

# Toward a REGIONAL FREIGHT ELEMENT and ACTION STRATEGY

## DRAFT CONCEPT PAPER

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### EXECUTIVE SUMMARY

Over the next few months and years the *Regional Council* will:

- (a) Update the regional *Action Strategy* in 2007,
- (b) Update the region's Multi-county Policies in *Vision 2020* in 2007-8,
- (c) Refine *Destination 2030 (D2030)* in 2007-8, and
- (d) Update *D2030* after 2008.

The procedure for updating the region wide freight program in ways that can influence each of these actions is set forth in this *Concept Paper* and in the Appendix.

This *Concept Paper*

- Surveys key **issues** from each freight mode (rail, highway, marine, air cargo) and for intermodal systems,
- Offers **placeholder policies** for the *Vision 2020* Update (2006-7), and
- Offers **strategies** to be included in the regional *Action Strategy* (2006). These policies and strategies also point to **technical changes** to the *D2030* refinement in 2007-8 and to the more substantive *D2030* update after 2008.

The *Appendix* identifies the distinguishing features of the freight system; summarizes the current freight policies in the adopted regional plan (*D2030*); sets forth an amendment approach which includes a Panel to work within the consultative (e.g., Regional Freight Mobility Roundtable), advisory (e.g., Transportation Policy Board) and analytical processes established to assist the Executive Board and General Assembly in their policy decisions; and concludes by listing system performance measures relevant to the movement of freight and goods, and to the economy.

## PLACEHOLDER ISSUES, POLICIES and STRATEGIES

The Regional Council will: (a) update the regional *Action Strategy* in 2006, (b) update the region's Multicounty Policies in *Vision 2020* in 2007-8, (c) refine *Destination 2030 (D2030)* in 2007-8, and (d) update *D2030* after 2008.

*Concept Paper* outcomes are intended as follows: (1) The issue identification will help refine D2030 in 2007, (2) strategies will help expand of the Action Strategy in 2006, (3) policies will contribute to the multi-county policies in the Vision 2020 Update, and (4) all entries might point to a focused set of "parking lot" ideas to be taken up in the D2030 Amendment after 2008.

### 1. ISSUES (for D2030 in 2007)

Freight is not a travel mode. Freight is multimodal and, because these trip segments are often connected end to end, also intermodal. A regional issue statement is proposed for each of the interrelated modes of freight transport: maritime, rail, trucking and air cargo.

#### Maritime

**Candidate ISSUE:** Container volumes increased 40 percent in 2000 to 2004, and are projected to double in at most ten years. The Regional Council and its members will work with the ports and local communities in the development of a balanced Governor's Marine Port Container Initiative (underway) that (a) achieves likely capacity and "velocity", and that (b) is compatible with an overall regional growth strategy under the *Vision 2020* Update.

**Candidate ISSUE:** In several instances, the region is discovering the need for a balanced regional approach to major freight corridor and footprint needs alongside other competing regional and local land uses in urban areas where density and mutual encroachment are a long-term challenge.

Comment: Planning for international freight mobility through a geographically constrained gateway on the Pacific Rim requires a new approach. Trade volumes are based on trends extraneous to the usual forecasts of population and employment used if all other regional planning. One resulting issue is incremental erosion of larger but vaguely defined site footprints needed for the long term (operational improvements can moderate the actual acreage need). Corridor preservation should be regarded as an "insurance policy" to be exercised as needed, and an appropriate level of commitment need not await precise forecasts on exactly when the need will be politically compelling.

Examples of mutual encroachment at urban sites include: loss of capacity in the National Highway System (NHS) network in urban nodes, complementary or competing demand for rail capacity under mixed use of private rail mainlines (now under study by the Transportation Commission), rail corridor encroachment and the need for rail grade separations (deferral of grade separations during World War II accounts in part for the task picked up by the FAST Corridor Partnership), constricted airport and air cargo sites, and other site level conflicts such as those surrounding the SR-519 connection to the Port of Seattle, etc.

## Rail

**Candidate ISSUE:** Railroads were deregulated by Congress in 1980 (also trucking, air cargo and maritime, 1978-85) and since then have maintained needed capacity while reducing costs. Deregulation allows for market driven approaches to routes, rates and schedules. Now, rail capacity is no longer sufficient for future needs or to protect against rail system disruptions today. This is a national issue bearing on each state and region in varying degrees.

*Comment:* It may be in the public benefit to find new ways of public-private cooperation to enhance rail capacity (regionally and nationally). In our region, the fit between freight rail and passenger rail on private tracks affects marine shipping, Amtrak service and proposed commuter rail, and possibly unpredictable surge military deployment needs through Fort Lewis. Rail corridors and chokepoints are being addressed in the broader state *Rail Study* (completion December 2006). The region's role in the study recommendations, and the contribution of these recommendations to project-level partnerships within the region, are topics likely to need timely definition under the regional *Action Strategy* and a more developed *D2030* freight section. Surge loading from marine containers are resulting in ship rerouting up and down the coast, and can also result not only in delays, but in network disruptions spreading across several states.

## Trucking

**Candidate ISSUE:** Truck volumes are increasing faster than auto (at least 3.5 percent/year). Consistency between local land uses and transportation plans with regional and interregional transportation needs requires special attention in our region where international gateways and local communities must co-exist but also can be mutually beneficial. There is also a need to preserve pathways for large loads within and through our region during an expected long period of highway rebuilding, e.g., diversion of Viaduct traffic onto I-5 in downtown Seattle, etc.

*Comment:* This consistency might be achieved by requiring timely resolution of conflicts between local plans and the jointly designated Metropolitan Transportation System (MTS) freight roadway element (the Regionally Significant Freight Roadway Network), as a requirement for future certification by the Regional Council of local plans under state plan review legislation.

Under this particular option jurisdictions disagreeing on important non-state freight routes at their common borders would resolve these issues themselves through their respective intergovernmental cooperation strategies or under their shared countywide planning policies. The state Freight and Goods Transportation System (FGTS) generally protects Transportation Facilities of Statewide Significance (TFSS), is amended biannually (2005, 2007, etc.), and requires work to ensure protection and mitigation of truck impacts on communities.

Consistent local designation of truck routes tributary to the TFSS requires continued attention by cities and counties. The direct benefit of working with the WSDOT and the Freight Mobility Strategic Investment Board on amendments to the FGTS is that foreseeable funding requests to FMSIB for truck route improvements will not be rejected at the outset because of discontinuous truck corridor designations from one jurisdiction to the next.

## Air Cargo

**Candidate ISSUE:** The two independent airports (Seattle Tacoma International and Boeing Field) have an opportunity to integrate their respective site-level decisions serving combined regional landside freight capacity needs. The regional needs will exceed landside capacity after 2009.

*Comment:* From a regional systems perspective, these airport decisions might be complemented by additional actions at the Renton Municipal Airport to help relocate (if needed) the general aviation operations currently sited at Boeing Field. Also related to regional air cargo solutions, regional decisions on landside access to the airports will be based on the shared *Regional Air Cargo Study* (completion in May 2006).

## **Intermodal**

**Candidate ISSUE:** Freight intermodal centers complete the supply chains that support our businesses and the global network of related business activities. Reliability of deliveries (e.g., as to the Boeing aircraft assembly activities housed in our region, or to PACCAR, etc.) must be both protected and fitted into the urban fabric of increasingly dense land use patterns as our population increases in future decades. The leading issue (included above in Marine) is the reasonable preservation of intermodal site footprints in the region as a whole, sufficient to meet long-term needs even as efficiencies on current acreages also improve.

*Comment:* The freight modes are often connected end-to-end. Leading instances include the linking of trans-Pacific marine shipping routes to continental rail and highway networks through our deep water ports of Seattle, Tacoma and Everett (though operating on a global scale, the port terminals are counterparts to auto-bus transfer stations within the regional passenger mobility system). Other instances are the air-to-truck facilities at our air cargo airports, and the truck to rail yards in the vicinity of our ports. These intermodal facilities are included on the Metropolitan Transportation System (MTS) freight element.

## **2. POLICIES (for VISION 2020 Update) and STRATEGIES (for the regional ACTION STRATEGY) for 2007.**

Responding to the regional freight issues, the following proposed policies serve (a) international and multi-state gateways, (b) the needs of state and regional producers and suppliers, and (c) local distribution:

*Freight mobility* (MPP-T-14), *Intermodal continuity* (MPP-T-18), and funding *Partnerships* (MPP-T-16). Other secondary policies are *System management* (MPP-T-4), *Disaster response* (MPP-T-8), and *Integration* of transportation with resource management (MPP-T-11). Specific strategies will be developed for each policy, and placeholder strategies are listed below for DISCUSSION and REFINEMENT and/or REPLACEMENT.

**Candidate Freight Policy MPP-T-14: “Support the regional economy and stable job base by working with the private sector to address freight mobility needs for (a) freight and goods movement for international and multi-state trade “gateways”, (b) producer needs within the state and region, and (c) regional and local distribution.**

**Candidate Strategy #1:** Global Gateways – International and National Trade Flows through Washington (and through our region)

- Define and adopt a well-reviewed regional policy for the early preservation of sites and corridors for long-term regional freight needs. (Current corridor preservation work for the

BNSF Railway corridor east of Lake Washington, to be reported at the end of 2006, may offer a significant first step and tested insights on how to proceed together on this general issue of corridor preservation.)

- Regionally advance the 25 FAST Corridor Partnership projects (Freight Action Strategy: already included in *D2030*) by completing the respective funding partnerships, or other financing arrangements, and by communicating with the Regional Governance Commission (RGC report is due December 2006) and the Regional Transportation Investment District (RTID ballot issue is December 2007).

(A FAST Corridor brochure has been prepared for use in educational efforts [May 2006]. Project-level funding partnerships are disrupted, due in part to the renewed absence of a predictable federal funding share to attract partnership contributions, and continued uncertainty of state funding shares available in recent years.)

- Develop multi-state coalitions for (a) the east-west freight rail corridor (this is a Prosperity Partnership cluster working group Action Initiative, partly to influence federal SAFETEA-LU Reauthorization in 2009) and for (b) north-south strategies (through the West Coast Corridor Coalition). Begin both in 2006, and monitor the state Rail Study under the Transportation Commission (final report in December 2006).

**Candidate Strategy #2:** Made in Washington – Regional (and state) Economies Rely on the Freight System

- Develop clear economic and freight regional action steps to support (a) the shared FAST Corridor Program (the 25 projects are included in *D2030*), (b) other Corridor Programs and projects endorsed by the Prosperity Partnership (*Regional Economic Strategy*, 2005, pp. 22-27, and the cluster working group for Logistics and International Trade, pp. 52-55), (c) findings of the state *Rail Study* (Dec. 2006), (d) findings of *the Regional Air Cargo Study* (Spring 2006), and (e) the emerging Governor's Marine Ports Container Initiative.
- Adopt a *Vision 2020* Multi-county Planning Policy to encourage or require local transportation plans to be consistent with a mutually developed and periodically updated map of the Regionally Significant Freight Roadway Network prepared under state law. At the technical level, update the MTS freight Network, consistent with (a) the current FGTS major route designations (T-1 and T-2 routes for four million tons gross vehicle weight/year, or more), and with (b) local updates based on regional designation criteria (textbox) for urban routes with lesser tonnages. Establish an ongoing state-local review cycle for use by cities and counties on the Network that coincides with the biannual update to the FGTS done by the WSDOT and the Freight Mobility Strategic Investment Board (2007, 2009...). T-1 and T-2 routes are being refined as part of the 2007 *D2030* Update.
- Restore in *D2030*, textual wording from the 1995 *Metropolitan Transportation Plan* (p. 60) regarding completion the WSDOT core High Occupancy Vehicle (HOV) system : "The process will also consider and collaborate with freight and goods interests to ensure that HOV land development does not cause deterioration of freight and goods movement.

**The 2001 MTS Regionally Significant Freight Roadway Network used six criteria:**

- (1) State T-1 and T-2 designations plus local principal arterials,
- (2) linkages that connect intermodal facilities to the NHS (including STRAHNET),
- (3) access to urban and manufacturing and industrial centers,
- (4) connectivity and coordination with rail, marine, and air intermodal facilities,
- (5) consideration of impacts on local communities (some route deletions),
- (6) continuity and completeness including redundancy needs (reference: 5-12-98 to Regional Project Evaluation Committee).

**Candidate Strategy #3:** Delivering Goods to You – The Retail and Wholesale Distribution System. See previous bullet (Strategy #2, MTS).

**Candidate Strategy #4:** Treat transportation as a *means to an end* (e.g., economic well being), and clearly include system-conscious and freight-specific performance measures in regional policy discussions and decisions. (Performance measures are identified in the Appendix). The absence of precise measurements should not preclude at least a qualitative appreciation of supply chain performance measures. (The rail criteria already are accepted and being used by the state Transportation Commission in its current state *Rail Study*.)

**Candidate Strategy #5:** Other?

**Candidate Intermodal Policy MPP-T-18: *Invest in transportation system integration that makes it possible for people and freight to move from one system element (e.g., rail to truck) or technology to another.***

**Candidate Strategy #1:** RAIL: Review and support elements for our region from of the state Transportation Commission findings and recommendations (the state *Rail Study* to be completed December 2006), particularly toward optimizing public actions affecting the balance of long-term rail and highway freight capacity.

**Candidate Strategy #2:** MARINE: (a) Review and support the technical findings and derived policy recommendations of the Marine Air Quality Forum; (b) Frame and protect major interregional connectivity needs (e.g., intermodal port terminals and rail yards, including features of the Agile Ports operational/capital strategy) which includes mitigation of their impacts on local communities.

**Twenty-first century transportation solutions will reflect:**

(a) a systems perspective, (b) integration across levels of government, (c) increasing attention to operations, (d) an improved balance of national and local interests, and (e) a focus on actual decisions and actions.

These points are consistent with those raised nationally by the Transportation Research Board as reported in *TR News*, January/ February 2006, “Critical Issues in Transportation”, Special Insert, p. 9).

**Candidate Strategy #3:** ROADWAY: Review the criteria and update the depiction of the Regionally Significant Freight Roadway Network, and work with the WSDOT and FMSIB in 2007 and 2009 as they update the state Freight and Goods Transportation System.

**Candidate Strategy #4:** AIR CARGO: Ensure that landside air cargo solutions at Boeing Field and Seattle Tacoma International Airport are aligned with each other, especially with respect to public investments in landside access, and with airport capacity at other sites (Renton Field) with respect to the interactive and possible relocating of General Aviation services.

**Candidate Strategy #5:** Other?

**Candidate Policies MPP-T-4, 8, 11, and 16: *Include specific freight strategies under (respectively): system management, disaster response, integration of transportation with resource management; and funding partnerships (MPP-T 16).***

**Candidate Strategy #1:** Monitor Transportation Commission work to validate past assumptions (that freight rail would only double in the next 50 years), and then ensure compatibility between forecasted passenger rail operations and freight rail capacity needs for the near term and for the long term. (Use results of state *Rail Study*, to be completed in December 2006).

**Candidate Strategy #2:** Integrate available elements of the *Governors' Marine Ports Container Initiative* with regional growth management policies developed under *Vision 2020+20*.

(The Initiative aims toward a broad container handling vision, a derived 20-year plan, and near-term actions – all addressing transportation, affected land use, and environmental stewardship and permitting. Land use is the major focus of the Vision 2020 Update in 2006-7.)

**Candidate Strategy #3:** With the State Department of Emergency Management Services, verify in the D2030 Update for 2007 that disaster prevention and preparedness (e.g., transportation system redundancy), response, and recovery are being substantively advanced in regional plans and decisions. Specifically consider how container security programs developed under Operation Safe Commerce will affect port operations and needs over the long term.

**Candidate Strategy #4:** Other?

### **Candidate Policy MPP-T 16 (Funding Partnerships).**

**Candidate Strategy #1:** With successful completion of the strategy to house FAST Corridor administration completely at the Regional Council (July 2005), now elevate the FAST Partnership within the agendas of the Council Executive Board and the allied Prosperity Partnership. The FAST Corridor (“freight action strategy”) project list – and freight mobility as a whole – require action on concerns and suggestions raised through stakeholder interviews in late 2005 (Technical Memorandum: *Summary of Partnership Interviews*, Heffron Transportation, Dec. 12, 2005).

The region’s *Action Strategy* should consider these elements of the FAST Corridor Partnership:

- (1) Use the completed FAST Corridor brochure (May 2006) to again advance **shared regional support** for the FAST Partnership, at both the continuing interagency staff level and a restored level of the regional board and policies.

(In 1998 the FAST Corridor program and project list were instrumental in the creation by Congress of a new and funded federal Corridor Program, and by the state Legislature of FMSIB (also in 1998). In recent years fragmented federal earmarking has been the pattern, as the program gravitated into the otherwise successful implementation phase of separate project sponsors. State funding decisions have been criteria-based, but the funding sources have been either eliminated by broad Initiative or remain uncertain.)

- (2) Continue to secure some **fungible contributions** (previously federal, port and some rail ) to enable overall program advancement as some projects are held up while others demonstrate readiness to proceed,
- (3) Report to USDOT and to Congress the **incoherence of some federal agency contributions** in multimodal projects with regard to their specific grants to parts of complex funding packages, and their disruptive tracking of lowest bidder roles (e.g., the essential but awkward Economic Development Administration share in D Street),
- (4) **Promote the FAST Corridor package as a whole** before state (FMSIB, TIB) and port contributors, as well as is done at the federal level,

- (5) **Reduce capital investment needs** by investing in system efficiencies, e.g., intelligent transportation systems for freight (Duwamish ITS is a completed example),
- (6) Use the Regional Council **boards** to ensure continued broad local support, even while those cities with completed projects become less active. Board support and updated inclusion of the FAST Partnership as such in *D2030* would also simplify the previous need for a freestanding Memorandum of Understanding among the individual project sponsors/implementers.
- (7) As a distinct part of Regional Council public information messaging, effectively **educate** the public on the benefits of the FAST Corridor and of broader freight mobility within and through the region, and
- (8) Regionally **address the fundamental issue of FAST Corridor program scope**: whether (a) the established FAST Corridor Partnership (Freight Action Strategy) should serve a range of freight projects wider than the initial marine/rail corridor, or whether (b) the current focus should be maintained, and the broader freight picture pursued through additional action strategies, but with all of these strategies fully included in the Regional Council's comprehensive *Action Strategy*.

**Candidate Strategy #2:** As in past years, Regional Council members testify at Congressional hearings and listening sessions in 2007-8 on SAFETEA-LU Reauthorization regarding the need for reliable and multi-year federal participation in funding (grants) and/or financing (e.g., new use-based fees) partnerships to both handle and locally mitigate the impact of trans-Pacific U.S. trade on Pacific gateway regions.

Options for influencing Reauthorization include, but are not limited to:

- Either (a) a multi-year schedule for annual Congressional earmarks, or (b) annual and formula allocations to impacted states (following the model for the Borders Program under SAFETEA-LU, Section 1303),
- In anticipation of 2009 Reauthorization, participate in crafting possible new revenue sources and structures, e.g., use-based fees to be paid by shippers (e.g., as part of broader steps toward a National Freight Policy).

Project-level private contributions can help round out the partnerships, such as (a) railroad funds for rail grade separations, (b) local Limited Improvement Districts as in the FAST Corridor South 228<sup>th</sup> St. Project in Kent, or (c) other.

**Candidate Strategy #3:** Monitor and take part in national and sub-national discussions toward a broad *National Freight Policy* (e.g., the Policy and other federal policies are to be informed by national review of trust fund insolvency beyond 2008, as called for by SAFETEA-LU, Section 1142: National Infrastructure Financing Commission).

**Candidate Strategy #4:** Support enlargement of the State Infrastructure Bank (SIB) as one mechanism for financing qualifying projects. SIBs are revolving loan funds enabled under federal and state actions, and offer front end financing which then is repaid by dedicated funding streams such as new use-based fees, possibly assessed against shippers rather than carriers.

## APPENDIX

### OVERVIEW: Conceptual framework for Freight

The freight system involves “system level strategies” integrated into the overall *D2030* Update scheduled for Spring 2008, although some elements of the freight update will require earlier action. This urgency is driven by trends that exceed the regional demographic trends used in personal transportation planning, the timeline of directly related planning efforts such as the Governor’s Marine Ports Container Initiative, state rail, regional air cargo, the regional Action Strategy, Prosperity Partnership first year action items, and the need to have a clear message for consideration in the *National Freight Policy* (now underway) and likely to influence the reauthorization of federal transportation law in 2009 (and testimony beginning in 2007).

The freight logistics system *differs* from the passenger transportation system. It cannot be adequately addressed by rolling “freight” into generalized and conventional transportation planning approaches. To help make this fundamental point, here is a side-by-side comparison:

- Global *economic structure* versus regional land use activities,
- Industry *logistics patterns* (global and lesser supply chains) versus personal and more local travel patterns,
- *Freight infrastructure* (rail, road, marine, air) versus passenger infrastructure (more typically auto and transit),
- *Traffic flows and performance measures* are important for freight and passenger traffic (freight gives more attention to trip reliability, delays and system disruption), and
- *Institutional profile*: Freight is more private (textbox), and yet is directly tied to a broader range of federal modal administrations than is personal transportation. In addition to the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) and Federal Aviation Administration (FAA), the freight modal administrations also include the Federal Railroad Administration (FRA) and the Maritime Administration (MARAD), as the Department of Homeland Security (DHS), the Coast Guard (assigned to DHS), and (especially in our region) the Department of Defense (DOD).

#### The Private Face of Freight Mobility

*When we characterize freight mobility as largely “private” we refer to the sea change of public policy in the United States instituted by acts of Congress generally in the late 1970s. Congress deregulated the freight carriers: trucking (1980 and 1994), rail (1980), marine (1985 and 1995) and air (1997 and 1998), partly to help assure their economic survival apart from more regulatory approaches. The freight system is different than the personal transportation system, which consists largely of publicly owned and operated highway and transit systems.*

Intermodal supply chains linking ocean shipping to continental rail and highway networks are one result of this policy action, as is the shift of Panama Canal traffic to land routes through West Coast gateway ports.

Extending this evolution, freight mobility was added to federal surface transportation planning requirements in 1991, and the Interstate Commerce Commission was abolished in 1995. The task of defining the role of government in this privatized field varies by mode and continues to be a challenge, but productive innovations have emerged in some parts of the country, e.g., the linked Freight Mobility Roundtable and the FAST Corridor has been reported over the years in at least eight “best practices” surveys conducted and published by USDOT, the National Assoc. of Regional Councils, the Gov. Accounting Office, etc.

## 1. EXISTING D2030 PLAN

The 2001 *Destination 2030 (D2030)* includes these three brief freight pieces:

- Policies and a Map:
  - (a) Generalized *policy* language (recast in the *Concept Paper*): RT-8.1 (includes efficient movement of freight), RT- 8.5 (freight partnerships) , RT-8.6 (multimodal access to airports, seaports, etc.), RT-8.34 (road network), RT-8.35 (freight access improvements) , RT-8.38 (multiple use), RE-7.14 (coordinate investment with private sector), and RE 7.15 (support economic vitality).
  - (b) A multimodal *technical* freight map layer to the Metropolitan Transportation System (MTS) together with refinements to the traffic forecasting models to better reflect truck movements.
- A *near term implementation package*: Phase I and Phase II (2000-2011) with a combined cost of \$886 million:
  - (a) FAST Corridor Phase One (15 specified port access and rail grade separation projects with a combined cost of \$570 million): California Street (Port of Everett), East Marine View Drive (Everett), Riverfront Parkway (Everett), Spokane Street (Seattle), Royal Brougham (Seattle), East Marginal Way (Seattle), S. 180<sup>th</sup> (Tukwila) S. 277<sup>th</sup> (Auburn and Kent), Third Street SW (Auburn), Eighth St., (Pierce County), Shaw Road (Puyallup), Canyon Road Extension (Pierce County)), D Street (Tacoma), Port of Tacoma Road (Port of Tacoma), SR-167 right of way acquisition (in Puyallup Valley).
  - (b) Phase Two (a broadened set 10 additional and specified projects for rail solutions, some roadways, and operations): M Street (Auburn), 70<sup>th</sup> and Valley (Fife), S. 228<sup>th</sup> (Kent), Willis St. (Kent), Eighth St. UP line (Pierce County), Duwamish ITS (Seattle), Lander St. (Seattle), Lincoln Ave. (Port of Tacoma), SR-18 ITS (WSDOT), and SR-9 segment (WSDOT).

Notes: In the *D2030* document, the “illustrative list” for Phase II was: M Street (Auburn), 212<sup>th</sup> St (BNSF line, Kent), 212<sup>th</sup> (UP line, Kent), Willis St. (BNSF line, Kent), Willis St. (UP line, Kent), 8<sup>th</sup> St. (UP line, Pacific), Broad Street (Seattle), Lander or Holgate (Seattle), Puyallup St. (Sumner).

The predecessor *1995 Metropolitan Transportation Plan* included by reference “Recommended Freight Mobility Action Packages”, Sept. 6, 1994. The matrix of assignments began to address institutional, operational, infrastructure and financial actions. Two of the listings initiated the FAST Corridor, and linkage of freight actions to the Regional Economic Strategy (part of the new Prosperity Partnership.)

- A general statement of intent to include addition projects consistent with *D2030* for a *longer-term* (2011-2030) and *broadier* regional freight picture, dealing with both infrastructure and operations.

## 2. APPROACH

The *D2030 Update* process should include a process for public-private consultation and interagency coordination:

- **Consultation** between lead agencies and the private sector through (a) the Regional Freight Mobility Roundtable (the accepted regional “communication hub”) and (b) the Prosperity Partnership and other opportunities.
- **Coordination** among public agencies: (a) State entities (the WSDOT Office of Freight Policies and Strategy, the Freight Mobility Strategic Investment Board, and the Transportation Commission), (b) the FAST Corridor Partnership (a focus on marine gateway and landside needs), and (c) other specialized initiatives affecting our region, such as the state Rail Study and the Governor’s Container Port Initiative.

**Panel.** Freight integration recommendations will be crafted by a Working Panel which which is proposed to meet at least three times. The Panel will use as sounding boards the Freight Mobility Roundtable and the Prosperity Partnership (cluster working group on Logistics & International Trade). The Panel will provide input and support to the Transportation Policy Board (TPB) through the Regional Transportation Integration Committee.

The first action of the Panel members will be for them to present for themselves their concerns and ideas on regional transportation needs, directly to the Transportation Policy Board Working Group.

- **Policy Adoption.** The draft regional freight element for the *D2030 Update* will pass through the PSRC’s advisory TPB, and to the Executive Board and General Assembly for final Action. In addition to the TPB, the draft material will also be presented for comment to the second advisory committee to the Executive Board, the Growth Management Policy Board, and to the autonomous Economic Development District Board (on behalf of the Prosperity Partnership).

## Outputs

### Plans

- **Policy and Action Strategy Refinement.** Clarify current *D2030* policy language, and consolidate a regional freight policy. Expand policies and reach beyond the *D2030* horizon (to 2040). Identify clear regional freight strategies.

### Actions

- **FAST Corridor project completion.** Find financing and/or funding to complete the FAST Corridor agenda (\$300 million shortfall on a total of 25 projects). All of these projects are individually included in *Destination 2030*. As one step, the FAST Partnership in April 2006 is completing an update and brochure intended for a broad range of interested audiences.

- **Implementation & Regional Action Strategy.** Broad implementation steps for freight already include (a) FAST Partnership work, and (b) the Prosperity Partnership’s Foundation Initiative for regional transportation and several additional Action Initiatives (cluster working group for Logistics and International Trade). And (c) the ports are embarking on the Governor’s Marine Ports Container Initiative, which will be considered in the *D2030* and *Vision 2020* Updates.

*The Regional Council Action Strategy will be broadened to include a freight action strategy addressing all of the freight modes (rail, highway, marine and air cargo and their connection points (the “inter-modal” port terminals and rail yards, etc.), and timed to fit identified windows of opportunity.*

### 3. GROWTH

Here are some significant freight system facts for comprehensive regional freight planning and actions:

- **Global trends and impacts exceed regional demographic trend lines** for population and employment, and about 70 percent of international import containers move through our region and inland by rail.
- Freight mobility **performance needs place a premium on day-to-day system reliability**, and protection against larger network disruption (i.e., multi-state).
- **State exports move in all directions** (about 30 percent head overseas (e.g., maritime), and 70 percent head to inland states), **and by all modes** (about one-fourth of Washington State international trade (in dollar value) passes through our marine ports; and the exports to other parts of the continental United States move mostly by rail, air or highway).
- The peer reviewed *Vision 2020+20 Update Issue Paper for Transportation* identifies these **opportunities, challenges and implications**: (1) project selection criteria, (2) attention to gateways, producer needs and distribution, (3) globalization, including chokepoints within and outside the region, (4) chokepoints for truck traffic and rail lines, positive air cargo trends, and at least a doubling of container volumes by 2020, (5) freight performance criteria responsive to “supply chains”, reliability and system disruptions (*performance measures are addressed in Action Options, below*), (6) the need to advance economic and security needs together.

In summary, when thinking of freight mobility we are dealing with “supply chains” (in contrast with personal transportation “service areas”). These supply chains may involve only a single mode (e.g., trucking) or a linked total trip consisting of several modes (e.g., steamship routes handing off containers to either trucks or rail, and which might be destined for the East Coast or even beyond). Additional issue analysis is detailed in Section 6, below, and in the Regional Council’s *D2030 Transportation Issue Paper*, January 2006.

#### 4. GAPS NEEDING REGIONAL ATTENTION

The *D2030 Update* develops broad programs such as the better management of “congestion”, together with performance measures. The freight logistics system is only partly served by this approach, because in addition to the roadway mode, the freight system also includes rail, marine and air cargo modes, each with its own specific expression of performance measures. (Further, the emergent measure for efficient intermodal transfers at port terminals is “velocity”, which leads to proposals for “agile ports” which can have revolutionary site footprint requirements.)

A staff perspective for each of the freight modes is sketched below, and their respective performance criteria (applied modally) are outlined in the Analysis section of this concept paper (Section 9). *As noted above in Section 2, an informal freight Panel will directly present to the TPB Working Group and to other policy groups, stakeholder views on the regional needs of the freight system as a whole and of the constituent freight modes surveyed below.*

##### Pacific Gateway/Intermodal

The deepwater ports in our region (Seattle, Tacoma, and Everett) project a doubling of container volumes by 2015 (exceeding official forecasts developed in 2004 that indicate 6.9 million containers in 2020).

- Container volumes reached **4.2 million TEU in 2005** (up 40 percent since 2002). Total import and export trade through the ports was nearly **\$60 billion** in 2005 (80 percent of dollar value was imports).
- Of the **\$12 billion** dollars in exports, *half* was from within the state of Washington.
- One fourth of port trade is with **Alaska**, and **70 percent** of all international import containers pass east *through* our region on single and double stack container trains.
- The marine ports *are* the “intermodal” centers (MPP-T-18) that link continental freeway and rail networks to Pacific Rim maritime trade routes and supply chains. The ***Governor’s Marine Ports Container Initiative*** intends to develop (a) a long-term port vision, (b) a more focused 20-year plan, and (c) near term actions, all addressing transportation, land use and environment. A mutually acceptable fit between this Initiative and regional growth and transportation policies under the *Vision 2020* and *D2030 Updates* will require close communication in 2006-9.

##### Rail Network

Port related tonnage is expected to double by 2020. Landside rail capacity for the marine gateway is expected to encounter serious bottlenecks in 2009-12.

- Regional ***short-term*** operational needs include major spur lines known as off-mainline port access, the FAST Corridor program, the Duwamish Corridor, track sharing adjacent to the Port of Tacoma, and curve realignment and speed upgrades in Everett.
- Regional ***long-term*** options include actions on Stampede Pass, bypass actions at Point Defiance and Bayside.
- Private rail mainline tracks are shared with passenger rail (the north-south line is federally designated as a High Speed Rail Corridor) and with commuter rail.
- Rail capacity must be flexible to allow for **unpredictable surge requirements** through the Fort Lewis Power Projection Platform, e.g., an additional 400 full train loads over a 60-day period.

## Highway Network

The highway network and its backbone elements (Interstate 5 and Interstate 90) serve more than 6,600 manufacturing firms in our region.

- Westbound trucks on I-90 head for a **range of destinations**: warehouses, distribution centers, truck terminals, marine ports, points of sale, and factories. Between 1994 and 2002 westbound tonnage on I-90 increased 83 percent, and eastbound 44 percent.
- North-south **traffic on I-5** near Seattle-Tacoma Airport doubled in both directions.
- The adopted **regional freight map** (the multimodal freight element of the Metropolitan Transportation System, 2001) requires updating to reflect amendments to the state Freight and Goods Transportation System and to locally designated freight routes.
- Supported in part by the FAST Corridor effort, highway Corridor Programs (I-5, I-405, SR-520, etc.) now include a focus on each of their respective freight mobility needs.

## Air Cargo

The annual air cargo volume is expected to double by 2025 (from 473 thousand tons to 951 thousand tons, or 3.5 percent/year).

- The **current distribution** of air cargo between Seattle-Tacoma Airport and Boeing Field (3:1) is expected to continue.
- Security restrictions play a role in shifting air freight from passenger aircraft to exclusive **air cargo planes** (now about 60 percent of the total).
- Airborne deliveries of aircraft components through **Paine Field** for assembly at the Boeing facility (not included in the above figures) in Everett are also scheduled.
- The regional **air cargo constraint** appears to be landside capacity after 2009, and surface access.

### Some sources for Section 4

Freight mobility decision making requires information sources in addition to those produced at the Regional Council. Freight trends are not correlated to only internal population and employment forecasts. Better ways must be found to complement current regional and small area forecasts with more open access to ever larger data structures relevant to the dynamic and multimodal freight system.

*Regional Air Cargo Study* (PSRC, 2006), *Marine Cargo Forecasts* (WPPA and WSDOT, 2004), *Rail Capacity Study* (WPPA, 2004), *Strategic Freight Analysis Framework* (WSU, 2002-7, ongoing), the state Rail Study (December 2006), the Washington Transportation Plan freight element (September 2006), monthly meeting notes of the Regional Freight Mobility Roundtable (1994 —), Background Papers for the Central Puget Sound Freight Mobility System and FAST Corridor (January 2006), and Port of Seattle and Port of Tacoma *Annual Reports*, 2005.

## 5. SYSTEM ELEMENTS & REGIONAL ACTION STRATEGY

The D2030 Update also will be supported by a revised and periodically updated *Regional Action Strategy*. This template for the current *Action Strategy* **must be broadened** to:

- Regional/state funding. Address freight funding and financing solutions advanced under MPP-T-16. Coordinate with the state Freight Mobility Strategic Investment Board (FMSIB) regarding its statutory requirement (“Priorities in Government”) to (a) submit

an *inventory* of meritorious projects, and (b) maintain a *database*. The regional program and the FMSIB program, for freight projects, should be aligned and mutually supportive. In addition, (c) review and modify project selection criteria for regional projects assisted by regionally distributed federal funds (STP, CMAQ).

- Coherent Action. Include Freight Mobility performance recommendations: (a) Freight modal performance criteria, (b) System actions: targeted capacity improvements, priority measures, and ITS, (c) Project completion: adequate funding overall and for FAST Corridor, (d) Partnership: identification of strategic actions from the public sector.
- National picture. Participate in work toward a *National Freight Policy* and SAFETEA-LU Reauthorization in 2006-9, which considers both efficiency criteria and the broader favorable and more problematic effects of mobility on the regional economy within a global setting; and in state-level consultations.
- Freight Program. Support the regional effort to define and advance a comprehensive and long-term regional freight policy to: (a) specifically include freight modal initiatives\*, (b) respond to broad concerns of resource management and other community priorities (*Vision 2020 Update*), and (c) support the Washington Transportation Plan (WTP, e.g., Sept. 2006). The Panel, described in Section 3 above, might be one initial step.

Note: Modal initiatives include, but are not limited to, the following efforts, all of which overlap to some degree and all of which affect freight solutions in geographic regions and our region in particular: the Federal Railroad Administration *Rail Strategic Plan*, the Maritime Administration *Marine Transportation System*, the AASHTO *Freight Rail Bottom Line Report* and AASHTO *Intercity Passenger Rail Transportation*, the state Transportation Commission *Rail Capacity Study*, the WSDOT *Corridor Programs* (regional highways), etc.

Ongoing USDOT efforts to integrate the ten modal administration, begin under ISTEA in 1991, are reflected in the composition of the Regional Freight Mobility Roundtable (1994 –) which includes the FHWA, FTA, FRA, MARAD, FAA, Coast Guard (under the Department of Homeland Security), and the Department of Defense.

## 6. ANALYSIS

*The analysis of freight alternatives, or strategies, can include a multimodal level (least-cost planning as a way to evaluate public funding participation) as well as modal approaches. In addition, the D2030 plan elements and public involvement through the Action Strategy still must reflect growing policy attention to the often different freight logistics needs and passenger service area needs, e.g., by finding ways to apply freight performance measures for each freight carrier mode (rail, highway, air, and marine). Each of these sets of modal criteria is sketched below.*

### Trucking:

Capacity/speed and delay, trip reliability (the equivalent industry term is predictability), route flexibility, cost, safety and security, and shipper criteria (mode flexibility, cost). These criteria will fit into the agency Congestion Management System, which excludes the marine, air cargo, and railroads modes addressed below.

Railroads:

*Private* – average speed, delay ratio (idle time as a share of total trip time), disruption ratio (percent of trains rescheduled), sustainable capacity (trains/day);

*Public* – multiple use (freight and passenger), freight efficiency (e.g., tracks are privately owned by freight railroads), community impacts and mitigation, safety/accident reduction.

Marine:

Velocity (e.g., intermodal transfers), reliability, capacity, security.

Air cargo:

*Airside* – operations per year, yield management, annual hours of delay, percent of operations per month delayed more than 15 minutes, security;

*Terminal handling* – efficiency per square foot;

*Landside* – access to other airports, reliable highway access.

Economic performance:

The Prosperity Partnership criteria for transportation and the economy may include attention to the shares of imports versus exports (dollar values). It is exports, not imports, that bring new money into the region and that are therefore more relevant to economic health. This broad perspective is missed by the more conventional transportation criteria of throughput “efficiency” or delay reduction, etc., for total trade, drawn from the engineering profession and even from an earlier era. The relationship between global freight mobility and national/local benefit to the economy is not to be reduced to any single measure or equation.

**The Trade Picture**

Total exports comprise all sales out of state (roughly \$100 billion/year). Roughly one-third of this total or \$30 billion is international. Of this international component, maritime exports from within the state and through our ports are about \$14 billion/year (2005) and about half of this is from our state. (By comparison, international services are also at least \$6 billion. Total annual Boeing aircraft sales vary but are about \$25 billion of total international and domestic exports, and about 70 percent of this Boeing figure, roughly \$17 billion, is foreign sales.)

The different components of the total export economy have an overall employment multiplier of 3.6, and are dependent in different ways on the multimodal freight transportation system.

Of the foreign trade imports, those that are not for direct consumption can be critical to Washington production lines and in this way are also significant supporters of regional and state economic well-being.

Finally, trade and transportation services, for both imports and exports, are another important source of jobs in our region and state and to perhaps a large extent compensate for lost manufacturing jobs.

See Conway, *Foreign Exports and the Washington State Economy*, for CTED, the Ports of Seattle and Tacoma, and the WPPA, March 1997. The above profile is documented for a year of very low Boeing aircraft sales (\$9.5 billion in 1997).