

October 11, 2017

Ms. Katherine Waugh
DUDEK
853 Lincoln Way, Suite 208
Auburn, CA 95603

RE: TRIP GENERATION REVIEW FOR THE VILLAGE AT LOOMIS PROJECT

Dear Ms. Waugh

This letter is intended to compare trip generation estimates for the current Village at Loomis proposal with four development alternatives, as noted in Table 1. This analysis has been prepared in response to questions and comments at the joint Council/ Commission workshop and the planning commission meeting last week regarding various development scenarios on the project site and the associated traffic generation estimates of these scenarios.

TABLE 1 - SITE DEVELOPMENT ALTERNATIVES

Land Use	Alternatives			
	Current Project	No Project (Existing Zoning)	2007 Project	Haase-Yamada Interpretation
Single Family Residential (units)	294	140	369	112
Multi-Family Residential (units)	124	80	89	8
Commercial Retail (SF)	44,000	190,000	44,000	316,600
Village Retail (SF)	5,000	-	45,000	-
Office (SF)	25,000	57,000	54,000	84,900
Mixed Use Commercial (SF)	-	-	3,000	12,000

Summary

Table 2 identifies the daily, a.m. and p.m. peak hour trip generation estimates for site development based on the total number of new external trips occurring in each time period. As indicated, the current project proposal generates slightly fewer trips than were identified for the site in the DEIR traffic analysis. The DEIR project and proposed project generate less trips on a daily basis than would be anticipated for the three other alternatives. The current zoning alternative generates slightly fewer trips than the DEIR project and proposed project during the a.m. peak hour. The DEIR project and current proposal generate fewer trips than the three other alternatives during the p.m. peak hour.

This comparison is also presented graphically in two attachments to this letter.

TABLE 2 - TRIP GENERATION COMPARISON

Alternative	Description	New External Trips*					
		Daily		AM Peak Hour		PM Peak Hour	
		Trips	Percent of Current Project	Trips	Percent of DEIR Project	Trips	Percent of Current Project
Current Project	294 Single-family units; 124 Multi-family units; 44,000 sf Commercial Retail; 5,000 sf Village Retail; 25,000 sf Office	5,589	100%	392	100%	554	100%
No Project (Existing Zoning)	140 Single-family units; 80 Multi-family units; 190,000 sf Retail; 57,000 sf Office	8,573	153%	364	93%	815	147%
2007 Project	369 Single-family units; 77 Multi-family units; 12 Multi-family units and 3,000 sf Mixed Use Commercial; 45,000 sf Village Retail; 44,000 sf Commercial Retail; 54,000 sf Office. This includes the 44,000 sf of Commercial Retail on the Johnson/Perkins properties and the 29 single-family residential units on the approximately eight acres along King Road that were not included in the 2007 project.	7,423	133%	510	130%	736	133%
Haase-Yamada Interpretation	112 Single-family units; 8 Multi-family units and 12,000 sf Mixed Use Commercial; 316,600 sf Commercial Retail; 84,900 sf Office	10,750	192%	438	112%	1,014	183%

(*) New External trips are gross trips minus internal capture and retail pass by trips.

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Evaluation

Trip Generation Rate Assumptions. The analysis which follows makes use of the trip generation rates contained in the DEIR traffic study for residential, office and village commercial uses. Because the trip generation rates for retail commercial are inversely proportional to the size of the retail center, the forecasts for these uses are based on the fitted curve equations contained in the Trip Generation Manual land use category (820: Shopping Center).

The share of trips that would be internal to the site has been assessed for the new alternatives based on review of the general relationship between the amount of residential and non-residential uses on the site. The most appreciable change in internal assumptions occurred for the 2007 project. Because the amount of village commercial use is greater but the number of residents is not changed greatly, the share of total village commercial trips that would be matched to on-site residential uses is lower.

Pass-by percentages are generally in inverse proportion to the size of the retail center per Figure 5.5 of the *ITE Trip Generation Handbook*. Thus, the identified p.m. and daily pass-by percentages for commercial retail uses is higher for the alternatives with small centers and lower for the alternative with larger retail centers.

Trip Generation Forecasts. The tables which are attached to this letter summarize the estimates made for each alternative.

Table 3 presents the estimates made for The Village at Loomis project as is **Currently Proposed**.

Table 4 summarizes the forecasts for site development under the **Existing Zoning** designations. This alternative assumed a less residential development than the current proposal but more retail and office space.

Table 5 presents estimates for the development proposal offered in **2007** and includes the 44,000 sf of Commercial Retail on the Johnson/Perkins properties and the 29 Single-family units on the approximately eight acres along King Road that were not included in the 2007 project.

Table 6 summarizes the general plan interpretation made by **Laura Haase-Yamada**, a citizen, that has been presented to the Town. This plan would have less residential development but a 316,600 sf retail center and 84,000 sf of office space. This alternative generates the greatest number of new external trips. Her interpretation is summarized below in Table 7.

TABLE 7 - LAURA HASSE YAMADA INTERPRETATION

Land Use	Acres	Yield
Single-Family Residential	18.6*	112 DUs, assuming 6 units/acre
General Commercial	29.07*	316,572 SF of retail commercial assuming 25% Floor Area Ratio (FAR)
Mixed Use	0.72	12,000 SF of retail commercial; 8 multi-family units (same as assumed in project traffic analysis)
Office Commercial	7.8	84,942 SF of office space assuming 25% FAR
* These are the acreages that remain after 5 acres have been deducted from each for floodplain per her note that 10 acres are non-buildable floodplain		

Please feel free to call me if you have any questions.

Sincerely Yours,

KD Anderson & Associates, Inc.



Kenneth D. Anderson, P.E.
President

cc: Brit Snipes, P.E., Town Engineer

Attachments Tables 3 thru 6, graphic comparisons

TABLE 3 – CURRENT PROJECT TRIP GENERATION FORECASTS

ITE Code	Description	Quantity	Trip per Unit						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
210	Medium and Medium-High Density Residential	294 du	2,799	55	166	221	185	109	294
220	Multi-Family Residential	124 du	831	13	51	64	50	28	78
820	Commercial-Retail (<45 ksf)	44,000 sf	3,982	58	36	94	166	180	346
826	Commercial - Village	5,000 sf	222	6	4	10	9	12	21
710	Commercial - Office	25,000 sf	276	34	5	39	6	31	37
	Total		8,110	166	262	428	416	360	776
	Less Internal Trips 5% of Office and 5% Commercial Retail matched		-426	-7	-6	-13	-19	-19	-38
	Less Internal 50% of Commercial – Village		-222	-6	-4	-10	-9	-12	-21
	External Trips		7,462	153	252	405	388	329	717
	Less Commercial Retail Pass-by Trips	15% a.m. / 49% p.m.	-1,854	-8	-5	-13	-77	-84	-161
	Less Commercial Village Retail Pass-By Trips	15%	-17	-0	-0	-0	-1	-1	-2
	Revised Net New Trips		5,589	145	247	392	310	244	554
	DEIR Project Net New Trips		5,635	147	248	395	311	248	559
	Share of net new trips - MDR/ MHDR		2,550 (46%)				271 (49%)		
	Share of net new trips – Multi Family		757(14%)				72 (13%)		
	Share of net new trips – Comm Retail		1,929 (34%)				168 (30%)		
	Share of net new trips – Comm Village		94 (2%)				9 (2%)		
	Share of net new trips - Comm Office		259 (4%)				35 (6%)		

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TABLE 4 – EXISTING ZONING DESIGNATIONS TRIP GENERATION FORECASTS

ITE Code	Description	Quantity	Trip per Unit						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
210	Single Family Residential	140 du	1,332	26	79	105	88	52	140
220	Multi-Family Residential	80 du	532	8	33	41	31	19	50
820	Commercial-Retail (<190 ksf)	190,000 sf	10,307	143	88	231	442	479	921
710	Commercial – Office	57,000 sf	629	78	11	89	14	71	85
	Total		12,800	255	211	466	575	621	1,196
	Less Internal Trips 5% of Office and 5% Commercial Retail matched to residential		-1,094	-16	-16	-32	-51	-50	-101
	External Trips		11,706	239	195	434	524	571	1,095
	Less Commercial Retail Pass-by Trips	15% a.m. / 32% p.m.	-3,133	-43	-27	-13	-134	-146	-280
	Net New Trips		8,573	196	168	364	390	425	815

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TABLE 5 - 2007 PROJECT TRIP GENERATION FORECASTS

ITE Code	Description	Quantity	Trip per Unit						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
210	Single Family Residential	381 du	3,627	71	215	286	240	141	381
220	Multi-Family Residential	77 du	512	8	31	39	31	17	48
820	Commercial-Retail (<45 ksf)	44,000 sf	3,982	58	36	94	166	180	346
826	Commercial - Village	48,000 sf	2,127	57	34	91	88	113	201
710	Commercial - Office	54,000 sf	596	74	10	84	13	66	79
	Total		10,844	268	326	594	538	517	1,055
	Less Internal Trips 5% of Office and 5% Commercial Retail matched to residential		-458	-9	-9	-18	-22	-21	-43
	Less Internal 25% of Commercial - Village		-1,064	-23	-23	-46	-50	-50	-100
	External Trips		9,322	236	294	530	466	446	912
	Less Commercial Retail Pass-by Trips	15% a.m. / 49% p.m.	-1,854	-8	-5	-13	-77	-84	-161
	Less Commercial Village Retail Pass-By Trips	15%	-45	-4	-3	-7	-7	-8	-15
	Net New Trips		7,423	224	286	510	372	354	736

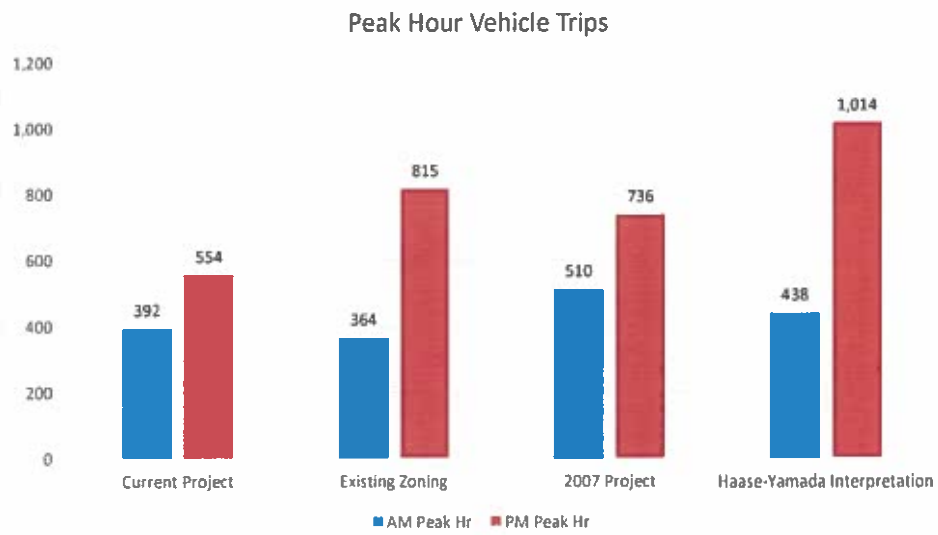
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TABLE 6 – IIAASE-YAMADA INTERPRETATION TRIP GENERATION FORECASTS

ITE Code	Description	Quantity	Trip per Unit						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
210	Single Family Residential	112 du	1,066	21	63	84	71	41	112
220	Multi-Family Residential	8 du	53	1	3	4	3	2	5
820	Commercial-Retail (<320 ksf)	316,600 sf	14,364	195	120	315	622	675	1,297
826	Mixed Use Commercial	12,000 sf	532	14	9	23	22	28	50
710	Commercial - Office	84,900 sf	936	117	15	132	22	105	127
	Total		16,951	348	210	558	740	851	1,591
	Less Internal Trips 5% of Office and 5% Commercial Retail matched to residential		-1,530	-23	-22	-45	-71	-71	-142
	Less Internal 50% of Commercial - Village		-532	-12	-11	-23	-25	-25	-50
	External Trips		14,889	313	177	490	644	755	1,399
	Less Commercial Retail Pass-by Trips	15% a.m. / 30% p.m.	-4,094	-28	-17	-45	-177	-193	-370
	Less Commercial Village Retail Pass-By Trips	15%	-45	-4	-3	-7	-7	-8	-15
	Net New Trips		10,750	281	157	438	460	554	1,014

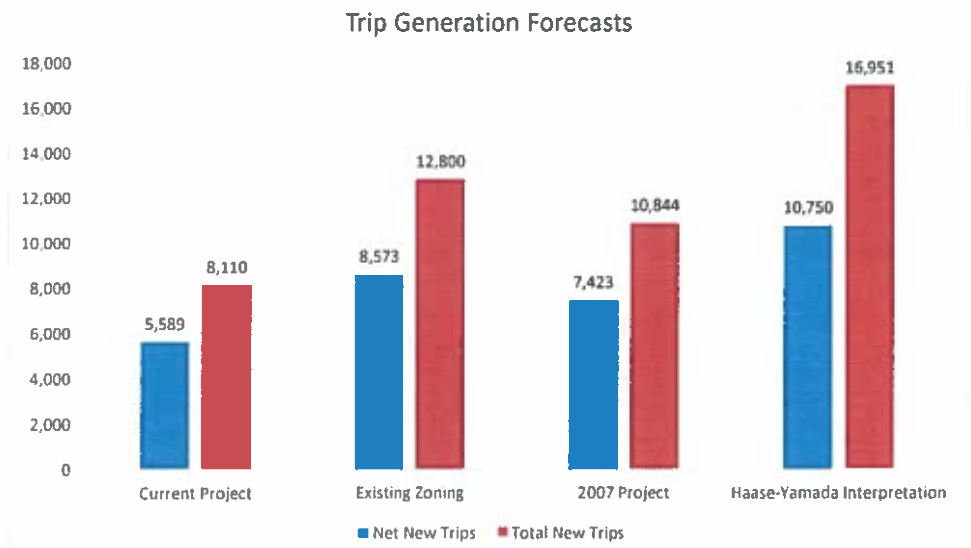
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COMPARISON OF AM AND PM PEAK HOUR TRIP GENERATION FORECASTS



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COMPARISON OF TOTAL DAILY TRIP GENERATION FORECASTS



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