



City of Somerville

**ZONING OVERHAUL**

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[www.somervillezoning.com](http://www.somervillezoning.com)

April 30, 2019

# Upcoming Schedule

TUE April 30

TUE May 14

**WED May 15**

MON May 20

TUE May 28

THURS May 30

*MON July 8*

*THURS, July 11*

Parking

Affordable Housing

**Map changes DUE from WARD Councilors**

???

???

???

*Last possible LUC meeting before summer recess*

*Last full Council meeting before summer recess*



# Today's Agenda

1. **Proposed Policy & Amendments**
2. Transit Orientation
3. Residential Parking Permits
4. Parking Requirements
  - a) Minimum Parking Requirements
  - b) Transit Areas
  - c) District Parking Maximums

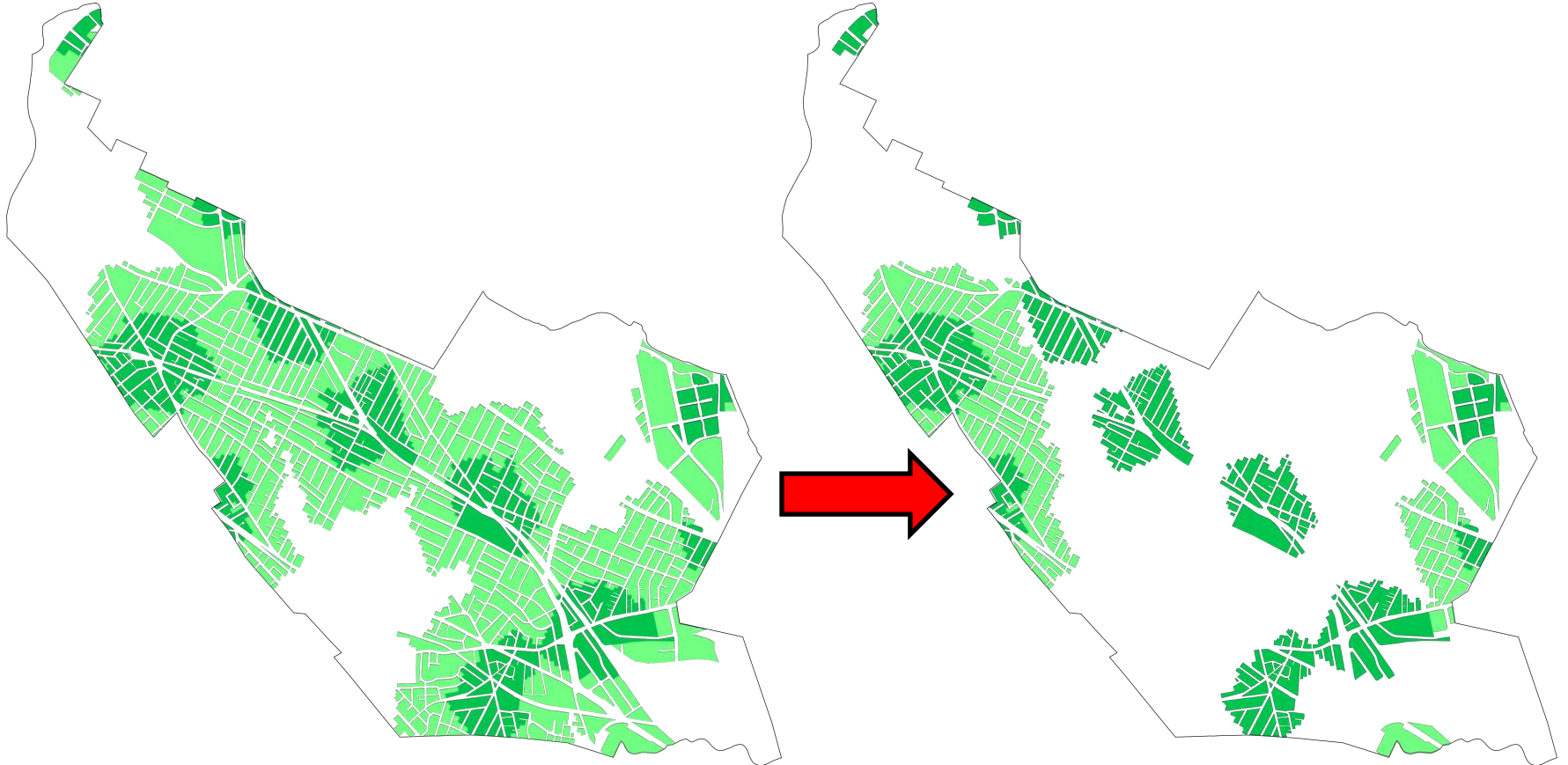
# Proposed Policy #1

Restrict Residential Parking Permits in Transit Areas



# Proposed Zoning Amendment #1

Reduce GLX Transit Areas to ¼ mile



# Proposed Zoning Amendment #2

Add criteria for granting a Special Permit to exceed District Parking Maximums



# Today's Agenda

## 1. Proposed Policy & Amendments



2. Transit Orientation

 3. Residential Parking Permits

4. Parking Requirements

a) Minimum Parking Requirements

b) Transit Areas

  
 c) District Parking Maximums

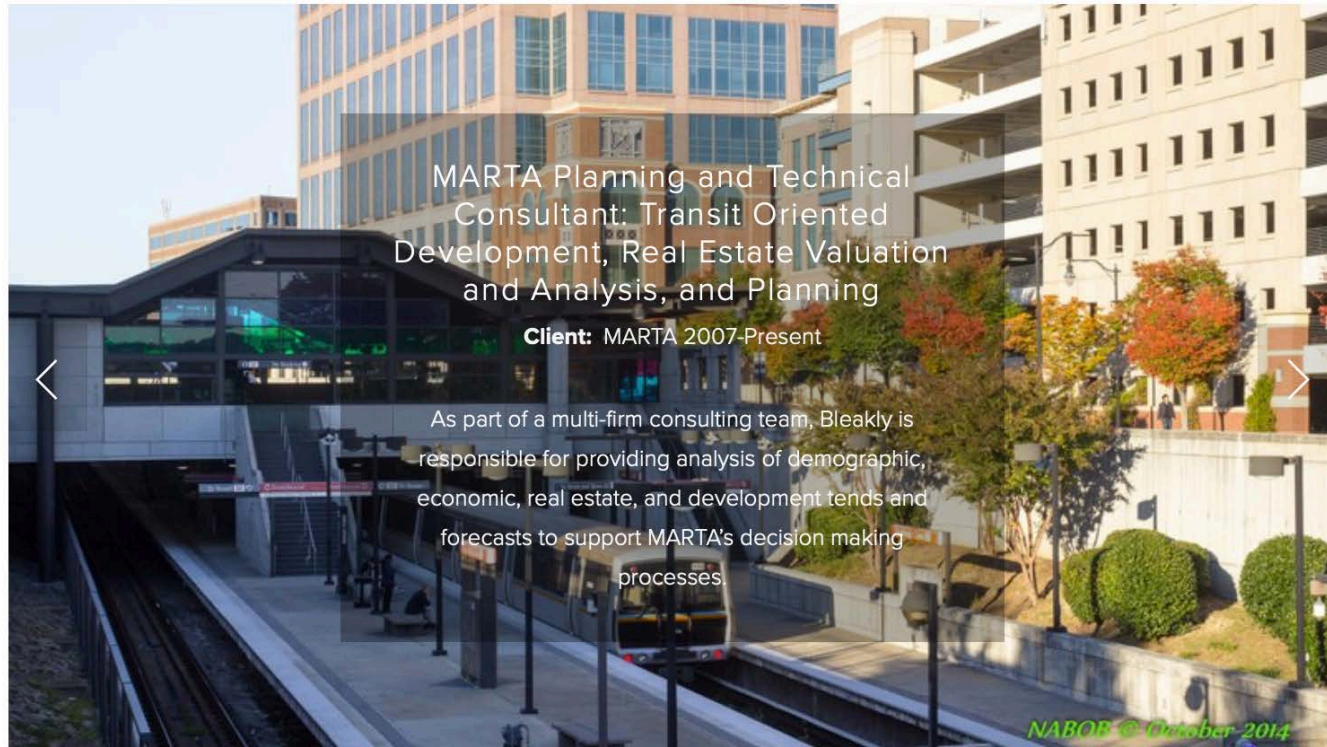
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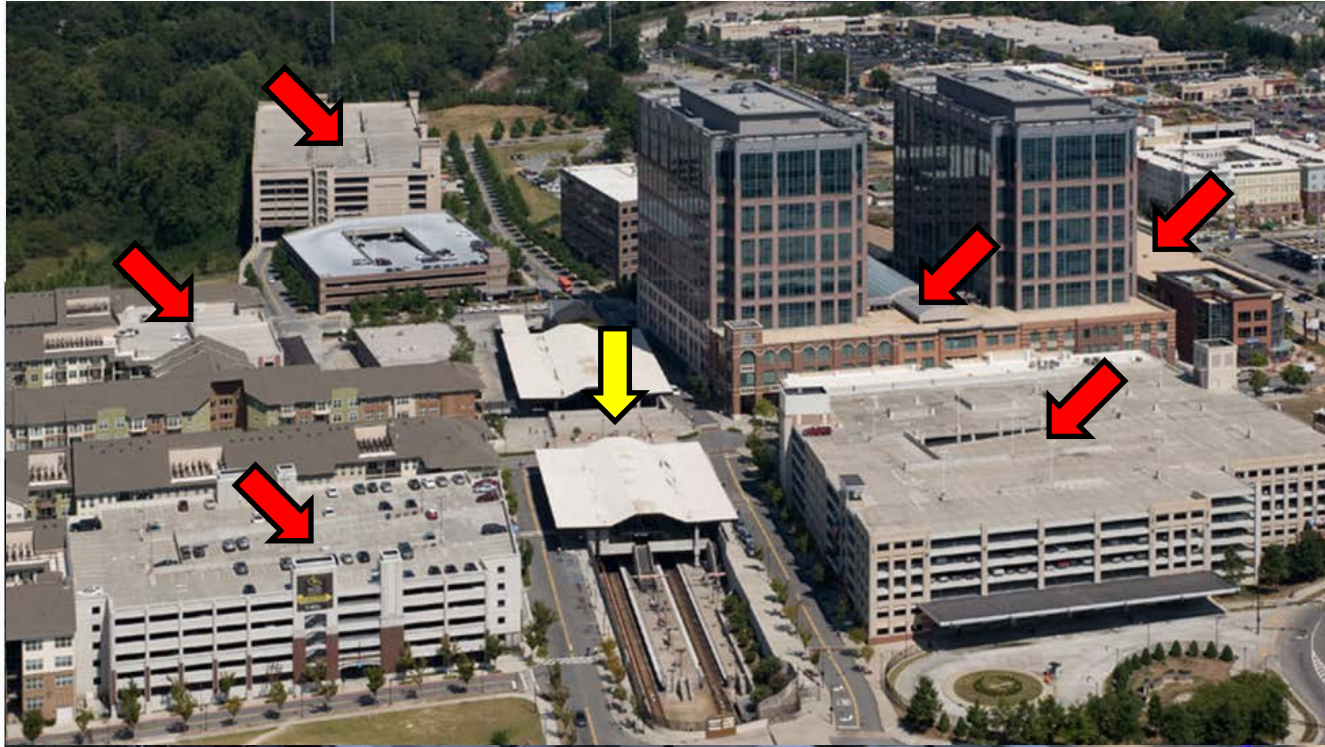
# Transit Orientation

**Transit Oriented Development:** Development near transit with limited parking availability and parking policies that induce transit ridership and reduce dependence on automobiles.



# Transit Orientation?

**Transit Adjacent Development:** Development near transit with high parking availability and parking policies that encourage automobile ownership and use, reducing transit ridership.



# Transit Oriented Parking Requirements

	<b>Conventional Minimum Parking Requirements</b>	<b>Tailored Minimum Parking Requirements</b>	<b>No Parking Requirements</b>	<b>Maximum Parking Requirements</b>
<b>Typical Tools</b>	<ul style="list-style-type: none"> <li>- Requirement &gt; average demand</li> <li>- Hides all parking costs</li> </ul>	Adjust for: <ul style="list-style-type: none"> <li>- density</li> <li>- transit</li> <li>- mixed use</li> <li>- on-street spaces</li> <li>... etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Market decides</li> <li>- Garages funded by parking revenues</li> <li>- Manage on-street parking</li> <li>- Residential parking permits allowed by vote</li> </ul>	<ul style="list-style-type: none"> <li>- Limit parking based on road capacity or transit goals</li> <li>- Manage on-street parking</li> <li>- Market rate fees encouraged/ required</li> </ul>
<b>Traffic</b>	<b>High</b>			<b>Low</b>
<b>Housing Costs</b>	<b>High</b>			<b>Low</b>
<b>Transit Ridership</b>	<b>Low</b>			<b>High</b>

**Figure 6 – Conceptual Approaches to Setting Parking Requirements**



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## Transit Area Residential Parking Analysis

**Matthew Smith**  
Principal

# Transit Area Parking Analysis

1. Residential Parking Permit (**RPP**) Policy Overview
2. Existing Conditions & Key Findings
3. Case Studies & Recommendations

# RPP History in Somerville

## Before 1983

- On street parking is permitted city-wide without a permit, no matter where you live (Somerville, Cambridge, Medford, Salem, Worcester, New York City, etc.).

## April 1983

- Traffic Commission approved a phased implementation of a Resident Parking Permit program where certain streets require a permit to park:
  - June - 12 streets in East Somerville due to the Orange Line (Sullivan Station)
  - July - 19 streets near Beacon street due to Cambridge
  - October - 41 streets near Tufts University
  - Later - 66 streets in Davis Square due to the Red Line (Davis Square Station)
- Somerville residency required.
- Remaining streets were still open for use.

## Fall 2009

- Traffic Commission approved the Resident Parking Permit programs for all Somerville public streets.
- Fully enforced starting January 4, 2010.

# Policy Overview

## ELIGIBILITY

- Somerville residents with registered vehicles
- No limit on number of passes per household

## COST

- Price: \$0.11 cents/day; \$3.33/month

## USE/VALUE

- Allows parking on any residential street

## RELATED POLICIES

- Use of off-street parking is not required

**City of Somerville**  
Department of Traffic and Parking

Parking is an important part of living in Somerville. The Traffic and Parking Department works with other departments in the City to make sure that all public roads are safe and accessible. On this page, you'll find helpful information about parking tickets, permits, street sweeping, and more.

[View More](#)

- Parking Tickets, Booting, & Towing**
- Permits: Resident, Visitor, Business, & More**
- Parking Meters**
- Street Sweeping**
- Parking Regulation Map**
- Snow Emergencies**

We work carefully to balance parking between visitors, businesses, and residents. To help make sure everyone gets a fair chance at finding a spot, we have an array of parking options and permits. The sections below will help you find the right permit for your needs.

[Buy a Residential Parking Permit](#)

You'll need to get a resident parking permit for your car. New residents can get a temporary permit for free. Here's how to apply for these permits:

- You can apply online [here](#). Or, you can print out the forms and bring them to the Traffic and Parking Department at 133 Holland St.
  - [Residential Parking Permit Application](#)
  - [New Resident Temporary Parking Permit Application](#)
- You'll need a copy of your vehicle registration showing that your car is garaged in Somerville. You can find the steps to amending your registration [here](#).
- You'll also need proof of residency, like a gas or electric bill. Leases only count as proof for temporary permits. Find more information about what we'll accept as proof [here](#).
- The temporary permit is valid for up to 30 days. After that, you'll need to get a resident parking permit, which costs \$40. The City is divided into eight zones, and permits are valid for up to one year (depending on the date of the permit purchase and the zone's expiration date).
- For more information, click on the documents below:
  - [Residential Parking Permit Information](#)
  - [New Resident Temporary Parking Permit Information](#)



# Policy Overview

## IMPACTS

### 1. Scarcity of on-street parking

- Negligible cost supports car ownership
- Negligible cost encourages use of on-street spaces
- No requirement to use off-street parking encourages use of on-street spaces (no double parked driveways)
- Unlimited permits per household overcrowds street space regardless of the number of available parking spaces
- Permission to park anywhere in the city incentivizes commuter parking

### 2. Increased motor vehicle traffic

- Permission to park anywhere in the city incentivizes automobile use (contrary to SomerVision).

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# On-Street Permits per Household

## Permit Statistics

- 0.93 permits per household (citywide)
- 0.27 permits per household (10+ units)
- 1.13 vehicles per household (citywide)
- 0.37 permits per resident (city wide)

## Key Findings

- Households in multi-unit buildings (10+ units) are less likely to have a permit (1 in 4 vs 1 per citywide)
- Multi-unit buildings averaging more than one permit per household are in areas currently outside of walking distance to transit
- Highest permit densities are in areas with few multi-unit buildings (West Somerville, Ball Square, Winter Hill/Magoun Square)



# On-Street Permits in Transit Areas

## ¼ Mile of Red/Orange Line

- Davis 11.6 permits/acre
- Porter 10.5 permits/acre
- Sullivan 14.1 permits/acre
- Assembly 0.3 permits/acre

## ¼ Mile of GLX Stations

- Gilman 15.9 permits/acre
- Magoun 16.7 permits/acre
- Ball 17.7 permits/acre
- Union 8.8 permits/acre
- East Somerville 7.6 permits/acre

## Key Findings

- Parking permit density increases as distance from transit increases
- Future GLX areas have the highest existing parking permit densities



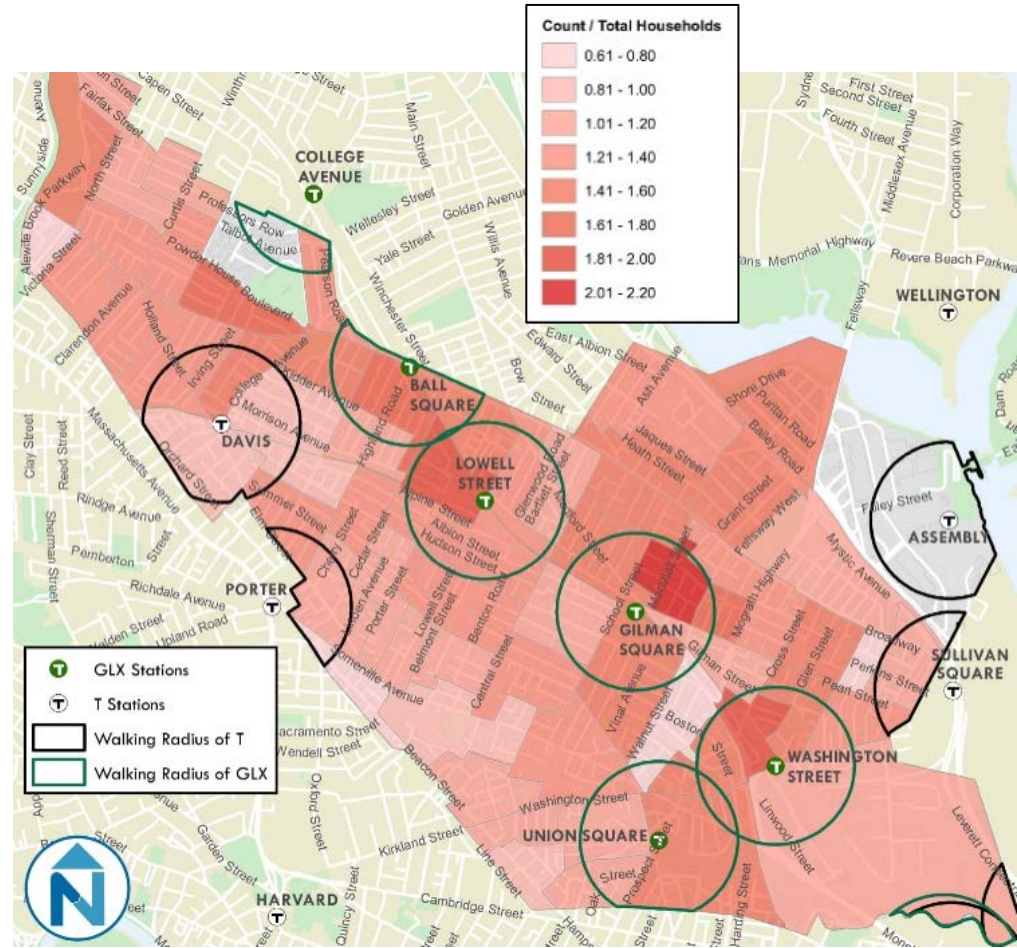
# Registered Vehicles in Transit Areas

## Total Registered Vehicles

- 39,691 city wide

## Key Findings

- Future GLX areas currently have a higher than average registered vehicles per household
- Areas outside walking distance to transit have higher than average registered vehicles per household (Ten Hills, West Somerville)
- Red/Orange Line areas have fewer registered vehicles per household



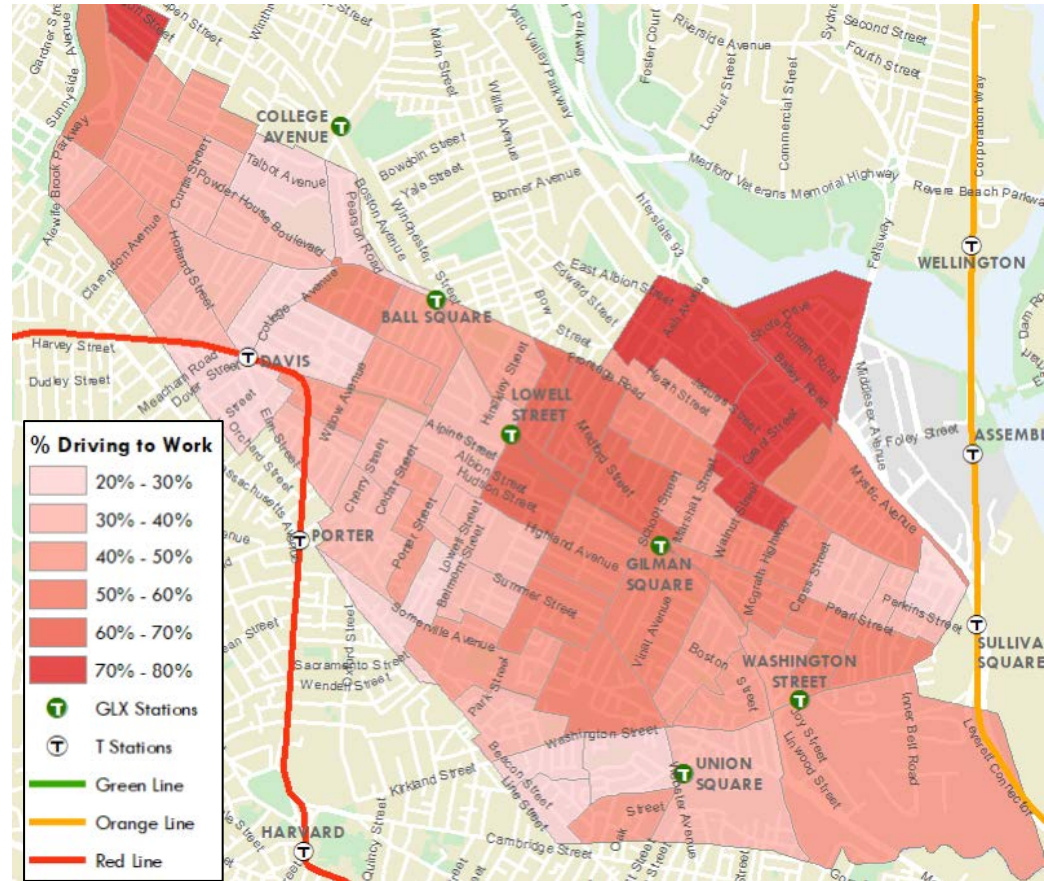
# Driving to Work

## Key Findings

- Households with limited transit access have highest rates of driving to work (West Somerville, Magoun/Winter Hill, Ten Hills).
- Less than 50% of the residents in the Ball Square Transit Area drive to work, but the area also has some of the highest on-street parking permit densities.

## Takeaway

- Additional neighborhood serving convenience retail is most likely needed to reduce the need to drive for residents of Ball Square.



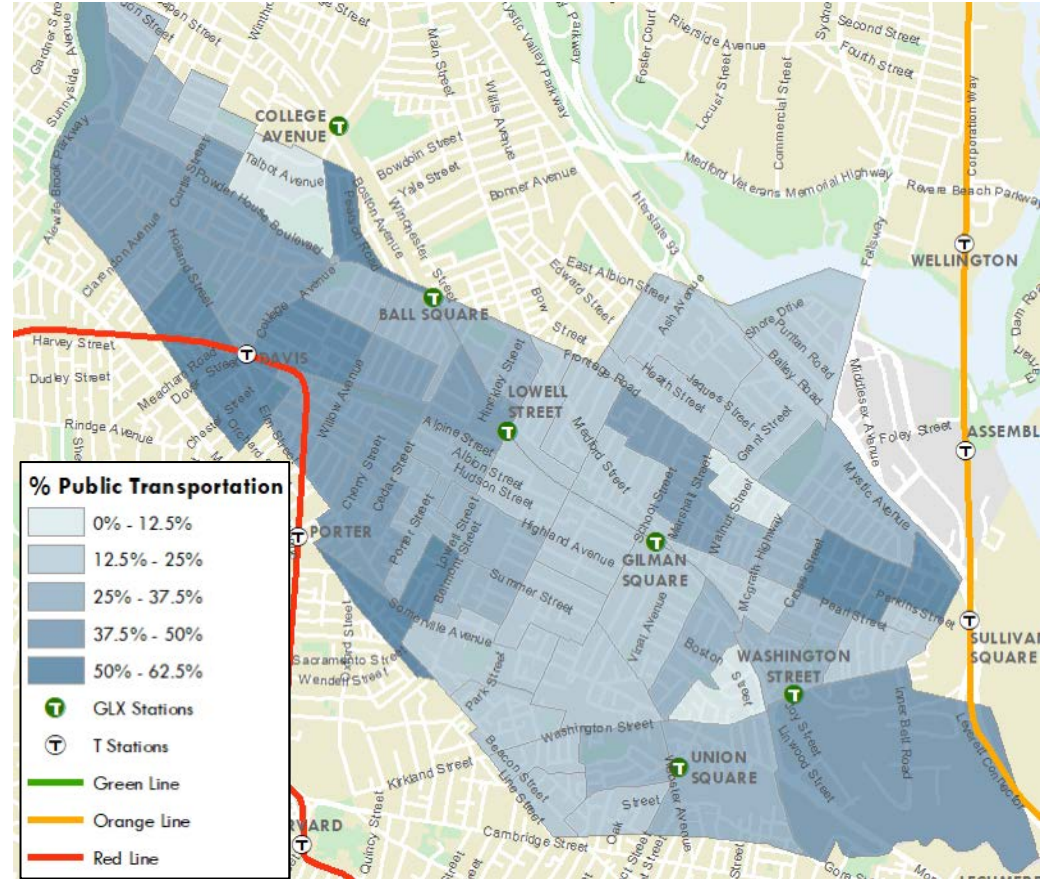
# Taking Public Transit to Work

## Key Findings

- Residents closest to Red and Orange Line stations are less likely to drive to work, and the most likely to use transit.
- Given the above correlation, current residents of GLX Transit Areas are likely to adapt to similar travel patterns over time.

## Takeaway

- Policy to support the desired travel behavior of existing and future residents in the GLX Transit Areas should be implemented now.
- Minimum parking requirements for new development in future GLX Transit Areas would undermine the desired means of travel. Parking maximums can help to ensure the orientation to transit is not undermined during the construction and early operations phases of the GLX.



# Key Findings

## On-Street Permit Statistics

- Average Residential Parking Permits:
  - Multi-Unit Buildings (10+ Units): **0.25** per Household
  - Red/Orange Transit Areas: **0.58** per Household
  - Future GLX Transit Areas: **1.02** per Household (“Ward 5” **1.32** per household)

## Journey to Work

- Households outside Transit Areas drive to work at a higher rate than households within Transit Areas
- Areas outside walking distance to transit have higher than average registered vehicles per household

## Transit Areas

- Red and Orange line Transit Areas have fewer registered vehicles per household
- Future GLX Transit Areas currently have higher than average registered vehicles per household
- Future GLX Transit Areas currently have the highest residential parking permit densities
- Residential parking permit densities increases as walking distance from transit increases.

# Takeaways

## Reducing Automobile Dependence

- Additional neighborhood serving convenience retail is most likely needed to reduce the need to drive for residents of Ball Square.

## Transit Orientation of GLX Areas

- Policies to support the desired travel behavior of existing and future residents in GLX Transit Areas should be implemented now.
- Minimum parking requirements for new development in future GLX Transit Areas will undermine the desired means of travel (non-automobile).
- Parking maximums can help to ensure the orientation to transit is not undermined during the construction and early operations phases of the GLX.



# Case Studies

## Limit or Restrict RPPs in Transit Areas

- Portland, OR
- Arlington, VA

## Other Related Policies

- Restrict RPPs for Buildings with Off-Street Parking
  - Arlington, VA
  - Princeton, NJ
- Restrict RPPs to Specific Zones
  - Boston, MA
  - Salem, MA
  - Arlington, VA
- Limit Permits per Household
  - Princeton, NJ
  - Portland, OR
  - Anaheim, CA
- Tiered Pricing
  - Boston, MA
  - Portland, OR
  - Golden, CO

# Recommendations

## OVERALL

1. Implement policies to prohibit new development in Transit Areas from creating additional traffic & parking problems.
2. Consider policies to adapt existing buildings in Transit Areas to a Transit-Orientated future.

## Cause No Additional Traffic & Parking Problems

- Prohibit all new development in Transit Areas from acquiring Residential Parking Permits.

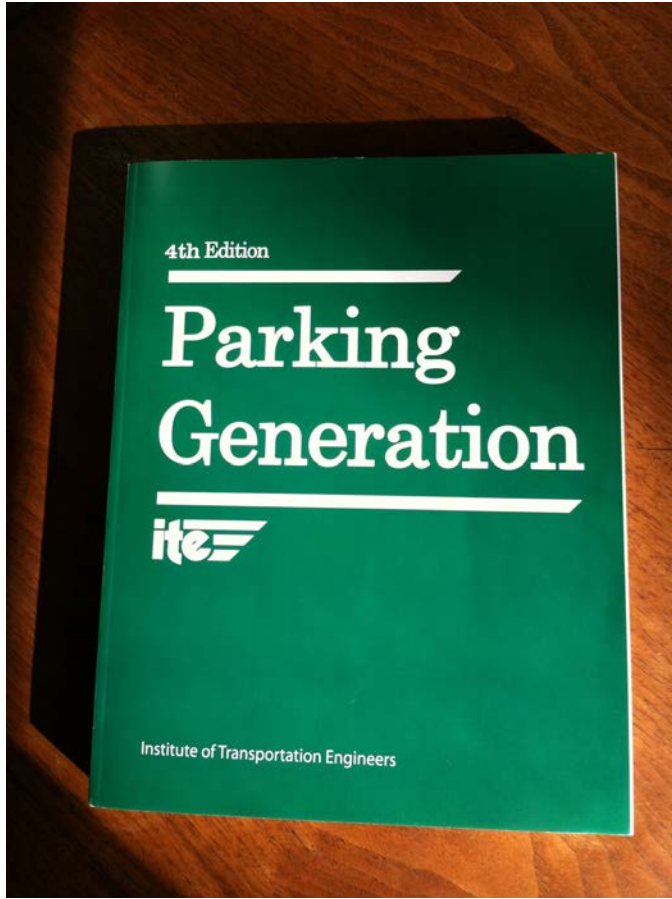
## Adapting Existing Buildings?

- Restrict or limit RPPs for existing buildings that have off-street parking
- Limit the number of permits available
  - Limited number per household or based on street capacity
- Increase fees
  - Increase to reflect demand in general; offer tiered pricing for additional permits; or increase fees if off-street parking exists

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  - a) **Minimum Parking Requirements**
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# Minimum Parking Requirements



Institute of  
Transportation  
Engineers

“Information and statistics are provided only as an informational guide []. This informational report does not provide authoritative findings, recommendations, or standards on parking demand.”

– Pg. 1, **Parking Generation 4<sup>th</sup> Ed.**

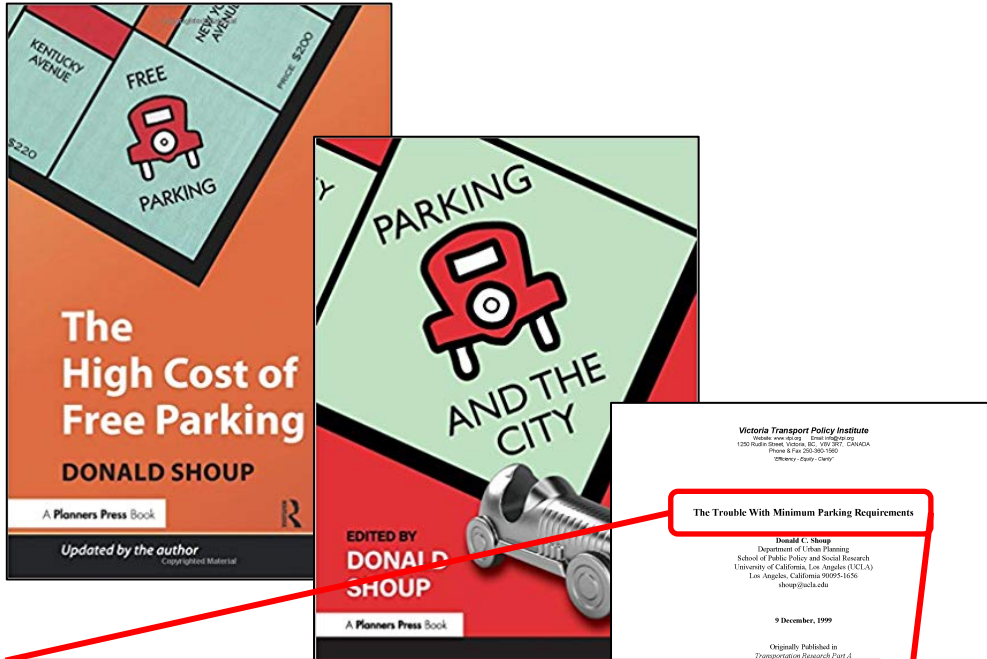
“Most of the data currently available are from suburban sites with isolated individual land uses with free parking.

Surveys of local conditions should always be considered as the best means to estimate parking demand to account for local factors.”

– Pg. 2, **Parking Generation 4<sup>th</sup> Ed.**

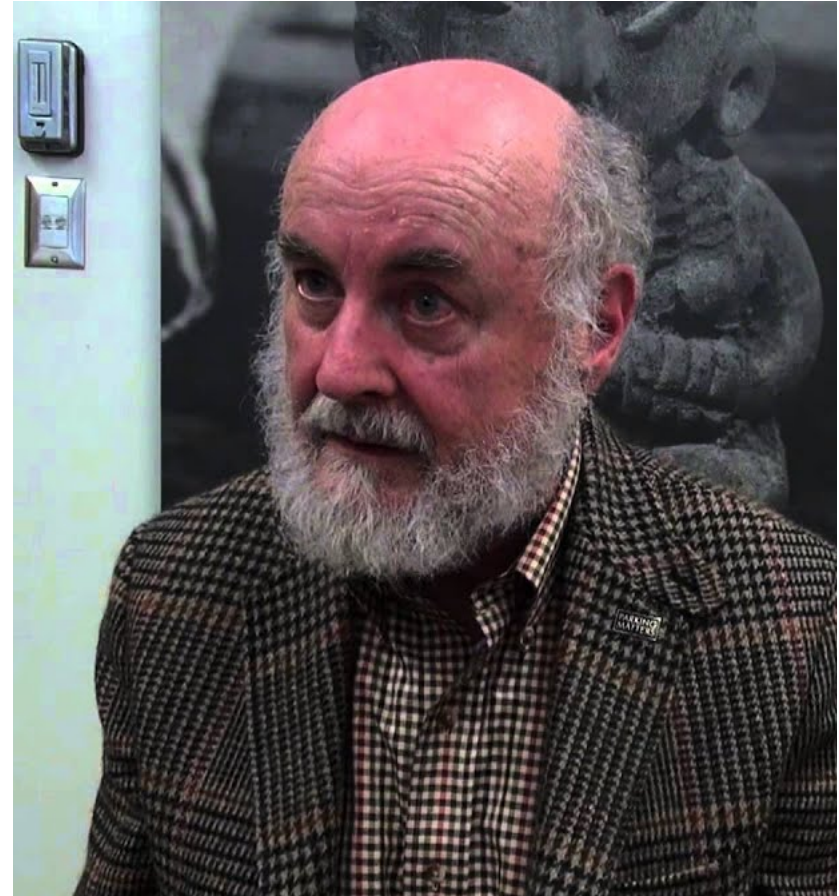


# Minimum Parking Requirements

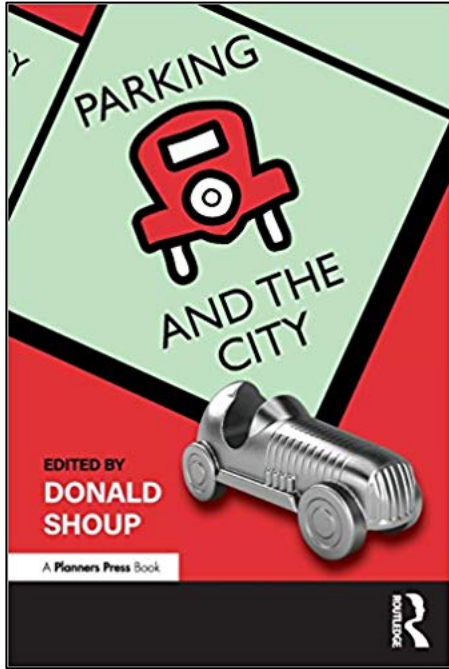


## The Trouble With Minimum Parking Requirements

**Donald C. Shoup**  
Department of Urban Planning  
School of Public Policy and Social Research  
University of California, Los Angeles (UCLA)



# Minimum Parking Requirements



Donald Shoup reiterates and distills his earlier work into three recommended parking reforms designed to improve cities, the economy, and the environment:

1. Remove minimum requirements for **off-street** parking spaces
2. Charge the right price for **on-street** parking spaces
3. Reinvest parking revenues on improving transportation and parking.

# Minimum Parking Requirements



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**ite journal**  
A COMMUNITY OF TRANSPORTATION PROFESSIONALS

**Parking**

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**president's message**

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**Institute of Transportation Engineers**  
142 East Street, 14th Floor, New York, NY 10003, USA  
Telephone: +1 212 368-3344 | Fax: +1 212 368-3344  
[www.ite.org](http://www.ite.org)

**Rethinking Parking Minimums**

The inception of parking started in the 1920s and 1930s in the United States as cars were the new status symbol of wealth. There were rows of cars lining the curbs of streets, with no rules governing parking. The first parking meter was installed in the United States in 1935 in Oklahoma City, OK. Privately run off-street lots became popular to meet the demand, and parking structures sprung up to provide parking in proximity to surrounding destinations. Over time, parking management has become more complex and rules were needed to add order.

City zoning ordinances were introduced which identified minimum parking requirements, which are typically calculated on a base unit, such as required stalls per 1,000 square feet of office space, or stalls per bed at a hospital. Developers were required to conform to the minimum parking requirements before they could develop their land. The minimums, however, result in an over-supply of parking. For example, a small restaurant could require a parking area that is 10 times larger than the footprint of the building. The overbuilding of parking increases the distance between buildings and impacts the dense, walkable commercial areas that we enjoy. Further, it is estimated that 25 to 30 percent of congestion in a downtown is caused by motorists searching block after block for available parking.

There is no such thing as free parking. It all comes at some cost. When you go to the grocery store, the cost of parking is included in your purchase. As a first-time homeowner, you may pay an extra \$8,000 on the price of a new condo because the cost of the required parking space is buried in the purchase price. Parking minimums make some broad assumptions, including the idea that all homeowners can afford a car, want to pay for a parking stall, and that the car is their preferred mode of transportation. This works against many other policies a city creates to encourage sustainable development, promote active transportation, and serve low income families.

This discussion reminds me of the 1970s Joni Mitchell song *Big Yellow Taxi* in which she famously sings, "They paved paradise and put up a parking lot." Here are some easy ways to regain a piece of paradise:

- 1. Eliminate mandatory minimum parking requirements** – This elimination will not only give people more say over how they live their lives and use their property, but it's also an important step in developing affordable housing. Buffalo, NY, USA and Hartford, CT, USA have recently scrapped their minimum parking requirements.
- 2. Use data, technology, and pricing to manage parking** – The District Department of Transportation in Washington, DC, USA uses sensors embedded at metered stalls to measure parking availability, and then pricing is changed based on demand.
- 3. Help developers and city staff better understand parking demand** – ITE's *Parking Generation Manual*, 5th Edition is set for release and will allow better estimation of parking demand based on a newer, expanded data set and now for different locations including rural, urban/suburban, multi-use sites, and downtowns.
- 4. Promote alternate modes to curb parking demand** – Good parking planning goes hand-in-hand with good city policies on transit, as well as cycling and walking.

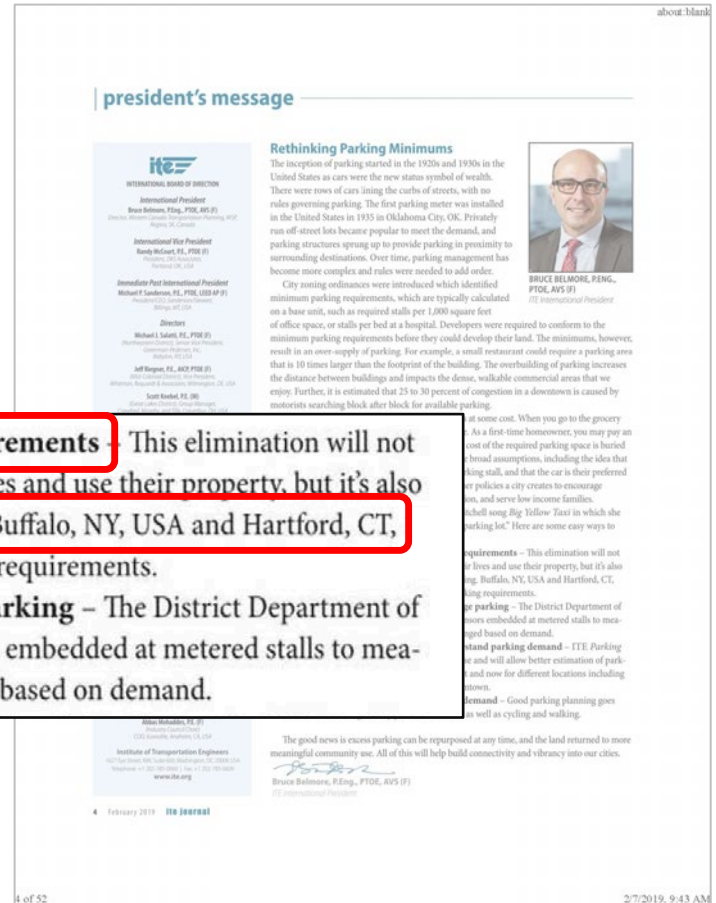
The good news is excess parking can be repurposed at any time, and the land returned to more meaningful community use. All of this will help build connectivity and vibrancy into our cities.

*Bruce Belmore*  
Bruce Belmore, PEng, FTCE, AVS (F)  
ITE International President

4 February 2019 **ITE Journal**

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# Minimum Parking Requirements



- 1. Eliminate mandatory minimum parking requirements** - This elimination will not only give people more say over how they live their lives and use their property, but it's also an important step in developing affordable housing. Buffalo, NY, USA and Hartford, CT, USA have recently scrapped their minimum parking requirements.
- 2. Use data, technology, and pricing to manage parking** - The District Department of Transportation in Washington, DC, USA uses sensors embedded at metered stalls to measure parking availability, and then pricing is changed based on demand.







## Unified Development Ordinance

PREPARED FOR  
THE CITY OF BUFFALO  
MAYOR'S OFFICE OF STRATEGIC PLANNING  
MAYOR BYRON W. BROWN  
SEPTEMBER 2016



PRODUCED BY  
camiros

ZONE  
**HARTFORD**

**Zoning  
Regulations**

Effective January 19, 2016  
Last Amended November 17, 2017

**HARTFORD**  
★ HAS IT



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# Transit Areas



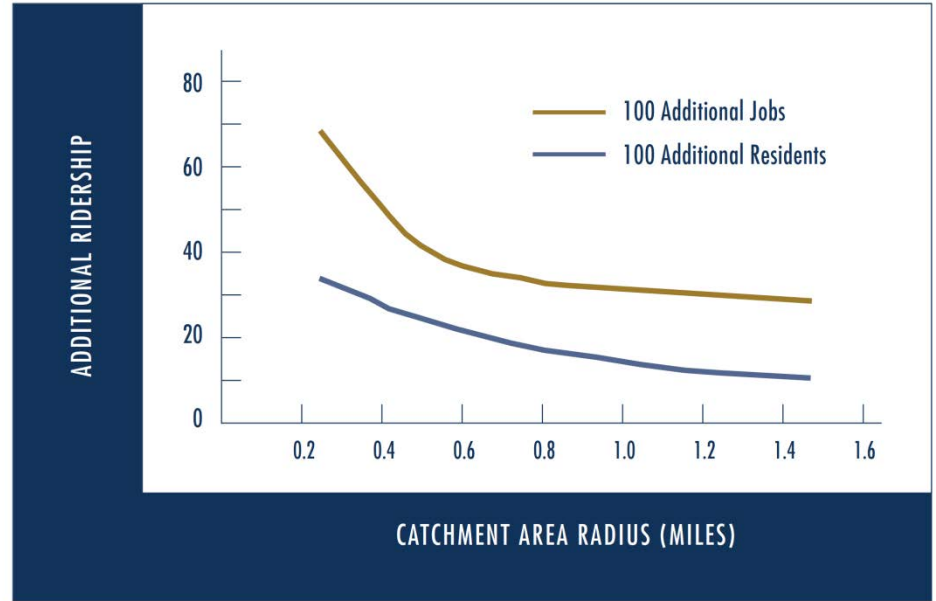
## DR. Robert Cervero (UC Berkeley)

2013 Study of 1,450 U.S. Transit Stations

- $\frac{1}{4}$  mile is the distance people are willing to walk when traveling to/from work
- $\frac{1}{2}$  mile is the distance people are willing to walk when traveling to/from home

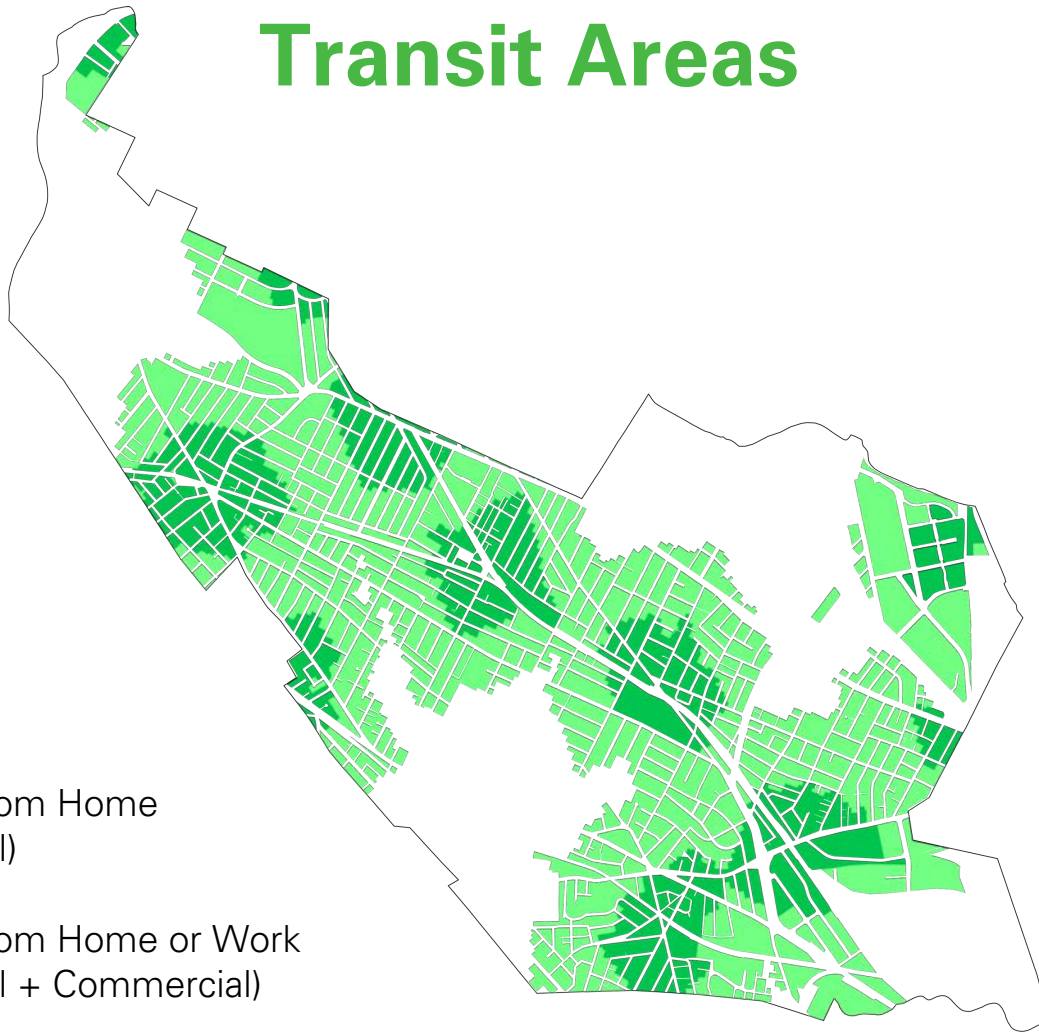


# Transit Areas



- The closer housing and jobs are to transit the higher probability residents and employees will use the service.
- People are generally willing to walk further to higher capacity, more frequent service and will typically walk further to rail than they will to the bus.

# Transit Areas



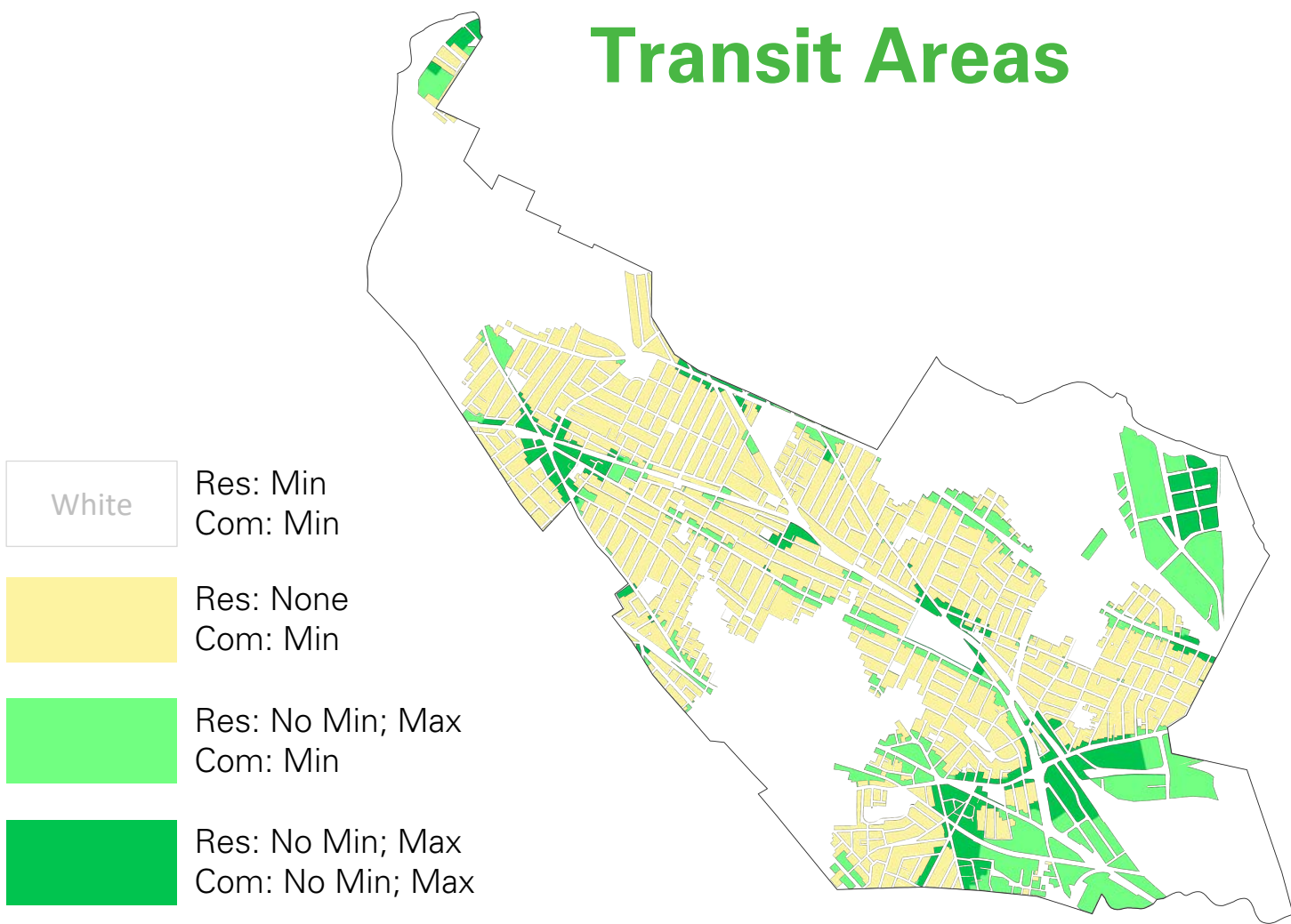
Walk To/From Home  
(Residential)



Walk To/From Home or Work  
(Residential + Commercial)



# Transit Areas



# Transit Oriented Parking Requirements

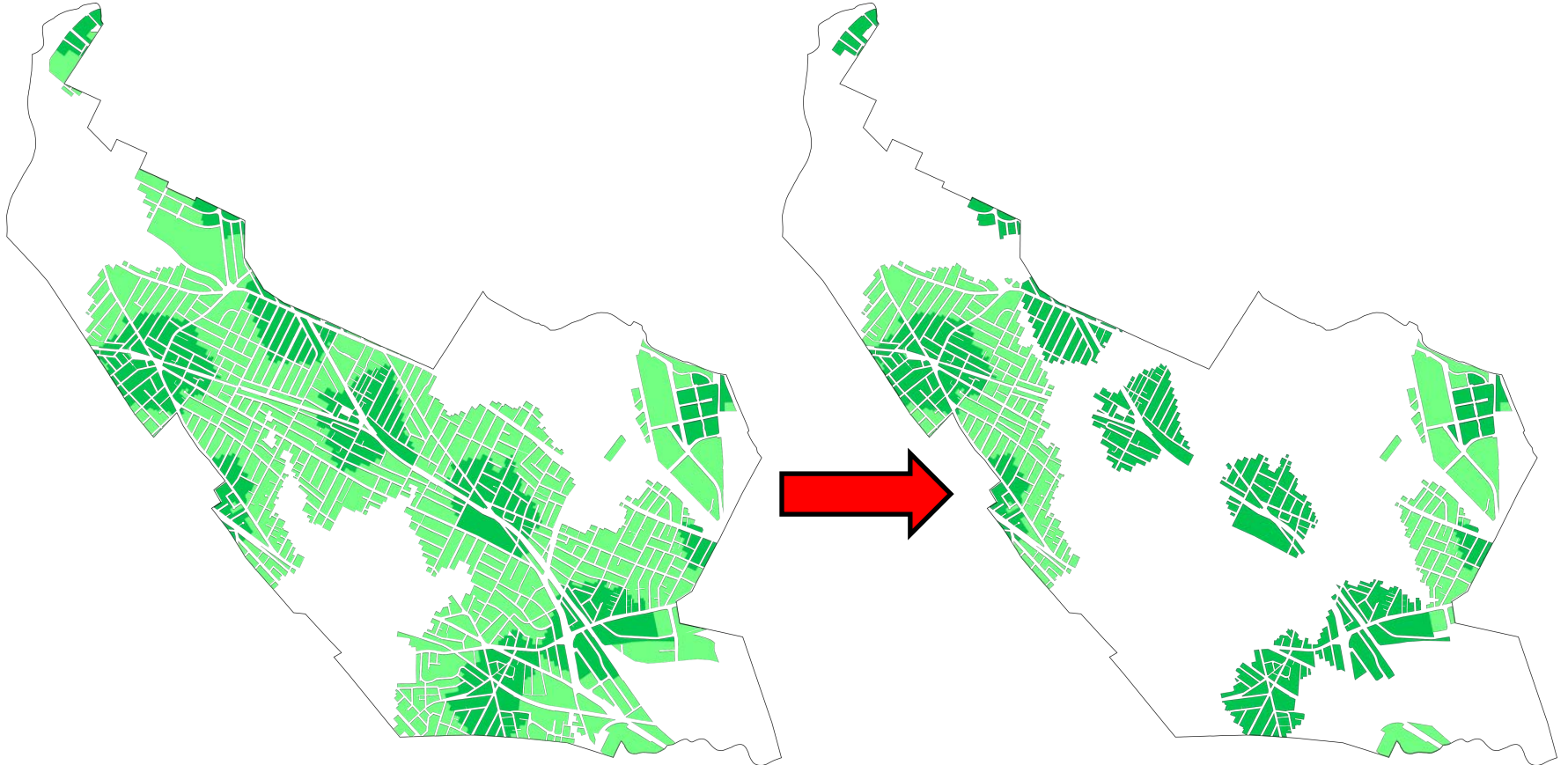
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<b>Traffic</b>	High	←	←	←	Low
<b>Housing Costs</b>	High	←	←	←	Low
<b>Transit Ridership</b>	Low	←	←	←	High

Figure 6 – Conceptual Approaches to Setting Parking Requirements



# Proposed Amendments

Reduce GLX Transit Areas to ¼ mile





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  - c) District Parking Maximums**

# District Parking Maximums

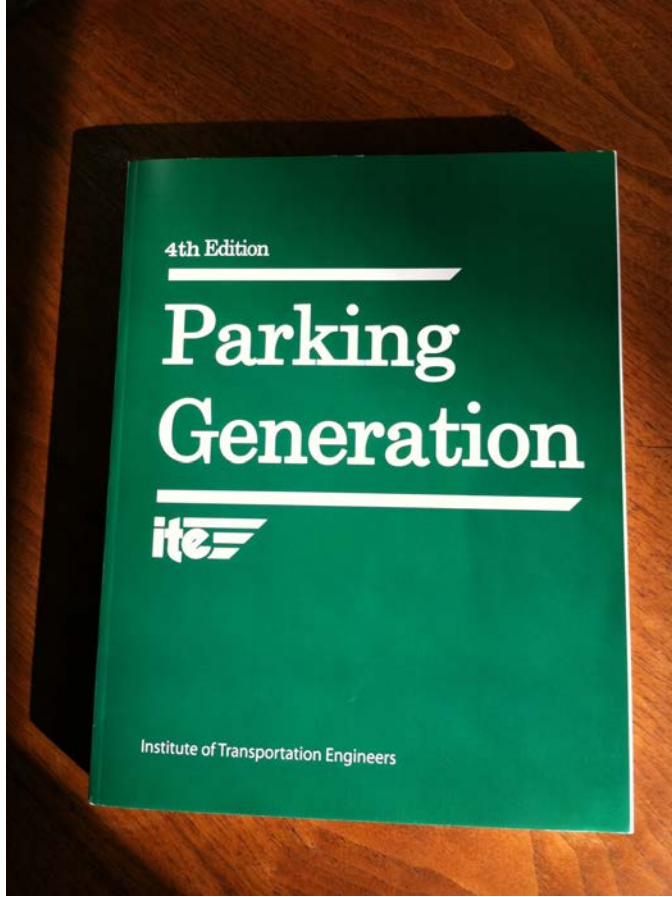
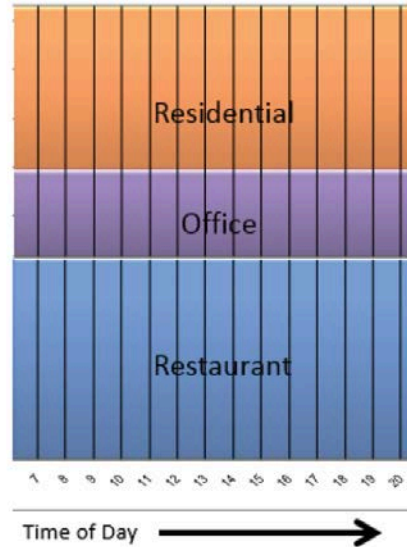


Figure 1 Example Parking Requirements vs. Real Demand

## Dedicated Supply



# District Parking Maximums

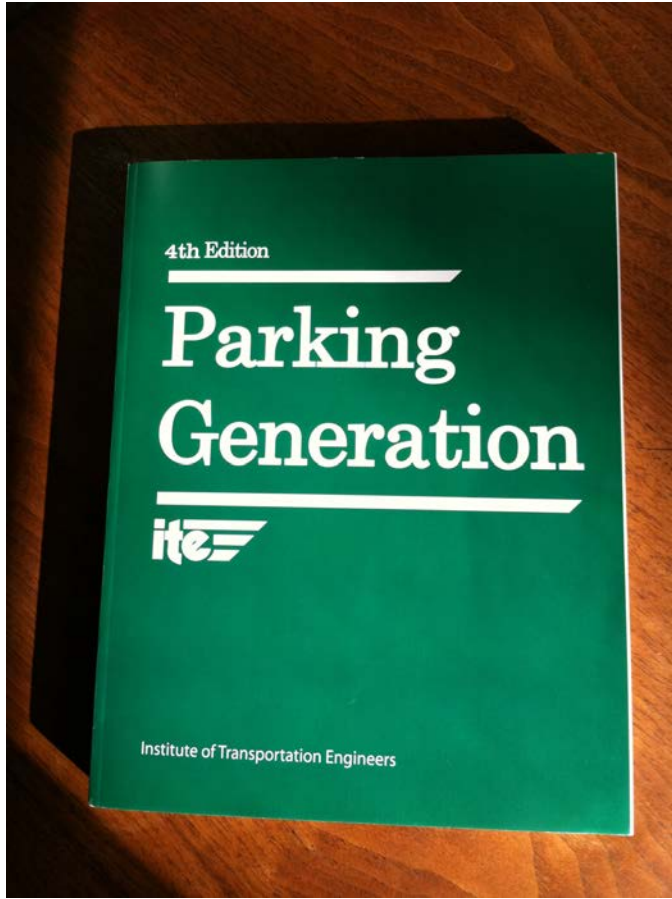
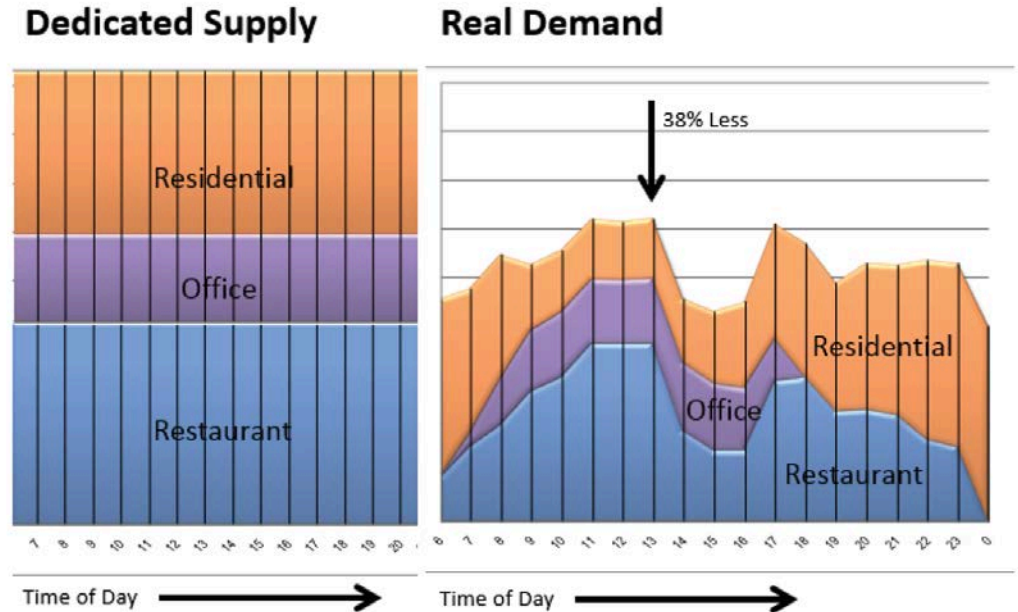


Figure 1 Example Parking Requirements vs. Real Demand



# District Parking Maximums



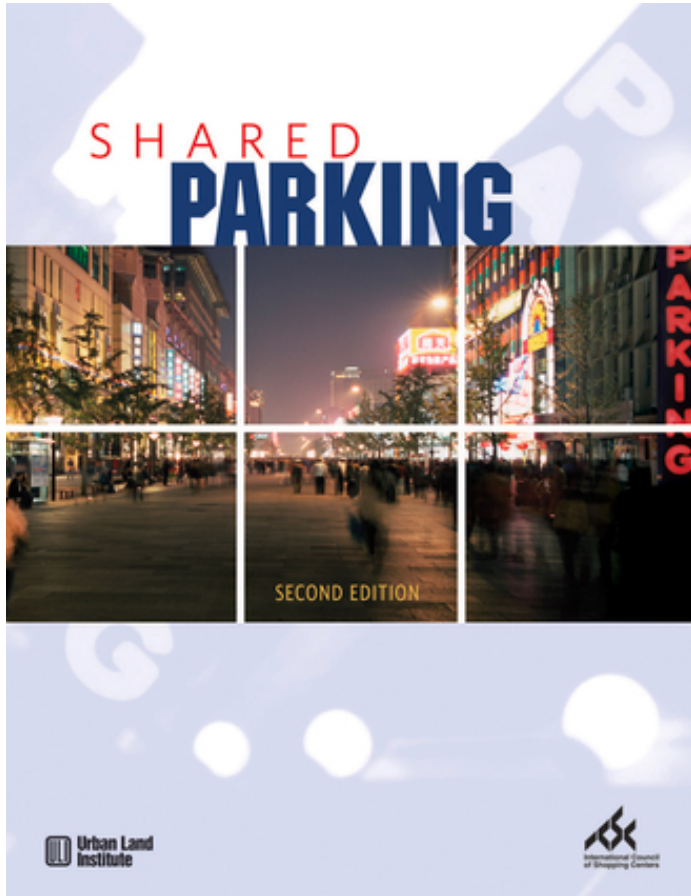
Numerous characteristics can impact parking demand (local surroundings, transit services, mobility management, pricing, shared parking, internal capture, etc.)

– Pg. ix, **Parking Generation 4<sup>th</sup> Ed.**

ULI's **Shared Parking Model** provides a systematic way to apply appropriate adjustments to ITE data to estimate parking demand in mixed use urban areas.

- **Residential:**  $(1-0.30) * (1-0.31) * (1-0.30) * 1.1$
- **Office/Lab:**  $(1-0.32) * ((1-0.04) * (1-0.24) * (1-0.40) * 2.47) + 0.04 * (1-0.32) * (1-0.08) * 2.47$
- **Hotel:**  $(1-0.32) * (1-0.08) * ((1-0.24) * 0.2 * 0.6 + (1-0.2) * 0.6)$
- **Retail:**  $(1-0.32) * (1-0.08) * ((1-0.24) * 0.2 * 2.55 + (1-0.2) * 2.55)$

# District Parking Maximums



## Parking Demand Calculator

	<u>Office/Lab SF</u>	<u>Hotel Rooms</u>	<u>Residential Units</u>
	⇓⇓	⇓⇓	⇓⇓
	Replace Numbers Below		
Site 1	1,100,000	175	1,000
Site 2			
Site 3			
Site 4			
Site 5			
Site 6			
Site 7			
Site 8			
Site 9			
Site 10			
Site 11			
Site 12			
Site 13			
Site 14			
Site 15			
Site 16			
Site 17			
Site 18			
Site 19			
Site 20			

<b>TOTAL</b>	<b>1,100,000</b>	<b>175</b>	<b>1,000</b>
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Spaces/1000	1100	-	-
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<b>ITE Base Rate</b>	<b>2.47/1000</b>	<b>0.6/room</b>	<b>1.1/DU</b>
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Model Adjustments	0.68	0.68	0.70
	1.0812672	0.92	0.69
	0.06180928	0.5712	0.70

<b>Adjusted Rate</b>	<b>0.797</b>	<b>0.357</b>	<b>0.372</b>
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### Commercial Parking Spaces

Space per Use Category	877	63	372
<b>Demand Estimate (max)</b>	<b>1311</b>		

### Reserved Spaces (for Specific Users)

% of Total per Use	10%	30%	50%
# of Total per Use	87.68	52.50	185.96
<b>Demand Estimate (max)</b>	<b>326</b>		

## Retail Parking Demand Calculator

	<u>Retail SF</u>
	⇓⇓
Site 1	165,000
Site 2	
Site 3	
Site 4	
Site 5	
Site 6	
Site 7	
Site 8	
Site 9	
Site 10	
Site 11	
Site 12	
Site 13	
Site 14	
Site 15	
Site 16	
Site 17	
Site 18	
Site 19	
Site 20	

<b>TOTAL</b>	<b>165,000</b>
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Spaces/1000	165
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<b>ITE Base Rate</b>	<b>2.55/1000</b>
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Model Adjustments	0.68
	0.92
	2.4276

<b>Adjusted Rate</b>	<b>1.519</b>
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### On-Street Spaces

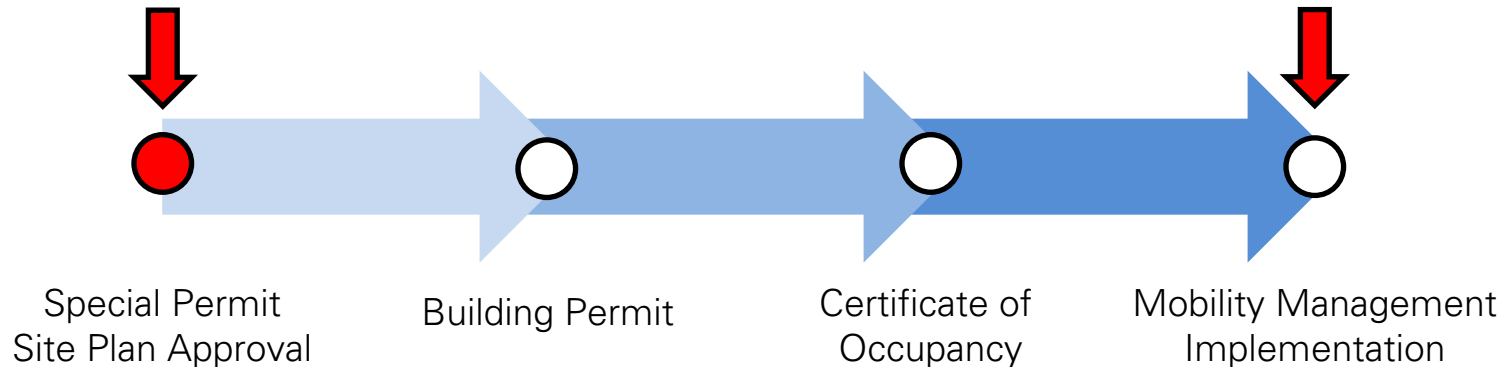
<b>Ideal</b>	<b>251</b>
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# Proposed Zoning Amendments

Add criteria for granting a Special Permit to exceed District Parking Maximums

Special Permits to exceed district Parking Maximums should require “implementation and an evaluable track record of mobility management”





City of Somerville  
**ZONING OVERHAUL**

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[www.somervillezoning.com](http://www.somervillezoning.com)

April 30, 2019