

Laying Flex Track, also applies to sectional track

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Note: All of my experience is with Brass rail, generally this should apply to all types of rail.

- 1) What track should I use?
 - 2) Sectional track lets you get started but has some limitations as to radii available and smooth flowing curves are not possible. You can also mix the two types.
- 3) Why do you want to use Flex Track,
 - a) So you can have smooth flowing curves.
 - b) So you can have fewer rail joints.
 - c) So your railroad doesn't look like it was put together like a puzzle.
- 4) Use a good quality rail bender such as the **EASYBEND DUOTRAK** from Train-Li. Only one I would buy. (www.train-li.com), it is expensive, but well work it.
 - a) Go slowly on the adjustment screw, once you get to bending, a small adjustment goes a long way.
 - b) When bending the rails, slightly over bend the curve to a smaller radius than you actually want and then flex it out to the desired radius. Doing this helps keeping from trying to return to it's original shape and partially straighten out your curve a little.
 - c) When using a smaller radius track it may be necessary to cut off the last two inches of unbent rail.
- 5) Use the longest practical length track available, usually 5'.
- 6) Use the largest Radius you can fit in your space.
- 7) Bevel the ends of your track with a file and the rail joiners will go on easier and the wheels will not pick the rail joint very easily, just file all the sharp points slightly.
- 8) When making "S" curves generally the straight section between the curves should be at least as long as your longest car or locomotive.
- 9) When installing rail joiners.
 - a) Use good quality rail joiners that will keep the track aligned
 - b) Make them fit tightly on the rail. I squash them down and together with a pair of pliers so they must be driven onto the rail.
 - c) For a solid electrical and mechanical rail joint us stainless steel screws through the rail joiner at each track end. (see separate sheet on "Rail Joiner Screws") Screws can be added at any time.
- 10) When rails are secured to a fixed road base it will be necessary to provide expansion joints at each rail joint. At the Fairplex Garden RR in California they found a 1/8" gap was required for each 5' of LGB brass rail. So I would recommend this amount of gap for brass rail, if using other material a different gap will be required. Provide an electrical connection around this expansion when using track power, If your track is floating in ballast this will not be necessary.
 - a) If rail is spiked down on bridges and trestles it will always require expansion joints if longer than 5'.
- 11) When using flex track ties, thread both rails into the tie strip at the same time.
- 12) It is very important to have a solid road base for your track to sit on, some are listed below, I am sure there are many more ways to do this.
- 13) "Road base" compacted four to six inches deep and the top width should be at least twice the length of your ties. Top this off with crusher fines for finished ballast and grading.
 - a) Another Road base material is Hypertufa, this is a mix of cement, sand, and pear moss. Get separate information sheet for this, great for areas subject to erosion.
- 14) Support under the whole track, wood tends to rot, warp, and twist. Be careful with this one when selecting the type of wood and support. Treated wood supported above ground seems to stand up better. I have been told that marine plywood works well. Another choice is plastic wood products, this needs more frequent support.
- 15) Cement under track. This works well and gives great support, it may be hard to conceal in some areas and is more difficult to change later.
- 16) A solid base under switches I feel is mandatory. Without a solid base you will have more problems with your switches. The two biggest problems are getting stepped on and the ties broken loose, and twisting and warping. If your track is floating put a solid support under the switches (including the switch machine) and under the track for at least six inches beyond the switches. This can be concrete, cement backer board 1/2" thick (used for shower backing), heavy plastic, treated wood, treated plywood, Hypertufa or similar material.