

# ODTÜ KIBRIS'LA BİLİM EĞLENCELİDİR.

## METU Northern Cyprus Campus, Civil Engineering Department

### CVE 410 Project: METU NCC Container Dormitory

Tamer ÇAKIR, Anıhan Anıl ÇİÇEK, Sedat İNCİ, Fırat SONDİLEK, Edip ANILIROĞLU, Mouhamed Sadik AMOON

Assist. Prof. Dr. Ali Şahin TAŞLIGEDİK

#### Introduction and Statement of the Project

Northern Cyprus is becoming a quite popular spot for high education in the Middle East region. Number of students coming to the island is increasing every year, and hence the need for enhancing the infrastructure and services, especially in terms of housing structures to host students, is as urgent as ever. METU NCC is a leading university in the island, with its notion of 'Green Campus'. This project comes to answer the need for hosting students, and follows this notion of green campus, which aims to provide substantial approaches to engineering practice in terms of environment and cost. In short, this project addresses the design for a student's dormitory using used shipping containers as a substantial alternative.

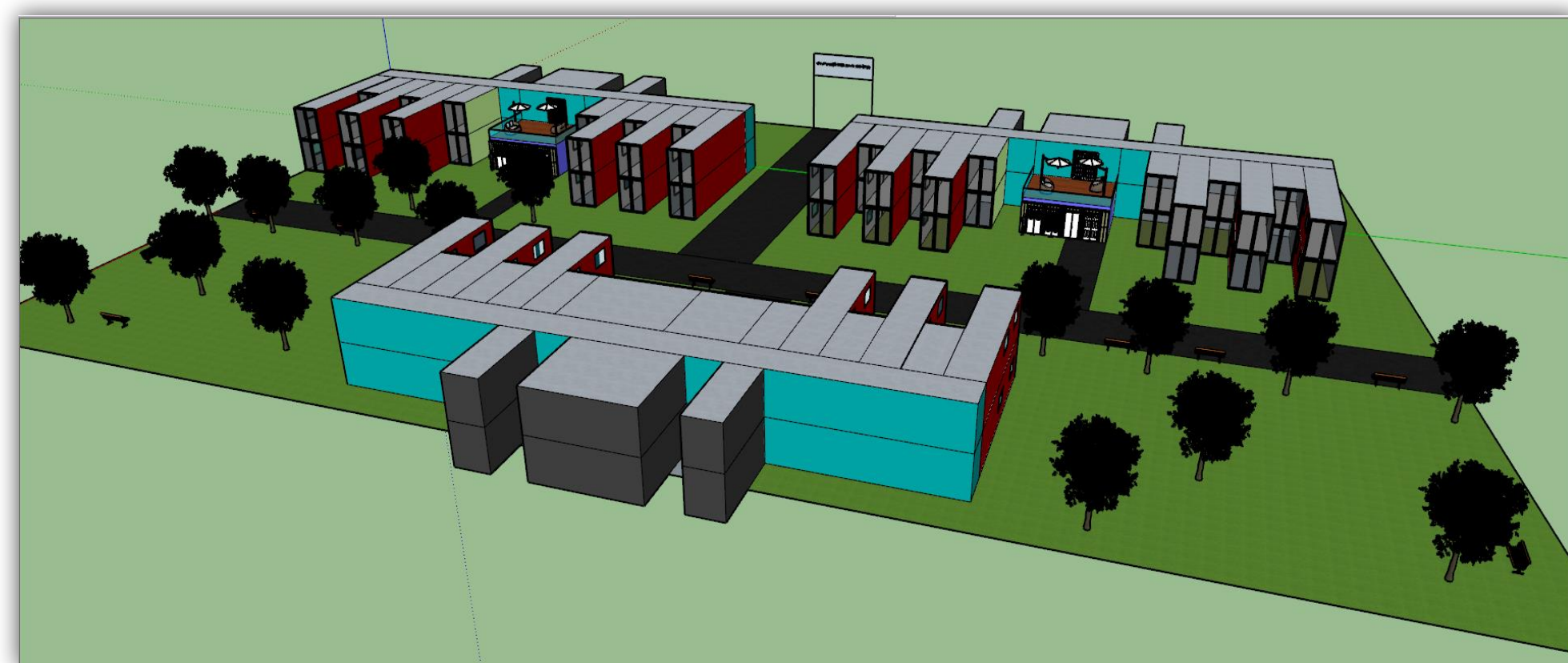
#### General View of the Dormitory Project



Location of the Dormitory Project in METU NCC



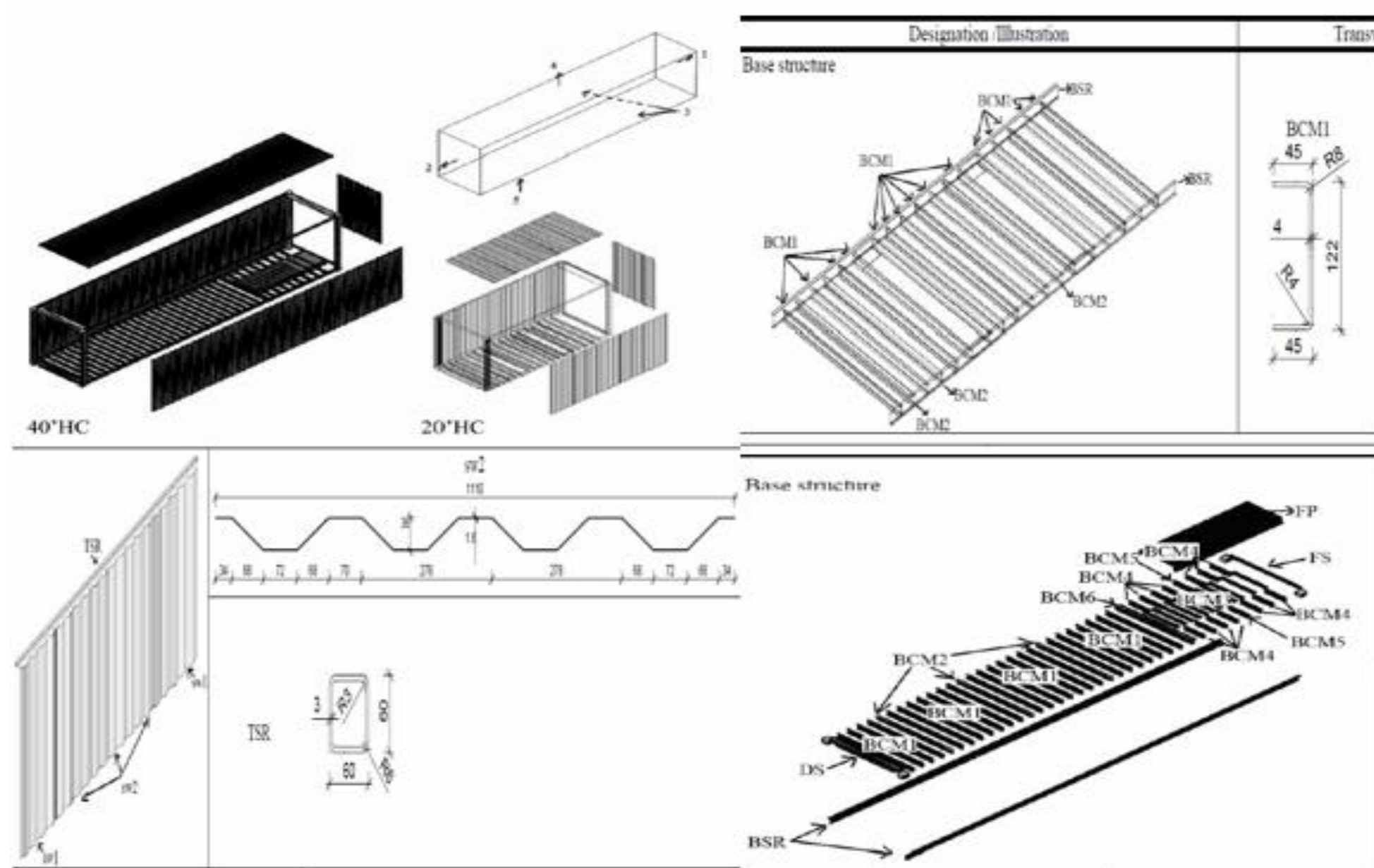
Details of Container Rooms



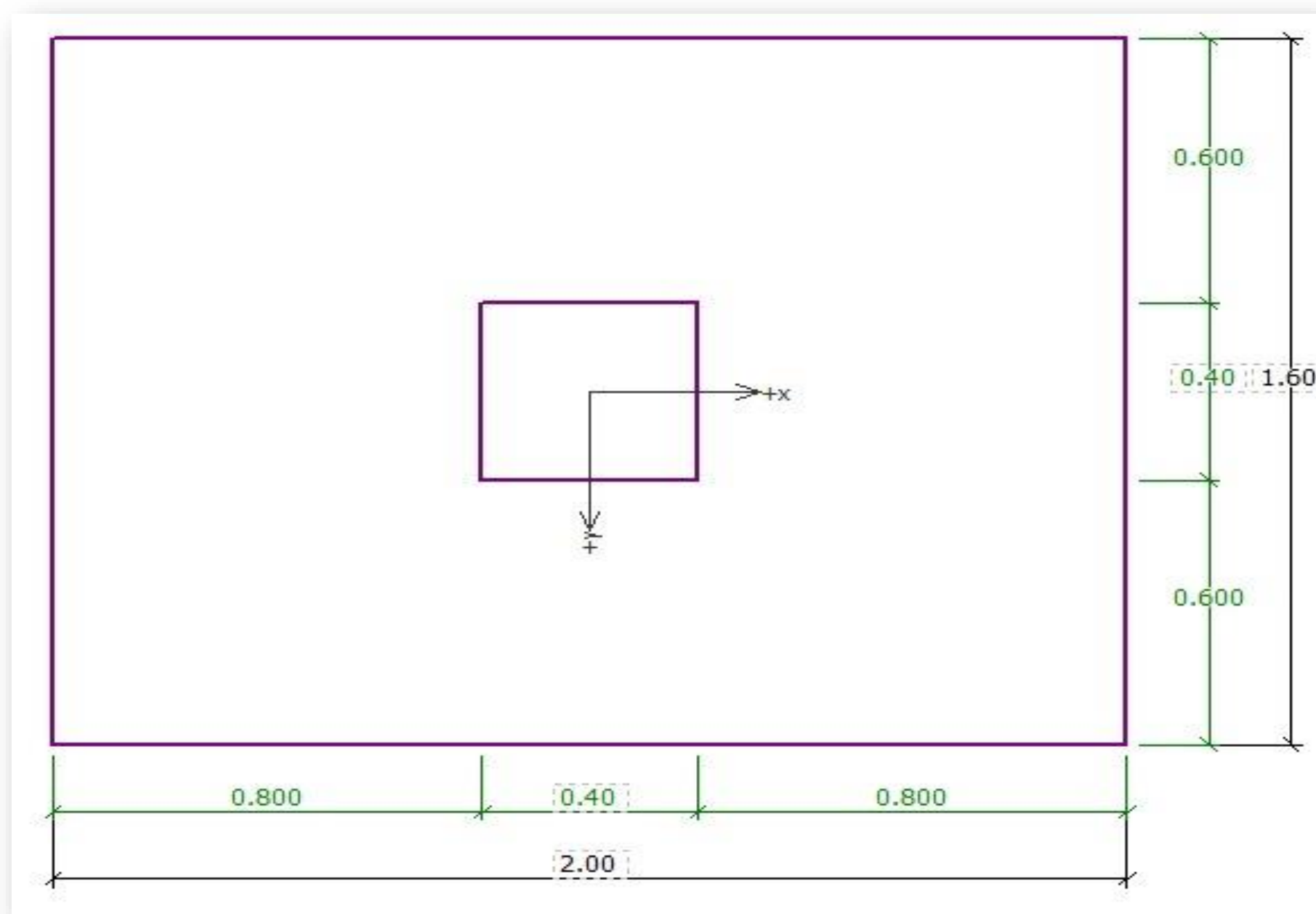
Dormitory Blocks

#### Detailing of Containers and Technical Drawings

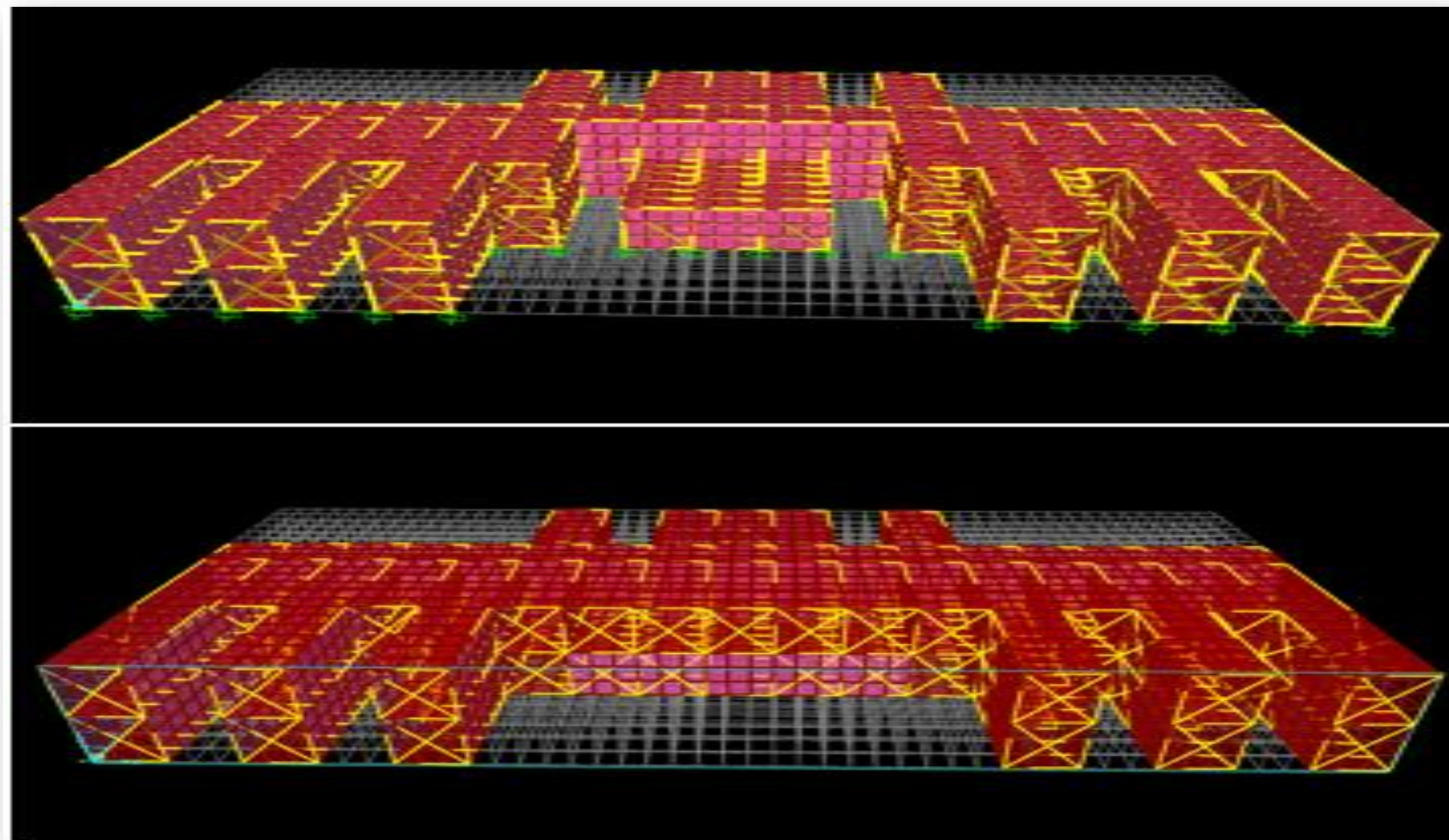
In the top quadrant on the left, sections of containers' elements are shown. It is important to consider these sections, and their properties, to have compatible sections, and material properties while constructing computer models. Below these, visualizations of the modelling in SAP 2000 is provided, to provide a better presentation of the load combinations' effects on the structure. On the right, a plan sketch for the footing designed to be placed under the structure's columns is presented, and at the bottom quadrant, the soil profile for the project location obtained from the closest SPT data, is shown.



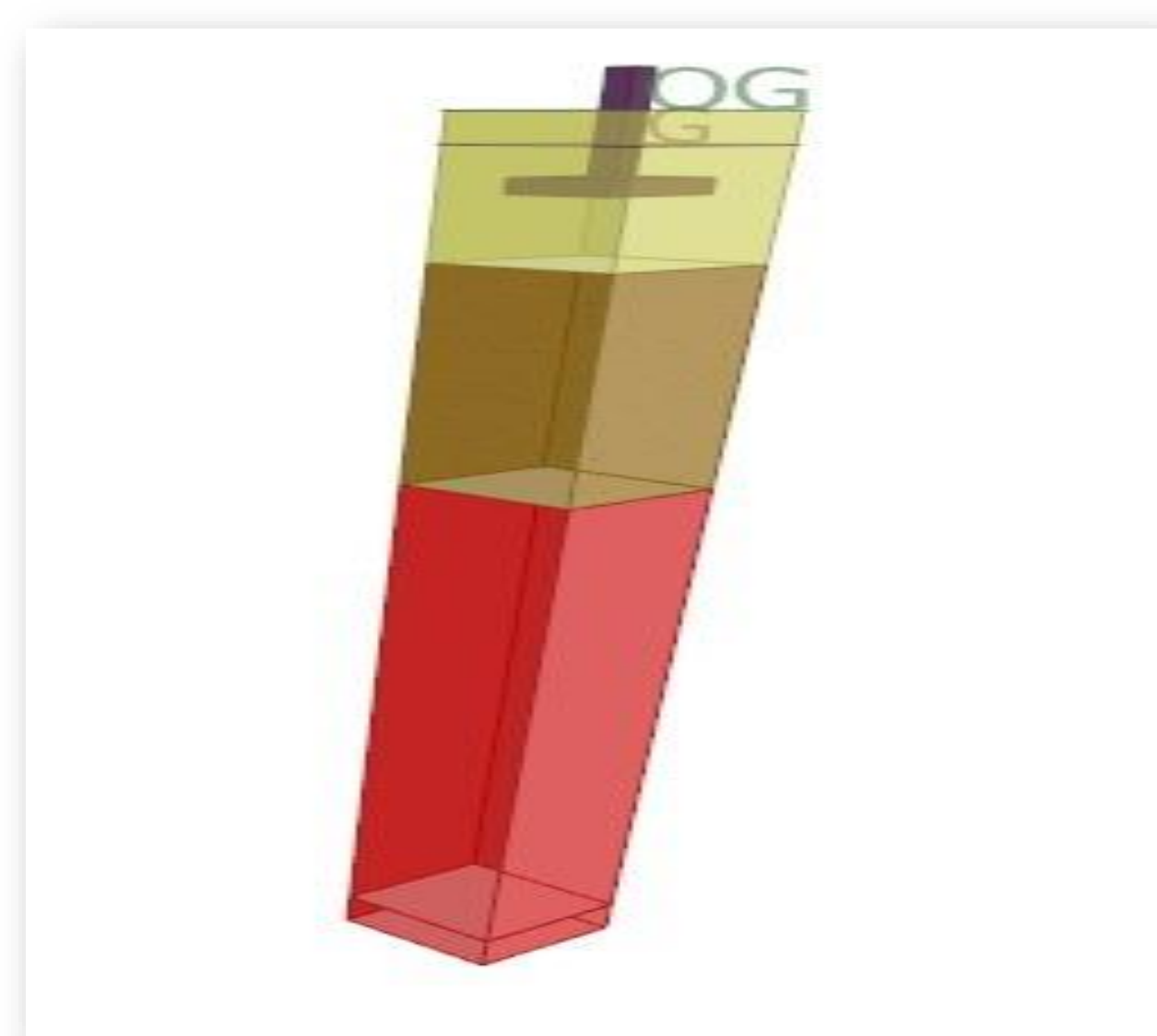
Technical Details of Containers (Bernardo, Oliveira, Nepomuceno & Andrade 2011)



Footing's Dimensions



SAP2000 Modelling



Soil Profile