

Pancheewan Rergsomboon 2012: Developing Sustainable Construction : Case Studies of Public Construction Project. Master of Engineering (Structural Technology for the Built Environment), Major Field: Structural Technology for the Built Environment, Department of Civil Engineering. Thesis Advisor: Assistant Professor Piyanut Wethayavivorn, D.Eng. 77 pages.

The objective this research is to identify problems occur during the public construction project development process in Thailand which prohibit sustainable development. Data is collected through 3 case studies of public projects including in-depth interviews with key person involved during project development. Then compare results against Framework for sustainable construction procurement in Achieving Excellence in Construction Procurement Guide No.11 (AE11) of The Office of Government Commerce (OGC) of United Kingdom.

The results reveal that Asian Game 13th Complex and Auditorium Hall of a public university which have large value comply with the sustainable criteria considered in the OGC procurement guide. However, the practices found in these two case studies are less details, informal and quite unorganized. The last case study, building of a public university which has small value compare to the first two projects, omit the most important criteria of sustainable procurement which is consideration of project need. This last project just jump to the design and construction bidding without integrated supply team and output-based specification so the sustainability cannot be realized. This type of building even though has small value but it is built most often in public sectors. It is important that the development of all construction projects which are large proportion of public budget should develop a standard process to assess sustainability right at the beginning of the project initiation.

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Thesis Advisor's signature

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