



# Cascade Gateway Advanced Border Information System (ABIS) Design Project

Whatcom Council of Governments

## PROJECT PARTNERS

Whatcom Council of Governments; Transpo Group

WA State Department of Transportation

BC Ministry of Transportation & Infrastructure

U.S. Customs & Border Protection; Canada Border Services Agency



Ministry of  
Transportation  
and Infrastructure



Washington State  
Department of Transportation

## PROJECT CHALLENGE

The Cascade Gateway Advanced Border Information System (ABIS) Design Project will evaluate technologies to replace and improve aging wait time systems at the region's U.S. – Canadian border crossings. The project will develop an implementation plan for a binational wait time system that will solve current system challenges and support additional features including an anti-idling system to reduce greenhouse gas emissions; data feeds to inspection agencies; an online, publicly accessible data archive; and real-time traffic operations applications including websites and variable message signs.

## IMPACT

This project will complete an implementation plan to install a binational border wait time system that will be for commercial and passenger vehicles at all four Cascade Gateway land ports-of-entry between Whatcom County, Washington, and the Lower Mainland of British Columbia in Canada. These crossings serve Interstate 5, WA SR 543, WA SR 539, WA SR 9 Trans-Canada Highway 1 and B.C. Highway 99, BC Hwy 15, BC Hwy 13, and BC Hwy 11. The Stage 2 completion of this project will impact the 2nd busiest bus, 3rd busiest passenger vehicle, and 4th busiest commercial crossings on the entire U.S. Canada Border.

## CURRENT STATE OF THE ISSUE

**Current wait time systems are 20 years old and are failing or becoming obsolete. They have numerous challenges: the technology used to estimate traffic delays (loop detectors) doesn't work as well in queued conditions; accuracy is impacted with infrastructure or operational changes; there are no calculations for commercial wait times; and wait times provided are estimates when an ideal system would provide estimated and actual wait times as two calculations.**

## POLICY QUESTIONS

1. What technology(ies) can accurately estimate wait times for the different modes and lane types in an area with mixed wireless data coverage? 2. What are the costs of these technologies? 3. Has a system like this been deployed in a heavily queued traffic area like a border crossing? 4. And how will the system integrate with existing traveler information systems and data archives?

## STAGE 1 OUTCOMES

All project deliverables will be completed and a technology solution to be implemented will be identified and selected by all project partners. Deliverables include a current state and user needs assessment, an existing measuring technology review report, concept explorations and recommendations report, a concept of operations with systems requirements, and a high-level design and implementation plan.

## STAGE 2 VISION

Stage 2 will implement the Stage 1 plan to install a border wait time system in the Cascade Gateway. Parameters will be finalized in the final design, but the resulting wait time system will not only serve the immediate needs of the cross-border trade and travelers and assist inspection and transportation agencies at the border; it will also serve as a model for future deployments at other U.S. border crossings.