

## BARBERS POINT AREA DESCRIPTION

The Kalaeloa shoreline study area (transects 336-538) is located on the south coast of O‘ahu. The shoreline is composed of carbonate sand and limestone with a fringing offshore reef. The area is exposed to persistent tradewind waves year-round, southerly swells in summer month, and refracted westerly swells in winter months.

Beach width and sand volume are highly variable throughout the study area (transects 266 - 300), as underlying limestone is intermittently exposed or buried by shifting sand. White Plains and Nimitz Beaches (transects 336-487) are characterized by alternating cells of erosion and accretion, with highest erosion rates around transect 439 (-0.9 ft/yr) and the greatest accretion around transect 373 (0.5 ft/yr). Barbers Point Beach (transects 488-538) is approximately stable to accreting.

A previous study (Hwang, 1981) found net seaward movement of the water line (accretion) but landward movement of the vegetation line at White Plains Beach. Hqang (1981) and Sea Engineering (1988) found accreting or stable shorelines at Nimitz and Barbers Point Beaches.

<sup>1</sup> Hwang, D. (1981) "Beach changes on O‘ahu as revealed by aerial photographs", State of Hawaii, Department of Planning and Economic Development.

<sup>2</sup> Sea Engineering, Inc. (1988) "O‘ahu shoreline study", City and County of Honolulu, Department of Land Utilization.

Keywords:

O‘ahu; Kalaeloa; White Plains; Nimitz Beaches; Barbers Point Beach