

Comparison of Design Procedures for Pre Engineering Buildings (PEB): A Case Study

Authors : Sai Kiran.G,Pradeep. Ramacharala,A.Kailasa Rao.

Abstract : In recent years, the introduction of Pre Engineered Building (PEB) concept in the design of structures made & designs in a much optimized way. The adoptability of PEB in the place of conventional steel building (CSB) design concept resulted many advantages including economy and easier fabrication. In this study, an industrial structure (Ware House) is analyzed & designed according to the Indian standards IS 800-1984, IS 800-2007 and also by referring MBMA-96 and AISC-89. In this study a structure span 40m, length= 187m with clear height 8m and has R-Slope 1:1, analyzes and design is carried out considering 2D frames (End frame, frame without crane and frame with 3 module cranes). The economy of the structure is discussed in terms of its weight comparison between (MBMA-96, IS800-2007), (MBMA-96, IS800-1944) & (IS800-1984, IS800-2007).

Keywords : AISC, Crane Beam, MBMA, Pre-Engineered-Buildings; Staad Pro; Utilization Ratio.

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