

## Blue Sky Interlocking Playground Tile - Sub-Surface Installation Summary

## Note:

A solid sub-surface such as concrete or asphalt is the preferred base for Blue Sky Interlocking Playground Tiles installations because of the predictable nature of these surfaces. Due to the Blue Sky Playground Tile interlocking design, a compacted aggregate sub-surface can be an acceptable alternative for some areas provided that it is properly installed. Sub-surface preparation is normally covered under a separate contract from the Blue Sky Interlocking Playground Tile installation, however the following information is provided as a brief guideline. It is important to note that proper installation of the aggregate sub-surface is one of the most critical and most often overlooked aspects of the surfacing project. Due diligence is recommended when preparing the sub-surface or selecting a sub-surface contractor.

- Evaluate existing drainage. If the installation area is lower than the adjacent grades and collects water or if there are standing puddles on the sub-surface, a sub-surface water drain system must be installed. It is recommended that an individual with drainage experience such as a soil or civil engineer inspects the site prior to commencement of the installation.
- 2. Remove topsoil until solid, packed and stable sub-soil is visible and level. (Test sub-soil for rebound). If sub soil is of poor quality then there is a possibility that geo-textile cloth may be necessary between the sub-soil and the granular sub-surface.
- 3. Install retainer edge. Various retainer edging options are available including, rubber flex curbs, wood, plastic and concrete retainers installed both above and below grade.
- 4. Install 4-8 inches of "Granular A" aggregate (terminology varies by region). Contact local soil engineers for detailed local aggregate specifications and performance expectations. Granular A shall consist of crushed rock composed of hard, fractured fragments free of clay coatings.
  - a. Granular A shall be produced from bed rock gravel, cobbles or boulders of uniform quality.
  - b. Granular A may also contain a blend or combination of crushed gravel, sand and fines produced from naturally formed deposits, crushed slag produced from air-cooled iron blast furnace or nickel slag, reclaimed Portland cement concrete or reclaimed asphalt pavement material. Install material in 3" layers.
- 5. Rolling Packer It is critical that the base be properly compacted. Without adequate sub-surface compaction the planarity of finished surface will change as the sub-surface planarity changes. Use a rolling vibrating packer or equivalent to reach 95% standard proctor density.

Complete multiple passes in both directions. Assist packing by wetting aggregate if necessary.

 Level sub-surface aggregate to +- ¼" over 10' measured in any direction. To ensure proper grade, install ½" of ¼" minus granite screenings or "chips and dust" over the final compacted and leveled sub-surface. This material is used to fill in any undulations in grade of the packed aggregate. Pack material as stated above.



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- 7. Extend granular base 3-6" past edge of installation. When no solid retainer edge is going to be used at the edge of the installation, then the granular base must be sloped off at a 4" rise in 12" run. Slope for 12 linear inches or until the packed subsurface is 4" below finished grade of adjacent surface. This prevents a tripping hazard in the event the adjacent loose fill surface erodes and exposes the edge of the resilient surface.
- 8. Base surface slope to be 2% in order to ensure adequate water drainage.
- 9. Inspect final packed aggregate base. It is important to carefully inspect any base supplied by an outside contractor.
- 10. Installation of geo-textile over granular base. Position the first 10' width of geo-textile fabric beside and parallel to the area that has the most cuts for posts and other adjacent supports. Cut this piece to fit adjacent supports. Allow cloth to extend 12" past the posts. Overlap joints by 12" and seal with tape or adhesive. After taping, stretch material as tightly as possible. Secure the fabric at edges by pinning with fabric pins, gluing to concrete retainer or burying under the soil at increased depth edges.

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