



Department of Land Use

To: Permit Endorsed Contractors
From: Department of Land Use
Building Inspections Division
Date: June 15, 2010
Re: **Wall Backers in Residential Shower and Tub Areas**

Dear Permit Endorsed Contractor,

This letter is intended to remind you that as of January 1, 2010, the Department of Land Use adopted the 2006 International Residential Code ("IRC") along with the 2007 Supplement. Included with this adoption is Section 702.4, "*Ceramic Tile*," which provides specific ANSI standards for the installation and application of ceramic wall tile, and provides requirements prohibiting the use of paper-faced gypsum board (i.e. green board) in areas that are in direct contact with water.

The inclusion of IRC Section 702.4.2 "*Cement, fiber-cement and glass mat gypsum backers*," states that when installing ceramic wall tile in tub and shower areas and wall panels in shower areas that the use of cement, fiber-cement or glass mat gypsum backers in compliance with ASTM C 1288, C 1325 or C 1178 and in accordance with the manufactures' recommendations be required. This requirement was adopted due to the delaminating of paper-faced gypsum and possible mold growth which is common when moisture through cracks in grout joints and deteriorated caulk between the tub and tile assemblies compromises its structural integrity. This is not the case with cement, fiber-cement or glass mat gypsum backers because they resist mold and moisture in the most extreme conditions, even if the tile assembly fails.

For further clarification of this section, the tub and shower area shall be defined as any wall which encloses the tub and shower base and, in addition, could come in direct contact with water. In tub and shower areas, Section 307.2 "Bathtub and shower spaces" of the IRC requires the walls surrounding the tub and shower area to be protected with a nonabsorbent surface to a height of not less than 72 inches above the floor or 70 inches above the shower drain outlet which can be accomplished with ceramic tile. Once you satisfy the requirements of Section 307.2, you are permitted to install green board above the minimum required height provided that ceramic tile is not being installed. If you choose to extend the ceramic tile above this minimum height; you will be required to ensure the cement, fiber-cement and glass mat gypsum backer is installed behind the ceramic tile.

Installers should also be aware of the following code requirements and review these items in further detail.

- Cement, fiber-cement and glass mat gypsum backer products typically require moisture-resistant nail or screw installation that is flush with the surface; rather than counter sunk as is typically seen with standard drywall.
- Fiberglass tape embedded in tile adhesive is typical for sealing joints. Drywall mud and tape is generally unacceptable per the manufactures' written instructions.
- No water-resistant gypsum product shall be installed over a vapor retarder in a tub or shower area. IRC Sec. 702.3.8.1.

Please note that this letter contains highlights from the applicable codes and standards and that it's ultimately a contractor's responsibility to read and understand the codes and manufactures' instructions. Should you need further clarification on the enforcement of this section, please feel free to contact the Inspection Division at 302.395.5572.

Sincerely,

Frank J. Ruberto
Land Use Administrator