



FLORIDA BUILDING CODE BINDING INTERPRETATION



Date: May 23, 2007

Report #: Petition 21

Year: 2001

Code: Building

Section: 704.1, 1604.5 and 2101.1

Question: Is it the intent of section 704.1, Section 1604.5 and Section 2101.1, Building that the top joint of a rated wall, where it meets the slab above shall incorporate a flexible joint that has been tested to provide a fire resistance rating through a test report as listed by a Nationally Recognized Testing Laboratory (NRTL) recognized by the Florida Building Code?

Answer: Yes.

Commentary: Section 704.1 of Florida Building Code 2001, Building, requires a 1 hour fire-resistance rated partition between the automobile parking garage and residential occupancies. There does not appear to be any disagreement on this requirement. The "mortar-pointed joint" does not meet the listed UL 263 assembly as it requires a full bed of mortar and therefore will not provide the required fire rated separation. The "mortar-pointed joint" does not meet the detail for the Rinker Assembly No 8-2-12 which shows a full bed mortar joint. The "mortar-pointed joint" infill masonry wall described in the Building Officials report does not match the wall section 1-5.0 for the vertical reinforcement passing through the slabs and walls nor the "non-shrink grout" notation showing full bed joints.

Section 1604.5 of Florida Building Code 2001, Building, requires that interior wall and permanent partitions shall be designed to resist all imposed loads. There does not appear to be a disagreement on this issue

Section 2101.1 of Florida Building Code 2001, Building, requires that drawings and details that are submitted for the use of masonry must show provision for dimensional changes resulting from elastic deformation, creep, shrinkage, temperature and moisture. This is where there is a difference of opinion, the Engineer and Architect have taken the opinion that there will be no dimensional changes while the Building Official believes that there indeed will be dimensional changes.

Section 2101.2 (4) requires the drawings to provide details on allowances for dimensional changes resulting from elastic deformation, creep, shrinkage temperature and moisture.

None of these sections requires that the joint at the top of the wall must be flexible. Section 701.3 and table 701.3 provide definitions and example of both restrained and unrestrained construction. If the wall is constructed as indicated in section 1-5.0 of the approved plans, and the reinforcing is continuous through the slab and spandrel beam as indicated, this may be a restrained joint not requiring a flexible joint. The wall assembly UL 263 shown in the submitted detail is not exclusive of the starter bed joint or the top joint.

However, the Building Official has indicated that the wall was constructed after the superstructure was in place. This would appear to make it unlikely that the top of the wall was indeed constructed as shown in detail section 1-5.0 of the plans because of the continuous rebar requirement shown. Also the Engineer failed to provide the Building Official with requested calculations indicating that this is indeed a restrained joint. The engineering judgment which was submitted is not a tested system and the Building Official is of no obligation to accept it. Fire Resistant Joint Systems must be tested in accordance with ASTM E119.

In summary, it is deemed a requirement to provide a flexible joint since the engineer and architect have not provided calculations proving that the joint at the top of the wall is indeed a restrained joint. Based on the construction sequence indicated by the Building Official, this particular joint is unrestrained and would indeed require a flexible joint.

Notice:
The Building Officials Association of Florida, in cooperation with the Florida Building Commission, the Florida Department of Community Affairs, industry and professional experts offer this interpretation of the Florida Building Codes in the interest of consistency in their application statewide. This interpretation is formal and binding statewide.