ALTERNATIVE PACKAGES COLUMBIA RIVER CROSSING



Updated: 11/28/06

Preliminary Alternative Packaging Process

The selected highway and transit ideas have been combined into 12 preliminary alternative packages to test how they perform together. Testing these alternative packages will highlight the strengths and weaknesses of individual components, and identify the most promising combinations. Each alternative package includes both a river crossing and transit component as well as components to improve safety, freight movement, highway operations and bicycle and pedestrian access. A "no action" package will be studied, and will serve as a baseline for comparisons. Later this year, high-performing components will be repackaged to build three to four alternatives that offer a range of strong solutions. These most promising alternatives will be analyzed in detail to determine cost, engineering design, and environmental and community impacts. A full report of this analysis, called the Draft Environmental Impact Statement, is expected to be complete at the end of 2007.

Bridge Crossing and Public Transportation Options Selected for Review

The project team is investigating many types of solutions to safety and congestion problems in the Columbia River Crossing project area. The team started with 23 ideas to improve or replace the Interstate Bridge and 14 ideas to improve transit service between Vancouver and Portland.

Staff and the 39-member task force worked to reduce the number of ideas for additional analysis. The following river crossing ideas are being further studied:

- Mid-level replacement bridge (RC-3, RC-4)
- Mid-level supplemental bridge downstream of existing structure (RC-9)
- Arterial crossing combined with improvements to I-5 (RC-23)

The following public transit ideas will be further studied:

- Express buses (TR-1, TR-2)
- Bus rapid transit (TR-3, TR-4)
- Light rail (TR-5)



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Updates to Alternative Package Descriptions

This third edition is revised from second edition published on August 22, 2006. This document was originally prepared for the Columbia River Crossing Task Force meeting on July 12, 2006.

Changes to this version:

In Alternative Packages 6 and 7, the Hayden Island interchange will *not* be removed, but instead will be reconfigured. Exact text changes are as follows:

Deleted Alternative Package 6–Supplemental Bridge for I-5; Bus Rapid Transit Lite on Existing Bridge

Highways: "Remove Hayden Island interchange; no direct access to Hayden Island from I-5"

Edited Alternative Package 6– Supplemental Bridge for I-5; Bus Rapid Transit Lite on Existing Bridge

Highways: "Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th

Plain, SR 500 and 39th"

Deleted Alternative Package 7 – Supplemental Bridge for I-5 and Express Bus

Highways: "Remove Hayden Island interchange; no direct access to Hayden Island from I-5"

Edited Alternative Package 7–Supplemental Bridge for I-5 and Express Bus

Highways: "Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th

Plain, SR 500 and 39th $\!\!^{\prime\prime}$



No Action

River Crossing

No new river crossing or improvements to the existing bridges

I-5 traffic remains on existing bridges

Transit

No changes to existing local and express bus transit, other than growth and/or reduction in service consistent with long term plans by C-TRAN and TriMet

Express bus

Local bus

Transportation System/Transportation Demand Management

Basic level

Highways

Currently planned and programmed projects throughout the region move forward, consistent with Metro's Regional Transportation Plan and RTC's Metropolitan Transportation Plan. Planned improvements to I-5 between Delta Park and Lombard Avenue in Oregon will occur.

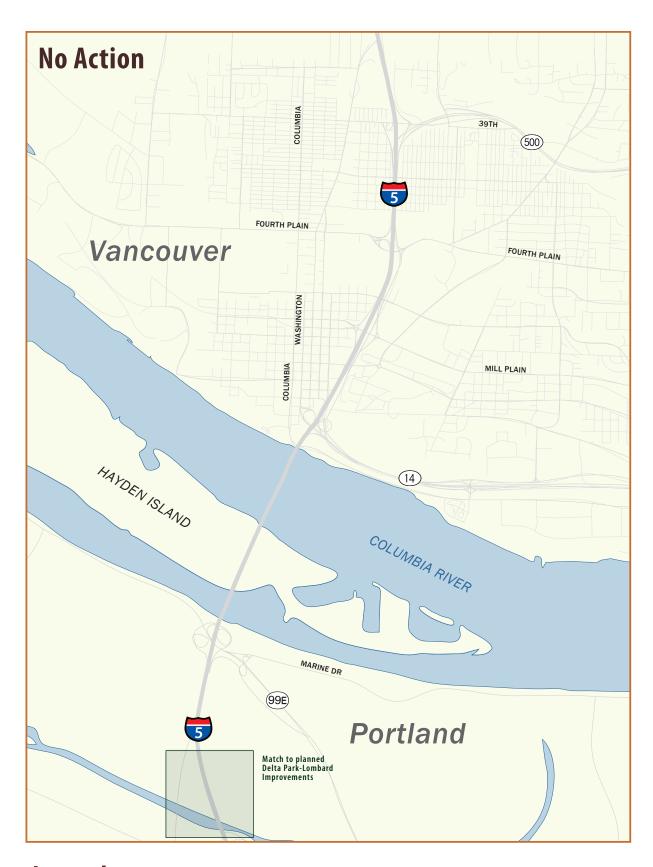
Freight

No freight-specific improvements

Bicycle/Pedestrian

No specific improvements

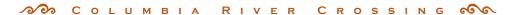












Transportation System Management/Transportation Demand Management Focus

River Crossing

No new river crossing or improvements to the existing bridges

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I-5 traffic remains on existing bridges

Transit

Existing express bus and local bus service would be increased from current levels.

Transit service would continue to use general purpose travel lanes.

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Express bus

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Local bus

Transportation System/Transportation Demand Management

Aggressive level

Highways

Targeted safety improvements in high accident areas

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Currently planned and programmed projects throughout the region move forward, consistent with Metro's Regional Transportation Plan and RTC's Metropolitan Transportation Plan. Planned improvements to I-5 between Delta Park and Lombard Avenue in Oregon will occur.

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Managed lanes on I-5 for HOV and transit between 134th and SR 500

Freight

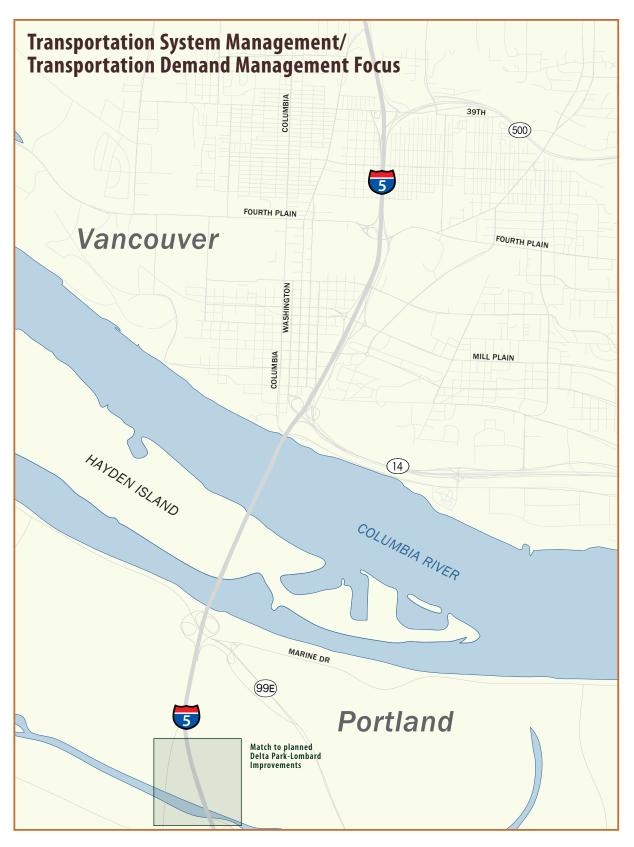
No freight-specific improvements

Bicycle/Pedestrian

Improvements on the existing bridges with enhanced connections to North Portland, Hayden Island and downtown Vancouver



| DISCLAIMER | These maps and descriptions are for discussion purposes only and are subject to change.









Supplemental Bridge for Arterial Traffic with Light Rail

River Crossing

New arterial bridge to the west that also carries light rail \sim

Existing bridges carry I-5 traffic

Transit

Extend MAX Yellow Line light rail to north of downtown Vancouver

Express Bus

Local bus

Transportation System/Transportation Demand Management

Aggressive level

Highways

Targeted safety improvements in high accident areas

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Arterial connections between Marine Drive, Hayden Island and downtown Vancouver

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Remove Hayden Island interchange; no direct access to Hayden Island from I-5

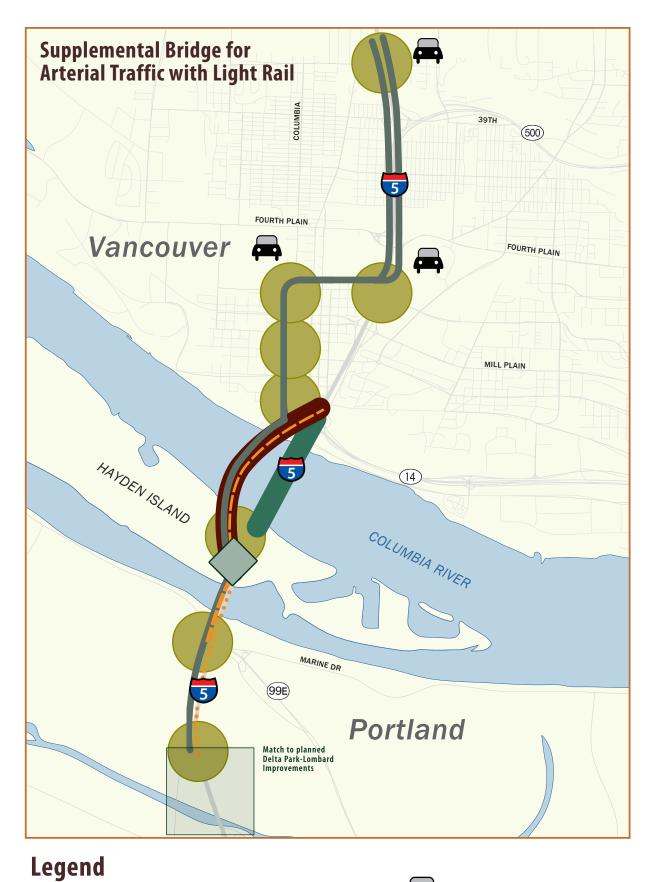
Freight

Freight bypass on-ramp lanes at key interchanges to be determined

Bicycle and Pedestrian Improvements

Improvements on the existing bridges with enhanced connections to North Portland, Hayden Island and downtown Vancouver











Supplemental Bridge for I-5; Light Rail on Existing Bridge

River Crossing

New I-5 bridge west of existing bridge

Existing bridges carry light rail and arterial traffic

Transit

Extend MAX Yellow Line light rail to north of downtown Vancouver

Local bus

Transportation System/ Transportation Demand Management

Aggressive level

Highways

Safety improvements throughout the corridor

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Interchange reconfigurations at Marine Drive, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

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Arterial connections between Marine Drive, Hayden Island and downtown Vancouver

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Remove Hayden Island interchange; no direct access to Hayden Island from I-5

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Managed lanes on I-5 for HOV and/or freight use between 134th and Delta Park

Freight

Potential managed lanes for freight

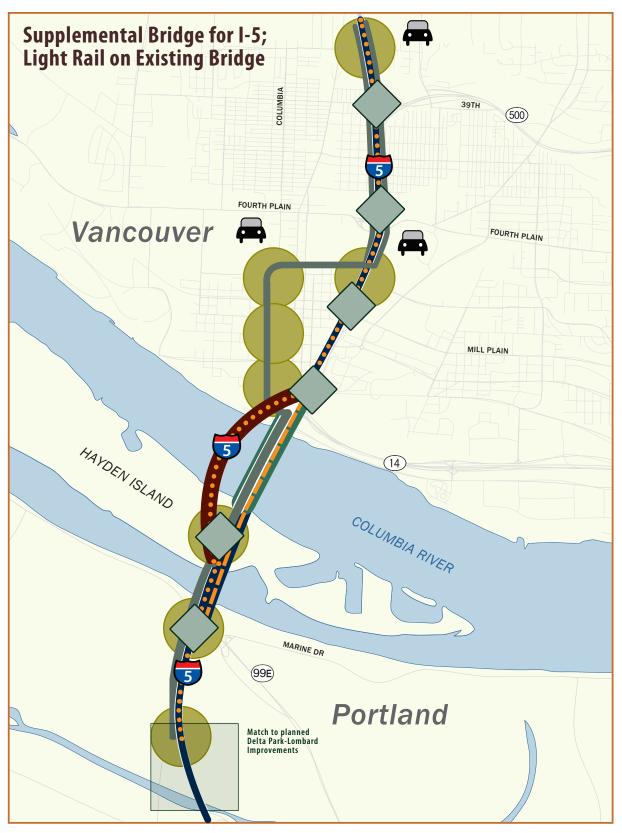
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Freight bypass on-ramp lanes at key interchanges to be determined

Bicycle and Pedestrian Improvements

Improvements on the existing bridges with enhanced connections to North Portland, Hayden Island and downtown Vancouver







🧀 COLUMBIA RIVER CROSSING 👀

Balanced Transit/Highway Emphasis

Supplemental Bridge for I-5; **Bus Rapid Transit on Existing Bridge**

River Crossing

New I-5 bridge west of existing bridge

Existing bridges carry Bus Rapid Transit and arterial traffic

Transit

Bus Rapid Transit in dedicated lanes from north of downtown Vancouver to Delta Park

Local bus

Express bus in managed lanes across new bridge

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

Interchange reconfigurations at Marine Drive, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

Arterial connections between Marine Drive, Hayden Island and downtown Vancouver

Remove Hayden Island interchange; no direct access to Hayden Island from I-5

Managed lanes on I-5 for HOV and/or freight use between 134th and Delta Park

Freight

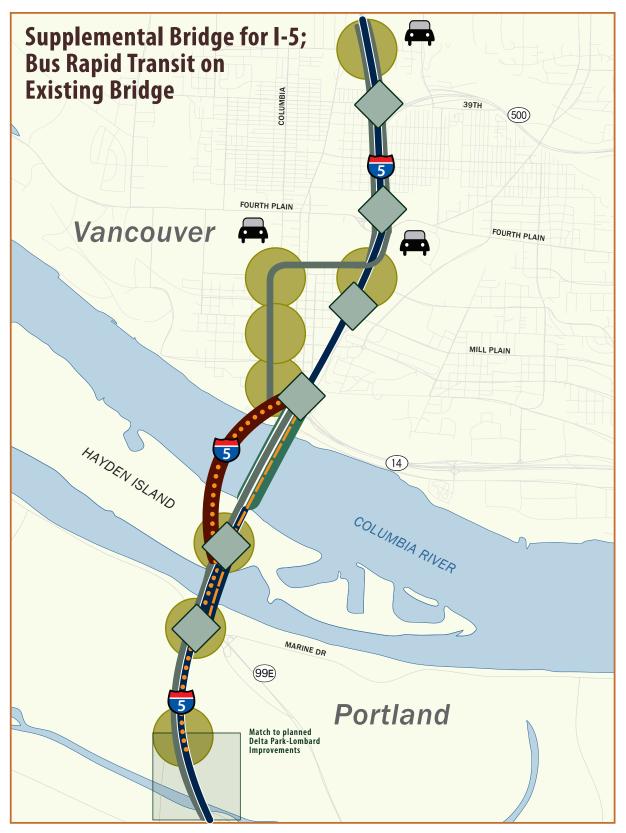
Potential managed lanes for freight

Freight bypass on-ramp lanes at key interchanges to be determined

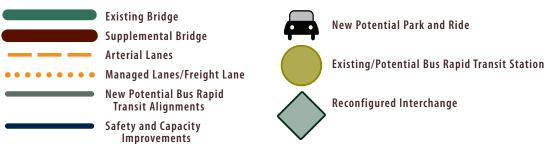
Bicycle and Pedestrian Improvements

Improvements on the existing bridges with enhanced connections to North Portland, Hayden Island and downtown Vancouver









20 COLUMBIA RIVER CROSSING

Supplemental Bridge for I-5; Bus Rapid Transit Lite on Existing Bridge

River Crossing

New I-5 bridge (west)

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Existing bridges carry Bus Rapid Transit Lite and arterial traffic

Transit

Bus Rapid Transit Lite service from Clark County park and ride lots to downtown Portland in general purpose and managed lanes

Local bus

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

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Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

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Arterial connections between Marine Drive, Hayden Island and downtown Vancouver

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Managed lanes on I-5 for HOV and/or freight use between 134th and Delta Park

Freight

Potential managed lanes for freight

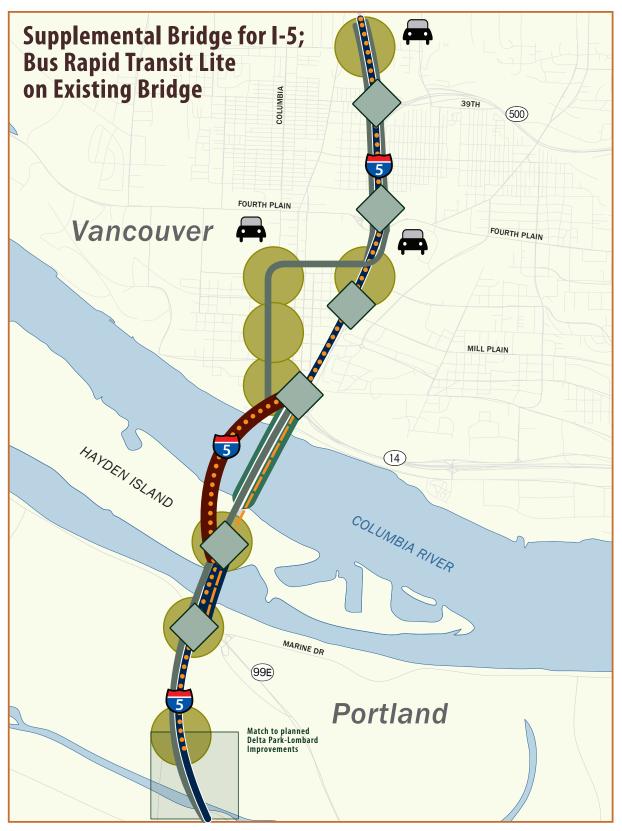
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Freight bypass on-ramp lanes at key interchanges to be determined

Bicycle and Pedestrian Improvements

Improvements on the existing bridges with enhanced connections to North Portland, Hayden Island and downtown Vancouver









Vehicle Capacity Emphasis Supplemental Bridge for I-5 and Express Bus

River Crossing

New I-5 bridge west

Existing bridges carry arterial traffic

Transit

Express bus service from new and expanded Clark County park and ride lots to downtown Portland

Local bus

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

Arterial connections between Marine Drive,

Hayden Island and downtown Vancouver

Managed lanes on I-5 for HOV and/or freight use between 134th and Delta Park

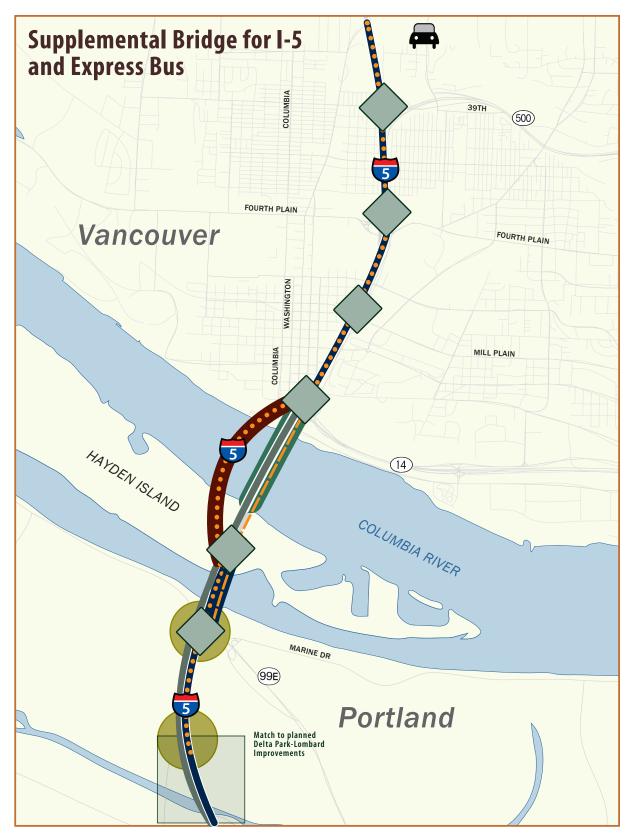
Freight

No freight-specific improvements

Bicycle and Pedestrian Improvements

Improvements on the existing bridges with enhanced connections to North Portland, Hayden Island and downtown Vancouver











Balanced Transit/Highway Emphasis Replacement Bridge for I-5 with Light Rail and Express Bus

River Crossing

New bridge (west) with light rail, general purpose lanes and managed lanes

Transit

Extend MAX Yellow Line light rail to north of downtown Vancouver

Express bus in managed lanes across new bridge

Local bus

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

Managed lanes on I-5 for transit and HOV use between 134th and Delta Park

Freight

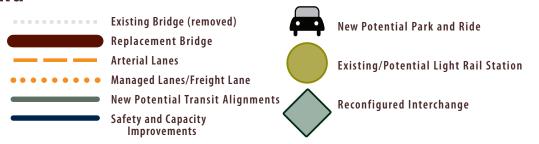
No freight-specific improvements

Bicycle and Pedestrian Improvements

Facilities on the new bridge with enhanced connections to North Portland, Hayden Island and downtown Vancouver









Balanced Transit/Highway Emphasis Replacement Bridge for I-5 with Light Rail

River Crossing

New bridge (west) with light rail, general purpose lanes and managed lanes

Transit

Extend MAX Yellow Line light rail to north of downtown Vancouver

Local Bus

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

Managed lanes for HOV and/or freight use between 134th and Delta Park

Freight

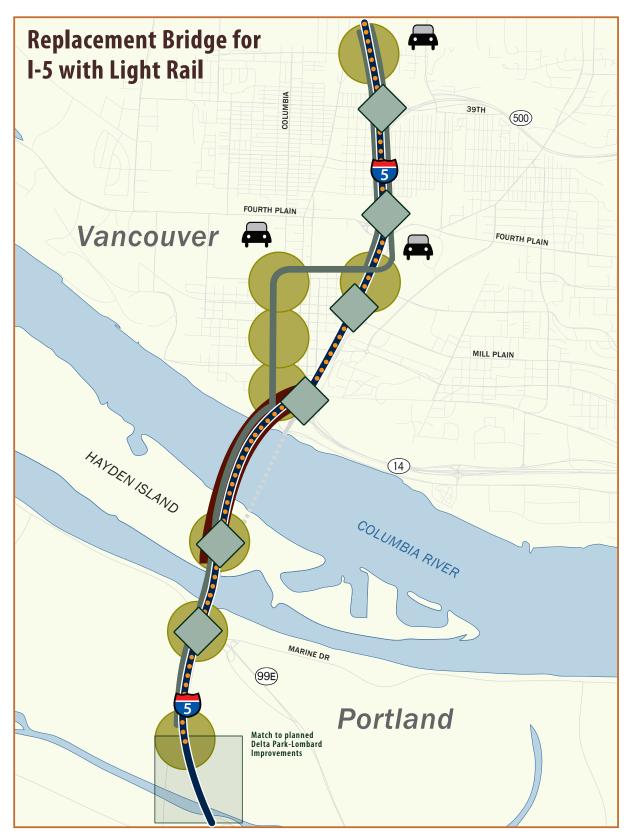
Freight bypass on-ramp lanes at key interchanges to be determined

Potential managed lanes for freight

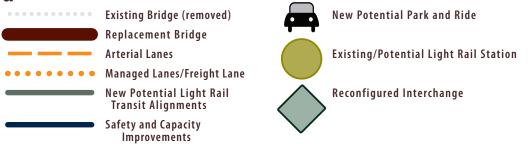
Bicycle and Pedestrian Improvements

Facilities on the new bridge with enhanced connections to North Portland, Hayden Island and downtown Vancouver









Balanced Transit/Highway Emphasis Replacement Bridge for I-5 with Bus Rapid Transit

River Crossing

New bridge (east) with general purpose lanes and managed lanes.

Bus Rapid Transit in separated right of way

Transit

Bus Rapid Transit service in dedicated right of way from north of downtown Vancouver to Delta Park

Local bus

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

Managed lanes on I-5 for transit and HOV use between 134th and Delta Park

Freight

Potential managed lanes for freight

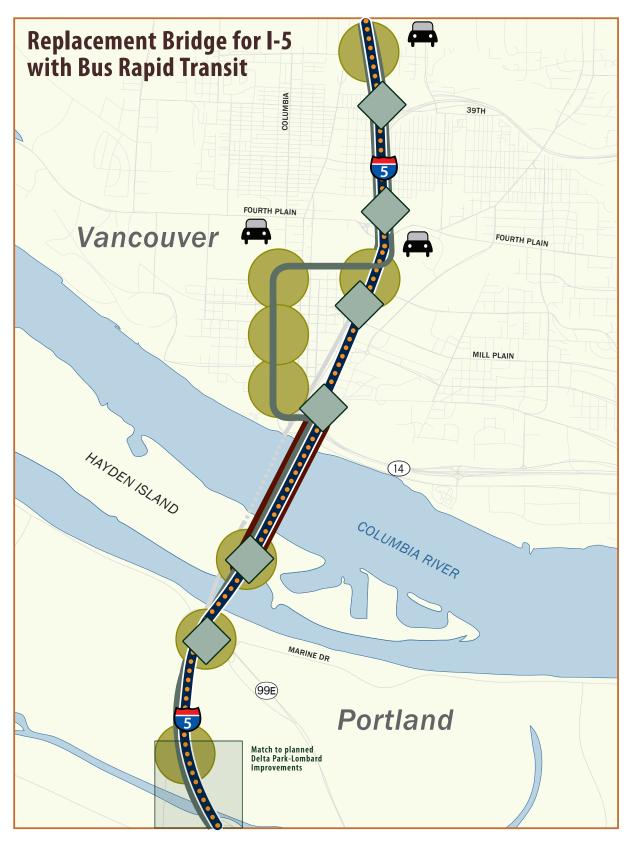
Freight bypass on-ramp lanes at key interchanges to be determined

Direct access ramps for freight at key locations to be determined

Bicycle and Pedestrian Improvements

Facilities on the new bridge with enhanced connections to North Portland, Hayden Island and downtown Vancouver











Replacement Bridge for I-5 with Bus Rapid Transit Lite

River Crossing

New bridge (west) with Bus Rapid Transit Lite in separated right of way

Transit

Bus Rapid Transit Lite service from Clark County park and ride lots to downtown Portland in general purpose and managed lanes

Local bus

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

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Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th Plain, SR 500 and 39th

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Managed lanes on I-5 for transit and HOV use between 134th and Delta Park

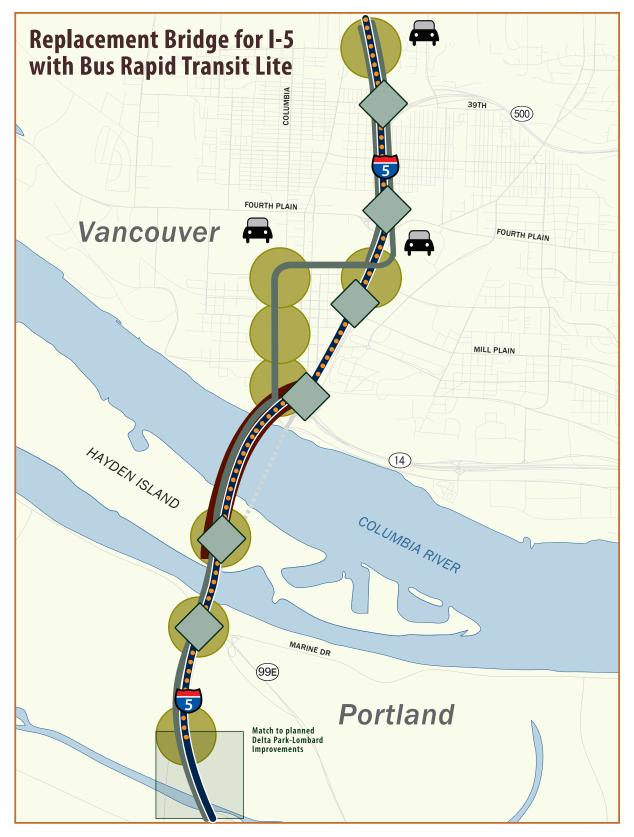
Freight

No freight-specific improvements

Bicycle and Pedestrian Improvements

Facilities on the new bridge with enhanced connections to North Portland, Hayden Island and downtown Vancouver









Replacement Bridge for I-5 with Express Bus

River Crossing

New bridge (east) with general purpose lanes

Transit

Express bus service from Clark County park and ride lots to downtown Portland

Local bus

Transportation System/Transportation Demand Management

Aggressive

Highways

Safety improvements throughout the corridor

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Interchange reconfigurations at Marine Drive, Hayden Island, SR-14, Mill Plain, 4th P lain, SR 500 and 39th

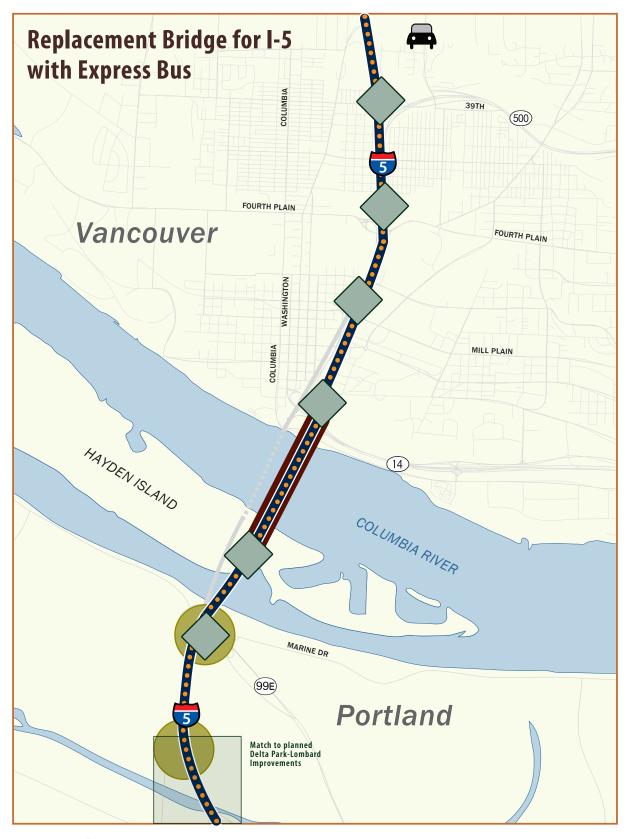
Freight

No freight-specific improvements

Bicycle and Pedestrian Improvements

Facilities on the new bridge with enhanced connections to North Portland, Hayden Island and downtown Vancouver











Columbia River CROSSING Preliminary Alternative Packages

Bike & Pedestrian Improvements	Function of New Bridge	Function of Existing Bridges	Other Transit Mode(s) across bridge	High Capacity Transit Mode across Col. River	Themes	Title	Alternative Package #	
N/A	N/A	I-5 General Purpose lanes	Express bus, local bus	None	No Action	No Action	1	Existing
<	N/A	I-5 General Purpose	Express bus, local bus	None	Minimum Investment: TDM/TSM Emphasis	Trans. System Management/ Trans. Demand Management	2	Existing Bridges Only
<	Arterial + Light Rail	I-5 General Purpose	Express bus, local bus	Light Rail	Maximum Transit Ridership, Minimum 1-5 improvements	Supplemental Bridge for Arterial Traffic with Light Rail	3	dns
<	I-5 w/ Managed Lane	Arterial+ Light Rail	Local bus	Light Rail	Balanced Transit/ Highway Improvements w/ Light Rail	Supplemental Bridge for I-5; Light Rail on Existing Bridge	4	plemental Bridge
<	I-5 w/ Managed Lane	Arterial+ Bus Rapid Transit	Express bus, local bus	Bus Rapid Transit	Balanced Transit/ Highway Improvements w/ Bus Rapid Transit	Supplemental Bridge for Bridge for I-5; Bus Rapid Transit on Existing Bridge	5	e (Downstream)
<	I-5 w/ Managed Lane	Arterial + Bus Rapid Transit	Local bus	Bus Rapid Transit -Lite	Balanced Transit/Highway Improvements w/ Bus Rapid Transit -Lite	Supplemental Bridge for I-5; Bus Rapid Transit Lite on Existing Bridge	6	Supplemental Bridge (Downstream) with Existing Bridges
<	I-5 w/ Managed Lane	Arterial	Express bus, local bus	None	Maximum Vehicle Capacity	Supplemental Bridge for I-5 and Express Bus	7	lges
<	I-5 w/ Managed Lane & Light Rail	N/A	Express bus, local bus	Light Rail	Balanced Transit/ Highway Improvements w/ Light Rail	Downstream Replacement Bridge for I-5 w/ Light Rail and Express Bus	8	
<	I-5 w/ Managed Lane & Light Rail	N/A	Local bus	Light Rail	Balanced Transit/ Highway Improvements w/ Light Rail	Downstream Replacement Bridge for I-5 w/ Light Rail	9	Re
<	I-5 w/ Managed Lane & Bus Rapid Transit	N/A	Local bus	Bus Rapid Transit	Balanced Transit/Highway Improvements w/ Bus Rapid Transit	Upstream Replacement Bridge for I-5 w/ Bus Rapid Transit	10	Replacement Bridge
<	I-5 w/ Managed Lane & Bus Rapid Transit	N/A	Local bus	Bus Rapid Transit -Lite	Balanced Transit/Highway Improvements w/ Bus Rapid Transit -Lite	Downstream Replacement Bridge for I-5 w/ Bus Rapid Transit Lite	11	Ø
<	I-5 w General Purpose lanes	N/A	Express Bus, local bus	None	Maximum Vehicle Capacity	Upstream Replacement Bridge for I-5 w/ Express Bus	12	

NOTE: These are preliminary and are subject to change prior to Draft Environmental Impact Statement.