

Curbside management

METERED PARKING

By George Liu

Surface parking is disappearing in downtown Toronto as cranes transform asphalt lots into buildings. Driven by increasing population density, curbside competition often sparks conflicts among loading, parking and thru traffic functions.

In a presentation to the University of Toronto Transportation Research Institute, Toronto transportation services senior engineer **Paul Sabo** said the city is careful to balance various user groups' access to increasingly scarce curb space, and the conflict among them is exacerbated by the massive growth that is occurring in the downtown.

"We've seen delivery trucks on the side of the road where there are cyclists and streetcars, making for a very busy environment. [For example], we've put in cycle tracks [on Sherbourne Street] and yet loading still needs to happen."

To better understand the scale of the illegal parking problem, University of Toronto civil engineering professor and Centre for Urban Freight Analysis director **Matthew Roorda** has been working on an improved model of urban traffic movement.

Roorda observes that current traffic flow models do not take into account the congestion effects of illegal stopping and parking that are common in urban traffic. To improve traffic models, his team is performing research using computer games to study parking search behaviour.

"We are putting people into a simulated environment where they have timing constraints. They see parking spots arriving and they have to make a decision to take the spot, to search for another spot, or to gamble and park illegally."

Toronto staff reports reveal that expired meter offences have been the most common parking citation in each of the past five years. The **Toronto Parking Authority** estimates there are about 19,000 metered on-street parking spaces throughout the city.

But mobile technology may soon make parking meters obsolete. The parking authority is making it easier for drivers to extend their stay by promoting mobile payment in many surface lots. Parking enforcement officers use plate numbers to identify parking violations, so no meters and no paper dashboard slips are required.



Green P Signage at Queen and Ossington

SOURCE: GEORGE LIU FOR NRU

Former San Francisco SFpark program manager **Jay Primus** sees promise in using smart technology to manage curbside parking in Toronto. The SFpark program uses smart meter technology and variable pricing to maintain an average curbside occupancy rate of 60 per cent to 80 per cent so drivers are always able to find a legal parking space close to their destinations.

"When spaces are full, people are tempted to double-park," observes Primus. "[However,] what you don't see are people circling looking for parking. Undoubtedly, circling for parking is a waste of time and also dangerous. Circling

drivers are distracted drivers that are far more likely to hit a pedestrian or cyclist."

The SFpark evaluation [report](#) highlights fewer parking tickets, lower search times, higher vacancy rates, and lower average prices as key findings of the project.

Primus says the smart parking meters uncovered surprising insights about parking behaviour that can only be revealed by finely adjusting prices on a block-by-block level.

"The data show one block that is \$4 an hour, and right around the block it is \$.25 per hour... There were things that confounded expectations—things that we would never have been able to predict. It says a lot about a data-driven approach to pricing and parking management. It says a lot, in a beautiful way, about how fine-grained cities are, about how cities change block to block, about how parking demand changes, and about human behaviour."

Due for completion in Summer 2016, the **City of Toronto** has retained **IBI Group** to undertake a curbside management study to improve the efficiency and effectiveness of curbside allocation and usage for all parking and loading activity.

Peel Region and the **Ministry of Transportation Ontario** will be sponsoring the next **University of Toronto Transportation Research Institute** Freight Day Symposium with commercial vehicle parking as the focus of discussion on February 26.

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