Road improvement project Ra-Basuni is a development project that aims to provide better service levels in STA 0+000 – STA 3+757. Planning of road improvement is planned by using a rigid pavement structure. The method used in the planning of this road include road capacity analysis using Manual Kapasitas Jalan Indonesia (MKJI) 1997, the calculation of rigid pavement thickness by using the Planning Guidelines Cement Concrete Pavement Road (Pd-T 14-2003). Geometric control path by using Geometric Roads Planning. Drainage planning by SNI 03-342-1994 method.

From the calculated increase in road planning Ra-Basuni road widening carried out early in 2014 the plan in accordance with PP 34 year 2006 for the primary collector streets a minimum width of 9 m is required because the existing condition is a 7 m wide road by road type changes from 2/2 UD into type road 4/2 UD with 12 m road width. Rigid pavement thickness of 22 cm is obtained with K-300 and the concrete foundation or called CT SB
as thick as 15 cm. Edge of the channel planning of drainage by using a trapezoidal shape with dimensions $b = 0.54 \text{ m}$, $d = 0.9 \text{ m}$.

**Key Words:** Cement Concrete, Pavement Thickness, Geometric, Drainage