CAMBRIDGE SYSTEMATICS

Washington State Rail Plan

Technical Note 5: Investment Program

Final Report

prepared for

Washington State Department of Transportation

prepared by

Cambridge Systematics, Inc.

December 2013

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date

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1.0 Introduction

This technical note presents a compilation of proposed freight and passenger rail-related investments through 2035. These investments have been identified and programmed through various state and regional plans, public development authorities and some private freight railroads. Some of these projects are fully funded and underway, some have completed conceptual work but lack committed funding for construction, while others are illustrative of what should be accomplished to achieve desired objectives, such as increased capacity, shorter travel times, system preservation, improved safety, and reduced community impacts. Such "illustrative" projects are the result of an organized and rigorous planning process, and may be included in regional and state plans even though the financial resources to see them to completion have yet to be identified.

The projects presented in the illustrative project list are current as of November 2013. In developing the listings, the project team reviewed available published documents from the Washington State Department of Transportation and other agencies, and solicited input from stakeholders. The listings are not comprehensive, particularly in the context of private freight rail investments. Investments by the freight railroads are commonly self-funded and thus are not reported to the public in advance. Included by reference is the project list that is being developed for the upcoming Freight Mobility Plan, which will conform to Moving Ahead for Progress in the 21st Century Act requirements.

2.0 Project list

2.1 PURPOSE AND STRATEGY

The intent of an investment program in a statewide plan is to offer a set of projects that will advance the state towards realizing the vision defined in the State Rail Plan. The projects are expected to help fulfill the state's vision for rail, and address one or more specific needs and objectives, as described in Chapter 5 of the State Rail Plan. These needs and objectives fall into eight general categories as follows:

- *System capacity*. Help rail system accommodate current and anticipated traffic volumes.
- *System preservation.* Ensure that rail infrastructure assets have continued use as part of Washington's rail network now and in the future.
- *Efficiency and reliability.* Reliability is paramount to attracting and retaining passengers and freight, while efficiency is necessary to ensure that rail service is cost-effective and competitive with other modes.
- *Economic development.* Help maintain or improve competitiveness of local communities. May include industrial, commercial and/or residential elements.
- *International trade*. Facilitate Washington's efforts to maintain a competitive edge on the handling of overseas traffic.
- *Cost-effective investments.* Identify specific projects that have a particularly high impact for the given level of expenditure.
- *Environment and community.* Mitigate the impacts of growing rail traffic such as reducing interference with highway traffic, reducing air pollution and reducing noise.
- *Safety and security.* Ensure that rail operations occur in the safest manner possible, minimizing potential risks to its users and the community at large.

Each of the projects included in this project list have been identified by stakeholders as addressing rail-related needs in one or more of these eight areas. They have been identified and programmed in various state, regional and agency plans, as well as a few private firms. Some of these projects are fully funded and underway, while others represent conceptual improvements that should be accomplished to achieve desired outcomes. Such "illustrative" projects are the result of an organized and rigorous planning process, and may be included in regional and state plans even though financial resources have not been identified.

Project development is an ongoing process among a range of stakeholders, and new projects will be proposed that are not included in this project list. Consistency with the State Rail Plan is generally a requirement for federal and state funding for rail programs. Such projects must:

- Be backed by a planning study or scoping effort.
- Be vetted through an appropriate process.
- Be adopted in an official plan, such as a comprehensive plan for a city, county, port or railroad.
- Have a statement explaining how the project is consistent with the needs identified in the current State Rail Plan.

The project list is not comprehensive, particularly as it relates to private freight rail investments. Freight railroads self-fund most projects, and thus do not typically report them to the public in advance.

Not included in the listings are some projects that will be identified in the forthcoming Freight Mobility Plan, which will cover all modes — highway, rail, air and water. The rail-related projects cited in the FMP will be incorporated into the State Rail Plan by reference once the FMP has been completed. The criteria for including eligible projects must conform to current federal surface transportation legislation, Moving Ahead for Progress in the 21st Century Act. MAP-21 includes the concept of designated freight corridors, a focus on objective performance measurement, and addressing specific criteria that differ in some ways from the State Rail Plan's needs and objectives.[1] With MAP-21 set to expire in 2014, and the current legislation governing rail planning, Passenger Rail Investment and Improvement Act of 2008, having expired in October 2013, it is likely that the requirements for federal modal planning will change, including as it relates to rail and freight.

2.2 ORGANIZATION

The illustrative project list is categorized into three groups, each with its own table:

- Table 2.3 lists the intercity passenger and commuter rail projects. This includes planned projects along the entire Pacific Northwest Rail Corridor, including Oregon and British Columbia. The "Type" column indicates whether a project will primarily benefit commuter rail ("C") service or intercity passenger rail ("I") service.
- Table 2.4 lists freight-related projects located on Class I and short-line railroads, as well as multimodal and other rail projects. The type of

[1] 23 USC 167 National Freight Policy.

project is identified in the first column labeled Type. Class I projects are labeled with a "C," short line with an "S," multimodal with an "MM," and other with an "O." This latter category includes rail infrastructure improvements at ports, industrial parks, and other facilities where rail is incidental to the facilities' primary purpose.

- Table 2.5 lists rail-highway grade crossing improvements. These projects consist of grade separations, where level crossings will be eliminated through construction of rail or highway bridges, rail realignments benefitting highway users, and improvements to level crossings. Level crossing improvements, which may or may not result in a quiet zone designation, include installation of advanced crossing systems, traffic control devices, physical road dividers, separate pedestrian crossing arms and signals, etc.

The investments are divided into three tiers of phasing, covering the present through 2035 as follows:

- Completion between 2013 through 2018, in which projects listed have a committed or projected source of funding.
- Projected completion by 2025, consisting of projects that materially advance the performance and condition of the state's rail system, but lack full funding.
- Projected completion by 2035, which advances the state's rail system towards a "vision" state. Funding has not been identified for projects in this tier.

For each project, the project location, source, completion year, funding, and a brief description are provided. Projects are sorted by geographic location, which can range from the entire PNWRC to specific communities.

Costs are shown only for projects where funding has been fully or largely committed, and completion is anticipated by 2018. For projects scheduled for completion beyond 2018, even where cost estimates are available, they have been omitted as they often are cursory at best, outdated, or the proposed project has evolved since a cost assessment was completed.

The following sections discuss the composition and content of the listings in more detail.

Project Sources

Project entries indicate the source of each proposed investment in the Source column. These may appear as abbreviations and acronyms, which are described in Table 2.1 below.

Table 2.1 Project Sources

Source	Description	Reference(s)
CWCOG	Cowlitz-Wahkiakum Council of Governments	www.cwcog.org/documents/2013SWRTPORTIP_101713.pdf
FAST	Puget Sound Freight Action STrategy program	www.psrc.org/transportation/freight/fast/fast-projects/
FMSIB	Freight Mobility Strategic Investment Board	www.fmsib.wa.gov/ for general information, www.fmsib.wa.gov/projects.cfm for projects.
Forward Washington	Coalition of Washington's Regional Transportation Planning Organizations	www.forwardwashington.net/
FRAP	WSDOT Freight Rail Assistance Program	www.wsdot.wa.gov/Freight/Rail/GrantandLoanPrograms.htm
Port of Seattle Century Agenda	Port of Seattle produced long-range plan, released in 2013	www.portseattle.org/about/commission/pages/century-agenda.aspx www.portseattle.org/About/Commission/Meetings/2012/RM_20120814_7a_supp.pdf
PSRC	Puget Sound Regional Council	www.psrc.org/
Sound Transit	Sound Transit project listings as shown on agency website	www.soundtransit.org/Projects-and-Plans
ST2	**Sound Transit Phase II Plan**, November 2008	www.wsdot.wa.gov/partners/erp/st2_financial_plan_082408.pdf
UP	Union Pacific Railroad	UP provided WSDOT with a list of key improvements planned on their lines over the next five years.
WSDOT 2010-2030 Freight Rail Plan	**Washington State 2010-2030 Freight Rail Plan**, December 2009	www.wsdot.wa.gov/NR/rdonlyres/34925D95-4F59-44B6-90DD-6BE102B33C15/0/StateFreightRailPlan.pdf
WSDOT Long Range Plan for Amtrak Cascades	**Washington State Long Range Plan for Amtrak Cascades**, 2006	www.wsdot.wa.gov/nr/rdonlyres/ae671cc5-6633-4bf2-9041-fb328adb1f31/0/longrangeplanforamtrakcascades.pdf
WSDOT Rail Division Project List	WSDOT Rail Division project listing as shown on agency website	www.wsdot.wa.gov/Rail/Projects.htm

For intercity passenger service improvements, WSDOT's 2006 *Long-Range Plan for Amtrak Cascades* describes a long-term program to achieve a set of service outcomes by 2023. Major project elements are detailed in the project list with completion dates from the *Long-Range Plan for the Amtrak Cascades*, while the overarching service goals consisting of travel time, frequency and reliability are incorporated as general objectives to be accomplished by 2035. Some of the projects identified in that plan are now underway as part of the $800 million program funded by American Recovery and Reinvestment Act under the High-Speed Intercity Passenger Rail program. In light of these investments, evolving needs, funding options, and shifting priorities among the stakeholders, an updated Long-Range Plan for Amtrak Cascades is currently being developed.

While the purpose of the project list is to advance projects that will physically benefit Washington's residents and economy, there is one exception. The lone exception is the inclusion of a comprehensive planning study to examine

capacity needs along the state's three east-west rail corridors by 2025 (Table 2.4), a prerequisite to implementing necessary improvements by 2035. Capacity constraints along the east-west rail corridors have been a recurring concern, as they affect the competitive position of the Puget Sound ports, the region's freight shippers and short lines, and potential passenger service enhancements. Although the combination of diminished freight volumes and actions by BNSF to implement directional running over Stampede Pass have deferred the immediate need for more extensive action, ensuring the availability of adequate east-west capacity is vital to the future of rail service in the Puget Sound region. Conditions have changed substantially — and are likely to evolve further — since these issues were examined in detail (most recently in the 2006 *Washington State Rail Capacity and System Needs Study*), such that it is advisable to examine needs and potential solutions from the ground up.

Reporting of Private Freight Railroad Projects

Largely missing from the project list are ongoing infrastructure investments by the freight railroads. Exceptions are projects addressing the needs of state-owned short-line properties, along with some specific infrastructure needs on private lines. Class I railroads are generally reluctant to share long-range plans, since they are funded wholly with private capital, and often change in response to evolving business conditions. However, UP chose to provide a listing of selected major projects that are projected for completion through 2018.

The vast majority of freight railroad investments, whether Class I or short line, are related to maintaining a state of good repair, but also do include capacity-oriented improvements, such as heavier weight rail, physical clearances for handling higher-capacity railcars, and signal system upgrades. Such projects usually require few or no public approvals and thus receive little or no publicity. More substantial improvements — as would be the case with new sidings, double track, major rehabilitation or replacement of major civil structures, such as bridges and tunnels, and installation of advanced traffic control systems — are subject to lengthier planning cycles. However, even in those instances, railroads often only provide information in the context of a public review/permitting process, or shortly before construction is underway. Nevertheless, railroads have become more public about their infrastructure investments; whereas in years past, railroads barely acknowledged most projects, it has become common for Class I railroads to publicly announce maintenance and infrastructure projects immediately prior to their being undertaken.

Funding Sources

Rail system investments are funded by a range of public and private sources. In Washington, this includes the private freight railroads, along with a plethora of federal, state, regional and local sources. Depending on the nature and location of the project, different public funding sources are tapped. Private capital is also common in industrial development projects that include a rail component.

For projects that have received funding, the sources and amounts are identified in the listings, usually through their acronyms or abbreviations. Sources of public funding are summarized in Table 2.2; their specifics are discussed in more detail in Technical Note 6. In addition, the state's large railroads, BNSF and UP, along with the state's short lines, also contribute to the cost of some projects, and have been identified when available.

Table 2.2 Project Public Funding Sources

Source	Description	Reference(s)
ARRA	American Recovery and Reinvestment Act. Funded FY 2009 HSIPR and TIGER programs.	www.fra.dot.gov/Page/P0554.
FHWA	Federal Highway Administration. Various funding programs, including formula grants, targeted safety programs, Section 179 grade-crossing improvements, etc.	
FMSIB	Freight Mobility Strategic Investment Board. Proposes policies, projects, corridors and funding to the Washington legislature to promote strategic investments in freight.	www.fmsib.wa.gov/ for general information, www.fmsib.wa.gov/projects.cfm for projects.
FRAP	WSDOT Freight Rail Assistance Program. State-funded grants.	www.wsdot.wa.gov/Freight/Rail/GrantandLoanPrograms.htm
FRIB	WSDOT Freight Rail Investment Bank. Parallel to FRAP, but entails loans rather than grants.	www.wsdot.wa.gov/Freight/Rail/GrantandLoanPrograms.htm
FTA	Federal Transit Administration. Provides financial assistance through a range of programs.	
HSIP	Highway Safety Improvement Program, provided for in federal transportation legislation, including MAP-21.	www.wsdot.wa.gov/LocalPrograms/Traffic/FedSafety.htm
HSIPR	High Speed Intercity Passenger Rail Program established by ARRA and the Department of Transportation Appropriations Acts of 2008, 2009, 2010, and 2011.	See www.fra.dot.gov/Page/P0554 for a complete, nationwide list of funded projects
MMA	Multimodal Transportation Account funded through state or federal sources (state through WSDOT or federal through FHWA).	
RRB	Railroad Bank. Funding mechanism for FRAP and FRIB projects managed by WSDOT.	
ST2	**Sound Transit Phase II Plan**, November 2008	www.wsdot.wa.gov/partners/erp/st2_financial_plan_082408.pdf
TIB	Washington Transportation Improvement Board. Funds high priority transportation projects in communities throughout the state.	www.tib.wa.gov/projects/Search.cfm
TIGER	(Federal) Transportation Investments Generating Economic Recovery. Grant program for projects that don't typically qualify for federal funding through modal agencies. Initially established in ARRA, with program active from FY 2009 through FY 2013.	www.dot.gov/tiger. Has links to grants by year.

Rail System Needs Addressed

Needs addressed are qualitatively assigned to each project included in the investment plan, as described in Section 2.1. For passenger and freight rail projects, these impacts consist of all eight categories, while for grade crossing improvements (Table 2.5) these cover the five categories — system capacity, efficiency and reliability, international trade, environment and community, and safety and security — that may be directly benefitted.

Table 2.3 Intercity Passenger (I) and Commuter Rail (C) Projects

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
Committed, Completion by 2018														
I	Amtrak Cascades Corridor in Washington	Advanced Signal System	WSDOT Rail Division Project List	Implement advanced signal system that will allow passenger train speeds over 79 mph. Will meet FRA requirements for Positive Train Control and high speed passenger trains, and ensure safe operation of Amtrak Cascades trains as speeds are increased.	2015	ARRA -$57.4M, also Sound Transit (Lakewood Subdivision), and BNSF	✓		✓	✓				✓
I	Amtrak Cascades Corridor in Washington	Corridor reliability Supplemental Work	WSDOT Rail Division Project List	Identify, design and stabilize slopes along the BNSF line between Vancouver, WA and the Canadian border to enhance safety and prevent service disruptions due to mudslides.	2014	ARRA -$16.1M		✓	✓	✓		✓		✓
I	Amtrak Cascades Corridor in Washington	Corridor Reliability Upgrades North	WSDOT Rail Division Project List	Upgrade track infrastructure between Everett and the Canadian border at Blaine. Includes cleaning ditches to improve drainage, grading and modifying areas where water is collecting, cleaning and replacing ballast, removing and replacing ties, and relaying and resurfacing rail.	2016	ARRA - $50.4M		✓	✓	✓		✓	✓	✓
I	Amtrak Cascades Corridor in Washington	Corridor Reliability Upgrades South	WSDOT Rail Division Project List	Improve track quality, reliability, and passenger ride comfort between Nisqually and the Columbia River. Includes cleaning ditches to improve drainage, grading and modifying areas where water is collecting, cleaning and replacing ballast, removing and replacing ties, and relaying and resurfacing rail.	2016	ARRA - $86.6M		✓	✓	✓		✓	✓	✓
I	Amtrak Cascades Corridor in Washington	New Locomotives	WSDOT Rail Division Project List	Purchase eight new locomotives under a multi-state procurement led by Illinois DOT. This "next generation" rail equipment will feature better fuel efficiency, added passenger comfort, travel conveniences and safety upgrades.	2016	ARRA - $46.7M	✓	✓	✓	✓		✓	✓	✓
I	Blaine	Blaine Swift Customs Facility Siding	WSDOT Rail Division Project List	This project constructs 9,000 ft main track on Cascades line near Blaine and converts existing main track into a second siding. Work includes track, ties and ballast. Project will reduce freight/passenger conflict, reduce congestion, adds capacity and eliminates bottleneck, shorten travel time and improve reliability	2015	ARRA- $4.6M; State - $3.8M	✓		✓	✓	✓	✓		

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
I	Kalama	Kelso Martin's Bluff - New Siding	WSDOT Rail Division Project List	Upgrade approximately 3.8 miles of railroad siding track near the Port of Kalama. The new and upgraded siding track will allow freight trains to move on and off the mail line tracks at higher speeds, resulting in fewer delays to Amtrak Cascades passenger trains.`	2017	ARRA - $33.2M	✓	✓	✓	✓		✓		
I	Kalama	Kelso Martin's Bluff - Toteff Siding	WSDOT Rail Division Project List	Extend approximately one mile of siding track near the south end of the Port of Kalama and construct a new roadway bridge over the railroad tracks at Toteff Road. Switch components in the tracks will also be upgraded. Improvements will eliminate delays for cars and trucks at crossings, add capacity and reduce conflicts between passenger and freight trains.	2016	ARRA - $34.9M	✓		✓	✓				✓
I	Kelso	Kelso Martin's Bluff - Kelso to Longview Jct.	WSDOT Rail Division Project List	Upgrade existing track and add a third main track between Kelso and Longview Junction. This will separate freight and passenger rail traffic, allowing trains to move around each other, ultimately improving the reliability and on-time performance of Amtrak Cascades trains.	2017	ARRA - $117.8M	✓	✓	✓	✓		✓		
I	Mt. Vernon	Mt Vernon Siding Extension	WSDOT Rail Division Project List	Extend the Mount Vernon Siding track to accommodate longer freight trains, improving capacity and reliability of the railroad for intercity passenger rail operations.	2014	2003 Legislative Transportation Package (New & Used Vehicle Sales Tax) - $2.12M; 2010 Federal HSIPR grant - $3.3M; Additional state funds - $5.2M	✓		✓	✓				
C	Mukilteo	Pedestrian Bridge at Mukilteo Commuter Rail Station	Sound Transit	Construction of a pedestrian bridge at the Mukilteo Commuter Rail Station linking two commuter rail platforms located on either side of the BNSF tracks with the Sounder Commuter Rail Station.	2014	FTA and Various State Funds - $13.4M			✓	✓				✓
I	Seattle	King Street Station Track Upgrades	WSDOT Long Range Plan for Amtrak Cascades	Rail milepost 0.2 to 0.5. New tracks and platforms at King Street Station will accommodate the planned increase in intercity, commuter, and freight trains.	2017	ARRA $50.4M	✓		✓	✓				
C	Seattle-Lakewood	Seattle/Lakewood Commuter Rail Service Expansion	Sound Transit	Includes agreements and easements with the BNSF for operating up to four additional commuter train pairs between Seattle and Lakewood.	2013	Various state funds $382.9M			✓	✓			✓	

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
C	Seattle-Lakewood	Seattle/Tacoma Commuter Rail Project	Sound Transit	Implementation of commuter rail between Seattle and Tacoma serving seven stations. Project includes improvements to stations, platforms, track/signals, CCTV, layover/storage and related equipment. Commuter rail service along this corridor began in September 2000. Sound Transit continues to improve service and operations along this corridor. This project's P/E, ROW and construction phases have also been funded previously in the amount of $1,424,889,903.	2013	Various (total cost $1,447.6M)			✓	✓			✓	
C	Tacoma	Reservation Junction Improvements and Tacoma Trestle Replacement	Sound Transit	Design and construction of additional track and new structures along an approximately 0.65 mile section of track between the existing Tacoma Dome Station and the vicinity of M Street in Tacoma.	2017	TIGER V - $10.0M, (total cost $54.7M)	✓	✓		✓				✓
I	Tacoma-Nisqually	Tacoma - Bypass of Point Defiance	WSDOT Rail Division Project List	Reroute passenger trains to an existing rail line along the west side of I-5 through south Tacoma, Lakewood, and DuPont, reconnecting back to the BNSF Railway main line near Nisqually, on the east side of I-5. Boosts capacity, travel times, and reliability of Amtrak Cascades service.	2017	ARRA - $89.1M	✓		✓	✓				
C	Tacoma-Lakewood	Commuter Rail Project: Tacoma/ Lakewood	Sound Transit	Implementation of commuter rail service between Tacoma and Lakewood, through design and construction of facilities and equipment (including track and signal) on 7 miles of track and two stations with parking, bus/transfer, pedestrian and bicycle facilities and maintenance/storage/layover. In addition, the project includes environmental documentation and preliminary engineering-design to construct a rail grade separated overcrossing at Pacific Avenue and South 26th Street in downtown Tacoma. This project is coordinated with affected local agencies, including TAC-73 for the feasibility study and pre-design.	2013	HSIPR, ARRA, and Various State Funds (total cost $322.3M)	✓		✓	✓			✓	

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
C	Tukwila	Tukwila Station Construction	Sound Transit	Preliminary engineering, design, right-of-way acquisition and eventually construction work for a permanent commuter rail station in Tukwila. The station will be located south of Longacres Way and west of the BNSF railroad tracks. The station may include two platforms with canopies, parking, a bus transfer facility, and bike lockers.	2014	ST2 $27.2M, HSIPR $7.9M, FTA $6.2M			✓	✓			✓	
I	Vancouver	Vancouver - New Middle Lead	WSDOT Rail Division Project List	Construct second connecting or "lead" track approx. 1,300 feet long located between MP 135.9 on BNSF's Seattle Subdivision and about MP 10.2 on the BNSF Fallbridge Subdivision, extending around the south end of the BNSF Vancouver Yard. Supports freight train speeds of 25 mph, and increases capacity on and off the north-south main line.	2015	ARRA - $9.6M	✓		✓	✓	✓			✓
I	Vancouver	Vancouver - Rail Bypass and W. 39th Street Bridge	WSDOT Rail Division Project List and Port of Vancouver	Add a new main track in the rail yard that will allow passenger trains to bypass congestion caused by freight trains. A new vehicle/pedestrian/ bicycle bridge over the railroad tracks at the West 39th Street crossing will enhance safety. This project will reduce freight and passenger congestion, increase safety, and improve Amtrak's on-time performance.	2014	State MMA ($53.7M), State MMA $51.4M), FHWA ($13.6M), Local ($999k)	✓		✓	✓	✓		✓	✓
I	Vancouver	Vancouver - Yard Bypass Track	WSDOT Rail Division Project List	Part of the larger Vancouver- Rail Bypass and West 39th Street Bridge project. Constructs approximately 15,200 foot long bypass track between the BNSF Railway's Seattle Subdivision and Fallbridge Sub in Vancouver, WA, allowing freight traffic to clear the north-south main tracks quickly.	2016	ARRA $27.1M	✓		✓	✓				✓
Projected Completion by 2025														
I	Clark County	Columbia River Bridge	WSDOT Long Range Plan for Amtrak Cascades	Rail milepost 9.61 to 10.14 The Portland - Spokane route junction at the north end of the Columbia River Bridge has a 10 mph speed restriction. Construction of an additional bridge and modification of the existing bridge would provide better movement of traffic and reduce the effect of bridge openings on rail traffic.			✓		✓	✓				
I	Cowlitz & Clark Counties	Felida to MP 114 Third Man Track	WSDOT Long Range Plan for Amtrak Cascades	Rail milepost 130.45 to 112.2. A new eighteen mile-long 110 mph main line will be build adjacent to the existing double track.			✓		✓	✓				

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
I	Cowlitz & Lewis Counties	Kelso to Chehalis - High Speed Main Tracks	WSDOT Long Range Plan for Amtrak Cascades	Design, permit, purchase right-of-way, and construct a 34-mile high-speed alignment from just north of Kelso to just south of Chehalis that can be operated at up to 150 mph. This will require 15 corridor miles of new alignments away from the BNSF Railway main line near Castle Rock, Vader, Winlock, and Napavine, and realign the BNSF main tracks in five locations between north of Kelso and Castle Rock. The corridor will have a single high-speed main track over the entire distance with another 18 miles of second high-speed main at the south end. It will also bypass, close, or grade separate 25 highway-rail at-grade crossings.			✓		✓	✓				
C	King & Pierce Counties	Seattle to Tacoma to Lakewood	Sound Transit	Installation of Centralized Traffic Control system and additional trackage			✓		✓	✓				
C	King & Snohomish counties	Seattle to Everett	Sound Transit	Various capacity improvements			✓		✓	✓				
C	King County	Argo to Black River (South Seattle)	Sound Transit	Reconfiguration of existing yard and main line tracks.			✓		✓	✓				
I	King County	Seattle Maintenance Facility - Phases III and IV	WSDOT Long Range Plan for Amtrak Cascades	Phases I and II of a new maintenance facility south of downtown Seattle near Safeco Field were completed in 2012. Phase III calls for construction of a service and inspection building for Amtrak long-distance and Sound Transit trains. Phase IV calls for constructing a new locomotive maintenance facility that will serve all Amtrak and Sound Transit commuter rail services.			✓		✓	✓	✓			
C	King County	Seattle to Kent Third Main Track	City of Seattle Freight Mobility Strategic Action Plan, June 2005	Complete full third track between Seattle and Tacoma to increase capacity and reduce conflicts.			✓		✓	✓	✓			
I	Lewis County	Winlock to Chehalis Third Main Track	WSDOT Long Range Plan for Amtrak Cascades	Third track to support 110 mph operations as current track geometry in this location does not allow trains to travel at high speed.			✓		✓	✓				

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
I	Pierce, Thurston, & Lewis Counties	Hannaford to Nisqually Third Main Track	WSDOT Long Range Plan for Amtrak Cascades	Rail milepost 51.39 to 24.5. A new twenty-six mile-long main line will be built next to the existing double track between Nisqually and the Lewis/Thurston county border, and a second new main line track will be built between rail milepost 36.2 and rail milepost 51. To allow passenger trains to operate at 110 mph.			✓		✓	✓	✓			
I	Whatcom County	Bellingham to Blaine High-Speed Track	WSDOT Long Range Plan for Amtrak Cascades	Construction of a high speed track and associated facilities between milepost 101.5 and 117.1 to allow passenger trains to operate at 110 mph.			✓		✓	✓	✓			
I	Whatcom County	Burlington to Bellingham High-Speed Track	WSDOT Long Range Plan for Amtrak Cascades	Rail milepost 72.2 to 86.5. Entails construction of fourteen miles of high-speed track and associated facilities. The project is to allow passenger trains to operate at 110 mph, providing part of the travel time reduction needed between Seattle & Vancouver, BC to achieve WSDOT's service goal.			✓		✓	✓				
I	Whatcom County	Marysville to Mount Vernon High-Speed Track	WSDOT Long Range Plan for Amtrak Cascades	Rail milepost 39.19 to 67.5. Entails construction of twenty-eight miles of high-speed track and associated facilities. Will allow passenger trains to operate at 110 mph, providing part of the travel time reduction needed between Seattle and Vancouver, BC to achieve WSDOT's service goal.			✓		✓	✓				
I	British Columbia	Greater Vancouver Terminal (Scott Road Station)	WSDOT Long Range Plan for Amtrak Cascades	Construct new passenger rail station			✓		✓	✓	✓			
I	British Columbia	Colebrook to Brownsville High-Speed Tracks (north of White Rock)	WSDOT Long Range Plan for Amtrak Cascades	High speed track, continuation of White Rock bypass			✓		✓	✓	✓			
I	British Columbia	Fraser River Bridge	WSDOT Long Range Plan for Amtrak Cascades	Replace or improve existing bridge			✓		✓	✓	✓			
I	British Columbia	White Rock Bypass	WSDOT Long Range Plan for Amtrak Cascades	High speed rail bypass			✓		✓	✓	✓			

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
I	British Columbia	Willingdon Junction	WSDOT Long Range Plan for Amtrak Cascades	Grade separation to provide passing space for Cascades trains			✓		✓	✓	✓		✓	
I	Oregon	Columbia River Bridge (joint Washington and Oregon project)	WSDOT Long Range Plan for Amtrak Cascades	New bridge			✓		✓	✓				
Projected Completion by 2035														
I	Pacific Northwest Rail Corridor	Additional round trips (incremental)	WSDOT Long Range Plan for Amtrak Cascades	Add additional trains to reach service goals. These increases in operational service will be accompanied by capital projects, such as track improvements and equipment procurement. Service goals at the horizon are: Portland-Seattle at13 round trips; Seattle-Vancouver B.C. at 4 round trips.			✓		✓	✓	✓			
I	Pacific Northwest Rail Corridor	Improve travel times (incremental)	WSDOT Long Range Plan for Amtrak Cascades	Reduce travel time between destinations to reach service goals. These increases to average operational speed will be accompanied by capital projects, such as increasing track classification and equipment upgrades. Service goals at the horizon are Portland-Seattle in 2:30; Seattle-Vancouver B.C. at 2:37.			✓		✓	✓	✓			
I	Pacific Northwest Rail Corridor	Improve reliability (incremental)	WSDOT Long Range Plan for Amtrak Cascades	Increase minimum reliability standards to reach service goals. These increases in operational reliability will be accompanied by capital projects, such as track improvements. Future reliability goals will be determined with performance measures for the Amtrak Cascades service.			✓		✓	✓	✓			

Table 2.4 Planned & Programmed Class I (C), Short Line (S), Multimodal (MM), and Other (O) Rail Projects

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
Committed, Completion by 2018														
S	Centralia	Realign Centralia Interchange between Tacoma Rail and Puget Sound and Pacific RR (PSAP)	Short-line railroad host	Build a new connection between Tacoma Rail and PSAP at Blakeslee Junction, and associated track re-alignment. Will reduce congestion for both rail and automobile traffic in the area.	NA	Phase 1A - 2005 Partnership Funding (Weight Fees) - $7.4 M; Phase 1B – MMA - $1.5M; Phase 1B - Federal Funds - $3.9M	✓	✓	✓	✓				
C	Cheney	Cheney Siding Extension	Washington State 2010 - 2030 Freight Rail Plan, UP	Add Track - increase fluidity	5-year plan	UP	✓		✓		✓	✓		
S	Clark County	Portland Vancouver Junction Railroad (PVJR) improvements	WSDOT Freight Rail Monthly Report October 2013	General improvements along 14 miles of rail corridor, consisting of spot tie, rail, and ballast installation.	2013	RRB 1013 ($655K)		✓	✓					
S	Clark County	Vancouver to Barberton Rail Improvements	WSDOT Freight Rail Monthly Report October 2013	Replace approximately 3,500'of rail and 1,000 crossties, ballast, surface and dress, replace switches and improve road crossing.	2015	RRB 1066 ($675K)		✓		✓				
C	Fife	Fife Siding Extension	UP	Port of Tacoma - Additional Capacity	5-year plan	UP	✓		✓		✓	✓		
C	Hinkle, OR to Spokane	CTC Islands - Ayer Sub	UP	Increase fluidity	5-year plan	UP	✓		✓		✓	✓		
O	Hoquiam	Hoquiam Horn Spur Railroad Track Improvement Project	WSDOT Freight Rail Monthly Report October 2013	Replace south rest pier with dolphin for Puget Sound and Pacific (PSAP) swing-span bridge.	2014	FRAP ($747k - RRB 1040)		✓	✓					
C	King County	Seattle Sub Phase III	UP	Increase fluidity	5-year plan	UP	✓		✓		✓	✓		
O	Lincoln County	Cooperative Agricultural Producers Loading Tracks	WSDOT Freight Rail Monthly Report October 2013	Repair grain facility loading tracks at Spangle, Oakesdale, and Fairfield, Washington	2015	FRAP ($340K - RRB 1058)		✓	✓			✓		

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
S	Lincoln County	CW Line Track Maintenance	WSDOT Freight Rail Monthly Report October 2013	Surface, line, and dress 26.4 miles of the PCC's Central Washington line	2014	FRAP ($1.162M - RRB 1059)		✓						
S	Okanogan County	Cascade and Columbia River Track Rehabilitation	WSDOT Freight Rail Monthly Report October 2013	Rehabilitate Cascade and Columbia River line between Omak and Tonasket, including installation of 8,000 ties, 4,000 tons of ballast, and surfacing 16 miles of track.	2013	FRAP ($684k - RRB 1023)		✓						
O	Port of Everett	On-Dock Rail Improvements	WSDOT Freight Rail Monthly Report October 2013	Upgrade and extend the on-dock rail trackage to support a new roll-on/roll-off facility	2015	FRIB ($900k loan - RRB 1050)		✓			✓			
O	Port of Longview	Rail Loop	WSDOT Freight Rail Monthly Report October 2013	Complete construction of second loop track capable of handling 110 car unit trains from the BNSF and UP mainline to the Port's waterfront and West Industrial Park properties.	2013	FRAP ($858k - RRB 1029)	✓			✓				
O	Port of Royal Slope	Track Improvements	WSDOT Freight Rail Monthly Report October 2013	Restore 26 mile rail line to operation. Consists of track maintenance, including tie, ballast, grade crossing, and vegetation control	2013	FRAP ($750k - RRB 1012)		✓		✓				
MM	Port of Seattle	Argo Yard Truck Roadway (East Marginal Way Truck Crossover)	FMSIB	Improve safety of truck access to the gate of UP's Argo Yard from a newly designed intersection, eliminating difficult weaving maneuver.	2014	FMSIB - $0.995M								✓
C	Port of Vancouver	New Mainline Connection	FMSIB	Provide direct access to the port from the east by constructing new rail connection in a concrete trench along the Columbia River. Will eliminate at-grade crossings, reduce delays, congestion and improve port operations.	2015	FMSIB - $2.94M HSIPR $15.0M	✓		✓	✓	✓		✓	✓

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
MM	Port of Vancouver	West Vancouver Freight Access	Washington State 2010 - 2030 Freight Rail Plan, RTPOs (Forward Washington, and http://www.portvanusa.com/wvafa/funding/	This project consists of 21 independent elements, including construction of a new dual carrier rail access into the port, rail system enhancements, relocation of facilities and utilities and improvements to roadways.	2017	Port of Vancouver ($173.3M), Tenants ($46M), WSDOT HSIPR grant ($15M), FMSIB grant ($13.5M), Tiger II grant ($10M), BNSF Railway ($8.1M), FRA grant ($3.8M), ARRA 2009 grant ($2.5M), FHWA grant ($1.6M), WSDOT FRAP grant ($0.5M)	✓		✓	✓	✓			✓
O	Port of Walla Walla	Build/Relocate Tracks	WSDOT Freight Rail Monthly Report October 2013	Build/relocate tracks totaling approximately 6,403 feet to support development of a new $20 million wind transload warehouse currently under construction.	2015	FRAP ($750k - RRB 1063), FRIB ($250k - RRB 1064)				✓				
O	Richland	Horn Rapids Rail Siding	WSDOT Freight Rail Monthly Report October 2013	Construct a rail siding	2015	FRIB ($400k - RRB TBD)				✓				
O	Spokane County	Geiger Spur Improvements	WSDOT Freight Rail Monthly Report October 2013	Rehabilitate Geiger Spur from eastern end of Hayford Road to the switch at the junction with the realigned spur at McFarlane by replacing damaged rail, ballast renewal, tie replacement and crossing repairs.	2013	FRAP ($198K - RRB 1019), FRIB ($180K - RRB 1018)		✓		✓				
S	Tacoma	Tacoma Rail – East Loop Track Rehabilitation	WSDOT Freight Rail Monthly Report October 2013	Remove and replace old worn (72 lb. and 85 lb.) rail with 115 lb. Rail, 30% crosstie replacement, and surface. Also expand existing right-of-way to improve operational flexibility and efficiency.	2015	FRIB ($773k – RRB 1053)	✓	✓	✓					
S	Tacoma	Tacoma Rail – North Yard Track Upgrade	WSDOT Freight Rail Monthly Report October 2013	Remove and replace worn 112 lb. rail in the North Yard Track that provides access to the Port of Tacoma's North Intermodal Yard.	2015	FRIB ($366k - RRB 1046)		✓	✓					

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
S	Tacoma	Tacoma Rail – Port Pass Track Upgrade	WSDOT Freight Rail Monthly Report October 2013	Remove and replace worn 115 lb. rail in the Tacoma Yard. Ensures support for 286k railcars.	2015	FRIB ($250k - RRB 1046)	✓	✓	✓					
S	Tacoma	Tacoma Rail – Replace Yard Tracks 8 & 9	WSDOT Freight Rail Monthly Report October 2013	Remove and replace old worn (85 lb.) rail with 115 lb. Rail, 30% crosstie replacement, and surface on Yard Tracks 8 & 9.	2015	FRIB ($823k - RRB 1045)		✓	✓					
S	Tacoma	Tacoma Rail – Taylor Way Yard Track Rehabilitation	WSDOT Freight Rail Monthly Report October 2013	Remove and replace old worn (72 lb. and 90 lb. rail) with 115 lb. rail making up the Taylor Way tracks, and extend tracks by 1,400 feet from 2,400 feet.	2015	FRIB ($1.1M - RRB 1054)	✓	✓	✓					
S	Tacoma	Tacoma Rail – West Loop Track Rehabilitation	WSDOT Freight Rail Monthly Report October 2013	Remove and replace old worn (85 lb.) rail with 115 lb. Rail, 30% crosstie replacement, surface, and pave 370 ft. of track.	2015	FRIB ($515k - RRB 1055)	✓	✓	✓					
S	Tacoma	Tacoma Rail Yard Rail Replacement	WSDOT Freight Rail Monthly Report October 2013	Remove and replace old worn (85 lb.) rail with 115 lb. Rail, 30% crosstie replacement, and surface.	2013	FRIB ($364k - RRB 1030)		✓	✓					
C	Wallula	Sun Harbor New Siding	UP	Increase fluidity	5-year plan	UP	✓		✓		✓	✓		
Projected Completion by 2025														
O	Cowlitz County	SR 432 Corridor Improvements	CWCOG Metropolitan Region Transportation Plan:	Rail and highway improvements. Short-term elements: Preliminary analysis, final design, environmental, engineering for rail and highway. Long-term: ROW and CN - Single point urban interchange and rail improvements			✓		✓	✓			✓	
O	Grays Harbor County	Port of Grays Harbor Rail Car Storage	CWCOG Metropolitan Region Transportation Plan	Design and construction of a rail car storage yard to relieve rail conflicts in downtown Aberdeen from train switching movements across at-grade street crossings. Construct two new rail sidings.			✓		✓	✓	✓	✓	✓	

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
O	Moses Lake	Moses Lake industrial rail development	WSDOT Project List	Provide rail service to lands designated for industrial development in the northern part of the City of Moses Lake as well as to the south and east of the Grant County International Airport (GCIA), to enhance opportunities for economic development, and to attract new rail-dependent businesses to those areas. Entails construction of two new rail lines and the acquisition and refurbishment of an existing rail alignment.						✓	✓			
O	Port of Tacoma	Additional Arrival and Departure Tracks	Port of Tacoma Strategic Plan 2012-2022	Construct additional tracks to arrive and depart trains which will increase capacity in support of current and anticipated freight rail volumes.			✓				✓			
O	Port of Tacoma	Port Transfer Yard Connection	Port of Tacoma Strategic Plan 2012-2022	New connection from the Port Transfer Yard to existing tracks along Lincoln Avenue providing a direct access route to US Oil and reduce road/rail congestion on Port of Tacoma Road			✓		✓		✓			
C	Puget Sound – Eastern Washington	Comprehensive East-West Corridor Capacity Study	WSDOT	Revisit 2006 Washington State Rail Capacity Study to address evolving capacity needs between Puget Sound and eastern Washington. Study will examine full range of freight and passenger needs and potential options.			✓		✓	✓	✓		✓	✓
MM	Quincy	Port of Quincy Intermodal Terminal	WSDOT Project List	Expand intermodal terminal to serve perishable agricultural commodities.						✓				
S	Spokane County	CW Line Rail Relay & Rehabilitation - Phase I	PCC Strategic Plan 2013	Replace worn rail, rebuild right-of-way and improve aged at-grade highway/rail grade crossings along 6.9 miles of the CW Branch of the PCC Rail System. Will enable load-bearing weight capacity up to 315,000 pounds and allow 25 miles-per-hour over the rebuilt rail segment.				✓	✓	✓	✓			
S	Spokane & Whitman County	P&L Bridge Replacement & Repair - Phase II	PCC Strategic Plan 2013	Coordinate with $21 million plus private investment in new grain terminal by McCoy Grain Terminal LLC to replace or repair 15 bridges along the first 32 miles of the P&L branch of the PCC Rail System.				✓	✓	✓	✓			

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
C	Sumner	Sumner Connection	Port of Seattle Century Agenda	Construct connection between the UP and BNSF main lines in the Sumner area using partial existing right-of-way. Allows UP trains to operate over BNSF for the full distance between Black River and Reservation (Tacoma). BNSF trains to and from the Tideflats would operate over UP between Fife Yard and Sumner, and UP could directly access Stampede Pass. Requires agreement between BNSF and UP to permit co-production over their respective lines.			✓		✓	✓	✓			
Projected Completion by 2035														
O	Port of Pasco	Big Pasco Rail Rehabilitation	RTPO's / Forward Washington	Reconstruct 5 miles of rail at Big Pasco, an industrial center, to help improve access to agricultural and industrial shippers which can in turn attract business to the port. A 4 Phase intermodal facility improvements project was completed in 2010.			✓							
O	Port of Seattle	Duwamish Corridor Concept	Port of Seattle Century Agenda	Create a connection between the UP Argo yard and the BNSF Harbor Island line using a combination of UP and BNSF trackage. Requires agreement between BNSF and UP to permit co-production over their respective lines. Project was originally proposed in the Port of Seattle's January 1997, Intermodal Rail Access Study.			✓		✓	✓	✓			
O	Port of Tacoma	Double-end Pierce County IMX Yard	Port of Tacoma Strategic Plan 2012-2022	Double end Pierce County Terminal intermodal yard to improve productivity, efficiency and connectivity to the overall rail system in the Tideflats. Key benefit will be the ability to allow concurrent train movements in area rather than single movements.			✓		✓		✓			
O	Port of Tacoma	Double-end Washington United Terminals IMX Yard	Port of Tacoma Strategic Plan 2012-2022	Connect northerly end of the Washington United Terminals IMX yard to rail line on the west side of the Port of Tacoma Yard.			✓		✓		✓			

Type	Location	Project Name	Source	Description	Completion Year	Funding Source(s) and amounts	Areas of Impact							
							System Capacity	System Preservation	Efficiency & Reliability	Economic Development	International Trade	Cost-Effective Investments	Environment & Community	Safety & Security
O	Port of Tacoma	East End Yard Reconfiguration	Port of Tacoma Strategic Plan 2012-2022	Redesign the East-end of Tacoma Rail's classification yard to work in concert with other planned improvements to increase throughput at port and improve operational flexibility.			✓		✓		✓			
O	Port of Tacoma	West End Reconfiguration	Port of Tacoma Strategic Plan 2012-2022	Redesign the primary access point of interchange with Tacoma Rail and area Class I railroads. Improves through port velocity and allows additional short-line operational flexibility by affording the ability to make congruent train movements simultaneously.			✓		✓		✓			
O	Port of Vancouver	Port of Vancouver USA North Connection	BNSF / Port of Vancouver USA	After selection of a preferred route, this project will construct a north connection between Port of Vancouver USA and BNSF's Seattle Subdivision to improve operational flexibility.					✓		✓			
C	Puget Sound – Eastern Washington	East-West Corridor Capacity Improvements	WSDOT	Complete necessary improvements to provide market-responsive capacity between Puget Sound and eastern Washington.			✓		✓	✓	✓		✓	✓
S	Vancouver	Columbia Shores (S. of SR 14)	Short-line railroad host	Rail Trestle, Widen Portal. Unnamed on-ramp to SR 14 near intersection of SE Columbia Way and SE Marine Park Way.				✓						✓

Table 2.5 Planned & Programmed Grade Crossing Improvements

Location	Project Name	Source	Description	Completion Year	Funding Source(s) and Amounts	Areas of Impact				
						System Capacity	Efficiency & Reliability	International Trade	Environment & Community	Safety & Security
Committed, Completion by 2018										
Auburn	37th & B ST NW Railroad Crossing Safety Improvements	City of Auburn	Design, coordination, permitting and construction of improvements at the 37th St NW BNSF Railroad crossing. Include construction of a pre-signal and related signal modification at B St NW, advanced railroad pre-emption, and traffic monitoring cameras.	2014	Federal safety grant - $.3M		✓			✓
Kent	South 212th St Grade Separation	FMSIB	This project will construct RR grade separation at the BNSF and UP rail line. Benefits will mostly accrue to roadway users, but there may be community and rail safety benefits from the grade separation.	2017	FMSIB - $10M				✓	✓
Marysville	Citywide Intersection Safety Improvements	Washington Statewide Transportation Improvement Program	The Citywide Intersection Safety Improvement Project will upgrade pedestrian signal displays, retroflective backplate tape to signal heads, upgrade mast arm signage, add intersection lighting and improve railroad preemption at various signalized intersections within the City of Marysville.	2014	HSIP - $.3M		✓			✓
Sedro-Woolley	Construction of BNSF RR Bridge - SR 20 Corridor Freight Mobility & Revitalization Project Phase 2B	City of Sedro Woolley	Construct a new BNSF railroad bridge connecting John Liner Road with Jones Road. Benefits will mostly accrue on the highway side, but there may be rail safety benefits from the track relocation.	2015	Skagit County, WSDOT, TIB Urban Arterial Program funds, Skagit Transit funds, private developer. Total cost $6.1M				✓	✓
Spokane	North Spokane Corridor Railroad Realignment	TIGER IV Project	Continued construction of the US 395 North Spokane Corridor (NSC). Relocates 7.5 miles of railroad line. Benefits will mostly accrue on the highway side, but there may be rail safety benefits from the track relocation.	2015	Tiger IV - $10M				✓	✓
Yakima	Yakima Grade Separated Rail Crossing	FMSIB	Construct two underpasses under BNSF mainline. It will be critical to improve truck freight movement, emergency vehicles and vehicles into/out of downtown area. Benefits will mostly accrue to roadway users, but there may be community and rail safety benefits from the grade separation.	2014	FMSIB - $7M				✓	✓

Location	Project Name	Source	Description	Completion Year	Funding Source(s) and Amounts	Areas of Impact				
						System Capacity	Efficiency & Reliability	International Trade	Environment & Community	Safety & Security
Projected Completion by 2018										
Kelso	Yew Street Grade Separation	City of Kelso	Provide safe crossing of busy BNSF rail line. Benefits will mostly accrue to roadway users, but there may be community and rail safety benefits from the grade separation.	2017					✓	✓
Kent	South 228th St Grade Separation over UP tracks Phase III	FMSIB	Grade separation between the UP tracks at S. 228th Street via an over-crossing. To accommodate the over crossing, associated improvements will include driveway improvements for the adjacent businesses, to accommodate access, concrete curbs, gutters, and sidewalks, storm drainage improvements, geogrid reinforced block walls, and new lighting.	2015	STPD-1216(004)					✓
Kent	South 228th St BNSF /UP Grade Separation Phase III	FMSIB	This is phase III of a project to grade separate S. 228th St from UP mainline traffic. It will decrease congestion, enhance safety, improve mobility, and provide connection to 40M sq. ft of industrial space. Benefits will mostly accrue to roadway users, but there may be community and rail safety benefits from the grade separation.	2017	FMSIB -$3.25m; Kent - $2.0M; Federal - $3.12m; Unfunded (anticipated) $16.63M				✓	✓
Tacoma	Canyon Road Northerly Extension / BNSF Railway Overcrossing	FAST Corridor	Construct a new overpass of the BNSF Railway mainline from Pioneer Way to 62nd Avenue East. Also arterial roadway extension of Canyon Road from Pioneer Way across the Puyallup River. Will increase capacity for roadway freight and goods movement and provide a more direct route to the Port of Tacoma from the manufacturing and industrial businesses in the Fredrickson and Sunrise/Thun Field employment centers.	2017	Pierce Co. - $10.2m; FMSIB - $2.0m; Fed. $3.2m; "Anticipated" / unfunded $24.2M	✓		✓		✓
Ridgefield	Extend Pioneer St. (SR 501 to Port)	City of Ridgefield/Port of Ridgefield	Railroad overcrossing for new road, with benefits accruing to roadway users. Project will result in community and rail safety benefits.	2018	$3.5M FHWA, $12.5M total cost				✓	✓
Projected Completion by 2025										
Kent	Willis St (SR 516) Grade Separations	FMSIB	Grade separate Willis St from BNSF and UP to provide link through the warehouse/industrial center of Kent. Project will reduce delays, eliminate at-grade conflicts and allow increased train speeds. Benefits will mostly accrue to roadway users, but there may be community and rail safety benefits from the grade separation.		City of Kent - $9.4M, FMSIB-$4M, TIB-$10M, BNSF&UP – $5.35m, FAST-$17M, Ports - $5M, Other - $6.25M		✓		✓	✓

Location	Project Name	Source	Description	Completion Year	Funding Source(s) and Amounts	Areas of Impact				
						System Capacity	Efficiency & Reliability	International Trade	Environment & Community	Safety & Security
Spokane Valley	Barker Road/BNSF Grade Separation	FMSIB / City of Spokane Valley	This project reconstructs Barker Road to pass over three BNSF tracks and SR 290. This will allow the City to petition to close Flora Rd crossing. Benefits will mostly accrue to roadway users, but there may be rail safety benefits from the grade separation.		FMSIB - $10M (total amount $49.1M); Project is currently delayed due to incomplete funding				✓	✓
Tukwila / Renton	SW 17th/Strander Boulevard Extension	PSRC / City of Tukwila	This project includes construction of a railroad underpass, and will provide better cross-valley transportation access by extension of an arterial that connects the cities of Tukwila and Renton. The extension will connect Renton to the Tukwila Longacres Station (Sounder and Amtrak Cascades) and will provide an alternative truck route, removing 55,000 vehicles from nearby I-405 and SR-167 as well as 40% of the traffic on the parallel course of South 180th Street.		Initial phases complete. Additional phases have incomplete funding.				✓	
Washougal	27th St Extension and RR Overpass	RTPO's / Forward Washington	RR grade separated overpass, bike lanes and sidewalk. Benefits will mostly accrue to roadway users, but there may be community and rail safety benefits from the grade separation.						✓	✓
Wenatchee	Relocate Terminal	City of Wenatchee	Relocate terminal from south of Orondo Street to Appleyard. Reduces blocking of at-grade crossings in the city.	.					✓	
Projected Completion by 2035										
Seattle	Dearborn and Spokane Streets Grade Separation	City of Seattle Department of Transportation	Construction of highway bridge over BNSF main line between Dearborn and Spokane Streets.					✓	✓	✓
Seattle	Lander Street Grade Separation	City of Seattle Department of Transportation (FAST 2)	Proposed bridge over BNSF Railway Tracks, connecting First Avenue South and Fourth Avenue South. This project was placed on hold as of March 2008 due to funding limitations. The future schedule of the project is unknown at this time, though this project remains a priority for SDOT.					✓	✓	✓