

**APAC TRANSPORTATION STANDING COMMITTEE REPORT  
PROJECT FRONTIER CULTURAL RESOURCES REVIEW – April 19, 2023**

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APAC Transportation Standing Committee offers the following preliminary analysis, comments, and questions on the *Project Frontier Transportation Impact Analysis Report* (TIAR) dated November 11, 2022 and responses to APAC of March 14, 2023. The 243-page TIAR report prepared by consultants Fehr & Peer contains extensive technical and statistical reference material that requires further validation and access to appropriate modeling tools. The APAC document was based on contributions from sixteen El Dorado Hills resident volunteers.

**PREFACE: Consultant Fehr & Peer and El Dorado County**

Fehr & Peer is a consulting firm specializing in transportation. The Walnut Creek, California, headquartered firm states, “We are passionate about transforming transportation consulting through innovation and creativity.” Fehr & Peer has a historical relationship and performed services for El Dorado County, its Transportation Commission (EDCTC), and other related governmental and private traffic affiliations. The firm is involved in many regional activities.

For example, EDC Director of Planning Raphael Martinez made available to APAC a series of drawings generated by Fehr & Peer showing alternative traffic routes involving the El Dorado Hills area. One drawing entitled Latrobe/Highway 50 Connection Alternative #1 shows the Empire Ranch/Carson Crossing Highway 50 proposed exchange to route traffic through Folsom to Carson Crossing and Latrobe Road. The Alternative #3 drawing shows a roadway through Folsom bypassing Carson Crossing and exiting onto Latrobe south of the proposed Project Frontier site. Drawing Alternative #4 combines the two routes into a transportation routing identified by EDC Transportation Director as the “preferred traffic scenario.” It is important to note that these Highway 50 Connector drawings were made public a year before the Project Frontier application filing.

Another example of work performed by Fehr & Peer was the El Dorado Hills Business Park Community Transportation Study draft dated August 2021. The study was commissioned by the El Dorado County Transportation Commission and, in partnership with the EDC Planning Department, funded by the California Department of Transportation. The map shows the proposed site of the Project Frontier site parcel as “de-annexed in 2018.” The study describes three alternative scenarios for the future development of the Business Park, none of which appear consistent with the proposed Project Frontier.

**APAC Preliminary Analysis, Comments and Questions**

Given the size and complexity of the Fehr & Peer TIAR, the APAC committee has mapped this documentation by referencing to the specific pages and section titles as appropriate. This document then addresses TIAR deficiencies, faulty assumptions, and items requiring further analysis and explanation.

1. There is no indication as to who at Fehr & Peers prepared the TIAR nor is there a certification of said report by a registered Civil Engineer in the State of California.
2. Page 13 (PDF page 17) – Existing Conditions Peak Hour Traffic Volumes:  
This section states that the AM Peak Period is from 6AM to 9AM and the PM Peak Period I from 4PM to 7PM

Page 18 – Table 4, “Roadway Segment Peak Hour Level of Service – Existing Conditions” shows the following:

**TABLE 4: ROADWAY SEGMENT PEAK HOUR LEVEL OF SERVICE - EXISTING CONDITIONS**

Roadway	Segment	Facility Type	Volume / VC / LOS	
			AM	PM
	White Rock Rd. to Golden Foothill Pkwy. (N)	4AD	3,078 / 0.97 / E	2,428 / 0.76 / D

In contrast, analysis performed by the El Dorado County Transportation Department starting November 1, 2017 shows peak traffic for the same area, or specially mile post 10.57 along Latrobe Road which is 100' North of Golden Foothill Parkway to be as follows:

AM Peak (6AM – 9AM) volume = 3,317

PM Peak (2PM – 5PM) volume = 4,008

EL DORADO COUNTY COMMUNITY DEVELOPMENT AGENCY: TRANSPORTATION DIVISION									
Count Summary Beginning:					November 1, 2017				
Count Station:	1480018			Counter ID:	54				
City/Town:	El Dorado Hills			Mile Post:	10.57				
Road Name:	Latrobe Road			Location:	100 Ft. N. of Golden Foothill Pkwy.				
Lanes:	2			Direction:	SOUTHBOUND				
Date	5	6	7	1	2	3	4	Weekly	Wk Day
Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Average	Avg.
Time									
100	27	12	19	22	16	26	42	23	19
200	13	13	20	18	12	12	29	17	15
300	9	21	20	17	18	13	14	16	18
400	11	37	40	32	42	44	12	31	39
500	101	335	342	212	304	294	125	245	297
600	71	765	780	366	713	613	120	490	647
0600 - 700	118	1388	1372	696	1296	1282	242	913	1207
800	246	1425	1423	810	1430	1386	276	999	1295
900	363	914	946	479	880	854	380	688	815
1000	458	684	696	540	661	664	579	612	649

= 3,317

EL DORADO COUNTY									
COMMUNITY DEVELOPMENT AGENCY: TRANSPORTATION DIVISION									
Count Summary Beginning:					November 1, 2017				
Count Station:	1480018			Counter ID:	72				
City/Town:	El Dorado Hills			Mile Post:	10.57				
Road Name:	Latrobe Road			Location:	100 Ft. N. of Golden Foothill Pkwy.				
Lanes:	2			Direction:	NORTHBOUND				
Date	5	6	7	1	2	3	4	Weekly	Wk Day
Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Average	Avg.
Time									
100	15	23	40	51	35	33	26	32	36
200	13	10	17	22	17	18	12	16	17
300	19	31	45	45	44	47	24	36	42
400	26	62	60	62	53	49	36	50	57
500	56	179	168	148	163	150	57	132	162
600	113	488	501	426	469	395	128	360	456
700	140	718	721	682	637	621	178	528	676
800	250	896	890	940	937	860	275	721	905
900	405	612	677	653	701	670	421	591	663
1000	551	729	721	788	716	775	567	692	746
1100	490	907	911	875	939	943	561	804	915
1200	545	983	968	1043	944	1049	601	876	997
1300	490	754	707	805	718	734	510	674	744
1400	469	940	971	914	1006	949	600	836	956
1400 - 1500	499	1220	1259	1257	1272	1270	586	1052	1256
1500 - 1600	464	1467	1506	1459	1493	1378	569	1191	1461
1600 - 1700	454	1363	1335	1272	1372	1113	581	1070	1291
1800	303	685	780	761	776	602	491	628	721

= 4,008

APAC OBSERVATION: A more in-depth review of the traffic counts needs to be made along with a review of historical data collected by El Dorado County to provide an accurate picture of the existing condition. Using data collected from a one- or two-day period is insufficient.

### 3. Page 23 (PDF Page 27) – Trip Generation:

In this section it is stated that, “The project is projected to generate 561 AM peak hour, 455 PM peak hour, and 5,058 daily vehicle trips.” Foot note 2 of Table 6 states that the “trip generation based on client specific data received from Dermody Properties”.

Using client-based trip generation data is fundamentally flawed. There needs to be an independent and verifiable trip generation analysis performed. For example, the Institute of Transportation Engineers (ITE) provides weighted average rates for daily trips as follows:

Type of High-Cube Warehouse	Weighted Average for Daily Trips per 1,000 GSF <sup>10</sup>			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (91)	1.432	1.000	0.454	0.233
Cold Storage (9)	2.115	1.282	0.836	0.749
Fulfillment Center (1)	8.178	7.461	0.717	0.242
Parcel Hub (1)	10.638	6.631	4.007	0.982
ITE Trip Generation Manual – 9 <sup>th</sup> Edition	1.68	--	--	--

4,818,210 SF \*(8.178 All Vehicle Trips/1,000 SF) = **39,403 Total Vehicle Trips**

Type of High-Cube Warehouse	Weighted Average for AM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (94)	0.082	0.057	0.024	0.015
Cold Storage (9)	0.103	0.061	0.038	0.027
Fulfillment Center (1)	0.841	0.818	0.023	0.009
Parcel Hub (1)	0.851	0.428	0.423	0.041
ITE Trip Generation Manual – 9 <sup>th</sup> Edition	0.11	--	--	--

4,818,210 SF \*(0.841 AM Peak Hour Trips/1,000 SF) = **4,052 AM Peak Hour Trips**

Type of High-Cube Warehouse	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (95)	0.108	0.086	0.023	0.010
Cold Storage (9)	0.129	0.087	0.042	0.031
Fulfillment Center (1)	1.979	1.944	0.035	0.013
Parcel Hub (1)	0.803	0.568	0.235	0.009
ITE Trip Generation Manual – 9 <sup>th</sup> Edition	0.12	--	--	--

4,818,210 SF \*(1.979 PM Peak Hour Trips/1,000 SF) = **9,535 PM Peak Hour Trips**

TRIP GENERATION COMPARISON			
Method	Daily	AM Peak	PM Peak
Dermody Properties Specified	5,058	561	455
ITE Standard	39,403	4,052	9,535
Difference (under standard)	(34,345)	(3,491)	(9,080)

APAC OBSERVATION: The project appears to use a flawed basis for analysis of trip generation that is an *order of magnitude lower* in all regards when compared to a recognized standard published by the Institute of Transportation Engineers.

4. Page 46-48 (PDF page 50-52) – General Plan Consistency for Cumulative Conditions:

This section states that a “cumulative” analysis has been performed, however it has not. The analysis assumes that no other development will occur in the future which is certainly not the case given the undeveloped area in and around the business park, therefore the analysis should assume development continues to occur and provide a cumulative scenario or scenarios to account for future development.

The final conclusion of this section states that this project, “...would not change the finding of the General Plan Traffic analysis and EIR conclusions.”

CONCLUSION: This statement is patently false as it is based on trip generation numbers provided by the developer, Dermody Properties, as discussed above in item 3. Using the trip generation numbers from ITE (see item 3. above), this project would exceed the General Plan (Year 2025 Scenario) by nearly 4 times the numbers calculated under the traffic study and nearly double the General Plan (Buildout Scenario). It should be noted that the numbers calculated by the traffic analysis for “General Plan Trips” have not been verified and are likely inaccurate given the vagueness of the trip generation analysis. Calculations need to be provided to substantiate the trip generation numbers.

5. Page 5 (PDF Page 9) – Regulatory Setting:

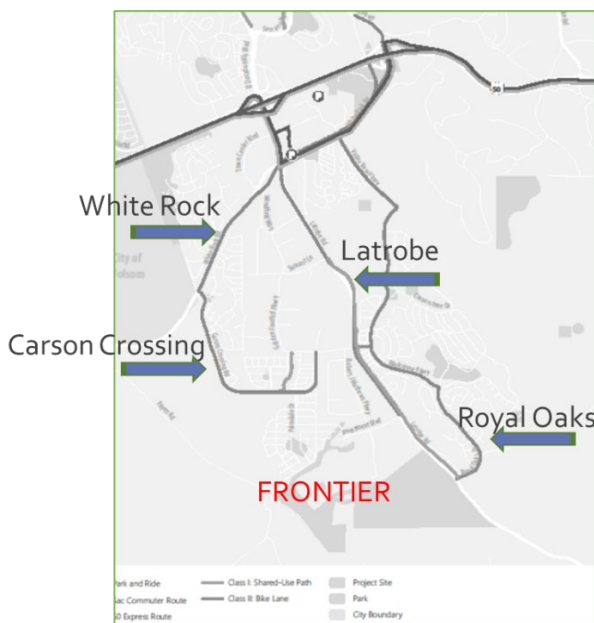
The last paragraph on this page states, “In Addition, the project is subject to Measure E, which was adopted June 6, 2016 and became official on July 29, 2016.” however no analysis was performed under this measure. Based on

the project's trip generation as determined by ITE standards (see item 3. above) there are numerous violations under Measure E. IE: a 15% increase was allowed by EDC due to COVID which has no basis.

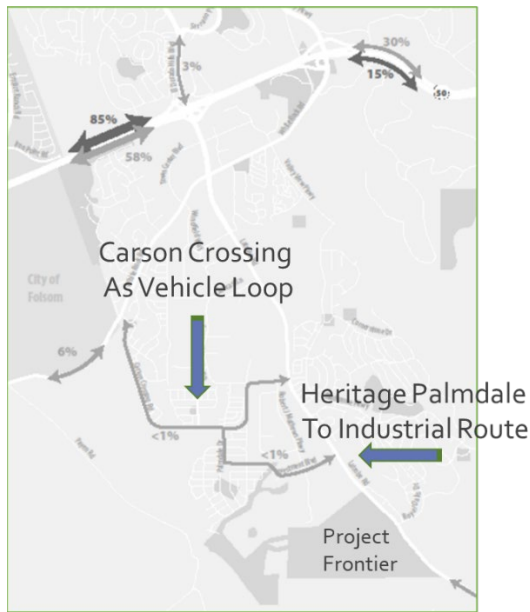
CONCLUSION: The applicant should provide an analysis under Measure E. To say that Measure E is applicable and then fail to evaluate the traffic impacts under Measure E is negligent.

6. TIAR DEFICIENCY: The traffic analysis also fails to evaluate structural capacity of the existing roadway and what type of structural section would be required to support the heavy truck traffic and extensive passenger vehicles coming from this facility. There should be an analysis of the primary roadway servicing this parcel which is Latrobe Road. The analysis should include the current pavement condition index (PCI), current traffic index (TI), the required TI under the types of vehicles and trips of those vehicles, pavement life, maintenance and all other structural impacts to the roadway. Also, what are the roadways proposed cross-section and limits for both Latrobe Road and Royal Oaks improvements?
7. TIAR DEFICIENCY: The traffic analysis also needs to include: pollution and emission impacts from vehicles inside and outside the facilities, greenhouse gas emissions from inside and outside the facilities, sound impacts from accelerating and decelerating vehicles and trucks. Sound impacts should include the topographic and sloped nature of the site and how sound can funnel into neighboring residential communities. Light emissions from vehicle headlights and their impacts on the residential communities and ecological environment. Also, with a 24/7/365 operation, what consideration was given to the impacts on the various HOAs and EDC noise ordinances? IE: no noise between 10:00PM and 8:00AM?
8. TIAR DEFICIENCY: This project will worsen every segment of roadway traffic in peak AM/PM in their study. Worsen is defined by County Policy TC-Xe as "2% increase in traffic during am peak hour, pm peak hour or daily." This can be seen in Table 8: Roadway Segment Peak Hour Level of Service-Existing Plus Project. In many cases there is a level jump up to the next level of traffic congestion. Two sections make a jump to level F which is the worst level of gridlock by county standards. The study presents that LOS E is an acceptable level to be tolerated by residents as defined by the county. LOS D is defined as Noticeable congestion. At signalized intersections, large portion of vehicles are stopped. LOS E is defined as Poor progression - High delays and frequent cycle failure. Also, controlled access breaks from Latrobe Road are proposed with Stop signs south of Royal Oaks into/out of the facility! These should be disallowed (just like no breaks either side, further north up on Latrobe Road) as it will cause LOS on Latrobe Road to be further reduced and create more safety conflicts if the facility is approved and/or future Latrobe Road traffic increases!
9. TIAR DEFICIENCY: Project Frontier only addresses truck and passenger car volume for this facility. Applicant identifies 1250 truck trips but fails to identify the type and numbers of each type. For example, how many truck with trailers? What is the length of these trucks? What impacts will trucks of different type have on the street and on/off ramps? Will it effect the roadways LOS? Also, will this facility utilize delivery vans on a daily basis? If so, how many and what geographical area would they cover.
10. TIAR DEFICIENCY: This project fails to meet county Goal #3 with respect to reducing emissions. This goal states, *"GOAL TC-3: To reduce travel demand on the County's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities."* The number of diesel polluting tractor trailers will increase significantly. The Governor's goal of full electric by 2035 is not mandated for tractor trailers and which will continue to operate and pollute in this area and corridor affecting local residents' health.

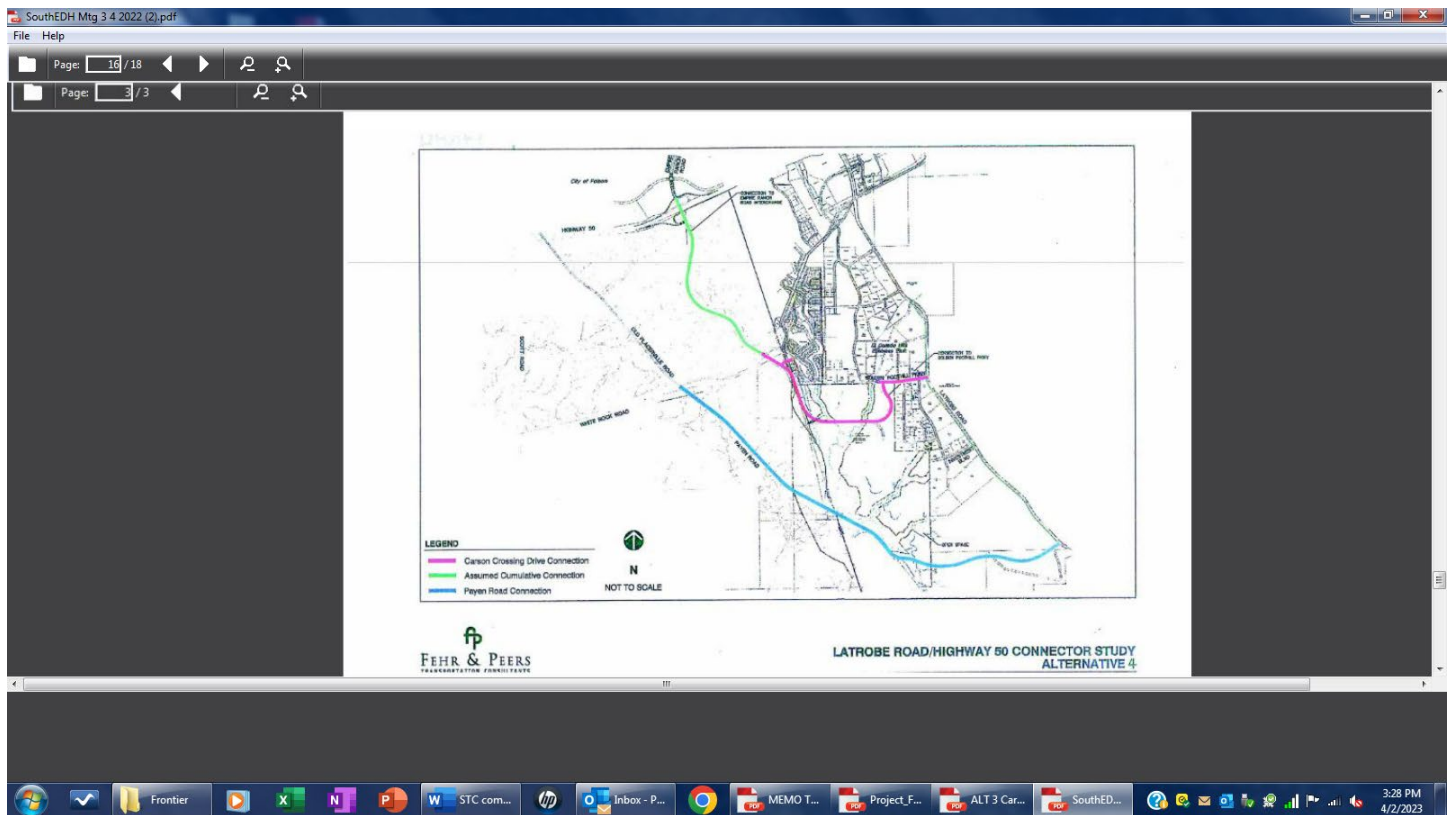
11. CLARIFICATION REQUIRED: Trip Generation Data Table 6: In the introduction in Line 2 it states “trip generation data provided by the applicant for similar client-specific sites in California.” If this is the case then the data from all of these facilities should be provided so it can be reviewed and corroborated.
12. TIAR DEFICIENCY: In the TIAR, there is no mention of an alternative or additional route in and out of the project. Why is that totally absent from the report, knowing that the sole in and out route of Hwy 50 to Latrobe will create congestion/gridlock, increase vehicle (truck emissions) pollution, decrease access to Town Center and retail areas, increase noise and air pollution in residential areas 24 hours/7 days per week. Also, applicants APAC response references \$18 million dollars in Traffic Impact Fees (TIF)? What is the basis for this fee? How much will the actual improvements and long-term cost be in order to accommodate this project? What is the applicant willing to pay forward for maintenance beyond those TIF fees? What agreements have been made or at least drafted between the applicant and DOT?
13. TIAR DEFICIENCY: Applicant largely ignores the impact of a completed White Rock/Silva Parkway expansion. As an alternate route for workers and trucks, ignoring the long-term impacts is negligent. Applicant response to APAC estimates 9 trucks will use the White Rock/Silva Parkway interchange. What is the basis of that estimate? Further, the impact on Carson Crossing, Golden Foothills, and other connecting roadways will be significantly higher than the <1% increase stated by the applicant. NOTE: Figure 4 shows the major secondary roadway. When we overlay the proximity to over 5000 residential properties, the impact is visually apparent. The applicant fails to also mention the impact of local businesses, schools. etc. See Figure 4 with annotations.



14. FACTUAL CHALLENGE: Speaking of Carson Crossing, see Figure 5 shows a loop that would move traffic onto Palmdale Road to Investment Road. The problem is that that segment is gated privately owned and maintained by the Heritage HOA. If the inclusion of this figure is the result of failure to perform due diligence, then the entire traffic study might be questioned. On the other hand, if the applicant and the county has made agreements to exercise rights that were granted as a condition for development of Heritage, those items must become transparent. This also calls into question other plans associated with Royal Oaks/Blackstone, Golden Foothills, etc. See below.



It also needs to be mentioned that EDC DOT is also investigating adding a new 2-4 roadway lane connection from White Rock/Empire Ranch Road to Carson Crossing as well as a new 2-4 roadway lane from White Rock/Placerville Road heading south on Payen Road, west of Four Seasons and Heritage and connecting to Latrobe Road at the new signal at Project Access C (south of Project Access B) which is a main exit from the center's facility. See preferred Alternative #4 (per EDC) below.



15. TIAR DEFICIENCY: The TIAR only projects for start-up numbers for the project once completed. What is the projected growth rate of the facility with respect to the number of trucks, delivery vans, passenger cars over the next 5 years or more after completion? The applicant APAC response estimates the number of passenger trips by employees is 3808. Assuming three work shifts, the need for three thousand parking spaces appears inconsistent. If the additional parking spaces exist for seasonal increases in traffic, then the applicant need to identify those peak periods and the impact they will have on traffic. It could make moving around on roads during the holiday problematic
16. TIAR DEFICIENCY: To the previous point, what are the seasonal differences in traffic patterns? What are the weather related differences? During operations of 24/7, will the facility have on site break and food service or will employees have to travel 2-3 trips from the facility since there is no local retail business near the facility for the employees?
17. TIAR DEFICIENCY: Public safety has been ignored. Car/truck incidents averages for similar roadways should be something the applicant could estimate. What about pedestrian and bicycle right of ways and accident potential? What will be the impact of the CHP, Sheriff, EDHFD in terms of response costs?
18. TIAR DEFICIENCY: Proper Zoning Classification:

Page 1-2 (PDF Page 5-6) – Report Overview:

- a. The report states under this section: “The proposed project is consistent with the General Plan and Land Use Designation (Research & Development)”
- b. Building 1 is described as a “sortable fulfillment center”
- c. Building 2 is also described a “non-sortable fulfillment center”

A fulfillment center is a part of the supply chain and serves as a hub for all logistic processes needed to get a product to the customer. In other words, a fulfillment center ships a retail product directly to a consumer that has been ordered by that consumer, paid for by the consumer and applicable sales tax charged. This action is no different than ordering groceries from Safeway and having them delivered to your house. This is a retail transaction. By contrast a warehouse stores a bulk product, either long term or short term, to hold inventory. Warehouses are static facilities with few employees and minimal movement of goods in and out on most days. Wholesale Storage and Distribution is the storage and warehousing of wholesale goods that are then shipped or “distributed” to a retail center.

The type of activity being performed by Project Frontier is neither Warehousing nor Wholesale Storage & Distribution it is region wide direct to consumer retail sales. The El Dorado County Zoning Ordinance provides for this type of use under the Commercial, Regional (CR) use designation which, “provides for large-scale retail services for a regional trade area.”

Project Frontier also falls under the Industrial – Heavy (IH) zoning as a result of the “bulk handling, storage and trucking” that is performed by fulfillment centers. Project Frontier, as described in the TIR, does not fit the description for the Research and Development (R&D) zoning which is, “intended to provide areas for location of high technology, non-polluting manufacturing plants, research and development facilities, corporate and industrial offices, and support service facilities in a rural or campus-like setting, such as a business park environment”,

*This fulfillment center is clearly not an allowed use in a Research and Development zoned area and on this basis Project Frontier alone, should be denied. NOTE: The applicant also claimed in its APAC response the category of acceptance is based on the Research and Development classification.*



## **APAC CONCLUSIONS BASED ON TIAR**

The TIAR is inconsistent with the approved General Plan and proposed improvements for the project as well as taking into account future area road improvements! For example, widening Latrobe south of White Rock down to south of Royal Oaks Dr to a 5-6 lane roadway vs 4-lane divided roadway. The TIAR also avoids the Near Term plus Project (10 years) which most other projects are required to include but DOT/Planning seems to believe that this is a minor project and does not require the more rigorous Near Term Plus Project analysis. Besides what we previously stated above, see additional statements below of:

TIAR, pg 5 states, *"The project would also **widen Latrobe Road to 5 lanes** from north of Royal Oaks Drive to south of Project Access B."*

Pg 12 states, *"Latrobe Road ... The **General Plan identifies Latrobe Road** as a six-lane divided roadway near the US 50 interchange **transitioning to a four-lane divided road**, then a two-lane major road, and eventually a two-lane regional road serving the southwest portion of the County."*

Figures 7A-C, Peak Hour Traffic Volumes and Lane Configurations – Existing Plus Project Conditions. Latrobe Road lane configurations does not align with the proposed project as mentioned on pg 5 so are the traffic numbers wrong too?

Pg 39, Table 10 – On and Off-Site Improvement Recommendations – Existing Plus Project & Figure 8A. Various Latrobe Rd improvements are proposed: eventually widening Latrobe Rd south of White Rock to south of Golden Hill Pkwy/Monte Verde Dr to **6 lanes**; Latrobe Rd from Golden Foothill Pkwy/Clubview Dr to Investment Blvd – **widen to 4 lanes**; No improvements from Investment Blvd to Royal Oaks Dr. which is **2-lanes**; and then **widen to 5 lanes** from Royal Oaks Dr to south of Project Access B; then add a New signal at Project Access C (south of Project Access B) which is a main exit from the facility with **no other improvements to the 2-lane roadway**.

As mentioned in comment #14 above, Alternative #4 –White Rock/Payen Road to Latrobe Road (**new 2-4 lanes**) as well as (**new 2-4 lanes**) White Rock Road/Empire Ranch connection to Carson Crossing, west of Four Seasons and Heritage developments is under investigation.

## **ADDITIONAL CONSIDERATION**

If and when you pursue additional federal-aid funding (and/or approval) for modifications to Highway 50 interchanges, auxiliary lanes, White Rock corridor, Latrobe/El Dorado Blvd, etc., a Federal-NEPA document along with the State-CEQA document will be required for environmental approval. You should recognize that the NEPA requirements are considered as being more restrictive than CEQA and that additional mitigation/costs may be warranted! (ie: placing rubberized asphalt pavement vs constructing a noise barrier for noise mitigation is not allowed.)