COMPARATIVE STUDY OF THE SPECIAL TRUSS MOMENT FRAME SYSTEM OF VIERENDEEL AND SYSTEM BRACING-X ON THE STRUCTURE OF BUILDING STEEL BY USING PUSH OVER ANALYSIS

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Abstract
Special Truss Moment Frame (STMF) is a system on detail steel buildings for long span structure. STMF have special detail segment in the middle of the span function dissemination loads dynamic so that it can be used as alternative STMF planning for steel buildings earthquake resistant construction with spans greater than 10 m.

In this Final Project discusses the comparison of two types STMF, Vierendeel system and system Bracing-X. Steel buildings of 10 floors were taken bottom portal who got most in style gained from analysis of SAP 2000 v. 14. Then the cross-section analyzed in more detail with the STMF Push Over Analysis.

The aim of this Final Project is to know the results of the analysis and comparisons of different type STMF 2 in terms of strength. In addition to know the influence of the installation type Vierendeel STMF and Bracing-X type of portal structure as a result of a swift thrust loads (push over analysis) as well as from the direction of earthquake load left and right as well as knowing how the behavior of the cross section type Vierendeel STMF and type Bracing-X itself (deformation, strain, voltage, and contour type structure failure) of styles that works due to the thrust loads (push over analysis) as well as the burden of the earthquake from the left and right directions.

Keyword: STMF, Vierendeel, Bracing-X, Push Over Analysis