MŰEGYETEM 1782

BSc Diploma 2. Task Description

1. Design Task Outline

- **Analyze** the building program based on its function and the corresponding comfort requirements and demands of the occupants. Analyze the characteristics of the local climate and microclimate, building volumes and their orientation (investigating shading options), size and orientation of transparent surfaces and use of building materials.
- **Forecast** the necessity and characteristics of the applied building systems and services as well as the approximate size and location of the corresponding facilities, plants and rooms.
- **Renewable energy:** 25% of total energy use of the building must come from renewable energy sources. Make a preliminary analysis of the proposed technologies: simple to apply, difficulties can occur, and not applicable. Based on the analysis choose at least one or up to three renewable technologies. Describe the requirements of the selected application system, which are mandatory to be considered during the architectural design!

To obtain a signature, the implementation of the above points into the draft plan is mandatory! The deadline for signing draft plans is the same as the acquisition of the design and planning departments outline plan deadline. If the draft plans are not signed before deadline, it may result in the denial of the semester's acceptance.

2. List of Deliverables

- **Draw** a **utility layout of the building site** using at least 1:500 scale, indicating all the available and planned utilities and services of the site.
- **Describe** the main characteristics and properties of the **building systems and services** that are required for the successful operation of the building and **determine the location and size** of the necessary **plants**, **rooms** and **facilities**.
- **Forecast** the overall building energy performance and identify applicable renewable energy systems. Create a draft sketch of the energy systems and operations of the building on a power supply concept level.

3. Additional Deliverables of a Detailed Diploma Task

Please also submit the following deliverables if you wish to do a detailed diploma project considering the field of building energetics and services:

- **Detailed building energy and building physics calculations:** prove that the boundary surfaces correspond to the Hungarian (7/2006. TNM) building energy requirements of "nearly zero energy buildings".

The final signature of the acquisition is conditional on implementation of this program points!

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