

## DAFTAR PUSTAKA

Bowles, J. E, Haimin, J. K., 1991, Sifat-Sifat Fisis dan Geoteknis Tanah, Erlangga  
: Jakarta

Craig, R. F, 1991, Mekanika Tanah, Erlangga : Jakarta

Das, Braja M. 1995. *Mekanika Tanah (Prinsip-prinsip Rekayasa Geoteknis)*Jilid I  
dan II. Jakarta: Erlangga.

Das, Braja M. 2002. *Soil Mechanics Laboratory Manual* Sixth Edition. New York:  
Oxford University Press.

Hardiyatmo, H.C, (2010), Stabilisasi Tanah Untuk Perkerasan Jalan, Gajah Mada  
University Press, Yogyakarta

Hardiyatmo. C.H., 2002, *Mekanika Tanah I*, Edisi Ketiga, Universitas Gadjah Mada  
Press, Yogyakarta.

Hendarsin, Shirley L. 2000, *Perencanaan Teknik Jalan Raya*, Jurusan Teknik Sipil  
Politeknik Negeri Bandung, Bandung.

Munawir, As'ad., dkk. 2008, *Pengaruh Kadar Air Terhadap Perilaku Modulus  
Deformasi Tanah Lempung Di Kawasan Universitas Brawijaya Malang  
yang Dipadatkan Secara Standar*, Tugas Akhir, Jurusan Sipil Fakultas  
Teknik Brawijaya Malang.

Agus Dian. 2017. *Tinjauan Kuat Tekan Bebas dan Modulus Elastisitas  
Tanah Lempung Purwodadi Grobogan yang Distabilisasi Dengan Mill.*



Tugas Akhir. Program Studi Teknik Sipil Fakultas Teknik Universitas Muhammadiyah Surakarta.

Ramadhani, Riska Intan. 2018. *Evaluasi Tebal Perkerasan Lentur Dengan Metode Bina Marga 2013 dan Metode Mekanisti-Empirik Menggunakan Program Kenpave Pada Ruas Jalan Jogja-Solo*. Tugas Akhir. Program Studi Teknik Sipil Fakultas Teknik Sipil Dan Perencanaan Universitas Islam Indonesia.

SNI 03-1742-1989. Panduan pengujian kepadatan ringan untuk tanah. *Standar Nasional Indonesia. Bahan Konstruksi Bangunan Dan Rekayasa Sipil..*

SNI 03-1967-1990. “*Metode pengujian batas cair tanah dengan alat Cassagrande*”.

SNI 1964:2008. “*Cara uji berat jenis tanah tanah*”. Revisi dari SNI 03-1964-1990.

SNI 1965:2008. “*Cara uji penentuan kadar air untuk tanah dan batuan di laboratorium*”.

SNI 1966:2008. “*Cara uji penentuan batas plastis dan indeks plastisitas tanah*”.

Revisi dari SNI 03-1966-1990

SNI 3423:2008. “*Cara uji analisis ukuran butir tanah*”. Revisi dari SNI 03-3423-1994.

Verhoef, PNW. 1994. *Geologi Untuk Teknik Sipil*. Erlangga. Jakarta.



**LAMPIRAN 1**

**DATA HASIL PERHITUNGAN UMUR RENCANA**

**DARI PROGRAM KENPAVE**



Optimization Software:  
[www.balesio.com](http://www.balesio.com)



kedua

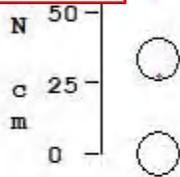
em No. 1 Period No. 1 Load Group No. 1 TNLr = 30200

Damage Ratio: Fatigue C. = 2.50037  
P. Deform. = 76.54518

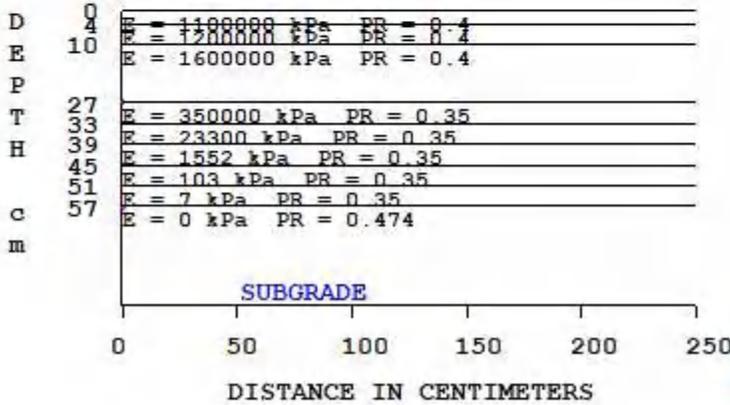
Contact Radius = 9.21 cm

Contact Pressure = 750 kPa

Dual Spacing = 33 cm



+ Response points



D.R. (Fatigue C.) = 2.50037  
D.R. (P. Deform.) = 76.54518  
Design Life = 0.01 yrs



ketiga

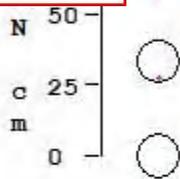
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Damage Ratio: Fatigue C. = 2.47284  
P. Deform. = 0.05781

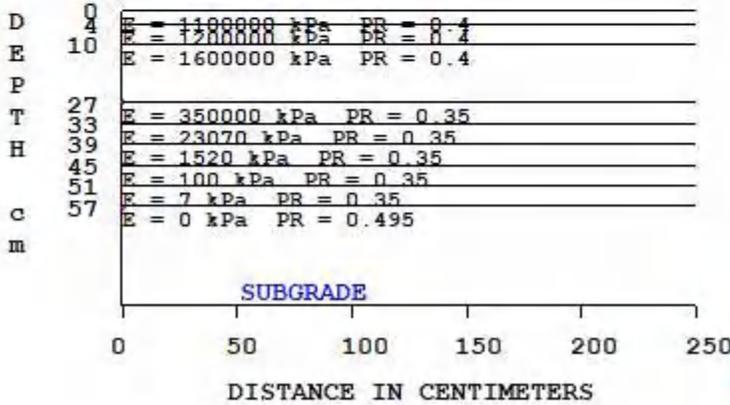
Contact Radius = 9.21 cm

Contact Pressure = 750 kPa

Dual Spacing = 33 cm



+ Response points



D.R. (Fatigue C.) = 2.47283  
D.R. (P. Deform.) = 0.05780  
Design Life = 0.4 yrs



pertama

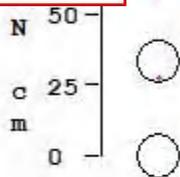
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Damage Ratio: Fatigue C. = 62.89606  
P. Deform. = 10434.32

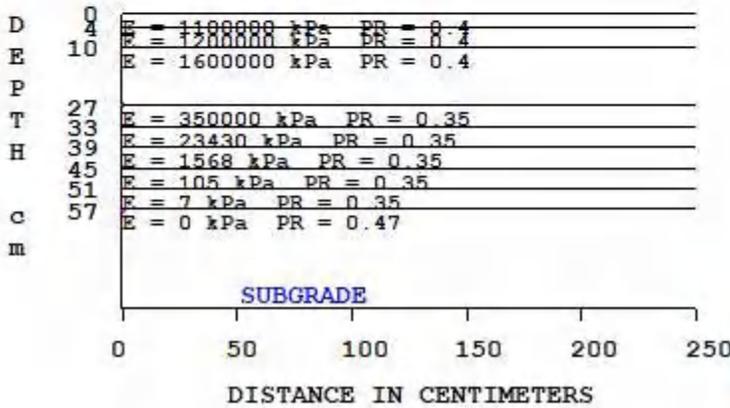
Contact Radius = 9.21 cm

Contact Pressure = 750 kPa

Dual Spacing = 33 cm



+ Response points



D.R. (Fatigue C.) = 62.8960  
D.R. (P. Deform.) = 10434.32  
Design Life = yrs



kedua

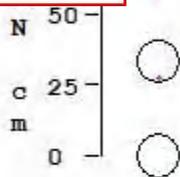
em No. 1 Period No. 1 Load Group No. 1 TNLR = 30200

Damage Ratio: Fatigue C. = 0.06994  
P. Deform. = 0.04134

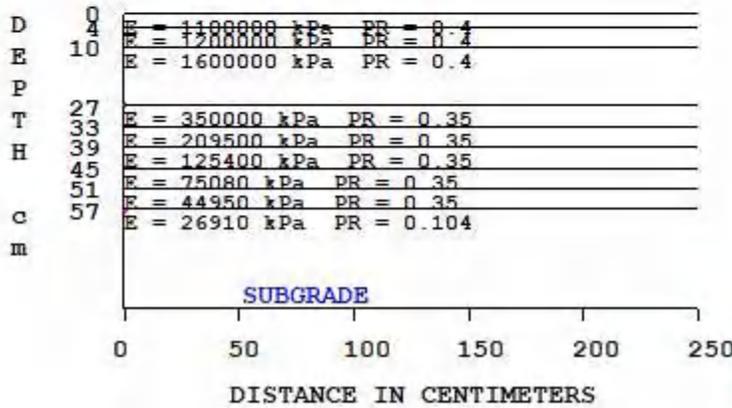
Contact Radius = 9.21 cm

Contact Pressure = 750 kPa

Dual Spacing = 33 cm



Response points



D.R. (Fatigue C.) = 0.06993  
D.R. (P. Deform.) = 0.04134  
Design Life = 14.3 yrs



ketiga

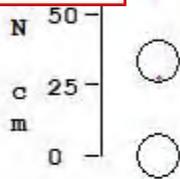
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Damage Ratio: Fatigue C. = 0.11384  
P. Deform. = 0.18189

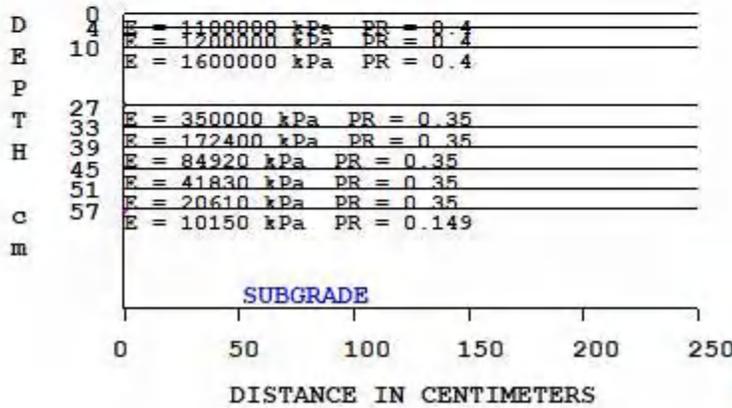
Contact Radius = 9.21 cm

Contact Pressure = 750 kPa

Dual Spacing = 33 cm



+ Response points



D.R. (Fatigue C.) = 0.11383  
D.R. (P. Deform.) = 0.18189  
Design Life = 5.5 yrs



per pertama

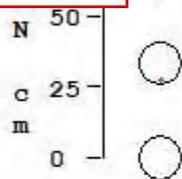
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Damage Ratio: Fatigue C. = 0.03655  
P. Deform. = 0.00342

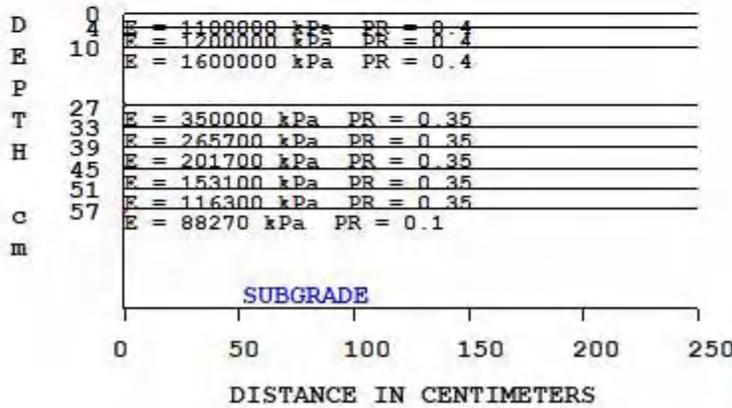
Contact Radius = 9.21 cm

Contact Pressure = 750 kPa

Dual Spacing = 33 cm



+ Response points



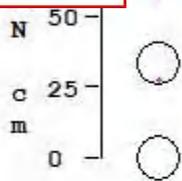
D.R. (Fatigue C.) = 0.03655  
D.R. (P. Deform.) = 0.00342  
Design Life = 27.36 yrs



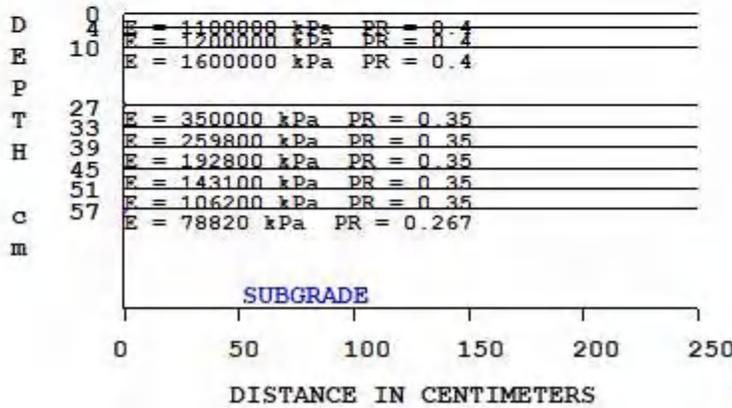
em No. 1 Period No. 1 Load Group No. 1 TNLR = 30200

Damage Ratio: Fatigue C. = 0.03766  
 P. Deform. = 0.00084

Contact Radius = 9.21 cm  
 Contact Pressure = 750 kPa  
 Dual Spacing = 33 cm



+ Response points



D.R. (Fatigue C.) = 0.03766  
 D.R. (P. Deform.) = 0.00084  
 Design Life = 26.55 yrs

## LAMPIRAN 2

### DOKUMENTASI PENELITIAN







Optimization Software:  
[www.balesio.com](http://www.balesio.com)