HERO Turf Installation Guide
Outdoor

The synthetic turf installation process includes ground preparation which entails removing a portion of the existing landscaping. A blend of crushed rock is then spread and compacted to create a stable base and weed barrier. The artificial grass is then laid and secured. All artificial grass seams are nailed or glued and or stapled to avoid them coming apart. Lastly, the synthetic grass is in-filled with silica sand or Envirofill, natural occurring silica sand. This artificial grass installation will provide the safest and most effective synthetic grass surface

1. DESIGN PHASE

Drainage:
Will the existing drainage system be adequate? Will the artificial grass project area require additional drains or modified drains, grading or sloping?

Soil Condition:
Will you need to wet or soften the ground or use a jackhammer to remove large rocks? Rain soaked soil may need to dry a few days before artificial turf work begins.

Irrigation:
Are there sprinklers or bubblers for the remaining trees and plants or does irrigation need to be finished first? Identify all irrigation lines, electrical conduit, etc. below ground that could be damaged during the synthetic turf installation.

Preventing Future Damage:
Determine if additional supplies are needed to prevent damage from rodents or ground animals. Rodent wire (similar to chicken wire) may be appropriate. Is there a dog that could pull up the artificial grass? If so, the entire perimeter should be secured, to prevent the synthetic grass from being pulled up or damaged.

Existing Design Elements:
Is there a concrete border? Is it smooth? Will you need to nail into concrete footings? If you are using curbing, edging or border materials, install it prior to cutting the synthetic grass, as this will give you a more accurate measurement for the fake grass.

Measurements:
To reduce labor, measure the project area carefully and design the layout to minimize the number of seams in the artificial lawn.

Design Application Tips:
All synthetic grass products have a nap direction that must be taken into account. Note the nap direction and install all sections of fake grass in the same nap pattern. Installing synthetic grass in opposing grain patterns may result in noticeable seams.

2. GROUND PREPARATION

Underground Hazards:
Irrigation and electrical lines may be located just under the surface of the project area. Locate all irrigation/sprinkler heads. Cap off or remove all unwanted irrigation/sprinkler heads. Turn on irrigation to verify everything works correctly before you start. Do the same with any existing electrical features.

Existing Material Removal:
Utilize a sod cutter, shovel and pick axes to remove all unwanted grass, sod, and vegetation. Remove all unwanted tree roots, mulch and large rocks. Grade the sub-base.

Base Preparation:
Installing the base surface under the artificial lawn is critical to maintaining the stability and integrity of the artificial grass turf system. First layer of 2" Class 2 Road Base and second layer of 1" Decomposed Granite, should be spread evenly over the area.

Base Material:
The base material should be spread evenly. Shape to desired appearance – flat, slight roll, slight grade for drainage, or mounded.

Base Treatment:
Lightly wet the project area and compact the base material with a roller compactor or plate compactor. Continual passes over the project area are required until a compaction rate of 90% or greater is achieved. When dry, the project area should be firm under the artificial grass turf system.

Base Height:
After the base is installed, the top of the artificial grass blade should be in the range of 1 1/8" – 1 7/8" above any surrounding hardscape, such as sidewalk or cement curb.

Other Accessories:
Rodent wire- Install wire over entire sub-base area, with one square overlap. Secure wire to ground with landscape staples. Weed barrier is recommended to be installed on top of finished base material.

3. ARTIFICIAL GRASS INSTALLATION

Unroll the synthetic grass and stretch across the top of the prepared base. Do not drag fake grass acrossthe prepared base. If the synthetic turf has wrinkle, lay it flat on a flat surface in the sun. Be sure to have the nap direction of each artificial turf roll facing the same direction.

Cut the artificial turf to fit the project area with a razor knife or carpet cutter. All cuts must be made from back side of synthetic turf to see the stitch rows. Complete cutting before any seaming.

When cutting curved edges, you should cut in small increments to match the design. Using a silver marker to draw lines on the back side of the artificial turf is recommended.
If seaming two synthetic turf rolls is required, trim the edge of each piece so that they are very straight. Once the edges of each roll are straight, lay them adjacent to each other on the base in the desired position. Make sure that the stitch lines match. If the cuts are straight and the tuft lines match, the seams will be virtually invisible.

Place both ends of the artificial turf edges together, line up the stitch lines and fold back the edges of the synthetic turf sections to lay the 6"-12" seeming material underneath the fake sections. Apply a weather resistant adhesive using a zigzag pattern. Fold the two sections of artificial grass down together over seaming material to form one seamless piece of synthetic grass. An alternative to seeming artificial grass together is to use 4" 20d or 5" - 6" 40d nails.

Place weight on the seam to hold the synthetic grass in place while the glue is drying and also can use nails (previously mentioned size) along the seam both sides with 3"- 4" spacing.

Attaching the artificial grass to the border:
If there is treated lumber around the border, then nail the grass to treated lumber every 3" to 6" with 20D or 40D nails.

If using Benderboard or Polyboard around the border, use an air gun to attach the synthetic grass.

If perimeter material is not used, use 4" 20d or 5"- 6" 40D nails to secure the synthetic grass at the edges.
Space the 20d or 40d nails along the perimeter edges approximately 3"– 6" apart.

Turn on irrigation to check that all desired sprinkler heads are capped and pipes have not been punctured. Check all electrical lighting.

4. ARTIFICIAL GRASS INFILL

Proper infill installation is critical to maintaining your artificial grass system. 1-3 lbs. per sq. ft. Infill helps to protect the synthetic grass from the elements while maintaining the blade structure and level design. Spread infill material evenly. Utilizing a drop spreader (the type commonly used to spread grass seed), or a flat shovel.

Do not attempt to install the infill material while the synthetic grass or the infill material is wet.

Place the infill material into the drop spreader and set dispenser gauge on 5 or Medium or use a shovel Distribute the infill material liberally, but evenly over the artificial grass. Always install sand products first.

In between spreading the layers of infill material, brush the synthetic grass fibers upright with a stiff bristled industrial broom, carpet rake or a power broom.

When the infill process is complete, water the entire area evenly with a hose to settle the material.

Clean Up: Broom and hose off area.

FOR FURTHER INFORMATION PLEASE EMAIL TECHNICAL@HEROFLOORING.COM

Glue Synthetic Turf on Concrete
Installing turf on concrete

Prepare the surface of the concrete
The concrete surface must be clean and prepared to ensure that the adhesive will penetrate and provide a strong bond for the life of the turf. Remove grease, oil, stains, etc. to prevent the adhesive from delaminating.

Layout of Synthetic Turf Sections
The drawing and schematic that you have created for the layout of sections of synthetic turf should start with the “seam connection”. It is recommended to snap a colored chalk line on the concrete surface at all center of seams and exterior edges. This will not only give your workforce an idea of where to start and stop the “glue line”, but will allow the installer to understand the process throughout the installation and use this colored line as a reference.

Connection of Seams
Remove the scrim from the edge of the rolls, place the first sections seam edge on the colored chalk line. Place 50-pound infill bags closely together approximately two feet away from the edge of the seam. The bags should be placed the entire length of the section that is to be seamed. This will prevent the section of turf from moving while working on section two. Take section #2 and connect it together as you would do in your normal seaming procedures. Place 50-pound infill bags closely together approximately two feet away from the edge of section #2 and the entire length of the section. Double check both sections to make sure they are ready and in position to place adhesive/glue.

Understanding Compression Force and why it is important when it comes to Adhesive/Glue
Compression Force is the application of power, pressure, or exertion against an object that causes it to become squeezed, squashed, or compacted. Synthetic turf backing is not a flat smooth surface. The gauges on the back of synthetic turf are elevated from the backing itself. Properly adhering synthetic turf to any surface requires compressive force after the adhesive/glue is applied. It is imperative that the adhesive/glue reach the backing of the synthetic turf and not just the gauges. I have seen contractors use pieces of cardboard to place synthetic turf glue and the Adhesive/Glue was placed too thin. Purchase a 1/8” trowel from your nearest hardware store and don’t chance future failure of your installation.

The #1 failure of adhesive/glue in the synthetic turf industry
1. No compression force was applied
2. Inferior Adhesive/Glue
3. Lack of Adhesive/Glue or it was applied too thin
4. Adhesive/Glue dried out prior to installation of synthetic turf

Placing Adhesive/Glue

Once the first two sections are in place and the seam is secure, fold both sections #1and #2 back approximately two feet for each section. Doing this will expose four feet of the concretes surface. Using a 1/8" notched trowel, spread Superseam Pro Adhesive evenly to the exposed four foot concrete surface the entire length of the two sections. Spreading the adhesive/glue too thick will allow the adhesive/glue to come up through the seam and/or drainage holes. Depending on the surface porosity and temperature it is best to place adhesive/glue in a timely manner. If the adhesive/glue starts to dry before you can place the seam together it will cause future delamination and seam rupture. It is recommended to have as many men available to spread the glue. This will give your workforce enough time to connect the seam before it starts curing. Once the adhesive/glue is spread evenly, connect the two sections together and secure by placing 50 pound bags next to each other and on top of the center of the seam. Allow the bags to sit for approximately 30-45 minutes checking the seam periodically. Once the two sections are seamed together and cured, fold back section #1 until reaching the point of adhesive/glue. Place adhesive/glue on the concretes surface approximately 4' the entire length of section. Slowly roll section #1 down on the glued surface. Use a water roller and slowly roll the top of the synthetic turf over the glued area. Follow these steps for the next 4'of glue down until you have reached the end of section #1. Do not glue past the next seam line. Fold back section #2 and repeat the steps above until you have reached the outside edge/seam of section #2. Do not glue past the next seam line. Now that section #1 and section #2 are completely glued to the concrete surface, take section #3, remove the scrim and connect to section #2. Follow the steps above and secure section #3 by placing 50 pound bags two feet away from the seam of section #3. Glue the concretes surface and place section #3 and section #2 together. Secure by placing 50 pound bags next to each other and on top of the center of the seam. Repeat these steps for all other sections that are to be connected and adhered to the concrete surface until you reach the exterior of work area.

Adhering the edges are very important

When adhering synthetic turf on concrete it is very important to give attention to the outside edge line. The exterior edges are the first to fail when it comes to synthetic turf "Glue downs". Make sure you place adhesive evenly and compress after placement.

Getting rid of wrinkles and repairing areas that are not glued

When your installation is complete, It is recommended to do a "Pull Check" on all seams and edges, sometimes wrinkles will happen. If the infill is already placed and you come across any wrinkles, you must either vacuum or use a leaf blower to remove the infill prior to the repair. Remove the infill at the area to be glued, spread the fibers apart and cut a slit in the middle of the gauge. Once complete inject 29-ounce cartridge adhesive underneath the backing of the synthetic turf. Be careful not to get any adhesive on the fibers or place too much. After the adhesive is injected place 50-pound infill bags on repairs for 30-45 minutes. Check the repair periodically until cured.

Temperature

Exterior "Glue Down" applications require more attention than Interior "Glue Down" applications. The temperature change alone can make or break an install. The concretes surface can reach up to blistering high degrees. Adhering Synthetic turf to concrete that is above 160 degrees lessens the penetration of both the adhesive to the concretes surface and the adhesion to the backing of the synthetic turf. It is recommended to install the adhesive early in the morning or early evening when the temperature are cooler. The lower the surface temperature the deeper the penetration and adhesion between the concrete and the synthetic turf. Cooler temperatures will also prevent out gassing. Out gassing is when air bubbles are created into the bond of the adhesive connecting the concrete with the backing. It is important to ensure all air bubbles and wrinkles are "water rolled out" as the adhesive is curing.

Maintenance

The longevity of the synthetic turf can be depleted over time due to the contaminants that lay within the fibers and backing of the synthetic turf. Moisture, urine, blood, vomit, fungus and bacteria are just to name a few. Since there is no drainage for "Interior Glue Down" applications, the synthetic turf will need to be maintained and cleaned often. It is recommended to use SGW Turf Fresh as needed. SGW Turf Fresh deep cleans synthetic turf and kills bacteria in urine, blood, vomit, and fungus.

JOB SITE AND GENERAL CONDITIONS

1. Ambient Temperature and Humidity Suitable Substrates -

The installation is not to begin until the HVAC system is operational and the following conditions are maintained for at least 48 hours before, during and 72 hours after completion. The HERO Turf is to be installed when the indoor temperature is 65-95ºF (18- 35ºC) with a maximum relative humidity of 65%. The substrate surface temperature should not be less than 65º F (18º C) at time of installation. Do not allow the temperature of indoor turf areas to fall below 50º F (10º C), regardless of the age of the installation. If these conditions are not attainable, contact the flooring manufacturer for applications to warranty. Bring all HERO Turf cut sizes and adhesives into space a minimum of 24 hours prior to installation to condition the HERO Turf. Unroll and smooth wrinkles, allowing product to relax.

2 . Surface Preparation -

The concrete surface must be clean and prepared to ensure that the adhesive will penetrate and provide a strong bond for the life of the turf. Remove grease, oil, stains, etc. to prevent the adhesive from delaminating.

3. Moisture and pH Standards -

- Moisture Vapor Emission Rate (MVER) Testing -

MVER tests must be conducted in accordance with the current version of ASTM F 1869, not to exceed manufacturer's requirements (ASTM F1869 - Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride).

- Relative Humidity (RH) Testing -

Testing for internal relative humidity of concrete slabs must be conducted in accordance with the current version of ASTM F2170, not to exceed manufacturer's requirements (ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes).

- Testing for Alkalinity -

Testing the pH at the surface of a concrete slab must be conducted in accordance with the current version of ASTM F710, not to exceed manufacturer's requirements (ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring).

Installing HERO Turf Indoors

1. Follow CRI 104 – Standard For Installation of Commercial Carpet (General Requirements and Broadloom Carpet Sections). http://cri104.info/

2. Seam Sealing (Direct Glue Down Only) - Apply a bead of seam adhesive to the cut edge of one side only in sufficient quantity to seal both trimmed edges. Ensure the bead thickness is sufficient to cover the primary and secondary backing without contaminating face yarns (See Figure 1). In order to bond the seam edges together, join the edges while the seam adhesive is still transferable.

3. Turf Adhesive: The recommended adhesive for the turf is NuBroadlok VRT which can be purchased locally

FOR FURTHER INFORMATION PLEASE EMAIL TEAMHERO@HEROFLOORING.COM