

Central Hill Campus Parking

Mayor Joseph A. Curtatone

Mike Tremblay, P.E., Senior Transportation Planner

Public Meeting
September 27, 2018

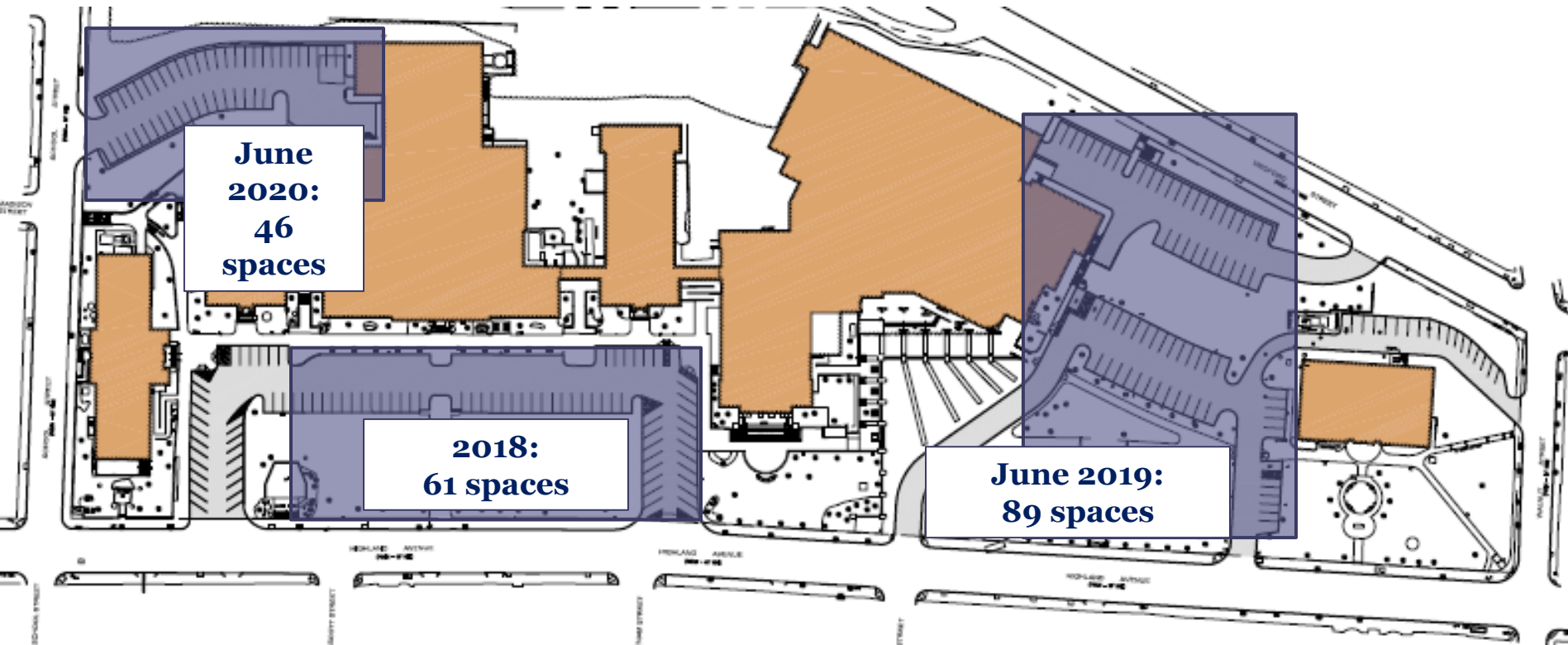


Meeting Agenda

- Review of Project Timeline
- Resident Parking Survey
- Next Steps
- 2018 Parking Study



Project Timeline



- December 2017: City Hall staff given permits to park on-street
- September 2019: School staff to be given permits to park on-street

Resident Survey Results to Date

- Resident survey issued in June 2018; will remain open for more responses
 - <https://www.surveymonkey.com/r/CentralHillParkingSurveyResidents>
 - 46 valid responses from Central Hill residences so far – need more!
- Goal is to understand each households' parking habits and needs
 - One entry per household
- Also collecting City Hall/High School staff surveys beginning in October
 - Goal to determine what strategies may help staff to reduce their parking footprint on/around campus

Next steps

- HSH to conduct additional future analysis
- Post snowstorm counts
- Staff/teacher survey (October)
- Issue RFP for off-site parking locations
- Next meeting Wednesday, December 12
 - 6:00PM at Central Library Auditorium
 - Discuss survey results

Parking Study Introduction

- New study conducted by Howard Stein Hudson, data collected May 2018
- Largely re-performs 2017 study by Nelson\Nygaard, while addressing the following:
 - Fluctuations in the morning peak hour
 - H.S. Seniors who drive and park in neighborhood
 - Evening events
 - Defining what is considered an on-street parking space
 - Snow counts (coming winter 2018/2019)
 - Spot counts January/March 2018 already performed

Howard Stein Hudson study

Central Hill Campus Parking Study

Presented by

Elizabeth Flanagan

Lou Rabito

Prepared by

Howard Stein Hudson

Thursday, September 27, 2018

Somerville Public Safety Building

220 Washington Street

Somerville, MA



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Agenda

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- **Review of Methodology and Existing Conditions**
- **Highest Demand Scenarios**
- **Initial Future Conditions Analysis**
- **Next Steps**

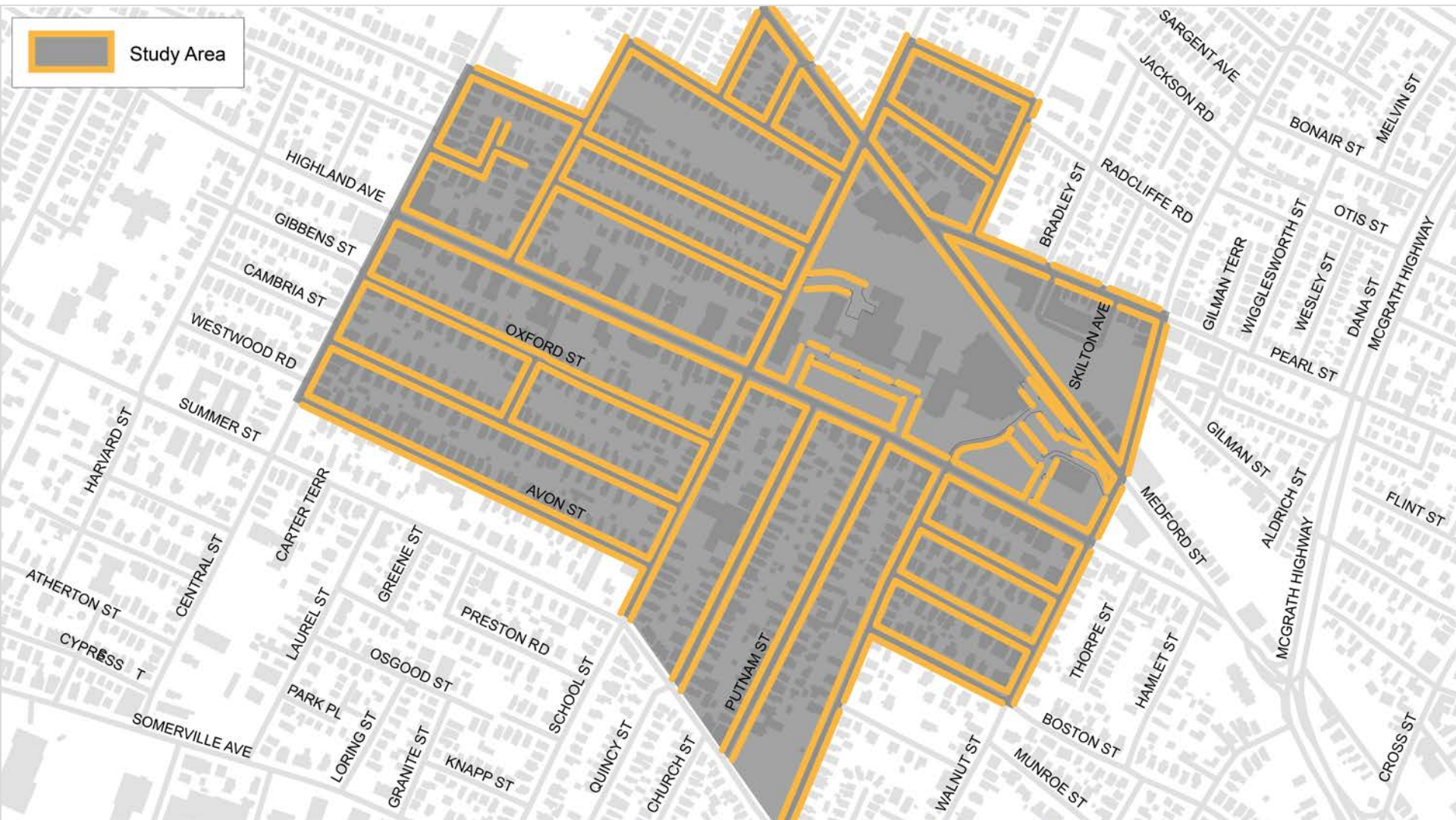


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Study Area

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Existing Supply Inventory

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- **Length of legal on-street parking curb measured between each exclusion:**
 - No parking regulations
 - MBTA bus stops
 - Fire hydrants
 - Driveways
 - Crosswalks
 - Intersections
 - Bridges

- **18 feet per parking space, with a minimum of 15 feet for single spaces**



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Existing Supply Inventory

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■ Exclusions:

- Within 2 feet of a driveway
- Within 10 feet of a fire hydrant
- Within 10 feet of a crosswalk
- Within 20 feet of a intersection



Illegal parking along Pearl Street.

■ Conservative estimate of supply

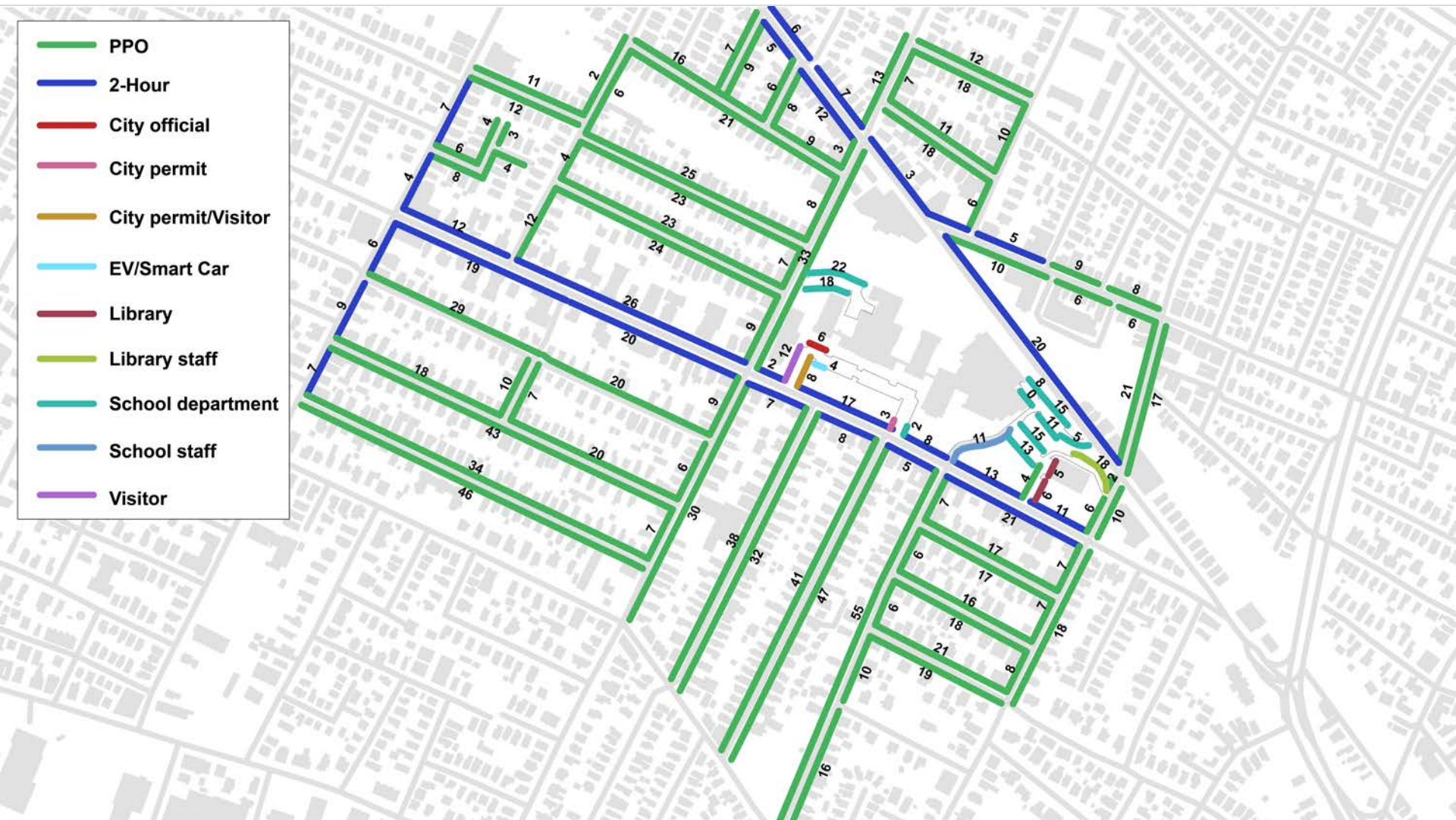


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Study Area - Parking Regulations

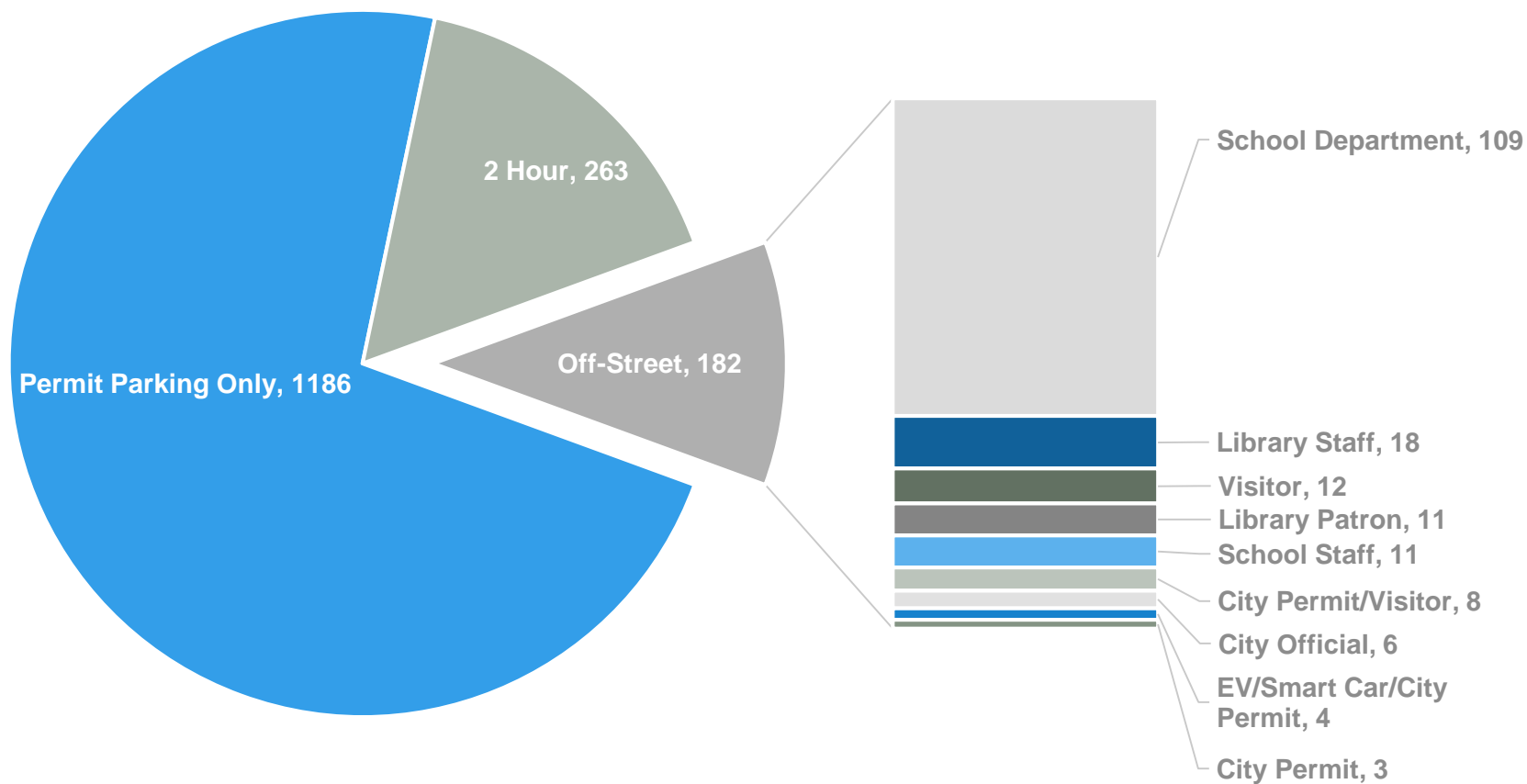
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Existing Supply by Permit Type

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Street Sweeping Zones/Schedule

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Street Sweeping – Estimated Loss of Spaces

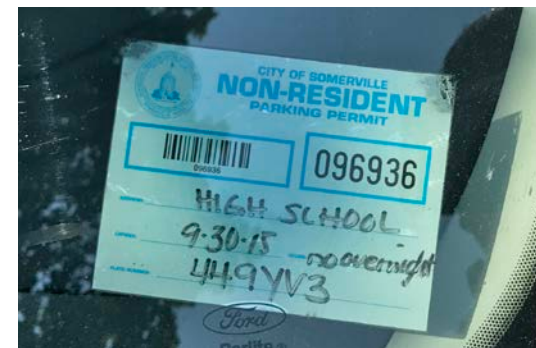
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Occupancy and Permit Counts

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- **Counts conducted at the following times:**
 - 6:00 a.m. – 7:30 a.m.
 - 9:00 a.m. – 12:00 p.m.
 - 6:30 p.m. – 8:30 p.m.
- **On the following days:**
 - Tuesday, May 8th
 - Monday, May 14th
 - Tuesday, May 15th * (no p.m. counts due to weather)
 - Thursday, May 17th
 - Tuesday, May 22nd (p.m. counts only)
 - Thursday, May 24th (p.m. counts only)





Agenda

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- Review of Methodology and Existing Conditions
- **Highest Demand Scenarios**
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- Next Steps



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Demand by Permit

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■ On-Street

- Few permits directly associated with the Campus were observed
- Students and employees may be parking on-street with resident permit
- About 30% of residents vehicles leave during the day
- Other/None category includes commercial vehicles

■ Off-Street

- Non-Residential pass used more frequently for students and employees
- Equivalent amount of High School specific permits, resident permits, and Other/None during the midday



Highest Demand by Time of Day

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	8-May	14-May	15-May	17-May	22-May	24-May
	Tues	Mon	Tues	Thurs	Tues	Thurs
Morning Occupancy	68%	70%	66%	66%	-	
Midday Occupancy	66%	64%	66%	61%	-	-
Evening Occupancy	65%	76%	-	72%	79%	68%

■ Morning

- May 14th (Monday) saw the highest morning occupancy – *70% of existing supply*

■ Midday

- May 8th (Tuesday)/May 15th (Tuesday) saw the highest midday occupancy *66% of existing supply*

■ Evening

- May 22nd (Tuesday) saw the highest evening occupancy – *79% of existing supply*





Map of the City of Cambridge showing the distribution of the 2019-2020 property tax rate by ward. The map uses a color-coded legend to represent different tax rate ranges:

- 0.00-0.25 (Dark Green)
- 0.20-0.50 (Light Green)
- 0.50-0.85 (Yellow)
- 0.85-1.00 (Orange)
- >1.00 (Red)

The map displays various streets and the distribution of these rates across the city. Streets shown include: ALBION ST, HUDSON ST, BENTON RD, HIGHLAND AVE, GIBBENS ST, CAMBRIA ST, WESTWOOD RD, SUMMER ST, HARVARD ST, CENTRAL ST, AVON ST, GREENE ST, PRESTON RD, SCHOOL ST, QUINCY ST, CHURCH ST, PUTNAM ST, WALNUT ST, BOSTON ST, MUNROE ST, HAMLET ST, MEDFORD ST, GILMAN ST, ALDRICH ST, MCGRATH HIGHWAY, FLINT ST, SARGENT AVE, JACKSON RD, BONAIR ST, MELVIN ST, OTIS ST, DANA ST, WIGGLESWORTH ST, WESLEY ST, PEARL ST, RADCLIFFE RD, BRADLEY ST, SKILTON AVE, and GILMAN TERR.



0.00-0.25

0.20-0.50

0.50-0.85

0.85-1.00

>1.00



Legend:

- 0.00-0.25
- 0.20-0.50
- 0.50-0.85
- 0.85-1.00
- >1.00







Rapid Collection – Study Area

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Rapid Occupancy Counts

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- **Counts conducted at the following times:**

- 7:30 a.m. – 8:00 a.m.
- 8:00 a.m. – 8:30 a.m.
- 8:30 a.m. – 9:00 a.m.

- **On the following days:**

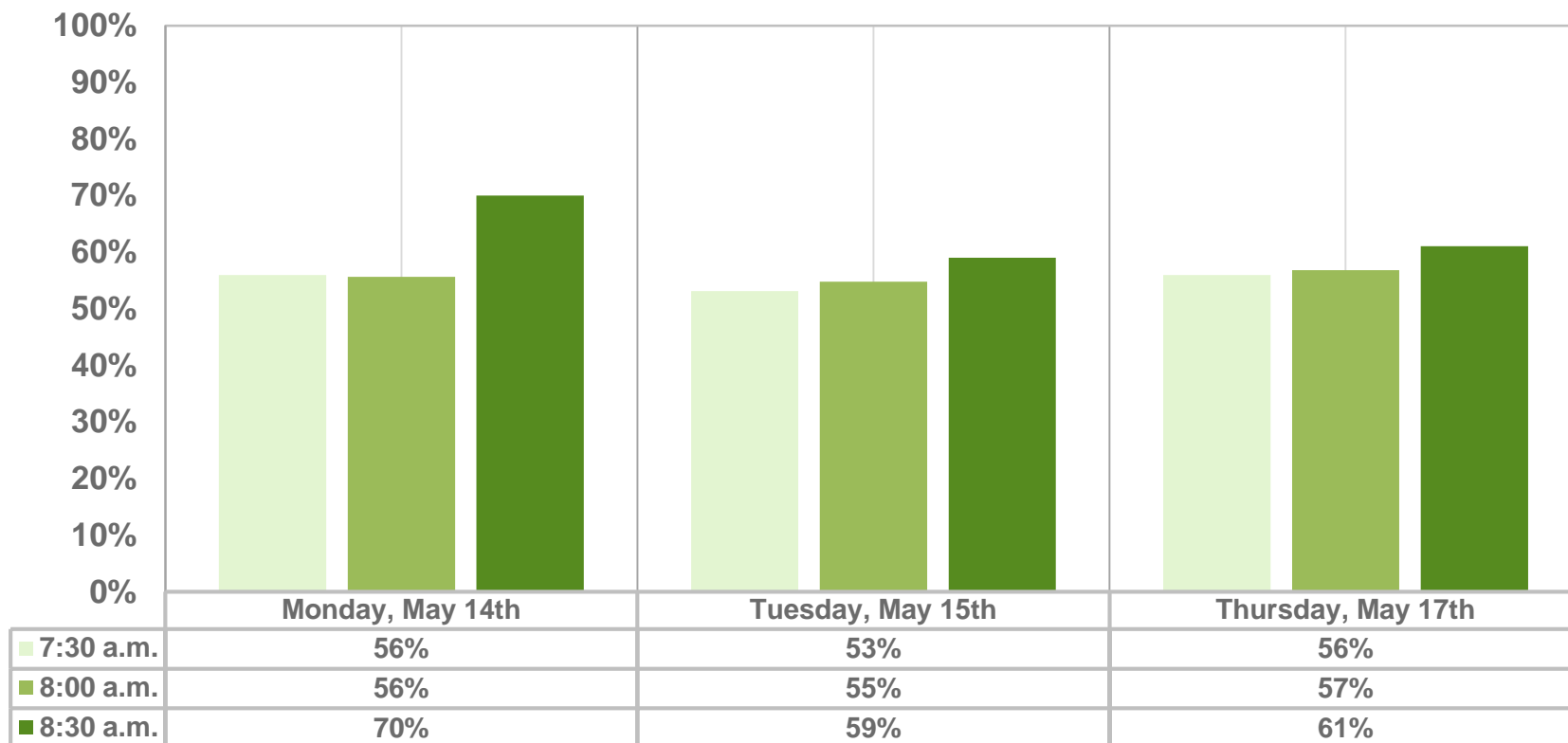
- Monday, May 14th
- Tuesday, May 15th
- Thursday, May 17th





Rapid Collection – A.M. Turnover

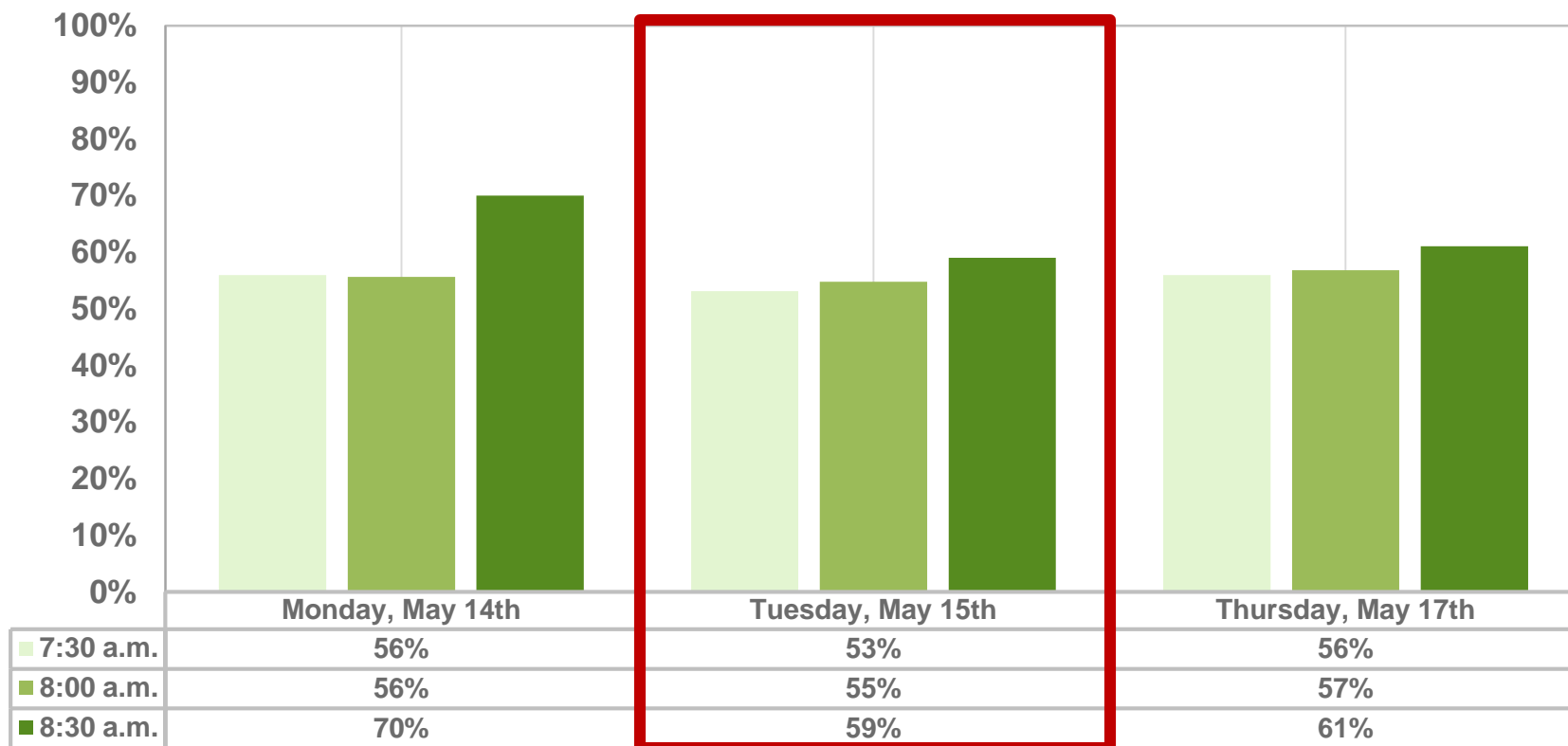
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Rapid Collection – A.M. Turnover

Engineers + Planners

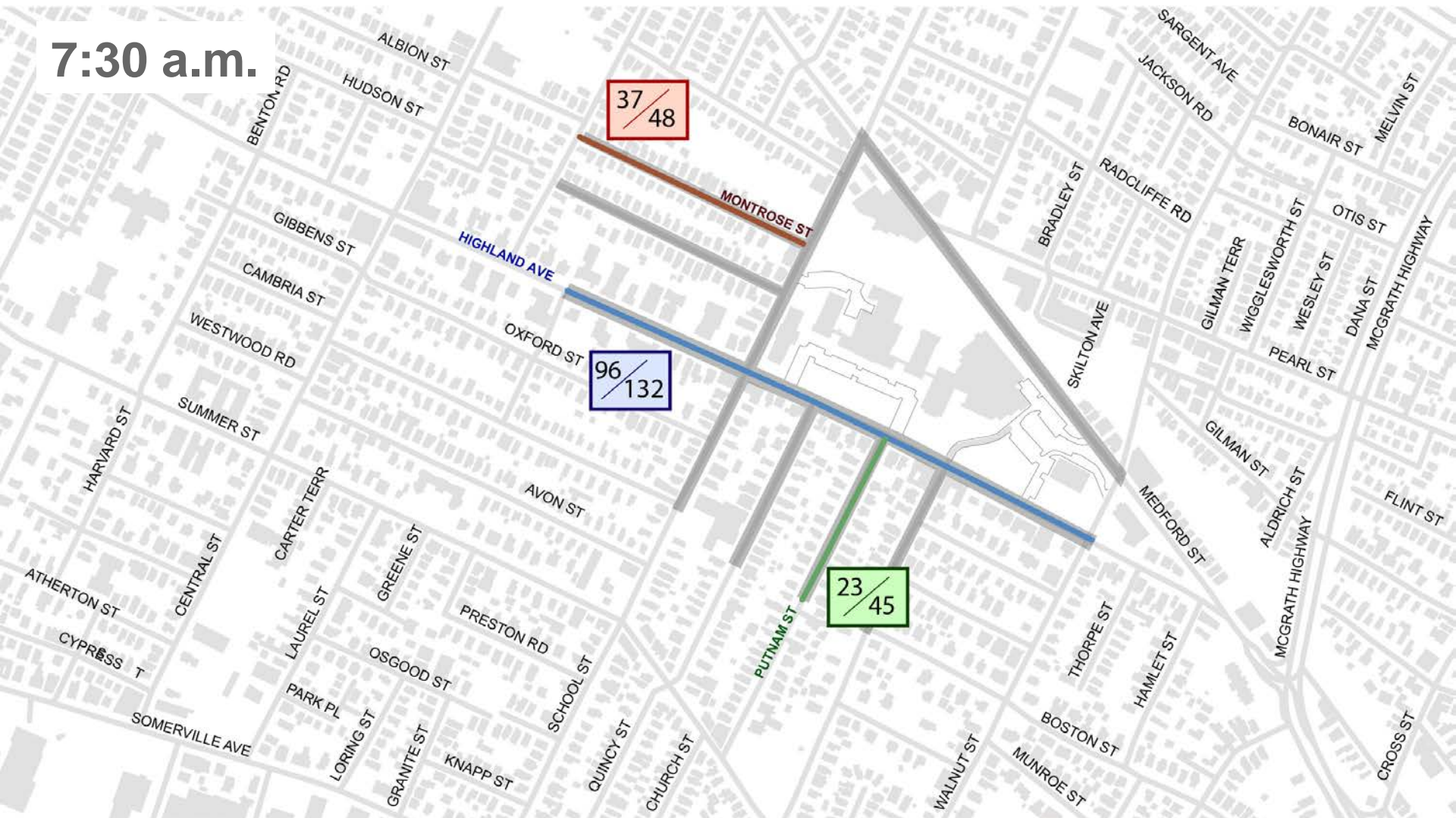




Rapid Collection – May 15th A.M. Turnover

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7:30 a.m.

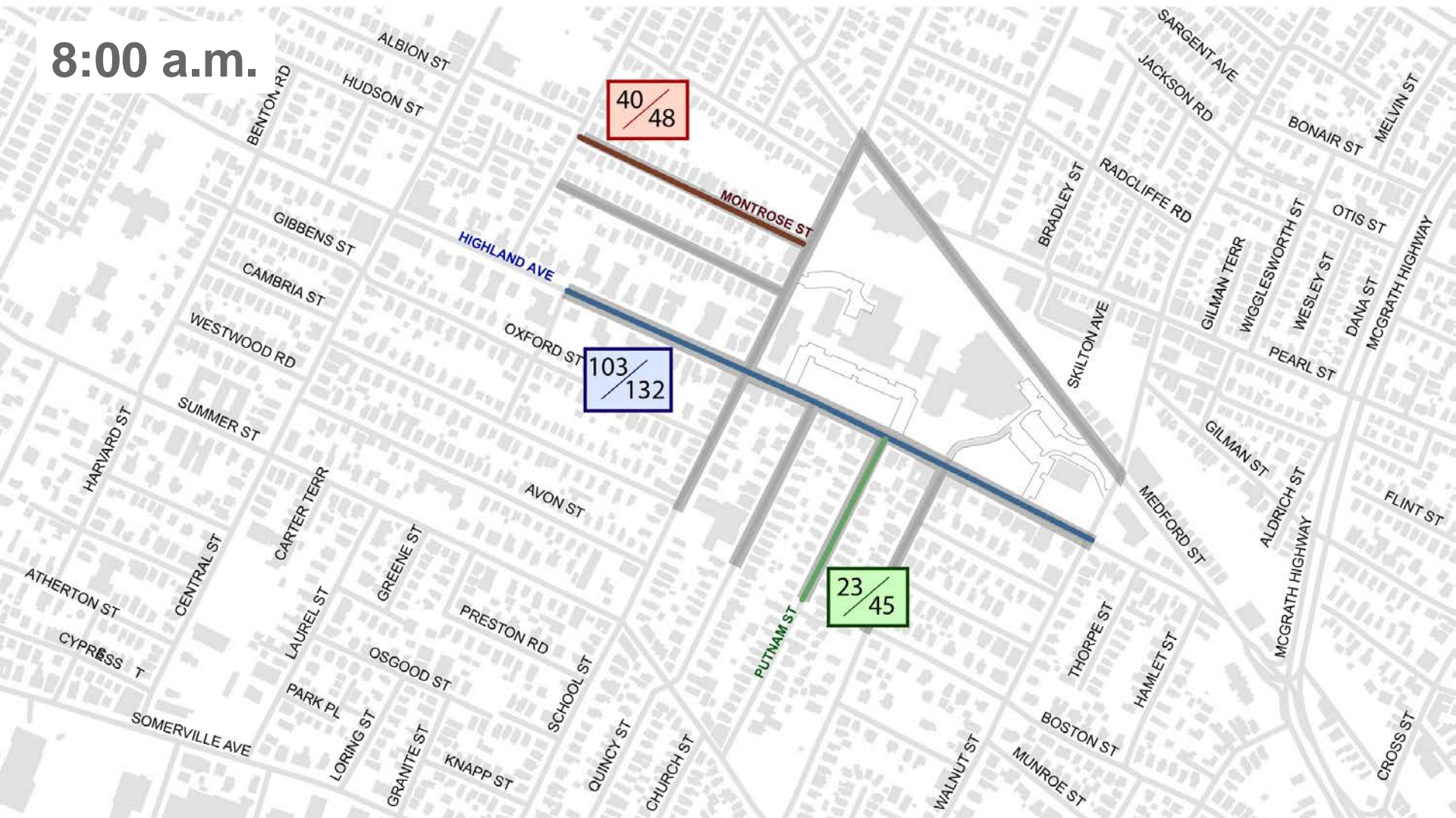




Rapid Collection – May 15th A.M. Turnover

Engineers + Planners

8:00 a.m.

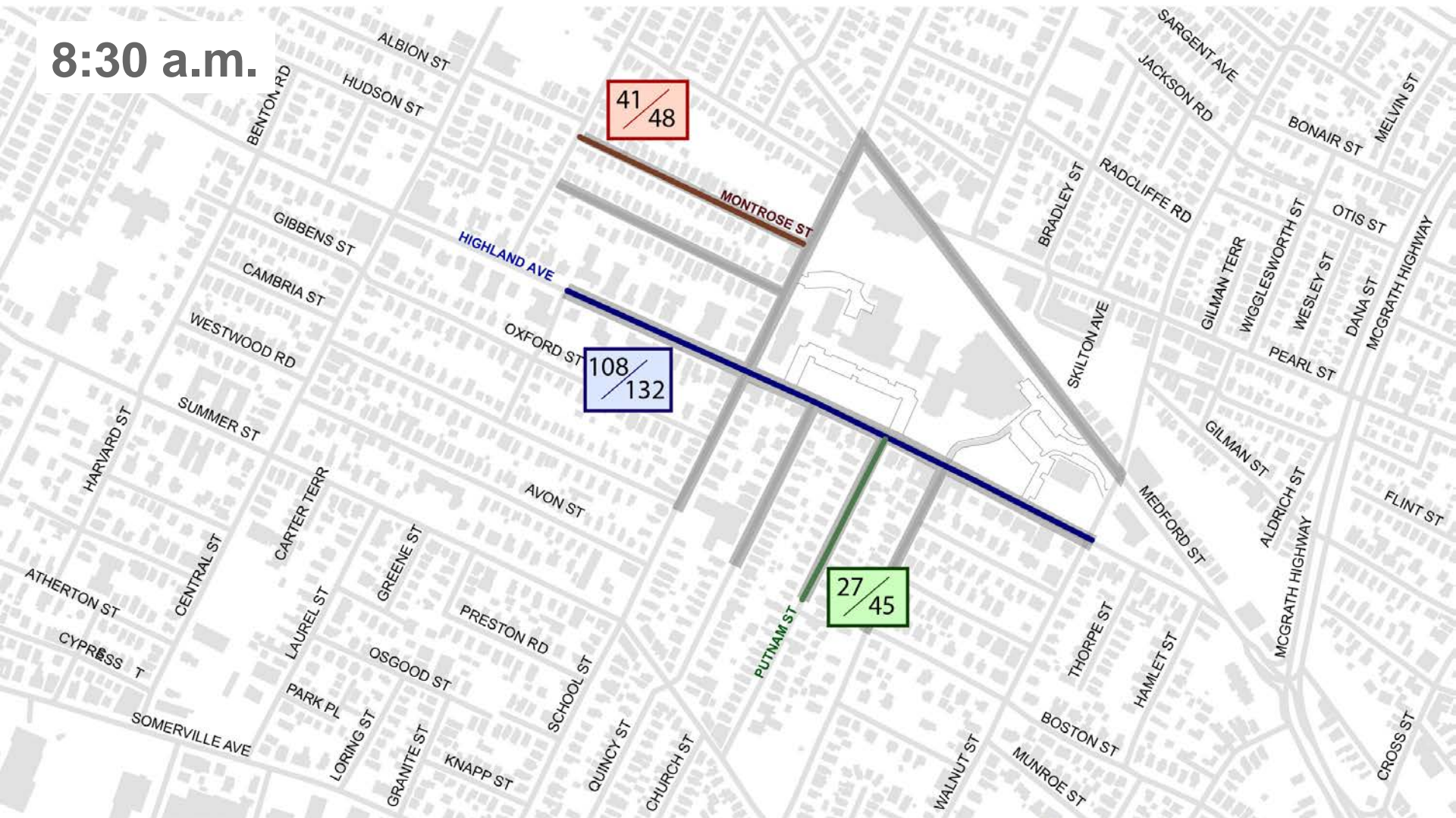




Rapid Collection – May 15th A.M. Turnover

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8:30 a.m.





Morning Turnover

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- **Period of greater stress to system around 8:30 a.m. when residents still leaving and students and employees arriving**
- **On non-street sweeping days, there is generally available supply**
- **Mondays are most impacted by street sweeping**
 - Zone 2 and 3 (Highland Avenue and School Street)
 - Few streets in rapid collection study area have available supply
- **Thursday less impacted overall by street sweeping**
 - Zone 1 and 3 (Medford Street)
 - Spaces on streets in Zone 2 available but far from Zone 1 residents



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Evening Events

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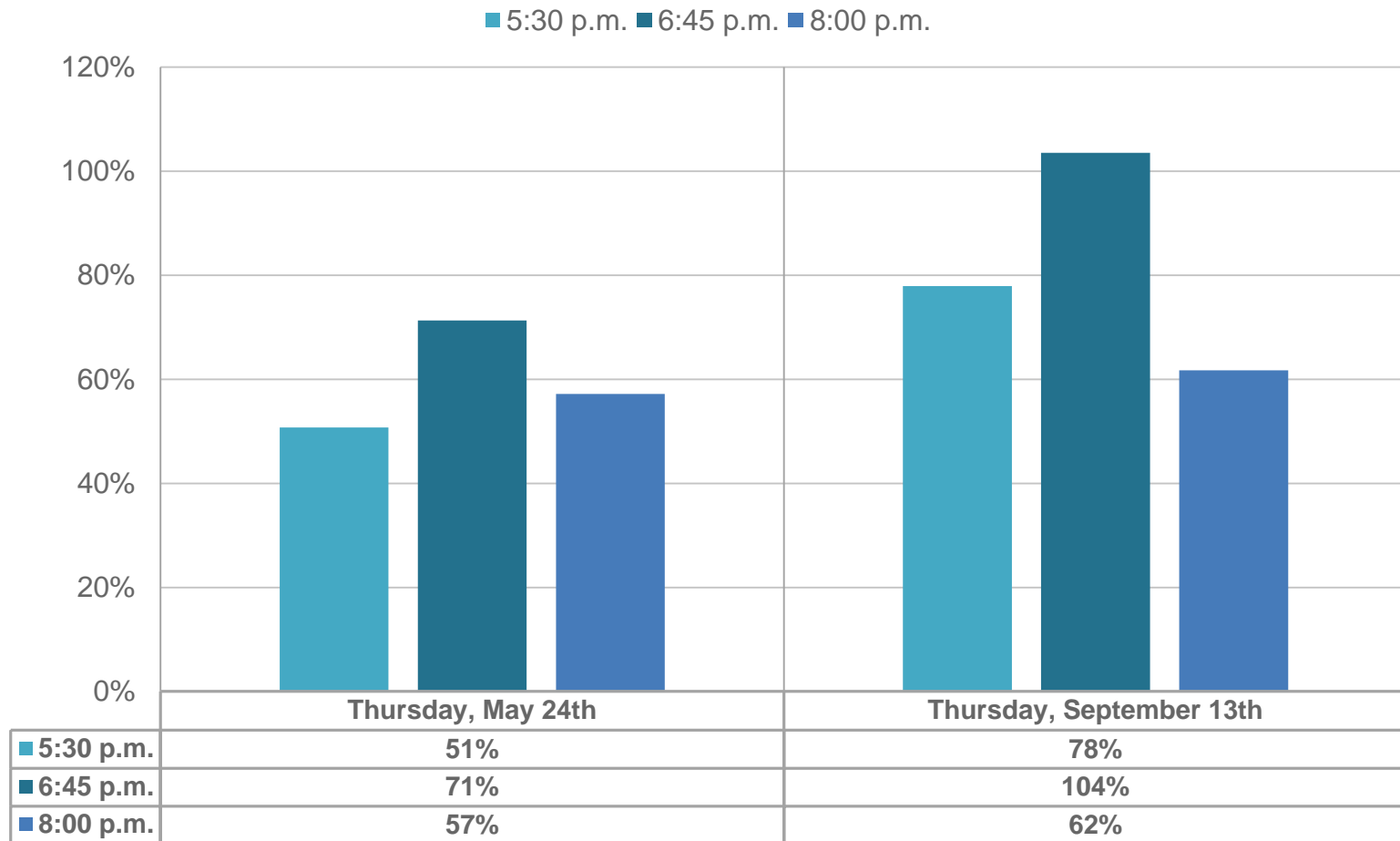
- **Tuesday, May 22nd**
 - Highlander Awards Night
 - Full study area, 6:30 p.m.
- **Thursday, May 24th**
 - Evening of Song
 - Full study area, 6:30 p.m.
 - Rapid Collection area, 5:30 p.m. and 8:00 p.m.
- **Thursday, September 13th**
 - Somerville High School Parents' Night
 - Rapid Collection area, 5:00 p.m., 6:45 p.m., 8:00 p.m.



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Rapid Collection – P.M. Turnover

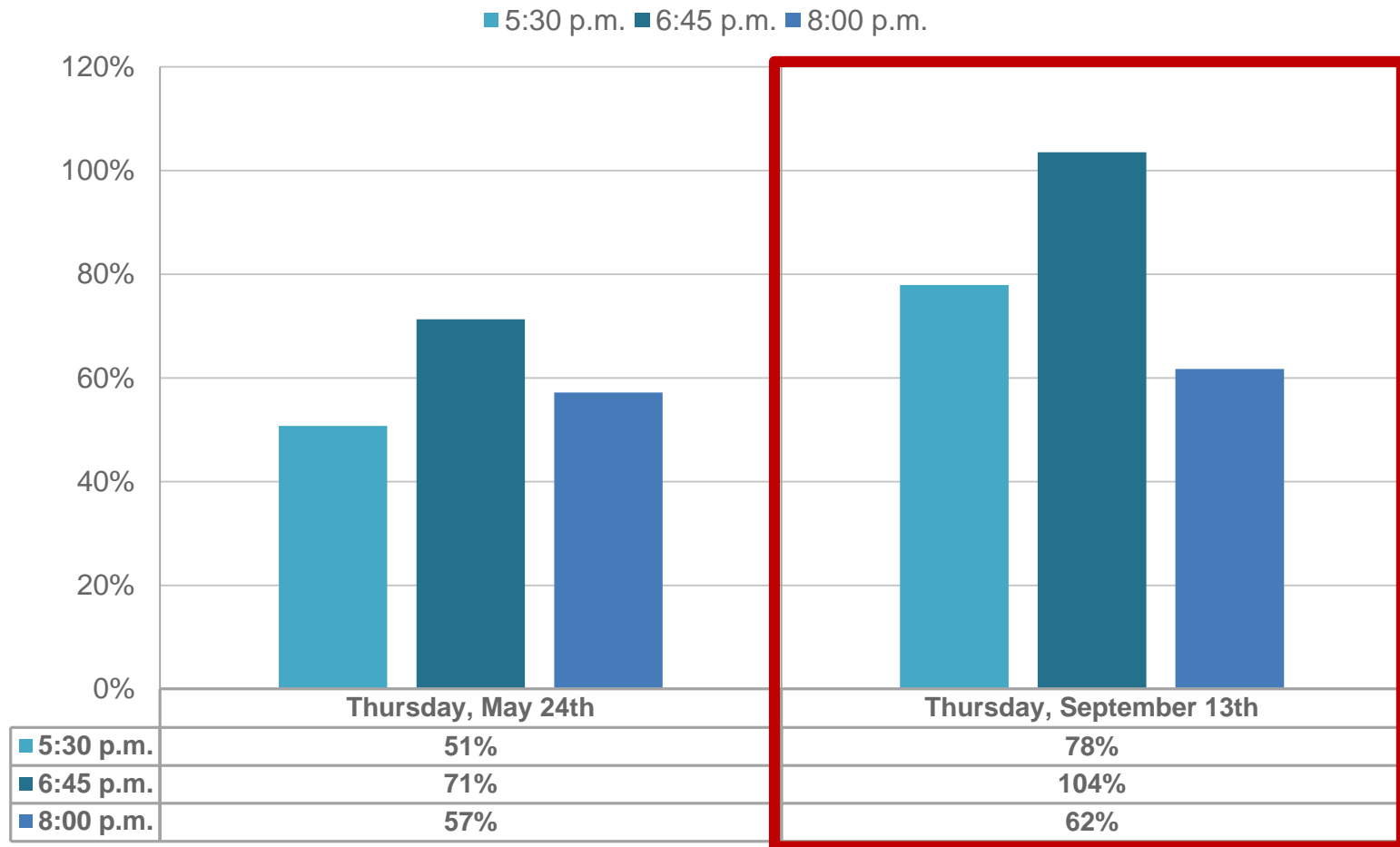
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Rapid Collection – P.M. Turnover

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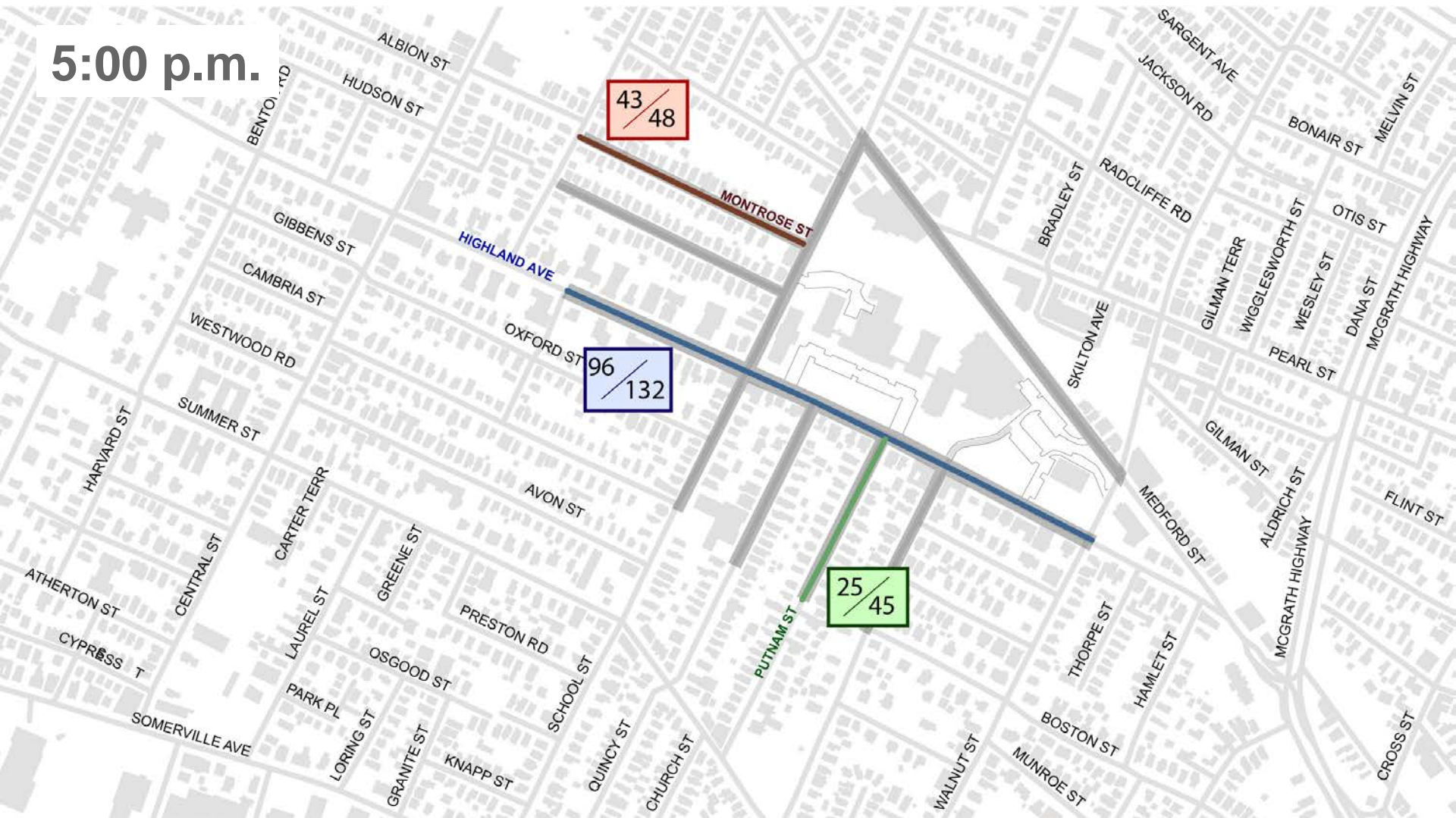


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Rapid Collection – September 13th P.M. Turnover

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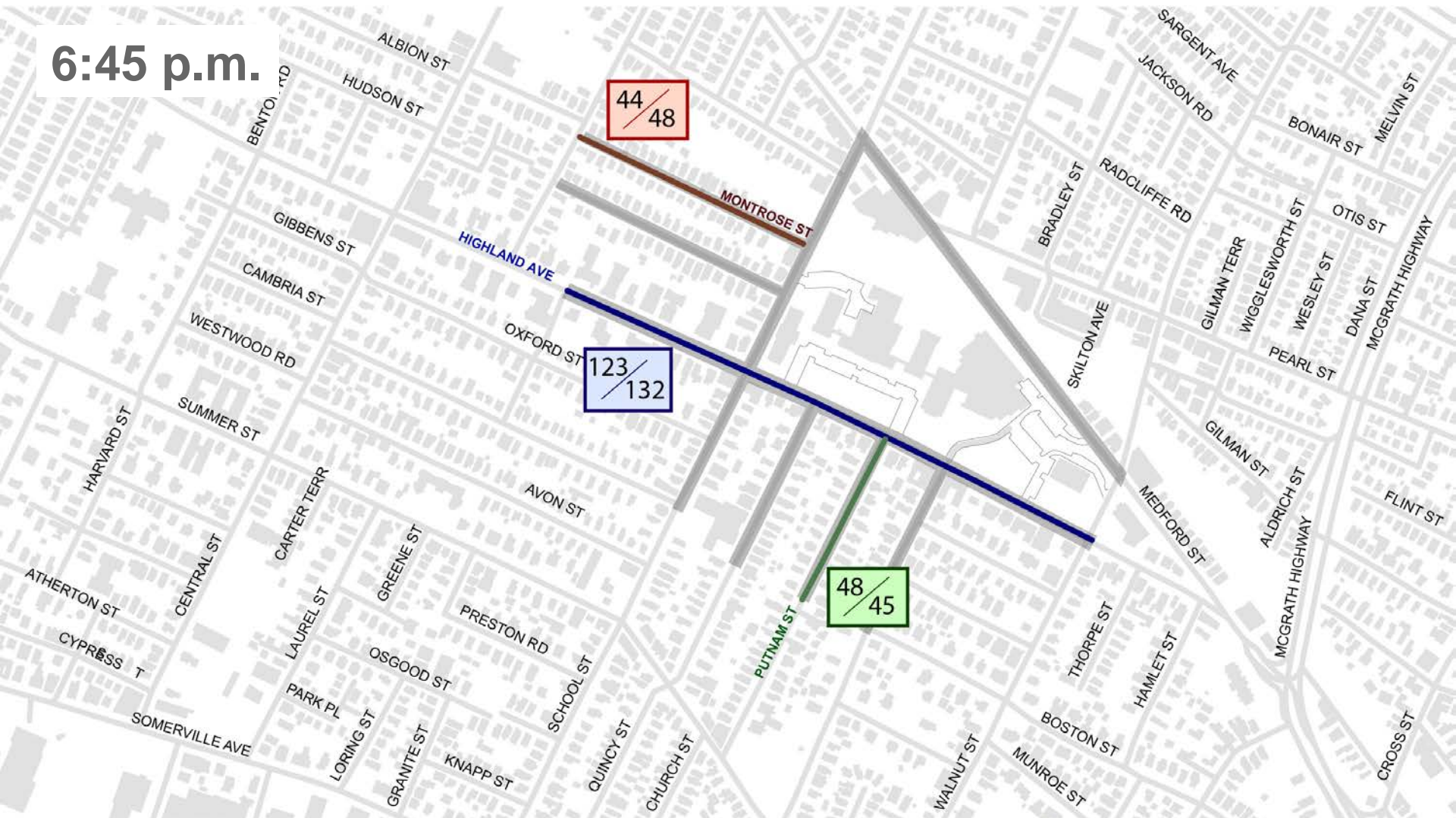
5:00 p.m.



Rapid Collection – September 13th P.M. Turnover

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6:45 p.m.



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Street	Volume 1	Volume 2
Montrose St	48	48
Highland Ave	78	132
Putnam St	27	45

Rapid Collection - Events

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- Overall parking availability during “typical” events
- High stress to system during “major” events
- Parking permit analysis shows that a higher portion of vehicles with “Other/None” permit are present in evenings, possibly due to events



Agenda

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- Review of Methodology and Existing Conditions
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Study Area - Street Sweeping Estimated Loss of Spaces

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Future Estimates - Morning

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Morning- May 14th base

Existing Condition

Phase 2A

Phase 3

Phase 2A Zone 2 Sweeping

Phase 3 Zone 2 Sweeping

Overall Percent Occupancy	Percent Segments with Greater than 85% Occupancy
70%	34%
74%	
75%	
93%	
94%	

Phase 2A

■ Total loss of 89 spaces:

- 34 removed from Medford Street lot
- 55 removed from Highland Street East lot





Future Estimates - Morning

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Morning- May 14th base		
	Overall Percent Occupancy	Percent Segments with Greater than 85% Occupancy
Existing Condition	70%	34%
Phase 2A	74%	
Phase 3	75%	
Phase 2A Zone 2 Sweeping	93%	
Phase 3 Zone 2 Sweeping	94%	

Phase 3

- Total loss of 13 spaces:
 - 46 **removed** from School Street lot
 - 5 **added** to Medford Street lot
 - 12 **added** to Highland Street East
 - 16 **added** to Highland Street West lot





Future Estimates – Phase 2A Morning

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Future Estimates – Phase 3 Morning

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Future Estimates - Midday

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Existing Condition Phase 2A Phase 3 Phase 2A Zone 2 Sweeping Phase 3 Zone 2 Sweeping	Midday - May 15th base	
	Overall Percent Occupancy	Percent Segments with Greater than 85% Occupancy
	66%	30%
	70%	
	70%	
	88%	
	89%	





Future Estimates – Phase 2A Midday

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Future Estimates – Phase 3 Midday

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Future Estimates - Evening

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Evening - May 22nd base		
Existing Condition Phase 2A Phase 3 Phase 2A Zone 3 Sweeping Phase 3 Zone 3 Sweeping	Overall Percent Occupancy	Percent Segments with Greater than 85% Occupancy
	79%	43%
	84%	
	84%	
	91%	
	92%	



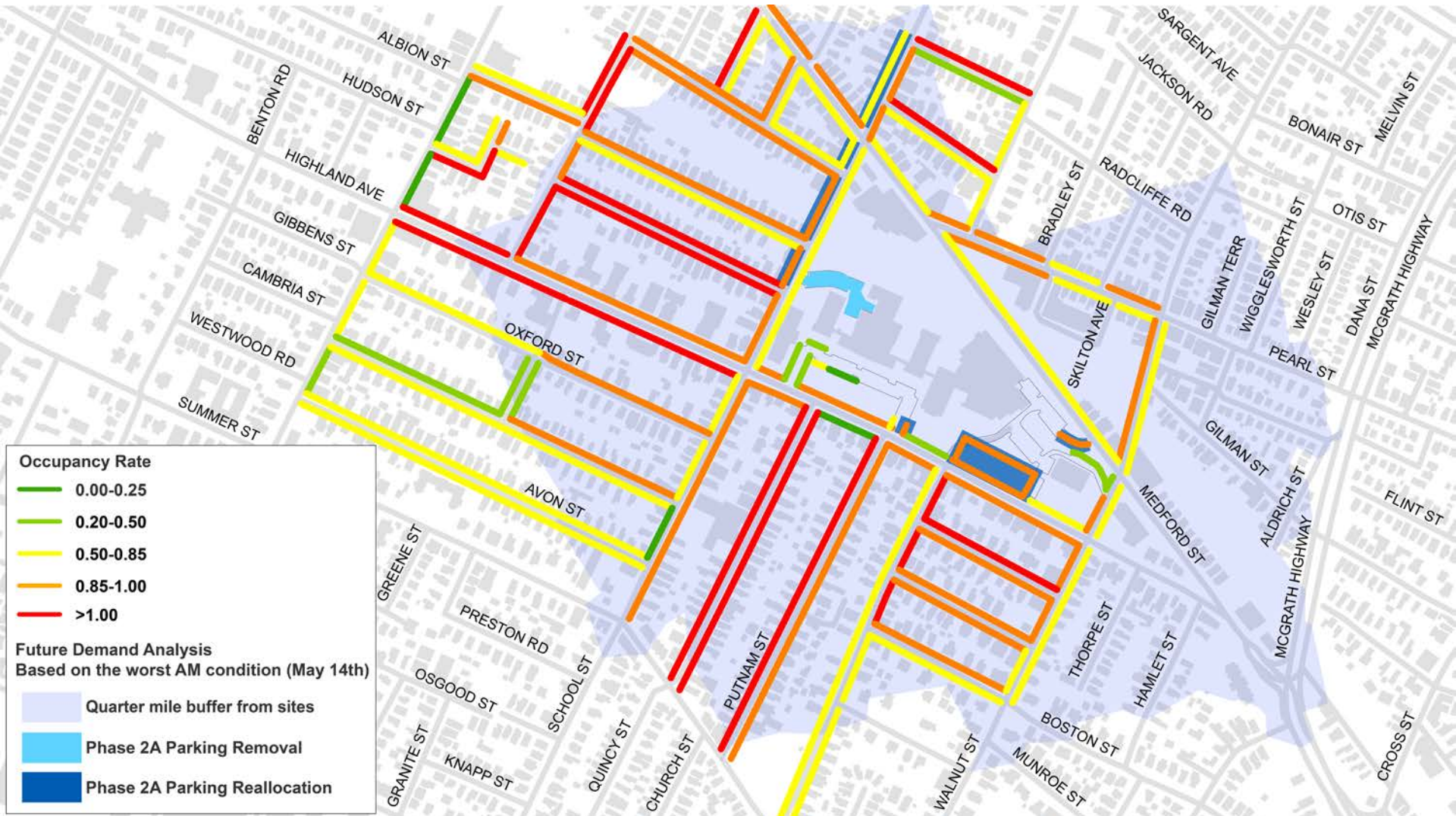
Future Estimates – Phase 2A Evening

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Future Estimates – Phase 3 Evening

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Takeaways

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- Stress in the late morning during high turnover period on street sweeping days
- Evenings have greatest demand
- Parking system can handle “typical” event
- On-street supply can absorb loss of Campus off-street spaces within quarter-mile of Campus
- Parking availability will be limited during future conditions during street-sweeping regulations
- Green Line Extension will increase transit access to Campus



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Recommendations for Further Study

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- Improve pedestrian access to Campus buildings from north of Medford needed
- Identify opportunities to improve and encourage transit, active transportation, and shared mobility options, especially to evening events
- Examine street sweeping schedule for opportunities to even out unavailable parking



Agenda

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- Review of Methodology and Existing Conditions
- Highest Demand Scenarios
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- **Next Steps**



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Next Steps

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- **Estimate the impact of new staff and Green Line extension project on parking demand**
- **Conduct final occupancy observations following snow event**
- **Conduct a visual survey of surrounding streets and identify locations where parking supply is not currently being maximized**
- **Provide recommendations to the City on managing the available parking supply around the Central Hill campus**



Questions?



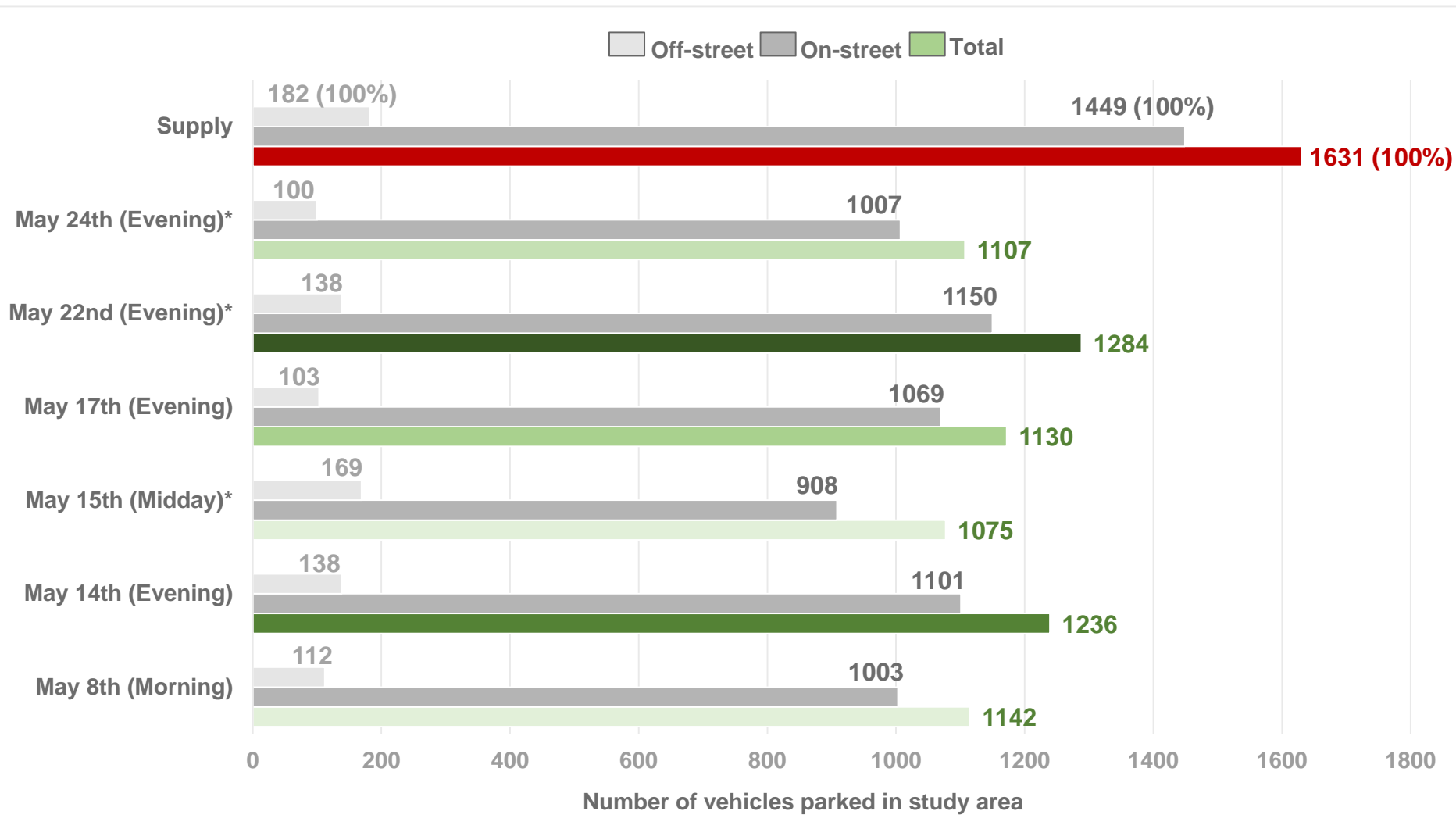
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Highest Demand on Each Day

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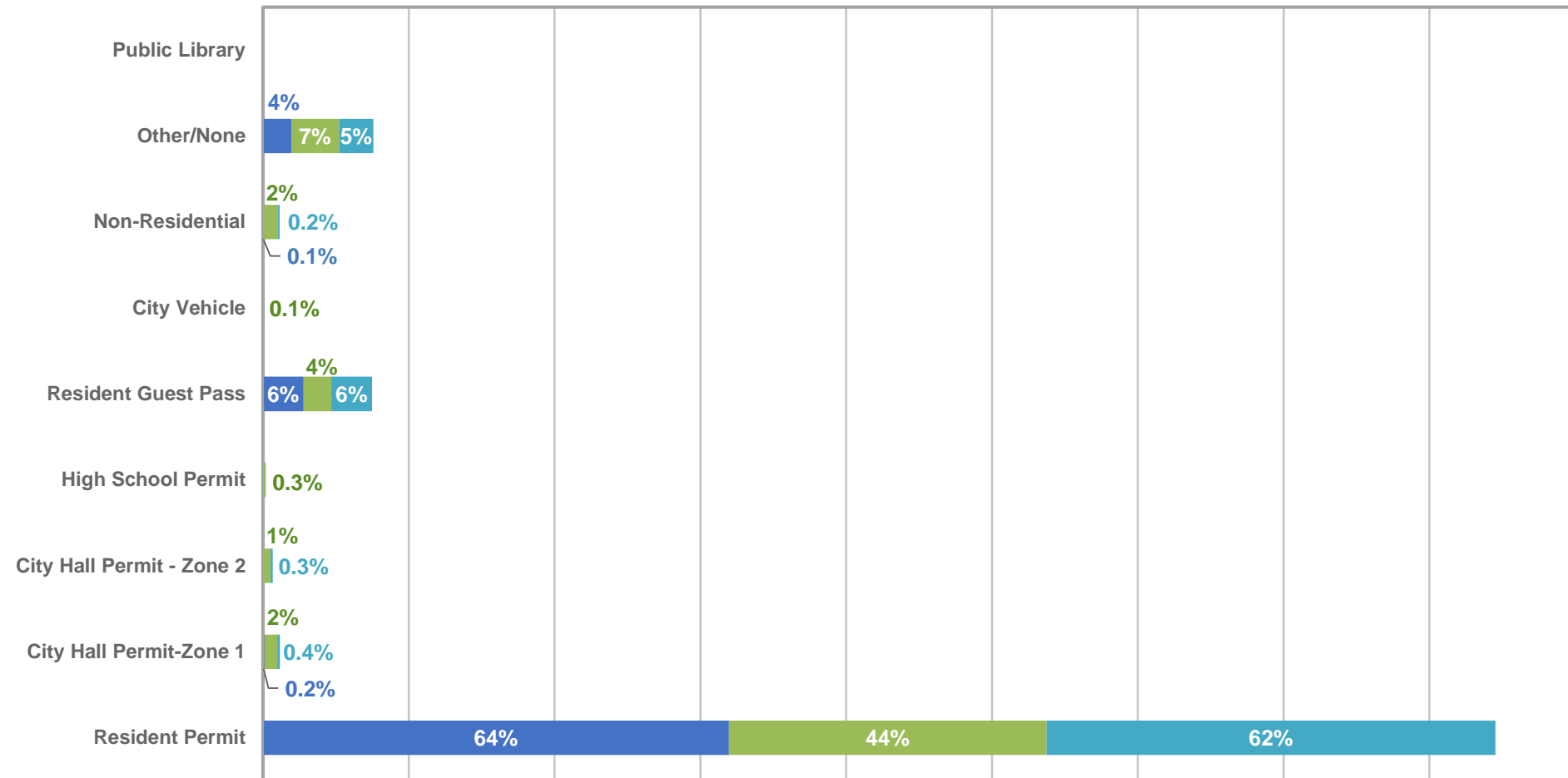




Demand by Permit – On-street (Residential Permit Parking Only)

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■ AM On-Street: PPO ■ Midday On-Street: PPO ■ PM On-Street: PPO

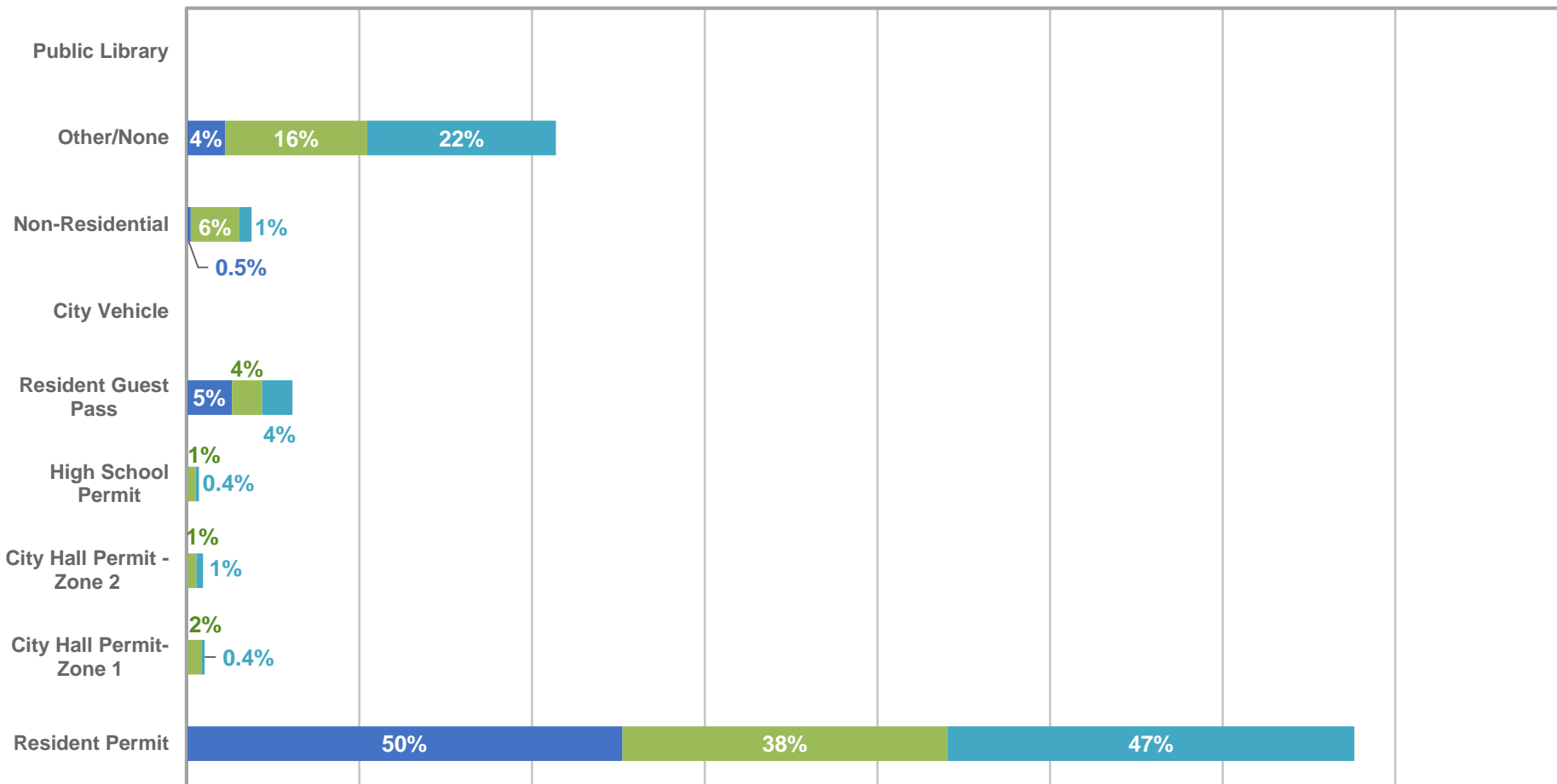




Demand by Permit – On-street (2-hour without Resident Permit)

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■ AM On-Street: 2 Hour ■ Midday On-Street: 2 Hour ■ PM On-Street: 2 Hour





Demand by Permit – Off-street

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■ AM Off-street ■ Midday Off-street ■ PM Off-street

