

P-F2.**REDESIGNING OF THE CURVE AT THE HINGULA BRIDGE ON
COLOMBO KANDY ROAD**

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The safety on Sri Lankan roads is at a low level due to various reasons. Some of them are, attitudes and behavior road users, road encroachments, insufficient facilities on road, natural disasters etc. The present project is to investigate the alignment of road and the Bridge and the effect of it to safety of road users. According to the information gathered from Mawanella police, total number of accidents occurred from 1986 to 1996 at that point was 31 and out of that 3 were fatal accidents. That comprise of 11 accidents with vehicle to vehicle and 20 were single vehicle involved accidents. According to these figures it is clear that this location is accident-prone point.

With the intention of providing a better solution to this problem, a detail study was carried out with the help of Road Development and Construction Company, Kegalle office. Under the study a land survey was done to plot the centerline of the road including the bridge and contour survey of both sides of road. Two types questionnaires were distributed among randomly selected drivers passing that point and for people living in that area. According to the information gathered from questionnaires it was evident that accident occur irrespective of the weather and drivers often say that maneuvering of the vehicle is difficult at that point. With the help from traffic branch of Mawanella police, the moving speed of vehicles at the curve was measured using a speedometer. The results show a sudden drop of speed as the vehicle enters the curve. According to all the gathered information, it was clear that the curve at the bridge was not properly aligned for fast moving vehicles.

Considering the proposals of questionnaire also, to design a reverse curve at the entrance, a soil test was carried out. According to the available space and soil test results the place was identified as suitable for a reverse curve. According to the design, right hand curve of 100m radius starts about 120 m away from the bridge and 46.7 m left hand curve with a straight section at the entrance of the bridge. The design speed along the curve is 40 km/hr. The second design for speed of 45 km/hr starts 140 m away from the bridge with 61.3 m radius and another curve connecting previous with the same radius with a straight entrance to the bridge.