I’ve always appreciated the diverse collection of professionals that comprise the Washington Section of ITE. There are folks of various backgrounds, experience, and opinions. It provides a great environment to learn more about our industry, a chance to exchange information, and an opportunity to build long-lasting relationships. While we may not be in agreement on every issue, I hope as professionals we can still respect the opinions that our peers hold. One of these issues is Initiative 985. In a few short weeks, voters will decide on the fate of Initiative 985. This ballot measure reads:

“This measure would: open high-occupancy vehicle lanes to all vehicles Monday through Friday from 9:00 a.m. to 3:00 p.m., Monday through Thursday nights from 6:00 p.m. to 6:00 a.m., and Friday to 6:00 a.m. Monday; require traffic light synchronization, and mandate increased funding for (Continued on page 2)

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This Month: Mass Transit Expansion Proposal (ST2) Joint ITE/WTS Meeting

David Beal, ST2 Program Manager from Sound Transit’s Office of Policy and Planning will give an agency update at the October 21 joint meeting of the ITE and WTS. Transportation is consistently called the region’s #1 problem, creating a need for new solutions. With rising gas prices and environmental concerns, people want more transit options. On November 4, 2008, residents will decide whether to expand mass transit in the Central Puget Sound region.

The Mass Transit Expansion Proposal (ST2) responds to immediate demand for more regional transit service by delivering a 17 percent increase in express bus service in 2009, and achieves a 55-mile regional light rail system five years sooner than earlier proposed. The plan also addresses the region’s projected population increase of 1.2 million by 2030. We hope you will join us on October 21 for this very informative briefing that will also include a discussion of the economic impacts of this mass transit expansion plan.

LOCATION Salty’s on Alki Beach
1936 Harbor Avenue SW, Seattle, WA 98126
DATE Tuesday, October 21, 2008
TIME 11:30 AM Social, 12:00 PM to 1:15 PM Lunch
COST $40.00 ($5.00 for students)
RSVP By Noon on Friday, October 17th at iteregistration@ci.kirkland.wa.us
(Please include company name, address, phone number & names of attendees; note that you will receive an invoice from ITE if you RSVP but are unable to attend.)

Mark Your Calendars!
Upcoming Washington Section meetings are planned for the following dates, so mark your calendars now and plan ahead for the remainder of 2008:
• November 18th — PSRC Destination 2040 and our future with tolls
• December 9th — Training program after a breakfast meeting
roadside assistance. Certain existing revenues, including 15% of state sales and use taxes on vehicles, certain traffic infraction penalties, and certain tolls would be dedicated to traffic-flow purposes.”

Along with being a reputable and respectable organization, ITE Washington Section members are considered among the leaders in the transportation field, which is why our Section has decided to take a position on this initiative. We conducted an online survey to determine if we should take a stand against I-985, and the result was an overwhelming yes! Our Section is careful to make sure that any positions that we endorse are in agreement with the majority of the membership, which is why a survey was conducted. Of the members who responded to the survey, 83% agreed that our Section should oppose the initiative. Included in this newsletter is a position paper written by some of our peers. Please take a moment to review it and educate others about this initiative.

Also on the same ballot is the Sound Transit 2 Plan (ST2), which seeks to expand Sound Transit bus and light rail service, among other plans. If you would like to find out more about this proposition, please join us in our program on October 21 as a Sound Transit official will be on hand to discuss this topic. This will be a joint event with Women’s Transportation Seminar (WTS), as we continue to partner with them in bringing quality programs in the field of transportation.

The results of the two ballot measures discussed above may prove to be critical to the future of mobility and transit in this region. I encourage all of you to take the time to study the issues and make an informed decision at the voting booth. I urge you to take advantage of our outstanding monthly programs as part of this process.

Sincerely,

Nick Ching
President, ITE Washington Section

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**Member News**

**Wayne Wentz, PE, PTOE**, has shifted gears and moved cross country to serve as the new Transportation and Operations Bureau Chief in Arlington, Virginia. Wayne has been active with ITE for over 25 years, and most recently served as part of the advisory board for the Washington Section. He was president of this Section in 1999 to 2000, and has been an integral member of ITE as well as the transportation profession in general. He will be sorely missed in the Northwest, and we wish him the best of luck in Virginia!

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**Newsletter Contact Info**

If you have any changes in your contact information, please let us know so you continue to receive monthly ITE e-mail announcements and newsletters. To update your information, click on the "Membership" link on the Washington State Section ITE website:

[http://www.westernite.org/Sections/washington/index.htm](http://www.westernite.org/Sections/washington/index.htm)

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**Business Card Advertising**

To submit your business card, please send a jpg or tif file of the desired ad to Katherine Casseday at

[k.casseday@fehrandpeers.com](mailto:k.casseday@fehrandpeers.com)

Also send a check for $100 (covers through December 2008) to Katherine Casseday

Fehr & Peers / Mirai
11410 NE 122nd Way, Suite 320
Kirkland, WA  98034-6927
425.820.0100
If you haven’t had the chance to visit the City of Bellevue lately, you will notice quite a number of changes. First off, the City Hall has moved across I-405. The Wilburton Tunnel across I-405 is missing. Lincoln Center was constructed just across the street from Bellevue Square. And what’s with all these tall buildings sprouting everywhere?

Nick Ching kicked off the first meeting of his term as Washington Section president in Bellevue’s new City Hall. He introduced the new Board members and the guest speaker, Goran Sparrman, director of Transportation Services for Bellevue.

Mr. Sparrman provided a comprehensive overview of what’s going on in downtown Bellevue. For those of us that have fallen asleep at the wheel over the past several years, The “Beautiful View” City has seen as many as 19 tower cranes constructing new buildings in the downtown area. Unfortunately, instead of the tight grid street network of downtown Seattle, Bellevue has more super blocks. The lack of right of way creates an added transportation challenge to keep pace with the growth.

To meet the challenges, interdepartmental cooperation has been instrumental for a successful near term outlook. Old freeway overpasses were removed and new overpasses built over I-405. Regular transit service and optimized signals along with great streets initiatives encourage mode splits and non-motorized circulation. But to deal with future transportation needs, a heavier reliance on transit services is needed. These services will be in the form of a transit Rapid Ride providing much shorter headways, improvements to major freeway (I-405, I-90, SR 520) interchanges and a high capacity transit connection.

Following the presentation, Mr. Ching introduced “life” status members to those that have dedicated a certain number of years and continued contributions to the ITE. These members are:

- James Zimmerman, Jr.
- Edward Stephens
- Einer Handeland
- Michael Birdshall
- Jeffrey Webber
- Victor Bishop

He also announced Washington section’s recognition at the ITE meeting in Anaheim for the $2500 contribution to the endowment fund.

Nick concluded the meeting with announcements for the next joint meeting with WTS at Salty’s restaurant on October 21.
We would like to announce that “The Campus Corner” is changing to a bimonthly feature. Check the November newsletter for the next update.

Student Activities Committee Co-Chairs:
Scott Lee, Transpo Group – (425) 821-3665 or scott.lee@transpogroup.com
Meagan Powers, DKS Associates – (206) 382-9800 or mcp@dksassociates.com

Continuing Education Opportunities

University of Washington TRANSPEED Program
University of Washington TRANSPEED courses are starting soon! Don't miss out on these great courses designed to assist in your ongoing engineering professional development. There is still time to register. WSDOT employees should register for TRANSPEED courses through the ATMS system.Registrants from local agencies and private firms can register online at:

https://www.engr.washington.edu/epp/transpeed/registration.php

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<tr>
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<td>December 15-17, 2008</td>
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For course information call 206-685-8936 or 1-888-469-6499 (toll-free) or email extnadvising@extn.washington.edu
For registration questions contact UWEO Registration at 206-543-2310 or email uweoreg@extn.washington.edu

Predicted Traffic and Transportation Impacts of Initiative 985

EXECUTIVE SUMMARY

Engineers with the Washington section of the Institute of Transportation Engineers have reviewed the likely effects of Initiative 985 on the state transportation system. The judgment of these engineers is that I-985 contains significant flaws that will likely, on net, increase congestion and possibly impact safety on the roads and highways of metropolitan Puget Sound.

Initiative 985's required changes to the management of HOV lanes would likely undermine traffic safety and increase the likelihood of severe congestion affecting both HOV lanes and regular traffic lanes in Puget Sound. The initiative requires state and local transportation agencies to open dedicated carpool and transit lanes to general-purpose traffic at specified times of day. It also outlaws bus-only lanes and three-person carpool...
Yet some of the current HOV lanes that I-985 would open to general purpose traffic are simply unsafe, illegal, or inefficient when used by high volumes of traffic. Managing HOV lanes as Initiative 985 requires would likely increase traffic congestion in many locations by adding more merging traffic to key Puget Sound chokepoints. Additional merging traffic will result in more weaving and braking on highways, leading to a substantial increase in weekday traffic congestion for both HOV and general-purpose lanes, both in off-peak and peak hours.

Other significant concerns with Initiative 985’s mandated changes to HOV management include: (1) an increased risk of car crashes; (2) reductions in the ability of emergency and incident-response vehicles to travel quickly in crowded HOV lanes; (3) direct contradictions with federal requirements for the management of direct access ramps, potentially forcing closure of some facilities at off-peak hours; and (4) reductions in the speed, reliability, and cost-recovery of transit service that could reduce performance for transit users and could lead some drivers to switch to driving alone—increasing traffic volumes on already crowded roadways.

Concerns with other provisions of Initiative 985 include: (1) inflexible rules for traffic signal synchronization that fail to allow local jurisdictions to manage traffic signals based on local needs; (2) a reduction in funding sources for red-light cameras, which could undermine safety at high-collision intersections and school zones; and (3) significant public outlays for capital equipment and management changes that yield no tangible benefits for road performance.

DISCUSSION

Initiative 985’s HOV Management Changes Would Increase Congestion

HOV facilities throughout the Puget Sound vary substantially, both in the specifics of roadway design and in the characteristics of the traffic that uses them. Initiative 985, however, would create a one-size-fits-all management policy for all HOV and transit lanes in Washington State. The Washington section of ITE believes that this inflexible policy could have unintended adverse consequences for general traffic, for HOV users, for transit operators and riders, for emergency vehicle access, for incident management, and for network maintenance and repair.

There are many locations in the system where mid-day and late rush-hour use of HOV lanes by non-HOVs would be detrimental to traffic flow—not just for HOV lane users, but for all traffic on the roadway.

If HOV lanes were opened to all traffic outside the hours of 6-9 AM and 3-6 PM, congestion is expected to increase in the following areas:

- **SR 520 Westbound Merge** - Initiative 985’s required changes to HOV lane management would substantially increase congestion on westbound SR 520 approaching the Evergreen Point Floating Bridge. The current merging HOV lane is restricted to vehicles with at least three occupants. However, I-985 would open this lane to two-person carpools from 6-9 AM and 3-6 PM on weekdays, and to all traffic outside of those hours. During “peak” hours, I-985 could double the number of vehicles eligible to use the merging lane; during “off-peak” hours, the number of merging vehicles could roughly triple compared to today’s traffic volumes. Portions of this HOV lane have no shoulders and are adjacent to guardrail. If accidents occur, all lanes would be congested, further exacerbating the delay. Additional merging traffic would induce braking and weaving, which could substantially increase backups on an already crowded roadway. Traffic simulations run by ITE member engineers suggest that under I-985’s HOV management regime, weekday traffic would back up from the merge point just before the floating bridge to beyond the I-405 interchange. These backups would likely start in early afternoon and persist throughout the afternoon peak period. Backups of this duration and magnitude would undermine transit reliability for the 22 transit routes using this bridge and would likely affect the SR 520/I-405 ramps, and potentially affect traffic on I-405 as well as SR 520. Travelers in all lanes, not just HOV lanes, could see large westbound trip delays compared with today’s travel times.

- **Interstate 5** - Existing I-5 HOV lanes, particularly through downtown, have narrow, substandard shoulders. Opening these lanes to higher traffic volumes may result in more accidents and incident-related congestion. Funding to
improve shoulders is not identified, and in the area under the convention center shoulder improvements would likely be cost-prohibitive. Accident statistics already demonstrate mid-day incident-related congestion, both in downtown and in other areas of I-5. Mid-day traffic volumes on I-5 are expected to increase substantially by 2012 due to the anticipated closure of the Alaskan Way Viaduct. Higher traffic volumes in lanes with inadequate shoulders can be expected to result in more accidents and incident-related congestion. Likewise, as with SR 520, an increase in traffic volumes in current HOV lanes outside I-985’s “peak” hours could increase merging and weaving behavior at merge points, which would worsen the already severe mid-day and afternoon peak congestion on I-5.

- **I-405 South End** - Congestion on the southern end of I-405 in King County regularly lasts beyond the “peak” hours identified in Initiative 985 (6-9 AM and 3-6 PM, Monday through Friday). HOV lanes in these locations are often at or near maximum capacity in late rush hour, so opening these lanes to more traffic would likely not relieve congestion and could simply create additional traffic delays in HOV lanes, without relieving congestion in other lanes.

- **Ramp Metering Bypasses** - Ramp meter bypasses provide a modest but important travel time benefit for carpools and transit, while imposing little or no travel time penalty on solo drivers. I-985 would open up these bypasses to all vehicles outside of narrowly-defined “peak” hours. This change could require either the installation of additional ramp meters or time-dependent closure of bypass lanes. These changes would likely have little or no benefit for single-occupant vehicles, create a time-penalty for carpools and buses, carry substantial installation costs, and increase problems with driver confusion and traffic enforcement. Ramp meters have been proven to reduce side-swipe collisions at merge points, and the attendant backups caused by those collisions.

- **Incident Response** - “Incidents and events” (such as accidents) can create severe congestion at any time of the day, not just during “peak” hours. Today, emergency responders often use HOV lanes to respond to emergencies and clear accidents. If lanes are congested with additional single-occupant vehicle traffic, response times will be slower—potentially compromising safety and increasing the duration of congestion resulting from a traffic incident.

**Slowing Down Transit Could Create Delays for All Road Users**

Throughout Puget Sound, the Washington State Department of Transportation and local transportation departments have developed a system of dedicated lanes and facilities for buses, vanpools, and carpools. In many parts of the road network and at many times of day, carpool and bus lanes carry more passengers than adjacent general-purpose lanes. In fact, some HOV lanes carry twice as many rush-hour passengers per lane as adjacent general-purpose lanes. High-occupancy lanes have allowed Puget Sound roads to carry more passengers in the same road space and have helped reduce traffic volumes and resulting pollutants by giving some drivers a viable alternative to driving alone. Over 450,000 people currently ride transit in the Puget Sound area on weekdays.

One key to attracting additional passengers to the HOV system has been maintaining the speed and reliability of dedicated HOV lanes. An example of the efforts to improve transit speed and reliability is the creation of direct-access ramps. Through the passage of Sound Move, eight new direct-access facilities have been constructed in King and Snohomish Counties. By eliminating the need to merge across freeway lanes or to traverse congested interchanges, each direct-access ramp can save a transit vehicle between 3 and 8 minutes per trip, as well as avoiding collisions as buses merge from the left HOV lane to a right-side freeway off-ramp.
However, these direct-access ramps do not meet Federal Highway Administration (FHWA) safety and design standards for general-purpose traffic on-ramps. The FHWA approved Puget Sound’s direct-access ramps for their specific purpose. Some are too steep for general traffic use, and some require left-hand merges that are risky with high-volume conditions. I-985 would require the state to open these ramps to all traffic at non-peak hours—a direct contradiction of its agreements with FHWA. Given I-985’s mandate that the state operate no HOV-only lanes or facilities outside of peak hours, and in keeping with agreements with FHWA not to allow general-purpose traffic onto direct-access ramps, the state would likely be forced to close all direct-access ramps with gates during off-peak hours.

It is not clear how I-985 would affect transit-only facilities such as the bus tunnel, Third Avenue bus lanes, business access and transit lanes on SR 99 and SR 522, the North Base bus access, and the Ash Way direct access onto I-5. These facilities were designed assuming use by professional drivers and low volumes. If these facilities were required to be opened to carpools in peak periods and all vehicles in off-peak times, the state, cities, and transit agencies may reconsider whether they will allow them to operate.

More than half of the bus trips currently using the direct-access HOV ramps occur in “off-peak” hours. For an “off-peak” transit rider traveling between Lynnwood and Bellevue, these ramp closures could exact a travel time penalty of 20 minutes or more due to the closure of the Bellevue, Totem Lake, and Lynnwood direct-access ramps. For employees with flexible schedules and who travel outside of the “peak” hours defined by I-985, these transit trips may be much longer than driving. Surveys conducted by the Washington State Department of Transportation and the Washington State Transportation Center (TRAC) at the University of Washington suggest that some transit and carpool users would switch to driving alone if the time-saving benefits of HOV lanes were eliminated. A switch from carpools and transit to driving alone would add additional traffic to the region’s roads and, potentially, additional traffic delays and accidents resulting from higher traffic volumes.

Finally, transit agencies depend on these facilities to maintain service and headways. Without travel time benefits, transit agencies would either need to add buses (and the cost of their operation) or cut service (increasing headways). As noted above, reliability and travel time are key criteria for commuters to use transit. Without reasonable service with short headways, transit becomes less of a desirable choice for commuters.

Changes to Red-Light Enforcement Camera Rules Could Undermine Safety

At least 13 cities in Washington have installed, or plan to install, red-light enforcement cameras at dangerous intersections or in school zones. Under current law, a significant portion of red-light camera fines are returned to local governments; these revenues help defray the cost of installing, operating, and maintaining the cameras, as well as the costs of enforcement staff. Initiative 985 would require that any revenues generated by red-light cameras be remitted to a state transportation account, rather than to a local government. Without those revenues to offset the camera costs, local jurisdictions would either have to find other revenue sources to support their red-light programs, or would have to remove them or defer their implementation.

Red-light enforcement cameras are known to reduce accidents and injuries that are typical of red-light running at intersections. Should the current funding source for red-light enforcement cameras be removed, traffic management professionals and local officials will be forced to choose between fiscal constraints on the one hand, and safety and liability concerns on the other.

Accidents, particularly at intersections, often result in increased traffic congestion. With red-light cameras (and the advance publicity campaign that goes with them), accident rates have gone down. If cameras are removed, accidents and the resulting congestion are expected to return.

Signal Synchronization Requirements Lack Flexibility for Local Priorities

Initiative 985 would require cities, counties, and the state Department of Transportation to synchronize traffic lights on heavily traveled streets and arterials in order to “optimize traffic flow.” In some cases, the expense of signal optimization is well justified; many jurisdictions throughout the state already synchronize traffic signals on major corridors.
However, optimizing signals for “traffic flow” may have costs as well as benefits. Cities and small towns may be barred from exercising their judgment about appropriate traffic volumes and green light durations for local conditions. Longer green times for major arterials can penalize local residents and businesses who will have to wait longer to cross busy intersections. Likewise, local pedestrians may find it difficult to cross an arterial that has been prioritized for vehicle traffic at the expense of foot traffic.

In short, Initiative 985 could require spending on signal synchronization efforts that local residents and traffic professionals consider inappropriate for local circumstances. Without the authority to make site-specific management decisions based on local conditions, some jurisdictions may find that other local priorities—such as commercial center development, traffic calming, traffic safety, or simply local control over spending priorities—may receive inadequate attention.

Some Costly Changes Will Have No Clear Public Benefit

Through the 2013 budget cycle, the Washington State Office of Financial Management estimates that the state would be required to spend nearly $290 million through 2013 to implement the road, highway, and signalization management changes mandated by Initiative 985. Although some portions of this spending may provide justifiable transportation benefits to the public, other portions likely will yield no concrete benefits to taxpayers or road users; much of the spending will actually be harmful.

For example, further study and analysis by the Washington State Department of Transportation may show that the new HOV rules will require gating or closure of certain facilities, either for legal or for safety reasons. If so, then some portion of the money spent on lane management changes will simply—and by definition—reduce the capacity of Puget Sound roads to carry people and vehicles. Such spending will actually reduce vehicle throughput of Puget Sound roads. Similarly, adding new ramp signals to current HOV bypass ramps will require significant new expenses that have no benefits for traffic flow. Construction of enhanced shoulders to accommodate higher traffic levels in current HOV lanes, as might be required in downtown Seattle and other locations, might carry costs in excess of any anticipated traffic or transportation benefits.

It is unclear how I-985 would relate to other regulatory processes. I-985 may have effects on federal requirements under the Clean Air Act and the National Environmental Policy Act, as well as local state laws including the Growth Management Act and Commute Trip Reduction Act. These impacts would need to be analyzed if congestion, air quality, noise, and safety were negatively impacted as a result of this initiative.

CONCLUSION

In the professional and technical judgment of ITE member engineers, the road management practices required by Initiative 985 would:

• Increase overall congestion on key Puget Sound highways;

• Compromise roadway safety;

• Slow down trips for transit riders, HOV users, and general purpose traffic;

• Undermine traffic safety at dangerous intersections;

• Mandate traffic signal synchronization procedures that may conflict with local traffic management priorities; and

• Require state taxpayers to pay millions of dollars on transportation projects with no benefits to (and possibly with negative effects on) the public and taxpayers.
WA Section ITE Board

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See page 2 for details.