FREQUENTLY USED TERMS

AADT (Annual Average Daily Traffic): The total yearly traffic volume on a given roadway segment divided by the number of days in the year.

Capacity: The maximum number of vehicles which can travel on a roadway, during a given time period (usually one hour) under prevailing roadway, traffic and signalization conditions.

Delay: The additional travel time experienced by a driver or passenger due to conditions that impede or slow down the flow of traffic.

Design Year: The year a project is "designed" for. It is normally 20 years after the roadway is constructed. For example, a roadway is typically designed to handle traffic that is projected for 20 years after construction.

Peak Hour: The hour when traffic volumes are at their highest on a given roadway.

Projected Traffic: The future traffic volume on a roadway based on the estimated population, employment and the anticipated road improvements within the area.

Traffic Volume: The number of vehicles on a roadway during a certain time period.

LOS (Level of Service): A measure used to describe the quality of service experienced by travellers on a roadway.

Metropolitan Planning Organization (MPO): The agency responsible for planning transportation improvements within an "urbanized area."

Urbanized Area: Any densely populated area with population of 50,000 persons or more.

Rural Area: An area outside of the limits of any incorporated city, town or village with population less than 5,000 persons.

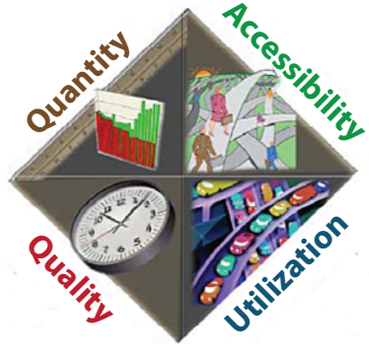
Urban Area: Any incorporated city, town or village with population between 5,000 and 50,000 persons.

Transitioning Areas: An area that is transforming from the rural characteristics into an area with urban features.

4 DIMENSIONS OF MOBILITY

Providing mobility for people and goods is transportation's most essential function. The FDOT has identified the following four dimensions for measuring the effectiveness of transportation projects:

- *Quality of travel* – traveler satisfaction with a roadway or service. LOS is the most frequently used performance measure.
- *Quantity of travel* – magnitude of use of a roadway or service. Peak hour volume is the most frequently used performance measure
- *Accessibility* – ease with which travelers can engage in their desired activities.
- *Utilization* – a measure of how efficiently the transportation system is being used.



MORE INFORMATION

For additional information concerning the Traffic Analysis Process, please contact the Florida Department of Transportation:

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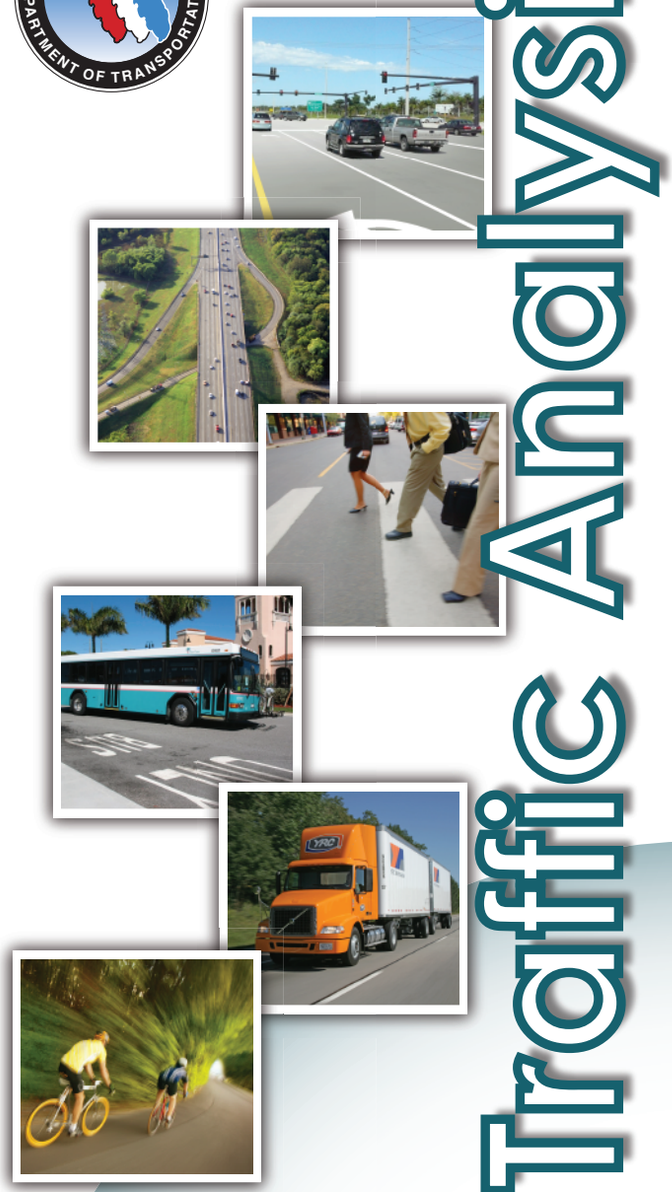
Traffic Analysis



"Our vision is to serve the people of Florida by delivering a transportation system that is fatality and congestion free."

THE BASICS

Traffic Analysis is a process used by the Florida Department of Transportation (FDOT) to determine the amount (or volume) of traffic that currently uses a roadway and estimate the amount of traffic (or future traffic volume) that will use the roadway in the design year.

By determining existing and future traffic volumes, engineers and planners can estimate the existing and future Level of Service (LOS) of a roadway. The LOS measure is used to identify when a roadway needs improvements. These improvements can range from intersection improvements to roadway widening to the more complicated expressway improvements.

WHAT IS LEVEL OF SERVICE?

The LOS is a measure used to describe the quality of service experienced by travellers on a roadway such as automobile, truck, bicycle, pedestrian and bus users. The analyses used to determine the roadway LOS is based on the roadway and traffic characteristics and the type of traffic control (traffic signals, stop and yield signs). The roadway and traffic characteristics considered include the following: travel speeds, number of lanes, traffic volumes, number of intersections with traffic signals, and the timing of the traffic signals.

Typically, roadways are analyzed during peak traffic hours, usually the morning and evening commuting hours. The LOS for a facility can range from A to F as shown on the next panel.

As traffic volume increases, travel speed decreases, travellers experience more delays, and the LOS on the roadway deteriorates from LOS A to LOS F. Once the LOS on a roadway reaches LOS E, the roadway is said to be operating at capacity, meaning it cannot handle additional traffic without backups causing excessive delays and congestion.

WHAT ARE THE STANDARDS?

Local governments adopt LOS standards for roadways in their comprehensive plans and FDOT has minimum LOS standards for state roadways as shown below in accordance with Rule 14-94.003 of the Florida Administrative Code. The minimum LOS is based on the type of area the roadway is located: rural, areas transitioning from rural to urban and urbanized areas.

AREA TYPE	FDOT LOS STANDARDS	
	Freeways	Highways
Rural Areas	B	B(C)[2]
Transitioning Areas / Urban Areas	C	C
Urbanized Areas Under 500,000 Population	C(D)[1]	D(C)[3]
Urbanized Areas Over 500,000 Population	D(E)[1]	D

Notes:

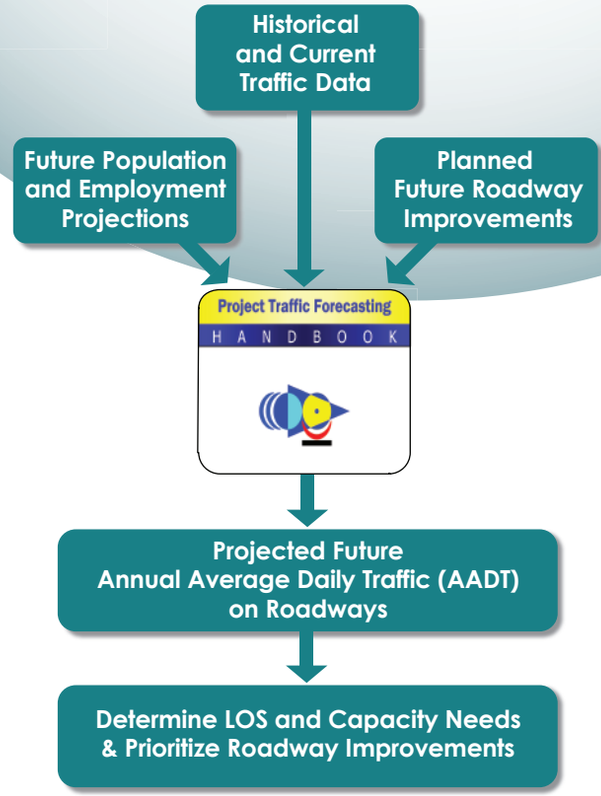
1: LOS in parenthesis apply to freeways with exclusive through lanes such as High Occupancy Vehicle (HOV) lanes.

2: LOS in parenthesis apply to two-lane highways.

3: LOS in parenthesis apply to controlled access highways with highly regulated driveway connections, median openings and traffic signals.

HOW IS TRAFFIC FORECASTED?

Long range traffic forecasts are initially developed by Metropolitan/Transportation Planning Organizations (MPOs/TPOs) to prioritize transportation improvements within their jurisdictions. Existing and future socio-economic data (population and employment data) provided by MPOs/TPOs, historical and current traffic data, as well as planned future roadway improvements are considered when forecasting traffic volumes. Many times, traffic forecasting uses a computer based traffic model and software. In Florida, the standard travel demand model is known as the Florida Standard Urban Transportation Modeling Structure (FSUTMS).



The projected or future traffic volumes are used to determine what improvements are needed in the design year to maintain the minimum LOS standards and minimize congestion and delay.