REDESAIN PELAT TANPA BALOK DENGAN MENGGUNAKAN METODE DDM (DIRECT DESIGN METHOD) STUDI KASUS PROYEK PEMBANGUNAN GEDUNG INTERGRATED LABORATORY FOR NATURAL SCIENCE AND FOOD TECNOLOGY JEMBER STATE UNIVERSITY

(Studi Kasus : Proyek Pembangunan Gedung Intergrated Laboratory For Natural Science And Food Tecnology Jember State University – Jawa Timur)

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RINGKASAN

Pelat adalah salah satu elemen struktur yang dibuat untukmenerima beban mati dan beban hidup. Sifatnya lebih dominan terhadap lentur, dengan ketebalan yang kecil dan bentuknya yang lebar. Sistem pelat terdiri dari beberapa macam yaitu sistem *Flat Plate*, sistem *Waffle Slab*, sitem *Flat Slab*, *Rib Slab* dan sitem *Pelat Konvensional*.

Dengan Metode DDM, maka tingkat jepitan balok di antara pelat lebih tepat dan terukur. Sehingga ketepatan gaya dalam momen yang terjadi pada pelat lebih tepat dan akurat.

Berdasarakan penelitian yang telah dilakukan terhadap struktur gedung Gedung Intergrated Laboratory For Natural Science And Food Technology Universitas Negeri Jember dapat disimpulkan bahwa berdasarakan penerapan struktur pelat yang tanpa balok dengan menggunakan metode DDM didapatkan ketebalan pelat senilai 15 cm.

Kata kunci: *Pelat, Metode DDM.*

REDESIGN OF BUILDING WITHOUT BEAM USING DDM METHOD (DIRECT DESIGN METHOD) CASE STUDY OF INTERGRATED LABORATORY BUILDING FOR NATURAL SCIENCE AND FOOD TECNOLOGY JEMBER STATE UNIVERSITY

(Study Case of - Construction Project of the Integrated Laboratory For Natural Science And Food Technology Jember State University - East Java)

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ABSTRACT

The slab is one of the structural elements that are made to accept dead loads and live loads. Its properties are more dominant to bending, with a small thickness and wide shape. The plate system consists of several kinds, namely the Flat Plate system, the Waffle Slab system, the Flat Slab system, the Rib Slab and the Conventional Plate system.

With the DDM method, the level of clamping of the beam between the plates is more precise and measurable. So that the precision of the force in the moment that occurs on the plate is more precise and accurate.

Based on research that has been conducted on the building structure of the Integrated Laboratory for Natural Science And Food Technology, State University of Jember, it can be concluded that based on the application of a slab structure without beams using the DDM method, a plate thickness of 15 cm is obtained.

Keywords: Plate, DDM Method.