274 Selective Clearing and Grubbing

274.1 General

This chapter provides the criteria and requirements for Selective Clearing and Grubbing (C&G) designs. See ***FDM 924*** for development of Selective C&G Plan sheets.

Selective C&G is an alternative to Standard C&G in areas outside the limits of construction (i.e., areas that must be cleared for the purpose of constructing the roadway). While Standard C&G requires complete removal of all trees, stumps, roots and other such protruding vegetation, Selective C&G provides instructions for areas where existing trees and vegetation are to be retained.

Coordinate the determination of desired Selective C&G areas with the District Landscape Architect early in the design phase. Verify that the inclusion of Selective C&G activities aligns with future landscape projects or available Landscape Opportunity Plan. Also, review Project Commitments made during the PD&E phase to identify possible landscaped areas that would benefit from Selective C&G activities.

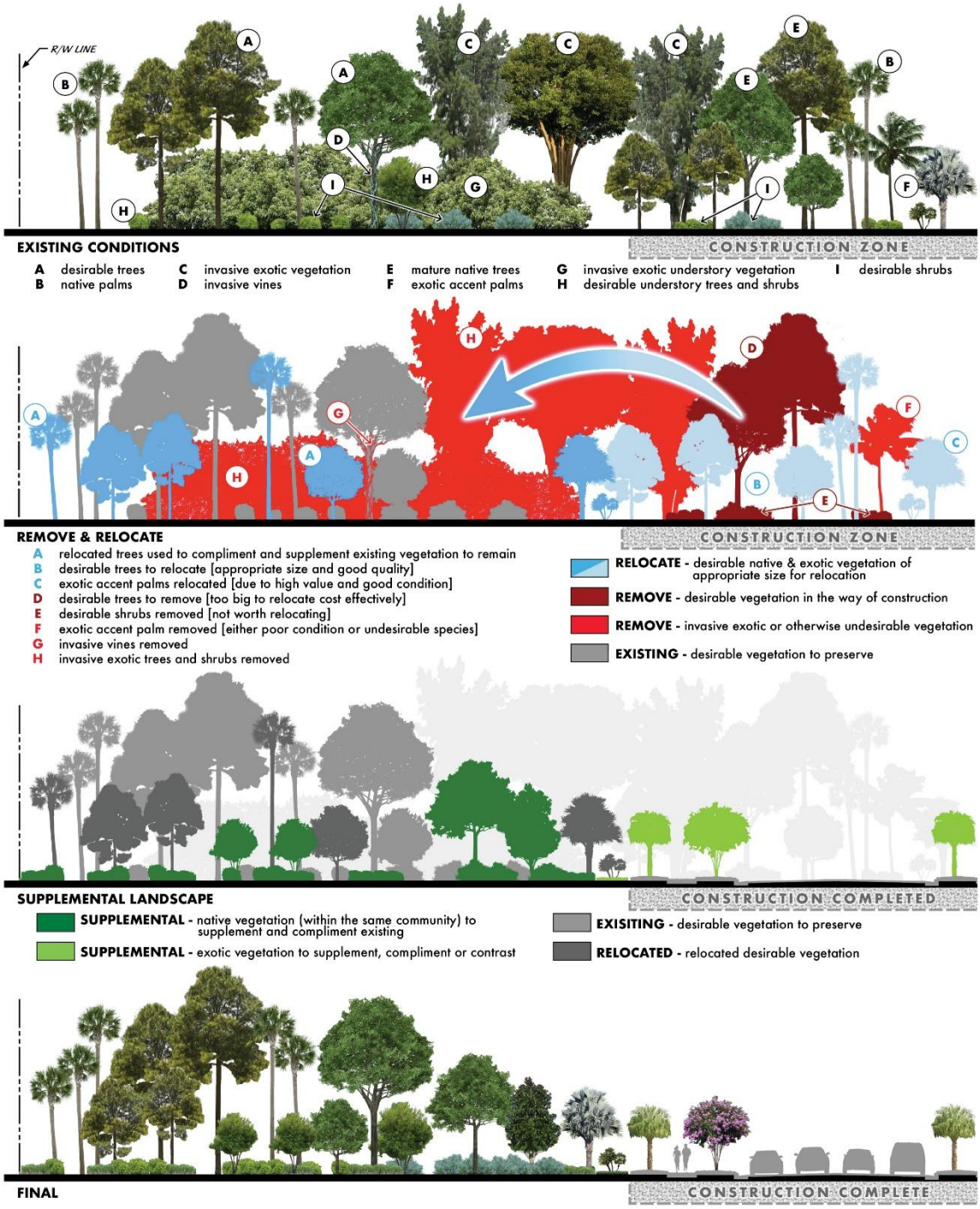
Selective C&G areas may include one or more of the following activities:

- Preservation and protection of desirable trees and vegetation
- Removal of undesirable trees and vegetation
- Installation of tree protection fencing
- Branch and root pruning
- Tree or palm relocation

Preserve and protect healthy and structurally sound trees, palms, and vegetation along transportation corridors. Removal or relocation of trees and palms should be considered only when preservation is impractical. See ***FDM 275*** for tree and palm relocation requirements.

Refer to ***Figure 274.1.1*** for an illustration of the Selective C&G process including vegetation removal, preservation, relocation, and supplementation with new landscape materials.

Figure 274.1.1 Illustration of Selective C&G Process



274.1.1 Preservation of Trees and Vegetation

Preserve natural landscapes by identifying Plant Preservation Areas within the Selective C&G Plan sheets. Plant Preservation Areas are areas in which no construction activities are to occur, including the staging of materials or equipment.

Trees, palms, shrubs, grasses, wildflowers, and existing soils within Plant Preservation Areas are to be protected from construction activities. Surrounding these areas with silt fence (or other visible delineation) during the construction phase is an effective way of avoiding unintended encroachment.

Verify with the District Landscape Architect that preservation areas align with future highway landscape plans.

274.1.2 Removal of Undesirable Trees and Vegetation

Trees and vegetation that are in poor health, diseased, or listed as invasive are undesirable and should be removed. Within a designated Selective C&G area, undesirable vegetation can be removed while preserving existing desirable vegetation.

Mechanical thinning (removal) of undergrowth to improve the health and appearance of desirable trees and vegetation should also be considered. Avoid thinning dense trees and shrubbery along the R/W when this vegetation is providing a desired buffer between the roadway and adjacent residents.

When removing undesirable trees, determine if stump removal is necessary or if they may be left in place.

Chemical weed control, or the physical removal of invasive trees and vegetation, will also improve the health and appearance of the remaining landscaped areas. When attempting to remove invasive grasses, weeds, and vines, consider the effectiveness of this treatment when adjacent properties are overrun as well, or if follow-up treatments will be necessary for complete eradication.

Category 1 plants listed by the ***Florida Invasive Species Council*** are undesirable and are to be removed when feasible.

274.1.3 Tree Protection Fencing

Tree protection fencing is to protect the tree in its entirety, including the root system, trunk, branches, and surrounding soils from damage, compaction, and contamination. Utilize tree protection fencing for trees “selected” to remain when:

(1) Individual or groups of trees require preservation, or

(2) Individual or groups of trees have been relocated within the project limits.

Place fencing around the root zone, or at minimum, around the dripline of trees. See FDOT ***Standard Plans***, Index 110-100 for fencing installation requirements.

274.1.4 Branch and Root Pruning

Branch pruning is the selective removal of unwanted tree branches and provides one or more of the following benefits:

- Reduces the risk of damage to people or property
- Manages tree health and direction of growth
- Provides horizontal and vertical clearances for pedestrians, cyclists, or vehicles
- Improves tree structure, restores shape, or improves aesthetics

Root pruning is the process of cutting roots prior to mechanical excavation near a tree. Root pruning is necessary to minimize damage to the tree's critical root system during construction, or in preparation for tree relocation. The roots are typically sliced at the drip line of an established tree.

274.2 Selective C&G Field Assessment

A field assessment should be conducted prior to a final determination on the extent of Selective C&G activities. The field assessment should identify the following:

(1) Opportunities for preservation, protection and enhancement of existing vegetation, and tree relocation options. Also note:

  (a) Presence of endangered plant species (Florida Department of Agriculture Endangered Plant Species), or invasive trees and vegetation.

  (b) Health and condition of trees and vegetation.

  (c) Historically significant, or large trees or palms.

  (d) Completed beautification or landscape projects.

(e) Vegetation buffers between the project and adjacent landowners.

(2) Opportunities for vegetation removal to create vistas or allow views into desirable areas such as ponds, forested areas, or other attractive transportation features.

(3) Anticipated limits of construction and the impacts on surrounding vegetation.

(4) Location of outdoor advertising signs, community aesthetic features, or other similar structures.

(5) Corridors traversing through designated Florida Scenic Highways or conservation lands.

(6) Possible utility conflicts affecting proposed tree removals or installations.

274.2.1 Tree and Vegetation Survey

The results of the field assessment determine the course of action for Selective C&G and the extent of the Tree and Vegetation Survey.

Prepare a site inventory of all existing trees and vegetation, including species, size, and location. Coordinate with the surveyor to have trees tagged and surveyed.

A site inventory provides a record of what existed prior to construction if mitigation or replacement is warranted due to damage caused by the contractor.

274.3 Selective C&G Maintenance Report

A Selective C&G Maintenance Report is required when Selective C&G sheets are included in the Roadway Plans.

This Selective C&G Maintenance Report details the care and maintenance of preservation and Selective C&G areas. This document describes the intent of the Selective S&G activities and arboricultural best practices.

Deliver the Selective C&G Maintenance Report to the District Project Manager.