



portions of various urban areas. LOS E represents traffic volumes close to the full capacity of a street or intersection and the resulting congestion and slow traffic. LOS F generally represents stop-and-go, near breakdown traffic conditions.

**TABLE 4-7  
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS**

Level of Service (LOS)	Average Total Delay (sec/veh)	Description
A	≤10	Very low delay; most vehicles do not stop at all.
B	> 10 and ≤ 20	More vehicles stop than with LOS A, increasing the average delay.
C	> 20 and ≤ 35	The number of vehicles stopping is significant; however, many still pass through the intersection without stopping.
D	> 35 and ≤ 55	Congestion is readily apparent with many vehicles stopping and individual cycle failures are noticeable (i.e., not all vehicles waiting in the intersection queue are able to get through the intersection on the first green indication).
E	> 55 and ≤ 80	Poor progression; long cycle lengths and frequent cycle failures.
F	> 80	Unacceptable operations, which include many cycle failures caused by arrival flow rates exceeding intersection capacity.

Source: Transportation Research Board, *Highway Capacity Manual*, 2000

To account for all potential design possibilities, 11 major crossings along the LRT Alternative were analyzed using this procedure as if they were grade crossings (regardless of the current design). In this way, a crossing which is grade separated in the current design could be considered for an at-grade crossing if the design were to change. A Level of Service and queue length was calculated for each approach to the crossing (as well as intersection approaches that would be close to a crossing). Poor levels of service and/or queues that fill the distance between a crossing and a nearby intersection were used to make a preliminary determination whether grade separation would be warranted. The results of the grade crossing analysis are shown in **Table 4-8**.

**TABLE 4-8  
GRADE CROSSINGS ANALYSIS**

Map No.*	Crossing	2030 Peak Hour Crossing Level of Service	2030 Peak Hour Queue Length (feet)	Distance to Nearest Signalized Intersection (feet)	Recommendation
2	Harry Hines Blvd	B	1,523	0	Grade Separation
24	Tom Braniff Pkwy	A	419	0	Grade Separation
25	SH 114 WB FR	A	292	None	At-Grade
29	Teleport Ave	A	60	None	At-Grade
30	Riverside Blvd	A	76	None	At-Grade
32	Las Colinas Blvd	A	54	None	At-Grade
33	California Crossing Rd	A	140	500 <sup>2</sup>	At-Grade
35	O' Connor Blvd	A	142	1,920	At-Grade
36	Street "A"	Minor <sup>1</sup>	Minor <sup>1</sup>	1,300 <sup>2</sup>	At-Grade
49	MacArthur Blvd	B	1,047	700, 100 <sup>2</sup>	Grade Separation
51	Walnut Hill Lane	A	264	None	At-Grade

<sup>1</sup> Traffic volume projections were not available for this future roadway.

<sup>2</sup> Assumed traffic signal on future roadway.

\* See **Figures 4-3** and **4-4**.

Source: Parsons Transportation Group; 2006