FINAL PROJECT

ROAD PAVEMENT DETERIORATION ANALYSIS USING BINA MARGA METHOD ON JALAN LAMONGAN-GRESIK STA 45+200 - 47+200

By :

TRIO DIMAS PEBRIANTO
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CIVIL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
UNIVERSITAS 17 AGUSTUS 1945 SURABAYA

2022

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Arraged as Requidment to Get Bachelor Degree of Engineering (ST)
University of 17 Agustus 1945 Surabaya

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2022

CIVIL ENGINEERING DEPARTMENT
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Certify that the **"FINAL PROJECT"** that I made to fulfill the requirements for graduation from Strata 1 (S1) – Undergraduate Program – University of 17 Agustus 1945 Surabaya with the title:

"Road Pavement Deterioration Analysis Using Bina Marga Method On Jalan Lamongan-Gresik Sta 45+200 - 47+200 "

Is the result of my own work and not a duplication of the work of others. Furthermore, if in the future claims from other parties are not the responsibility of the supervisor and or program manager, but become my own responsibility.

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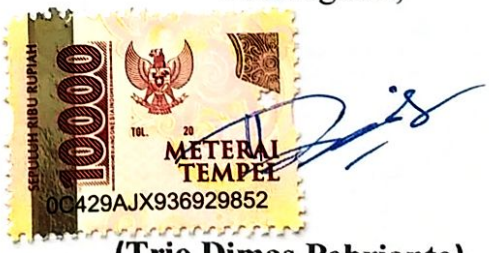

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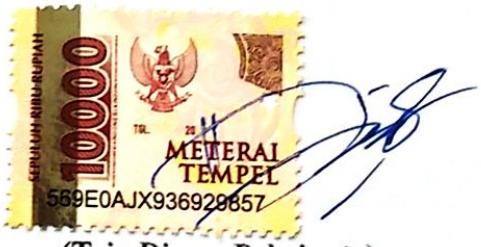

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**Cross the unnecessary ones*

PREFACE

All praise and gratitude to Allah SWT who has bestowed His mercy and grace on the writer, so that the writer can finish this thesis. Shalawat and greetings are always poured out to our lord the Prophet Muhammad SAW who brought humans from darkness to a bright era. The preparation of this Final Project Proposal aims to fulfill the requirements to be able to achieve a Bachelor's degree in Civil Engineering at the University of 17 Agustus 194 Surabaya. This Final Project Proposal with the title "**Road Pavement Deterioration Analysis Using Bina Marga Method On Jalan Lamongan-Gresik Sta 45+200 - 47+200"**

The author realizes that this writing cannot be completed without the parties who support both morally and materially. So, express many thanks to those who helped in the preparation of this final report, especially to:

1. My parents, my dearest father Susanto and my beloved mother, Dewi Mutamimmah give moral and material support in finishing this Final Project.
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6. Prof. Dr. Mulyanto Nugroho, MM., CMA., CPAI, As Chancellor of the University of 17 Agustus 1945 Surabaya.
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8. KAMUS PR friends who have helped, gave suggestions, criticisms of doing the Final Project
9. All family and friends who have encouraged and who have helped, gave suggestions, criticisms of doing the Final Project.

This final project that made by researcher is far from perfect due to lack of experience and limited Knowledge. Therefore, the author expects suggestions and

input and even constructive criticism from various parties. Hopefully this Final Project can be useful for readers and parties, especially in the field of Civil Engineering

Surabaya January 5th, 2022

Autor

Trio Dimas Pebrianto

ANALISA KERUSAKAN JALAN MENGUNAKAN METODE BINA MARGA PADA JALAN LAMONGAN-GRESIK STA 45+200 - 47+200

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ABSTRAK

Ruas Jalan Lamongan-Gresik merupakan jalan nasional dan salah satu jalur penunjang kota Surabaya. Jalan yang membelah Kabupaten Lamongan ini merupakan salah satu jalan yang paling padat penduduknya bersama dengan jalan pantai utara yang ada di utara Kabupaten Lamongan. Tujuan dari penelitian ini adalah untuk mengetahui tingkat kerusakan jalan.

Penelitian ini untuk menganalisis data menggunakan metode Bina marga. Metode Bina Marga merupakan metode yang ada di Indonesia, dan hasil akhir berupa format program pemeliharaan sesuai dengan prioritas dan nilai yang didapat dari prioritas tersebut. Metode ini memberi nilai yang diperoleh dari titik tertentu. Tampilan view merupakan survey gabungan yaitu jenis kerusakan dan Survey LHR. Kemudian didapatkan nilai kondisi jalan dan nilai kelas LHR

Mode Penanganan pada penelitian ini, petunjuk praktikum pemeliharaan jalan rutin yaitu Aspal (P2) Jenis kerusakan yang diperbaiki dengan menggunakan aspal lokal adalah retak aligator, retak kotak, retak memanjang dan retak melintang dengan lebar < 2 mm, dan ravelling. Filling the hole (P5) Kerusakan yang diperbaiki dengan cara ini adalah retakan kotak, Retak aligator dengan lebar retak > 2 mm dan subsidence, dan kedalaman lubang > 50 mm Leveling (P6) Kerusakan yang perlu diperbaiki dengan leveling adalah settlement/subsidence, lubang dengan kedalaman 10-50 cm, kedalaman alur < 30 mm.

Katakunci: ***Kerusakan Jalan, Pemeliharaan Jalan, Metode Bina Marga***

ROAD PAVEMENT DETERIORATION ANALYSIS USING BINA MARGA METHOD ON JALAN LAMONGAN-GRESIK STA 45+200 - 47+200

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ABSTRACT

The Lamongan-Gresik Road section is a national road and one of the supporting routes for the city of Surabaya. The road that divides Lamongan district is one of the most densely populated roads along with the north coast road in the north of the Lamongan district. The purpose of the study was to determine the level of road damage.

This study uses the Bina marga method to analyze the data. The Bina Marga method is a method that exists in Indonesia, and the final result is the format of the maintenance program according to the priority and the value obtained from the priority. This method gives you the value obtained from a certain point. The view of the view is a combined survey, namely the type of damage and the LHR Survey (Average Daily Traffic), Then get the road condition value and the LHR class value

Handling Mode in this study, routine road maintenance practical instructions, namely Asphalt (P2) The types of damage that are repaired using local asphalt are alligator cracks, box cracks, longitudinal and transverse cracks with width < 2 mm, and ravelling. Filling the hole (P5) Damage repaired by this method is box cracks, Aligator cracks with crack width > 2 mm and subsidence, and holes > 50 mm deep Leveling (P6) Damage that needs to be repaired by leveling is settlement/subsidence, holes with a depth of 10-50 cm, groove depth < 30 mm.

Keyword: ***Road Damage, Road Maintenance, Bina Marga Method***

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