

# ANALISIS PERBANDINGAN BIAYA DAN WAKTU DARI WALLER BEAM BAJA DIBANDINGKAN DENGAN WALLER BEAM BETON DALAM PEKERJAAN GROUND ANCHOR

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Because of the limited land, basement construction is increasingly needed. Underground construction requires retaining wall methods to with stand the load of soil front the area around construction site. At present, there are several alternative methods of retaining wall, such as secant pile, contiguous bored vile, diaphragm wall, supported by ground anchor if needed. To distribute the load from the ground anchor to the retaining wall, the wailer beam method is required. Waller beam can he made of steel or concrete. In this study, a cost and time comparison of steel wailer beam and concrete wailer beam will be analyzed. Each method has constraints in the implementation at site. Based on the research results, steel wailer beam is more suitable to be applied in terms of cost and time. However, if the selection of method could be chosen before the retaining wall was built, then the diaphragm wall is the most suitable retaining wail method to be applied in a project, which has a high level of groundwater and deep level of excavation, but additional cost is needed to change it from the original design contiguous bored pile.

Keywords: retaining wall, steel wailer beam, concrete waller beam, ground anchor, secant pile, contiguous bored pile, diaphragm wall