**SECTION 329000X LANDSCAPING**

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| **Include MAA Landscaping Reference “Approved Installation Methods” in the Contract Documents when using this specification.** |

**PART 1 – GENERAL**

**1.1 INTRODUCTION.** The Maryland Aviation Administration (MAA) faces many challenges with respect to local, State and Federal regulations regarding construction and construction-related activities at MAA owned and operated airport properties, including the Baltimore/Washington International (BWI) Airport. Maryland is the only state with a Forest Conservation Act (FCA) that regulates impacts to forested areas and that has enforceable planting requirements. The Federal Aviation Administration (FAA) mandates height restrictions for all objects that have the potential to penetrate imaginary air surfaces utilized by pilots during takeoff and landings, and it provides enforceable guidelines for activities that have the potential to attract hazardous wildlife. MAA considers the requirements set forth by both FAA and the State of Maryland when undertaking construction projects. To comply with these regulations, MAA has completed a Forest Stand Delineation, Reforestation Master Plan, and Forest Management Plan (Draft) that comply with the multi-agency regulations and restrictions. The Reforestation Master Plan specifies areas set aside for forest conservation and retention. Long-term management of forested resources on BWI Airport property is addressed by the Forest Management Plan. As a responsible landowner, MAA insists that all construction and construction-related activities regarding temporary, short-term, or long-term landscaping activities comply with applicable State and Federal regulations. These regulations include:

* The State of Maryland Forest Conservation Act;
* The State of Maryland Forest Conservation Technical Manual;
* COMAR (Agricultural Article Sections 8-101 through 8-501; 8-801 through 8-806; 9-101 through 9-110; and 9-201 through 9-214.); and
* Federal Aviation Administration Advisory Circular 150/5370-10A, Items T-901 through T-908.

In addition, MAA requires all construction and construction-related activities be in accordance with the Reforestation Master Plan for BWI Airport and the Forest Conservation Plan for the specific project. The following documents are available upon request to assist contractors with adherence to these regulations:

* Reforestation Master Plan for Baltimore/Washington International Airport;
* Forest Conservation Plan for appropriate project;
* Maryland Forest Conservation Act;
* FAA Advisory Circular 150/5200-33, “Hazardous Wildlife Attractants On or Near Airports;”
* FAA Advisory Circular 150/5370 - 2 Items P-151 through 156 (as amended by MAA); and
* FAA Advisory Circular 150/5370-10A Items T-901 through T-908 (as amended by MAA).

Each construction project has its own Forest Conservation Plan that is prepared by the design consultant. ***A copy of the Forest Conservation Plan for the specific project shall be kept on site during all hours of operation.***

**1.2 PURPOSE.** These specifications are provided to Contractors performing landscaping and landscape-related work for MAA to ensure adequacy, consistency, and conformance with applicable state and federal regulations. In certain cases, such as planting, seeding, and sodding, specifications were intentionally designed to reduce the attractiveness of certain areas to wildlife, and thus reduce the risk of wildlife strikes by aircraft. Contractors performing activities related to landscaping for MAA shall adhere to these specifications.

**1.3** **SEQUENCING OF TASKS.** Tasks performed by the Contractor shall occur in a logical and efficient sequence. The Contractor shall provide sufficient time for testing and analysis to be completed without compromising the sequencing of tasks. Coordination with the designated MAA Engineer is critical for efficient completion of tasks. MAA will not reimburse the Contractor for time or materials lost as a result of failure to comply with these standards, MAA plan reviews, or the State of Maryland Forest Conservation Act.

Limits of Disturbance and Forest Retention Areas shall be identified as follows:

* **Limits of Disturbance:** The limits of disturbance of the project area shall be clearly identified with "Forest Retention Area" signs attached to stakes placed at 50-foot intervals. Diversion dikes and silt fences shall be in place prior to any disturbance.
* **Forest Retention Area Boundaries:** For all projects conducted within 75 feet of a forest retention area, the Contractor will identify the boundary of the forest retention area with ½-inch blaze orange flagging at 100-foot intervals on perimeter trees. The contractor will install blaze orange plastic mesh fence (see attached Reference, “Approved Installation Methods”) along the entire forest retention area offset 45 feet from the forest retention area boundary. If necessary, “specimen tree signs” (see attached Reference, “Approved Installation Methods”) will be installed on specimen trees and appropriate protection measures will be followed as specified in the State Forest Conservation Technical Manual.
* **Pre-construction Site Inspection**: After the forest retention limits of disturbance (LOD) and boundaries have been delineated, the contractor will notify the Office of Facilities Planning and the Department of Natural Resources (DNR) Forest Service, to schedule a walk through inspection of the site. The DNR representative will inspect the forest retention boundary marking, discuss the proposed construction timetable, and discuss additional requirements that may be necessary. MAA and DNR shall approve all plans prior to the initiation of work.

 **Planting Plans:** The following design standard should be used to determine appropriate plant material for use in landscaping and site stabilization in accordance with the FAA advisory circular 150/5200-33, “Hazardous Wildlife Attractants on or Near Airports”:

* Use native plants whenever possible;
* Use plants with a minimal wildlife attractiveness value. See Draft List of Recommended species for Construction Plantings;
* Use sterile plants or plants that exhibit minimal seed production;
* Reduce mowing requirements in long narrow areas or areas less than 1,000 square feet by planting low growing shrubs or other alternative ground covers;
* Plant in clusters and group species in communities in large contiguous areas;
* Create distinct breaks between vegetation strata;
* Avoid planting low-growing trees, shrubs, brambles, and vines at the edges of a forest where the forest meets the turf or scrub/shrub areas to reduce the edge effect; and
* All plant material used by the contractor for temporary, short- term landscaping or long-term landscaping shall be from the MAA approved plant materials list (see Draft List of Recommended Species for Construction Plantings).

Deviations from these standards require specific justification and approval by the MAA Office of Facilities Planning.

**Specifications:** Landscape activities shall be conducted according to the document *Specifications for Performing Landscaping Activities on Baltimore/Washington International and Martin State Airport Properties*.

**Compliance:** MAA acknowledges that these specifications vary slightly from the Natural Resources Conservation Service Standards for Critical Area Planting (MD 342). However, this specification was approved by the Maryland Department of the Environment, Water Management Administration, the United States Department of Agriculture’s Wildlife Services Division, and the Natural Resources Conservation Service in May 2001, and satisfies compliance for MD 378 projects.

**Post Construction:** Once construction activities (including reestablishment of vegetation) have ceased, the contractor is required to remove all flagging and protective measures (with the exception of forest retention signage) from both the forest retention area and the construction site. MAA has the right to retain final payment until aforementioned actions have been performed.

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION (NOT USED)**

**PART 4 – METHOD OF MEASUREMENT (NOT USED)**

**PART 5 – BASIS OF PAYMENT (NOT USED)**

**END SECTION 329000X**