ANALYSIS BEARING CAPACITY OF WELLS FOUNDATIONS AT THE FMIPA JOINT LECTURE BUILDING LAMPUNG UNIVERSITY PHASE II

Oleh
BAYU HENDRI JUNIAR

ABSTRACT

A building structure consist of the upper structure and lower structure. Upper structure includes beams, plates, columns, also roof and lower structure is foundation. Before construction is carried out, first implemented is foundation (lower construction). Weels foundations is a transision between shallow foundation and pile foundation. Bearing capacity of wells foundations obtained from end bearing capacity that obtained from pile's end pressure and slide bearing capacity or blankets that obtained from friction or adhesion between wells foundations and surrounding soil.

This analysis begins with data collection that required to evaluate wells foundations bearing analysis and the data obtained from the FMIPA Joint Lecture Building at Lampung University and conduct library studies.In planning analysis of wells foundations need to be checked against subgrade bearing capacity and horizontal bearing capacity, ie comparing between vertical load and horizontal load that occurred against wells foundations.Ring pitting calculated by finding the stress on the ring pitting due to concentrated loads and momens. Ring pitting considered arch construction with joints with distributed load of (q) with a maximum momen lies in the middle of the span.

From the calculation, the result obtained is different in each column.The largest result of wells foundations bearing capacity is 89,108 t/m2 in column E3. It can concluded that the larger cross-sectional area or diameter of the wells foundations the greater the bearing capacity that can be retained by the wells foundations and the longer or deeper wells foundations, the greater the bearing capacity that can hold from the wells foundations. From the above calculation based on the design of the wells foundations on various sizes in diameter and the depth or length of the wells foundations, so it can concluded that the effective depth of wells foundations is 5 meters depth.

Keywords: wells foundations, foundation bearing capacity