October 2, 2012

Mr. John Moreland
OC PUBLIC WORKS / OC PLANNING
300 North Flower Street
Santa Ana, CA 92702

Subject: Saddle Crest FEIR – Response to October 1, 2012 Letter from Shute, Mihaly and Weinberger Regarding Traffic Issues

Dear Mr. Moreland:

RK ENGINEERING GROUP, INC. (RK), with peer review and additional analysis conducted by the County of Orange Public Works staff, has developed a traffic impact study and response to comments with respect to the Saddle Crest project FEIR (Final Environmental Impact Report). This letter responds to points recently (October 1, 2012) made by Shute, Mihaly and Weinberger and MRO Engineers regarding the traffic analysis for the Saddle Crest project. None of these comments materially change the conclusions or findings of the FEIR traffic study or the traffic impacts of the project.

Please forgive the informality and abruptness of this response, but this has occurred as a result of the lateness of these comments.

There were four (4) basic issues raised in the Comment Letters. Following is RK’s responses to these comments:

Comment #1:

HCM (Highway Capacity Manual) is better than V/C (Volume to Capacity), especially considering that EIR does not properly apply the HCM methodology.

Response #1:

- The traffic HCM analysis did take account of all the factors listed in the letter. It did not rely solely on PTSF (Percent Time Spent Following). Rather, because PTSF was revealed
by the analysis to be the most determinative factor, only PTSF was reflected in the summary Table K-1. The detailed HCM Worksheets, included in Appendix K of the traffic study, clearly reflect that all the parameters were input and adjusted for the circumstances.

- More factors does not necessary translate to more accuracy. The commenter effectively concedes this point by claiming, on page 7 of its September 17th, 2012 letter, that the HCM projects a roadway capacity that does not accurately reflect the operation of Santiago Canyon Road. MRO’s solution is to adjust, to an unspecified extent, the V/C criteria and capacity of the analysis used in the model to address the claimed deficiencies. The County’s solution on the issue of accuracy is to use a methodology that does reflect actual, measured road capacity and usage. Furthermore, as acknowledged in the HCM Manual (HCM 2010, Chapter 15, Appendix A, Page 15-59), the HCM Methodology does not consider the design characteristics of two-lane highways that include right/left intersection turn lanes, two-way left-turn lanes, wide cross-sections, and a limited amount of slow moving vehicles (i.e. trucks and RVs), which exist on Santiago Canyon Road.

- The use of V/C ratio is supported by all the data and rationales presented in the EIR (including the Additional Responses to Comments document) and not just the travel time runs. The travel time runs were conducted on a typical day, not near any holidays and not on a weekend. Several runs were conducted to ensure accuracy and that no one run was aberrational. The 1.2-mile segment of roadway was selected as being the segment most likely to experience impacts due to Project traffic. The previous travel time runs were also compared to recent travel time runs, both for the 1.2 mile segment of roadway and the full segment of Santiago Canyon Road, from Live Oak Canyon Road to SR-261 Toll Road. These more recent travel time runs indicate consistency with the previous travel time runs and with greater average speed. Furthermore, travel time runs for the full extent of Santiago Canyon Road indicated average speed of approximately 55 miles an hour, which were even greater than the speed of the shorter segments, used in the EIR, in close proximity to the project. Therefore, this additional data further corroborates the fact that Santiago Canyon Road is operating much better than what would be projected with the HCM methodology.

- The V/C methodology is standard practice in Orange County, is in wide use, is regarded as reliable by traffic engineers, and is used for most highways and local jurisdictions (i.e. Irvine, Orange, Lake Forest, and others). V/C also allows comparisons and integration of studies with other Local jurisdictions that share responsibility for Santiago Canyon Road, as these other jurisdictions use the V/C methodology for their traffic studies. The V/C method has been used for other two-lane roads in the County (Laguna Canyon Road and Ortega Highway), and in the City of Irvine.
Finally, we note that the EIR (including the Draft, Final and Additional Responses to Comments) discloses that LOS calculated under the HCM methodology is currently unacceptable, so that adding any traffic from the Project or any cumulative scenario would be cause for further deficiencies, which is a false result when compared to actual, existing traffic conditions.

Comment #2

The V/C analysis was done improperly, and if done correctly, it would show significant impacts.

Response #2

- MRO's V/C analysis is based upon outdated (1985 HCM) and unsupported LOS criteria. MRO Engineers notes that the current version of the HCM does not contain V/C criteria for LOS on two-lane highways. MRO concludes that the appropriate methodology is to reach back as far as 1985 for criteria that used to be included in the HCM. MRO states no basis for reverting to criteria that even the HCM treats as outdated and unreliable. The County's approach, in contrast, is to use current, widely accepted and recognized LOS criteria from Orange County, OCTA and numerous other local jurisdictions. Where local jurisdictions do not have applicable LOS criteria, the County extrapolated the appropriate criteria from Average Daily Traffic Level of Service standards. The County's decision to use current, local criteria is in keeping with standard traffic engineering practice.

- The September 17, 2012 MRO letter, on Page 13, cited that “considering the more likely 80% no passing zone assumption, all but one of the segments is currently operating at a LOS C.” In actuality, 95% of the segments along Santiago Canyon Road have no passing zones; therefore, the level of service would be even worse based upon HCM methodology. Again, this is not substantiated by actual operating conditions.

- MRO's conclusions of significant impacts stem from its use of outdated criteria. As explained in the EIR, if the proper, current criteria are used, impacts are less than significant. This has been based upon actual operating conditions on Santiago Canyon Road, which do not support the use of the HCM methodology.

Comment #3

The Additional Responses To Comments Document internally contradicts itself in reflecting traffic on Santiago Canyon Road.
Response #3

- Page 6 of the Additional Responses to Comments document states that Silverado Canyon, Modjeska Canyon, Trabuco Canyon and other East Orange unincorporated areas “contribute to traffic on Santiago Canyon Road”; Pages 6-7 state that “most of the traffic that would be generated by new development in the eastern portion of the F/TSP would likely not impact traffic on Santiago Canyon Road.” This is correct, since these projects would make some contribution to Santiago Canyon Road, but would not create a significant impact. The majority of the traffic would occur to the east, contributing less of a direct impact to the highway.

- These two statements do not reflect the same area. The eastern portion of the F/TSP is only a small subset of the areas identified previously. Moreover, while it is true that all these areas could contribute vehicles to Santiago Canyon Road, the number of trips would not be substantial enough to create a noticeable impact. These areas would have alternative available routes through Rancho Santa Margarita, by other highways such as Santa Margarita Parkway and the Foothill Transportation Corridor.

Comment #4

Accidents would be significant.

Response #4

- The commenter apparently believes that an increase in the number of accidents is necessarily significant. Under that theory it would never be possible to have a less than significant safety impact, because increasing the number of vehicle miles will necessarily increase the chances for a collision. The analysis in the Additional Responses to Comments document concluded that there will not be significant increases in accidents, because there are no factors that would be anticipated to increase the rate of accidents per vehicle mile traveled, as a result of the project. The collision rate currently is less than half the state-wide collision rate for similar kinds of roadways (2009 Collision Data on California State Highways, Caltrans, 2009), and this is unlikely to increase disproportionately due to the fact that the Project will provide adequate sight distance, the number of trips generated by the Project is relatively small, and because trips will be well below the capacity of the intersections. The collision rate is low, and the number of trips generated by the Project is relatively low, such that any increase in the absolute number of collisions would not be significant.
RK Engineering Group, Inc. appreciates this opportunity to respond to the October 1, 2012 Letter from Shute, Mihaly and Weinberger and the two (2) letters from MRO Engineers, dated September 17, 2012 and September 21, 2012. Based upon our review, we do not see any traffic related issues that have not been addressed as part of the Draft and Final EIR for the Saddle Crest project.

Sincerely,
RK ENGINEERING GROUP, INC.

Robert Kahn, P.E.
Principal