Abstract

Previously, Electrical Engineering ITS building structure was planned for medium seismic zone because it is located in Surabaya and the surrounding region. The selection for that particular earthquake zone was based on Indonesian National Standard (SNI) for Earthquake, dated 2002. The regulations have been revised to meet the present earthquake characteristics. Therefore, the structure of the building was modified and redesigned; using the most recent revised seismic code SNI and using Building Frame System (SRG). Building Frame System (SRG) is a configuration of the building structure with a complete space frame that has a structural wall or shear wall which functioned to hold the load on the structure caused by the earthquake. This system can be used to design a high-level building in the high seismic zone. Modifications to be done are to increase the number of floors, from originally 4 floors, to 10 floors and the addition of the shear wall structure. In the following steps, the author draw the dimension of the structure which include the upper building (columns, beams, plates, stairs and elevators) and lower building (foundation), also determine the loads acting on the structure of the building and transform the results of calculations and planning into engineering drawings.

Key words : Structures, Reinforced Concrete, Building Frame Systems (SRG), Shear Wall.
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