

## SECTION 329300 - EXTERIOR PLANTS

### **PART 1: GENERAL**

#### 1.1 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of the West Virginia University for exterior plants.
- B. Project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However unless adequate written justification is provided, then it is expected that these guidelines will govern the design and specifications.

#### 1.2 General Requirements

- A. Do not plant over utilities.
- B. Provide strategic plant selection and placement in relative to lighting and circulation.
- C. Provide adequate drainage in planting beds and lawns.
- D. Provide adequate soil nutrients.
- E. Plant material with a history of problems on the WVU campus includes:
  - 1. Acer platanoides “Columnar”
  - 2. Amelachier
  - 3. Most azalea and rhododendron
  - 4. Cornus florida
  - 5. Ilex glabra
  - 6. Juniperus (Ground cover juniper)
  - 7. Pinus nigra
  - 8. Pinus mugo mugo
  - 9. Pyrus calleryana “Bradford”
  - 10. Vinca minor
  - 11. Ajuga reptans
  - 12. Iberis sempervirens

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1.3 Submittals

- A. Material Test Reports: For existing surface soil and imported topsoil.
- B. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of exterior plants during a calendar year.

1.4 Warranty

- A. Special Warranty: Warrant the following exterior plants, for the warranty period indicated, against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, or abuse by Owner, or incidents that are beyond Contractor's control.
  - 1. Warranty Period for Trees and Shrubs: One year from date of Substantial Completion.
  - 2. Warranty Period for Ground Cover and Plants: Six months from date of Substantial Completion.

1.5 Maintenance

- A. Trees and Shrubs: Maintain for the following maintenance period by replacing dead or damaged plants, by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Spray as required to keep trees and shrubs free of insects and disease. Restore or replace damaged tree wrappings.
  - 1. Maintenance Period: Six months from date of Substantial Completion.
- B. Ground Cover and Plants: Maintain for the following maintenance period by watering, weeding, fertilizing, and other operations as required to establish healthy, viable plantings:
  - 1. Maintenance Period: Six months from date of Substantial Completion.

**PART 2: PRODUCTS**

2.1 Plants Preference

- A. This is a list of preferred plant material by WVU. It should be used as a guide for selecting plant material for the WVU campus. This list is not all inclusive but has been created from these criteria.
  - 1. Disease and insect resistant
  - 2. Growth rate
  - 3. Habit
  - 4. Aesthetics

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5. Leaf and flower color
  6. Landscape value
  7. Low maintenance
- B. Plant List
1. Large Deciduous Trees
    - a. *Gleditsia tricanthos inermis*
    - b. *Tilia cordata*
    - c. *Acer saccharum*
    - d. *Acer platanoides*
    - e. *Quercus*
    - f. *Betula*
    - g. *Ulmus*
  2. Small Ornamental Deciduous Trees
    - a. *Cercis canadensis*
    - b. *Acer palmatum*
    - c. *Malus*
    - d. *Cornus kousa*
    - e. *Carpinus*
    - f. *Prunus*
    - g. *Cornus mas*
    - h. *Magnolia* (late blooming variety)
    - i. *Cotinus*
  3. Large Evergreens
    - a. *Picea*
    - b. *Pinus strobes*

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- c. Tsuga
- 4. Small Evergreen Tree
  - a. Thuja
  - b. Ilex opaca
  - c. Juniperus
  - d. Taxus
  - e. Chamaecyparis
- 5. Flowering Shrubs
  - a. Spiraea
  - b. Abelia
  - c. Itea
  - d. Viburnum
- 6. Non Flower and Evergreen Shrubs
  - a. Berberis
  - b. Taxus
  - c. Ilex crenata
  - d. Thuja
  - e. Chamaecyparis
  - f. Ligustrum

2.2 Topsoil

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 6 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.

2.3 Fertilizer

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

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1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

#### **2.4 Mulches**

- A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
  1. Shredded hardwood is the standard.
  2. Pine bark nuggets are to be used around buildings where cigarettes might be thrown, especially near doorways.

#### **2.5 Planting Soil Mix**

- A. Planting Soil Mix: Topsoil mix with the soil amendments to be approved by WVU Roads & Grounds unit.

#### **2.6 Planting Bed Establishment**

- A. Loosen subgrade of planting beds to a minimum depth 6 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
  1. Spread planting soil mix to a depth of 2 feet but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
    - a. Spread approximately one-fourth the thickness of planting soil mix over loosened subgrade. Mix thoroughly into top 3 inches of subgrade. Spread remainder of planting soil mix.

### **PART 3: EXECUTION - NOT USED**

END OF SECTION 329300