DEPARTMENT OF
FACILITIES MANAGEMENT

103 Facilities Management Administration
Stillwater, OK, 74078
(405) 744-7147

Landscape Services

Safety Standard Operating Procedure

(Revised 2/2023)

Installation of Pavers on Aggregate Base

This SSOP provides guidance on the safe installation of pavers. As with any equipment or tools, the most basic premise for safe operation is reading and adhering to the manufacturer's instructions and warnings. This SSOP is not a substitute for the owner's manual produced by the manufacturer.

Safety

PPE Required for Installation of Pavers:	Gloves, safety glasses, sturdy footwear, hearing protection, (dust collection items?)
Paver Equipment Prerequisites:	Silica management training, concrete saw and masonry table saw training, proper plate tamper operations
Scheduled:	As Needed
Paver Materials Used:	Autumn Blend Facemix, Glen Gery Clay, Charcoal, Terracotta orange
Safety Hazards:	Vehicle and pedestrian traffic, lifting, bending, noise, equipment malfunction, hot or cold temperatures, sharp objects and inclement weather.
Safety Requirements:	Follow all Silica control guidelines, Setup barricades around work site with signage indicating area is closed off. Make sure to not block ADA access points. Water hoses and extension cords must be kept orderly to prevent a trip hazard.

Installation of Pavers

DISCLAIMER – This is for the generic installation of pavers around campus, always refer to the drawing for specific details on materials, dimensions, and specifications.

1. Before starting, please ensure that you have completed the Site Analysis process to encourage an accurate installation.
2. Excavation of paver base is to be dug to a depth of 5 inches PLUS the thickness of the paver being used.
    a. Soil generated from excavation to be hauled off and disposed of offsite unless otherwise instructed.
3. Setup stringlines as a guide for drainage.
    a. It is important to ensure that when setting out your stringlines that you are making sure that the drainage is being directed the right direction using grade.

    b. To properly achieve this, stringlines with proper slope will ensure that your base is completed properly to allow for drainage.
4. Compact the subsoil.
5. Install non-woven fabric on the prepared subsoil base.
6. Installation of 4" of compacted crusher run utilizing your stringlines.
    a. If you are installing a flat paver pad, your crusher run should be level.
    b. If you are installing a pitched paver pad, make sure that you achieve minimum 2% slope utilizing your stringlines/laser level.
7. Ensure that your compacted crusher run extends past the edge of the paver installation by a minimum of six inches all the way around.
8. Installation of 1 inch of bedding sand.
    a. For this step, it is important to utilize ¾" gas pipe to get the 1 inch thickness of bedding sand.
        i. Bedding sand MUST be masonry sand. Concrete sand is not an acceptable bedding sand.
    b. Place the gas rods flat on top of the crusher run base no more than 4 feet apart.
    c. Dump small piles of bedding sand on each side of the gas rods, enough so that when you screed the sand, you can pull excess sand towards you.
    d. Using a screed board that is 6 feet long, drag the screed board on top of the gas rods to create an even base of bedding sand.
    e. Install bedding sand in sections so that you can reach the space that you will be installing pavers on.
    f. Once you have screeded sand over the length of the gas rod, pull the gas rod out and install additional bedding sand in place where the gas rods were located.
    g. Using a small hand trowel, lightly spread the sand in the location of the removed gas rod with.
        i. IMPORTANT NOTE – Do not apply pressure downwards when using a hand trowel to infill the gas rod locations with bedding sand. This will affect the final product when using the plate tamper to install poly sand and pressing the paver into the bedding sand.
9. Once all bedding sand for the space has been completed, pull string lines to ensure that the pavers will be installed square to one another.
    a. Utilizing the 3, 4, 5 method, create a right angle with the stringline in the corner that you will start in.
        i. Regardless of pattern, it is always best practice to ensure the pavers keep a straight line over a distance to avoid improper joints using a right angle.
10. Installation of the soldier course. (Skip to step 7 if no soldier course required)
    a. Install the first paver, go to your squared corner, and set the paver in the corner of the stringline.
        i. IMPORTANT NOTE – Do not press the paver down.
    b. Install a few feet at a time of the soldier course so that you can lay pavers in the field of the patio.
11. To install the first field paver, go to your squared corner of the soldier course (or stringline if no soldier course is needed) and set the paver in the corner of the soldier course (or stringline).
    a. When placing pavers in the bedding sand, bring the paver next to the previous paver, click and drop the paver in place.
    b. IMPORTANT NOTE – Do not press the paver down.
12. Continue to lay pavers in the intended pattern designated to you by the plan.
13. As you continue to lay pavers, it is always best practice to step back and ensure that bond lines are staying true, and nothing has deviated from your string line used to ensure everything is square.
14. Repeat steps 4-7 until all the paver area have been laid.
    a. Some pavers may need to be cut to fit the space. It is important to measure twice and cut once.
    b. Make sure all PPE is in use when using tools to cut the paver.

15. Once all pavers have been laid, place your paver protection pad on the bottom of the of your plate tamper and tamp the pavers down into the bedding sand working in a circle starting on the outside and working your way to the middle.
16. Once you have made one round with the tamper, then work back and forth from one end to the other.
17. Remove the plate tamper from the pavers.
18. Spread poly sand across the top and begin to sweep in poly sand into the joints of the pavers.
    a. It is important to take your time with this to ensure you have plenty of sand in the joints.
19. Once poly sand has been swept into the joints, repeat steps 11-13.
20. After you have completed tamping the poly sand once, go back over the pavers and sweep in additional poly sand where joints have opened.
    a. It is important that bedding sand works halfway up the paver and poly sand works halfway down into the paver joint to create interlock.
21. Repeat steps 11-13.
22. After completing the compaction of the pavers and poly sand application, remove the excess sand from the bedding sand from the edge of the soldier course or field pavers if no soldier course is used with a trowel.
    a. Using the trowel, place the bottom of the trowel parallel to the edge of the paver and move straight down into the bedding sand and remove the bedding sand.
23. Apply water to the surface of the pavers to activate the poly sand in the joints.
    a. It is important that water penetrates the poly sand to properly interlock the pavers.
24. Installing the concrete edge restraint.
    a. Mix the concrete in the wheelbarrow.
    b. Once mixture is complete, apply concrete in a quarter round style that goes up the side of the paver ¾ of the way to the top of the paver and at minimum 4 inches away from the base of the paver.
25. Allow the concrete edge restraint 24 hours to cure.
26. Once the concrete edge restraint has been given 24 hours to cure, it is at this time that we can finish out the edge of the paver with the necessary material to hide the concrete edge restraint.

Industry Standards

Paver Application Guidelines via ICPI