CITY OF LOS ANGELES
CALIFORNIA

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

ROBERT R. "BUD" OVROM
GENERAL MANAGER

RAYMOND S. CHAN, P.E., S.E.
EXECUTIVE OFFICER

Shear Transfer Systems
P.O. Box 402563
Hesperia, CA 92340-2563

Attn: Tim Timmerman II
(760) 244-2563

RESEARCH REPORT: RR 25369
(CSI 06121)

BASED UPON ICC-ES EVALUATION
REPORT NO. ESR 1727

REEVALUATION DUE DATE:
March 1, 2012
Issued date: June 1, 2011
Code: 2011 LABC

GENERAL APPROVAL – Correction – SHEARMAX (SM) Prefabricated Shear Panels

DETAILS

The above assemblies and/or products are approved when in compliance with the description, use, identification and findings of Report No. ESR-1727 reissued January 1, 2011, of the ICC Evaluation Service, Incorporated. The report, in its entirety, is attached and made part of this general approval.

The parts of Report No.ESR-1727 marked by the asterisks are modified by the Los Angeles Building Department from this approval.

The approval is subject to the following conditions:

1. The allowable loads shall be determined by calculations prepared by an engineer or architect licensed in the state of California and approved by the structural plan check. When evaluating top-of-wall drift, the drift contributed by anchor bolt elongation and grade beam or foundation rotation shall be taken into consideration.

2. SHEARMAX panels may be used as a seismic component within a seismic-force resisting system consisting of light-framed load-bearing wood walls sheathed with wood-based structural use panels rated for shear resistance. For seismic design of SHEARMAX panels, the following design coefficients and factors shall be utilized:

COEFFICIENT OR FACTOR	ASCE/SEI 7-05
Response modification coefficient, R	6.5
System overstrength factor, Ωo	3
Deflection amplification factor, Cd	4
Seismic Importance factor	1.0

3. When designing with SHEARMAX panels, the engineer of the record shall include verification of the following design criteria, but not limited to:

    - All beams under the SHEARMAX panels for uplift and overturning.
    - Foundation design for overturning, compression and tension.
    - The allowable vertical load on header.
    - The hold-down bolt capacity based on reduced edge and end distances detailed on plans.

4. When SHEARMAX panels are used in line with other types or widths of panels, only one type shall be considered as the lateral resistance element, except approved by structural plan check on a case by case basis.

5. Special inspection by Deputy Inspectors shall be provided per Sections 1704 and 1707.3 of the 2011 City of Los Angeles Building Code

6. Fabrication of SHEARMAX Panels shall be in a shop of a fabricator licensed by the City of Los Angeles Building Department, in accordance with the Manufacturing Standards submitted to the Department.

7. Installation of SHEARMAX panel on the existing foundation is not allowed.

8. The SHEARMAX prefabricated shear panels shall only be installed on the first (lowest) story of wood-framed construction on a concrete foundation wall.

9. Trim Fit Panel may be installed within the envelope of wood frame wall with a raked double top plate having a maximum slope of 3:12 (25%).

10. Panels located in exterior walls shall be covered with an approved weather-resistant exterior wall envelope complying with Section 1403 of the 2011 city of Los Angeles Building code.

11. SHEARMAX panels must be installed with the published installation instructions by the manufacturer.

12. The SHEARMAX panels may replace on a one-to-one basis, the wood structural panel or the alternate brace wall panel specified in Table R602.10.2 of the 2011 Los Angeles Residential Code (LARC), provided the SHEARMAX panel width used is not less than the width specified in Table R602.10.3.1 when replacing a wood structural Panel (WSP) and not less than the width specified in Table R602.10.3.2 when replacing a alternate braced wall panel (ABW). SHEARMAX panels not meeting this width requirement may be used when an engineered design is provided in accordance with Section R301.1.3 of the 2011 Los Angeles Residential Code.

DISCUSSION

The correction is to add conditions 12 for use with the prescriptive provisions of the 2011 LARC.
The report is in compliance with the 2011 City of Los Angeles Building Code.

Allowable values for portal frames are based on individual allowable values on table 1.

A manufactured narrow shear panel is any product that is delivered assembled to a construction site for installation within a building and are permitted to have shear wall aspect ration s greater than those specified in Table 4.3.4 of the ANSI/AF&PA SPDWS-2008.

The approval is based on load test and analysis in accordance with AC130.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this approval have been met in the project in which it is to be used.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

This general approval will remain effective provided the Evaluation Report is maintained valid and unrevised with the issuing organization. Any revisions to the report must be submitted to this Department, with appropriate fee, for review in order to continue the approval of the revised report.

WILLIAM STUTSMAN, Chief
Engineering Research Section
201 N. Figueroa St., Room 880
Los Angeles, CA 90012
Phone 213-202-9812
Fax 213-202-9943

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Attachments: ICC ES Evaluation Report No. ESR-1727 (28 pages)