

Nichiha USA Inc.
Design No. NUI/FRCP 30-03
Exterior Cladding
Nichiha Architectural Wall Panels (AWP)
NFPA 285
Rating: Meets Conditions of Acceptance

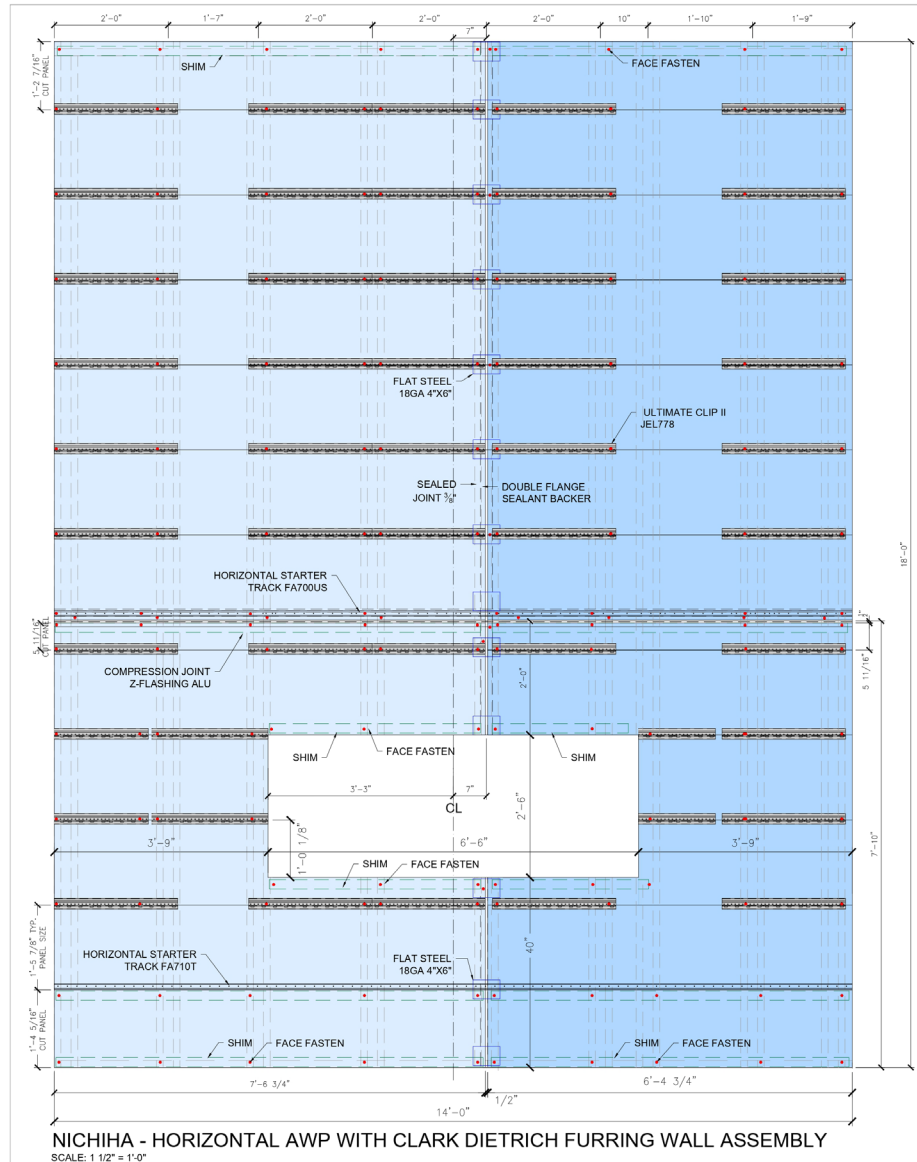
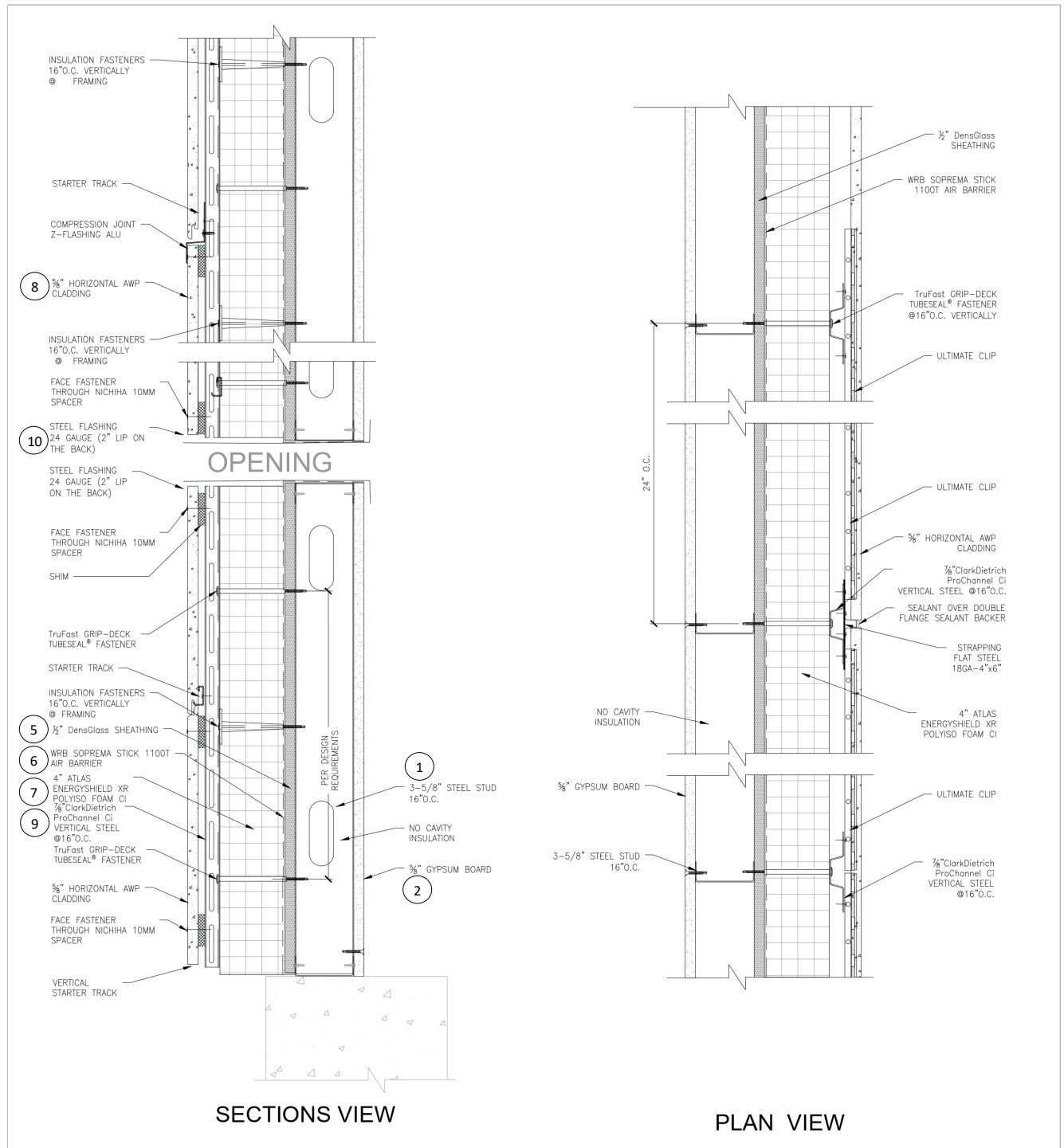


Figure 1- Wall Assembly



Division 07 – Thermal and Moisture Protection
07 45 00 Fiber-Reinforced Cementitious Panel





1. **BASE WALL FRAMING:** Min. 3-5/8 in., 20 GA galvanized C-channel steel studs, spaced a max. of 24 in. on center (oc). Secure steel studs to top and bottom track. Alternatively, Cast Concrete Walls or Concrete Masonry Unit (CMU) Walls installed in accordance with nationally recognized Building Code requirements may be used.
2. **INTERIOR GYPSUM BOARD:** Attach min. one layer of min. 5/8 in. Type X gypsum board, conforming to ASTM C1396/C1396M, to the base wall framing (Item 1) using No. 6, 1-1/4 in. long bugle-head, Type S drywall screws, spaced at max. 8 in. oc around the perimeter and max. 12 in. oc in the field.

A. **JOINT TAPE AND COMPOUND – (Not Shown)** Apply ASTM C475 compliant joint compound and joint tape to the gypsum board joints, and joint compound to the fastener heads.
3. **FLOORLINE FIRESTOPPING (Not Shown):** Use min. 4 in. high, 4 pcf mineral wool safing (friction fit in each stud cavity or installed with steel z-clips) for floor line fire-stopping. The mineral wool safing shall be the full depth of the stud cavity.
4. **CAVITY INSULATION (Optional, Not Shown):** The base wall framing stud cavities may include faced or unfaced, fiberglass insulation or mineral insulation. The insulation may be friction-fit with min. 25% compression or secured with steel z-clips. The cavity insulation shall be Class A in accordance with ASTM E84 or UL 723.
5. **EXTERIOR SHEATHING:** Attach min. one layer of min. 1/2 in. thick exterior glass mat sheathing, conforming to ASTM C1177/C1177M, with fasteners at max. 8 in. oc around the perimeter and max. 12 in. oc in the field to the exterior side of the base wall framing (Item 1) using No. 6, 1-1/4 in. long, Type S self-drilling screws. Alternatively, one layer of 5/8 in. Type X glass mat gypsum sheathing, complying with ASTM C1177/C1177M, or one layer of 5/8 in. Type X gypsum wallboard, complying with ASTM C1396/1396M, can be used. The vertical seams of the sheathing panels may be staggered or not staggered.
6. **WEATHER RESISTIVE BARRIER:** Apply one layer of 40-mil thick self-adhering Soprema SOPRASEAL® STICK 1100T to the exterior sheathing (Item 4). Alternatively, any WRB equal or better in fire performance per ASTM E1354 may be used. Any WRB may be used if it is covered by min. 2 in. thick, 4 pcf rigid continuous mineral wool insulation certified in accordance with ASTM E136, and applied directly to Exterior Sheathing via mechanical attachment.
7. **EXTERIOR INSULATION:** Use Atlas Roofing Corporation's 4 in. thick EnergyShield® XR, polyisocyanurate foam CI panels certified in accordance with ASTM C1289, NFPA 286, and ASTM E84, installed with the long edge horizontal and secured through the exterior sheathing (Item 4) to the base wall framing (Item 1), using 4 in. long TRUFAST Thermal-Grip TubeSeal (GDTS-SD-4000), spaced at a max. of 16 in. oc along vertical framing. Alternatively, any min. 4 pcf rigid continuous mineral wool insulation certified in accordance with ASTM E136, max. 4 in. Hunter Xci CG insulation, or no insulation may be used. If the Hunter Xci CG insulation is utilized at 4 in. thick or less and an air gap greater than 3/8 in., alternate opening details (Item 10A, 10B, or 10C). If the Hunter Xci CG insulation is utilized at 4 in. thick or less and an air gap of 3/8 in. or less, use any of the opening details (Item 10).



8. CERTIFIED MANUFACTURER: Nichiha USA Inc.

CERTIFIED PRODUCT: Exterior Cladding

CERTIFIED MODEL: Nichiha Architectural Wall Panels (AWP), model AWP 3030 and model AWP 1818

Use Nichiha's 455 x 3030 x 16mm AWP panel system, installed and secured to the wall assembly using Nichiha's Ultimate Horizontal Starter Track (FA700) and Nichiha's Ultimate Clip (JEL778), secured to the flanges of the ProChannel Ci and Nichiha's 10mm Corrugated Shim (FS1010). Install the AWP to the assembly with the long edge horizontal. The AWP panel is face fastened through the FS1010 back to the base wall framing (Item 1) at the face fastener locations. The max. air gap allowable is 1-1/4 in. between the exterior insulation and the backside of the AWP.

Alternatively, Nichiha's 455 x 1818 x 16/18/21mm AWP panel system may be used.

The horizontal joint shall not exceed 1/2 in. width incorporated with Nichiha's Compression Joint accessory, Tamlyn & Sons 0.05 in. thick 6063-T5 extruded aluminum alloy profile installed continuously at each horizontal joint location. The profile has an upper vertical height of approximately 2.44 in., with a lower leg height of 1.25 in., and horizontal leg dimensions of approximately 1.11 in. The vertical joint of the assembly shall not exceed 1/2 in. incorporating Nichiha's Double Flange Sealant Backer (FH1015R) consisting of a nominal 15mm (≈9/16 in.) Galvalume®-coated light-gauge steel profile width and a nominal 10mm (≈3/8 in.) opening between flanges.

9. RAINSCREEN FRAMING SYSTEM: Use 18 GA x 7/8 in., ClarkDietrich's ProChannel CI vertical steel furring rainscreen framing system installed vertically, with flanges facing out, over the

exterior insulation (Item 6) and secured through the insulation and exterior sheathing (Item 4) to the base wall framing (Item 1) using TRUFAST Grip-Deck TubeSeal (FSD10-4000). The ProChannel must be centered over studs with fasteners spaced 12 in. oc. Additionally, 4 in. x 6 in., 18 GA (43-mil) mending plates must be installed over the ProChannel Ci to support the double-flange sealant backer at the vertical sealant joint location. The mending plates must be fastened to the ProChannel Ci to support the vertical expansion joint via a double-flange sealant backer where the AWP continuous vertical sealant joint would be.

Alternatively, Nichiha's Ultimate Clip System on non-combustible Z-girts may be used in place of ProChannel Ci™ Cladding Support System with Nichiha's Ultimate Clip System.

10. OPENING: Openings must be protected using 24 GA (27-mil) steel flashing. The window jambs, header, and sill steel flashing shall extend flush with the outer edge of the AWP system (Item 7). The window jambs, header, and sill steel flashing must be secured through to the window framing C-channel using min. two rows of #8 - 1/2 in. long, wafer-head, self-drilling screws, with rows spaced max. 2 in. oc and spaced every 12 in. oc max. along the perimeter. All window opening flashing pieces must include a 2 in. vertical leg that extends along the interior sheathing (Item 2).

Alternatively, any of the below may be used:

- A. Two layers of 5/8 in. Type X GWB with 18 GA steel flashing at the header, and one layer of 5/8 in. Type X GWB with 18 GA steel flashing at jambs and sill.
- B. 1-1/2 in. thick FRT wood buck at header, jambs, and sill.
- C. Two layers of 3/4 in. FRT plywood at header, jambs, and sill.



Consult the listing report on the Directory of Building Products (<https://bpdirectory.intertek.com>) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.