

Potential Building Blocks

Through our Stakeholder Advisory Committee, we have reviewed projects that can serve as building blocks for a central waterfront solution. The SR 99 building blocks will be grouped with surface street, I-5, transit, and policy options to form system scenarios. The scenarios will be developed and evaluated in the coming months based on guiding principles.

Information on building blocks can be found at www.wsdot.wa.gov/projects/viaduct/library-meetingmaterials.htm.



Surface Street Building Block

Theme: Create strong east-west connections.

- Two-way Mercer Street, I-5 to Elliott Avenue
- Two way Roy Street, Fifth Avenue to Queen Anne Avenue
- New at-grade street crossings of Aurora Avenue North (Roy, Republican, Harrison, Thomas)
- Denny Way improvements
- SR 519 Phase 2
- South Lander Street overpass
- Spokane Street Viaduct widening
- Improvements to east-west arterials north of the Ship Canal

Theme: Distribute vehicles more efficiently into downtown from north and south.

- Signals on Aurora Avenue North (Roy, Republican, Harrison, Thomas)
- Improve downtown access on Fairview Avenue
- Two-way Sixth Avenue south of Denny Way
- New Alaskan Way surface street
- Second Avenue/Fourth Avenue one-way couplet, Airport Way South to South Washington Street
- First Avenue South – add lanes
- Spokane Street Viaduct ramp connections to First Avenue South and Fourth Avenue South

Theme: Increase north-south capacity through downtown.

- Alaskan Way surface street
- First Avenue South – two lanes each direction between South King Street and Cherry Street
- Second and Fourth avenues – add lane

- Two-way Eighth Avenue connecting to existing I-5 overpass
- Northbound Seventh Avenue with new I-5 overpass at Terry Avenue

Theme: Enhance downtown street grid.

- Surface street connections with Elliott Avenue and Western Avenue
- Two-way Virginia Street
- Three lanes on east-west streets
- New connections between First Avenue and Alaskan Way at Seneca Street and Columbia Street
- South Jackson Street – four lanes between Alaskan Way and Third Avenue South
- New street connections on north lot of Qwest Field
- Sixth Avenue – convert portion to two-way operation and/or extend southbound portion north to Seneca Street

Theme: Provide reliable truck routes.

- Two-way Mercer Street connecting I-5 with Elliott Avenue
- Open Second and Fourth avenues to large trucks
- Open Third Avenue to large trucks off peak
- Maintain a freight route on surface Alaskan Way
- Widen Spokane Street Viaduct and provide new access/exits
- Grade-separate trucks over BNSF tail track
- SR 519 – new westbound connection from I-5/I-90
- South Lander Street grade separation
- Provide truck loading zones in downtown Seattle

Theme: Keep transit moving quickly and reliably.

- Aurora Avenue North transit-only lanes
- Third Avenue transit priority
- Extend transit-only Third Avenue to all day
- First Avenue streetcar
- First Hill streetcar
- Two-way trolley service on Madison Street – Colman Dock to First Hill
- SR 99 transit/HOV lanes
- Industrial Way connection between I-5 and E-3 busway
- Second and Fourth avenues – add second transit-only lane at peak periods
- Fourth Avenue South – transit-only lanes
- Stewart Street/Olive Way/Howell Street transit-only lanes
- Convert Prefontaine Place South to two-way transit operations and connect to two-way Fifth Avenue between South Washington Street and South Jackson Street

Theme: Provide high-quality bicycle connections.

- Second Avenue and Fourth Avenue bike lanes or sharrows
- Alaskan Way bike lanes
- Pine Street bike lanes
- Bell Street/Blanchard Street bike lanes

- South Royal Brougham Way bike lanes (railroad crossing)
- Ninth Avenue bike lanes (Valley Street to Denny Way)

Theme: Provide high-quality pedestrian improvements.

- Aurora Avenue North – new at-grade pedestrian crossings
- Denny Way – improved pedestrian crossings
- Westlake Avenue – improved pedestrian crossings
- Alaskan Way – wider promenade and signalized crosswalks at every block
- Improve/add sidewalks over/under I-5
- Pedestrian improvements in transit hubs and spine
- Vine Street pedestrian bridge
- Marion Street pedestrian bridge
- New I-5 pedestrian bridge
- Bell Street – pedestrian improvements
- Mercer Street/Valley Street – pedestrian improvements



I-5 Building Block

Theme: Prioritize throughput over local access.

Replace or meter the following ramp:

- Southbound – Yale Avenue on-ramp

Close the following ramps:

- Northbound – Cherry Street on-ramp, Seneca Street off-ramp

Theme: Improve flow by reducing weaving.

- I-5 I-90 interchange

Theme: Operate the system more efficiently.

- Build off current intelligent transportation systems (active traffic management)
- Overhead gantries – variable speed limit and lane control signs
- Speed harmonization – maintain flow, reduce collision risk and provide queue warning
- Variable lane control – signals divert traffic away from trouble spots and improve emergency vehicle access
- Travel time signs – allow for better reroute decisions by travelers
- Automate reversible express lanes switch-over to reduce time of “lost capacity”
- Two-way HOV operations to provide reliable two-way operations
- Modify the north end of the reversible express lanes by separating HOV and general purpose lanes that merge into the mainline

Theme: Keep transit moving quickly and reliably.

- Northbound peak period transit-only shoulder - Olive Way to SR 520
- Industrial Way direct access

- Modify reversible ramp designations
- Improve HOV-lane performance
- Two-way express lanes
- Toll express lanes

Theme: Add capacity for vehicles and freight.

- Extend northbound I-5 collector-distributor road south to South Spokane Street/Columbian Way exit
- Add northbound lane between Seneca Street and SR 520
- Add southbound lane between SR 520 and South Spokane Street



Transit Building Block

Theme: Improve frequency of planned Rapid Ride service and add more routes.

Increase frequency of Rapid Ride routes under development: West Seattle, Ballard/Uptown, Aurora

New Routes

- Delridge
- Ballard to University District
- Lake City Way

Theme: Improve frequency, speed and reliability of major transit routes.

Urban Village Transit Network (UVTN)

- Increase frequency on the UVTN to provide service every 15 minutes, 18 hours per day, 7 days a week
- Improved stop spacing for speed and reliability
- Prioritize buses in traffic using bus only lanes, signal priority and in-lane stops

Rapid Trolley Network

- Improve the speed and reliability of existing electric bus operations
- Increase service levels to achieve high level of frequency and greater span of service span of service throughout the day
- Improved stop spacing for speed and reliability
- Prioritize buses in traffic using bus only lanes, signal priority and in-lane stops

Theme: Add new commuter-oriented routes to serve periphery of downtown.

- Increase frequency on existing routes to Central Business District
- Extend existing routes to serve major job centers on edge of Center City, such as First Hill, SODO and South Lake Union
- Create new routes to directly serve job centers at South Lake Union, SODO and First Hill

Theme: Add new streetcar lines.

- SODO to Seattle Center/Uptown Streetcar Line
- South Lake Union to University District Streetcar Line
- South Lake Union to Fremont/Ballard Streetcar Line
- International District Station to Broadway Station/First Hill Streetcar Line
- International District Station to 23rd Avenue Streetcar Line

Theme: Increase West Seattle ferry service.

- Increase fleet size to accommodate greater levels of service between West Seattle and Central Waterfront
- Improve surface transit connections to ferry terminals

Theme: Prioritize buses in traffic using bus only lanes, signal priority and bus stop spacing.

- Achieve transit speed goals on the Urban Village Transit Network (average transit speed equal or greater than 30% the speed limit)
- Prioritize bus service with bus-only lanes, in-lane stops, signal priority and optimized stop spacing
- Aurora Avenue transit-only lanes
- SR 99 transit or transit/HOV lanes between Spokane Street and downtown
- Transit only lanes on Elliott Avenue/15th Avenue W/NW
- Extend Third Avenue transit priority to Denny Way
- Extend transit-only Third Avenue to all day
- Two-way trolley service on Madison Street – Colman Dock to First Hill
- Simplify trolley network in Center City – reduce turns on Third Avenue and make stronger east-west connections between the Waterfront/First Avenue and First Hill
- Second and Fourth avenues – add second transit-only at peak periods
- Fourth Avenue South – transit-only lanes
- Convert Prefontaine Place to two-way transit operations, connecting Third Avenue transit corridor to two way transit operations on Fifth Avenue South
- Direct connection between SODO busway and Airport Way/Fifth Avenue

Theme: Extend Link light rail to provide service between downtown Seattle and Lynnwood, Redmond and Tacoma.

- University District to Northgate
- Northgate to Lynnwood
- Downtown to Redmond
- SeaTac to Tacoma
- Restructure existing bus services to feed light rail

Theme: Increase Sounder commuter rail service.

- Increased frequency and extend to all-day service
- Two-way peak period service
- Expand park and ride facilities



Transportation Policies and Management Building Block

Theme: Manage parking supply to reduce drive-alone commute trips and make short-term parking available for customers.

- Match the price of parking to the demand to manage capacity and length of stay
- Separate the cost of parking spaces from the cost of housing units
- Share parking to maximize use of available spaces throughout the day
- Implement parking guidance systems to direct drivers to lots and spaces

Theme: Reduce the overall number of cars on roads by promoting use of transit, walking and biking.

- Distribute transit passes to employees, students and residents of an area/complex/facility
- Improve transit information such as real-time bus and train information, rideshare-matching programs and personal trip coaching
- Promote bicycle use through bicycle-friendly pathways, integrating bikes with transit, Complete Street design, secure bike parking, and Bike to School programs
- Promote and support pedestrian travel through attractive sidewalks; traffic calming; wayfinding; and educational programs such as Share the Road, Safe Routes to School and Walking School Bus

Theme: Make transit an affordable, reliable and easy-to-use choice.

- Increase transit service on key corridors
- Implement the Urban Transit Village Network concept of service at least every 15-minutes and at least 18 hours a day in the highest use corridors
- Increase rail options including streetcar, light rail and commuter rail service
- Implement bus rapid transit service along with projects that ensure transit speed and reliability
- Improve the availability of transit information through a variety of media including an enhanced 511 information system
- Provide transit passes at the workplace and through major institutions such as universities

Theme: Reduce auto use by promoting higher density mixed-use development around transit nodes or corridors.

- Increase densities to at least 15-35 units per acre around transit centers and along transit corridors both in Seattle and suburban locations
- Plan station areas at higher densities
- Zone for mixed-use, including neighborhood-oriented retail serving the high-density residential areas
- Balance housing, jobs, shopping and other uses

Theme: Use employer-based strategies to encourage employees to travel by alternative modes.

- Use “parking cash out” to encourage use of alternative commutes
- Encourage employer-based programs such as tele-working, rideshare coordination and flexible hours
- Provide free or discounted transit passes at the work site

Theme: Use pricing to discourage peak period single-occupant auto travel.

- Toll bridges and roads – on entry or per mile (on exit)
- Create High-Occupancy Toll (HOT) lanes that allow non-HOVs to pay to use excess capacity in HOV lanes
- Vary toll rates based on real-time congestion information
- Design tolling to manage congestion downtown

Theme: Actively manage roadways to optimize throughput of people and goods.

- Reduce and remove obstacles
 - Aggressive towing for violations in bus lanes and loading zones
 - Rigorous incident management
- Provide active information to give travelers real-time choices
- Rationalize loading zones to provide truck access that does not conflict with other users
- Consider options that provide transit lanes and other types of priority to maximize the movement of people
- Consider alternative freight routes that provide adequate circulation through and around downtown

Theme: Manage traffic flow and give trucks and transit priority.

- Implement signal technology to improve flow
- Camera enforcement of bus lanes and stops
- Other techniques for faster and more reliable transit (see transit section)
- Priority at ramp meters for transit and/or trucks

Theme: Provide travelers with real-time information on transportation conditions and options.

- Enhanced 511 – easily accessible transit, road and other travel information
- Highway advisories: radio, e-mail and Web sites
- Dynamic message signs
- Satellite tracking on buses and direct passenger notification
- Personalized trip planning

Theme: Manage demand and congestion related to special events

- Provide shuttle services to and from events
- Make use of rail service
- Provide information to event attendees regarding best routes to venue
- Intersection management to keep buses and traffic moving through stadium area



SR 99 Building Block

The SR 99 building block represents more than 100 individual concepts that have been grouped into families for discussion. These families include potential options that have been considered in the past, as well as new concepts. Both previous and new concepts will be evaluated against the guiding principles.

Above-ground:

- Retrofit of existing viaduct
- Elliott Bay crossing
- Alaskan Way elevated roadway
- Integrated elevated roadway (adjacent buildings/right-of-way with potential park on roof)

Surface

- Alaskan Way boulevard
- Alaskan Way/Western Avenue – each street carries one way of opposing traffic
- Alaskan Way surface expressway

Below-ground

- Bored tunnel
- Cut and cover tunnel
- Depressed/lidded road