MAINTENANCE GUIDEBOOK IV
LANDSCAPE AND GENERAL GROUNDS MAINTENANCE
CHAPTER SIX - GENERAL MAINTENANCE OF GROUNDS

SECTION A GENERAL

This section covers landscape-maintenance issues that are more general in nature than those covered in previous chapters. However, these recommendations should not be overlooked, since they can make a significant difference in the maintenance and overall appearance of a development.

SECTION B RECREATION AREAS

Grounds maintenance around recreation areas should have a high priority, given their high use by residents. Since these areas are frequently used for community events, maintenance requirements may be greater due to greater wear. Refer to Chapter Seven - Play Areas for more information.

SECTION C STAIRS

Exterior stairs are constructed with a variety of materials and building techniques, including concrete, brick, stone, iron, steel, and wood. As a general rule, they should be swept regularly to minimize tripping hazards and to maintain cleanliness. Cleaning stairs with water is generally acceptable; however, water can create slippery conditions on surfaces such as smooth brick or concrete. Water should be applied only during fair weather to ensure the quick drying of the stair. Under no circumstances should water be used on stairs if the temperature is below freezing, 32 degrees Fahrenheit; ice will quickly form, rendering the stairs dangerous. Ponding water is also a hazard and should be swept from any stair or landing.

In winter, ice and snow removal should be done immediately after a storm or snow shower, and sand or salt should be applied if necessary to control ice. After winter storms, make frequent site inspections and perform regular cleaning to ensure the removal of snow and compacted ice. At the end of the winter season, stairs should be pressure-cleaned to remove accumulated salts or sands that become embedded in joints or mortar runs. While helpful in winter, these materials can lead to the deterioration of concrete, stone, mortar, and wood. Standard washing through pressure-cleaning with a solution containing bleach is effective for removing mildew and stains resulting from seasonal weathering.

Repair or replace unsafe exterior stairs and handrails. Stairs constructed of concrete, brick, or stone should

be repaired to a sound, good-as-new condition. Wooden stairs should be monitored for rotting of members, loose joists or planking, and termite damage, and replaced as needed. Regular application of paint or stains will extend the life of exterior wood. (See Book VI - Painting Maintenance, for additional information.)

Handrails are often the first part of a stair structure to experience deterioration. They undergo tremendous wear-and-tear in use, and can quickly collapse if not properly maintained. Handrails should be checked regularly to ensure the stability of their supports. Metal handrails are typically aluminum, steel, iron, or wrought iron grouted into sleeves in concrete, brick, block, or stone stairs. If metal handrails become loose, it is often best to remove the support from the stair and remount and regrout the sleeve in its entirety. To prevent corrosion of metal posts where they meet the sleeves, any depressions or sleeve gaps that can hold water around the post should be filled or caulked for positive drainage. The metal can be regularly maintained by painting to resist corrosion from weathering. For wood handrails, bolted and nailed supports should be regularly checked for failures. As wood deteriorates, individual members can be replaced as necessary. However, if a significant amount of the railing is defective, it is best to replace it entirely.

SECTION D WALLS

Exterior walls can be classified as either free-standing walls or engineered retaining walls that hold back earth at changes in grade or soil elevation. Walls may be constructed of poured concrete, concrete masonry block, brick, stone, or wood. Minimal maintenance is required for exterior walls that are properly designed and built.

The exterior surface should be kept clean by regularly sweeping the surface or pressure-washing the top and vertical face of the wall with water. Grime, dirt, or pollution films left by urban conditions can be removed with an acid-wash solution mixed with water. For wood walls, it is best to scrub the walls clean and apply a colored stain or paint to mask dirt or unsightly marks. Wood walls made of pressure treated lumber should not be painted. The natural release of chemicals in pressure-treated wood often causes paints to blister and peel away. It is best to apply a colored stain to walls built of pressure-treated wood so wood can breath properly. Repeated applications of stain or paint should be carried out under the manufacturer's recommendations. Drainage holes typically constructed at the base of brick, block, stone, or concrete retaining walls should be checked regularly to ensure that they are open and unobstructed. It is best to check them after a period of extended rain when soils are saturated with water.

Exterior wall repairs should utilize building materials that match the original construction. For example, brick used to repair a damaged brick wall should match the existing brick in color and size. Joint width and style, and mortar color should replicate the original condition.

Brick or stone walls, along with their copings, should be repainted with mortar when the existing mortar is cracked, crumbling, or loose. Loose brick, stone, or coping should also be reset at this time. Bricks or coping that have been broken or chipped should be replaced in their entirety.

Walls damaged or marred by vandalism should be cleaned with paint-removal products designed for exterior use. (See Guidebook Six - Painting Maintenance, for additional information.)

Unstable retaining walls that are leaning or in danger of collapse should be replaced with properly engineered structures. When a wall is in imminent danger of collapse, it should be shored up immediately with timber, steel beams, or other support members until it can be replaced.

The grade at the top of retaining walls should be sloped away from the wall to reduce soil saturation and relieve pressure that would tend to overturn it. However, if the soil is very clayey or compacted, water collection behind the wall might still become a problem. First clear the wall's weep holes of debris. Then a French drain consisting of gravel, filter fabric, sand, and perforated plastic pipe can be constructed behind the wall just below the soil's surface to collect water and channel it to the stormwater management system. Walls constructed without footing drainage, weepholes at recommended intervals, or gravel backfill behind the wall may develop severe problems which can erode footings and destabilize the subbase over time. If such problems are suspected, consult an architect or structural engineer before planning remedial work.

SECTION E SLOPES

Steep slopes planted in lawn grass are difficult and expensive to mow and maintain, are subject to erosion, and can be unsightly in appearance. Landscaping on steep banks should consist of mass plantings of ground covers such as juniper, decorative course grass, or windflowers that require minimal maintenance. When slopes are steeper than 3:1 (three units of rise per one unit of horizontal run), an erosion-control blanket should be applied to the ground surface prior to any seeding or planting of ground cover. Types of blankets available include temporary straw or coconut blankets woven with photodegradable netting, or permanent slope reinforcement made of nylon fiber and woven with heavy-duty UV-resistant top nets. Permanent blankets are desirable for drainage channels or areas prone to water erosion.

SECTION F DRAINAGE

Drainage channels, swales, and inlets must be monitored regularly to keep them free of debris and operating correctly. Serious flooding can result if drainage ways are blocked for an extended period of time or even briefly during a down-pour. Inspect head walls carefully, since circulating water can often erode

head walls, and channels is both labor-intensive and unsightly, and should not be permitted. Damaged drainage structures should be repaired or replaced immediately. It is recommended that all exterior pipe used for draining water to an open outflow at the culvert be corrugated and galvanized coated. Concrete, clay, or plastic pipe may also be used; however, their smooth surfaces help to accelerate the flow of water, contributing to soil erosion. This type of pipe is recommended where drain pipes empty into catch basins or other control structures.

SECTION G TRASH-COLLECTION FACILITIES

Visual screening, consisting of fences, walls, shrubs, or a combination, should be provided around trash-collection facilities. These areas can quickly become ugly and detract from the overall development. If walls and fences are used for screening, they should be constructed of materials compatible with adjacent building materials. Plants used for screening should be evergreen and slow-growing to reduce maintenance requirements. Fences constructed of wood or other building materials should be regularly cleaned and painted. Broken wood members and slats or damaged bricks in walls should be replaced as required. In the interest of public health, garbage should not be allowed to spill out of receptacles and collect within the enclosure. Periodic pressure-cleaning of the receptacles, enclosures, and screening structures is recommended to ensure sanitary conditions and an odor-free environment.

SECTION H UTILITY STRUCTURES

Above-grade utility structures—HVAC units, cable utility boxes, and electrical transformers—can seriously affect the visual quality of a development. These elements should be integrated into the site design rather than appear as isolated elements, and landscaping can be used to screen them. Contact local utilities before planting, since there are usually guidelines specifying planting distances from utility structures.

SECTION I FIRE HYDRANTS

Fire hydrants should be highly visible, uniform in design, and painted a standard color in accordance with local ordinances. Landscaping next to fire hydrants should be discouraged, with the exception of grass, ground covers, or low shrubs. Under no circumstance should the plant material interfere with the accessibility or visibility of the hydrant. Existing plants that exceed the standard height of a hydrant should be removed and replaced to comply with these guidelines. Consult the fire marshal for specific requirements for landscaping around hydrants.

END OF CHAPTER SIX