



Seattle Urban Forestry Commission

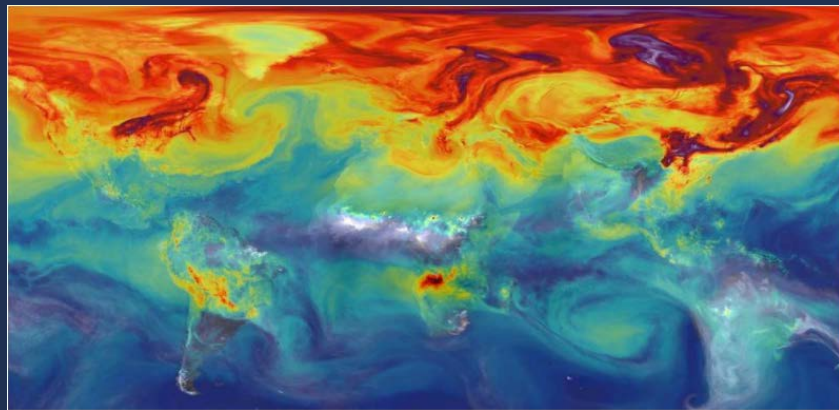
Wednesday, May 2, 2018

Sound Transit System Expansion

Implementation of Sound Transit System Expansion will result in a net reduction of greenhouse gas emissions *by more than 793,000 metric tons annually*

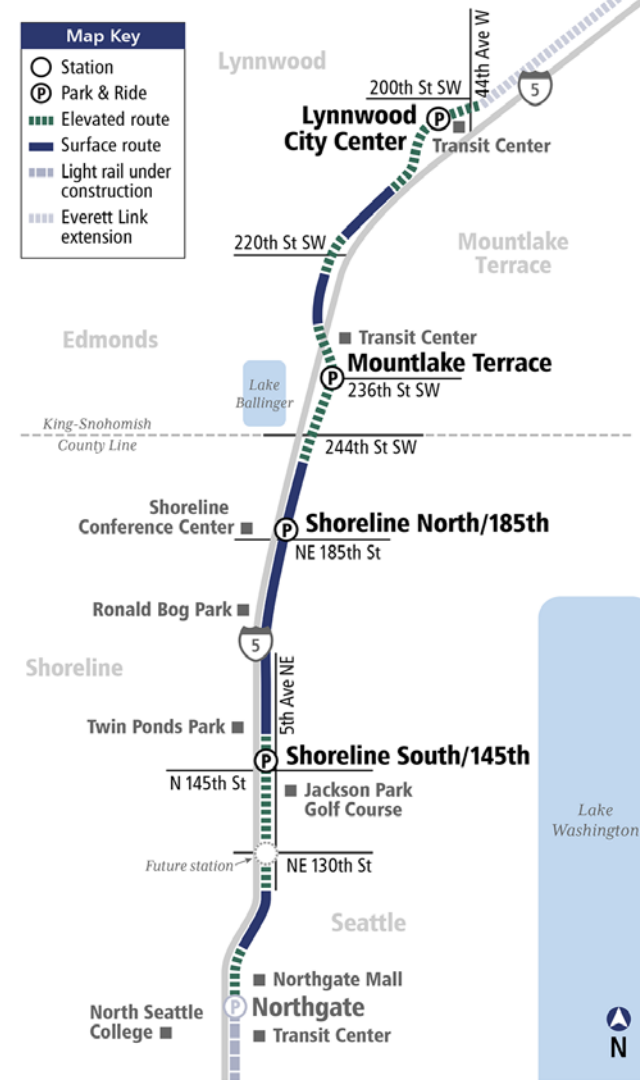
This is equal to:

- Burning more than 89 million gallons of gasoline
- Powering the electricity for over 117,000 homes annually
- **Sequestering the carbon equivalent to growing more than 20.5 million tree seedlings for 10 years**



Lynnwood Link Extension

- *Length: 8.5 miles*
- *Guideway: about half elevated and half at grade*
- *Projected ridership: 74,000 riders each weekday in 2035*
- *Start of service: 2024*



Acquiring Property for Construction



- When building light rail property is needed for construction and transit operations
- Many properties are located along freeway rights-of-ways where light rail facilities will be located

Acquiring Property



- Sound Transit works with stakeholders to explore methods for saving as many trees as possible
- Sound Transit partnered with WSDOT to develop a corridor-wide Roadside Master Plan to define restoration following construction

Tree Inventory and Assessment

- Approximately 8,000 trees over 4 inches in diameter surveyed
- Information collected
 - Location
 - Height
 - Spread
 - Root zone
 - Diameter
 - Species
 - Health

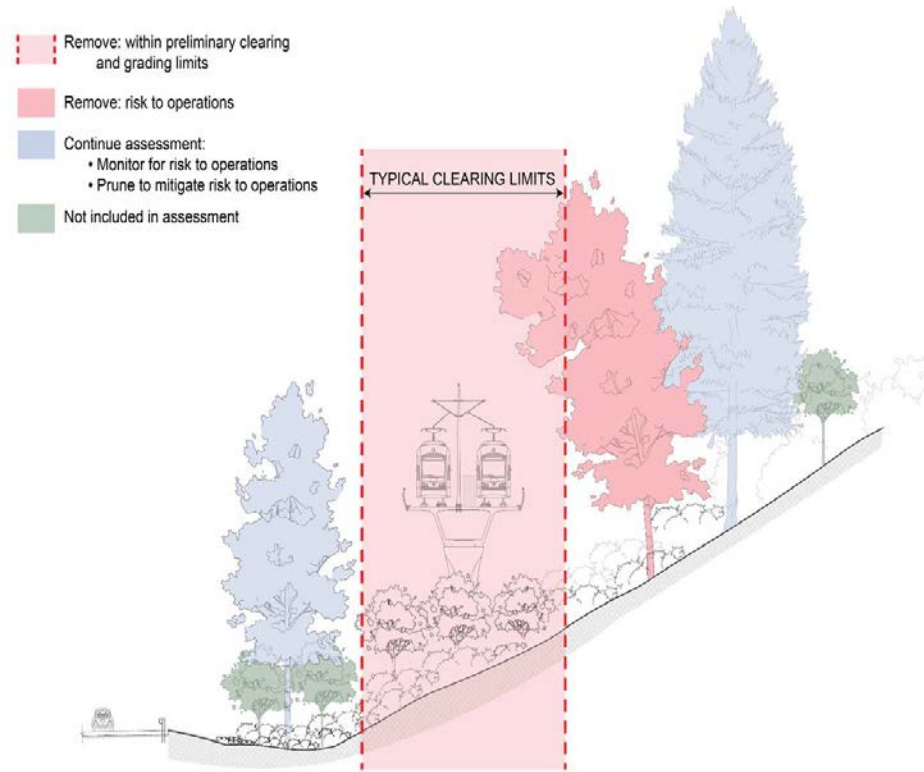


Hazard Assessment

Risk of Service Disruption

- Identified potential hazard trees
- Risk Assessment
 - Targets
 - Likelihood
 - Severity
- Develop potential mitigation strategies





- Trees are removed in areas where track, guideway or other transit infrastructure will be located
- Trees are also removed for safety to reduce potentially hazardous trees from falling on the tracks
- Trees will be continually assessed and monitored for risk to operations

Tree replacement plan

- Elements of the plan include planting trees within the Corridor at areas outside the immediate construction area
- Local agencies worked closely with Sound Transit to identify short-statured tree species that could be planted under elevated guideways where feasible for safety and long-term maintenance



Tree replacement plan

- Using these tree replacement plans, trees are removed and replaced as work areas are cleared for construction
- Ratio of replaced to removed trees depends on several factors:
 - Number and species of trees removed
 - Maturity
 - Federal environmental regulations
 - State/local requirements

Tree replacement plan



Additional mitigation that Sound Transit is currently negotiating with WSDOT:

- Extend the standard 3-year plant establishment period to add 10 years, for a *total of 13 years of plant monitoring*
- Larger, 2-5 gallon plantings
- This approach will ensure the replacement plantings are successful over the long term

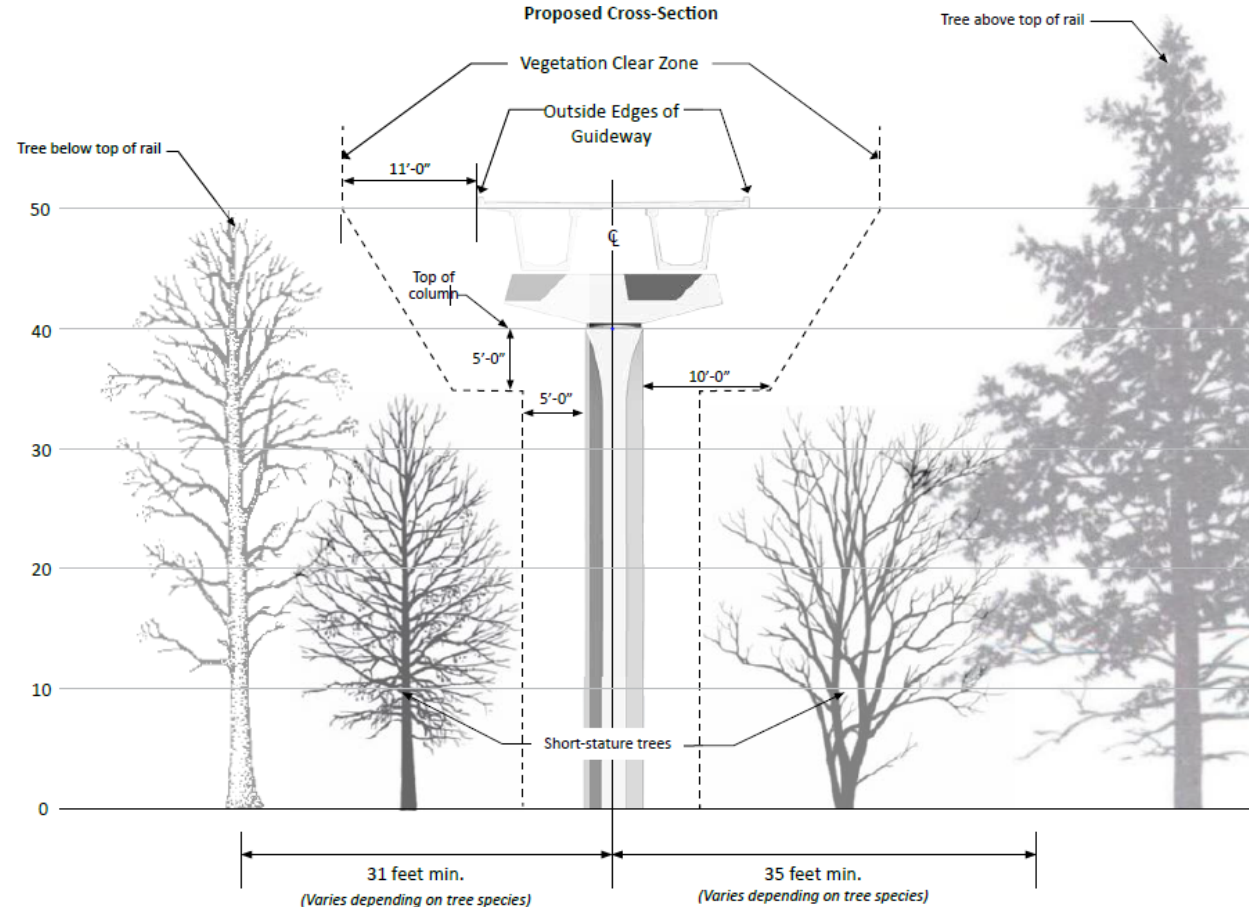
Tree replacement plan



- Consideration in the plan is made for Priority Habitat Areas and Resource Conservation Areas (RCA)
- Concurrence was reached with FHWA and WSDOT for mitigation approach for impacted RCA's throughout the corridor

Vegetation Clear Zone
Guideway elevated 50
feet above Ground
Proposed Cross-
Section

Vegetation Clear Zone – 50 ft Guideway

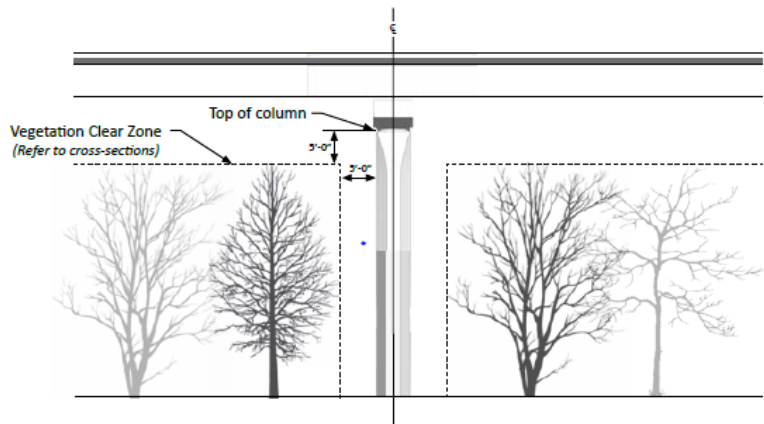


Vegetation Clear Zone

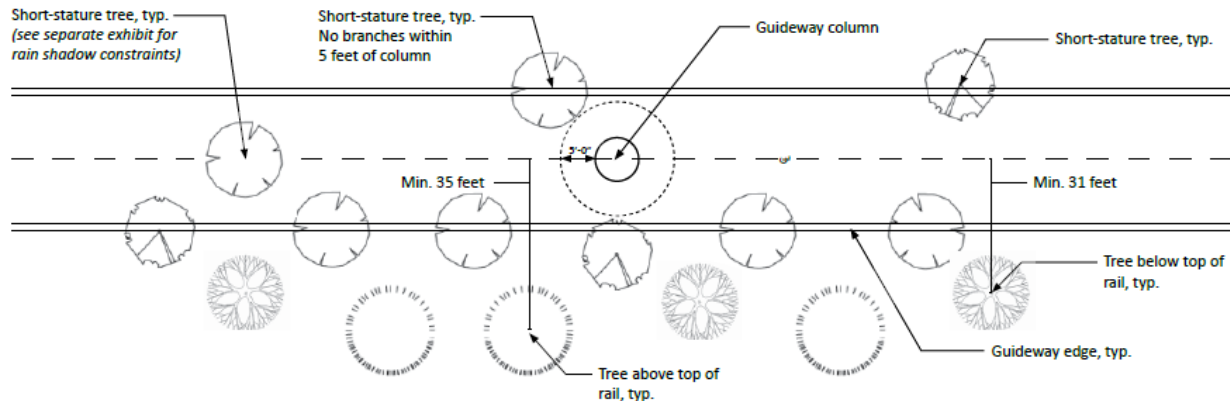
Guideway elevated 30+ feet above Ground

Proposed Cross-Section

Vegetation Clear Zone - Guideway Elevated 30+ Feet above Ground
Proposed Longitudinal Section



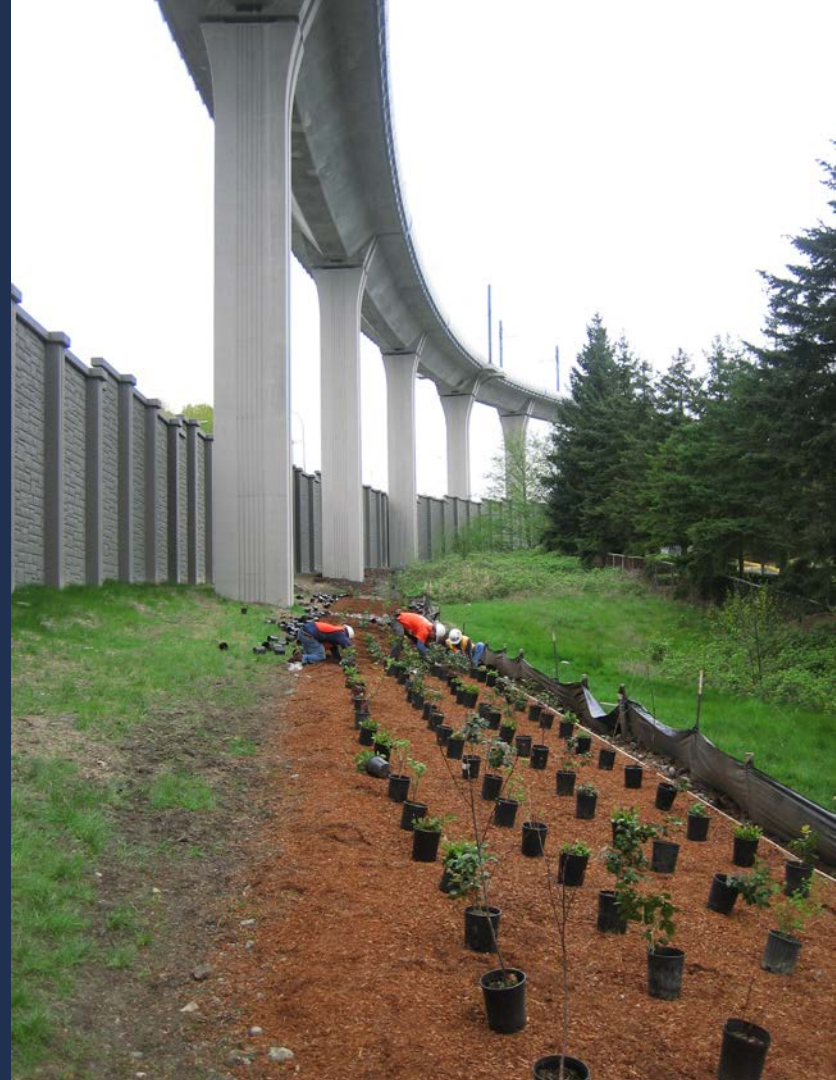
Proposed Plan View



Invasive species

- Invasive species (e.g. blackberries and ivy) will be removed and replaced with trees to improve corridor habitat
- Native, adaptive plant and tree species are among those considered for replacement trees

Planting under the Guideway in Tukwila



Repurposed trees

- In compliance with project contractual restrictions, merchantable timber rules, regulations and other concerns, removed trees are generally repurposed by the contractor
- On the Lynnwood Link project, trees will be used for timber and mulch and not end up in landfills



- Once service is up and running, Sound Transit will actively monitor the growth and stability of replanted trees



Questions?

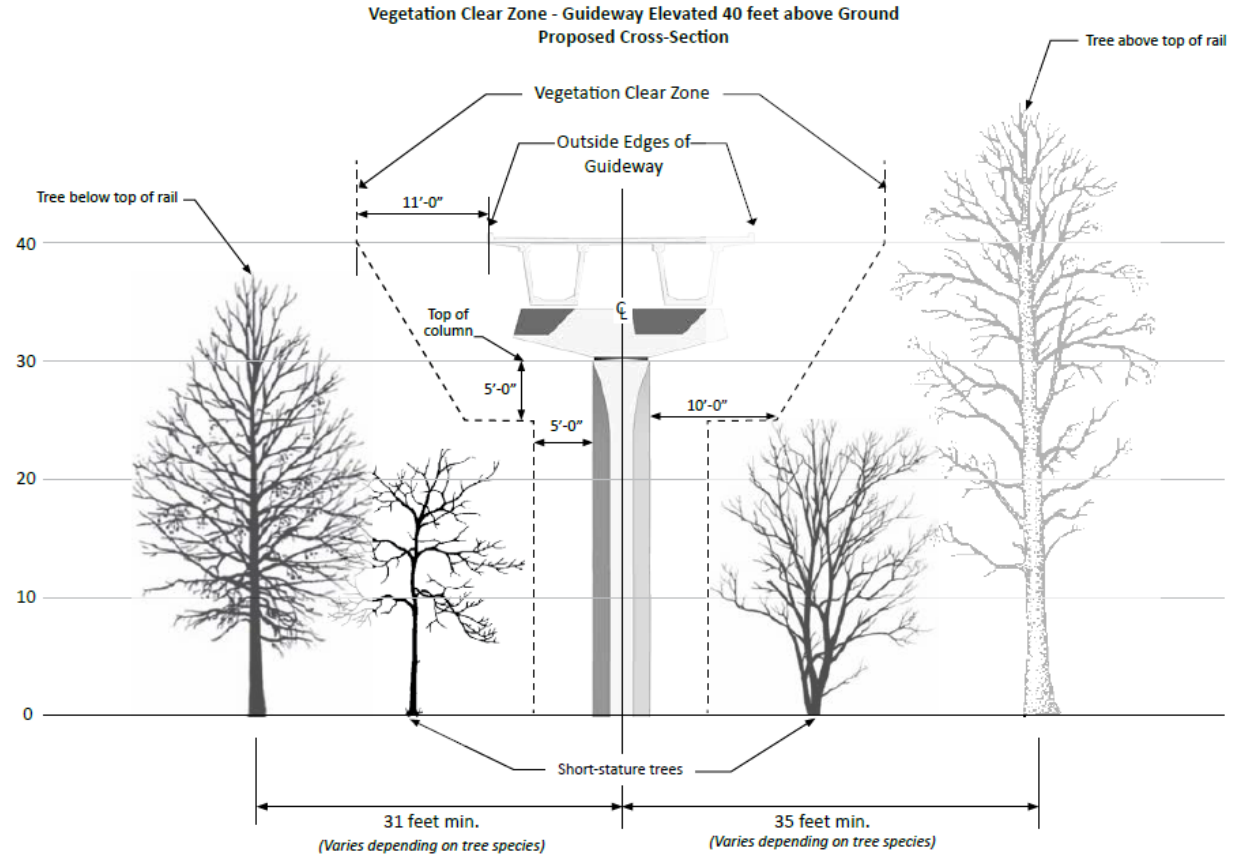
soundtransit.org/system 



Vegetation Clear Zone

Guideway elevated 40 feet above Ground

Proposed Cross-Section



Vegetation Clear Zone

Guideway elevated 30 feet above Ground

Proposed Cross-Section

