

RETAINING WALL DESIGN ANALYSIS OF PROJECT NOVOTEL HOTEL BSD

As one of the requirements of Bachelor's degree in
Universitas Atma Jaya Yogyakarta



By:

STEPHEN JASON LEONARDO, GAN

201318039

**INTERNATIONAL CIVIL ENGINEERING PROGRAM
DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING
UNIVERSITAS ATMA JAYA YOGYAKARTA**

ABSTRACT

Novotel Hotel BSD is a hotel that can be used a place to rest when having a business trip, holiday, vacation, and many more. This project has 2 basements, 3 floor of podium which includes ground floor, mezzanine, and upper ground, and 13 floor of tower. The top of the building is at +70.32 m from the land surface. This makes this project categorized as high-rise building construction. With there are 2 basements in this building, retaining wall is needed to resist the soil on entering the basement.

Type of retaining wall used in this project is smooth wall which friction does not occur on the surface of the wall. The design of the retaining wall is calculated with lateral earth pressure and water pressure which act on the retaining wall. The calculation of lateral earth pressure can be calculated by using the data of unit weight of the soil, cohesion, and internal angle are obtained from the triaxial test and unit weight test. The reinforcement design analysis is using D19-150 for vertical direction and D13-150 for horizontal direction.

Keywords: Retaining wall, lateral earth pressure, reinforcement design analysis.

STATEMENT

The undersigned

below,

Student's Name : Stephen Jason Leonardo, Gan

Student's Number : 201318039

Truly declare that the Final Project with the title:

**"RETAINING WALL DESIGN ANALYSIS OF PROJECT NOVOTEL
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is an original work and is not the result of plagiarism from the work of others. Ideas, research data and quotations, both direct and indirect, originating from other people's writings or ideas are stated in writing in this Final Assignment. If it is proven later that this Final Assignment is the result of plagiarism, then the diploma I obtained will be declared invalid and I will return it to the Chancellor of Atma Jaya University Yogyakarta. We, the undersigned, contribute to this Final Project in the same proportion. Thus, we make this statement as a complement to this Final Project document.

Yogyakarta, January 5th, 2024



(Stephen Jason Leonardo)

VALIDATION

Final Project Report

RETAINING WALL DESIGN ANALYSIS OF PROJECT NOVOTEL

HOTEL BSD

Arranged By

Stephen Jason Leonardo, Gan

201318039

Approved and Checked By

Lecturer

TAPI I

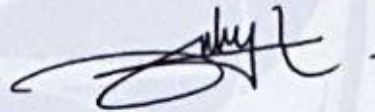


(Johan Ardianto, S.T., M.Eng.)

NIDN: 0503069301

Lecturer

TAPI II

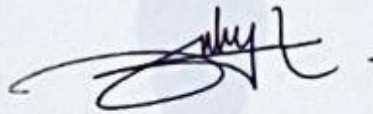


(Dr. Ir. Luky Handoko, S.T., M.Eng.)

NIDN: 0518108501

Approved by:

Lecturer Supervisor



(Dr. Ir. Luky Handoko, S.T., M.Eng.)

NIDN: 0518108501

Validated by:

Head of Civil Engineering Department



FAKULTAS
TEKNIK

UNIVERSITAS ATMA JAYA YOGYAKARTA

(Prof. Ir. Yovong Arfiadi, M.Eng., Ph.D.)

NIDN: 0515015901

VALIDATION

Final Project Report

RETAINING WALL DESIGN ANALYSIS OF PROJECT NOVOTEL HOTEL BSD

By:



Stephen Jason
Leonardo
201318039

Has been examined and approved

Name

Signature

Date

Leader : Dr.Ir. Luky Handoko, S.T., M.Eng.

July 17, 2024

Secretary : Prof. Dr. Ir. Ade Lisantono, M. Eng.

July 17, 2024

Member : Ir. Siswadi, S.T., M.T

July 17, 2024

PREFACE

The author gives thanks to God Almighty for His mercies and blessings, stating that they were able to successfully complete the Final Assignment Report II and the Internship Report, which are necessary to graduate from the International Civil Engineering Program at Atma Jaya Yogyakarta with a bachelor's degree.

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