MODIFICATION OF PUNCAK PERMAI APARTMENT USING PRESTRESSED BEAM ON 15th FLOOR FOR MEETING ROOM AREA

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ABSTRACT

Puncak Permai Apartment that consist of 19 floors and located in the region Pakuwon, west surabaya, Surabaya and it is located in the Earthquake Zone 3. In this final project, modifications will be made with a special architectural design to maximize the space function that is on the rooftop floor to be meeting area that will be made without the column, while the other floors are used as a family room. Structure used in the design structure system Intermediate Moment Resisting Frame (SRPMM) in accordance with the regulations SNI 03 -2847 - 2002. As a solution of the large room without columns, it is using prestressed beam structure with a postension system.. This paper will discuss the complete design of the structure of the Puncak Permai Apartement ranging from
primary and secondary structural elements that will be generated containing the design drawings and specifications of the building structure in accordance with the conditions required by SNI 03-2847-2002. In addition, this final project also contains about the method of execution in the field.

Keywords: SRPMM, Prestressed beams