

PERENCANAAN JALAN REL KERETA API RUTE BANJAR STA 6+257 – 13+027

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ABSTRAK

Kereta api di Indonesia merupakan salah satu transportasi darat yang banyak digunakan oleh masyarakat umum. Kebanyakan masyarakat memilih kereta api sebagai transportasi selain dapat menghindari kemacetan yang terjadi di jalan raya, juga memiliki sistem penjadwalan yang teratur dan harganya relatif murah dibandingkan bus umum. Banyak jalur-jalur regional yang dulunya memiliki akses jaringan rel namun sekarang sudah tidak aktif lagi salah satunya jalur kereta api Banjar-Cijulang yang digunakan sebagai jembatan menuju Pangandaran akhirnya resmi ditutup tahun 1982. Prasarana transportasi terus dikembangkan untuk memenuhi jaringan yang saling terhubung sehingga dapat terwujudnya pemerataan dalam sektor perekonomian dan pariwisata terutama dalam prasarana transportasi kereta api yang diminati sebagai angkutan massal, akan tetapi jaringan prasarana transportasi jalan rel saat ini belum sepenuhnya sesuai dengan kebutuhan angkutan penumpang dan barang terjangkau oleh pelayanan angkutan barang dan penumpang. Hal tersebut menghambat perkembangan sektor kereta api seharusnya dapat dimanfaatkan sebagai moda transportasi masa. Sebagai daerah tujuan wisata, wisata pantai telah menjadi daya tarik Pangandaran tidak dikenal oleh wisatawan domestik tetapi juga wisatawan mancanegara. Dalam tugas akhir ini akan ditinjau untuk mewujudkan hal tersebut, Pemerintah Provinsi Jawa Barat akan menata ruang kawasan pariwisata dengan didukung pembenahan akses infrastruktur seperti reaktivasi jalan rel kereta api, agar menciptakan kemudahan akses lagi wisatawan. Perencanaan Jalan Rel Kereta Api ini rute Banjar – Cijulang Sta 6+257 – 13+027 berlokasi dititik awal di stasiun Batulawang melewati stasiun Pangandaran, stasiun Gunung Cupu, dan di titik akhir di stasiun Cikotok. Metode yang digunakan dalam penyelesaian permasalahan adalah mengumpulkan data sekunder, perencanaan trase jalan rel, menentukan rute, membuat gambar

geometrik dari rute yang terpilih Berdasarkan hasil perencanaan yang telah dilakukan dalam penyusunan Tugas Akhir ini, maka dapat ditarik beberapa kesimpulan : Jalan rel rute Banjar-Cijulang dengan jarak 13,04 km, dengan dimulai dari stasiun Batu Lawang dan melewati Stasiun Gunung Cupu dan berakhir di Stasiun Cikotok. Susunan jalan rel yang digunakan dalam perencanaan ini ada kelas jalan rel II, kecepatan rencana 110 km/jam, jumlah rel single, beban gandar 18 ton, lebar sepur 1067 mm, jenis bantalan beton, jarak bantalan beton 40 cm, jumlah bantalan 21717 buah, jarak rel tepi atas 150 cm, jarak rel tepi bawah dan lurus 290 cm dan 340 cm. Perencanaan geometrik jalan rel Banjar-Cijulan terdapat 4 tikungan dengan dua jenis tikungan yaitu tikungan SCS (Spiral-Circle-Spiral) dan tikungan FC (Full Circle).

Kata kunci: Perencanaan rel, scs dan full circle, geometri re

RAILWAY ROAD PLANNING ROUTE

BANJAR STA 6+257 – 13+027

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ABSTRACT

Trains in Indonesia are one of the land transportations that are widely used by the general public. Most people choose trains as transportation in addition to being able to avoid traffic jams that occur on the highway, they also have a regular scheduling system and are relatively cheap compared to public buses. Many regional routes that used to have access to rail networks are now no longer active, one of which is the Banjar-Cijulang KA (Railway) line which was used as a bridge to Pangandaran, which was finally officially closed in 1982. Transportation infrastructure continues to be developed to meet interconnected networks so that equality can be realized in the economic and tourism sectors, especially in railway transportation infrastructure which is in demand as mass transportation, but the current rail transportation infrastructure network is not yet fully in accordance with the needs of passenger and goods transportation that is affordable by goods and passenger transportation services. This hampers the development of the railway sector which should be used as a mode of mass transportation. As a tourist destination, coastal tourism has become an attraction for Pangandaran, not only known by domestic tourists but also foreign tourists. In this final project, it will be reviewed to realize this, the West Java Provincial Government will organize the tourism area space supported by the improvement of infrastructure access such as the reactivation of the railway, in order to create easier access for tourists. The planning of this Banjar - Cijulang Sta 6 + 257 - 13 + 027 Railway route is located at the starting point at Batulawang station passing Pangandaran station, Gunung Cupu station, and at the ending point at Cikotok station. The method used in solving the problem is collecting secondary data, planning the railway route, determining the route, making geometric drawings of the selected route. Based on the results of the planning that has been carried out in the preparation of this Final Project,

several conclusions can be drawn: The Banjar-Cijulang railway route with a distance of 13.04 km, starting from Batu Lawang station and passing Gunung Cupu Station and ending at Cikotok Station. The arrangement of the railway used in this planning is a class II railway, a planned speed of 110 km/hour, a number of single rails, an axle load of 18 tons, a track width of 1067 mm, a type of concrete sleeper, a distance of 40 cm concrete sleepers, a number of sleepers 21717 pieces, a distance between the upper edge of the rail 150 cm, a distance between the lower edge of the rail and the straight 290 cm and 340 cm. The geometric planning of the Banjar-Cijulan railway has 4 bends with two types of bends, namely the SCS (Spiral-Circle-Spiral) bend and the FC (Full Circle) bend.

Keywords: Rail planning, scs and full circle, rail geometry