



*REVIEW DESIGN COLUMN IN THE PROJECT, "MAIN OFFICE A, B,
WAREHOUSE EXTENSION"*

ABSTRACT

This study is a Review design Structure Column Of 2 Floor Sandal Factory Office Building Using T, L and I Columns In In The Project, "Main Office A, B, Warehouse Extension". Columns with a large enough dimension will minimize a room, so flat columns are made to follow the width of the wall width so that we resolve the problem of reducing the area of the room that has been planned. With this flat column design, the design of the house is beautiful because there are no grooves on the wall where the cross-section of the column is adjusted to the walls of the room. The purpose of this study is to get the forces that work on the structure of columns T, L and I in the factory building of the sandal factory and to know the reinforcement needs of columns T, L and I.

This study uses the ETABS application to help look for forces in the form of axial moment loads and shear forces. Reinforcement requirements obtained from each column are assisted with the design of ETABS and column analysis using column interaction diagrams. Interaction diagram design is derived manually and uses the PCA Column application.

The results of this study flat column in the form of internal forces acting on the structure of the flat column, such as column T gets the force $P = 516.71$ kN, $M_{ux} = 209.53$ kNm and $M_{uy} = 620,966$ kNm, then the configuration of the flat column reinforcement got, example column T Longitudinal reinforcement 16 D 19 and stirrup bar P8 -100.

Keywords: review design, flat column, axial load, moment force, reinforcement, and ETABS program