

10 TRANSPORTATION SYSTEM ANALYSIS AFTER IMPROVEMENTS

This section discusses the transportation system analysis after the proposed improvements have been implemented. The process included an operational assessment of the study intersections and roadways after construction of the proposed improvements in Section 9 of this report. The results are shown in Tables 10.1 through 10.3.

As shown in the tables, all study locations are expected to operate at LOS C or better under near term and long term conditions. Improved traffic flow is primarily a result of the following:

- Under near term conditions, the improvements increase capacity at critical locations where congestion would develop absent the improvements; and
- Under long term conditions, the improvements increase capacity at many locations, as well as re-distribute the large increase traffic more evenly with the advent of new roadways, interchanges, and operational control at several key locations.

Although the long term assessment is an effort to identify a planning level guide for the County to pursue roadway improvements as development occurs, it is by no means an accurate science. The following factors will have a direct impact on the future operations of the roadway system in the Arbuckle and College City area.

- Market demand for housing;
- Ultimate ROW costs for improvements that may render some recommendations too expensive to construct;
- Potential General Plan Amendments that would re-direct development proposals; and
- Modifications to the assumptions in this study based on actual proposals submitted by applicants (such as modified density, or other land uses).

TABLE 10.1 NEAR-TERM STUDY INTERSECTIONS AND LOS WITH IMPROVEMENTS		
Intersection	Traffic Control	AM ¹ Peak (PM Peak) Delay/LOS
I-5 Southbound/Access Road (north)	2-Way Stop Sign	4.0/A (13.5/B)
I-5 Northbound/Access Road (north)	2-Way Stop Sign	3.6/A (12.0/B)
I-5 Southbound Off Ramp/Putnam Way	2-Way Stop Sign	11.5/C (15.8/C)
I-5 Northbound/Grimes Arbuckle Road	Signal	14.8/B (12.3/B)
I-5 Southbound On/Hillgate Road	2-Way Stop Sign	6.9/B (4.8/A)
Almond Avenue/Gail Avenue	2-Way Stop Sign	11.0/B (9.0/A)
Putnam Road/Gail Avenue	2-Way Stop Sign	18.5/C (20.3/C)
5 th Street/Gail Avenue	2-Way Stop Sign	23.7/B (29.9/C)
Hall Street/Putnam Way	2-Way Stop Sign	29.7/C (16.9/B)
Hall Street/5 th Street	2-Way Stop Sign	18.7/C (21.2/C)
Hillgate Road/Wildwood Road	Signal	12.5/B (17.9/C)
Hillgate Road/Almond Avenue	2-Way Stop Sign	13.7/B (22.1/C)
Notes: 1) Average Vehicle Delay, LOS.		

TABLE 10.2 LONG-TERM STUDY INTERSECTIONS AND LOS WITH IMPROVEMENTS		
Intersection	Traffic Control	AM ¹ Peak (PM Peak) Delay/LOS
I-5 Southbound/Salt Creek Road	Signal	23.2/C (16.5/B)
I-5 Northbound/Salt Creek Road	Signal	18.2/C (12.8/B)
I-5 Southbound Off Ramp/Putnam Way	Signal	15.8/B (13.7/B)
I-5 Northbound/Grimes Arbuckle Road	Signal	19.8/B (28.5/C)
Almond Avenue/Gail Avenue	2-Way Stop Sign	22.8/C (18.5/B)
Putnam Road/Gail Avenue	Signal	31.8/C (28.3/C)
5 th Street/Gail Avenue	Signal	22.8/C (32.5/C)
Hall Street/Putnam Way	Signal	24.8/C (33.9/C)
Hall Street/5 th Street	Signal	34.8/C (31.0/C)
Hillgate Road/Wildwood Road	Signal	23.8/C (29.5/C)
Hillgate Road/Almond Avenue	Signal	24.5/C (21.3/C)
Notes: 1) Average Vehicle Delay, LOS.		

TABLE 10.3
LONG-TERM ROADWAY VOLUMES, NUMBER OF LANES, ADT AND LOS
WITH IMPROVEMENTS

Roadway	From	To	Lanes ¹	ADT	LOS
Interstate 5	North of Interchange	North Interchange	4	46,000	C
Interstate 5	North Interchange	Hillgate Road	4	55,500	D
Interstate 5	Hillgate Road	South of Hillgate	4	65,000	E
Putnam Way	North Interchange	Gail Avenue	4	13,000	A
Putnam Way	Gail Avenue	Hall Street	4	14,100	A
Putnam Way	Hall Street	Hillgate Road	4	24,700	C
Wildwood Road	Hillgate Road	South of Hillgate	4	14,200	A
5 th Street	Gail Avenue	Hall Street	4	14,100	A
5 th Street	Hall Street	Grimes Arbuckle	4	18,700	B
Grimes Arbuckle	5 th Street	College City	4	23,900	C
Gail Avenue	Almond Avenue	Putnam Way	4	15,000	A
Almond Avenue	South of Hillgate	Hall Street	2	7,800	C
Almond Avenue	Hall Street	Gail Avenue	4	16,900	A
Hillgate Road	Cortina School Road	Almond Avenue	2	7,900	C
Hillgate Road	Almond Avenue	Putnam Way	6	32,700	B
Hillgate Road	Putnam Way	Grimes Arbuckle Rd	6	28,200	A
Old Highway 99	North of Gail	Gail	4	14,500	A
Old Highway 99	Grimes Arbuckle	S/o Grimes Arbuckle	4	18,200	B
Notes:					
1) Some 4 lane facilities are narrower than others with reduced shoulder widths					