DESIGN OF NANGAKEO FERRY PORT, ENDE, EAST NUSA TENGGARA

Name : Firman Adi Wicaksono
NRP : 3110 100 111
Department : Civil Engineering FTSP-ITS
Supervisor : Ir. Fuddoly, M.Sc
           Cahya Buana, ST, MT

Abstract
Ende is the capital of Ende District on Flores Island, East Nusa Tenggara province, Indonesia. Ende’s population is 238,040 lives and has a 2046.6 km² area. Southern of East Nusa Tenggara directly adjacent to The South Sea (Savu Sea) has a strategic location which is very good to develop the trade sector. However, the absence of a representative marine transportation access make Ende residents have constraints in pursuing their welfare. Nangakeo Ferry Port, Ende district, East Nusa Tenggara which was inaugurated in 2008 by the City of Ende previously considered less effective.

Strong wave characteristic of Nangakeo occur almost in every season, endanger the process of pick-up and drop off the passenger so that ferry owned by PT. Angkutan Sungai Danau and Penyebrangan (ASDP) is often fail berthing in Nangakeo. But after planned an ideal breakwater structure in Nangakeo Waters in 2011 then the waves became not so big. Planning the design of the dock needs to be done having regard to the wave due to the breakwater structures that have been planned before. In this ferry port plan, breasting dolphin and mooring dolphin used as a structure for ferry berthing. Whereas for access from land to the sea which is the place for ferry berthing, using the trestle structure.

This final project is intended to evaluate the the sea and land layout in order to obtain information that will be a reference for planning ferry ports and be an alternative construction of
planning ferry ports. From the analysis of the calculation, obtained with the provisions Trestle dock needs with a length of 60 x 7 m2, Breasting Dolphin 4 x 4 m2, Mooring Dolphin 3.5 x 3.5 m2, Construction Protective Movable Bridge (MB) 4 x 4 m2, and Catwalk with a length of 15 x 1 m2. The budget plan cost required for construction of the ferry ports is Rp 10.511.620.000,00.

**Keyword**: Ferry Port, Ferry, Nangakeo, Ende