

Trail Construction Specifications

Trail Spec: Benching of Singletrack Trail

Rationale: Benching a trail involves excavating the vegetative layer in order to expose the impact resilient mineral soil. This is done either with hand tools or machinery. By benching a trail into the crosslope, the trail will shed water sustainably and the tread will not erode.

Construction Specification:

Material: Native materials are used while benching trails into the landscape. The goal is to expose the native material and sculpt that into a sustainable trail. The spoils from excavation are used to create the downslope support and the tread is composed of the parent soil.

Dimension: The dimension of a benched singletrack trail should range between 10” and 24”. This will allow for safe and sustainable trail for bikers and walkers.

Installation Sequence:

1. *Dig the Tread:* After the corridor has been cleared, dig the tread by removing the organic layer and exposing the mineral soil. This is typically done with either pick mattocks and pulaskis, or with a piece of machinery.
2. *Cut the Backslope:* To improve drainage and maximize sustainability, cut back the uphill side of the trail to an angle of 45 deg. This ensures sheetflow drainage across the trail and reduces sluffing of the uphill edge onto the tread.
3. *Outslope Tread:* Outslope of a singletrack trail can range between 5-10%. This is achieved by using machinery or a McLeod to smooth out the tread and leaving the uphill side of the trail higher than the downhill side. Depending on drainage structures, outslope and change to inslope (typically seen on turns.)
4. *Compact the Tread:* Compacting of the trail tread can be done with a McLeod. This ensures that ruts do not form with repeated bike use.
5. *Finish the Tread:* The tread is finished only after the spoils from excavation have been broad casted and the edges of the trail have been naturalized with leaf litter.

International Mountain Biking Association, 2004. Trail Solutions: IMBA's Guide to Building Sweet Singletrack. Boulder, CO.

Examples:



Monroe Bridge, MA

