

All buildings are subject to a wide range of forces that affect structure. Some forces are obvious and easily identified, such as tornadoes and seismic events and create distress to building partitions and ceilings. Other forces are more subtle, but over time, they may be just as damaging to the interior. Variations in temperature, moisture/humidity, and wind can exert a significant force on a building's structural integrity, leading to cracking and other symptoms of distress in partitions and ceilings. It is important to review the construction documents for locations of partitions and ceilings control joints as soon as possible in order to correctly plan for the installation of the control joints at the beginning of construction.

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If a CJ is located at the door jamb...take the time to identify the location of the CJ in relation with the edge of the door frame. Is the CJ going to line up with the edge of the

- Gypsum as well as other building materials are subject to some form of movement induced by changes in exterior & interior conditions. To relieve the stresses which occur as a result of these movements, control joints are required in both partitions and ceilings.
- Cracking results from a concentration of stresses that exceed the maximum strain capacity of the material.
- Distress problems are usually most serious when partitions are tightly connected or abut the structural frame and the length of the partition or ceiling exceed the movement ability in the material.
- Gypsum Association recommend specifications...Manufacturer's recommend min. requirements for installation of control joints...both indicate that locations of the control joints should be located the design professional.

WHAT WE SHOULD DO:

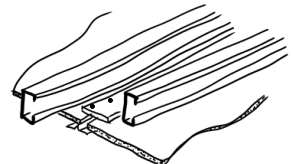
- Review drawings prior to the start of installation of control joint locations. RFI if not located**
- Review drawings to determine if the designer has specified CJ at the door jambs (both sides) or if a cold rolled channel (CRC) is required above the door frame for lateral stability.
- Even if the specifications indicate to locate them based on the maximum length...**always verify locations with Architect prior to the start of installation to confirm placement**, using this bulletin as a location guide. It is better to verify then to relocate during a site walk-thru by the Architect or Owner.
- A full height stud is required on both sides of the joint...**which is why it is very important to identify locations ASAP.



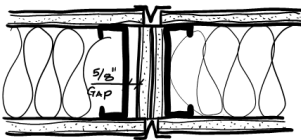
Review interior CJ needs...do they also make up the exterior wall? If so, an additional CFMF stud will be needed...make this review prior to the lateral bracing installation.

GENERAL INDUSTRY GUIDELINES:

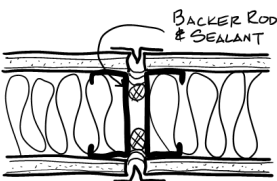
- The use and location of partition and ceiling control joints is the responsibility of the design professional and should generally be located based on the following parameters:*
 - Partition and furring runs in a straight plane exceeding 30'-0" in length and total area between control joints does not exceed 900 ft²;
 - Ceiling dimensions exceeding 50'-0" in either direction with perimeter relief, or 30'-0" without relief;
 - Exterior soffits and ceilings exceeding 30'-0" in either direction;
 - Partition and furring abuts a structural element or fireproofing, dissimilar wall, or other vertical elements;
 - Ceiling or soffit abuts a structural element or fireproofing, dissimilar wall, or other vertical elements;
 - Partition and furring changes within the plane of the partition or ceiling;
 - Wings of L-, U-, and T-shaped ceiling soffit areas are joined;
 - Ceiling-height door frames in non-rated walls may be used as vertical control joints in partitions, frames of lesser height require control joints extending past the ceiling structure at both corners (both sides) from the top of the frame as directed;
 - Control joints in ceilings should be located to intersect column penetrations, light fixtures and air diffusers that can impose stresses on the ceiling membrane;



Ceiling / Soffit CJ require a support on either side of the joint and a layer of gypsum attached to one side above the zinc CJ.



Fire rated CJ requires gypsum board (1 @ 1hr & 2 @ 2hr) on one stud & install the second stud with 5/8" min. gap.



A control joint in a sound rated wall (STC wall) will require a bead of sealant on both sides of behind the zinc control joint in order to maintain the sound rating.

- On ceilings, the framing at control joint locations should be broken. In partitions, separate studs should be installed on each side of the control joint, and the runner track should be separated at the joint location.
- A control joint in a partition should always extend through a bulkhead/soffit or ceiling in all fire, smoke and sound walls in order to control the cracking in the partition.
- Wall finishes should generally not span over CJ...such as FRP panels, wood panels, etc. Hand rails could span over the joint, as they are attached to the studs and not just the drywall. Make sure that the architect understands this and agrees; making sure they understand what the implications are if not followed.
- If a pilaster covers a control joint...the CJ is still needed behind the pilaster, as the location of a crack is unknown, however, typically follow panel joints and the control joints are there to somewhat help locate the crack at that specific location, rather than allowing it to propagate just outside of the pilaster.

This Bulletin Does Not Discuss CJ in Seismic Zones.

