GENERAL PLAN UPDATE BASELINE TRAFFIC DATA
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS (HCM 7)[1]

Level of Service (LOS)	Control Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	≤ 10.0	LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume –to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	> 10.0 and ≤ 20.0	LOS B describes operations with a control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume – to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
C	> 20.0 and ≤ 35.0	LOS C describes operations with a control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e. one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	> 35.0 and ≤ 55.0	LOS D describes operations with a control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume- to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
E	> 55.0 and ≤ 80.0	LOS E describes operations with a control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable and the cycle length is long. Individual cycle failures are frequent.
F	≥ 80.0	LOS F describes operations with a control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor and the cycle length is long. Most cycles fail to clear the queue.

[1] Source: *Highway Capacity Manual 7th Edition,* Chapter 19 (Signalized Intersections).

TABLE

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM 7)[2]

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

[2] Source: *Highway Capacity Manual 7th Edition*, Chapter 20: Two-Way Stop-Controlled Intersections and Chapter 21: All-Way Stop-Controlled Intersections.

EXISTING PEAK HOUR LEVELS OF SERVICE

Key Intersections	Time Period	City/ Jurisdiction	Control Type	Delay (sec/veh)	V/C Ratio	LOS
1. Peyton Drive at Chino Avenue	AM	Chino Hills	8∅ Traffic	38.1	0.508	D
	PM		Signal	29.9	0.550	C
2. Boys Republic Drive at Grand Avenue	AM	Chino Hills	6∅ Traffic	37.2	0.737	D
	PM		Signal	**96.3**	**1.133**	**F**
3. Peyton Drive at Eucalyptus Avenue	AM	Chino Hills	8∅ Traffic	19.9	0.580	B
	PM		Signal	20.4	0.456	C
4. Carbon Canyon Road at Chino Hills Parkway	AM	Chino Hills/	5∅ Traffic	31.3	0.680	C
	PM	Caltrans	Signal	29.5	0.718	C
5. Peyton Drive at Chino Hills Parkway	AM	Chino Hills/	8∅ Traffic	33.3	0.701	C
	PM	Caltrans	Signal	45.6	0.924	D
6. Peyton Drive at Woodview Road	AM	Chino Hills	All-Way	13.7	0.583	B
	PM		Stop	9.2	0.282	A
7. Pipeline Avenue at Woodview Road	AM	Chino Hills	One-Way	19.6	0.350	C
	PM		Stop	12.5	0.240	B
8. Pipeline Avenue at Soquel Canyon Parkway	AM	Chino Hills	All-Way	**67.6**	**1.085**	**F**
	PM		Stop	17.2	0.707	C
9. Soquel Canyon Parkway at Butterfield Ranch Road	AM	Chino Hills	8∅ Traffic	35.4	0.557	D
	PM		Signal	34.9	0.461	C
10. Soquel Canyon Parkway at Pomona Rincon Road[5]	AM	Chino Hills	6∅ Traffic	**82.8**	**N/A**	**F**
	PM		Signal	26.2	N/A	C

Key Intersections	Time Period	City/ Jurisdiction	Control Type	Delay (sec/veh)	V/C Ratio	LOS
11. Peyton Drive at Grand Avenue	AM	Chino Hills	8∅ Traffic Signal	33.0	0.609	C
	PM			35.4	0.545	D

Note:

- **Bold LOS values** indicate adverse service levels based on City LOS standards.
- LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions.
- ∅ = Phase