

### 3.3 CHECK DAM



**Figure 3.7. Check Dam (Source: Department of Civil, Construction, and Environmental Engineering, Iowa State University)**

#### Overview

**Description:** A small, temporary barrier or dam constructed across a drainage ditch.

**Design purpose:** To prevent erosion by reducing the velocity of storm water in areas of concentrated flow and lengthening the detention time.

**Associated practices:** Used as a temporary or emergency measure to limit erosion by reducing the velocity; used with riprap and silt fences.

**Installation:** Several materials can be used. Check dams are constructed by installing selected material at right angles to the direction of flow. Dam height should be 6 in. lower than the outside edge of the channel. Materials that can be used are 5- to 10-inch riprap or silt fences.

**Maintenance/inspection:** Periodic inspection is required. Sediment should be removed when it reaches one half the original dam height. Any material damage to the check dams should be corrected before the next precipitation event.

**Design life:** Stone has a life of one year, maybe permanent; manufactured has a life of six months.

**Estimated cost:** Riprap costs \$25.20 per ton (2004); silt fence costs \$2.80 per linear ft (2004).

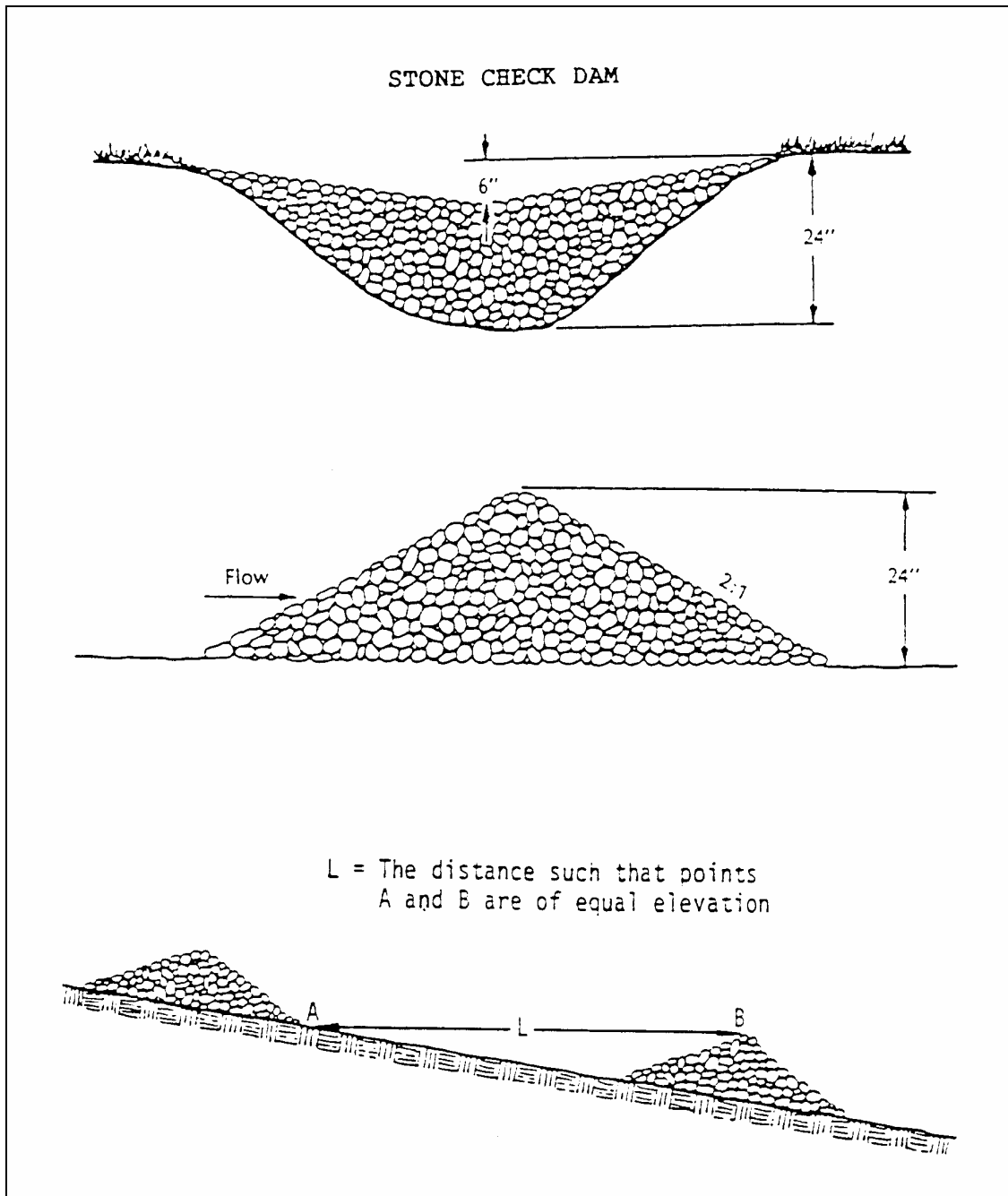


Figure 3.8. Spacing between check dams (Source: Department of Civil, Construction, and Environmental Engineering, Iowa State University)