

CHAPTER VI

CONCLUSION AND SUGGESTION

6.1 Conclusion

Based on the result of research and discussion that have been explained in the previous chapter, several conclusions can be concluded as follows:

1. The results of this study with limited sample and data on Selokan Mataram Road (Maguwoharjo - Babarsari) can be concluded that the correlation value of CBR and the DCP obtained from this study using the equation: $\text{Log CBR} = 1.175494 - 0.011362 \log (\text{DCP})$. This equation is obtained from the graph of correlation values CBR and DCP at 10 study sites and sampling using a linear regression method.
2. CBR and DCP correlation values in this study at location 1 close to the correlation of previous studies by NCDOT (1998) with the equation $\log (\text{CBR}) = 2.60 - 1.07 \log (\text{DCP})$, and at location 2 to 10 close to the correlation of previous studies by Livneh et . al. (1992) with the equation $\log (\text{CBR}) = 2.45 - 1.12 \log (\text{DCP})$.
3. From the correlation obtained, laboratory CBR value can be correlated with value of DCP in the field.
4. Factors affecting differences in the value of CBR / DCP are the first blow DCP tests, different soil layers, vertical confinement effect, side friction effect, and big rock under the soil.

6.2 Suggestion

Based on the result of research that has been done, several suggestions can be made for the next researcher, as follows:

1. In CBR and DCP testing in Selokan Mataram Road (Maguwoharjo - Babarsari) using modified Proctor, need to be tested for water content on the condition of 100%, 120%, 140% or according to want conditions. This is done to see the trend of value of CBR and the DCP is happening whether it will drop or higher at a determined water content.
2. More data are needed laboratory CBR and DCP in the field to strengthen the relationship of CBR and DCP.
3. In order correlation of this study can be used in general, it is necessary to further research of the correlation laboratory CBR and DCP.
4. In order to obtain more accurate data about the correlation of CBR and the DCP, it is necessary to research on soil types tested.

REFERENCES

- A. Tatang Dachlan, 2005. "*DCP Sebagai Standar Dalam Penentuan CBR untuk Evaluasi Perkerasan Jalan*". Vol.6 No.2 Desember 2005:163 – 176
- Garber, N.J, et al., 2002, Traffic and Highway Engineering, Brooks/Cole Thomson Learning.
- Jones, C, 2004, Dynamic Cone Penetrometer Test and Analysis, Project Report PR/INT/277/04, DFID
- Saskatchewan Highways and Transportation (SHT), 1992, Standart Test Procedures Manual for Dynamic Cone Penetrometer
- Sukirman, Silvia, 1999. "*Perkerasan Lentur Jalan Raya*", Penerbit Nova, Bandung.
- Illinois Department of Transportation Bureau of Materials and Physical Research, 2005, Testing and Data Collection
- Croney, David, 1998. "The Design and Performance of Road Pavement" / David Croney and Paul Croney – 3rd ed. Mc Graw-Hill
- Al-Refeai, T., and Al-Suhaibani, A., 1996, Prediction of CBR Using Dynamic Cone Penetrometer, Department of Civil Engineering, King Saud University, Saudi Arabia
- Nur, S.H., 1994, Aplikasi Dynamic Cone Penetrometer (DCP) Pada Subgrade Jalan, Laporan Penelitian Universitas Unidayan, Sulawesi Tenggara.
- Farshad Amini, 2003. Potential Applications of Dynamic and Static Penetrometer In MDOT Pavement Design and Construction. Department of Civil Engineering, Jakson State University, September 2003.