4.15 Transportation and Circulation

The following analysis of potential traffic, transportation, and circulation impacts caused by the proposed project is based upon the Traffic Report for the Winchester to Temecula (WT) Corridor (TransCore, 2002).

4.15.1 Methodology for Impact Evaluation

4.15.1.1 Transportation Modeling

The transportation analysis was based largely on the simulation of future travel conditions using the RIVSAN travel demand forecasting model maintained by the Southern California Association of Governments (SCAG). The RIVSAN model is a derivative of the SCAG regional model and is maintained by SCAG. It is used for transportation studies in western Riverside and San Bernardino counties, but covers the entire SCAG region. For application to the CETAP corridor studies, the base network was updated to year 2025 to include transportation projects in Riverside County contained in the 2001 RTP, and the socioeconomic data were updated to 2025 in the Riverside County portions.

The RIVSAN model simulates transportation conditions for four time periods: AM (6 to 9 AM), midday (9 AM to 3 PM), PM (3 PM to 7 PM), and nighttime (7 PM to 6 AM). The travel demand model generates traffic volumes and travel time/speed for every link in the network for each time period. In addition to these direct model outputs, post-processing was used to develop additional Measures of Effectiveness (MOEs) in order to analyze impacts of transportation alternatives more completely. These included daily volume totals, Volume-to-Capacity (V/C) ratios, traffic "level of service," and aggregate statistics on vehicle miles of travel (VMT), vehicle hours of travel (VHT), delay, and average speeds for different geographic areas. Although MOEs were developed for AM and PM peak hours and daily data, the focus of a number of the MOEs is on the PM peak period, which tends to be the hour of maximum traffic volume. The AM peak hour and daily data tend to provide similar findings for each alternative. In general, each alternative is compared to the appropriate base condition, either the 2025 base or build out base, as appropriate.

The modeling of alternatives was based on the ultimate cross-section envisioned in the Project Description (see Chapter 2.0 of this EIS/EIR), representing a freeway with six mixed flow lanes and two high occupancy vehicle lanes. The modeling also assumed the interchange locations identified in the proposed General Plan Circulation Element for Riverside County (April, 2002). It is recognized that these interchange locations are tentative, but they were located with consistent criteria for all of the alternatives and are, therefore, appropriate as a means of comparing alternatives.

4.15.1.2 The No Build Alternatives (Base Conditions)

Each of the project alternatives is compared against two No Build conditions: year 2025 and a "build out" condition. The two No Build conditions are fully described in Chapter 2.0, Section 2.3, and summarized as follows: