



## SPECIFICATIONS

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**Supplier name**  
**Product name**

**Perfect Turf, LLC**  
Perfect Turf® Natural Series®-Natural 54

This document provides the specifications for a Synthetic Grass Road Median composed of a tufted polyethylene fiber component with curled polyethylene thatch zone and silica sand infill installed over a porous aggregate stone base including drainage system.

There are variations in the final specifications as required by the Client.

### **PART 1 – GENERAL**

#### **1) Work Included**

Provide all labor, materials, equipment, and tools necessary for the complete installation of a synthetic grass infill system as outlined in these specifications and an infill of rounded silica sand. The vertical draining base shall be provided separately by an approved contractor. The system shall consist of but not necessarily be limited to the following:

- a) A complete synthetic grass system, consisting of a synthetic grass with 1 1/2" inch long 100% monofilament polyethylene fibers (5000 denier), a curled polyethylene thatch zone blade (3600 denier) tufted on a 3/8" tufting machine with a minimum of 54 ounces of yarn per square yard. The system shall include a single, dimensionally stable, two-component backing and have a minimum of 20 ounces of Polyurethane secondary backing per square yard. The finished product shall also include perforations at no less than 2" by 4" on center to ensure maximum drainage.
- b) A resilient infill system, consisting of rounded, uniformly sized silica sand.

#### **2) Qualifications and Submittals**

Prospective bidders and/or installers of the turf shall be required to comply with the following:

- a) The turf manufacturer must be experienced in the manufacture of an infill synthetic grass system and provide references of specific installations in the last three (3) years with one (1) road median installed in similar climate.
- b) Manufacturer must hold ISO 9001 (Quality) and ISO 14001 (Environmental) certifications
- c) The turf installer must provide competent workmen skilled in this specific type of synthetic grass installation. The designated supervisory personnel on the project must be competent in the installation of this material, including gluing seams and proper installation of the infill mixture.

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## **PART 2 - SYNTHETIC GRASS MATERIALS**

The synthetic turf material and resilient infill shall be in accordance with the following:

- a) The fiber shall be a 5000 denier, 100% true monofilament polyethylene fiber, measuring not less than 1 ½ inches high and not more than 1 ¾ inches high with a curled polyethylene thatch zone fiber (3600 denier).
- b) The tufted fiber weight shall not be less than 54 ounces per square yard. The fiber shall be tufted on a 3/8" tufting machine.
- c) The primary backing shall consist of two layers of 13 pic polybac primary backing. The secondary backing shall consist of an application of not less than 20 ounces of polyurethane coating per square yard. Heat activated to permanently lock fiber tufts in place. The synthetic grass system shall be perforated 2" by 4" on center to provide for maximum drainage. Non-perforated systems or systems with less drainage perforations shall not be acceptable alternates for purposes of this specification.
- d) The fiber shall be two-tone green in color to simulate natural grass as closely as possible and treated with UV inhibitor, guaranteed for a minimum of eight years. The fiber shall be independently tested for heavy metal content and should be less than 100 PPM for all heavy metals including lead.
- e) The infill system shall consist of 1-2 pounds of a 20-40 sieve rate specifically graded, rounded, uniformly-sized silica sand.

## **PART 3 – BASE AND DRAINAGE**

An approved contractor shall provide a vertical draining base consisting of a minimum four-inch layer Open Graded Stone (OGS) and a two-inch layer of finish aggregate system installed upon a geotextile or weed barrier membrane.

- a) The sub-base should be compacted using a vibratory plate compactor or vibrating roller, to approximately 90% Proctor density.
- b) The sub-grade should no longer have any vegetation. The sub-grade shall then be treated with a weedkiller.
- c) The bidder shall supply and install a geotextile fabric or weed barrier over the entire surface before the installation of the stone depending on geographic location. Seams shall be overlapped a minimum of 12".
- d) A properly sized perimeter drain may be installed in a properly excavated ditch, lined with geotextile. The CPPP (corrugated perforated plastic pipe) shall be sloped .05" per lineal foot toward the exit point to the existing storm drain.
- e) One or more catch basins may be installed at directional changes in the line, at the depth necessary to meet the elevation of the existing storm water evacuation line.

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- f) The bidder shall supply water-proof tape and all necessary connectors, per subsurface drainage system manufacturer's recommendation, and is responsible for a proper and secure connection between all new and existing drainage lines.
- g) A perimeter composite 2"x2" nailer board shall be installed to the perimeter concrete curb. The top of the nailer board will be set at 2" below the top of the concrete curb.
- h) Install up to a two-inch (2") layer of one eighth to a quarter of an inch (1/8" – 1/4") porous stone over the base, maintaining slope and grade, depending on the geographic location. Finish grade flush with the perimeter nailer board and compact to approximately 90% Proctor.
- i) The Synthetic Turf System supplier and architect will accept the aggregate base prior to the installation of the Synthetic Turf System.
- j) Any alterations must be agreed between all parties.

#### **PART 4 – EXECUTION AND INSTALLATION**

The turf installer shall strictly adhere to the installations procedures outlined under these sections. Any variance from these requirements shall be accepted in writing by the manufacturer's onsite representative, and submitted to the architect/owner, verifying that the changes do not in any way affect the warranty.

- a) The turf installer will accept the aggregate base prior to the installation of the synthetic turf system. The compaction of the aggregate base shall be minimum 90% and the surface tolerance shall not exceed 3/16 inch in ten feet.
- b) The rolls of synthetic grass shall be seamed utilizing standard state-of-the-art gluing procedures.
- c) This is a 100% glued installation. Sewing of seams will not be permitted. The seaming tape and glue shall be intended for installation of outdoor synthetic turf surfaces.
- d) The infill material shall be spread evenly with a fertilizer-type spreader.

#### **PART 5 – MAINTENANCE AND WARRANTY**

The bidder and/or the turf manufacturer must provide the following:

- a) The turf manufacturer shall provide a warranty to the owner that covers defects in materials and workmanship of the turf for a period of eight years from the date of Substantial Completion. An eight (8) year "UV stabilization" warranty shall be included in the warranty.
- b) The manufacturer's warranty shall include general wear and damage caused from UV degradation. The warranty shall specifically exclude vandalism, acts of War and acts of God beyond the control of the owner or the manufacturer.
- c) The bidder shall provide a warranty to the owner that covers defects in the installation workmanship, and further warrant the installation was done in accordance with the manufacturer's recommendations for a period of two (2) years.

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- d) All turf warranties shall be limited to repair or replacement of the affected areas and shall include all necessary materials, labor, transportation costs, etc. to complete said repairs. All warranties are contingent on the full payment by the owner of all pertinent invoices.
- e) The bidder shall provide a maintenance program to the owner. The warranty shall be subject to compliance with said maintenance program.