

Trail Construction Specifications

Trail Spec: Singletrack Cribbing

Rationale: Cribbing is used to elevate a trail out of a wet area or to maintain a specific trail grade. A turnpike is constructed of two parallel crib walls that elevate the trail tread. Crib walls and turnpikes can be constructed out of timber or stone and have the ability to allow walkers to cross intermittent wet areas or to maintain a sustainable grade.

Construction Specification:

Cribbing:

Material: Cribbing can be constructed out of timber or stone. Stone cribbing will last longer than timber cribbing. Stone can be harvested on site or imported. Large stones are the best building stones for crib walls.

Dimension: A crib wall retains the trail tread. That said, hikers and bikers should never have to walk on the crib wall as it is typically located far outside the designated trail.

Installation:

1. *Crib Wall:* The height of the crib wall is determined by calculating how high the trail tread needs to be in order to keep hikers out of the wet area or to maintain grade. Once height is determined, stones are chosen that match the height plus an additional 1/3 that is dug into the ground for stability.
2. *Drainage Stone:* The center of the crib wall is filled with 1 ½" crushed stone, leaving at least 4" for surfacing.
3. *Surfacing:* 3" (4-6" ideally) of natural surfacing caps the drainage stone.

Construction Specification:

Timber Turnpike:

Material: A timber turnpike is constructed out of rot resistant lumber (locust, cedar, hemlock, or PT) and is filled with 1 ½" crushed stone and capped with ¾" minus natural stone surfacing.

Dimension: The dimension of a timber turnpike should match the trail width of the existing trail. The timber turnpike should be constructed so that the useable trail tread is within the timber box structure.

Installation:

1. *Crib Box:* The timber box is constructed by attaching all 4 sections of the box to the ground with ½" x 3' rebar. The rebar should be pounded flush with the wood. Each additional course of timber is attached with rebar to the layer of timber below it. All joints should be staggered by at least 2 feet. This ensures structural integrity.
2. *Drainage Stone:* The box is filled with 1 ½" crushed stone. The stone should fill the box enough to leave 4" for the installation of surfacing.
3. *Surfacing:* 4-6" of natural surfacing caps the timber causeway.

Trail Construction Specifications

Construction Specification:

Stone Turnpike:

Material: A stone turnpike is constructed using large building stone that is either harvested on site or imported. Building stones are typically 2-3' wide and 18-30" deep.

Dimension: The dimension of a stone turnpike should match the trail width of the existing trail. The stone turnpike should be constructed so that the useable trail tread is within the stone turnpike structure.

Installation:

1. *Crib Wall:* Two parallel stone crib walls are constructed, allowing the trail width to fit in between. Each stone is set $\frac{1}{4}$ of its height into the ground. Each stone leans toward the center the trail no more than 1 foot of run per 3 feet of rise. This degree of lean is known as Batter.
2. *Drainage Stone:* The center of the two crib walls is filled with 1 $\frac{1}{2}$ " crushed stone, leaving at least 4-6" for surfacing.
3. *Surfacing:* 4" (4-6" ideally) of natural surfacing caps the stone turnpike.

Examples:



Stowe, VT - Stone Turnpike
Cribbing



Stowe, VT - Timber Cribbing



Crotched Mountain, NH - Stone