

DRAFT
**Seattle Freight Mobility
Strategic Action Plan**

March, 2005

Table of Contents

Page Number to Be Added to Final Report

Executive Summary.....	XX
The Role of Freight.....	XX
Putting Freight Mobility Into a Global Context.....	XX
Freight Mobility in the Puget Sound Region.....	XX
Seattle Department of Transportation’s Role in Freight Mobility.....	XX
Seattle’s Manufacturing & Maritime Action Agenda	XX
The Challenge of Funding.....	XX
Truck Access.....	XX
Map of Major Truck Streets.....	XX
Rail Access.....	XX
Freight Access to Manufacturing & Industrial Areas.....	XX
Port of Seattle Container & Cargo Terminals.....	XX
Retail Goods Delivery.....	XX
Freight Partnerships	XX
Appendix 1-- Past Accomplishments in Freight Mobility	XX
Appendix 2 –Freight Community Prioritization of Proposed Plan Actions ...	XX
Appendix 3 – Freight Policies and Strategies from the Comprehensive Plan and the Draft Transportation Strategic Plan.....	XX

THIS PAGE IS LEFT BLANK FOR EXECUTIVE SUMMARY

THE ROLE OF FREIGHT

Putting Local Freight Mobility into a Global Context

The Puget Sound Regional Council reports that together the Central Puget Sound's Seattle and Tacoma ports form one of the top three containerized cargo load centers in the Western Hemisphere. Our region is a major North American gateway for trade with Pacific Rim countries and trade to Alaska. Washington State is the fifth largest exporter in the US, and Japan, Canada, and China are our largest trading partners by value. Exports generate revenue for the United States and state economy. Seventy percent of imports through the Puget Sound region's ports head inland to US destinations serving the domestic market. One in four jobs in the state is related to international trade. The ongoing shift to just-in-time delivery has created an even greater emphasis on reliable transportation systems, to the extent that the transportation system is used as a mobile warehouse for goods and equipment. Local freight mobility is an important component of the international trade system.

Freight Mobility in the Puget Sound Region

Seattle is also home to multiple marine-related businesses, including the Pacific Northwest's and the Nation's premier fishing fleet. Safe and efficient movement of freight and goods is critical to Seattle's economic stability and development, and to every sector of the state's economy. However, our region is not just a pass-through stop—65 percent of truck trips originating in this region are destined to stay in Western Washington.

Freight mobility issues are particularly important for Seattle's two designated manufacturing and industrial centers—the Duwamish Manufacturing Industrial Center and the Ballard/Interbay North Manufacturing Center (BINMIC). These two centers are expected to accommodate at least 10 percent of Seattle's new employment over the next 20 years—nearly 15,000 new jobs. The Manufacturing and Maritime Sectors already provide more than 121,700 accessible, family-wage jobs, and 24.2% of the jobs in Seattle. Direct and reliable connections to water, rail, airport and truck facilities are crucial to ensuring our region's economic growth and well being.

Besides providing the home for the Port of Seattle's container terminals, the Duwamish area is also home to King County International Airport (KCIA), which is located five miles south of the downtown Seattle, in the center of the economically diverse Puget Sound region. With its two runways (3,710 feet and 10,001 feet in length) and four fixed-base operators, KCIA provides all the facilities and services necessary to support jet and propeller-driven aircraft and helicopters. KCIA is an FAA-designated General Aviation (GA) Reliever for SeaTac Airport and averages over 375,000 GA operations per year. KCIA is home base for more than 150 businesses such as the Boeing Company, Galvin Flying Service and UPS. Tenants include commercial airlines, airfreight companies, aircraft service and repair, flight schools, charter operations and helicopter services. Quick and reliable truck access is important to the air freight functions located at the Airport.

The Seattle Department of Transportation's Role in Freight Mobility

The Seattle Department of Transportation (SDOT) has the overall responsibility for coordinating freight mobility policy development and implementation in Seattle. SDOT operates and maintains Seattle's street system, designates truck routes, and constructs transportation projects. Our goal is reduce travel time and improve the reliability of travel for the movement of goods and services. The City's *Comprehensive Plan* and *Transportation Strategic Plan* contain policy guidance on freight mobility (see Appendix 3 for the adopted Comprehensive Plan policies and proposed Transportation Strategic Plan strategies. Note the City Council is scheduled to adopt the update to the Transportation Strategic Plan in late April, 2005).

In order to better guide the Department's efforts to improve freight mobility, SDOT prepared the City's first Freight Mobility Strategic Action Plan in November 2002. Now updated annually, the Plan presents a list of actions to be carried out by the various SDOT divisions and other partners to benefit freight. In recognition of the importance of freight mobility, SDOT has a Freight Mobility Coordinator who works to better integrate freight improvement practices within ongoing SDOT plans, programs, projects and operating practices. This staff position also serves as the department point-of-contact with the freight community. SDOT works closely with the freight community to exchange information and obtain input on needs and suggestions.

Draft Freight Plan for Review, 3/15/05

The state and interstate highway system provide critical connections between the City of Seattle and other freight destinations. Seattle works with other transportation providers and regional interests to advocate for the inclusion of freight mobility considerations in the design and operation of these facilities and the enhanced movement of freight and goods throughout our regional transportation system.

Seattle's Manufacturing and Maritime Action Agenda

In April 2004, Mayor Greg Nickels released an action plan to help retain and grow the city's manufacturing, maritime and related businesses, which employ 121,700 people in Seattle. "Manufacturing and maritime industries are a strong part of Seattle's history and economy, and I want to make sure they are also a strong part of our future," said Nickels. "These industries provide good-paying jobs - we must keep these jobs and grow them."

Recent studies by the Seattle Office of Economic Development (OED) found that manufacturing and maritime industries contribute an estimated \$28.5 billion in revenues to the local economy and more than \$100 million in tax revenues to the city. The Manufacturing and Maritime Action Plan includes the most up-to-date list of actions the City is committed to taking in response to four industry needs identified by industry leaders in the economic impact studies commissioned by OED:

- Protect the industrial land base
- Provide user-friendly permitting
- Improve transportation to keep freight moving
- Help businesses not only to stay here but grow here

Specifically, the Plan has several elements pertaining to transportation, as follows:

- 1) Improve freight mobility and transportation in the City's manufacturing centers:
 - Invest \$230 million (of combined regional dollars) into transportation improvements over the next six years in the two manufacturing industrial centers
 - Invest more than \$11.5 million in the next two years on four capital projects that will reduce congestion and increase freight movement in both industrial centers.

- Leverage the regional FAST Corridor Partnership to raise funds to improve Port access, railroad operating conditions and alleviate congestion points

- 2) Provide an efficient and predictable permitting process for industrial and maritime businesses.

- Propose legislation to Council, authorizing SDOT to issue extended, five-to-ten year term permits for industrial street end use (for currently permitted industrial businesses) to create greater certainty/predictability.

To learn more about the Action Plan, please visit this website:

http://www.seattle.gov/mayor/issues/pdf/mayors_action_agenda_4-27-04final4p.pdf

(Insert graphic 1 – Mayor Nickels & Transportation Director Crunican with Duwamish sign)

The Challenges of Funding

Long-term freight mobility solutions such as railroad grade separations at track and street crossings are expensive and often involve complex funding partnerships with public and private parties such as the Federal government, State, Port of Seattle, King County, and Burlington Northern Santa Fe, and Union Pacific Railroads. These challenges are currently exacerbated by struggling national and regional economies. In an environment of significant local, regional, and state budget reductions, finding funding for projects that would provide the greatest relief is a challenge. Unfortunately, that challenge is increasing.

Important forums for creating these funding partnerships for freight include the FAST Corridor program, the state's Freight Mobility Strategic Investment Board, and the Regional Freight Mobility Roundtable. The FAST (Freight Action Strategy for Everett-Seattle-Tacoma) Partnership is a nationally recognized leader in delivering transportation improvements for freight mobility. Since 1996, the FAST partnership has studied freight movement via rails, roads and shipping ports to develop projects that move freight more efficiently and increase safety for cars, trucks and trains. FAST identified 15 top priority projects valued at \$500 million from Everett to Tacoma for phase I: -four projects are completed and seven are underway. More FAST phase I and II projects are in the pipeline for 2004 and 2005.

Draft Freight Plan for Review, 3/15/05

The Freight Mobility Strategic Investment Board (FMSIB) was created in 1998 when the State Legislature created RCW Chapter 47.06A, Freight Mobility and the Board for the purpose of reviewing, prioritizing, and recommending freight mobility transportation projects that are of strategic importance to the State of Washington. Their recommendations are presented to the Governor and the Legislature to provide a basis for project prioritization and funding allocations. SDOT will continue to work with FMSIB, and the Washington State Department of Transportation through the update to the State Transportation Plan, and will work with other local partners to articulate Seattle's freight mobility priorities. The Freight Board has successfully recommended state funding for the Duwamish Intelligent Transportation Systems (ITS) Project. For the 2005-2007 Biennium Budget, the Board has recommended state funding in Seattle for the Spokane Street Viaduct Widening Project and the Duwamish Truck Spot Improvement Program. Decisions are pending approval by the State Legislature for the 2005 Session.

The Regional Freight Mobility Roundtable is a public-private forum sponsored by the Puget Sound Regional Council to define and recommend actions serving freight mobility needs in and through central Puget Sound. Private sector participants include rail, marine, air cargo and trucking carriers, and shippers such as Boeing and Weyerhaeuser. Public sector participants include local governments, the ports of Seattle, Tacoma and Everett, state agencies, and federal agencies within the U.S. Department of Transportation (including rail, highway, maritime), and the Department of Defense. The Roundtable is consulted by the FAST Corridor and provides input into regional and state transportation plans.

SDOT regularly participates in these forums to elevate support and advocate timely funding for Seattle area freight mobility needs. State and federal funding processes assign greater priority to project applications which offer private funding participation. SDOT encourages private funding partnerships where projects benefit the freight community.

Despite funding uncertainty, SDOT has been able to identify a number of actions that can be accomplished either within existing resources or at a relatively low cost. It is important that SDOT lose neither the vision of Seattle's long-term infrastructure needs nor the urgency to make near-term progress

on efforts to more efficiently move freight and goods through our transportation system. The Alaskan Way viaduct is one of the heaviest used freight corridors in the Washington State. In 2003, it carried approximately 15.6 million tons of freight transported by truck in comparison to 37.8 million tons on Interstate 5. Because of the critical function it serves for mobility in the region, the Alaskan Way Viaduct/Seawall Replacement Project is the City's highest priority project for funding. Seattle welcomes the freight community's support with creating private/public-funding partnerships, and communicating the needs and economic importance of freight transport to potential transportation funding entities.

TRUCK ACCESS

All of Seattle's businesses and residents rely on freight shipped via trucks in one way or another. While light trucks will continue to play an important role, the freight industry is generally moving towards the use of larger trucks to haul materials to and from construction sites, they support manufacturing and industrial businesses, to connect ships and railroads, and to make regional, interstate, and international trips. Moving these larger trucks on city streets can be a challenge.

The Seattle Comprehensive Plan contains a street classification map with three classifications of arterials and one classification for local streets. All arterials are considered to be truck routes, which are streets where trucks are allowed and encouraged to travel. In many cases, truck route guide signing is posted to assist drivers with route finding. The intent is to discourage trucks in excess of 10,000 Gross Vehicle Weight (GVW) from using local streets for through travel.

While all arterial streets within Seattle are considered truck routes, the Seattle Comprehensive Plan calls for the designation of a network of Major Truck Streets to serve as primary routes throughout the City. The network of Major Truck Streets is defined in the Transportation Strategic Plan (see map on page xx). A Major Truck Street is a street classification for an arterial street that accommodates significant freight movement through the City, and to and from major freight traffic generators. Some state routes and highways are also designated as Major Truck Streets on the network map. Many of these streets are also designated principal arterials in the Seattle street classification system. Major Truck Streets generally carry heavier loads and higher truck volumes. SDOT uses the designation of Major Truck Street on an on-going basis as an important criterion for street design, traffic management decisions, and pavement design and repair.

The City's Major Truck Streets are primarily made up of existing arterials; very few of these streets were designed or constructed to accommodate trucks of the size and weight that are commonly in use today. As arterials are reconstructed, changes are made to accommodate larger vehicles, but many problem locations will not be reconstructed for many years. Similarly, conflicts between trucks and other

transportation modes (trains, cars, buses, pedestrians, and bicyclists) can create safety concerns and cause expensive delays. Minimizing such conflicts makes all trips safer and more efficient as well as supports economic development.

(Insert graphic 2 – major truck street map on full page)

(Insert graphic 3 – truck traveling on arterial)

Review Site-Specific Obstacles to Truck Movements on Major Truck Streets

SDOT would like to institutionalize an annual truck spot improvement program to address restrictive conditions that may exist on major freight corridors to enhance the ability of trucks to operate on the existing streets. At the current time, a dedicated funding resource has not been allocated to this program.

Improvements that support truck movement include increasing curb radii on critical corners, removing on-street parking in key locations, relocating utility poles that are too close to the curb, installing signage (street name designation and truck directional signage), providing truck queue lanes/holding lanes at major terminal access points, and revising intersection signal control to assist truck turning movements that now typically require a long wait for an adequate traffic gap.

ACTION 1 - Maintain an Updated Inventory of Known Obstacles Identified by the Trucking Community

SDOT will work with the Manufacturing and Industrial Council (MIC), the Ballard/Interbay/North Manufacturing Industrial Center (BINMIC) Action Committee, and other trucking and shipping groups to continue to identify and update location-specific problem areas and potential solutions. This inventory will be used for further prioritization as funding become available or to identify site-specific opportunities that can be considered in design of already funded projects.

(Insert graphic 4 – utility pole)

ACTION 2 - Maintain an Inventory of Infrastructure Height Restrictions Facing Trucks Operating in the City

SDOT will finalize a list of bridges and other structures that present operating restrictions (height limitations) for trucks in 2005. This list will be made available through the Internet to the trucking community to assist with route planning.

ACTION 3 - Maintain a List of Truck Weight Restrictions on Seattle Bridges and Other Structures

SDOT will finalize a list of bridges and other structures on the City street system that are posted with weight and other operating restrictions in 2005. This list will be made available through the Internet to the trucking community to assist with route planning.

ACTION 4 - Pursue Funding for Priority Truck Access Projects

SDOT will continue to seek funding for freight mobility projects. SDOT applied for a State FAST Corridor Partnership grant for funding to implement a multi-year truck mobility spot improvement program that would address the identified spot improvements over a six-year period. Although not approved, the FAST Partners will consider federal funds for this project in the future. SDOT applied for a similar grant from the State Freight Mobility Strategic Investment Board in September 2002. Although the Board approved this application, and assigned a priority ranking to this \$7.1 million project, to date State funds have not been allocated to this project as yet. The State Freight Mobility Strategic Investment Board has asked the Legislature to approve funding for this project in the 2005 Session. SDOT will continue to pursue this effort in a future grant cycle to install improvements that could include additional directional truck signing, corner radius increases, U-turn restrictions, medians, and left turn signal revisions in the industrial centers.

Update Design and Operational Standards to Accommodate Trucks and Oversized Vehicles

As is characteristic of the historic development of Seattle, many City streets were not designed to current standards. Aging infrastructure has also taken its toll on street conditions. Implementing street changes for freight will be an incremental

process of improving the physical environment as opportunities and funding permit. Trucking operators have expressed concern that the City's existing street design standards are not adequate for the larger and heavier trucks that are prevalent today. SDOT will continue to review current standards and modify them to ensure that when arterials—especially Major Truck Streets—are redesigned and rebuilt, they are better able to accommodate truck movements, in coordination with other street use needs. Four prime examples are: 1) the Alaskan Way Viaduct and the Alaskan Way surface street; 2) several approach roads to the Port of Seattle container terminals, 3) the Elliott/15th Ave W corridor; and 4) the Mercer/Fairview Corridor serving the Ballard and North Interbay areas.

However, there will continue to be many locations on the Seattle street system where larger trucks will not be able to travel. Where space is extremely constrained, other options will need to be considered. For example, in Neighborhood Commercial Districts with limited street space, consideration will be given to encouragement of smaller truck usage to allow local access to constrained curbside loading areas.

In addition to identifying Major Truck Streets, SDOT has a program to accommodate the movement of overlegal vehicles within and through the City. Overlegal vehicles are those that are over length, over width, over height or over weight. Examples are the shipment of Boeing airplane tail assemblies, large cranes, and houses. On a regular basis, the SDOT commercial vehicle enforcement officers issue permits to identify and specify appropriate routes and to assist individual trips with accomplishing their journey. The standards for overlegal vehicles are being revised as part of the *Right-of-Way (ROW) Improvement Manual* update.

ACTION 5 - Incorporate Freight Operational Design Needs For Major Truck Streets and Non-Major Truck Streets into the Update of the *Right-of-Way Improvement Manual*

SDOT has begun the process of updating the *Right-of-Way Improvement Manual*. The new manual is scheduled for publication in 2006. Over the course of the next 18 months, staff will continue to work with freight stakeholders to obtain input on technical design standards and other supporting material for incorporation in the final document. SDOT will review the standards status with the Freight Committee in 2005.

ACTION 6 - Include an Oversized Vehicle Design Standard in the Update of the *Right-of -Way Improvement Manual*

SDOT will work to identify a design standard within the *Street Improvement Manual* to accommodate oversized vehicles. This new standard will supplant the design criteria currently applied to street decisions, if appropriate. For example, it may suggest something akin to the typical 20' high x 20' wide envelope to be provided on all City Major Truck Streets, as funding and site specific conditions permit. SDOT will review the standards status with the Freight Committee in 2005. The update is expected to be completed by September, 2006.

The current Seattle Municipal Code (SMC) Traffic Code restricts the loading or transportation of any flammable liquids, combustible liquids except heating oil, or hazardous chemicals as defined by the Seattle Fire Code from the Battery Street Tunnel, and on the Alaskan Way Viaduct between the hours of seven a.m. and nine a.m. and four p.m. and six p.m. on weekdays. Signs are posted to inform the traveling public of the current restrictions.

In spring 2004, the Seattle Fire Department worked with the City Council to amend Fire Code section of the SMC to change regulatory restriction regarding the transport of hazardous materials in tunnels and the Alaskan Way Viaduct in Seattle. The SMC regulatory amendment was in the interest of public safety to achieve consistency with national fire code standards. The amendment resulted in the restriction of the transportation of heating oil through the Battery St Tunnel at all times of day and on the Alaskan Way Viaduct during specified hours of the day. The Fire Code is codified in Title 22 of the Seattle Municipal Code. SDOT intends to amend the Traffic Code Section to be consistent with the new Fire Code revisions. Specifically, the amendment would be to SMC Section 11.62.020 as pertains to traffic signing and enforcement as it relates to the Battery Street Tunnel and depressed roadway segments from the Alaskan Way Viaduct to Aurora Avenue North, and to the Alaskan Way Viaduct. Vehicles transporting heating oil would use alternative routes.

ACTION 7 – Revise Traffic Code to be Consistent with Fire Code to Restrict Combustible and Flammable Liquids from the Battery Street Tunnel and Revise the Time of Day Restrictions on the Alaskan Way Viaduct

SDOT will coordinate with the Seattle Fire Department to submit an amendment to City Council to revise the Seattle Municipal Code Traffic Section to restrict heating oil from the Battery St Tunnel at all times and the Alaskan Way Viaduct during specified hours of the day. SDOT and the Seattle Fire Department will draft the proposed amendment for Council consideration in 2005. SDOT will install new regulatory signs after the Traffic Code is amended. SDOT will identify candidate alternative routes for home heating oil transport.

Improve Pavement Conditions on Truck Access Routes

Roadway surface conditions are also an important factor for truck mobility and access. Truck access routes tend to deteriorate more quickly than other streets because they carry heavier loads and higher volumes. A Major Truck Street designation, as identified in the Transportation Strategic Plan, should be one of the criteria for determining paving priorities.

Some of Seattle's most important local industrial streets were never formally designed or constructed to city standards. Streets that were never designed for heavy industrial traffic are providing important lifelines for freight and commerce. Seattle Department of Transportation makes spot repairs to these streets as necessary to keep commerce moving, but it never has had the funds to reconstruct, improve, or even to perform preventive maintenance on its local industrial streets. The problem of local industrial street maintenance is especially severe in the industrial areas of SODO, Georgetown and South Park, where the number and weight of industrial vehicles greatly exceeds the capacity of the local industrial streets.

To help address this need, SDOT has, since 2000, set aside a portion of its maintenance funds as a match for small, local paving projects that are suggested and supported by local businesses and property owners. In several instances, the local businesses have coordinated their efforts through a non-governmental, community-based organization, which has applied for additional city matching funds from the Department of Neighborhoods. The addition of the Department of Neighborhoods to the partnerships has increased the amount of public money available for the projects, and

Draft Freight Plan for Review, 3/15/05

correspondingly reduced the sum that the businesses have had to contribute. SDOT strongly encourages freight business participation in the Paving Partnership Program.

ACTION 8 - Review 2006 Paving Priorities with the Freight Community

SDOT will review 2006 preliminary paving priorities with the Freight Committee to identify other needs and priorities. This review will be completed in 2005.

ACTION 9 - Pavement Management Program will Continue to Include Freight Needs as Criteria in Prioritizing Street Rehabilitation Work

SDOT uses the condition of critical routes, the designated *Major Truck Streets*, and public input on an on-going basis as important criteria, in coordination with other decision criteria, for determining priorities for street rehabilitation and reconstruction.

Based on these considerations, the candidate list of Manufacturing Industrial Center projects in the 2005 paving season are:

- 16th Avenue (southbound direction) between E. Marginal Way S. and the Duwamish River, in coordination with the City of Tukwila
- 6th Ave S., south of S. Forest Street, repair paving at BNSF track crossing, in partnership with BNSF Railroad
- 4th Ave S. (northbound direction), between S. Holgate Street and S. Massachusetts Street

ACTION 10 - SDOT will Solicit Freight Community Involvement in the Paving Partnership Program

SDOT will review paving partnership opportunities and solicit participation with the freight community in summer 2005.

(insert Graphic 5 – Duwamish paving)

Grade-Separate Key Truck Streets at Heavily Used Railroad Crossings

Rail crossings on heavily used truck routes are difficult obstacles for truck movement, especially in the South Downtown area and at Broad Street along the North Waterfront where the BNSF mainline railroad, Amtrak and Sounder Commuter Rail traverse the area. Grade separations are the most

effective way to eliminate these conflicts and implementing a program of grade separations is one of the City's highest freight mobility priorities. Railroad operations also greatly benefit by having a grade separation. These overcrossings or undercrossings are extremely expensive and are justifiable only where there is significant traffic on both the truck route and the rail line.

Grade separations could significantly reduce the typical 8-11 minute delays encountered at current at-grade rail/street crossings of the rail mainline tracks. There are approximately 70 train movements on the mainline rail tracks per day across the east/west arterial streets in the Duwamish area. These train volumes and associated traffic delays are expected to increase in the future. The City has developed a list of potential (new, improved, or replacement) grade separation projects based on the *Greater Duwamish Manufacturing and Industrial Center Plan* and the *Access Duwamish Freight Mobility Implementation Plan*. The most recent completed railroad grade separation projects are at Atlantic Street (SR 519, Phase I where the elevated intersection connects to Interstate 90) which was opened in November 2003 in the Duwamish, and the 2001 completion of the Galer Street Flyover in Interbay.

(Insert Graphic 6: Galer street)

ACTION 11 - Pursue Grade-Separation of Key Truck Streets at Heavily Used Railroad Crossings

Continue the development of grade separation projects and seek funding partners for implementation; lobby the State Legislature and United States Congress to obtain state and federal funding. The following projects are currently in various phases of planning and implementation. Project implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.

- **South Spokane Street Viaduct Widening** – City is currently seeking State and Federal funding for Widening construction (Phase 1 - West Segment); construction on lower portion of roadway was completed in 2003; of the current estimated total project cost of \$135 million, the State FMSIB has recommended \$25 million, subject to the state Legislature's approval; and \$5 million of federal funds is identified in the FAST Corridor Partnership Program, subject to the federal appropriations process. Project

implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.

- **East Marginal Way South and South Spokane Street** – Port of Seattle is lead for this project. They are refining their design for a grade separation over the railroad tracks leading to their Harbor Island and West Seattle terminals. The Port is seeking construction funding through the State's FAST Corridor program and the FMSIB program. SDOT is coordinating with the Port on an acceptable design solution.
- **Magnolia Bridge Replacement Project** – A Type, Size, and Location Study is underway in conjunction with the environmental process. A Draft Environmental Statement will be published in fall, 2005. Funding for construction is not currently identified. A new bridge will provide opportunities for better connections to the industrial area adjacent to Terminal 90/91. Based on refined project cost estimates, SDOT will seek future project funding.
- **SR 519, Phase 2 Grade Separation on Royal Brougham Way S.** – Partially funded by the nickel gas tax approved by the Legislature in 2003. Seattle, WSDOT and other partners will refine the project design to address truck and other traffic congestion on South Royal Brougham Way or alternative route and to provide access to South Downtown, Port facilities and the Central Waterfront.
- **South Lander Street Area Grade Separation** – City completed a Type, Size, and Location Study in June, 2003 with a recommendation for a grade separation on either S. Lander Street or S. Hanford Street; subsequent phases would include environmental review and preliminary engineering. Estimated project cost of \$44.5 million; is currently unfunded; and the estimated project completion time is currently the end of the decade, subject to funding allocations. The future design and construction phases are currently unfunded.

(insert graphic 7 – Spokane viaduct)

Build Street Projects to Benefit Freight

The City's Capital Improvement Program (CIP) has several programmed projects to benefit freight. The CIP is adopted on an annual basis. Project

schedules and budgets occasionally change due to design changes and funding availability. These changes are reflected in the subsequent year's CIP. The 2005 CIP and SDOT's ongoing safety and operational programs include the following projects in the Manufacturing and Industrial Centers. Project implementation is dependent on obtaining full project funding from outside grants and the associated City fund sources.

Action 12 – Design and Construct 2005 CIP Projects That Benefit Freight

These projects include SR 519 Surface Street Improvements, Alaskan Way Viaduct/Seawall Project, Mercer Street, Fremont Bridge Approaches, E. Marginal Way & Spokane Street, and South Park Bridge.

More details on these projects include:

- **SR 519, Phase I Surface Improvements** - Located at East Marginal Way S., Alaskan Way, Atlantic Street and Royal Brougham Way S., this project includes repaving, curb realignments and other traffic lane rearrangements; a new truck-only access road from Terminal 39 and 46 to the BNSF Seattle International Gateway (SIG) intermodal yard; revised driveway access and a truck queuing lane at the Terminal 46 truck gate; relocation of the BNSF Railroad lead track to the west side of Alaskan Way; and remote holding space for vehicles using the Washington State Ferries. Construction will start in March 2005 and extend through 3rd quarter 2006.
- **Alaskan Way Viaduct** - prepare the Viaduct Project Final EIS. In 2005, SDOT and the State will develop more detailed construction period traffic plans for the Project's preferred alternative.
- **Seawall** -complete construction of Alaskan Way Seawall Riprap Repair by April.
- **Mercer** – prepare the federal environmental assessment for public release in late 2005.
- **Fremont Bridge** - begin construction of Fremont Bridge Approaches Project in June.
- **Fremont Traffic Circulation** - begin construction of Fremont Traffic Circulation Project prior to Bridge Project construction.
- **E. Marginal and Spokane Street** - participate in the design refinement for the Port's E. Marginal and Spokane St Railroad Overpass Project.
- **South Park Bridge** - continue to participate in the King County South Park Bridge Replacement

Draft Freight Plan for Review, 3/15/05

Project. The County expects to select a preferred alternative in late 2005.

Minimizing Conflicts Between Trucks and Other Transportation Modes

There are a number of basic conflicts between medium- to heavy-truck traffic and other motorized and non-motorized vehicular and pedestrian modes of transportation that the City continually needs to evaluate and address. Possible solutions might include identifying alternative routes, developing separate facilities, and clarifying priorities for specific locations in the decision process within which the spectrum of safety and operational needs and criteria are evaluated and balanced.

ACTION 13 – Identify Measures to Minimize Conflicts Between Trucks and Other Transportation Modes.

SDOT's Freight Coordinator will work on an ongoing basis within the department to identify potential measures, such as truck spot improvements, and street design standard revisions and their application to the design process for potential large capital project, to minimize conflicts between trucks and other transportation modes.

Making the Best Use of What We Already Have

Better management of streets through traffic engineering and the application of technology advances can make more efficient use of our street and signal system resources. These technology solutions are called Intelligent Transportation Systems (ITS). ITS is the application of state-of-the-art traffic management, communications and data technologies to provide a sophisticated set of tools to address the transportation mobility and safety needs faced by the driving public in the City. Seattle has very proactive traffic technology program. Traffic control computers are being upgraded annually. There currently are 19 traffic surveillance cameras providing traffic information to the public via web images. A new City of Seattle Traffic Management Center was put on line in 2003. Traffic data and camera images are collected; traffic control changes are made to the system; and traffic information is provided to the State and the general public via web images. SDOT is planning on implementing more improvements as funding is available.

(insert photo 8: TMC)

ACTION 14 - Continue Implementation of Duwamish Intelligent Transportation Systems (ITS)

The Duwamish ITS Project will add to the City's technology capabilities, with a special emphasis on freight movement. Techniques include traffic surveillance cameras, improved signal timing and electronic message signs—all intended to reduce travel time and improve safety in the Duwamish Industrial Center. Final design was accomplished for the initial construction phase to be performed in 2005. The estimated total project cost is \$7.5 million funded by local funds, private funding, State Freight Mobility Strategic Investment Board (FMSIB) funding of \$2.5 million, regional federal funds, and \$1.8 million of federal funds from the FAST Corridor Partnership Program which was approved in 2003. The initial major construction phase is expected to be substantially complete by the end of 2005. Completion of continued project implementation is dependent on obtaining project funding from grants, partnerships and the associated City fund sources.

As part of the Phase I of the Duwamish ITS construction program, SDOT will install the following ITS equipment in 2005:

- Traffic Surveillance Cameras at 9 locations.
- Traffic Signal Controllers upgrades at 25 locations.
- Electronic Message Sign (with the ability to change messages) at 5 locations.
- Bridge and Rail signal communications interconnects at 10 locations.

(insert photo: traffic camera)

RAIL ACCESS AND OPERATIONS

Efficiently moving containerized cargo shipments is critical to maintaining a healthy, vital economy in the Puget Sound Region. Container freight movement has dramatically increased, especially by rail, for destinations in the Midwest and beyond. Seattle is occasionally referred to as the “port of Chicago” based on the volume of shipments destined to this national inland hub. Rail is an essential and efficient option for moving freight and goods and provides an alternative to trucks for many industrial and manufacturing businesses. Seattle provides an operating environment for three railroads: both the BNSF and Union Pacific railroad have mainline tracks in the city. A short line railroad, the Ballard Terminal Railroad, provides connections between the BNSF mainline and local businesses in the Ballard Industrial area north of the Ship Canal. The Duwamish Industrial Center contains several intermodal rail yards, including the BNSF Seattle International Gateway (SIG) Yard and the Union Pacific Argo Yard. BNSF operates a major maintenance locomotive facility in Seattle's Interbay industrial area. Both freight and passenger train volumes are projected to increase through the City.

Beyond freight mobility, rail is also an increasingly attractive option for commuters, evidenced by the early success of Sound Transit's Sounder line between Tacoma and Seattle. Extension of service to Everett began in late 2003 with increased service planned in the future. All of this activity strains the operational efficiency of mainline rail/street crossings in the Duwamish and in the north end of the central waterfront.

Some railroad crossing locations are adjacent to signalized arterial intersections and present potential conflicts between modes. Improved signal interconnects (communications between control equipment) which coordinate rail and street traffic can reduce safety problems (stopping or redirecting traffic before it reaches the rail crossing). Interactive traffic signs can provide information about waiting times and redirect roadway traffic from closed rail crossings.

Technology improvements will be applied on an ongoing basis to the City's inventory of traffic signals, signage, and other devices. Such Intelligent Transportation System (ITS) efforts can often be implemented on a quicker timeframe than more capital-intensive projects, providing interim freight

mobility relief until the larger, longer-term projects come to fruition.

The following actions are designed to support the safe and efficient movement of freight and goods by rail.

ACTION 15 - Initiate Railroad Supportive Elements of Duwamish ITS at the BNSF Railroad Mainline

As part of its ongoing Duwamish ITS Project, SDOT will implement the following ITS elements to reduce rail-related conflicts: special traffic control strategies in response to changing conditions caused by trains moving through at-grade crossings and bridge raisings; and connections and coordination between railroad crossing signals and adjacent traffic signals. See the aforementioned list for the adjacent signals list. SDOT expects to begin upgrading the traffic signal timing at the east/west BNSF mainline street crossings in the Duwamish in 2005. Project implementation is dependent on obtaining project funding from grants and the associated City fund sources.

Freight and Passenger Rail Enhancements

Sound Transit commuter rail improvements will bring benefits to both passenger rail and to freight transport. As part of these improvements, key portions of mainline railway tracks will be expanded from two tracks to three tracks and grade crossing improvements will be made to facilitate efficient train movements. Current City law limits train speeds to 20 MPH unless a grade-separated crossing exists. In Fall, 2000, the City Council passed Ordinance 120101 setting conditions for train speeds to be significantly raised when specific at grade track crossing improvements are completed at five intersections. When completed later this decade, these improvements will help relieve some capacity restraints along this important corridor.

ACTION 16 - Complete the BNSF Railroad Third Mainline Track and Signal Improvements in Coordination with Sound Transit

SDOT has an agreement with Sound Transit and BNSF Railroad to install advance signal control (pre-signals with interconnects) at South Royal Brougham Way and South Spokane Street. Sound Transit will construct a third mainline track and improved gated crossings at city streets between 1st Avenue S. and

Draft Freight Plan for Review, 3/15/05

4th Avenue S. New train detection, signals, gate arms, track paving and signal interconnect to city signal on 1st Avenue S. and 4th Avenue S. will be installed. Five at-grade street crossings will be improved. Royal Brougham grade crossing is under construction now. Safety will be improved and traffic delay will be reduced at city street crossings. SDOT will coordinate with the BNSF and Sound Transit to facilitate the implementation of the signal changes in 2005.

Local Rail Access

The City's existing freight rail network faces challenges from the loss of rail lines, the conversion of rail-accessible land to non-industrial uses, and passenger rail expansions. It has always been City policy to encourage railroads to maintain rail service; however, the City is limited in what it can do to prevent major railroads from discontinuing service. In 1989, the City and BNSF reached an agreement that led to the preservation of the Ballard industrial corridor and the formation of the Ballard Terminal Railroad. This is one example of how the City can assist in preserving existing rail line track and unused rail line right-of-way for potential future rail operations reestablishment by railroad entities. It is important to continue to understand and articulate the non-mainline rail access and capacity needs for freight operations and industrial properties.

The City should take a comprehensive approach to developing and evaluating strategies that preserve rail capacity for freight, including consideration of these strategies:

- Maintain existing rail access to active manufacturing and industrial sites.
- Support the short line railroad operators in their efforts to maintain rail service to customers in the Ballard Industrial District.
- Encourage private sector development of additional short-line railroads where feasible.
- Preserve existing rail corridors in public ownership rather than allowing threatened corridors to be abandoned.
- Encourage improvement to mainline track freight capacity while expanding regional passenger rail.

(Insert graphic 10- containers on train)

PORT OF SEATTLE CONTAINER & CARGO TERMINALS

The Port of Seattle is one of the largest West Coast cargo centers, serving as the entry and exit point for marine cargo to and from the Pacific Rim and Alaska. The Port of Seattle's seaport is made up of 1,414 acres of waterfront land and nearby properties. Nearly 800 acres of the Port's seaport is dedicated to container terminal operations and cargo handling. These facilities include:

- Terminal 5 in West Seattle
- Terminal 18 on Harbor Island
- Terminal 25 on East Marginal Way (currently in alternate use as cruise terminal)
- Terminal 30 on East Marginal Way (currently in alternate use as intermodal transfer facility and will contain a new major cold storage facility by 2005/2006)
- Terminal 46 on Alaskan Way
- Terminal 115 up the Duwamish River on West Marginal Way
- Terminal 91 in Interbay
- Terminal 86, a bulk grain terminal on the south end of Interbay.

All but T-115 offer access to deep-draft vessels. Future container volumes are forecasted through the year 2015 using information in the 1999 *Marine Cargo Forecast* prepared for the Washington Public Ports Association and the Washington State Department of Transportation. This forecast projects the Port of Seattle's container volume to increase from approximately 1.2 million (twenty-foot equivalent units) in 2002 to about 2.2 million in 2015. The Port of Seattle's 2004 Business Plan sets an 8% annual growth goal for container traffic. If this goal is realized, then the 2015 container forecasts could occur by 2011.

Most of the freight is shipped through the port by intermodal containers that are transferred to or from railcars or trucks on the dock. Terminals 5 and 18 include dock rail facilities. Some of the containers are shuttle (called "drayed") by truck between BNSF and UPRR intermodal yards. At the intermodal yards, containers are transferred to and from railcars remotely. Truck transport is also an important part of moving cargo to and from Port terminals.

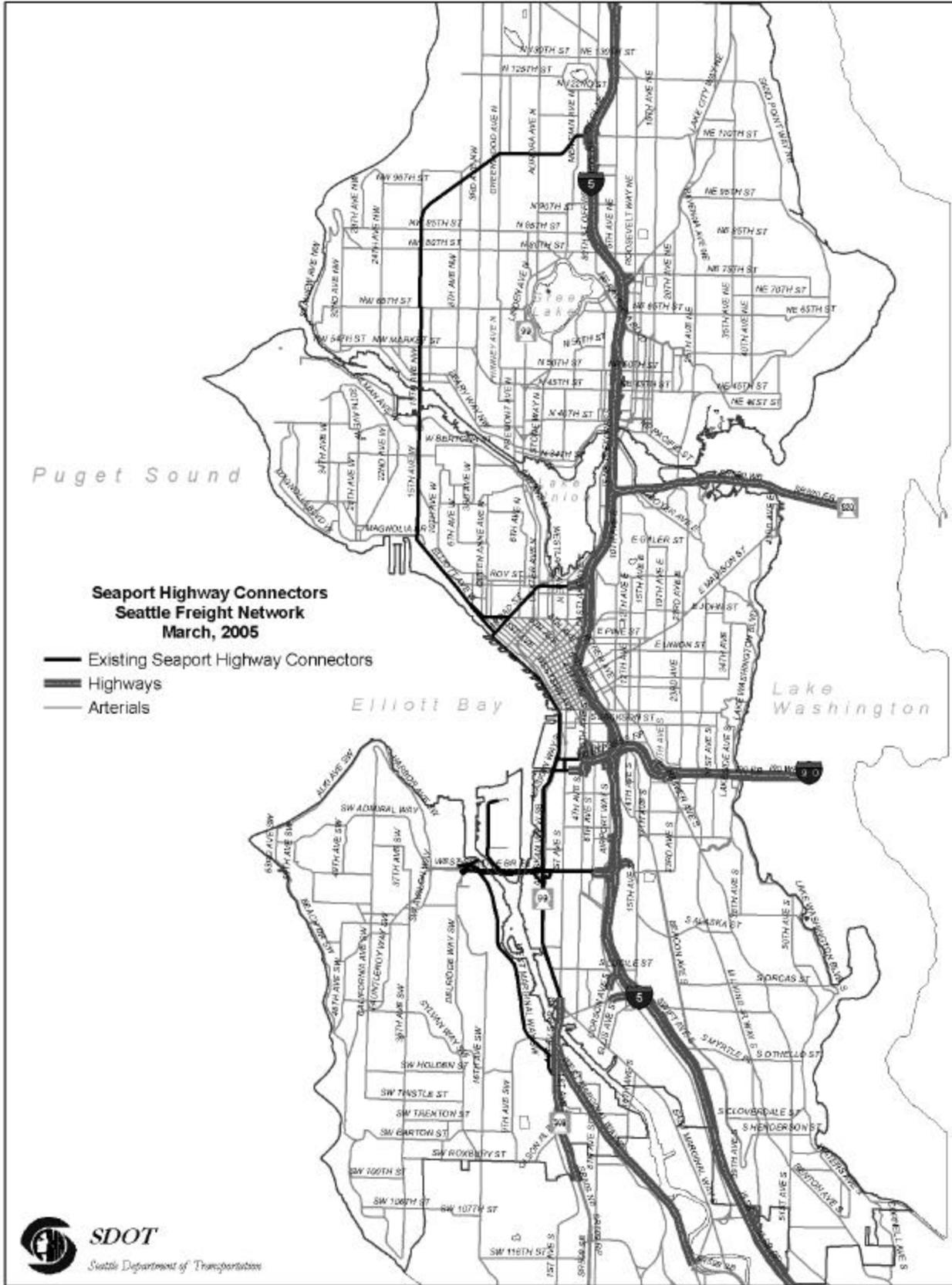
The success of the Port's cargo operations is highly dependent on a well-functioning transportation system that allows for efficient and reliable truck access to intermodal facilities, warehouse and distribution centers, and the freeway system. SDOT's Transportation Strategic Plan maps key connector routes for Port terminal operations. The Seaport Highway Connectors map (see page XX-next page) identifies existing routes that provide safe, reliable, efficient and direct access between a Port marine facility and the state highway or interstate system. The Seaport Intermodal Connectors map (see page XX-next page) identifies existing routes that provide safe, reliable, efficient and direct access between a Port terminal and a railroad intermodal facility located in Seattle or other area in King County. These routes have a number of common characteristics: they are on designated arterial streets, have a high frequency of use by freight, provide two-way travel and direct access between Port facilities and the regional interstate system, and provide road access to marine facilities. Some Highway Connectors and Intermodal Connectors are located on the same street.

In late 2003, the Port of Seattle presented the City with their draft "Container Terminal Access Study" that identifies infrastructure improvements that are proposed to accommodate efficient access to major container terminals (Terminals 5, 18, 46, 115, and 25/30) through 2015. The proposals are both capital and operational in nature. Project costs range from small spot improvements to high cost grade separations.

ACTION 17 - Support the Port with Implementing Container Terminals Ground Access Improvements

SDOT will coordinate with implementation of the feasible and fundable operational and capital improvements supportive of anticipated Port container trade growth during the balance of 2005.

(insert Graphic 13- new T46 map)





FREIGHT ACCESS TO MANUFACTURING & INDUSTRIAL AREAS

A healthy transportation infrastructure is essential to Seattle's manufacturing and industrial areas (see page XX for map of Seattle's two designated manufacturing/industrial centers). Reliable, direct connections to water, rail, airport and truck facilities are important to an array of existing businesses, and our region's ability to attract new businesses. Due to the nature of these businesses, truck volumes and frequencies are higher in these areas than in other areas of the City, and truck access is of paramount importance.

(Insert graphic 14 – industrial areas map)

Currently several major projects and planning efforts are underway that affect access to and within Seattle's designated industrial areas. These projects include the Alaskan Way Viaduct/Seawall Project (AWV/Seawall), the Seattle Monorail Project, the Mercer Corridor Study, the Magnolia Bridge Replacement Project, and Interbay land use studies being conducted by the Port of Seattle. Through the Freight Mobility Advisory Committee, significant concerns regarding AWV/Seawall alternatives impacts to freight mobility have been raised. The Draft Environmental Impact Statement (EIS) for the AWV/Seawall project was issued in March June 1, 2004. Formal comments from the freight community are an important step in articulating concerns that should be addressed in the Final EIS. SDOT will monitor impacts of these projects to freight mobility through the environmental review and analysis of these projects, and have project leads present project information and status to the Freight Mobility Advisory Committee.

To protect and improve freight access to manufacturing and industrial areas, the City should develop strategies that address the following themes:

- Preserve good ground transportation access to manufacturing and industrial sites served by freight carriers and their supportive facilities (rail, airport and marine).
- Improve directional signage between manufacturing and industrial areas and the regional highway system.
- Improve and protect the utility of Major Truck Streets to and from manufacturing and

industrial areas. These include key streets such as 15th Avenue West, Elliott Avenue and Western Avenue, and the grade separation projects listed earlier in this Plan.

- Facilitate efficient movement of goods within the manufacturing and industrial areas.
- Include local business access during construction planning in the major capital project plan process in the industrial areas.
- Where safe and appropriate, allow loading and maneuvering of trucks on non-arterial access streets in industrial areas.
- Improve pavement conditions on industrial arterial access streets within manufacturing and industrial areas.

ACTION 18 - Improve Freight Dependent Business Access

The SDOT Freight Coordinator will continue to solicit ideas from the freight community to outline strategies that address issues critical to improving and preserving access to manufacturing and industrial areas in 2005.

Construction Coordination

Construction activity and major events can present another obstacle to accessing businesses and freight destinations. Given the multiple private and public parties doing construction in Seattle's right-of-way, ongoing and effective coordination is a necessity. To better manage congestion, SDOT coordinates with the WSDOT on major maintenance and roadway improvement projects scheduled each year in and adjacent to Seattle. For example, major changes are proposed for the Alaskan Way Viaduct. The City intends to facilitate the movement of goods and services between the two manufacturing/industrial centers and throughout the City during and after the Alaskan Way Viaduct and Seawall construction.

Parallel to this activity, SDOT is continuously refining departmental business practices to coordinate street work and potential disruption via the Street Use permit process and coordination with the Department of Design and Development on the timing of street, utility, agency and private party construction. This requires cooperation on construction decisions, and subsequently, effective sharing of construction schedule and traffic information with the affected parties.

Timely notification of these activities can assist freight operators in planning for alternative routes. Currently, SDOT participates in several programs to notify the freight community of construction related traffic changes. This includes SODO email alerts using the SODO Association's electronic mailing list. SDOT also provides project input to the Port of Seattle's "Truckers Guide" – a handy template for route planning. Finally, information of the status of major projects and planned construction is maintained on the SDOT website.

ACTION 19 - Continue to Improve Communication Tools for Construction-Related Traffic Impacts

SDOT will coordinate with the industrial area freight and business community to identify improved methods to communicate transportation project schedules and construction-related traffic changes via traffic alerts and other techniques.

(INSERT GRAPHIC 15- DUW MISH SIGNAGE)

RETAIL GOODS DELIVERY

The everyday delivery of goods and services purchased by the general public, businesses, and the government is critical to our economy's success. The City needs to evaluate its role in supporting and managing these activities, aiming both to increase their efficiency and to minimize their negative impacts.

The City should explore strategies that address issues of goods delivery and managing operational impacts on adjacent land uses. To facilitate the efficient delivery of goods to and from businesses, the City should consider the following:

- Allow after-hour truck access on certain streets.
- Balance the needs for loading zones with on-street parking and other curb use needs.
- Ensure workable truck access and adequate loading berths in the design of new buildings in conjunction with the Department of Planning and Development review practices.
- Retain alleys and ensure they work efficiently for goods delivery.
- Provide and encourage the provision of suitable truck layover areas during those periods of time when trucks are restricted from entering certain urban centers.
- Ensure that loading zones are reserved for freight loading and unloading as intended with appropriate levels of enforcement.

Given the historic development of Seattle's street network and land use pattern, limited right-of-way and competing uses; it is difficult and sometimes impossible to accommodate all sizes of delivery and service trucks in some established areas of the City. In such cases, the operating environment will require use of smaller trucks to make those deliveries of goods and services. To better manage the negative impacts of goods delivery may have in adjacent residential areas, the City should consider the following:

- Support use of smaller trucks within neighborhood commercial districts.
- Restrict hours of operation for large trucks in neighborhood commercial and residential areas, similar to the current practice with the Seattle Central Business District.

ACTION 20 - SDOT Will Continue to Work With Business District Representatives and Individual Businesses to Install Commercial/passenger Load Zones, Where Appropriate

As part of the parking pay station project, existing commercial vehicle zones may be moved to the ends of blocks and consolidated in order to provide better freight access to business in 2005. Changes will be considered in conjunction with the range of curb space use needs in the City's commercial districts.

ACTION 21 - SDOT Will Continue to Coordinate With the Freight Community and Appropriate City Staff to Outline Strategies that Help Facilitate More Efficient Local Goods Delivery

SDOT will solicit input from the Freight Committee on measures to improve local goods delivery.

(insert graphic 16-truck unload)

FREIGHT PARTNERSHIPS

In October 2002, the Seattle Freight Mobility Advisory Committee, co-sponsored by SDOT and the Seattle Manufacturing Industrial Council (MIC), was formed to provide a regular forum for communication with City staff and other agencies. This Committee was established to provide a forum for giving input on projects and programs of interest to the freight community and to exchange information. SDOT looks to the citywide freight committee to represent the interest of various freight transportation providers and operators (including the modes of truck, rail and marine transport), and to reflect the interests of constituents in both the north and south industrial areas of the City. The Committee meets on a monthly basis at stakeholder meeting locations in the respective north and south industrial centers to encourage the freight community's easy access, attendance and participation. The Freight Mobility Advisory Committee provides the following functions:

- Serves as a forum for exchange between freight stakeholders and government agency staff on potential freight mobility transportation improvements. In turn, SDOT, the Port of Seattle, and WSDOT benefit from input on problem identification and clarification, solution ideas and support with funding efforts.
- The Committee advises the city and other agencies on potential changes to improve truck

Draft Freight Plan for Review, 3/15/05

and railroad safety and operational improvements.

- The Committee makes recommendations as appropriate.
- The Committee supports the city's implementation of the Seattle Maritime and Manufacturing Action Plan and the Freight Mobility Strategic Action Plan.

Many members of the freight community participate in other meeting venues. SDOT regularly participates in the meetings of several freight stakeholder groups. These groups include the Ballard Interbay North Manufacturing Industrial Center (BINMIC) Action Committee, the Port of Seattle Truck Operators Committee, the Regional Freight Mobility Roundtable, and the FAST Corridor Project. In addition, SDOT circulates emails containing information about the Seattle Freight Mobility Advisory Committee and other topics of interest to the freight community. Finally, SDOT also maintains a "freight mobility" website that presents information on selected freight operational items, the City Freight Plan and links to multiple freight related websites. The website is:

<http://www.seattle.gov/transportation/fmsap.htm>

SDOT also participates in regional studies and planning efforts related to freight. These efforts improve understanding of freight's role and needs in the region. Over the past year, the Office of Freight Strategy and Policy has prepared the Draft Freight Movement Report as part of WSDOT's update of their Washington Transportation Plan, a blueprint for the State's transportation programs and facilities. Moving freight is a key strategic issue in the State's plan update and the draft freight report is a valuable data resource for understanding the function and needs for freight in Washington State. SDOT will continue to participate in preparation of that plan and its coordination with other studies regarding regional freight.

ACTION 22 – Coordinate with the Seattle's Freight Community

SDOT will coordinate monthly meetings of the Seattle Freight Mobility Advisory Committee during 2005. SDOT will participate in appropriate meetings of other freight community interests during 2005.

APPENDIX ONE

PAST ACCOMPLISHMENTS IN FREIGHT MOBILITY

CITY OF SEATTLE 2004 FREIGHT MOBILITY ACTIONS

The following identify City accomplishments in 2004:

Truck Access

- **Provided Input on Freight Needs for Large Capital Projects.** SDOT staff provided and facilitated freight-related input on planning and design for capital projects including the Alaskan Way Viaduct Project, Monorail Project, SR 519 Surface Project and the Fremont Traffic Circulation Project. ,
- **Alaskan Way Viaduct-** the city and the State released the Draft EIS and selected a tunnel as the preferred alternative for the Alaskan Way Viaduct and Seawall Project. In 2004, SDOT and the State solicited input on anticipated freight mobility concerns (travel times, grades, and combustible materials) with the Viaduct Project alternatives and developed responses to keep freight moving,
- **Seawall** - initiated construction on the Alaskan Way Seawall Riprap Repair Project.
- **Mercer** -completed the Mercer Street Corridor Study and obtained funding approval to initiate the project environmental review. Further details will be developed in response to freight concerns in 2005.
- **Magnolia Bridge** - prepared environmental documentation for the Magnolia Bridge Replacement Project alternatives.
- **West Seattle Swing Bridge** - installed new, more dependable lift cylinders.
- **Intelligent Transportation Systems** - completed design for the Duwamish Intelligent Transportation Systems (ITS) Project.
- **Fremont Bridge** -prepared final design plans for Fremont Bridge Approaches Project, including consideration of freight routes and needs.
- **Leary Way** –completed the Leary Way NW Project which improved industrial area access
- **SR 519-** finalized design plans for the SR 519 Surface Improvement Project on Alaskan Way.
- **E. Marginal and Spokane St** -participated in the design refinement for the Port's E. Marginal and Spokane St Railroad Overpass Project.
- **South Park Bridge** -participated in the King County South Park Bridge Replacement Project (EIS and preliminary design)
- **Industrial Area New Signal** -installed a new traffic signal at 1st Ave S and Dawson St. to improve access.
- An **inventory of known obstacles to truckers** was conducted in 2004.
- SDOT researched and updated the inventory of height **clearance problem locations** that could damage trucks. Field checks will be made in 2005 to verify the information prior to posting on the web.

Draft Freight Plan for Review, 3/15/05

- SDOT prepared an updated list of **bridge weight restrictions** and inventoried posted signing. The list will be refined in 2005 prior to posting on the web.
- **Issued construction alerts** for route planning on an ongoing basis using SDOT maintained listserver and the associated information distribution service of the SODO Association.
- SDOT actively participated in the development of the **Maritime and Manufacturing Action Plan** which fosters transportation improvements “to keep freight moving”. The Plan was released in April 2004. SDOT also supported the Maritime Summit with multiple project displays on the transportation projects and actions of benefit to freight movement.
- SDOT posted on the city website **travel directions** to the north industrial district from the interstate system.
- SDOT implemented an **advance permit submittal practice** to accelerate the permit approval process.
- Continued the ongoing program for the **Commercial Vehicle Enforcement Section**.
- SDOT has posted the *Freight Mobility Strategic Action Plan*, the Port of Seattle *Trucker’s Guide* and the Major Truck Streets Map on the **SDOT website**, along with other information and links of interest to the freight community.
- Signing and other Traffic Operational Improvements:
 - Removed two historic signs from SR 99 that indented a 30’ truck length restriction in advance of the Battery Street Tunnel. Trucks up to 75’ in length were than able to use the tunnel without confusion.
 - Large format street name signs installed at 6 Avenue S. and S. Massachusetts Street and Airport Way S. and S. Massachusetts Street.
 - SDS Signs (Large overhead street name signs) installed at:
 - 4 Ave S & S Lander St
 - 6 Ave S & S Lander St
 - Airport Way S & S Lander St
 - 4 Ave S & S Holgate St
 - 6 Ave S & S Holgate St
 - Airport Way S & 6 Ave S
 - Traffic improvement at 1st Avenue S. from S. Royal Brougham Way to s/o S Atlantic St (completed Nov. '04). SDOT removed the peak hour restrictions northbound between Atlantic St and S Royal Brougham Way and reduced the length of the right turn only lane. Installed parking restrictions northbound south of S Atlantic St and added a right turn only lane for the new access to I-5 and I-90.
 - Improved lane markings for the eastbound direction of the Spokane Street Viaduct exiting to the on- ramp to northbound I 5.

Rail Access

- **BNSF continued work on the 3rd BNSF mainline track from Boeing Access Road to Royal Brougham Way S.** This is a part of a larger project that will ultimately result in construction of a 3rd mainline track from Seattle to Tukwila by 2006. SDOT coordinated with the BNSF on the mainline rail crossing improvements to add a third mainline track.

Draft Freight Plan for Review, 3/15/05

- **E. Marginal and Spokane St** -participated in the design refinement for the Port’s planned E. Marginal and Spokane St Railroad Overpass Project that would allow container trucks to travel over the tracks leading to the Terminal 5 in West Seattle, Terminal 18 on Harbor Island and other terminals located along the Duwamish River.
- **Mainline Track Pavement**—the BNSF repaired the pavement at the mainline track crossing at Royal Brougham Way S., in coordination with SDOT.

Freight Access to Manufacturing & industrial Areas

- **Improved pavement conditions** on the following streets in the respective industrial areas in 2004:

Program	Street	From	To
Arterial Major Maintenance	4 Ave S, south bound direction	S Holgate	S Royal Brougham Way
Other	26th Avenue NW	at NW 54 th Street	Intersection
	Corson Avenue S.	S. Michigan Street	S. Orcas Street
	Leary Way NW Project	15 th Ave NW	NW 36 th St
Paving Partnerships	2 nd Ave S	South of Diagonal Street	

Port of Seattle Container and Cargo Terminals

- Coordinated with Port of Seattle on design refinement for East Marginal Avenue S. and S. Spokane Street grade-separation.

Continue to secure funding for freight-supportive projects

- SDOT staff **continued efforts to secure external funding for freight mobility projects.** These included: S. Spokane Street Viaduct Widening, S. Lander Street Grade Separation, Duwamish Intelligent Transportation Systems (ITS), and Truck Spot Improvements. SDOT was successful with the following funding processes :
 - Spokane Street - developed more detailed plans for the Spokane Street Widening Project, including a fundable phasing plan. Obtained approximately \$7.3 M of additional funding towards completing the Spokane Street Viaduct Widening Project.
 - Obtained FAST Partners commitment of \$600,000 from FY 04 Federal Earmark Funds for the Spokane Street Viaduct Widening Project.
 - Obtained State Legislature approval of a budget commitment of \$513,000 for the Duwamish ITS Project in the 2004 Legislative Session.
 - Obtained support for \$2.5 million from the federal FY 04 appropriations process for the Intelligent Transportation Systems (ITS) Seattle Center City Access Project.

Improved Permitting Practices

- **Street Ends**-legislation to allow longer term (10 year plus renewal options) street use permits for three street ends (two for 6th Ave NW for Kvichak Marine and Western Towboat, and one for NW 40th St for

Draft Freight Plan for Review, 3/15/05

Western Towboat) has been drafted and presented to the two affected businesses, prior to submittal for approved by Council. Negotiations on the permit terms are underway.

Emphasized On-Going Communication & Coordination with Freight Community

- SDOT coordinated regular monthly meetings of the Seattle Freight Mobility Advisory Committee (a partnership between the city and the freight community), where issues were raised and solutions were identified in response to freight mobility concerns... These meetings focused on many project briefings and discussion topics of interest to the freight community, in: the Alaskan Way Viaduct and Seawall Project alternatives, Magnolia Bridge, Mercer Corridor Transportation Study, and the W. Marginal Bike Path.
- Participated in monthly meetings of the Ballard North Interbay Manufacturing Industrial Center (BINMIC) Action Committee
- Participated in monthly meetings of the regional FAST Partnership Project (Freight Action Strategy Team)
- Prepared budget and descriptive materials for the State Freight Mobility Strategic Investment Board) for Seattle area freight projects.
- Participated in bi-monthly meetings of the Regional Freight Mobility Roundtable
- Participated in quarterly meetings of the Port Truck Operators Committee.
- Participated in other business community meetings such as the North Seattle Industrial Association and the South Park Bridge Citizens Advisory Group (CAG).

CITY OF SEATTLE 2003 FREIGHT MOBILITY ACTIONS (from the Seattle Freight Mobility Strategic Action Plan, April 2004)

The following accomplishments were completed in 2003, after the first *Freight Mobility Action Plan* was published.

Truck Access

- **SR519 Phase 1 Completed.** The SR 519 Atlantic Street Overpass was opened to traffic on May 17, 2003. This allows traffic from southbound and northbound Fourth Avenue South to go westbound on the new South Atlantic Street overpass. In October 2003 the new on-ramp to eastbound I-90 and both directions of I-5 was completed and opened to traffic. Improvements to the road increase safety by separating the road and rail crossing, improve vehicle and freight access between I-90 and waterfront locations such as the Port and Colman Ferry Dock.
- **Type, Size and Location Study for S. Lander Street Grade Separation.** Published in February 2003.
 - **Provided Input on Freight Needs for Large Capital Projects.** SDOT staff provided and facilitated freight-related input on planning for capital projects including the Monorail project, Leary Way Project, SR 519 Intermodal Access Project and the Alaskan Way Viaduct.
- An **inventory of known obstacles to truckers** was conducted.
- **Issued construction alerts** for route planning on an ongoing basis using SDOT maintained listserver and the associated information distribution service of the SODO Association.
- **SDOT assisted with construction coordination with West Marginal Way businesses** and BNSF to remove an inactive rail track across West Marginal Way with minimal traffic disruption in the fall of 2003.
- **Completed Trucker's Survey for the Alaskan Way Viaduct and Seawall Replacement Project.** This survey provides need information on how current freight operators use the existing facility. The survey results are being documented. A Draft Environmental Statement for the entire project was released in March 2004.
- Continued the ongoing program for the **Commercial Vehicle Enforcement Section.** The Freight Mobility Advisory Committee has complimented the quality service provided by the SDOT Commercial Vehicle Enforcement Program in 2003.
- SDOT has posted the *Freight Mobility Strategic Action Plan*, the Port of Seattle *Trucker's Guide* and the Major Truck Streets Map on the **SDOT website**.
- **South Spokane Street Directional Signage Improved** to assist truckers accessing Port of Seattle Terminals 5 and 18. In late 2003, SDOT installed larger-sized directional signage on South Spokane Street on Harbor Island (between SR 99 and the low-level West Seattle Swing Bridge). This new signage is more visible from a distance and provides motorists and truck drivers more time to make decisions about lane choice. These signs will provide great benefit to the 4,000 truck trips per weekday generated by the Port of Seattle's Terminal 5 and Terminal 18. These signs were commissioned by the Port and installed by the City.

Before and After Photos of Spokane Street Signage



Old Signage



New, Improved Signage



Old Signs



New, Improved Signage

Rail Access

- **Galer Street at-grade crossing closed in March 2003.** The Galer Street Flyover, completed in 2001, carries traffic from Port of Seattle Terminal 90/91 and adjacent businesses over the mainline railroad tracks. In 2003, mitigation measures were put in place to enable this last at-grade crossing north of Broad Street to be closed to traffic.
- **Initial work on the 3rd BNSF mainline track from Boeing Access Road to Royal Brougham Way S was initiated.** This is a part of a larger project that will ultimately result in construction of a 3rd mainline track from Seattle to Tukwila.
- **Infrastructure Funding**-SDOT participated in a national effort to explore federal legislative changes to provide infrastructure funding for freight rail improvements. Seattle was a participant in a nationally based Rail Infrastructure Coalition.
- **Mainline Track Pavement**—the BNSF repaired the pavement at the mainline track crossing at Broad Street in coordination with SDOT.

Freight Access to Manufacturing & Industrial Areas

- **Improved pavement conditions** on the following streets in the respective industrial areas in 2003:

Draft Freight Plan for Review, 3/15/05

Program	Street	From	To	Paving (lane-miles)
Arterial Major Maintenance	S Hudson	S Ohio	1 Ave S	0.48
	4 Ave S	Airport Way	Intersection	0.04
Non-arterial Paving	Poplar Place S	S Dearborn	S Charles St	0.31
Paving Partnerships	3 Ave S	S Holgate	Dead End to S	0.17
	SW Lander	16 Ave SW	DE	0.32
Total:				1.32

Port of Seattle Container and Cargo Terminals

- **Physical and operational responses to the Port of Seattle on their access needs for their various terminals.** SDOT installed directional and guide signing on the approaches to Terminal 30-- the temporary cruise ship terminal, and to the container terminals at T 5 in West Seattle and T 18 on Harbor Island.

Continue to secure funding for freight-supportive projects

SDOT staff continued efforts to secure external funding for freight mobility projects. These included: S. Spokane Street Viaduct Widening, S. Lander Street Grade Separation, Duwamish Intelligent Transportation Systems (ITS), and Truck Spot Improvements. SDOT was successful with the following funding processes:

- Supported Port of Seattle with project proposal and presentations for the E. Marginal Argo Yard Access Crossover Project to the State’s Freight Mobility Strategic Investment Board (FMSIB). The Board approved the project application and recommended the project be considered for future funding of \$250,000 from the Legislature.
- Obtained FAST Partners commitment of \$1.8 million from FY 03 Federal Earmark Funds for the Duwamish ITS Project.
- Obtained support for \$2.5 million from the federal FY 04 appropriations process for the Intelligent Transportation Systems (ITS) Seattle Center City Access Project.
- Obtained support for \$873,500 from the FY 03 Federal Earmark Funds for the Fremont Bridge and Montlake Bridge ITS Projects.

Emphasized On-Going Communication & Coordination with Freight Community

- Regular monthly meetings of the Seattle Freight Mobility Advisory Committee were held and included many project briefings and discussion topics of interest to the freight community. Some of the project briefings included: the Alaskan Way Viaduct and Seawall Project alternatives, S Lander Street Grade Separation, Magnolia Bridge, Mercer Corridor Transportation Study, and the W. Marginal Bike Path.
- Participated in monthly meetings of the Ballard North Interbay Manufacturing Industrial Council (BINMIC) Action Committee
- Participated in monthly meetings of the regional FAST Partnership Project (Freight Action Strategy Team)
- Prepared materials for state legislative tour (hosted by the State Freight Board) of Seattle freight projects and conducted Seattle portion of South King County tour in summer 2003.
- Participated in bi-monthly meetings of the Regional Freight Mobility Roundtable
- Participated in quarterly meetings of the Port Truck Operators Committee.

Draft Freight Plan for Review, 3/15/05

- Participated in other business community meetings such as the North Seattle Industrial Association and the South Park Business Council.

APPENDIX 2

FREIGHT COMMUNITY PRIORITIZATION OF PROPOSED PLAN ACTIONS (similar to 2004 survey)

As part of outreach and input to the plan update, members of the Freight Mobility Advisory Committee, BINMIC and other stakeholders were asked to prioritize actions in the draft plan. In March, respondents were asked to prioritize their top ten work items (out of xx) proposed in the draft plan (1 as highest and 10 lowest priority). xyz. They were also asked to place an "X" in the priority box for items that they felt were not important to include in the plan update.

Summary of results to be added in final report.

APPENDIX 3

CITY FREIGHT POLICIES AND STRATEGIES FROM THE ADOPTED COMPREHENSIVE PLAN AND THE DRAFT TRANSPORTATION STRATEGIC PLAN UPDATE

From the Comprehensive Plan Transportation and Neighborhoods Elements (Last Updated 12/04)

Goals and Policies

The following goals and policies in the Transportation Element, and those in the Economic Development Element of the Comprehensive Plan, support existing businesses and industries and freight mobility.

TG19 Preserve and improve mobility and access for the transport of goods and services.

TG20 Maintain Seattle as the hub for regional goods movement and as a gateway to national and international suppliers and markets.

T50 Maintain a forum for the freight community to advise the City and other entities on an ongoing basis on topics of land-based freight transportation facility modifications and enhancements. Coordinate the review of potential operational changes, capital projects and regulations that may impact freight movement. Participate and advocate Seattle's interests in regional and state forums.

T51 Recognize the importance of the freight network to the city's economic health when making decisions that affect Major Truck streets as well as other parts of the region's roadway system.

T52 Support efficient and safe movement of goods by rail where appropriate. Promote continued operation of freight rail lines and intermodal yards that serve industrial properties and the transport of goods. Improve the safety and operational conditions for freight rail transport at the rail track crossings within city streets.

T53 Promote an intermodal freight transportation strategy, including rail, truck, air and water transport and advocate for improved freight and goods movement. Work toward improved multi-modal connections among rail yards, industrial areas, airports, and regional roadways

T54 Consider the needs for local delivery and collection of goods at businesses by truck when making street operational decisions and when developing and implementing projects and programs for highways, streets, and bridges.

In addition to broad City-wide goals and policies, some of the Neighborhood Planning Element goals and policies for Seattle's two designated manufacturing/industrial centers, the Ballard Interbay Northend Manufacturing/Industrial Center (BINMIC) and the Greater Duwamish Manufacturing/Industrial Center, provide area-specific statements regarding freight mobility.

BINMIC Goals and Policies

BI-G4 Strive to maintain and enhance intermodal (barge, ship, rail and truck) connections.

Draft Freight Plan for Review, 3/15/05

- BI-P14** Where practical and appropriate, separate mainline rail traffic from surface street traffic by designing and constructing bridges to improve safety for motorized and non-motorized transportation.
- BI-P17** Support separation of mainline rail traffic from surface street traffic by designing and constructing bridges, where feasible, to improve safety for motorized and non-motorized transportation.

Greater Duwamish Goals and Policies

- GD-P14** Maintain shore-side freight access to and from the waterway.
- GD-P29** Strive to maintain waterborne and roadway access to seaport facilities.
- GD-P30** Strive to maintain access for air cargo to the King County International Airport.
- GD-P34** Recognize the importance of intermodal connections for the movement of freight between the state highway system, rail yards, barge terminals, Port terminals, airports and warehouse/distribution centers.
- GD-P37** Consider setting speed limits for trains high enough to limit the length of time trains block streets at grade crossings.
- GD-P38** Encourage railroad operations in which switching and signals enhance the speed and reliability for passenger and freight trains.

Strategies for Moving Goods and Services

(from the Draft Transportation Strategy Plan Update). **Note:** *This draft is currently under review by the City Council and is scheduled for adoption at the end of April. This draft is currently undergoing SEPA public review. Comments are due by March 22, 2005 to Barbara Gray, City of Seattle Department of Transportation, 700 5th Avenue, Suite 3900, P.O. Box 34966, Seattle, WA 98124-4996. The TSP Update, the DNS document, and the SEPA Checklist are available on the SDOT web site at <http://www.seattle.gov/transportation/tsphome.htm> the Downtown Library, or from the SDOT office by calling 206-684-8542.*

This section includes strategies that offer direction so that SDOT can support the efficient movement of goods and services. In November 2002, SDOT prepared the City's first Freight Mobility Strategic Action Plan. That plan presented a list of actions to be implemented by the various SDOT divisions, including railroad grade separations, truck guide signing, street improvements for the benefit of trucks and other modes, and ongoing communication with the Seattle freight community via the Seattle Freight Mobility Advisory Committee and other outreach. SDOT staff updated the Action Plan in 2004 to reflect changes in the freight program; new actions to be done in 2004 in coordination with the freight community; and 2003 accomplishments. Future annual updates to the Freight Mobility Action Plan will be organized by the six overall Transportation Strategy Plan strategies and sub-strategies listed below.

GS1. Maintain a Street and Highway Network for Trucks.

GS1.1. Define and Map a Street Classification to Accommodate Significant Freight Movement within Seattle.

The TSP "Making the Best Use of the Streets We Have to Move People, Goods and Services" section defines a street classification system to guide the design and operation of the City's street system, including for significant freight movement. Monitor these streets and other arterials and make operating, design, access and/or service changes, as well as capital investments, to accommodate trucks and to preserve and improve commercial transportation mobility.

GS1.2. Address Site-Specific Obstacles to Truck Movement.

Institutionalize an annual truck spot improvement program to address restrictive conditions that may exist on major freight corridors to enhance the ability of trucks to operate on the existing streets. Improvements that support truck movement include:

- increasing curb radii on critical corners
- removing on-street parking in key locations
- relocating utility poles that are too close to the curb
- installing signage (street name designation and truck directional signing)
- providing truck queue lanes/holding lanes at major terminal access points
- revising intersection signal control to assist truck turning movements that now typically require a long wait for an adequate traffic gap

SDOT maintains and augments an inventory of known site-specific obstacles to truck movement on major truck streets to help with prioritization as funding becomes available or for consideration in design of already funded projects.

GS1.3. Design Standards for Oversized Vehicles.

As is characteristic of the historic development of Seattle, many City streets were not designed to current standards. Aging infrastructure has also taken its toll on street conditions. Implementing street changes for freight will be an incremental process of improving the physical environment as opportunities and funding permit. Trucking operators have expressed concern that the City's existing street design standards are not adequate for the larger and heavier trucks that are prevalent today. The City will continue to review current standards and modify them to ensure that when arterials—especially Major Truck Streets (see Figure 25: Major Truck Streets)—are redesigned and rebuilt, they are better able to accommodate truck movements, in coordination with other street use needs.

However, there will continue to be many locations on the Seattle street system where large trucks will not be able to travel. Where space is extremely constrained, other options will need to be considered. For example, in neighborhood business districts with limited street space, consideration will be given to encourage smaller truck usage to allow local access to constrained curbside loading areas.

In addition to identifying a street classification for major freight movement, the City of Seattle has a program to accommodate the movement of overlegal vehicles within and through the city. Overlegal vehicles are those that are over length, over width, over height or over weight. Examples are the shipment of Boeing airplane tail assemblies, large cranes, and houses. On a regular basis, the SDOT Commercial Vehicle

Enforcement officers issue permits to identify and specify appropriate routes and to assist individual trips with accomplishing their journey. The standards for oversized and overlegal vehicles are being revised as part of the Right-of-Way Improvements Manual update.

GS1.4. Improve Pavement Conditions on All Routes Used for Truck Access.

Use the street classification designation for freight movement as one of the criteria for determining paving priorities. Roadway surface conditions are also an important factor for truck mobility and access. Truck access routes tend to deteriorate more quickly than other streets because they carry heavier loads and higher volumes.

Some of Seattle's most important local industrial streets were never formally designed or constructed to city standards. Streets that were never designed for heavy industrial traffic are providing important lifelines for freight and commerce. SDOT makes spot repairs to these streets as necessary to keep commerce moving, but it never has had the funds to reconstruct, improve, or even to perform preventive maintenance on its local industrial streets. The problem of local industrial street maintenance is especially severe in the industrial areas of South Downtown, Georgetown and South Park, where the number and weight of industrial vehicles greatly exceeds the capacity of the local industrial streets.

To help address this need, since 2000, SDOT has set aside a portion of its maintenance funds as a match for small, local paving projects that are suggested and supported by local businesses and property owners. In several instances, the local businesses have coordinated their efforts through a non-governmental, community-based organization, which has applied for additional city matching funds from the Department of Neighborhoods. The addition of the Department of Neighborhoods to the partnerships has increased the amount of public money available for the projects, and correspondingly reduced the sum that the businesses have had to contribute. SDOT strongly encourages community participation in the Paving Partnership Program.

GS1.5. Pursue Grade Separation of Key Truck Streets at Heavily Used Railroad Crossings.

Rail crossings on heavily used truck routes are difficult obstacles for truck movement, especially in the South Downtown area and at Broad Street along the North Waterfront where the BNSF mainline railroad, Amtrak and Sounder commuter rail traverse the area. Grade separations are the most effective way to eliminate these conflicts and implementing a program of grade separations is one of the City's highest freight mobility priorities. Railroad operations also greatly benefit by having a grade separation. These overcrossings or undercrossings are extremely expensive and are justifiable only where there is significant traffic on both the truck route and the rail line.

Grade separations could significantly reduce the typical 8-11 minute delays encountered at current at-grade rail/street crossings of the rail mainline tracks. There are approximately 70 train movements per day across the east/west arterial streets in the Duwamish area. These train volumes and associated traffic delay are expected to increase in the future. The City has developed a list of potential grade separation projects based on the *Greater Duwamish Manufacturing and Industrial Center Plan* and the *Access Duwamish Freight Mobility Implementation Plan*. The most recent completed grade separation projects are at Atlantic Street (SR 519, Phase I where the elevated intersection connects to Interstate 90) which was opened in November 2003 in the Duwamish, and the 2001 completion of the Galer Street Flyover in Interbay. Five other projects are currently in various phases of planning and implementation. Project implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.

GS1.6. Minimize Conflicts Between Trucks and Other Transportation Modes.

There are a number of basic conflicts between medium to heavy truck traffic and other motorized, non-motorized, and pedestrian modes of transportation that the City continually needs to evaluate and address. Possible solutions might include identifying alternative routes, developing separate facilities, and clarifying priorities for specific locations.

GS2. Support Rail Enhancements That Improve Mainline Operations and Critical Non-mainline Connections that Serve Industrial Properties and Goods Transport.

Efficiently moving containerized cargo shipments is critical to maintaining a healthy, vital economy in the Puget Sound Region. Container freight movement is increasing, especially by rail, for destinations in the Midwest and beyond. Rail is an essential and efficient option for moving freight and goods and provides an alternative to trucks for many industrial and manufacturing businesses. The increasing use of shipping containers on rail is straining the throughput capacity of the region's railroads. Seattle provides an operating environment for three railroads: both the BNSF and Union Pacific railroad have mainline tracks in the city. A third short line railroad, the Ballard Terminal Railroad, provides connections between the BNSF mainline and the Ballard Industrial area north of the Ship Canal. The Duwamish Industrial Center contains several intermodal rail yards, including the BNSF Seattle International Gateway (SIG) Yard and the Union Pacific Argo Yard. BNSF operates a major maintenance locomotive facility in the Interbay industrial. Both freight and passenger train volumes are projected to increase through the city.

Beyond freight mobility, rail is also an increasingly attractive option for commuters, evidenced by the early success of Sound Transit's Sounder line between Tacoma and Seattle. Extension of service to Everett began in late 2003 with increased service planned in the future. All of this activity strains the operational efficiency of mainline rail/street crossings in the Duwamish and in the north-end of the central waterfront.

Some railroad crossing locations are adjacent to signalized arterial intersections and present potential conflicts between modes. Improved signal interconnects (communications between

control equipment) which coordinate rail and street traffic can reduce safety problems (stopping or redirecting traffic before it reaches the rail crossing). Interactive traffic signs can provide information about waiting times and redirect roadway traffic from closed rail crossings.

Technology improvements will be applied on an ongoing basis to the City's inventory of traffic signals, signage, and other devices. Such Intelligent Transportation System (ITS) efforts can often be implemented on a quicker timeframe than more capital-intensive projects, providing interim freight mobility relief until the larger, longer-term projects come to fruition.

GS3. Improve Freight Access to Manufacturing and Industrial Areas.

A healthy transportation infrastructure is essential to Seattle's manufacturing and industrial areas. Reliable, direct connections to water, rail, airport and truck facilities are important to an array of existing businesses, and our region's ability to attract new businesses. Due to the nature of these businesses, truck volumes and frequencies are higher here than in other areas of the City, and truck access is of paramount importance.

To protect and improve freight access to manufacturing and industrial areas, the City should develop strategies that address the following themes:

- Preserve good ground transportation access to manufacturing and industrial sites served by freight carriers and their supportive facilities (rail, airport and marine).
- Improve directional signage between manufacturing and industrial areas and the regional highway system.
- Improve and protect the utility of Major Truck Streets to and from manufacturing and industrial areas.
- Facilitate efficient movement of goods within the manufacturing and industrial areas.
- Include local business access during construction planning in the major capital project plan process in the industrial areas.
- Where safe and appropriate, allow loading and maneuvering of trucks on non-arterial access streets in industrial areas.
- Improve pavement conditions on industrial arterial access streets within manufacturing and industrial areas.

GS3.1 Define and Map a Street Type to Support Freight Access to Manufacturing and Industrial Areas.

The "Making the Best Use of the Streets We Have to Move People, Goods and Services" section defines a street overlay network to guide street use and design features that support adjacent land uses. This overlay network includes a street type for manufacturing and industrial areas to address freight access.

GS4. Support Access to Container and Cargo Terminals.

Continue to work with the Port of Seattle and other marine interests to implement transportation and access projects that support continued growth at container and cargo terminals. This includes joint City and Port efforts to implement the Port's Container Terminal Access Study recommendations.

The Port of Seattle is one of the largest West Coast cargo centers, serving as the entry and exit point for marine cargo to and from the Pacific Rim and Alaska. The Port of Seattle's seaport is made up of 1,414 acres of waterfront land and nearby properties. Nearly 800 acres of the Port's seaport is dedicated to container terminal operations and cargo handling. Future container volumes are forecasted to increase. Most of the freight is shipped through the Port by intermodal

containers that are transferred to or from railcars or trucks on the dock. Terminals 5 and 18 include on-dock rail facilities. Some of the containers are shuttled by truck (called “drayed”) between BNSF and UPRR intermodal yards. At the intermodal yards, containers are transferred to and from railcars. Therefore, both truck and rail transports are an important part of moving cargo to and from Port terminal.

GS5. Facilitate Efficient Retail and Office Goods Delivery.

GS5.1. Improve Freight-Dependent Business Site Access Through Management of Curb space and Alleys.

Continue to work with business district representatives and individual businesses to install commercial and passenger load zones where appropriate.

GS5.2. Develop and Implement Goods Delivery Strategies.

The everyday delivery of goods and services purchased by the general public, businesses and government is critical to our economy’s success. Explore strategies that address issues of goods delivery and managing operational impacts on adjacent land uses, including:

- Allow after-hour truck access on certain streets.
- Balance the needs for loading zones with other curb use needs.
- Ensure workable truck access and adequate loading berths in the design of new buildings in conjunction with the Department of Planning and Development review practices.
- Retain alleys and ensure they work efficiently for goods delivery.
- Provide and encourage the provision of suitable truck layover areas during those periods of time when trucks are restricted from entering certain urban centers.
- Ensure that loading zones are reserved for freight loading and unloading as intended with appropriate levels of enforcement.

Given the historic development of Seattle’s street network and land use pattern, limited right-of-way and competing uses, it is difficult and sometimes impossible to accommodate all sizes of delivery and service trucks in some established areas of the city. In such cases, the operating environment will require use of smaller trucks to make those deliveries of goods and services. To better manage the negative impacts that goods delivery may have in adjacent residential areas, the City should consider the following:

- Support use of smaller trucks within neighborhood commercial districts.
- Restrict hours of operation for large trucks in neighborhood commercial and residential areas, similar to the current practice with the Seattle Central Business District.

GS6. Freight Mobility Coordination and Implementation.

Long-term freight mobility solutions such as railroad grade separations at track and street crossings are expensive and often involve complex funding partnerships with public and private parties including the Federal government, State, Port of Seattle, King County, and Burlington Northern Santa Fe, and Union Pacific Railroads. These challenges are currently exacerbated by struggling national and regional economies. In an environment of significant local, regional, and state budget reductions, finding funding for projects that would provide the greatest relief is a challenge.

Important forums for creating these funding partnerships for freight include the FAST Corridor program, the state’s Freight Mobility Strategic Investment Board, and the Regional Freight Mobility Roundtable. The FAST Program (Freight Action Strategy for Everett-Seattle-Tacoma) is a

nationally recognized leader in delivering transportation improvements for freight mobility. Since 1996, the FAST partnership has studied freight movement via rails, roads and shipping ports to develop projects that move freight more efficiently and increase safety for cars, trucks and trains. FAST identified 15 top priority projects from Everett to Tacoma for phase I: seven projects are complete. More FAST phase I and II projects are in the pipeline for 2004 and 2005.

The Freight Mobility Strategic Investment Board (FMSIB) was created in 1998 when the State Legislature created RCW Chapter 47.06A, Freight Mobility and the Board, for the purpose of reviewing, prioritizing, and recommending freight mobility transportation projects that are of strategic importance to the State of Washington. Their recommendations are presented to the Governor and the Legislature to provide a basis for project prioritization and funding allocations. SDOT will continue to work with FMSIB, and the Washington State Department of Transportation through the update to the State Transportation Plan, and will work with other local partners to articulate Seattle's freight mobility priorities.

The Regional Freight Mobility Roundtable is a public-private forum sponsored by the Puget Sound Regional Council to define and recommend actions serving freight mobility needs in and through central Puget Sound. Private sector participants include rail, marine, air cargo and trucking carriers, and shippers such as Boeing and Weyerhaeuser. Public sector participants include local governments, the ports of Seattle, Tacoma and Everett, state agencies, and federal agencies within the U.S. Department of Transportation (including rail, highway, maritime), and the Department of Defense. The Roundtable is consulted by the FAST Program and provides input into regional and state transportation plans.

SDOT regularly participates in these forums to elevate support and advocate timely funding for Seattle area freight mobility needs. State and federal funding processes assign greater priority to project applications which offer private funding participation. SDOT encourages private funding partnerships where projects benefit the freight community.

Despite funding uncertainty, SDOT has been able to identify a number of actions that can be accomplished either within existing resources or at a relatively low cost. It is important that SDOT lose neither the vision of Seattle's long-term infrastructure needs nor the urgency to make near-term progress on efforts to more efficiently move freight and goods through our transportation system.

GS6.1. Build Arterial Street Projects to Benefit Freight.

The City's Capital Improvement Program (CIP) has programmed projects to benefit freight. Project schedules and budgets occasionally change due to design changes and funding availability. These changes are reflected in the subsequent year's CIP. The annual Freight Mobility Strategic Action Plan identifies current CIP projects that benefit freight.

GS6.2. Make Traffic Engineering and Technology Improvements for Freight.

Better management of streets through traffic engineering and the application of technology advances can make more efficient use of our street and signal system resources. These technology solutions are called Intelligent Transportation Systems (ITS). ITS is the application of state-of-the-art traffic management, communications and data technologies to provide a sophisticated set of tools to address the transportation mobility and safety needs faced by the driving public. Seattle has a very proactive traffic technology program. Traffic control computers are being upgraded annually. There currently are 19 traffic surveillance cameras providing traffic information to the public via web images. The new Traffic Management Center was put on line in 2003. Traffic data and camera images are collected; traffic control changes are made to the

system; the traffic information is provide to the State and general public via web images. SDOT is planning on implementing more improvements as funding is available.

GS6.3. Maintain the Freight Mobility Advisory Committee.

In October 2002, the Seattle Freight Mobility Advisory Committee, co-sponsored by SDOT and the Seattle Manufacturing Industrial Council (MIC), was formed to provide a regular forum for communication with City staff and other agencies. This Committee was established to provide a forum for giving input on projects and programs of interest to the freight community and to exchange information. SDOT looks to the citywide freight committee to represent the interest of various freight transportation providers and operators (including the modes of truck, rail and marine transport), and to reflect the interests of constituents both in the north and south industrial areas of the City. The Committee meets on a monthly basis at the MIC offices located in Georgetown to encourage freight community attendance and participation.

GS6.4. Develop Funding Partnerships to Promote Projects that Benefit Freight.

SDOT regularly participates in several regional forums to elevate support and advocate for timely funding for the Seattle area's freight mobility needs.

GS6.5. Improve Communication Tools for Construction-Related Traffic Impacts for Freight Mobility and Access.

Construction activity and major events can present an obstacle to accessing businesses and freight destinations. Given the multiple private and public parties doing construction Seattle's right-of-way, effective, ongoing coordination is a necessity. To better manage congestion, SDOT coordinates with the WSDOT on major maintenance and roadway improvement projects scheduled each year in and adjacent to Seattle.

Parallel to this activity, SDOT is continuously refining departmental business practices to coordinate street work and potential disruption via the Street Use permit process and coordination with the Department of Planning and Development. This requires cooperation on construction decisions, and subsequently, effective sharing of construction schedule and traffic information to affected parties.

Timely notification of these activities can assist freight operators in planning for alternative routes. Currently, SDOT participates in several programs to notify the freight community of construction-related traffic changes. This includes South Downtown (SODO) email alerts using the SODO Association's electronic mailing list. SDOT also provides project input to the Port of Seattle's "Truckers Guide" – a handy template for route planning. Finally, information of the status of major projects is maintained on the SDOT web site.