

directly to structural masonry, concrete or studs in one of the following manners:

1. Wall ties shall be corrosion resistant, made of sheet metal, have a minimum thickness of 0.0785 inch (2.00 mm) (No. 14 galvanized sheet gage) by 1 inch (25.4 mm) and shall be attached to the backing, as the veneer is laid, by minimum #10 hex head galvanized screws with penetration of at least 2 inches (51 mm) into the framing member, placed not more than 1/4-inch (6.35 mm) above the extended leg of the angle tie. Wall ties shall be spaced so as to support not more than 2 square feet (0.19 m²) of wall area but shall not be more than 24 inches (610 mm) on center horizontally. In Seismic Zone 4, wall ties shall have a lip or hook on the extended leg that will engage or enclose a horizontal joint reinforcement wire having a 0.148-inch (3.76 mm) diameter (No. 9 B.W. gage) or equivalent. The joint reinforcement shall be continuous with butt splices between ties permitted.

When applied over wood stud construction, the studs shall be spaced a maximum of 16 inches (406 mm) on center and approved paper, a minimum 30# fiberglass felt, 4-inch (102 mm) minimum on horizontal laps and 6-inch (152 mm) minimum on end laps shall first be applied over minimum 15/32-inch (12 mm) plywood sheathing, except as otherwise provided in Section 1402, and an air space of at least one inch (25 mm) shall be maintained between the backing and the veneer. Spot bedding at all ties shall be of cement mortar.

2. Veneer may be applied with a 1-inch minimum (25 mm) grouted backing space, which is reinforced by not less than 2-inch by 2-inch (51 mm by 51 mm) 0.065 of an inch thick (1.65 mm) (No. 16 B.W. gage) galvanized wire mesh placed over waterproof paper backing and anchored directly to stud construction. Construction shall not exceed a height of 4 feet (1219 mm) above grade.

The stud spacing shall not exceed 16 inches (406 mm) on center. The galvanized wire mesh shall be anchored to wood studs by galvanized steel wire furring nails at 4 inches (102 mm) on center or by barbed galvanized nails at 6 inches (152 mm) on center with a 1 1/8-inch minimum (29 mm) penetration. The galvanized wire mesh may be attached to steel studs by equivalent wire ties. If this method is applied over solid sheathing, the mesh shall be furred for embedment in grout. The wire mesh shall be attached at the top and bottom with not less than 8d common wire nails. The grout fill shall be placed to fill the space intimately around the mesh and veneer facing.

1405.6.2 Stone units [10 inches (254 mm) maximum in thickness]. Stone veneer units not exceeding ten inches (254 mm) in thickness may be anchored directly to structural masonry or concrete. Anchor ties shall not be less than 0.109 inch (2.77 mm) (No. 12 B.W. gage) galvanized wire, or an approved equal, formed as an exposed eye and extending not less than 1/2 inch (12.7 mm) beyond the face of the backing. The legs of the loops shall not be less than 6 inches

(152 mm) in length bent at right angles and laid in the masonry mortar joint and spaced so that the eyes or loops are 12 inches (254 mm) maximum on center in both directions. There shall be provided not less than a 0.109-inch (2.77 mm) (No. 12 B.W. gage) galvanized wire tie, or approved equal, threaded through the exposed loops for every 2 square feet (0.19 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length bent so that it will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right angle bend. One inch (25 mm) of cement grout shall be placed between the backing and the stone veneer.

1405.7 Slab-type veneer. Slab-type veneer units not exceeding 2 inches (51 mm) in thickness shall be anchored directly to masonry, concrete or stud construction. For veneer units of marble, travertine, granite or other stone units of slab form ties of corrosion-resistant dowels in drilled holes shall be located in the middle third of the edge of the units, spaced a maximum of 24 inches (610 mm) apart around the periphery of each unit with not less than four ties per veneer unit. Units shall not exceed 20 square feet (1.9 m²) in area. If the dowels are not tight fitting, the holes shall be drilled not more than 0.063 inch (1.6 mm) larger in diameter than the dowel, with the hole countersunk to a diameter and depth equal to twice the diameter of the dowel in order to provide a tight-fitting key of cement mortar at the dowel locations when the mortar in the joint has set. Veneer ties shall be corrosion-resistant metal capable of resisting, in tension or compression, a force equal to two times the weight of the attached veneer. If made of sheet metal, veneer ties shall be not smaller in area than 0.0336 by 1 inch (0.853 by 25 mm) or, if made of wire, not smaller in diameter than 0.1483-inch (3.76 mm) wire.

1405.8 Terra cotta. Anchored terra cotta or ceramic units not less than 1.625 inches (41 mm) thick shall be anchored directly to masonry, concrete or stud construction. Tied terra cotta or ceramic veneer units shall be not less than 1.625 inches (41 mm) thick with projecting dovetail webs on the back surface spaced approximately 8 inches (203 mm) o.c. The facing shall be tied to the backing wall with corrosion-resistant metal anchors of not less than No. 8 gage wire installed at the top of each piece in horizontal bed joints not less than 12 inches (305 mm) nor more than 18 inches (457 mm) o.c.; these anchors shall be secured to 0.25-inch (6.4 mm) corrosion-resistant pencil rods that pass through the vertical aligned loop anchors in the backing wall. The veneer ties shall have sufficient strength to support the full weight of the veneer in tension. The facing shall be set with not less than a 2-inch (51 mm) space from the backing wall and the space shall be filled solidly with portland cement grout and pea gravel. Immediately prior to setting, the backing wall and the facing shall be drenched with clean water and shall be distinctly damp when the grout is poured.

1405.9 Adhered masonry veneer. Adhered masonry veneer shall comply with the applicable requirements in Section 1405.9.1 and Sections 6.1 and 6.3 of ACI 530/ASCE 5/TMS 402.

1405.9.1 Interior adhered masonry veneers. Interior adhered masonry veneers shall have a maximum weight of 20 psf (0.958 kg/m²) and shall be installed in accordance with Section 1405.9. Where the interior adhered masonry