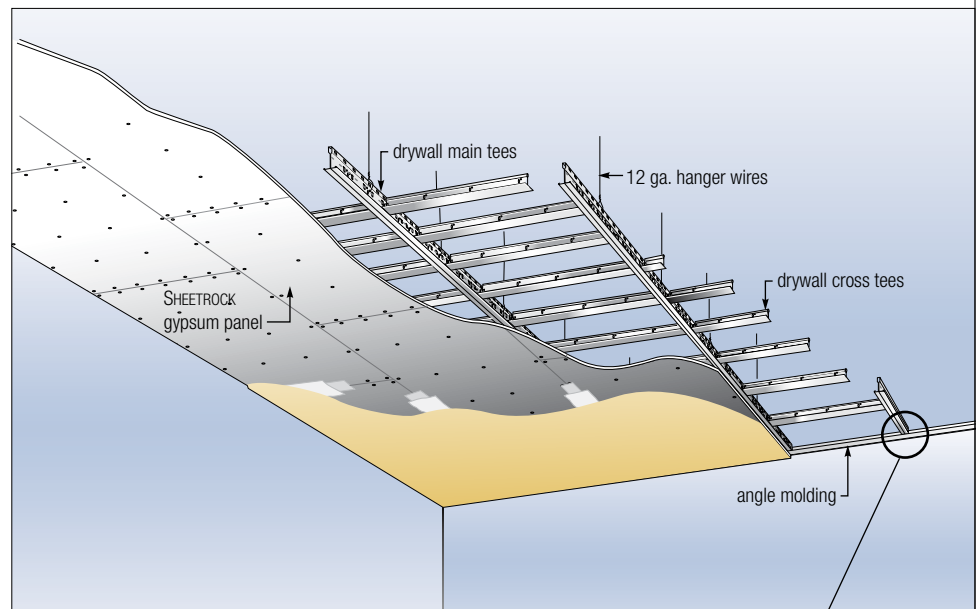


Suspended Drywall Ceiling Construction

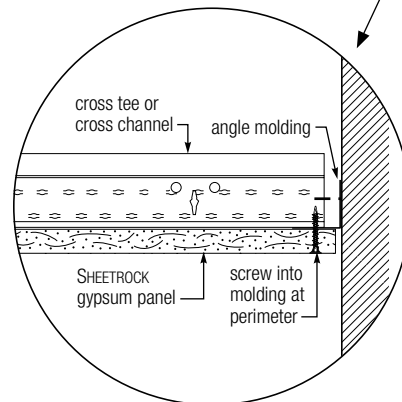
Suspended Drywall Ceiling Seismic Exemptions

Flat ceilings constructed of gypsum board that are screw-attached to suspension members that support a ceiling on one level extending from wall to wall, are generally exempt from acoustical seismic construction requirements such as: perimeter end wall clearance, perimeter hanger wires, horizontal restraint and vertical splay bracing. This is due to the diaphragm strength achieved by screw-attached gypsum board. In addition, there are no lay-in ceiling panels that can become dislodged.

For these suspended drywall ceiling applications in seismic design categories A-F, we offer the USG® drywall suspension system and the USG Wall-to-Wall drywall suspension system complete with galvanized steel Heavy-Duty main tees.



Perimeter detail—angle molding



**Suspended Drywall Ceiling
Drywall Seismic Requirements**

	IBC Category D, E, F	IBC Category C
Minimum intersection strength limits for MT / CT	180 lbs.	60 lbs.
Vertical hanger wire 12-gauge	Required	Required
Main-tee classifications	No min. requirement	No min. requirement
Perimeter vertical hanger wires not more than 8 in. from wall	Not required	Not required
Grid end/wall clearance	Not required	Not required
Perimeter closure (molding) width	No min. requirement	No min. requirement
Perimeter tee ends tied together at perimeters	Not required	Not required
Horizontal restraint (splay wires or rigid bracing) within 2 in. of intersection and splayed 90° apart at 45° angles	Not required	Not required
Compression posts (struts) 12 ft. o.c. in both directions, starting 6 ft. from walls	Not required	Not required
Supplementary light fixture attachment	Not required	Not required
Seismic separation joint	Not required	Not required
Drywall control joint	Required when applicable	Required when applicable

Note: the USG drywall suspension system and the USG Wall-to-Wall drywall suspension systems satisfy these requirements.

Control Joints

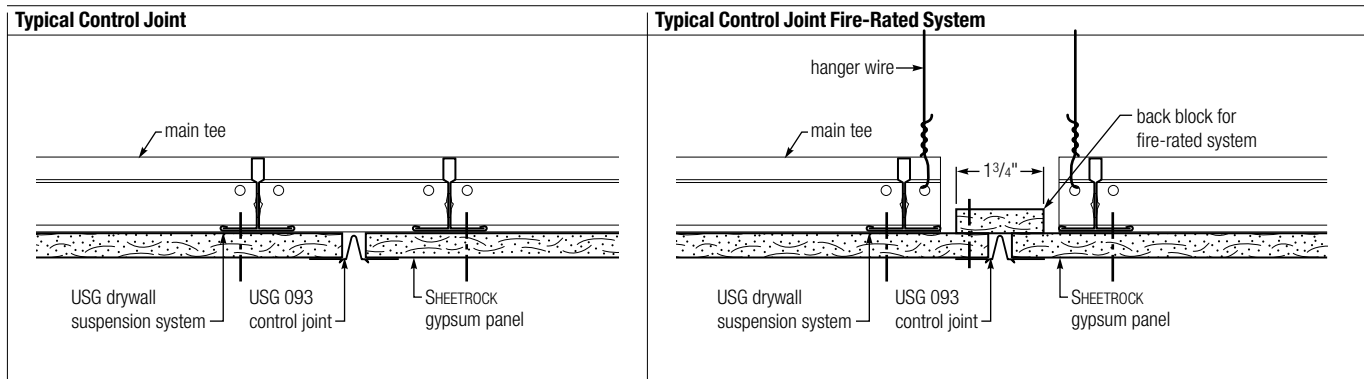
Control joint is a general term for methods used to minimize (not eliminate the potential for) cracking in ceilings. Specifically, a control joint minimizes cracking in the face of a ceiling. At the perimeter ceiling it is called a perimeter relief joint or slip joint. A control joint is effective in minimizing cracking caused by tensile or compressive movement in a membrane resulting from thermal, hygrometric and structural effects.

Construction & location	Max. single dimension		Max. single area		
	ft.	m	ft²	m²	
Ceiling interior	with perimeter relief	50	15	2500	230
	without perimeter relief	30	9	900	85
Ceiling-exterior gypsum		30	9	900	85

At control joint locations:

- Leave a 1/2-in. continuous opening between gypsum boards for insertion of surface-mounted joint.
- Interrupt ceiling framing with a 1/2-in. gap, wherever there is a control joint in the structure.
- Separate supports for each control joint flange.
- Provide an adequate seal or safing insulation behind control joint where sound and/or fire ratings are prime considerations.

The locating of control joints is the responsibility of the design professional. These suggestions should be integrated with project conditions when determining specific locations for control joints.



Code Compliance

- Meets ASTM C635
- Meets ASTM C645
- Installation per ASTM C636
- Installation per ASTM C754
- Installation per ASTM C840
- ICC-ESR-1222
- City of Los Angeles Research Report: RR25764
- CA Division of the State Architect (DSA) IR-A5 Interpretation of Regulations Manual through reference to ICC-ESR-1222 or CA Division of the State Architect (DSA) IR-A6 Change Order and Field Change Approval Processes.
- CA Office of Statewide Health Planning and Development (OSHPD) please refer to Code Application Notice 2-1708A.5, pre-approval through ICC-ESR-1222 is recommended.
- City of New York MEA 312-99-M and MEA 123-00-M

Product Information

See usg.com for the most up-to-date product information.

Installation

Must be installed in compliance with ASTM C636, ASTM C754, ASTM C840, ASTM E580, CISCA, and standard industry practices.

Code Compliance

The information presented is correct to the best of our knowledge at the date of issuance. Because codes continue to evolve, check with a local official prior to designing and installing a ceiling system. Other restrictions and exemptions may apply. This is only intended as a quick reference.

Purpose

This seismic technical guide (STG) is intended as a resource for design professionals, to promote more uniform criteria for plan review and jobsite inspection of projects. This STG indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered and adopted.

ICC Evaluation Service, Inc., Report Compliance

Suspension systems manufactured by USG Interiors, Inc., have been reviewed and are approved by listing in ICC-ES Evaluation Report ESR-1222. Evaluation Reports are subject to reexamination, revision and possible cancellation. Please refer to usgdesignstudio.com or usg.com for current reports.

L.A. Research Report Compliance

DOWN brand suspension systems manufactured by USG Interiors, Inc., have been reviewed and are approved by listing in the following L.A. Research Report number: 25764.

Notice

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other

than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

Safety First!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read MSDS and literature before specification and installation.

