

Chapter 3: General Requirements

General Comments

The title for this chapter (“General Requirements”) indicates that it is broad in scope. It includes a variety of requirements for exterior property areas, as well as interior and exterior elements of the structure. The chapter provides specific criteria for regulating the installation and maintenance of building components. This chapter also contains requirements regulating the safety, sanitation and appearance of the interior and exterior of structures and all exterior property areas.

Section 301 identifies the scope of this chapter as containing provisions for maintaining a structure and its exterior property areas, and establishes who is responsible for complying with the chapter’s provisions. This section also provides minimum maintenance requirements for vacant structures and land.

Section 302 establishes criteria for maintaining exterior property areas and accessory structures and provides vehicle storage regulations.

Section 303 contains the requirements for swimming pools, spas, hot tubs, protective barriers and gates in these barriers.

Section 304 establishes maintenance requirements for the structural, weather resistance, sanitary and safety performance of the exterior of a structure.

Section 305 establishes maintenance requirements for the structural, sanitary and safety performance of the interior of a structure.

Section 306 contains provisions for maintaining components of a structure, as well as for determining unsafe conditions based on specific parameters.

Section 307 provides for the safety and maintenance of handrails and guardrails.

Sections 308 and 309 establish the responsible parties for exterminating insects and rodents, and maintaining sanitary conditions in various types of occupancies.

When specific requirements are not provided in the code, the following three options for establishing the necessary criteria are available:

1. If the jurisdiction has already established criteria, the code official can continue to enforce that criteria.
2. The jurisdiction may adopt its own criteria and incorporate them as an amendment to the appropriate section of the code.
3. The code official may adopt and enforce criteria already established by the *International Building Code*® (IBC®).

Inadequate sanitation and insect or rodent infestations can have a significant impact on a community. A poorly kept neighborhood affects the self-image of a community, as well as the impression neighboring communities and visitors have about the area. Responsible property owners may shy away from neighborhoods that look unkempt. As a result, property values decrease and the cycle can continue until the neighborhood is considered a slum.

An area that is neat, clean and well maintained attracts owners and occupants who are usually willing to keep the area attractive, if only to protect their own interests. The code official, with vigorous enforcement of sanitation and extermination regulations, can help a community maintain a positive self-image. This creates a favorable image to the rest of the community and its visitors.

Purpose

This chapter provides requirements that are intended to maintain a minimum level of safety and sanitation for both the general public and the occupants of a structure, and to maintain a building’s structural and weather-resistant performance.

SECTION 301 GENERAL

301.1 Scope. The provisions of this chapter shall govern the minimum conditions and the responsibilities of persons for maintenance of structures, equipment and *exterior property*.

❖ This chapter establishes minimum requirements for maintenance of property areas, premises and structures. The code deals with all types and all ages of structures; therefore, the criteria must be of a minimum nature, consistent with a reasonable level of protection for the health and safety of the occupants.

301.2 Responsibility. The *owner* of the *premises* shall maintain the structures and *exterior property* in compliance with these requirements, except as otherwise provided for in this

code. A person shall not occupy as *owner-occupant* or permit another person to occupy *premises* that are not in a sanitary and safe condition and that do not comply with the requirements of this chapter. *Occupants* of a *dwelling unit*, *rooming unit* or *housekeeping unit* are responsible for keeping in a clean, sanitary and safe condition that part of the *dwelling unit*, *rooming unit*, *housekeeping unit* or *premises* they occupy and control.

❖ The owner is responsible for complying with the requirements of this chapter, except where the code places the responsibility on the occupants to keep their portion of the premises in a safe and sanitary condition.

Simply stated, owners must provide a safe and sanitary property and premises when they let it for occu-

GENERAL REQUIREMENTS

pancy. Occupants must continue to keep it safe and sanitary while they occupy, control or use the property and premises.

301.3 Vacant structures and land. Vacant structures and premises thereof or vacant land shall be maintained in a clean, safe, secure and sanitary condition as provided herein so as not to cause a blighting problem or adversely affect the public health or safety.

❖ Both vacant structures and vacant land present special concerns to communities. Because no one is living on these premises, they are often ignored by the owners. Consequently, this section establishes the code official's authority to order the cleanup of vacant lands and the securing of vacant structures that might present an attractive nuisance.

When the owner fails to secure a vacant structure, Section 111.2 provides the code official with the authority to arrange for securing such buildings. Additionally, Section 113 authorizes the code official to pursue demolition of any structure that is deemed unreasonable to repair. When a structure is reasonable to repair, the code official is authorized to require the necessary repairs.

SECTION 302 EXTERIOR PROPERTY AREAS

302.1 Sanitation. Exterior property and premises shall be maintained in a clean, safe and sanitary condition. The occupant shall keep that part of the exterior property that such occupant occupies or controls in a clean and sanitary condition.

❖ This section establishes a simple, straightforward requirement that exterior areas shall be clean and free from rubbish and garbage (see the definitions in Chapter 2). The code official may find that enforcement of this section is frequently neither straightforward nor simple.

Each jurisdiction has neighborhoods within the overall community that have distinct characteristics. Deteriorated, low-cost housing may dominate in one area, while another has expensive, well-maintained housing units. Sanitation standards should be enforced uniformly and consistently.

302.2 Grading and drainage. Premises shall be graded and maintained to prevent the erosion of soil and to prevent the accumulation of stagnant water thereon, or within any structure located thereon.

Exception: Approved retention areas and reservoirs.

❖ Improperly graded property areas create health and safety hazards. Stagnant water provides a home for many nuisance insects, especially the mosquito. Stagnant water next to a structure can cause mold growth, which can lead to the decay of wooden members. Ponded water is an attractive nuisance for children and has contributed to numerous drowning deaths.

Stagnant water is foul or stale water. Regrading the premises may be necessary to prevent stagnant water. If regrading is not practical, some type of water-diversion system must be installed. Other solutions

include replacing nonabsorbent soil with absorbent soil, installing underground drain tile or building an underground leaching pit.

Soil erosion can be a nuisance if material is being deposited in drainage systems or on adjacent properties, and is an indication of improper grading. Planting and maintaining an acceptable ground cover generally prevents erosion.

As indicated by the exception, water retention areas or reservoirs are permitted by the code even though they may contain stagnant water; however, the code official must approve their use.

302.3 Sidewalks and driveways. Sidewalks, walkways, stairs, driveways, parking spaces and similar areas shall be kept in a proper state of repair, and maintained free from hazardous conditions.

❖ The code official is authorized to require that all sidewalks, walkways, stairs, driveways, parking spaces, and similar surfaces are usable and kept in proper repair. Walking surfaces that have deteriorated to a condition that presents a hazard to pedestrians must be repaired or replaced to eliminate the hazard and thus reduce the potential for accidents or injuries.

302.4 Weeds. Premises and exterior property shall be maintained free from weeds or plant growth in excess of [JURISDICTION TO INSERT HEIGHT IN INCHES]. Noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens.

Upon failure of the owner or agent having charge of a property to cut and destroy weeds after service of a notice of violation, they shall be subject to prosecution in accordance with Section 108.3 and as prescribed by the authority having jurisdiction. Upon failure to comply with the notice of violation, any duly authorized employee of the jurisdiction or contractor hired by the jurisdiction shall be authorized to enter upon the property in violation and cut and destroy the weeds growing thereon, and the costs of such removal shall be paid by the owner or agent responsible for the property.

❖ Criteria establishing maximum heights for grass and weeds are necessary to reduce rodent shelters and pollen dust problems.

This section provides a mechanism for removal of weeds on neglected or abandoned properties after proper notice has been given to the responsible owner or agent (see Section 111). It is important that the code official acts quickly in requiring weed removal to prevent the weeds from contributing to a blight condition that could eventually become a harbor for pests and rodents.

All noxious weeds are prohibited; however, each community has different weeds that are considered noxious. The code official should confer with the state or local agricultural agent to become familiar with weeds that are noxious in his or her community.

Cultivated flowers and gardens are not considered to be weeds. The word "cultivated" is important. Cultivated is defined as "to loosen or dig (soil) around growing plants." Uncultivated gardens should be treated the same as weeds and tall grasses.

302.5 Rodent harborage. Structures and *exterior property* shall be kept free from rodent harborage and *infestation*. Where rodents are found, they shall be promptly exterminated by *approved* processes that will not be injurious to human health. After *pest elimination*, proper precautions shall be taken to eliminate rodent harborage and prevent reinfestation.

❖ Rodents carry disease organisms in their feces and on their bodies. The code official must require the extermination of all rodents by approved processes. All harborage areas should be eliminated by removing piles of rubbish, towing or repairing inoperable cars and cutting back weeds. Garbage should be stored in solid containers with tight-fitting lids and disposed of regularly.

302.6 Exhaust vents. Pipes, ducts, conductors, fans or blowers shall not discharge gases, steam, vapor, hot air, grease, smoke, odors or other gaseous or particulate wastes directly on abutting or adjacent public or private property or that of another *tenant*.

❖ There are three common problems associated with exhaust vent discharges:

- Odor problems caused from exhaust gases emanating from business and industrial properties.
- Noise problems created by exhaust vents.
- Health and safety problems created by exhausts that contain hazardous or potentially hazardous discharge.

To reduce these problems, exhaust vents are prohibited from discharging directly on abutting or adjacent public and private property.

302.7 Accessory structures. Accessory structures, including detached garages, fences and walls, shall be maintained structurally sound and in good repair.

❖ Accessory structures must be maintained in accordance with the criteria established by this section. Property owners often give detached garages, sheds, fences, retaining walls and similar structures a lower maintenance priority than the primary structure; thus, these structures are more frequently in disrepair. A thorough inspection of all property areas and accessory buildings is necessary to identify violations of the code and to improve a neighborhood's appearance.

302.8 Motor vehicles. Except as provided for in other regulations, inoperative or unlicensed motor vehicles shall not be parked, kept or stored on any *premises*, and vehicles shall not at any time be in a state of major disassembly, disrepair, or in the process of being stripped or dismantled. Painting of vehicles is prohibited unless conducted inside an *approved* spray booth.

Exception: A vehicle of any type is permitted to undergo major overhaul, including body work, provided that such work is performed inside a *structure* or similarly enclosed area designed and *approved* for such purposes.

❖ Improper storage of inoperable vehicles can be a serious problem for a community. The vehicles are unsightly, clutter the neighborhood, provide a harborage for rodents and are an attractive nuisance for children.

This section establishes criteria for acceptable vehicle storage. No inoperable or unlicensed vehicles are permitted on a property unless approved in other regula-

tions adopted by the community. This regulation addresses two problems associated with vehicle storage and repair:

- The blighting influence that improperly stored, inoperable vehicles have on a neighborhood.
- The neighborhood mechanic who attempts to operate a vehicle repair business from home.

Major vehicle repairs are permitted, but only if the work is performed in a structure designed and approved for such use. Of course, this regulation does not affect the storage of vehicles on property that complies with applicable zoning or license requirements, such as repair garages, salvage yards and similar establishments.

302.9 Defacement of property. A person shall not willfully or wantonly damage, mutilate or deface any exterior surface of any *structure* or building on any private or public property by placing thereon any marking, carving or graffiti.

It shall be the responsibility of the *owner* to restore said surface to an *approved* state of maintenance and repair.

❖ Graffiti, carving and damage are problems that plague exterior surfaces of walls, fencing and sidewalks in cities and towns of all sizes. This problem begins as an eyesore and can result in serious consequences, including declining property values and degradation of the structures' ability to repel rain and snow.

It is the responsibility of the owner to restore said surface to an approved state of maintenance and repair.

SECTION 303 SWIMMING POOLS, SPAS AND HOT TUBS

303.1 Swimming pools. Swimming pools shall be maintained in a clean and sanitary condition, and in good repair.

❖ Swimming pools, if neglected, can become a health hazard, resulting in insect-attracting stagnant water.

303.2 Enclosures. Private swimming pools, hot tubs and spas, containing water more than 24 inches (610 mm) in depth shall be completely surrounded by a fence or barrier not less than 48 inches (1219 mm) in height above the finished ground level measured on the side of the barrier away from the pool. Gates and doors in such barriers shall be self-closing and self-latching. Where the self-latching device is less than 54 inches (1372 mm) above the bottom of the gate, the release mechanism shall be located on the pool side of the gate. Self-closing and self-latching gates shall be maintained such that the gate will positively close and latch when released from an open position of 6 inches (152 mm) from the gatepost. An existing pool enclosure shall not be removed, replaced or changed in a manner that reduces its effectiveness as a safety barrier.

Exception: Spas or hot tubs with a safety cover that complies with ASTM F1346 shall be exempt from the provisions of this section.

❖ This performance-based criteria was specifically added to address pool-related problems where a child could possibly drown by gaining entry into a pool through a gate that failed to close and latch properly. Gates that may have deteriorated over time through

GENERAL REQUIREMENTS

age, wear and exposure to the elements are now addressed so that they will continue to provide the intended level of protection. The exception to this section allows for safety covers that comply with ASTM F1346. This exception is consistent with current provisions in the IBC and the *International Residential Code*® (IRC®).

ASTM F1346 requires fastening the safety cover to the hot tub or spa via key locks, combination locks or similar devices that will keep the cover in place; testing to demonstrate that the cover can support a minimum required weight; limitations on openings in the cover; and minimum installation requirements.

SECTION 304 EXTERIOR STRUCTURE

304.1 General. The exterior of a *structure* shall be maintained in good repair, structurally sound and sanitary so as not to pose a threat to the public health, safety or welfare.

❖ The exterior of structures must perform four primary functions:

- It must be in good repair. There should be no evidence of deterioration, or damaged or loose elements.
- It must be structurally sound. There should not be any loose or collapsing pieces. Stairways, porches, balconies and similar structural elements must safely perform their intended functions.
- It must be kept in a sanitary condition. There shall be no accumulation of litter or debris on porches and other parts of the exterior structure.
- It must be capable of preventing the elements (rain, snow and wind) and rodents from entering the interior areas.

304.1.1 Unsafe conditions. The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the *International Building Code* or the *International Existing Building Code* as required for existing buildings:

1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength.
2. The *anchorage* of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects.
3. Structures or components thereof that have reached their limit state.
4. Siding and masonry joints including joints between the building envelope and the perimeter of windows, doors and skylights are not maintained, weather resistant or water tight.
5. Structural members that have evidence of *deterioration* or that are not capable of safely supporting all nominal loads and load effects.
6. Foundation systems that are not firmly supported by footings, are not plumb and free from open cracks and breaks, are not properly *anchored* or are not capable of

supporting all nominal loads and resisting all load effects.

7. Exterior walls that are not *anchored* to supporting and supported elements or are not plumb and free of holes, cracks or breaks and loose or rotting materials, are not properly *anchored* or are not capable of supporting all nominal loads and resisting all load effects.
8. Roofing or roofing components that have defects that admit rain, roof surfaces with inadequate drainage, or any portion of the roof framing that is not in good repair with signs of *deterioration*, fatigue or without proper anchorage and incapable of supporting all nominal loads and resisting all load effects.
9. Flooring and flooring components with defects that affect serviceability or flooring components that show signs of *deterioration* or fatigue, are not properly *anchored* or are incapable of supporting all nominal loads and resisting all load effects.
10. Veneer, cornices, belt courses, corbels, trim, wall facings and similar decorative features not properly *anchored* or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects.
11. Overhang extensions or projections including, but not limited to, trash chutes, canopies, marquees, signs, awnings, fire escapes, standpipes and exhaust ducts not properly *anchored* or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects.
12. Exterior stairs, decks, porches, balconies and all similar appurtenances attached thereto, including *guards* and handrails, are not structurally sound, not properly *anchored* or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects.
13. Chimneys, cooling towers, smokestacks and similar appurtenances not structurally sound or not properly *anchored*, or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects.

Exceptions:

1. Where substantiated otherwise by an *approved* method.
2. Demolition of unsafe conditions shall be permitted where *approved* by the *code official*.

❖ The purpose of these requirements is to set out general and specific delineations in a building or structure that would make it unsafe. These delineations allow the code official more specific references to conditions that characterize an unsafe building or structure.

This section describes in detail unsafe conditions related to the exterior of the structure to provide the code official the ability to require replacement or repair.

Item 1 indicates that if the strength of the structural member is exceeded by either the nominal loads or load effects, the condition is to be regarded as unsafe. Nominal loads and load effects, as defined by the IBC and Items 2 through 13 of this section, are when a structure or component is regarded as incapable of

performing its intended function and thus becomes unsafe.

Item 2 deals with required strength of connections between structural members. More specifically, each connection must be able to resist nominal loads and load effects; otherwise, the building or affected portion thereof is to be regarded as unsafe. Anchorage of various elements of a structure is essential to its stability. When anchorage is not capable of transferring the intended loads, the structure or component is said to be unsafe.

Item 3 specifies that any condition beyond which a structure or member becomes unfit for service and is no longer useful for its intended function is to be unsafe. This includes its serviceability limit and strength limit state. "Limit state," as defined by the IBC, is a condition beyond which a structure or member becomes unfit for service and is no longer useful for its intended function (serviceability limit state) or to be unsafe (strength limit state). Any structure reaching this state is said to be unsafe.

Since weather penetration can degrade structural components, Item 4 specifies that if any joint in the building envelope allows weather to penetrate, it may be used as a basis to classify the structure as unsafe. This may be, in and of itself, the basis for the classification. However, supporting evidence of deterioration caused by the penetration would add weight to the characterization as unsafe.

Item 5 addresses structural members. Structural members are essential to the structural integrity of any building. If any structural member is deteriorated to the point that it cannot safely support the nominal loads, the building may be regarded as unsafe.

Item 6 addresses foundations. Foundation systems are essential to the structural integrity of any building. If any portion of any foundation system is not supported by adequate soil, is not plumb as intended to distribute the loads, has cracks or breaks or is inadequately anchored, the building may be regarded as unsafe.

Item 7 addresses exterior walls. Exterior walls are essential to the structural integrity of any building. If any portion of any exterior or bearing wall system is not supported by adequate foundation, is not plumb as intended to distribute the loads, has cracks or breaks or is inadequately anchored, the building may be regarded as unsafe.

Item 8 addresses roofing and roofing components. Since weather penetration can degrade structural components, this section specifies that if any roof component allows weather to penetrate, it may be used as a basis to classify the structure as unsafe. This may be, in and of itself, the basis for the classification. However, supporting evidence of deterioration caused by the penetration would add weight to the characterization as unsafe. Additionally, any structural component of the roof assembly not capable of supporting design loads is a basis for classifying as unsafe.

Item 9 addresses flooring and flooring components. Walking surfaces in floors with fatigue, defects or deterioration are a basis for determining that a building or structure is unsafe. If a floor may collapse due to any of these conditions or is likely to cause harm or injury, it may be regarded as unsafe.

Item 10 addresses exterior wall facings. Decorative features either inside or outside that may become detached and fall is a basis for classifying a building or portion thereof as unsafe. Lateral movement, such as an earthquake or wind, may cause any feature such as this to fall if not secured properly.

Item 11 addresses overhangs and projections from a building. As with decorative features, any overhang, extension or projection (trash chutes, canopies, marquees, signs, etc.) that is not anchored properly and can fall is a basis for declaring that an unsafe condition exists.

Item 12 addresses exterior stairs, decks and similar appurtenances. Exterior stairs, decks, porches, balconies and all similar appurtenances are all portions of a means of egress system and as such represent a significant safety concern if left in an unsafe condition. Should any of these elements of a means of egress system become structurally unsound, the building or portion thereof may be regarded as unsafe.

Item 13 addresses chimneys, cooling towers and similar appurtenances. As with decorative features and other appurtenances, chimneys, cooling towers, smokestacks or similar large vertical elements that become structurally unsound may be regarded as unsafe.

Exception 1 is to recognize that a qualified entity could substantiate an alternative method or material that meets the purpose and intent of the code. This alternative would need to be approved by the code official. An engineering study that substantiates the structural integrity in a rational analysis may be the basis for accepting a contention that the building is not unsafe.

Exception 2 allows a building owner the option of demolition of an unsafe condition subject to the code official's approval. If the building or structure or portion thereof is demolished, and does not exist, the condition is considered to be resolved.

304.2 Protective treatment. Exterior surfaces, including but not limited to, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained in good condition. Exterior wood surfaces, other than decay-resistant woods, shall be protected from the elements and decay by painting or other protective covering or treatment. Peeling, flaking and chipped paint shall be eliminated and surfaces repainted. Siding and masonry joints, as well as those between the building envelope and the perimeter of windows, doors and skylights, shall be maintained weather resistant and water tight. Metal surfaces subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and surfaces with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion. Oxidation stains shall be removed from exterior surfaces. Surfaces designed for stabilization by oxidation are exempt from this requirement.

❖ Other sections of the code require items such as walls, doors, windows and architectural trim to be maintained in good repair and condition. This section makes it clear that if paint or other protective covering or treatment is used to provide protection from the elements, it cannot be peeling, flaking or chipped. Additionally, buildings with deteriorated paint, or with masonry joints and siding in disrepair or not weather tight will eventually decay and exert a blighting influence on the community.

GENERAL REQUIREMENTS

[F] **304.3 Premises identification.** Buildings shall have *approved* address numbers placed in a position to be plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be not less than 4 inches (102 mm) in height with a minimum stroke width of 0.5 inch (12.7 mm).

❖ Identifying buildings during an emergency (such as fire, medical, or police) is greatly aided by the proper placement of address identification. In other than emergencies, the address identification serves as a convenience for people attempting to locate a building. The size and contrast criteria are intended to aid visibility from the street. Where multiple structures are remotely located on a site or set back into a property, at locations where multiple addresses are provided (for example, strip malls) or where the address is not readily visible from the public way, an approved method of identification will also be required. The fire code official has the authority to require that address numbers be located in all locations deemed necessary to properly identify the building by street address. The primary concern is for emergency personnel to locate the building without going through a lengthy search procedure. In the case of a strip mall, identification would be provided for the backs of buildings that face alleys or roads since the emergency response unit may often be directed to the back entrance. The address numbers must be maintained in a readily visible condition to provide for continuous identification. This would include repainting faded numbers or trimming trees or other vegetation that obscures visibility of the address.

304.4 Structural members. Structural members shall be maintained free from *deterioration*, and shall be capable of safely supporting the imposed dead and live loads.

❖ Building components that must support other building components are considered structural. Structural members must be kept sound and capable of supporting all of the dead and live loads imposed on them. Dead loads are the loads created by the structure itself. The footing must adequately carry the load of the foundation, beams, joists, walls, roof and other similar members located above it.

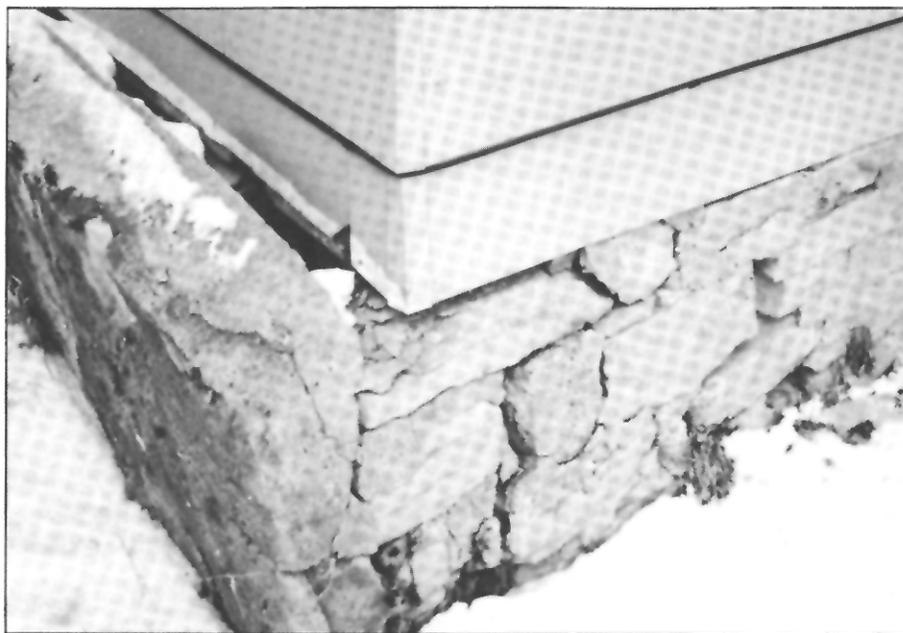
Live loads are the weights that are added to the finished structure. Live loads include furniture, appliances, equipment and other items added to the inside of the building. Snow, rain, ice and wind are environmental conditions that are also considered live loads in the code.

304.5 Foundation walls. Foundation walls shall be maintained plumb and free from open cracks and breaks and shall be kept in such condition so as to prevent the entry of rodents and other pests.

❖ The foundation must safely support the entire structure. Minor problems left uncorrected can become major. Major foundation problems can result in collapse of the structure.

Minor damage includes hairline cracks, loose and flaking mortar and surface deterioration of cement blocks and poured concrete walls. Major damage includes large horizontal and vertical step cracks, and large areas of missing foundation material (see Commentary Figure 304.5).

Three of the most frequent causes of foundation failure result from damage caused at the time of construc-



Commentary Figure 304.5
MAJOR DAMAGE TO A FOUNDATION WALL
This foundation is crumbling. Failure to repair it will eventually lead to its collapse.

tion, soil problems (settling, sliding, heaving and expanding) and the effects of water. Water entering the foundation through cracks, holes or breaks can freeze and expand, causing damage to the foundation.

The code official should order replacement of structural elements where major damage has occurred and should order appropriate maintenance, such as tuck-pointing, if the damage is only minor.

All conditions that permit entry of rodents or other pests must also be corrected.

304.6 Exterior walls. Exterior walls shall be free from holes, breaks, and loose or rotting materials; and maintained weather-proof and properly surface coated where required to prevent *deterioration*.

- ❖ Holes, cracks, decayed wood or any other condition that permits rain or dampness to enter the structure must be repaired. Exterior surface materials must be properly coated to prevent deterioration if they are not naturally decay resistant. Many materials do not require surface coating, including certain metals (aluminum, copper, etc.); masonry products (bricks, stone, stucco, etc.); naturally decay-resistant woods (redwood, cedar, etc.); and woods that have been treated with chemicals to prevent decay.

304.7 Roofs and drainage. The roof and flashing shall be sound, tight and not have defects that admit rain. Roof drainage shall be adequate to prevent dampness or *deterioration* in the walls or interior portion of the *structure*. Roof drains, gutters and downspouts shall be maintained in good repair and free from obstructions. Roof water shall not be discharged in a manner that creates a public nuisance.

- ❖ A secure, nonleaking roof is necessary to keep a building properly maintained. Even small leaks can cause thousands of dollars in damage to insulation, plaster, studs and joists. Roof leaks usually occur along valley areas and around plumbing vents, chimneys, dormers and other penetrations through the roof.

Water runoff should be diverted away from the structure to prevent damage to the foundation and other structural elements. Runoff must be diverted away from neighboring properties, public sidewalks, alleys and streets to prevent nuisance problems. Two problems that can result from improper water runoff are flooding of basements and standing water or ice buildup on sidewalks, alleys and streets. Drains, gutters and downspouts must be kept in working order so that water runoff is properly diverted.

304.8 Decorative features. Cornices, belt courses, corbels, terra cotta trim, wall facings and similar decorative features shall be maintained in good repair with proper *anchorage* and in a safe condition.

- ❖ Exterior decorative features require regular maintenance to prevent their deterioration and to keep them from falling from the building.

304.9 Overhang extensions. Overhang extensions including, but not limited to, canopies, marquees, signs, metal awnings, fire escapes, standpipes and exhaust ducts shall be maintained in good repair and be properly *anchored* so as to be kept in a

sound condition. Where required, all exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.

- ❖ Most problems related to overhang extensions, especially signs, marquees, fire escapes and awnings, are a result of deterioration at the points where they are anchored to the building. Anchorage points should be carefully inspected on a regular basis.

Fire escapes, standpipes and exhaust ducts serve the critical functions of providing proper exiting, fire protection and the removal of exhaust products. Regular maintenance is important for their continued compliance with the code.

304.10 Stairways, decks, porches and balconies. Every exterior stairway, deck, porch and balcony, and all appurtenances attached thereto, shall be maintained structurally sound, in good repair, with proper *anchorage* and capable of supporting the imposed loads.

- ❖ Regular maintenance is required to keep stairs, decks, porches and balconies in good repair so they do not become a hazard to occupants or visitors. Positive anchorage of elevated decks and exterior stairs that may be subject to collapse is especially important.

Although not mandated, the building code applicable at the time of construction could be consulted for the live loads that these elements are typically required to support.

304.11 Chimneys and towers. Chimneys, cooling towers, smoke stacks, and similar appurtenances shall be maintained structurally safe and sound, and in good repair. Exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.

- ❖ Chimneys, towers of all types and other similar appurtenances are frequently ignored until they become non-functional or are in danger of collapse. Because of the corrosiveness of exhaust gases, chimneys and smokestacks often deteriorate on the inside first. The code official should examine chimneys and towers for excessive rust, loose or missing mortar and cracked or disintegrating bricks.

Occasionally, deterioration may prevent the chimney or smokestack from operating properly. Obstructed chimneys have resulted in numerous carbon monoxide deaths. If fuel-burning appliances vent into chimneys or smokestacks, the code official should see that the exhaust gases are being properly conveyed to the chimney, including the connection of the vent to the chimney.

Weather-coating materials may be applied periodically to reduce the effects of the elements on these items.

304.12 Handrails and guards. Every handrail and *guard* shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.

- ❖ This section provides for the safety and maintenance of handrails and guards.

GENERAL REQUIREMENTS

304.13 Window, skylight and door frames. Every window, skylight, door and frame shall be kept in sound condition, good repair and weather tight.

❖ All windows, skylights and doors must be installed in their frames so that they are weather tight (meaning able to prevent wind, rain or other elements from entering the structure). A workmanlike installation will provide appropriate protection while maintaining operational capability.

304.13.1 Glazing. Glazing materials shall be maintained free from cracks and holes.

❖ All glass is to be maintained without open cracks or holes, which can admit wind and moisture. Defective glass poses hazards to occupants.

304.13.2 Openable windows. Every window, other than a fixed window, shall be easily openable and capable of being held in position by window hardware.

❖ Windows that have broken or are missing hold-open hardware create a dual hazard.

First, windows without hardware are frequently propped open with sticks and other objects. These objects can be dislodged and cause the windows to fall, causing bodily injuries.

Second, in the event of a fire, occupants are at an increased risk if windows cannot be readily secured in an open position. People have died because of inoperable windows, even though they could have easily broken the windows and escaped. It is advisable for the code official to check windows to make sure they open properly and remain open with their own hardware.

304.14 Insect screens. During the period from [DATE] to [DATE], every door, window and other outside opening required for *ventilation* of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with *approved* tightly fitting screens of minimum 16 mesh per inch (16 mesh per 25 mm), and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other *approved* means, such as air curtains or insect repellent fans, are employed.

❖ Screens reduce insect infestations. Communities are required to establish the number of months screens must be used on windows and doors to accommodate the time period that insects are active. Insect populations become dormant or die during the cold season; thus, screens would not be required during cold months.

The requirements for tight-fitting screens (not less than 16 mesh per 25 mm) in any food preparation, storage or service area are extremely important. Improper insect protection in these areas can lead to large-scale contamination of food supplies.

As indicated in the exception, air curtains, insect repellent fans or similar systems may be accepted. The code official must be sure that such a system is operational and employed whenever the doors and

windows are open. Although permitted for any opening, these systems are useful for openings that are difficult to screen properly, such as out-swinging doors.

304.15 Doors. Exterior doors, door assemblies, operator systems if provided, and hardware shall be maintained in good condition. Locks at all entrances to *dwelling units* and sleeping units shall tightly secure the door. Locks on means of egress doors shall be in accordance with Section 702.3.

❖ All exterior doors, door assemblies, operator systems and hardware must properly perform their intended functions (such as to open and close easily and keep out the elements). Locks must be readily released without keys, special knowledge or effort in accordance with Section 702.3. Security locks that comply with this requirement must function to secure the door as well. Malfunctioning or sticking locks that cannot secure the door may also impede egress because of difficulty in operation or release. The phrase “operator systems if provided” draws attention to automated doors. Maintaining the proper performance of the operator systems, where present, further assures proper egress will be maintained.

304.16 Basement hatchways. Every *basement* hatchway shall be maintained to prevent the entrance of rodents, rain and surface drainage water.

❖ Basement hatchways must prevent rain, water and rodents from entering the structure. When maintenance is ignored, wood members (including doors) decay, metal doors and latches rust and hinges break.

Drainage must be provided to prevent water from accumulating around hatchways and leaking inside the structure.

304.17 Guards for basement windows. Every *basement* window that is openable shall be supplied with rodent shields, storm windows or other *approved* protection against the entry of rodents.

❖ Basement windows are especially susceptible to the entry of the Norway rat, one of several rodents that frequently nest in the ground near structures. Ratproof shields, screens, storm windows or other protective materials must be installed on windows capable of being opened to eliminate their use as an entry point.

304.18 Building security. Doors, windows or hatchways for *dwelling units*, room units or *housekeeping units* shall be provided with devices designed to provide security for the *occupants* and property within.

❖ This section establishes criteria for providing security for occupants of dwelling units, rooming units and housekeeping units that are rented, leased or let.

304.18.1 Doors. Doors providing access to a *dwelling unit*, *rooming unit* or *housekeeping unit* that is rented, leased or let shall be equipped with a deadbolt lock designed to be readily openable from the side from which egress is to be made without the need for keys, special knowledge or effort and shall have a minimum lock throw of 1 inch (25 mm). Such deadbolt locks shall be installed according to the manufacturer’s specifications and maintained in good working order. For the