

Trip summary of Daping

8th Oct - 10th Oct 2016

By Mok Kwan Yin Myron - BEng(CivE) II

Six students of civil engineering together with Professor Mak and Professor Tham had a trip visit to Daping Village in Guangxi Province from 8th Oct - 10th Oct 2016. The main purposes of this trip are to confirm the construction stage of the teacher dormitory in Daping school at that time and supervision of its construction. Also, we needed to have an observation of three collapsed footbridge in Rongshui for a primary feasibility study of the reconstruction project.

The first day and last day of the trip have been spent on taking public transportation to go to Daping and come back to Hong Kong. Although we did not do any supervision work on these two days, it was a good time for us to appreciate the spectacular view of Guangxi, especially the hills in Guilin.



On the second day, we first went to the construction site of the teacher dormitory in Daping school. The foundation has been completed by pouring concrete in it. Workers have started to build the brick wall of the first floor. Most of our inquiries before the trip have been solved such as the details of pipeline construction and belief construction method of the whole structure including columns and beams after asking the engineer on site.

The supervision also corrected our misunderstanding of the structure. According to the structural drawing, we were told that the dormitory is a reinforced-concrete (RC) structure and all loading will be supported by columns. However, it is found that the steel bars used are not thick enough for loading and all loads are transferred to the brick walls. Thus, it is a brick wall structure instead and column will be acting as a connection

between each wall. Moreover, engineer Luk, who is the person in charge of the construction site, has posed some questions to us including the dimensions of the doors and partition of bathroom etc. Some of it were solved by us immediately and the remains will be solved after consulting the structural designer and the architects .



After finishing the lunch in school, we took off to have a look on the collapsed footbridges. The first footbridge is called '百順橋', half of it was collapsed and a pier remained on the river bed. Villages have built a temporary bridge by woods and bamboos under the original footbridge. Next, we went to look on the second footbridge called '騰江橋'. It also has half of it collapsed and villagers used some steel bars and steel pipes to construct a temporary footbridge by welding them to replace the collapsed part. It was looked quite stable in terms of the structure and the design may be adopted in the reconstruction project, according to professor Tham. Finally, the third bridge is called '騰村橋'. Its situation is quite special. Part of the pier in the middle sank causing the bridge broken, however, it did not collapse and is still used by people. After visiting three footbridges, we had dinner with some officials of the village and obtained more information of those bridges.





Team members of the trip:

Professor Leslie George Tham

Professor Chai Kwong Mak

Student participants:

Hui Wai Ying Jennifer - BEng(CivE) II

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