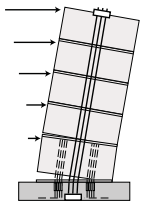
HYBRID PRECAST WALL SYSTEMS
FOR SEISMIC REGIONS



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May 12, 2009

Industry Meeting Resolutions

Meeting Date: April 24 and 25, 2009
Meeting Venue: PCI Committee Days, Chicago, IL
In Attendance: N. Hawkins, W. Korkosz, K. Baur, S.K. Ghosh, Y. Kurama, B. Smith

The following resolutions were made based on the meeting:

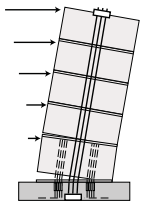
Project Update

- During the Seismic Committee meeting, Harry Gleich commented about the lack of eccentricity in the applied gravity load on the test specimens. The project advisory panel expressed no concern regarding this issue. Using an eccentric gravity load is not required by the validation documents for hybrid walls.

Compressive Strength of Concrete

- Based on the cylinder test results to date, the concrete in the base panel of the first wall specimen is likely to achieve a peak compressive strength of about 5,500-psi, which is smaller than the design strength of 6,000-psi. The design moment strength of the wall using this reduced concrete strength is slightly smaller than the original target strength of 20,000-k-ft for the unscaled wall. The initial PT-stress and/or the gravity load in the wall could be adjusted to achieve the original target moment strength; however, it was decided that nothing will be done to compensate for the reduced concrete strength.
- As a result of the potentially lower concrete strength, the unconfined concrete at the wall base corners may spall earlier than initially designed. The project advisory panel did not express a significant concern over this issue since the unconfined concrete is expected to spall prior to the failure of the wall regardless of the compressive strength. Earlier spalling of the unconfined concrete will not affect the validation of the wall.
- When performing concrete compressive strength tests, the wet-cured cylinders should be allowed to dry for a minimum of 2-days prior to testing.
- The strength of the fiber reinforced grout at the horizontal joints should be approximately 1,000-psi lower than the compressive strength of the unconfined concrete in the wall, even if the concrete strength does not reach the design strength of 6,000-psi.

This project is funded by the Charles Pankow Foundation and the Precast/Prestressed Concrete Institute. Any opinions, findings, conclusions, and/or recommendations expressed in this material are those of the researchers and do not necessarily represent the views of the sponsors.



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- The fiber reinforced grout should be allowed to cure for a minimum of 7 days prior to the testing of the wall.

Data Measurements

- In general, the project advisory panel agreed with the proposed plan for data measurements. It was recommended that additional LVDTs be placed at the ends of the base panel in order to obtain more information on the "plastic hinge height" in the confined concrete, where most of the compression deformations of the wall are expected to occur. As a result of this recommendation, a total of three LVDTs will be used (instead of one) at each end of the base panel, located at heights of 3.5-in, 7-in, and 10.5-in above the panel-to-foundation joint.

Future Specimens

- Emulative Wall: The mild steel reinforcement should be concentrated at the wall ends. The advisory panel did not feel that the 18-in. maximum spacing requirement for the mild steel reinforcement needs to be followed because this requirement is typically not followed by industry.
- Walls with Panel Openings: Y. Kurama and B. Smith will revisit the analytical study and design procedure for wall panels with rectangular openings developed by Kurama/Allen. W. Korkosz will begin to develop preliminary design concepts.

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