

Chapter 4

LIVE LOADS

4.1 DEFINITIONS

FIXED LADDER: A ladder that is permanently attached to a structure, building, or equipment.

GRAB BAR SYSTEM: A bar and associated anchorages and attachments to the structural system, for the support of body weight in locations such as toilets, showers, and tub enclosures.

GUARDRAIL SYSTEM: A system of components, including anchorages and attachments to the structural system, near open sides of an elevated surface for the purpose of minimizing the possibility of a fall from the elevated surface by people, equipment, or material.

HANDRAIL SYSTEM: A rail grasped by hand for guidance and support, and associated anchorages and attachments to the structural system.

HELIPAD: A structural surface that is used for landing, taking off, taxiing, and parking of helicopters.

LIVE LOAD: A load produced by the use and occupancy of the building or other structure that does not include construction or environmental loads, such as wind load, snow load, rain load, earthquake load, flood load, or dead load.

ROOF LIVE LOAD: A load on a roof produced (1) during maintenance by workers, equipment, and materials and (2) during the life of the structure by movable objects, such as planters or other similar small decorative appurtenances that are not occupancy related.

SCREEN ENCLOSURE: A building or part thereof, in whole or in part self-supporting, having walls and a roof of insect or sun screening using fiberglass, aluminum, plastic, or similar lightweight netting material, which enclose an occupancy or use such as outdoor swimming pools, patios or decks, and horticultural and agricultural production facilities.

VEHICLE BARRIER SYSTEM: A system of components, including anchorages and attachments to the structural system near open sides or walls of garage floors or ramps, that acts as a restraint for vehicles.

4.2 LOADS NOT SPECIFIED

For occupancies or uses not designated in this chapter, the live load shall be determined in accordance

with a method approved by the authority having jurisdiction.

4.3 UNIFORMLY DISTRIBUTED LIVE LOADS

4.3.1 Required Live Loads

The live loads used in the design of buildings and other structures shall be the maximum loads expected by the intended use or occupancy, but shall in no case be less than the minimum uniformly distributed unit loads required by Table 4-1, including any permissible reduction.

4.3.2 Provision for Partitions

In office buildings or other buildings where partitions will be erected or rearranged, provision for partition weight shall be made, whether or not partitions are shown on the plans. Partition load shall not be less than 15 psf (0.72 kN/m²).

EXCEPTION: A partition live load is not required where the minimum specified live load exceeds 80 psf (3.83 kN/m²).

4.3.3 Partial Loading

The full intensity of the appropriately reduced live load applied only to a portion of a structure or member shall be accounted for if it produces a more unfavorable load effect than the same intensity applied over the full structure or member. Roof live loads shall be distributed as specified in Table 4-1.

4.4 CONCENTRATED LIVE LOADS

Floors, roofs, and other similar surfaces shall be designed to support safely the uniformly distributed live loads prescribed in Section 4.3 or the concentrated load, in pounds or kilonewtons (kN), given in Table 4-1, whichever produces the greater load effects. Unless otherwise specified, the indicated concentration shall be assumed to be uniformly distributed over an area 2.5 ft (762 mm) by 2.5 ft (762 mm) and shall be located so as to produce the maximum load effects in the members.