



## NEHRP Seismic Design Technical Brief No. 6



# Seismic Design of Cast-in-Place Concrete Special Structural Walls and Coupling Beams

A Guide for Practicing Engineers

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## NEHRP Seismic Design Technical Briefs

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Prepared for  
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## Contents

1. Introduction.....	1
2. The Use of Special Structural Walls.....	2
3. Principles for Special Structural Wall Design.....	7
4. Building Analysis Guidance.....	11
5. Design Guidance.....	13
6. Additional Requirements.....	27
7. Detailing & Constructability Issues.....	30
8. References.....	33
9. Notation and Abbreviations.....	34
10. Credits.....	37

### Errata to GCR 11-917-11

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The following errors were contained in the August 2011 Edition of Technical Brief No. 6.

The error was in the last paragraph of Section 5.1, where it said: “For coupling beams,  $\phi = 0.85$  for shear and 0.9 for flexure.” The correction in this version says: “For diagonally reinforced coupling beams,  $\phi = 0.85$  for shear. For conventionally reinforced coupling beams,  $\phi = 0.75$  for shear and 0.9 for flexure.”

In the paragraph following Figure 5-1 on page 14, “ $c = 0.1l_w$ ” should be “ $c = 0.1l_w$ ”. Also the first full paragraph in the second column on page 20 includes the term  $(480 + 0.8f'_c)A_{cv}$ . It should be  $(480 + 0.08f'_c)A_{cv}$ .

On page 22, the bold text following bullet b. should read “Coupling beams with  $l_w/h < 2$  and  $V_u > 4\lambda\sqrt{f'_c}A_{cw}$ ”  
The term  $A_{cw}$  was missing.

### Disclaimers

This Technical Brief was prepared for the Engineering Laboratory of the National Institute of Standards and Technology (NIST) under the National Earthquake Hazards Reduction Program (NEHRP) Earthquake Structural and Engineering Research Contract SB134107CQ0019, Task Order 10254. The statements and conclusions contained herein are those of the authors and do not necessarily reflect the views and policies of NIST or the U.S. Government.

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The policy of NIST is to use the International System of Units (metric units) in all of its publications. However, in North America in the construction and building materials industry, certain non-SI units are so widely used instead of SI units that it is more practical and less confusing to include measurement values for customary units only in this publication.

Cover photo – Reinforcing of special reinforced concrete walls, Engineering 5 Building, UCLA.

### How to Cite this Publication

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