Attachment A

- Supplemental VMT Analysis

March 4, 2024

Mr. Peter Carlson
CARLSON STRATEGIC LAND SOLUTIONS
27134A Paseo Espada, Suite 323
San Juan Capistrano, CA 92675

Subject: 901 E. Katella Avenue Residential Project (TTM 19253) Supplemental Vehicle Miles Traveled (VMT) Analysis, City of Orange

Dear Mr. Carlson

A. Introduction

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this supplemental Vehicle Miles Traveled (VMT) Analysis for the proposed 901 E. Katella Avenue In-Fill Residential Project (TTM 19253).

RK previously completed the *901 E. Katella Avenue In-Fill Project (TTM 19253) Vehicle Miles Traveled (VMT) Analysis, City of Orange, CA, October 14, 2022* (2022 VMT Analysis). The 2022 VMT Analysis utilized the North Orange County Collaborative VMT Traffic Study Screening Tool (NOCC+) to estimate project VMT, and the results showed that the project would have a less than significant impact. A copy of the NOCC+ printout from the 2022 VMT Analysis is provided in Appendix A for reference.

In response to comments on the Draft IS/MND, the City of Orange has requested a supplemental VMT modeling analysis to confirm the findings of the 2022 VMT Analysis.

This supplemental VMT analysis utilizes the latest version of the Orange County Transportation Analysis Model (OCTAM) and provides full "with project" model runs to evaluate the project's impact on VMT.

Project impacts are evaluated based on the thresholds of significance established in the *City of Orange Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment, July 2020* (VMT Guidelines).

B. Project Description

The project site is located at 901 E. Katella Avenue in the City of Orange. The proposed project consists of razing an approximately 20,621 square feet (SF) existing vacant AT&T call center and constructing fifty-two (52) paired and detached townhomes.[1]

Exhibit A shows the location map of the proposed project. Exhibit B shows the project site plan.

C. VMT Impact Thresholds

The City of Orange VMT Guidelines state that a project would result in a significant project-generated VMT impact if either of the following conditions are satisfied.

1. The baseline project-generated VMT per service population exceeds the City of Orange General Plan Buildout VMT per service population, or

2. The cumulative project-generated VMT per service population exceeds the City of Orange General Plan Buildout VMT per service population.

To establish the City of Orange General Plan Buildout VMT per service population, a linear interpolation of the citywide VMT per service population under the Base Model Years 2016 and 2045 Scenarios was performed. Table 1 shows the OCTAM modeling results used to calculate the City of Orange General Plan Buildout VMT Per Service Population threshold of significance.

Table 1
City of Orange VMT Threshold Criteria

Agency	Base Model Year	Total VMT	Total Service Population	Total VMT per Service Population
City of Orange	2016	8,833,649	314,028	28.1
	2045	9,651,889	339,760	28.4
	2030[1]	9,228,662	326,450	28.3
City of Orange General Plan Buildout (Year 2030) VMT per Service Population (Threshold of Significance)				**28.3**

[1] Linear interpolation was used to determine the City of Orange General Plan Build-Out Year 2030 VMT/service population.

[1] The purpose of this study is to confirm the findings of the 2022 VMT Analysis. Therefore, this study evaluates project impacts based on the project description used in the 2022 VMT analysis which included 52 dwelling units. Since the time of the 2022 study, the unit count has decreased to 49 dwelling units. The reduction in dwelling units is not expected to significantly affect the findings of this analysis.

As shown in Table 1, the City of Orange VMT threshold of significance is calculated to be 28.3 total VMT per service population. As such, a project would result in a significant VMT impact if its project-generated VMT exceeds 28.3 total VMT/service population.

Additionally, the project's effect on VMT would be considered significant if it results in either of the following conditions to be satisfied:

1. The baseline link-level boundary Citywide VMT per service population increases under the plus project condition compared to the no project condition, or

2. The cumulative link-level boundary Citywide VMT per service population increases under the plus project condition compared to the no project condition.

D. OCTAM SED Modifications

Consistent with the City of Orange VMT Guidelines, the OCTAM has been utilized to conduct full model runs with modified socio-economic data to reflect "No-Project" and "With Project" conditions.

OCTAM provides a Model Year 2016 and Model Year 2045 scenario. The proposed project is located within Traffic Analysis Zone (TAZ) 453. Exhibit C illustrates the project TAZ within OCTAM.

To determine the socio-economic data for the "No-Project" Scenarios, an employment conversion factor of 3.5 employees per thousand square feet, which is the typical employment conversion factor for office land uses per the *Orange County Subarea Modeling Guidelines Manual*, dated October 2020, was applied to the vacant AT&T call center description (i.e., approximately 20,621 square feet (SF)) and removed from the Base Model SED.

To determine the socio-economic data for the "With Project" Scenarios, a population factor of 3.08 residents per households, which is the citywide average number of residents per households, was applied to the Project description; similarly, an employed population factor of 1.62 employed residents per household, which is the citywide average number of employed residents per household, was applied to the Project description. No additional modifications were made to the employment-related SED beyond the No-Project Conditions.

The OCTAM SED for the City of Orange, and the population and employment factors are provided in Appendix B.

Table 2 shows all the SED modifications applied to TAZ 453.

Table 2
OCTAM SED Modifications for TAZ 453

Socio-Economic Data Category	Project Only[1,2]	Year 2016			Year 2045		
		Base Model	No-Project[3]	With Project	Base Model	No-Project[3]	With Project
Total Population	160	613	613	773	622	622	782
Household Population	160	613	613	773	622	622	782
Employment Population	84	248	248	332	254	254	338
Total Households	52	283	283	335	284	284	336
Retail Employment	0	241	241	241	250	250	250
Service Employment	-72	447	375	375	465	393	393
Basic Employment	0	416	416	416	417	417	417

[1] The population growth for the total population and household population was estimated by multiplying the citywide average number of residents per households from the 2016 OCTAM socio-economic data (SED) (i.e. 3.08 residents per households) to the project description. Similarly, the population growth for the employment population was estimated by multiplying the citywide average number of employment population per households from the 2016 OCTAM SED (i.e. 1.62 employed residents per household) to the project description. The 2016 SED was utilized to calculate the average rates because it resulted in a more intensive rate than the 2045 SED.
[2] The employment growth for the service employment was estimated by multiplying the 20.621 thousand square feet of the existing call center and a conversion rate of 3.5 employees per thousand square feet (TSF) for office land uses per the Typical Employment Conversion Factors Table from the *Orange County Subarea Modeling Guidelines Manual*, dated October 2020,
[3] Service employment is reduced in the "No-Project" Conditions to account for the vacant AT&T call center.

As shown in Table 2, service employment is first reduced by 72 employees in the "No-Project" Conditions to account for the vacant AT&T center. As also shown in Table 2, the Project would result in an increase in 160 residents and no additional workers for an increased total Project service population of 160 people.

E. OCTAM VMT Assessment

(OCTAM) has been utilized to conduct full model runs for the following scenarios:

- Year 2016 No-Project;
- Year 2016 With Project;
- Year 2045 No-Project; and
- Year 2045 With Project.

To determine project-generated VMT per service population, the difference in total VMT between the With Project and No Project scenarios was calculated in each model year and was divided the total service population generated by the project (i.e., 160 people).

Table 3 summarizes the OCTAM VMT per service population calculations for TAZ 453 under the Year 2016 and Year 2045 scenarios.

Table 3
OCTAM VMT Assessment
Total VMT per Service Population Calculations Summary

Project TAZ	Metric	Year 2016				Year 2045			
		Base Model	No-Project	With Project	Project Generated VMT	Base Model	No-Project	With Project	Project Generated VMT
453	Total VMT	67,869	64,593	67,055	2,462	69,927	65,683	68,112	2,429
	Total Service Population	1,717	1,645	1,805	160	1,754	1,682	1,842	160
	Total VMT Per Service Population	**39.5**	**39.3**	**37.2**	**15.4**	**39.9**	**39.1**	**37.0**	**15.2**

F. Project-Generated VMT Criteria Assessment

A project would result in a significant project-generated VMT impact if the baseline or cumulative project-generated VMT per service population exceeds the City of Orange General Plan Buildout VMT per service population (i.e. 28.3 total VMT per service population).

Table 4 summarizes the findings of the Project-Generated VMT Impact Analysis.

Table 4
OCTAM VMT Assessment
Project-Generated VMT Impact Criteria

Project TAZ	Year	Project-Generated VMT		
		Total VMT	Total Service Population	Total VMT per Service Population
453	2016	2,462	160	15.4
	2045	2,429	160	15.2
			City of Orange VMT Threshold	**28.3**
			Significant Impacts?	**No**

As shown in Table 4 above, the total VMT per service population under the Year 2016 With Project, and Year 2045 With Project scenarios does not exceed the 28.3 total VMT per service population threshold.

As such, the proposed project would have a less than significant project-generated VMT impact under CEQA.

G. Supplementary Comparison of NOCC+ and OCTAM Project VMT

To provide a comprehensive assessment, RK has calculated the Project VMT per service population for TAZ 453 using the same methodology as the NOCC+ but with the parameters from the latest OCTAM model runs. The NOCC+ calculates Project VMT per Service Population by multiplying daily trips by average trip length and dividing by the service population.

The OCTAM daily trips were determined by calculating the difference in daily flows in TAZ 453 from each model year's With Project and No-Project Scenarios and selecting the maximum net daily trips of the two (2) model years. The average trip length was obtained from the OCTAM Dashboard VMT Tool. The service population of 160 was calculated based on the citywide average number of residents per household from the latest version of OCTAM.

Table 5 summarizes the NOCC+ and OCTAM parameters and compares the Project VMT Per service population utilizing the NOCC+ methodology for each set of parameters.

Table 5
Comparison of NOCC+ & OCTAM Project VMT per Service Population

TAZ 453		
Metric	**NOCC+**	**OCTAM[1]**
Daily Trips	335	342
Average Trip Length	7.2	7.2
Service Population	156	160
Project VMT Per Service Population	**15.4**	**15.4**

[1] For comparison purposes only, the OCTAM Project VMT Per Service Population identified in this table is calculated using the same methodology of the NOCC+ with OCTAM parameters.

As shown in Table 5, the Project VMT per Service Population utilizing the NOCC+ methodology with OCTAM parameters was calculated to be 15.4 VMT per service population, which does not exceed the 28.3 total VMT per service population threshold.

H. Project-Effect on VMT Criteria Assessment

The project's effect on VMT at the citywide level is also analyzed to determine if the baseline or cumulative project-generated VMT per service population increases under the plus project condition compared to the no project condition.

OCTAM Networks plots illustrating the roadway network links within City of Orange for the Year 2016 and Year 2045 analysis scenarios are provided in Appendix C.

Table 6 summarizes the findings of the project's effect on VMT for the Year 2016 and Year 2045 Scenarios for the City of Orange.

Table 6
OCTAM VMT Assessment
Project Effect on VMT Criteria

Agency	Metric	Year 2016		Year 2045	
		No-Project	With Project	No-Project	With Project
City of Orange	Total Boundary Link-Level Citywide VMT	3,345,200	3,346,072	3,740,443	3,740,944
	Total Service Population	313,956	314,116	339,688	339,848
	Total VMT Per Service Population	**10.655**	**10.652**	**11.011**	**11.008**
Percent (%) Change in Link-Level Boundary Citywide Total VMT per Service Population		**-0.025%**		**-0.034%**	
Significant Effect?		**No**		**No**	

As shown in Table 6, the inclusion of the Project is not forecasted to increase baseline nor cumulative link-level boundary citywide VMT per service population under the "With Project" Conditions compared to the "No-Project" Conditions.

The project is not expected to increase citywide VMT per service population and therefore the proposed project would have a less than significant effect on VMT under CEQA.

I. Conclusion

RK Engineering Group, Inc. has completed this supplemental Vehicle Miles Traveled (VMT) Analysis for the proposed 901 E. Katella Avenue In-Fill Residential Project (TTM 19253).

The project-generated VMT per service population under the baseline and cumulative scenarios do not exceed the City of Orange General Plan Build Out Baseline VMT per service population threshold.

Additionally, the project effect on the baseline and cumulative link-level boundary Citywide VMT per service population are not expected to increase under the plus project condition compared to the no project condition.

As such, the project's impact on VMT and the project's effect on VMT are less than significant and no mitigation measures are required.

The results of this supplemental analysis confirm the findings from the 2022 VMT Analysis, and therefore there are no changes to the conclusions presented in the IS/MND.

RK Engineering Group, Inc. appreciates this opportunity to work with the CARLSON STRATEGIC LAND SOLUTIONS on this project. If you have any questions regarding this study, please do not hesitate to contact us at (949) 474-0809.

Sincerely,
RK ENGINEERING GROUP, INC.

Justin Tucker, P.E., T.E.
Associate Principal

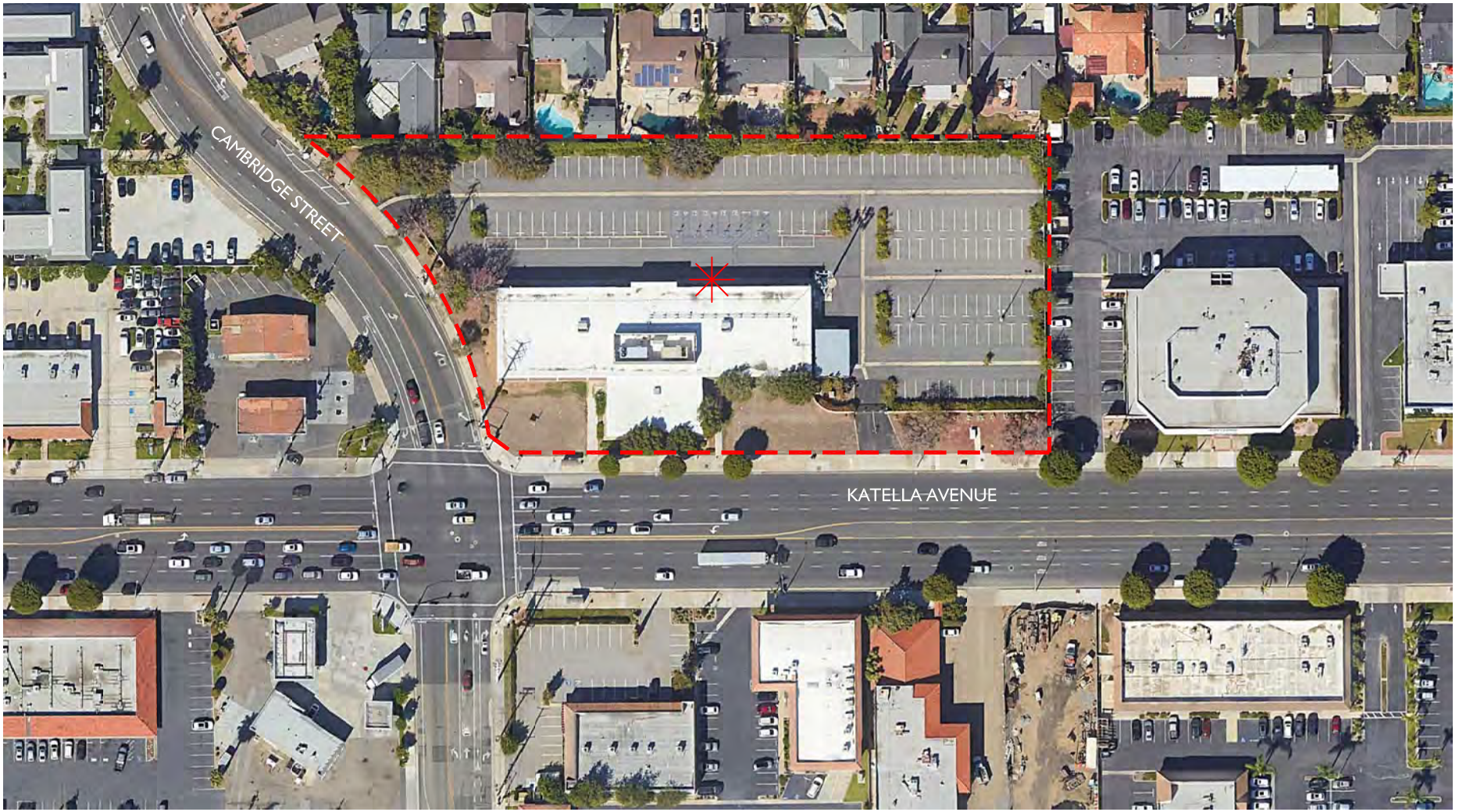
Nhi Ly, E.I.T.
Engineer II

Attachments:

Exhibits

Exhibit A

Location Map



Legend:

= Project Site Boundary

= Project Site

N

Exhibit B

Site Plan

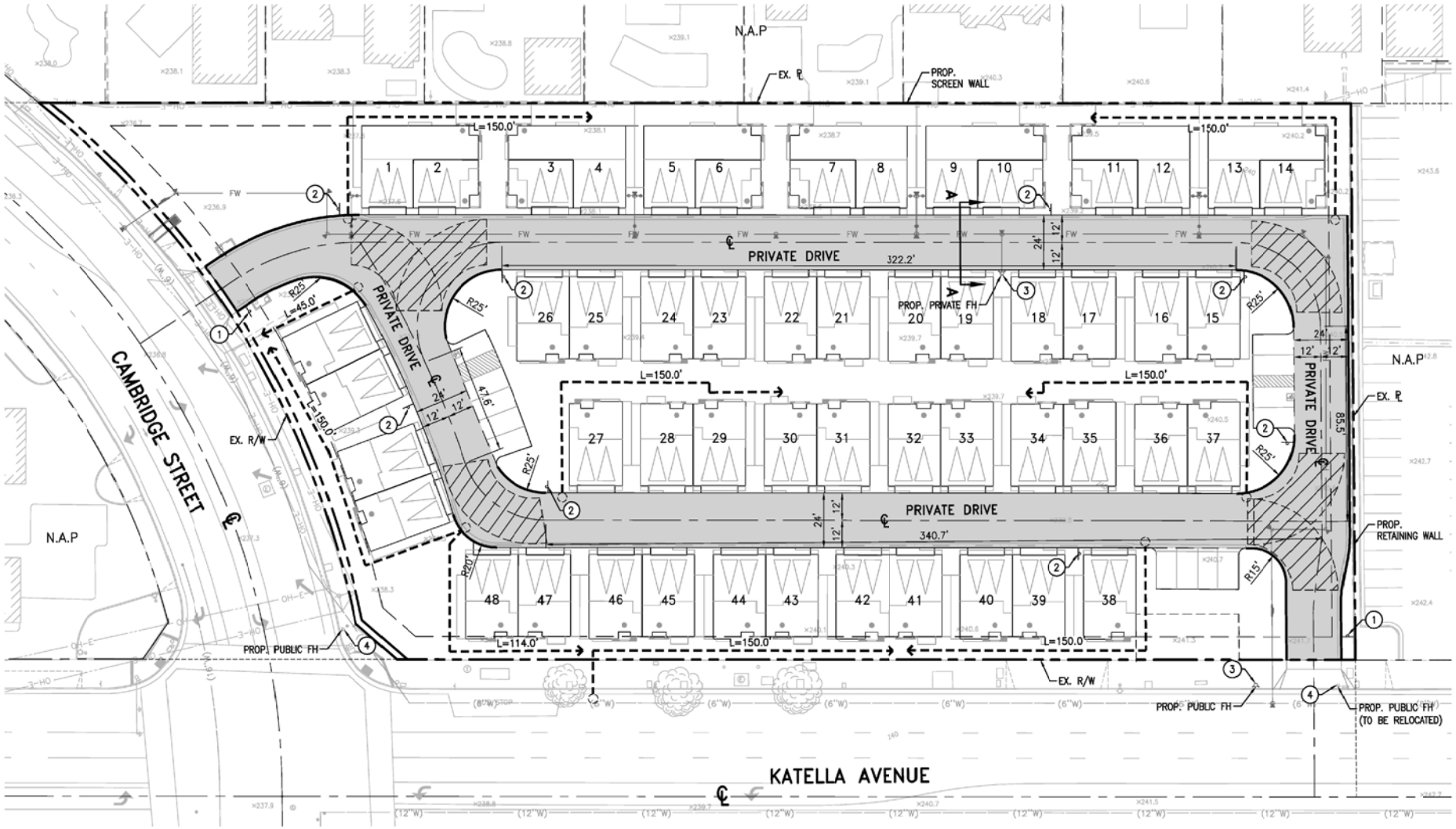
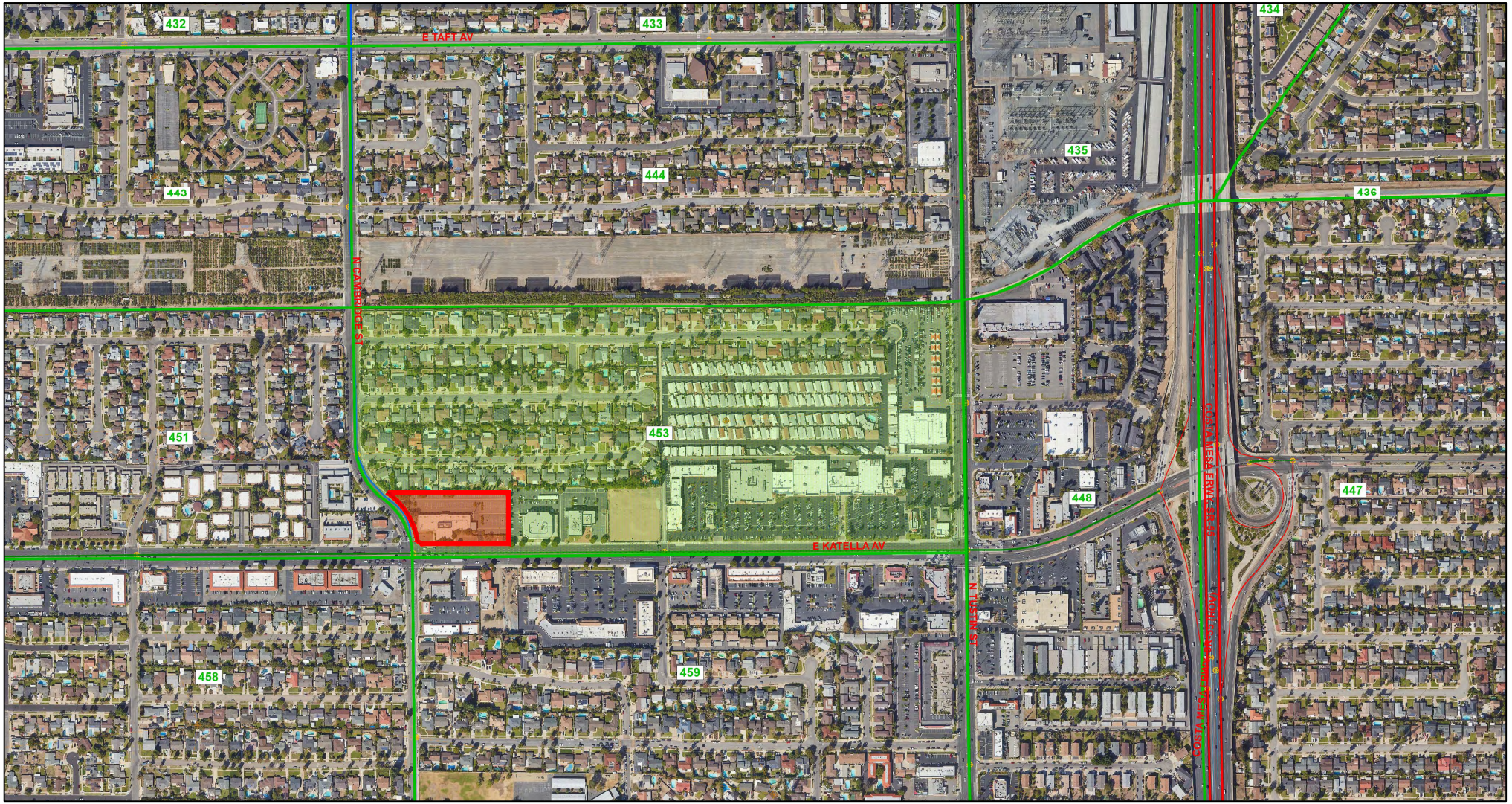


Exhibit C

OCTAM TAZ 453



Legend:

= Project Site

= TAZ 453

N

RK engineering group, inc.

Appendices

Appendix A

NOCC+ Screening Tool Worksheet

NOCC+

North Orange County Collaborative VMT Traffic Study Screening Tool

Project Information

Project Name	Opening Year
901 E. Katella Avenue In-Fill Residential Project	2024

Parcel Number (OCTAM TAZ#453)
375-461-41

Screening Criteria for Orange

Is the project location in a Transit Priority Area?	No
Is the project location in a low VMT generating zone?	No
Is the Project one of these land use types? (show land use types)	No
Does the project generate fewer than 110 daily trips? (enter project land use in the section below)	No

The Project does not meet screening criteria. Please Continue

Project Land Use Information

		Unit
Residential : Single Family Homes	52	Dwelling Units
Residential : MultiFamily Homes	0	Dwelling Units
Office	0.000	1,000 Sqaure Feet
Retail	0.000	1,000 Sqaure Feet
Industrial	0.000	1,000 Sqaure Feet
Private School	0	Students
University	0	Students
Entertainment	0.000	1,000 Sqaure Feet
Hotel	0	Rooms

Project Trips and VMT Information

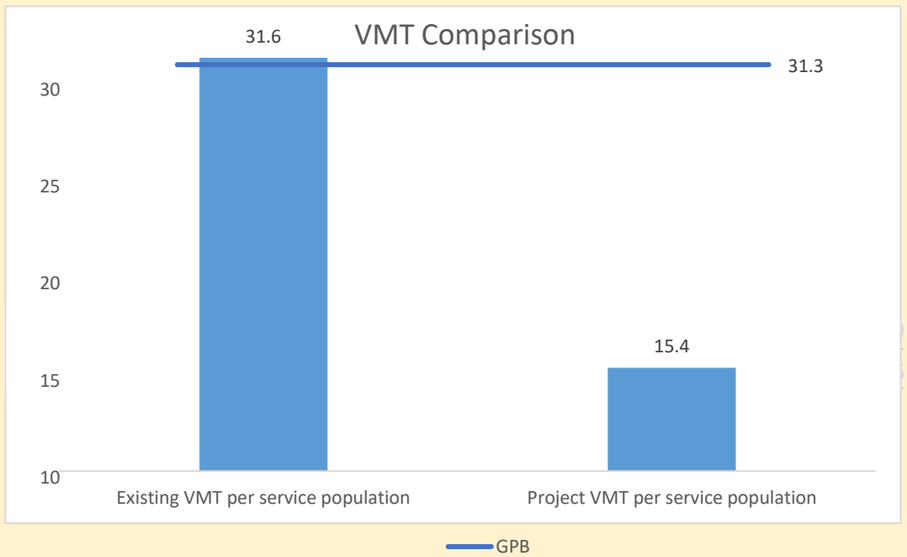
VMT Methodology: Origin Destination (OD)

Daily Trips: 335 Average Trip Length: 7.2 Service Population: 156

VMT per service population 15.4

Project VMT Thresholds Comparison

- ☐ OPR Guidance (15% Below Existing)
- ☐ GHG Reduction Targets (14.3% Below Existing)
- ☐ Below Existing
- ☑ Better than General Plan Buildout



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Appendix B

OCTAM Socio-Economic Data for City of Orange TAZs,
Population Factors Calculations, and Typical Employment Factors

OCTAM Socio-Economic Data
City of Orange

City of Orange TAZs	Model Year 2016							Model Year 2045						
	TOT_POP	HH_POP	EMP_POP	TOT_HH	RET_EMP	SVC_EMP	BAS_EMP	TOT_POP	HH_POP	EMP_POP	TOT_HH	RET_EMP	SVC_EMP	BAS_EMP
412	2,765	2,759	1,413	833	18	105	85	2,804	2,798	1,450	840	18	111	87
413	2,212	2,193	1,245	762	19	147	204	2,243	2,224	1,278	764	20	150	205
414	2,210	2,210	1,212	776	0	86	708	2,376	2,376	1,319	817	5	96	724
415	1,275	1,275	647	447	3	429	212	1,317	1,317	674	458	3	448	221
416	2,058	2,058	1,101	702	5	109	84	2,091	2,091	1,132	707	5	109	89
417	1,063	1,063	556	328	4	25	114	1,076	1,076	570	329	4	25	119
418	2,064	2,042	850	689	30	342	420	2,192	2,170	915	730	36	365	427
419	2,007	2,007	1,006	665	110	609	329	2,042	2,042	1,038	672	115	630	332
420	2,720	2,678	1,510	901	35	274	193	2,756	2,714	1,551	906	36	284	195
421	591	591	401	205	97	538	2,530	599	599	412	205	100	581	2,617
422	1,466	1,466	768	543	4	170	118	1,486	1,486	789	547	4	180	118
423	1,961	1,961	983	580	4	173	1,322	1,987	1,987	1,006	578	4	173	1,328
424	878	878	509	296	0	77	52	889	889	521	297	0	82	59
425	1,088	1,088	542	292	329	385	129	1,103	1,103	555	295	330	388	130
427	1,560	1,548	626	495	0	205	115	1,582	1,570	642	497	0	210	115
428	121	121	48	26	874	576	164	122	122	41	26	956	610	164
429	160	157	110	46	319	2,467	7,390	163	160	113	46	322	2,559	7,406
432	1,715	1,669	844	538	0	170	128	1,800	1,754	897	566	1	170	133
433	1,658	1,632	842	558	242	516	190	1,681	1,655	865	562	249	536	196
434	738	738	362	201	0	28	37	749	749	371	202	0	31	38
435	2,041	2,041	1,000	316	263	150	243	2,070	2,070	1,027	320	271	156	247
436	1,036	1,036	507	331	3	37	50	1,051	1,051	521	332	3	37	54
437	1,710	1,708	802	571	0	70	241	1,780	1,778	844	589	0	70	248
438	516	516	261	182	8	18	321	953	953	487	306	9	18	322
441	16	16	10	10	128	1,396	2,741	241	241	149	103	173	1,593	2,848
442	3	3	1	2	255	1,775	1,846	3	3	1	2	322	2,005	1,990
443	570	555	319	188	29	53	106	579	564	328	190	38	73	113
444	612	601	247	199	0	35	52	620	609	253	199	18	70	58
445	204	204	102	60	0	6	15	203	203	103	59	0	18	15
447	3,614	3,573	1,698	1,109	0	305	295	3,664	3,623	1,744	1,109	6	346	311
448	3,123	3,123	1,280	747	197	316	255	3,167	3,167	1,315	756	201	322	255
449	1,518	1,513	636	503	3	144	110	1,547	1,542	657	510	3	155	117
451	1,527	1,527	856	402	52	237	87	1,548	1,548	879	405	62	243	87
452	857	845	388	251	6	73	45	868	856	398	251	10	73	48
453	**613**	**613**	**248**	**283**	**241**	**447**	**416**	**622**	**622**	**254**	**284**	**250**	**465**	**417**
454	1,093	1,080	559	366	0	88	145	1,108	1,095	575	368	0	101	156
456	98	98	66	57	387	2,573	5,561	99	99	68	57	411	2,775	5,736
457	1,998	1,998	640	458	208	459	1,313	2,784	2,784	901	589	209	462	1,307
458	1,699	1,690	922	531	36	357	134	1,722	1,713	945	533	57	379	140
459	1,725	1,725	965	508	211	943	433	1,749	1,749	991	510	240	1,021	442
460	1,602	1,458	666	419	12	67	295	1,746	1,597	736	456	21	111	309
461	2	0	1	0	23	1,231	2,432	2	0	1	0	23	1,287	2,496
462	1,017	1,017	383	356	0	355	59	1,031	1,031	394	354	0	362	61
463	1,899	1,877	813	459	117	742	1,993	2,042	2,020	885	485	128	800	2,070
464	3,314	1,510	932	531	0	120	185	3,384	1,531	964	535	0	120	187
465	1,677	1,651	822	592	53	519	256	1,703	1,677	847	595	67	537	262
466	1,636	1,636	637	404	74	260	78	1,659	1,659	653	407	53	255	121
467	5,299	5,299	2,475	1,602	0	101	238	5,372	5,372	2,543	1,611	0	135	250
468	1,255	1,255	784	499	0	56	100	1,273	1,273	807	502	0	61	103
469	466	459	283	120	25	215	1,653	472	465	290	121	25	267	1,727
470	0	0	0	0	0	21	0	0	0	0	0	26	33	0
471	7,502	7,447	3,488	1,681	69	556	509	7,666	7,611	3,606	1,700	82	576	536
472	2,485	2,482	1,601	1,000	0	91	136	2,519	2,516	1,643	1,009	0	100	140
473	2,283	2,283	1,273	847	926	3,941	3,302	4,608	4,608	2,688	2,161	1,018	4,164	3,329
474	4,225	4,225	2,560	1,829	111	1,358	7,054	8,794	8,794	5,499	3,762	1,082	1,985	7,078
475	3,177	3,173	1,523	809	151	1,148	594	3,221	3,217	1,563	814	170	1,290	627
476	1,394	1,387	555	402	17	98	28	1,413	1,406	570	402	22	118	29
477	2,606	2,539	1,400	933	41	595	185	2,680	2,613	1,458	957	78	686	211
478	2,474	2,474	1,097	933	8	401	246	2,536	2,536	1,139	948	11	407	247
479	1,591	1,578	890	668	24	2,426	413	1,612	1,599	913	674	50	2,854	456
480	1,300	1,295	742	481	81	444	219	1,318	1,313	762	482	93	498	227
481	1,380	1,376	790	448	31	193	114	1,399	1,395	809	453	34	197	116
482	2,541	2,501	1,243	681	122	1,251	937	2,658	2,618	1,322	714	135	1,397	949
483	2,196	2,196	1,507	918	368	317	297	2,227	2,227	1,547	925	391	345	312
484	3,325	0	2,005	0	0	8,501	689	3,348	0	2,042	0	5	8,592	997
485	4,764	4,596	2,299	1,499	288	2,051	2,276	4,836	4,663	2,367	1,515	310	2,390	2,350
486	5,638	5,598	3,219	2,245	181	1,337	2,094	5,716	5,676	3,306	2,266	196	1,441	2,211
487	2,990	2,822	1,859	1,100	102	7,003	616	3,035	2,862	1,911	1,111	140	8,140	668
488	3,758	3,703	1,918	1,199	230	561	491	3,809	3,754	1,968	1,210	258	661	531
489	2,190	2,173	1,206	634	185	523	357	2,220	2,203	1,238	634	205	609	381
490	2,238	2,203	1,039	584	74	519	306	2,269	2,234	1,066	586	96	575	329
491	1,617	1,617	898	494	0	90	136	1,639	1,639	922	494	0	119	150
493	1,017	998	500	333	0	145	165	1,050	1,031	523	341	0	160	174
494	1,534	1,534	889	575	4	207	77	1,556	1,556	911	581	4	239	86
495	310	309	149	177	0	18	15	315	314	153	180	0	23	18
497	2,038	2,016	973	649	3	157	132	2,066	2,044	999	651	3	170	146
499	2,144	2,144	821	772	8	257	326	2,174	2,174	856	787	11	331	344
701	833	833	512	464	73	2,674	2,760	2,724	2,724	1,692	1,806	112	2,980	3,087
825	0	0	0	0	0	0	0	352	352	150	105	0	0	0

OCTAM Socio-Economic Data
City of Orange

City of Orange TAZs	Model Year 2016							Model Year 2045						
	TOT_POP	HH_POP	EMP_POP	TOT_HH	RET_EMP	SVC_EMP	BAS_EMP	TOT_POP	HH_POP	EMP_POP	TOT_HH	RET_EMP	SVC_EMP	BAS_EMP
826	0	0	0	0	0	0	0	2,260	2,260	960	737	0	0	1
828	0	0	0	0	0	0	0	1,148	1,148	256	341	0	0	38
Total	**142,600**	**136,263**	**71,834**	**44,294**	**7,521**	**57,462**	**60,696**	**159,288**	**152,864**	**81,538**	**50,928**	**9,340**	**63,135**	**62,968**
Citywide Average HH_POP/HH	**3.08**							**3.00**						
Citywide Average EMP_POP/HH	**1.62**							**1.60**						

RK17692.1
JN: 2827-2022-07

RK engineering group, inc.

TYPICAL EMPLOYMENT CONVERSION FACTORS
(June 2001)

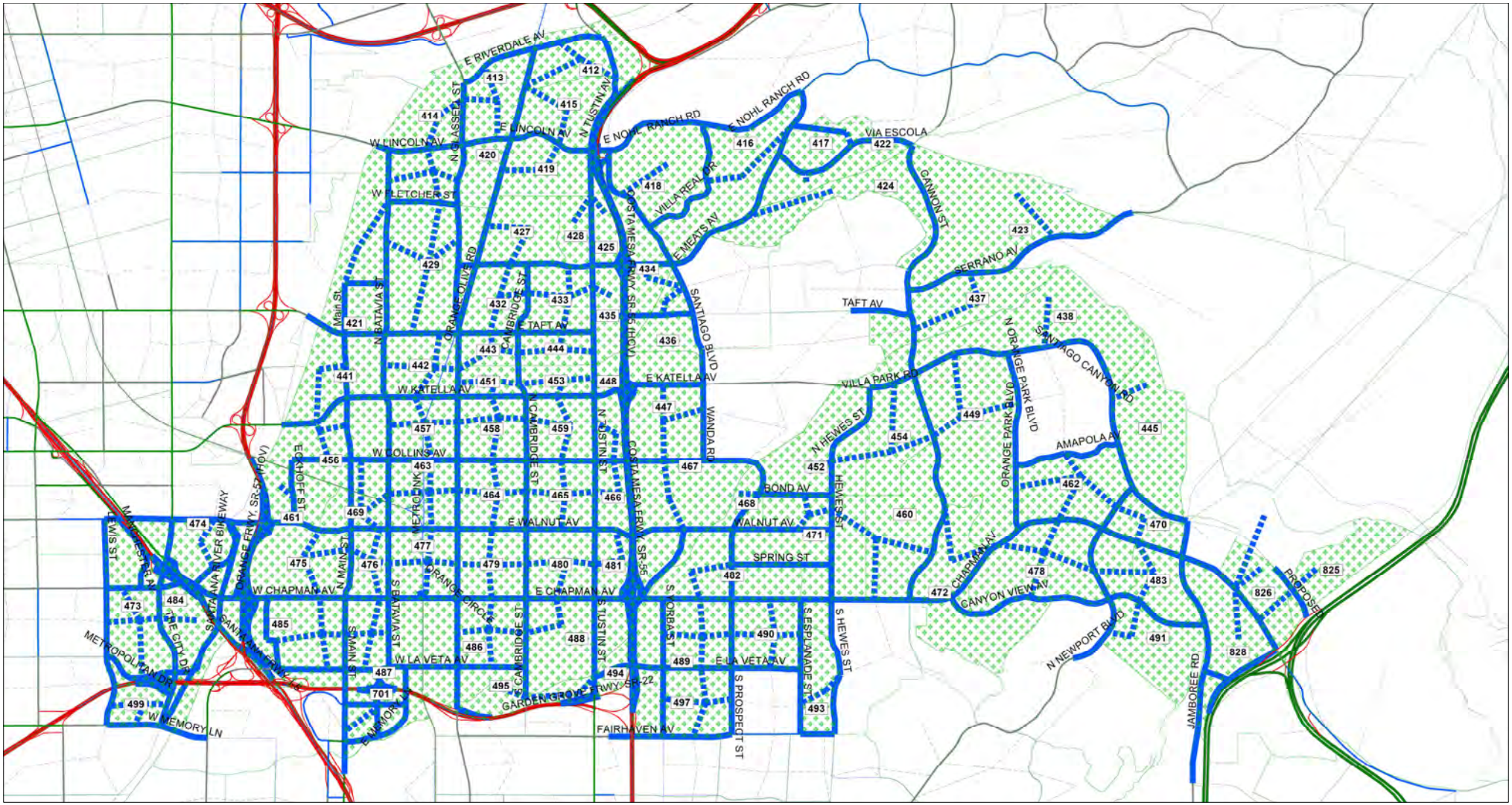
Land Use Category	Conversion Rates Range	Employment Type (Percentage Ranges)		
		Retail	Service	Other
Commercial	2.25 –2.75 employees/TSF[1]	60% - 90%	10% - 40%	0% – 5%
Office/Office Park	3.00 – 4.00 employees/TSF	0% – 5%	20% – 30%	65% - 80%
R&D/Light Industrial/Business Park	2.50 – 3.50 employees/TSF	0% – 5%	0% - 30%	60% - 100%
Heavy Industrial	2.00 – 2.50 employees/TSF	0%	0%	100%
Warehouse	1.00 – 2.00 employees/TSF	0%	0%	100%
Restaurant	3.00 – 5.00 employees/TSF	100%	0%	0%
Medical Office/Post-Office/Bank	3.50 – 4.50 employees/TSF	0% - 10%	70% - 100%	0% – 20%
Government Office/Civic Center	3.00 – 4.00 employees/TSF	0% – 5%	50% - 70%	25% – 50%
Hospital	2.50 – 3.00 employees/TSF	0%	70% - 80%	20% – 30%
Library/Museum	1.50 – 2.50 employees/TSF	0%	100%	0%
Hotel/Motel	0.75 – 1.25 employees/room	0% - 10%	70% - 80%	10% – 30%
Schools	0.08 – 0.12 employees/student	0%	0%	100%
Golf Course	0.50 – 0.70 employees/acre	0% - 10%	90% - 100%	0%
Developed Park/Athletic Fields	0.20 – 0.40 employees/acre	0%	80% - 100%	0% – 20%
Park	0.05 – 0.10 employees/acre	0%	80% - 100%	0% – 20%
Agricultural	0.01 – 0.05 employees/acre	0%	0%	100%

[1] Thousands of Square Feet

Appendix C

OCTAM City of Orange Network Plots

City of Orange
2016



City of Orange
2045