

Operational Level of Service



What is OLOS?

The **Operational Level of Service (OLOS)** is a method to evaluate the performance of a facility, relative to the performance of similar facilities across the state. The OLOS is based on a Planning Time Index (PTI) that provides for a holistic performance measure for travel reliability.

Example

A PTI of **2.0** **30 min. trip** **60 min.**
in light traffic *for an on-time arrival*



$$PTI = \frac{\overset{2}{Travel\ Time}_{95}}{\overset{3}{Travel\ Time}_{FF}}$$

- 1** Ratio or additional time required for a reliable trip
- 2** 95th percentile travel time
- 3** Average travel time when uncongested

How will OLOS be utilized?

Use Case	Utility	Users	Potential Benefit
1 Bottleneck Identification	Identifies bottlenecks throughout the network	<ul style="list-style-type: none"> HQ Traffic Ops Regions DTD 	<ul style="list-style-type: none"> Mobility Reliability Efficiency Standardized performance measure
2 Improvement Potential	Identifies corridors with the greatest opportunity for improvement through relative assessments	<ul style="list-style-type: none"> HQ Traffic Ops Regions DTD 	<ul style="list-style-type: none"> Safety Mobility Project prioritization Standardized performance measure
3 Operations Evaluation	Identifies patterns that impact operational performance by peak period, day of week, month, and non-recurring issues	<ul style="list-style-type: none"> HQ Traffic Ops Regions 	<ul style="list-style-type: none"> Mobility Project prioritization
4 Incident, Weather, Event, and Construction Management	Evaluates travel time reliability impacts by work zones, incidents, weather and special events	<ul style="list-style-type: none"> Maintenance & Operations Regions DTD 	<ul style="list-style-type: none"> Safety Mobility Reliability Efficiency Standardized performance measure
5 Funding Pool Approvals	Resource for justification of funding	<ul style="list-style-type: none"> HQ Traffic Ops Regions DTD Executives 	<ul style="list-style-type: none"> Efficiency Project prioritization Standardized performance measure
6 Project Prioritization for Long Term Planning	Identifies annual progress in support of PD-14	<ul style="list-style-type: none"> Regions DTD Executives 	<ul style="list-style-type: none"> Long-term planning Project prioritization Standardized performance measure

OLOS Example Scenario *The following example provides a correlation of OLOS to travel time reliability for a trip that takes 30 minutes in uncongested conditions.*

	Operational Level of Service			
	Level I	Level II	Level III	Level IV
Perception on Travel Time Reliability	Motorists are confident in the time it takes to complete their trip.	Travel is normally stable, but should be given a small buffer	Travel time varies along the route. A non-recurring issue could impact time arrival.	Traffic is unpredictable; Motorists should allot 1 hour for travel time, though it normally takes 30 minutes
Planned travel time for a 30 minute trip	30 Minutes	35 Minutes	45 minutes	60 minutes +
PTI Range	1 to 1.10	1.10 to 1.40	1.40 to 1.75	> 1.75

As shown in the example, the difference between an OLOS I and OLOS IV roadway could result in an additional 30 minutes of travel time, on a 30-minute trip.

Therefore, OLOS IV roadways should be prioritized for improvement to provide the traveling public confidence and reliability in the transportation network.

- i** The OLOS Dashboard can be accessed [here](#).
- i** Additional information, data sources, and training materials can be found [here](#).