

EXISTING LEVEL-OF-SERVICE

Information and data studied as part of this report were done in accordance with the procedures outlined in the Highway Capacity Manual (HCM) -- Special Report 209, TRB: Policy on Geometric Design of Highways and Streets, AASHTO, 1990 Edition; and Trip Generation 5th Edition Manual, Institute of Transportation Engineer. In determining the impacts to the LOS, the Planning Application (calculations in Appendix A -- Mockingbird Lane) as described in the HCM was used.

Table 1 summarizes the existing LOS along Mockingbird between Cedar Springs and DNT.

TABLE 1		
EXISTING LOS ALONG MOCKINGBIRD		
	AM	PM
MOCKINGBIRD INTERSECTION WITH:		
CEDAR SPRINGS	C/D	A
AIRDROME	F	A
LEMMON	A/B	A/B
INWOOD	E	F
DNT	D/E	E

According to the HCM, capacity is defined as the maximum number of vehicles that can be expected to travel on a given section of roadway or a specific lane during a given time period under prevailing roadway and traffic conditions. In order to accurately assess the traffic flow characteristics within the study area, intersection capacity analyses was conducted for the peak hours utilizing the HCM.

LOS refers to the operational conditions within a traffic stream and their perception by motorists. LOS describes these conditions in terms of delay, frequency of maneuver, traffic interruptions, comfort and convenience, and safety. There are six LOS or capacity conditions for each type of roadway facility and are designated from "A" to "F" with "A" representing the best operational conditions and "F" the worst conditions.

Level-of-Service A describes operations with very low delay (i.e., less than 5.0 second per vehicle). This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level-of-Service B describes operations with delay in the range of 5.1 to 15.0 second per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

Level-of-Service C describes operations with delay in the range of 15.1 to 25.0 second per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

Level-of-Service D describes operations with delay in the range of 25.1 to 40.0 second per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high vehicle-to-capacity (v/c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level-of-Service E describes operations with delay in the range of 40.1 to 60.0 second per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

Level-of-Service F describes operations with delay in excess of 60.0 second per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.