



CITY OF PHILADELPHIA
 DEPARTMENT OF LICENSES & INSPECTIONS
 Construction Services Division
 Municipal Services Building - Concourse Level
 1401 John F. Kennedy Boulevard
 Philadelphia, Pennsylvania 19102

EZ PERMIT
EXTERIOR WALL COVERINGS
 For Applications of Exterior Wall Coverings
 Revised 11/18

EZ Exterior Wall Sidings Permit

Obtain permits for the application of exterior wall sidings without submitting plans by meeting the Conditions and Design Limitations below. Any deviations from this permit standard will result in permit revocation.

Conditions

- Installation must fully comply with the requirements of the 2015 International Residential Code (IRC) and the 2018 International Building Code (IBC). Buildings under the scope of the 2015 IRC shall include detached one- and two-family dwellings and townhouses not more than 3 stories above grade in height with a separate means of egress and their accessory structures.
- Exterior Insulation Finish Systems subject to special inspections **are not** applicable to the EZ permit process.
- Historically certified buildings **are not** applicable to the EZ permit process.

General Construction Requirements

- To conform with requirements of specific exterior wall covering applications to be used
- All proprietary applications to be installed in accordance to manufacturer’s installation instructions
- Manufacturer’s installation instructions to be provided in field for inspectors
- Wall covering fasteners shall be with approved aluminum, stainless steel, zinc-coated, or other corrosion-resistant fasteners unless specified otherwise.

Flashing

- Corrosion resistant, shingle fashioned application to extend to surface of exterior wall finish
- To be installed in the following locations:
 - Exterior Window/Door Openings
 - At exterior porch, deck, or stair attachments to a wall/floor assembly of wood-frame construction
 - At built-in gutters
 - At chimney or other masonry construction intersections with
 - Wall/Roof intersections
 - frame/stucco walls, with protecting lips on both sides under stucco coping
 - Continuously above all wood trims

Water-Resistive Barrier

- Min. one (1) layer of No. 15 asphalt felt to comply with ASTM D226 OR other approved water resistive barrier
- To be applied over studs or sheathing
- Continuous to top of wall, and terminated at penetrations and building appendages
- Lapping: Min. 2-in horizontal lap of upper layer over lower layer; Min. 6-in lap at all joints
- Water-resistive vapor permeable barrier to be applied where specified by exterior wall covering application type

Applicable Exterior Wall Covering Application Types

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Vinyl Siding <input type="checkbox"/> Fiber Cement Siding <input type="checkbox"/> Wood Veneer <input type="checkbox"/> Wood, Hardboard, Wood Structural Panel Siding | <ul style="list-style-type: none"> <input type="checkbox"/> Wood Shakes & Shingles <input type="checkbox"/> Exterior Plaster & Stucco <input type="checkbox"/> Stone & Masonry Veneer |
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Fiber Cement Siding

- Shall be certified in conformance with ASTM C1186, Type A, Min. Grade II or ISO 8336 Category A minimum Class 2
- Panel Min. Nominal Thickness: 5/16"

Fiber Cement Panel Siding

- Panel installation to have long dimension parallel or perpendicular to framing
- Vertical/Horizontal joints shall occur over framing members
- Joints to be sealed with caulk or covered with battens.

Fastening

- 6d common corrosion-resistant nails
- Direct to studs: 4d common corrosion-resistant nails
- Max. Spacing: 6-in O.C. on edges; 12-in O.C. at intermediate studs
- Shall conform with approved manufacturer's installation instructions

Fiber Cement Lap Siding

- Maximum width: 12-in
- Min. Lap Siding Dimension: 1¼-in

Joints

- End joints of lap siding to conform with one of the following:
 - Located over a strip of flashing
 - To be sealed with caulk
 - H-section joint cover to be installed
- Seal and cover shall not be required for tongue and groove end joints

Fastening

- 6d common corrosion resistant nails, at overlapping planks at each stud
- Direct to studs: 6d common or 11 ga roofing nail at the top of each plank of each stud
- Max Spacing:
 - Face nailing: one 6d common nail through overlapping planks at each stud
 - Concealed nailing: one 11-gauge 1-1/2 in long galv. roofing nail through top edge of each plank at each stud
- Shall be installed in accordance with approved manufacturer's installation instructions



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Vinyl Siding

- Shall be certified in conformance to ASTM D3679
- Height of siding application to be limited to 40'-0".
 - Applications of vinyl siding over 40'-0" in height shall have wind exposure determined by design professional. Category C exposure shall not be applicable to the EZ permit process.
- Siding Min. Nominal Thickness: 0.035-in
- Vinyl siding, soffit, and accessories to be installed in accordance with manufacturer's instructions.
- Soffit panels to be individually fastened to a supporting component (i.e. nailing strip, fascia, or subfascia component) or as specified by manufacturer's instructions.

Foam Plastic Sheathing (for buildings under the scope of the 2015 IRC)

The following foam plastic sheathing backing layers shall be permitted for vinyl siding:

- Nom. 1/2" thick min. Extruded Polystyrene per ASTM C578
- Nom. 1/2" thick min. Polyisocyanurate per ASTM C1289
- Nom. 1" thick min. Expanded Polystyrene per ASTM C578

Fastening

- Shall not be fastened directly to studs
- Fastener: 0.120-in nail (shank) with 0.313-in head OR
- 16 Ga staple with 3/8-in or 1/2-in crown
 - All fasteners to be corrosion-resistant, fastened directly to studs or nailing strips.
- Min. Fastening Depth: 0.75-in

For foam plastic sheathing (applicable to buildings under the scope of the IRC 2009):

- Min. Fastening Depth: 1.25-in penetration into wood framing OR
- As per manufacturer's installation instructions for siding with an approved design wind pressure rating
- Max. Spacing: 16-in O.C. OR as per manufacturer's instructions



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Wood Veneers

(Only applicable to buildings under the scope of the 2018 IBC, except Type V construction)

- Nominal thickness of wood veneers = 1"
 - 0.438" for exterior hardboard siding
 - 0.375" for exterior type wood structural panels or particle boards
- Wood veneer height shall be limited to 40'-0".
 - Fire-retardant-treated wood veneer shall be limited to an application height of 60'-0"
- Veneer attached to or furred from a non-combustible backing that is fire-resistance rated as required by the 2018 International Building Code.
- Open or spaced wood veneers, without concealed spaces, shall not project more than 24" from the building wall.

Wood, Hardboard, and Wood Structural Panel Siding

(Only applicable to buildings under the scope of the 2015 IRC)

Panel Siding

- Vertical joints to be shiplapped OR covered with batten
 - To occur over framing members
- Horizontal joints shall be lapped 1-in min., shiplapped, OR flashed with Z-flashing
 - To occur over solid-blocking, wood or wood structural panel sheathing

Horizontal Lap Siding

- To be installed in accordance with manufacturer's recommendations
- Siding to conform with one of the following requirements:
 - Lapped 1-in min
 - Lapped ½-in min if rabbeted
 - Batten covered joints
 - Sealed and installed over strip of flashing
 - Ends Caulked

Fastening

Hardboard Siding

Panel siding vertical

- Min. 0.120-in nail (shank), 0.225-in head diameter
- Min. 1½-in penetration into wood framing
- Spacing: 6-in on panel edges, 12-in at intermediate supports

Lap Siding Horizontal

- 0.099-in nail (shank), 0.240-in head diameter
- Min. 1½-in penetration into wood framing
- Spacing: same as stud spacing, 2 per bearing

Wood Structural Panel Siding

- Direct to Studs OR Into Wood/WSP Sheathing: 0.099-in nails, Min. 2-in penetration
- Fiberboard/Gypsum Sheathing to Studs: 0.113-in nails, Min. 2½-in penetration
- Spacing: 6-in on panel edges and 12-in at intermediate supports

Wood Structural Panel Lapsiding

- Min. 1-in penetration from sheathing into studs
- Direct to stud: 0.113-in nail, Min. 2½-in penetration, or Staple, Min. 2-in penetration
- Face nailing spacing: 1 nail per bearing for max. 6-in O.C.; 2 nails per bearing for min. 8-in O.C.
- Spacing: 8-in O.C. along bottom edge (Lap siding)



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Wood Shakes & Shingles

(Only applicable to buildings under the scope of 2015 IRC)

- To conform with CSSB Grading Rules for Wood Shakes and Shingles
- Single or Double Course application permitted, and to be placed over:
 - ½-in wood-based sheathing OR
 - furring strips covering ½-in non-wood sheathing
- Bottom courses shall be doubled
- Water-resistive vapor permeable barrier required over all sheathing
 - Lapping: 2-in (Horizontal); 6-in (Vertical)
- Max. exposure of shake/shingle to conform with [2015 IRC Table R703.6.1]

TABLE R703.6.1 MAXIMUM WEATHER EXPOSURE FOR WOOD SHAKES AND SHINGLES ON EXTERIOR WALLS^{a,b,c} (Dimensions are in inches)

LENGTH	EXPOSURE FOR SINGLE COURSE	EXPOSURE FOR DOUBLE COURSE
Shingles ^a		
16	7	12 ^b
18	8	14 ^c
24	10 ^{1/2}	16 ^d
Shakes ^a		
18	8	14
24	10 ^{1/2}	18

- a. Dimensions given are for No. 1 grade.
- b. A maximum 9-inch exposure is permitted for No. 2 grade.
- c. A maximum 10-inch exposure is permitted for No. 2 grade.
- d. A maximum 14-inch exposure is permitted for No. 2 grade.

Furring Strips

- 1-in x 3-in strips OR 1-in x 4-in strips
- Fasteners: 7d or 8d box nails
- Max Fastener Spacing: As specified by “Max. Weather Exposure” dimensions from [Table R703.6.1]

Adjacent Wood Shake/Shingle Spacing & Gap Tolerances

- Max. Adj. Gap Tolerance: ⅛-in to ¼-in (Shingles); ⅜-in to ½-in (Shakes)
- Min. Spacing for Joints of Adj. Courses: 1½-in

Fasteners for Shakes & Shingles

- **Box Nail Fasteners**
 - Each shake/shingle to be held in place by two (2) stainless steel Type 304, Type 316 or hot-dipped zinc-coated galvanized corrosion-resistant box nails in accordance with Table R703.6.3(1) or Table R703.6.3(2)
 - Min. Penetration into sheathing or furring strip: ½-in [Shall not to be overdriven]
- **Staple Fasteners**
 - Min. 16 ga. stainless steel Type 304 or Type 316, 7/16-in crown
 - Fastener concealed by course above
 - Attachment: Crown parallel with butt of shake/shingle
 - Fastener Location
 - Single Course: 1-in above butt line, ¾-in from the edge
 - Double Course: Two (2) casing nails on exposed shake/shingle, face-nailed; 2-in above buttlane, ¾-in from each edge

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Exterior Plaster & Stucco

- Installation to be in conformance with ASTM C926 or ASTM C 1063.
- No work to be performed when ambient temperature is below 40°F Applications to be protected from freezing for a period not less than 24 hours after set has occurred.
- Water-Resistive barrier to be installed
 - Wood-based sheathing backing shall require a water-resistive vapor-permeable barrier, with min. equivalent performance of two (2) layers of Grade D paper
- *Metal/wire lath backing:* Three (3) Coat Layer
- *Masonry, Concrete, Pressure-treated or Decay-Resistant Wood:* Two (2) Coat Layer
 - Each coat shall be kept in moist condition for at least 48 hours prior to application of the next coat. [Except *ASTM C 926 applications*]
 - Minimum curing times shall be maintained prior to application of next coat.

Plaster Coating System	Layer	Min. Curing Time Prior to Next Layer
Two Coats	First	7 days
Three Coats	First	48 hours
	Second	7 days

Weep Screed

- Corrosion Resistant Weep Screed OR Plastic Weep Screed
- Min. 0.019-in (No. 26 Galvanized Sheet Gage)
- *Min. Elevation Above Grade:* 4-in for Earth; 2-in for Paved Areas
- Min. vertical attachment flange of 3½-in, at or below foundation plate line
 - Water Resistant Barrier to lap attachment flange
 - Exterior lath to cover and terminate on attachment flange

Fastening (Lath)

- 11 Ga nails, 1½-in long, with 7/16" head OR
- 16 Ga staples, 7/8" long
- Max. Spacing: 6-in O.C.

Plaster Thickness

Finished thickness of plaster shall conform to dimensions of [2015 IRC Tables R702.1(1) & R702.1(3)] for respective plaster bases.

TABLE R702.1(1) THICKNESS OF PLASTER

PLASTER BASE	FINISHED THICKNESS OF PLASTER FROM FACE OF LATH, MASONRY, CONCRETE (inches)	
	Gypsum Plaster	Cement Plaster
Expanded metal lath	5/8, minimum ^a	5/8, minimum ^a
Wire lath	5/8, minimum ^a	3/4, minimum (interior) ^b 7/8, minimum (exterior) ^b
Gypsum lath ^g	1/2, minimum	3/4, minimum (interior) ^b
Masonry walls ^c	1/2, minimum	1/2, minimum
Monolithic concrete walls ^{c, d}	5/8, maximum	7/8, maximum
Monolithic concrete ceilings ^{c, d}	3/8, maximum ^e	1/2, maximum
Gypsum veneer base ^{f, g}	1/16, minimum	3/4, minimum (interior) ^b
Gypsum sheathing ^g	—	3/4, minimum (interior) ^b 7/8, minimum (exterior) ^b

a) When measured from back plane of expanded metal lath, exclusive of ribs, or self-furring lath, plaster thickness shall be 3/4 inch minimum.
 b) When measured from face of support or backing.
 c) Because masonry and concrete surfaces may vary in plane, thickness of plaster need not be uniform.
 d) When applied over a liquid bonding agent, finish coat may be applied directly to concrete surface.
 e) Approved acoustical plaster may be applied directly to concrete or over base coat plaster, beyond the maximum plaster thickness shown.
 f) Attachment shall be in accordance with Table R702.3.5.
 g) Where gypsum board is used as a base for cement plaster, a water-resistive barrier complying with [Section R703.2](#) shall be provided.

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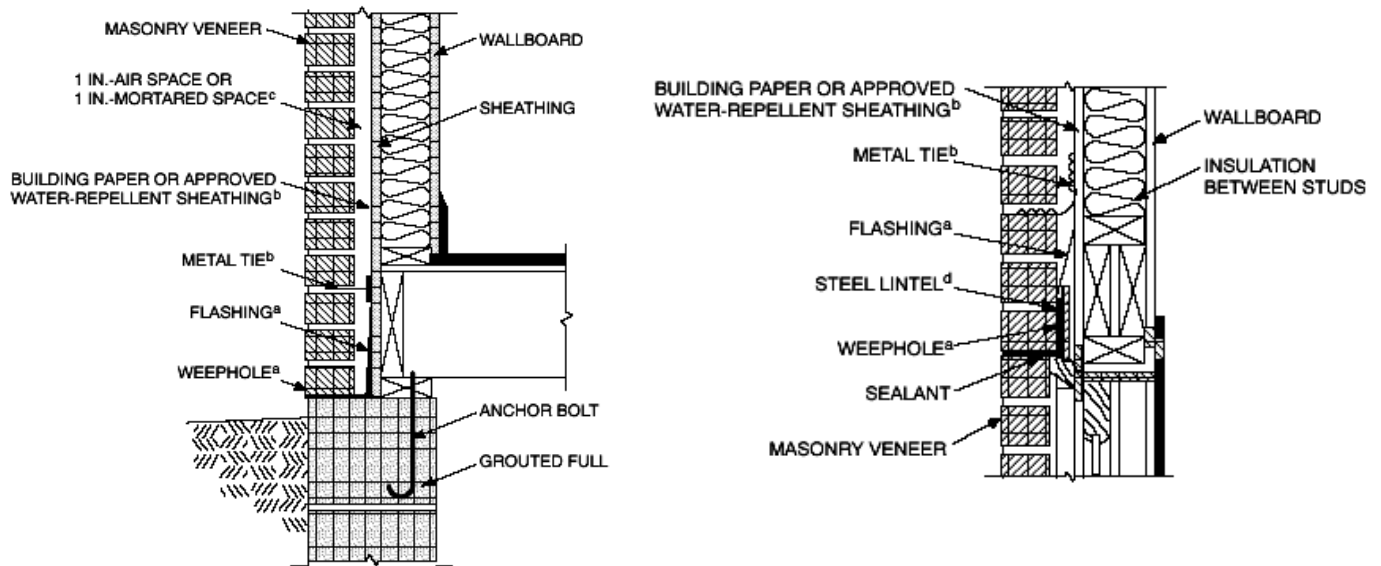
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Stone & Masonry Veneer

(Only applicable to buildings under the scope of the 2015 IRC)

Conditions & Design Limitations

- **Veneer Story Limitation:** Two (2) stories for Steel Framing; Three (3) stories for Wood Framing
- **Veneer Height Limitation:** Max. 30-ft above non-combustible foundation
- **Maximum Nominal Veneer Thickness:** 5-in
- **Maximum Weight of Veneer:** 50 psf
- **Min. Steel Angle Support:** L 6 x 4 x 5/16 angle with long leg placed vertically, and anchored to double 2x4 wood studs at a maximum 16" O.C.
- **Steel Angle Anchorage:** At every double stud spacing; Min. two (2)-7/16" diameter by 4" lag screw (wood construction) OR two (2)-7/16" bolts with washers (cold-formed steel construction).
- **Min. Clearance of Steel Angle to Underlying Construction:** 1/16"
- **Min. Steel Angle Bearing:** 2/3 of width of masonry veneer thickness.
- **Max. Height of Masonry Veneer Above the Steel Angle Support:** 12'-8".
- **Flashing and weep holes to be located in masonry veneer wythe in accordance with Figure R703.8.2.1** (Figure Below)



Max Air Space

- **Wood Backing:** 1-in (Corrugated sheet metal ties); 4 ½-in (Metal strand wire ties)
 - **Steel Backing:** 4 ½-in (Adjustable metal strand wire ties)
- (Mortar or grout shall be alternately permitted to fill the air space with the application of required weather resistant membrane or building paper over studs or sheathing.)



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Stone & Masonry Veneer (Cont'd)

Lintels

Masonry veneer shall not support any vertical loads other than the dead load of the veneer above.

- **Steel Lintels:** Shop-coated with rust-inhibitive paint; Corrosion resistant; or Corrosion Resistance-Coated Steel
- **Min. Bearing Length:** 4-in
- **Max. Allowable Span:** As per Table R703.8.3.1

TABLE R703.8.3.1
 ALLOWABLE SPANS FOR LINTELS SUPPORTING MASONRY VENEER^{a, b, c, d}

SIZE OF STEEL ANGLE ^{a, c, d} (inches)	NO STORY ABOVE	ONE STORY ABOVE	TWO STORIES ABOVE	NO. OF 1/2" OR EQUIVALENT REINFORCING BARS IN REINFORCED LINTEL ^{b, d}
3 x 3 x 1/4	6'-0"	4'-6"	3'-0"	1
4 x 3 x 1/4	8'-0"	6'-0"	4'-6"	1
5 x 3 1/2 x 5/16	10'-0"	8'-0"	6'-0"	2
6 x 3 1/2 x 5/16	14'-0"	9'-6"	7'-0"	2
2-6 x 3 1/2 x 5/16	20'-0"	12'-0"	9'-6"	4

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Long leg of the angle shall be placed in a vertical position.
- b. Depth of reinforced lintels shall not be less than 8 inches and all cells of hollow masonry lintels shall be grouted solid. Reinforcing bars shall extend not less than 8 inches into the support.
- c. Steel members indicated are adequate typical examples; other steel members meeting structural design requirements shall be permitted to be used.
- d. Either steel angle or reinforced lintel shall span opening.

Veneer Wall Ties

- **Material:** Corrosion-resistant metal ties
- **Min. extension into veneer:** 1 1/2-in (Min. 5/8-in mortar or grout cover to outside face)
- **Strand Wire:** Min. No. 9 US Gage (hood embedded in mortar joint)
- **Sheet Metal:** Min. No. 22 US Gage x 7/8-in corrugated
- **Tie spacing:** 32-in O.C. max. (horizontally); 24-in O.C. max. (vertically) [Maximum area of support: 2.67 sq. ft.]
 - Additional wall ties to be provided for wall openings greater than 16-in in either direction:
 - Placed within 12-in of wall opening
 - Spacing: 36-in O.C. max

Flashing

Approved corrosion-resistive flashing to be installed at exterior wall envelope in such a manner to prevent entry of water into wall cavity or penetration of water to the building structural framing components.

- **Installation locations:**
 - First (1st) course of masonry above finished ground level above foundation wall or slab
 - At other points of support (structural floors, shelf angles, and lintels)

Weepholes

- **Diameter:** 3/16-in
- **Installation Location:** Immediately above flashing
- **Spacing:** 33-in O.C. outside wythe of masonry wall