



Town of Exeter

# Downtown Parking, Traffic, and Pedestrian Flow Analysis

DRAFT Recommendations – December 13, 2023

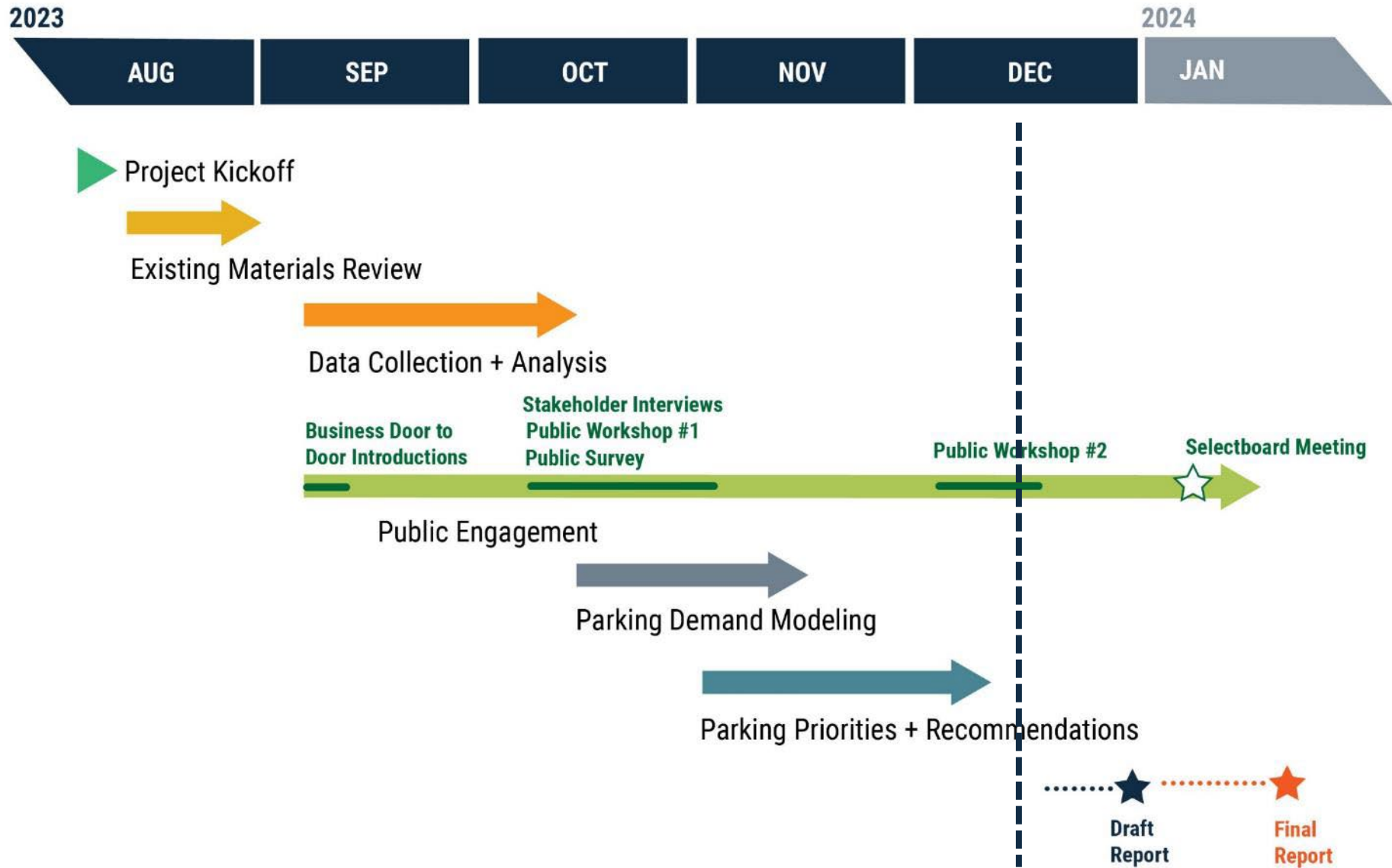
An aerial photograph of a residential neighborhood. A river flows through the center of the area. To the right, there is a large, rectangular field, likely a school field, with a baseball diamond visible. The surrounding area is densely packed with houses and trees. A road with several cars is visible in the upper right quadrant.

# Agenda

- Parking Overview
- Parking Utilization
- Parking Turnover
- Traffic/Circulation + Pedestrian Safety Overview
- Draft Recommendations



# Study Schedule





# PROJECT GOALS

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1. Create a **comprehensive inventory** of downtown parking
2. Assess how parking areas or regulations can better support **long-term economic vitality** downtown
3. Identify opportunities for **long-term parking** areas beyond the downtown core
4. Improve **traffic flow and safety** throughout downtown
5. Identify opportunities to establish or improve **safe and convenient pedestrian and bicycle connections** to and from parking
6. Evaluate opportunities to improve the **efficiency and effectiveness** of parking enforcement

# Parking Overview





# Inventory

**TOTAL SPACES – 1,586**

*Public – 938*  
*Private – 648*

*On Street – 541*  
*Off-Street – 1045*

On-Street	# of Spaces	% of on-street parking
<b>Total</b>	<b>541</b>	
Less than 1-Hr Parking	18	4%
2-Hr Parking	152	28%
Loading Zone	5	1%
Reserved Parking	12	2%
Open Parking	354	65%

Off-Street	# of Spaces	% of off-street parking
<b>Total</b>	<b>1,045</b>	
Public Parking	397	38%
Private Parking	539	52%
PEA Private Parking	109	10%





# Inventory Summary

Of over 500 **on-street spaces**, 65% are unregulated, which means there is **greater flexibility** in how they can be used

Some public facilities (waterfront lot) are **not visible from the street**

Aside from the post office, short-term spaces (less than 1 hour) are not located near shops that attract **shorter-term visits** (e.g., coffee shops, bakery)

There are **limited** spaces designated for **long-term parking**

There are **limited loading areas**

## Why evaluate private parking?

### *Understand the overall system*

*How much private parking exists in relation to key destinations helps us understand how accessible parking is for visitors*

### *Analyze development requirements*

*It is important to know how private parking is being used compared to zoning requirements*

### *Optimize existing supply*

*Under certain conditions, private parking, and how it is regulated and managed, can provide an opportunity to "expand" public supply*



# Survey Summary- 392 responses

58%

Park once and walk to multiple destinations when visiting downtown

and

52%

Typically park on-street

but

74%

Are willing to walk 3 minutes or more to/from parking

The top 2 significantly-preferred downtown amenities

- Safer crosswalks
- More parking

The perception of whether there were or were not downtown traffic congestion issues typically was about

50/50

How many people utilized off-street facilities

191 Municipal Lot

13 Riverfront Lot

10 Center St Lot



# Parking Utilization



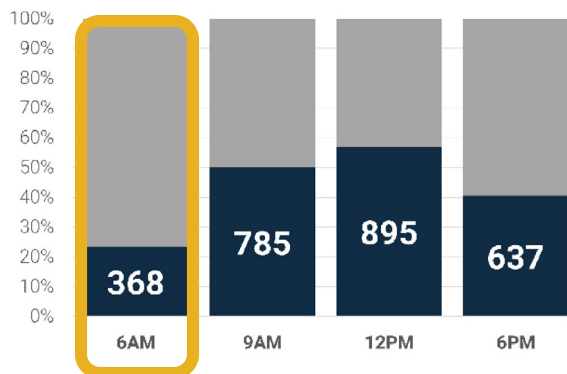


# Utilization

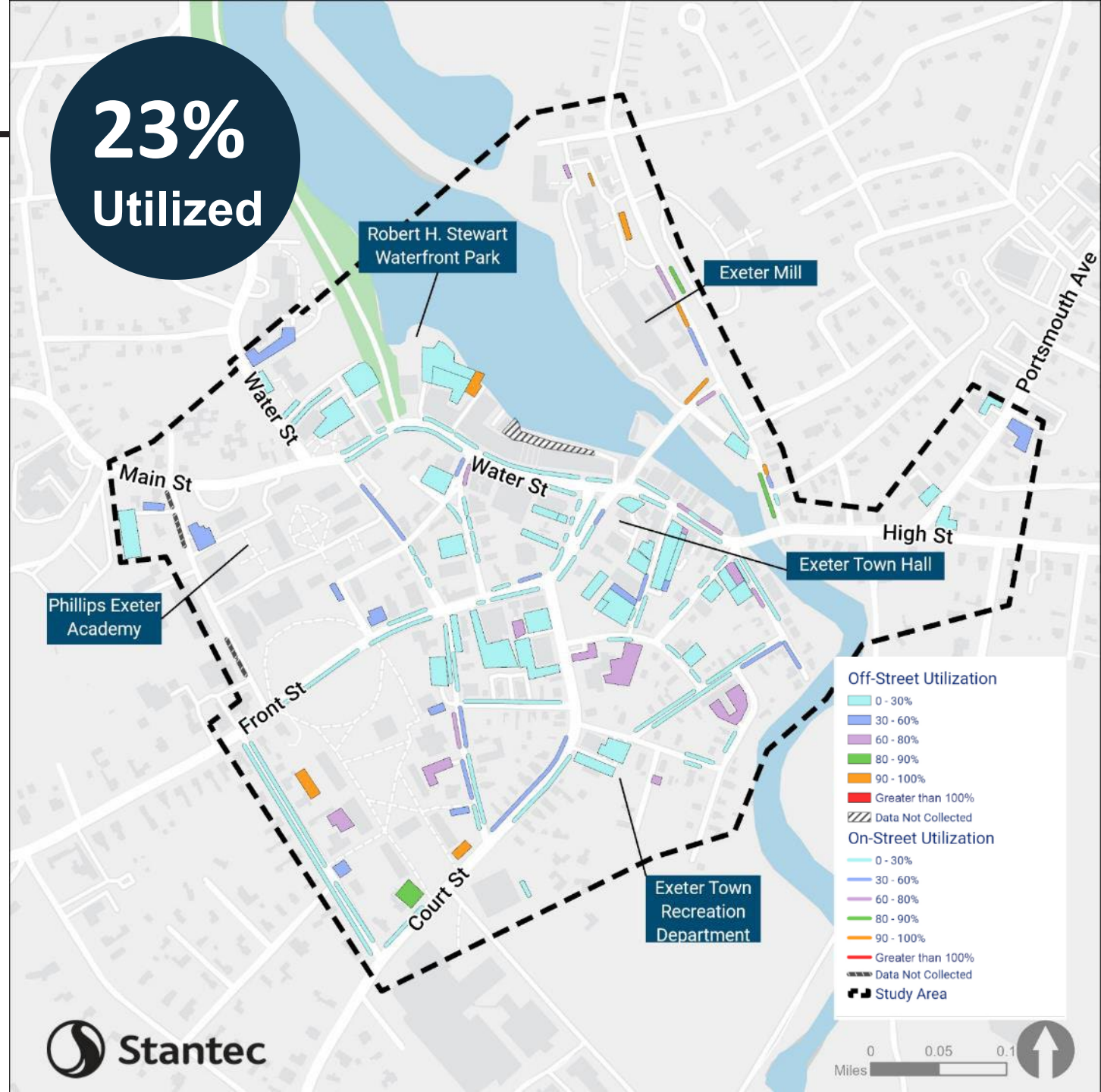
## THURSDAY- 6AM

- Overall, the study area has significant capacity available, including along and near Water St
- Only a few, small resident facilities full
- Chestnut St well-utilized
- Municipal Lot has ample capacity

### Overall Inventory (1,586)



# 23% Utilized



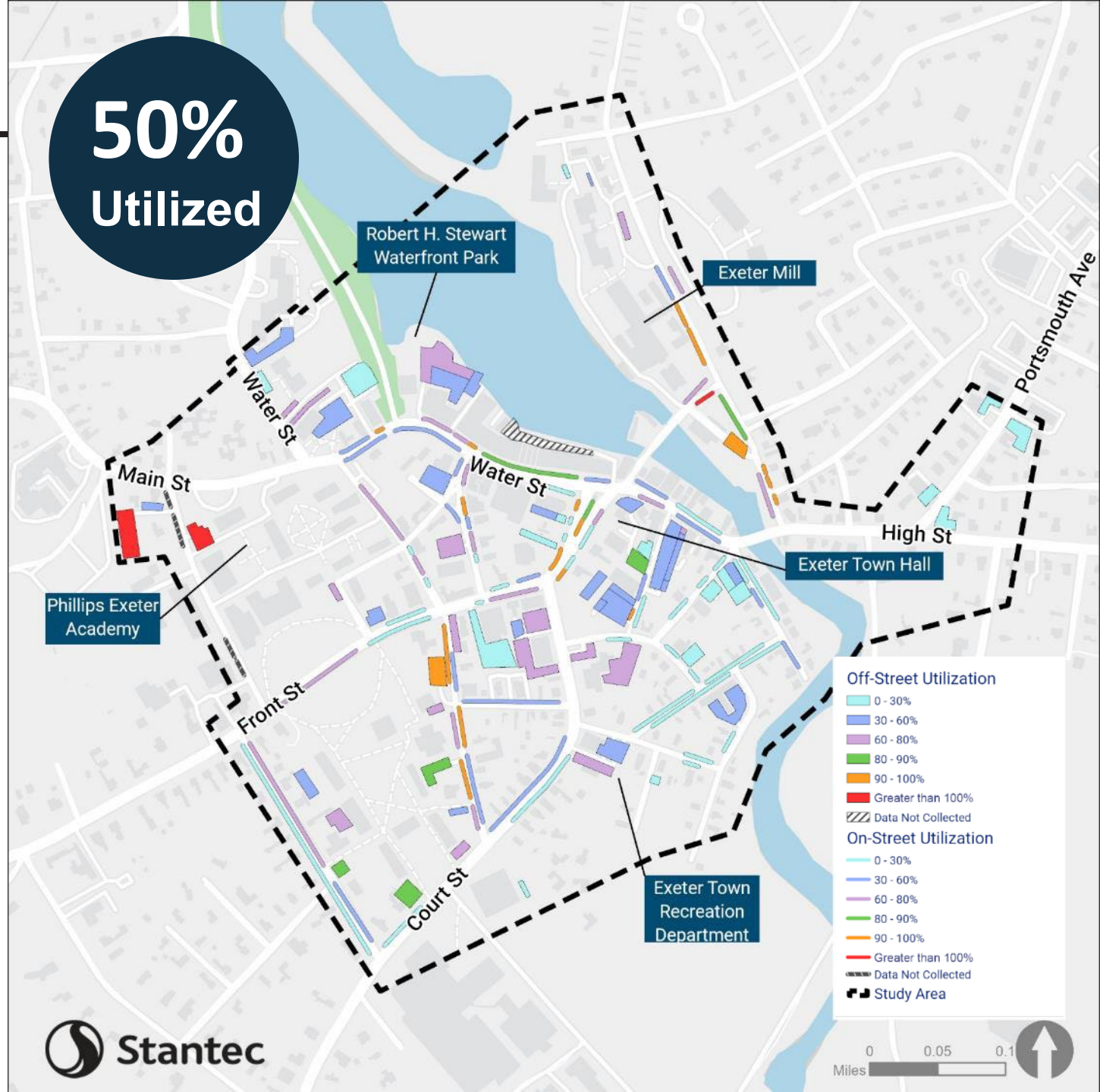
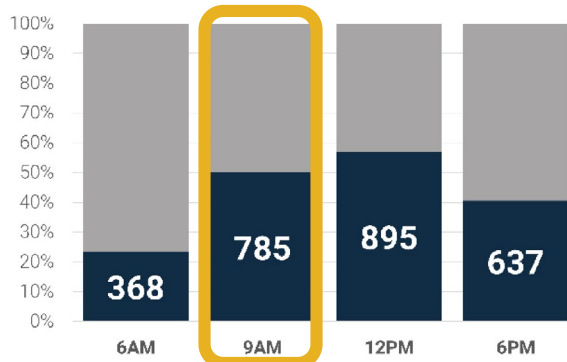


# Utilization

## THURSDAY- 9AM

- Demand has significantly increased throughout the study area but capacity remains
- The Water St core is at optimal utilization (85%), with plenty of capacity in nearby, walkable spaces
- PEA Lots off Main Street are at capacity
- Chestnut St continues to be well used

### Overall Inventory (1,586)



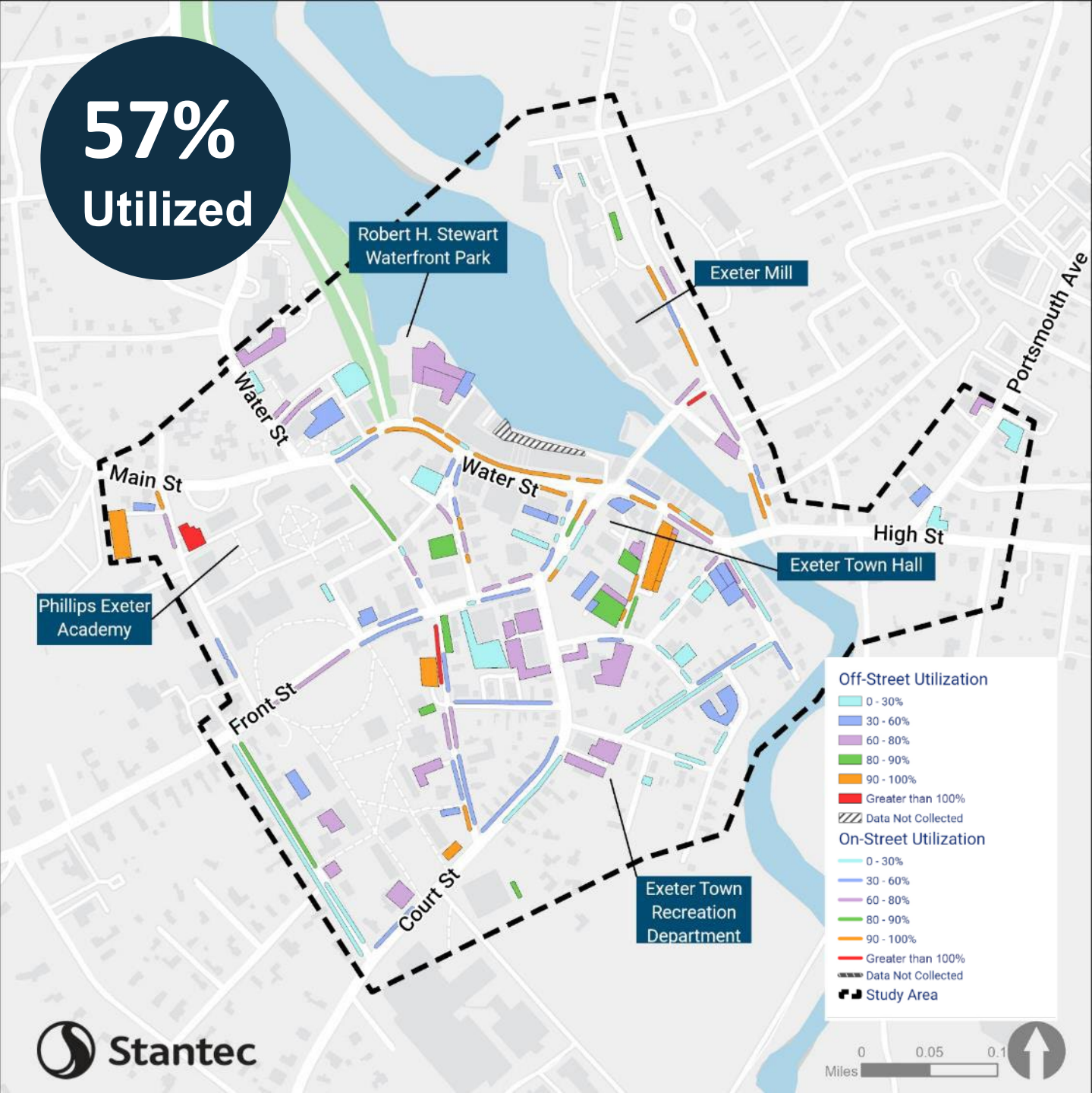
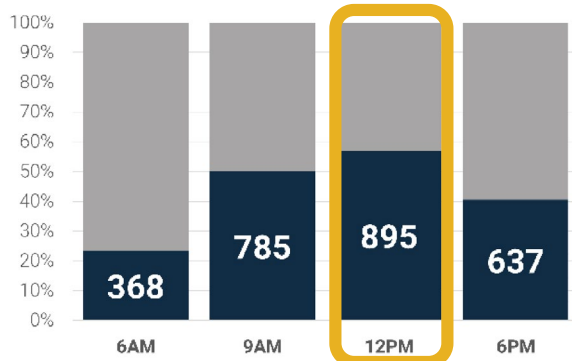


# Utilization

## THURSDAY- 12PM (PEAK)

- Most of Water St on-street is completely full, though most nearby lots have plenty of capacity
- The Municipal Lot is completely full
- PEA lots off Main Street remain full
- Chestnut St remains heavily used
- Areas closest to post office are near full or full, though there is capacity nearby

## Overall Inventory (1,586)



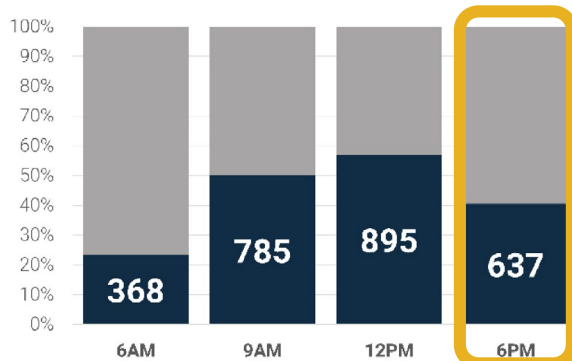


# Utilization

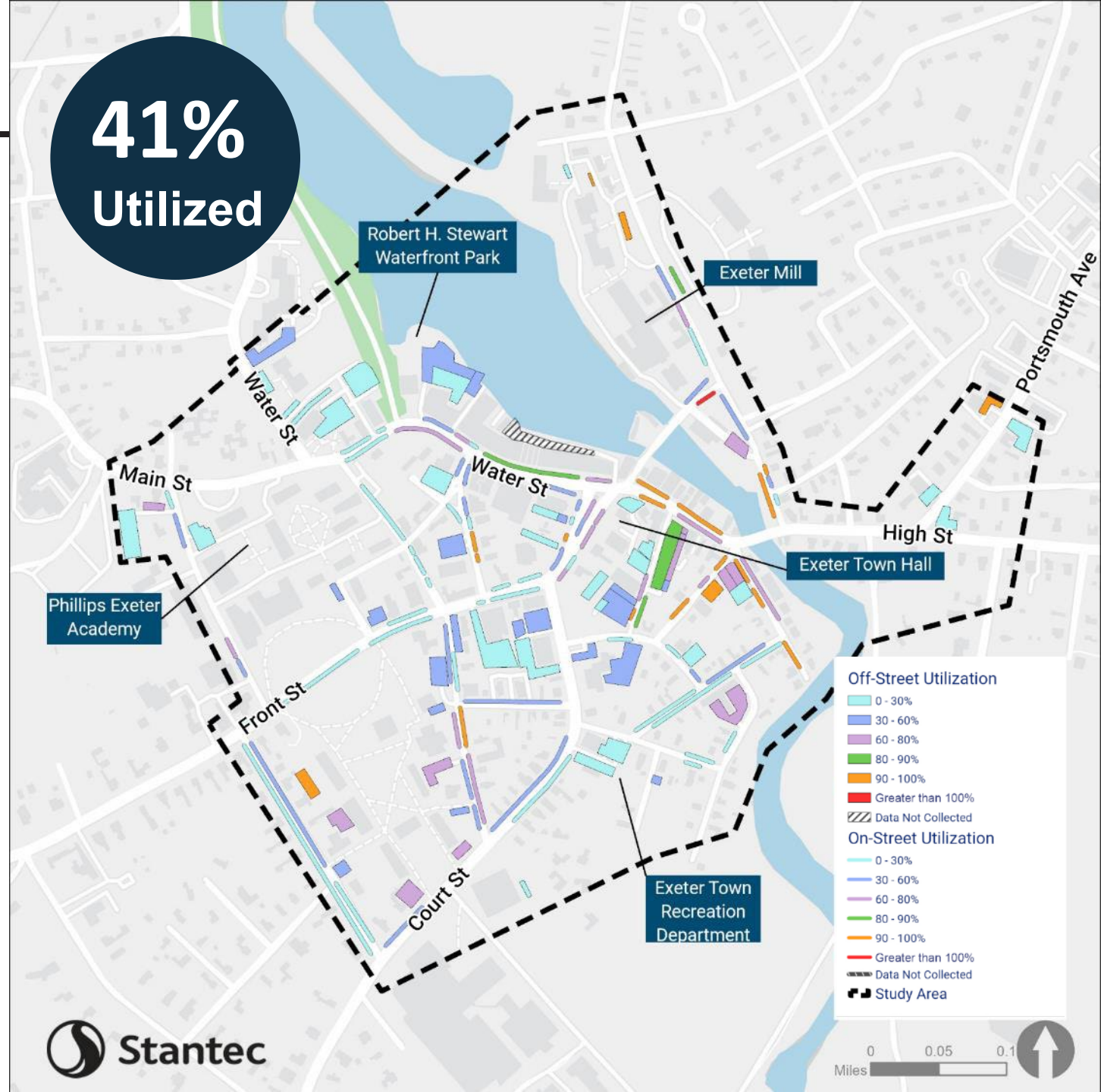
## THURSDAY- 6PM

- Significant availability has opened up throughout downtown, generally
- Western Water Street is optimally used
- Eastern Water Street is now at capacity
- Many nearby spaces are vacant
- The Municipal Lot is at optimal utilization

## Overall Inventory (1,586)



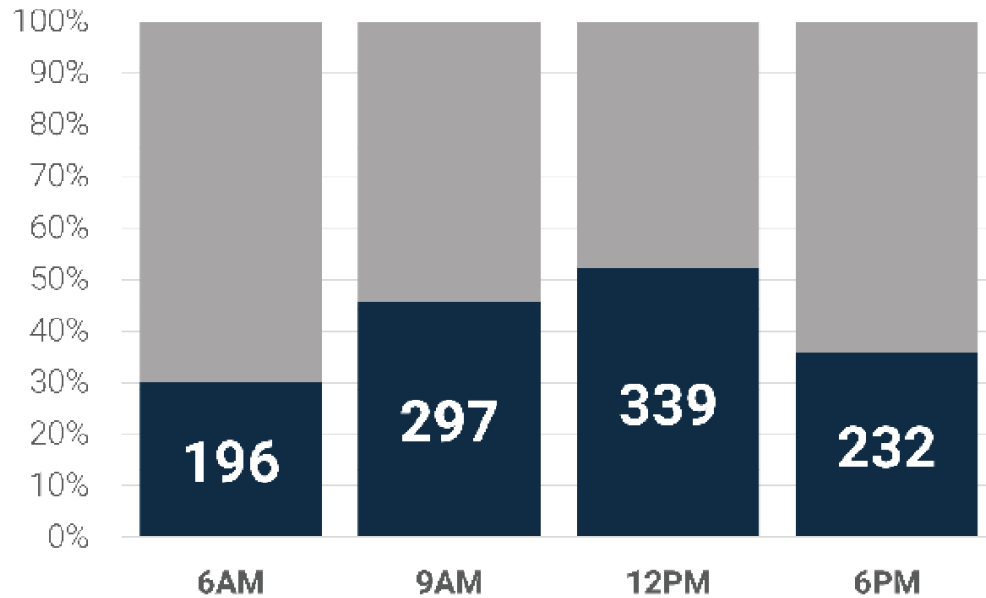
# 41% Utilized



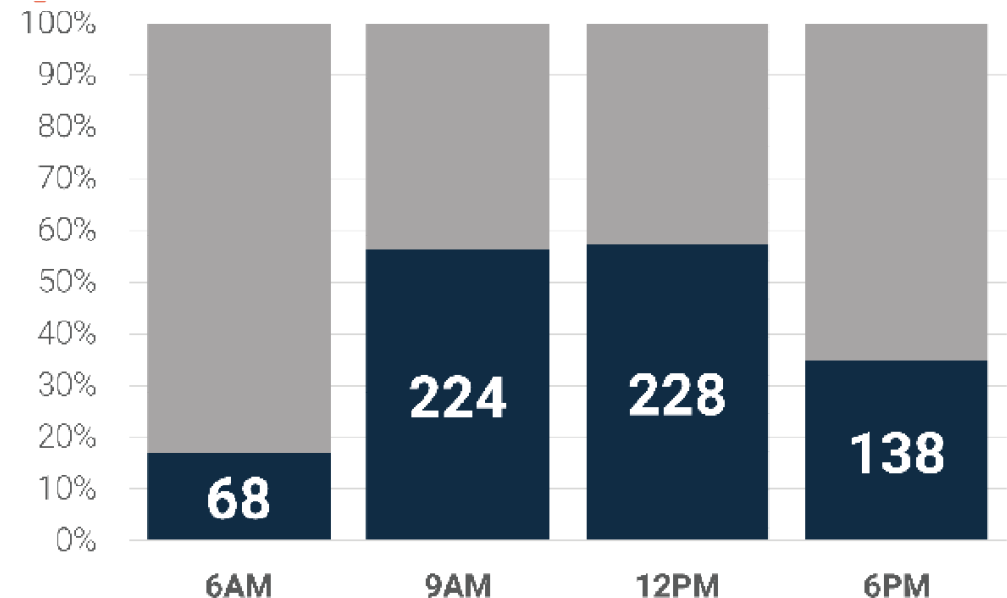


# Utilization

## Off-Street Private (648)



## Off-Street Public (397)



- Similar patterns of use
- There is a larger increase in off-street public space use than private space use as Water Street businesses start to open (~9AM)

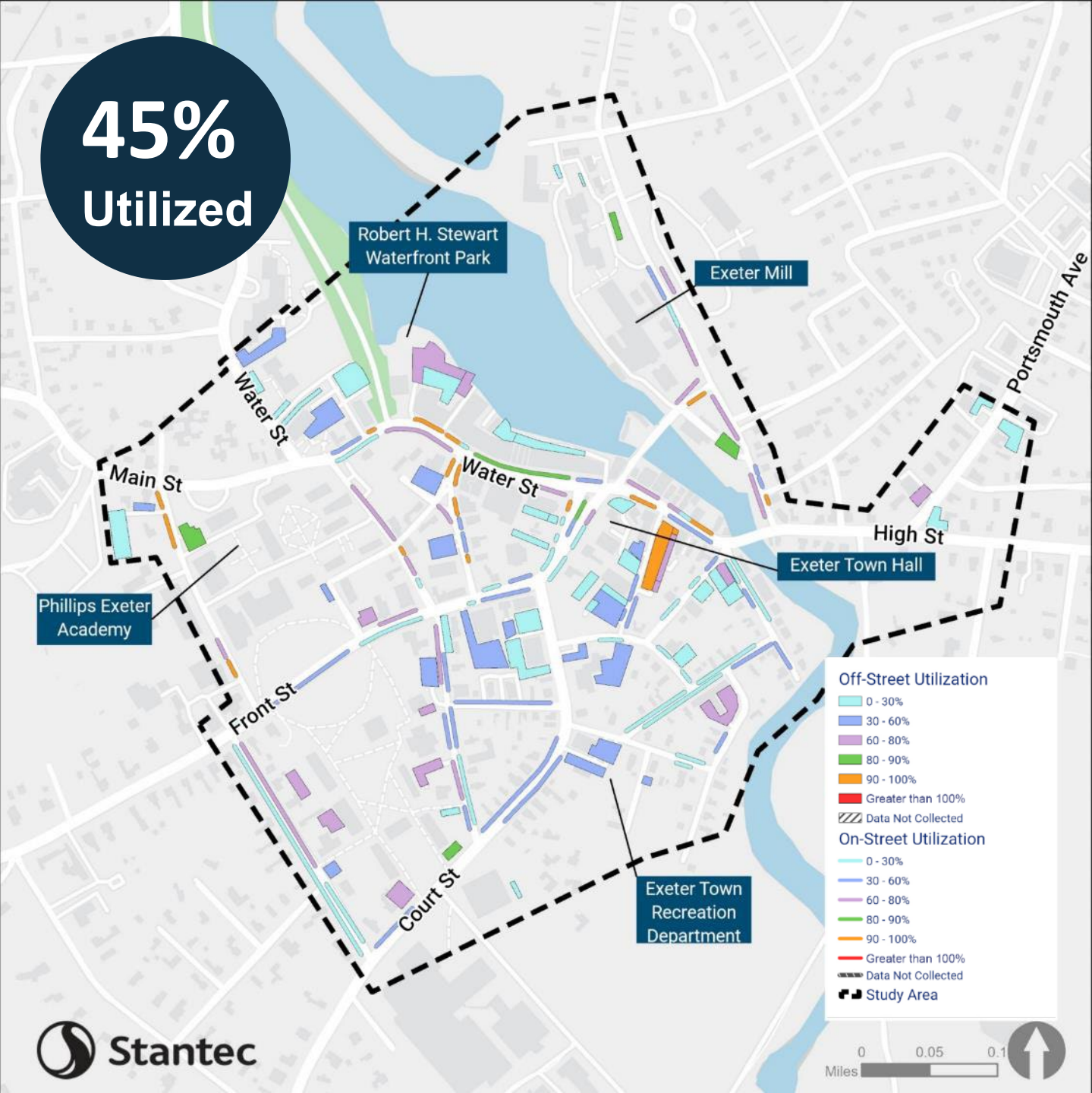
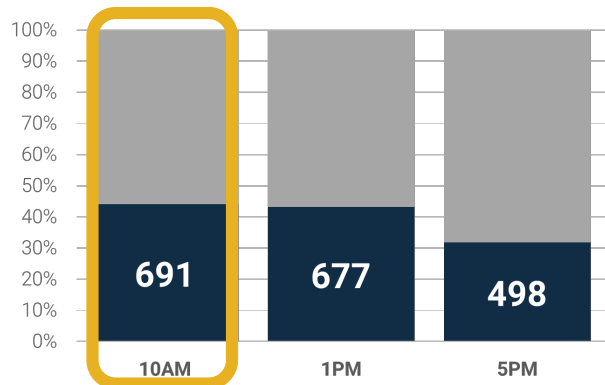


# Utilization

## SATURDAY- 10AM (PEAK)

- Water Street is mostly full in the core with availability on the perimeter
- Municipal Lot is the only off-street lot that is full
- Significant capacity available in all other lots

## Overall Inventory (1,586)



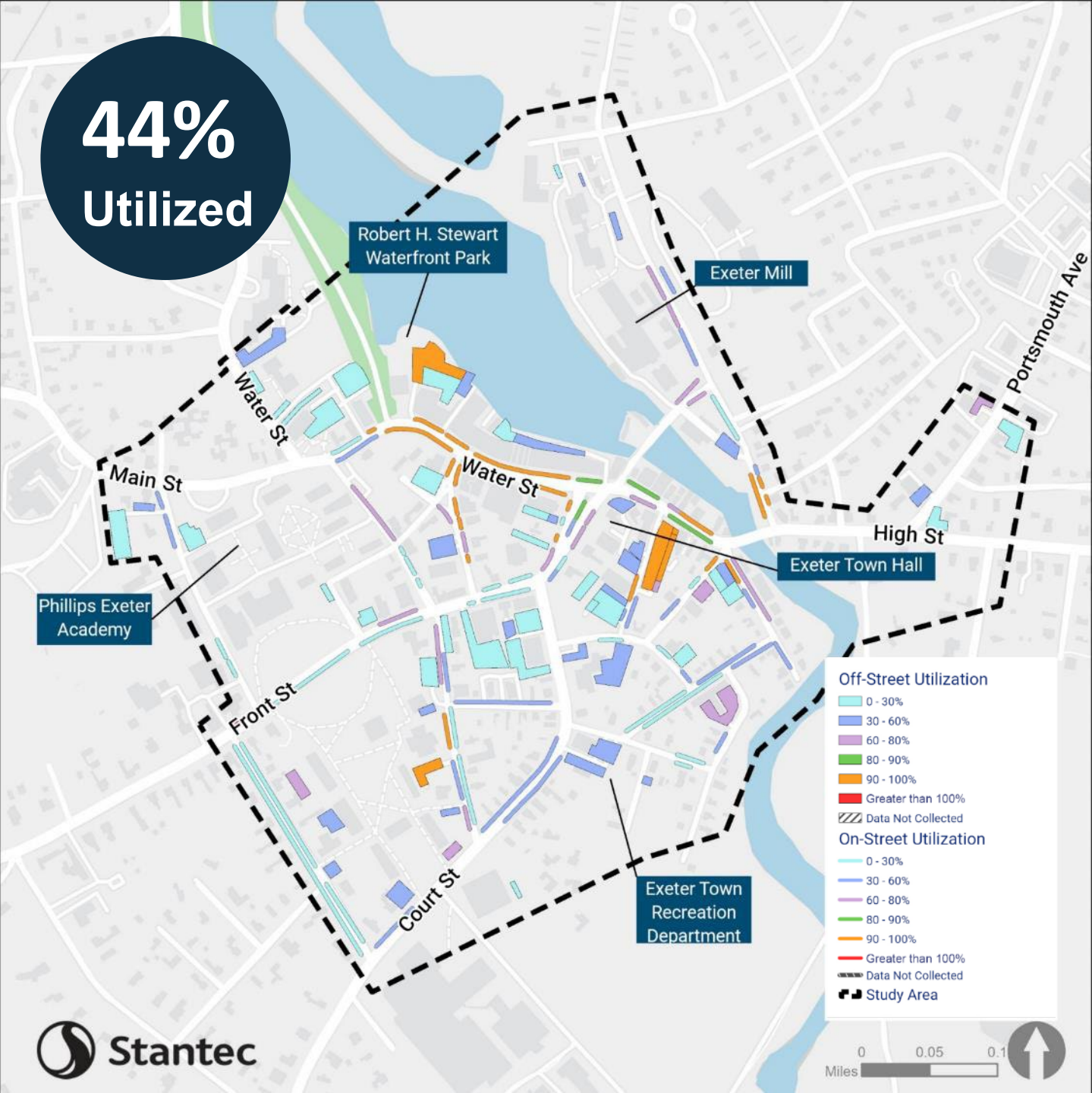
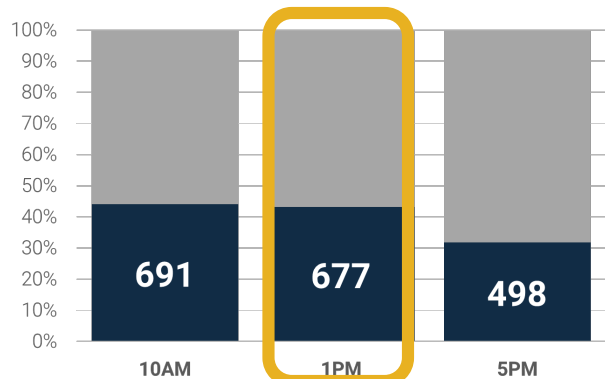


# Utilization

## SATURDAY- 1PM

- On-street parking along Water Street is completely full
- Municipal Lot is at full capacity
- Public parking at the Boat Ramp Lot is also at capacity
- Other off-street lots have decompressed, leaving ample capacity

### Overall Inventory (1,586)





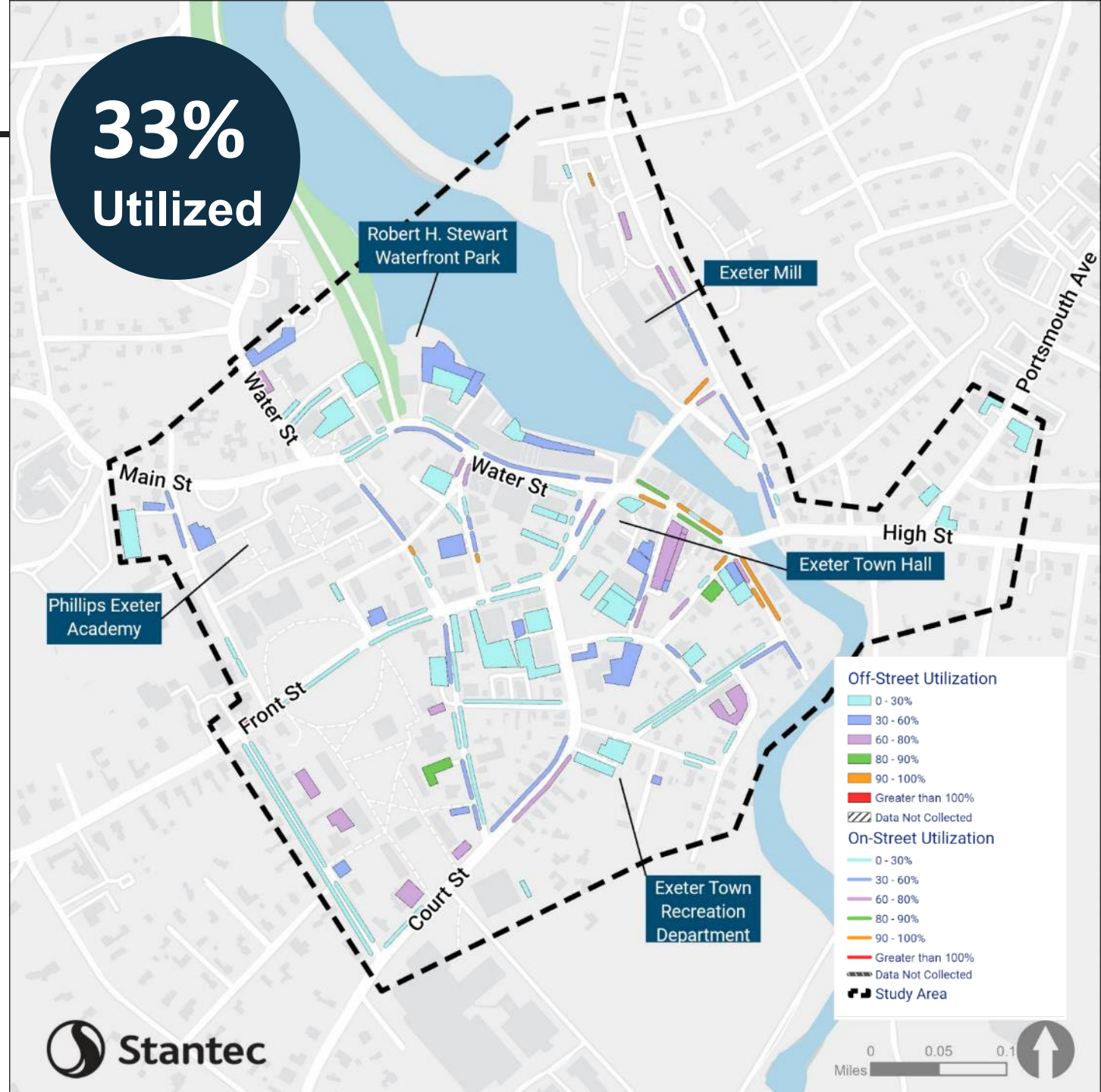
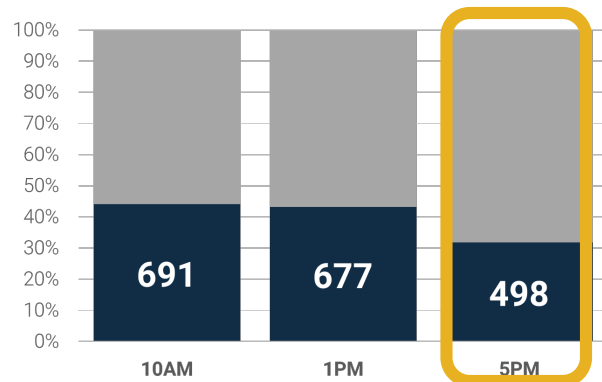


# Utilization

## SATURDAY- 5PM

- Western Water Street utilization is low
- Eastern Water Street spaces are now full
- The Municipal Lot is being utilized but capacity exists
- Generally high level of availability of all other spaces throughout downtown

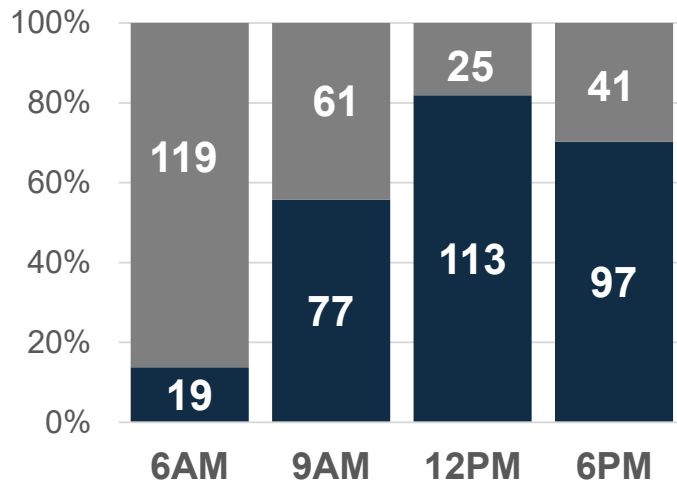
### Overall Inventory (1,586)



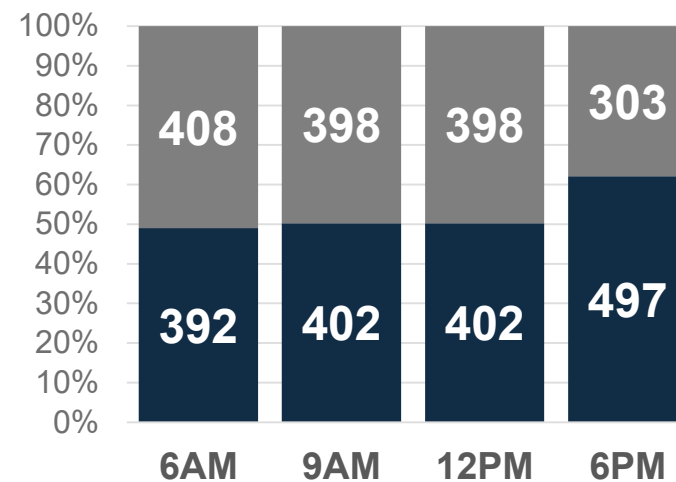


# Utilization Summary - Weekday

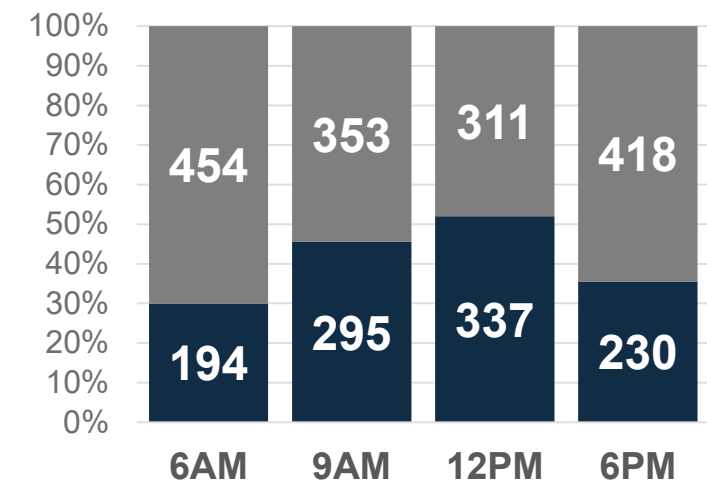
### Water Street Parking (138 Spaces)



### All other Public Parking (800 Spaces)



### Private Parking (648 Spaces)



- Water Street is in high demand from lunch through dinner
- All other public parking remains approximately 50%-60% occupied throughout the day

# Parking Utilization Takeaways

There is **more than enough supply** at any time of the day to meet current demand

- Peak utilization is midday during the week, but it is still <60% of total capacity

**Limited areas of high utilization** are concentrated

- The most popular parking locations are the municipal lot behind the town offices and on Water Street.
- Center Street lot is well utilized, at about 60% to 90% throughout a weekday.
- The waterfront parking behind Water Street is utilized appropriately at the peak period, but underutilized other times of day.



# Parking Turnover





# Parking Turnover Overview

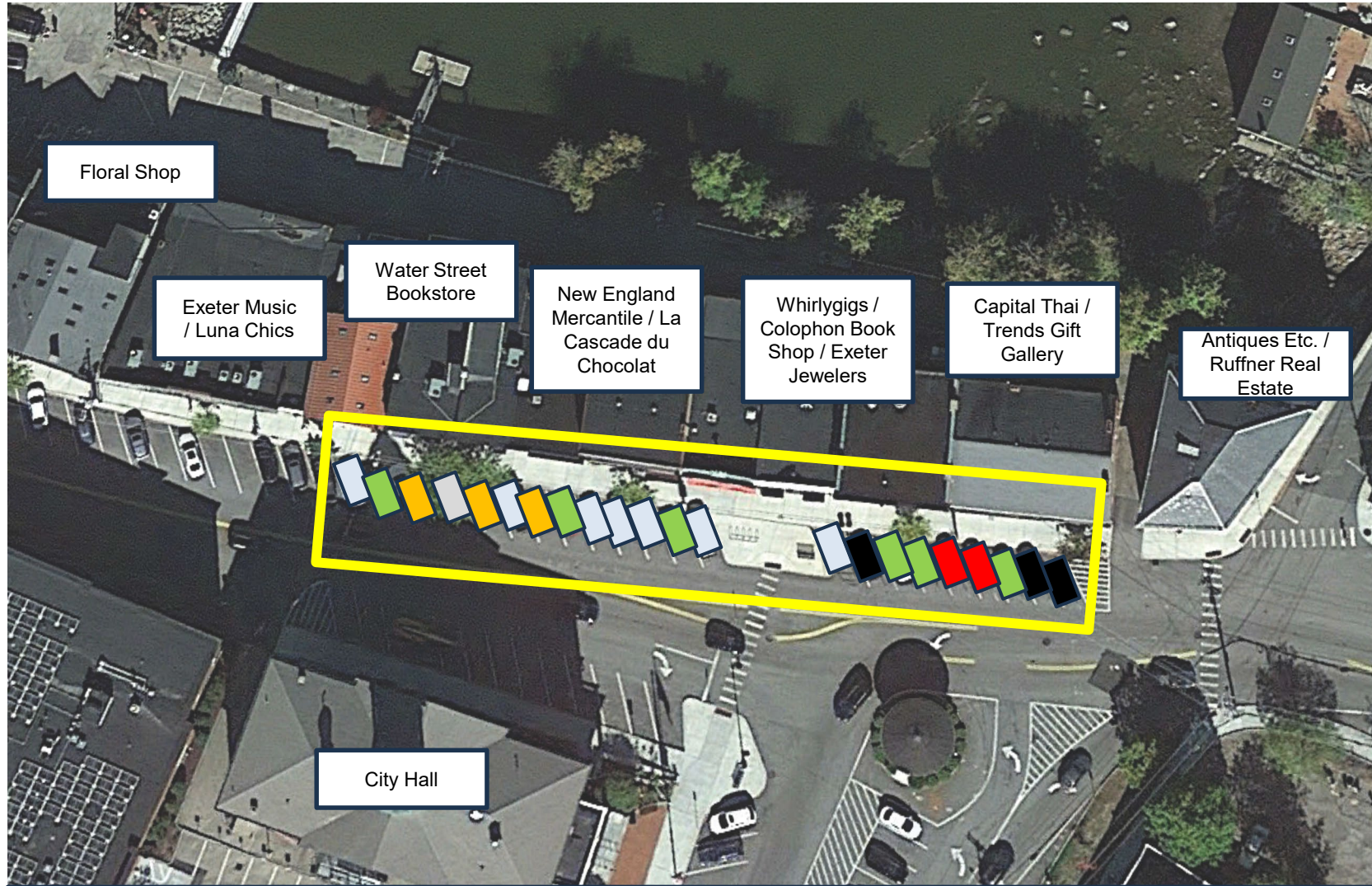
Town recorded CCTV footage to provide **timelapse of 22 spaces on Water Street** over several days

Stantec analyzed occupancy recorded for every 15 minutes on a typical weekday (6AM – 4PM)

- ~5.5 Vehicles – Average # of vehicles per space each day
- Two Spaces – Used by one car all day
- Average Duration – 2 Hours
- Once turned over (typically 1PM), many spaces saw turnover every 15 to 45 minutes



# Parking Availability Overview (6AM – 9AM)



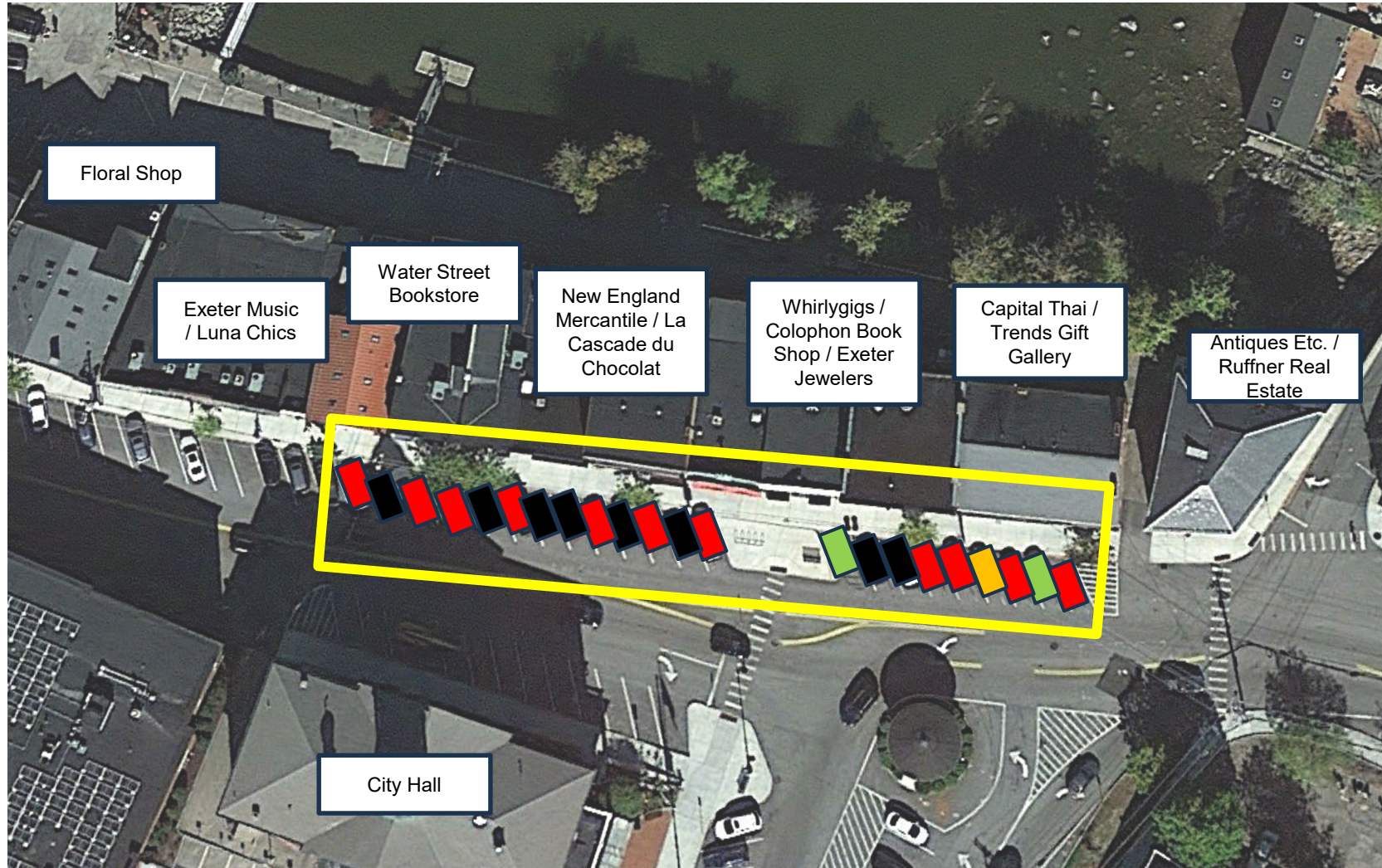
## Availability

- Completely Available
- Mostly Available
- Somewhat Available
- Rarely Available
- Unavailable

There was very low turnover during this time but also low demand, with several empty spaces



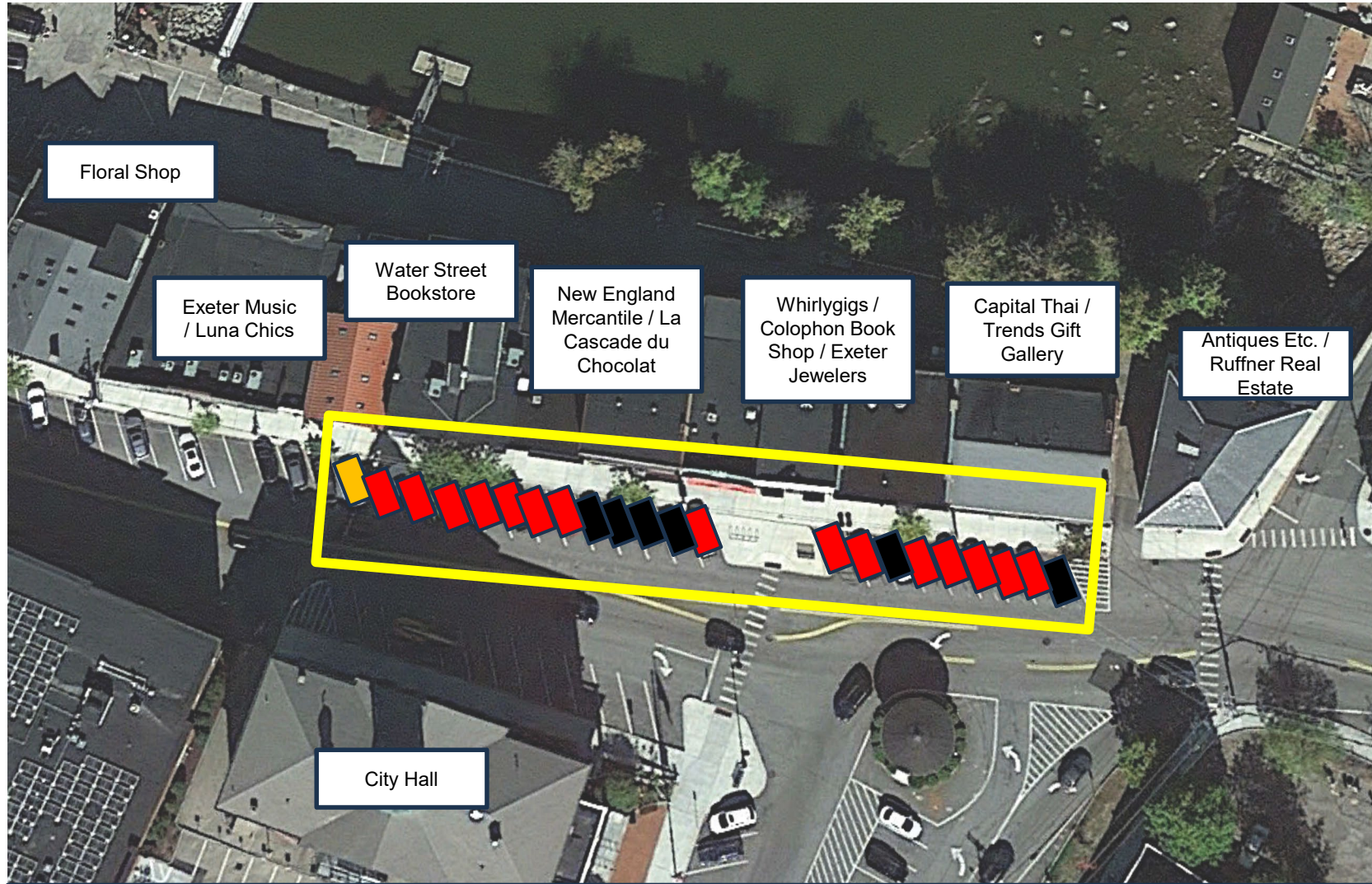
# Parking Availability Overview (9AM – 1PM)



All spaces were occupied, with the most frequent turnover occurring outside the bookstore or the Thai restaurant and gallery



# Parking Availability Overview (1PM – 4PM)



- ### Availability
- Completely Available
  - Mostly Available
  - Somewhat Available
  - Rarely Available
  - Unavailable

This time period had the most turnover, but least availability



# Traffic/Circulation + Pedestrian Safety

## Overview





# Traffic/Circulation Overview

Downtown's roadway layout has remained relatively **unchanged in over 200 years**, although technology and travel methods has evolved

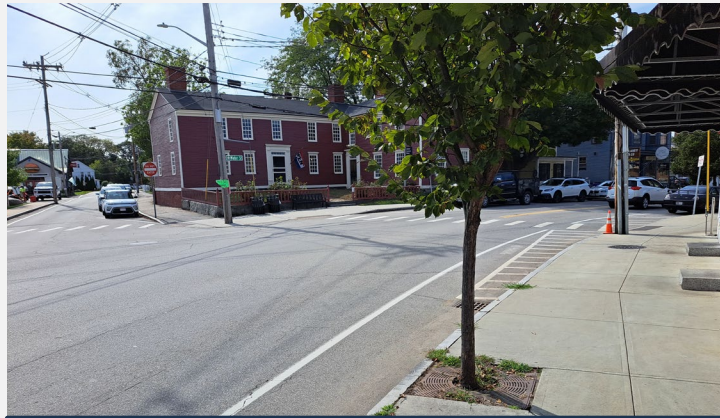
Hub of five NH State Highways, with immediate access to New Hampshire's major east-west freeway (NH Route 101) via four interchanges

## Average daily traffic volumes

- Water Street **volumes remain similar over 50 years**: 11,730 (1966) --> 13,662 (2022)
- Front Street increase over 50 years: 9,560 (1966) --> 13,131 (2022) (0.66%/year)



# Pedestrian Safety Analysis



Roadway curvature and limited warnings to drivers



Wide, ambiguous, unmarked areas



Obstructed sightlines



Unclear refuge/stopping areas



Unclear pedestrian connections



Interrupted sidewalk freeflow

# Parking Wayfinding Analysis



No signs at parking lot entrances



Very small-scale/obstructed parking sign



No signs to parking near key driving route decision locations

# Parking/Traffic/Pedestrian Key Takeaways



Demand on Water Street is high for all users

Many parking spaces on Water Street have limited availability

Circulation challenges contribute to congestion and safety issues

There is limited wayfinding to available parking opportunities

There are safety challenges for those walking/biking through downtown

There is substantial parking capacity within a short walk of Water Street

# Draft Recommendations



# 1

## Share Private Parking Supply

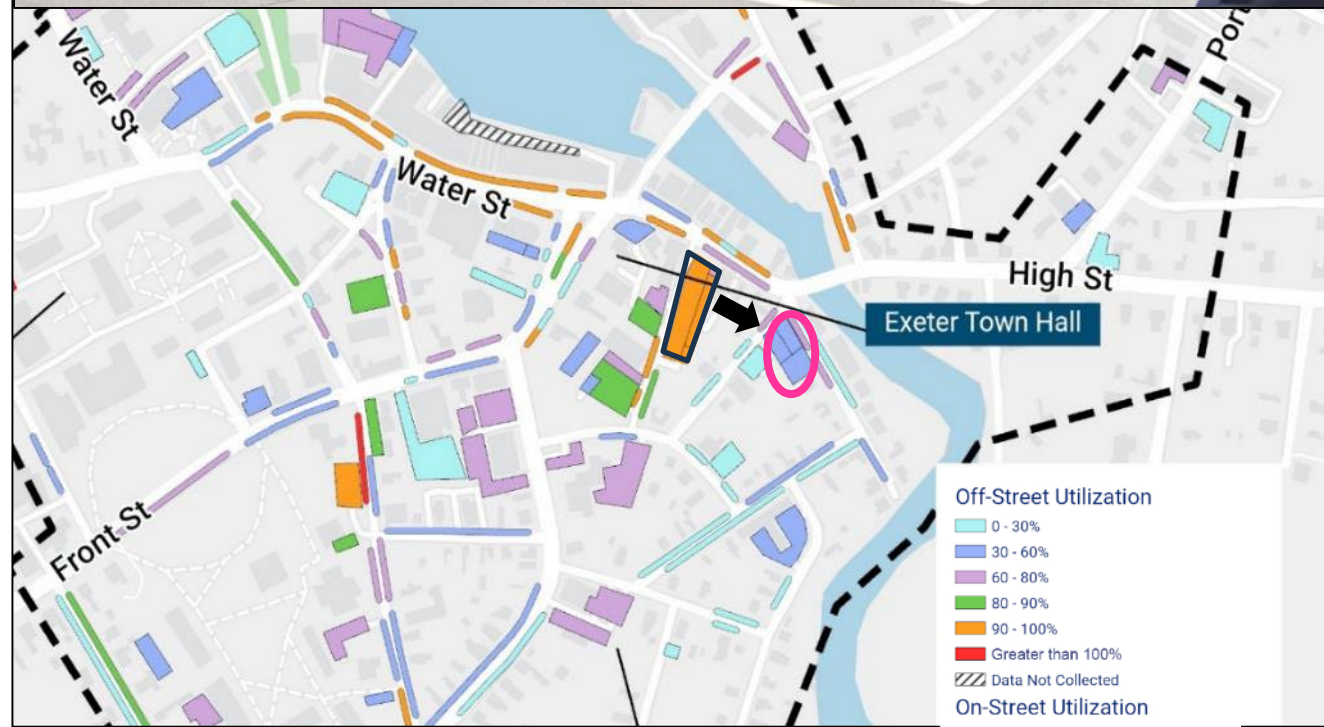
Goals aligned

1	2
3	
4	5
6	

What it does- “Expands” parking supply by increasing opportunities to use underutilized spaces in areas of higher demand

### How it works

- Identify facilities that can **absorb nearby high demand**
- **Town works with property owners** to open currently restricted but underutilized parking to the public.
- This can be for **select groups (i.e., employees)** or at **select times (i.e., after a business is closed for the day)**
- **Town can offer improvements** to include in public parking system (e.g., maintenance)



## Goals aligned

1 2  
3 3  
4 5

What it does- Accommodates short-term visitors without competing with high-demand parking areas or causing safety issues

## How it works

- **Identify** preferred locations for **loading areas** (recommend one per block on Water Street)
- Measure parking demand and peak demand for loading zones and **decide whether time limitations are appropriate** (e.g., before 10AM only)
- Work with local businesses to **determine preferred location of short-term parking spaces**
- Establish a **process for new businesses to request short-term parking spaces near their business based on use/demand**





## Goals aligned

1  
3  
4  
6

2

5

What it does- Ensures there is availability in the facilities of highest demand and encourage use of nearby underutilized spaces which are walkable

## How it works

- Introduce **smart meters** that accept coin, card, and pay by app (e.g., Passport)
- Paid parking on **Water Street** core, only
- Consider introducing paid parking at municipal lot at a later date
- Define a **test period of pricing** to evaluate effectiveness
- Provide **information on Town website** where meters are located, when in operation, and how to use them



# 4 Improve Parking Wayfinding Signage

Goals aligned		What it does - Improve public understanding of where parking is available and improve utilization of facilities less visible from the roadway
1	2	
3		
4	5	
6		

## How it works

- Improve **clarity** of parking lot and regulation **signs**, eventually streamlining a **consistent system**
- Information available on the parking system – everywhere!
- Establish signing that is **highly visible and clearly directs** to public parking from key intersections
  - Exeter can make it "their own"
- Develop a **map of public parking** facilities for the Exeter website, distribution by merchants, etc.



## Goals aligned

1 2  
3 5  
4  
6

What it does- Provides citizen enforcement and increases knowledge of parking regulations in areas with higher volumes of parking infractions

## How it Works-

- Identify where **ambassador** zone(s) are, **identifiable to visitors**, and can communicate with Town officials while in the field, etc.
- Recruit **parking ambassadors** through PEA or an internship program to
  - Document overstays, double parking, etc. particularly along Water Street
  - Be a visible resource of information for visitors with parking questions
  - Determine ideal shift times (Seasonal? Peak periods only?)



## CASE STUDY- Pittsfield, MA

The City recruits young parking ambassadors to support enforcement and teach visitors how to pay for parking

## Goals aligned

1 2  
3 4  
4 5

What it does- Improves nearby circulation to reduce congestion and safety incidents while also promoting walking and downtown vitality

## How it Works

- Develop a steering **committee for coordination and oversight of redesign** process
- Either develop internally or hire consultant to develop preferred concept design, including an in-depth outreach process
- Hire additional consultants for:
  - Necessary **feasibility studies**
  - Conducting **pilots and demonstrations**
  - Developing **engineered final designs**



## Key Benefits

- Stronger sense of place and gathering
- Widened pedestrian paths
- Narrowed travel lanes
- Conversion of angled to parallel parking
- Enhanced crosswalks
- Continuity with proposed concept on Front St (Rec. #12)



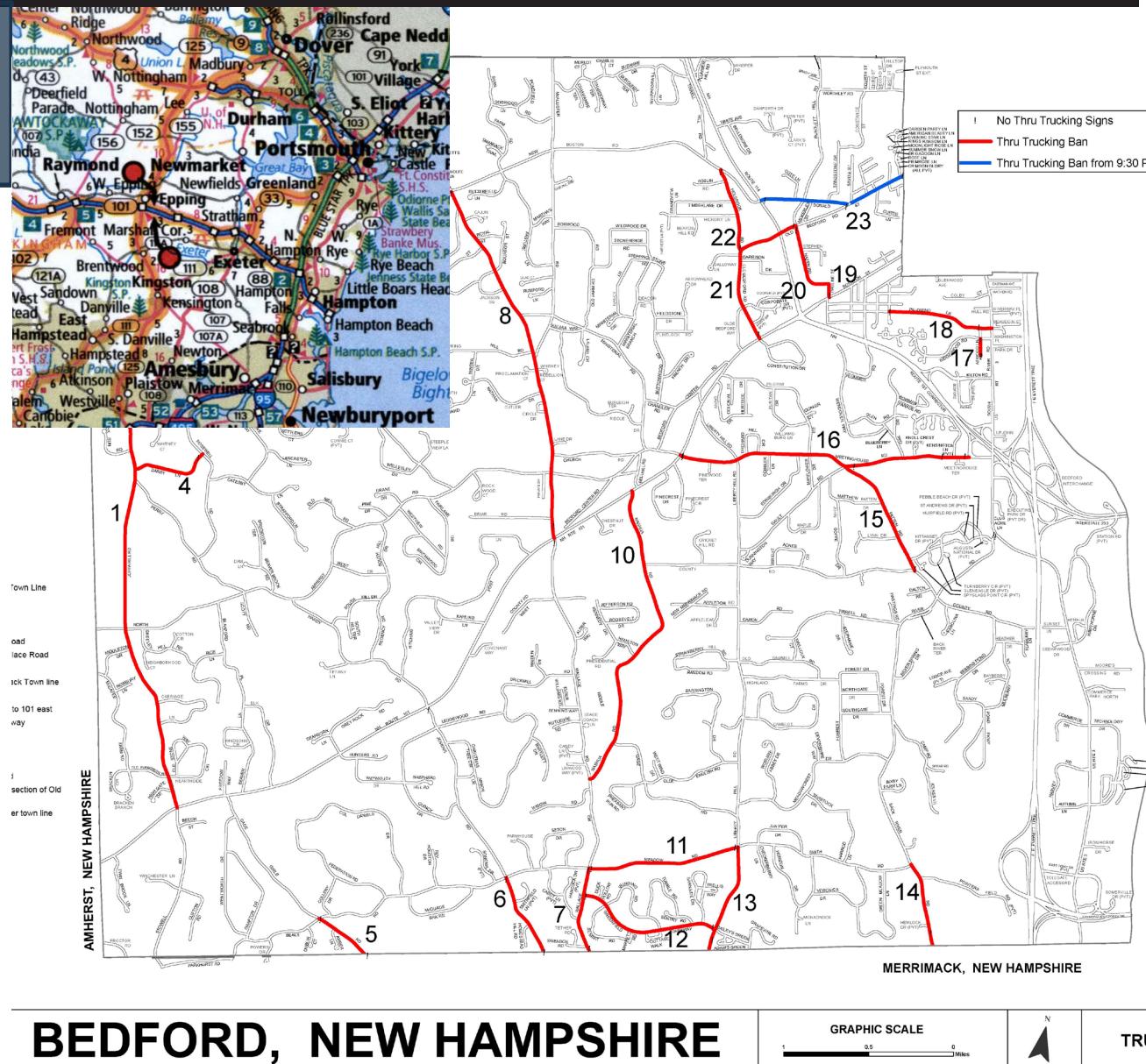
# Establish New Truck Route

- Goals aligned
- 1 2
- 3
- 4 5

What it does- Diverts large vehicles from high volume areas of downtown to reduce congestion and potential safety issues.

## How it works

- Town should request reviewer status for **NHDOT Oversize/Overweight Permits**
- Establish list and **plan for "No Thru Trucks"**, including high visibility signing and time-based restrictions
- Develop an **ordinance article** by Select Board for vehicles on roadways
- Notification to **navigation providers**



## Goals aligned

1 2  
3  
4 5

What it does – Allows incremental new development in the downtown without creating more unnecessary surface parking

## How it works

- Reduce or eliminate parking requirements for **small scale development**
- Simplify **parking requirements** and allow reduced parking requirements by right when possible



# Revise Winter Parking Plan

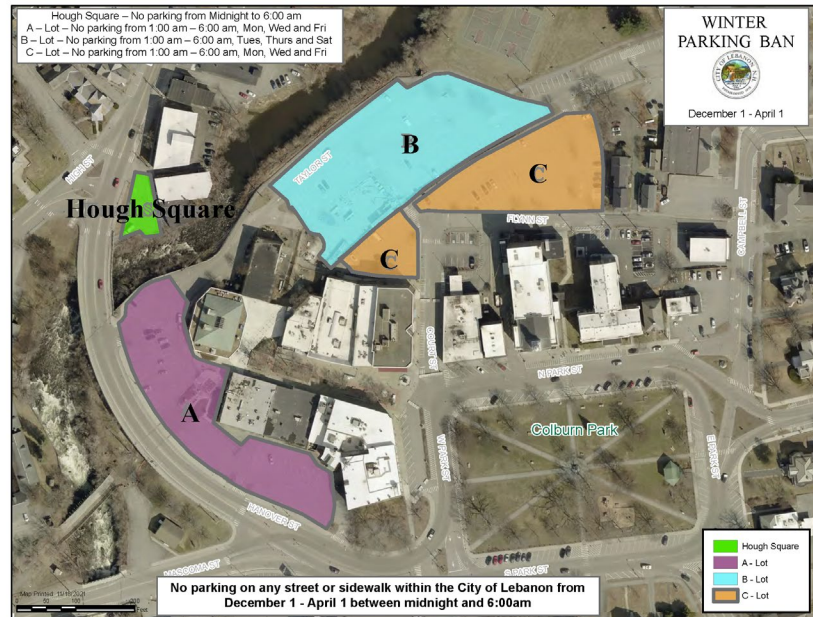
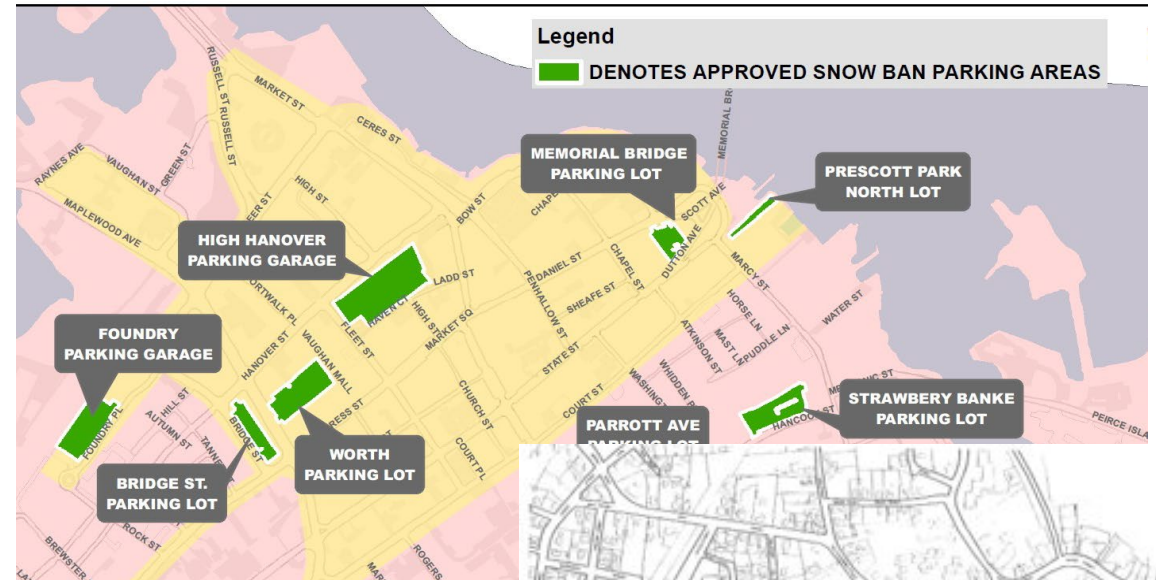
*Goals aligned*

1	2
3	
4	5

What it does- Re-evaluates parking bans to minimize inconvenience to parkers and decrease the need for off-street residential parking

## How it works

- Today, Water Street Municipal Lot open (33 overnight spaces), 8 spaces on Pleasant Street, and inclusion of Center St Lot
- Specify **bans during weather emergencies only**
- Provide an **online map** showing where parking is available during the ban
- Provide **communication options** for citizens to be notified or access current information/updates
  - Email / Text
  - Beacons on structures



Parking Plan for Winter Overnight Parking





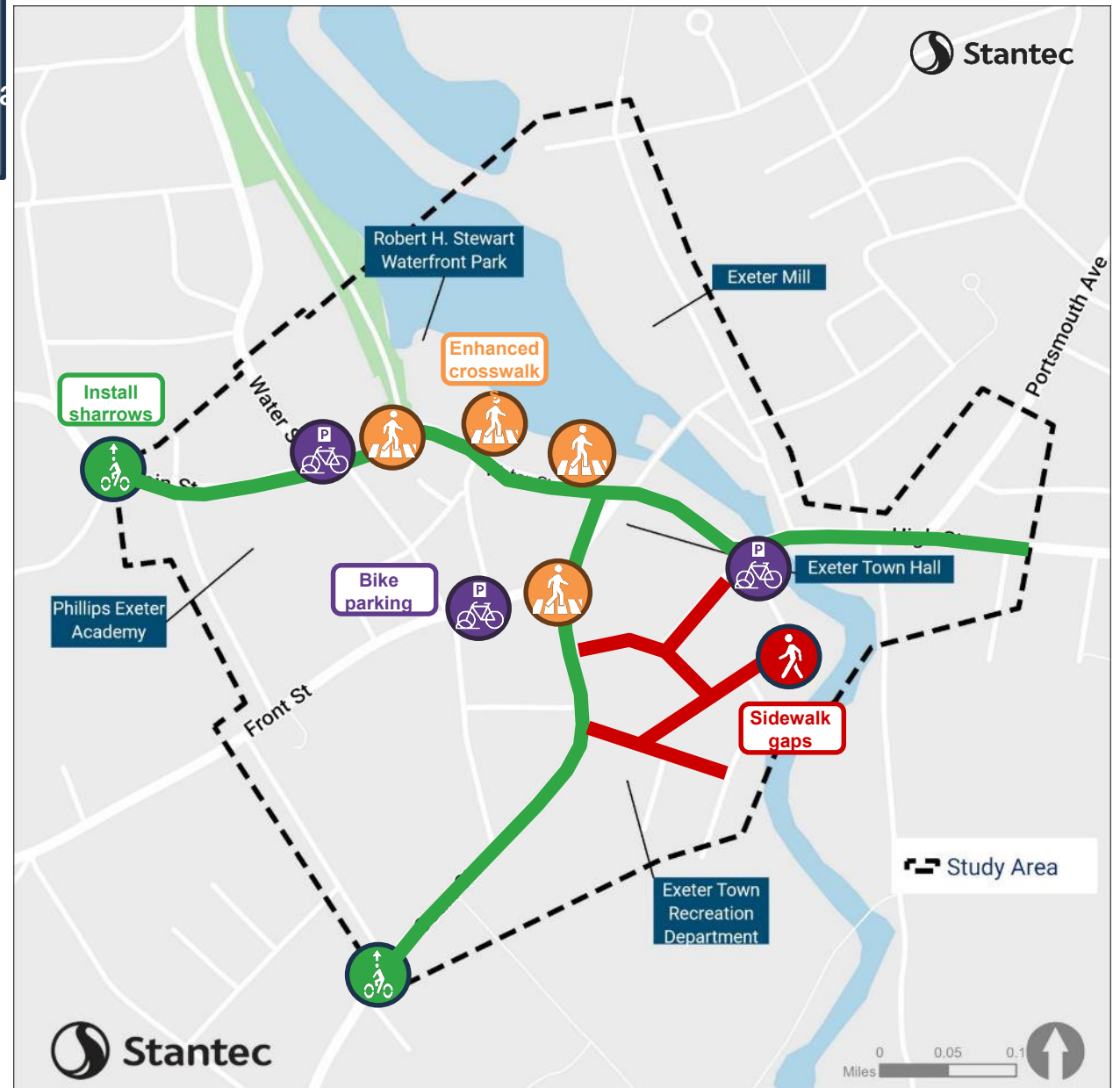
# 10

## Multimodal Improvements

Goals aligned		What it does- Prioritizes safety for pedestrians connecting to/from parking and other key destinations downtown
1	2	
3		
4	5	

### How it works

- **Close sidewalk gaps** and reduce sidewalk obstructions through utility pole licensing
- **Enhance crosswalks** with bump outs (shortened crossings), widened striping, active pedestrian warning signage, etc.
  - Swasey Parkway @ Water Street
  - Water Street @ Center Street (North Side)
  - Water Street @ Municipal Lot Entrance
  - Front Street @ Court Street
- Formalize parking on Elliot Street and Elm Street to reduce roadway impingements



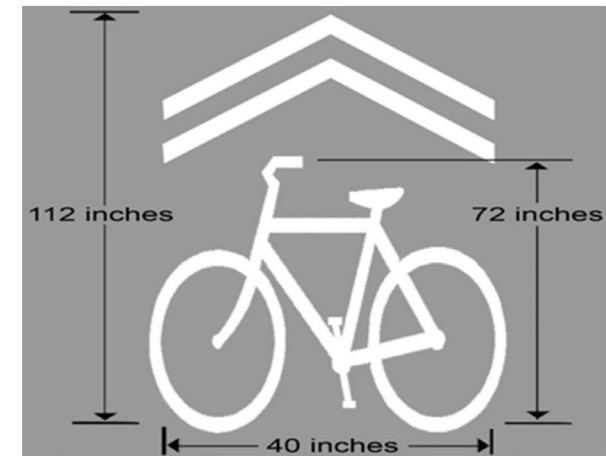
*Goals aligned*

1	2
3	5
4	

What it is- Installing sharrow markings and other visible signage to increase awareness and support of bicycle movement throughout downtown

## How it works

- Install **sharrow markings** along Water and Main Street using MUTCD guidance
- Install **Share the Road signs**, particularly at locations with sightline challenges
- Install bike parking signage

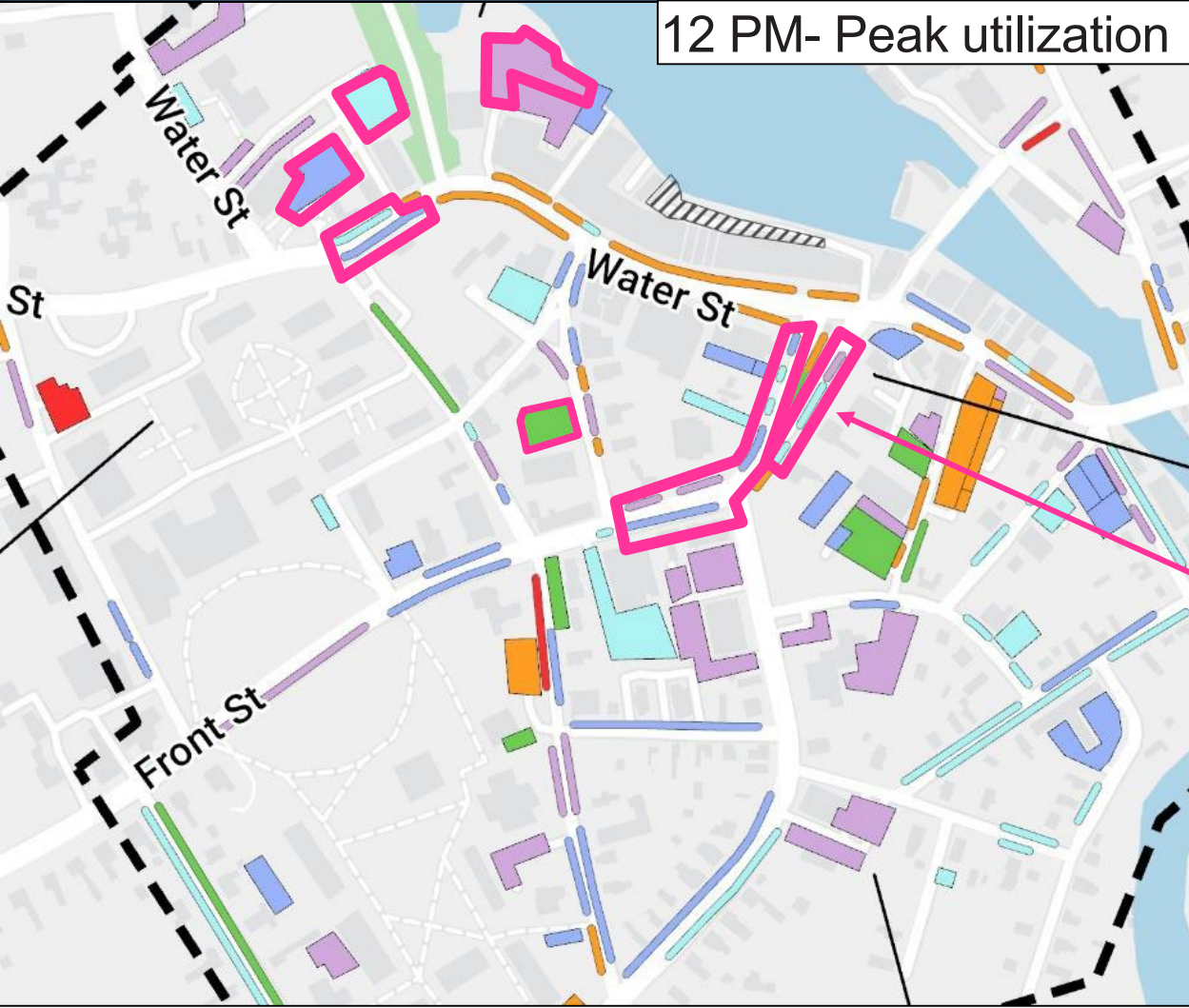


# 12

## Consider Re-imagining Parking on Water Street

- Goals aligned
- 1
  - 2
  - 3
  - 4
  - 5

What it is- A reconfiguration of parking to reduce safety challenges of back-out parking and introduce space for bike infrastructure or other amenities



### How it works

- Convert **angled parking to parallel**
- Install **bike lane**

75 spaces (existing)

46 spaces (proposed)

Net -33 spaces

Even at peak periods, public parking within a 2-minute walk can easily absorb potential demand for the removed 33 spaces along Water Street.

At non-peak times, nearby availability further increases.



American Independence Museum  
Colonial history at a  
1721 home & tavern

Exeter River  
Reservoir

Concept Only

### Key Benefits

- Less safety hazards of backing out into traffic
- Better support for bicyclists
- Expanded pedestrian pathways



Questions?  
Comments?

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Downtown Parking, Traffic, and Pedestrian Flow Analysis

