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PELICAN HILL ROAD PROJECT REPORT

APPROVAL IN CONCEPT
OFFICIAL COPY

FILED WITH THE ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY.

FEBRUARY, 1987

10-8-87

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DATE

BY

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JN 23723/PRJ16

SECTION FOUR

HIGHWAY DESIGN CRITERIA

Two separate sets of highway design criteria have been utilized for different portions of the project, in order to best satisfy the particular conditions which apply to each portion.

[Segment 2 - Alternate A and Segment 3 extend along Bonita Canyon Drive from MacArthur Boulevard to the location of a possible future interchange between the San Joaquin Hills Transportation Corridor and Pelican Hill Road. This portion has been specifically designed to be compatible with the criteria established for the San Joaquin Hills Transportation Corridor, since it is possible that portions of the Pelican Hill Road project may ultimately be incorporated into the transportation corridor.] Design criteria for the San Joaquin Hills Transportation Corridor meet the standards established by the California Department of Transportation (Caltrans) for an urban freeway, with a design speed of seventy miles per hour, a minimum curve radius of 3,000 feet, and a maximum grade of six percent. Some deviation from these standards will be necessary for the proposed project in the area of the intersections with existing Bonita Canyon Drive and Coyote Canyon Road. Since a future grade separation is proposed for the San Joaquin Hills Transportation Corridor, the at grade intersections follow the alignment and grade of the proposed future transit and High Occupancy Vehicle on/off ramps. This design provides for both an at grade intersection with Bonita Canyon Drive as a part of the Pelican Hill Road project and a future grade separation with the San Joaquin Hill Transportation Corridor. Location of the alignment of Pelican Hill Road in the location of the future High Occupancy Vehicle ramps will also facilitate the construction of the initial phase of San Joaquin Hills Transportation Corridor. The design speed in the vicinity of these intersections is sixty miles per hour. The typical cross-section of this portion of the proposed roadway is illustrated in Exhibit 13. ✓

Segment 2 - Alternate B and Segments 4, and 5 conform to the standard design criteria established by the County of Orange for a Major Highway and the City of Irvine for a Thruway. The design speed is sixty miles per hour and the minimum curve radius is 2,200 feet. The maximum grade is six percent. The standard typical cross-section of the County of Orange, which is applicable to this portion of the proposed roadway, is illustrated in Exhibit 14.