

**UPPER STRUCTURE PLANNING  
DHARMA JATI FOUNDATION BENGKALIS SUNDAY  
SCHOOL BUILDING BASED ON SNI 2847:2019 &  
1726:2019**

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**ABSTRACT**

*Planning for a 2-storey building with a total building area of 550 m<sup>2</sup> uses a reinforced concrete structure. planned as an educational building facility located on Jalan Senayan RT.003/RW.005 Damon Bengkalis District, Bengkalis Regency. The planning of a building must be able to guarantee the strength and function of the building itself. The strength of the building must be able to withstand dead loads, live loads, wind loads and earthquake loads that occur in the area. then for this final project the author will plan the structure of the Sunday School building at the Dharma Jati Bengkalis Foundation using the latest SNI, namely SNI 1726: 2019 (Procedures for implementing earthquake resistance for building and non-building structures), SNI 2847: 2019 (Structural concrete requirements for buildings buildings and explanations) on beams, columns and slabs.*

*Modeling of the Dharma Jati Bengkalis Sunday School Building was analyzed using the ETABS V16 application and for reinforcement planning in beams, plates and columns analyzed using the Special Moment Resisting Frame System (SRPMK). Based on the planning results, we get a beam with dimensions of 350 x 600 mm<sup>2</sup> with 6D16 support area reinforcement and 2D8-90 stirrups, for field areas using 4D16 reinforcement and 2D8-100 stirrups. For the column, the dimensions are 400 x 400 mm<sup>2</sup> of support with main reinforcement 16D19 and Sengkang reinforcement 3D13-80, field area 16D19 and Sengkang reinforcement 2D13-100. As for the plate, the dimensions are 100 mm using D10-250 reinforcement. Meets cross-sectional criteria for special moment-bearing frame systems (SRPMK), which are in accordance with SNI 2847 – 2019 "Structural concrete requirements for buildings and explanations".*

**Keywords** : *Planning, ETABS V16, SRPMK.*