



# Seattle SMART Grant Digital Commercial Vehicle Permit Project

Seattle Department of Transportation (SDOT)

## PROJECT PARTNERS

University of Washington Urban Freight Lab (UFL)  
City of Seattle Freight Advisory Board  
Building Owners and Managers Association (BOMA)  
Greater Seattle  
Open Mobility Foundation (OMF)



**Seattle**  
Department of  
Transportation



**URBAN FREIGHT LAB**  
UNIVERSITY of WASHINGTON  
College of Engineering



**OPEN  
MOBILITY  
FOUNDATION**

## PROJECT CHALLENGE

The Digital Commercial Vehicle Permit Project will address commercial vehicle curb access challenges by providing reliable, modern curb access for vehicles using a collaborative, data-driven approach. The project will engage commercial curb users and prototype a new digital permit paired with vehicle-to-curb digital infrastructure (V2I) to make more efficient use of designated commercial vehicle load zones. It will also measure curb usage data for City of Seattle and public use and build a foundation for automated payment. SDOT will build the new digital permit and V2I using the Curb Data Specification (CDS) that enables the capture of curb utilization measurements and communicates demand management policies.

## IMPACT

The Digital Commercial Vehicle Permit Project will be in Seattle's Belltown and Denny Triangle neighborhoods. Land use in this area is dense residential, commercial, and office development, including Amazon headquarters and other large tech companies. The area is served by frequent bus transit, includes bicycle facilities, and is home to many restaurants and nightlife venues that are dependent upon regular goods deliveries.

The project may impact the way local businesses and delivery services use Seattle's commercial vehicle load zone program. SDOT will engage with businesses and drivers to better understand current curb access challenges and how a new digital permit system can meet private and public needs.

## CURRENT STATE OF THE ISSUE

According to a UFL study, 87% of buildings in Seattle's urban core rely solely on curb or alley load/unload space to receive deliveries.

Recent load zone studies conducted by SDOT and UFL have shown that non-commercial vehicles occupy commercial vehicle load zones more than 50% of the time.

## POLICY QUESTIONS

1.) What are the existing commercial vehicle parking behaviors in Seattle's north downtown area, particularly related to payment? 2.) What impacts might pricing and associated policies have on commercial vehicles in Seattle's north downtown area? 3.) How do delivery services and local businesses respond to digital permits and new commercial curb policies?

## STAGE 1 OUTCOMES

1.) Substantive stakeholder engagement with local businesses and delivery services helps SDOT better understand the limitations and benefits of the existing commercial vehicle load zone permit program. 2.) Vehicle sensor technology has high accuracy and collects valuable data that can be used to make data-driven policy recommendations. 3.) A digital inventory of curb regulations standardized in the CDS format is created and all curb utilization data collected during the project period is stored in CDS format.

## STAGE 2 VISION

The vision for Stage 2 is to expand the Stage 1 pilot citywide by installing vehicle sensor technology, digitizing the city's curb inventory to the national CDS standard, and modernizing commercial vehicle permitting by implementing a new digital permit. This expansion would affect business districts, including those that house small businesses; commercial goods and service delivery companies; and SDOT operations.