

Installation Guidelines for Bituminous Setting Bed

Asphalt cement to be used in the bituminous setting bed shall conform to ASTM Designation D-946-69A with a penetration at 77 degrees F. 100G., 5 sec of minimum 85 millimeters and a maximum of 100 millimeters.

The fine aggregate to be used in the bituminous setting bed shall be clean, hard sand with durable particles and free from adherent coatings, lumps of clay, alkali salts and organic matters. It shall be uniformly graded from "coarse" to "fine" and all passing the No. 4 sieve and meet with gradation requirements when tested in accordance with the standard method of test for sieve and screen analysis for fine and coarse aggregates ASTM Designation C-136-67. The dried fine aggregates shall be combined with hot asphalt cement, and the mix shall be heated to approximately 300 degrees F. at asphalt plant. The appropriate proportion of materials shall be seven (7) percent asphalt cement and ninety-three (93) percent sand by weight in the approximate ratio of 145 pounds asphalt to 1,855 pounds of sand. The contractor shall determine the exact proportions to produce the best possible mixture for construction of the bituminous setting bed to meet construction requirements.

PLACING OF THE SETTING BED:

Install the setting bed directly over a prepared concrete sub-base. Place two screed rails at desired width to serve as guides for the striking board. The screed rails should be carefully set to ensure proper setting bed depth and finished paver grade. If necessary, adjustments can be made under the screed rails with wood chucks or shims; typical setting bed depth is 3/4". Place the bituminous material between the parallel screed rails. Position striking board perpendicularly over the screed rails and pull smooth. Repeat several times showering low porous spots with fresh bituminous material to yield a smooth, firm and even setting bed. As soon as this initial panel is completed advance the first bar to the next position in readiness for striking the next panel. Carefully fill any depressions that remain after removing the screed rails and wood chucks. The bed depth shall be adjusted to ensure the top surface of the placed pavers will be at the required finished grade.

JOINTING:

Asphalt Block:

Pavers should be laid with joints hand tight to a maximum of 1/16" wide. The joints must be filled with a dry sand. This can be achieved by brushing the sand into the joints. Any surplus sand should be removed from the completed paving.

Concrete Unit Pavers:

Concrete Unit Pavers should be laid with a minimum joint width of 1/16" to a maximum 1/8". Care should always be taken to maintain this minimum joint spacing to minimize paver-to-paver contact. The joints should then be swept with dry sand. Any surplus sand should be removed from the completed paving.

APPLICATION:

For all on-grade applications, gauging of pavers is recommended.

For pedestrian applications:

The setting bed shall be screed, while hot, to a nominal 3/4" depth. The thickness of the bed shall be adjusted so that when the pavers are placed, the top surface of the paver will be at the required finished grade. Rolling of the bituminous setting bed is optional in pedestrian applications. The use of neoprene tack coat is acceptable on a rolled bituminous setting bed, and its use is at the discretion of the designer/specifier. Please note the use of neoprene tack coat is not advised on an unrolled bituminous setting bed. (See attached detail for typical cross section.)

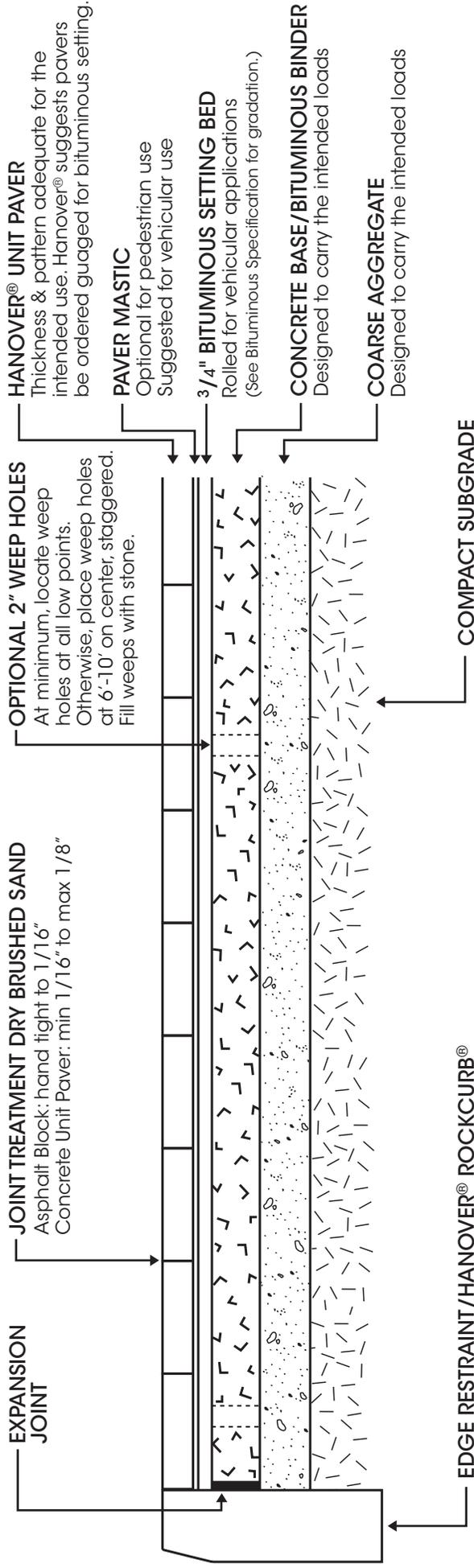
For vehicular applications:

The setting bed shall be screeded and rolled with a power roller while hot, to a nominal 3/4" depth. The thickness of the bed shall be adjusted so that when the pavers are placed, the top surface of the paver will be at the required finished grade. The use of neoprene tack coat is acceptable on a rolled bituminous setting bed, and its use is at the discretion of the designer/specifier. Contact Hanover® for the correct recommendations to be used in vehicular applications.



Bituminous Setting Bed

Cross Section Detail



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