

# Stone Stream Crossing

Alabama Job Sheet No. AL578



## Definition

A trail or travelway constructed of geotextile and stone across a stream to allow livestock or farm equipment to cross with minimal disturbance to the stream ecosystem.

## General Information

Stream crossings should be considered only on streams with a bank height of 5 feet or less and where crossing use will be relatively infrequent.

Stone stream crossings should be located in areas where the streambed is stable. The crossing should be installed perpendicular to the direction of the flow in the stream.

“Cattle only” crossings can be as narrow as 6 feet. Multi-use crossings for farm equipment may be as wide as 20 feet.

## Installation

Entrance and exits to the stream crossing should be 5 horizontal to 1 vertical or flatter. The stream bed should be excavated so that the finished surface of the crossing is no higher than the stream bed upstream and downstream of the crossing. Crossings that are installed in free flowing streams should be completed from one side to the middle of the stream first. Then the other side completed. This will minimize disturbance to the stream ecosystem.

Diversions may be needed near the entrance and exit to the crossing so that surface water runoff does not enter the crossing.

The geotextile fabric is placed on the excavated surface and held in place with steel rebar-size pins. The geotextile used for this application is a non-woven, non-heat bonded, and needle-punched material. The class or grade of fabric will be determined by the technician or engineer according to the design.

Properly sized riprap is placed on the geotextile to the designed thickness. Larger sized riprap will be needed for faster velocity streams. Construction equipment should not operate directly on top of the geotextile surface while placing the riprap.

Crossings used by cattle will need about 4 inches of surfacing material, like crusher run, on top of the riprap to provide a smooth walking surface.

Each side of the crossing should be fenced so the cattle will be restricted to the protective rock surface, eliminating unrestricted access to the stream. However, the cattle will be able to drink water at the stream crossing location. Electrified hanging chains have proven to be an effective and minimal maintenance type fence used in conjunction with stream crossings.

Shade should be eliminated in the immediate vicinity of the crossing so that cattle will not have a tendency to loaf in the stream at the crossing location.

## Operation and Maintenance

In order for the stream crossing to provide protection to the stream ecosystem, the riparian zone for the stream should be fenced, with cattle access only at the crossing.

Storm runoff may deposit debris at the crossing location which will need to be removed. Surfacing stone may occasionally need to be replaced. Fence repair and maintenance may be needed.

## References

Alabama NRCS Conservation Practice Standards  
Heavy Use Area Protection – Code 561  
Stream Crossing – Code 578  
AL NRCS Job Sheet  
Heavy Use Area Protection - AL561

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write the USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

## Stone Stream Crossing Worksheet

**Land User:** \_\_\_\_\_ **County:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Farm No.:** \_\_\_\_\_ **Tract No.:** \_\_\_\_\_ **Assisted By:** \_\_\_\_\_

Stream Crossing Purpose: Cattle only \_\_\_\_\_ Multi-Purpose \_\_\_\_\_ Bank Height: \_\_\_\_\_ ft.

Diversions Needed: Yes \_\_\_\_\_ No \_\_\_\_\_ Fencing required: Yes \_\_\_\_\_ No \_\_\_\_\_

Tree removal or limb trimming necessary to minimize shade: Yes \_\_\_\_\_ No \_\_\_\_\_