The authoritative regulations are:
EN 1433 - Drainage channels for vehicular and pedestrian areas
EN 1433 includes an exception for the slot widths of slot channels which are installed in areas where the use of bikes is not permitted. On surfaces on which bikes are used, slot channels with a slot width equal to 30 mm may only be installed so that the longitudinal axis of the slot lies at right angles, or a maximum of +/- 45°, to the direction of travel.

Foundation:

1. The movement of the BG slot channels is carried out as follows depending on the condition of the foundation and the load class:

   Class D 400 kN type I — no load-bearing foundation required. The laying is carried out on a mechanically compressed base layer (= frost protection layer) and a blinding/levelling layer made of concrete.

   Class F 900 kN, type M — structurally calculated reinforced concrete foundation required according to project engineer's specifications. When laying on the reinforced concrete foundation, the connection between channel and foundation must be produced using a suitable volume-stable sealing or grouting mortar, at least 2 cm thick, with quality at least C 25/30. When using a grouting mortar, the slot channel must be positioned and aligned on appropriate spacers. When backfilling the channel, it must be ensured that there is even insertion and continuous support of the channel (avoid backfilling from one side).

   Lifting tool:

2. Reinforced concrete slot channels must be unloaded and moved using suitable moving tools which allow for even and precise lifting and lowering (e.g. truck-mounted crane, appropriate digger). The components must be suspended centrally. Moving tools available on loan from BG.

3. First the lower part of the moving tool is lowered into the slot channel and turned 90° to ensure that it is protected against rotation in the slot. Then the lifting device of the crane or digger can be hooked onto the moving tool and the channel can be moved easily and safely.

   Butt joints and sealing:

4. Ensure that the first channel in the line is precisely positioned. During laying, the surfaces must be precisely aligned.

5. Before bringing the elements together, the socket must be cleaned and the gasket applied to the point. The supplied lubricant is applied evenly to the gasket and to the sealing surface of the socket.

6. The slot channel hanging on the moving tool must then be brought to the channel that has already be laid, until the gasket is evenly covered and the parts can be securely pushed together. The width of the butt joint must be permanently set at min. 5 mm to

max. 15 mm. For uniform joints, we recommend, the use of wooden slats with a thickness of around 10 mm for example.

Covering surfaces and expansion joints:

7. Implementation of the road surface covering (asphalt, concrete, etc.) must be carried out according to the planned specifications. When connecting concrete surfaces, sufficiently large dilation joints (expansion joints) must be produced along the channel so that no temperature-related expansion forces affect the sides of the channel. Throughout the entire height of the channel, a continuous, suitable polystyrene plate or a bituminous softboard plate must be installed along the longitudinal join between the channel and concrete cover. These plates must be able to absorb the expansion forces of the concrete cover and may not transfer/dissipate the horizontal forces of the concrete cover onto the channel.

   IMPORTANT!
   Anyone implementing this must ensure that there is no rigid connection between the adjacent road surface covering (foundation, base layer, cover) and the channel.

8. All adjacent covers must permanently run at least at the same level as the channel surface in order to avoid mechanical damage (e.g. snow clearing) and in order to ensure proper water drainage.

Following completion of the adjacent surfaces, the longitudinal and transverse joints of the channels must be filled with a non-shrink sealant. It must be ensured that the transverse joints between the individual channel units are permanently formed so that minor, temperature-related longitudinal movements of the slot channels can be absorbed. In order to avoid spalling, the slot channels must not be driven on during the construction phase. When working with machines and vehicles, ensure that the channels are not damaged.