

## ABSTRAK

### PENGARUH FLUKTUASI GRADASI TERHADAP DAYA DUKUNG AGREGAT KELAS A

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Penelitian ini mendeskripsikan Lapis Pondasi Agregat mempunyai peranan yang sangat penting pada perkerasan jalan. Material agregat yang akan digunakan dipilih sesuai persyaratan Spesifikasi Umum Bina Marga 2018 tentang pekerjaan gradasi agregat kelas A. Lapis Pondasi Agregat Kelas A yang mempunyai persyaratan spesifikasi yang harus dipenuhi sebelum pemadatan di lapangan, sebelum dilakukan pemadatan di lapangan material harus diuji Laboratorium untuk memenuhi persyaratan Lapis Pondasi Agregat Kelas A tersebut. Penelitian ini bertujuan untuk melihat perbandingan nilai daya dukung lapis pondasi agregat kelas A terbesar dari variasi gradasi agregat batas bawah dan batas atas terhadap gradasi agregat batas tengah dengan metode *California Bearing Ratio* (CBR). Hasil penelitian menunjukkan bahwa nilai CBR design untuk gradasi Batas Bawah sebesar 94,6%, kadar air optimum sebesar 3,5%, nilai CBR design gradasi Batas Tengah 114,5%, kadar air optimum 4,0%, nilai CBR design Batas Atas 104,8%, kadar air optimum 4,5% Lapis Pondasi Agregat Kelas A dengan gradasi Batas Tengah didapat nilai CBR lebih besar dibandingkan gradasi Batas Bawah dan Batas Atas.

**Kata kunci :** *Gradasi, California Bearing Ratio (CBR), Agregat Kelas A*

## **ABSTRACT**

### ***THE EFFECT OF GRADATION FLUCTUATION ON THE CARRYING CAPACITY OF CLASS A AGGREGATES***

***By***

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*This study describes the Aggregate Base Layer as having a very important role in road pavement. The aggregate material to be used is selected in accordance with the requirements of the 2018 General Highways Specifications regarding class A aggregate grading work. Aggregate Base Layers Class A which has specification requirements that must be met before compaction in the field, prior to compaction in the field the material must be laboratory tested to meet the requirements of the Class A Aggregate Base layers. This study aims to look at the comparison of the bearing capacity of the largest class A aggregate foundation layer from the variation of the lower limit and upper limit aggregate gradations to the middle limit aggregate gradation using the California Bearing Ratio (CBR) method. The results showed that the CBR design value for the Lower Limit gradation was 94.6%, the optimum water content was 3.5%, the CBR design gradation Middle Limit value was 114.5%, the optimum water content was 4.0%, the CBR design value was the Upper Limit 104.8%, optimum moisture content of 4.5% Aggregate Base Layer Class A with the Middle Limit gradation obtained CBR value is greater than the Lower Limit and Upper Limit gradations.*

***Keywords:*** *Gradation, California Bearing Ratio (CBR), Class A Aggregate*