



CASE STUDY

SPRING 2021

MUSCLE WALL[®]

Native Sun
Construction

Bowman Construction

Manitou Springs, CO



ORGANIZATION

Native Sons Construction

LOCATION

Manitou Springs, Colorado

PRODUCT

4-Foot Muscle Wall

OVERVIEW

The project objective was to create a stream diversion to allow for the replacement of a bridge and abutments. Native Sun and Bowman Construction partnered with Muscle Wall to use the 4 Foot Muscle Wall System to channel the stream for 150 linear feet. Over the next 2-3 months, the walls will work to divert the stream as new Rip Wrap abutments and a bridge are installed.

QUANTITY

38 WALLS

150 LINEAR FEET OF
24 MIL. LINER

LINER CLIPS

PROCESS



The deployment started by walls being lowered into the river from above with a strap. Once the walls were in the water, each person was easily able to float one wall upstream to be staged for installation.



The ground surface of the river was made up of gravel and large cobble stones. Light excavation work was required to smooth and stabilize the surface for the walls to rest on. To mitigate the risk of tension points from void spaces in the rocks, a geotextile was placed in the channel.



The walls were then placed into the river bank to protect against increased water flow. Once the first walls on each side were placed, they were filled with water to sink them into place. One by one, each wall was floated into place, connected, and filled.



To deploy the liner, it was first staged over the top of the channel. The liner was then lowered into the channel over the walls, and the liner clips were attached. This step was done entirely by a two-person team.



Once the walls, liner, and clips were all in place, the team secured the liner at the front of the channel. The liner was pushed under the water surface and a few sandbags were added in order to create a seal between the liner and the ground. As soon as the liner was sealed, water began to flow over the liner and down the channel, making the project a complete success.

**VISIT MUSCLEWALL.COM
FOR MORE INFORMATION.**