SYNTHETIC TURF INSTALLATION GUIDE

An installation overview for Homeowner DIY and professional synthetic turf installers.

The following installation guide is to be used as a general overview of a typical synthetic turf installation. While the following guide describes common installation practices, every project is unique and you should always consult with a professional installation provider for recommendations specific to your project.

Pre-Installation Due Diligence

Arguably the most important step in any process is the groundwork and due diligence done before the action begins. Proper planning is critical to avoiding costly mistakes and will save you time, money and lots of frustration before, during, and after your installation. Some things that should be considered before the shovels come out are:

- ***Which synthetic turf product is most appropriate for your project?*** Product appearance, traffic and performance rating, face weight, drainage flow rate, warranty coverage, material cost are important details to consider and should weigh heavily into your decision on which turf product to purchase. Selecting the right turf is critical to the longterm performance of your installation. Generally speaking, the higher the face weight of the turf, the better suited it is for higher foot traffic. A 50 - 65oz face weight is considered to be a low face weight and rated for low-traffic zones such as front yards. A medium face weight (70 - 80oz) is usually recommended for moderate traffic zones and high face weight (85 - 100oz) is ideal for high traffic zones such as backyards, pathways and playgrounds.
- ***How much material should you order?*** Once you have a design established you will need to determine which direction you will want the turf grain to face in order to accurately measure how much turf you will need. Most turf products have a grain that leans in one direction. The best side to view the turf would be looking into the grain (for example: if you are installing turf in your front yard, you would typically have the grain lean towards the street so that people facing the house from the street would be looking into the grain that is leaning towards the street. Looking into the grain typically provides the best color and least amount of sheen. Note: whenever two or more sections of turf are to be seamed together, you must maintain the same grain direction across all pieces. If you seam sections together without keeping the consistent grain direction you **will** notice a color difference and seams **will** be visible. Most manufacturers produce their rolls in 15ft widths and 100ft lengths (a full roll = 15 x 100ft or 1,500 square feet). Some manufacturers produce rolls in 12ft

and/or 13ft widths, however, 15ft is the most common. The positive and negative side of the grain will run perpendicular to the width of the roll. Measure the longest point-to-point in length for each 15ft wide section (example: You have a front yard square that is 20ft wide x 25ft long. You will need to order two sections that are 15ft wide in order to cover the 20ft width and and add at least 1 to 2 ft to the length to allow room for error and maneuvering. In this example you would order 2 pieces 15ft wide by 26ft long or 780 square feet. Take your time during the layout and measuring process to ensure accurate takeoffs and consult with a professional if you need assistance with measuring and/or ordering.

- ***Will you need to run any utilities prior to installation?*** Something often overlooked is the need for underground utility lines either within the turf area or in areas beyond the turf that would require trenching through the turf area. Depending on the grade and runoff access you may need to maintain or install drainage in your turf area. Although all of our synthetic turf products are highly permeable, water will very gradually percolate through the compacted sub grade material and without a proper drainage collection system in place, water can swell and pool during rain fall and could cause drainage issues. Plan for the worst, and if possible, install a proper drainage collection system to prevent any standing water. Irrigation needs for planters in and around your synthetic turf area is another important detail to plan for. If you have island planters that you will need to maintain water, electrical, or drainage too, plan to run these utilities below the depth of your sub grade so that they will be safe from the turf installation. *Pro-tip:* Consider installing additional conduit sleeves (extra pipes) below the turf to allow for future access should it ever be needed.
- ***Are there any potential hazards that could impact the turf?*** Proactively looking for potential issues that could cause damage to your turf will save you from having to make costly repairs in the future. some potential issues to look for are: Gophers - areas with a history of gopher activity should have a gopher wire mesh installed beneath the turf base to prevent gopher damage. Another common concern would be UV reflection from nearby windows, vinyl fencing or other reflective surfaces that could cause the synthetic turf fibers to melt. Be careful to no set any hot tools or other items on the turf which could potentially damage the turf. Most synthetic turf grasses are made from polyethylene (plastic) which has a melting point of around 200 degrees. Power tools such as gas trimmers and hedgers have a carburetor that can get extremely hot; setting these tools down on the turf while hot will melt and damage the turf fibers. Also be aware that setting heavy objects on the turf (i.e. above ground pools, bouncy houses, soccer goals) may result in premature matting of the turf fibers. We recommend moving these types of items around frequently and grooming the turf to assist with keeping the fibers upright.

STEP 1: Site Prep - Excavation & Sub Grade

Preparing for the excavation and sub grade is crucial for the success and longevity of any artificial turf installation. The following is a guideline for a typical synthetic turf lawn application over an aggregate base.

1. Gather the necessary tools and materials: You will need tools such as shovels, rakes, measuring tapes, and wheelbarrows, or equipment such as a sod cutter and/or skid steer and dumpster bins. You will also need materials such as class II road base, decomposed granite, and landscape fabric with sod staples or turf nails.
2. Clear the area: Remove any existing vegetation, rocks, debris, or other obstructions from the area where you plan to install the turf. Use a shovel or a sod cutter to remove any existing grass, weeds, or

other vegetation.

3. Excavate the area: Dig up the area to a depth of at least 3-4 inches. If the area is uneven, use a level or string line to ensure that the excavated area is level. If you have a large area, a skid steer will help speed up the process and prevent a sore back. If you cannot spread the excavated material on-site, a roll-off dumpster container or pick-up truck will be needed to export the excavated material.
4. Compact the soil: Use a plate compactor and/or hand tamper to compact the native soil. The goal is to create a firm, even surface that will provide a stable base for the artificial turf.
5. Base Prep: Add a layer of approximately 3 inches of class II road base over the compacted soil. Use a rake to spread the base evenly (contouring for drainage and aesthetic slopes if desired), compact the base using the plate compactor and/or hand tamper.
6. Decomposed Granite: Add a layer of 1 to 2 inches of DG over the compacted class II base. Again, use a rake to spread the DG evenly and compact it using the plate compactor and/or hand tamper. A water roller (aka sod roller) also works great to roll the DG to give it a smooth and compacted finish.
7. Install landscape fabric: Install a layer of landscape fabric over the finished DG layer. This will help prevent weeds from growing through the turf and will also provide additional stability. Note: For areas with heavy pet usage, we recommend foregoing the weed block fabric to reduce bacteria built up between the layer or fabric and turf / base.

Step 2: Turf Installation

Gather the necessary tools and materials: You will need tools such as utility knives / scissors, measuring tape, chalk line, power broom, and adhesive spreaders, and materials such as the turf, infill, turf nails, seam tape, and seam adhesive.

1. Unroll the turf: Unroll the synthetic turf and let it sit for a few hours in direct sunlight to allow the backing and fibers to relax and flatten out. Trim off 2-4 stitch rows from each side of the turf roll using a utility knife.
2. Position the turf: Position the turf over the prepared subgrade and ensure that it is properly aligned and centered. Depending on your seaming technique, leave an extra 3 to 9 inches of turf on each edge to allow for trimming and joining of the seams.
3. Cut and join the turf: Cut the turf along the seams where it needs to be joined. You will typically use either a straight line technique or a scalloped line or "S" seam technique (there are other methods be these are the most common). There are tools available online to assist with cutting the scalloped curved seam lines. Use a high quality seam tape and adhesive to join the pieces of turf together, making sure that the seams are tight and secure. With straight line seams, the gap between the two sections of turf should be similar to the gauge of the stitch rows in your turf (some common stitch row gauges are 3/8" and 1/2" but can be as much as 5/8"). Set the infill sacks down the seam line overnight to add pressure to the seam while the adhesive cures to ensure a good bond between the turf, the tape and the adhesive.
4. Stretch the turf outward towards the perimeter using a carpet kicker to stretch the turf out removing any slack. Place temporary nails in the turf as you work your way outward towards the edges.
5. Trim the edges: Once the turf is stretched, trim the perimeter edges of the turf using a utility knife or scissors. Take your time to cut the turf edges cleanly along the border (usually concrete or bender board) so that you don't end up with large gaps between the edge of the turf and the border, or long over lap that will require further trimming.

6. Securing the turf: The most common method of securing the turf is to nail the turf every 4 to 6 inches around the perimeter and every 2 to 3 feet on center throughout the field using either 5-inch 40D Common, or, 6-inch electro-galvanized nails. For playground areas or applications where nails are not advised, install a perimeter nailer board (either pressure treated 2x4 or composite) around the perimeter and secure the turf edging pneumatically with 3/8-inch x 1-inch galvanized staples.
7. Install infill: Spread the infill over the synthetic turf using a power broom. Make sure that the infill is evenly distributed and that the turf fibers are standing upright.
8. Brush the turf: Use a power broom to brush the turf fibers in the opposite direction of the grain. This will help the fibers stand up and look more natural and help to place the sand into the turf base.
9. Final inspection: Do a final inspection of the installation to ensure that the turf is properly installed and that the seams are tight and secure.

STEP 3: Maintain Your Turf

Maintaining artificial turf after installation is important to keep it looking good and prolong its lifespan. Here are some steps to help you take care of your artificial turf:

1. Brush the turf regularly: Brushing your artificial turf regularly (at least once a month) helps to prevent the fibers from flattening and keeps them upright. Use a stiff-bristled brush or a powerbroom to brush the fibers in an upward direction.
2. Remove debris: Leaves, twigs, and other debris can accumulate on your artificial turf and cause it to look unsightly. Use a leaf blower or a plastic rake to remove debris from the turf.
3. Clean up spills and stains: If you spill something on your artificial turf, clean it up as soon as possible. Use a mild detergent and water to clean up spills and stains. Avoid using harsh chemicals or bleach as they can damage the turf fibers.
4. Keep the turf surface cool: Artificial turf can get very hot, especially during the summer months. To keep the surface cool, water the turf with a garden hose to cool it down before using it.
5. Prevent damage: Avoid placing heavy objects on your artificial turf as they can damage the fibers. Also, avoid using sharp objects like knives or scissors on the turf.
6. Apply weed killer: Apply a weed killer to your artificial turf to prevent weeds from growing. Be sure to use a weed killer that is safe for artificial turf.
7. Pet Cleaners: If you have pets, clean up solid waste and rinse thoroughly with water. Apply enzymatic cleaners frequently or on an as-needed basis to help disinfect and deodorize the turf.
8. Schedule professional maintenance: It is recommended to schedule professional maintenance at least once a year to keep your artificial turf in good condition. A professional maintenance service can assess the turf for any damage, clean it thoroughly, and reapply infill as needed.