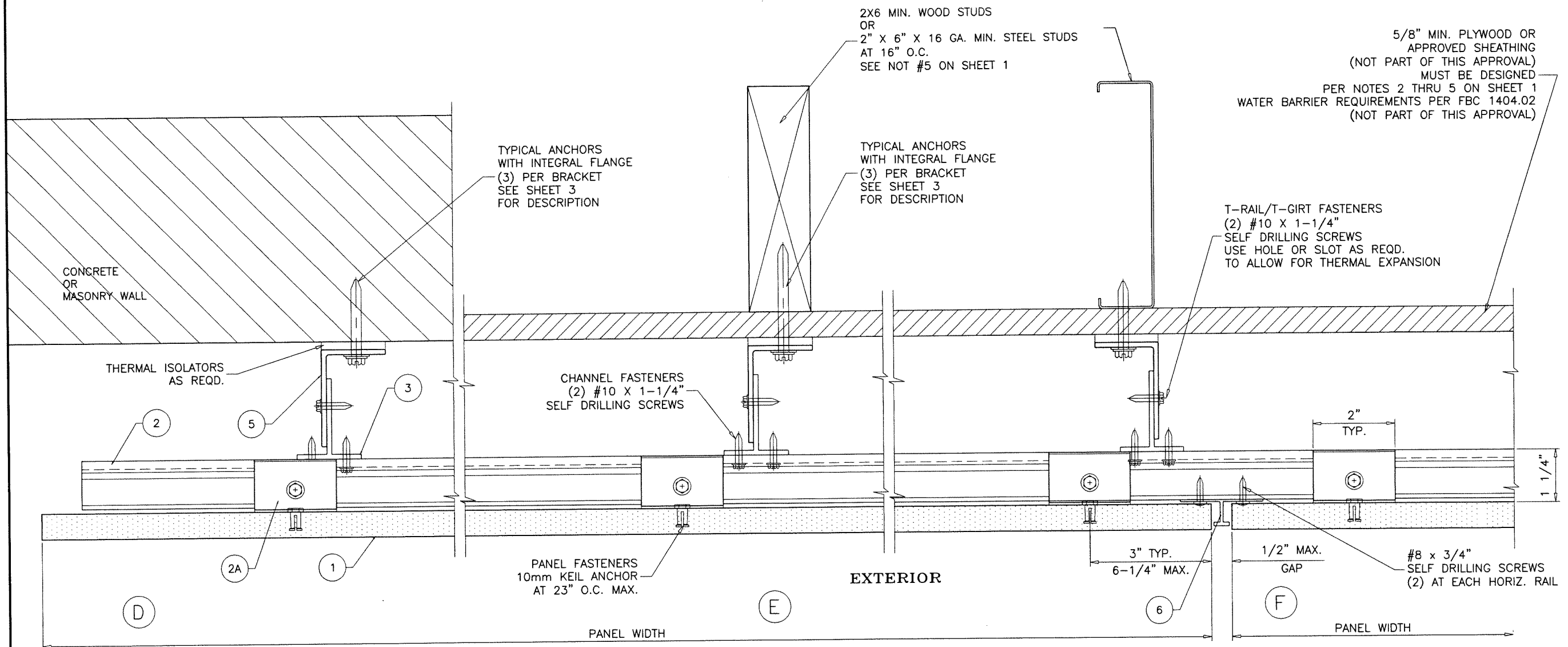
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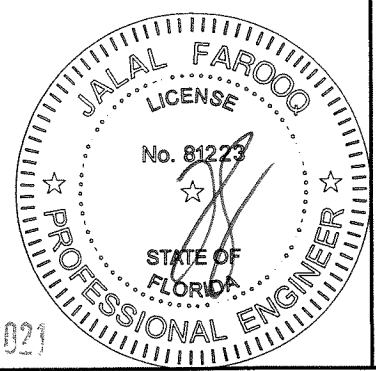
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sheet 3 of 9			



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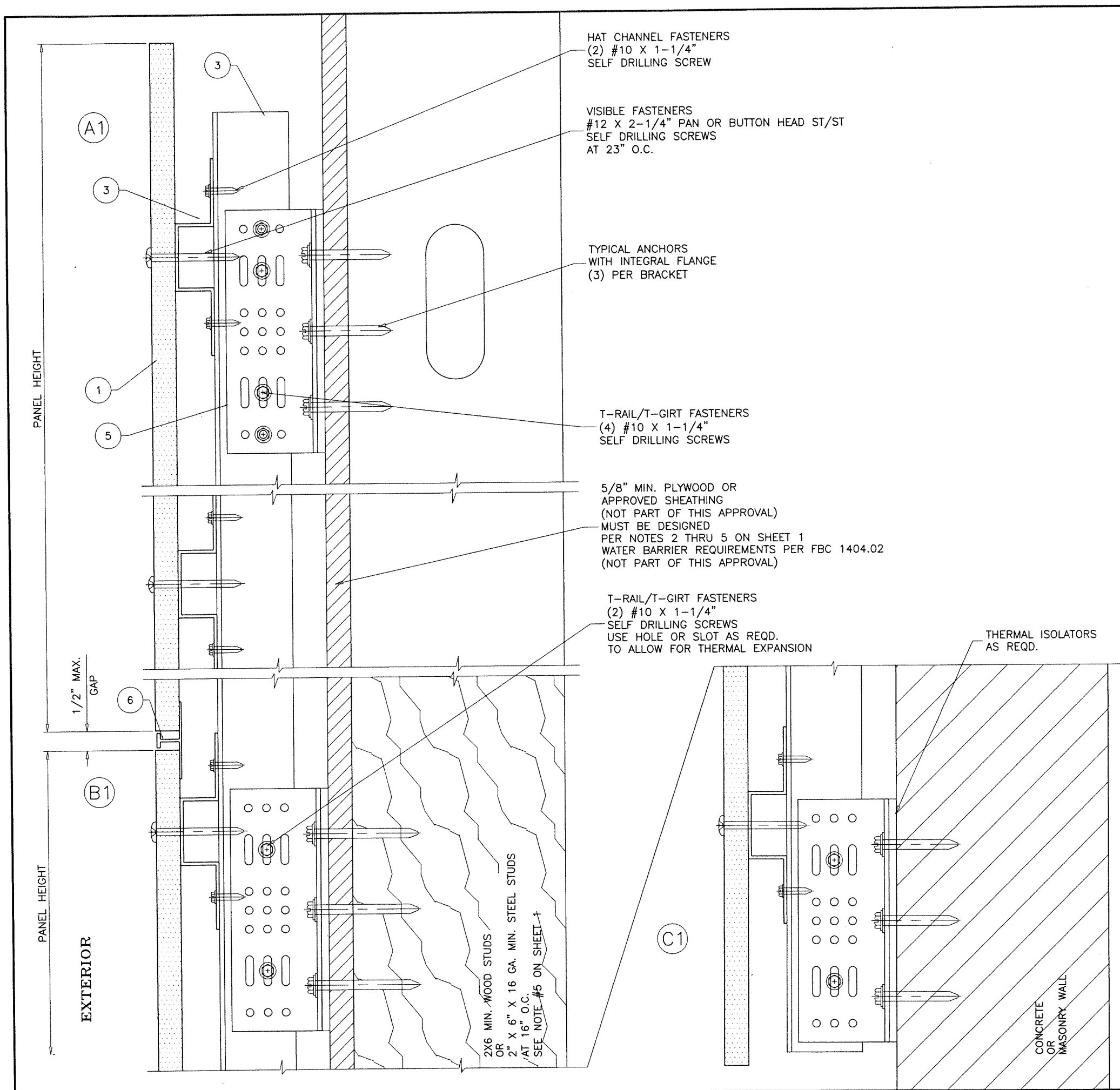
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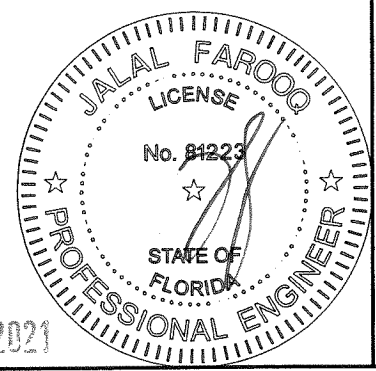
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 RAINSCREEN 21-08D-TKL

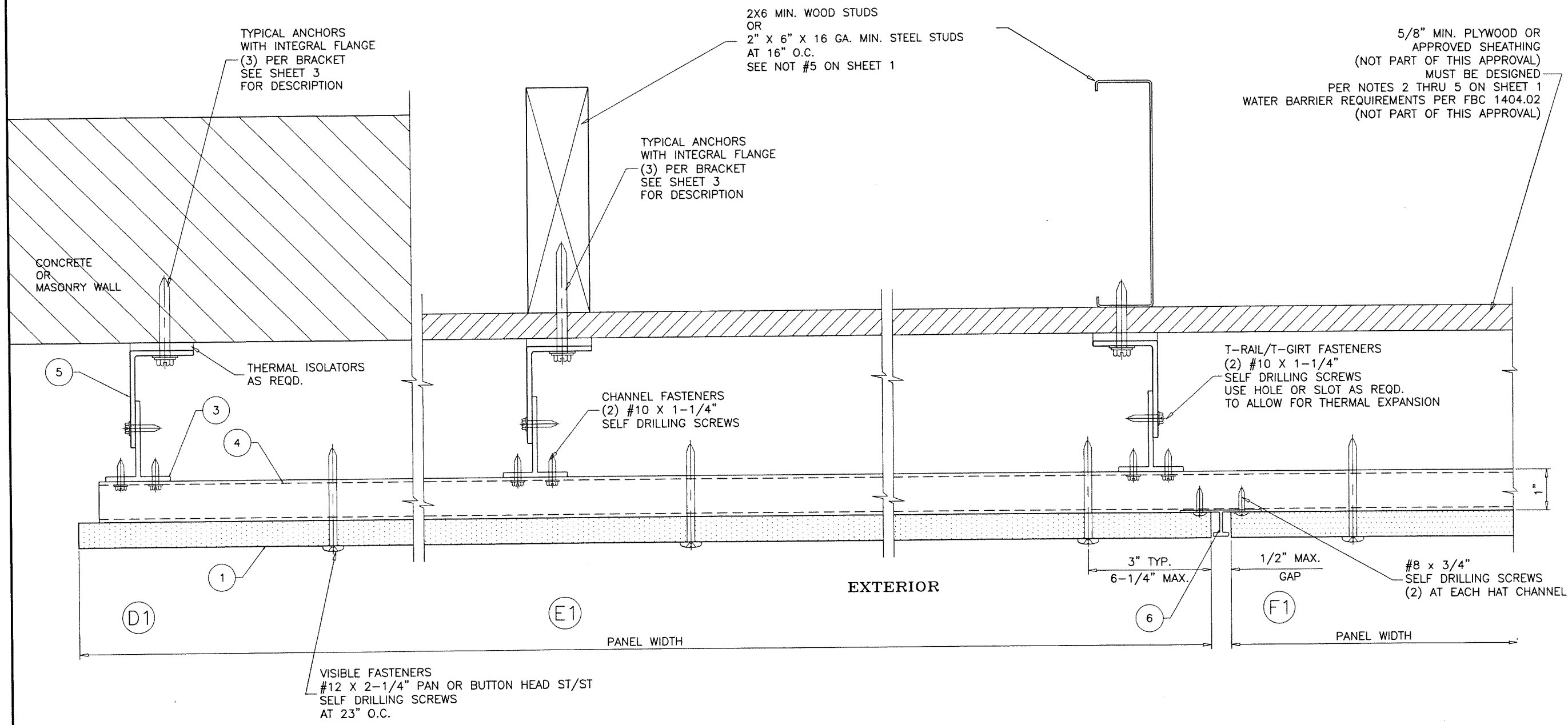
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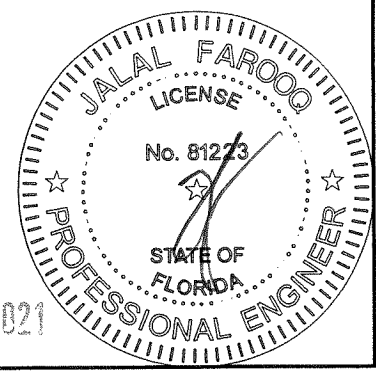
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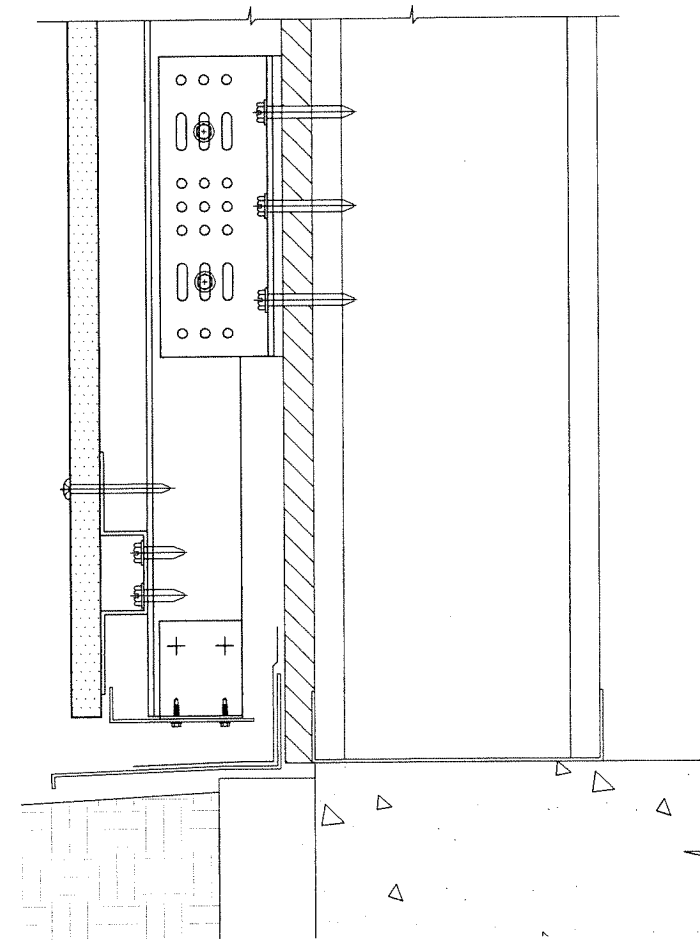
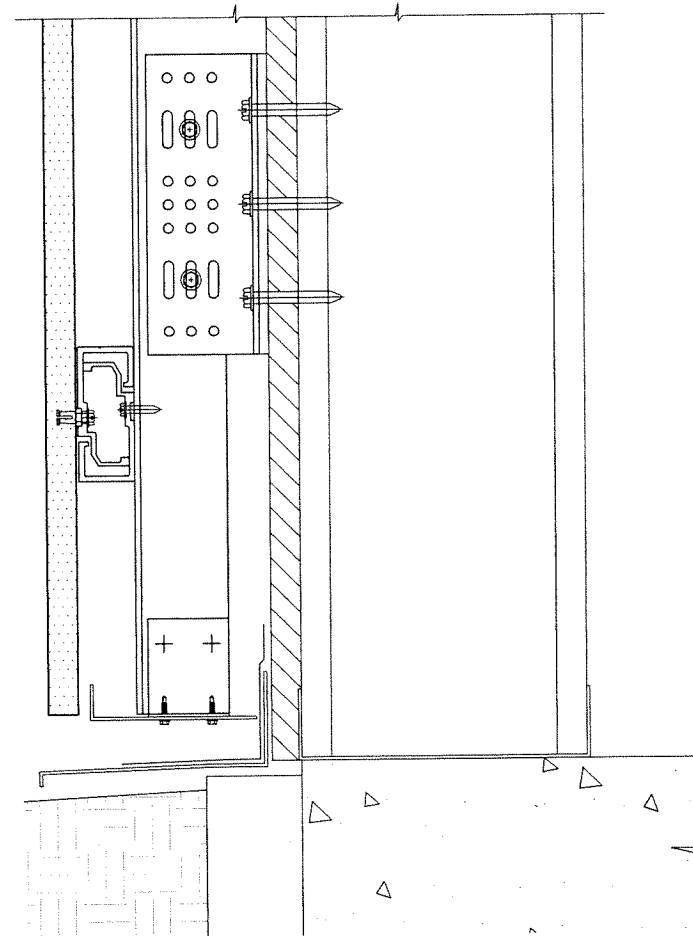
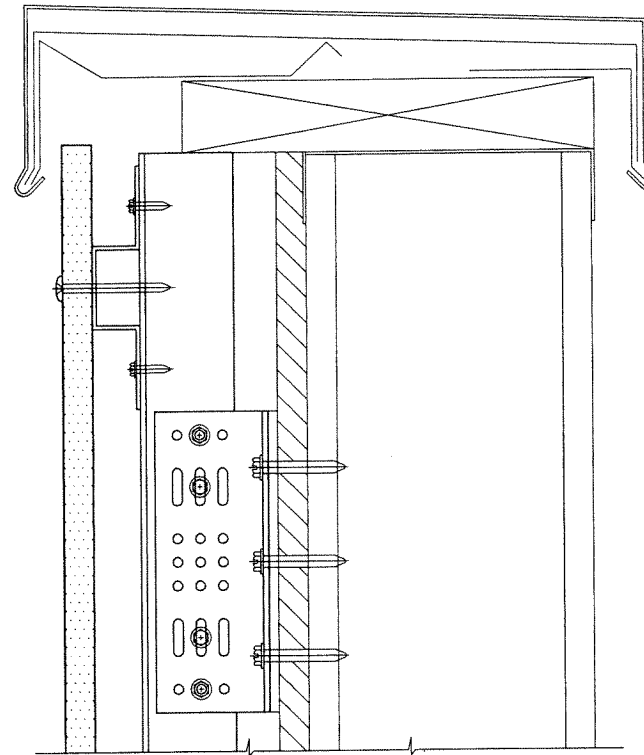
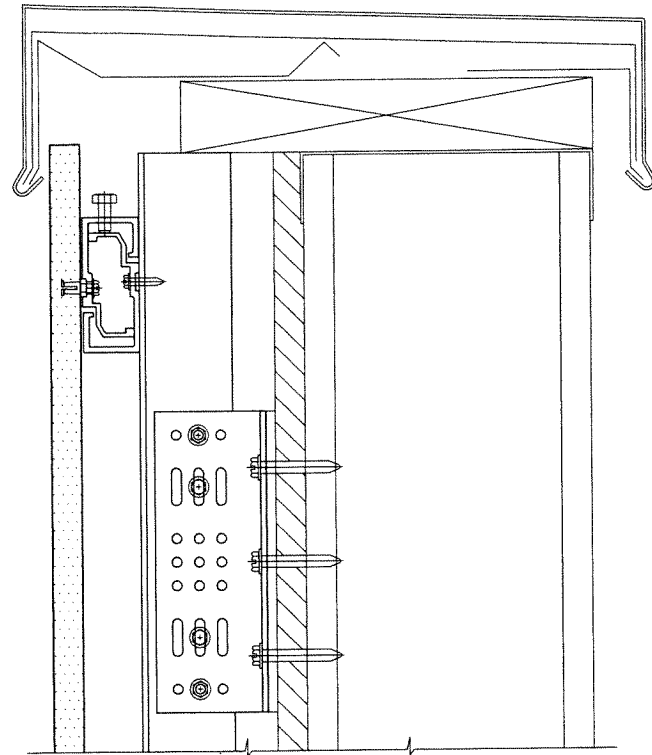
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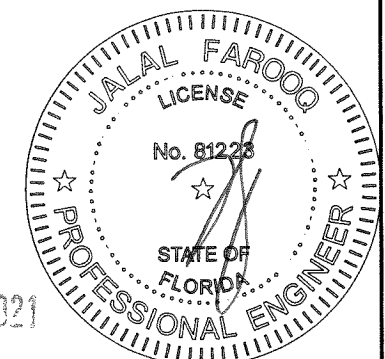
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9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
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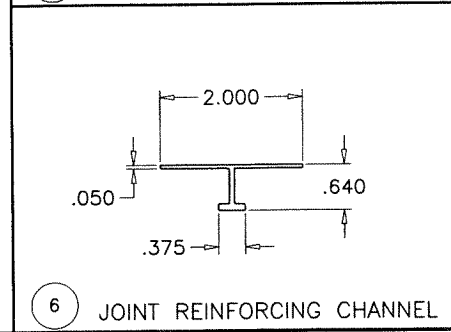
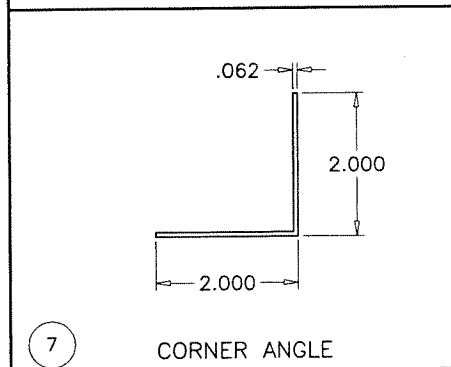
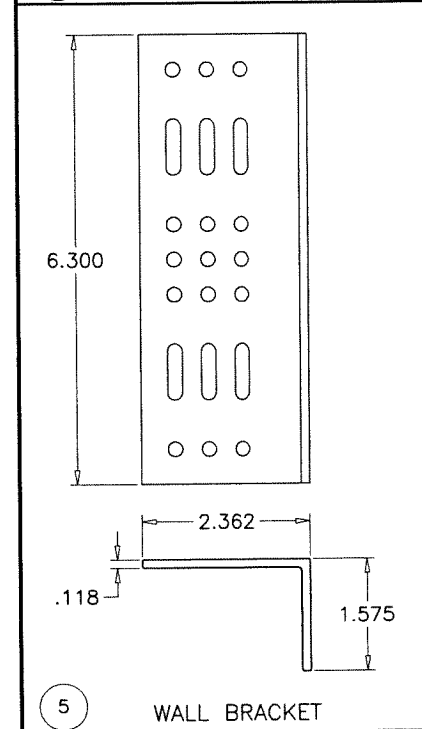
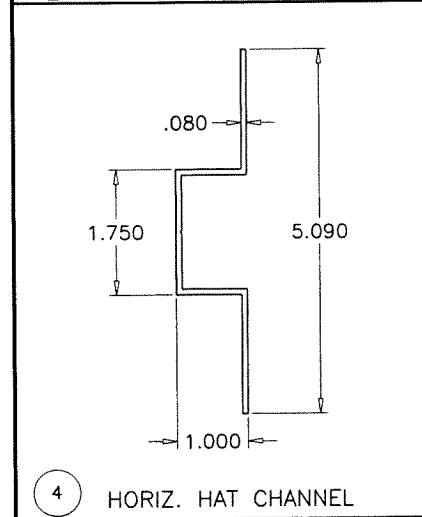
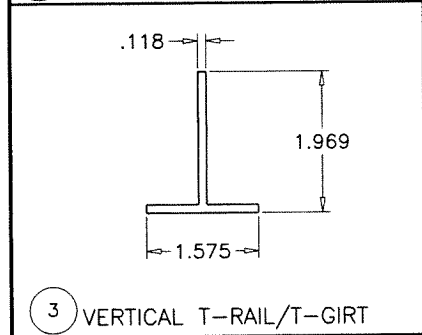
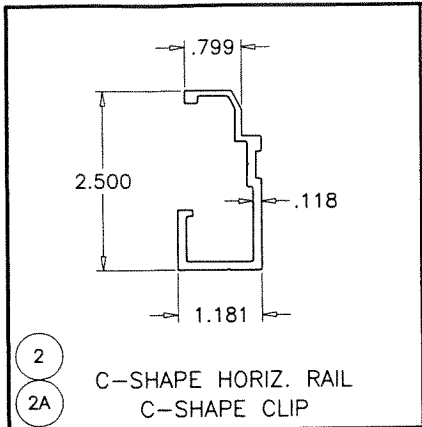
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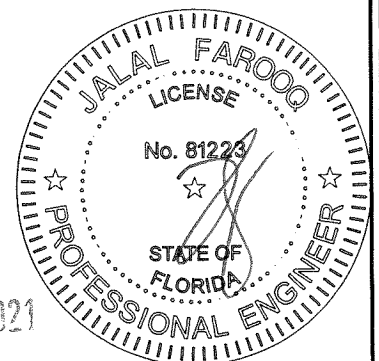
drawing no.
21-08D

sheet
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ITEM NO.	WEIGHT	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	7.14 Lbs/Sq. Ft.	AS REQD.	UHPC PANEL	-	AR FIBER GLASS MESH (24 Oz./Sq. M.) 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	RAINSCEEN MATERIALS
4	HS1	AS REQD.	HORIZONTAL HAT CHANNEL	6063-T6	RAINSCEEN MATERIALS
5	WB1-160-6X15	AS REQD.	WALL BRACKET	6063-T6	RAINSCEEN MATERIALS
6	-	AS REQD.	JOINT REINFORCING CHANNEL	6063-T5	REQD. ONLY AT LARGE/SMALL MISSILE IMPACT RESISTANT SYSTEMS
7	-	AS REQD.	CORNER ANGLE	6063-T6	-

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