

April 26, 2024

Boeing Access Road Station - Vehicles



Overview

CMAQ request for 2 light rail vehicles (LRVs) required for Boeing Access Road (BAR) Station.

- BAR Station is a new, elevated light rail station in Tukwila, including a bus transfer facility, a new 300-stall parking facility, and pedestrian/bicycle access improvements.
- Adding a new station requires additional vehicles to maintain service levels.
- LRVs serve Link system. This presentation provides info on both the BAR Station & LRVs.



BAR Station is located south of Boeing Field / King Co International Airport, in the city of Tukwila.

Purpose and Need

- North Tukwila MIC has limited transit options and roadway congestion.
- By 2035, the MIC is estimated to have 25,000 people working in the center, a 40% increase over current figures, compounding transportation challenges.
- BAR Station included in Tukwila Comprehensive Plan and ST3 Plan.
- LRVs needed to maintain frequent service (every 8-minutes in peak periods/20 hours per day).



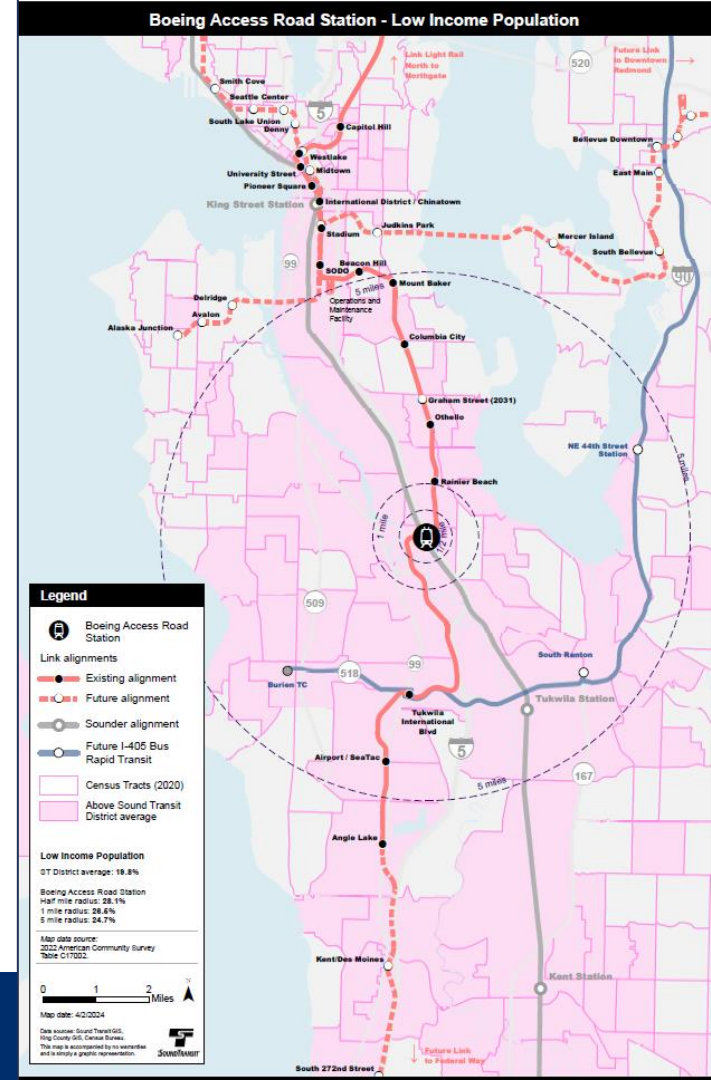
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- Boeing Access Road Station - Regional Growth and Manufacturing-Industrial Centers**
- Legend**
- Boeing Access Road Station
 - Link alignments
 - Existing alignment
 - Future alignment
 - Sounder alignment
 - Future I-405 Bus Rapid Transit
 - PSRC Manufacturing Industrial Center
 - PSRC Regional Growth Center
- Map date: 4/8/2022
 Data source: Sound Transit GIS, King County GIS, Puget Sound Regional Council
 This map is accompanied by no warranties and is solely a graphic representation.

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- 67% People of Color
- 23% LEP
- 28% People with Low Incomes

BAR Station will use ST's Racial Equity Tool and Equitable Engagement Tool for outreach and decision-making.



Major Employers in the MLC

- King County International Airport / Boeing Field and several Boeing buildings are in vicinity of the BAR Station.
- Museum of Flight, including afterschool program for high school students interested in careers in aviation.
- Raisbeck Aviation High School – public HS with aviation/aerospace/STEM program (410 students).
- Station designed in close coordination with King County Metro for seamless bus/rail transfers.
- Construction of station estimated to create 2,143 jobs (874 direct/1,269 indirect)



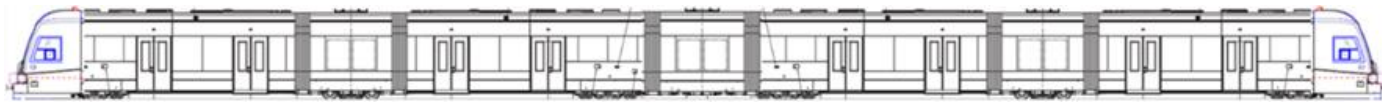
Frequent, Reliable Service, 20 Hrs a Day

- **Service over 20 hours a day** (5:00 AM to 1:30 AM). Service with 266 trips per day allows people who work non-traditional working hours to use transit.
- **Frequent service** (every 8 minutes during peak hrs; every 10 min in off-peak hrs and every 15 min very late/very early hrs).
- **Additional Access/Capacity:** One train has capacity for 930-1,000 passengers.
- **Ridership:** ~1,000 daily boardings at BAR Station.



“Series 3” Light Rail Vehicles

- Each 95-ft long section expected to carry 233-254 passengers, a 3%-12% improved capacity compared to Series 2 LRVs.
- Each Series 3 train has capacity for 930-1,000 passengers.
- Interior layout will focus on enhanced customer experience and accessibility.



“Open gangway,” 190-foot long car. (Current LRVs are 95-feet).



“Married pair” or 190-ft long car.

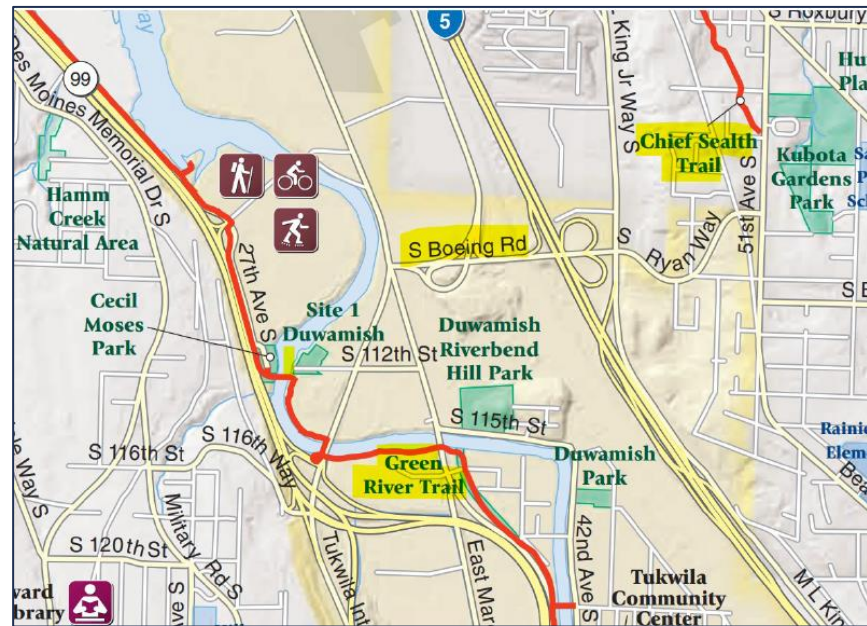
Multimodal Transportation

Travel time savings from BAR Station

- ✓ Sea-Tac Airport: ~ 10 minutes and Downtown Seattle: ~ 26 minutes
- Bus transfer facility in partnership with KCM
- Total of \$16M reserved for access and bus/rail integration
- Bike parking for 30-100 bikes.
- BAR Station includes P&R with 300 stalls.
 - Current Link P&R facilities are over 90% utilized.
 - ST Parking Policy (2024 update) prioritizes increasing transit ridership and includes daily fees and reserved permits to respond to parking demand (with discounts for low-income passengers and carpools).

BAR Station & Access to Regional Trails

- Green River Trail is less than 1/2 mile from BAR Station.
- ST's Access fund is \$12M and Bus/Rail Integration Allowance is \$4M, to fund a bus transfer facility and significant access improvements to surrounding residential and industrial areas.
- Several nearby parks - Cecil Moses Memorial Park, Duwamish Riverbend Hill Park, and the Green River Trail.

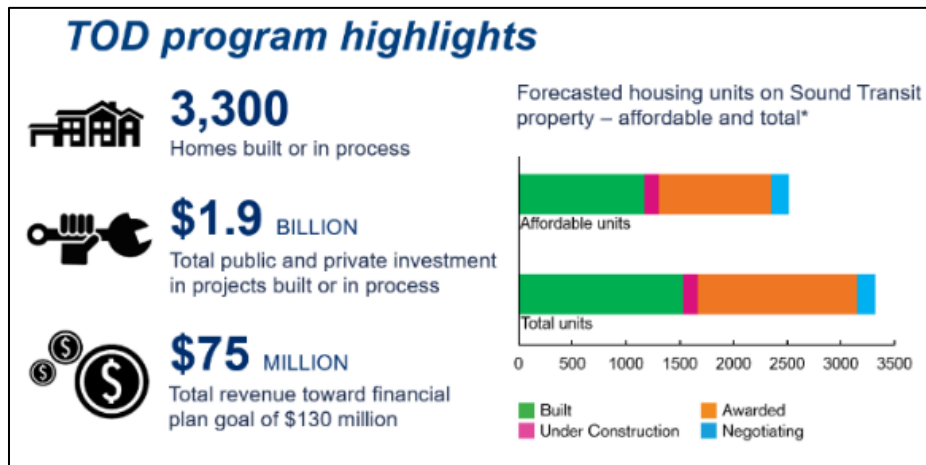


Sound Transit TOD

To date, ST's TOD program includes 3,300 homes built or in process, including 2,325 affordable homes.

The City of Tukwila and Sound Transit will evaluate BAR Station for Equitable TOD -- consistent with zoning in the station area (industrial/commercial).

HOP tool: “Transform and Diversify” supportive policies in neighboring residential communities.



Safety Features of LRVs & Stations

- Automatic Train Protection.
- Between-car-barriers to protect visually impaired passengers.
- Video cameras, covert microphones, silent alarms, and Automatic Vehicle Location.
- Stations have lighting, CCTV security cameras and call boxes that connect directly with the system operator and/or police.
- ST offers GoodMaps app as a digital wayfinding tool for riders with vision or mobility challenges.
- System has 480 Transit Security officers and 29 fare ambassadors, who come from diverse backgrounds and reflect the communities they serve.
- Evaluating emerging technologies, including a collision avoidance system/driver assist system, into Series 3 LRVs.

Environmental Benefits

- BAR Station area identified as 10 of 10 for diesel pollution and disproportionate impacts.
- Link runs on 100% carbon-free electricity.
- BAR Station designed to LEED Gold.
- ST goes above and beyond state and local regulations and requires prime contractors ensure 85% of equipment meets higher EPA standards.
- Long term solution: LRVs have a useful life of 31 years and light rail stations have a useful life of 40-50 years.

Funding Request & Schedule

- \$8.2M CMAQ request for 2 LRVs.
- Vehicle procurement is NEPA CE.
- Local match available to obligate funds immediately.
- LRVs delivered and BAR station construction complete by end of 2031.



Hound Transit: Guide dogs in training take a Link ride

Thank you.

Thank you.



 soundtransit.org

