

ABSTRACT

Traffic accident case is a problem that needs greater attention, especially in toll road that is actually designed as free way and has been outfitted with comfort facilities, continuity and safety for the traffic. In fact the number of traffic accident in Indonesia is getting high each year. The factors that influence the traffic accidents can be categorized as human factors (driver), vehicle factors, road factors and environmental factors. Based on the big number of traffic accidents in Indonesia, road safety must be seen comprehensively from all aspects of design and construction. The design of toll road geometric must meet safety requirements, convenience and efficiency.

In this research, the secondary data is obtained from PT. Jasa Marga (Persero) and Directorate General of Highway Ministry of Public Works and also calculation descriptive statistics, and then analysis the correlation between the accident rate with curved horizontal and vertical up down.

The result of the analysis correlation accident rate with horizontal curves and vertical up down in Cisumdawu Toll Road show that the horizontal curves and vertical up down have no correlation on accident rate. Several accident cases happened on Purbaleunyi Toll Road with geometric condition quite extreme which slope -5% mostly because of driver carelessness.

Key Word : Traffic Accident, Geometric Design Toll Road