

**PERENCANAAN GEOMETRIK DAN TEBAL PERKERASAN KAKU
RUAS JALAN PERAMBAHAN – AIR SALEK STA 0+000 - 6+500
KABUPATEN BANYUASIN PROVINSI SUMATRA SELATAN**

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ABSTRAK

Proyek Jalan Perambahan – Air Salek di Kabupaten Banyuasin, Sumatra Selatan bertujuan untuk meningkatkan konektivitas serta mengoptimalkan hasil potensi ekonomi daerah setempat. Berdasarkan analisa lalu lintas harian mencapai 21.087,62 SMP/hari, maka jalan ini dikategorikan sebagai jalan Kolektor kelas I dengan total lebar jalur 7 meter dengan bahu jalan 2 meter, serta tipe jalan 2/2 - TT. Jalan sepanjang 6484,16 meter sebagai medan datar dengan kecepatan rencana 60 km/jam. Perencanaan geometrik alinyemen horizontal memuat 6 tikungan, dimana terdapat 3 tikungan *Full Circle* (FC) dan 3 tikungan *Spiral-Circle-Spiral* (SCS), serta alinyemen vertikal, terdapat 3 lengkung, yaitu 2 lengkung cekung dan 1 lengkung cembung. Perkerasan yang digunakan adalah perkerasan kaku dengan beton bersambung dengan tulangan (JRCP), menggunakan mutu beton F_s 4,5 MPa. Susunan lapis perkerasan meliputi tebal beton 25 cm, beton kurus 15 cm, lapis pondasi atas 20 cm, serta tanah timbunan pilihan 20 cm. Saluran samping berbentuk persegi panjang berukuran lebar 1,2 meter x 0,6 meter, disertai dengan 2 segmen gorong-gorong tipe *single* berukuran 200 cm x 150 cm. Estimasi total biaya proyek mencapai Rp. 137.008.892.277,49 (seratus tiga puluh tujuh miliar delapan juta delapan ratus sembilan puluh dua ribu dua ratus tujuh puluh tujuh rupiah) dengan durasi pelaksanaan selama 136 hari.

Kata Kunci : Prasarana Jalan, Desain Geometrik, Perkerasan Kaku, Drainase, Rencana Anggaran Biaya

**GEOMETRIC PLANNING AND STRAIGHT PACKING HEIGHT OF
PERAMBAHAN ROAD (AIR SALEK STA. 0+000 - 6+500) BANYUASIN
DISTRICT, SOUTH SUMATRA PROVINCE**

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ABSTRACT

Perambahan-Air Salek Road Project in Banyuasin Regency, South Sumatra, has been developed with the objective of enhancing connectivity and optimizing the economic potential of the local area. Preliminary findings from a daily traffic analysis indicate that the road under consideration is classified as a Class I collector road, with a total lane width of 7 meters, a 2-meter shoulder, and a road type of 2/2 - TT. This determination is based on a total daily traffic count of 21,087.62 SMP/day. The road's length, measured in meters, is 6484.16 meters. This measurement is taken for a flat terrain with a plan speed of 60 kilometers per hour. Horizontal alignment geometric planning comprises six bends, including three Full-Circle (FC) bends and three Spiral-Circle-Spiral (SCS) bends. Vertical alignment involves three curves: two concave curves and one convex curve. The pavement utilized is characterized as Jointed Reinforced Concrete Pavements (JRCP), employing concrete quality F_s 4.5 MPa. The pavement layer arrangement consists of 25 centimeters of concrete with a thickness of 15 centimeters, a 20-centimeter top foundation layer, and 20 centimeters of selected backfill soil. The rectangular side channel measures 1.2 meters in width and 0.6 meters in depth, accompanied by two segments of single-type culverts measuring 200 centimeters in length and 150 centimeters in width. The total estimated cost of the project was IDR. 137.008.892.277,49 (one hundred and thirty seven billion eight million eight hundred and ninety two thousand two hundred and seventy seven rupiah), with a projected implementation duration of 136 days.

Keywords: *Road Infrastructure, Geometric Design, Rigid Pavement, Drainage, Cost Budget Plan*