



The Institute of Transportation Engineers
Traffic Engineering Council
presents TIPS on



Maximizing Transportation Operations

What can be done to provide a safe and efficient transportation system in existing or new development corridors?

Traffic engineers are striving to provide roadway conditions that contribute to smooth and efficient traffic flow.

Experience has shown that safety is enhanced by smooth traffic flow.

Disrupting the smooth flow of traffic increases the probability of accidents.

Erratic traffic operation may be caused by vehicles stopping or slowing in the roadway, passing and weaving maneuvers, uncoordinated or poorly timed traffic signals, the lack of guide signs, and unreasonably low speed limits. Slower speed does not insure safer traffic operation. The chances of a vehicle becoming involved in an accident are less when the driver is traveling at the average speed of traffic.

The population growth in many areas poses great challenges for traffic engineers. These engineers are utilizing

many traffic management techniques to ease and optimize traffic operations. These techniques include the following:

- C Interconnecting traffic signals located within close proximity of each other on a major street.
- C Installing computerized signal systems to improve traffic flow.
- C Limiting the number of driveways from new development.
- C Increasing spacing between driveways.
- C Limiting indiscriminate access to major roads by requiring connecting drives between adjacent shopping centers.
- C Providing access to driveways at signalized access points.
- C Providing adequate turning radii at driveways, to ease turning into entry and exit roads.
- C Providing turn lanes when needed.
- C Providing traffic control devices such as signs, pavement marking, and signals where necessary.
- C Installing bikeways and sidewalks where needed.

- C Reducing new demand on the highway system by implementing techniques such as ride sharing and alternative work hours.
- C Promoting mass transit where feasible.

Direct benefits to the public include improved safety and air quality and reduced travel cost due to a decrease in travel time. Safety can be enhanced by improving the uniformity of traffic flow and reducing the number of vehicles on the roadway. Air quality can be improved by reducing the number of stops and

motorized vehicles on the road. Travel cost can be reduced by minimizing delays at traffic signals and in heavy traffic congestion.

