

ABSTRACT

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Apartment Vasaka Solterra Building Project. The Method of Implementation and Concrete Volume Calculation on Column for 29th Floor 2nd Zone (Tower 2).

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(XIV+83+Attachments)

Apartment Vasaka Solterra Building Project is located at Jalan Condet Pejaten no. 2, Pejaten Barat, Jakarta Selatan, DKI Jakarta. This apartment is built on land that has $\pm 11.124 \text{ m}^2$, has 2 tower apartment consists of a 3 basement floor, 5 podium floor, 1 refugee floor and totally 32 apartment floor. PT. Graha Jasa Ekatama and PT. Waskita FIM Perkasa Realti work together as the owner, PT. Waskita Karya as the main contractor and PT. Ciria Expertindo Consultant as the construction management consultant. Type of contract that is used is Lump Sum Fix Price Contract with contract value of Rp. 520.000.000.000,00. This project has implementation period of 39 months began in November 2017 and is expected to be finished in January 2022 and maintenance period of 12 months after the project is finished. In a multi-storey building construction structure, the column is part of a building frame that occupies the most important position, if a failure occurs in the column it can result in the collapse of other structural components related to it, or even complete collapse of the entire building structure. Implementation method in stages are implementation preparation, preparation of tools and materials, as column determination, column reinforcement fabrication, column reinforcement installation, check column reinforcement, column formwork installation, casting column reinforcement, demolition of column formwork and treatment on the column. Calculation of the volume of concrete in the column is done by calculating the column volume and the total volume of reinforcement in the column. Columns on the 29th floor of zone 2 have 3 types, namely KM.1, KM.2 and KM.2A. The total volume of concrete at KM.1 is $12,35316 \text{ m}^3$, the total volume of concrete at KM.2 is $3,48948 \text{ m}^3$, the total volume of concrete at KM.2A is $1,96467 \text{ m}^3$. The total volume of concrete required for all columns on the 29th floor of zone 2 is $17,80731 \text{ m}^3$.

Key words : Method, Column, Volume