

**ICC Evaluation Service, Inc.**  
[www.icc-es.org](http://www.icc-es.org)

**Business/Regional Office** ■ 5360 Workman Mill Road, Whittier, California 90601 ■ (562) 699-0543  
**Regional Office** ■ 900 Montclair Road, Suite A, Birmingham, Alabama 35213 ■ (205) 599-9800  
**Regional Office** ■ 4051 West Flossmoor Road, Country Club Hills, Illinois 60478 ■ (708) 799-2305

Legacy report on 2000 *International Building Code*<sup>®</sup>, the BOCA<sup>®</sup> *National Building Code/1999*, the 1999 *Standard Building Code*<sup>®</sup>, the 1997 *Uniform Building Code*<sup>™</sup>, the 2000 *International Residential Code*<sup>®</sup>, the 2002 *Accumulative Supplement to the International Codes*<sup>™</sup> and the 1998 *International One- and Two-Family Dwelling Code*<sup>®</sup>

## DIVISION 10—SPECIALTIES

### Section 10270—Access Flooring

**FLEXSPACE INC.**  
 525 BOREN AVENUE NORTH  
 SEATTLE, WA 98109  
 (206) 682-8652  
[bmcquilken@cablefloor.com](mailto:bmcquilken@cablefloor.com)  
[www.cablefloor.com](http://www.cablefloor.com)

#### 1.0 SUBJECT

Cablefloor<sup>®</sup> Raised Flooring System

#### 2.0 PROPERTIES FOR WHICH EVALUATION IS SOUGHT

- 2.1 Alternative materials and equipment
- 2.2 Flooring
- 2.3 Structural

#### 3.0 DESCRIPTION

##### 3.1 General

Cablefloor<sup>®</sup> Raised Flooring System consists of wood fiber cement composite panels supported on a polypropylene modular base system, as shown in **Figures 1 and 2** of this report. This system is intended only for use over concrete floors. Utilities, such as electrical and communications services, are intended to be installed in the void spaces below the panels and between the support cylinders of the modular base system, to serve associated equipment placed on the surface of the raised flooring system.

Fireblocking is not required for the Cablefloor<sup>®</sup> Raised Flooring System. Nonloadbearing, non-fire-rated, partitions are permitted to be located directly over the Cablefloor<sup>®</sup> Raised Flooring System as shown in **Figures 1 and 2** of this report.

##### 3.2 Materials

##### 3.2.1 Access Panels

Access panels are 23.625 inches (600 mm) square and 0.72 inches (18 mm) thick and are milled from Cemboard fiber cement composite panels manufactured by Hume Cemboard Berhad. The corners of the panels are configured to permit a flush fit for the rigid corner clamps that secure the panels to the base system. Nylon corner clamps and screw fasteners install flush with the panel surface to secure the panels to the support cylinders. The Hume Cemboard Berhad panels are subject to third-party inspection and labeling by Underwriters Laboratories, Inc.

##### 3.2.2 Modular Base System

The grid support system is molded from polypropylene which has a CC1 (C1) combustible classification and is supplied in 1 yd<sup>2</sup> (0.836 m<sup>2</sup>) sections. The grid support system snaps together forming an interconnected grid of support cylinders. 1 1/2 inch high by 2 3/4 inch diameter (38 mm by 70 mm) support cylinders, connected by base straps, are spaced 6 inches (152 mm) on center. Overall height of the flooring system is 2 3/8 inches (60 mm) with a concealed open-space height of 1 1/2 inches (38 mm). Cable tie-down points are molded into the grid system's base straps to secure electrical and communications utilities.

##### 3.2.3 Adhesive

A synthetic rubber, construction-grade, mastic adhesive is used to secure support cylinders to the supporting floor construction. Adhesive is applied to the bottom of every fourth support cylinder.

##### 3.3 Structural

The Cablefloor<sup>®</sup> Raised Flooring System is capable of supporting the minimum uniformly distributed live load of 100 lbf/ft<sup>2</sup> (4788 Pa) and the minimum concentrated load of 2000 lbf (8800 N) for Access floor systems - Computer use, as prescribed in Chapter 16 of the applicable code. The system deadload shall not exceed 5.3 lbf/ft<sup>2</sup> (254 Pa).

#### 4.0 INSTALLATION

##### 4.1 General

Cablefloor<sup>®</sup> Raised Flooring System shall be installed in accordance with the applicable code, this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions shall be available at all times on the jobsite during installation. Structural calculations, drawings, and/or the manufacturer's published installation instructions shall be available to the building department upon request.

#### 5.0 IDENTIFICATION

Flexspace Inc.'s Cablefloor<sup>®</sup> Raised Flooring System components or the packaging as described in this report shall be identified by a label bearing the manufacturer's name, product name and this ICC-ES legacy evaluation report number (NER-668).

Additionally, the fiber cement composite panels or the packaging shall bear a label that identifies the company and product name, manufacturer, and the third-party inspection agency name or logo (Underwriters Laboratories, Inc.).

**6.0 EVIDENCE SUBMITTED**

- 6.1** Manufacturer's descriptive literature, specifications, and published installation instructions dated January 1999.
- 6.2** Hume Cemboard Berhad Quality Control Manual, Revision 1, dated August 14, 2002, signed by representatives of Hume Cemboard Berhad and Underwriters Laboratories, Inc. as the third party inspection agency.
- 6.3** United States Testing Company Inc. (SGS U.S. Testing Company Inc.), Report No. 187968-1, dated August 31, 1993, containing results of physical testing of the modular base system polypropylene components in accordance with ASTM D 1929. The results indicate a self ignition of greater than 650 °F (343 °C).
- 6.4** United States Testing Company Inc. (SGS U.S. Testing Company Inc.), Report No. 187968-2, dated August 31, 1993, containing results of physical testing of the modular base system polypropylene components in accordance with ASTM D 635. The results indicate a CC1 classification.
- 6.5** United States Testing Company Inc. (SGS U.S. Testing Company Inc.), Report No. 187968-3, dated August 31, 1993, containing results of physical testing of the modular base system polypropylene components in accordance with ASTM D 2843. The results indicate smoke developed index less than 75.
- 6.6** Intertek Testing Services, Report No. 491-7900, dated October 1999, containing results of fire performance testing of the floor assembly for a one hour period in accordance with test methods developed by Dr. Gnatowski of Polymer Engineering Company Ltd., dated October 7, 1999. The results indicate that there is no flame propagation or fire damage to the floor assembly or in the concealed space beyond the perimeter of the furnace walls, after sixty minutes of fire exposure.
- 6.7** Maxim Technologies, Inc., Report No. 620413, dated September 30, 1996, containing results of concentrated, uniform, ultimate, rolling, and pedestal axial load testing. The results indicate that the Cablefloor® is capable of supporting the minimum uniformly distributed live loads and the minimum concentrated loads as prescribed in the applicable code.
- 6.8** SGS U.S. Testing Company Inc., Report No. 166588-2, dated April 5, 2002, containing results of physical testing of the fiber-cement panels in accordance with ASTM E 84. The results indicate a flame spread of less than 25 and a smoke-developed index of less than 450, indicating a Class I interior finish classification.

**7.0 CONDITIONS OF USE**

The ICC-ES Subcommittee for National Evaluation Service finds that Flexspace Inc.'s Cablefloor® Raised Flooring System, as described in this report, complies with or is a suitable alternate to that specified in the 2000 *International Building Code* with the 2002 *Accumulative Supplement*, the *BOCA National Building Code/1999*, the 1999 *Standard Building Code*, the 1997 *Uniform Building Code*, the 2000 *International Residential Code for One- and Two-Family Dwellings* with the 2002 *Accumulative Supplement*, and the 1998 *International One- and Two-Family Dwelling Code* subject to the following conditions:

- 7.1** Cablefloor® Raised Flooring System shall be installed in accordance with this report. The manufacturer shall provide the user of this report with published instructions on the installation of the Cablefloor® Raised Flooring System. Where the manufacturer's published installation instructions differ from this report, this report shall be null and void.

The following items shall be clearly shown on the construction documents:

- Calculations and details that address the ability of the supporting construction for the Cablefloor® Raised Flooring System to resist all imposed loads, required by the applicable code, without exceeding the allowable material stresses of specified strengths for the materials of construction, shall be furnished to the code official verifying compliance with this report. The individual preparing such documents shall be competent and qualified in the application of the structural design principles involved, and shall possess the registration or license in accordance with the professional registration laws of the state in which the project is constructed.
  - Design floor live load to be applied to Cablefloor® Raised Flooring System.
  - Location of non-loadbearing partitions and fixed service equipment.
  - Details and notes describing the installation and construction of the Cablefloor® Raised Flooring System consistent with this report.
  - Where provided, details and notes describing the surface treatment, edge protection, capacity and minimum dimensions of ramp components of the Cablefloor® Raised Flooring System consistent with this report.
  - Seismic design considerations where required.
- 7.2** Where the Cablefloor® Raised Flooring System is installed in a means of egress, changes in elevation shall meet the requirements of the applicable code.
- 7.3** The subfloor space created by the floor plate and the pedestal shall not be used as an air plenum.
- 7.4** The use of the Cablefloor® Raised Flooring System for exterior applications is outside the scope of this report.
- 7.5** The floor system shall not extend below a fire-resistance-rated assembly, fire partition, fire wall, or load bearing wall.
- 7.6** Where provided, the structural capacities of a ramp component shall be determined by a registered design professional.
- 7.7** Floor finishes shall comply with the applicable code.
- 7.8** When a ramp component is to be utilized with an installation, the following requirements shall apply:
- 7.8.1** Slip-resistant material shall be applied to the ramp surface in accordance with the applicable code;
- 7.8.2** Edge protection shall be provided at the sides of the ramp in accordance with the applicable code;
- 7.8.3** Ramp components' capacity and minimum dimensions when used as a means of egress component shall conform to the applicable code; and
- 7.8.4** Ramp slope shall conform to the applicable code.
- 7.9** Cables shall conform to Section 645-5(d) of the 1999 *National Electrical Code*.
- 7.10** The Cablefloor® Raised Flooring System is classified as a non-structural or architectural component and is subject to compliance with earthquake design requirements for these components as described in Chapter 16 of the applicable code.
- 7.11** This report is subject to periodic re-examination. For information on the current status of this report, contact the ICC-ES.

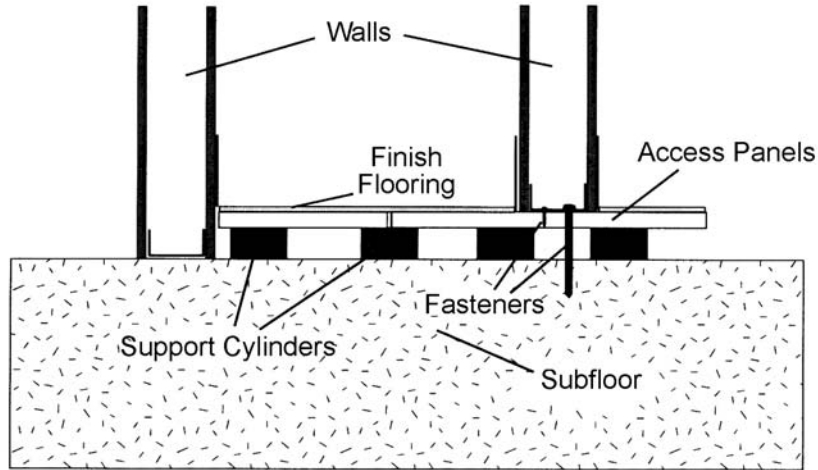


Figure 1\*

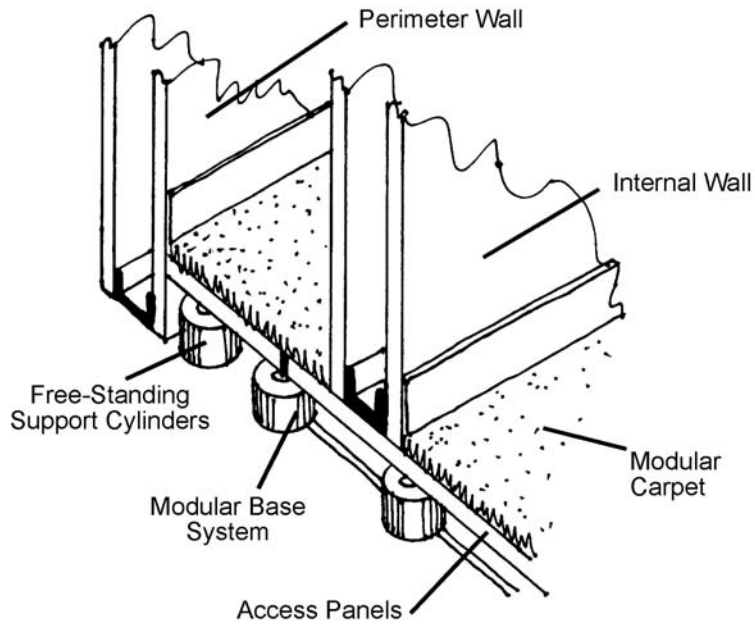


Figure 2\*

\* THESE DRAWINGS ARE FOR ILLUSTRATION PURPOSES ONLY. THEY ARE NOT INTENDED FOR USE AS CONSTRUCTION DOCUMENTS FOR THE PURPOSE OF DESIGN, FABRICATION OR ERECTION.