



236th Street NE

Corridor Safety Improvements



STILLAGUAMISH
Tribe of Indians



SCJ ALLIANCE
CONSULTING SERVICES

Project Mission

- Improve Driver Safety along 236th corridor to Tribal Facilities
- Provide Safe Space for Pedestrians and Bicycles
- Create an Attractive Entrance to Tribal Facilities



Existing Roadway

- 2 Lane Roadway constructed in 1920's
- Classified as a Rural Arterial (Snohomish County)



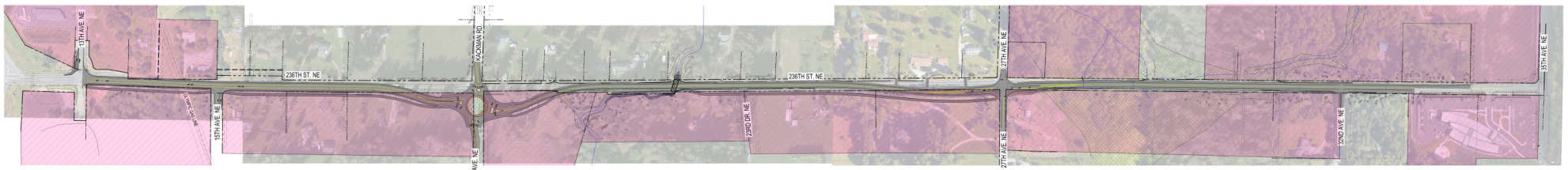
Safety Issues

- Inadequate Sight Distance
- Excessive Speeds
- No Separate Space for Pedestrians or Cyclists



Constraints (ROW)

- Additional 40' – 80' needed to construct safety improvements



Constraints (Existing Utilities)

- BP Olympic Pipeline
 - 16" & 20" HP gas lines
- PUD Overhead Lines
- Private Wells



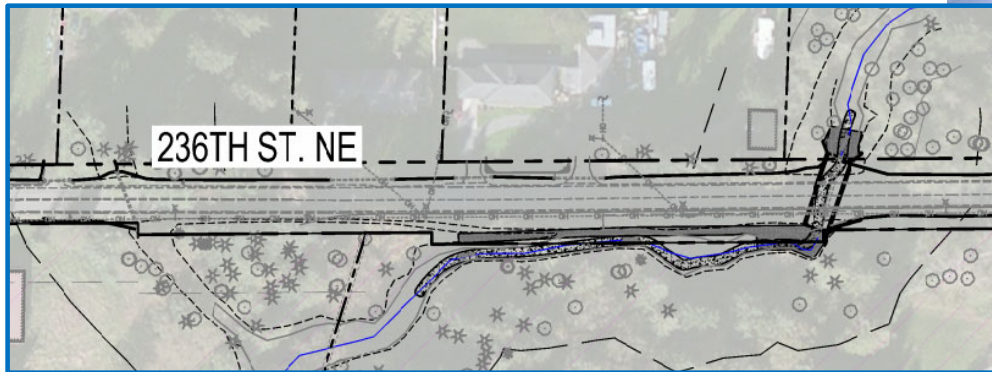
Constraints (Environmental)

- Stream Crossing
- Wetlands



Stream Crossing Section

- Existing Stream parallels and crosses roadway



Wetland Impacts

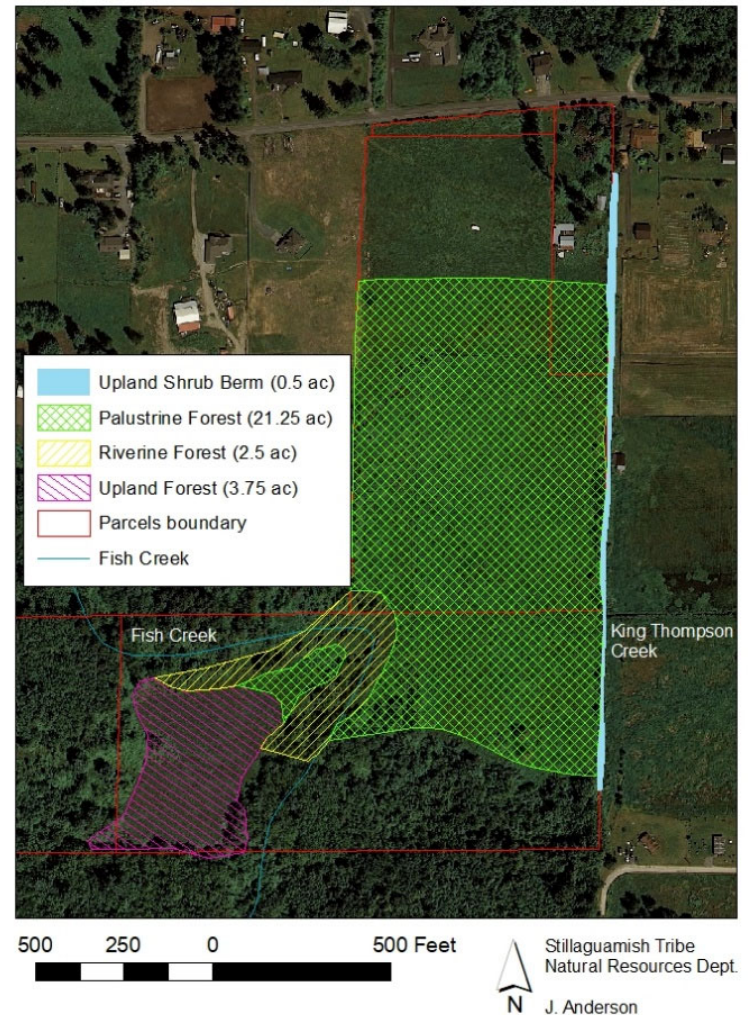
- Existing road crosses large wetland area
- Initial proposed impacts estimated >2 acres
- Advance Mitigation chosen



Advance Wetland Mitigation at Fish Creek Site

- Advance Mitigation vs. Mitigation Bank
- Site Assessment
- Planning & Permitting
- Implementation
- Past Projects Stillaguamish Tribe and WSDOT

Fish Creek Advance Mitigation Site



Advance Mitigation vs. Mitigation Bank

Advance Mitigation Site

- For Stillaguamish Tribe use only
- In general, takes less time

Wetland Mitigation Bank

- Stillaguamish Tribe could sell shares to others in an open market
- In general, takes more time

Advance Wetland Mitigation at Fish Creek Site

- **Site Assessment**



Advance Wetland Mitigation at Fish Creek Site

An aerial photograph of a wetland area. The landscape is covered in dense green vegetation, including trees and shrubs. A winding path or stream bed is visible, cutting through the greenery. The overall scene is a natural, undisturbed wetland environment.

- **Planning**

Advance Wetland Mitigation at Fish Creek Site

- **Implementation**



Fish Creek Site Challenges

Beaver Dams



Reed canary grass



Previous Wetland Mitigation Projects



Working with Offenders Crews

PROS

- Hard workers willing to access challenging terrain & conditions
- Not afraid to get dirty & wet
- Cost effective
- Dedicated work force focused on the site

CONS

- Negotiating Agreement with WA DOC takes time
- Proximity to work site; 8-hour work day includes travel time
- Initial training
- Ongoing staff support for procurement of materials & equipment

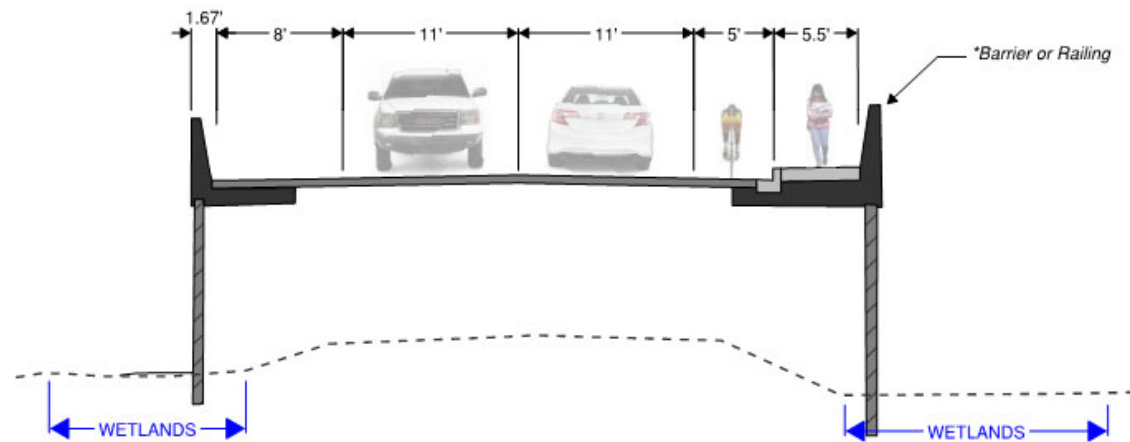
Goal: Resilient, Functional Wetland





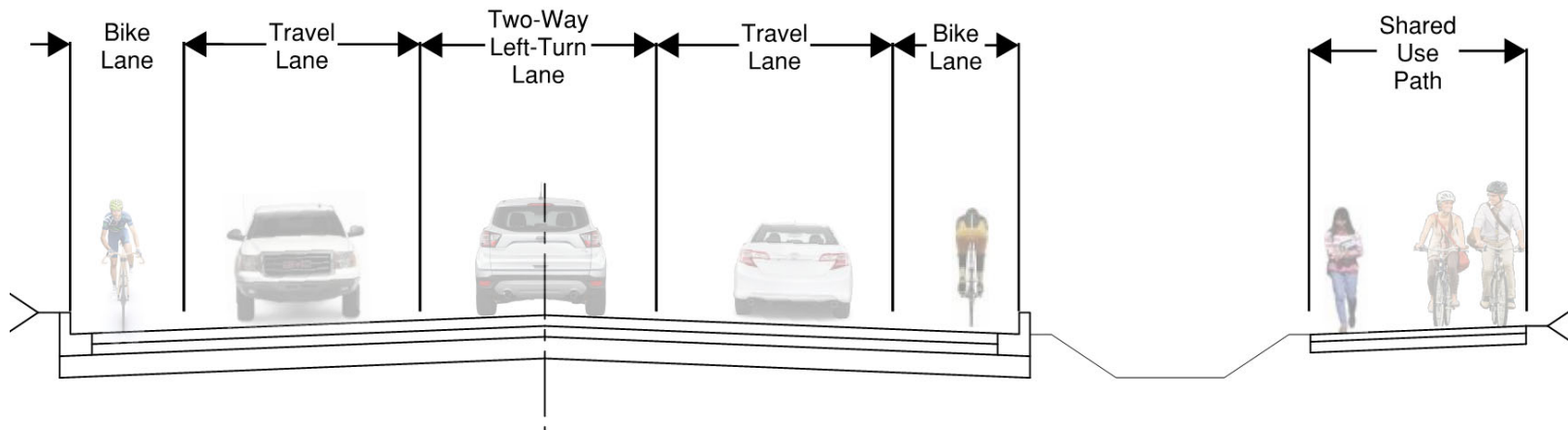
Additional Mitigation

- Reducing wetland impacts below <0.5 acre
 - Corps NWP vs Individual Permit
 - Retaining Walls
 - Deviations to roadway section



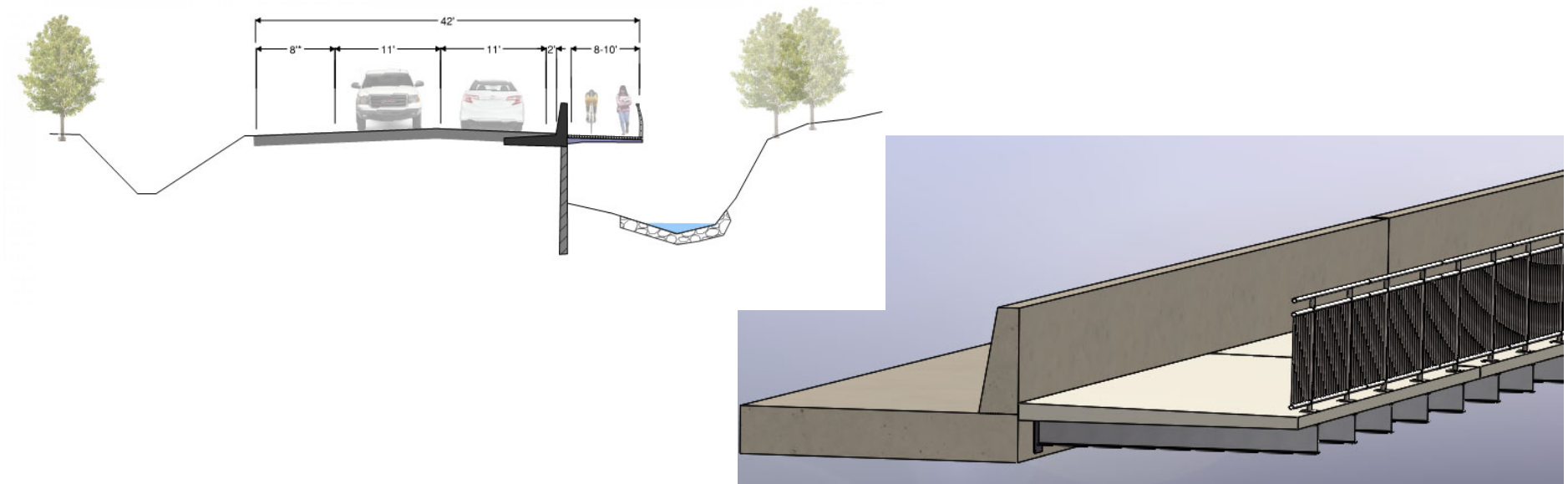
Proposed Features

- Widen Lanes (& add turn lanes)
- Add shoulders or bike lanes
- Reprofilings
- Shared Use Path



Cantilever Walkway

- Lightweight cantilevered section proposed to limit stream impacts

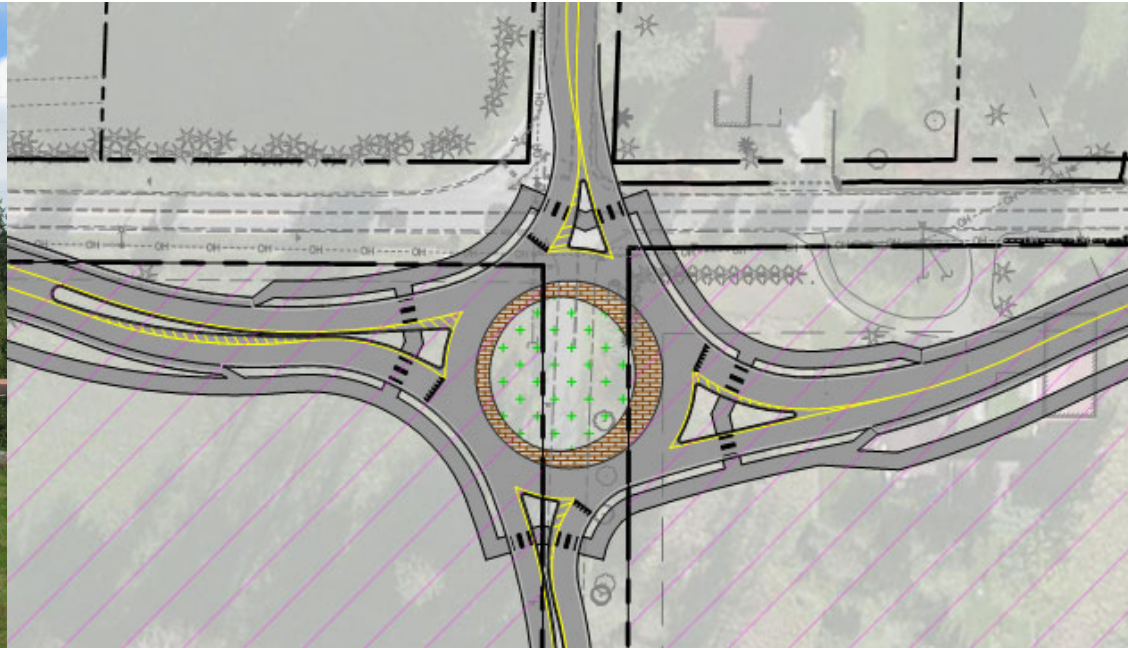


Animal Crossings

- Large arch culverts proposed at stream crossing and wetland



Roundabout (19th Ave Intersection)



Permitting

- Environmental Permitting for entire 1.5 mile corridor underway (Corps and County)
- Construction Permitting by Phase



Current Status

- Phase 1 PS&E underway
 - No critical area impacts
 - 13th to 19th (“Urban” roadway section)
 - Construction anticipated Spring 2019



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