

Rio Tabasara Pedestrian Bridge

Location & Background

- Objective: Design a bridge to cross the Rio Tabasara
- Purpose: Will provide children with better access to school
- Location: Villages of Bajo Mosquito & Llano Miranda in the Comarca of Panama



Figure 1. Map of Panama

Data Collection

- A community meeting was attended in Llano Miranda to obtain general information
- Topographical survey data was collected using basic equipment and methods
- An existing bridge of similar size in Llano Nopo was inspected as a reference

Design Challenges

- The width of the river limits possible bridge types that could be implemented
- Uneven elevations on each side of river limit potential placement locations
- The bridge must allow for cattle to cross which increases the required capacity

Design Overview

- Span Length: 270 feet
- Tower Height: 30 feet
- Cable Sag: 25 feet
- Cable Angle: 20.3°
- Decking: 4" x 12" wood planks at 15 foot lengths
- Hanger Cable Spacing: 5 feet



Cost & Schedule

- Expecting community members to perform some labor and collect some materials
- Three month expected project duration
- Construction season: January-April
- Cost estimate:

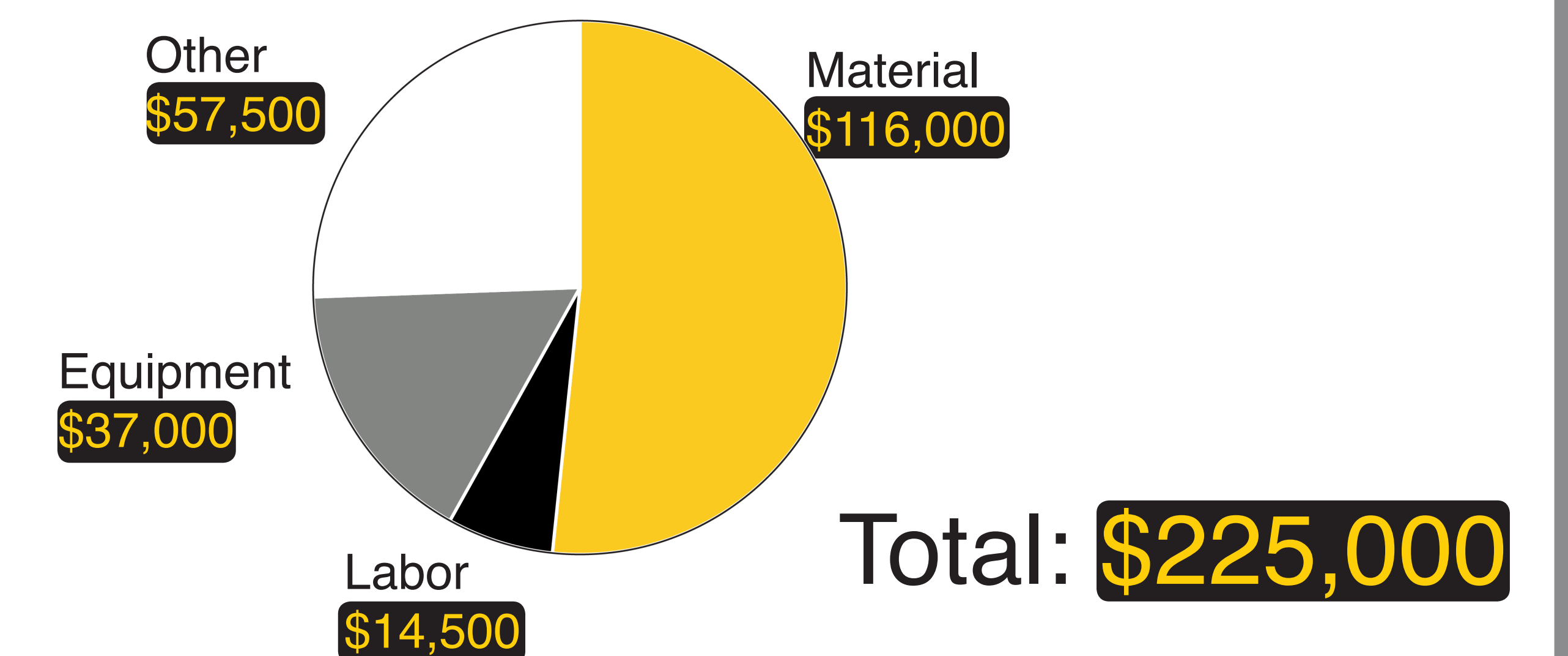


Figure 2. Cost estimate breakdown

Looking Forward

- Peace Corps Volunteer in Llano Miranda will present design and report to the Panamanian Ministry of Public Works to seek funding
- Design must be reviewed and stamped by a licensed professional engineer before construction can take place

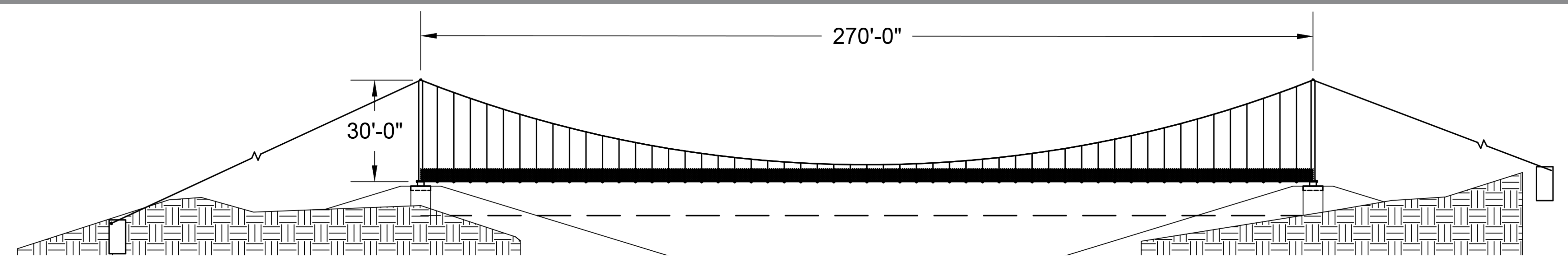


Figure 3. Overall bridge design