Intense diapycnal mixing is considered to be caused by breaking of tide-induced large-amplitude internal waves in places like continental slopes and passes where the tidal forcing is strong. The detailed mixing processes after such wave breaking are not well known because of their nonlinearity. Therefore, to clarify the processes, we investigated the transition from breaking of internal waves to a turbulent state using a two-dimensional non-hydrostatic model with a realistic topography. Stratification was initialized using XCTD data in the Amchitka Pass, and a forcing was the barotropic flow oscillating in the K1 tide period. The results indicated that convection and Kelvin-Helmholts waves were generated in the region of unstable stratification and that of unstable shear due to growing large-amplitude internal waves, respectively. Moreover, Tollmien-Schlichting (TS) waves whose necessary condition is a no-slip condition at the bottom were generated near the lee side bottom. Then, a thick layer with relatively-uniform density was reproduced over the downstream region of the sill top, which was similar to XCTD observation results. In an experiment with a slip condition at the bottom, the TS waves were not generated, the vertical currents were weak compare to that in the experiment with a no-slip condition, and the feature of the observation results was not reproduced well. These results suggested that the generation of the TS waves may contribute significantly to the diapycnal mixing.