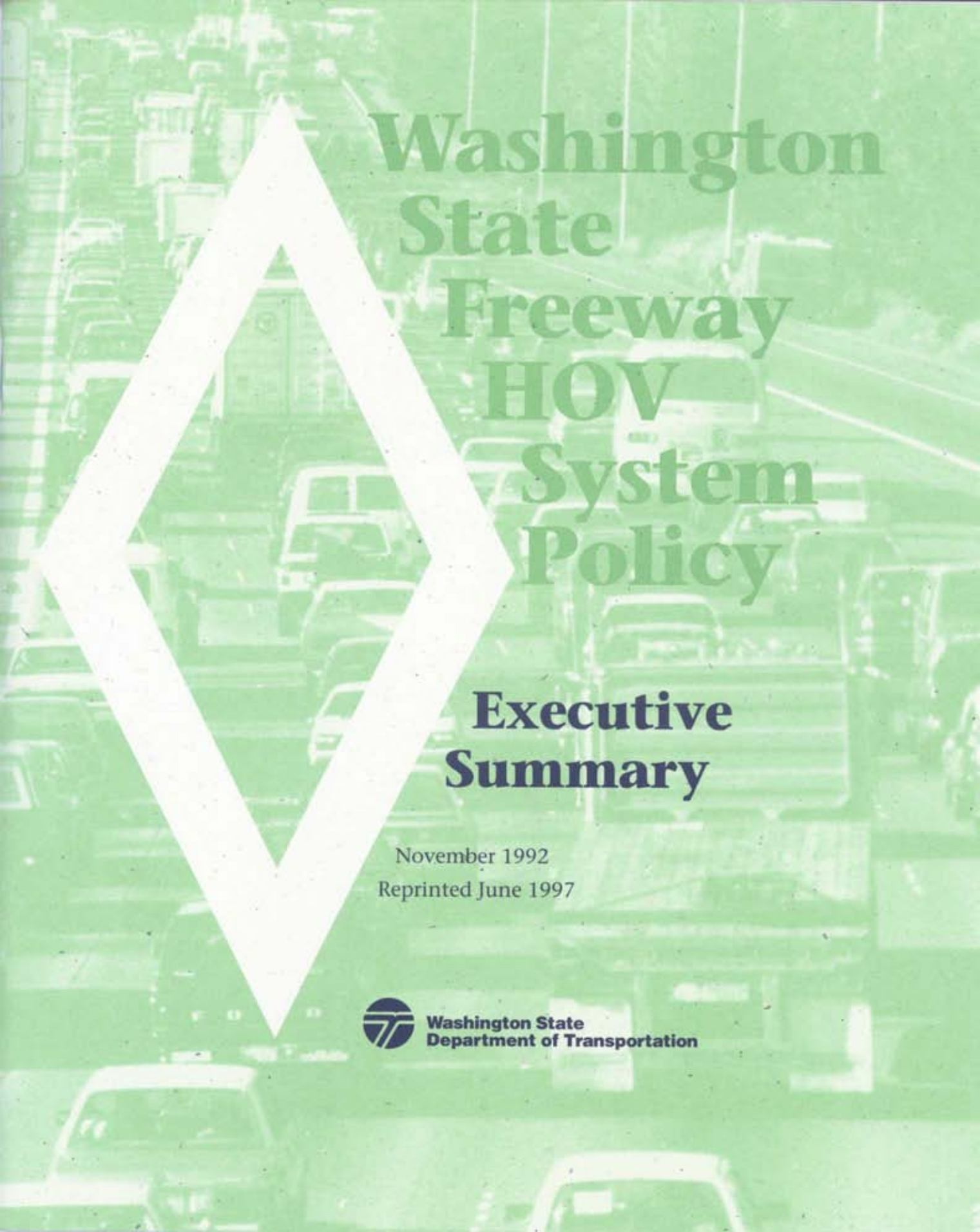

Washington State Freeway HOV System Policy

Executive Summary

November 1992
Reprinted June 1997

Washington State
Department of Transportation

Washington State Freeway HOV System Policy

Executive Summary

November 1992

Reprinted June 1997

Washington State Department of Transportation
Public Transportation and Rail Division
PO Box 47387
Olympia, Washington 98504-7387

Additional copies of this report
can be obtained by writing to:

Washington State Department of Transportation
Public Transportation and Rail Division
High Capacity Transportation (HCT) /
Transportation Demand Management (TDM) Office
Transportation Building
P.O. Box 47387
Olympia, WA 98504-7387

or by calling Jerry Ayres,
HOV/HCT Programs Coordinator, at
(360) 705-7910.
Internet: *ayresj@wsdot.wa.gov*

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A Message from Secretary Sid Morrison

Providing the people of Washington with safe and efficient mobility options is a major challenge and goal of the Washington State Department of Transportation (WSDOT). Customers are the focus of everything we do, and our overall vision is to *Move it better!*

It has long been our priority to provide transportation programs and facilities that enhance our economic vitality and address the growing demands for moving people and goods around and through the state. Voter approval of Sound Move, the ten year Regional Transit System Plan for the Puget Sound region, and the level of planning underway for similar transportation systems in other urban regions of the state emphasize the growing importance and value being placed on these issues.

WSDOT has an established policy regarding the high occupancy vehicle (HOV) system. The goal – provide an infrastructure that supports alternatives to single occupancy vehicle use and encourage people to use higher occupancy modes of travel. Through transportation industry partnerships we can jointly developed a statewide transportation system that meets our needs and is second to none.

At WSDOT we are committed to improving mobility and increasing freeway efficiency. HOV will continue to play a key role in congestion management strategies which allow our transportation systems to move more people and meet current and future mobility needs.

Sid Morrison
Secretary of Transportation

What is the relationship between Commission HOV policy and policy presented in this booklet?

Answer: They are directly related and complement each other.

On May 15, 1996, the Washington State Transportation Commission adopted *Statewide Freeway HOV Policy*. It is included as part of *Washington's Transportation Plan 1997-2016*, the 20-year vision for all modes of transportation in Washington State.

The principal features of Commission Statewide HOV Policy are:

- clarification of the state's responsibility to finance construction of freeway HOV lanes, as well as to manage their design, construction and operation.
- provides regional flexibility through a collaborative process between the department and Metropolitan Planning Organizations.
- provides the public an opportunity to influence proposed significant changes in HOV lane policy or operation.
- protects HOV system 'integrity' by requiring that regional HOV operating policies include a HOV speed and reliability standard, and a mechanism to enforce that standard.

The connection with this booklet:

Commission HOV policy designates this *Washington State Freeway HOV System Policy* as the resource for HOV policy direction. Policies contained herein are comprehensive and intended for immediate use on freeway HOV systems. In regions of the state where HOV systems exist or are being planned, the Commission invites regional review of these policies through a process which is described in the Commission document*.

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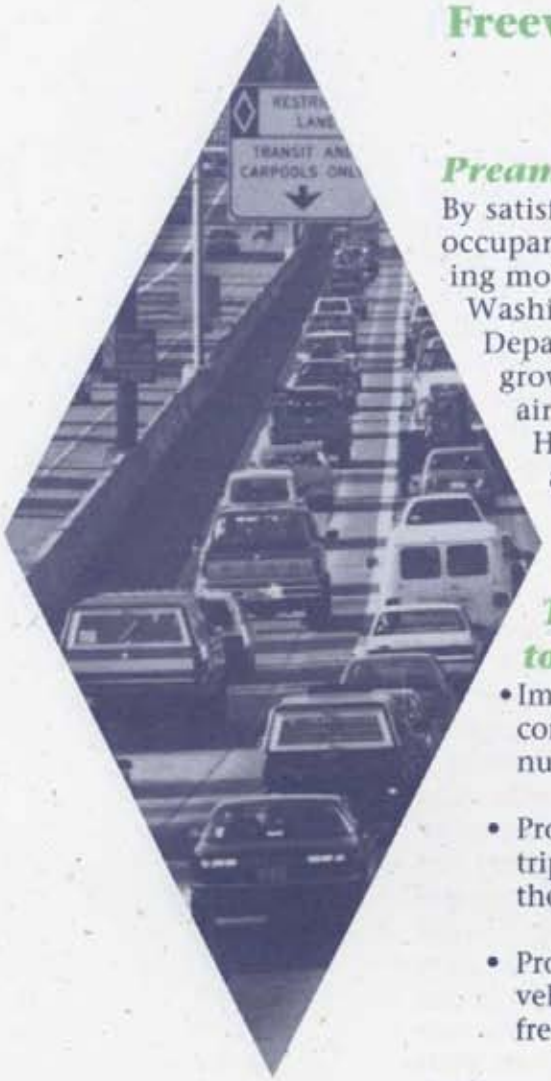
* For a copy of the Washington State Transportation Commission, *Statewide Freeway High Occupancy Vehicle Policy*, please write or call:

Jerry Ayres
WSDOT
PO Box 47387
Olympia, WA, 98504-7387

(360) 705-7910

Both of these document can also be found on the WSDOT Internet home page:
http://www.wsdot.wa.gov



Freeway HOV System Objectives

Preamble

By satisfying the following overall objectives, the high occupancy vehicle (HOV) system is successfully providing mobility choices consistent with the mission of the Washington State Transportation Commission, Department of Transportation and the goals of state growth management, commute trip reduction and air quality programs. Critical to the success of the HOV system is public support. These objectives and all decisions regarding the system must reinforce public acceptability of and support for HOV facility development.

The objectives of the HOV systems are to accomplish the following:

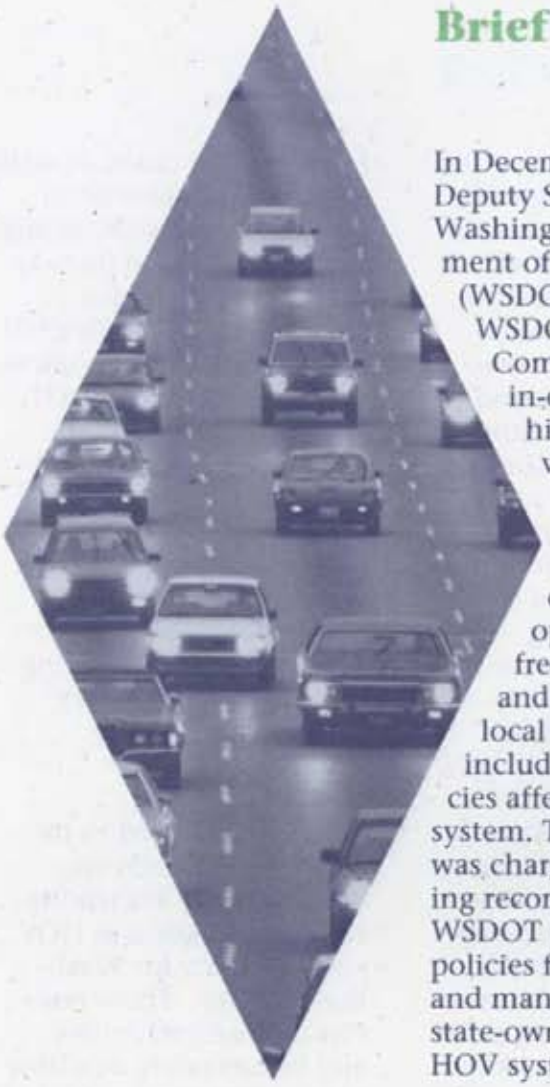
- Improve the capability of congested freeway corridors to move more people by increasing the number of persons per vehicle.

- Provide travel time savings and a more reliable trip time to high occupancy vehicles that use the facilities.

- Provide safe travel options for high occupancy vehicles without unduly affecting the safety of the freeway general-purpose mainlines.

Measures of effectiveness used to determine the impact of the HOV system include the following:

- person throughput,
- vehicle occupancy,
- comparative and absolute general-purpose and HOV lane travel times,
- travel time reliability, and
- accident rates.



Brief Policy Development History

In December 1989, the Deputy Secretary of the Washington State Department of Transportation (WSDOT) appointed the WSDOT HOV Study Committee to take an in-depth look at the high occupancy vehicle (HOV) program. The task included review of planning, construction and operations of the freeway HOV system and its relationship to local jurisdictions, including transit agencies affected by the system. The committee was charged with developing recommendations for WSDOT positions and policies for administration and management of the state-owned portion of the HOV system.

Initially, 12 issues were identified for review. Detailed committee discussions identified additional issues which were combined into like categories with the original 12 issues and assigned to team members for subcommittee action. After thorough investigation, discussion and review of existing procedures, policies, and "policies in practice," the HOV Study Committee drafted the HOV Policy Issues report, a compilation of 14 HOV issue areas matched with policy recommendations.

This draft policy statement document was submitted to local and regional jurisdictions throughout the state for technical review, critique and comments.

By early 1991, WSDOT had received guidance and comments from 23 agencies statewide. These comments were then reviewed by the WSDOT HOV Study Committee and incorporated, into a final draft report.

In April 1991, the final draft report was re-circulated to local and regional jurisdictions with an invitation to attend an all-day workshop. The workshop discussion focused on HOV system policy issues and the process through which WSDOT would proceed with adoption of freeway HOV policy.

From workshop discussion, and additional written comments received from jurisdictions, the

HOV policy report was again edited, resulting in completion of the *Washington State Freeway HOV System Policy – Final Report.* WSDOT executives reviewed and commented on the document, and on August 20, 1991, the Deputy Secretary approved adoption of this document as department policy for the state-owned portion of the HOV system.

Freeway HOV policies have been amended several times since 1991. Shortly after issuing the first policy document WSDOT set-up a policy development, review and decision-making process. An executive committee was appointed to make final policy and administrative decisions. This HCT/HOV Policy Board created a multi-agency committee with membership representing regions of the state to help WSDOT management review and amend HOV policy.

In the mid-1990s the Washington State Transportation Commission became more involved in HOV system planning and policy development issues. Through the State Highway System Plan, an element of Washington's Transportation Plan – the financially constrained 20-year multimodal plan for the state – the Commission committed to completing the Puget Sound Freeway Core HOV lanes. Also, in 1995, the Commission appointed an ad hoc committee to help develop a process which allowed for regional flexibility in developing congestion management strategies and mobility solutions; and included the Commission and the public in HOV system policy decision making. Representatives of business and government participated on this committee. The Commission HOV Stakeholder Committee completed their assignment in September 1995 and submitted HOV policy recommendations. At their May 15, 1996 meeting the Transportation Commission adopted *Statewide Freeway HOV Policy,* which has been included as an element of *Washington's Transportation Plan.*

The Commission-level HOV policy clarifies the state's responsibility to finance construction of freeway HOV lanes, as well as assuring state control for designing, constructing and operating the freeway HOV system. It also allows for regional flexibility through a collaborative process between WSDOT and Metropolitan Planning Organizations; and allows more opportunity for public and regional input in decision making. It protects HOV system *integrity* by requiring that a region's HOV operating policies include a HOV speed and reliability standard.

Policies contained in this booklet have been endorsed by the Transportation Commission as HOV system policy for Washington State. These policies are comprehensive and immediately available for use on freeway HOV systems. The HCT/HOV Policy Board will continue to provide administrative oversight of HOV policy development and will work with the Transportation Commission and/or MPOs in the state to amend HOV policy as such needs arise.

Freeway HOV System Policy Executive Summary

The mission of the Washington State Department of Transportation (WSDOT) is to be a transportation team, second to none in the world, meeting the mobility needs of people and products of Washington State. Mission objectives include reducing traffic congestion and enhancing mobility. WSDOT began a strong transportation system management program in the early 1970s. Today, its elements are implemented through the planning, program development and highway construction programs, traffic management systems in urban areas, and Venture Washington, the statewide Intelligent Transportation System (ITS) program.

The overall goals and objectives of the high occupancy vehicle (HOV) program are to maximize the people-carrying capacity of the freeway system by providing incentives to use buses, vanpools and carpools and to provide capacity for future growth in travel demand. Through HOV programs, WSDOT strives to make the best use of existing facilities and maintain current and future highway mobility by increasing freeway efficiency and promoting programs to move more people in fewer vehicles. These programs also serve to mitigate transportation-related pollution and reduce dependency on fossil fuels.

Most existing elements of the HOV system have been designed and constructed under provisions of the Federal Surface Transportation Assistance Act. Future funding for completing the HOV lane system in the Puget Sound region and building HOV projects in other regions of the state is expected to come from federal, state, regional, and private sector sources.

In developing HOV policy, WSDOT managers recognize that no one option to the single occupant vehicle will succeed in enhancing mobility and solving traffic congestion problems. Implementing a variety of HOV system elements serves to complement the overall efficiency

of a high capacity transit system and the total transportation network in urban regions.

Also recognized is the importance of planning for support facilities such as park and ride lots and HOV direct access ramps, ITS applications such as Surveillance, Control and Driver Information systems and HOV ramp bypasses, and support services such as express bus service, ridematch services, parking strategies, incident management, and demand management programs. An effort to coordinate support services must be included in planning and designing HOV lanes and facilities.

The following policies are directed specifically toward freeway HOV facilities and services. Many of the same policy issues are also important for arterial HOV facilities. Because of limited operational experience and study of arterial HOV facility applications, specific statements regarding those facilities have not been developed by WSDOT. Several local jurisdictions in the Puget Sound region have implemented arterial HOV facilities and are investigating the most effective ways for operating arterial HOV lanes. It is likely that arterial HOV policies or guidelines will be developed in the future.

This policy document is the result of a coordinated WSDOT/local jurisdiction effort to update the freeway HOV policy which was initially introduced in November 1991. Following are WSDOT policies for the freeway portion of the state HOV system.

General HOV Policy Statement

1 WSDOT regards the HOV system as a high capacity transportation system whose goal is to maximize people moving capability of the state highway system, mitigate transportation-related pollution and reduce dependency on fossil fuels.

2 Through the state transportation planning process and regional transportation planning organizations, WSDOT shall take a pro-active role in promoting and coordinating the development of HOV systems, transportation demand management activities and related transportation system management activities. This will be accomplished through support of local jurisdictions and participation in their transportation and land-use planning efforts statewide.

3 WSDOT recognizes that an HOV system may not be the only high capacity transit system in a region depending on adopted regional funding strategies and transportation policies. It is believed that in regions such as the Puget Sound, a completed HOV system must be in place to meet federal environmental clean air standards, and support overall mobility needs and high capacity transportation systems of the future.

4 All policies adopted by WSDOT regarding this system shall be based on providing incentives for people to shift from single occupant vehicles to ridesharing modes.

5 WSDOT's aim is to enhance Washington's quality of life, protect the natural environment, preserve mobility for people today and ensure personal mobility in the year 2000 and beyond.

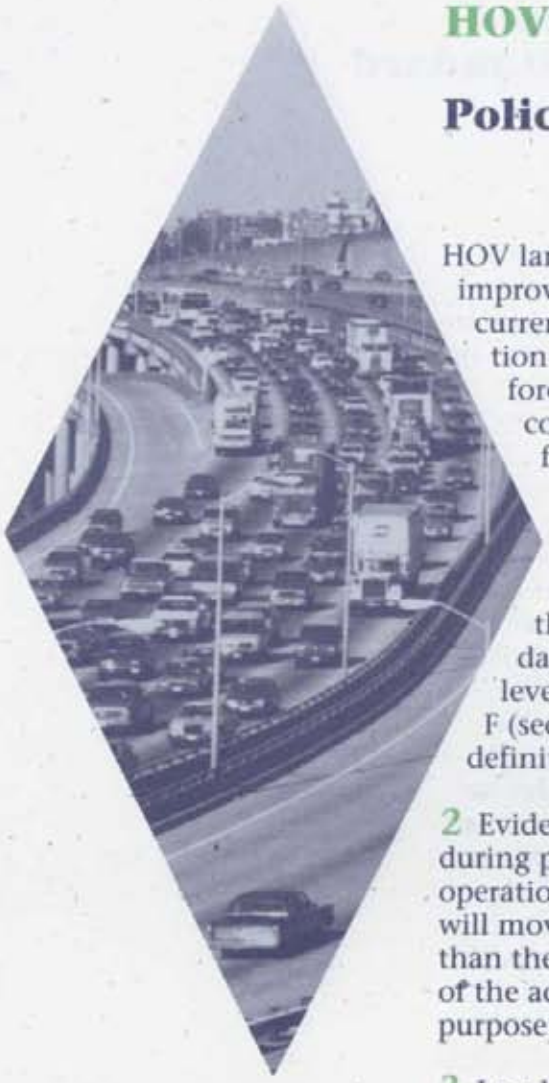
HOV Coordination Between Agencies and Modes

Policy

1 Coordination is an essential aspect of a successful HOV program. WSDOT shall coordinate HOV efforts with regional and local transportation agencies throughout the planning, design, construction and operation phases.

2 Intermodal considerations and coordination shall take place throughout the HOV planning and development phases.

3 When changes are to occur to the HOV System, WSDOT shall coordinate such change through a regional process, as designated by the Washington State Transportation Commission and described in *Washington's Transportation Plan*.



HOV Lane Minimum Thresholds

Policy

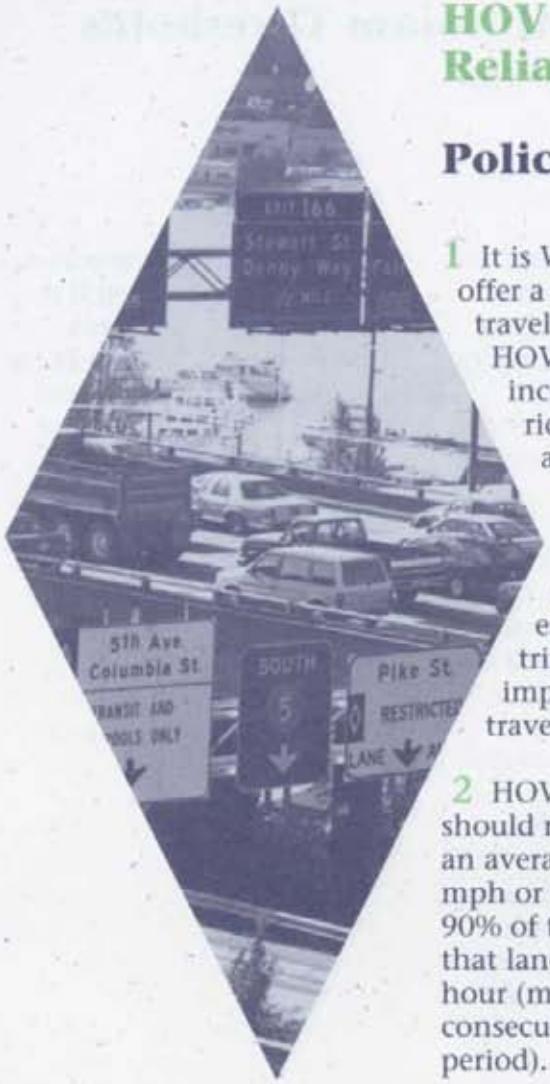
HOV lanes are appropriate improvements when current traffic congestion conditions and/or forecasted traffic congestion meet the following criteria:

1 Facility demand exceeds capacity for more than an hour each day as evidenced by level of service E or F (see *Glossary* for definition).

2 Evidence exists that during peak hours of operation, the HOV lane will move more people than the per lane average of the adjacent general purpose lanes.

3 Local support for construction of the HOV lane is demonstrated through active regional support or public surveys.

4 An HOV route segment may also be justified if it enhances HOV system continuity, for example by providing a link between HOV corridors identified in the *Freeway Core HOV Lane System* (see map, page 32).



HOV Speed and Reliability Standard

Policy

1 It is WSDOT policy to offer a reliable speed and travel time advantage to HOVs, both to offer an incentive to use ridesharing modes and to enhance person carrying capacity into the future. For transit riders especially, a reliable trip time is equally as important as a fast travel speed.

2 HOV lane vehicles should maintain or exceed an average speed of 45 mph or greater at least 90% of the times they use that lane during the peak hour (measured for a consecutive six-month period).

Carpool Definition

Policy

1 The statewide base carpool definition for limited access freeways is two or more persons.

2 Exceptions to the base carpool definition may be made in cases where an HOV lane is operated on a converted roadway shoulder, or where safety may be compromised at higher volumes of HOV traffic due to substandard roadway geometrics or by opening day projected volumes.

3 For each new portion of an HOV route segment, the carpool definition shall initially be established during the preliminary engineering phase of the HOV project and shall be carried through the environmental and design report stages, allowing for public and interjurisdictional review and comment.

4 The carpool definition shall be consistent on a HOV route segment. HOV bypasses or ramps leading to the HOV route segment may be treated differently when it is beneficial to that immediate area.

5 Based on results of the HOV System Evaluation, the carpool definition may be increased to mitigate cases where the HOV Speed and Reliability policy is violated. The carpool definition may be decreased to the base definition if it can be demonstrated that the result would increase person volumes without violating the Speed and Reliability policy. This policy allows for variations in the carpool definition by direction.

6 Traffic regulations adopted by WSDOT on June 29, 1984, allow authorized vehicles and vehicles meeting the minimum occupancy definition to use state HOV facilities. Authorized vehicles include motorcycles, buses with 20 or more seats and public transportation vehicles as defined by state law.

Hierarchy of HOV Facility Development

Policy

1 WSDOT recognizes and supports the concept that a logical hierarchy exists in HOV facility development and shall use this knowledge in statewide planning and analysis of HOV systems. The intent is to plan and design facilities that are amenable to future improvements in the hierarchy.

2 WSDOT shall review its design policies currently in use for HOV route segment facility design and consider options which will enhance and facilitate future roadway improvements. Examples include: providing right of way for future physically separated facilities, and including transit and other HOV facility access needs in design considerations and policy.

3 WSDOT shall establish financial strategies to cooperatively develop HOV support facilities which will best benefit a region's HOV system.

Inside Versus Outside HOV Lanes

Policy

Flexible criteria for the location of HOV lanes will allow for variations based on specific corridor needs.

Generally speaking:

1 Outside HOV lanes are most appropriate for a corridor with widely dispersed trip patterns, such as a freeway serving suburb to suburb trips, with bus routes that exit and enter at nearly every interchange.

2 Inside HOV lanes are most appropriate for a corridor with concentrated trip patterns, such as a freeway serving trips to or from the central business district or very large activity center and characterized by express bus service.

3 The decision to pursue development of inside HOV lanes shall trigger an evaluation of transit and other HOV access issues within the corridor. This evaluation should include a comprehensive analysis of alternatives, such as provision of direct HOV lane access.

Exclusive HOV Ramp Facilities

Policy

1 Exclusive HOV ramps with direct access to inside HOV lanes or physically separated HOV roadways optimize HOV system efficiency.

2 WSDOT shall establish financial strategies to cooperatively develop exclusive HOV ramp projects which will best benefit a region's HOV system.

3 WSDOT shall seek to work with local transit agencies and governments in the regions of the state to design policies and procedures leading to development of an exclusive HOV ramp program.

Requirements for Physically Separated HOV Facilities

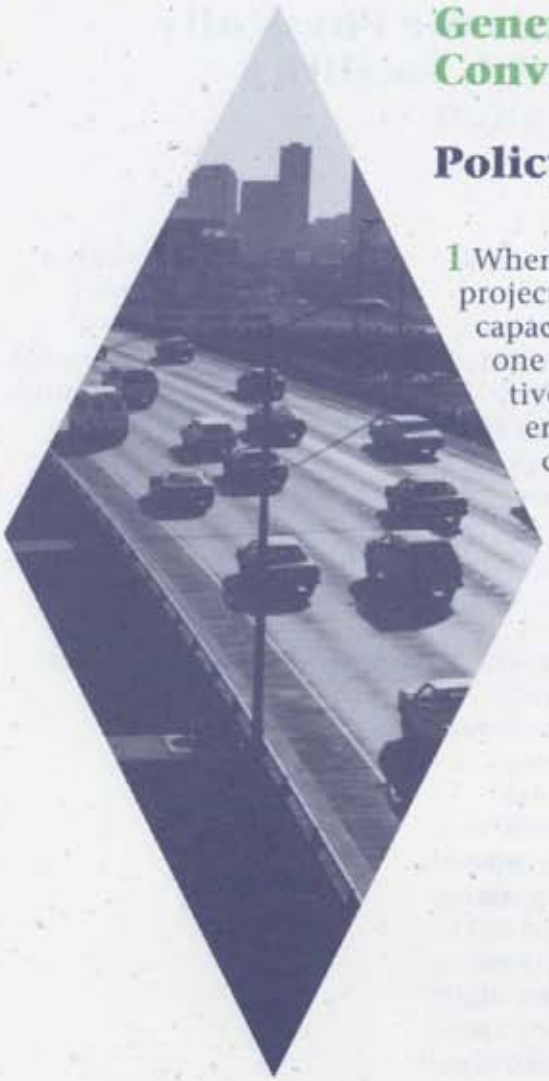
Policy

1 Consideration shall be given to physically separated HOV roadways when forecasted HOV demand is high, merging and/or weaving problems are severe or general purpose lane congestion is severe.

2 If strong directional flows are present and projected to continue in the future with off-peak directions rarely congested, reversible roadways may be appropriate.

3 Two-directional, separated HOV roadways shall be considered when directional splits are relatively even for the number of lanes present, there is a demand for ridesharing in both directions during peak hours, or there is a large volume of buses adversely affected by congestion in the off-peak hours or reverse commute direction.

4 WSDOT shall establish financial strategies to cooperatively develop separated roadway facilities to enhance and benefit a region's HOV system.



General Purpose Lane Conversion to HOV

Policy

1 When proposing projects to address capacity deficiencies, one of the alternatives to be considered shall be the conversion of a general purpose lane to an HOV lane.

Hours of Operation

Policy

1 HOV lanes constructed for HOV purposes shall be reserved for buses, motorcycles, carpools and vanpools meeting minimum occupancy requirements, 24-hours per day, seven days a week. This policy does not apply to HOV restrictions on ramps.

2 WSDOT shall solicit private, transit and local government support in increasing regional efforts to market and educate the general public about the need for a 24-hour, seven-day HOV lane operating policy.

3 Variable carpool definitions may be based on time of day.

Enforcement Issues and HOV Lane Violations

Policy

1 WSDOT fully supports the HERO program to discourage improper use of HOV lanes by providing a telephone hotline citizens can use to report HOV lane violators. WSDOT will continue to promote the program in regions where HOV systems exist or are planned.

2 WSDOT encourages enforcement of the HOV lanes by the Washington State Patrol.

3 WSDOT recognizes the importance of enforcement when a HOV facility first opens and shall fund enforcement for the first six months of HOV lane operation.

4 WSDOT is committed to designing and constructing HOV facilities that incorporate safe enforcement features and solicit the Washington State Patrol's involvement in design and review of HOV lane development.

5 WSDOT shall keep regulations and signing clear and consistent to avoid driver confusion.

6 To deter violations, WSDOT shall assign a team to work with the Washington State Patrol to develop and propose legislation creating a separate citation category for HOV violations and which carries an increased, graduated penalty.

HOV System Performance

Policy

1 To accurately evaluate the system's effectiveness, WSDOT will annually collect and analyze HOV lane data including volume, vehicle occupancy, travel time savings and violation rates.

2 WSDOT shall continue encouraging support and participation from other agencies in the gathering and use of this data.

3 WSDOT shall prepare an annual HOV system report documenting system performance. Performance of general purpose lanes will be included for comparative purposes.

Transportation Demand Management

Policy

1 WSDOT shall continue being a leader in development and promotion of transportation demand management programs and strategies. This includes development of commute trip-reduction plans and other programs for WSDOT employees.

2 WSDOT recognizes and supports transportation demand management measures as essential components of an effectively operating HOV system.

3 WSDOT shall continue supporting other programs and initiatives designed to promote transportation demand management measures, similar to those established by the Washington State Ridesharing Organization and King County Economic Development Council's Commuter Challenge Campaign.

4 WSDOT shall promote and support transportation demand management legislation and lead the way for its implementation. WSDOT shall be a proactive partner with local governments in developing commute trip-reduction and other transportation demand management plans.

HOV System Marketing and Promotion

Policy

1 All activities shall be coordinated with all appropriate WSDOT public affairs offices.

2 WSDOT shall promote maximum use of the HOV system through education and marketing programs. Promotion of the positive aspects of the HOV system shall include targeting people not using the system.

3 WSDOT headquarters' divisions shall work with and through the WSDOT Office of Urban Mobility, WSDOT Public Transportation and Rail Division, and the appropriate WSDOT region offices to assure effective coordination of HOV promotions with transit agencies and local and regional governments.

4 Where appropriate, WSDOT HOV promotional activities shall be coordinated with and done in conjunction with local and regional jurisdictional efforts statewide.

5 Education and marketing elements shall be included in project development and construction expense for each major HOV project.

Surveillance, Control and Driver Information and HOV Bypass

Policy

1 All planning for and use of Surveillance, Control and Driver Information system elements on a freeway corridor shall be carried out through close coordination with local agencies within the corridor.

2 Surveillance, Control and Driver Information system components will be used in heavily congested areas to mitigate traffic congestion, assist with managing incidents and improve mobility on the freeway system. High occupancy vehicle lanes and Surveillance, Control and Driver Information systems will be constructed concurrently whenever possible.

3 WSDOT shall review ramp metering justification during project development for all improvements to congested freeways in regions of the state where operating speeds are regularly less than 50 mph for at least one half hour during peak commute hours.

4 Ramp metering may be used as a technique to mitigate the effects of heavy congestion in the general purpose lanes.

5 WSDOT shall construct HOV bypasses when ramp metering is installed and operational studies show that a benefit to HOVs could be expected.

6 WSDOT shall continue to promote and implement elements of the incident management program.

Park and Ride Facilities and Express Transit Stations

Policy

WSDOT recognizes that for an HOV system to operate effectively there must be a network of park and ride lots and, where appropriate, express transit stations strategically located. Transit services must be adequately scheduled to support the HOV system elements.

1 WSDOT shall continue working with transit agencies and local governments to coordinate park and ride lot development and implement management policies to address security and enforcement and operational issues.

2 WSDOT shall continue working with local governments and transit agencies to ensure new express transit stations and related transit facilities are designed to operate successfully.

3 WSDOT shall continue working with transit, local and regional jurisdictions, and the private sector to support site selection and development of mutually beneficial park and ride lot facilities.

HOV Design Standards

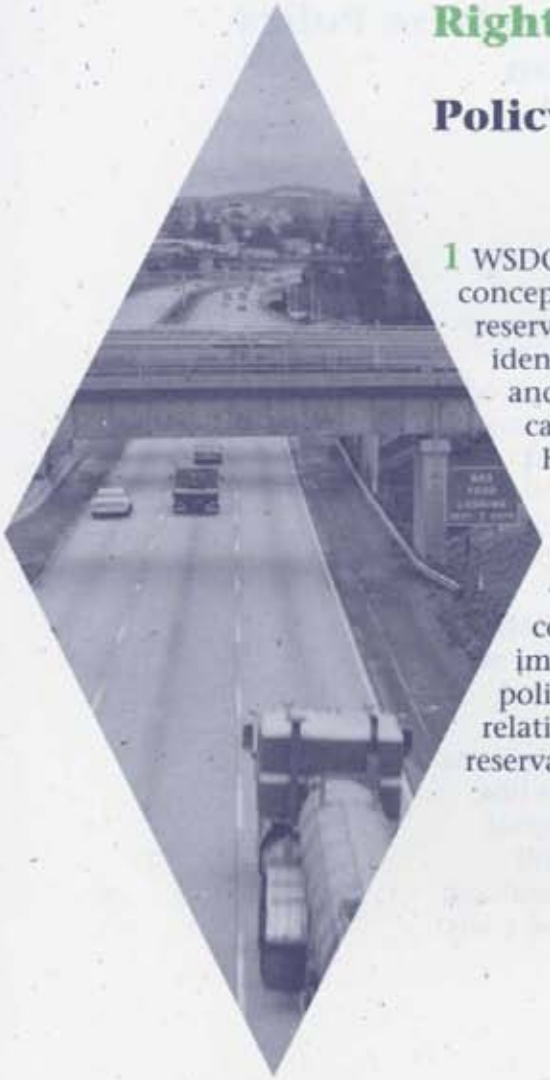
Policy

1 WSDOT shall encourage HOV priority treatments for all highway capacity improvement and transit benefit projects. This will occur through *Design Manual* guidelines which favor HOV system development and support.

2 WSDOT shall review current design policies for HOV lane facilities and make provisions allowing for future HOV improvements where practical. Examples include: providing right of way for future physically separated facilities and providing shoulder and enforcement areas to increase system safety elements.

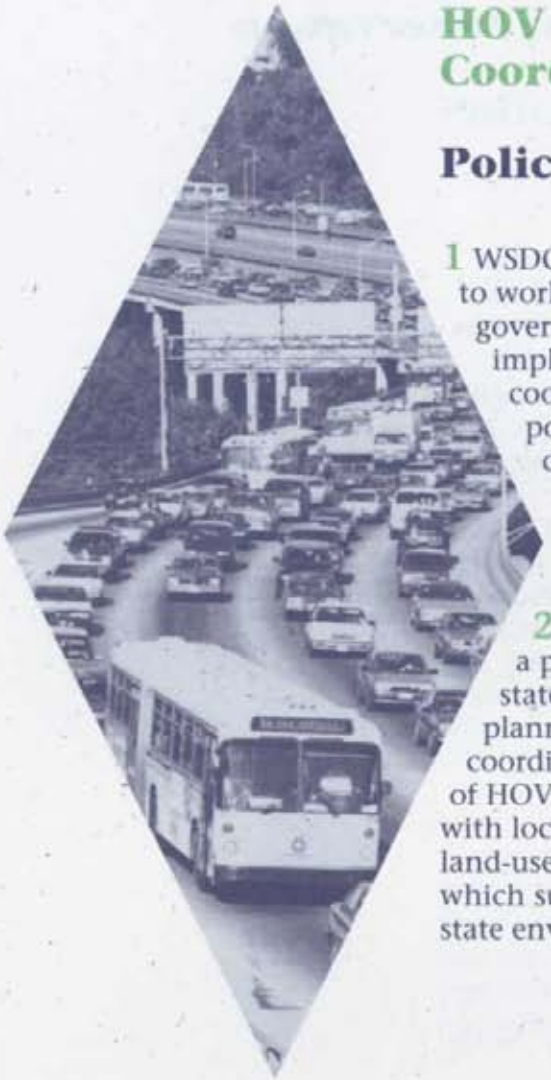
Right of Way Reservation

Policy



1 WSDOT supports the concept of right of way reservation in corridors identified for short and long term high capacity transit and HOV projects.

2 WSDOT shall continue seeking ways to remove constraints and improve current policy and practices relating to right of way reservation.



HOV and Land-Use Policy Coordination

Policy

1 WSDOT is committed to working with local governments to assure implementation of coordinated land-use policies encouraging development of HOV facilities that support adopted land-use policies.

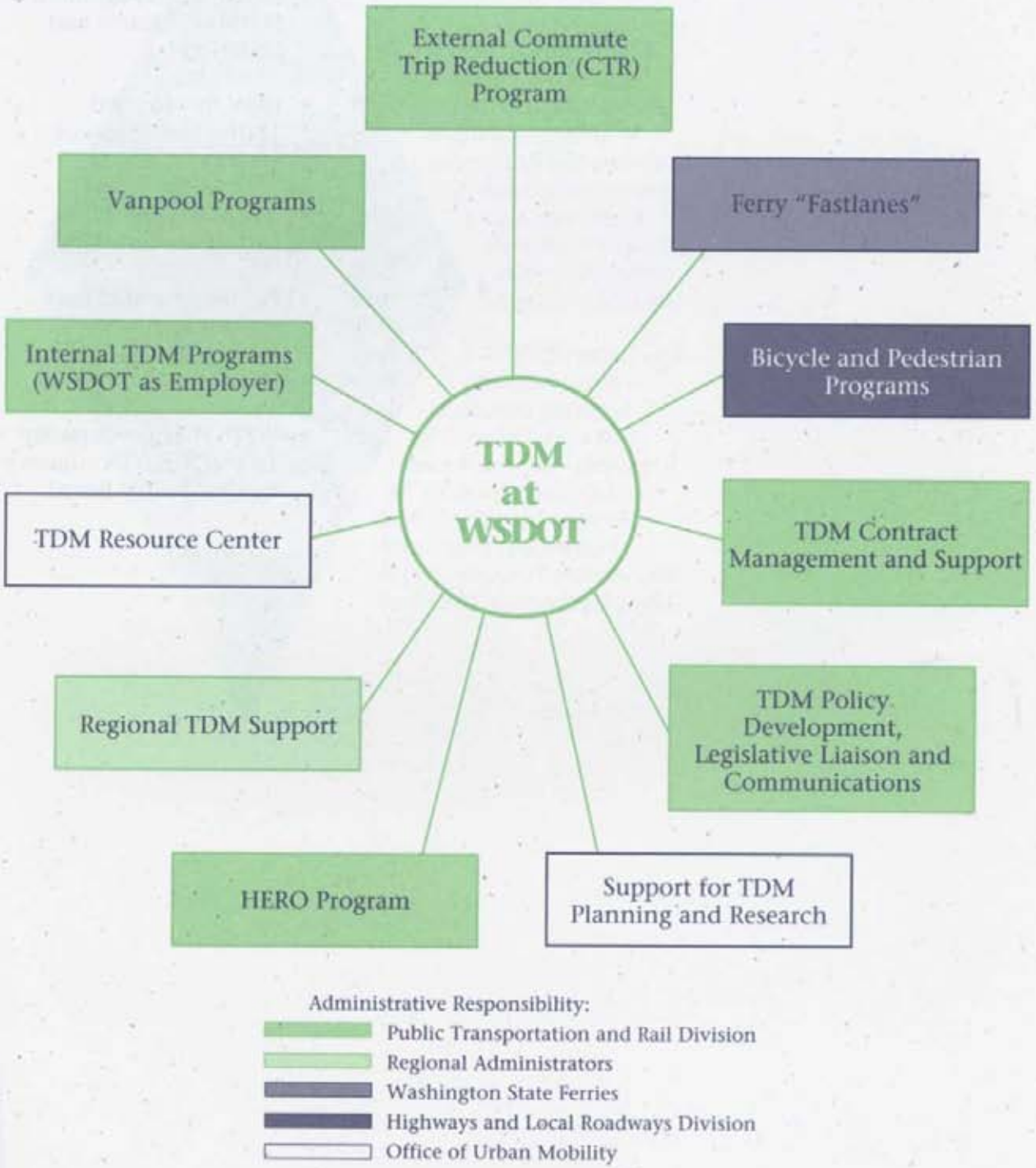
2 WSDOT shall take a proactive role on state and regional planning levels to coordinate development of HOV systems in line with local and regional land-use policies and which support federal and state environmental goals.

Appendix

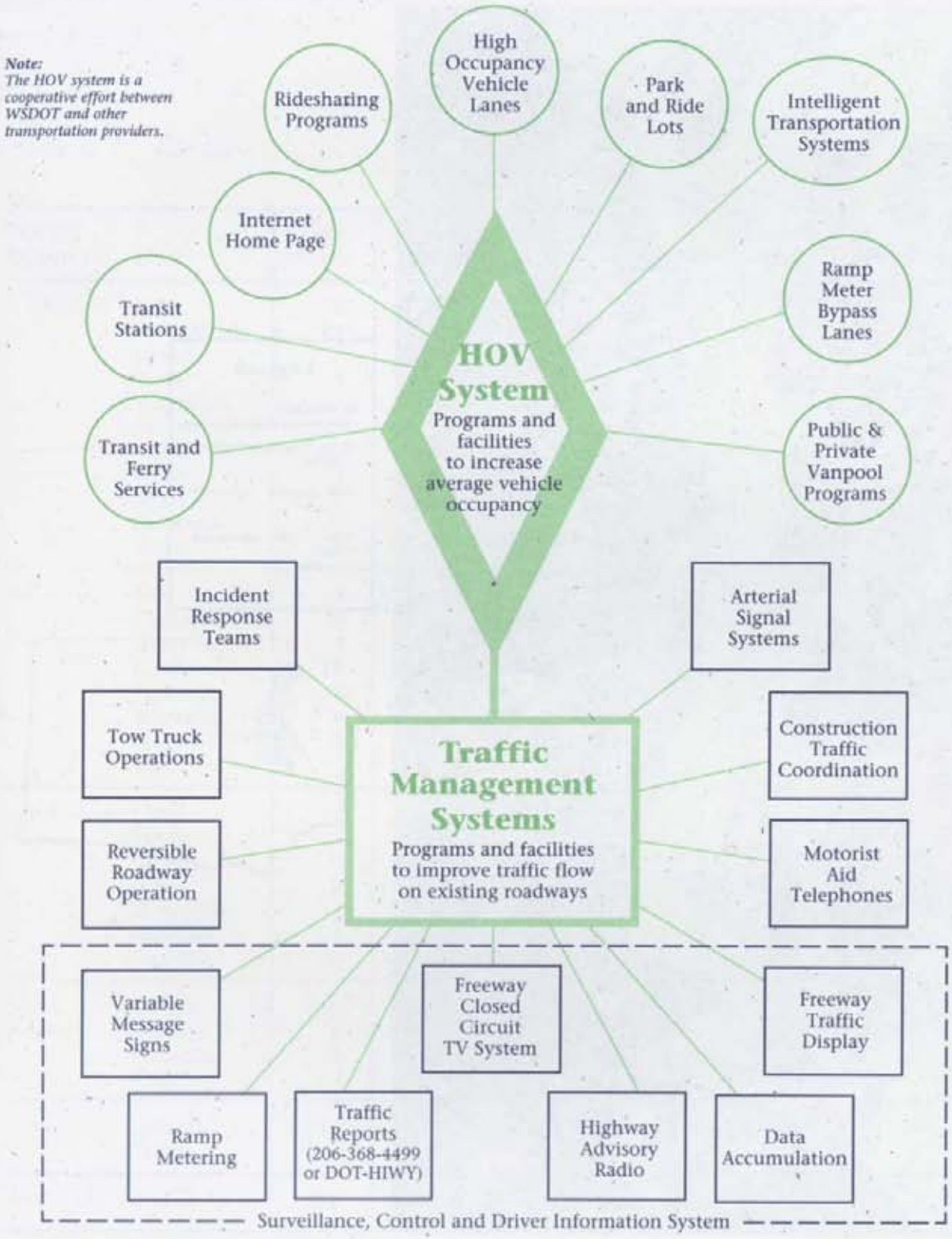
- Transportation Demand Management (TDM) Programs and Function
- HOV System and Traffic Management System
- Freeway Core HOV Lane System (Map)
- Publicly Funded Park and Ride Lots
- Glossary
- WSDOT High Capacity Transit/High Occupancy Vehicle Policy Board

Transportation Demand Management (TDM) Programs and Functions

Washington State Department of Transportation

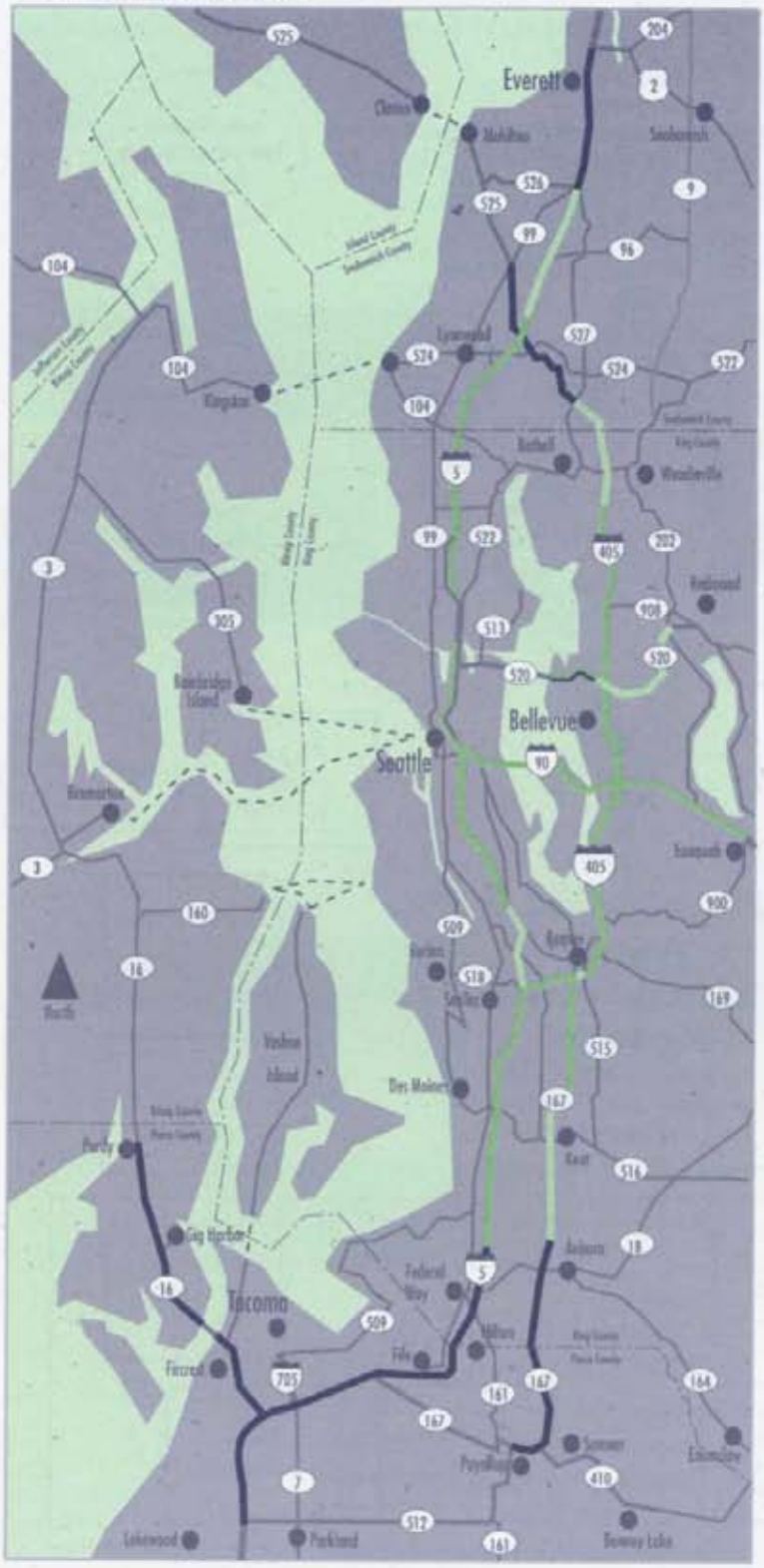


HOV System and Traffic Management System



Freeway Core HOV Lane System

in the Puget Sound Region



Legend

HOV Project Status

- Open to Traffic — 140 miles
- Under Construction — 51 miles
- Future HOV Lane projects — 113 miles

Publicly Funded Park and Ride Lots

Listed by WSDOT Region and County

WSDOT Region	County	Number of Lots	Number of Stalls	Owned by State	Owned by Transit	Owned by Other	Maintained/Operated by State	Maintained/Operated by Transit	Maintained/Operated by Other
Northwest	King	110	17,262	30	21	59	4	106	0
	Snohomish	34	4,944	22	2	10	4	29	1
	Island	8	653	7	0	1	6	1	1
	Skagit	3	56	2	0	1	2	0	1
	Whatcom	5	192	3	1	1	3	1	1
	Totals	*160*	*23,107*	*64*	*24*	*72*	*19*	*137*	*4*
North Central	Grant	3	93	2	0	1	2	0	1
	Chelan	4	135	1	0	3	1	0	3
	Douglas	1	26	0	0	1	0	0	1
	Totals	*8*	*254*	*3*	*0*	*5*	*3*	*0*	*5*
Olympic	Pierce	19	2,343	9	1	9	6	12	1
	Clallam	3	115	2	0	1	2	0	1
	Grays Harbor	3	67	2	0	1	1	0	2
	Kitsap	18	1,757	5	0	13	3	14	1
	Thurston	7	522	5	0	2	1	6	0
	Jefferson	4	145	2	0	2	2	0	2
	Mason	3	100	2	0	1	2	0	1
	Totals	*57*	*5,049*	*27*	*1*	*29*	*17*	*32*	*8*
Southwest	Clark	7	831	5	1	1	4	2	1
	Pacific	1	13	1	0	0	1	0	0
	Cowlitz	8	459	8	0	0	8	0	0
	Lewis	2	145	2	0	0	2	0	0
	Skamania	1	30	1	0	0	1	0	0
	Klickitat	1	19	1	0	0	1	0	0
	Totals	*20*	*1,497*	*18*	*1*	*1*	*17*	*2*	*1*
South Central	Yakima	10	395	5	0	5	6	0	4
	Benton	8	592	3	2	3	4	4	0
	Franklin	1	50	0	1	0	0	1	0
	Totals	*19*	*1,037*	*8*	*3*	*8*	*10*	*5*	*4*
Eastern	Spokane	14	2,205	5	2	7	0	14	0
	Totals	*14*	*2,205*	*5*	*2*	*7*	*0*	*14*	*0*
Statewide	*Grand Total*	*278*	*33,149*	*125*	*31*	*122*	*66*	*190*	*22*

Glossary

Barrier-Separated Facility: HOV lane (or lanes) that is (are) physically separated from adjacent mixed flow freeway lanes.

Buffer-Separated Facility: An HOV lane separated from adjacent mixed flow freeway lanes by a designated buffer width of one foot or more.

Bus/Carpool Priority Control: Element of traffic control which gives preferential treatment to buses, vanpools and carpools.

Busway: A preferential roadway or ramp designed for exclusive use by buses, located either in separate right of way or within the freeway corridor. Busways are normally physically separated facilities.

Commute Trip Reduction: A TDM strategy that encourages the use of alternative transportation modes for commute trips by reducing reliance on single occupancy vehicle travel.

Concurrent Flow Lane: A lane on which, during the entire day or during certain hours of the day, high occupancy vehicles operate in the same direction as the adjacent mixed flow of traffic.

Continuous HOV Lane: An HOV lane on a directional roadway with no gaps between individual HOV segments along its length.

Contraflow Lane: A lane on which, during the entire day or during certain hours of the day, high occupancy vehicles operate in a direction opposite that of adjacent traffic. For freeway applications the lane is separated by pylons or moveable barriers.

Direct Access: Ability of transit or other ridesharing modes to directly access HOV lane without merging across general purpose lanes. An exclusive ramp facility is one way to provide this access. For outside HOV lanes a right hand ramp may also be used.

HOV Route Segment: Represents the length of an HOV lane, between termini located at freeway to freeway interchanges. This definition, as it applies to the policy entitled CARPOOL DEFINITION, is not intended to rule out variations in the required vehicle occupancy by direction or time of day, but is intended to provide reasonable consistency throughout the entire length of each HOV route segment.

Intelligent Transportation Systems (ITS): The application of data processing, communications, control, and electronics to improve safety and efficiency.

Level of Service (LOS): A qualitative measure that incorporates the collective factors of speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs provided by a highway facility under a particular volume condition.

Operational characteristics:

LOS A: A condition of free flow in which there is little or no restriction on speed or maneuverability caused by the presence of other vehicles.

LOS B: A condition of stable flow in which operating speed is beginning to be restricted by other traffic.

LOS C: A condition of stable flow in which the volume and density levels are beginning to restrict drivers in their freedom to select speed, change lanes, or pass.

LOS D: A condition approaching unstable flow in which tolerable average operating speeds are maintained but are subject to sudden variations.

LOS E: A condition of unstable flow in which operating speeds are lower with some momentary stoppages. The upper limit of this LOS is the capacity of the facility.

LOS F: A condition of forced-flow in which speed and rate of flow are low with frequent stoppages occurring for short or long periods of time; with density continuing to increase causing the highway to act as a storage area.

Park and Ride Lot: A parking facility where individuals rendezvous to use carpools, vanpools or public transportation as a transfer of mode with their private automobile. The facility may or may not be served by public transportation.

Ridesharing: A form of transportation in which more than one person shares in the use of a vehicle to make a trip. The concept of ridesharing usually applies to carpools and vanpools, but also applies to riding the bus.

Surveillance, Control and Driver Information System: The name given to those elements of the traffic management system which are used to collect traffic data and relay highway construction and traffic information to the traveling public. System elements include electronic surveillance stations, ramp meters, closed-circuit television, variable message signs and highway advisory radio.

Traffic Management Systems: A group of transportation system management and transportation demand management techniques in the central Puget Sound area enabling more efficient use of the transportation network. System elements include: improved signal systems, park and ride lots, HOV lanes, express bus service, carpool and vanpool programs, electronic surveillance stations, ramp meters, closed circuit television monitoring, variable message signs, highway advisory radio and ridesharing support services and programs.

Transportation Demand Management: Measures designed to reduce the number of single occupant vehicle trips during the peak traffic period. Measures include person trip reduction strategies, which eliminate trips completely, vehicle trip reduction strategies that accommodate person trips in fewer vehicles, and peak period modification strategies that move trips out of the most congested periods.

Washington's Transportation Plan: A planning instrument that guides investments and provides the 20-year vision and policy direction for multimodal transportation development in the state.

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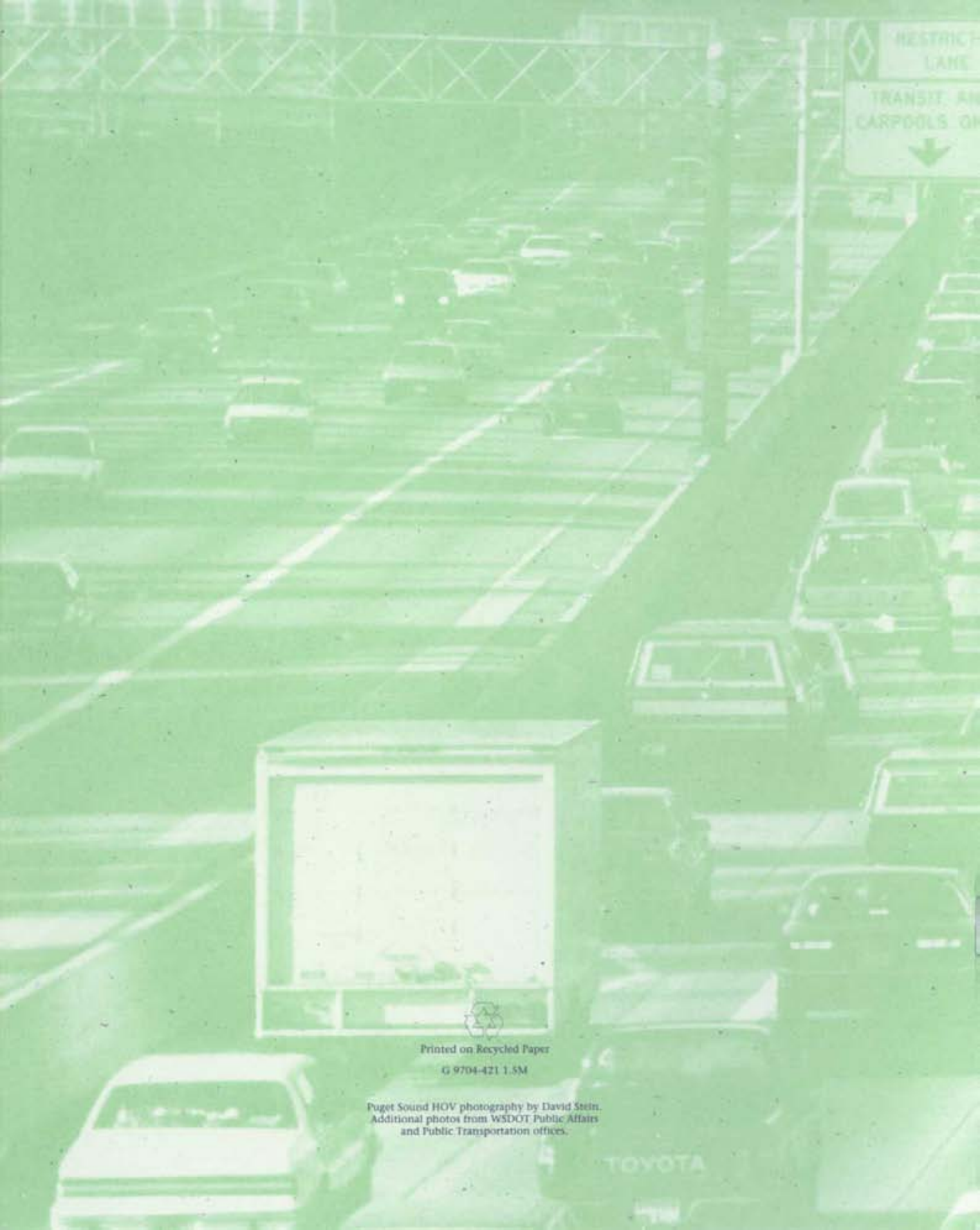

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