

Pictures: O.C. engineers finish bridge in Kenya

By [FRED SWEGLES](#)

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A simple-looking but precisely engineered footbridge is opening new horizons for a rural town in Kenya, thanks to an Orange County team of Engineers Without Borders.

"They are country folk," team leader Clay Stevens of San Clemente said of the people of Endana, population 2,500. "Now they don't have to walk 10 kilometers (almost 6¼ miles) to the nearest bridge."

In October, members of the [Orange County Professional chapter of EWB](#) completed a \$35,000 project funded with private donations the group had gathered during two years of planning, designing and building the bridge over the Ewaso Ngiro River.

"It's perfect for people and livestock," said Dan Ramey, a team member from Newport Beach. EWB designed it so it can carry a full load of people or livestock.

Because they all have working commitments at home, six EWB engineers flew to Kenya in teams of two to oversee construction by Kenyans. Stevens and Tim Muli of Lake Forest drilled holes in rock and laid the foundations as Team 1. Mujahid Chandoo of Orange and Sean Callan of Lake Forest built the anchors and abutments to hold the cables as Team 2. Ramey and Mateusz Lipa of Orange finished up as Team 3, stringing the cables across, setting the proper tension and applying a wooden deck.

All this was done with consultation with townspeople and local labor, most of it donated, Stevens said. Debra Kennard of Newport Beach helped raise the money, and Harmon Parker, a Nairobi resident, helped get crucial supplies.

"It is a very simple design," Ramey said, "but the simplicity is part of the beauty of it. It is designed so the people can maintain the bridge for a long time and conduct the repairs themselves.

"Some of them," Ramey added, "had never seen a bridge of this sort, so they were a little timid. After they saw people cross, they were very happy to cross."

Stevens said the bridge gives Endana residents easy access to a medical clinic, easier trade with other towns and access to a water treatment facility.

A UC Irvine student chapter of EWB is working on a rainwater catch project for the same area, Stevens said, and EWB's Orange County Professional chapter is looking at a new water-supply project possibly three to six miles north of Endana. Gayla Fecher of Anaheim will be the lead on that one, Stevens said.

Click on the following link for [more information](#).

THE FOOTBRIDGE

Length: 143 feet

Width: 3 feet of walking space

Load: Total weight of people or livestock, 45,000 pounds

Expected duration: 50 years

Cost: \$35,000

Costliest items: \$11,927 for materials and equipment, \$11,582 for air fares

Support: Biggest contributions from [ERM Foundation](#) (\$12,000), [Emirates Airline Foundation](#) (\$11,582), [American Society of Civil Engineers](#) (\$5,000), plus donations from several Orange County engineering firms and individuals

Contact the writer: fswegles@ocregister.com or 949-492-5127