

Section V, C

Open Gate Bridges; Expansion Joints on Bridges

1. An open grate bridge has at least part of its surface as a span of steel with openings to allow for drainage, uniform temperature fluctuation and minimal surface upkeep.
2. Depending on the style of open grate used, the surface can be bothersome or dangerous to the cyclist trying to ride on it.
3. Often the grate will even have raised points to aid in tire traction for autos and trucks but they make for even more concern for bikes.
4. Most cyclists will likely choose to walk their bike over such a surface. If you do choose to ride, you should shift your rear *dérailleur* to a higher gear to give you more control and stiffen your arms to avoid any divergence caused.
5. Occasionally you will see an open grate bridge with a protected area like the one shown here. This protected area would be okay to ride on.
6. Expansion joints on bridges are designed to allow for temperature fluctuations of the surface so the bridge can actually expand or contract along with weather changes. These are used mainly on larger bridges.
7. There seem to be two main types of expansion joints, a straight pattern and a zig-zag pattern.
 8. For the straight pattern, your concern is when it an angle. It will normally have metal edges that will be slick when wet but also can be wide enough to grab your front wheel and cause a fall. You will need to approach the expansion joint at a right angle - same as for a railroad crossing.
9. The zig-zag pattern can be more difficult to adjust to, depending on how wide the gap is. If the gap is not wide at all, you should be able to ride right over it with no concern; if the gap is wide enough to grab comes across the bridge at your front wheel, you will need to have an alternate way to go over or through it. Often that will require dismounting and walking your bike through the joint.