

ABSTRACT

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Caption : The Cileungsi A and Cileungsi B (MYC) Bridge Replacement Project
Specific Problem : Casting Volume Needs for Bored Pile Piles on Bridge A, A1 and A2 Abutments
Level : Undergraduate, Civil Engineering Department, Gunadarma University
(xiv + 71 + Attachment)

The Cileungsi A and Cileungsi B (MYC) Bridge Replacement Project is a rebuilding project of two bridge sections. The Cileungsi Bridge A and B is a bridge located on the Transyogi road linking Cikeas and Cullinan with a span of 70.8 m and a width of 16 m. The project will begin in November 2018 and it is planned that the two bridge segments will operate in June 2019. The project value is IDR 66,169,930,000,020 (including 10% VAT) with a situational payment system. The main contractor in the Cileungsi A and Cileungsi B (MYC) bridge replacement projects is PT. Jaya Konstruksi Manggal Pratama, Tbk. and PT. Wahana Mitra Amerta, Tbk. as a supervisory consultant. In the process of building a bridge construction, one of the things to do is build the foundation. The foundation is the part of the building that connects the bridge pillar with the ground. The type of foundation used is the bored pile foundation. One of the processes in building a bored pile foundation is casting. The casting job is the pouring of fresh concrete into the mold of a structural element which has been fitted with reinforcing iron. Before the casting job is carried out, an inspection of the work must be done to ensure that the mold and reinforcement are installed according to plan. To find out how much volume is needed for casting it is necessary to do calculations in accordance with the existing work drawings, which include the dimensions of the height of the pile and the diameter of the pile in abutment with a boundary A1 and A2. The required casting volume for an A1 pole is 9,183 m³ and for an A2 pole it is 7.79 m³.

Keywords: Foundation, Bored Pile, Concrete, Casting Volume