329 Landscape Plans

329.1 General

Landscape refers to any vegetation, mulches, and irrigation systems. Designs may include hardscape features (e.g., street furniture, specialty paving, tree grates, walls, planters, fountains, fences, landscape lighting). Hardscape-only projects are not landscape projects. Landscape may be constructed as a standalone project or as a component of a roadway project.

The Legislature has requested that the Department commit program dollars to purchase plant materials from Florida commercial nursery stock. In order for the Department to capture that information, it is critical that all small and large plant pay items be placed in AASHTOWare Project Preconstruction™ (formerly TRNS*PORT) Category 0600.

Landscape Plans can be prepared as either a component set of plans, or as a standalone Landscape plans set. Landscape Plans are assembled as a separate plan set complete with a Key Sheet, Tabulation of Quantities, and all other required landscape sheets. When prepared as a component set of plans, number the sheets with the prefix “LD”; e.g., LD-1, LD-2, LD-3. When prepared as a Standalone Landscape plan set, the prefix is not needed.

Modification for Non-Conventional Projects:

Delete the second sentence from the above paragraph and replace with the following:

Component plans are assembled as a separate plans set complete with a Key Sheet and all other required landscape sheets.

Projects with minor landscaping may show these features on landscape plan sheets in the roadway plans set (lead component), or detailed on Roadway Plans sheets. Do not use the prefix letter “LD” when including landscaping sheets in the roadway plan set. See FDM 307.1 for placing Tabulation of Quantities sheet in the Roadway plan set.
329.2 **Key Sheet**

The key sheet is the first sheet in the component plans set, or a Standalone Landscape plan set. When used as a component set of plans, the location map and Contract Plans Components list are not required on this sheet. Show the index of Landscape Plans on the left side of the sheet. Assemble the Landscape Plans in the following order:

1. **Key Sheet**
2. Signature Sheet (if required)
3. Project Layout
4. General Notes
5. Landscape Plan
6. Landscape Details
7. Irrigation Plan (if applicable)
8. Irrigation Details (if applicable)
9. Tabulation of Quantities and Plant Schedule

<table>
<thead>
<tr>
<th>Modification for Non-Conventional Projects:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete Item (9) from the above list.</td>
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</tbody>
</table>

See [FDM 302](#) for other Key Sheet requirements and [Exhibit 302-3](#) as an example Component Key Sheet.

For Standalone Landscape plan sets, refer to [Exhibit 302-1](#) for an example of a lead Key Sheet with no revisions and [Exhibit 302-2](#) for a lead Key Sheet with Revisions. Assemble Standalone Landscape plans in the following order:

1. **Key Sheet**
2. Signature Sheet
3. Summary of Pay Items
4. General Notes
5. Project Layout
6. Selective Clearing and Grubbing Plan (if applicable)
7. Tree Disposition Plan (if applicable)
(8) Landscape Plan
(9) Landscape Details
(10) Irrigation Plan
(11) Irrigation Details
(12) Temporary Traffic Control Plan (if applicable)
(13) Stormwater Pollution Prevention Plan (if applicable)
(14) Tabulation of Quantities and Plant Schedule
(15) Irrigation Tabulation of Quantities
(16) Summary of Quantities

Modification for Non-Conventional Projects:
Delete Items (3), (14), (15), & (16) from the above list.

329.3 Signature Sheet

See FDM 303 for Signature Sheet requirements.

329.4 Tabulation of Quantities and Plant Schedule

The Tabulation of Quantities and Plant Schedule sheet tabulates the planting materials, landscape soil work, and other materials required for the installation of plant materials. Prepare this sheet using the standard tabulation of quantities sheet as illustrated in Exhibit 329-1. If irrigation elements are included, a separate Tabulation of Quantities is required. If hardscape elements are included, use the appropriate summary boxes for each element, and include on Summary of Quantities sheets.

Standalone Landscape plan sets may require additional summary tables, depending on the scope of the project; e.g., mowing, litter pickup, outdoor advertising.

On contracts with multiple Financial Project ID numbers or Federal-Aid and non-Federal-Aid quantities, provisions must be made to tabulate and summarize their respective quantities.

Pay Size categorized as small plants include:
• All ground covers
• Shrubs, trees and cycads less than 7 gallons
• Clustering palms, up to 6-foot height

Pay Size categorized as large plants include:
• Shrubs, trees and cycads, 7 gallons or greater
• Single-trunk palms
• Clustering palms, 6-foot height or greater

Modification for Non-Conventional Projects:
Delete FDM 329.4.

### 329.5 General Notes

Show general notes on a separate General Notes sheet. See FDM 311 for instructions in creating a General Notes sheet. General Notes can be used to describe site-specific requirements, such as:

• Watering schedule
• Fertilizer mix
• Fertilizer schedule
• Backfill or soil amendments.

### 329.6 Landscape Plan Sheets

Prepare Landscape Plan sheets on a standard plan format. The scale should be such that all details are clear and legible. See the requirements of FDM 312.1 as a guide. For simple projects, or narrow sections of a project, it may be possible to "stack" two plans on one sheet, one below the other. Stationing must progress from left to right and be stacked from top to bottom. Irrigation plan sheets may be prepared at a larger scale than the planting plan sheets. Clarity and legibility must be preserved in all cases.

Place a north arrow and scale at a point of maximum visibility on the sheet. If two plans are "stacked" on one sheet, include a north arrow and scale in each plan portion.
329.6.1 Required Information

The basic information required is as follows:

1. Project centerline
2. Edge of pavement (edge of traffic lanes)
3. Curbs
4. Drainage systems
5. Guardrail
6. R/W or limited access fence line
7. Sidewalks or other planned or existing structures
8. Lighting, signs and signal poles
9. Intersections and driveways which are noted in the plans
10. Existing and proposed overhead and underground utility locations
11. Clear Zone/Lateral offset (should be plotted or distances noted frequently on each plan sheet)
12. View zones for permitted outdoor advertising signs
13. Canopy limits
14. Existing vegetation (to remain or be removed)
15. Existing off-site features and conditions that affect or are affected by the project
16. Fence and gate locations
17. Setbacks from structural elements or drainage system
18. Limits of clear sight (see FDM 212.11)
19. Transit Facilities
20. Mowing Limits

Where necessary, required sheet elements may be “screened” to provide legibility for the landscape plans, so long as the required elements remain apparent.

Planting plan sheets must also provide at a minimum the plant symbols, plant quantities, and common and botanical names of each plant.
Modification for Non-Conventional Projects:

Delete the above paragraph and replace with the following:

Planting plan sheets must also provide at a minimum the plant symbols, common name and botanical name of each plant.

Include the following on the planting plan sheets:

- 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).
- Location and depth to improve soil structure (a.k.a., soil scarification), amend existing soil, or replace existing soil with Landscape Soil
- Soil scarification and amendment requirements may be described on the General Notes sheet if they are simple. Detailed requirements (e.g., those that vary for specific areas) should be described separately for each amendment type. Each type of soil scarification, amendment, or replacement should be defined (e.g., Type ‘A’), specified, and quantified on the Tabulation of Quantities Sheet.

Prepare irrigation plan sheets using the planting plan sheets (devoid of unnecessary text and labeling) and include information pertaining to the irrigation system. Information on the sheet must include the approximate 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.

The Details Sheet must include a legend clearly depicting the symbiology 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 lateral schedule can be included on these sheets.

### 329.7 Landscape Details Sheet

This sheet may be used to show landscape details, hardscape details, and irrigation details, that are applicable to the project and not addressed in the Standard Plans.

Details provided in **Standard Plans, Index 580-001**, are provided for root establishment purposes only. When trees or palms are above 30 feet in overall height, or within falling distance of a roadway, pedestrian or bicycle route, designer is to provide tree and/or palm bracing details and **Standard Plans, Index 580-001** does not apply. Designer is to
provide details when bracing is intended to be used for safety considerations. The following are examples of safety considerations:

- Tree or palm is within falling distance of a roadway, pedestrian, or bicycle route
- Tree or palm is over 30 feet in height
- Commonly exposed to higher wind speeds
- Non-standard soil properties exist
- Non-standard plant dimensions exist
- When rootball exceeds 4 feet in diameter and it is located on a 1:3 slope or steeper
- Tree bracing impedes the line of sight or clear sight triangles.
### Landscape Soil Replacement

- **Remove existing material and scarify to the depths specified.**
- **Backfill with clean sand CAL and mix with existing scarified material to create amended, decompacted soil.**
- **Consistent mixing throughout all areas to provide a uniform soil structure.**

#### Description

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<tr>
<th>PAY ITEM NO.</th>
<th>SYM</th>
<th>DESCRIPTION</th>
<th>MAX. MAINT. SIZE</th>
<th>REMARKS</th>
<th>UNIT</th>
<th>SHEET NUMBERS</th>
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<td>0380 1 1</td>
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<td>SMALL PLANTS</td>
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<td></td>
<td>GIANT ORANGE</td>
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<td>6 2 6</td>
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<td>23 161</td>
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#### SOIL ENHANCEMENT

- **Type 'A' Amendment:** Remove existing material and scarify to the depths specified. Backfill with clean sand and mix with existing scarified material to create amended, decompacted soil. Organic matter must be fully decomposed and stable with regard to oxygen consumption and carbon dioxide generation. Soluble salt content shall be less than 0.50% and the carbon/nitrogen ratio shall be less than 15:1. Submit source and product analysis for approval by the Department prior to purchase.

- **Type 'B' Amendment:** Remove existing material and scarify to the depths specified. Backfill with organic matter and mix with existing scarified material to create amended, decompacted soil. Organic matter must be fully decomposed and stable with regard to oxygen consumption and carbon dioxide generation. Soluble salt content shall be less than 0.50% and the carbon/nitrogen ratio shall be less than 25:1. Submit source and product analysis for approval by the Department prior to purchase.

- **Soil Structure Improvement:** Mechanically loosen and mix existing soils to a depth of 24 inches. Ensure consistent mixing throughout all areas to provide a uniform soil structure.

- **Landscape Soil Replacement:** Remove existing material and scarify to the depths specified. Backfill with Landscape Soil.

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**Notes:**
- Landscape Soil Key:
  - Type 'A' Amendment
  - Type 'B' Amendment
  - Soil Structure Improvement
  - Landscape Soil Replacement

**Landscape Plants Abbreviation Key:**

- **CAL:** California
- **DC:** Diamond Cut
- **FF:** Florida Fancy
- **GAL:** Gallon Size
- **MULTI:** Multiple Stems
- **NF:** Natural Form
- **OA:** Overall Height
- **OC:** On Center
- **REGEN:** Regenerated Roots
- **RP:** Root Pruned (Min 60 Days)