

FINAL REPORT

ABSTRACT

"Study of Highway Pavement Planning on the Probolinggo - Ranuyoso - Lumajang Section (Using the Bina Marga Method)"

Didit Hendar Pratama

NIM. 192322201002

The Probolinggo - Ranuyoso - Lumajang road section of Lumajang Regency is included in the national road connecting Probolinggo Regency with Lumajang Regency which has a section length of ± 7 km with a width of 7 m. Along the Probolinggo - Ranuyoso - Lumajang road, there was a lot of damage, such as the asphalt peeling and some even had holes. This section of road is a national access road which is always passed by buses, vehicles going to Lumajang Regency and large trucks for transporting sand and goods and so traffic jams often occur because the road is not wide enough and either side is hilly, it is very dangerous if the road is on leave it broken and bumpy. Therefore, a right-left widening is planned so that traffic jams can be resolved. From observations regarding the traffic flow and loads that occur on the Probolinggo - Ranuyoso - Lumajang road section which causes the condition of this road to experience functional and structural damage, a Pavement Planning study for the Probolinggo - Ranuyoso - Lumajang road section was carried out using the Manual Pavement Design Method (MDP) 2017 designing thick pavement with flexible pavement in this area. The flexible pavement of the Probolinggo - Ranuyoso - Lumajang road section uses Class A LFA of 30 cm, AC – Base 21 cm, AC – BC 6 cm and AC – WC 4 cm and with an average CBR value of 5.43%. Meanwhile, the Budget Plan (RAB) received a value of Rp. 33,245,036,000.

Keywords: Road Widening, Flexible Pavement, Asphalt Concrete