

Designing an outdoor stage with a dike to be a landmark for the Art and Culture Nakhorn Ratchasima Rajabhat University

Rattaphan Sopavate
Faculty of Industrial Technology, Nakhon Ratchasima Rajabhat University,
Nakhon Ratchasima, Thailand, 30000

— *Review of* —
**Integrative
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ABSTRACT

This research is aimed at 1. Design an outdoor stage for the Arts and Culture Center 2. Design a dike to prevent flooding in the office of the Arts and Culture Center. 3. Design a landmark to promote and emphasize the main entrance of “Korat Museum”. Research conducted by collecting data related research; field surveys, user interviews and stakeholders; the conclusions of the design concept; and the design using the design process of architecture.

The findings concluded that the front lawn of Art and Culture is appropriate for built permanent outdoor stage with backdrop that acts as a landmark to promote “Korat Museum”, and the stage elevated platform could prevent flood into the building. The design concept of the backdrop is “Pratu Chumphol”, which is known as landmark of Nakhon Ratchasima province and in accordance with “Korat Museum” as well.

Keywords: Outdoor Stage/ Dike/ Landmark/ Architectural Design

1. INTRODUCTION

The Art and Cultural Center of Nakhon Ratchasima Rajabhat University faced problem with flooding into the office, located on the first floor of the building every time there is heavy rain. At the same time, the Center lack of outdoor stage for art and cultural performances or rehearsals. Another mission is to promote the main entrance of “Korat Museum” (Nakhon Ratchasima Province City Museum) a newest learning center, which the Tourism Authority of Thailand (TAT) packed to one of an important tourist destination of the Nakhon Ratchasima province. But, a museum exhibit on the second floor of the center building that is not visible from outside the building. So that, many of the tourists / visitors are not aware of the location or the entrance of the museum. At this point, the researcher has often heard that even the teachers, staff or students in the campus are not realized of the existing of the museum.

In order to solve such problems, the Center raised the construction projects at the front of building to solve those three problems: “Dike Project” to solve flooding problem; “An Outdoor Stage Project” to support the activities of the Center; and “Korat Museum Landmark Projects” to promote and emphasize the main entrance to the museum.

Researchers as a Deputy Director of Art Galleries and Culture Faction have been assigned to accountable for those projects mentioned above. So that, this research need to study the proper format design to respond three questions, blend with harmonize, and suitable with aesthetic sense for the arts and culture center which located in local university as one of the attractions of the province.

The objective of the study is to design an outdoor stage for the Arts and Culture Center; design a dike to prevent flooding into the office of the Arts and Culture Center; and design a landmark to promote and emphasize “Korat Museum”.

The methods of this research are collecting data related research; field surveys, user interviews and stakeholders; the conclusions of the design concept; and preliminary design using the design principles of architecture.

The scopes of research are: the last product of this research ends up with a 3D sketch or architectural drawing not a construction drawing or blueprints; the efficiency of the dike in preventing flooding at the height of the water level does not exceed 60 cm.; the size of outdoor stage depend on the area of lawn in front of the building left from pedestrian circulation and main entrances

The theoretical assumption or conceptual framework is the research could lead to design a multipurpose outdoor stage which can meet all three functions: the raise of reinforced concrete structures outdoor stage can act as a barrier to water or dike; backdrop can be designed to serve landmark of “Korat Museum” and emphasize the main entrance to the museum as well.

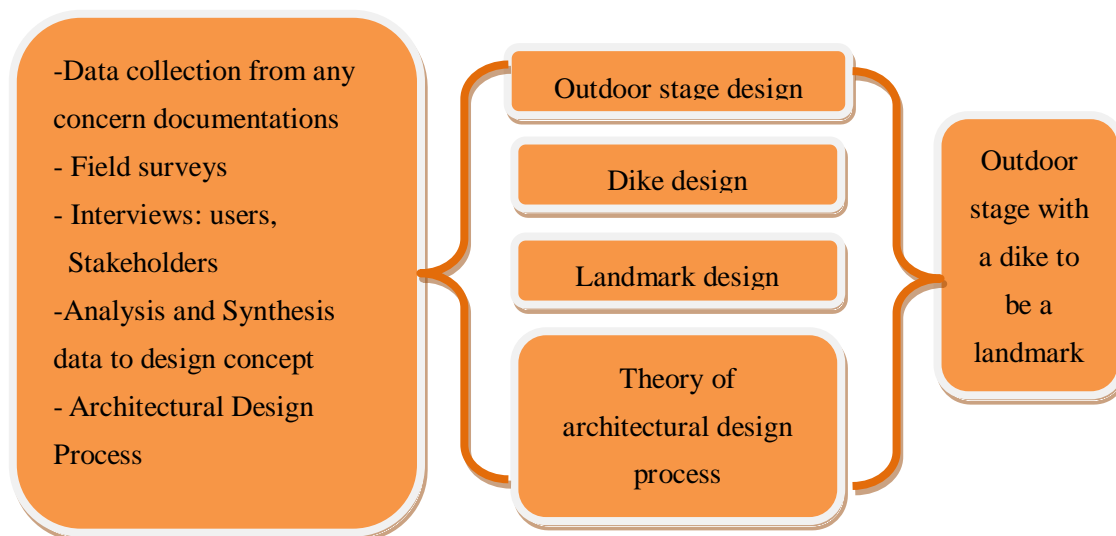


Figure 1: Conceptual Framework

The expected outcomes of the project are the benefits for The Art and Cultural Center of Nakhon Ratchasima Rajabhat University in the following: 3D sketch or architectural drawing of an outdoor stage that can develop to construction drawing; preventing flooding in to the office due to heavy rain; having a landmark to promote and emphasize the main entrance of “Korat Museum”; and saving budget but can meet all three functions in one piece. In addition, the design can be applied to use in another similar project.

2. RESULTS OF RESEARCH AND DISCUSSION

2.1 Field surveys

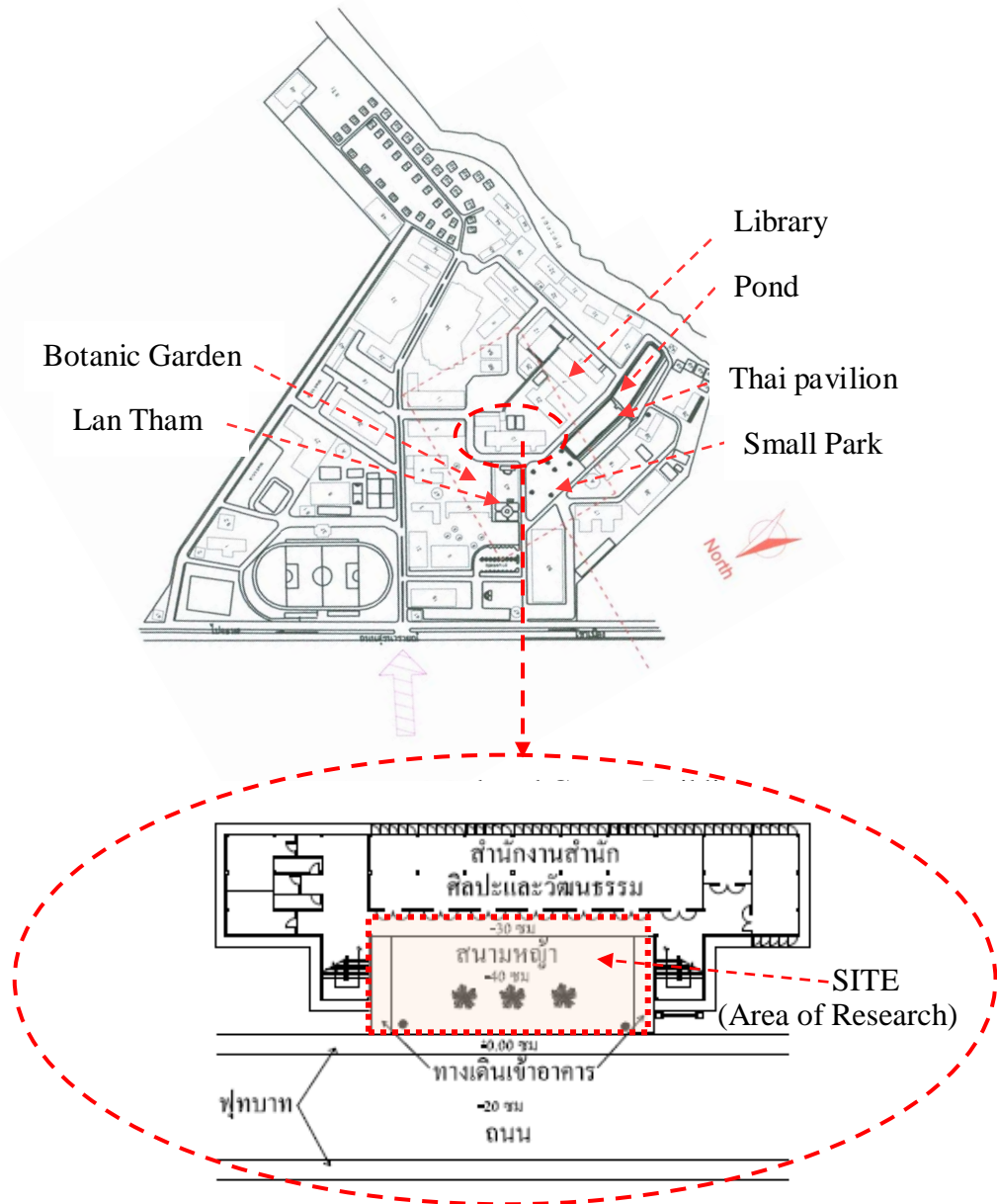


Figure 2: University Master Plan show The Art & Cultural Center location and Site

The Art and Cultural Center Located in center of campus facing north-west is a 3-story masonry building with a lawn area approximately 225 square meters in the front (area of research) with pedestrian walkways 2 meters wide on both side. The

opposite is "Lan Tham" which is multipurpose open area with a Buddha sculpture for religious activities, laterally adjacent to the library, and the opposite is Small Park along a big pond with a Thai pavilion in the water. The ground level of first floor is 30 centimeter low front street level.

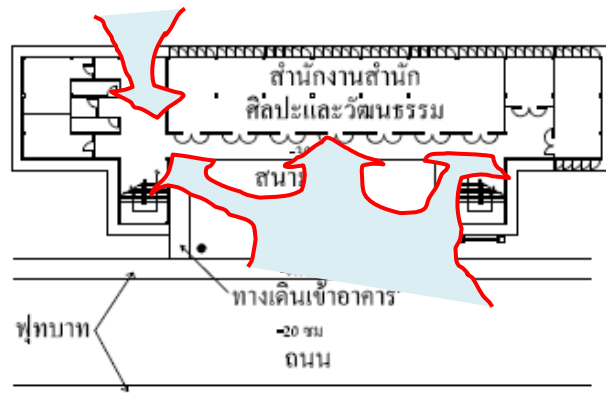


Figure 3: First floor plan shows flooded area and the direction of the water.



Figure 4: Area flooded and water level on ground floor.



Figure 5: Current flood protection by using a sandbag dike.

2.2 Interviews: users and stakeholders

The data from Interviews with staff of the center was informed that the flooded rain into the hallway in front of the building is approximately 20-40 centimeters. Then overflow into offices and cause damage to electronic equipments, furniture, documents and other property.

The data from Interviews staff of building and physical environment about drainage systems found that the drain pipe in the front lawn of the building is cement pipes that drain into the old sewer system that does not work effectively and not appropriate for the expansion of the use of the building and the increase the amount of sewage and more. However, the university has no plans to reengineering the drainage systems on currently fiscal year because its take high budget, besides that are its complicate, time consuming, and has impact on whole campus.

The leader of "Pong Lang" Club (Folk Band Club) which takes all responsibility on Center performances preferred a medium outdoor stage for band or folk dance rehearsals. The outdoor stage can be multipurpose for another supporting activity or exhibition on art and cultural.

Stakeholders, such as department of music program, dancing program, or exhibits program also have commented on the function outdoor stage. The outdoor stage should be multipurpose for other supporting various activity, exhibition on art and cultural, and also for student performances practice or exam.

The Korat Museum has problems on its existing unknown location and main entrance because a museum exhibit is on the second floor of the center building that is not visible from outside the building. So that, many of the tourists/visitors are not aware of the location or the entrance of the museum. Even the teachers, staff or students in the campus are not realized of the existing of the museum. Therefore, the museum needs to be promoted its location and to emphasize the main entrance which

match its identity/characteristic.

3. ANALYSIS AND SYNTHESIS

Information from interviews users and stakeholders can conclude to be the following design information.

Flood protection system selected must be taller than ground floor level at the front and back of the building at least 40 centimeters.

As using the lawn area as the outdoor stage site, the design have to be mention the new drainage system of the stage by spreading drain pipes in the front to join in campus drainage system which locate at the sides of building.

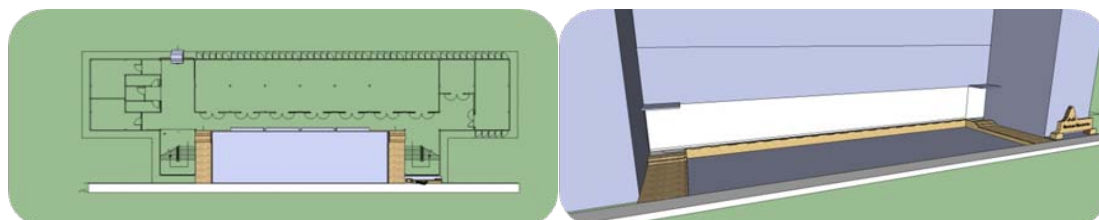
The outdoor stage platform should be elevated above the ground floor of the building at least 60-70 centimeters in order to perspective the audience from street and act as a dike.

The concept idea of overall outdoor stage design especially the backdrop is “Pratu Chumphol” which is known as landmark of Nakhon Ratchasima province and in accordance with “Korat Museum” as well.

The outdoor stage floor and beams should be made out of concrete mixed with water proof and finishing the floor with recycles wood from the former office building. Wood floor is low heat capacity material which can reduce heat into the building.

The pedestrian walkways on both sides agreed to maintain but should be extended and covered by Korat vernacular roof style. Then elevated walkway above the hallway floor of ground floor at least 60 centimeters and 10 centimeters lower than the outdoor stage floor in order to enhance the performance and the median area to clear.

2.4 Three-dimensional sketch (3D) / architectural drawing



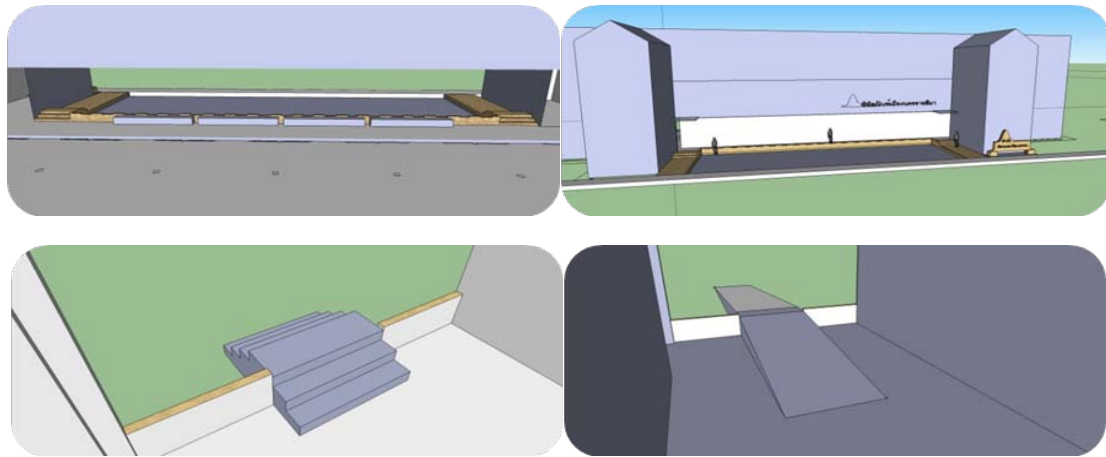


Figure 6: 3D sketch of the dike to solve flooding.

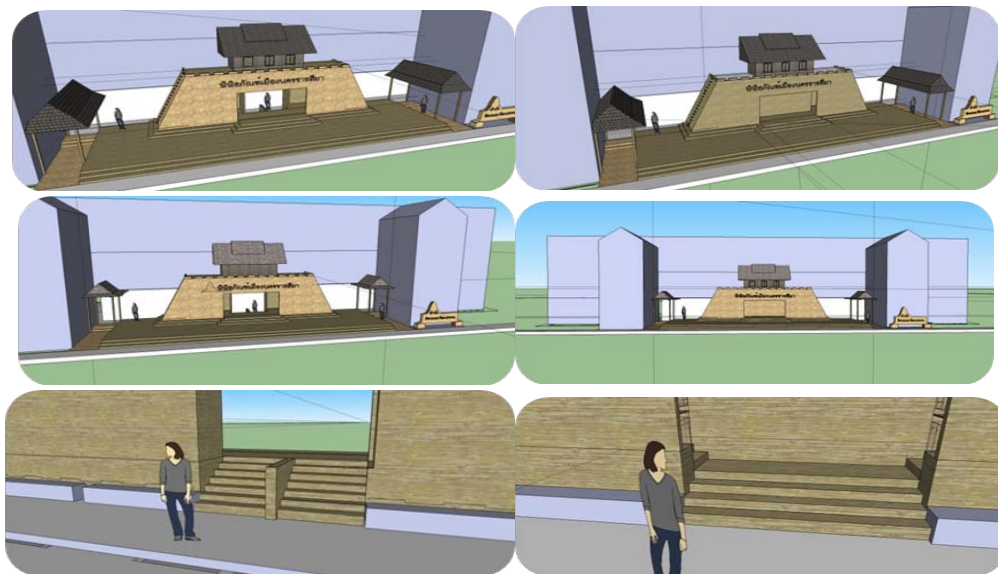


Figure 7: 3D sketch of the designed that combine dike and Outdoor stage together.

Figure 7 shown the first attempt of design which has 2 different types. Type A on the left and type B on the right. The different of these 2 types are stair at the back and the length of cover-walkway. Type A was selected by committee of Center and building and physical environment.

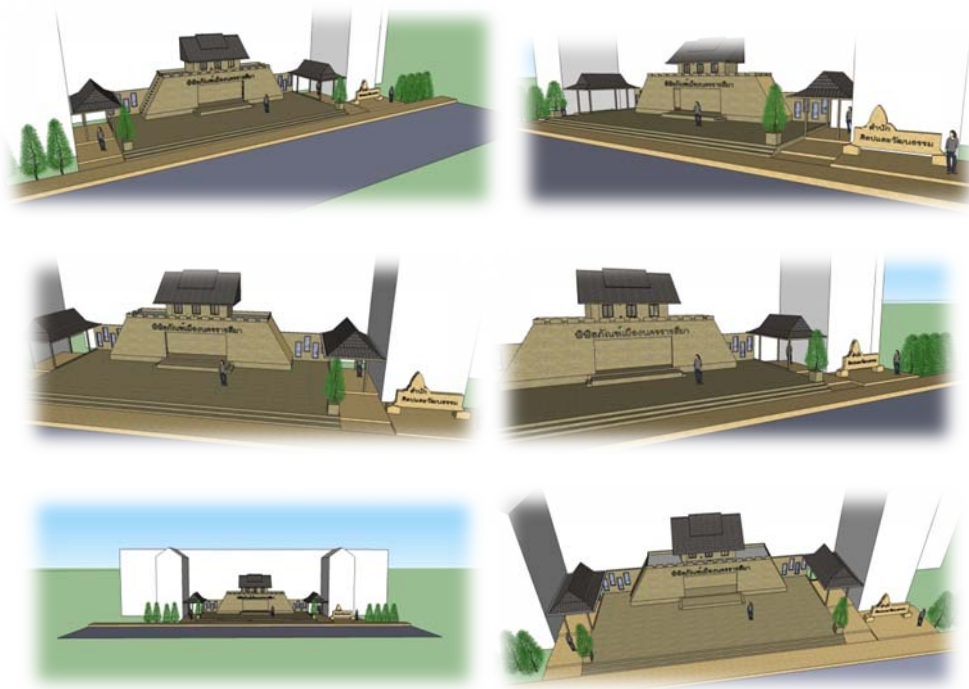


Figure 8: 3D sketch of the type A design an outdoor stage after revised.

Figure 8 shown 3D sketch of the type A design an outdoor stage after revised. But there were another adjusts after this which is last. The committee decided to change the front stair to the sides for having more space on stage performance.

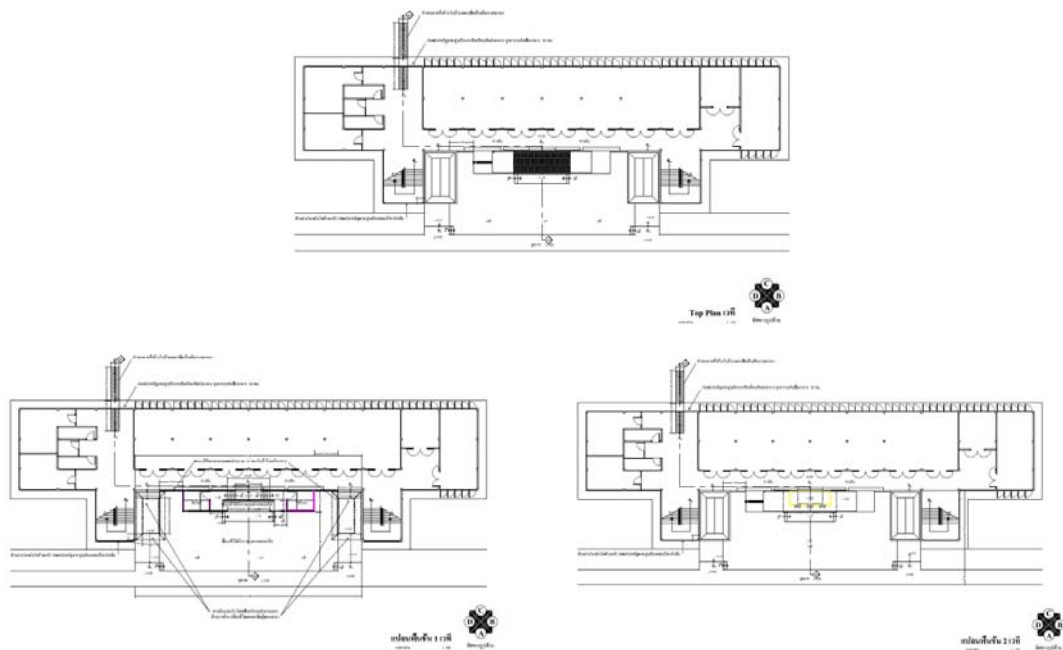


Figure 9: Plans of the final design

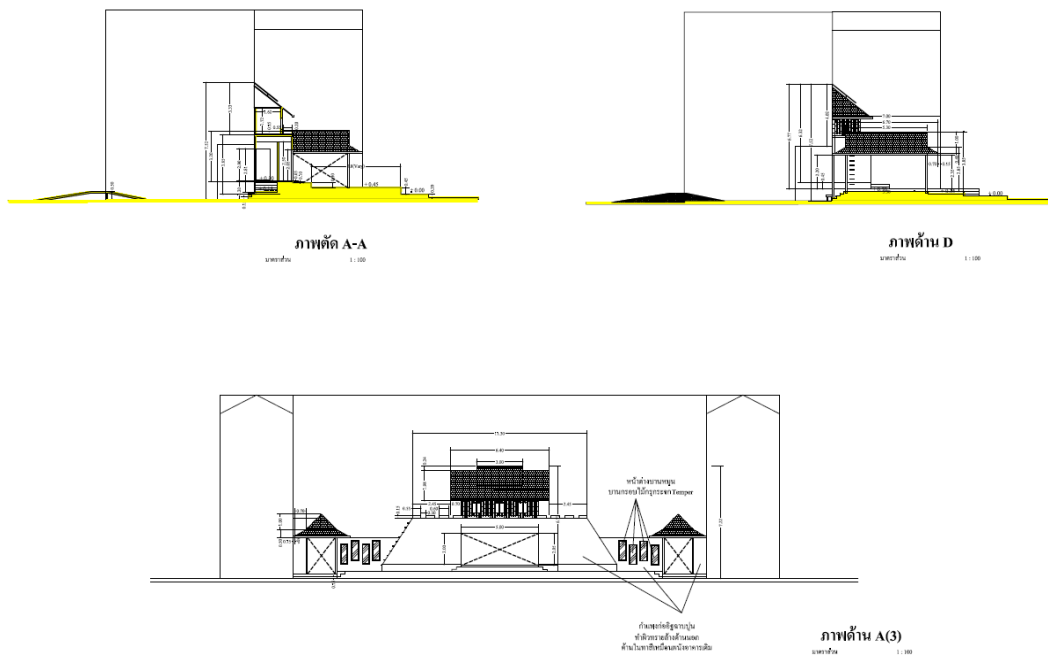
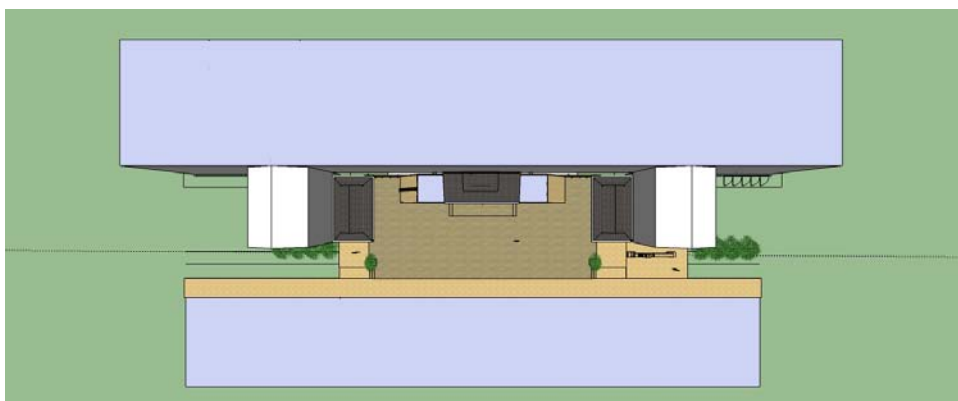


Figure 10: Section and elevations of the final design



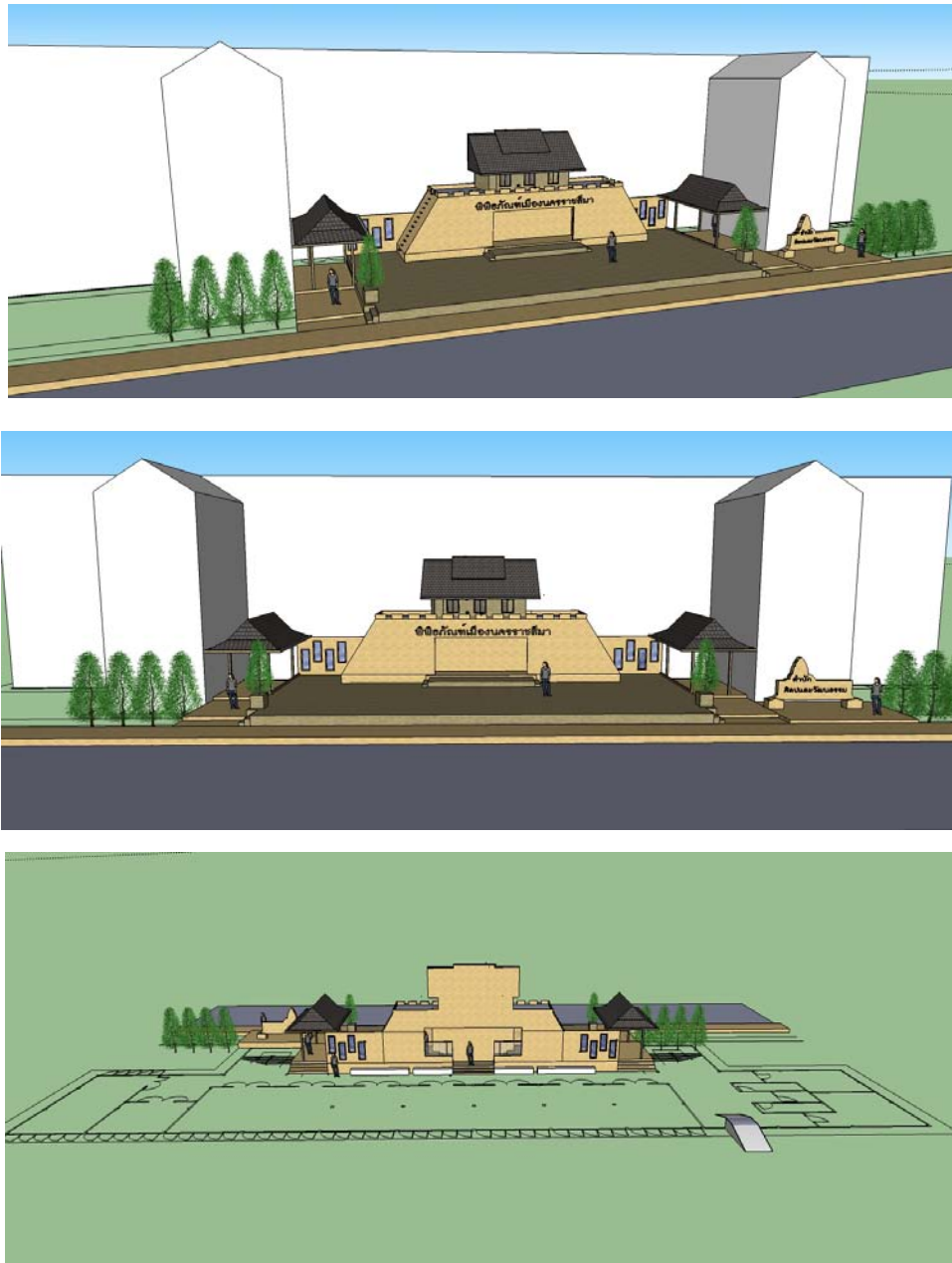


Figure 11: 3D sketch of the final design

4. CONCLUSION

The architectural design is more difficult to meet the satisfaction of the majority one hundred percent. Or another word, can say that is impossible. Because of the beauty or aesthetics and taste are individual and specific, hard to make a final decision or arbitrate judge right or wrong. But the design of an outdoor stage with a dike to be a landmark for the Art and Culture Nakhorn Ratchasima Rajabhat University can meet the functional and the appropriate functionality. Due to the design process through research, analysis and discussions with users / stakeholders to

the conclusion on the concept design. Nevertheless, some adjustment between the process of construction drawing, making blueprints, or under construction can be happening to suit the requirements of materials or construction techniques.

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