

Landscape Design Guide

- **Introduction**

The Appendix "A" defines the scope of A&E services. This Landscape Design Guide further defines the landscape services identified in the Appendix "A" and identifies technical and submittal requirements for landscape architects doing design work for the Atlantic Division.

- **Communications**

Direct communication with the Atlantic Division landscape reviewer is encouraged. If you have a question concerning a particular comment, contact your Atlantic Division reviewer. This may avoid unnecessary re-submittal of plans and specifications due to a misunderstood comment. The reviewer's name, phone number and email address can be found on the comment sheets.

- **Landscape Design Requirements**

- **Landscape Architectural Compatibility**

All Naval facility landscaped sites should be designed to be compatible with surrounding environments. Streetscapes, parking areas, plantings, open spaces, playgrounds and recreational activities, vehicular and pedestrian pavements, circulation systems, exterior signage, fences, site furnishings, and other site functions should be designed to integrate with Base Exterior Architecture Plans and Master Plans where such plans exist.

- **Reduced Maintenance Requirements**

Naval facilities should be designed to reduce landscape maintenance requirements. As a minimum, this shall be done by employing the following practices:

- Regionally Native Plants

To the extent possible, use regionally native plant species, minimize adverse effects on the natural habitat and seek to prevent environmental pollution by reducing fertilizer and pesticide requirements. The use of regionally native plants will also help to reduce irrigation demands. This direction is in compliance with the White House Memorandum for the Heads of Executive Departments and Agencies dated April 26, 1994 and signed by President William Clinton. It is supported by The Department of Defense and The Department of the Navy. All plant materials used must be resistant to drought, pests, disease, cold and heat extremes in the area and suitable for the soils typically found in the vicinity of the construction site.

- Reduce the Volume of Shrubs and Ground Cover

Use shrubs and ground cover to accentuate key site elements such as major entrances to buildings. Generally, beds with large volumes of shrubs and ground cover should be avoided. These beds require, in most cases, great effort to control weeds. Most shrub and ground cover beds should include a layer of polypropylene weed control fabric placed under the required 3-inch layer of mulch. Bed shapes should be designed to accommodate ease of grass cutting. Where possible, durable

edging materials should be utilized to separate shrubs and ground covers from grass areas.

- Plant Shapes and Sizes

All plants should be spaced to allow for mature growth. Every project should focus on reducing pruning needs.

- Utility Conflicts

Plant locations should avoid conflicts with existing and proposed utility lines.

- Tree Preservation

Every effort should be made to preserve existing trees and minimize adverse effects on the natural habitat.

- **Handicap**

All walkways, patios, plazas, ramps, outdoor play areas, and other landscape use zones shall meet current ADA, ASTM, and U.S. Consumer Product Safety Commission Guidelines for accessibility and safety.

- **Force Protection**

All designs shall conform to current Department of Defense Antiterrorism/Force Protection construction standards.

- **Pre-Design Services**

- **Field Investigation**

- **Landscape Requirements**

All surveys required to determine preservation suitability of existing trees shall be performed by a State Registered Landscape Architect or Certified Arborist.

- **Design Services**

- **Landscape Basis of Design**

Address the following:

Provide adequate narrative to describe existing plant materials and whether or not they will be preserved. Identify objectionable views, on or off-site (such as buildings, utility appurtenances, etc.) that can be screened with plant materials, fences, walls or combinations thereof. Describe the overall Landscape Theme/Concept that will guide the entire landscape effort. Identify landscape elements which will be utilized (i.e., plant types, specialty paving and fencing, child play equipment and surfacing materials, signage, site furniture, retaining walls, bed edging, turf seeding or sodding, etc.). Identify areas of the landscape, which are to be irrigated, if any (unless otherwise directed,

planting designs should provide materials that will do well without irrigation systems). When utilized, provide a description of the irrigation system (head type, drip system, controller, zoning, backflow preventer, pumps, wells, mains and laterals, etc.). Identify any governing codes and criteria being utilized for the design. Include reference titles and dates.

- **Landscape Drawings**

- **Landscape Plan**

Show Landscape Plans at a legible scale. Most plans which show both tree and shrub plantings can be drawn at a scale of 1"=25' (1:300 metric). Larger scale drawings may be required to show more detailed areas adequately on a half-size print. Show all shrubs as individual circles and avoid showing multiple plants in beds as one symbol unless used for closely spaced ground covers (i.e., 6" to 12" on center). Connect multiple grouping of same species plants with connector and leader lines to labels (which refer to quantity and plant keys referenced to the Plant Schedule).

- **Plant Schedule and Planting Details**

- Provide a Plant Schedule which provides the following as a minimum for each species:
 - Key referenced to the landscape plan
 - Common plant name
 - Botanical plant name
 - Quantity of plants
 - Size defined by height and/or spread as applicable
 - Caliper of trees as applicable
 - Root condition (B&B, container, pot, etc.)
 - Planting Method referenced to planting details
 - Special remarks as required.
- Provide separate Planting Details for trees, shrubs and ground covers as required. Details shall show as a minimum, the following:
 - Existing grades
 - Finished grades
 - Planting soil mixture
 - Requirement to set plants plumb
 - Depth and width of planting pits
 - Compacted earth saucer for individually planted material (not in mass)
 - 3 inch layer of mulch
 - Polypropylene weed control fabric as applicable in shrub and ground cover beds
 - A 4-inch deep layer of compacted planting soil mixture directly under the root balls of shrubs and ground covers
 - Stakes or guys for trees and as applicable for large shrubs
 - The removal of the top one-third of burlap and top one-half of wire baskets from the root balls of B&B material
 - Do not show any tree wrapping material

- Provide a Tree Protection Detail for existing trees, which are to be preserved during construction. As a minimum, show the following:
 - A 4-ft. high safety-orange, plastic barrier fence (with metal or 4 x 4 wood stakes at 8 ft. on center spacing) continuously located around the tree's drip-line. If trees are in a group or cluster, use only one fence to surround the entire cluster. This detail may also be shown as part of the Civil Drawings.

- **Specifications**

When writing specifications for Turf, Exterior Plants and Landscape Maintenance sections, include only those portions of the guide specifications, which are applicable to the job. Failure to delete portions, which are irrelevant or contradictory, will result in confusion to the contractor and possible change orders.

- **Design Submittals**

- **35% Design Development Submittal**

- **Basis of Design**
- **Drawings**

Drawings are encouraged but not required unless specifically contracted for. However, when submitted, drawings shall show sufficient detail to clearly identify the following items:

- Locations of all facilities (buildings, parking areas, roads, existing vegetation noted for preservation, etc.)
- New plantings of trees, shrubs and ground covers.
- Other landscape features such as specialty paving, site furniture, etc.

- **100% Prefinal Submittal**

- **Basis of Design**

Resubmit the 35% Basis of Design

- **Drawings**

All drawings should be complete to the extent that they may be released for bid as submitted.

- **Final Submittal**

- **Drawings**

All drawings should be complete to the extent that they may be released for bid as submitted.