

ABSTRAK

Ruas Jalan Raya Sapan memiliki lebar jalan eksisting 6 meter dan lebar bahu jalan bervariasi. Berdasarkan statusnya, Ruas Jalan Raya Sapan adalah Jalan Kabupaten yang termasuk kedalam Jalan Kolektor Primer. Tujuan dari penelitian ini adalah untuk mengetahui dan membandingkan hasil perhitungan tebal perkerasan kaku (*Rigid Pavement*) dengan berpedoman pada Manual Desain Perkerasan Jalan 2017 yang dibandingkan menggunakan Pd T-14-2003. Kedua metode tersebut memiliki parameter-parameter data yang sama yaitu CBR tanah dasar, umur rencana, pertumbuhan lalu lintas, material lapis perkerasan, akan tetapi kedua metode ini memiliki perbedaan dalam teknis perhitungan tebal perkerasan kaku jalan baru.

Hasil perencanaan berdasarkan metode MDPJ 2017 menghasilkan nilai HVAG 27,250,132 rss/lajur/UR diperoleh tebal pelat beton 295 mm, Lapis LMC 100 mm, lapis drainase 150 mm, diameter dowel 36 mm, jarak 300 mm, panjang 450 mm, diameter tie bars 16 mm, jarak 75 mm, dan panjang 70 mm. Berdasarkan hasil perencanaan menggunakan metode Pd T-14-2003 menghasilkan jumlah kelompok sumbu kendaraan sebesar 95,390,892 rss/lajur/UR diperoleh tebal pelat beton 230 mm, lapis pondasi LMC 100 mm, diameter dowel 36 mm, jarak 300 mm, panjang 450 mm, diameter tie bars 16 mm, jarak 75 mm, dan panjang 70 mm.

Kata kunci: Manual Desain Perkerasan Jalan 2017, Pd T-14-2003, Perkerasan Kaku

ABSTRACT

The Sapan Road section has an existing road width of 6 meters and a shoulder width varies. Based on its status, the Sapan Road section is a County Road classified as a Primary Collector Road. The objective of this study is to determine and compare the results of rigid pavement thickness calculations, following the guidelines of the 2017 Road Pavement Design Manual, as opposed to using Pd T-14-2003. Both methods have the same parameters, including subgrade CBR, design life, traffic growth, and pavement material, but these two methods have differences in the technical calculation of the new rigid pavement thickness.

The result of the planning based on the MDPJ 2017 method produce a HVAG value of 27,250,132 rrs/lane/UR the concrete slab thickness obtained was 295 mm, with 100 mm LMC layer, 150 mm drainage layer, dowel diameter of 36 mm, spacing of 300 mm, length of 450 mm, tie bars diameter of 16 mm, spacing of 75 mm, and length of 70 mm. Based on the planning result using the Pd T-14-2003 method, the total vehicle axle group count was 95,390,892 rrs/lane/UR the concrete slab thickness obtained was 230 mm, with a 100 mm LMC foundation layer, dowel diameter of 36 mm, spacing of 300 mm, length 450 mm, tie bars diameter of 16 mm, spacing of 75 mm, and length of 70 mm.

Keywords: 2017 Road Pavement Design Manual, Pd T-14-2003, Rigid Pavement