PRELIMANARY SUMMARY

LIHUE PUHI DISTRICT PLAN

TRAFFIC IMPACT ASSESSMENT REPORT

FEBRUARY 1989

PACIFIC PLANNING & ENGINEERING, INC.

EXHIBIT K

PRELIMINARY SUMMARY

Introduction

Pacific Planning & Engineering, Inc. (PPE) was engaged to undertake a study to assess future traffic impacts caused by the proposed Grove Farm Development Project. The Traffic Impact Report will discuss the probable impact of future vehicular traffic generated by the proposed development in the year 2000 when substantial occupancy is expected. The study will include capacity and level-of-service analyses for the major intersections on Kaumualii Highway for the afternoon peak hour traffic. This preliminary summary presents the analysis and findings to date and discusses the probable impacts and recommendations of the final report.

Project Description

The project includes 605 acres of agricultural land proposed for development into urban mixed use. The proposed development will include commercial, industrial, recreational and residential land uses and will expand the existing planned Lihue/Puhi Project District to 940 acres. Approximately 230 acres are presently completed and occupied and another 105 acres are planned and zoned for future development.

The Lihue/Puhi Project District area is bordered by Kaumualii Highway on the North and Nawiliwili Road on the East. The proposed project will realign Nuhou Road to intersect Kaumualii Highway between Puhi and the Kukui Shopping Center. The major intersections along Kaumualii Highway will be at Nawiliwili Road, Nuhou Road and Puhi Road. The intersections along Nawiliwili Road are not expected to be impacted as heavily as those on Kaumualii Highway.

Future Traffic

The existing land uses in the Lihue/Puhi Project District generates an estimated 1,200 vehicles during the afternoon traffic peak hour period. This compares with 2,000 vehicles for the planned, zoned, portion and 2,400 for the proposed project's portion (not zoned). In the year 2000, the sum of these generated vehicles is expected to significantly impact the roadways and intersections surrounding the development.

Using information provided by the Hawaii Department of Transportation, Hawaii Department of Business & Economic Development, the County of Kauai and Grove Farm Properties, Inc. and data collected at the site during a field survey in November, 1988, traffic forecasts for Kaumualii Highway and the major intersections were made. Based on population growth and location of future employment and residences, it was estimated that in the year 2000, Kaumualii Highway West of Puhi will have approximately 1300 vehicles travelling west and 870 vehicles travelling East during the afternoon peak hour.

Traffic Impacts

The present conditions of traffic near the development were compared with the future (year 2000) without and the future with the project. The without conditions included the areas presently zoned for urban mixed use. Preliminary traffic forecast indicate that afternoon peak hour traffic along Kaumualii Highway will reach the capacity of a two lane highway by the year 2000 even without the project. The forecasts further indicate that due to the high traffic volumes the unsignalized intersections along Kaumualii Highway at Nawiliwili Road, Nuhou Road and Puhi Road operate at poor levels-of-service (LOS F) with very long delays for drivers attempting to enter, exit or cross the highway.

Other intersections along Nawiliwili Road from Kaumualii Highway to Niumalu Road will operate with higher volumes of traffic from the development, however, as unsignalized intersections, they will still operate below capacity. The afternoon peak hour traffic on Nawiliwili Highway will be about 530 both ways near the intersection with Kaumualii Highway and will decrease towards the harbor, reducing to about one-half the volume near Waapa Road.

Conclusion and Recommendations:

The forecasted traffic growth on Kaumualii Highway indicate that widening to four lanes will likely be required by the year 2000 weather or not the proposed project is developed. The growth in volume of traffic along Kaumualii Highway will cause long delays for motorist attempting to enter or exit the proposed development.

Signalization is recommended for the major intersections along Kaumualii Highway to permit safer turning movements into or out of the development and to minimize the expected long delays. Together with the eventual widening of Kaumualii Highway, signalization and improvements, such as additional exclusive turn lanes, will allow acceptable levels-of-service at the intersections of Nawiliwili Road, Nuhou Road and Puhi Road. The signalization at these intersections will also benefit motorist at other nearby intersections by creating breaks in the traffic flow.