GUARDRAILS REQUIRED FOR WALKING SURFACES ADJACENT TO WINDOW WELLS, RETAINING WALLS, AND PARKING AREAS, ETC.

GERALD D. GEORGE, CBO            CHIEF BUILDING OFFICIAL

ISSUE: There is confusion as to when the International Building Code requires a guard, or equivalent protection, for window wells. There is also confusion as to when guards may be required on constructed walking surfaces detached or removed from a building such as, but not limited to, sidewalks and parking areas.

ANALYSIS: The International Building Code has specific requirements for the guards. The code regulates the design and location of guards, and on which structures these requirements apply. The following is an abbreviated selection of relevant code sections:

Section 1013.1 Where Required, requires guards be installed to protect unenclosed floor and roof openings, open and glazed sides of stairways, landings and ramps, balconies or porches, which are more than 30 inches above grade or floor below, and roofs used for other than service of the building.

Section 1002.1 defines Guards as a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level.

Section 502.1 defines Grade Plane as the lowest point of elevation of the finished surface of the ground, paving or sidewalk within the area between the building and the property line or, when the property line is more than 6 feet from the building, between the building and a line 6 feet from the building.

Section 101.2 Scope, states that the provisions of this code shall apply to the construction, alteration, moving, demolition, repair, maintenance and use of any building or structure.

Section 202 defines Structure as that which is built or constructed.

Section 105.2 Work Exempt from Permit, item 6, specifically exempts platforms, walks, and driveways not more than 30 inches above grade, the height at which a guard would be required.

It is evident by Section 1002.1 that Guards are intended to protect walking surfaces from
accidental falls when a change in elevation of more than 30 inches exist within 6 feet of the walking surface. From sections 101.3, 202, and 1003 it is evident that the building code requirements are not restricted to buildings or to a limited area surrounding the building, but apply to all structures which are artificially constructed. This would include fences, retaining walls, sidewalks, driveways parking areas, etc. From Section 105.2 item 6, the exclusion of permit requirements for low level platforms, walks, and driveways, but not for higher such structures, implies that there is an increased level of hazard associated with these elevated surfaces.

**POLICY & PROCEDURE:** It is determined that the intent of the Building Code is to require that guards be provided along the edges of walking surfaces where there exist more than 30 inches of height difference between the walking surface and the adjoining level or grade. This height difference shall be measured to the lowest elevation within 6 feet of the walking surface. This includes the bottom of window wells.

Walking surfaces shall be defined as those constructed systems designed and placed so as to direct pedestrian traffic, or provide vehicle access or parking which would attract or facilitate pedestrian traffic. Lawn and similar landscaped areas shall not be considered walking surfaces.

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