

VERMONT AGENCY OF TRANSPORTATION (VTrans) HIGHWAY DESIGN “LEVEL OF SERVICE” POLICY

Purpose:

The purpose of this policy is to establish a **Highway Design Performance Measure** which addresses mobility and capacity issues on Vermont roadways. The measure selected is the Motor Vehicle **Level of Service (LOS)** of a facility as defined in the latest version of the Highway Capacity Manual (HCM) 2000 Edition, also known as Transportation Research Board Special Report 209. This policy applies to all roadway facilities.

Special Notes

The Agency has developed Performance Measures and targets that address mobility at a corridor level for planning purposes. These measures are defined in the Agency’s Highway System Policy Plan and include intercity travel times and volume to capacity (v/c) ratios for different land uses.

Policy:

All Facilities:

It is the Agency’s policy to design its highways and to require others accessing its facilities to effect improvements that will maintain a LOS “C” for the prescribed design period. In interpreting this policy, LOS refers to the overall LOS for the particular facility as defined in the latest HCM. LOS is defined as a quality measure for various highway facilities, which include, but are not limited to:

- Freeways
- Two-lane two-way rural highways
- Urban streets
- Signalized intersections
- Unsignalized intersections

Reduced LOS criteria may be acceptable, when approved by the Secretary of Transportation or designee on a case-by-case basis, especially within densely settled areas. Such determination should take into consideration, at a minimum, the following:

- Current and future traffic volumes
- Essential Emergency Response routing and maintenance accessibility
- The delay incurred by the traveling public
- The volume to capacity (v/c) ratio
- Facility safety (crash rates)

- The negative impacts (cultural, environmental, etc.) which may result to the surrounding area, because of improvements required to achieve a Level of Service “C” for the facility
- Effects of economic suppression due to inadequate infrastructure and subsequent displaced development

In extreme circumstances, where the existing LOS is less than desired and where the necessary geometric improvements are not feasible, a lower LOS may be acceptable, as long as the safety and mobility of the traveling public is improved. Strategies effecting such improvements should include traditional traffic engineering approaches such as

- Installation of traffic and pedestrian signals
- Adjustment to signal phasings and timings
- Modification to existing lane configurations
- Pedestrian crossings
- Other, similar measures

In addition, where appropriate, these approaches may be carried out with Transportation Demand Management (TDM) strategies or TDM strategies may be carried out independently. Examples of possible alternative strategies or improvements are listed in the *Transportation Demand Management Strategies* attachment. The attached list is not intended to be all inclusive and is provided for information purposes only.

Town and Regional officials should be consulted on any mitigation strategies proposed for projects under their jurisdiction or in their geographic area.

Two-Way Stop Controlled Intersections:

For two-way stop controlled intersections, the HCM does not define a procedure for obtaining an overall LOS or a LOS for major street approaches. Therefore, VTrans LOS Policy for two-way stop controlled intersections is to maintain a LOS “D,” or better, for side roads with volumes exceeding 100 vehicles/hour for a single lane approach, or 150 vehicles/hour for a two lane approach. No LOS criteria are in effect for volumes less than these.

VTrans' main objective at unsignalized two-way stop controlled intersections is to minimize potential consequences when vehicle operators exit stop-controlled side streets by accepting unsafe gaps in the major street through traffic.

This policy supersedes the policy dated July 25, 1996

EFFECTIVE DATE: May 31, 2007

APPROVED: Original Signed
 Neale Lunderville
 Secretary of Transportation

DATE: 5/31/07

Attachment

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Transportation Demand Management (TDM) Strategies

<u>Strategy Type</u>	<u>Employer/Developer Provides</u>
1. Carpools/Vanpools	Preferential Parking Ride Matching onsite Financial Incentive Guaranteed Ride Home
2. Transit	Subsidized Passes Shuttle from Park & Ride lot or Transit Station Guaranteed Ride Home
3. Work Place	Showers and Secure, Covered Bicycle Parking Alternative Work Schedules Staggered schedules for demand dampening Telecommuting Charging for Parking On-site Informational Programs
4. Infrastructure Investments	Contributions to: Park & Ride lots Bus Shelters Sidewalks Bicycle Lanes & Parking Shared Use Paths Dedicated Capital Development funds for capacity

NOTE: THIS LISTING IS NOT CONSIDERED TO BE ALL INCLUSIVE NOR IS ANY ONE EMPLOYER/DEVELOPER OR VTRANS EXPECTED TO IMPLEMENT ALL STRATEGIES.