

No. 52 Ea Soup Bridge - Component A -

(Dac Lac Province)

Site Information

- 1) PR641, which the bridge is located on, runs through the north-west area of the province, starting from NR14. The large settlement area along the road has been developing by government fund. There is transportation demand to carry agricultural production such as coffee and cotton.
- 2) The existing bridge is a bailey-type and was replaced in 1983 due to the previous bridge being swept away. Since the load of vehicles is limited to 8 ton, Heavy vehicles pass on the riverbed in the dry season. The bailey type bridge is observed to be relatively sound but the structure of the pier looks slightly weak. Some cracks on the protection structure around abutments are observed.
- 3) The bridge suffers the flood overflowing the bridge surface every year and impassable duration lasts around a week at two times a year. HWL is assumed to be 1m over the bridge surface in 1998.
- 4) 25,000 resettled people from the northern region due to Son La power plant construction project and the ethnic minorities such as Ja Rai, E'de, M'Nong and Laos inhabit in the surrounding area.
- 5) 70 km of access roads have been already paved by asphalt with 5m in width and the last 25km has not been upgraded.
- 6) The location of the new bridge will be set at approximately 15m upstream from the existing one. The bridge length is appropriate to set around 55m with 3 spans. It should be avoided to set a pier in the river center in consideration with rapid flow. 1m of freeboard is required.
- 7) One workhouse will be affected by the approach road construction at the right bank.
- 8) A vacant field is available at the downstream side of the left bank as construction yard.

The site rough sketch

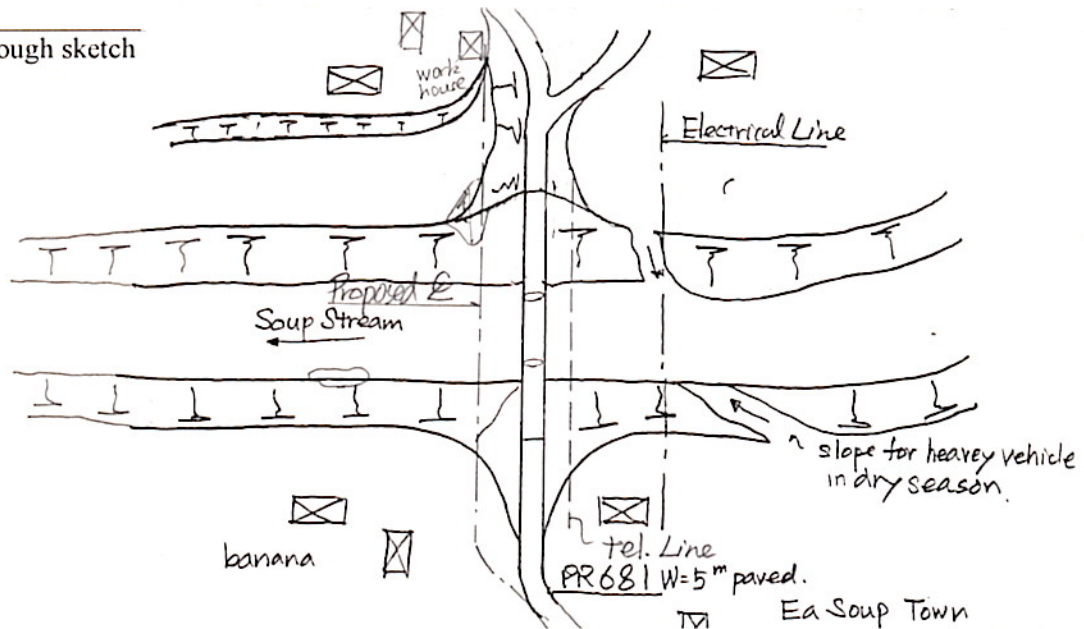


Photo 1: Existing Bridge



Photo 2: Existing Bridge



No. 56 Krong K'Ma Bridge -Component A -

(Dac Lac Province)

Site Information
1) PR692, which the bridge is located on, is an only access road to 5 communes in the mountain area of Krong Bong District. There is transportation demand to carry agricultural productions such as coffee, rice, bean and rumburs. Heavy vehicles can pass on the riverbed in the dry season.
2) The existing bridge is a bailey type and the previous one collapsed due to heavy vehicle passing and replaced in 1991. There is another small bridge with 10m long 30m away from the bridge on the left bank in order to drain the inundated water at flood. No serious damages were observed on the bridge.
3) No flood overflows the bridge surface in ordinal year. HWL is assumed to be 0.5m over the bridge surface in 1989.
4) Ethnic minorities such as M'Nos and E De inhabit in the affected area of the bridge.
5) The location of the new bridge is appropriate to set at around 15 m upstream of the existing one for establishing smooth alignment of access roads. The bridge length will be set around 70m with 3 spans. It is preferable not to set a pier in the river center. 1 m of freeboard is required.
6) 2 houses at the right bank will be affected by the approach road construction. Small bridge on the left bank is required to shift on the new approach road by Vietnamese side. The electrical and telephone line should be relocated before construction.
7) A sugarcane field at the upstream side of the left bank can be utilized as construction yard.

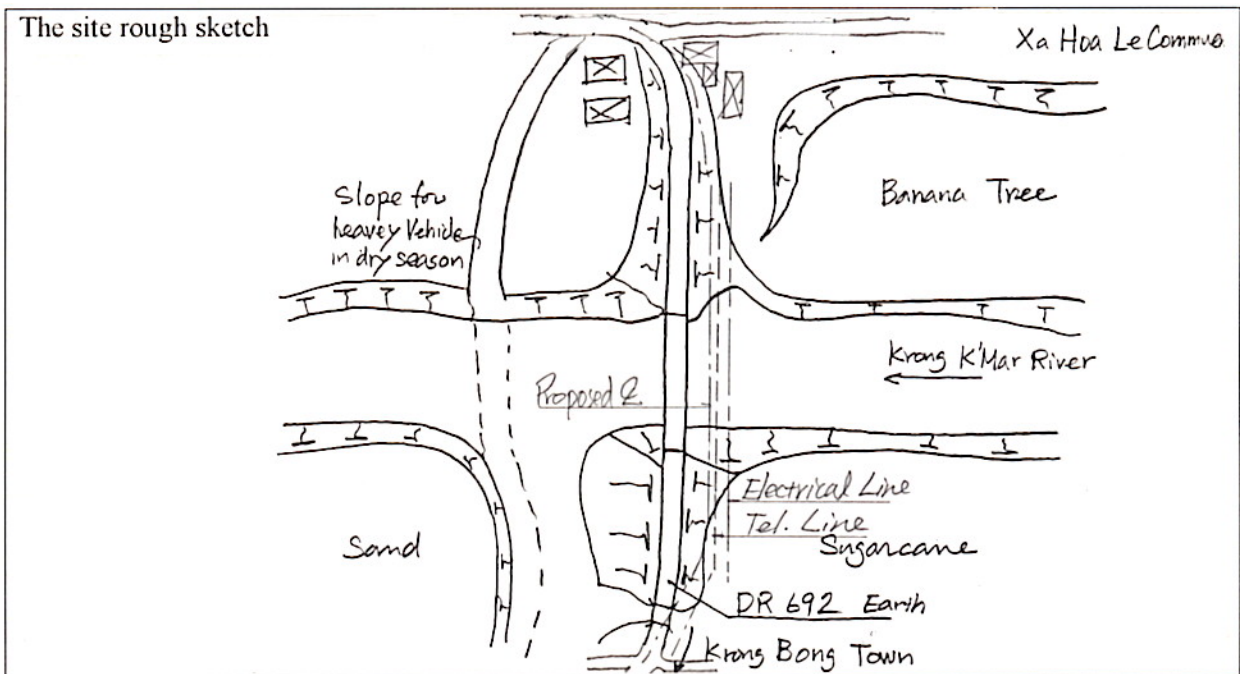


Photo 1: Existing Bridge



Photo 2: Existing Bridge

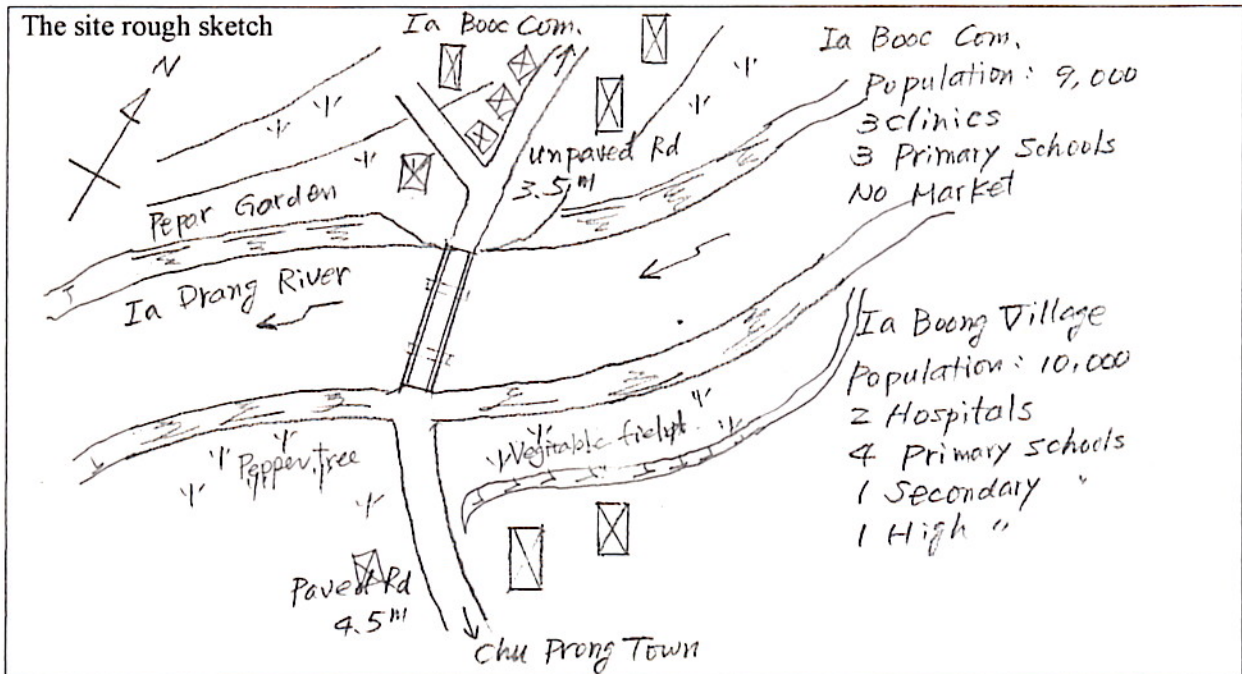


**No.59 Ia Drang Bridge – Component A -**

**(Gia Lai Province)**

**Site Information**

- 1) The bridge is located on a commune road and constructed in 1979 with provincial fund. Load limit 8 t. The access road has a plan to upgrade with 6m in width, connecting with NR19.
- 2) On this side of bank (Ia Boong Vil.): population: 10,000, hospital 2, elementary school 4, secondary school 1, high school 1, market 2.  
On the other side of bank (Ia Booc Com.): population: 9,000, hospital 0, clinic 3, elementary school 3, secondary school 0, high school 0, market 0. Bridge good for social impact.
- 3) The highest flood level of 1987, Bridge surface + 1.5 m, Flood level of every year = girder bottom, For 10days per year the bridge is impassable.
- 4) The existing bridge has a skew of approx. 60 degree.
- 5) The location of the new bridge will be set on the same location but at right angle to the river direction to minimize the bridge length. However, new houses at both banks should be dealt with control points in making a bridge plan. The bridge length will be appropriate to set between 50 to 55m with 3 spans.
- 5) A few houses will be affected by the new approach road at the right bank.
- 6) Since it is difficult to obtain a construction yard close to the bridge site, a girder type should be examined in consideration with easiness of construction.  
A temporary bridge will be required during construction at the upstream side.



Picture 1: Existing Bridge



Picture 2: Existing Bridge