

2009

QUALITY/LEVEL OF SERVICE



HANDBOOK

2009
State of Florida
Department of Transportation



TABLE 7

Generalized Peak Hour Directional Volumes for Florida's Urbanized Areas¹

10/4/10

STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (>0.00 to 1.99 signalized intersections per mile)						Lanes	B	C	D	E	
Lanes	Median	B	C	D	E	2	2,200	3,020	3,720	4,020	
1	Undivided	510	820	880	***	3	3,300	4,580	5,580	6,200	
2	Divided	1,560	1,890	1,960	***	4	4,400	6,080	7,420	8,400	
3	Divided	2,400	2,860	2,940	***	5	5,500	7,680	9,320	10,580	
4	Divided	3,240	3,830	3,940	***	6	7,560	10,220	12,080	12,780	
Class II (2.00 to 4.50 signalized intersections per mile)						Freeway Adjustments					
Lanes	Median	B	C	D	E	Auxiliary Lanes	Ramp Metering				
1	Undivided	**	560	810	860	+ 1,000	+ 5%				
2	Divided	**	1,330	1,770	1,870						
3	Divided	**	2,080	2,680	2,830						
4	Divided	**	2,830	3,590	3,780						
Class III/IV (more than 4.50 signalized intersections per mile)						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	B	C	D	E	Lanes	Median	B	C	D	E
1	Undivided	**	270	630	790	1	Undivided	400	800	1,140	1,440
2	Divided	**	670	1,500	1,700	2	Divided	1,770	2,560	3,320	3,760
3	Divided	**	1,050	2,330	2,570	3	Divided	2,660	3,840	4,980	5,650
4	Divided	**	1,440	3,170	3,450	Uninterrupted Flow Highway Adjustments					
						Lanes	Median	Exclusive left lanes	Adjustment factors		
						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)						BICYCLE MODE² (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Major City/County Roadways - 10%						Paved Shoulder/ Bicycle Lane					
Other Signalized Roadways - 35%						Coverage	B	C	D	E	
						0-49%	**	170	650	>650	
						50-84%	130	200	>200	***	
						85-100%	340	>340	***	***	
State & Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)						PEDESTRIAN MODE² (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Divided/Undivided & Turn Lane Adjustments						Sidewalk Coverage	B	C	D	E	
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		0-49%	**	**	270	770	
2	Divided	Yes	No	+5%		50-84%	**	100	600	1000	
2	Undivided	No	No	-20%		85-100%	**	610	1000	>1000	
Multi	Undivided	Yes	No	-5%		BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)					
Multi	Undivided	No	No	-25%		Sidewalk Coverage	B	C	D	E	
-	-	-	Yes	+ 5%		0-84%	>5	≥4	≥3	≥2	
						85-100%	>4	≥3	≥2	≥1	
One-Way Facility Adjustment Multiply the corresponding volumes in this table by 1.20.											

¹ Values shown are presented as hourly directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. To convert to annual average daily traffic volumes, these volumes must be divided by appropriate D and K factors. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes.

² Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

** Cannot be achieved using table input value defaults.

*** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:

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