# Co ClearRoad

## and Oversized Truck Permitting

#### The Troubling Reality of Overweight Trucks<sup>1</sup>

The nation's economy is increasingly reliant on trucking, with volumes growing 6.6% in 2018 alone. With demand high, some are tempted to overload their vehicles beyond set standards, which can translate into an extra \$100,000 or more per truck.

These oversized and overweight vehicles have substantial hidden costs, and existing permitting schemes only cover  $1/5^{th}$  of them. Roadway degradation correlates exponentially with vehicle weight—a single overweight truck causes more roadway damage than 10,000 cars.

This extra weight makes trucks more dangerous, increasing stopping distance 25% per additional 20,000 lbs—**overweight trucks are 50% more likely to be involved in a fatal crash**.

#### Streamline Permitting and Compliance with ClearRoad

ClearRoads Permitting Platform streamlines all aspects of the permitting process. The platform lets:

- fleet managers obtain permits online
- city managers quickly review permit requests
- traffic engineers validate routes interactively
- police officers better enforce permits

Implementing the Platform is expected to yield:

- Increased permit compliance and reduced overloading rate by 30%.
- Processing time & overhead cut by 50%
- Significant reduction in damage to the pavement and improved resident safety

The estimated total value of these benefits is between \$120k to \$180k a year for a city of 75,000 inhabitants

Fremont	Permits		Fremont	← New Vehicle									ſ	🗸 Submit				
Permit Companies Transportation	Search by vehicle license plate or permit number				Search	All Permits -	Transportation Companies Vehicles	Authorization is granted for the following * O Haul Drive Tow   Vehicle License Plate * ED0.4367										
Companies Vehicles Permits Permit Rules	Showing 1 - 10 of 24 permits				Sort by Permit Number *		Permits	Description of hauling equipment *										
	Permit Number	Vehicle License Plate	Туре	Payment	Status			Enter description here										
	100028	ASDDS	Annual	Paid on Nov 22, 2019	Pending	• •		Vehicle Width *	~	in to last Axle *			Combined Vehicle Length *			Weight Class		
	100027	ATT123	Annual	Paid on May 15, 2019	Dellnque	ent >		10' 40' Axle Number * Number of tires per Axle *	40'	1	02	55'	0.4	0.5	8	07	0.8	09
	100026	3232DSS	Annual	Paid on May 3, 2019	Delinque	ent >				2	4	4						
	100025	ATT123	Annual	Paid on May 1, 2019	Delinque	ent >		Distance between Axles * Width of Axles at tire sidewall *		16'	38'							
💄 My Profile	100022	ATT123	Temporary	Permit not paid	Expired	>				10'	10'	10						
¢≎ Preferences	100019	ATT123	Annual	Permit not paid	Delinque	ent >		Maximum allowable weight * 60,000										
Transactions	100016		امسمه	Descrit act sold		•			Loaded dim	ensions greath	er than those	shown below o	r weights excee	ading those she	wn above are	not authorized		e,

Screenshots of Permit Manager and Fleet's Interfaces on ClearRoad's Truck Permitting App

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 $^{\scriptscriptstyle 1}$  Sources: Texas Dept. of Ag., FHWA, U. of Michigan, UT Austin



### Automated Oversized and Overweight Truck Permitting

#### Case Study – Fremont, CA

Fremont, CA looked to ClearRoad for help in managing increasing heavy freight within the city. The primary pain points were:

A manual & analog permitting process that has not changed in a generation. Previously, permit applications were filled by hand and sent via fax or e-mail, fleets mailed checks or paid their fee at the counter, and permits were tracked with Excel.

**Text-based truck routes opened the door to costly human errors.** Traffic engineers were approving permit routes based on manual descriptions of street names and crossing.

Police officers could not access the permit database. Verifying a permit required a call to the permit manager. Since most oversized trucks traveled outside regular business hours, police officers had no way to verify a permit.

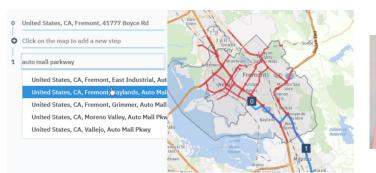
Lack of awareness of authorized routes led to unintentional violations. The city was missing a simple tool to explain authorized truck routes and regulations to the trucking community.



#### **ClearRoad's Freight Solution for Fremont:**

ClearRoad worked closely with personnel from the Fremont's Public Works and Police Departments alongside local fleet managers, to tailor the permitting platform. Key components are:

- Truck Permitting Portal A web-based interface for owner-operators or fleet managers to obtain permits, pay fees online, review authorized truck routes, and submit trip journeys via a map
- Permit Management Dashboard A cloudbased dashboard for city employees to review and approve submitted truck permits
- Compliance Lookup App An in-vehicle application for police officers to validate a truck's proper permitting, 24/7





"Collaboration with ClearRoad has been smooth throughout the process. The result has exceeded our expectations."

Sheila Marquises, Senior Transportation Engineer, City of Fremont

Screenshot of Truck Route Selection App for Fremont