

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
RECREATION LAND GRADING AND SHAPING
 (acre)
CODE 566

DEFINITION

Reshaping the surface of the land to support recreation land use.

PURPOSE

This practice may be applied as part of a resource management system to support one or more of the following purposes:

- Establish or improve effective use of the land area for recreation.

Minimize on-site and off-site damage to resources from recreation land use.

CONDITIONS WHERE PRACTICE APPLIES

On land areas where surface irregularities, slopes, obstructions, or surface drainage interfere with planned recreational use, or where such use requires designed land surfaces.

Scope

Where modification of the land surface is required to permit installation of recreation facilities.

CRITERIA**General Criteria Applicable to All Purposes**

All planned work shall comply with federal, state, local and tribal laws and regulations.

The grading or shaping shall be conducive to the overall recreation area and aesthetically

blend with the general landscape and surroundings.

The grading or shaping shall be configured to minimize adverse on-site and off-site impacts such as accelerated erosion, riparian zone degradation, stream channel and streambank damage, hydrology modification, other water resource damage, aesthetics or unacceptable damage to wildlife habitat, fragmentation, or restrict wildlife movement.

Grading and Shaping

If only shaping is required, the cuts and fills may be estimated by observation or by a minimum amount of surveying. If grading to uniform surfaces is required, the design shall be based on a complete topographic or grid survey. Grading and shaping for specific uses, such as athletic fields shall be according to the requirements of the intended use.

Cuts and fills shall be balanced to the greatest extent possible.

Soils shall be of sufficient depth and of suitable texture so that after grading is completed an adequate depth remains to permit the planned use of the land.

Soil compaction and displacement shall be kept to a minimum.

Surface Drainage

Plans shall include measures for removing or otherwise providing for control of excess surface water *and subsurface drainage*.

Erosion Control

Plans shall include provisions for control of erosion. Disturbed areas shall be established to vegetation as soon as practicable after construction. If soil or climatic conditions precludes the use of vegetation, and protection is needed, non-vegetative means, such as mulches or gravel, may be used. Seedbed preparation, seeding, fertilizing, and mulching shall be according to the *Hawaii Practice Standard for Critical Area Planting (Code 342)*. Use vegetation adapted to the site that will accomplish the desired purpose. Preference shall be given to native plant species. If native plant materials are not adaptable or proven effective for the planned use, then non-native species may be used.

CONSIDERATIONS

Consider adjoining land uses and the proximity to residences, utilities, cultural resource areas, threatened and endangered species of plants and animals, wetlands or other environmentally sensitive areas, and areas of special scenic value.

Consider the effects of increased recreation and activities on the quality of both surface and ground water quality.

Consider maintaining or improving habitat for fish and wildlife where applicable.

Where feasible and appropriate, soil material suited for plant growth should be salvaged,

stockpiled and protected for use as final cover material.

PLANS AND SPECIFICATIONS

Plans and specifications for recreation land grading and shaping shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. Plans and specifications shall include construction plans, drawings, job sheets or other similar documents. These documents shall specify the requirements for installing the practice, including the kind, amount and quality of materials to be used, *the extent of the area to be graded or shaped and an estimate of the quantity of cuts and fills. If grading is required, the plans should include a topographic map, grid sheet, cut sheet, or field notes showing planned cuts and fills. The plans should also specify recommended species, seeding, and fertilizer requirements for vegetating disturbed areas.*

OPERATION AND MAINTENANCE

An Operation and Maintenance (O&M) plan shall be prepared for and reviewed with the landowner or operator. The plan shall specify that the treated areas and associated practices are inspected annually and after significant storm events to identify repair and maintenance needs.