I. Definition of and Requirements for Wire Backing

Section 2501.4 of the Building Code defines wire backing as “horizontal strands of tautened wire attached to surfaces of vertical wood supports which, when covered with building paper, provide a backing for portland cement plaster.” Section 2506.3 of the UBC requires that “backing or a lath shall provide sufficient rigidity to permit (exterior) plaster application.”

II. Acceptable Method of Installation

Since the method of installation of wire backing is no longer specified, the following procedure for installation will be considered adequate meet the requirements of Section 2506.3:

A. Wire used for “line wire” or “string wire” shall be not less than No. 18 U.S. gauge steel.

B. Wire shall be placed perpendicular to wall framing members, the strands being generally in a horizontal position, with a maximum spacing of 6 inches between parallel wires and 24 inches between framing members.

Exception: Wire strands may be vertically laced to staggered or spaced attachments where the open space between continuous and rigidly secured horizontal framing does not exceed 24 inches (lintels, spandrels, facias, and similar narrow elements above or below wall openings).

C. Wire shall be attached to framing with nails or staples spaced not more than 48 inches apart horizontally. Fasteners are to be a minimum of No. 16 gauge wire and of sufficient length to have a minimum three-fourths-inch penetration into framing members.

D. Wire shall be sufficiently taut to restrict lateral deflection of the wire between supports during the application of the plaster base coat.

Note that: horizontal blocking placed at the midheight of the wall (48 inches maximum apart) in the first three stud spaces adjacent to wall corner framing and wall openings will significantly diminish deflection of framing elements which may occur as a result of tensioning the wire strands.