CITY OF LOS ANGELES
CALIFORNIA

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RESEARCH REPORT : RR 25576
(CSI # 06050)

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Code: 2008 LABC

GENERAL APPROVAL - Sureboard Series 200W Structural Panels used on wood framed walls.

DETAILS

A Sureboard Series 200W Structural Panel composes of a 1/8- inch thick medium-density fiberboard (MDF) square-edged panel, laminated with water soluble adhesive to a sheet steel. The sheet steel is No. 22 gauge complying with ASTM A 653 SS Grade 33, with a minimum G40 hot dipped galvanized coating conforming to ASTM 924. The panel sizes vary, with a maximum aspect ratio of 2.25 to 1 (the panel width is 4'-0").

Shear Wall Assembly:

Single sided
The Series 200W sheathing is attached to 2x4 No. 2 DF. wood studs @ 16" o. c., 4x4 No. 1 & better DF. End posts, double 2x4 Standard & better DF. Top plates, 3x4 Standard & better DF. Bottom plate, with 4'x9' Sure-board series 200W sheathing on one side of the shear wall. The series 200W sheathing is fastened to the framing members with 10d ring shank nails. Nail spacing is 4-inches on center at the perimeter and 6-inches on center in the field. Nail spacing on the posts is two rows at 8-inches on center staggered. The allowable shear load of the wall is 709 lbs./ft.

The Series 200W sheathing is attached to 2x4 No. 2 DF. wood studs @ 16" o. c., 4x4 No. 1 & better DF. End posts, double 2x4 Standard & better DF. Top plates, 3x4 Standard & better DF. Bottom plate, with 4'x9' Sure-board series 200W sheathing on one side of the shear wall. The series 200W sheathing is fastened to the framing members with 10d ring shank nails. Nail spacing is 2-inches on center staggered at the perimeter and 6-inches on center in the field. Nail spacing on the posts is two rows at 4-inches on center staggered. The allowable shear load of the wall is 754 lbs./ft.

The Series 200W sheathing is attached to 2x4 No. 2 DF. wood studs @ 16" o. c., 4x4 No. 1 & better DF. End posts, double 2x4 Standard & better DF. Top plates, 3x4 Standard & better DF. Bottom plate, with 4'x9' Sure-board series 200W sheathing on one side of the shear wall. The series 200W sheathing is fastened to the framing members with 10d smooth shank nails. Nail spacing is 2-inches on center staggered at the perimeter and 6-inches on center in the field. Nail spacing on the posts is two rows at 4-inches on center staggered. The allowable shear load of the wall is 950 lbs./ft.

Double sided

The Series 200W sheathing is attached to 2x4 No. 2 DF. wood studs @ 16" o. c., 4x6 No. 1 & better DF. End posts, double 2x4 Standard & better DF. Top plates, 3x4 Standard & better DF. Bottom plate, with 4'x9' Sure-board series 200W sheathing on one side of the shear wall. Intermat proprietary compression posts are installed on the bottom of the 4x6 posts. The series 200W sheathing is fastened to the framing members with 10d ring shank nails. Nail spacing is 2-inches on center staggered at the perimeter and 6-inches on center in the field. Nail spacing on the posts is two rows at 4-inches on center staggered. The allowable shear load of the wall is 1965 lbs./ft.

The Series 200W sheathing is attached to 2x4 No. 2 DF. wood studs @ 16" o. c., 4x6 No. 1 & better DF. End posts, double 2x4 Standard & better DF. Top plates, 3x4 Standard & better DF. Bottom plate, with 4'x9' Sure-board series 200W sheathing on one side of the shear wall. The series 200W sheathing is fastened to the framing members with 10d smooth shank nails. Nail spacing is 2-inches on center staggered at the perimeter and 6-inches on center in the field. Nail spacing on the posts is two rows at 4-inches on center staggered. The allowable shear load of the wall is 1890 lbs./ft.

The approval is subjected to the following conditions:

1. The engineer of record shall check the uplift force and hold-down anchor bolt capacity based on edge and end distances detailed on plans

2. Fabrication of Sureboard series 200W 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.

3. All shear walls require 3x bottom plates.

4. Design of the system shall be considered with R=4.5 in the direction considered.

5. The panels shall be identified by the manufacturer’s name and product designation.

6. Calculations demonstrating that applied loads comply with this report shall be prepared by an architect, civil or structural engineer registered in the State of California.

DISCUSSION

This report is in compliance with the 2008 LABC.

The approval is based on cyclic load tests and analyses.

The load value was obtained by taking the lesser of the average ultimate load divided by a 2.5 safety factor or the average load corresponding to Δ_s.

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.

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