



**ROAD PAVEMENTS  
FORUM**

**26 November 2025**

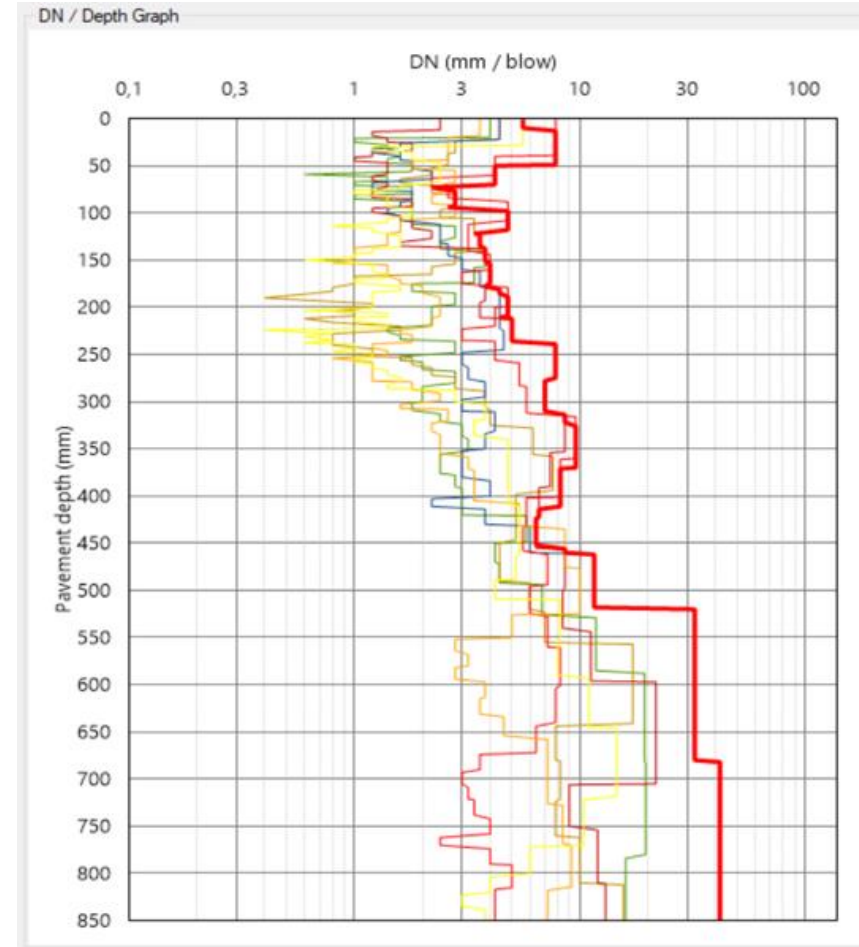
# Introduction of the EBIT-DCP Software to support TRH24 implementation

**Dr Julius Komba  
University of Pretoria**

# Purpose of presentation

- Introduce EBIT-DCP Software

- Website
- How do download the software
- Key features



# Background

- Draft TRH 24 recommends DCP design method – **See Chapter 5**
- DCP data processing to determine **inherent bearing capacity**
  - *AFCAP/ReCAP LVR DCP – up to 1 MESA*
  - **EBIT-DCP software – up to 10 MESA**
  - **Manually – Using simple Excel spreadsheet**

$$In - situ bearing capacity = 10^{\left(\frac{Depth + 1285 - 457 \log ((C_f)(DCP - DN))}{194}\right)} \dots\dots\dots (5.4)$$

Where:

In-situ Bearing capacity	= DCP-DN related bearing capacity in depth in E80s;
Depth	= depth in pavement structure in mm
DCP-DN	= processed percentile value of DCP tests in mm/blow
$C_f$	= Climatic adjustment factor (Table 35)



TRH 24

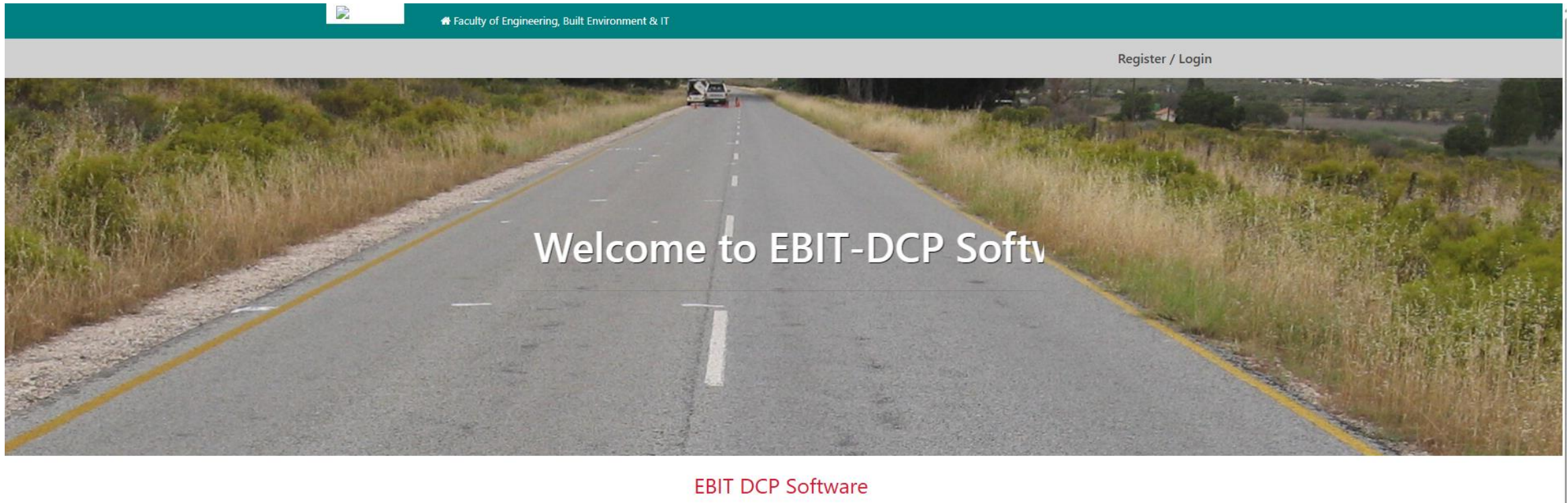
UPGRADING OF UNPAVED ROADS

Draft Standard (DS)  
October 2024

Committee of Transport Officials

# Website

- [www.ebitpostgraduatelifecycle.website/EBIT-DCP/index.php](http://www.ebitpostgraduatelifecycle.website/EBIT-DCP/index.php)



# Website – How to register/log in

## Registration

Your Email address

Password

Name of Organisation / Institution

**Register**

[Back to Login](#)

## EBIT DCP Software Login

Your Email address

Password

**Log in**

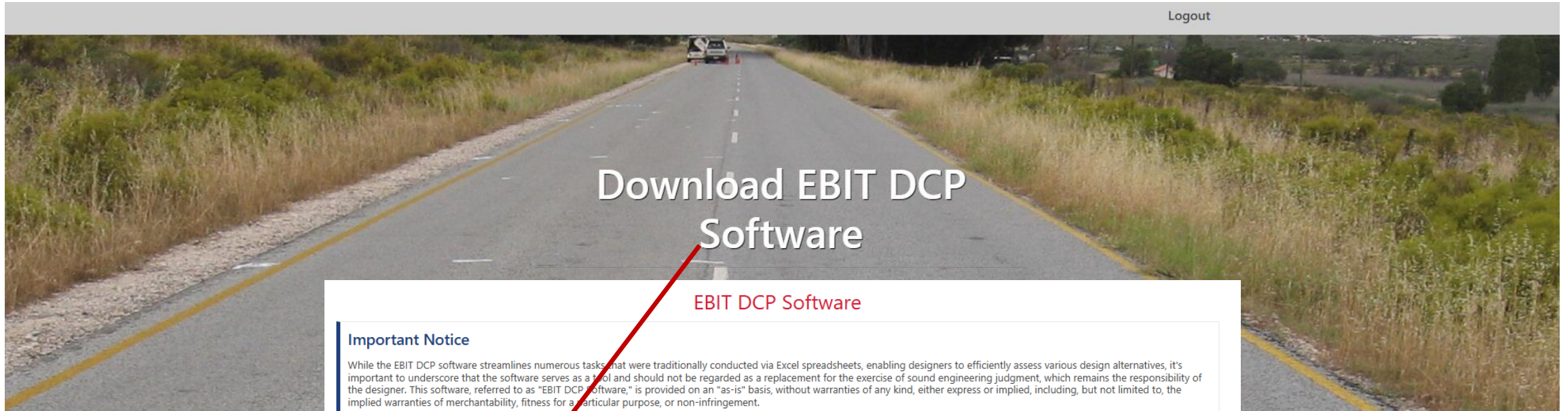
[New user](#) [Lost password](#) [Contact support](#)

## Contact Support

For all Technical Problems, Please send an email to Dr Julius Komba at [julius.komba@up.ac.za](mailto:julius.komba@up.ac.za) or Christopher Njaravani at [u15022392@tuks.co.za](mailto:u15022392@tuks.co.za)



# Website – Download software



## EBIT DCP Software

### Important Notice

While the EBIT DCP software streamlines numerous tasks that were traditionally conducted via Excel spreadsheets, enabling designers to efficiently assess various design alternatives, it's important to underscore that the software serves as a tool and should not be regarded as a replacement for the exercise of sound engineering judgment, which remains the responsibility of the designer. This software, referred to as "EBIT DCP Software," is provided on an "as-is" basis, without warranties of any kind, either express or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

### Downloading and Installing EBIT DCP Software

1. Download the zip file from the below link.
2. Unzip the downloaded file and make sure all files are in the same folder.
3. Run setup.exe to install the software application.
4. Continue and ignore all warnings from Microsoft (software has not been approved by Microsoft yet).
5. You can start by testing the software using the provided file (test\_project.json).
6. If it works, you can create your own tests and evaluate the software.

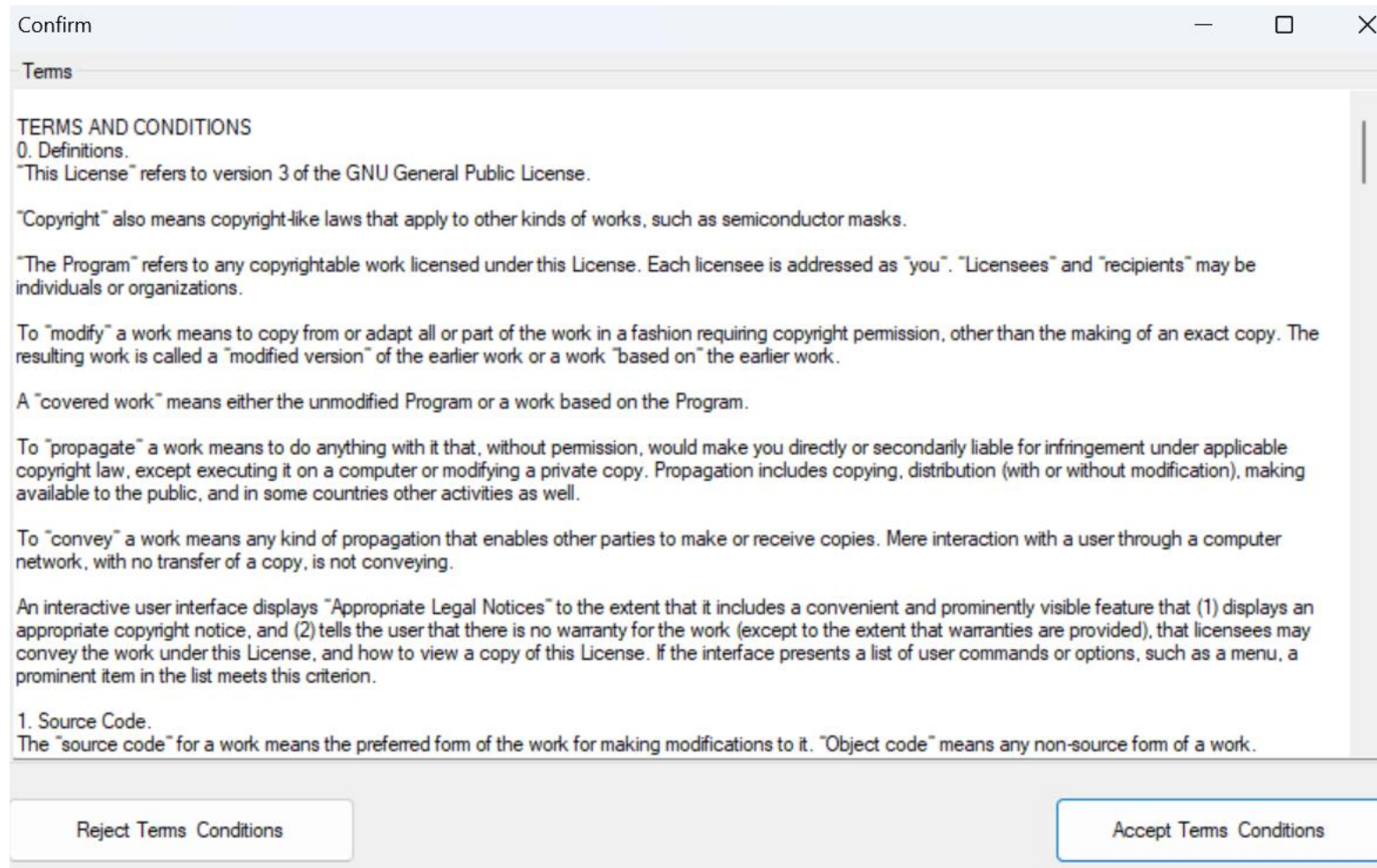
By downloading the Software, I acknowledge and understand that the University of Pretoria and the developers (EBIT) cannot be held responsible for any potential damages, errors, or issues that may arise during the utilization of the software. Your use of the software is at your own discretion and risk. We appreciate your understanding and hope you find the software valuable.

[Download Software →](#)

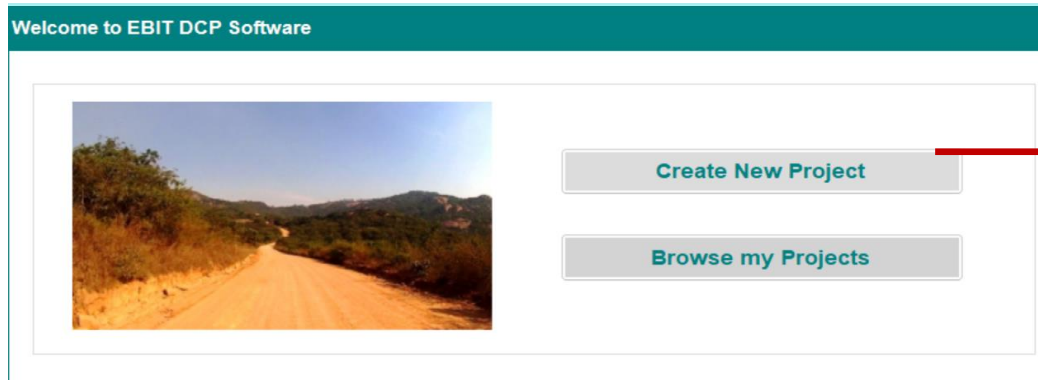
### Technical Problems

For any technical problems, send an email to Dr. Julius Komba at [julius.komba@up.ac.za](mailto:julius.komba@up.ac.za) or to Christopher Njaravani at [u15022392@tuks.co.za](mailto:u15022392@tuks.co.za)

# Using the software



# Key features - Home screen



Welcome to EBIT DCP Software

Enter Project Details

Project Name

Project Location

Road ID Number

Test Date

Prev Next



# Typical project

Ebit DCP Tool

File Export Analysis Sections Help

Project Information

Tests

- Test Project
  - 1
  - 2
  - 3
  - 4
  - 6
  - 7
  - 8
- Single Test Analysis
- Multiple Test Analysis
  - 1
  - 2
  - 3
  - 4
  - 6
  - 7
  - 8

Add Test Points

Test Information

Blows

☒ Fixed Blows ☐ Variable Blows

Blows per reading: 5

TLC 0.5 Cf M1A (0.75)

☐ User defined - TLC(MESA)

Road Category A (95)

☐ User defined Percentile

Road Side RWP

Chainage (km) 6

Test Number / ID 6

Survey Date Wednesday, 30 October

Test Notes

DCP Test Data

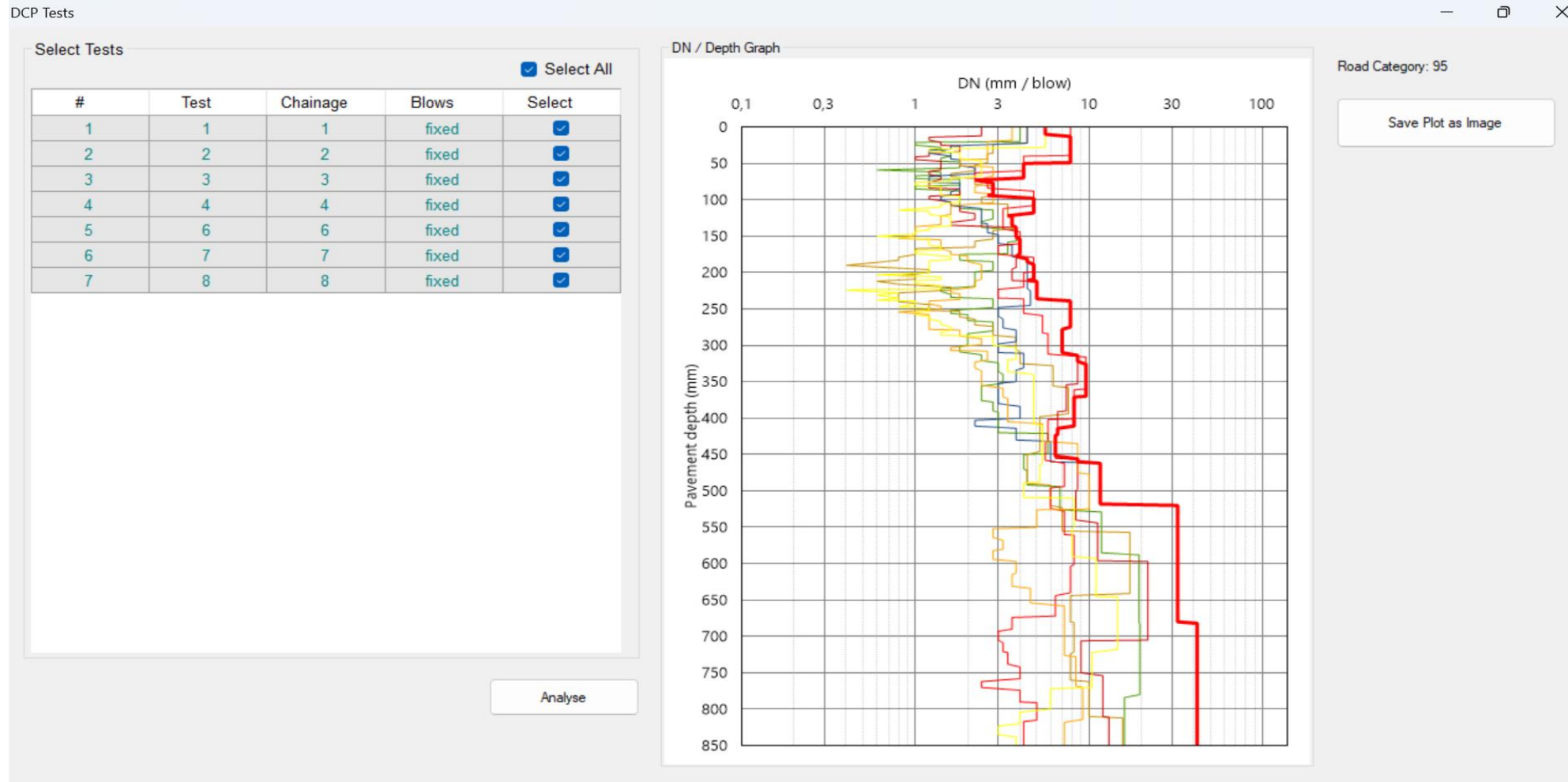
Reading Number	Cumulative Blows	Depth(mm)	Comments	Select Row
1	0	10		<input type="checkbox"/>
2	5	49		<input type="checkbox"/>
3	10	70		<input type="checkbox"/>
4	15	81		<input type="checkbox"/>
5	20	94		<input type="checkbox"/>
6	25	118		<input type="checkbox"/>
7	30	134		<input type="checkbox"/>
8	35	150		<input type="checkbox"/>
9	40	170		<input type="checkbox"/>
10	45	185		<input type="checkbox"/>
11	50	209		<input type="checkbox"/>
12	55	230		<input type="checkbox"/>
13	60	245		<input type="checkbox"/>
14	65	266		<input type="checkbox"/>
15	70	293		<input type="checkbox"/>
16	75	322		<input type="checkbox"/>
17	80	370		<input type="checkbox"/>
18	85	411		<input type="checkbox"/>
19	90	440		<input type="checkbox"/>
20	95	460		<input type="checkbox"/>

Add Row

Delete Row

Paste Points

# Data analysis/processing

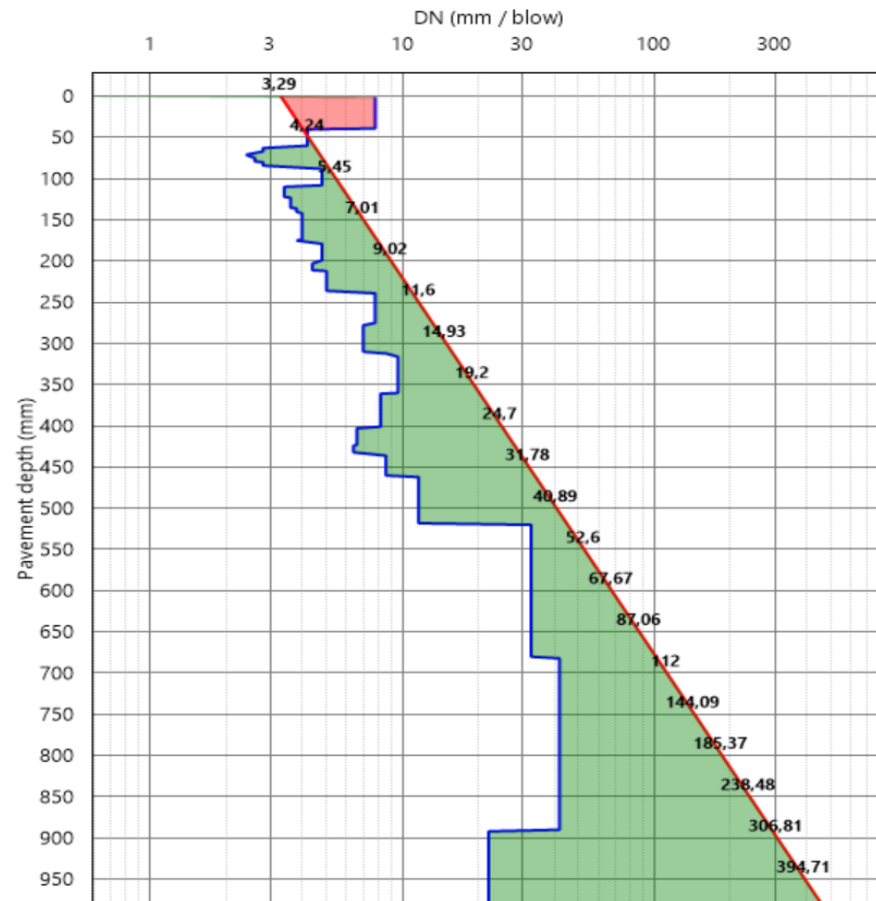


# Data analysis/processing

## Multiple Test Analysis

### Analysis Graph

DN (mm / blow)



### Tests Conditions

TLC : 0.5

Cf : M1A (0.75)

Road Category : A (95)

Multiple Test Analysis

### Project Information

Project Name: Test Project

Road ID Number: 1

City / Town: Test project

Date Taken:

Tests Analysed: 1, 2, 3, 4, 6, 7, 8.

### Graph to plot

☒ DN / Depth (mm / blow)

☐ Bearing Capacity (TLC)

### Design Options

☐ Stabilisation (Percentage Value)

Depth (mm)

☐ Adding a Layer (mm)

☐ Combination

Plot

☒ Add Annotations

☒ Logarithmic X-Axis

View Full Screen

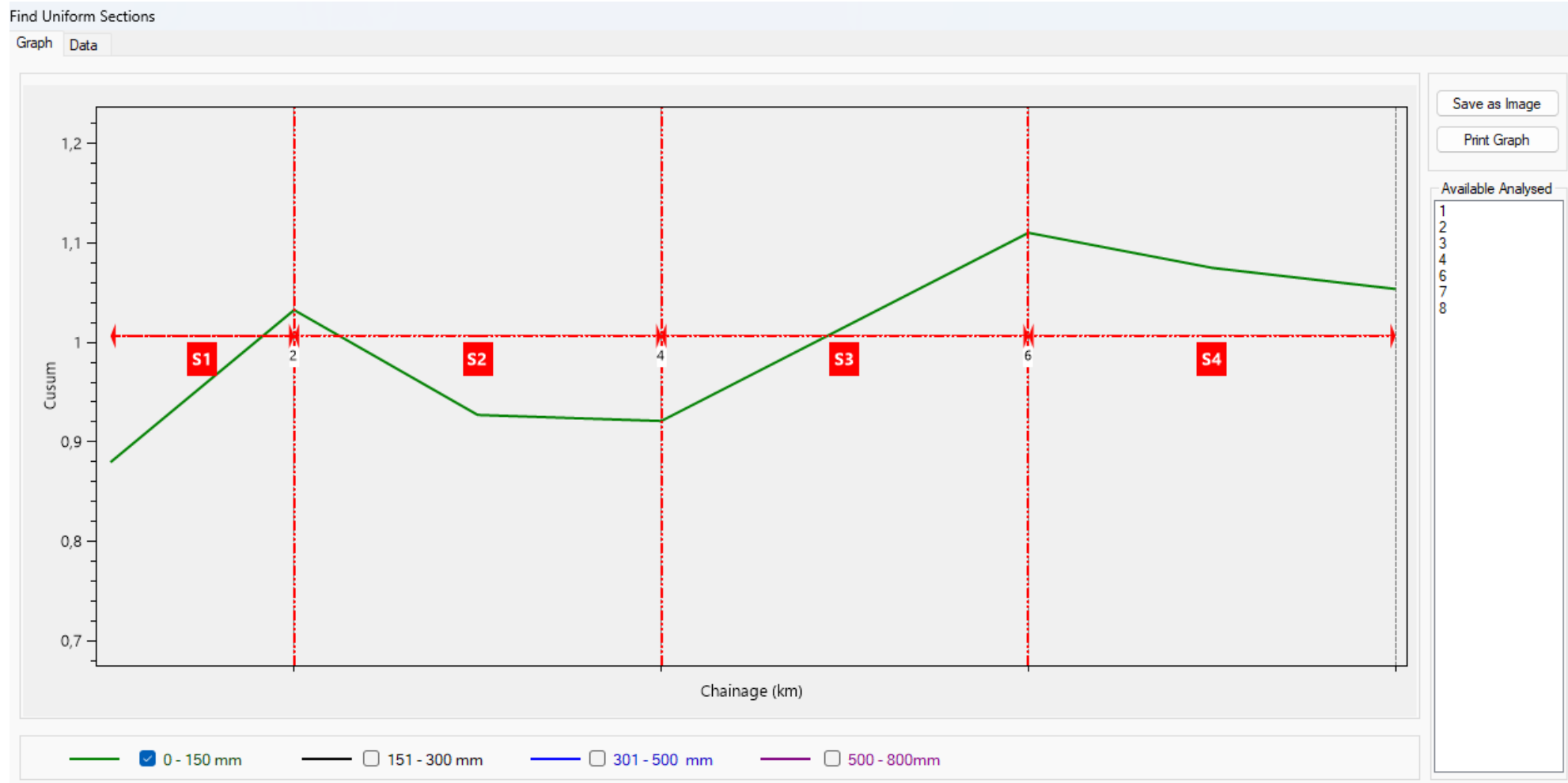
Save as Image

Summary Report

Detailed Report

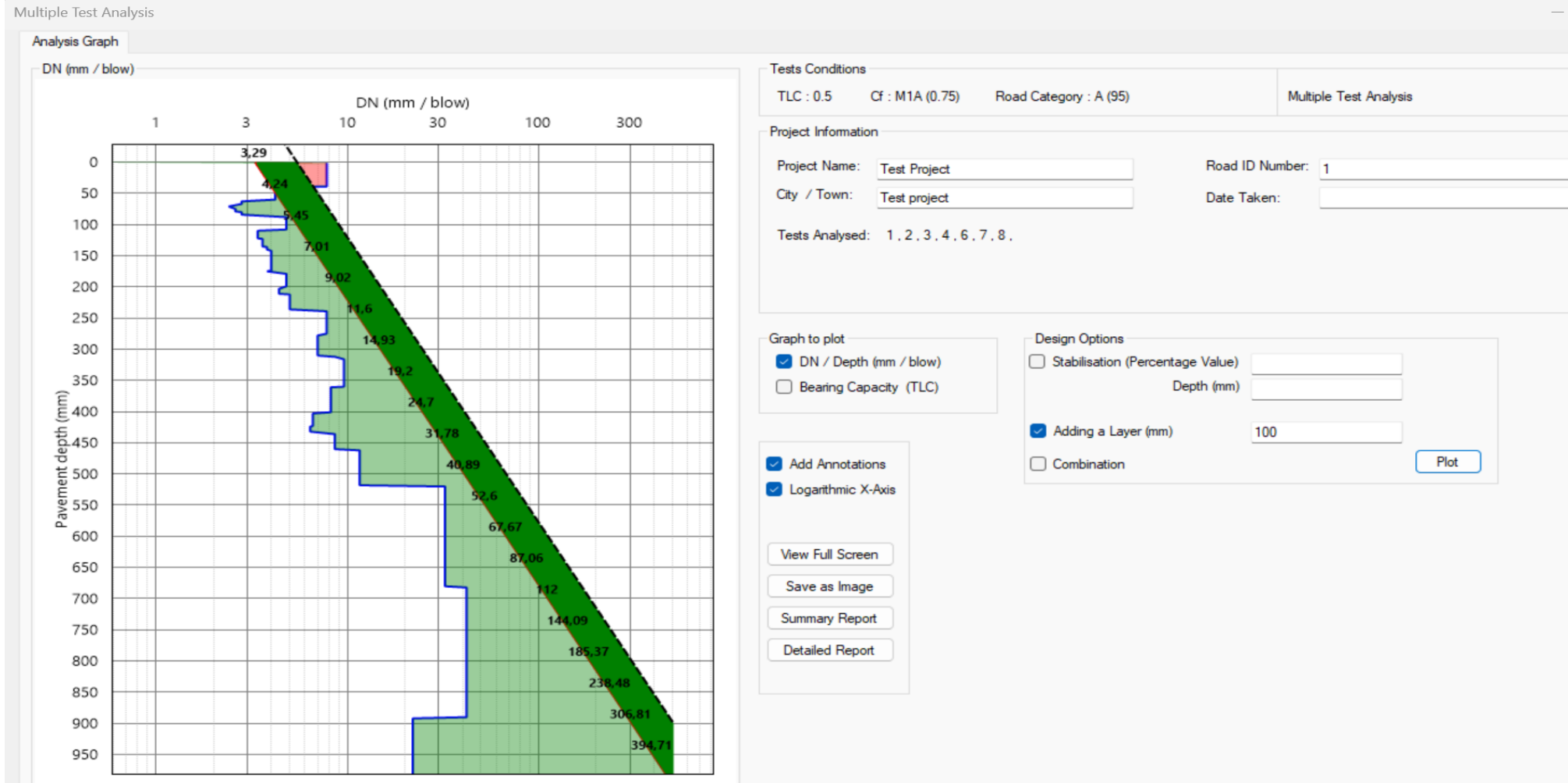
Reporting

# Analysis: Uniform sections – End of Phase 1





# Analysis – Phase 2 – Add 100 mm layer

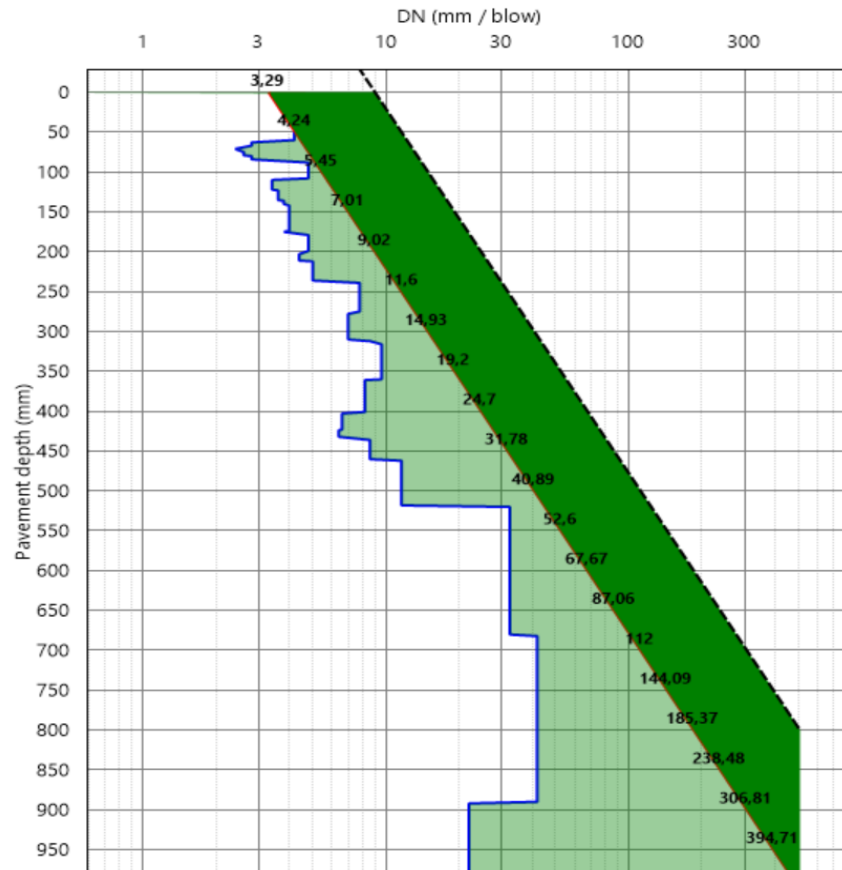


# Analysis – Phase 2 – Add 200 mm layer

## Multiple Test Analysis

### Analysis Graph

DN (mm / blow)



### Tests Conditions

TLC : 0.5 Cf : M1A (0.75) Road Category : A (95)

Multiple Test Analysis

### Project Information

Project Name: Test Project

Road ID Number: 1

City / Town: Test project

Date Taken:

Tests Analysed: 1, 2, 3, 4, 6, 7, 8.

### Graph to plot

☒ DN / Depth (mm / blow)

☐ Bearing Capacity (TLC)

### Design Options

☐ Stabilisation (Percentage Value)

Depth (mm)

☒ Adding a Layer (mm)

200

☐ Combination

Plot

☒ Add Annotations

☒ Logarithmic X-Axis

View Full Screen

Save as Image

Summary Report

Detailed Report

Reporting



# Thank you

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