

ABSTRACT

Wusthaanisaa Wigharezki Mahdi Intercession, 16319656

Cinere – Jagorawi Section III Toll Road Construction Project, Methods of Implementing Abutment Work and Calculating the Need for A1 Abutment Concrete Volume on the STA New Land Overpass Bridge. 13+920.

*Department of Civil Engineering, Faculty of Civil Engineering and Planning
Gunadarma University*

(XIV + 81 + Appendix)

Cinere - Jagorawi Section III Toll Road Construction Project has a span of 5.44 KM which is divided into 2 sections, namely section IIIA and section IIIB. Section IIIA is on the STA. 11+500 – STA. 15+000 along 3.5 KM and section IIIB are at STA. 9+314 – STA. 11+500 along 2.3 KM. The Cinere – Jagorawi Toll Road Construction Project is part of the Jakarta Outer Ring Road (JORR) II Toll Road network which is expected to be connected to the Jakarta Outer Ring Road (JORR) I Toll Road through the Depok – Antasari Toll Road. Pt. Translingkar Kita Jaya as the owner cooperates with PT. Perentjana Jaja as a planning consultant, PT. Multi Phi Beta as a supervisory consultant, as well as PT. LMA – PP Presisi Kso as the executing contractor. The project was implemented for 485 days and a maintenance period of 1095 days. Observations made during work activities are in the form of abutment work which includes lower structure work, namely pile cap and upper structure work, namely abutment itself, as well as observing the need for ready mix concrete at the time of casting pile cap and abutment A1 on the Ground Baru STA overpass bridge. 13+920. The stages of implementing the abutment work begin from the submission of work preparations from the executing contractor which is then handed over to the owner, the contractor prepares tools and materials in accordance with the contract, the work of erecting the spun pile as a foundation, the bombing of the spun pile, the repeating of the pile cap, the casting of the pile cap, the installation of the abutment formwork, the casting of the abutment wall, the repeating of the backwall and the headwall, installation of backwall and headwall formwork, as well as casting backwall and headwall. Based on the calculations that have been carried out, it is obtained that the need for concrete volume for pile cap is 74,181 m³ with the number of mixer trucks needed is 11 mixer trucks and the need for concrete for abutment is 140,498 m³ with the number of mixer trucks needed is 21 mixer trucks.

Keywords: Implementation Method, Pile Cap, Abutment, Tollways.