

VERDURA® RETAINING WALL MAINTENANCE SPECIFICATIONS

I <u>SCOPE OF WORK</u>

A. This specification establishes the standard for landscape maintenance for:

LANDSCAPING CONTRACTOR'S CONTINUING MAINTENANCE OF VERDURA® FULLY PLANTABLE RETAINING WALL

- B. Contractor shall furnish all labor, equipment, materials, tools, services and special skills required to perform the landscape maintenance as set forth in these specifications and in keeping with the surrounding community.
- C. Maintenance of plant materials shall include, but not be limited to: trimming, pruning, watering, fertilization, aeration, thatching, weed control, cultivation, pest control and clean-up. It is the intent to provide a plant material maintenance method to keep the *Verdura*[®] wall(s) in a state of perpetual growth at a desired coverage of the wall within an agreed time frame. Irrigation maintenance shall include operation of system, adjustments and minor repairs.

II GENERAL MAINTENANCE

- A. The *Verdura*[®] wall(s) and all other landscape area maintenance (adjacent to the wall[s]) shall be the responsibility of the Owner of the site. All necessary labor, (excluding extra work or services hereinafter stated), supervision, equipment, tools, transportation, permits, insurance and taxes in the performance of this work shall be furnished by the Owner or Owner's Representative.
 - 1. Contractor or Contractor's Representative shall make at least twelve (12) general inspections of the premises per year.
 - 2. Clean and maintain drainage lines and catch basins on an as needed basis, and maintain all swales and flow lines to provide adequate drainage.
 - 3. Contractor shall maintain a high level of safety in equipment and work conditions and will provide evidence of general liability insurance in an amount as deemed sufficient by the Owner or Owner's Representative.
 - 4. The ultimate goal of the landscape is to achieve the desired planting coverage of the *Verdura*[®] wall as specified by the Owner or Owner's Representative. The planting and irrigation will be maintained in such a way to maintain that goal for the life of the project.

III PLANT MATERIALS

- A. Pruning
 - 1. Plants are to be maintained in natural drifts. Vining plants shall be pruned to avoid becoming excessively lanky
 - Pruning of plants shall be performed to attain maximum desired effect while retaining as much of the natural characteristics or branching as possible. No routine pruning will be necessary unless specified by Owner. Only regular removal of dead or diseased plants or branches will be required.
- B. Fertilization
 - 1. Hand fertilize all plants a minimum of 2 times per year.
 - 2. Contractor shall be responsible to apply all materials required to correct mineral deficiencies effecting plant growth.
- C. Watering
 - 1. Contractor shall schedule water application to promote deep-rooting in plant material.
- D. Weed, Pest, and Disease Control:
 - 1. Contractor shall maintain a weed, pest and disease-free wall planting.
 - 2. No trees of any sort shall be allowed to grow within the *Verdura*[®] block cells on the face of the wall, and shall be removed immediately.
 - 3. Contractor is responsible for vector control.
 - 4. Apply pesticides as required to control and prevent disease.
 - 5. Contractor to replace any dead or dying plant material with similar plants as specified on the approved plans.
 - 6. Voids generated directly from the removal plant material or from vector burrows shall be in-filled immediately with suitable soil.

IV IRRIGATION SYSTEM

- A. Controllers
 - 1. Contractor is to adjust watering schedules equal to the percolation rate each area is capable of receiving based on topography, orientation / exposure to sun, soil type, plant material, seasonal or climate factors.
 - 2. Contractor shall irrigate as necessary to sustain healthy plants.
 - 3. Contractor shall utilize repeat cycle on controller to eliminate excessive runoff.
 - 4. Hours of scheduled operation will be programmed to minimize disease occurrence of plant material and to reduce possible nuisance from irrigation operation to pedestrians or vehicles.
 - 5. Locks and keys will be provided by the Owner's Representative.
 - 6. Contractor shall perform preventative maintenance as needed.
- B. Operation of System
 - 1. All systems shall be personally observed during operation cycle at least once per month to verify effectiveness of irrigation operations.

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- 2. Bubblers are not to be used in any irrigation areas on the Verdura® wall.
- 3. Contractor will adjust, clean, and repair as necessary, all drip emitters, sprinkler heads, valves, and pressure reducers to continue operation at maximum efficiency and performance.
- 4. Contractor will be responsible for making necessary adjustments to riser height of sprinkler heads as growth rates indicate.
- 5. Contractor shall be responsible for keeping interior of valve boxes clean. A clean gravel base shall be maintained at all times.
- C. Repairs
 - 1. Any repairs made by the Contractor will be in accordance with current BMP's or as directed by the Owner's Representative.
 - 2. Use pressure compensating emitters, from the same manufacturer, for all drip emitter replacements.
 - 3. Use matched precipitation heads, from the same manufacturer, for all sprinkler replacements.
 - 4. Repairs to irrigation system caused by conditions under which Contractor does not have direct control, such as vandalism, normal wear and tear, storm damage, shall be paid for by the Owner as extra work.
 - 5. Malfunctions of any nature which are deemed to be the fault of materials or workmanship still covered under original installation guarantee shall be reported immediately to the Owner's Representative.
 - 6. Contractor will maintain an accurate up to date record of all irrigation repairs, stating date of repair, specific location, and nature of repair. This log must accompany a monthly itemized invoice.
 - 7. Landscape areas will be returned to original condition following any irrigation repairs or replacements.
 - 8. Erosion of soils within and atop the *Verdura*[®] retaining wall as a result of leaking irrigation shall be backfilled immediately with suitable soils. Soil grades should be re-established and properly compacted per project's original specifications.

V <u>CLEAN UP</u>

A. Contractor will remove all debris resulting from the maintenance operations at project site and dispose of it in a lawful manner.

VI INSPECTION

A. Landscape inspections attended by the Maintenance Contractor and the Owner's Representative will be required on a regular schedule as determined by the Owner.

VII ADDITIONAL INFORMATION

- A. Approved landscape plans for the project.
- B. Standard Verdura® retaining wall irrigation installation details (www.soilretention.com)