

*St. Louis County Department of Public Works
Division of Code Enforcement*

**NOTICE TO MANUFACTURERS, SUPPLIERS AND INSTALLERS OF
RESIDENTIAL PATIO ENCLOSURES & SIMILAR STRUCTURES**

After a series of industry-requested postponements of the original September 1, 2005 effective date, St. Louis County officially switched to the 2003 International Residential Code (IRC) on June 1, 2006. Although the Enclosure Industry has been involved in the development of the requirements of the various Building Codes at the regional level through organizations such as the National Patio Enclosure Association and the National Sunroom Association, this notice is a reminder that this shift to the IRC has two significant impacts on any proposed new residential enclosures:

1. The common practice of installing these enclosures on elevated decks supported by posts and piers results in the transfer of lateral wind loads to these decks, which are not laterally braced by any of the prescriptive methods recognized by IRC Section R602.10. IRC Sections 301.1 and 301.1.3 require such “non-prescriptive” aspects of a design to meet the requirements of the 2003 International Building Code (IBC) and the engineering standards referenced therein. This must be done via original signed and sealed details and calculations from a Missouri-registered Architect or Professional Engineer. Please note that only the lateral bracing of an otherwise prescriptively designed deck needs to be addressed by a design professional. **This requirement for decks supporting enclosures is currently in effect.** This requirement is the same for any enclosed structure on a deck and has been published in our handout on room additions (document available from our web site: www.stlouisco.com/pubworks) for the last several months. It is applicable to all enclosed structures erected on top of decks and not just specific to enclosures of the type you have been associated with.
2. Since the aluminum, foam and glass construction of these enclosures also does not comply with many of the prescriptive requirements of the IRC, IRC Sections 301.1 and 301.1.3 require these “non-prescriptive” aspects of the design to meet the requirements of the 2003 IBC and the engineering standards referenced therein. Again, one obvious “non-prescriptive” aspect is the bracing of the enclosure to resist lateral wind loads. In order to allow a smooth transition through this busy building season, **we have decided to continue to accept unsealed plans for enclosures that comply with the existing engineering files that we have on hand until November 1, 2006.** After this date, the files that we have on hand must have either been updated with original signed and sealed details and calculations from a Missouri-registered Architect or Professional Engineer to meet the 2003 IRC/IBC requirements or original sealed plans and calculations must be presented for each installation. It is expected that the design professional will utilize structural design values for components that are not readily

calculable (e.g. shear walls using glass panels or sandwich panels, diaphragms using glass panels or sandwich panels, etc.) that have been derived by an ICC-recognized laboratory testing to ICC acceptance criteria and that he/she will clearly indicate the source of such values in the submitted calculations. Please note that any design that attempts to carry the majority of the lateral loads back to the host structure must document not only sufficient rigidity of the enclosure to accomplish this, but also have signed and sealed details and calculations documenting the adequacy of the existing host structure for each installation. As a result, designers are strongly encouraged to design the enclosures as largely self-supporting in order to avoid the need to extensively analyze the host structure and to facilitate the issuance of permits.

Please note that additional requirements, such as consideration of seismic loads, apply to enclosures to be added to other than one or two family residences (e.g. townhouses, commercial buildings, etc.).

If you need any additional information regarding this notice, please call our general plan review information phone line at 314-615-5485 and ask for Chris Falk, P.E., Helen Zhou, P.E. or Bill Walterscheid, P.E.