




**City of Milpitas
Building and Safety Department**

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**INDIVIDUAL FIRE PROTECTION OF
PRIMARY STRUCTURAL FRAME**

Policy:	BDP-BLG15
Effective Date:	6/11/2013
Proposed by:	BYC
Last Reviewed/ Revised:	5/12/17
Revised by:	BYC
Approved By: Gary King Acting Chief Building Official	

CODE REFERENCES:

2016 CBC Section 202, Table 601 and Section 704.2, 704.3.

ISSUES:

CBC section 704.2 specifies: “Where columns are required to have protection to be fire-resistance rated, the entire column shall be provided with individual encasement protection by protecting it on all sides for the full column length, including connections to other structural members, with materials having the required fire-resistance rating.”

CBC section 704.3 specifies: “Members of the primary structural frame other than columns that are required to have a fire-resistance rating and support more than two floors or one floor and roof, or support a load-bearing wall more than two stories high, shall be provided individual encasement protection by protecting them on all sides for their full length, including connections to other structural members, with materials having the required fire-resistance rating.”

This policy clarifies the criteria on how to determine when columns and beams are considered primary structural frame and what is considered individual protection when the columns and beams are within stud walls.

POLICY:

1. The Engineer of record shall clearly define on the plans which columns and beams are considered primary structural frame, and require individual fire protection per CBC sec. 704.2 and 704.3.
2. When columns and beams are required to be individually protected and are located within a fire-rated wall or floor/ceiling assembly, both columns and beams shall be individually protected, in addition to the wall or floor/ceiling membrane protection.
3. When the columns and beams are required to be individually protected, the connections of beams to columns are required to be individually protected as well per CBC sec. 704.2 and 704.3. When individually protected column is located within a stud wall, then the column shall extend through the top plates and directly connect to the beam such that the beam-column connection will also be provided with individual protection.