Upcoming Schedule

TUE April 30  Parking
TUE May 14  Affordable Housing
WED May 15  Map changes DUE from WARD Councilors
MON May 20  ???
TUE May 28  ???
THURS May 30  ???
MON July 8  Last possible LUC meeting before summer recess
THURS, July 11  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 1/4 mile
Proposed Zoning Amendment #2

Add criteria for granting a Special Permit to exceed District Parking Maximums
Today’s Agenda

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2. **Transit Orientation**
3. Residential Parking Permits
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   b) Transit Areas
   c) District Parking Maximums
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

<table>
<thead>
<tr>
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<td></td>
<td>- Hides all parking costs</td>
<td>- Garages funded by</td>
<td>capacity or transit goals</td>
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<td></td>
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<td>parking revenues</td>
<td>- Manage on-street parking</td>
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<td>- Manage on-street</td>
<td>- Residential parking permits</td>
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<td></td>
<td></td>
<td>parking</td>
<td>allowed by vote</td>
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<td></td>
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<td>- Market rate fees</td>
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<td>encouraged/ required</td>
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<tr>
<td><strong>Traffic</strong></td>
<td>High</td>
<td>High</td>
<td>Low</td>
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<tr>
<td><strong>Housing Costs</strong></td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Transit Ridership</strong></td>
<td>Low</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
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**Figure 6 – Conceptual Approaches to Setting Parking Requirements**
Today’s Agenda

1. Proposed Policy & Amendments
2. Transit Orientation
3. **Residential Parking Permits**
4. Parking Requirements
   a) Transit Areas
   b) Minimum Parking Requirements
   c) District Parking Maximums
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
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).
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
  o Limited number per household or based on street capacity
• Increase fees
  o Increase to reflect demand in general; offer tiered pricing for additional permits; or increase fees if off-street parking exists
Today’s Agenda

1. Proposed Policy & Amendments
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Minimum Parking Requirements

“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 4th 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 4th 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)
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

Rethinking Parking Minimums

The invention of parking spaces in the 1920s and 1930s in the United States was one of the new urban models of the 1920s. There was a need of cars using the streets, with no rules governing parking. The first parking space was initially in the United States in 1921 in Williamsburg City Hall. Property owners often included parking spaces in their buildings, and there was a demand for parking in the surrounding destinations. Over time, parking management has become more complicated, and costs have increased, while the city’s parking ordinances were introduced which identified minimum parking requirements, which are typically calculated on a base rate, such as required stalls per 1,500 square feet of other space, or as a percentage at a hospital. Developers were required to ensure that the minimum parking requirements before they could develop their land. The minimums, however, would include costs of supply of parking. For example, a small restaurant could require a parking area that is 10% larger than the footprint of the building. The overbuilding of parking increases the distances between buildings and impacts the climate, urban commercial rate that we enjoy. The city estimates that 10 to 15% of a development is done because of business requirements in the city's parking code. There is some such thing as too much parking. It all comes at some cost. When you go to the grocery store, the cost of parking is included in the price. As of 2019, the frequency, you pay an extra 18.00 or the price of a car service because the cost of renting parking space is based on the purchase price. Parking minimums make some basic assumptions, including the idea that all commuters can afford a car, want to pay for parking space, and that the car is the preferred mode of transportation. This works against other policies a city may have to encourage sustainable development, promote active transportation, and serve low-income families. This discussion started with the 1970s bus to walk, the yellow taxi, to which the financially-minded, “They provide parking and put up a parking tax.” Here are some simple ways to reduce a parking problem:

1. Eliminate mandatory minimum parking requirements. This elimination will not reduce parking use, but it may stop how they have been used and use these properties but it can also be an important step in developing affordable housing. If the interactive planning and design are mandating each and every space office, then they may be able to change their zoning parking regulations.

2. Use data, technology, and pricing to manage parking. The city's Department of Transportation in Washington, DC, uses real-time information and different systems in many new parking spaces. This pricing is charged based on demand.

3. Help developers and city staffs better understand parking demand. The office of parking management services is not uniform, and will allow better estimation of parking demand based on a survey, experiment data, and so for different locations including urban, suburban, rural, multi-use areas, and surroundings.

4. Pressure alternative modes to existing parking demand. Good parking planning goes hand-in-hand with good bicycle movement, as well as cycling and walking.

Mayor Joseph A Curtatone
Office of Strategic Planning & Community Development

City of Somerville
ZONING OVERHAUL
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 in 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.

Parking
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Transit Areas

DR. Robert Cervero (UC Berkeley)

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

- ¼ mile is the distance people are willing to walk when traveling to/from work
- ½ mile is the distance people are willing to walk when traveling to/from home
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

White
- Res: Min
- Com: Min

- Res: None
- Com: Min

- Res: No Min; Max
- Com: Min

- Res: No Min; Max
- Com: No Min; Max
# Transit Oriented Parking Requirements

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<td></td>
<td>- Hides all parking costs</td>
<td>- density</td>
<td>- Garages funded by parking revenues</td>
<td>- Manage on-street parking</td>
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<td></td>
<td></td>
<td>- transit</td>
<td>- Manage on-street parking</td>
<td>- Residential parking permits allowed by vote</td>
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<td>- mixed use</td>
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<td>- Market rate fees encouraged/ required</td>
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<tr>
<td></td>
<td></td>
<td>- on-street spaces</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td>...etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Traffic**      | High                                      | Low                                  | Low                     | High                        |
| **Housing Costs**| High                                      | Low                                  | Low                     | High                        |
| **Transit Ridership** | Low                                   | Low                                  | Low                     | High                        |

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

Reduce GLX Transit Areas to $\frac{1}{4}$ mile
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District Parking Maximums

Institute of Transportation Engineers

Figure 1 Example Parking Requirements vs. Real Demand

Dedicated Supply

Real Demand

38% Less

Time of Day

Time of Day

Residential
Office
Restaurant
Residential
Office
Restaurant
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 4th 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

<table>
<thead>
<tr>
<th>Site</th>
<th>Office/Res</th>
<th>Hotel Rooms</th>
<th>Residential Units</th>
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<tbody>
<tr>
<td>1</td>
<td>1,100,000</td>
<td>175</td>
<td>3,000</td>
</tr>
</tbody>
</table>

TOTAL: 1,100,000 175 3,000

Spaces/1000 1100 0 0

ITE Base Rate 2.47/1000 0.6/room 1.1/DU

Model Adjustments 0.56 0.68 0.70

1.081.2672 0.92 0.69

0.06189523 0.5713 0.70

Adjusted Rate 0.797 0.357 0.372

Commercial Parking Spaces

Space per Use Category 827 63 327

Demand Estimate (max) 1211

Reserved Spaces (for specific users)

% of Total per Use 31% 30% 49%

# of Total per Use 87,68 52,50 185,96

Demand Estimate (max) 826
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
www.somervillezoning.com

April 30, 2019