

Seattle Department of Transportation

# ALLEY CONGESTION

Response to Statement of Legislative Intent 56-1-A-1



**Seattle**  
Department of  
Transportation

# PURPOSE AND OVERVIEW

As part of the 2018 Budget development process, the Seattle City Council adopted a Statement of Legislative Intent (SLI) that asked SDOT to identify tools to reduce alley congestion in downtown Seattle. This report responds to the SLI and is organized as follows:

1. Purpose and Overview
2. Alleys in Context
  - Network Roles
  - Alley Congestion
  - Existing Policy and Regulatory Framework
  - Roles and Responsibilities
3. Research and Data Collection
4. Findings
5. Recommendations

The 2018 Statement of Legislative Intent 56-1-A-1 states:

“Council requests that the Seattle Department of Transportation, in collaboration with the Office of Planning and Community Development, Seattle Department of Construction and Inspections, Seattle Public Utilities and Seattle Police Department, identify and report on tools to reduce alley congestion in the Downtown core.

“Alley congestion refers to site conditions and vehicle use that limit the ability of alleys to function for circulation and access to adjoining properties. Strategies to consider should include, but are not limited to, education, enforcement and design of the built environment.”

In response to the SLI, SDOT convened a cross-departmental working group to assess the many uses of alleys and to collaborate on a range of recommendations to address alley congestion. While the SLI included the Office of Planning and Community Development, Seattle Department of Construction and Inspections, Seattle Public Utilities, and the Seattle Police Department, SDOT also reached out to the Seattle Fire Department and the Seattle Department of Information Technology to ensure broad participation.

The cross-departmental working group held a series of 5 working meetings from January to March 2018 and sought to accomplish 3 tasks. First, it identified the information each department had, or needed, about alleys to execute their missions. Next, members described the physical limitations and operational challenges each department experiences in providing services around or in alleys. Last, the working group compiled recommendations on tools to address alley congestion.

Additionally, the working group identified potential actions related to alleys that went beyond the scope of the SLI response. These actions will be considered for inclusion in the Freight Master Plan Implementation Plan or other work efforts.

# ALLEYS IN CONTEXT

## Network Roles

As part of the City’s transportation right-of-way network, alleys are a valuable public resource that serve multiple purposes. Within the Center City alone, there are more than 425 alleys. While Post Alley is Seattle’s best-known alley for its pedestrian environment and abutting shops and restaurants, more typically alleys provide utilitarian functions that are critical to daily life. These functions include vehicle access to building parking, emergency vehicle access, delivery of goods and services, and storage of dumpsters for the collection and removal of solid waste.

In addition to their general transportation network role, alleys are one of three critical elements that make up the urban goods delivery network – along with on-street loading zones and private off-street loading facilities. Due to exponential growth in e-commerce and consumer expectations for on-demand goods and services, all three of these urban goods delivery network components are under increasing pressure to function effectively.



*Photo credit: Christopher Eaves*

Based on a survey performed by the University of Washington for SDOT (2017), only 13% of buildings within the Center City have off-street loading facilities. This means that 87% of buildings rely on on-street loading zones or alleys for goods delivery. For buildings with off-street loading facilities, the loading infrastructure may not be designed or operated for maximum functionality (e.g., large trucks may not be able to maneuver into loading bays), which in turn places more demands on alleys and streets. At the same time, the ability to provide on-street loading zones is often constrained by other competing uses, such as the need for bus stops, passenger loading zones, and travel lanes for buses, bikes, and other vehicles.

While competition for on-street uses can make alley use seem more attractive, alleys themselves face competing demands to provide local building and garage access, serve loading/unloading needs, provide active social spaces, and more. Additionally, alleys can be removed from the transportation and urban goods delivery networks by means of alley vacations approved by City Council (in exchange for other public benefits) to meet building footprint and operational needs for new development.

To best optimize the mix of functions in a specific alley, there is value in looking at alleys as components of a citywide system. Decisions about designated uses of a specific alley need to be made in the context of the surrounding street network capacity and the availability of off-street facilities (e.g., loading bays and parking) to support localized needs.

## Alley Congestion

As stated in the SLI, “Alley congestion refers to site conditions and vehicle use that limit the ability of alleys to function for circulation and access to adjoining properties.” While alleys typically are not used for general mobility (through travel or circulation) purposes, their ability to provide access to adjoining properties can be compromised, such as when:

- Narrow alley widths preclude one vehicle from passing another
- Alleys are used to load from one vehicle to another, or when a vehicle is used as a distribution point for multiple loading events
- Driveways to adjacent parking structures are blocked while loading occurs in an alley
- Vehicles are blocked from reasonable ingress/egress by another vehicle
- Alley operations are affected by actions of adjacent property managers

## Existing Policy and Regulatory Framework

To address the SLI’s request for the identification of tools to address alley congestion, it is helpful to understand the context of existing policies and regulations related to alley use and design that are contained in Seattle’s Comprehensive Plan, Freight Master Plan, Seattle Municipal Code, and Streets Illustrated (Right-of-Way Improvements Manual). Relevant highlights are discussed below.

## Comprehensive Plan

Seattle 2035, the City’s Comprehensive Plan, defines 6 essential functions that occur in the right-of-way, including in alleys:

Essential Functions of the Right-of-Way	Relation to Alleys
Mobility	Not typically a significant use of alleys
Access for people	Includes parking garage access and access for emergency vehicles
Access for commerce	Includes urban goods delivery and access for services such as solid waste removal
Activation (use for public gathering)	Alley activation examples include Post, Canton, and Nord Alleys
Greening	Not typically a significant feature of alleys
Storage	Can include storage of solid waste and construction equipment

Specific Comprehensive Plan policies that address alleys in their role as part of the right-of-way include:

- T 2.1 Devote space in the street right-of-way to accommodate multiple functions of mobility, access for commerce and people, activation, landscaping, and storage of vehicles.
- T 2.8 Allocate needed functions across a corridor composed of several streets or alleys, if all functions cannot fit in a single street.
- T 2.14 Maintain, preserve, and enhance the City’s alleys as a valuable network for public spaces and access, loading and unloading for freight, and utility operations.
- LU 6.6 Limit the off-street impacts on pedestrians and surrounding areas by restricting the number and size of automobile curb cuts, and by generally requiring alley access to parking when there is an accessible, surfaced alley.

## Freight Master Plan

The *Freight Master Plan* (FMP), adopted in 2016, was developed to address the unique characteristics, needs, and impacts of freight mobility in Seattle, and to help address the challenges of moving goods in the city. The FMP recognized that:

- A reliable transportation network for movement and delivery of goods is vital to ensure on-time deliveries for consumers, to maintain the confidence of existing business and industry sectors, to encourage businesses and people to locate in Seattle, and to generate additional jobs, business, and tax revenue.
- The goods network should provide facilities that ensure people driving delivery vehicles and trucks can travel safely among people walking, riding bicycles, taking transit, or driving other vehicles.

## Seattle Municipal Code

Generally, SDOT has the authority under the Seattle Municipal Code (SMC) to regulate alleys, similar to the way SDOT regulates streets. Per SMC, an “alley means a highway not designed for general travel and primarily used as a means of access to the rear of residences and business establishments.” (11.14.025)

There are specific SMC elements that address alley traffic operations and access control.

Relevant regulations include:

- Sets alley speed limit at 15 miles per hour (11.52.120)
- Restricts alley loading time to a maximum of 30 minutes (11.74.010)
- Requires a permit to load from one vehicle to another in an alley (11.74.060)
- Provides authority to limit parking or restrict it entirely in any portion or an alley (11.16.300 C)
- Provides authority to authorize parking in alleys for commercial vehicles by permit (11.72.020)



Photo credit: Google Maps

- Allows regulatory signage (11.24.030 A-D) on public property. Use of private property only per agreement with property owner
- Authorizes the Traffic Engineer to approve pavement markings generally to all rights-of-way (11.16.320)
- Provides authority to prohibit certain vehicles or class of vehicle in certain alleys or all alleys (11.16.320 D)
- Prohibits a person from stopping, standing, or parking a vehicle within an alley in such a position as to block the driveway entrance to any abutting property (11.72.025)
- Provides authority to close for repairs or maintenance, accommodate construction; protect public from health or sanitation hazards; or criminal activity (11.16.125 B)
- Provides authority to designate any street for one (1) way traffic and the required direction of such traffic (11.16.125 C)
- Establishes required right-of-way width for alleys in the Downtown zone of 20 feet (16 feet prior to about 1990); if an existing alley does not meet this width, adjacent new development must dedicate half the difference between the current alley width and the minimum required ROW width (23.53.030; also addresses dedications, paving and drainage, setbacks, etc.)

### Streets Illustrated

*Streets Illustrated*, Seattle's Right-of-Way Improvements Manual, contains mandatory design standards that must be followed when designing and constructing improvements to the public right-of-way. *Streets Illustrated* also contains design guidance, which the City recommends be considered when designing right-of-way improvements.

Commercial Alleys are a designated street type (Section 2.16) within urban villages and urban centers – areas with high to moderate intensity of commercial, office, and residential uses. The primary purpose of commercial alleys is to serve loading needs. Design requirements include a 20-foot travel lane, a 26-foot vertical clearance, and color-coding of driveway aprons as a cue to drivers that they are crossing a pedestrian threshold (sidewalk).

## **Roles and Responsibilities**

The ability and responsibility to maintain and regulate alleys depends on whether an alley is public right-of-way or privately owned. The City may only regulate traffic operations (and thereby address congestion relief) on public rights-of-way, and up to 95% of the alleys downtown are public rights of way. Enforcement of activities in alleys is generally under the purview of the Seattle Police Department. SDOT's Commercial Vehicle Enforcement program may also enforce regulations that specifically apply to commercial vehicles.

# RESEARCH AND DATA COLLECTION

While alleys serve several public functions, recent attention has been given to how alleys contribute to the urban transportation system, especially their role in addressing the growing challenges of urban goods delivery. SDOT's Final 50 Feet Program was created to better understand delivery dynamics and inform policy for an effective urban goods strategy. Effectively managing the delivery network, including alley congestion, requires detailed data to confirm alley characteristics and current use patterns.

As a starting point, the Final 50 Feet Program, in partnership with the University of Washington, collected alley data in Seattle's Center City neighborhoods: Downtown/Commercial Core, South Lake Union, Uptown, Belltown, Denny Triangle, First Hill, Pike-Pine, Capitol Hill, Pioneer Square, and the Chinatown-International District.

Data collection efforts included:

- Identifying locations and physical characteristics of each alley that can influence how they operate
- Observing representative alleys to understand what activities may limit alley efficiency
- Researching alley ownership status (and thereby City authority) to manage congestion
- Reviewing municipal code and policies that should be considered in alley management
- Summarizing current operational constraints experienced by first responders and service providers



# FINDINGS

## Data

- A scan of ownership records suggests that up to 95% of alleys in downtown are public rights-of-way. Confirming public ownership gives the City broad scope to manage alley congestion and other activities, but also highlights the City's responsibility to manage and maintain alleys. Alley conditions are not currently well-known, and alley maintenance is performed on a limited basis, primarily in response to complaints.

## Policy

- Policies for alleys are imbedded in multiple City documents that serve different purposes. Unclear priorities foster inconsistent alley use management strategies.
- Rules and requirements in the SMC may not be consistent with current alley congestion and operational needs. This can include consideration of needs such as alley parking time limits and allowed hours, maximum vehicle sizes, and demarcated alley load zones.

## Operations

- About 90% of inventoried alleys in downtown are 15 feet wide or less, constraining their effective use and contributing to alley congestion. Few of the remaining 10% are consistently 20 feet wide; most average 16-18 feet along the block length, with variations due to the vintage of adjacent buildings and miscellaneous obstructions.
- The urban goods delivery network, including alleys as loading space, is strained. An estimated 87% of buildings in the downtown area do not have their own off-street space such as loading docks for deliveries. Their reliance on alleys and other public rights-of-way contribute to alley congestion.

## Design

- Rapid increase in e-commerce deliveries and shared mobility services is increasing demand for the use of public alleys and other public rights-of-way. Site and building design practices may be insufficient or out of date to accommodate loading demand for new developments outside the public right-of-way. Updating provisions for loading on private property could thereby conserve public rights-of-way for mobility needs.

## Enforcement

- Added emphasis on alley congestion management strategies will require additional resources for police and commercial vehicle enforcement support.

# RECOMMENDATIONS

CATEGORY	FINDING	RECOMMENDATION	PLANNED ACTION (Funded)	POTENTIAL ACTION
DATA	Alleys are a City maintenance responsibility, but their condition is not well-known, and maintenance is limited.	Perform an alley condition assessment (SDOT)	X	
		Develop an alley maintenance funding strategy (SDOT)		X
POLICY	Alley use policy priorities are unclear, and municipal code may not be consistent with current congestion and other operational needs.	Develop priorities for the use of alleys consistent with City plans and other policies (SDOT)		X
		Review the SMC for inconsistencies and revise as needed to address alley congestion (SDOT)		X
OPERATIONS	Alley operations space is limited, and traffic regulations are unclear or not optimal for current users.	Provide signage, markings, or other operational tools to address congestion and improve operations (SDOT)		X
	Alleys are part of a strained urban goods network. Loading activities contribute to alley congestion.	Manage alley congestion consistent with other urban goods management strategies (SDOT)		X
DESIGN	Site and building designs for loading spaces would benefit from updating to better accommodate loading demand.	Coordinate among SDOT, SDCI, and OPCD to examine standards for adequate loading facilities for future developments.	X	
ENFORCEMENT	Alley congestion management emphasis will require additional resources for police and commercial vehicle enforcement support.	Coordinate among SDOT and SPD to develop an alley congestion management enforcement needs assessment		X