

ABSTRACT

Maulana Fatah, 14318029

Bogor E-Commerce Hub Building Construction Project.

Implementation Methods and Calculation of Concrete Volume Requirements on Column Work Type C14 Outbound Zone D1

Civil Engineering Department. Faculty of Civil Engineering and Planning

Gunadarma University

(XIV + 64 + Appendix)

Bogor E – Commerce Hub Building Construction Project is located on Jl. Raya Bogor 3, Cimandala, District, Talbot, Bogor, West Java, Bogor 16710. Building Project E - Commerce Hub is built on a land with a land area of $\pm 84\,196\text{ m}^2$ and a building area of $\pm 77\,850\text{ m}^2$ which consists of two floors warehouse and office building, 7 floors of parking and canteen building, ME building, and guard post. The owner of the project (owner) of the Bogor E-Commerce Hub Building Development Project is PT. SPE Indonesia Warehouse, PT. Indo Swisatama as structural consultant, PT. Morrow as an architectural consultant, PT. Rider Levett Buknall as consultant Quantity Surveyor, PT. Square Mech PTE LTD as Consultant Electrical Mechanical, PT. Bureau Veritas Indonesia as construction management and PT. Pulauintan as the main contractor. The type of contract used in the Bogor E – Commerce Hub Building Construction Project is Fix Lumpsum Price with a contract value of $\pm \text{Rp. } 400,000,000,000,000,-$. The Bogor E – Commerce Hub Building Construction Project has an implementation time of 18 months starting from October 2020 to March 2022 with a maintenance time of 12 months from the project completion. Observations made during practical work in the field are structural work, one of which is column work. Stages in the implementation of the method of field work is preparatory work, determination as columns, reinforcement work (fabrication), the installation of the column reinforcement, checklist, reinforcement installation bekisiting, checklist formwork, foundry work, demolition bekisiting, and treatment(curing). Calculation of the volume of concrete in the column is done by calculating the volume of the column and the total volume of reinforcement in the column. Columns in zone D1 have 3 types of columns, namely C14, C5A, and C4. The volume of concrete required for column type C14 in Zone D1 is $11,057\text{ m}^3$.

Keywords: Column, Method, Volume.