# **1.1 DESCRIPTION OF WORK**

The contractor shall provide all labor, materials, equipment, and tools necessary for the complete installation of an in-filled (if specified) synthetic grass surface with a stable draining base. The complete synthetic grass system shall consist of, but not necessarily be limited to the following:

- A. Site construction with the extent of artificial turf work as shown on the drawings.
- B. Subgrade, base, and drainage construction as specified in Section 2 and Section 3 of this document.
- C. Quality synthetic grass product manufactured, in the USA according to specifications in Section 2 of this document. Product shall meet or exceed all guidelines as established herein, or for characteristics not specifically stated, shall meet or exceed all guidelines published by the Synthetic Turf Council.
- D. The synthetic grass surface shall be specifically designed, manufactured, and installed for the intended use.
- E. A resilient infill system (if specified), consisting of 30-50 mesh rounded silica sand.

## 1.2 SYSTEM PERFORMANCE

Contractor shall ensure that products for synthetic turf system meet the following performance requirements:

- A. All components and their installation method shall be designed and manufactured for GolfGreens use. The materials as hereinafter specified shall withstand full climatic exposure in the location of the installation, be resistant to insect infestation, rot, fungus, mold and mildew, shall also withstand ultraviolet rays and extreme heat.
- B. The seams of all system components shall provide a permanent, tight, secure, and hazard free surface.

# 1.3 SERVICE AND QUALITY ASSURANCE

Synthetic grass vendor shall provide ongoing service, quality assurance, and warranty consisting of, but not necessarily be limited to, the following:

- A. The synthetic grass vendor must provide competent workmen skilled in this type of installation. The synthetic grass vendor shall provide a qualified installation foreman to coordinate and review the component parts of the synthetic grass system. Foreman shall be introduced to owner or owner's representative prior to start of construction.
- B. The synthetic grass vendor must be experienced with no less than ten completed installations. Installer must be competent in the installation of this material, including attachment of seams and proper installation of infill material prior to the start of turf installation.

- C. The synthetic grass vendor shall submit its manufacturer's warranty, which warrants the usability of the synthetic grass system for its intended uses with the following minimum characteristics:
  - I. Provide full coverage of materials for a minimum of fifteen (15) years from the date of substantial completion.
  - II. Warrant that the materials installed meet or exceed the product specifications.
  - III. Be from a single source covering workmanship and all materials.
  - IV. Assure the availability of exact or substantially the same replacement materials for the synthetic grass system for the full warranty period.
  - V. Include general wear and damage caused by UV degradation. The warranty may specifically exclude vandalism and Acts of God beyond the control of the manufacturer or installer.

## 1.4 SUBMITTALS

Synthetic grass vendor must submit the following to owner or owner's representative with the official bid package:

- A. One (1) copy of the most recent installation reference list for projects of similar scope to this project completed in last three years.
- B. One (1) 12"x12" loose sample of proposed synthetic grass product and one (1) 12"x12" boxed sample including infill (if requested) representative of finished synthetic grass system.
- C. One (1) of the product warranty for proposed synthetic grass product.
- D. One (1) copy of edge details of proposed installation and terminations of synthetic grass system.
- E. One (1) copy of a signed letter from synthetic grass vendor certifying that the proposed synthetic grass product is manufactured in the USA.

# **2 PRODUCTS**

### 2.1 SYNTHETIC GRASS SYSTEM

A. Synthetic grass: Pin Seeker
Pile Weight: 40 oz./sy.
Face Yarn Type: Twisted polypropylene slit film
Yarn Count: 7000/1
Pile Height (tufted): 1-1/8 in. (finish height may be slightly lower)
Color: Turf Green
Construction: Single yarn
Tufting Gauge: 3/8 in.
Backing: Primary: 13/18 pic PET woven (2), Secondary: Polyurethane
Seaming: Turf adhesive
Total Product Weight: 69 oz. /sy. (+/- 2%)
Finished Roll Width: 15 ft. (4.6 m)
Finished Roll Length: Up to 240 ft. (73 m)

- I. The synthetic grass shall be delivered in 15-foot-wide rolls. The rolls will be laid out and installed as specified in the site layout and equipment placement drawings.
- II. All seams shall be installed and secured with turf adhesive.
- III. Infill material is recommended for best play and performance. Recommended infill amount is not to exceed 7-8 lbs. of 30-50 mesh rounded silica sand per square foot.

## **3 EXECUTION**

# 3.1 BASE AND DRAINAGE CONSTRUCTION

The synthetic grass base contractor shall strictly adhere to the installation procedures outlined under this section and by the engineer's drawings. Any variance from these requirements must be accepted in writing, by the synthetic grass vendor, and submitted to the owner or owner's representative, verifying that the changes do not adversely affect the performance or warranty.

- A. Excavation: Existing ground cover shall be excavated to the depth established on the excavation plan. The subgrade shall also be compacted to a minimum of a 90% compaction rate.
- B. Synthetic or plastic wood nailer board: The synthetic turf perimeter fastening structure shall be installed before the drainage aggregate.
- C. Install a plastic nailer board. Nailer board shall be flush to grade or as specified in site detail drawings. This shall be the responsibility of the synthetic turf base contractor. See synthetic turf edge attachment detail.
- D. Base Drainage Aggregate: Installation of the free draining base aggregate of 5/8" minus (with fines) or smaller, shall follow procedures that protect the base grade soils. It must be installed to a minimum depth of 6". The drainage network and its existing elevations shall not be disrupted through ground pressures from trucks, dozers, or by any other means.
  - I. The stone shall be left firm, but not over-compacted as to protect the porosity and drainage capabilities of the aggregate profile.
  - II. The free draining base course should be designed to meet local soil and weather conditions. It must be installed to a minimum depth of 6" with an overall compaction rate of 90%.
- E. Top Finish Stone: There should be a top-finish stone dust or limestone sand that is no less that 1.5" thick that is used to create a smooth and hard top dressing. This layer should be tamped two times. The ridges from the tamper should be knocked down, and then a water roller should be used to smooth out the stone. This top surface should be finished like concrete and be very smooth.

# 3.2 SYNTHETIC GRASS SYSTEM INSTALLATION

After a final inspection of the stone base by the synthetic grass contractor and the owner's representative, the synthetic turf installation shall begin.

- A. Synthetic grass rolls shall be joined via approved seaming methods determined by the manufacturer.
  - I. Seams shall be flat, tight, and permanent with no separation or fraying.

- II. Seams shall be rolled with weighted roller to ensure adhesion.
- III. Synthetic turf yarn fabric that is trapped or glued between seams shall be freed from the seams by hand or other approved method to an upright position prior to the commencement of brushing and top dressing synthetic grass rolls by the manufacturer wherever possible.
- B. Synthetic Turf Perimeter Attachment:
  - I. After final layout and seaming of the synthetic grass product, the synthetic turf material shall at a minimum be secured to the top of a synthetic wood or plastic material nailer board firmly anchored to sidewalk, curb, or wall making up the perimeter of the synthetic turf area. As an alternate installation method, the synthetic turf may be wrapped over the edge of the curb nailer board and secured the full depth of the nailer board.
  - II. The turf shall be attached to the plastic nailer board by stainless steel staples.
  - III. Soil or surfacing material outside of the defined synthetic turf area shall be backfilled against turf wrapped perimeter edge and have zero transition edge to synthetic turf unless otherwise specified.
- C. Infill Application: After all seaming is completed, the infill materials (if specified) shall be applied evenly and the synthetic turf grass groomed by means of power broom.

## 3.3 CLOSEOUT

- A. The synthetic grass vendor must verify that a qualified representative has inspected the installation and that the finished synthetic surface conforms to the manufacturer's requirements.
- B. Extra materials: Owner shall be given option to retain and store excess materials such as excess turf and infill ordered for project, but not installed.

### 3.4 CLEAN UP

- A. Contractor shall provide the labor, supplies, and equipment as necessary for final cleaning of surfaces and installed items.
- B. During the contract and at intervals as directed by the owner or owner's representative and as synthetic grass system installation is completed, clear the site of all extraneous materials, rubbish, or debris, and leave the site in a clean, safe, well-draining, neat condition.
- C. Surfaces, recesses, enclosures, etc. shall be cleaned as necessary to leave the work area in a clean, immaculate condition ready for immediate occupancy and use by the owner.