December 4, 2017

Mr. Everett DeLano
DeLano & DeLano
104 W. Grand Ave., Suite C
Escondido, California 92025

Subject: ***Proposed Safari Highlands Ranch and Citywide SOI Update***
Draft Environmental Impact Report – Escondido, California

Dear Mr. DeLano:

As requested, Griffin Cove Transportation Consulting, PLLC (GCTC) has completed a review of the transportation impact analysis completed with respect to the proposed Safari Highlands Ranch (SHR) project in Escondido, California. The proposed project is the subject of a Draft Environmental Impact Report (DEIR) prepared for the City of Escondido. (Reference: Michael Baker International, *Safari Highlands Ranch and Citywide SOI Update Draft Environmental Impact Report*, October 2017.) The DEIR incorporates (as Appendix 2.12-1) a transportation impact analysis prepared by Linscott, Law & Greenspan (LLG). (Reference: Linscott, Law & Greenspan, *Transportation Impact Analysis – Safari Highlands Ranch – Escondido, California*, October 4, 2017.)

Our review focused on the technical adequacy of the DEIR transportation impact analysis, including the detailed procedures and conclusions documented in the LLG report. As explained below, the traffic analysis is flawed in several respects and the conclusions in the DEIR regarding traffic impacts are unsupported and contrary to the evidence.

TRANSPORTATION IMPACT ANALYSIS REVIEW

Our review of the transportation impact analysis for the proposed Safari Highlands Ranch project revealed several issues that render the DEIR inadequate and that must be addressed prior to approval of the project by the City of Escondido. These issues are presented below.

1. ***Significant and Unavoidable Traffic Impacts on State Route 78*** – The DEIR (p. 2.12-37) says that:

   > *Implementation of mitigation measures **MM TRA-1** through **MM TRA-8** would reduce the project's near-term direct and cumulative impacts to **less than significant** with* [the] *exception of a significant and unavoidable impact on the segment of Felicita Avenue/17th Avenue between Escondido Boulevard and Juniper Street . . .*" [Emphasis not added]

   The DEIR again says that MM TRA-1 through MM TRA-8 would reduce impacts to less than significant at p. 2.12-38.

   However, mitigation measures MM TRA-2, MM TRA-3, AND MM TRA-4 all relate to impacts at intersections on San Pasqual Valley Road, which is also State Route 78 (SR 78). SR 78 is under the jurisdiction of Caltrans, not the City of Escondido. In fact, the DEIR (p. 2.12-16) says:

   > *The locations along San Pasqual Valley Road (SR 78), while also maintained by Caltrans, are located in the County's jurisdiction . . .*

Moreover, the LLG report (p. 22) says:

> *Several designated County Mobility Element Roads are State highways that are managed and maintained by Caltrans. These highways include State Route, 67, State Route 76, State Route 78 . . .*

Regardless of whether the road is under the jurisdiction of Caltrans or San Diego County, the City of Escondido has no control over whether the mitigation measures will actually be implemented, so these impacts will remain significant and unavoidable, and a Statement of Overriding Considerations will need to be adopted with respect to these impacts.

The DEIR acknowledges this fact (in general terms only) at p. 2.12-35:

> *It should be noted that certain significant and potentially significant environmental impacts . . . can be mitigated by the implementation of specific mitigation measures by other jurisdictions and/or public agencies. The City will request, but cannot compel, each of those public agencies affected by mitigation measures proposed with the SHR project to implement the identified mitigation measures described in this section.*

2. ***Unmitigated Traffic Impact at San Pasqual Valley Road (SR 78)/Summit Drive*** – The DEIR (p. 2.12-33) describes MM TRA-3 at Intersection 10 – San Pasqual Valley Road (SR 78)/Summit Drive. No specific measure is presented, however. It simply says that proposed intersection modifications are subject to a specified Caltrans policy (which reinforces our point in Item 1. above regarding jurisdiction over improvements on SR 78). The failure to identify the specific intersection modifications needed to mitigate the project-related impact makes it impossible to determine whether the significant impact will be fully mitigated. Further, we believe this constitutes an unacceptable deferral of mitigation.

3. ***Hazards Due to a Project Design Feature*** – The DEIR (pp. 2.12-39 – 2.12-40) addresses whether the proposed project will have a significant impact with respect to a project design feature. It concludes that a less than significant impact would occur. However, the DEIR has not addressed the adequacy of driver sight distance at the new project access intersection of Rockwood Road/Safari Highlands Ranch Road, even though "[t]he existing topography of the site is constrained by steep grades . . ." and the new intersection will be located on a horizontal curve on Rockwood Road. Specifically, the analysis has not demonstrated that a driver waiting to turn from Safari Highlands Ranch Road onto Rockwood Road (or the reverse) will be able to see oncoming vehicles (on Rockwood Road) in time to make the turn movement safely.

   The DEIR (p. 2.12-39) states that:

   > *. . . Safari Highlands Ranch Road would be designed to meet all American Association of State Highway and Transportation Officials (AASHTO) design standards, as agreed to with the City . . .*

   In accordance with AASHTO design standards, the 40 MPH speed limit on Rockwood Road requires 445 feet of intersection sight distance to allow a driver to safely make a left turn from Safari Highlands Ranch Road onto Rockwood Road. (Reference: AASHTO, *A Policy on Geometric Design of Highways and Streets*, 2004, Exhibit 9-55 – Design Intersection Sight Distance – Case B1 – Left Turn from Stop, p. 661.) If that standard cannot be met, an absolute minimum of 305 feet of clear

stopping sight distance is required by the AASHTO standards. (Reference: Ibid., Exhibit 3-1 – Stopping Sight Distance, p. 112.)

However, a proper sight distance analysis would account for the fact that some drivers exceed the speed limit, and would typically address a travel speed that is 5 MPH greater than the speed limit (i.e., 45 MPH). That would increase the AASHTO values for intersection and stopping sight distance to 500 feet and 360 feet, respectively.

Further, although the DEIR (p. 2.12-39) says that Safari Highlands Ranch Road would be designed to meet all AASHTO design standards, the DEIR (p. 2.12-40) also says:

> *The project will require a number of design deviations relative to horizontal and vertical angles and inconsistencies.*

These design deviations have apparently not been considered in the analysis of the potential for hazards due to a project design feature.

In summary, the DEIR analysis of whether impacts will occur with respect to hazards due to a design feature is inadequate and incomplete.

4. ***Residential Project Traffic Underestimated*** – The estimate of project-generated traffic is presented at DEIR Table 2.12-8 – Project Trip Generation (DEIR, p. 2.12-18) and LLG Table 7-1 – Project Trip Generation (LLG, p. 30). According to those tables, 116 of the 550 proposed residential units are defined as "Estate Homes" and 434 residential units are defined as "Single Family" homes for trip generation estimation purposes. The Estate Homes are assumed to be located in areas designated E-1 and E-2 on the project site plan, with 47 and 69 residential lots, respectively. The Single Family homes are assumed to be located in areas designated R-1 through R-5.

   The trip generation rates employed in the analysis are taken from the *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (San Diego Association of Governments (SANDAG), April 2002). According to that document, Estate Homes are defined as averaging 1 – 2 dwelling units (DU) per acre, which equates to average lot sizes of 0.5 – 1.0 acre (i.e., 21,780 – 43,560 square feet (SF)). Those homes have an average daily trip generation rate of 12 trips/DU, compared to 10 trips/DU for Single Family homes, which are defined as averaging 3 – 6 DU/acre.

   The DEIR *Project Description* (DEIR, pp. 1.0-3 – 1.0-4) describes the proposed residential development, as summarized in Table 1 below. Of particular interest here is the fact that the neighborhoods designated R-3 (87 DU) and R-4 (49 DU) will both have average lot sizes that that fall into the range defined as being Estate Homes in the SANDAG trip generation rate table (i.e., 0.5 – 1.0 acre or 21,780 – 43,560 SF).

   Consequently, those two neighborhoods, which will have a total of 136 residential units should have been treated as Estate Homes for trip generation purposes. Appropriately treating these 136 DU as Estate Homes (at 12 trips/DU) would result in an additional 272 daily trips beyond the trip generation estimate employed in the DEIR traffic analysis.

Table 1
Proposed Residential Development Summary[1]

Neighborhood	No. of Units	Average Lot Size
E-1	47 DU[2]	60,000 SF[3]
E-2	69 DU	38,726 SF
Estate Home Subtotal	***116 DU***	
R-1	118 DU	15,440 SF
R-2	119 DU	17,353 SF
R-3	87 DU	28,318 SF[4]
R-4	49 DU	28,168 SF
R-5	61 DU	18,891 SF
Single Family Subtotal	***434 DU***	

Notes:
1 Source: DEIR, *Project Description*, pp. 1.0-3 – 1.0-4.
2 Dwelling unit.
3 Square feet.
4 The table presented in Attachment A indicates that the average lot size in R-3 is 26,776 SF, which also exceeds 0.5-acre.

In addition, we note that neighborhoods R-1, R-2, and R-5 also have numerous individual lots that exceed 21,780 SF, as shown on the listing of individual lots sizes presented in Attachment A. Specifically, R-1 has 15 such lots, R-2 has 23 lots, and R-5 has an additional 15 lots, for a total of 53 Estate Home-size lots. Those 53 DU will result in an additional 106 daily trips. When combined with the 272 additional daily trips associated with R-3 and R-4, a total of 378 daily trips were unaccounted for in the DEIR traffic analysis. The AM and PM peak hour trip generation estimates are also flawed, as a result.

These errors must be corrected, and a revised traffic impact analysis must be prepared.

5. ***Flawed Commercial Project Trip Generation Estimate*** – Among the features listed at DEIR p. 2.12-45 that would reduce the project-related VMT is "a small commercial area." This is further described in the October 2, 2017 LLG letter report that documented their VMT analysis (and is presented as DEIR Appendix 2.12-2). The LLG report specifically states that the project includes a 2,500-square-foot "Specialty Retail center."

   However, the project trip generation estimate presented in DEIR Table 2.12-8 (p. 2.12-18) includes no specialty retail center. Consequently, the volume of traffic associated with the proposed project has been underestimated and the project's traffic impacts have been understated.

   The failure to address the traffic generated by the proposed specialty retail center is a substantial deficiency in the transportation impact analysis. Again, this error must be corrected, and a revised traffic impact analysis must be prepared.

6. ***Flawed Project Trip Distribution*** – Trip distribution refers to the geographic orientation of project-generated traffic. The assumed trip distribution for the proposed project is briefly described at DEIR p. 2.12-18 and illustrated on DEIR Figure 2.12-2 (DEIR, p. 2.12-49). Review of that material suggests that the assumed project trip generation might not accurately reflect the proposed project's travel patterns, particularly with respect to school-related trips.

   A substantial portion of the proposed project falls within the boundaries of the Valley Center-Pauma Unified School District. In fact, DEIR p. 2.11-10 states:

   > *Of the 312 students generated by the project, 99 students may be enrolled in the Valley Center-Pauma Unified School District.*

   The project trip distribution employed In the traffic analysis fails to account for project trips to/from that school district. Further, no study intersections or road segments are located on Valley Center Road, which will be the only route available to/from those schools. This is a particular issue in the AM peak hour, during which commute traffic overlaps with school traffic.

   The project trip distribution must be modified to provide an accurate representation of project-generated traffic patterns. This might require the use of different distribution patterns for the AM and PM peak hours.

7. ***Flawed VMT Analysis*** – The DEIR "VMT Assessment" (pp. 2.12-43 – 2.12-45) is based on a daily trip generation value for the proposed project of 4,756 trips (although if you multiply this daily trip value by the average trip length (14.19 miles), you get a VMT value of 67,488 instead of the 67,332 presented in the DEIR).

   But DEIR Table 2.12-8 (p. 2.12-18) says the project will generate 5,907 daily trips, which is 24 percent higher than the value used in the VMT Assessment (and, as we noted above, this understates the true project trip generation). Applying the 5,907 daily trip value to the average trip length of 14.19 miles indicates that the project will generate 83,820 vehicle-miles of travel, not 67,332. This has implications with respect to the air quality, greenhouse gas emissions, and energy conservation analyses.

   The VMT analysis must be corrected to accurately reflect the number of trips that will be generated by the proposed project. Further, the air quality, greenhouse gas emissions, and energy conservation analyses must be modified to reflect the correct VMT value, and the revised DEIR must be recirculated for further public review and comment.

8. ***Inadequate VMT Reduction Features*** – The DEIR (p. 2.12-45) says:

   > *. . . the proposed project would incorporate certain features to reduce, to some degree, the total project-related VMT: . . .*

   Four such features are listed. The features listed there would, at best, have a minuscule effect on overall project-related VMT. In fact, we would suggest that it would be appropriate to insert the word "negligible" between "some" and "degree" in the above statement.

   One of those features (i.e., a mix of land uses including a small commercial area) is discussed in greater detail in our next comment. The second such feature is:

Provision of on-site bike lanes and bike racks;

The key word here is "on-site." Since no bicycle accommodations are present on the nearby off-site roads (such as Rockwood Road), little or no benefit will be accrued in terms of vehicular trip reduction. By limiting the development of bicycle facilities to the on-site roadways, the project effectively limits the attractiveness of bicycle travel as a substitute for motor vehicle travel.

The next feature claimed to reduce VMT is:

Pedestrian network and trail connections . . .

Again, the pedestrian system improvements are largely limited to the project site, with the exception of minor improvements to a couple of off-site crosswalks. These improvements are inadequate to convince residents to walk instead of driving a car, except for short, internal trips.

The final feature is the "option" to:

. . . provide "fuel forward" garages with electric vehicle chargers for electric and hybrid vehicles or CNG fueling stations for natural-gas powered cars.

Although the emissions associated with these vehicles would be lower than with vehicles equipped solely with internal combustion engines, the number of vehicle-miles traveled will not necessarily be lower.

As noted above, the DEIR (Table 2.12-16, p. 2.12-44) shows that the average trip length for project-generated traffic will be 14.19 miles, which is over five times the citywide average trip length. Moreover, that table shows that while the proposed project will generate 0.7 percent of the total trips in Escondido, it will represent 3.6 percent of the total VMT, which further illustrates the project's disproportionate impact. These extraordinary values demonstrate clearly that the project exemplifies the worst elements of "sprawl," with its related issues of fuel consumption and pollutant emissions.

The need to reduce the project-related VMT contribution is clear, and a stronger effort needs to be made to develop a program to accomplish that objective.

9. ***Obsolete Traffic Volume Data*** – The DEIR (p. 2.12-5) says the transportation impact analysis is based on:

. . . traffic counts conducted in 2014, 2015, and 2016.

Standard practice in the traffic engineering profession is to use traffic volume data that is not older than one year. Page 19 of the 2006 Institute of Transportation Engineers (ITE) document, *Transportation Impact Analyses for Site Development*, specifically states that:

. . . traffic volume data should generally be no older than 1 year.

The locally-created SANTEC/ITE traffic impact analysis guidelines, which guide certain aspects of the LLG analysis say that:

The data used in the TIS [traffic impact study] *should generally not be more than 2 years old.*

Appendix A to the LLG traffic impact analysis report presents most of the data sheets for the study intersections and road segments. Ten of the sixteen intersection counts documented there were performed in 2014 and one was performed in 2015. Fifteen of the seventeen road segment counts were performed in 2014 and one in 2015. We also note that footnote b. to DEIR Table 2.12-12 – Near-Term Ramp Meter Operations – Fixed Rate (p. 2.12-28) says that the traffic volumes used in the analysis of ramp meter operations were:

> *. . . taken from May 2014 Linscott, Law & Greenspan intersection counts.*

Obviously, data collected in 2014 is more than two years old, which violates the provisions of the ITE and SANTEC/ITE traffic impact analysis guidelines. New counts need to be conducted and incorporated into a revised traffic impact analysis.

10. ***San Pasqual Road Capacity Assumptions*** – DEIR Table 2.12-11 (pp. 2.12-25 – 2.12-27) documents the "Near-Term Street Segment Operations." Footnote f. to that table says that:

> *A 10% reduction in capacity was assumed to account for the winding road and lack of adequate shoulder width along portions of San Pasqual Road.*

This assumption is unsubstantiated. If the capacity of this road is actually lower than the 10 percent reduction would suggest, the roadway segment volume/capacity (V/C) ratios employed in the analysis would be higher and the levels of service might be worse.

The *Highway Capacity Manual* (HCM) is a publication of the Transportation Research Board (TRB); it is considered the authoritative source on issues related to roadway capacity, including appropriate adjustment factors to reflect non-ideal conditions (such as a lack of adequate shoulders). The two most recent versions of the HCM (i.e., the 2010 and 2000 editions) designate level of service for two-lane highways in terms of average travel speed and percent-time-spent-following, rather than in terms of traffic volumes or V/C ratios. However, referring to the 1997 version of the HCM (Table 8-5, "Adjustment Factors for the Combined Effect of Narrow Lanes and Restricted Shoulder Width, f_w," p. 8-9.), we see that the adjustment factor to reflect the lack of shoulders on San Pasqual Road is 0.88, assuming the lanes are 12-feet wide. That is, assuming 12-foot lane widths on the road, its capacity is 12 percent less than for ideal conditions, not 10 percent. But the lanes on much of San Pasqual Road appear to be only 11-feet wide. In that case, HCM Table 8-5 indicates that the road's capacity is 82 percent of the ideal value; that is, an 18 percent reduction in capacity is warranted, not just 10 percent.

And adjustments for lane and shoulder width are not the only capacity modifications that need to be considered. The 1997 HCM (p. 8-4) lists the following ideal conditions for two-lane highways:

- Design speed greater than or equal to 60 MPH.
- Lane widths greater than or equal to 12 feet.
- Clear shoulders wider than or equal to 6 feet.
- No "no passing" zones.
- All passenger cars in the traffic stream (i.e., no trucks, buses, or recreational vehicles).
- A 50/50 directional split of traffic.
- No impediments to through traffic due to traffic control or turning vehicles.

- Level terrain.

To the extent that San Pasqual Road (and the other two-lane study area roadways) fall short of these ideal conditions, adjustments must be made to the assumed capacity values to reflect the roadways' deficiencies. Focusing on San Pasqual Road, for example, the design speed of certain segments is almost certainly less than 60 MPH, given the winding nature referred to in the DEIR. In addition, "no passing" zones (i.e., solid double-yellow centerline striping) are present on virtually the entire length of the study segment running between San Pasqual Valley Road (SR 78) and Ryan Drive. The composition of the vehicles in the traffic stream (i.e., passenger cars vs. trucks, buses, or recreational vehicles) and the directional split of the traffic are unknown, but these factors must also be considered in deriving a valid capacity assumption for the study area roads.

In short, the DEIR traffic analysis has overstated the capacity of the study segment of San Pasqual Road, and perhaps other two-lane road segments, as well. Consequently, it has provided an overly-optimistic view of traffic operations on the two-lane roads and has understated the project-specific impacts.

11. ***Incomplete Near-Term Street Segment Analysis*** – As described above, DEIR Table 2.12-11 (pp. 2.12-25 – 2.12-27) documents the "Near-Term Street Segment Operations." However, substantial portions of the analysis results are missing. In particular, V/C (i.e., volume/capacity) and Δ (i.e., project increment) results are only shown for street segments in the City of Escondido; that information is excluded from the street segments under the jurisdiction of the City of San Diego, the County of San Diego, and Caltrans.

    For example, on the segment of San Pasqual Valley Road (SR 78) from 17th Avenue to Bear Valley Parkway, the existing V/C ratio (which is not shown on the table) is 0.9093 (i.e., a volume of 14,730 divided by an assumed capacity of 16,200 = 0.9093). Addition of project-generated traffic causes the V/C ratio to increase to 1.0551 (i.e., 5.51 percent beyond capacity), an incremental V/C impact of 0.1458. In other words, the project consumes almost 15 percent of the total roadway capacity.

    We believe that the failure to present this information has the effect of concealing the incremental impact of the proposed project at the locations that are not within the City of Escondido.

12. ***Incomplete Year 2035 Street Segment Analysis*** – DEIR Table 2.12-14 (p. 2.12-31) summarizes projected street segment operations in the year 2035. As in the near-term case, however, certain information is missing from the table, which obscures the results. Specifically, the V/C ratios for study locations under the jurisdiction of the County of San Diego and/or Caltrans are missing. Again, therefore, we believe that the DEIR fails to adequately inform the public of the incremental impacts of the proposed project.

13. ***Ramp Meter Analysis is Not Credible*** – DEIR Table 2.12-12 (p. 2.12-28) summarizes the analysis of near-term ramp meter operations. However, the results presented there are simply not credible, as they indicate that under every analysis scenario shown, drivers will experience 0.0 minutes of delay at the ramp meter and the queue at the meter will be 0 feet. In addition, the table indicates that the project-related incremental impact will also be 0.0 minutes of delay and a queue of 0 feet.

    We would simply point out that every vehicle that approaches the meter represents a potential queue of one vehicle (i.e., 25 feet), and every such vehicle is likely to experience a delay that exceeds 0.0 minutes, even if it doesn't have to come to a complete stop at the meter. The analysis would be more

believable if actual delay and queue length data had been collected to use in documenting existing conditions, rather than depending upon the flawed tool employed in the analysis.

The ramp meter analyses must be revised to provide results that are reasonable and believable and, more importantly, accurately indicate the impacts of the proposed project.

14. ***Flawed Freeway Segment Analysis*** – DEIR Table 2.12-13 (p. 2.12-29) documents the analysis results for the near-term freeway segment analysis. Footnote b. to that table says:

> *Capacity calculated at 2,350 vehicles per hour (vph) per mainline lane (pcphpl) and 1600 vph per lane for auxiliary lane.*

These capacity assumptions are unsubstantiated.

According to the *Highway Capacity Manual* (Transportation Research Board, 2010, p. 10-6), the 2,350 pcphpl [passenger cars per hour per lane] mainline value referenced above represents the "base capacity" for a freeway with a "free-flow speed" of 65 MPH. The actual free-flow speed on I-15 might differ from this, and no information is provided in the DEIR to confirm that the assumed value applies.

Also, according to the HCM (p. 11-2), the base capacity assumes certain ideal conditions, including:

- No trucks, buses, or RVs;
- A driver population that primarily consists of regular users who are familiar with the road;
- Minimum 12-foot lane widths; and
- Minimum 6-foot right-side shoulder widths.

We note, for example, that about seven percent of the traffic on I-15 through Escondido consists of trucks. (Reference: Caltrans, *2015 Annual Average Daily Truck Traffic on the State Highway System*, p. 41.) Attachment B contains the pertinent page from the Caltrans document. The number of buses and recreational vehicles is unknown, but it is unlikely to be zero.

The assumed capacity value is critical to the analysis. If, for example, the actual freeway segment capacity is 2,200 pcphpl instead of 2,350 pcphpl (i.e., about 7 percent lower), then the incremental project impact on the northbound segment of I-15 would be a V/C increase of 0.01, which constitutes a significant impact, since the study segment was found to operate at LOS F.

We also note that the freeway segment analysis is based on the assignment of 98 project-related vehicles to northbound I-15 in the PM peak hour. If that number were only 5 vehicles greater (i.e., 103 vph), then the project-related V/C increment would be 0.01 even with the assumed 2,350 pcphpl capacity, which would again be a significant impact. These 5 vehicles represent just over one percent of the project's estimated 409 inbound PM peak-hour trips, so the assumptions regarding the geographic distribution of the project trips are critical. If those assumptions are only slightly wrong, the analysis conclusions could be substantially different. Also, as described above, the project trip generation estimate improperly excluded the proposed specialty retail center that is apparently to be included in the project. Inclusion of those trips might also alter these analysis results.

Moreover, no information is presented to document the derivation of the assumed capacity value for the freeway auxiliary lanes. In fact, it is not clear what capacity value was assumed, as two different values are presented in the LLG report. LLG Table 6-4 (p. 29), footnote b., says a capacity of "1400 vph" was assumed for auxiliary lanes. In contrast, LLG Table 9-4 (p. 57), footnote b., says "1600 vph."

Finally, we note that, according to footnote c. to DEIR Table 2.12-13 (p. 2.12-29), which addresses near-term freeway segment operations:

> *Existing volume calculated from Caltrans Traffic Census Program Peak Hour Volume Data (2015).*

Thus, the freeway segment analysis is based on calculated (i.e., estimated) traffic volumes (derived by applying certain general factors to daily traffic volumes) rather than on actual traffic volumes derived from current data collection activity. The accuracy and credibility of the analysis results are, therefore, in question.

15. ***Site Access Needs*** – The LLG report (p. 63) describes the analysis of "project driveway operations," which specifically addresses the proposed intersection of Rockwood Road/Safari Highlands Ranch Road. That analysis recommends, ". . . a shared through/left-turn lane in the eastbound direction" on Rockwood Road at this location. Although this configuration might be adequate from a capacity perspective, the analysis fails to address whether a dedicated eastbound left-turn lane should be provided as a safety feature. Provision of a separate left-turn lane would substantially reduce, and perhaps even eliminate, the potential for rear-end collisions involving drivers waiting to turn left onto Safari Highlands Ranch Road.

16. ***Inadequate Transportation Demand Management (TDM) Program*** – The LLG report (pp. 64 – 65) and the DEIR (pp. 2.12-32 – 2.12-33) describe the proposed Transportation Demand Management (TDM) plans associated with the proposed project. According to the DEIR, the TDM plan is intended:

> *. . . to encourage potential drivers to use alternate forms of transportation other than single-occupancy vehicles. The goal of these plans is to reduce and/or remove vehicle trips out of the peak hours, thereby relieving congestion.*

The five components of the TDM plan can be summarized as:

a. Provide facilities, services, and programs that support bicycle use.

b. Management and promotion of the public trails system.

c. Enhancement of on-site and off-site pedestrian crossings for students walking to/from San Pasqual Union Elementary School.

d. Management of "car share alternative fuel facilities" and services. (It isn't completely clear what a "car share alternative fuel facility" is.)

e. Install electric vehicle charging stations within private residences.

Review of the TDM plan features summarized in the DEIR suggests that little, if any, trip reduction effect will be realized from implementation of the plan.

In fact, no meaningful benefit will be accrued through the bicycle-related strategies, as no bike lanes exist on the nearby off-site roadways, including Rockwood Road. Therefore, regardless of how attractive the on-site bicycle environment might be, bicyclists will be faced with a potentially dangerous set of circumstances as soon as they get off-site.

Promotion of the public trails system will be counter-productive in terms of trip reduction, in that it will attract trips to the site by non-residents. Enhancement of pedestrian crossings will be valuable from a safety perspective, but will again have a minuscule benefit with regard to trip reduction. Finally, installation of electric charging stations at the residences will also be valuable, but will not contribute in even the smallest way to reducing peak-hour trips.

We note that no attempt was made to quantify the benefits of the proposed TDM program, which seems primarily intended to suggest an interest in reducing the project's traffic impacts but failing to do so.

Finally, the failure to provide an adequate TDM program represents a violation of the *Escondido General Plan Mobility and Infrastructure Goals and Policies*. Specifically, "Goal 6 – Transportation Demand Management (TDM)" and "TDM Policy 6.1" have not been adequately addressed.

17. ***Project-Related Transit Usage*** – The DEIR (p. 2.12-38) says:

> *The proposed Village Core and other recreational amenities available for public use would generate commuters who would have the option to use public transit located in proximity to the project site . . .*

Such a statement is clearly disingenuous, however, given the fact that DEIR p. 2.12-32 correctly states that:

> *Bus service is not directly accessible in the vicinity of the subject property . . .*

Further, the DEIR (p. 2.12-43) says:

> *. . . no bus stops are proposed on the site at this time . . .*

18. ***Nonconformance with General Plan Mobility and Infrastructure Goals and Policies*** – The *Escondido General Plan Mobility and Infrastructure Goals and Policies* document includes the following two relevant policies that have not been addressed in the DEIR transportation impact analysis:

> ***Pedestrian Network Policy 3.2***
> *Develop and manage pedestrian facilities to maintain an acceptable Level of Service as defined in the Pedestrian Master Plan.*
>
> ***Bicycle Network Policy 4.2***
> *Develop and manage bicycle facilities to maintain an acceptable Level of Service as defined in the Bicycle Master Plan.*

The failure to document the pedestrian and bicycle levels of service, as required by these two General Plan policies, is a substantial deficiency in the DEIR.

19. ***Wildlife Undercrossing Traffic Volumes*** – LLG Table 12-1 (p. 67) documents estimated traffic volumes for selected hours at the five proposed on-site wildlife undercrossings. No documentation is provided, however, to explain how these volumes were derived. As such, it is difficult to judge the credibility of the information.

CONCLUSION

Our review of the transportation impact analysis completed with respect to the proposed Safari Highlands Ranch project revealed a number of serious deficiencies regarding the transportation impact analysis documented in the Draft Environmental Impact Report. The conclusion that traffic impacts will be mitigated to less than significant levels with the identified mitigation measures is not adequately supported and, in some instances, is simply inaccurate.

I hope this information is useful. If you have questions concerning any of the material presented here or would like to discuss it further, please feel free to contact me at (906) 847-8276.

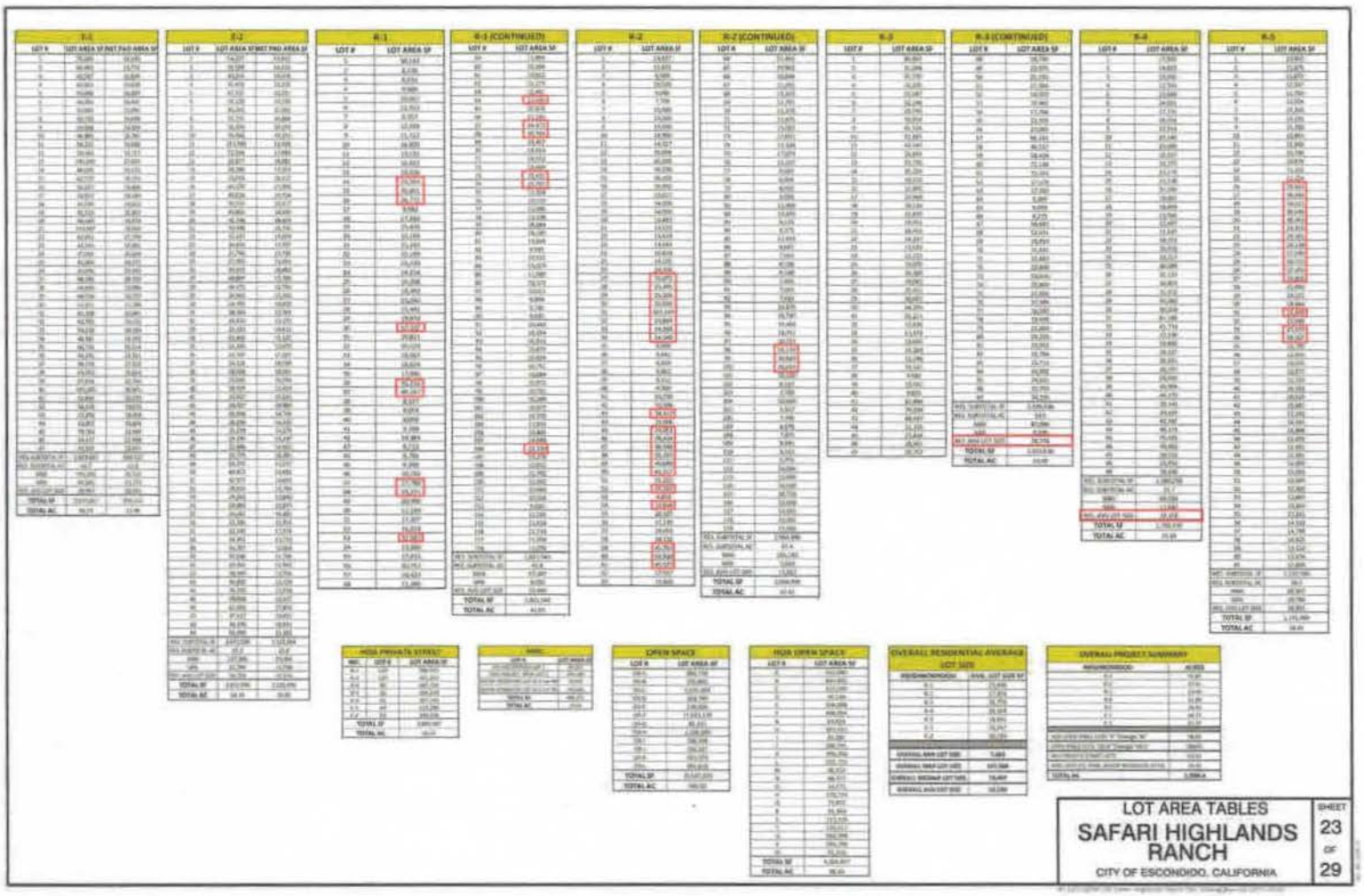
Sincerely,

GRIFFIN COVE TRANSPORTATION CONSULTING, PLLC

Neal K. Liddicoat, P.E.
Principal

ATTACHMENT A

Excerpt From
Tentative Subdivision Map – Safari Highlands Ranch
(Hunsaker & Associates, April 24, 2017)



LOT AREA TABLES

SAFARI HIGHLANDS RANCH

CITY OF ESCONDIDO, CALIFORNIA

SHEET 23 OF 29

ATTACHMENT B

Excerpt From
2015 Annual Average Daily Truck Traffic on the State Highway System
(Caltrans, 2015)

2015

Annual Average Daily Truck Traffic on the California State Highway System

Compiled by
Traffic Data Branch

State of California
California State Transportation Agency
Department of Transportation

Prepared in cooperation with the
U.S. Department of Transportation
Federal Highway Administration

2015 Daily Truck Traffic

RTE	DIST	CNTY	POST MILE	LEG	DESCRIPTION	VEHICLE AADT TOTAL	TRUCK AADT TOTAL	TRUCK % TOT VEH	TRUCK By Axle 2	TRUCK By Axle 3	AADT By Axle 4	AADT By Axle 5+	TOTAL % 2	TRUCK % 3	AADT By Axle 4	AADT By Axle 5+	EAL 2-WAY (1000)	YEAR VER/ EST
15	11	SD	R3.367	B	JCT. RTE. 805	120,000	6,119	5.10	3,133	1,040	306	1,640	51.20	17.00	5.00	26.80	816	85E
15	11	SD	R3.367	A	JCT. RTE. 805	170,000	3,739	2.20	2,700	381	116	542	72.20	10.20	3.10	14.50	334	85V
15	11	SD	R6.132	B	JCT. RTE. 8	172,000	3,784	2.20	2,732	390	117	545	72.20	10.30	3.10	14.40	337	85E
15	11	SD	R6.132	A	JCT. RTE. 8	205,000	10,208	4.98	6,374	730	240	2,864	62.44	7.15	2.35	28.05	1,314	07V
15	11	SD	R9.995	X	CLAIREMONT MESA BLVD	148,000	7,721	5.22	3,814	708	251	2,948	49.40	9.17	3.25	38.18	1,253	15E
15	11	SD	M12.124	A	JCT. RTE. 163	306,000	11,414	3.73	7,013	822	315	3,264	61.44	7.20	2.76	28.60	1,493	07E
15	11	SD	M14.285	B	SAN DIEGO, MIRAMAR/ POMERADO RDS	303,000	11,392	3.76	7,000	820	314	3,258	61.44	7.20	2.76	28.60	1,491	07E
15	11	SD	M14.285	A	SAN DIEGO, MIRAMAR/ POMERADO RDS	286,000	11,154	3.90	6,536	1,171	435	3,012	58.60	10.50	3.90	27.00	1,440	85V
15	11	SD	M18.176	B	SAN DIEGO, POWAY RD	244,000	17,324	7.10	8,454	1,958	970	5,942	48.80	11.30	5.60	34.30	2,669	96E
15	11	SD	M18.176	A	SAN DIEGO, POWAY RD	213,000	15,123	7.10	7,380	1,709	847	5,187	48.80	11.30	5.60	34.30	2,330	96E
15	11	SD	M27.65	A	ESCONDIDO, SOUTH JUNCTION OF CENTRE CITY PARKWAY	212,000	15,052	7.10	7,345	1,701	843	5,163	48.80	11.30	5.60	34.30	2,319	96E
15	11	SD	R30.627	B	VALLEY PARKWAY	221,000	15,691	7.10	7,657	1,773	879	5,382	48.80	11.30	5.60	34.30	2,417	96E
15	11	SD	R31.517	X	JCT. RTE. 78	122,000	9,424	7.72	5,192	578	304	3,350	55.09	6.13	3.23	35.55	1,434	15E
15	11	SD	R31.517	B	JCT. RTE. 78	238,000	16,897	7.10	8,246	1,909	946	5,796	48.80	11.30	5.60	34.30	2,603	96E
15	11	SD	R31.517	A	JCT. RTE. 78	135,000	13,636	10.10	6,027	1,173	709	5,727	44.20	8.60	5.20	42.00	2,399	80V
15	11	SD	R36.636	A	DEER SPRINGS RD	127,000	16,764	13.20	5,918	1,358	704	8,784	35.30	8.10	4.20	52.40	3,466	86V