



Meeting Agenda

MEETING TITLE: Project Sponsors Council
DATE: Friday, March 12, 2010
TIME: 10 a.m. – 12:30 p.m.
LOCATION: Oregon Department of Transportation Region 1
123 NW Flanders St, Portland, OR

ITEM	TOPIC	TIME
1	Welcome Approve Jan. 22, 2009 Meeting Summary	10:00 a.m.
2	Funding Projects of National Significance	10:05 a.m.
3	Transportation Demand Management	10:20 a.m.
4	Vancouver Light Rail Alignment Update	10:50 a.m.
	Break	11:10 a.m.
5	Freight Update	11:20 a.m.
6	Project Sponsors Council Update, Including Discussion of Work Plan Status	12:00 p.m.
7	Adjourn	12:30 p.m.

TRANSIT DIRECTIONS from PORTLAND:

From SW 4th and Yamhill, board MAX Red line to Airport. Exit at Old Town/Chinatown MAX Station. Walk west to 123 NW Flanders St.

TRANSIT DIRECTIONS from VANCOUVER:

From the Vancouver Mall Transit Center, board the #4 bus (Fourth Plain WB). Exit at Delta Park/Vanport MAX station. Board MAX Yellow line to City Center. Exit at Union Station / NW 5th and Glisan St. MAX station, walk 0.2 mile north to 123 NW Flanders St.

For detailed trip planning, please contact the two transit agencies: C-TRAN, www.c-tran.com, 360-695-0123, or TriMet, www.trimet.org, 503-238-RIDE.

Meeting facilities are wheelchair accessible and children are welcome. Individuals requiring reasonable accommodations may request written material in alternative formats or sign language interpreters by calling the project team at the project office (360-737-2726 and 503-256-2726) in advance of the meeting or calling Washington State's TTY telephone number, 1-800-833-6388.

MEETING: Columbia River Crossing (CRC) Project Sponsors Council
DATE: January 22, 2010, 10:00 am – 12:30 pm
LOCATION: Washington State Department of Transportation (WSDOT)
 11018 NE 51st Circle, Vancouver WA

ATTENDEES:

Adams, Sam	Mayor, City of Portland (by phone for part of meeting)
Bragdon, David	Council President, Metro
Garrett, Matthew	Director, Oregon Department of Transportation
Hansen, Fred	General manager, TriMet
Hewitt, Henry (Co-chair)	Past chair, Oregon Transportation Commission
Leavitt, Tim	Chair of the Board of Directors, C-TRAN
Stuart, Steve	Chair, SW Washington Regional Transportation Council

STAFF:

Brandman, Richard	ODOT CRC project director
Wagner, Don	WSDOT CRC project director

Note: Meeting materials and handouts referred to in this summary can be accessed online at:
<http://www.columbiarivercrossing.org/ProjectPartners/PSCMeetingMaterials.aspx>

Welcome and approval of Dec. 4 meeting summary

Co-chair Henry Hewitt welcomed attendees and noted that the meeting will not include a spoken public comment period at this meeting, but written comments may be submitted online or via comment forms.

Co-chair Hal Dengerink has resigned as co-chair of the Project Sponsors Council (PSC) due to health concerns. His contributions to the project have been immense. Governor Gregoire will consider alternatives for the Washington co-chair position.

Co-chair Hewitt referred briefly to the January 19 letter from Mayor Adams, Council President Bragdon, Mayor Leavitt, and Commissioner Stuart addressed to the governors (See appendix). The project has discussed developing a work plan to address the issues raised in the letter. The outcomes from this letter and the work plan will be a positive step toward moving forward, he said.

The Dec. 4 meeting summary was approved with no changes.

Conceptual finance plan overview and discussion

Co-chair Hewitt emphasized that this plan is still very conceptual and the goal is to determine a feasible way to finance the project.

Richard Brandman, CRC project director, said the plan is consistent with the framework of the financing plan in the Draft Environmental Impact Statement (EIS). It is a “three-legged stool” of federal, state, and local funds, including toll revenue. Finance plans are put together with a range of funds that can accommodate capital costs. This range is from \$3.19 billion to \$3.54 billion, which is consistent with the project’s recent process of draft design refinements. This cost range employs risk analysis methodologies used by WSDOT for several years. Brandman introduced the project’s finance consultant, Steve Siegel, who has worked for many decades on funding major capital projects, including light rail. Siegel reemphasized that this is the beginning of many conversations on this topic.

Federal Transit Funding

Siegel began by discussing the transit element of the finance plan. In the last U.S. Senate appropriations bill, Sen. Murray succeeded in inserting legislative language that has the effect of counting highway monies as a local match toward the transit costs. The CRC finance plan assumes a range of \$750 million to \$890 million in federal New Starts funding, which is considered a feasible range.

Tolls

The range of funding from tolls shown – \$1.15 to \$1.49 billion – is not associated with a specific toll rate structure. The project has conducted a toll sensitivity analysis, starting with a dozen toll rate scenarios. Many small adjustments can be made to the toll scenarios to affect the outcome.

The toll revenue amounts shown are *net* to the project capital construction budget and do not include capitalized interest from the bonds and other costs such as collections and operations. The dollar amounts shown on the handout reflect what is available to the project.

Federal highway funding

The project is assuming a \$400 million federal contribution for the highway improvements. The assumption is that the project will seek earmark funds for Projects of National and Regional Significance in the upcoming federal transportation reauthorization act. There is a chance that this program could become a competitive program like New Starts.

General Manager Fred Hansen said this seems like a high amount for earmarks, which are typically in the hundreds of thousands rather than hundreds of millions. Siegel said in recent years those amounts from the congressional appropriations committee have been small. But the amounts from the transportation reauthorization bill tend to be quite higher. Because CRC is a bi-state, multimodal project of national significance and meets criteria that it must be meritorious, this earmark amount is considered reasonable.

State funding

An amount of \$750 million to \$1 billion is a reasonable starting point for a conversation with the state legislatures. Siegel said that in his professional judgment, this is a reasonable and feasible plan. He recognized that there are many more steps to take to achieve it.

Secretary Hammond and Director Garrett said both the Washington and Oregon legislatures have recently given significant attention to funding transportation infrastructure in their respective states.

Further discussion and requests for information

State and local funding and “ability to pay”: Commissioner Stuart asked where the range for state contributions comes from. Siegel said they assumed the number would be split between the two states and wanted a realistic amount for both states. The Oregon gas tax produces half of what Washington’s generates. We aimed to balance a number of considerations, he said, but it’s a professional judgment call; there’s no technical analysis saying what the state legislatures will or will not produce.

Stuart said he would like to know what funding contribution will be for the states. Tolling has been presented as funding to fill the gap. The federal and state funding estimates are based on the ability to pay. He said we need to ask what is the ability to pay at the local level and what is the benefit received. He said that this is the missing piece in the finance plan, that he has asked for a cost/benefit analysis related to tolls, and that there is more work to be done to show the tangible benefit for citizens and whether the cost is in their range of ability to pay based on economic indicators, employment rates, income levels, and other indicators. He hopes that conversation is the next step.

Projects of national significance: Mayor Adams would like staff to provide him with more information on Projects of National Significance and where that program comes from, whether it has been used before, who is promoting it, and what it is intended to achieve. He is concerned that CRC will reduce funding for other projects in the region and in Portland. The notion of national significance could provide a firewall against competing for dollars. Mayor Adams said he and Multnomah County Commission Chair Ted Wheeler are concerned about CRC competing with funding for the Sellwood Bridge.

Maintenance costs, bond interest, and projects of national significance: Council President Bragdon requested more information at a future meeting about the proportion of capital and operations and maintenance costs for the highway portion, since facility owners should plan for ongoing maintenance costs. Second, he would like to know when the toll revenue begins to reduce the interest on the bonds. Third, the word “earmark” has a bad name and suggests political funding decisions, but we’re talking about a different kind of earmark based on merit and greater scrutiny, he said. Congress may or may not create this category of Projects of National and Regional Significance, so the project may have to look in multiple places for funding.

Economic impact on community from tolls: Mayor Leavitt said he recognizes that this set of funding projections is fluid and should not limit the project. Regarding Commissioner Stuart’s comments, he would like an assessment of the economic impact on the community as tolls are being paid. What will it do to local retailers and the regional economy as disposable income is redirected into this project? He would like it included in the analysis.

Tolling Study Committee findings

Jennifer Ziegler, WSDOT tolling division, gave a slide presentation summarizing findings of the CRC Tolling Study Committee (TSC). The Washington legislature directed WSDOT to undertake a tolling study and a public outreach effort. The direction given was not to conduct an analysis regarding economic impact and ability to pay, Ziegler said, so her presentation focuses only on the first step.

Six preliminary tolling scenarios were discussed with the public, and then updates and additional scenarios were developed. Tolling scenarios include tolls on I-5 only, as well as tolls on both I-5 and I-205. Hours of congestion for I-5 only tolling scenarios range from 15 hours to one hour, based on varying toll rates. Scenario 1B, with five hours, ranges from \$1 to \$1.50 in 2006 dollars. Most would not change their travel patterns, but some drivers would decide to travel at a different time of day, change their trip route, or not take the trip at all.

Traffic effects

Average daily traffic volumes today, Ziegler said, are about 134,000 per day on I-5 and 146,000 on I-205. Tolling scenario 1G assumes a \$3 to \$6 toll in 2006 dollars, which lowers I-5 traffic volumes the most of all the scenarios. Less funding is received from this scenario than others. It was included as a reference point.

Original vs. refined project: General manager Hansen asked if staff is measuring this against the original project or the project with proposed design refinements. Ziegler said it is using the original project because the difference from number of lanes was not significant, so it applies to both the original and design refinement projects.

Diversion to I-205: Commissioner Stuart asked what the effect is on diversion if there are tolls on one facility but not both, and how those numbers are created. Why, he asked, is the 6 percent of diversion to I-205 a lower number than we would expect? Ziegler said PSC was given technical information at a previous meeting, but the models require assumptions about people’s behavior. Brandman said the model uses a measure of the value of time based on surveys done in this region and in Puget Sound. At a certain point, people’s time is worth more than the cost of a toll. Staff has a pie chart with more details they can provide.

Mayor Leavitt asked if diversion would increase congestion and jeopardize levels of service on I-205. CRC project director Don Wagner said most motorists are going from a northeast to southwest direction as they cross the bridge, e.g. from east Clark County toward Washington County.

Cross-region travel time comparison for I-5 and I-205: General Manager Hansen asked what the time difference is, assuming tolls, between traveling on I-5 vs. I-205 if you’re traveling through the whole I-5 corridor from Wilsonville going north. Co-director Wagner said staff doesn’t have information on that total distance but can work to come up with it. Hansen said the answer can be at a very general level but it would help him to understand the effect on through traffic such as trucks. Wagner said there is latent

demand in the I-205 corridor where drivers would prefer to be on I-5, and that is reflected in the model, too.

Council President Bragdon suggested two items for discussion at the next meeting: A fuller discussion of other transportation demand management tools besides tolling and the no build scenario implies that there's no alternative between doing nothing and doing what is proposed; which is a flawed assumption.

Funding

Ziegler discussed the funding contribution from I-5 only tolls. A high toll such as scenario 1G can actually reduce the amount of revenue generated.

Commissioner Stuart asked when revenue becomes available if tolling begins during construction. Ziegler said the \$330 million is available if tolling begins right away. The other option is to toll the facility but not collect the toll revenue until construction is complete, using debt proceeds earlier to pay for the project, similar to a mortgage.

Ziegler said the project assumed 30-year bonds and a coverage ratio of 1.25 for the debt and interest rates of 6 to 6.5 percent. Tolling during construction would produce about \$330 million.

Commissioner Stuart, referring to the "spigot" graphic in the Tolling Study Committee report, asked what the numbers are associated with gross toll revenue needed to come up with net revenue to repay the bonds.

Ziegler said the project has this analysis and can get him that information. Stuart said it would be good to show what percentage of the revenue used to fund the project. Ziegler said that information is online and staff will direct him to it.

Mayor Leavitt suggested that if tolls are not the most efficient way to pay for the project there should perhaps be a future conversation about other ways to pay for it.

Commissioner Stuart said that tolls can be viewed as a financing tool but also as a transportation demand management (TDM) tool. He wondered what the most effective means are for TDM. Tolling is not the only TDM tool, he said.

Catherine Ciarlo, transportation director with the Office of Mayor Adams, said the mayor appreciates that point and wants to make sure to keep an eye on other effects tolls would have on the project as the financing "spigot" is tweaked.

General Manager Hansen asked, regarding cost assumptions, whether the project expects the tolling revenue to pay only for the capital costs or is it also establishing a sinking fund for operations and maintenance over time? Ziegler said it assumes costs for operations and maintenance.

Council President Bragdon asked at what point the project will conduct an investor grade tolling and financial evaluation. An investment grade study is appropriate after the funding gap is determined, probably in the 2011 legislative session. Ziegler clarified that CRC's assumptions including using full faith and credit general obligation bonds rather than revenue bonds.

Ziegler said the statutory framework in Washington views tolling both as a revenue source and a way to manage traffic congestion. Also in the Tolling Study Committee report is discussion of active traffic management tools, which are starting to be used in Washington and Oregon.

Public outreach and feedback

The tolling legislation asked for public input on the use of tolling, variable tolling as a congestion management tool, and on tolling I-205 as a management tool for the state and regional transportation system.

Tolling outreach activities included open houses, freight forums, fairs and festivals, listening session with the Tolling Study Committee, and other events. Over 4,000 people took an online tolling outreach survey. The participants were self-selecting. Based on the online survey, a slight majority would support early tolling. Commissioner Stuart said the online survey is not a complete picture because there was not the

option for respondents to say, “I do not support tolling.” Tolling Study Committee members recommended future statistically valid surveys that would include questions about funding and tolling.

Ziegler discussed the project schedule and concluded that tolling is an iterative process. The state transportation commissions will set the rates in the future.

Performance Measures Advisory Group (PMAG) report

Steve Pickrell, consultant with Cambridge Systematics and facilitator of the PMAG, discussed four topics: (1) PMAG process and results, (2) PMAG report, (3) potential use of performance measures to inform draft design refinements, and (4) possible next steps and milestones through start of construction.

Members included all the local agencies and a mix of expertise. The group met nine times from June 2009 to January 2010. The group used four outside experts. Unique aspects of the CRC proposal include: An innovative approach to provide a “warranty” for project outcomes – a first for mega-projects nationwide. It was a multi-agency, multi-jurisdictional, multi-modal undertaking. There was also discussion in applying an operational performance management framework to the CRC design refinement process.

PMAG’s work plan included a framework for goals, objectives, and performance measures under a variety of goal areas ranging from system access and mobility to climate, economic vitality, and land use. Pickrell discussed performance objectives under these goal areas. PMAG developed candidate performance measures but stopped short due to time constraints and the complexity of the issues. Examples of potential performance measures included traffic statistics, calculation of greenhouse gas-related emissions from traffic counts and modeling based on vehicle miles traveled, and others. PMAG listed a number of target examples.

Pickrell emphasized that when trying to reach agreement on a multi-agency process, it should likely be more policy-driven and not include just technical staff. A key question is what authority the future Columbia Crossing Mobility Council will have and how they will make decisions.

Commissioner Stuart asked if there is a way to move this out of the policy realm and simply set a numeric target for maximizing those lanes. Pickrell replied that there are things other than throughput to consider, such as emissions or safety, or how stable vs. how erratic travel speed is, since that affects emissions. Factors that drive targets will not always be purely technical. Some areas will have existing clear policy directives; others will require staff to do more research on what’s realistic and desirable. Director Garrett suggested it’s a mix of art and science. Pickrell added that PMAG broadened its view beyond just the National Environmental Policy Act (NEPA) process.

Discussion

Pickrell summarized the work completed by PMAG and the remaining work to be performed. He invited two PMAG members, Katy Brooks with Port of Vancouver and Andy Cotugno with Metro, to share their perspective from serving on PMAG and answer questions.

Andy Cotugno said it’s one thing to track what’s happening but quite another to figure out what to do about it. There are many tools besides tolls. He asked PSC to take a close look at Chapter 6 of the PMAG report for potential actions and tools. Level 1 actions are clearly in the DOTs’ purview, but there are Level 2 items that are the responsibility of others such as the transit agencies. Level 3 is another set of actions and tools related to land use, air quality, development, and zoning.

Katy Brooks elaborated on the PMAG process and conclusions. The goal area of economic vitality had its own unique set of measures, including 66,000 people in Clark County who are in freight-generating industries. The PMAG’s work is groundbreaking and parallels a national discussion on the Transportation Research Board. The data collected and the established targets will be very important. For instance, goals for greenhouse gases, vehicle miles traveled, and level of service can impact the work force, which is dependent on travel time. Brooks wonders how the future Mobility Council will interact with other decision making bodies like the Washington State Tolling Advisory Committee.

Council President Bragdon said the project needs tools for decision making that are forward-looking; if indicators are going wrong, there should be triggers for action. Performance measures are also important

in relation to proposed design refinements. Those refinements must acknowledge existing plans such as the Hayden Island neighborhood plan as that island's interchange is redesigned. Performance measures are also useful in relation to economic impact and freight mobility. There is some discomfort because you have to make choices about some trips being more valuable than others. I applaud your work and look forward to the next steps.

Secretary Hammond said that as discussion of targets happens, it gets close to making policy decisions. We're all committed to making good policy decisions, she said, and not leaving them to staff.

General Manager Hansen asked if the PMAG considered the need to come into compliance with a new regionwide ozone standard from the Environmental Protection Agency. Cotugno said they haven't evaluated that yet but are embarking on a significant greenhouse gas effort and those targets will probably be more stringent. Hansen said he would like the PSC in the near future to grapple more with the draft performance measures and targets in Appendix C of the PMAG report. Co-chair Hewitt said the work plan will address the process for allowing PSC to reach judgments to reach policy goals. Catherine Ciarlo, transportation director with the Office of Mayor Adams, echoed the importance of developing the targets and allowing time for PSC to engage with them.

Mayor Leavitt said the PMAG report is great work and responds to bullet point number one in the local government representatives' letter to the governors.

Performance measures application example

Richard Brandman said the project has done the work to apply the performance measures standard to the design refinement work. Staff will provide this information to PSC members' staff for further discussion.

Hayden Island update

Steve Witter, transit planning manager, gave an update on CRC outreach and work on Hayden Island.

The CRC Portland Working Group (PWG) was formed to provide community input in the light rail station design on Hayden Island. It's made up of neighborhood, business, real estate, and community representatives. The group began meeting in May 2009 and has met monthly. Many of these members also participated in the development of the City of Portland's Hayden Island Plan.

The group recognized that the impacts to Hayden Island were bigger than could be resolved with the light rail station, so the conversation was broadened to the interchange area management plan (IAMP) and other issues. The Hayden Island Plan was conceived to reconcile effects from the CRC project and development on the island. The plan includes a new local connector street, N. Tomahawk Island Drive. Without the CRC project, some of these elements would not be happening.

The island's perimeter ring road has been redesigned and reduced in size from a five- to a three-lane cross section in some areas. CRC listened to the residents and responded to their concerns in the design, and has been able to bring the elevation of Tomahawk Island Drive almost back to the level it was in the locally preferred alternative. Rep. Tina Kotek and Director Garrett have participated in these discussions to reduce the size and impact of the perimeter road and highway interchange. Available for viewing today is a scale model of the light rail station, which shows it closer to grade and featuring a public plaza, as called for in the Hayden Island Plan. CRC is also engaging TriMet's transit-oriented development manager to address commercial centers, the displacement of the grocery store, and redevelopment of the Jantzen Beach SuperCenter.

Next steps include continuing to work with the community and refining the designs. Witter said he expects even more progress toward announcements with the SuperCenter that will be responsive to the community's needs. On Feb. 10, CRC will be hosting an open house and encourages all to attend.

Comments from Hayden Island representatives

Witter invited Brad Howton to share his perspective as a member of the Portland Working Group.

Brad Howton said he has lived and recreated on the island for 21 years and managed the Columbia Crossings moorage. The Hayden Island Plan provided the opportunity to lay the groundwork for a vision for a self-sustaining community. Island residents remain in support of the CRC project, understand the need for cost cutting and refinements, and are doing their best to contribute to that effectively. The CRC has managed to help reduce the footprint of the project while still accommodating projected demand and making the street grid more effective, Howton said. The IAMP discussions have been extended and will help achieve the Hayden Island Plan goals and to provide better access for pedestrians, bicyclists, and others.

There has been an empowered dialogue among all parties, including the Hayden Island Neighborhood Network and the Hayden Island Livability Project. The City of Portland has been very responsive and ODOT has become more transparent. We're going to need certain neighborhood services including a grocery store and pharmacy, Howton said. But we're still not where we need to be; it's still a huge highway structure with the potential to separate the island down the middle. Tomahawk Island Drive is still a massive tunnel, so there's more work to do. We'll have time to refine and improve that with the designers. We see the CRC project as vital. We've made great progress but we need to go further.

Hayden Island resident Ed Garren addressed the PSC. He said he echoes Brad Howton's comments. We've never been against this bridge, Garren said, but we've also wanted full transparency and inclusion of all the communities on the island. The watchdog group Brad mentioned has secret meetings and does not include the manufactured homes community, of which Garren is a board member. He is asking the project (1) to recognize that the Hayden Island Neighborhood Network (HINooN) is not an inclusive organization representing all island residents and (2) that there be no more private meetings between HINooN and the CRC project unless Hayden Island Livability Project members are also at those meetings.

Discussion

Stuart: We received a letter via email from HINooN stating concerns about proposed changes to the design refinements on Hayden Island and their relationship with the Hayden Island Plan.

Commissioner Stuart had several questions and requests for information from staff, including:

- What's the highway interchange cost as it's shown on the map in the PSC meeting materials.
- What is the cost of the interchange and at street level?
- What is the cost of displacement and relocation of the grocery store?
- How many lanes are on the interchange, including both on the island and the auxiliary lanes added to the bridge structure?
- What's the interchange footprint proposed compared to today's existing conditions (including the gaps between structures)?
- I would like more information about the connections with the "mainland" of Portland to the south, including light rail and arterial traffic.
- How will continued design refinements be done? What are the goals?

Co-chair Hewitt said the project will not achieve perfection but is endeavoring to get to the 80 percent satisfaction level. Commissioner Stuart said this depends on the measurement tools for success.

General Manger Hansen said that if there's good urban design for the whole island, it will enhance Hayden Island. He is glad that the project is on track and working to bridge these tough issues through urban design.

Council President Bragdon said he is heartened to hear the update and that Zimmer Gunsul Frasca Architects is involved in the urban design work. He wants to continue to hear from everybody; this isn't a public relations problem; it's an engineering, design, and finance problem.

Next meeting

Friday, March 12, 2010 | 10:00 a.m. – 12:30 p.m.

Oregon Department of Transportation (ODOT)
123 NW Flanders Street, Portland, Oregon

Columbia River **CROSSING**

Transportation Demand Management for the CRC Project

Project Sponsors Council
March 12, 2010



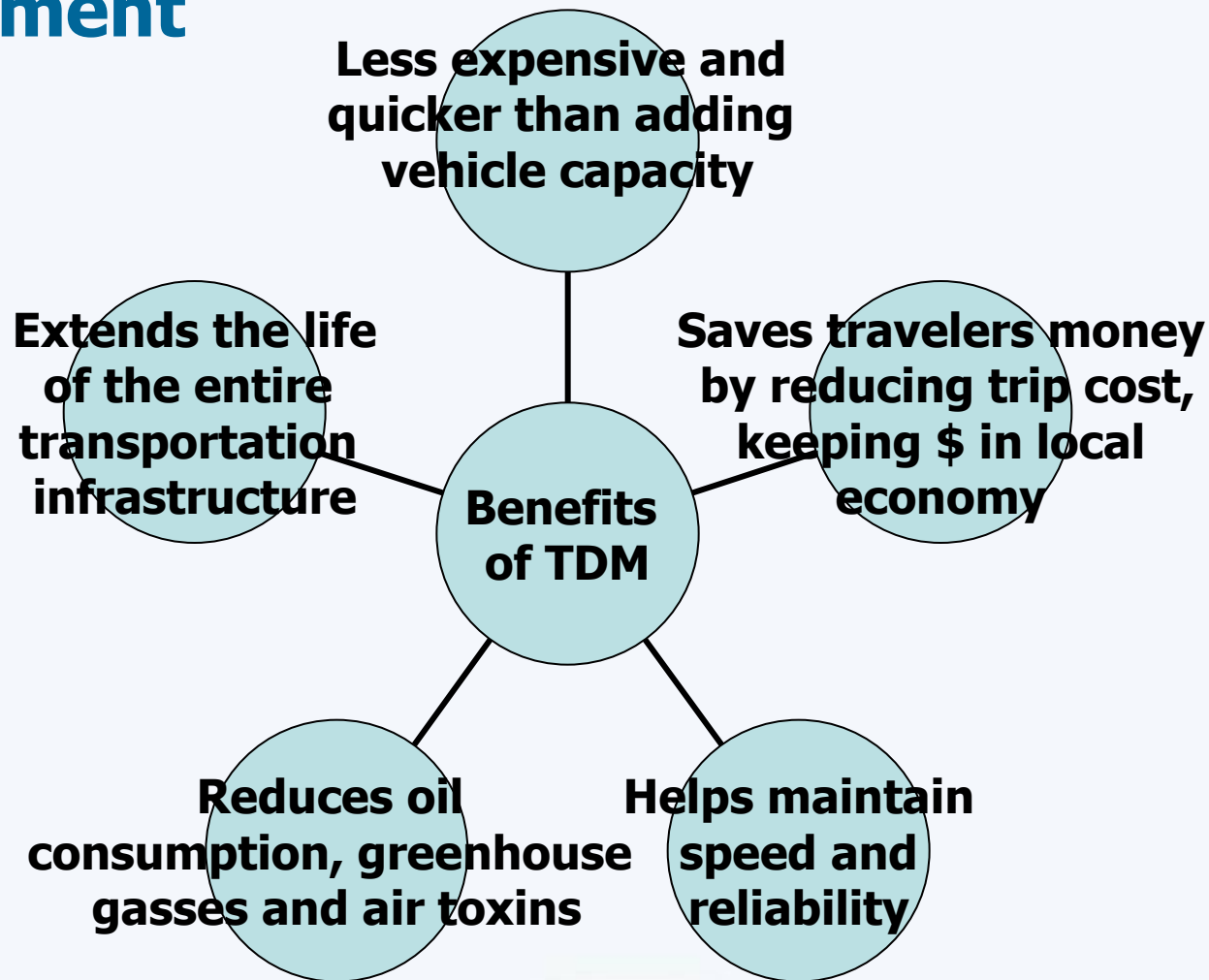
Transportation Demand Management Working Group

- Cities of Vancouver and Portland
- TriMet and C-TRAN
- RTC and Metro
- ODOT and WSDOT

Transportation Demand Management is:

- Modal shifts
 - Transit
 - Bikes and Pedestrians
 - Carpooling and Vanpooling
- Trip substitution
 - Telecommuting, Compressed Work Week
 - Shorter trips
- Time shifts
 - Shifting trips to outside the peak: flexible work schedules, reduced costs

Benefits of Transportation Demand Management



Northwest projects that have successfully used TDM during construction

- I-5 Bridge Trunnion Replacement
- I-405 in Kirkland and Bellevue
- SR 520 in Bellevue/Seattle (planned)

TDM Works Beyond Construction

WSDOT Commute Trip Reduction (CTR) Program Results:

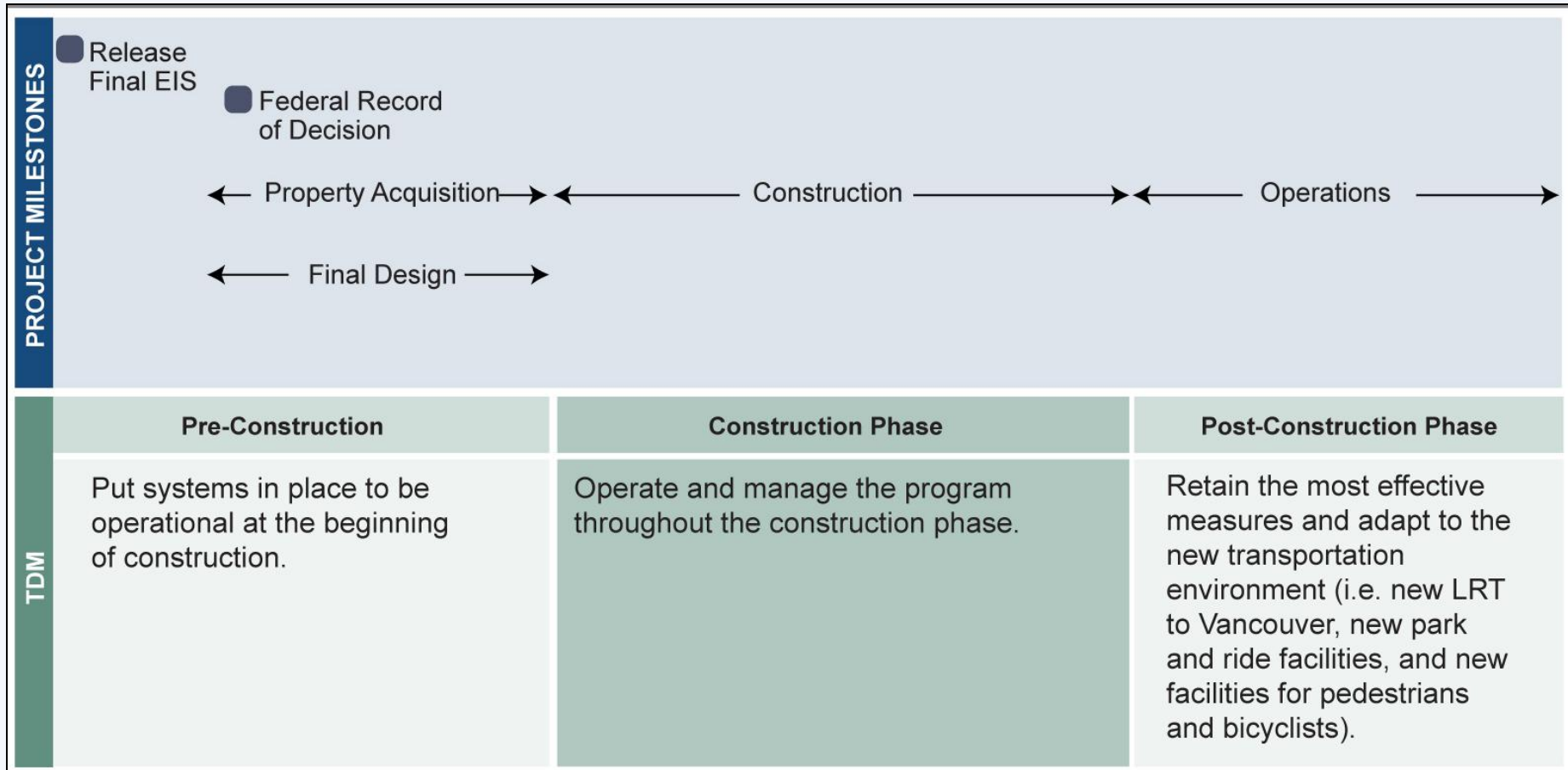
- Removes an average of 28,000 vehicles each weekday morning peak from Washington's most congested state highways
- Prevented 12,900 hours of delay in Central Puget Sound in 2009, saving \$99 million for the region in congestion costs and fuel
- CTR is a \$35 to \$1 return on state investment in terms of congestion benefits alone

Source: *2009 CTR Report to the Washington State Legislature*

Summary of Working Group Recommendations

- Implement a targeted three-phase CRC TDM program: pre-construction, construction and post-construction.
- Deliver a mix of expanded transit, vanpool, carpool, telecommute, bike/pedestrian, and flexible work schedules focused on peak period commuters using employer outreach and individualized marketing programs.
- Develop an institutional structure to coordinate program delivery, monitor results and adapt strategies.
- Actively monitor TDM program performance and make changes in response.

Phases of the CRC TDM Plan



“Vehicle Trips Saved” Target for CRC Construction Phase

- Offset the loss in I-5 capacity during construction caused by narrower shoulders, lane shifts, and gawking at construction activity.
- Greater “trips saved” would accommodate regional traffic growth during the multi-year construction phase.
- TDM Working Group’s Proposed Target = 1200-1700 vehicle trips saved in the peak direction during each AM and PM peak period.

Predicted “Vehicle Trips Saved” Results

(one-way trips during each 4-hour AM southbound and PM northbound period)

By Mode	“Vehicle Trips Saved”
Telecommuting and Flexible Schedules	100 - 150
Increased Vanpooling	300 - 500
Increased Carpooling	300 - 400
Increased Transit	450 - 650
Increased Bikes and Pedestrians	20 - 40
Peak Period Total (during each peak period)	1200 - 1700

Funding Needed for TDM Implementation

- One-Time Capital Programs - \$9.1 Million
 - Acquisition of buses for additional service and minor transit facility improvements
 - Acquisition of additional vans beyond the WVIP funding level
- Annual Operating Expenses - \$4.1 Million
 - Expanded employer outreach and focused marketing
 - Expanded area-wide and corridor marketing and promotions (e.g. Drive Less / Save More, Southbound Solutions)
 - Short-term incentives for vanpool start-ups
 - Operating costs for higher frequency local bus service connecting to MAX
 - Monitoring and adaptive management costs

Limitations/Opportunities to achieve higher TDM Results

- The lack of HOV lane and/or ramps, as in the Puget Sound area, limits the attractiveness of carpooling, vanpooling and transit because travel time advantages are not realized.
- Implementation of HOV ramps and/or shoulder lanes during construction would boost bus, vanpool and carpool performance.
- If advance tolling were to be implemented, the TDM program would need to expand to meet demand for options to driving alone and paying a toll.
- Capacity of existing park-and-ride facilities is limited. New facilities would be needed to accommodate additional bus and vanpooling use.

TDM Elements of the CRC Project and 2005-2030 Comparisons

- **Transit** is forecast to carry 6100 people northbound during the 4-hour PM peak period in 2030. This is 17 percent of total person trips, up from 6 percent in 2005.
- **Pedestrian** use of the bridge is forecast to increase at least seven-fold over 2005 use.
- **Bicycle** use of the bridge is forecast to increase by 240 to 1700 percent over 2005 use.
- **Participants in carpools** are expected to increase by 36 percent.
- **Tolling** is predicted to reduce daily I-5 traffic by 17 percent relative to the no-toll scenario.

Columbia River Crossing: The Heart of the System

March 12, 2010
CRC Project Sponsors Council

 **PORT OF PORTLAND**
Possibility. In every direction.



Port of Portland Property and Facilities





Trade/Transportation and Oregon's Economy

- Oregon is the 9th most trade dependent state in the nation
- Oregon's businesses export more than \$19.3 billion in goods annually
- Oregon is the 7th in the nation in trade per capita
- Portland / Vancouver region is the 14th largest exporting region in the U.S.

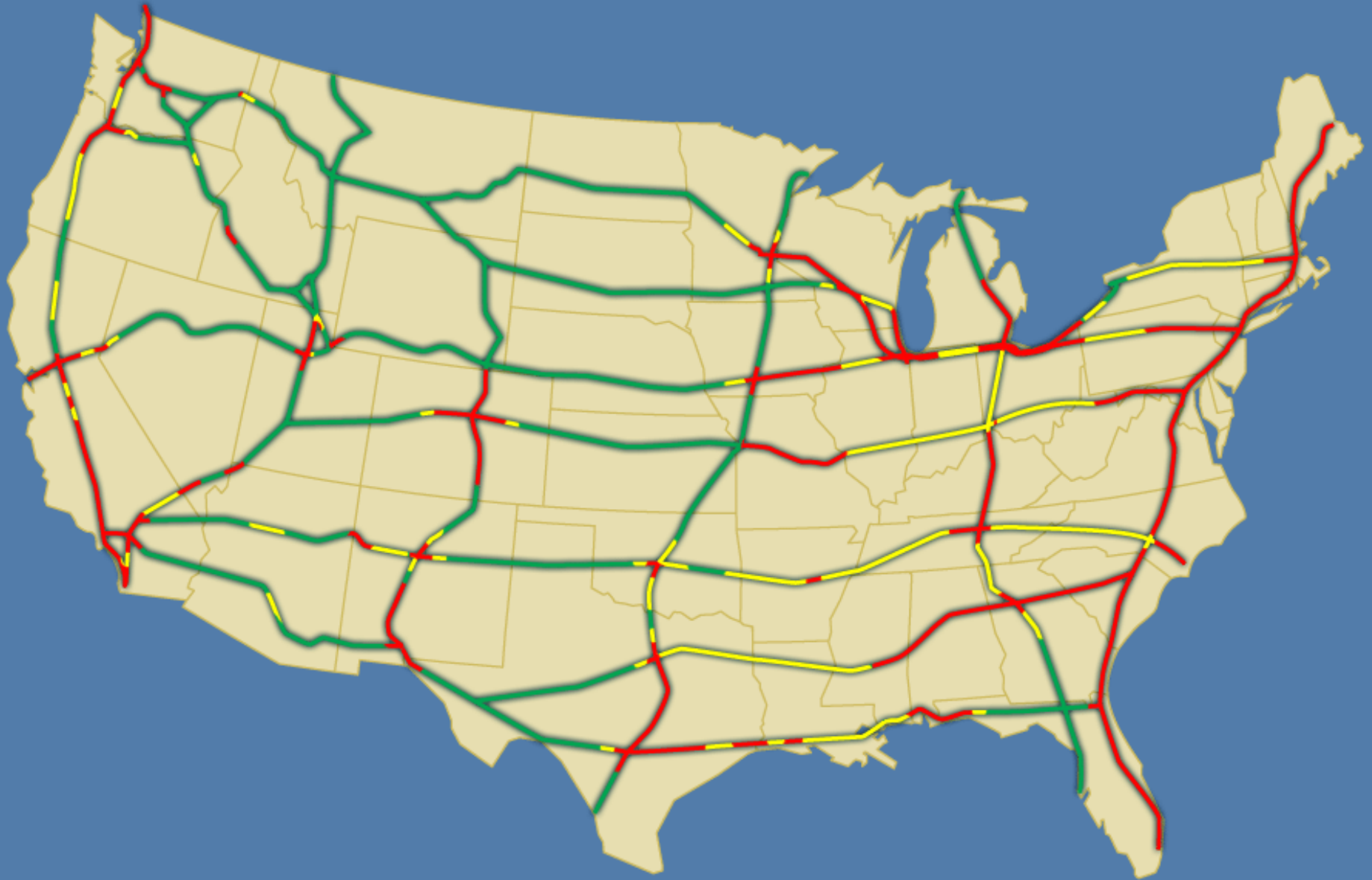


Trade/Transportation and Oregon Jobs

- Oregon has the 5th largest export-supported job base in the U.S.
- 1 in 5 Oregon jobs are trade-related
- For every \$1 million in export sales lost, Oregon loses 10 jobs

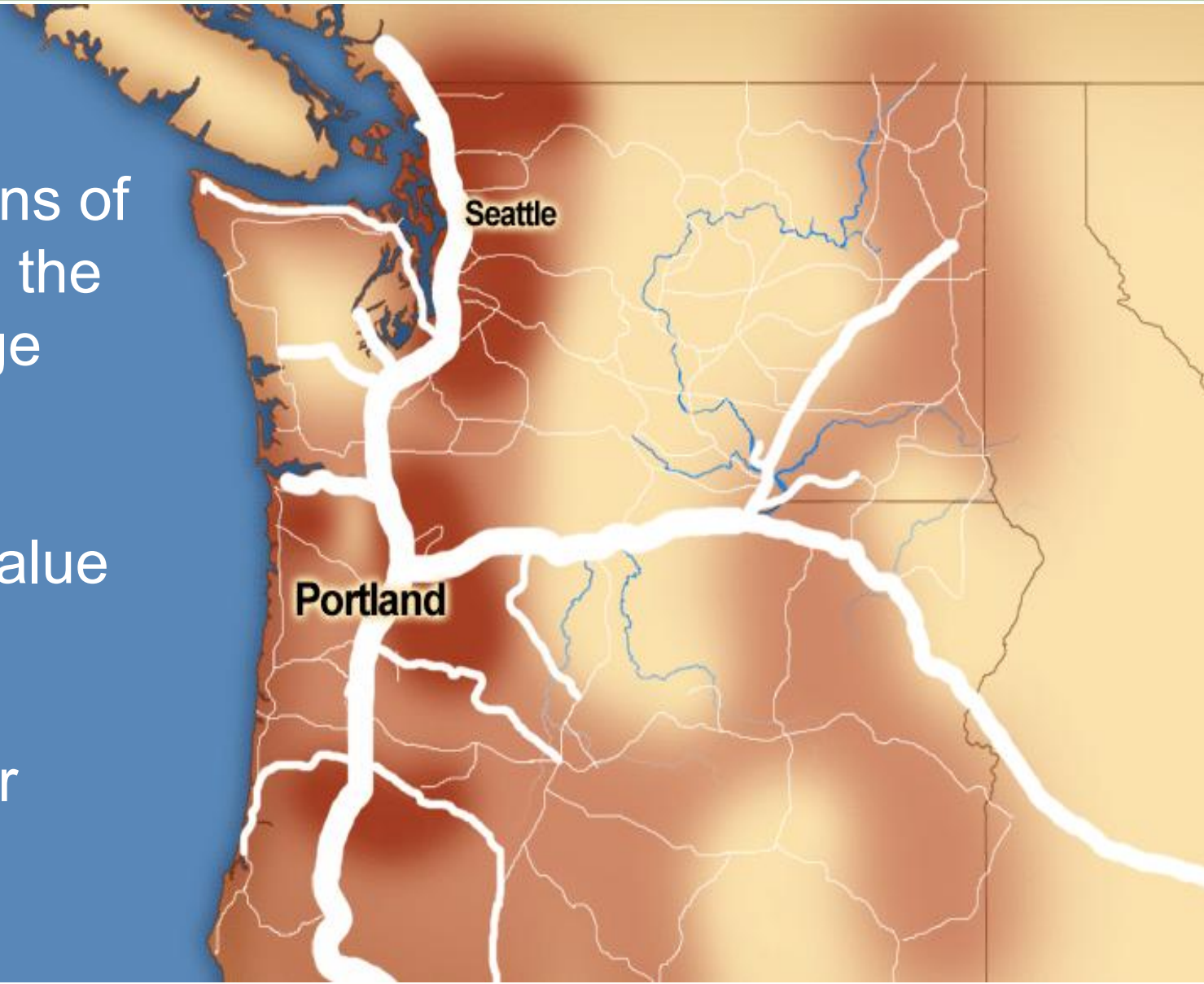


Nation's Most Congested Highways

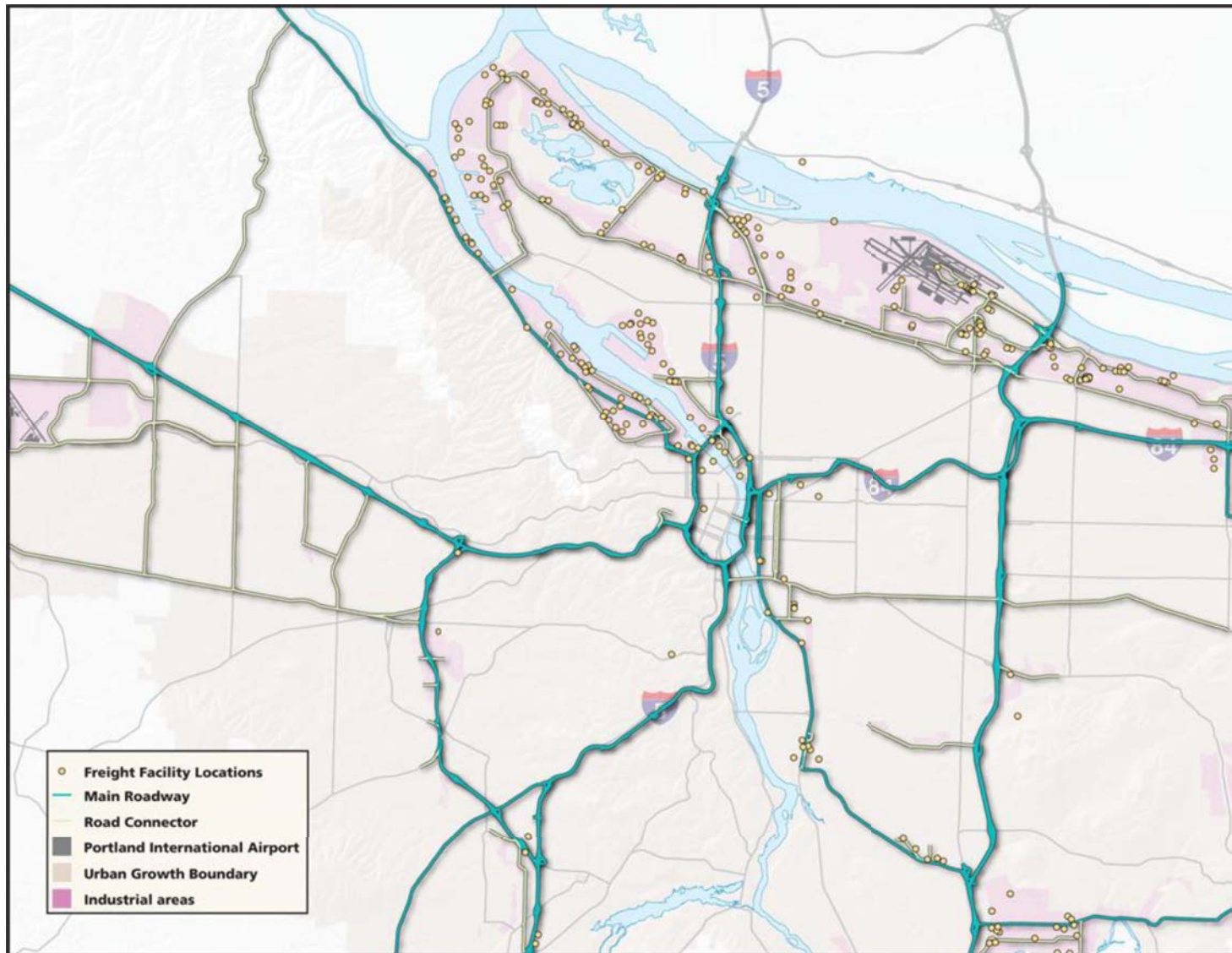


Pacific Northwest Trade Corridor

- 22.5 million -tons of freight crossed the Interstate bridge (2005)
- \$30.6 billion -value of shipments crossing the Columbia River (2007)



Regional Freight Facilities



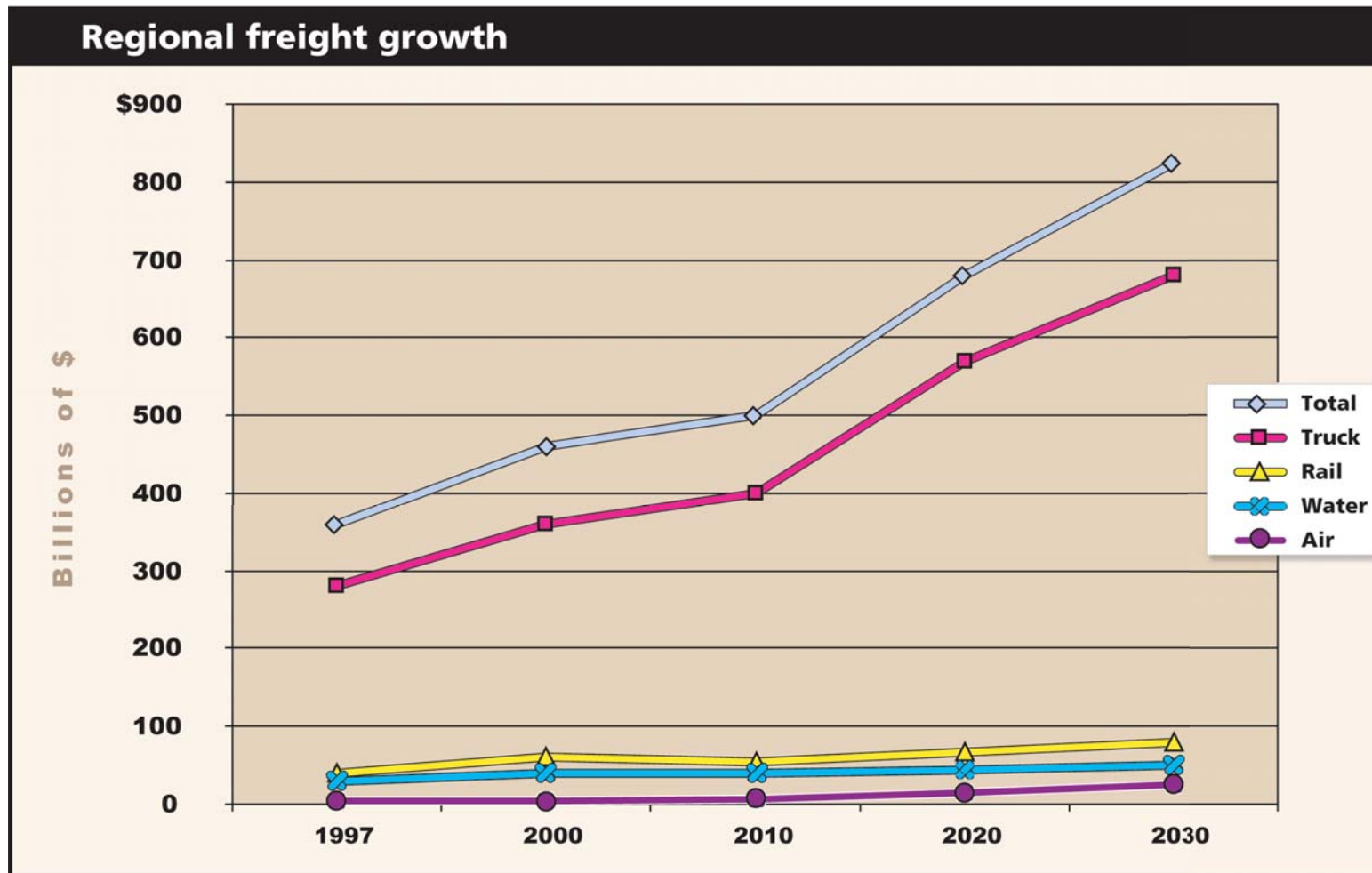
Source: Economic Development Research Group, Inc.

A Trade Corridor

- Freight volumes in the region are expected to double in less than 25 years
- Value of shipments (\$30.6 billion) equivalent to one third of the metro area's gross product (\$71.5 B)
- The region's freight moves by truck (> 65%) and rail (30%)
- More than 10,000 trucks and 63 freight trains daily



Portland-Vancouver Freight Tonnage to Double by 2030



Source: Economic Development Research Group, Inc.

Freight Impacts

- Congestion will spread into the midday period, which is the peak-travel period for trucks
- Reliability – the ability to hit delivery windows predictably – will decrease
- Annual vehicle hours of delay on truck routes in the I-5 corridor will increase by 93 percent from 13,400 hours in 2000 to 25,800 hours by 2020
- Congested lane-miles on truck routes will increase by 58 percent
- The cost of truck delay will increase by 140 percent to nearly \$34 million

Port of Vancouver Freight & Goods Movement

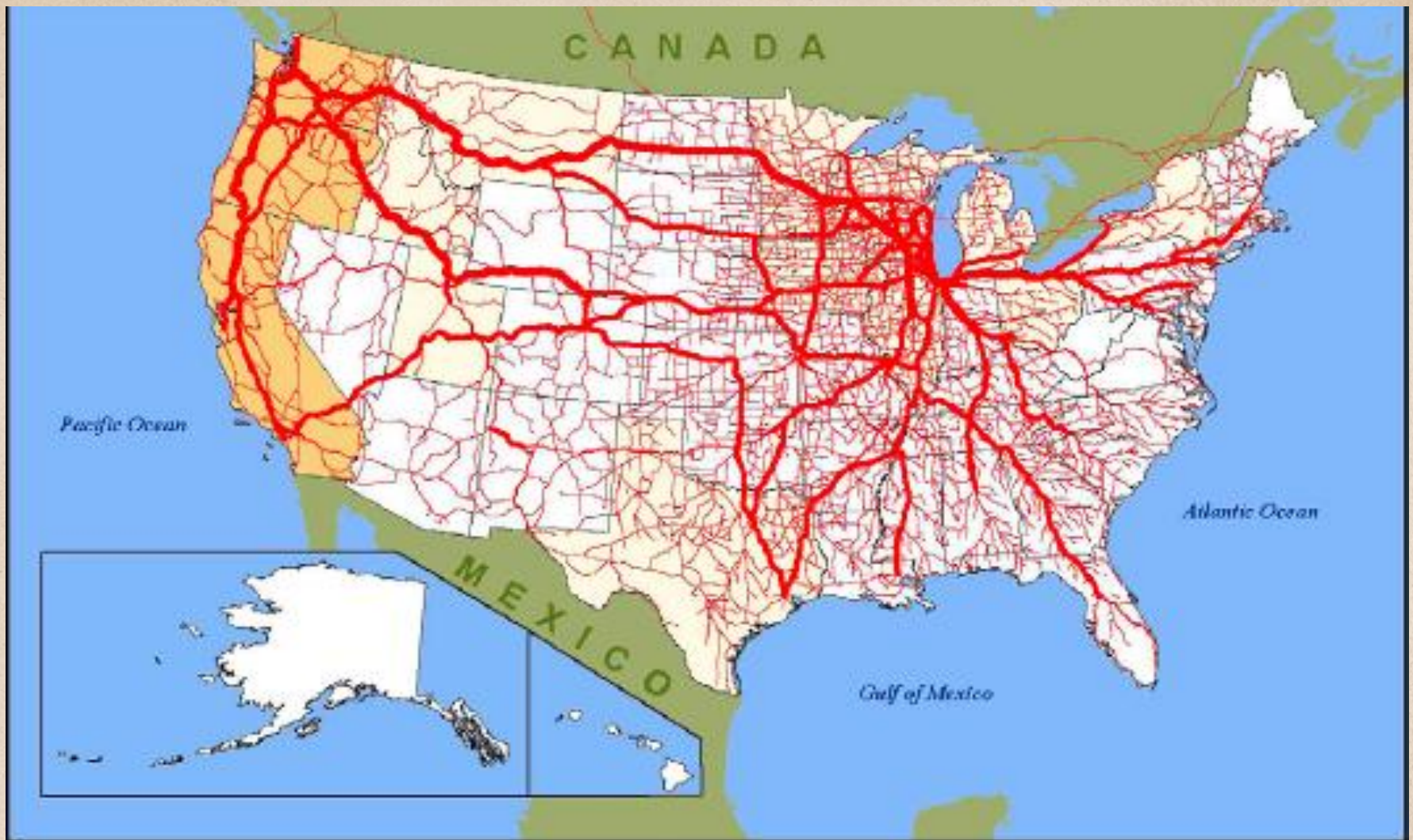
Columbia River Crossing
Project Sponsors Council
3-12-2010



Washington State Freight & Trade



- Washington is the most trade-reliant state in the nation
- Nearly 740,000 workers depend on exports, and 161,000 workers depend on imports
- 1 in 4 jobs are tied to trade



U.S. Department of Transportation
 Federal Highway Administration
 Office of Freight Management and Operations
 Freight Analysis Framework

Total Combined Truck Flows
 (1998)

WASHINGTON

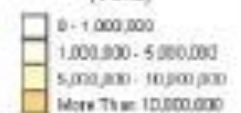
Network Flows

(Tons)



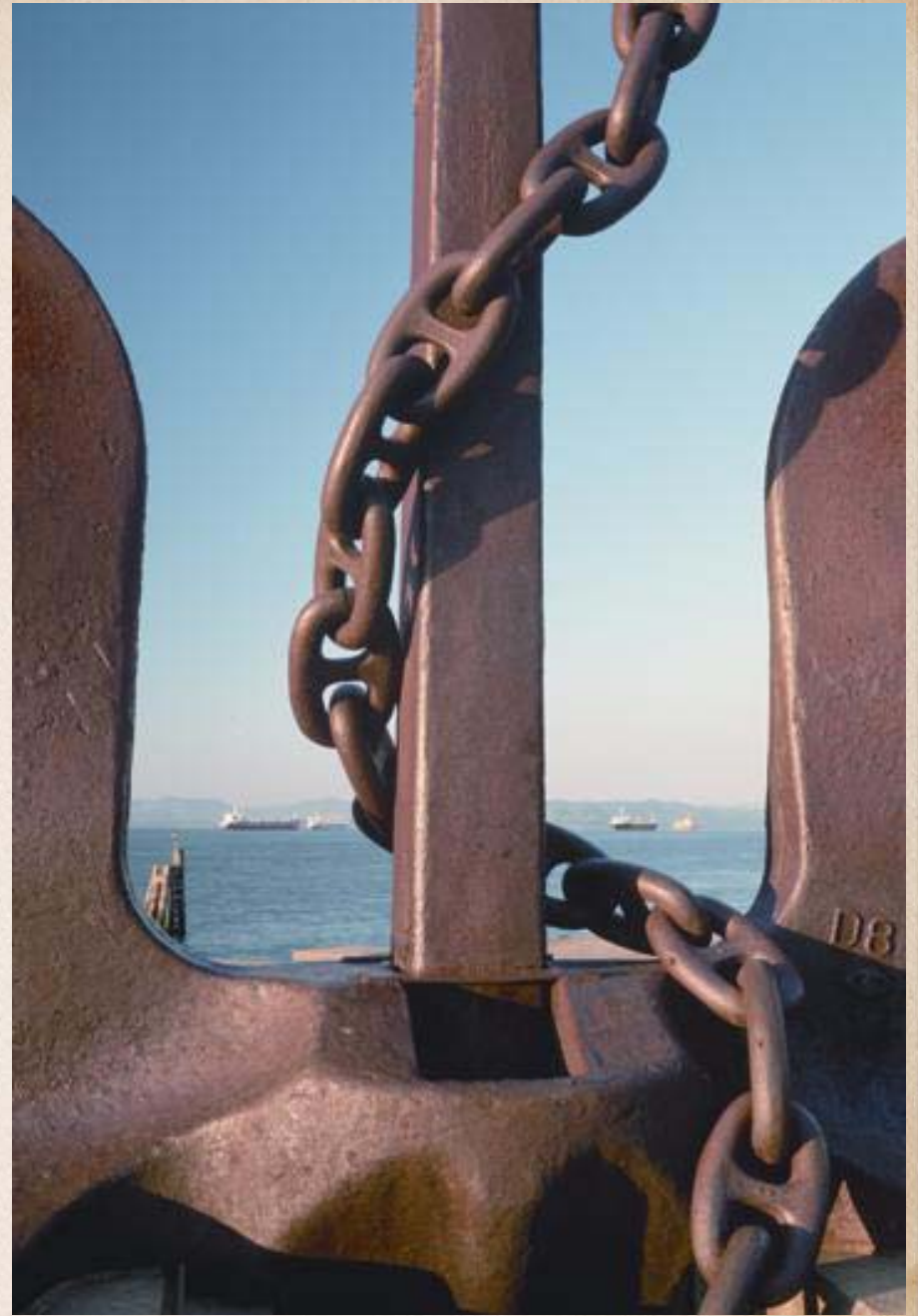
State to State Flows

(Tons)



Port of Vancouver Mission

Provide economic benefit to our community through leadership, partnership and stewardship in **marine and industrial development.**



Port of Vancouver



- 2,300 direct jobs
- 15,500 total jobs
- Total assets \$333 million
- \$1.6 billion economic benefit

Port of Vancouver



- 184,000 truck trips per year
- Approximately 70% travel southbound on I-5
- Primary truck access to I-5 is Mill Plain Boulevard
- I-5 access truck volumes increasing on Fourth Plain Boulevard

Future Port of Vancouver Transportation

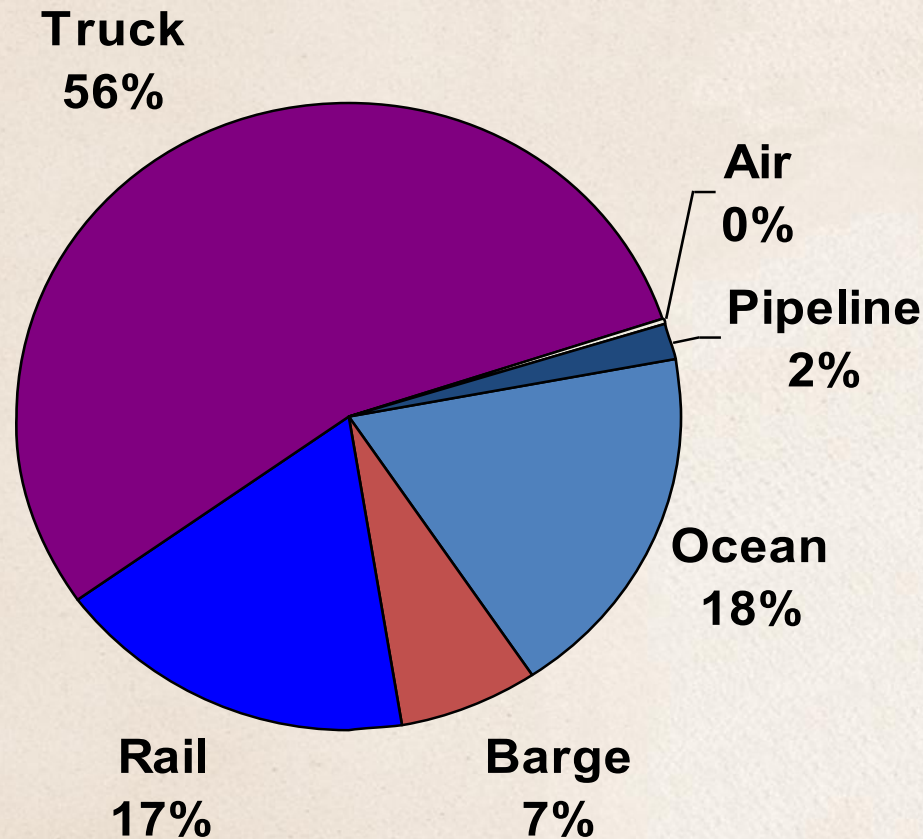


- Projected surface transportation – 80% rail, 20% truck

- Projected 400,000 truck trips per year at full build out
- Approx. 5,000 employees at full build out



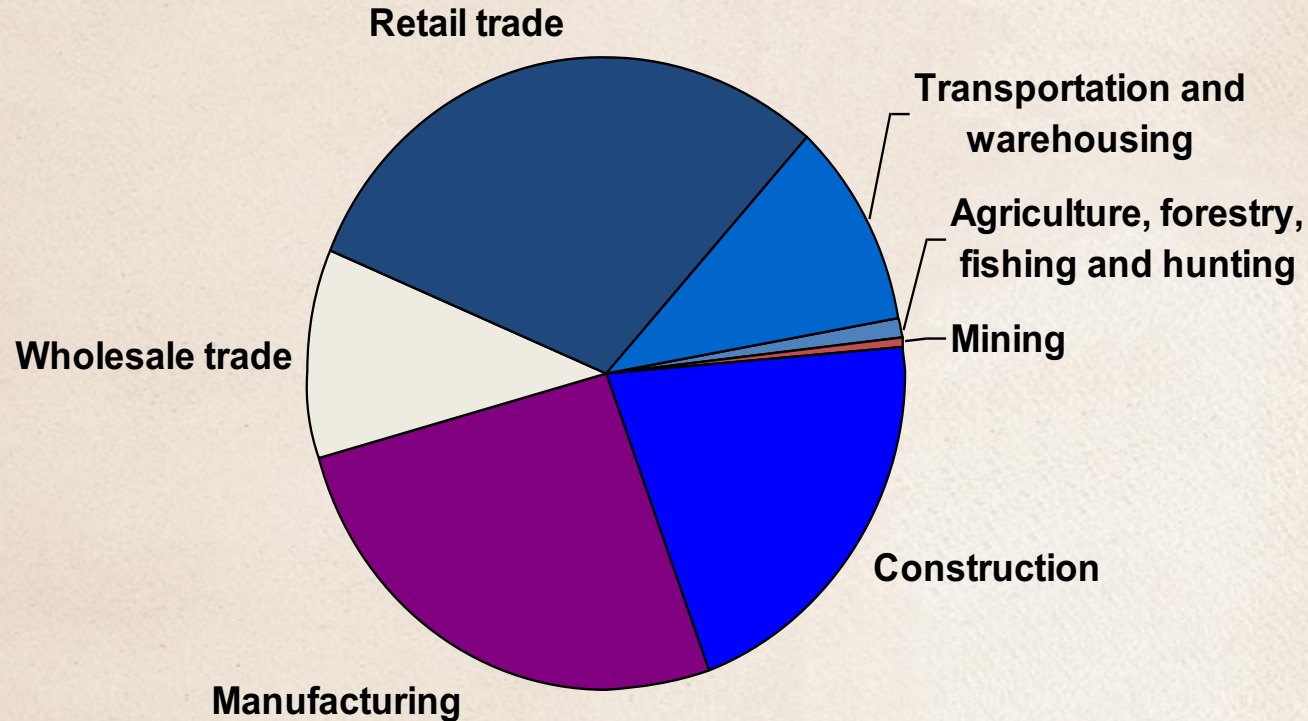
Clark County Freight Distribution by Mode (Tons)



Share of Freight Originating and Terminating in Clark Co by Mode by Weight,
2007 = 32.4 million tons

* Clark County Freight Mobility Study

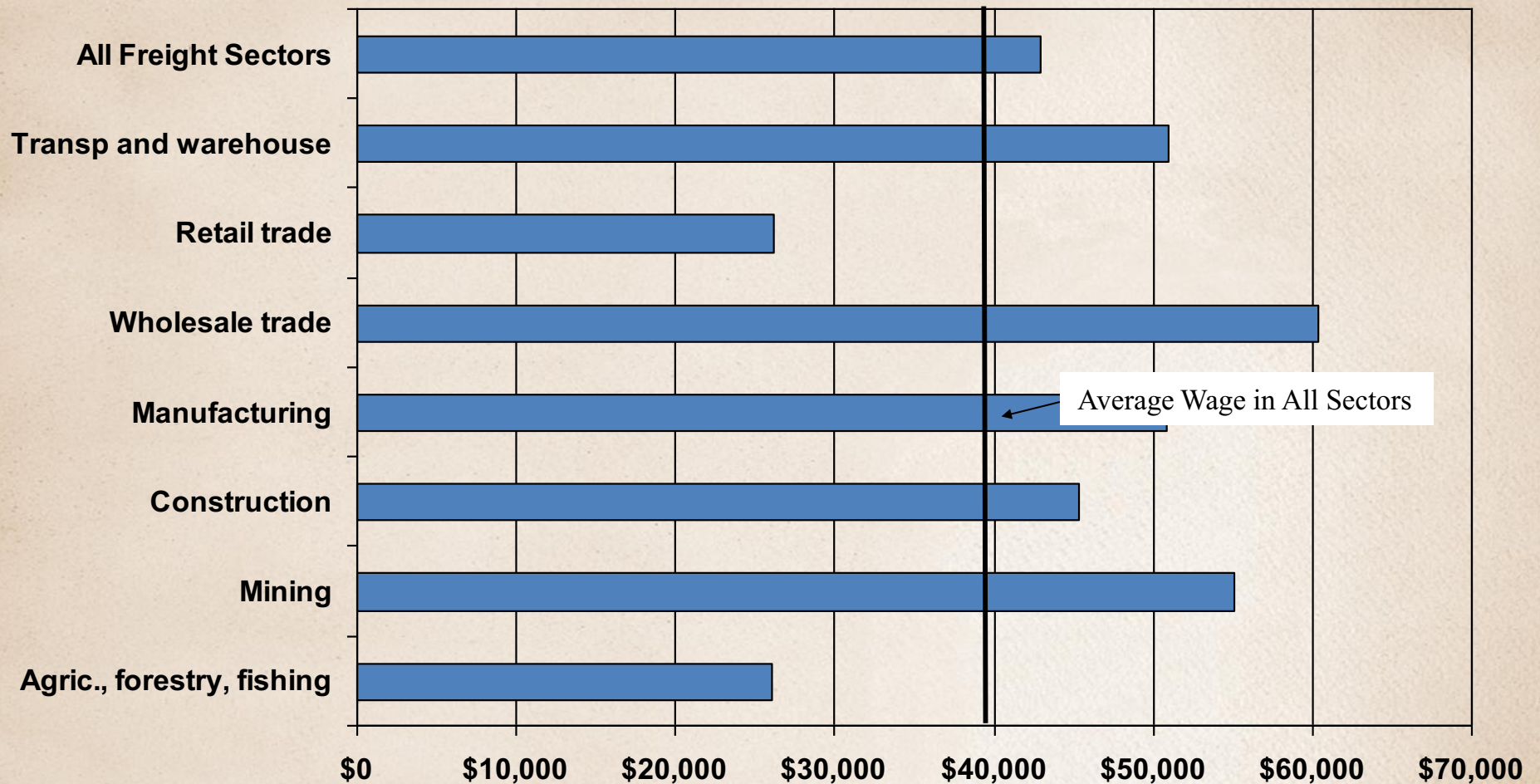
Freight Generators in Clark County: Direct Employment



Freight generators employed 66,057 employees in 2007, or ~ 51% of the County's employment.

* Clark County Freight Mobility Study

Clark County Average Wages

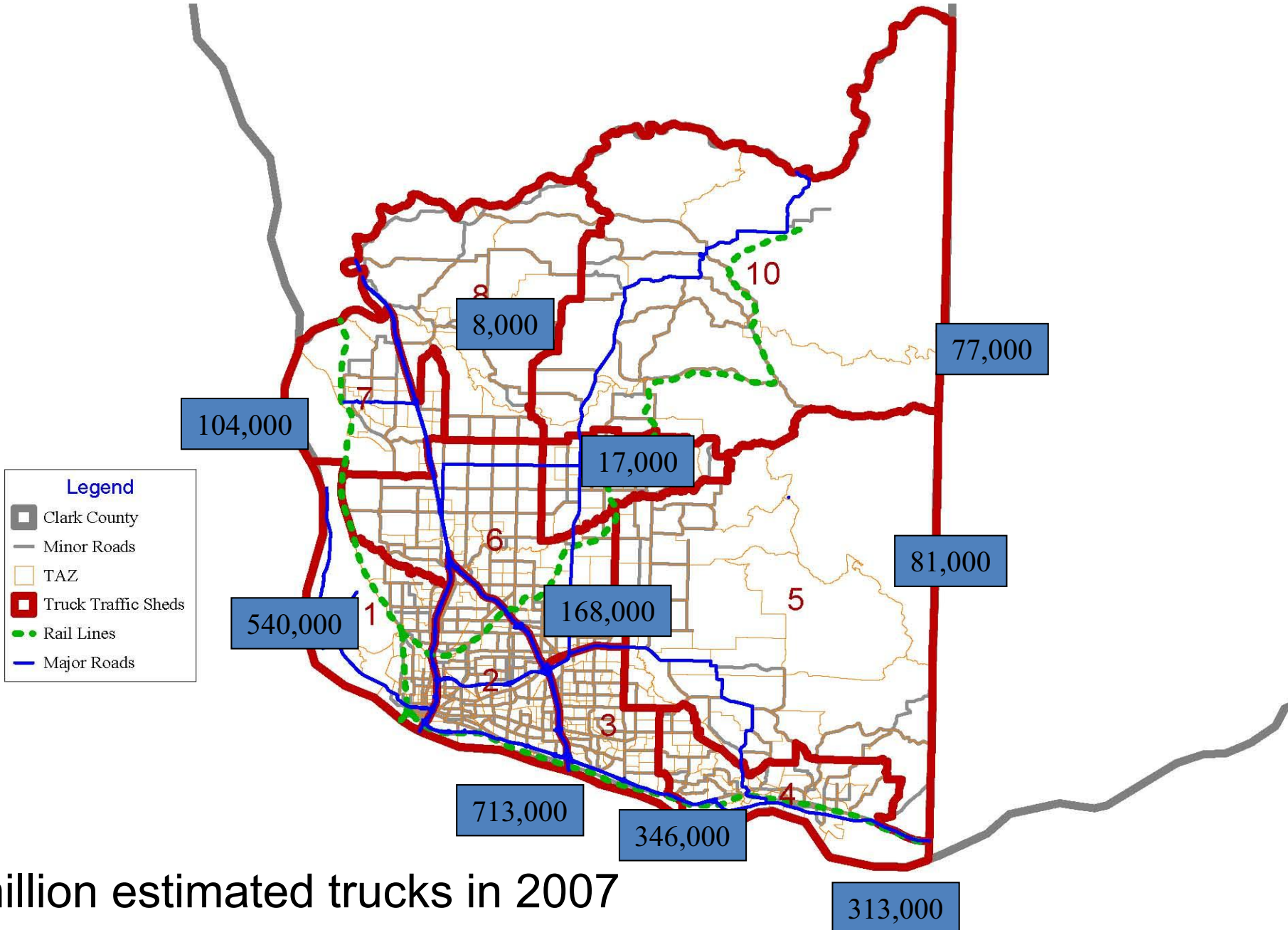


Freight generators have an average wage that is 4% above the County average (across all firms).

* Clark County Freight Mobility Study

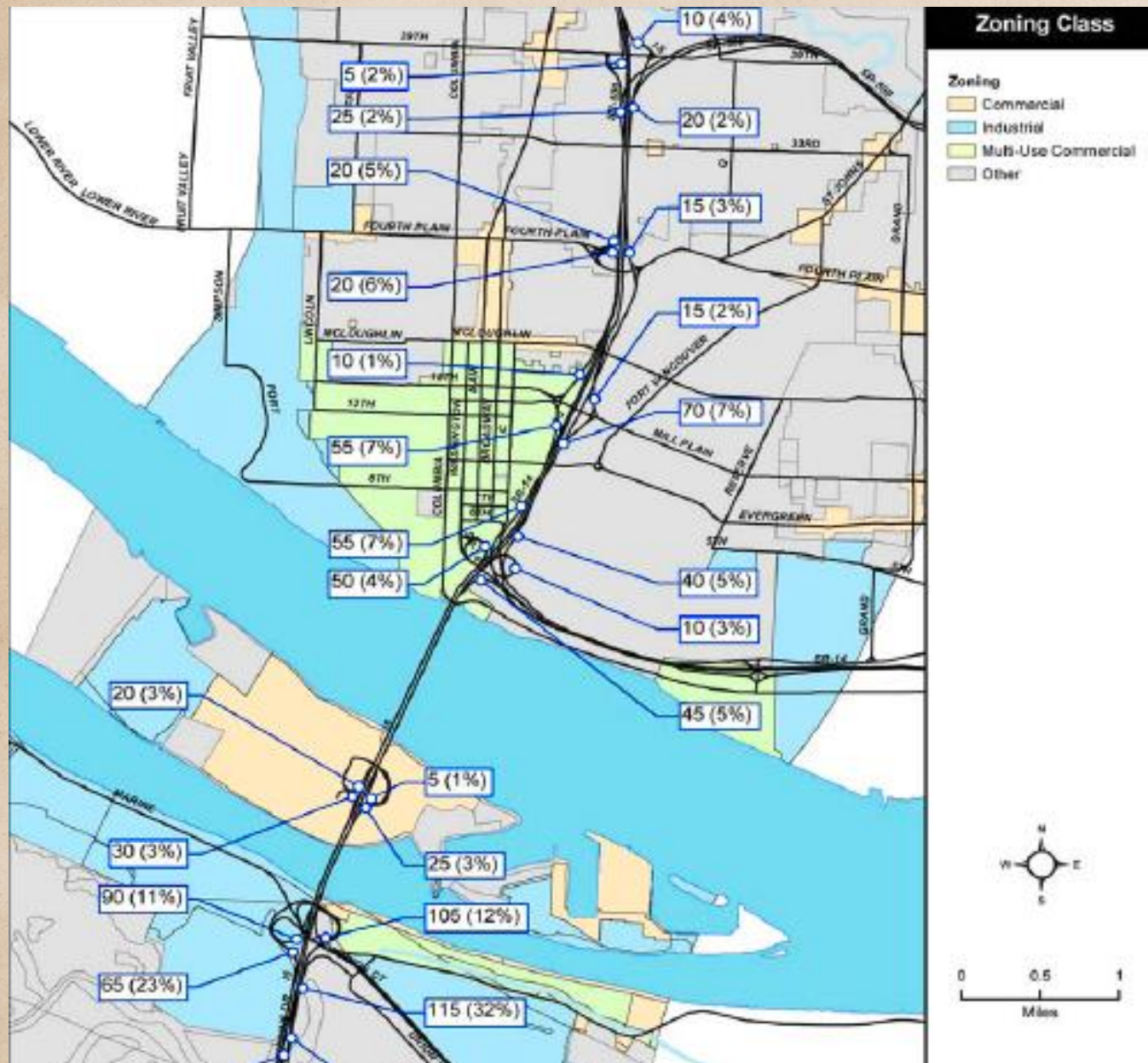


Truck Traffic Sheds



2.3 million estimated trucks in 2007

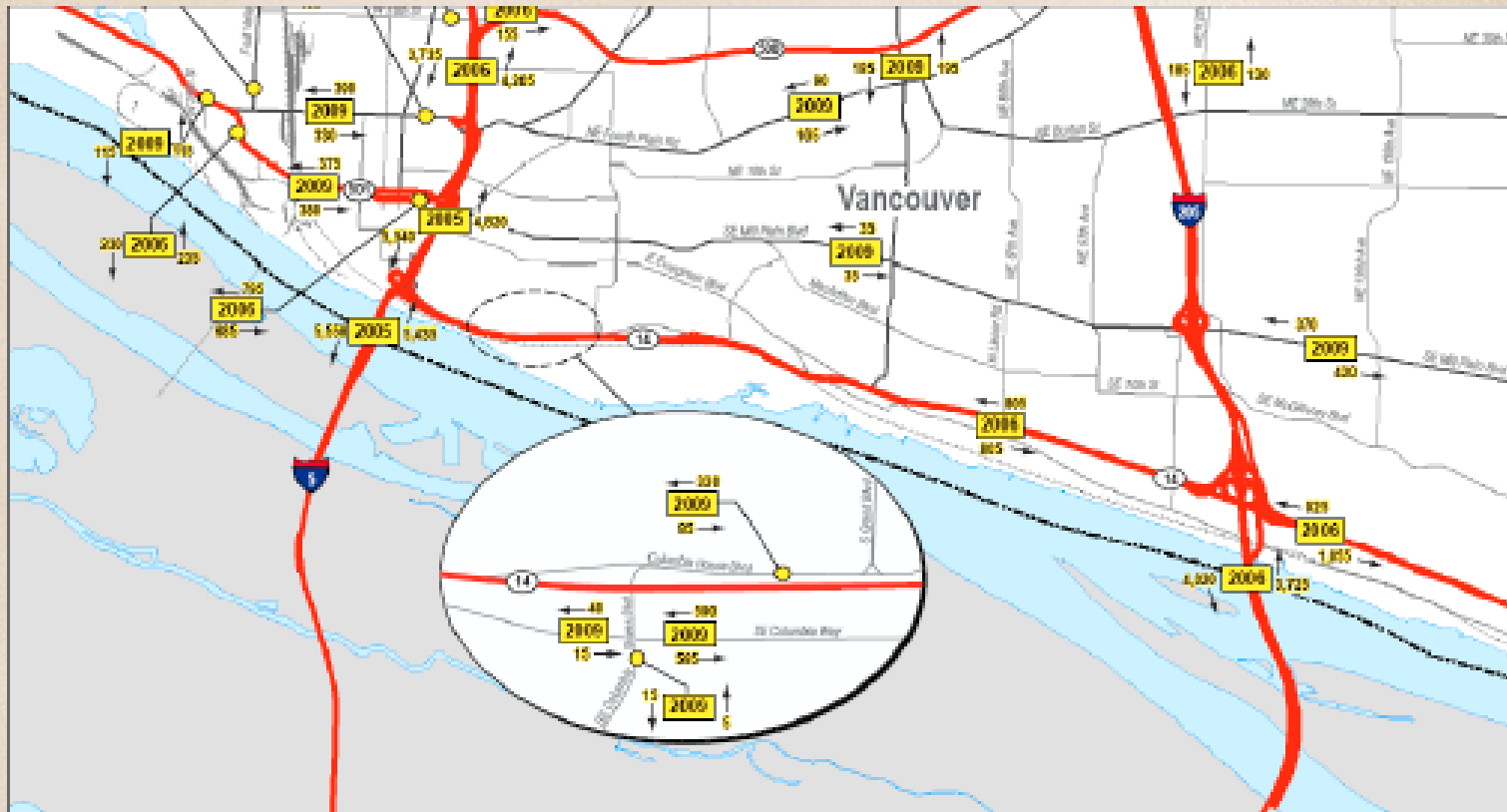
* Clark County Freight Mobility Study



- 52% of long distance truck trips originating outside the area don't have a destination in the BIA

- 48% either begin or end in the BIA

Clark County Weekday Truck Directions

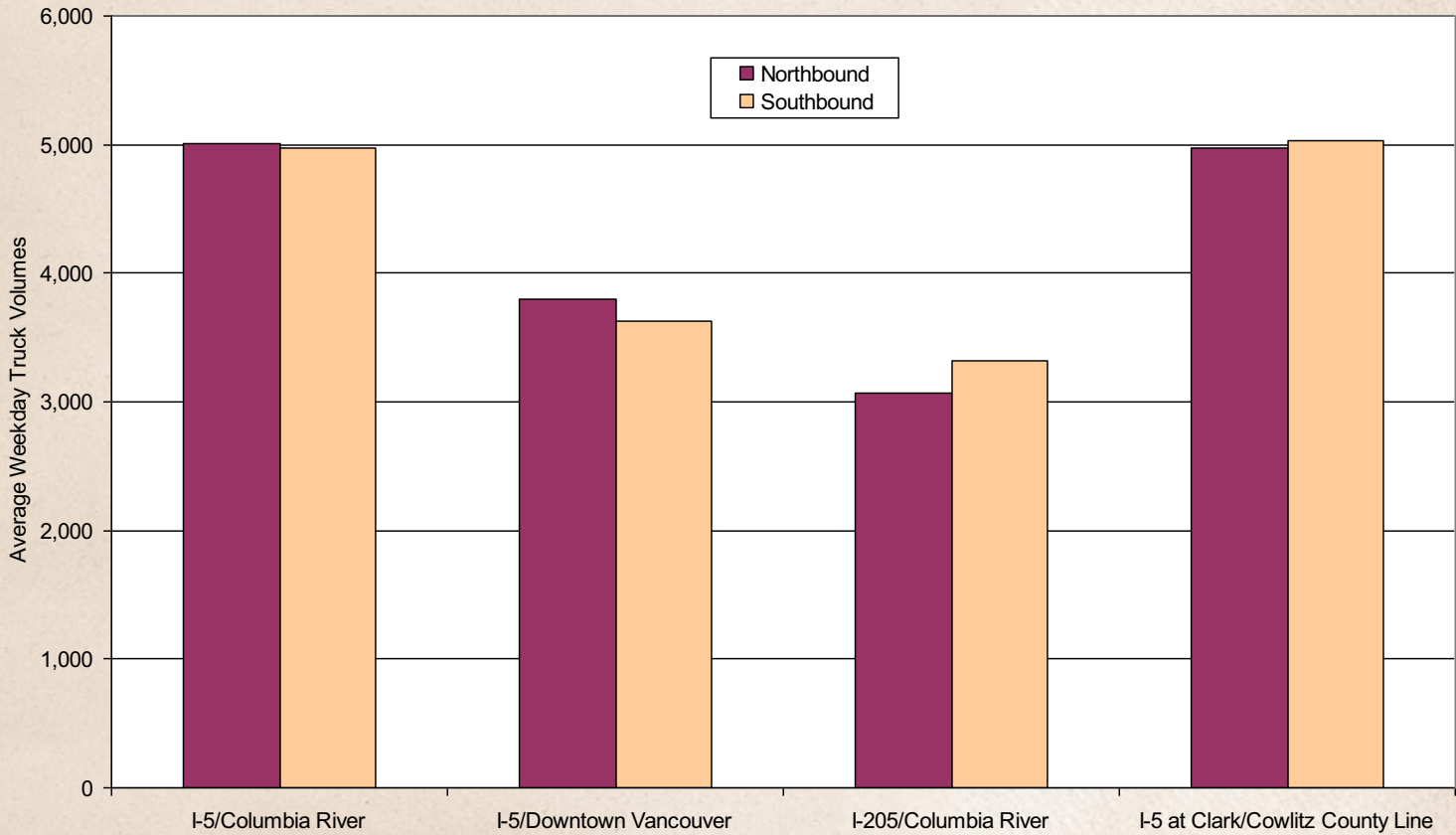


- The Interstate Bridge carries 42% more trucks than the I-205 bridge
- More truck trips are generated by industrial and commercial land use within the BIA than along I-205

* Clark County Freight Mobility Study

Clark County Truck Movement

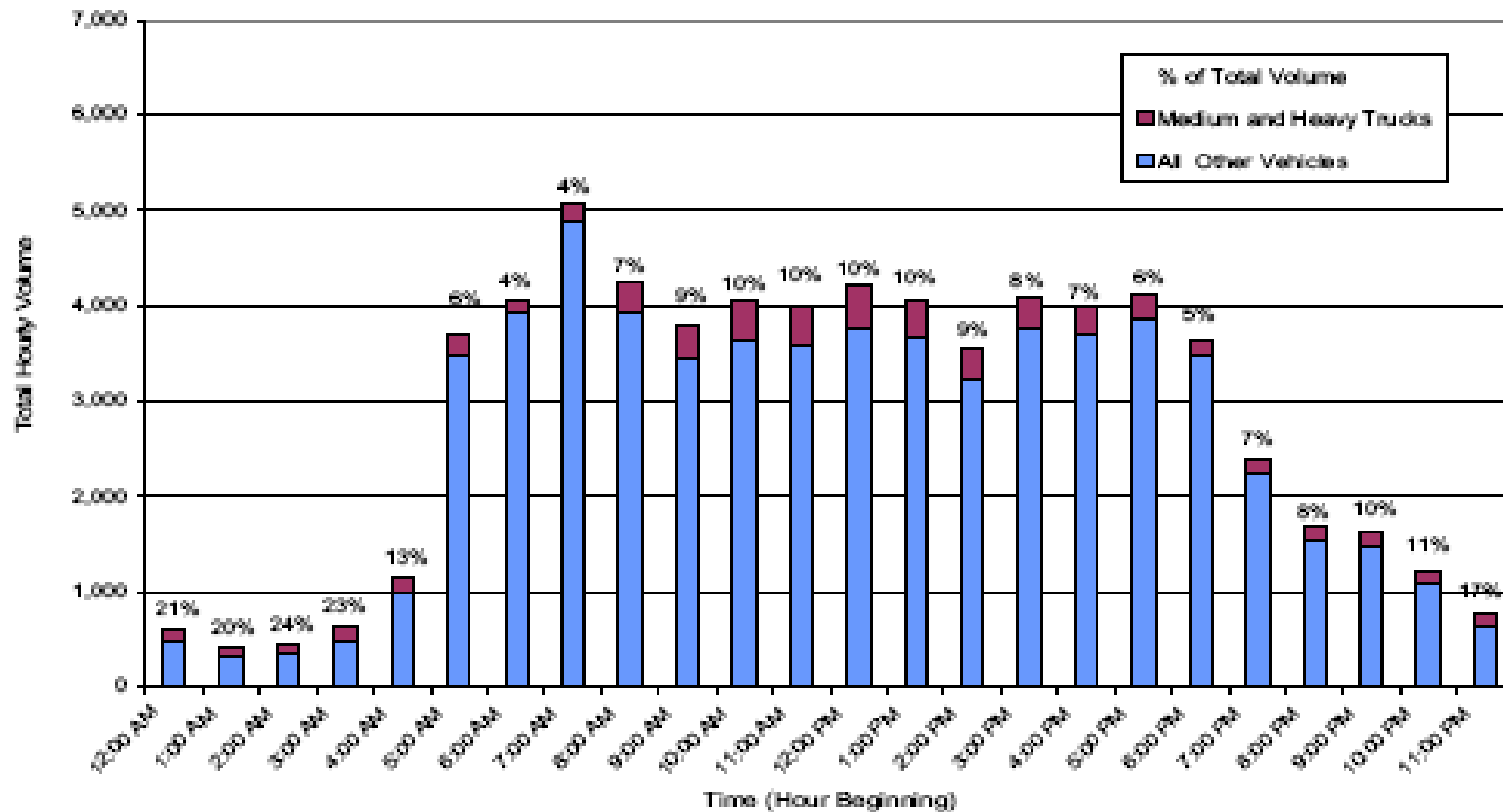
Comparison of Truck Volumes on I-5 and I-205 2008 Traffic Data



* Clark County Freight Mobility Study

Trucks Travel Outside of Peak

Figure 5-12. Southbound Traffic and Truck Volumes on I-5 Bridge

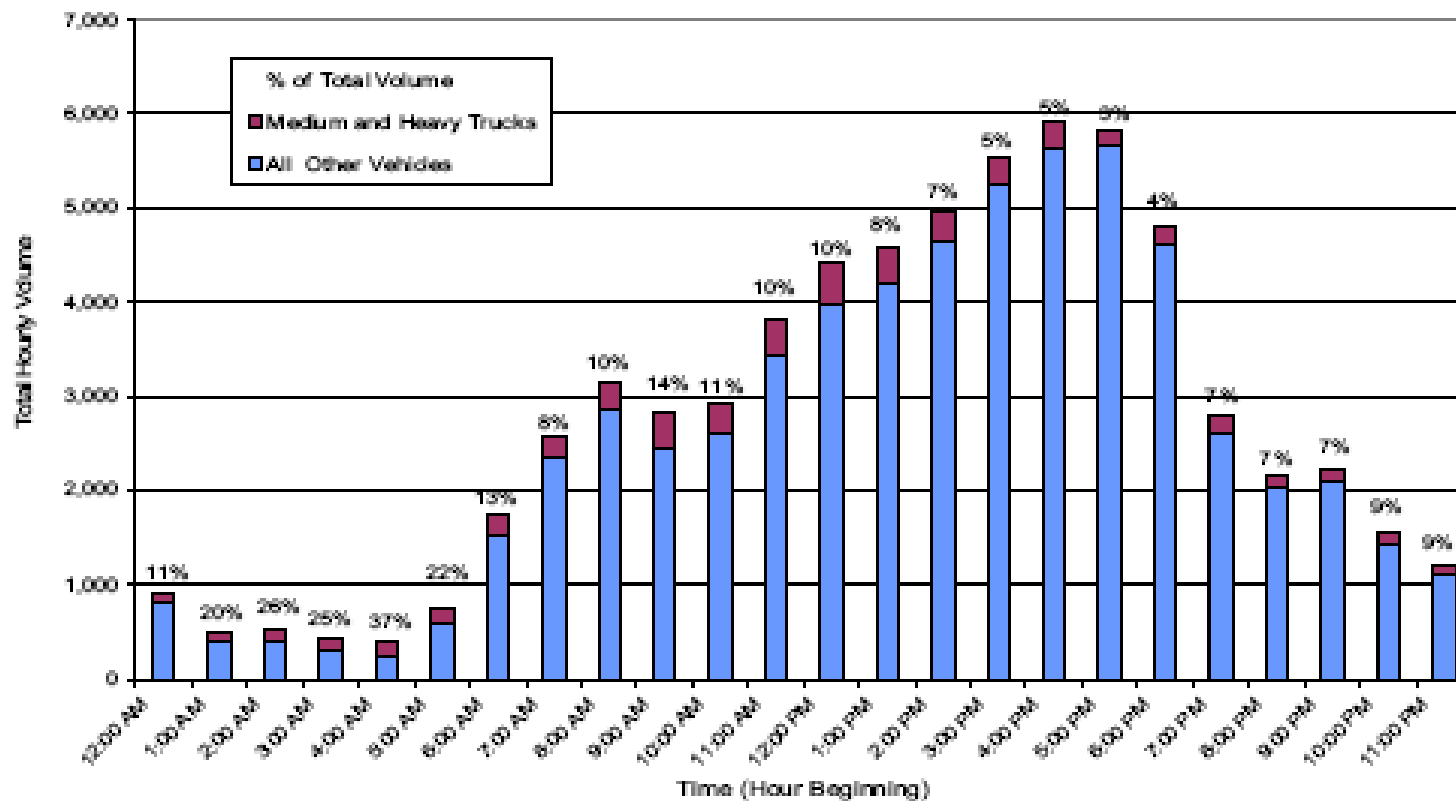


Source: CRC Project, October 2005 Traffic Data

Trucks Travel Outside of Peak

Truck Freight Existing Conditions 5-17
 Technical Memorandum

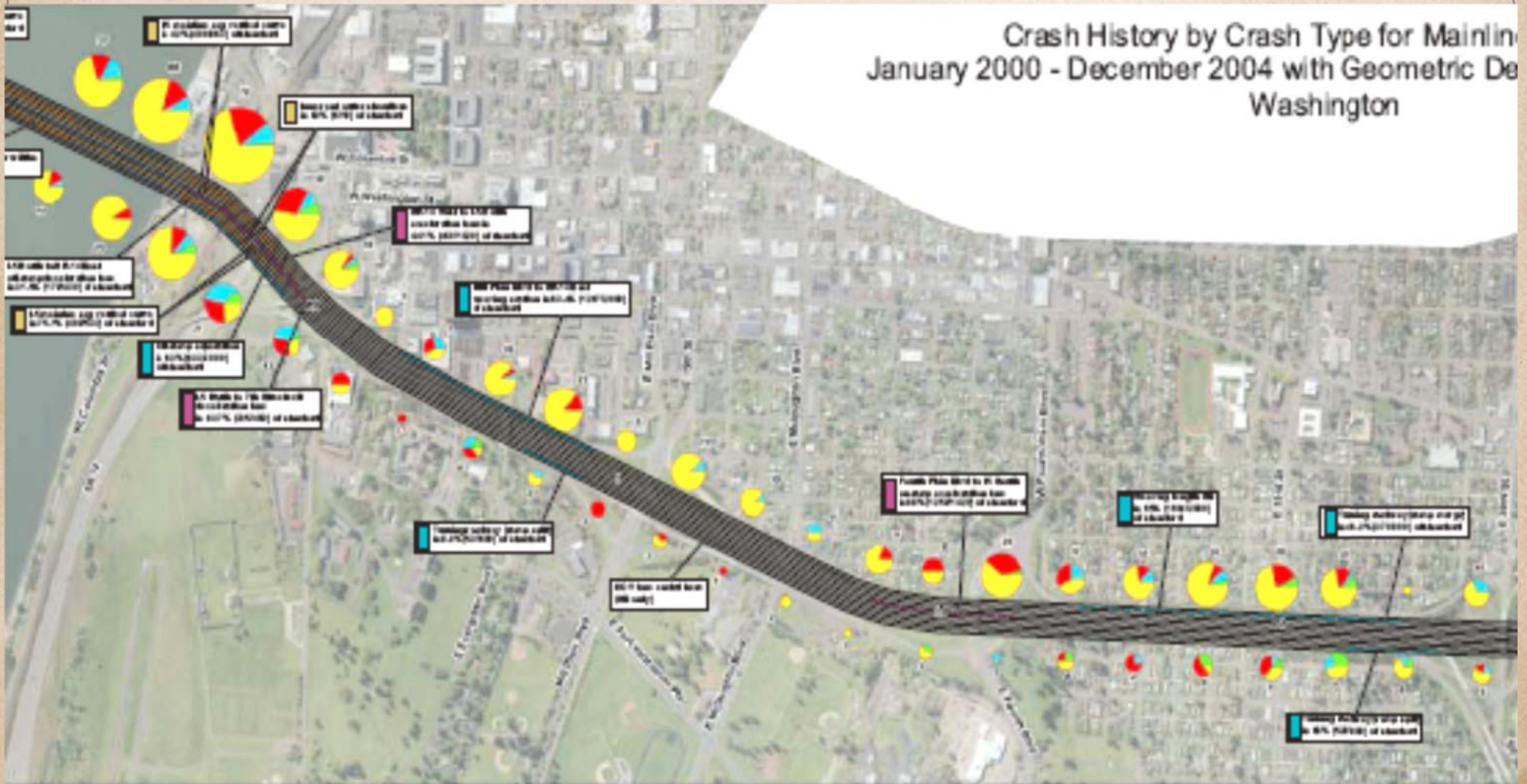
Figure 5-11. Northbound Traffic and Truck Volumes on I-5 Bridge



Source: CRC Project, October 2005 Traffic Data



I-5 Crossing Safety Issues



CRC Freight Interchanges



CRC Freight Interchanges

- SR 500
 - Less use by port trucks
- Fourth Plain Boulevard
 - A key future freight corridor
- Mill Plain Boulevard
 - Currently the port's primary freight route
 - Only route for oversized loads
- C Street/Downtown
 - Currently using Washington Street for oversized load access to SR-14/I-205/I-84
- SR 14
 - Provides access to I-205 & I-84

Clark County Freight & Goods Mobility

- Freight & goods movement require reliability and reduced travel times
- 45% of Clark County's industrial employment is concentrated in the southwest area and uses I-5
- Fourth Plain, Mill Plain and SR 14 interchanges are key access points for Port of Vancouver and West Vancouver industrial freight

Freight Mobility, Cont.

- The I-5 crossing functions as two types of bridges for freight – arterial access within the BIA, and through trips to points outside the BIA – this is why the freight industry supports a five lane minimum
- Industrial/employment sector says the I-5 bridge is the single most important transportation project in the region

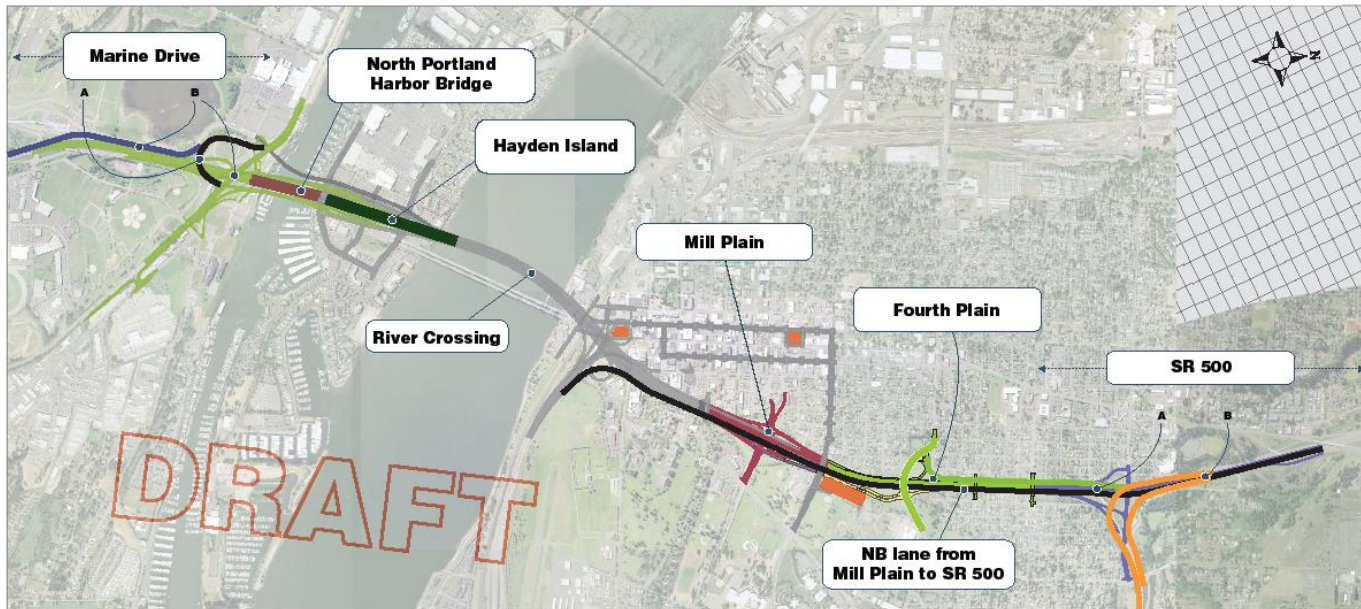


VANCOUVER FREIGHT ALLIANCE



THE PORT OF POSSIBILITY

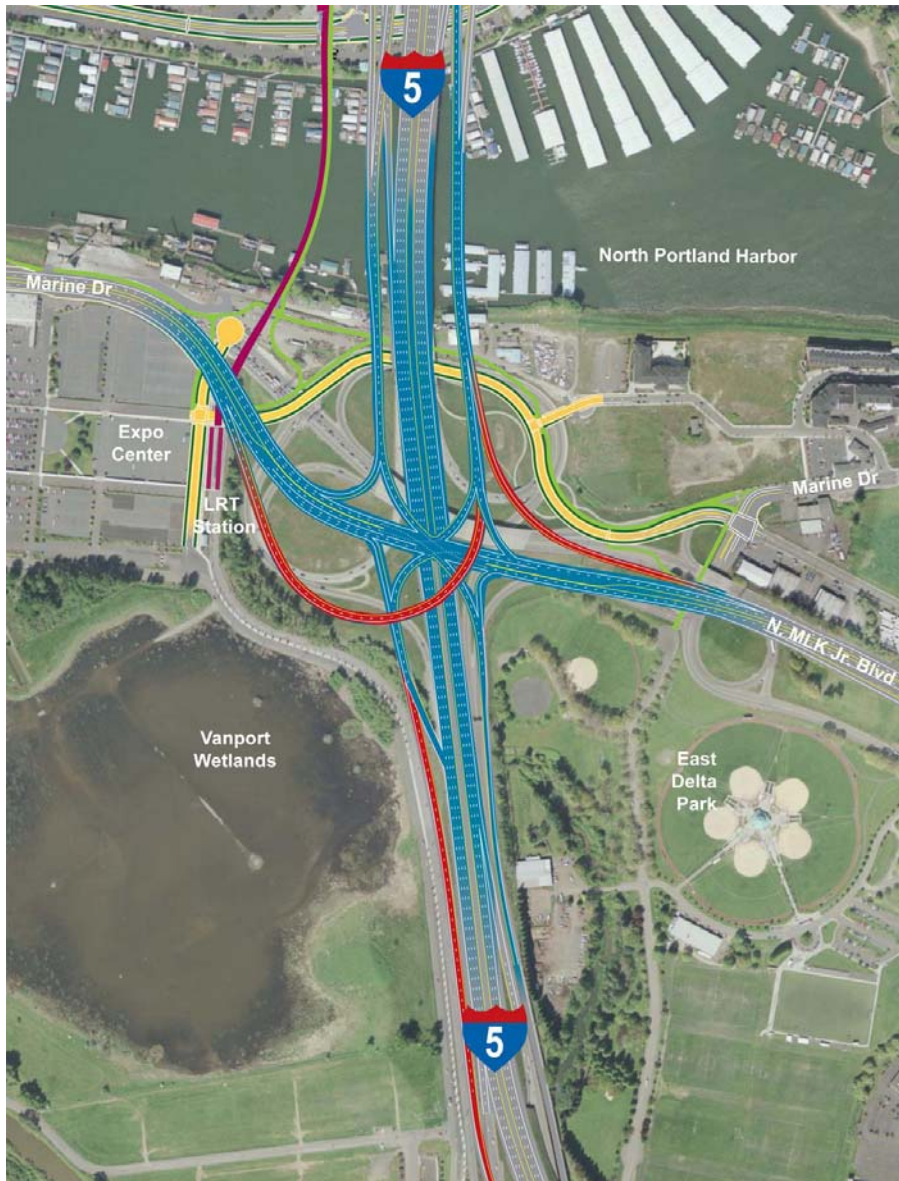
CRC Freight Refinements – Oregon



FOR DISCUSSION PURPOSES ONLY. THIS IS NOT A RECOMMENDATION. Items identified are not additive.

- Phasing an elevated ramp (North bound flyover) across I-5 as part of the Marine Drive interchange
- Phasing a dedicated ramp (braid) to access Victory Boulevard from I-5 southbound

Phasing Elements of Marine Drive/ Victory Braid



- Adequate travel speeds
- Ramp design and geometry geared toward truck mobility
- Limited traffic control (signals) interruptions
- Adequate traffic capacity and “reserve capacity” of Marine Drive to accommodate further development at terminals and other industrial sites
- Protection for industrial access needs

Conclusions

- Freight is fundamentally important to the regional economy
- CRC is a critical piece of the Portland/Vancouver freight transportation network
- CRC refinements meet current and future freight needs

