

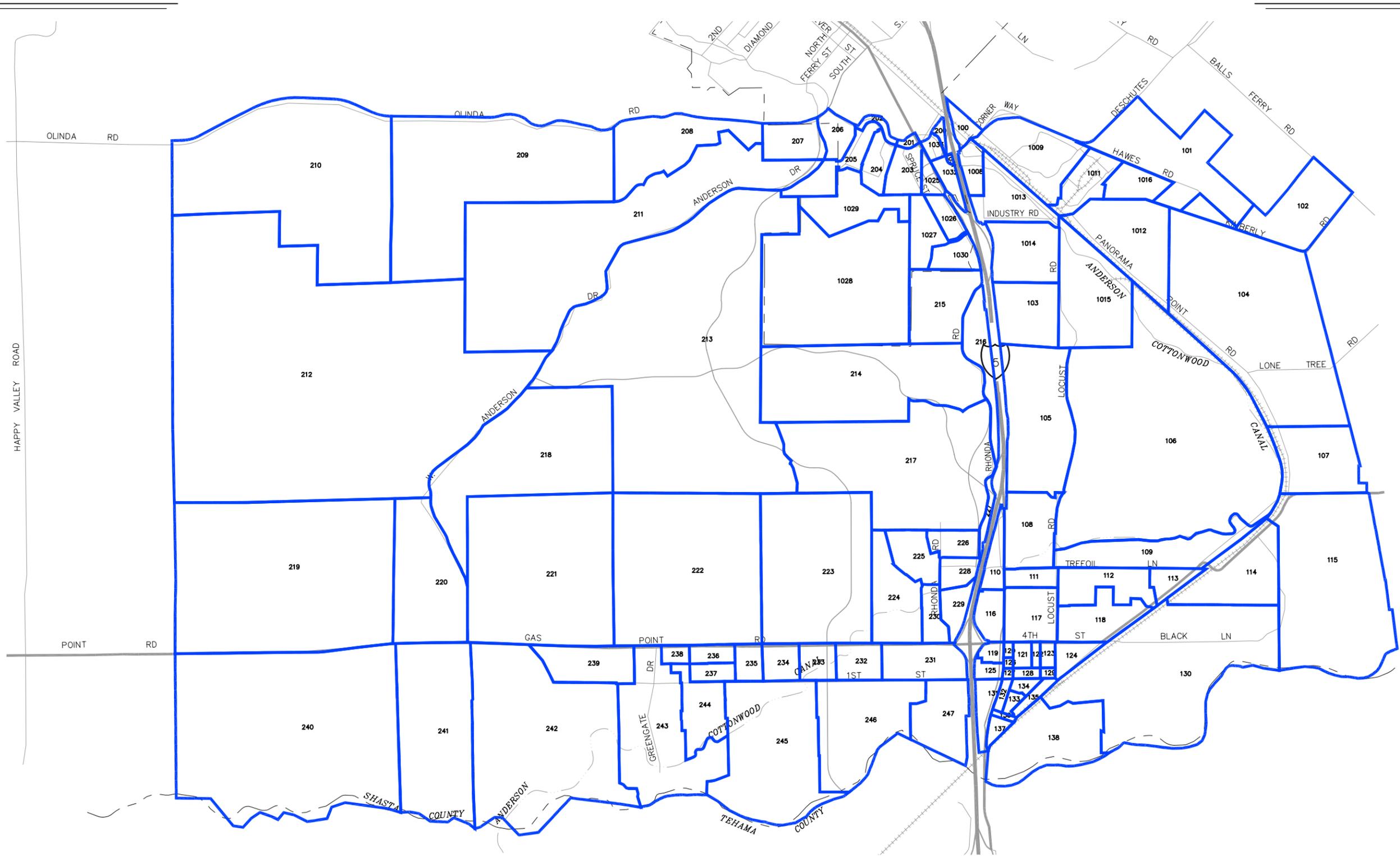
CHAPTER III – SOUTHERN REGION DEVELOPMENT ASSUMPTIONS AND TRIP GENERATION ESTIMATES

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Land Use and population estimates for the southern portion of the City of Anderson were recently modeled in the *Southeast Anderson Development Feasibility Study* (dated June 2004) and was the focus of the *I-5/Deschutes Road Interchange PSR/PR Memorandum* (dated January 2005). Population growth for the community of Cottonwood was estimated by PMC based on the Shasta County General Plan and the Cottonwood Area Plan. The land development analysis memorandum prepared by PMC is provided in the previous working papers. Much of the population growth projected in the Shasta County Southern Region was based on historical growth rates and professional interpretation of existing opportunity and land use constraints within the Study Area. One significant assumption made in these projections is that the existing General Plan Land Use Designations will remain unchanged.

A study area traffic model was developed using *Traffix 7.7* modeling software developed by Dowling Associates to provide basis for existing and future traffic volume forecasts. A manual assignment of future trips based on Year 2010, 2015, 2020 and 2027 landuse growth assumptions was accomplished using the study area traffic model. The study area consists of approximately 95 Traffic Analysis Zones (TAZ) as shown on **Figure 6**. In order to distribute traffic resulting from landuse growth in these TAZs, the TAZs (shown on Figure 1) were aggregated into 20 larger regions as shown on **Figure 7** within the study area. The regions were further aggregated into four Zone of Benefits (ZOB) as shown on **Figure 8**.

The growth in landuse estimates by each region and the resulting trip generation from these landuses for the four years 2010, 2015, 2020, and 2027 are presented in **Table 2** through **Table 5**. A summary of the total residential, commercial/office and industrial development totals using 5-year bands is shown in **Table 6**.

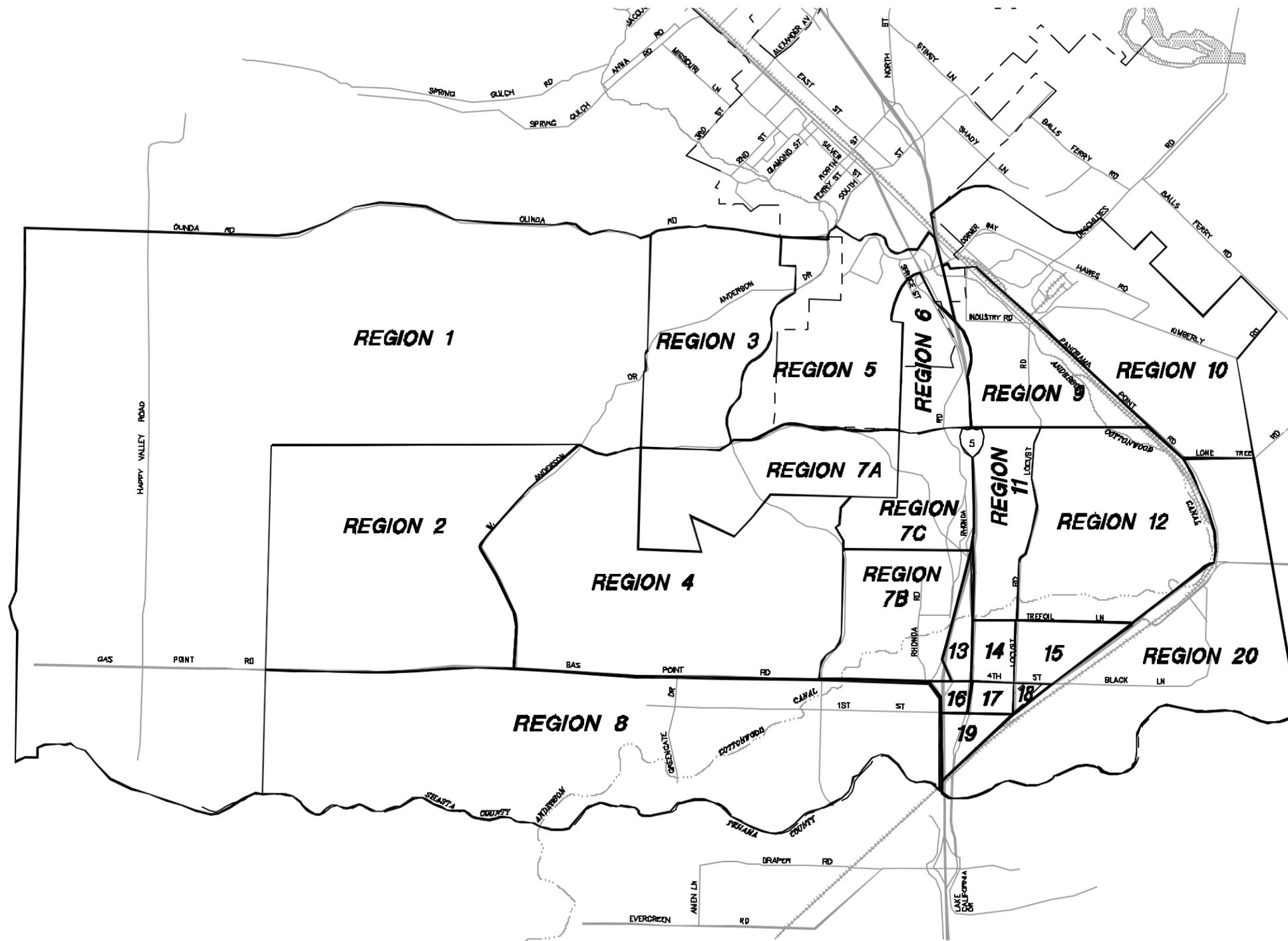


Shasta County Southern Area Study

Figure 6

TAZ LAYOUT



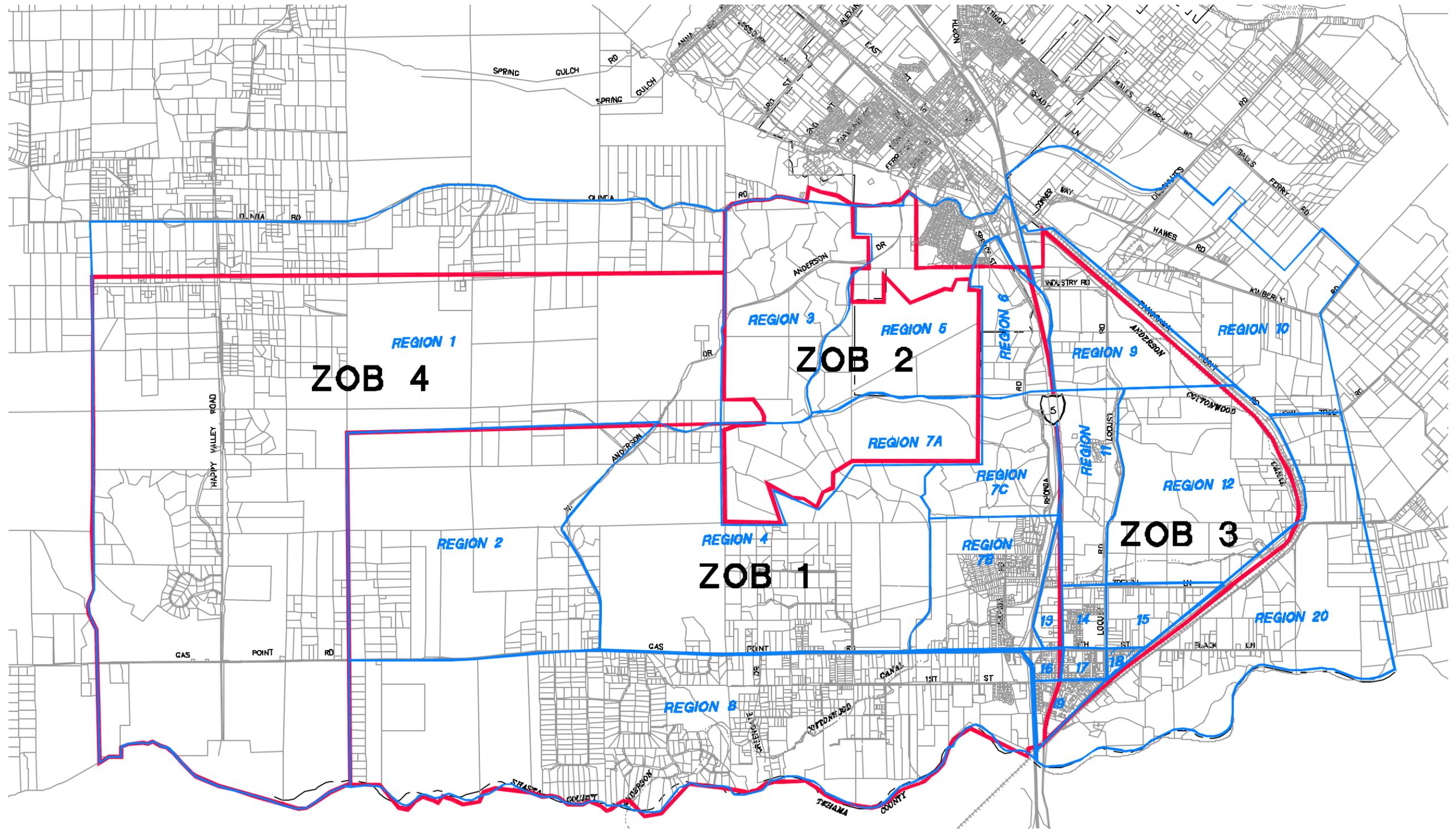


Shasta County Southern Area Study

AGGREGATED TAZ LAYOUT

Figure 7

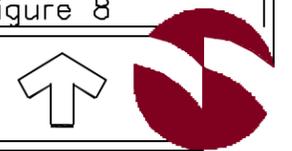




Shasta County Southern Area Study

Figure 8

Zone of Benefit and Region Boundaries



CHAPTER III – SOUTHERN REGION DEVELOPMENT ASSUMPTIONS AND TRIP GENERATION ESTIMATES

**TABLE 2
YEAR 2010 TRIP GENERATION ESTIMATES**

ZOB	Zone	Residential ¹									Commercial ²						Industrial ³									
		Dwelling Units	Daily Trips	AM Peak Hour			PM Peak Hour			1000 sq.ft.	Daily Trips	AM Peak Hour			PM Peak Hour			1000 sq.ft.	Daily Trips	AM Peak Hour			PM Peak Hour			
				Total	In	Out	Total	In	Out			Total	In	Out	Total	In	Out			Total	In	Out	Total	In	Out	
1	2	7	72	6	1	4	8	5	3	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	446	4,268	335	84	251	450	284	167	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	385	3,111	233	51	182	314	203	112	400	16,102	584	434	259	1,431	696	735	0	0	0	0	0	0	0	0	0
	7b	266	2,546	200	50	150	268	170	100	25	1,074	26	16	10	94	45	49	0.00	0	0	0	0	0	0	0	0
	7c	11	101	8	2	6	11	7	4	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
	8	30	283	22	6	17	30	19	11	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	29.61	1,158	89	67	38	109	50	59	0.00	0	0	0	0	0	0	0
16	0	2	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	
Sub.Tot.		1,145	10,383	804	193	610	1,081	687	396	454	18,334	699	517	308	1,634	791	842	0	0	0	0	0	0	0	0	0
2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	932	8,528	671	168	503	852	537	315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7a	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Sub.Tot.		932	8,528	671	168	503	852	537	315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	9	0	3	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	13.88	97	13	11	2	95	11	83	
	11	1	11	1	0	1	1	1	0	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	
	12	76	730	57	19	38	77	48	29	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	
	14	10	93	7	2	5	10	6	4	25.43	819	20	16	8	72	34	37	0.00	0	0	0	0	0	0	0	
	15	1	12	1	0	1	1	1	0	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	
	17	0	2	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	
	18	0	2	0	0	0	0	0	0	1.05	34	1	1	0	3	1	2	0.00	0	0	0	0	0	0	0	
19	1	10	1	0	1	1	1	0	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0		
Sub.Tot.		90	864	68	22	46	91	57	34	26	853	20	17	8	74	36	39	14	97	13	11	2	95	11	83	
4	1	41	392	31	8	23	41	26	15	0.00	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	
Sub.Tot.		41	392	31	8	23	41	26	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total		2,208	20,167	1,573	391	1,182	2,066	1,307	761	481	19,186	720	533	316	1,708	827	881	14	97	13	11	2	95	11	83	

Notes:

¹ Average rates for ITE Landuse Landuse Single-Family Detached Housing (210) was used to derive daily, AM and PM peak hour trips

² Average rates for ITE Landuse Landuse Shopping Center (820) was used to derive daily, AM and PM peak hour trips. Trips shown in the table include a 25% pass-by reduction for commercial

³ Average rates for ITE Landuse Landuse General Light Industrial (110) was used to derive daily, AM and PM peak hour trips

ZOB 1 - West of Main Street/I-5 Dividing Line (Without Vineyards)

ZOB 2 - West of Main Street/I-5 Dividing Line (Vineyards Only)

ZOB 3 - East of Main Street/I-5 Dividing Line

ZOB 4 - West of Main Street/I-5 Dividing Line (Region 1 only)

CHAPTER III – SOUTHERN REGION DEVELOPMENT ASSUMPTIONS AND TRIP GENERATION ESTIMATES

**TABLE 3
YEAR 2015 TRIP GENERATION ESTIMATES**

ZOB	Zone	Residential ¹									Commercial ²									Industrial ³						
		Dwelling Units	Daily Trips	AM Peak Hour			PM Peak Hour			1000 sq.ft.	Daily Trips	AM Peak Hour			PM Peak Hour			1000 sq.ft.	Daily Trips	AM Peak Hour			PM Peak Hour			
				Total	In	Out	Total	In	Out			Total	In	Out	Total	In	Out			Total	In	Out	Total	In	Out	
1	2	15	143	11	3	8	15	10	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	446	4,268	335	84	251	450	284	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6	385	3,111	233	51	182	314	203	112	400	16,102	584	434	259	1,431	696	735	0	0	0	0	0	0	0	0	0
	7b	266	2,546	200	50	150	268	170	98	150	4,831	116	94	22	422	203	220	0	0	0	0	0	0	0	0	0
	7c	21	201	16	4	12	21	14	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8	59	565	44	11	33	60	38	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	59	2,317	178	135	43	218	100	118	0	0	0	0	0	0	0	0	0
16	1	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sub.Tot.		1,193	10,840	840	202	637	1,129	717	412	609	23,249	879	663	325	2,071	999	1,072	0	0	0	0	0	0	0	0	
2	3	771	5,323	418	89	330	506	326	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	1,701	14,132	1,137	282	855	1,391	882	509	200	1,118	40	29	11	109	47	62	0	0	0	0	0	0	0	0	
	7a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sub.Tot.		2,472	19,455	1,555	370	1,185	1,897	1,208	689	200	1,118	40	29	11	109	47	62	0	0	0	0	0	0	0	0	
3	9	1	6	1	0	0	1	0	0	0	0	0	0	0	0	0	0	28	194	26	22	3	190	23	167	
	11	2	22	2	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12	153	1,459	114	38	76	154	96	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	14	20	187	15	4	11	20	12	7	51	1,638	39	32	7	143	69	74	0	0	0	0	0	0	0	0	
	15	3	25	2	0	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	17	1	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	18	1	5	0	0	0	1	0	0	2	67	2	1	0	6	3	3	0	0	0	0	0	0	0	0	
19	2	19	2	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sub.Tot.		181	1,728	135	43	92	182	114	68	53	1,706	41	33	8	149	71	77	28	194	26	22	3	190	23	167	
4	1	82	783	61	15	46	83	52	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sub.Tot.		82	783	61	15	46	83	52	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total		3,927	32,807	2,592	632	1,960	3,291	2,091	1,200	862	26,073	960	725	343	2,329	1,117	1,212	28	194	26	22	3	190	23	167	

Notes:

¹ Average rates for ITE Landuse Landuse Single-Family Detached Housing (210) was used to derive daily, AM and PM peak hour trips

² Average rates for ITE Landuse Landuse Shopping Center (820) was used to derive daily, AM and PM peak hour trips. Trips shown in the table include a 25% pass-by reduction for commercial

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CHAPTER III – SOUTHERN REGION DEVELOPMENT ASSUMPTIONS AND TRIP GENERATION ESTIMATES

**TABLE 6
5-YEAR BAND LAND DEVELOPMENT SUMMARY**

	Units	Year 2010	Year 2015	Year 2020	Year 2027
Residential	d.u.	2,208	3,927	5,406	7,341
Commercial	ksf	480.82	861.91	958.69	1,014.77
Industrial	ksf	13.88	27.77	41.65	55.54

Trip distribution patterns for each of the nineteen TAZ regions created for the Southern Region traffic model are illustrated on Figures 1 through 16 in the Appendix. These distribution patterns form the basis for the ZOB nexus data. Earlier trip distribution patterns were created assuming that the High Country Lane interchange would be constructed by Vineyards. Because of the highly speculative nature of this new interchange without any preliminary engineering analysis, only modifications to the Deschutes Road, Main Street and Gas Point Road interchanges are assumed in this study. Trip distribution patterns were revised accordingly assuming that High Country Lane interchange will not be constructed. In general it is assumed that 75% of the Vineyards generated traffic will use facilities to the north or new facilities constructed by Vineyards development. The other 25% of the Vineyards traffic is assumed to use the facilities in the southern region. It is assumed that more than 25% of the traffic generated in the southern region of Vineyards is assumed to use the southern region facilities (Main Street Interchange) due to its location. It is noted that if High Country Lane interchange is constructed, then there would be a significant change in the trip distribution patterns that would change the fee.