



StoneDeks System Rooftop Installation Methods

Use of StoneDeks System SilcaGrate™ can provide a safety net for rooftop pavers, improve accessibility to utilities under the pavers, and allow greater design options. The SilcaGrate™ will provide a continuous underlayment when using planks or pavers of varying sizes.

There are multiple ways to install rooftop pavers using SilcaGrate™;

1. Framing on pedestals using joist adapters (preferred method)
2. Directly on pedestals
3. As an overlay system on vinyl or composite sleepers, or on low profile pedestals or spacers
4. Artificial turf installation

Note: In most cases installing the SilcaGrate™ with the straps to the top will make your installation easier.

1. Framing on Pedestals:

This method can be used when there are large mechanical obstructions, or mechanical access points are needed.

Install pedestals with a joist adapter and fasten the wood or metal joists to the pedestal with 2" screws. Next fasten the SilcaGrate™ to the framing with a #9 x 3" standard deck screw and then install the paver or stone on top according to the installation method for the appropriate paver.

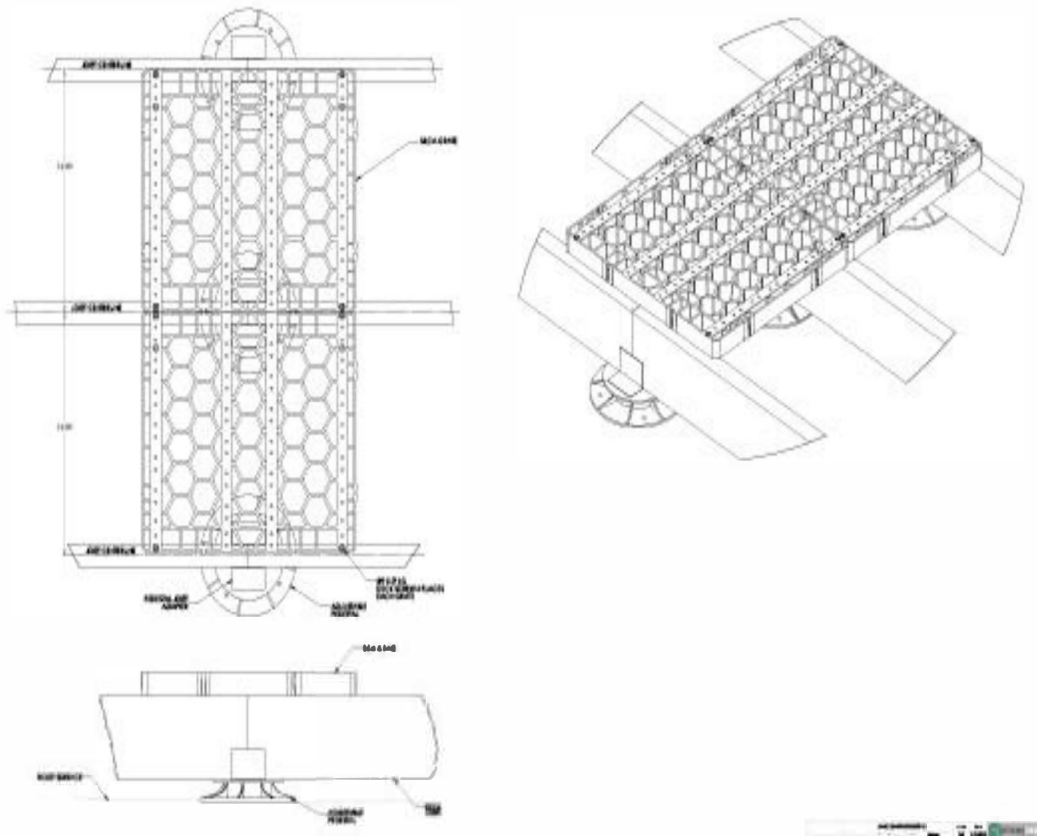
The span of the joist on the pedestal will depend on the load capacity of the pedestal, the size of the joist, and the size of the paver. Refer to the StoneDeks Design Tables for the joist applications.

If polymeric sand is used it will help to lock everything into place, but if the application requires it or if uplift is a concern, then the SilcaMat™ or geotextile can be secured to the grates with adhesive. The pavers can also be secured to the SilcaMat™ with adhesive as well. The pitch of the surface can be adjusted as needed if the paver system chosen is not permeable.

Advantages: When using pedestals and dimensional lumber you will use fewer pedestals and the SilcaGrate™ serves as a safety net in case of a paver breakthrough.



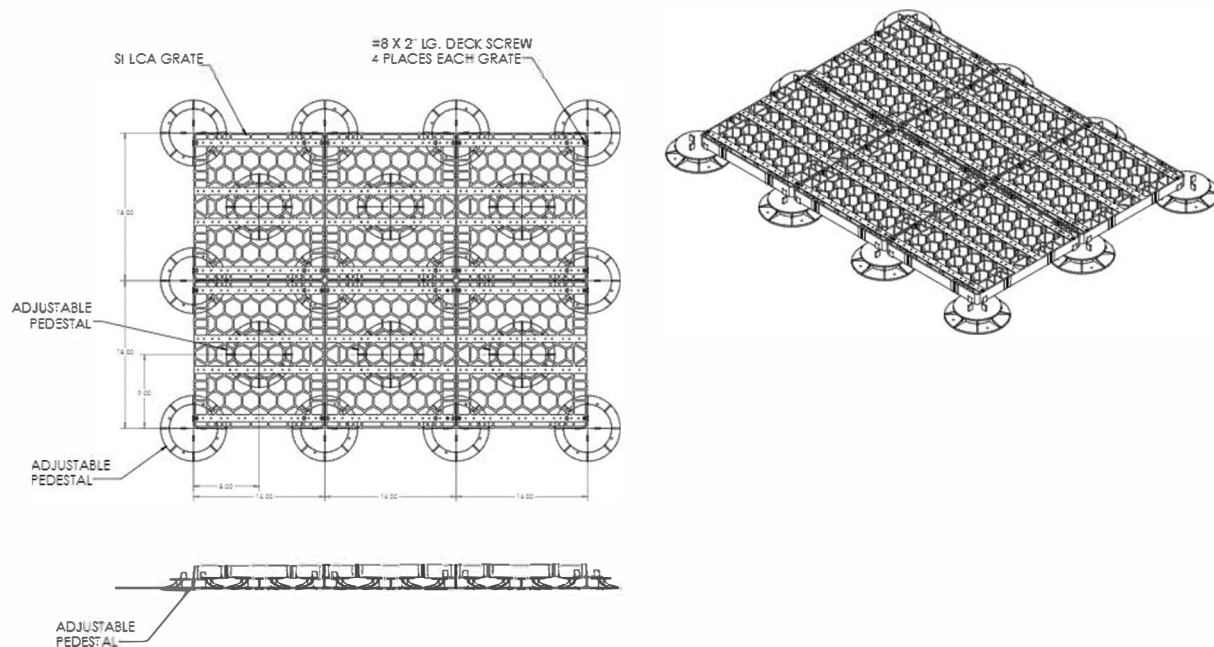
When installing on pedestals alone a center pedestal may be required



2. Direct on pedestals:

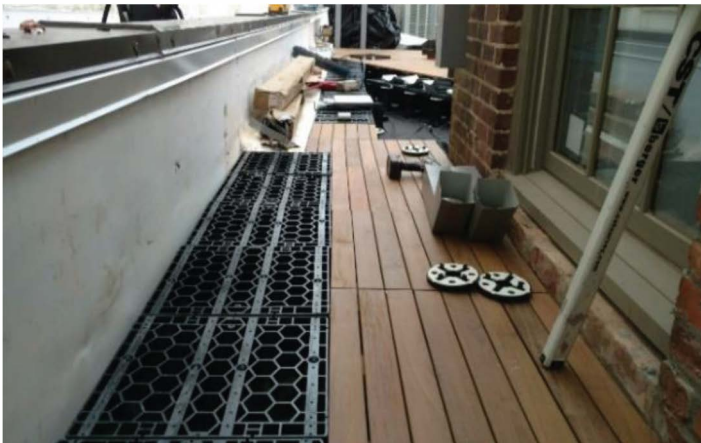
The SilcaGrate™ can be installed directly to the pedestals and secured with a 2" screw under each corner of the SilcaGrate™. When installing SilcaGrates directly on pedestals an additional pedestal should be used in the middle of the SilcaGrate™. After installing the grates on the pedestals finish the paver installation in the normal procedure for the chosen paver or stone.

Advantages: enables level to be easily adjusted and provides a continuous underlayment for planks or pavers or varying sizes.





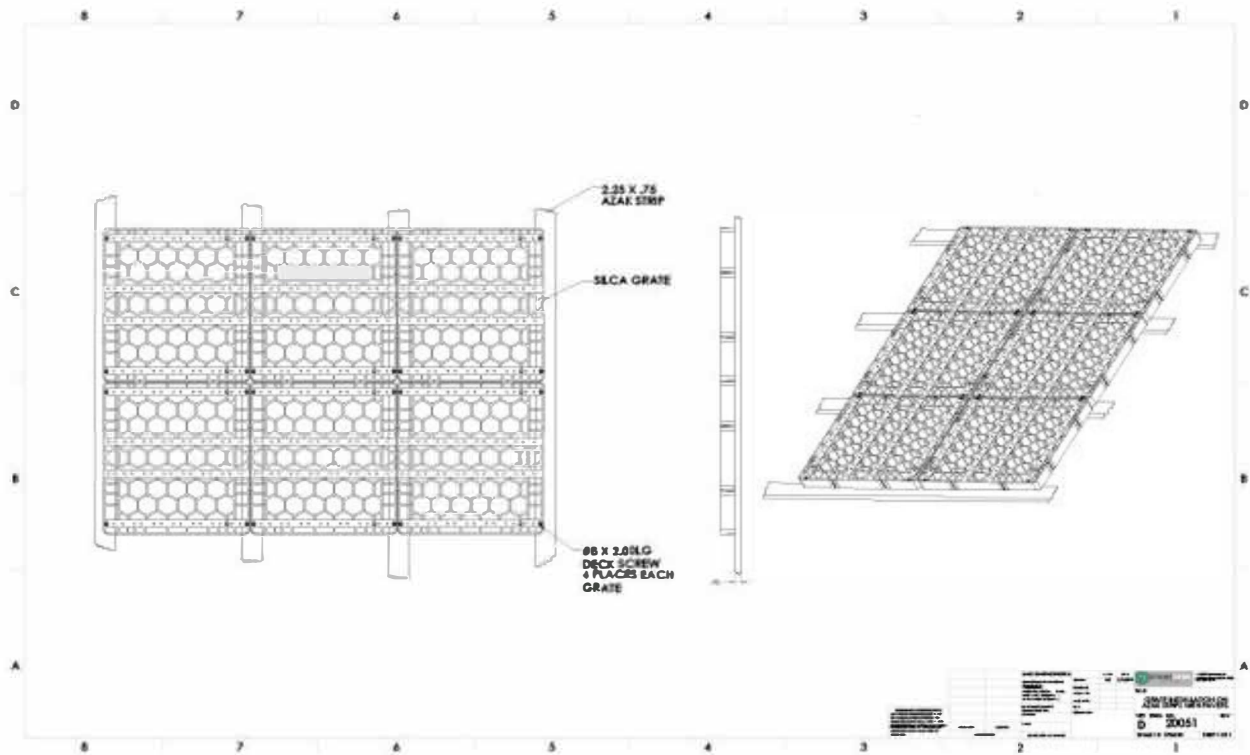
When installing small pavers or stone on pedestals alone a center pedestal may be required.



3. Overlay System:

The SilcaGrate™ can be supported with plastic or vinyl sleepers provided pitch and level are correct on an existing surface with limited mechanicals or no obstructions. Sleepers should be installed 16" on center and attached with 2" screws, allowing $\frac{3}{4}$ of an inch for drainage beneath. Install the sleepers in the direction of scuppers or drains and hold the ends back $\frac{1}{4}$ of an inch from the edge of the side of you roof when there is a parapet wall with scuppers. Do not allow the sleepers to block access for the water to flow to drains. Shims or low pedestals may be needed to provide a level surface.

Advantage: Allows installation when vertical clearance is limited and is very cost effective.



Overlay installation method

Note: Non-cumbustible installation:

In cases where you desire or are required to use a non-combustible system metal joists or framing systems can be used. StoneDeks System recommends the use of a tubular or closed joist. Open C channel joist are not recommended because of the rounded top which can create an uneven surface for the stone. Predrilling the holes for the screws is recommended because driving a self-tapping screw in, can heat the grate up enough to deform the area where the screw is being applied and will cause a bump in the grate that may cause a paver to rock.



4. Artificial Turf Installation:

Install SilcaGrate™ for rooftop application with one of the installation methods described above. Once the SilcaGrate™ is secured and leveled install 8mm SilcaMat™ by rolling it out on top of the grate. In most situations, if polymeric sand is used it will help to lock everything into place, but if the application requires or if uplift is a concern, then the SilcaMat™ can be secured to the grates with adhesive. The pavers can also be secured to the SilcaMat™ with adhesive as well. The 8mm T SilcaMat™ is permeable prevent movement during installation the joints of the SilcaMat™ can be joined with SilcaTape™ Deck Tape. Install a commercial grade artificial turf on top of the SilcaMat™ and secure using adhesive.

