



Most Widely Accepted and Trusted

ICC-ES Evaluation Report

ESR-2477

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

Reissued 06/2019
This report is subject to renewal 06/2020.

DIVISION: 09 00 00—FINISHES

SECTION: 09 24 00—PORTLAND CEMENT PLASTERING

REPORT HOLDER:

EZ-WALL CONCENTRATE, INC.

EVALUATION SUBJECT:

EZ-WALL PREMIX STUCCO SYSTEM



“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”



ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



ICC-ES Evaluation Report

ESR-2477

Reissued June 2019

This report is subject to renewal June 2020.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 09 00 00—FINISHES

Section: 09 24 00—Portland Cement Plastering

REPORT HOLDER:

EZ-WALL CONCENTRATE, INC.

EVALUATION SUBJECT:

EZ-WALL PREMIX STUCCO SYSTEM

ADDITIONAL LISTEES:

MASTER WALL INCORPORATED®

STO CORPORATION

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2015 *International Building Code*® (2015 IBC)
- 2015 *International Residential Code*® (2015 IRC)
- 2012 *International Building Code*® (2012 IBC)
- 2012 *International Residential Code*® (2012 IRC)
- 2009 *International Building Code*® (2009 IBC)
- 2009 *International Residential Code*® (2009 IRC)
- 2006 *International Building Code*® (2006 IBC)
- 2006 *International Residential Code*® (2006 IRC)
- 1997 *Uniform Building Code*™ (UBC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Structural
- Durability
- Fire-resistance-rated construction
- Drainage efficiency

2.0 USES

The EZ-Wall Premix Stucco System is a cementitious exterior wall covering system installed on exterior walls of wood- or steel-framed construction, and over walls of concrete or concrete masonry construction. The system is an alternative exterior wall covering to those specified in IBC Chapter 25, IRC Section R703 and UBC Chapter 25. The system may be used to construct one-hour

fire-resistance-rated wall assemblies when installed in accordance with Section 4.4 of this report. The system is limited to Type V construction under the IBC and UBC, and to construction permitted by the IRC.

3.0 DESCRIPTION

3.1 General:

The EZ-Wall Premix Stucco System is an exterior cementitious coating consisting of proprietary mixtures of portland cement, sand, fibers and proprietary ingredients that are reinforced with wire fabric or metal lath and applied over open framing or over substrates of expanded polystyrene (EPS) insulation board, plywood, oriented strand board (OSB), fiberboard or gypsum sheathing. The system may be installed on exterior walls of wood-framed or steel-framed construction, or may be applied directly to exteriors constructed of concrete or concrete masonry.

3.2 Material:

3.2.1 EZ-Wall Premix Stucco System: The EZ-Wall Premix Stucco System is a factory-prepared mixture of Type I or II portland cement complying with ASTM C150, chopped Type E glass fibers or polypropylene fibers, and proprietary additives. The EZ-Wall Premix Stucco System is packaged in 80-pound (36.3 kg) bags. Approximately 5 to 6 gallons (19 to 22.7 L) of water and 220 to 240 pounds (113 kg) of sand, complying with Section 3.2.2 of this report, are added to each bag in the field and mixed in accordance with the EZ-Wall Concentrate, Inc., published installation instructions.

3.2.2 Sand: Sand must be clean and free from deleterious amounts of loam, clay, silt, soluble salts and organic matter. Sampling and testing must comply with ASTM C144 or ASTM C897. Sand must be graded in accordance with ASTM C144 or ASTM C897 within the limits shown in the following table:

RETAINED ON U.S. STANDARD SIEVE	PERCENT RETAINED BY WEIGHT ± 2 PERCENT	
	Minimum	Maximum
No. 4 (7.6 mm)	—	0
No. 8 (2.4 mm)	0	10
No. 16 (1.2 mm)	10	40
No. 30 (600 μm)	30	65
No. 50 (300 μm)	70	90
No. 100 (150 μm)	95	100

3.2.3 Insulation Board:

3.2.3.1 Expanded Polystyrene (EPS) EPS insulation boards must have a nominal density of 1.5 pcf (24 kg/m³), and a flame-spread index of 25 or less and a smoke-

developed index of not more than 450 when tested in accordance with ASTM E84 (UBC Standard 8-1). The boards must comply with ASTM C578 as Type II. All boards must be recognized in a current ICC-ES evaluation report. See Section 7.2 of this report for board identification.

Insulation boards installed without sheathing, over open framing, must have a thickness ranging from 1 inch to 1½ inches (25.4 to 38 mm) and have ⅜-inch-high (9.5 mm) tongues with compatible grooves for horizontal joints. See Figure 2 for joint detail.

When installation is over solid backing, as described in Section 4.3, square-edged boards may be used. The boards must have minimum ¼-inch-wide-by-⅛-inch-deep (6.4 mm by 3.2 mm) vertical grooves spaced at a maximum of 12 inches (305 mm) on the back face of the boards. As an alternative to the vertical grooves on the foam plastic board, installation of flat-faced insulation boards over solid sheathing may incorporate the Tyvek® StuccoWrap® or Tyvek® DrainWrap™ recognized in [ESR-2375](#).

The Keene Building Products DriWall drainage mat, described in Section 3.2.9.4 of this report, may be used as an alternative to the vertical grooves on the foam plastic board. The DriWall drainage mat must be used over one of the water-resistive barriers described in Section 3.2.9.1 of this report.

3.2.3.2 Extruded Polystyrene (XPS) XPS insulation boards must have a minimum nominal density of 1.5 pcf (24 kg/m³) and must comply with ASTM C578 as Type IV or V board. All boards must be recognized in a current ICC-ES evaluation report. See Section 3.2.3.1 of this report for other details and requirements.

3.2.4 Lath:

3.2.4.1 Wire Fabric Lath: Wire fabric lath must comply with the ICC-ES Acceptance Criteria for Metal Plaster Bases (Lath) (AC191). Minimum No. 20 gage [0.035 inch (0.89 mm)], 1-inch (25.4 mm) galvanized steel, woven-wire fabric must be used. Lath must be furred when applied over all substrates except unbacked polystyrene board. Furring must comply with the following requirements:

1. When maximum total coating thickness is ½ inch (12.7 mm), the body of the lath must be furred a minimum of ⅛ inch (3.2 mm) from the substrate after installation.
2. When total coating thickness is greater than ½ inch (12.7 mm), No. 17 gage [0.058 inch (1.47 mm)] by 1½-inch (38 mm) woven-wire fabric lath must be used. The body of the lath must be furred a minimum of ¼ inch (6.4 mm) from the substrate after installation.

Metal lath, described in Section 3.2.4.2, may be used as an alternate to No. 20 gage woven-wire fabric lath.

3.2.4.2 Metal Lath: Metal lath must comply with AC191 and, when applicable, UBC Table 25-B. Furring and self-furring requirements are as set forth in Section 3.2.4.1 for woven-wire fabric lath.

3.2.5 Wood-based Structural Panels: The panels must be minimum ⅝-inch-thick (7.9 mm) plywood or OSB for studs spaced 16 inches (406 mm) on center, and minimum ⅜-inch-thick (9.5 mm) plywood or ⅞-inch-thick (11.1 mm) OSB for studs spaced 24 inches (610 mm) on center. Plywood must be exterior or Exposure 1 and comply with U.S. DOC PS-1 or UBC Standard 23-2, as applicable; and OSB must be Exposure 1 and comply with U.S. DOC PS-2 or UBC Standard 23-3, as applicable.

3.2.6 Gypsum Board: Water-resistant core-treated gypsum sheathing must comply with ASTM C79 or ASTM C1396. Gypsum wallboard must comply with ASTM C36 or ASTM C1396.

3.2.7 Fiberboard: Minimum ½-inch-thick (12.7 mm), asphalt-impregnated fiberboard must comply with ASTM C208 as a regular density sheathing.

3.2.8 Caulking: Acrylic latex caulking material must comply with ASTM C 834.

3.2.9 Weather Protection:

3.2.9.1 Water-resistive Barrier: A water-resistive barrier is required and must comply with IBC Section 1404.2, IRC Section 703.2 or UBC Section 1402.1, as applicable. Except when installation is over wood-based sheathing, the water-resistive barrier must be either a minimum of one layer of No. 15 asphalt nonperforated felt, complying with ASTM D226, Type I, or a water-resistive barrier recognized as equivalent to ASTM D226, Type I or better, in a current ICC-ES evaluation report.

When applied over any wood-based sheathing, the barrier must be one of the following:

1. A minimum of two layers of Grade D kraft building paper complying with UBC Standard 14-1 as set forth in 2012, 2009 and 2006 IBC Section 2510.6, 2015 IRC Section R703.7.3 and 2012, 2009 and 2006 IRC Section R703.6.3 or UBC Section 2506.4; or an equivalent recognized in a current ICC-ES evaluation report.
2. A minimum of two layers of water-resistive barrier complying with ASTM E2556, Type I as set forth in 2015 IBC Section 2510.6 or an equivalent recognized in a current ICC-ES evaluation report.
3. One layer of EPS or XPS insulation board having horizontal tongue-and-groove edges, as described in Section 3.2.3.1 or 3.2.3.2, respectively, of this report, over one layer of Grade D kraft building paper having a minimum water-resistance rating of 60 minutes; or complying with ASTM E2556, Type II, as applicable.
4. A fluid applied water-resistive barrier, recognized in a current ICC-ES evaluation report under the ICC-ES AC212 having a Grade D vapor permeable rating may be used in conjunction with an intervening layer, such as a second sheet of water-resistive barrier complying with the applicable code sections referenced herein.

3.2.9.2 Vapor Retarder: Under the IBC, protection against condensation must be provided in accordance with 2015, 2012 and 2009 IBC Section 1405.3 or 2006 IBC Section 1403.2, as applicable. Under the 2015 and 2012 IRC, a vapor retarder must be provided in accordance with IRC Section R702.7, unless its omission is permitted under the exceptions in IRC Section R702.7. Under the 2009 IRC, a vapor retarder must be provided in accordance with Section R601.3, unless its omission is permitted under the exceptions in Section R601.3. Under the 2006 IRC, a vapor retarder must be provided in accordance with IRC Section R318.1, unless its omission is permitted under the exceptions in IRC Section R318.1.

3.2.9.3 Flashing: Flashing complying with 2015, 2012 and 2009 IBC Section 1405.4, 2006 IBC Section 1405.3, 2015 IRC Section R703.4, 2012/2009 and 2006 IRC Section R703.8 or UBC Section 1404.2, as applicable, must be provided. Where membrane flashing is used, it must be a self-adhering, flexible rubberized asphalt and polyethylene material complying with the ICC-ES Acceptance Criteria for Flexible Flashing Materials

(AC148), 0.030 inch thick (0.8 mm), shingle-lapped with the water-resistive barrier. Rigid flashings must be sloped towards the exterior, with an upturned leg on the interior side and at the ends. Flashing must extend beyond the surface of the exterior wall.

3.2.9.4 Drainage Material: The Keene Building Products DriWall drainage mat is a three dimensional sheet that is installed over the water-resistive barrier with the lath and EZ-Wall Premix Stucco System applied directly over the DriWall drainage mat.

3.2.10 Trim and Accessories: All trim, screeds and corner reinforcement must be galvanized steel or approved plastic.

4.0 DESIGN AND INSTALLATION

4.1 General:

The coating is applied by hand-troweling in one coat to a minimum $\frac{3}{8}$ -inch (9.5 mm) thickness, unless otherwise noted. The minimum thickness around openings and penetrations is $\frac{3}{8}$ inch (9.5 mm), and the coating must be backed by solid framing or blocking. The lath must be embedded in the minimum coating thickness and must not be exposed. A finish coat, if required, must be applied according to EZ-Wall Concentrate, Inc., recommendations. Flashing, corner reinforcement, metal trim and weep screeds must be installed as shown in Figure 1. The coating system must be applied at ambient temperatures ranging from 40°F to 110°F (4.4°C to 43.3°C) by applicators approved by EZ-Wall Concentrate, Inc. An installation card as illustrated in Figure 3 must be on the jobsite, with the name of the applicator and the product to be used, before any water-resistive barrier or exterior sheathing is installed. Also, see Section 5.5 of this report.

4.2 Application over Open Framing:

The water-resistive barrier must be applied, as set forth in Section 3.2.9.1 of this report, over open wood framing spaced a maximum of 24 inches (610 mm) on center. The insulation board described in Section 3.2.3 must be placed horizontally with tongues faced upward, and must be temporarily held in place with galvanized staples or roofing nails. Vertical butt joints must be staggered a minimum of one stud space from adjacent courses and be located directly over studs. The lath is applied tightly, with $1\frac{1}{2}$ -inch (38 mm) end and side laps, over the insulation board and fastened through the insulation board and water-resistive barrier to wood studs, sills and plates having a minimum specific gravity of 0.50. The lath is fastened to framing using No. 11 gage [0.120-inch-diameter (3.05 mm)] galvanized roofing nails with $\frac{3}{8}$ -inch-diameter (9.5 mm) heads, or No 16 gage corrosion-resistant staples with a minimum crown width of $\frac{1}{2}$ inch (12.7 mm), spaced 6 inches (152 mm) on center with a minimum 1-inch (25.4 mm) penetration. Care must be taken to avoid overdriving fasteners.

Wall bracing in accordance with 2015 IBC Section 2308.6, 2012, 2009 and 2006 IBC Section IBC Section 2308.9.3 or 2308.12, IRC Section R602.10 or R602.11, or UBC Section 2320.11.3 or 2320.11.4, as applicable, or an acceptable alternate, is required. Outside wall corners and parapet corners must be covered with extra metal corner reinforcement attached to the framing members with approved fasteners spaced 18 inches (457 mm) on center, or as necessary to hold plumb. For bull nose corners, metal reinforcement is optional when construction is in accordance with Figure 1. Weep screeds must comply with, and be installed at the bottom of the wall in accordance with, IBC Section 2512.1.2, 2015 IRC Section R703.7.2.1, 2012, 2009

and 2006 IRC Section R703.6.2.1 or UBC Section 2506.5, as applicable. Exposed sheathing edges must be protected with screeds. Galvanized steel, $1\frac{3}{8}$ -inch-thick (35 mm), No. 22 gage [0.025-inch-thick (0.635 mm)], J-shaped trim pieces must be installed at other areas where insulation board is exposed. See Figure 1 for typical installation details. At windows and doors, flashing as described in Section 3.2.9.3 is required, and butting J-trim metal edges, when installed, must be caulked. Holes for hose bibbs, electrical panels and other penetrations of substrate surfaces, except those caused by fasteners, must also be caulked. The coating must then be applied as described in Section 4.1.

4.3 Application over Solid Substrates:

4.3.1 Fiberboard: Minimum $\frac{1}{2}$ -inch-thick (12.7 mm) fiberboard sheathing must be installed directly on wood studs spaced a maximum of 24 inches (610 mm) on center. The fiberboard must be temporarily held in place with corrosion-resistant staples or roofing nails.

A water-resistive barrier must be applied over the fiberboard sheathing, as set forth in Section 3.2.9.1, prior to application of the lath or optional insulation board. When an optional layer of flat-faced foam plastic insulation is used, Tyvek® StuccoWrap® or Tyvek® DrainWrap™, as recognized in [ESR-2375](#), or drainage mat as described in Section 3.2.9.4 must be used as the water-resistive barrier. Otherwise, grooved foam plastic boards, as described in Section 3.2.3, must be used. Grooves in the foam plastic boards must face the water-resistive barrier and must be aligned vertically, but may be offset a maximum of 6 inches (152 mm) from adjacent boards. The vertical joints in the insulation boards must be staggered from adjacent courses a minimum of 3 inches (76 mm). The insulation board and lath must be attached to the studs through the water-resistive barrier and sheathing with fasteners and spacing as described in Section 4.2 of this report, or as described for fiberboard in 2015 IBC Table 2304.10.1, 2012, 2009 and 2006 IBC Table 2304.9.1, IRC Table R602.3(1) or UBC Table 23-II-B-1, as applicable, whichever is more restrictive.

Wall bracing in accordance with 2015 IBC Section 2308.6, 2012 2009 and 2006 IBC Section 2308.9.3, IRC Section R602.10 or UBC Sections 2320.11.3 and 620.11.4, as applicable, or an acceptable alternate, must be provided. Outside wall corners and parapet corners must be covered with extra metal corner reinforcements attached to the framing members with approved fasteners spaced 18 inches (457 mm) on center, or as necessary to hold plumb. For bull nose corners, metal reinforcement is optional when construction is in accordance with Figure 1. Weep screeds must comply with, and be installed at the bottom of the wall in accordance with, IBC Section 2512.1.2, 2015 IRC Section R703.6.2.1, 2012, 2009 and 2006 IRC Section R703.6.2.1 or UBC Section 2506.5, as applicable. Exposed sheathing edges must be protected with screeds. Galvanized steel, $1\frac{3}{8}$ -inch (35 mm), No. 22 gage [0.025-inch (0.635 mm)], J-shaped trim pieces must be installed at areas where insulation board is exposed. See Figure 1 for typical installation details. At windows and doors, flashing as described in Section 3.2.9.3 is required, and butting J-trim metal edges, when installed, must be caulked. Holes for hose bibbs, electrical panels and other penetrations of substrate surfaces, except those caused by fasteners, must also be caulked. The coating must then be applied as described in Section 4.1.

4.3.2 Gypsum Sheathing: Minimum $\frac{1}{2}$ -inch-thick (12.7 mm), water-resistant core-treated gypsum sheathing must be installed directly on wood studs spaced a maximum of 24 inches (610 mm) on center, in a manner

similar to the installation of fiberboard as described in Section 4.3.1. Gypsum sheathing must be fastened in accordance with ASTM C1280 (IBC), IRC Table R602.3(1) or UBC Table 25-G, as applicable.

A water-resistive barrier must be applied over the gypsum sheathing, as set forth in Section 3.2.9.1, prior to installation of the lath, optional insulation board, and coating as described in Section 4.3.1. The lath must then be attached to the studs through the sheathing with fasteners and spacing as described for insulation board in Section 4.2. Bracing and other installation requirements are as noted in Section 4.3.1 for fiberboard.

The sheathing may also be applied to minimum No. 20 gage [0.032-inch-thick (0.813 mm) base metal] steel studs spaced 16 inches (406 mm) on center. Installation is similar to that for wood studs, except No. 8 self-tapping screws, spaced 6 inches (152 mm) on center, and measuring a minimum of $1\frac{3}{16}$ inches long (30.2 mm) with 0.409-inch-diameter (10.4 mm) heads, must be used to fasten the gypsum sheathing to the steel studs. Screws fastening sheathing, and screws fastening lath, must be staggered from each other. The screws must penetrate the framing and tracks a minimum of $\frac{3}{8}$ -inch (6.4 mm) beyond the stud. The balance of the system installation must be in accordance with Section 4.2.

4.3.3 Wood-based Structural Panels: Wood-based structural panels must be applied directly to wood studs under conditions as set forth in Section 3.2.5 of this report and 2015 IBC Table 2308.6.3(3), 2012, 2009 and 2006 IBC Table 2308.9.3(3), IRC Table R602.3(3) or UBC Table 23-II-B-1, as applicable. The sheathing must be attached in accordance with 2015 IBC Table 2304.10.1; 2012, 2009 and 2006 IBC Table 2304.9.1, IRC Table R602.3(1) or UBC Table 23-II-B-1, as applicable. The water-resistive barrier, optional insulation board, lath and coating must be applied as described in Section 4.3.1 for fiberboard. Bracing and other installation requirements are as noted in Section 4.3.1 for fiberboard.

4.3.4 Concrete and Masonry: Surface preparation must be in accordance with IBC Section 2510.7 or UBC Section 2508.8, as applicable. The surface must be clean, free of dust and other particles, and sufficiently damp to ensure proper bonding. EZ-Wall Premix Stucco System coating is applied directly to the prepared surface at a minimum thickness of $\frac{3}{8}$ inch (9.5 mm) in accordance with applicable provisions of Section 4.1 and the EZ-Wall Concentrate, Inc., installation instructions.

4.4 One-hour Fire-resistance-rated Wall Assemblies:

4.4.1 First Assembly:

4.4.1.1 Interior Face: One layer of $\frac{5}{8}$ -inch-thick (15.9 mm), Type X gypsum wallboard, water-resistant backer board or veneer base must be applied parallel or at right angles to the interior face of minimum nominally 2-by-4 wood studs spaced a maximum of 24 inches (610 mm) on center. The studs must be braced at mid-height. The wallboard must be attached with 6d coated nails, $1\frac{7}{8}$ inches long (48 mm) and having $\frac{1}{4}$ -inch-diameter (6.4 mm) heads, spaced at 7 inches (178 mm) on center to studs, plates and blocking. All wallboard joints must be taped and treated with joint compound in accordance with ASTM C840 or GA 216, and backed with minimum 2-by-4 wood framing. Fastener heads must be treated with joint compound in accordance with ASTM C840 or GA 216.

4.4.1.2 Exterior Face: One layer of minimum $\frac{5}{8}$ -inch-thick (15.9 mm), 48-inch-wide (1219 mm), Type X, water-resistant core-treated gypsum sheathing must be applied parallel to studs with No. 11 gage galvanized roofing nails,

$1\frac{3}{4}$ inches long (44.5 mm) and having $\frac{7}{16}$ - or $\frac{1}{2}$ -inch-diameter (11.1 or 12.7 mm) heads, spaced 4 inches (102 mm) on center on the perimeter framing and 7 inches (178 mm) on center on intermediate studs. The sheathing must be nailed to top and bottom plates at 7 inches (178 mm) on center. A water-resistive barrier is required over the sheathing. The lath and coating are then applied as described in Section 4.2.

4.4.1.3 Axial Load Design: The wood stud axial design stress for the wall assembly, calculated in accordance with Sections 3.6 and 3.7 of the ANSI AWC NDS (2015 and 2012 IBC and IRC), or Sections 3.6 and 3.7 of the ANSI/AF&PA NDS-05 (2009 and 2006 IBC and IRC) or ANSI/NFoPA NDS-91 (UBC), is limited to $0.78 F'_c$, and the maximum stress must not exceed $0.78 F'_c$ at a maximum l_e/d ratio of 33.

4.4.2 Second Assembly:

4.4.2.1 Interior Face: One layer of $\frac{5}{8}$ -inch-thick (15.9 mm), Type X gypsum wallboard must be applied parallel to the interior face of minimum nominally 2-by-4 wood studs spaced a maximum of 16 inches (406 mm) on center. The studs must be braced at mid-height. The wallboard must be attached with 6d coated wallboard nails, $1\frac{5}{8}$ inches long (41.3 mm) and having $\frac{19}{64}$ -inch-diameter (7.5 mm) heads, spaced at 8 inches (203 mm) on center to studs, plates and blocking. Stud cavities must be insulated with minimum R-11 fiberglass insulation batts or mineral wool insulation of the same thickness as the studs. All wallboard joints must be taped and treated with joint compound in accordance with ASTM C840 or GA 216, and backed with minimum 2-by-4 wood framing. Fastener heads must be treated with joint compound in accordance with ASTM C840 or GA 216.

4.4.2.2 Exterior Face: One layer of minimum $\frac{1}{2}$ -inch-thick (12.7 mm), 48-inch-wide (1219 mm), Type X, water-resistant core-treated gypsum sheathing must be applied perpendicular to studs with 6d coated wallboard nails, $1\frac{5}{8}$ inches long (41.3 mm) and having $\frac{19}{64}$ -inch-diameter (7.5 mm) heads, spaced 12 inches (305 mm) on center to studs, plates and blocking. As an alternative, one layer of minimum $\frac{7}{16}$ -inch-thick (11.1 mm) oriented strand board (OSB) may be applied perpendicular to studs with 6d common or box nails, spaced 6 inches (152 mm) on center on the perimeter framing and 8 inches (203 mm) on center on intermediate framing. All edges must be blocked. A water-resistive barrier is required over the sheathing. The lath must be the metal lath described in Section 3.2.4.2 of this report. The lath and coating are then applied as described in Section 4.2.

Axial Load Design: The wood stud axial design stress for the wall assembly, calculated in accordance with Sections 3.6 and 3.7 of ANSI AWC NDS (2015 and 2012 IBC and IRC), or Sections 3.6 and 3.7 of the ANSI/AF&PA NDS-05 (2009 and 2006 IBC and IRC) or ANSI/NFoPA NDS-91 (UBC), is limited to $0.78 F'_c$, and the maximum stress must not exceed $0.78 F'_c$ at a maximum l_e/d ratio of 33.

4.5 Miscellaneous:

4.5.1 Inspection Requirements: Building department inspection is required on wire lath installation prior to application of the coating, as required by the applicable code.

4.5.2 Control Joints: Control joints must be installed as specified by the architect, designer, builder or exterior coating manufacturer, in that order. In the absence of details, conventional three-coat plastering details must be used.

4.5.3 Curing: Moist curing must be provided in accordance with ASTM C926 and the EZ-Wall Concentrate, Inc., installation instructions.

4.5.4 Soffits: The system may be applied to soffits, provided the coating is applied over metal lath complying with Section 3.2.4.2 of this report in lieu of wire fabric lath. Expanded metal lath fastening must comply with IBC Section 2510.3, 2015 IRC Section R703.7.1, 2012, 2009 or 2006 IRC Section R703.6.1 or UBC Table 25-C, as applicable, except that the fastener length must be increased by the thickness of any substrate.

4.5.5 Sills: The system may be applied to sills at locations such as windows and similar areas. Sills with depths of 6 inches (152 mm) or less may have the coating and lath applied to any substrate permitted in this report, provided the coating, lath, water-resistant barrier and substrate are installed in accordance with the applicable sections of this report. Sills with depths exceeding 6 inches (152 mm) must have substrates of solid wood or plywood. The substrate must be fastened in accordance with 2015 IBC Table 2304.10.1, 2012, 2009 or 2006 IBC Table 2304.9.1, IRC Section R602.3 or UBC Table 23-II-B-1, as applicable, and a double layer of a complying water-resistant barrier is applied over the substrate. The lath, optional EPS insulation board and coating must be applied in accordance with Section 4.2 of this report.

5.0 CONDITIONS OF USE

The EZ-Wall Premix Stucco System described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** Materials and methods of installation must comply with this report and the manufacturer's published installation instructions. If conflicts exist between this report and the manufacturer's published installation instructions, this report governs.
- 5.2** Installation must be by contractors approved by EZ-Wall Concentrate, Inc.
- 5.3** The system is recognized as a one-hour fire-resistance-rated assembly when installed in accordance with Section 4.4 of this report.
- 5.4** When foam plastic insulation board is used, the interior of the building must be separated from the insulation board with a thermal barrier complying with the applicable code, such as $\frac{1}{2}$ -inch-thick (12.7 mm) regular gypsum wallboard mechanically attached in accordance with the applicable code.
- 5.5** A completed installation card, as shown in Figure 3, must be left at the jobsite for the owner, and a copy filed with the building department.
- 5.6** Foam plastic insulation board must not be placed on exterior walls of wood construction located within 6 inches (152 mm) of the ground where hazard of termite damage is very heavy, in accordance with 2015, 2009 or 2006 IBC Section 2603.8, 2012 IBC Section 2603.9, 2015, 2012 or 2009 IRC Section R318 or 2006 IRC Section R320.4.
- 5.7** The allowable wind load on the systems with wood studs at a maximum of 24 inches (610 mm) on center, with or without backing, is 22 psf (1050 Pa) positive or negative.
- 5.8** The allowable wind load on the systems with No. 20 gage steel studs at a maximum of 16 inches

(406 mm) on center is 49 psf (2350 Pa) positive or negative.

5.9 Support framing must be adequate to resist the required wind load, and must be designed for a maximum deflection of $\frac{1}{240}$ of the support span.

5.10 When the system is installed over concrete or concrete masonry walls, the allowable wind load capacity must be designed based on the fastener capacity.

6.0 EVIDENCE SUBMITTED

- 6.1** Data in accordance with the ICC-ES Acceptance Criteria for Cementitious Exterior Wall Coatings (AC11), dated January 2013 (editorially revised December 2015).
- 6.2** Reports of tests of fire-resistance-rated assemblies in accordance with ASTM E119.
- 6.3** Reports of tests of wall assemblies for drainage efficiency in accordance with ASTM E2273.

7.0 IDENTIFICATION

7.1 The factory-prepared mixes must be delivered to the jobsite in water-resistant bags or containers with labels bearing the following information:

- a. Name and address of manufacturer (EZ-Wall Concentrate, Inc.; Master Wall, Inc. or Sto Corp.) and the evaluation report number (ESR-2477).
- b. Product name.
- c. Weight or volume of packaged mix.
- d. Storage instructions.
- e. Maximum amount of water and other components that may be added, and conditions that must be considered in determining actual amounts.
- f. Curing instructions.

7.2 Insulation boards must be identified in accordance with their respective ICC-ES evaluation reports. Additionally, the board density of insulation boards must be noted.

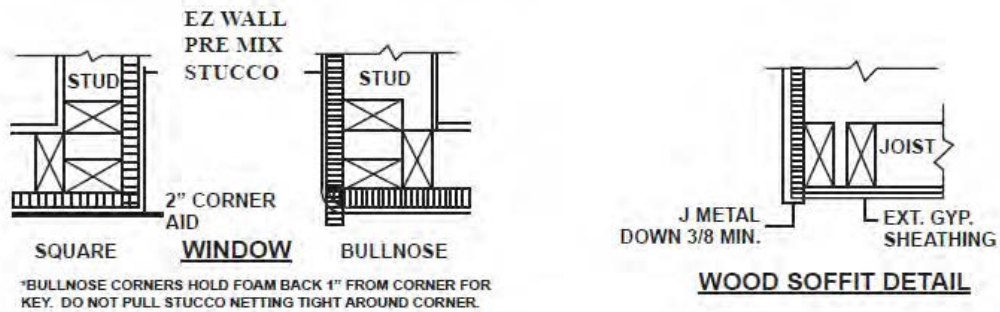
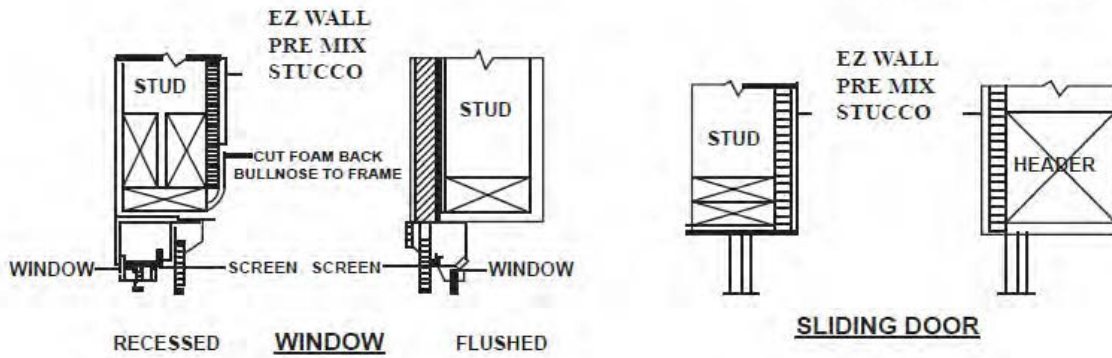
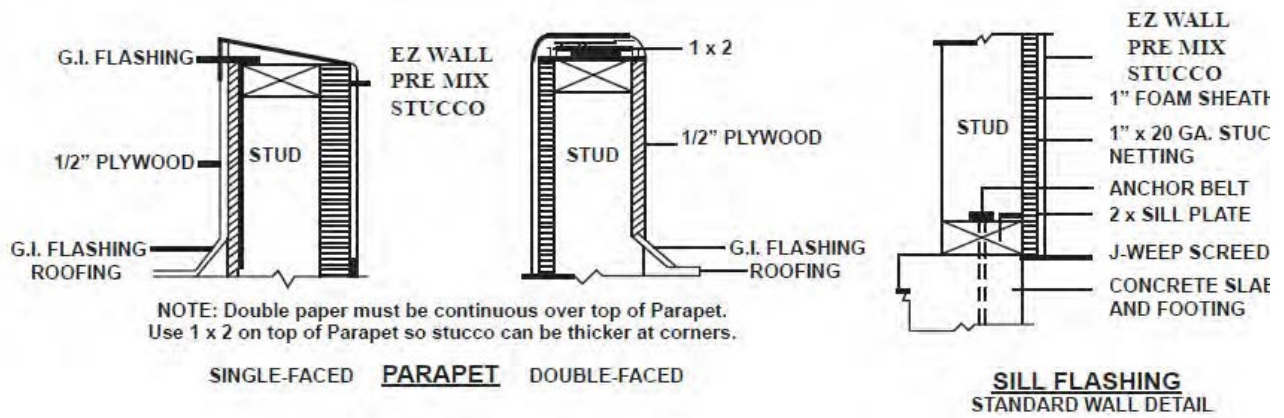
7.3 The report holder's contact information is the following:

EZ-WALL CONCENTRATE, INC.
2722 LOGAN STREET
DALLAS, TEXAS 75215
(214) 928-7748
www.ezconcentrate.com

7.4 The Additional Listees' contact information is the following:

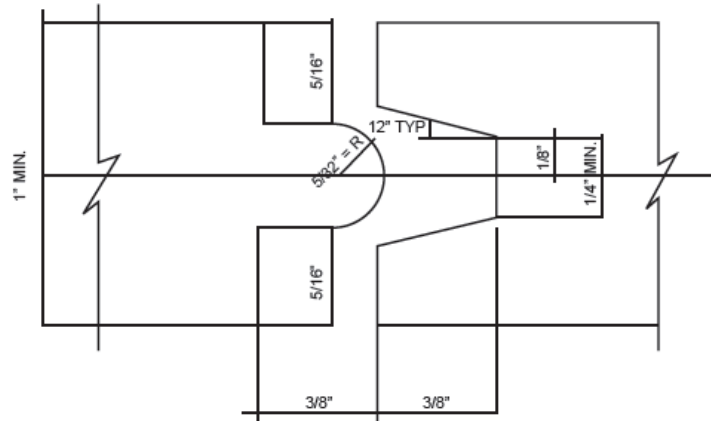
MASTER WALL INCORPORATED®
POST OFFICE BOX 397
FORTSON, GA 31808
www.masterwall.com

STO CORPORATION
3800 CAMP CREEK PARKWAY
BUILDING 1400, SUITE 120
ATLANTA, GEORGIA 30331
www.stocorp.com



For SI: 1 inch = 25.4 mm.

FIGURE 1—TYPICAL DETAILS FOR EASY WALL PREMIX STUCCO SYSTEM



For SI: 1 inch = 25.4 mm.

The water-resistive barrier must be installed under the foam plastic insulation board or over the fiberboard, gypsum sheathing, and wood structural panel sheathing. Do not overdrive the fasteners into the foam plastic insulation board.

FIGURE 2—TONGUE-AND-GROOVE FOAM PLASTIC INSULATION BOARD

EZ-WALL PREMIX STUCCO SYSTEM

INSTALLATION CARD

Job Address:

Stucco System Trade Name: EZ Wall Premix Stucco System

Name of Stucco Manufacturer: EZ Wall Concentrate, Inc.

ICC Evaluation Service, Inc. Evaluation Report ESR-2477

Date of Job Completion _____

Plastering Contractor

Name: _____

Address: _____

Telephone Number: (____) _____

Approved contractor number as issued by coating manufacturer

This is to certify that the exterior coating system on the building exterior at the above address has been installed in accordance with the evaluation report specified above and the manufacturer's instructions.

Signature of authorized representative of plastering contractor Date

This installation card must be presented to the building inspector after completion of work and before final installation.

FIGURE 3—INSTALLATION CARD FOR EASY WALL PREMIX WALL STUCCO SYSTEM