

REPORT TO THE TWENTY SECOND LEGISLATURE

OF

THE STATE OF HAWAII

REGULAR SESSION OF 2004

ON

HOUSE CONCURRENT RESOLUTION NO. 188

**SUBJECT: “THE FEASIBILITY OF ESTABLISHING FLYER STOPS
WITHIN THE RIGHT-OF-WAY OF OAHU’S H-2 FREEWAY
CONNECTING TO PARK-AND-RIDE FACILITIES”**

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
DECEMBER 2003**

TITLE: REPORT TO THE TWENTY-SECOND LEGISLATURE
OF THE STATE OF HAWAII, REGULAR SESSION 2004

SUBJECT: FEASIBILITY OF ESTABLISHING FLYER STOPS WITHIN THE RIGHT-OF-WAY
OF OAHU'S H-2 FREEWAY AND CONNECTING TO PARK-AND-RIDE
FACILITIES (HCR188)

The Hawaii Department of Transportation, Highways Division has been tasked with evaluating the feasibility of establishing Flyer Stops within the H-2 Freeway. A Flyer Stop or "freeway bus station" allows passengers to board buses at an area directly adjacent to the freeway, thereby increasing its efficiency.

The most feasible location for a Flyer Stop along the 8.33 mile stretch of the H-2 Freeway would be just north of the Waipio Interchange in the median between the inbound and outbound lanes as shown in Figure 1. This median is approximately 4500 feet long and 300 feet wide at its widest point. A Flyer Stop in this location allows buses to directly access the freeway in both directions.

Although a Flyer Stop is most feasible at this location, the Hawaii Department of Transportation has the following concerns about its effect on traffic operations and safety with respect to motorists accessing the facility:

1. Since the proposed Flyer Stop is located in the median, it requires that the entrance and exit ramps be located on the left side of the H-2 Freeway. While left-hand entrances and exits are considered satisfactory for collector distributor roads, their use on high-speed, free-flow ramp terminals, such as the H-2 Freeway, is not recommended. The difficulty of left-entrance merging with high-speed through traffic and the requisite lane changing for left-exit ramps make these layouts undesirable.

Left-hand entrances and exits are contrary to the concept of driver expectancy when intermixed with right-hand entrances and exits. The American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets 2001, recommends a uniformity of interchange patterns. An inconsistent arrangement of exits between successive interchanges causes driver confusion, resulting in drivers slowing down on high-speed lanes and making unexpected maneuvers. To the extent practical, all interchanges along a freeway should be reasonably uniform in geometric layout and general appearance.

The existing Mililani and Waipio Interchanges have right-side entrances and exits. In addition, the proposed new interchange for Koa Ridge shown on Figure 2 would also be required to have right-side entrances and exits. Intermixing the left-side entrances and exits for the Flyer Stop results in a non-uniform pattern on this stretch of the H-2 Freeway. Based on the AASHTO criteria, the proposed flyer stop with left-hand entrances and exits may expose the State to liabilities due to its non-standard configuration.

2. The proposed location is not desirable due to its vicinity to the existing Waipio Interchange. It is not desirable to construct new ramps too close to existing ramps. This may result in motorists attempting to

cross multiple lanes of traffic on the freeway within a relatively short distance under high-speed conditions. The additional conflicts and confusion with multiple ramps within close proximity of each other is also a concern in terms of safety and congestion.

3. Motorists traveling to/from a median Flyer Stop would be forced to enter the existing HOV lanes on the H-2 Freeway. State law (HRS Section 291C-53) prohibits vehicles from traveling in the HOV lane without meeting the necessary requirements.

It might be possible to create a vehicular entrance and exit to the proposed Flyer Stop from the Waipio Interchange/Ka Uka Boulevard overcrossing of H-2. However, this access would not eliminate the conflicting movements by Buses that must utilize the unconventional left in/off ramps on H-2 from the Flyer Stop. The highly visible, almost half-mile flyover superstructure would be costly, create potential environmental/aesthetic concerns, and will require major design modifications to the existing Waipio Interchange. The flyover alternative is not recommended for these reasons.

Therefore, due to the concerns about its effect on traffic operations and safety, the Hawaii Department of Transportation does not recommend a Flyer Stop within the H-2 Freeway right-of-way.

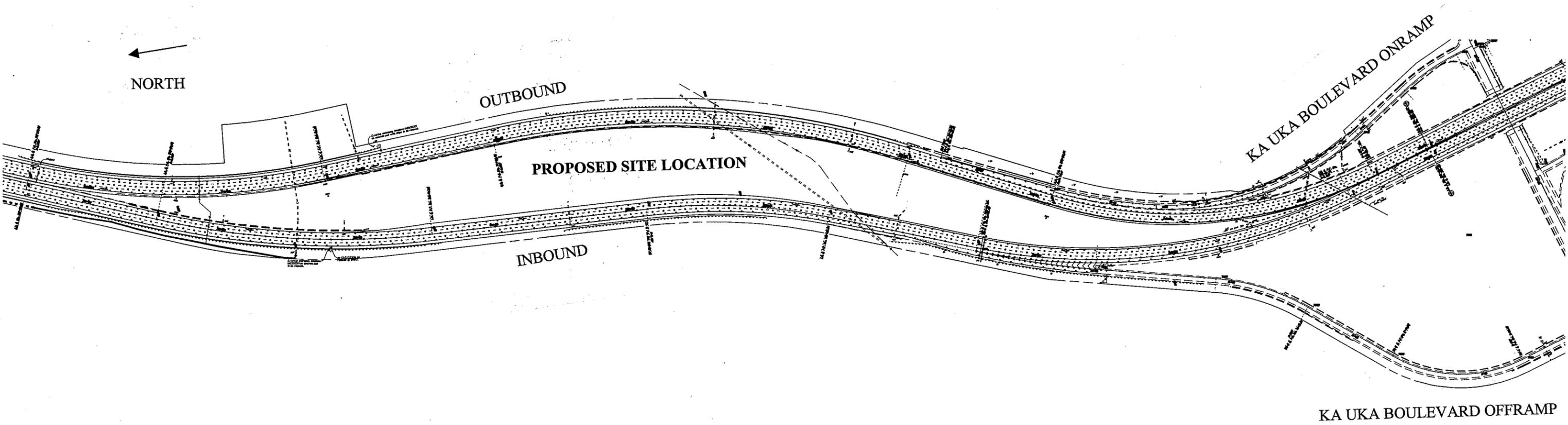
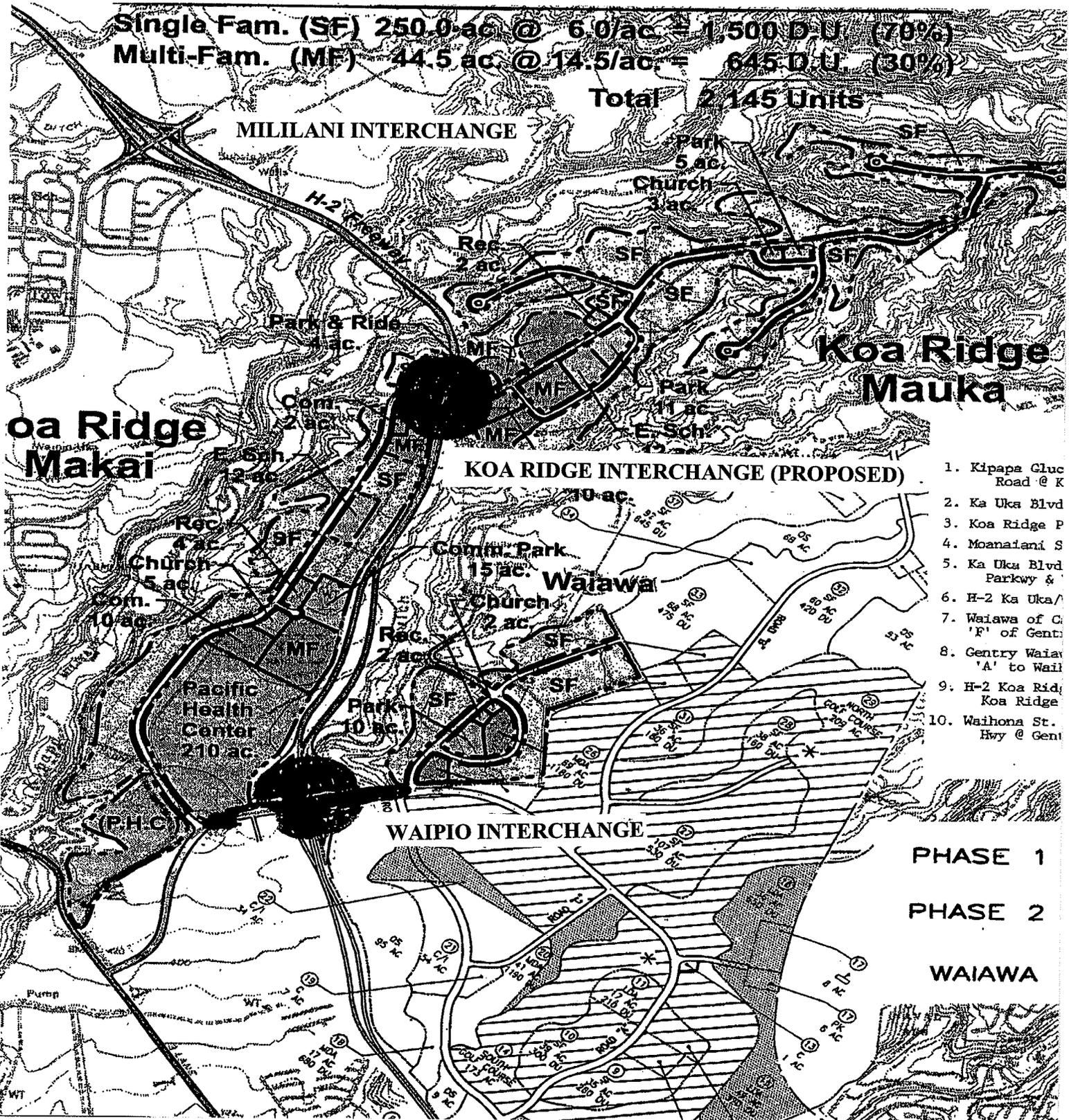


FIGURE 1

Single Fam. (SF) 250.0 ac @ 6.0/ac = 1,500 D.U. (70%)
 Multi-Fam. (MF) 44.5 ac @ 14.5/ac = 645 D.U. (30%)
Total 2,145 Units

MILILANI INTERCHANGE



1. Kipapa Gluec Road @ K
2. Ka Uka Blvd
3. Koa Ridge P
4. Moanalani S
5. Ka Uka Blvd Parkway &
6. H-2 Ka Uka/
7. Waiawa of G 'F' of Gentry
8. Gentry Waiawa 'A' to Wai
9. H-2 Koa Ridge Koa Ridge
10. Waihona St. Hwy @ Gentry

PHASE 1

PHASE 2

WAIPIO

FIGURE 2