

ARCIS and Fire Resistance

ARCIS panels are precast/prestressed concrete elements reinforced using 7 strand Type 316 Stainless Steel 7 corrosion resistant wire cable strand. The ARCIS panel concrete mix design uses typical 5000 psi concrete, admixtures and regional aggregates depending on aesthetic panel look, color and design criteria. (Exact mix designs are largely proprietary by producer.) ARCIS panels are considered a “non-combustible material.”

ARCIS panels generally form the external façade element of a rain screen assembly. They are but one element in the full assembly. The ARCIS panel is typically fastened to a framing system in front of the insulation and air and moisture barrier using compliant attachment methods and materials. The exterior ARCIS panel is usually separated by a cavity wall that manages and directs moisture and moisture flow as well as air flow. (See figure 1 to the right.)

Recently, interest in fire and fire ratings of building enclosures and structures have increased due to the requirements of continuous insulation (c.i.) in the code and the various means and methods to achieve compliance of newer ASHRAE 90.1 requirements, the International Energy Conservation Code (IECC), and other relevant codes and embodiments.

When discussing the fire rating of an enclosure assembly, one must consider all the elements included in the assembly. NFPA 285 is one of the core common tests for precast wall assemblies. Other specific competing systems (including rainscreens) may have other unique and independent tests.

Building envelope designers should consult with a professional who understands building construction and fire tests in order to design the proper assembly consisting of the appropriate fire rated materials, connections and elements to be used in the full enclosure.

Your ARCIS precaster representative will be happy to assist you and answer questions you might have regarding the external façade panel.

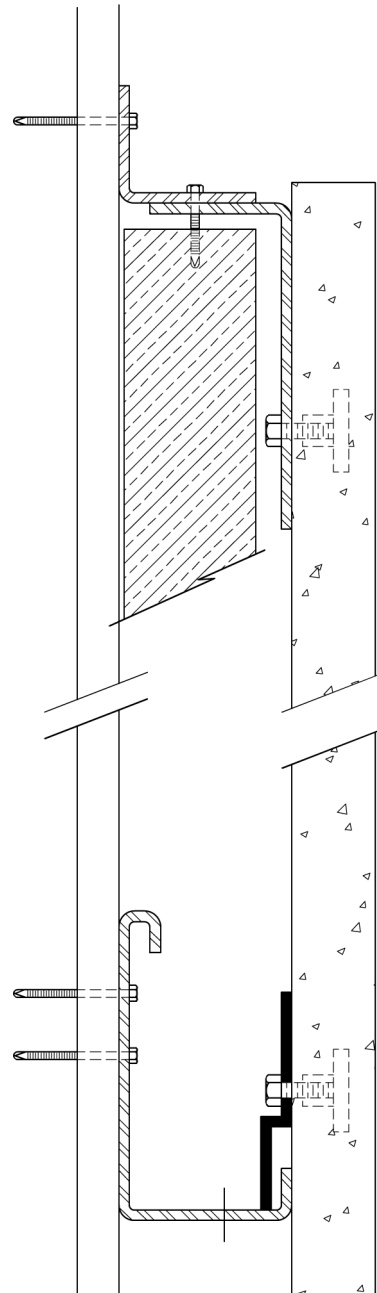


FIGURE 1

ARCIS



ARCISTECHBRIEF

ARCIS resource guide

Recommended firms with experienced in ARCIS panels, membrane, waterproofing, framing/studding systems and insulation installation for rains screens:

PCG Corporate Headquarters

11145 Thompson Ave
Lenexa, KS 66219
1-800-255-6886
Email: info@pcg.com

Western Partitions

8300 SW Hunziker St., Tigard, OR 97223
direct: (503) 624-5336 cell: (503) 816-7668
Victor.Roach@westernpartitions.com
www.westernpartitions.com

The Raymond Group

520 West Walnut Avenue
Orange, California 92868
(714) 771-7670

Raymond-Southern California, Inc.

520 West Walnut Avenue
Orange, California 92868
(714) 771-7670

Raymond-San Diego, Inc.

5490 Complex Street, Suite 604
San Diego, California 92123
(858) 292-4499

Raymond-Northern California, Inc.

4589 Pacheco Blvd.
Martinez, California 94553
(925) 680-8300

George M. Raymond Co.

6435 S. Valley View Boulevard, Suite H
Las Vegas, Nevada 89118
(702) 891-8875

Raymond-Northwest, LLC

7256 South 227th Place
Kent, Washington 98032
(253) 872-5630

ARCIS



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