

Design Prototype for Rebuilding Riverside Community in Bangkok, Thailand

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1. Introduction

Thai's Government has a plan to completely demolish the communities of 68,087 people who have been living along the 9 main rivers in Bangkok (128.37 km. in total) and replace them with common and repetitive housing development schemes at once (fig.1). After the plan was announced, there have been many arguments¹ from many architects, urban planners and home economics professors. They suggest that if the government insists on proceeding with such sudden developments, it will cause great effects on the economy and people who live along those riversides. The inhabitants of the villages will have no place to live temporarily while the new riverside developments are being constructed and their way of life will be disappeared. The local economy along the rivers will be affected terribly due to most enterprises near these areas usually rely on local workers. If workers are gone, those major businesses will be in plight, affecting the overall economy in Bangkok in return.

2. Design Strategy for Riverside Development

The chosen site for the proposal is one of the 9 sites that will be developed by the government. The site is located at the intersection of 'Prem prachakorn' channel and 'Chaeng Watthana' road. This site is characterized by 3 different contexts; the area near sky train station and highway, the area opposite to a local 138-year-old temple and a plain residential area, all of which can be commonly found along Bangkok (fig. 2). Thus, 3 development prototypes with different design criteria based on its surroundings and contexts are proposed in order to respond these 3 different contexts. It is also expected that these prototypes can be applied for any riverside developments on the remaining 9 rivers as shown in figure 1.

This proposal also offers a gradual change against the government's plan by splitting the development plans into several phases. Each phase's construction starts after the previous phase has been completed. By implementing this strategy, such problems can be prevented (fig. 3).

3. Design Concept and the Study of Spatial Utilization in the current village

The aim of the proposal is to maintain the original sense and feeling of the current village as much as possible. In order to do so, an investigation on the current village and study of spatial utilization was conducted. The result of the study is illustrated as simple diagrams for better understanding (fig.4). 14 types of space utilization were found and, then, applied into design for each prototype's layout, apartment and houses.

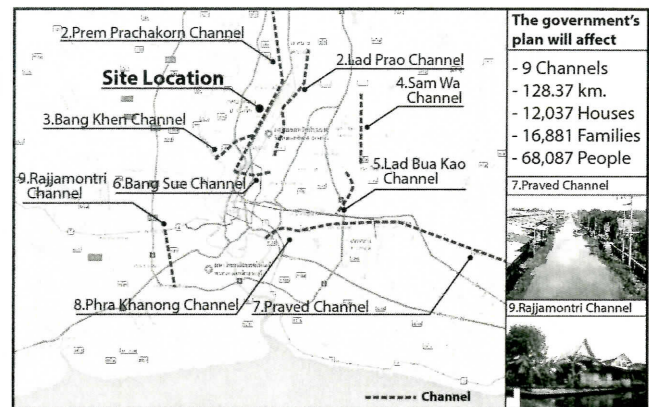


Fig. 1 Effect area of the Eviction Plan

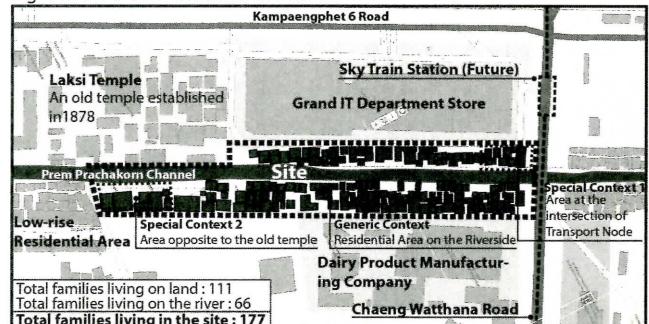


Fig. 2 Site Condition

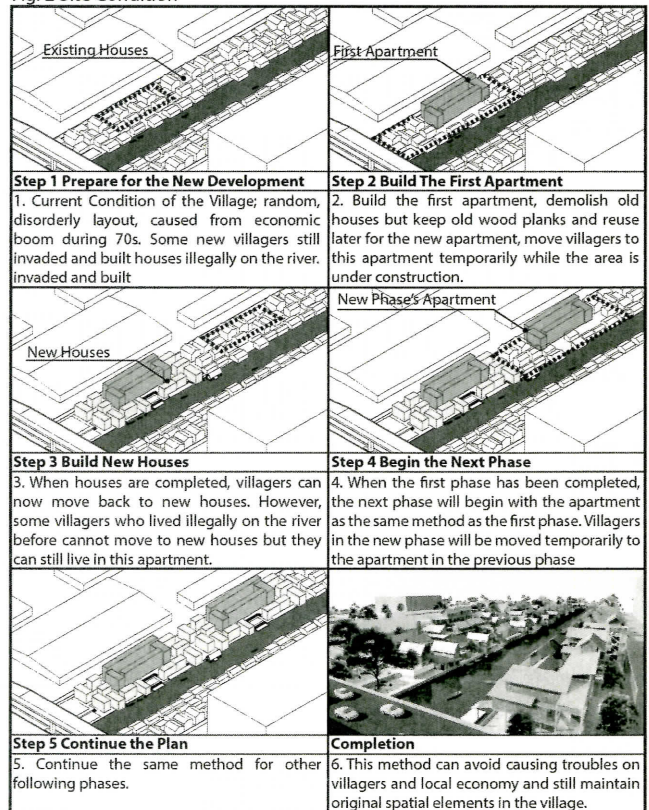


Fig. 3 Diagrams showing Development Process

4. Design Prototype for 3 types of Context

Prototype 1 : General Riverside Residential Area

This core prototype is comprised of 2 types of residence; apartment and single house. The apartment building has 21 living units, located at the center of each phase, surrounded by 12 single houses. There is a vast public multi-purpose space and commercial space on the ground floor so this apartment building can behave as a central node of the phase.

Instead of designing a general apartment plan; row of rooms, all living units are separated to create small gaps in the building. These gaps provide the building with better ventilation and also small gathering spaces. To keep some original scenery, the idea of reusing wood planks from destroyed old houses is adopted and another reason is that, wood is becoming more expensive and rare in Thailand and it is worth to keep (fig.10).

The idea of detached houses is, to create a house that villagers can modify and extend freely to suit their needs. Thus, a house occupying half of the plot is proposed so owners can expand their houses later on the other half of the plot as they prefer (fig.9). The house elements are derived from vernacular style found in the current village. This prototype is a core prototype that can be adapted to suit different contexts. In this proposal, 2 more prototypes with different contexts are proposed (fig. 6).

Prototype 2 : Mixed-use Area near Transport Node

The cost of the areas surrounding skytrain stations and boat stations are usually high. Thus, commercial and community areas are included for this prototype.

For the commercial area, the idea of bringing back 'Floating Market and Walking Street' to the village is adopted and it suits behaviors of Thai people well. It will also motivate villagers to run their own small shops or food stalls and will improve local economy in return.

The uppers floors are designated for residential areas and

also some community areas, such as, a library, a small health center, and a community administrative office. Since this area serves as mixed-use area, surrounding houses are not provided but the size of the apartment building is increased instead (fig. 7).

Prototype 3 : Residential and Community Area near Temple

Throughout the year, many activities are held by the 138-year-old temple next to the site. For example, temple fair, 'Loy Kratong' festival (a festival where people gather along the river to pay gratitude towards the god of rivers). Whenever these activities occur, the riverside near the temple always has insufficient space. Thus, the design of this prototype includes a big open space that can serve these activities and crowded well. However, to compensate fewer houses, extra floors and rooms are added to the apartment building. The library and passenger boat substation are also included to this phase since the traffic of people in this area is always high (fig 8).

5. Conclusion

Although the government's plan has a good intention to organize riversides, it causes troubles to local economy and community life. The plan proposes sudden change with repetitive housing development scheme. Against the government's plan, this new proposal offers gradual change to communities to avoid troubles, combined with the idea of maintaining community senses and feelings based on the study of spatial utilization found in the village. Eventually, this development prototype proposals will satisfy the community, the local economy conditions and government's aim and it can be applied for any riverside in Thailand development in the future.

Notes:

1. The interview was conducted by Thai television station called 'Thai Pbs' on 29th September 2015. (<http://www.citizenthaipbs.net/node/6740>)

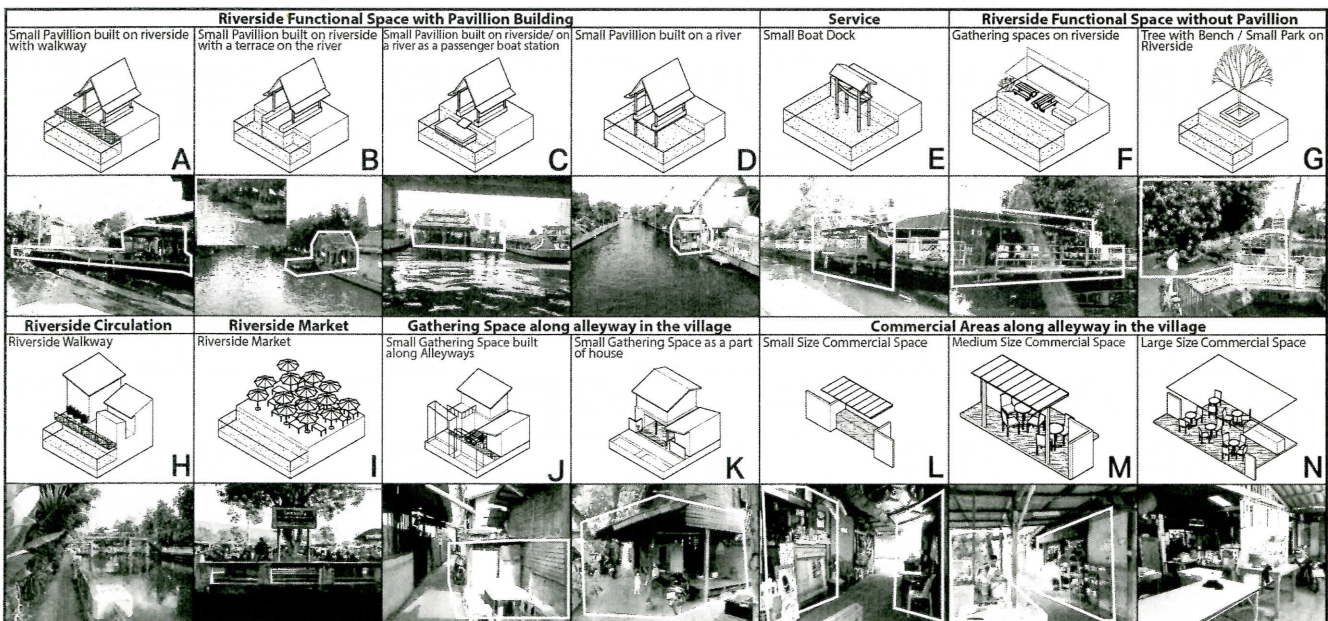


Fig. 4 Investigation and Study on Spatial Utilization in the Village

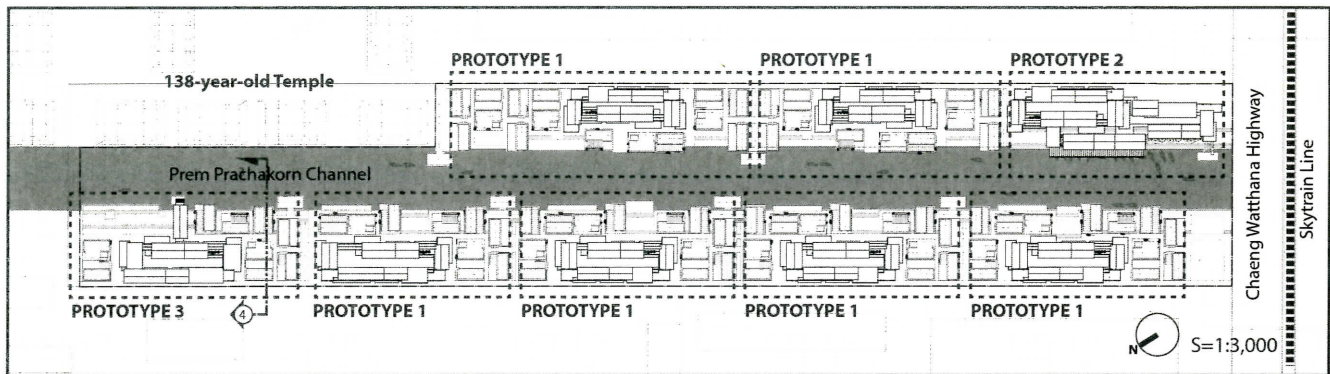
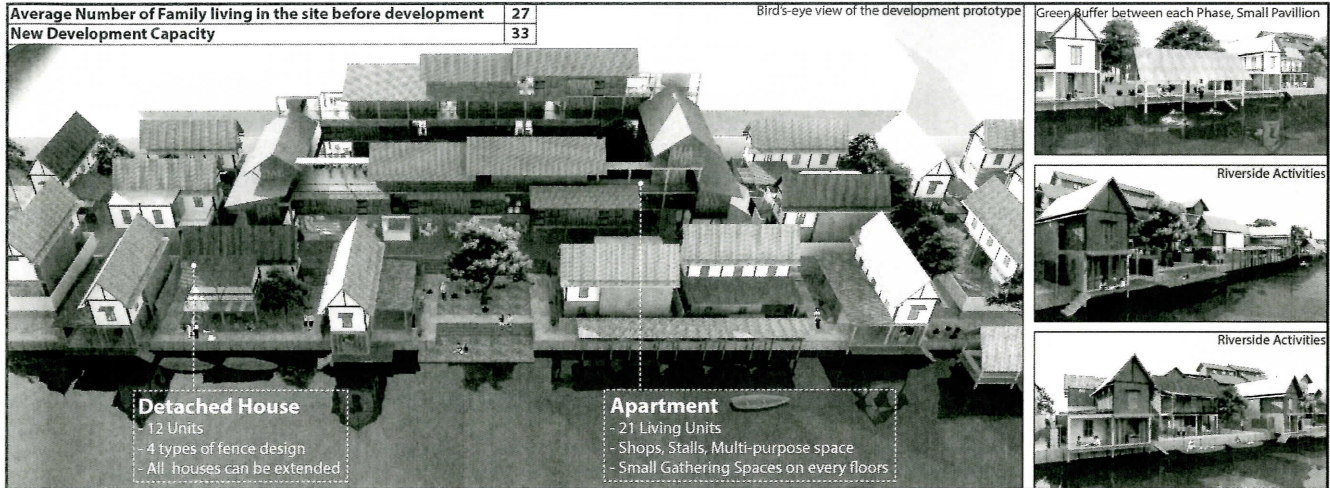
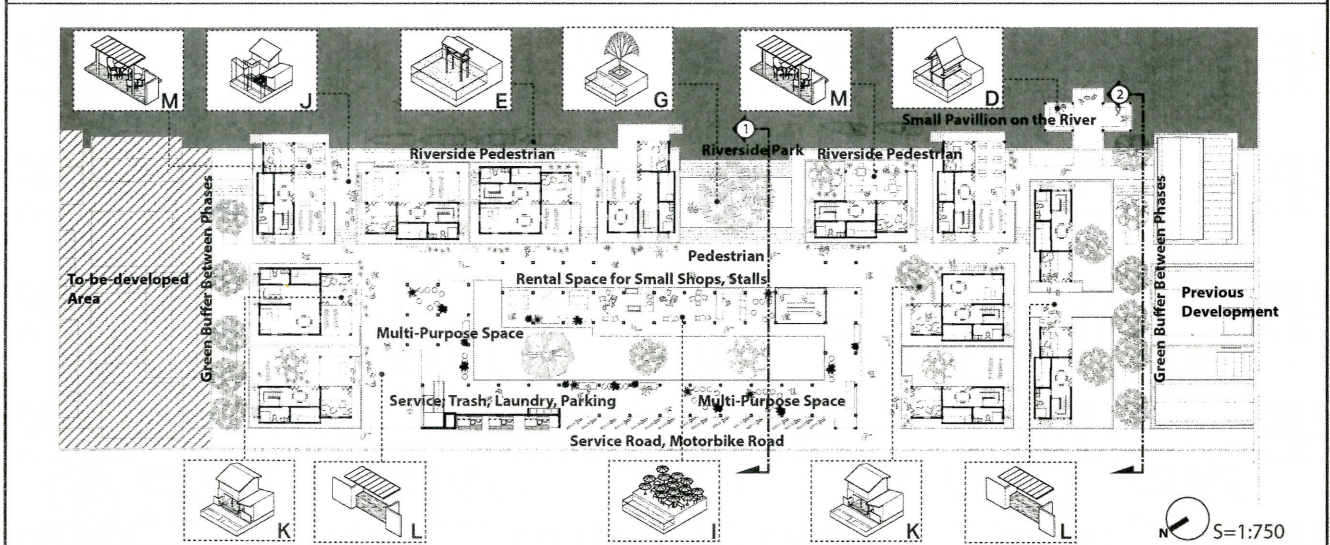


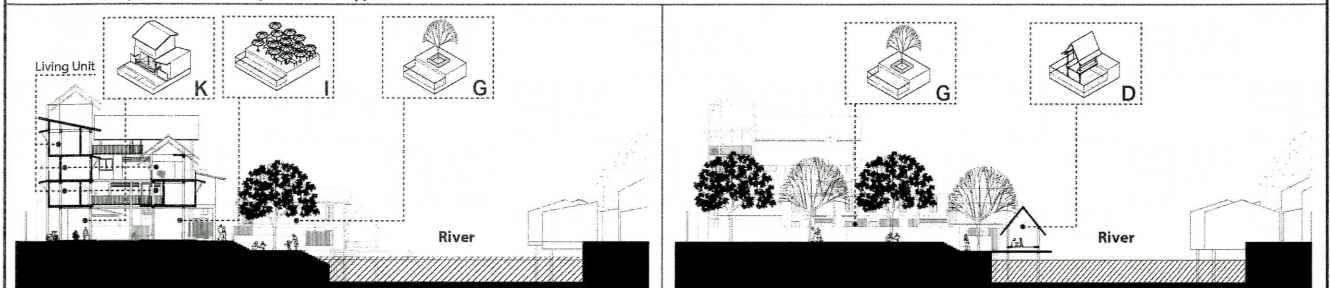
Fig. 5 Proposed Layout Plan (Completion)



Residential Area Perspectives

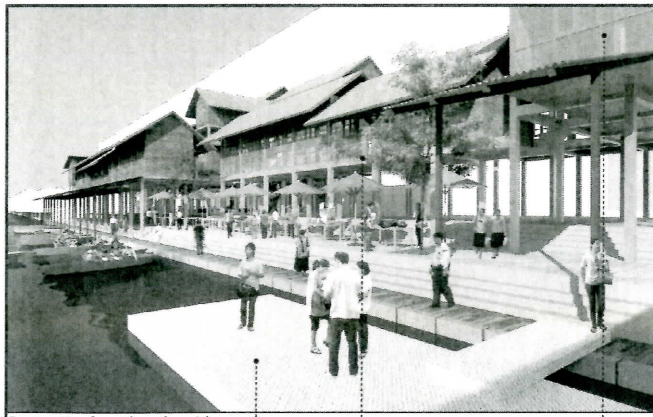


Ground Floor Layout of the Development Prototype

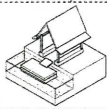


Section 1 Continuation of Spaces from the Apartment to the River S=1:750 Section 2 Green Buffer ; A transition with trees between phases S=1:750

Fig. 6 Prototype 1 (Core Prototype) : General Riverside Residential Area



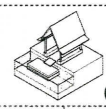
Perspective from the other side



C



Perspective of the Multi-Purpose Open Space



C



G



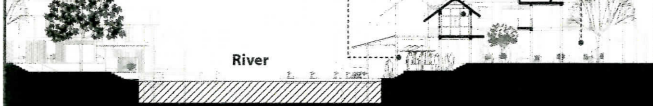
Floating Market and Walking



Floating Market

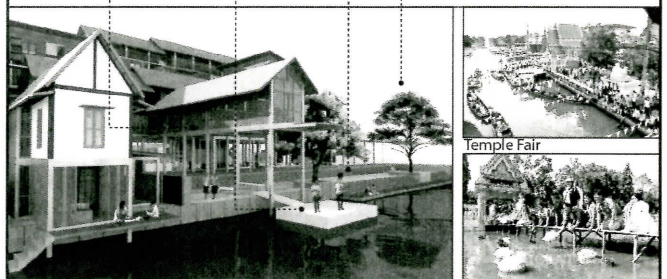
Village Entrance Area

Living Unit



Section 3 Mixed-use Area: Riverside Market, Floating Market, Community Areas

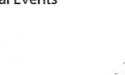
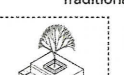
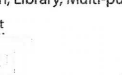
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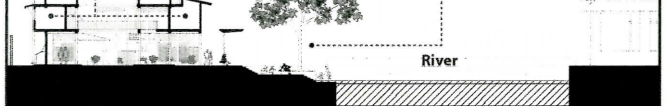
Passenger Boat Station, Library, Multi-purpose Open Space



Traditional Events



G

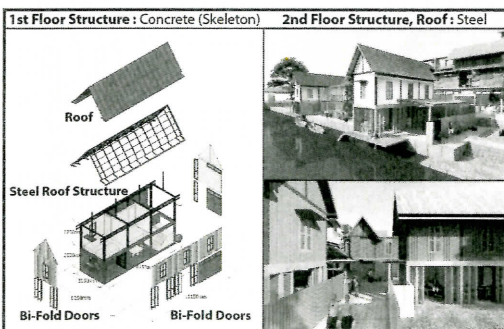


Section 4 Large open space for holding events by the temple

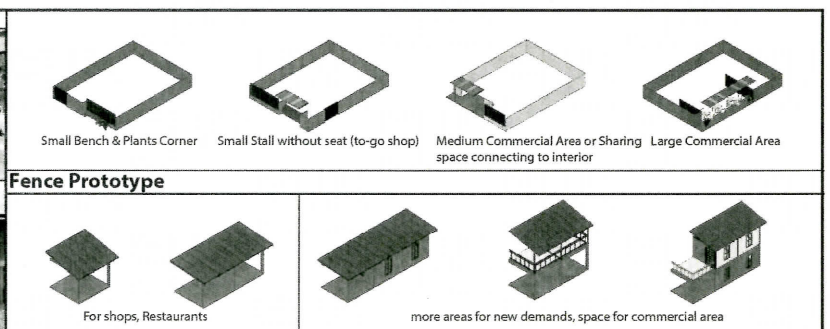
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Fig. 7 Prototype 2: Mixed-use Area near Transport Node

Fig. 8 Prototype 3: Residential and Community Area near Temple



House Components



Extension Possibility

Fig. 9 Detached House Prototype

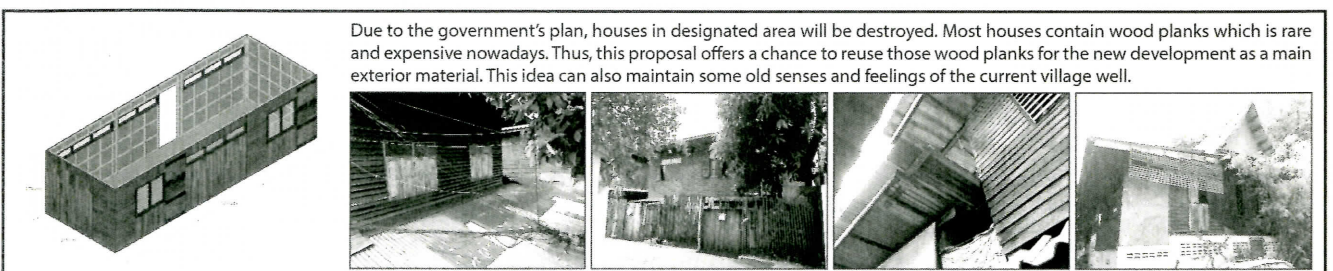


Fig. 10 The Idea of Reusing Old Wood Planks from Old Houses