## **Manzanillo Bridge Construction Supervision**



Contractor and Consulting Engineers

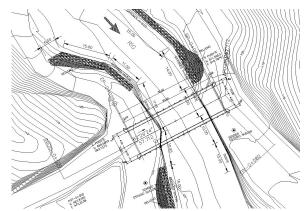
LOCATION		YEARS	
Guatemala	PROFI SERVI	FESIONAL CES	CONSTRUCTION (if applicable)
	2006	5 - 2007	

PROJECT OWNER INFORMATION			
a. PROJECT OWNER	b. CONTACT	c. CONTACT PHONE NUMBER	
MICIVI	Dirección General de Caminos	+502-2223-4000	

PROJECT REPORT (Reach, Size and Cost)

**Project Background** – The Project is located on the Tejutla municipality, Sipacapa junction, San Marcos department, and former bridge was destroyed during Stan tropical storm on October 2005.

**Project Description -** The Project is a 30 meters bridge with a road track of 8 meters and two sidewalks 1 meter each.



Supporting beams are made of steel and upper structure made of reinforced concrete.

Control and alleviation works 200 meters upstream and 200 meters downstream were also built.

Project cost was Q 6,500,000.00 (about US \$ 812,500.00) and the project was built in 7 months.

## Project Key Elements

- Bridges
- > Technical Supervision
- Hydrology and Hydraulics studies review and approval
- Detail Engineering Design Review and Approval
- Construction Schedule Review and Approval
- > Quality Assurance Inspection
- Construction Contractor Payment Approval

**Technical Supervision** – A plan was made to make sure all work is up to the client technical specifications. Technical Supervision included hydrologic, hydraulic studies review and approval for all 16 rivers that were going to be crossed with bridges. All detailed engineering design and construction schedule was also reviewed and approved. A day to day log was kept on work progress and construction materials quality assurance tests. Anzueto y Asociados certified work progress and approved construction contractor payments.

**Hydrologic and Hydraulic Studies** – Hydrologic and Hydraulic Studies were taken into account for their design. Anzueto y Asociados reviewed all studies and certified that designs did take into account those studies.

**Quality Assurance -** Day to day verifications were made on the necessary construction materials tests including geotechnical soil tests, soil mechanics tests, concrete and asphalt tests and steel quality certificates.



**Construction Schedule and Payments –** On site personnel was available at all time to verify construction progress and make reports to the financial officer for payments authorization.