# 944 Landscape Plans

### 944.1 General

The chapter provides the requirements for the development of Landscape Plans. See *FDM 270 through 276* for requirements of landscape designs.

Landscape Plans are most often developed as a standalone maintenance project, or occasionally as a component set of plans. Projects with minor landscaping may include landscape sheets in the Roadway Plans set.

### 944.1.1 Estimated Quantity Report

Prepare an Estimated Quantity (EQ) Report in accordance *FDM 902*. Landscape quantities are determined by location identified by a site number, location description, or both. The location description can be identified as:

- "project-wide" for small projects,
- individual Landscape Plan sheets, or
- designated areas within a sheet.

Pay items categorized as small are plants less than 7-gallon container size.

Pay items categorized as large are plants 7 gallon or greater container size.

### 944.1.2 Landscape Construction Cost Estimate

Include a Landscape Construction Cost Estimate (typically an Excel spread sheet) at each phase submittal beginning with Phase III. The estimate provides the cost for all landscape improvements, including irrigation systems and hardscape.

Do not include the cost estimate in the construction contract documents. It is intended solely for use by the Department.

### 944.2 Key Sheet and Signature Sheet

The Key Sheet is the first sheet of each contract plans set. The Signature Sheet, when required, is placed behind the Key Sheet. These sheets are produced on a standard-format sheet (11"x17") created using the FDOT CADD Software.

Follow the requirements contained in *FDM 910* for the development of a Key Sheet and Signature Sheet, except for the following:

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Assemble the Landscape Plans in the following order:

- (1) Key Sheet
- (2) Signature Sheet
- (3) General Notes
- (4) Legend
- (5) Planting Plans and Details
- (6) Irrigation Plans and Details
- (7) Hardscape Plans and Details
- (8) Temporary Traffic Control Plan
- (9) Stormwater Pollution Prevention Plan

Landscape Plans may require insertion of sheets that were prepared early, or prior to the design process (aka early works). See *FDM 910.2.6.1* for instructions on including early works sheets.

For standalone maintenance contracts, include the list of Contract Plans Set even if "Landscape Plans Set" is the only component.

### 944.3 General Notes Sheet

The General Notes sheet provides site-specific requirements not covered by <u>Standard</u> <u>Plans</u> or <u>Standard Specifications</u>. Place general notes on standard-format sheets (11"x17").

General notes may include:

- Benchmark datum
- Maintaining authority contact information
- Utility information and owners contact information
- Mowing requirements, including requirements for wildflower areas
- Planting area preparation (e.g., soil scarification and amendment requirements)

Notes are written to the contractor and should be written as a command. Do not include "Contractor must", "by the Contractor", or similar phrases in notes. Also, use "must" instead of "shall".

### 944.3.1 Pay Item Notes

Place pay item notes on the General Notes sheet.

Information on how quantities are determined are contained in the Estimated Quantities (EQ) Report and should not be repeated in the plans as a pay item note.

Pay item notes are used to provide unique project information not covered by basis of payment information contained in the <u>Standard Specifications</u>, such as:

- Clarify how incidental work is to be paid for.
- Clarify the purpose, uses, or requirements.

### 944.3.2 Plant Legend

Place a Plant Legend (e.g., plant symbol, abbreviated plant name (code), and common name), and other abbreviations used in Landscape Plans on the General Notes sheet, or on a separate "Plant Legend" sheet.

### 944.4 Landscape Plan Sheets

Landscape Plan sheets convey a graphic depiction, and necessary information for the installation of plant materials, irrigation systems, and hardscape elements.

Plan sheets may be produced on a standard-format sheets (11"x17") or a large-format sheet (24"x36", 36"x48" or 36"x72") that are contained in the FDOT CADD Software. Use landscape orientation regardless of sheet size selected. The standard horizontal scale is 1" = 50', however an alternate scale may be approved by the Project Manager.

Produce Details sheets using a standard-format sheet (11"x17").

For simple landscape projects, all elements of landscape design may be shown together on a single "Landscape Plan" sheet. For most landscape projects, each element of the landscape design is shown on individual sheets, as follows:

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- Planting Plan
- Irrigation Plan
- Hardscape Plan

### 944.4.1 Planting Plan

Planting designs may be displayed on aerial photography or on available topographic surveys. Information from a prior construction project may also be used.

Display and label existing topography, including R/W, roadways and driveways, buildings, underground and overhead utilities, walls, sidewalks and curbs, fencing, guardrail, railroads, bridges, drainage structures, and other similar items that are relevant to the planting design. Existing topography elements are often displayed as "gray screened".

Display proposed roadway improvements when landscape project follows or is part of a roadway project (e.g., edge of pavement and shoulder, sidewalks, utilities, lighting, or signal installations).

Display a north arrow and scale within each plan view, typically in the upper right portion. Display centerline of construction or baseline of construction such that the stationing is increasing from left to right. Indicate beginning and end project limits.

Display and label the following planting design information:

- (1) Location of new planting areas, indicating:
  - (a) Planting Area ID number for location identification in the EQ Report. This is required only when multiple areas (locations) are designated within a sheet.
  - (b) Plant Symbol, abbreviated plant name (code), and number of plants, trees, or palms.
  - (c) Clear trunk height for trees and palms.
  - (d) Delineated mulch area with estimated cubic yard of material needed.
- (2) Location and depth to improve soil structure (a.k.a., soil scarification), amend existing soil, or replace existing soil with Landscape Soil.
- (3) Demonstrate the following requirements are met:
  - (a) Clear Zone or Lateral Offset
  - (b) Limits of clear sight (see *FDM 212.11*)

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- (c) View Zone for outdoor advertising signs
- (d) Setbacks from structural elements or drainage system
- (4) Mowing Limits
- (5) Installation of tree protection fencing
- (6) Selective Clearing and Grubbing activities (remove or relocate trees, eradicate undesirable vegetation, and branch and root pruning) are often shown on the Planting Pan sheet, but can be shown on separate "Selective C&G" sheets when the work is significant. See *FDM 924* for Selective C&G sheet requirement.

### 944.4.1.1 Planting Details

Planting Details sheets provide details and information that are applicable to the project and not addressed in the <u>Standard Plans</u> or <u>Standard Specifications</u>.

Construction details for tree bracing during root establishment are provided in <u>Standard</u> <u>Plans</u> Index 580-001. Provide tree bracing details in the plans when Index 580-001 does not apply.

### 944.4.2 Irrigation Plan

When separate Irrigation Plan sheets are necessary, use the planting plan sheets, "gray screened" in the background, and devoid of unnecessary text and labeling.

Display and label the location of spray heads and rotors, valves, mainlines, lateral lines, sleeves (noting the diameter sizes), controllers, water sources and points of connection, backflow preventers, and isolation valves.

### 944.4.2.1 Irrigation Details

Irrigation Details sheets provide details and information that are applicable to the project and not addressed in the <u>Standard Plans</u> or <u>Standard Specifications</u>.

Include a legend depicting the symbology used in the irrigation plan sheets and an associative description for each entry. Additional information such as the nozzle and component schedule, irrigation zone, or pipe schedule can be included on these sheets.

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## 944.4.3 Hardscape Plan

When separate Hardscape Plan sheets are necessary, use the planting plan sheets, "gray screened" in the background, and devoid of unnecessary text and labeling.

Display and label hardscape and site amenities; e.g., street furniture, specialty paving, tree grates, walls, planters, fountains, fences, and lighting (excluding public utility street and area lighting).

### 944.4.3.1 Hardscape Details

Hardscape Details sheets provide details and information that are applicable to the project and not addressed in the <u>Standard Plans</u> or <u>Standard Specifications</u>.

### 944.5 Landscape Maintenance Guide Sheet

The Landscape Maintenance Guide sheet provides the long-term design intent, limits of landscape maintenance, and the necessary activities for maintaining the planting and irrigation designs.

See FDM 273 for more information on the Landscape Maintenance Guide.