



PARKING MATTERS

 **PARKING
MATTERS** | A Strategic Plan for
Parking + Mobility
in Savannah

Technical Report 3.1 DATA, RESEARCH AND PARKING DEMAND

Prepared for the
Chatham County - Savannah Metropolitan Planning Commission
and the
City of Savannah Department of Mobility and Parking Services

August 2015



Prepared by
Nelson\Nygaard Consulting Associates in partnership with
Symbioscity | VHB | Carl Walker, Inc.

Technical Report 3.1

Data, Research and Parking Demand

The opinions, findings, and conclusions in this publication are those of the author(s) and not necessarily those of the Department of Transportation, the State of Georgia, or the Federal Highway Administration.

This report summarizes current levels of parking use in central Savannah’s parking facilities, primarily concerning public parking of general-purpose vehicles on streets, in City-owned lots and garages, and other off-street parking facilities. It is intended to provide a snapshot of how current activity in the Parking Matters study area leads to different levels of parking utilization. The report does not make direct recommendations for changes, but may point out observations or findings that suggest issues that need to be addressed in later stages of the Parking Matters study.

The report is intended to accompany Technical Report 6.1 (Current Parking Regulations), which provides a general overview of the number of parking facilities in the study area and Technical Report 5.1 (Parking Operations, Revenues and Capital Cost Data), which offers an assessment of parking management in Savannah, especially among the City’s Department of Mobility and Parking Services.

The report is divided into three primary sections:

- 1. Demand Assessment Methodology
- 2. Demand for On-Street Parking Facilities
- 3. Demand for Off-Street Parking Facilities

In addition, a fourth brief section presents an additional series of graphs on utilization by different categories of parking type.



Section 1

Demand Assessment Methodology

Key Points

The Parking Matters study surveyed utilization rates on all on-street and most off-street spaces in central Savannah.

Counts were taken every two hours in the historic district and Thomas Square areas and every four hours elsewhere.

Parked vehicles were counted on a weekday (Thursday) and Saturday in the spring high season to capture visitor demand.

PARKING INVENTORY

Staff from the City of Savannah Department of Mobility and Parking Services assisted the Parking Matters team in documenting the location of all on-street and off-street parking in the study area. This included a first-ever comprehensive documentation of different parking meter locations, freight and passenger loading spaces, spaces for the disabled, and a verification of time limits for spaces without payment meters. Staff and the Parking Matters study team coded this information into a comprehensive geographic information systems (GIS) database for the overall study area.

PARKING UTILIZATION

The study team also conducted parking utilization counts to provide a time series of parking demand for a typical day. To complete this analysis, individuals counted parked cars in each on-street segment, lot, and garage at pre-determined time intervals in the study area. Land use, regulation, pricing, information, street design, and convenience can all potentially influence the utilization of parking assets. With this comprehensive compilation of parking utilization, the study can begin to clearly identify patterns of high, optimal, or low usage, the impact of regulations, and where forthcoming land development or other land use change may face potential parking challenges.

The project team conducted parking utilization counts on a typical weekday and typical weekend day for the central Savannah study area. The study area was subdivided into different areas for data collection. To closely understand parking impacts north of Gaston Street and the small district surrounding Thomas Square, both areas understood to have a more complex and dynamic demand profile because of their more varied mix of land uses, data collection efforts were conducted every two hours. The other areas south of Gaston Street outside of the Thomas Square area, with a more uniform land use pattern with mostly residential uses, were conducted every four hours to provide a snapshot of parking activity during the morning, afternoon, and evening hours.

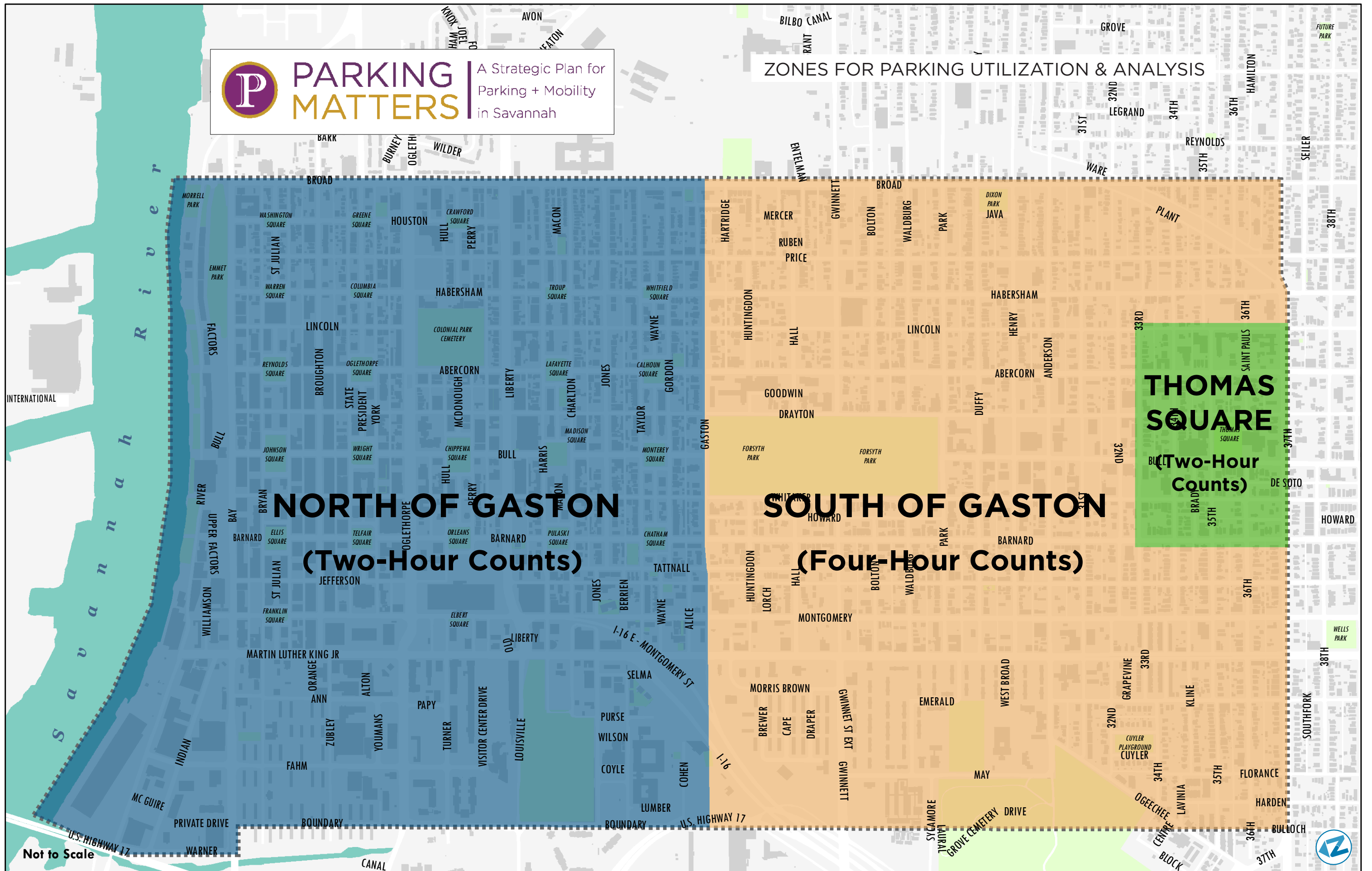
Weekday counts were conducted on Thursday, April 23, 2015, a normal business day for businesses and restaurants and occurring during the Savannah College of Art and Design (SCAD) academic year. Data collectors captured weekday parking demand for 16 hours with a first pass beginning at 7 a.m. and the last beginning at 9 p.m. Data collection began in the early morning to identify the impacts of resident and employee parking. In the evening, data was collected through 11 p.m. to fully assess parking demand associated with downtown Savannah's restaurants and nightlife. A weekend count, originally scheduled for the following Saturday, April 25th, was postponed due to inclement weather. The weekend counts were conducted on Saturday, May 9th, a typical weekend during the SCAD academic year that did not have festivals or other special events.

Individuals collecting data for each on-street segment and off-street lot did so at exact intervals, following the same precise route. For example, if the utilization of the south side of Congress Street between Drayton and Abercorn Streets was counted at 7:01 a.m. in the first loop, then it was counted at 9:01 a.m. during the second loop, and so on. This consistency ensures accurate data and helps draw conclusions about trends of two-hour and four-hour intervals. The team coordinated in advance with the City of Savannah Department of Mobility and Parking Services to ensure that there were no major events or street closures that may influence parking utilization.

The team also worked closely with garage operators in the study area to gather gate counts for a number of garages in the study area. This allowed for data collectors to work more efficiently.

However, several garage operators may have provided estimates of their facility's utilization based on their general experience and understanding of utilization trends across the high season—as opposed to the specific data collection days. Refer to Section 3 for a more extensive explanation of how public and private garage utilization levels were calculated and estimated.

Facilities from which there is “no data” were not included in the inventory totals of utilization calculations, meaning these do not represent zero-utilization facilities and thus lower overall averages for utilization in an area or by a certain facility type.



Section 2

Demand for On-Street Parking Facilities

Key Findings

On-street parking demand and utilization are at their highest in the mid-day period (11 a.m. to 3 p.m.)—both on weekdays and Saturdays.

The historic district core’s parking is fully utilized by mid-morning; this lasts well into the evening.

Data indicates that spaces controlled by multi-space meters have higher utilization rates than those controlled by single-space (coin) meters.

In many locations, distances between heavily utilized and lightly utilized street parking are very short.

UNDERSTANDING UTILIZATION

On-street spaces account for nearly 40 percent of the inventory in the Parking Matters study area. Overall, this parking is utilized at rates of 40 to 60 percent, with the greatest utilization typically during the traditional business day.

Key findings from the utilization analysis that pertain to the entire study area boundary are as follows:

- In general, the busiest periods are in the middle of the day (from 11 a.m. to 3 p.m. on weekdays and weekends).
- On weekdays and weekends, some prominent locations, including Bay, Broughton, and East Congress, will rapidly fill up before 11 a.m. and remain relatively full past 9 p.m.
- The utilization of metered spaces increases after enforcement hours end at 5 p.m. on weekdays--and utilization of those spaces are even higher on the weekends.
- Spaces specifically served by multi-space meters have a consistently greater utilization than those served by single-space meters.
- Instances of illegally parked vehicles were more than three times higher on Saturday than on any given time on Thursday.
- The Saturday peak utilization of 11 a.m. coincides with the peak utilization time for freight and loading spaces.
- The distance between a high level of utilization and low level of utilization can be relatively short. Some examples include the west side (high) and east side (low) of Orleans Square on Thursday at 11 a.m.; Reynolds Square (high) and Johnson Square (low) at on Thursday at 7 p.m.; Broughton Street west of Lincoln (high) and east of Lincoln

(low) on Saturday at 1 p.m.; and West Harris Street (high) and West Liberty Street (low) on Saturday at 7 p.m.

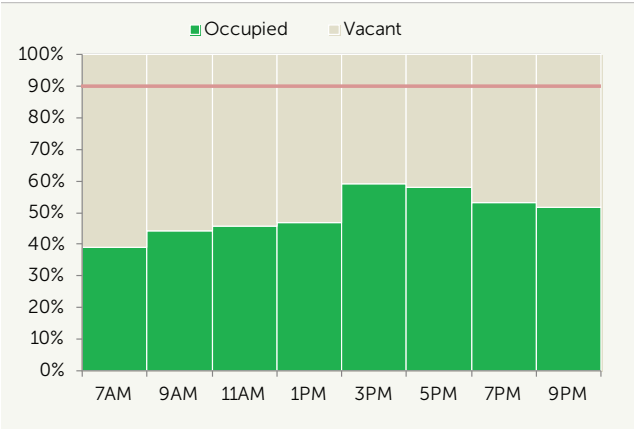
The graphs to the right and on the following pages illustrate the overall utilization of the study area, with specific graphics shown for Thursday and Saturday*.

In addition, the following pages present a series of maps depicting utilization throughout the study area. They are presented in chronological order by two-hour counting period for each of the two days during which counts were taken. They use the following color-coding system to represent the percentage of spaces are occupied at each location. These colors are broken at certain percentages, and are used to evaluate the relative utilization of a parking facility:

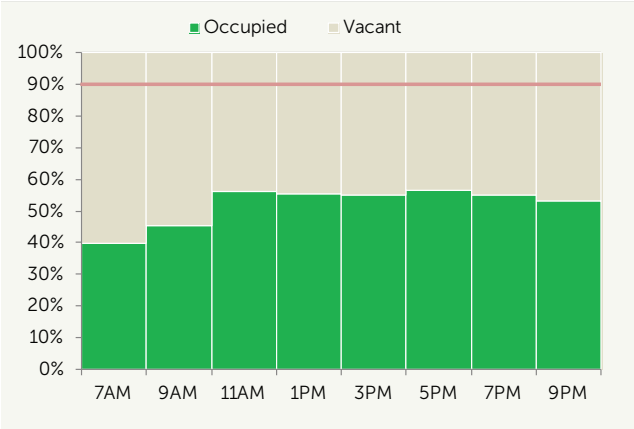
- **Light Blue (0% – 60% utilization)** identifies underutilized locations that can be viewed as excess capacity if they are consistently performing at this level.
- **Dark Blue (61% - 80% utilization)** identifies locations nearing optimal utilization but, if consistently at this level, still provide excess capacity.
- **Green (81% - 90% utilization)** locations are considered in general parking practice as “optimal” utilization. This corresponds to one or two spaces consistently available on a ten-space block length, reducing the need for motorists to circle the vicinity to find a space.
- **Pink (91% - 100% utilization)** identifies locations considered “at capacity.” Locations consistently in this range may appear to be maximizing their efficiency, but may also appear “full” to a driver, and consequently, give or reinforce the impression that there is a lack of parking.
- **Red (Above 100% utilization)** identifies locations that are occupied above and beyond the marked capacity. If consistent, these may also give the impression that there is a lack of parking.

OVERALL UTILIZATION OF ON-STREET SPACES

Thursday 12,304 spaces



Saturday 12,304 spaces



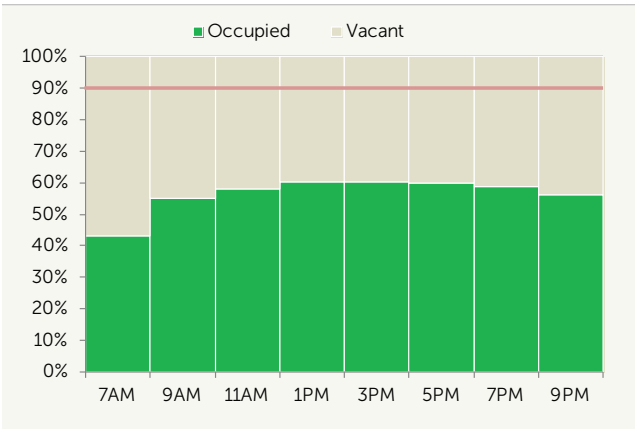
*Although facilities in areas south of Gaston Street were counted every four hours, all graphs and charts will display utilization in two-hour increments.

ON-STREET SPACES BY GENERAL LOCATION

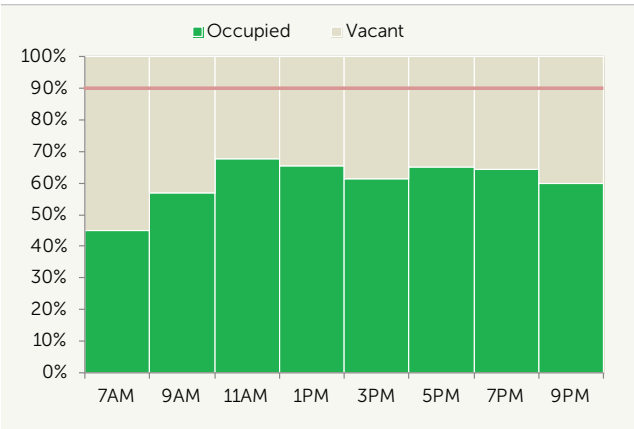
Overall, parking is more heavily utilized north of Gaston Street than south of it, and the Thomas Square area shows similar levels of use to the historic

district north of Gaston. Profiles are similar from Thursday to Saturday, with Saturdays seeing slightly higher utilization north of Gaston.

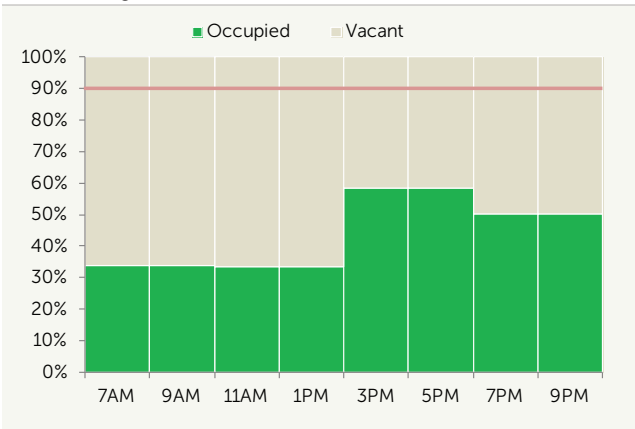
Thursday: North of Gaston 5,702 spaces



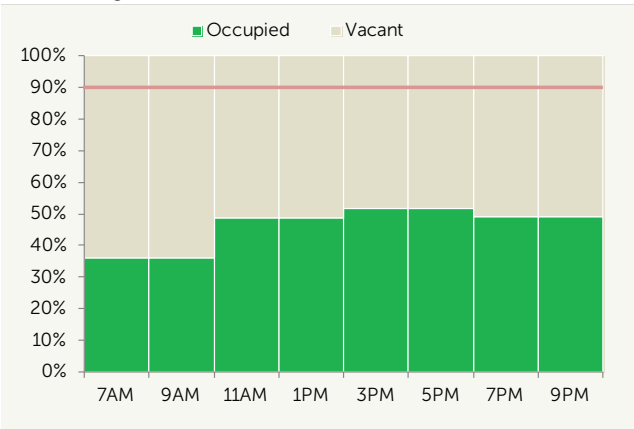
Saturday: North of Gaston 5,702 spaces



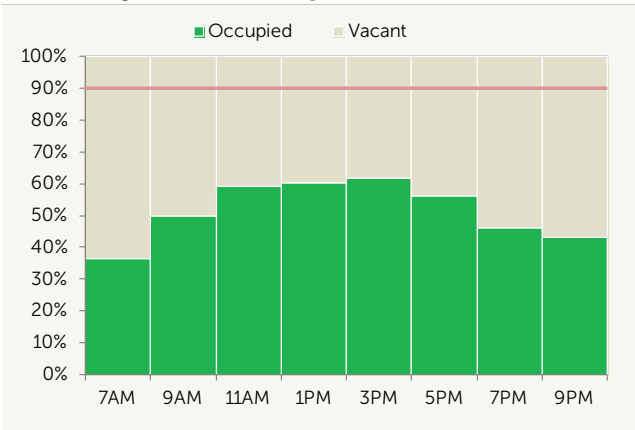
Thursday: South of Gaston 5,895 spaces



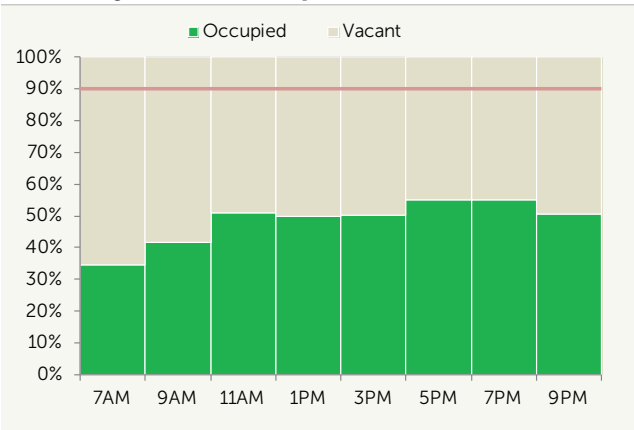
Saturday: South of Gaston 5,895 spaces



Thursday: Thomas Square 707 spaces



Saturday: Thomas Square 707 spaces

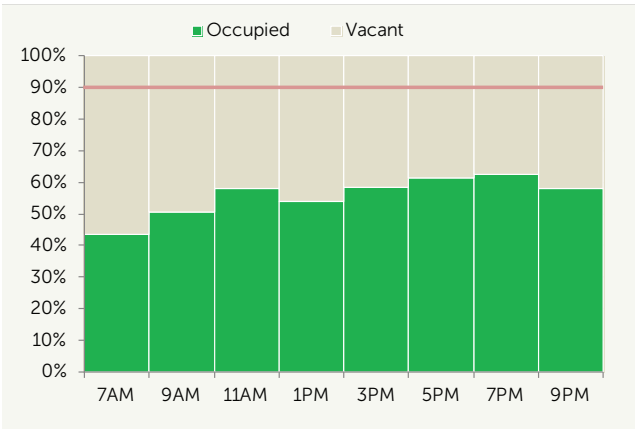


ON-STREET SPACES BY REGULATION TYPE

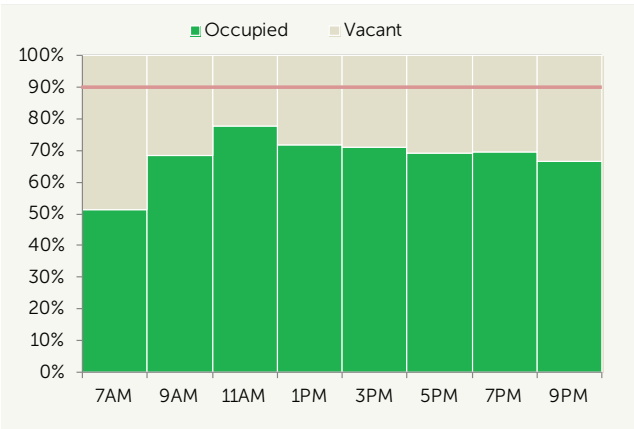
While metered parking—most of which is in the historic district area north of Gaston—sees generally higher levels of utilization, spaces controlled by multi-

space meters see notably higher utilization than other types of regulations. Free time-limited spaces have more availability than both types of metered spaces.

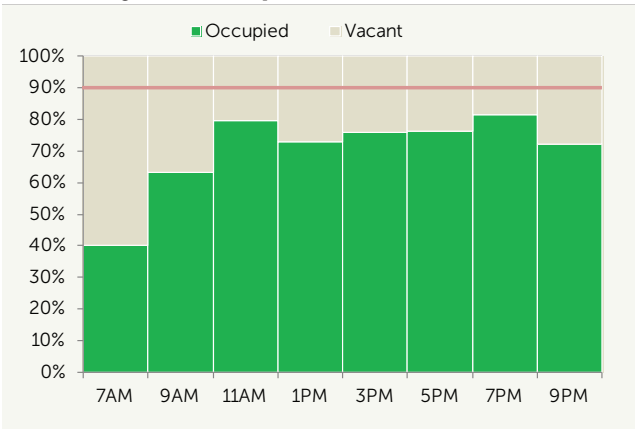
Thursday: Single-Space 2,222 spaces



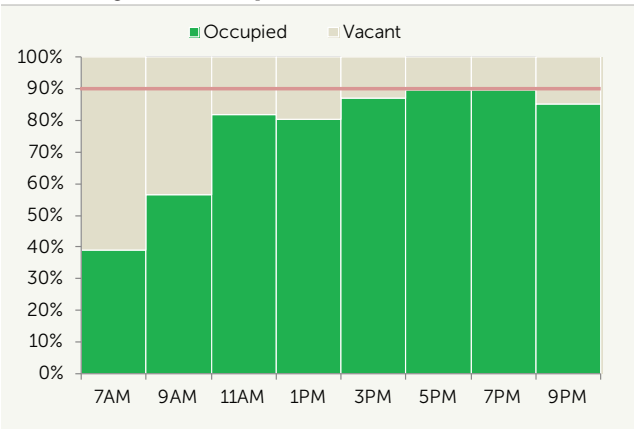
Saturday: Single-Space 2,222 spaces



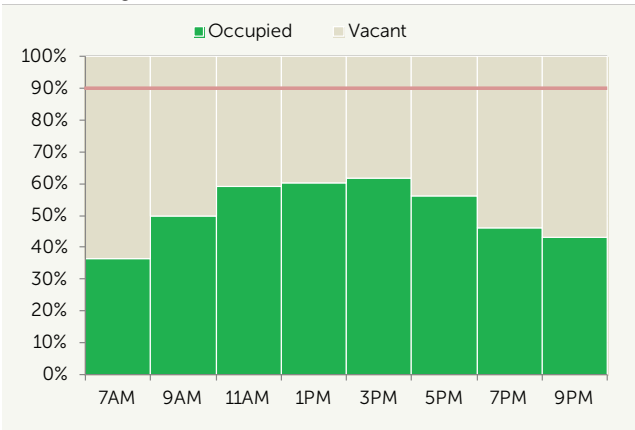
Thursday: Multi-Space 710 spaces



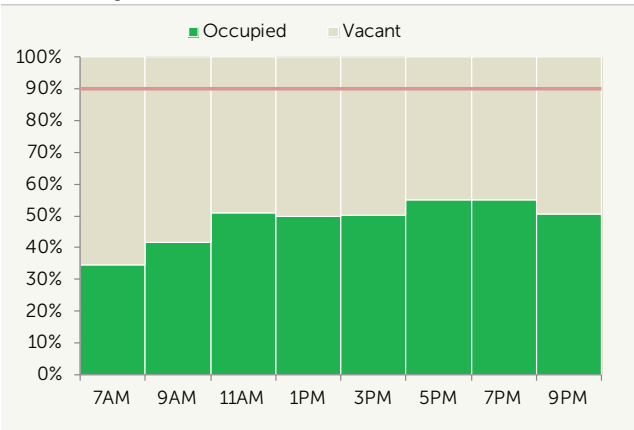
Saturday: Multi-Space 710 spaces

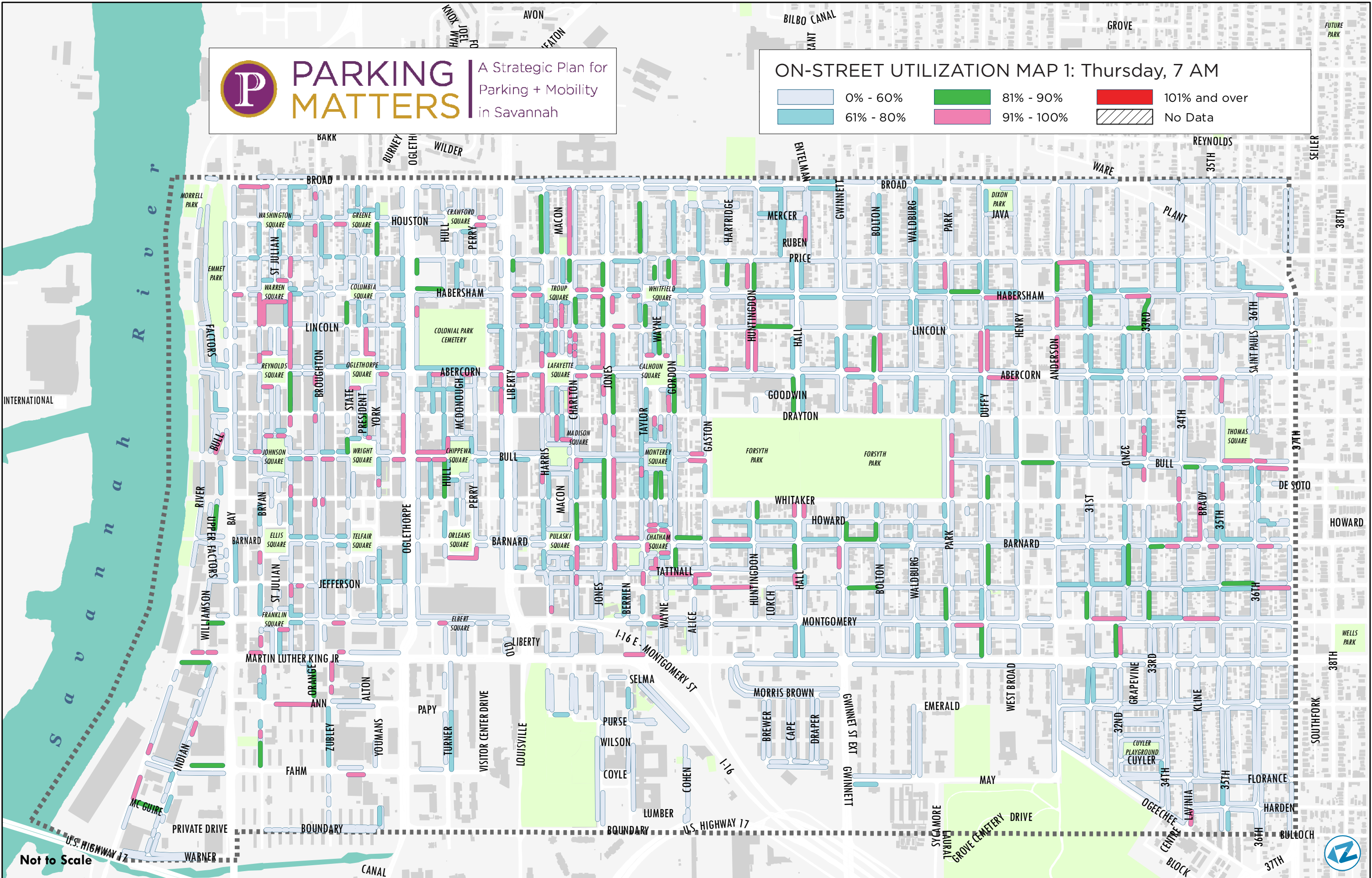


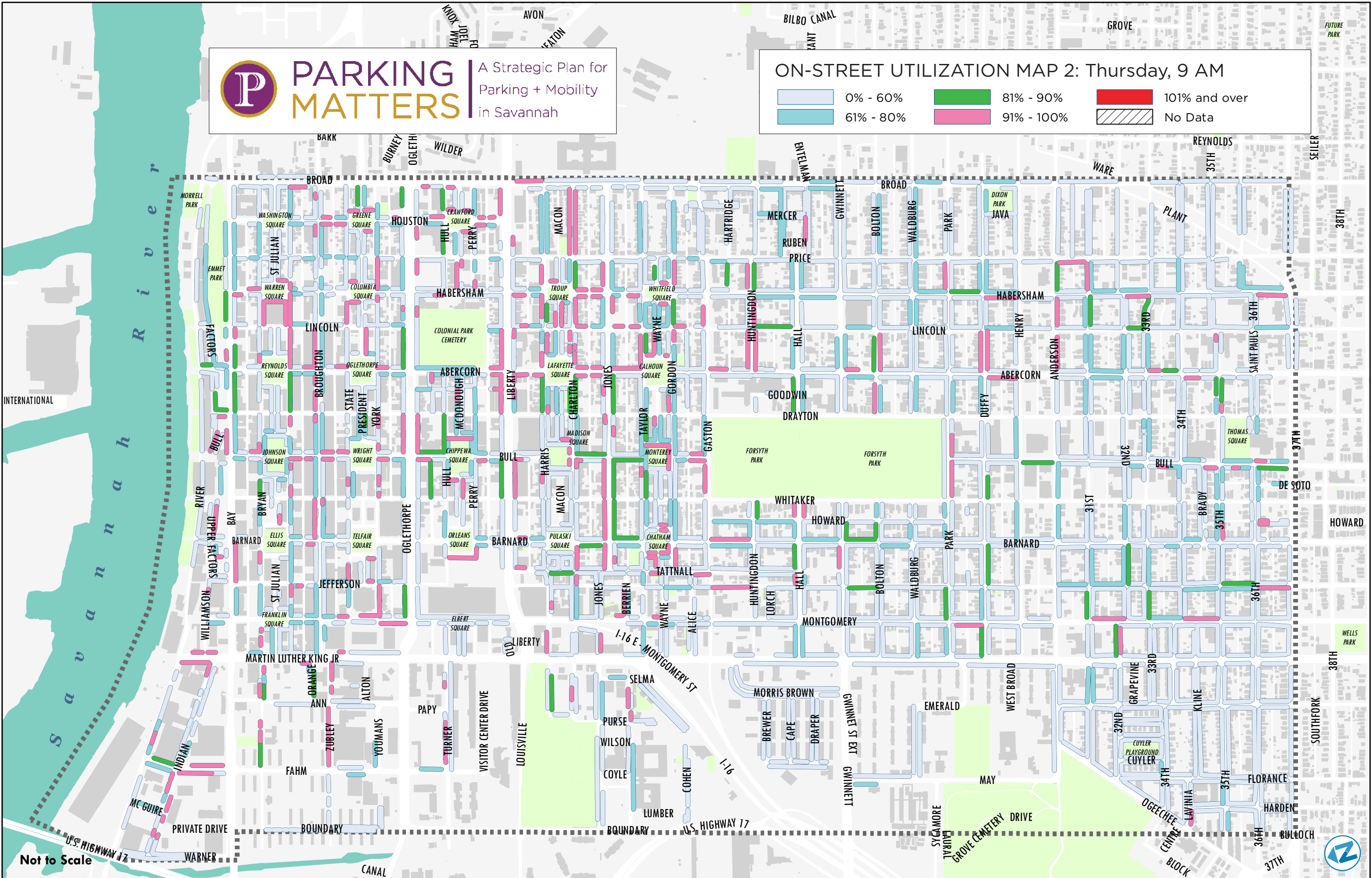
Thursday: Free, Time-Limited 563 spaces

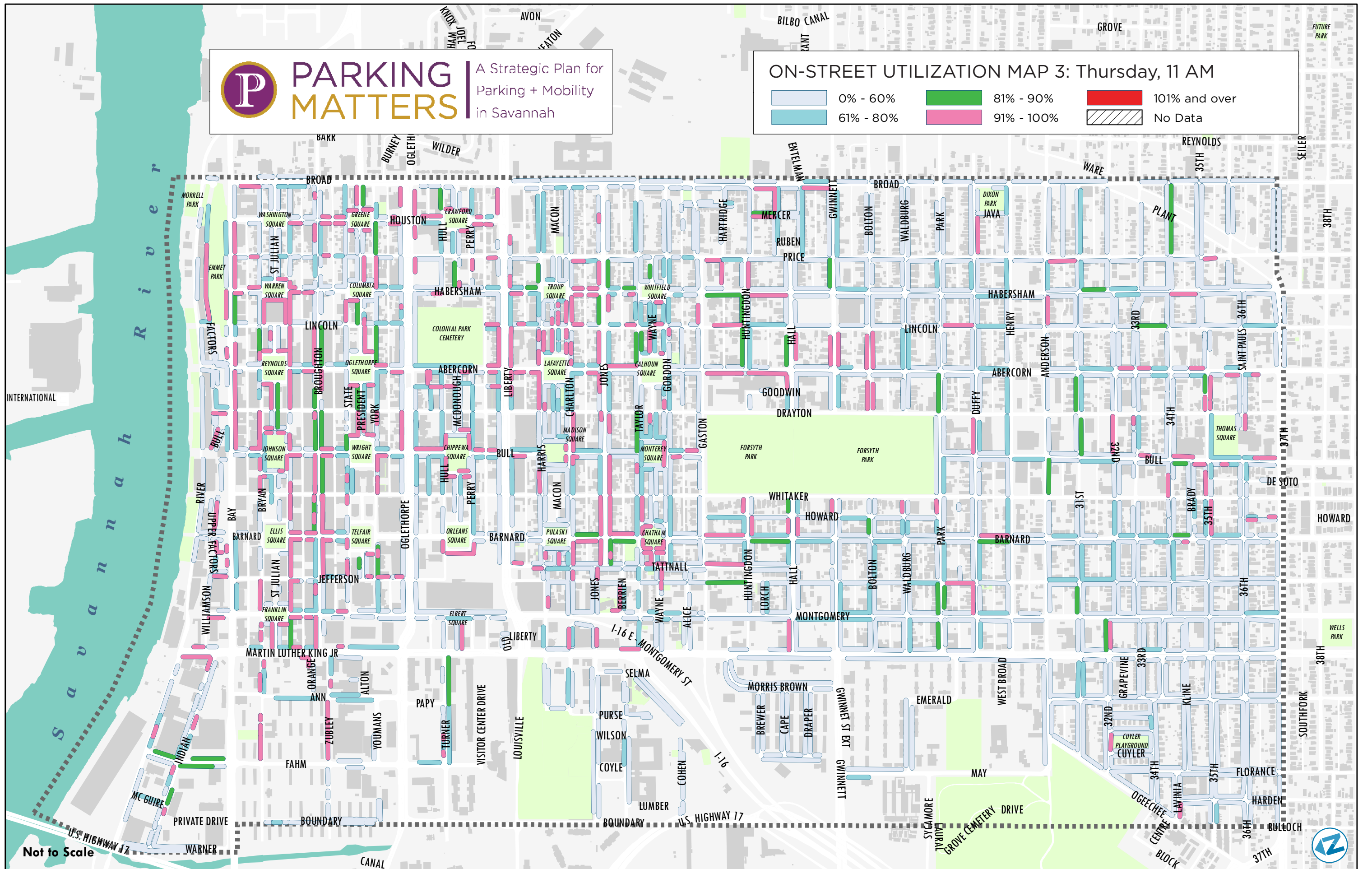


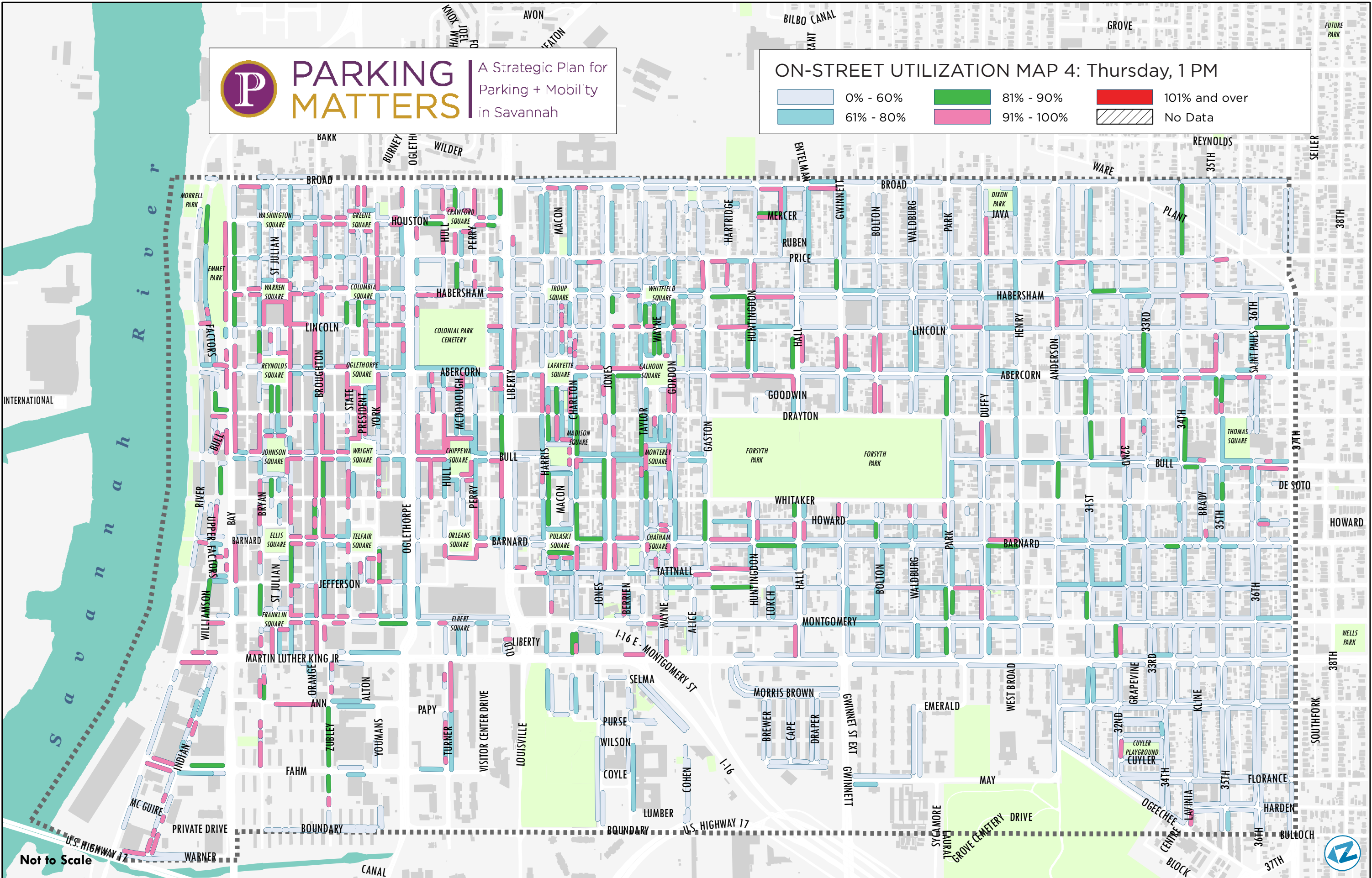
Saturday: Free, Time-Limited 563 spaces

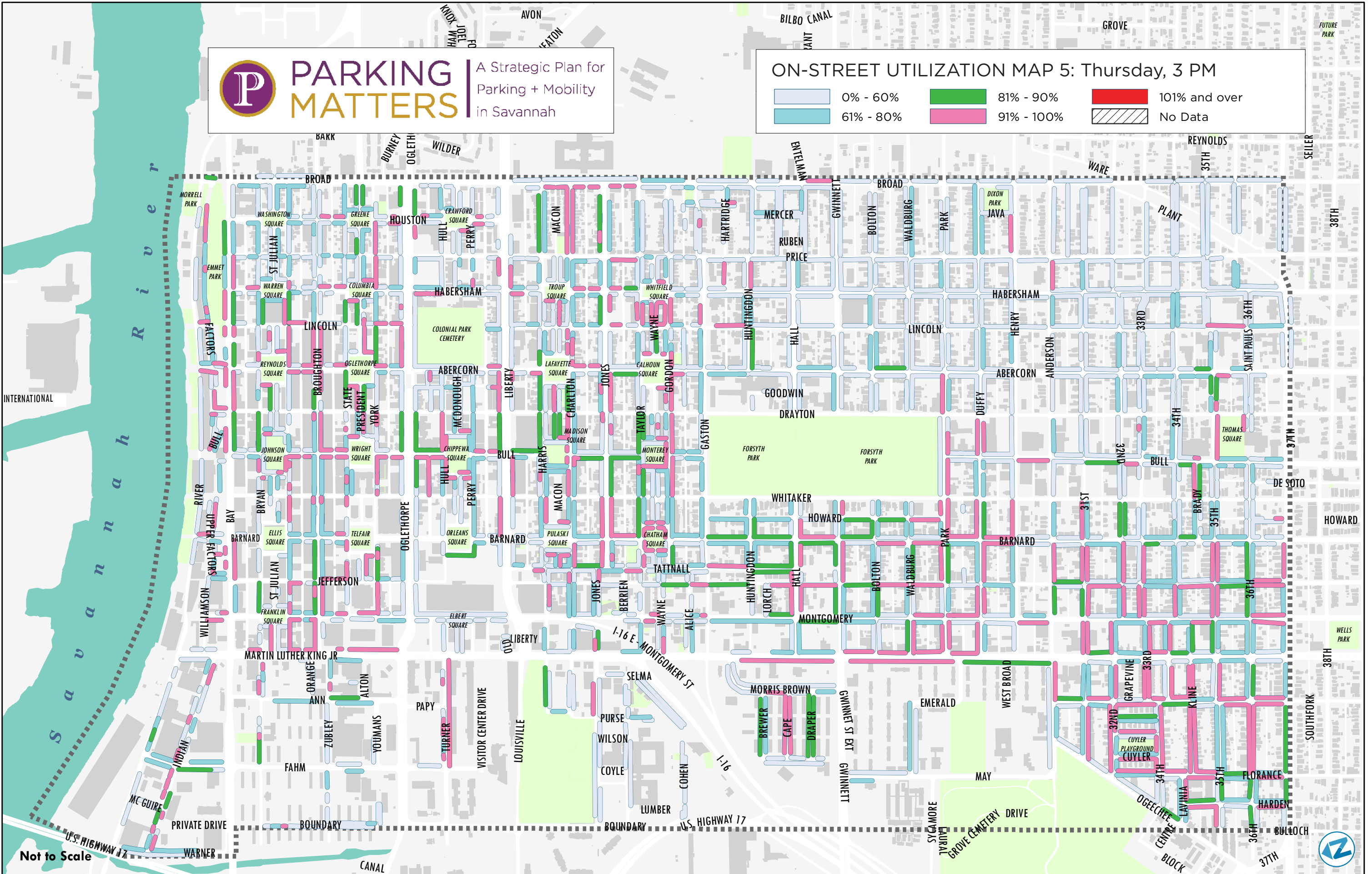


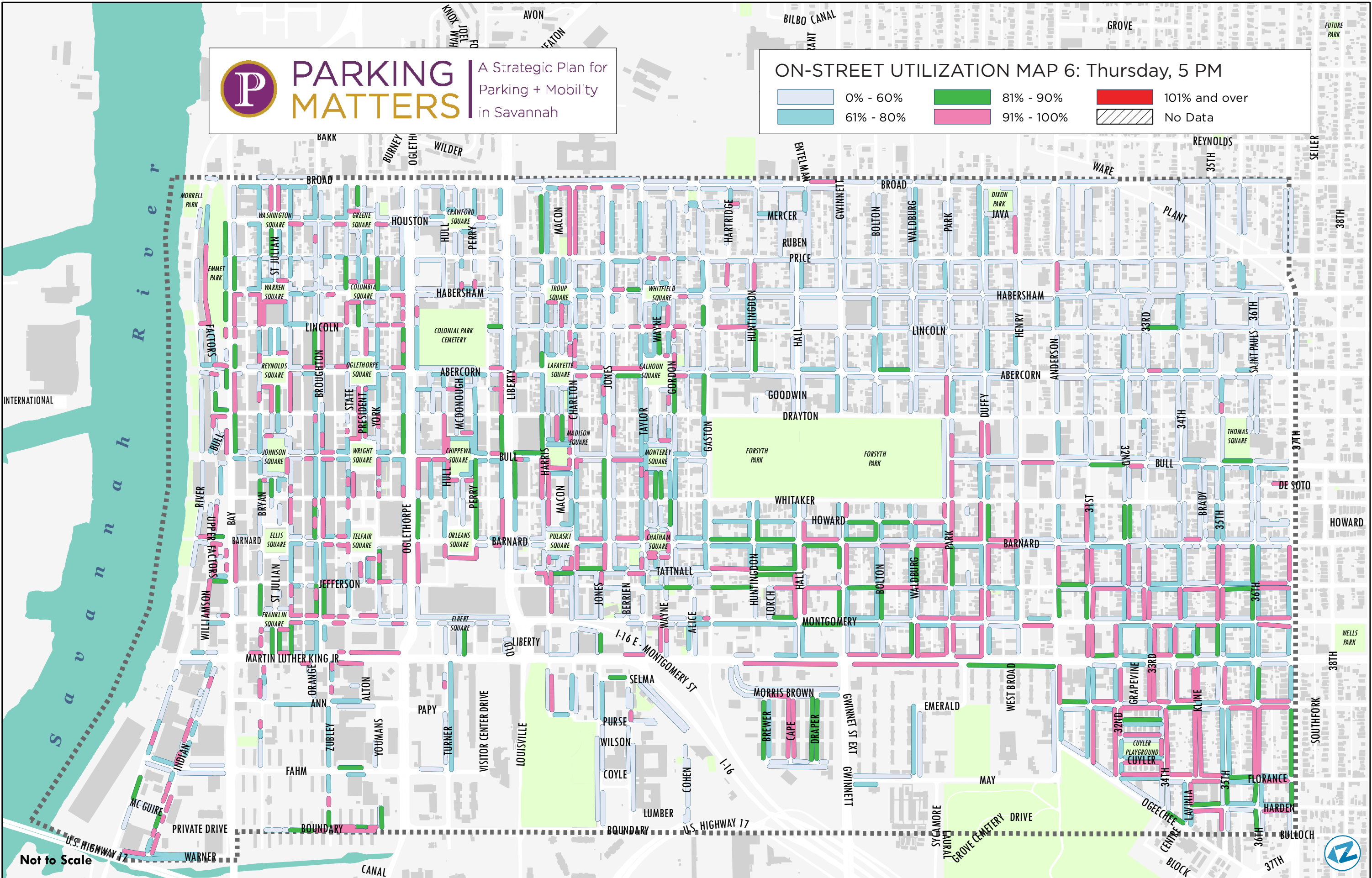


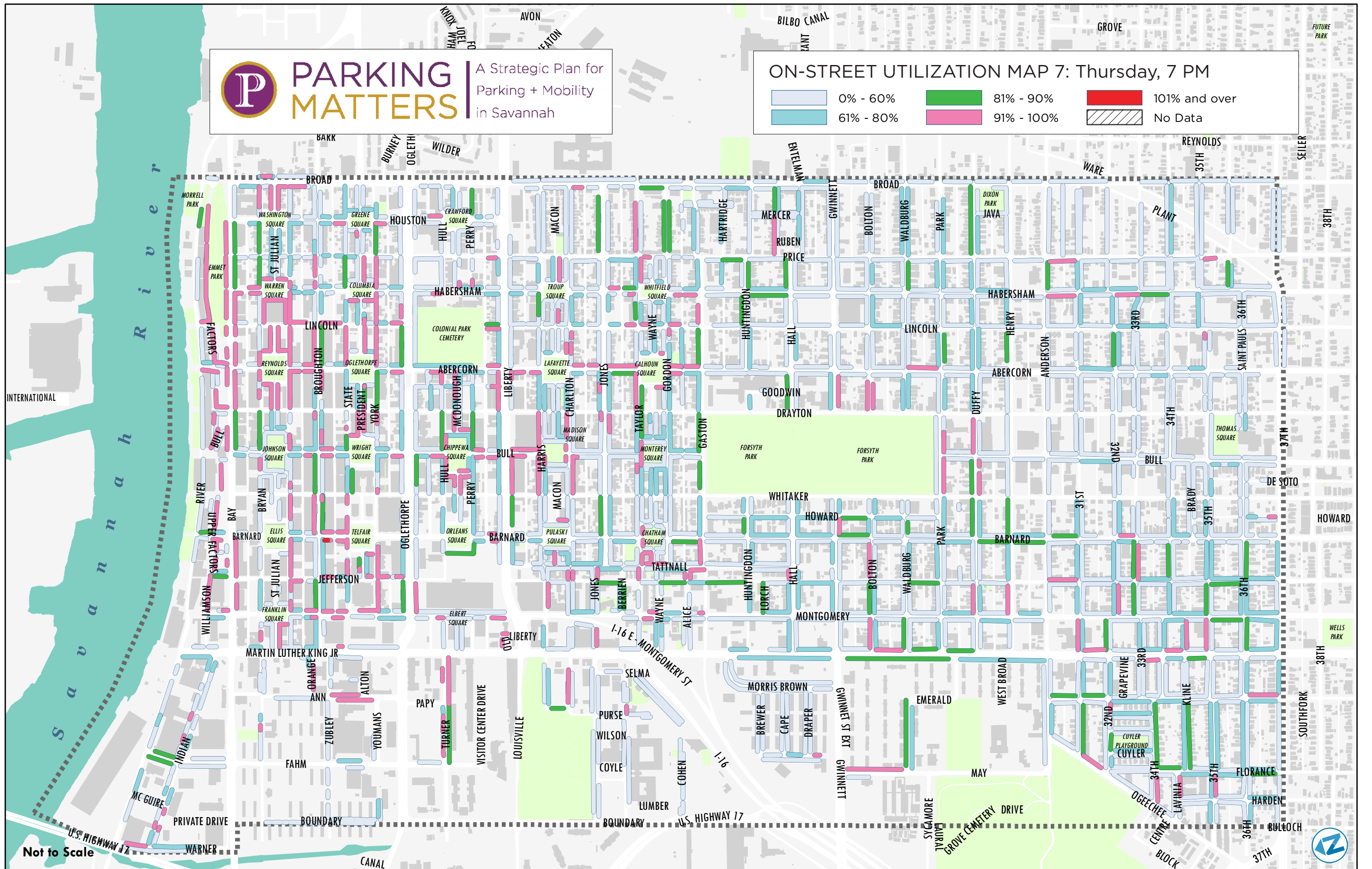


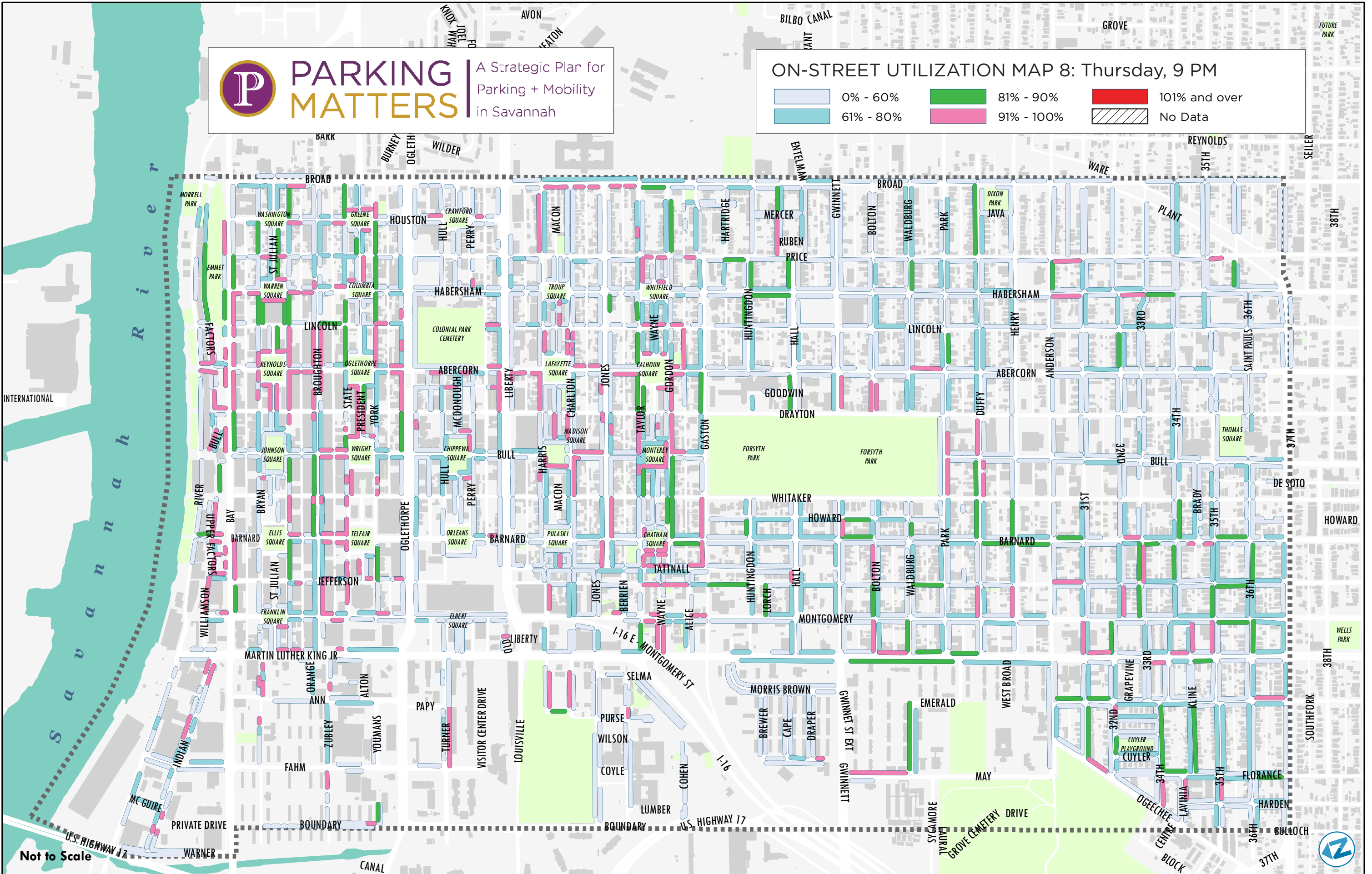


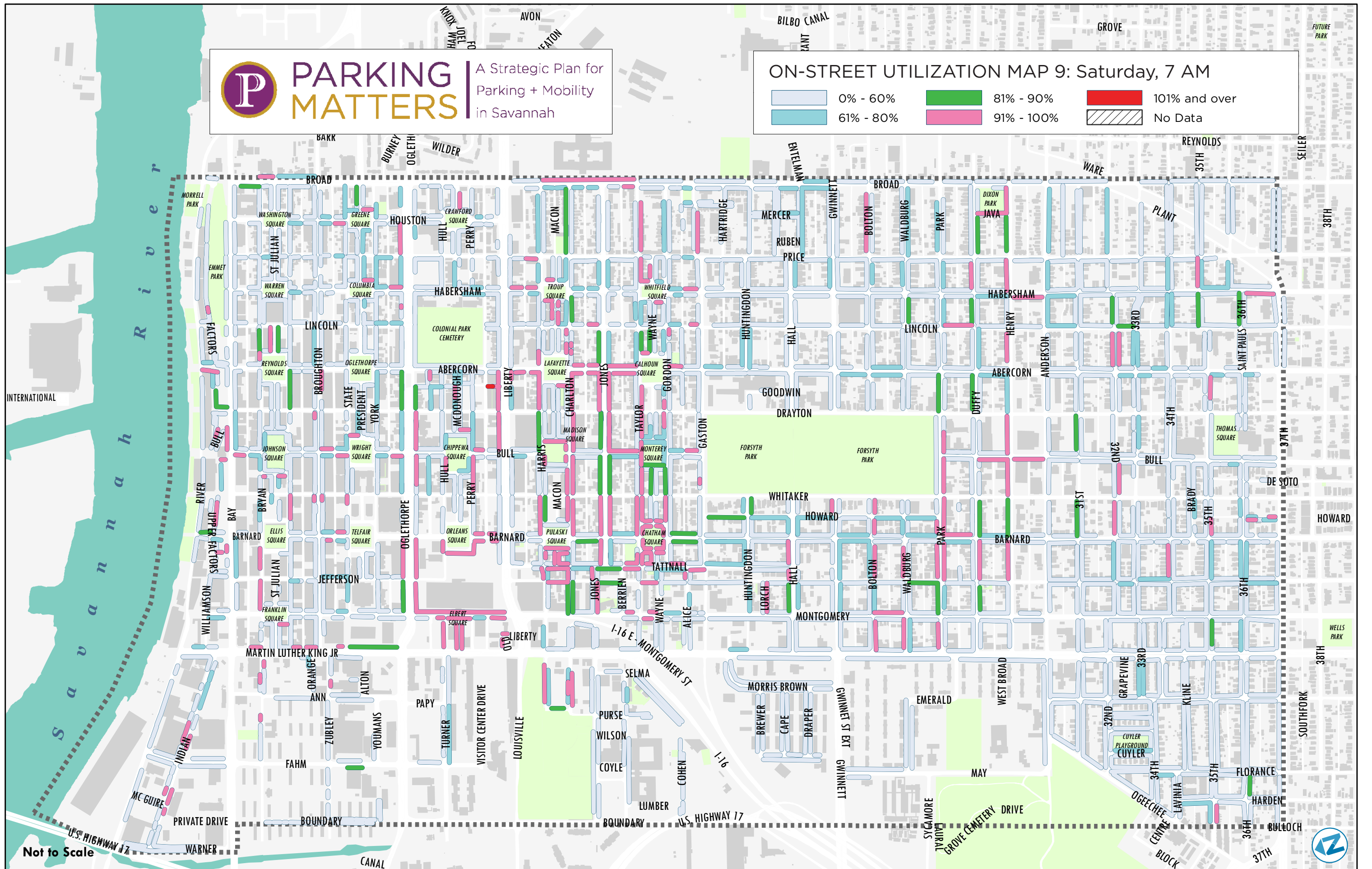


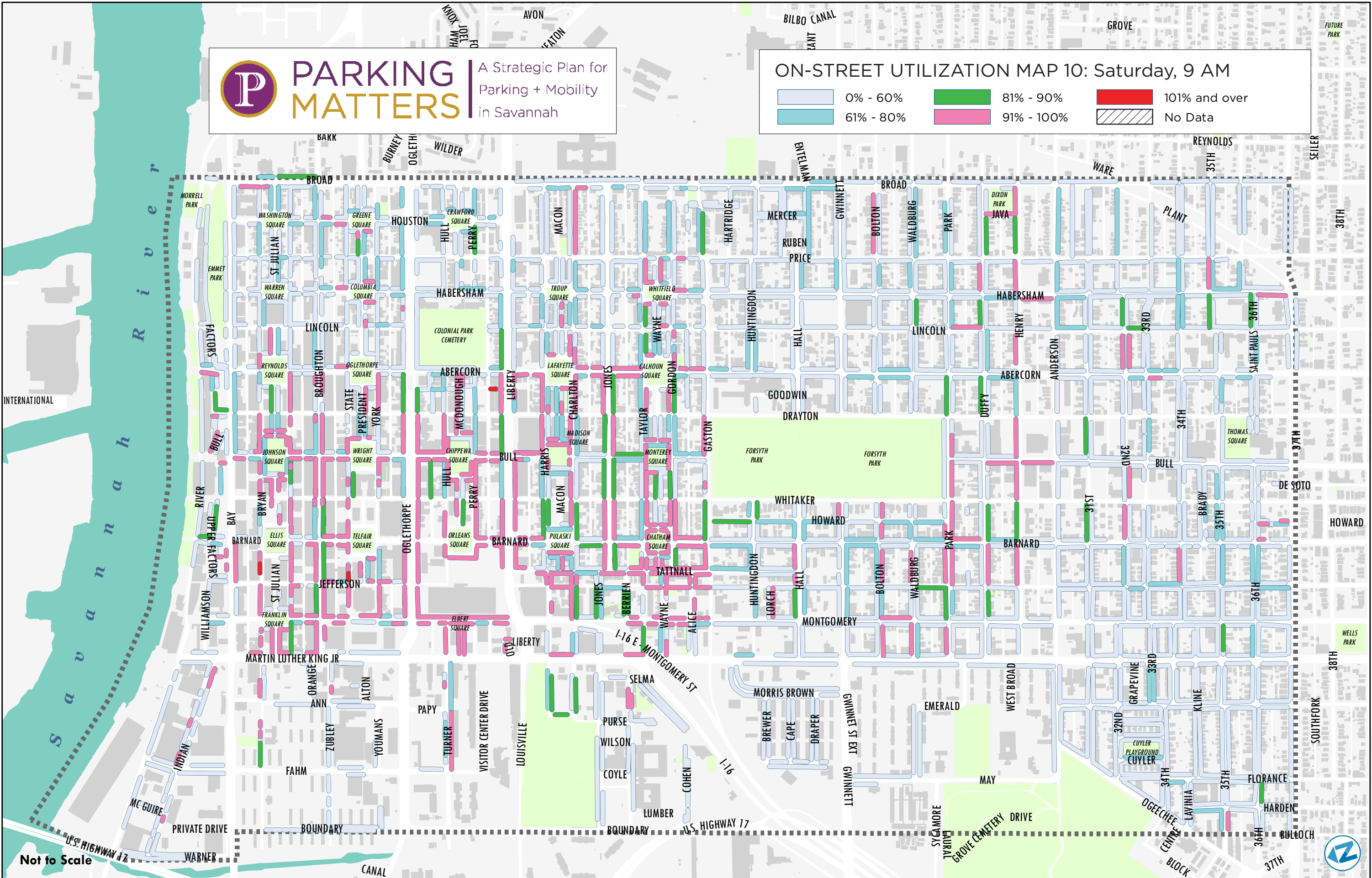












PARKING MATTERS

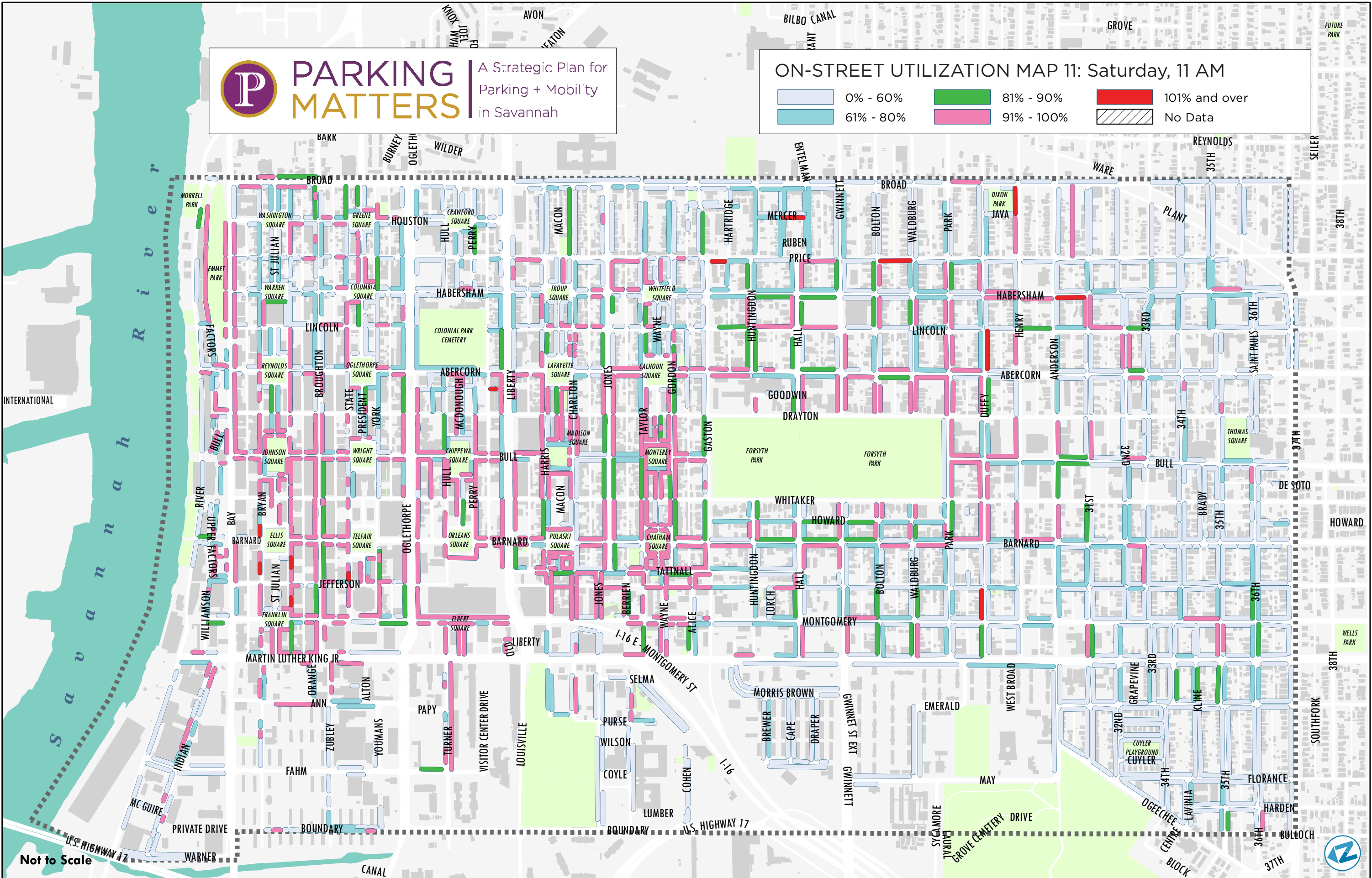
A Strategic Plan for
Parking + Mobility
in Savannah

ON-STREET UTILIZATION MAP 10: Saturday, 9 AM

0% - 60%	81% - 90%	101% and over
61% - 80%	91% - 100%	No Data

Not to Scale

Source: SAGIS; MPC; City of Savannah



PARKING MATTERS

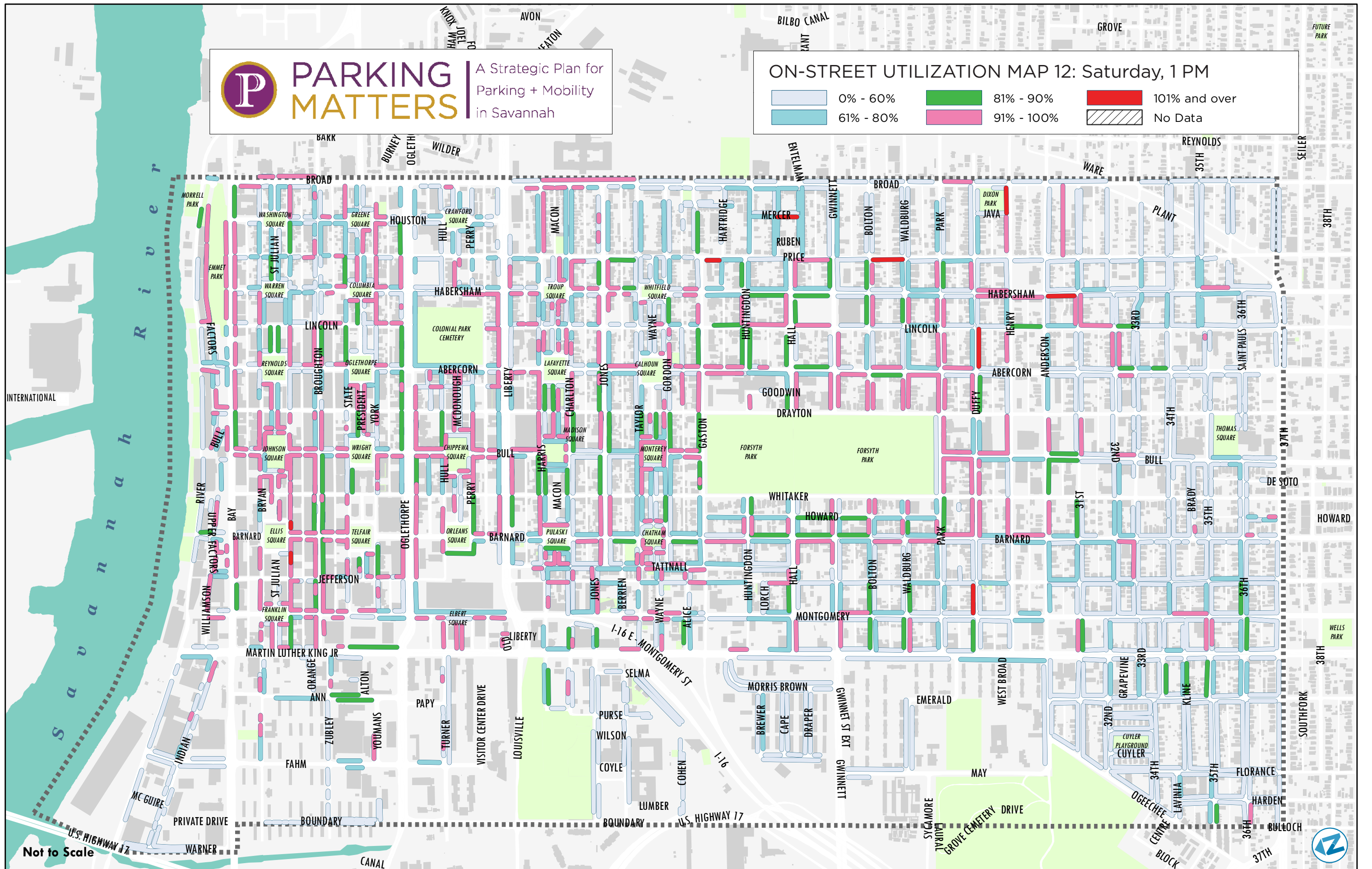
A Strategic Plan for
Parking + Mobility
in Savannah

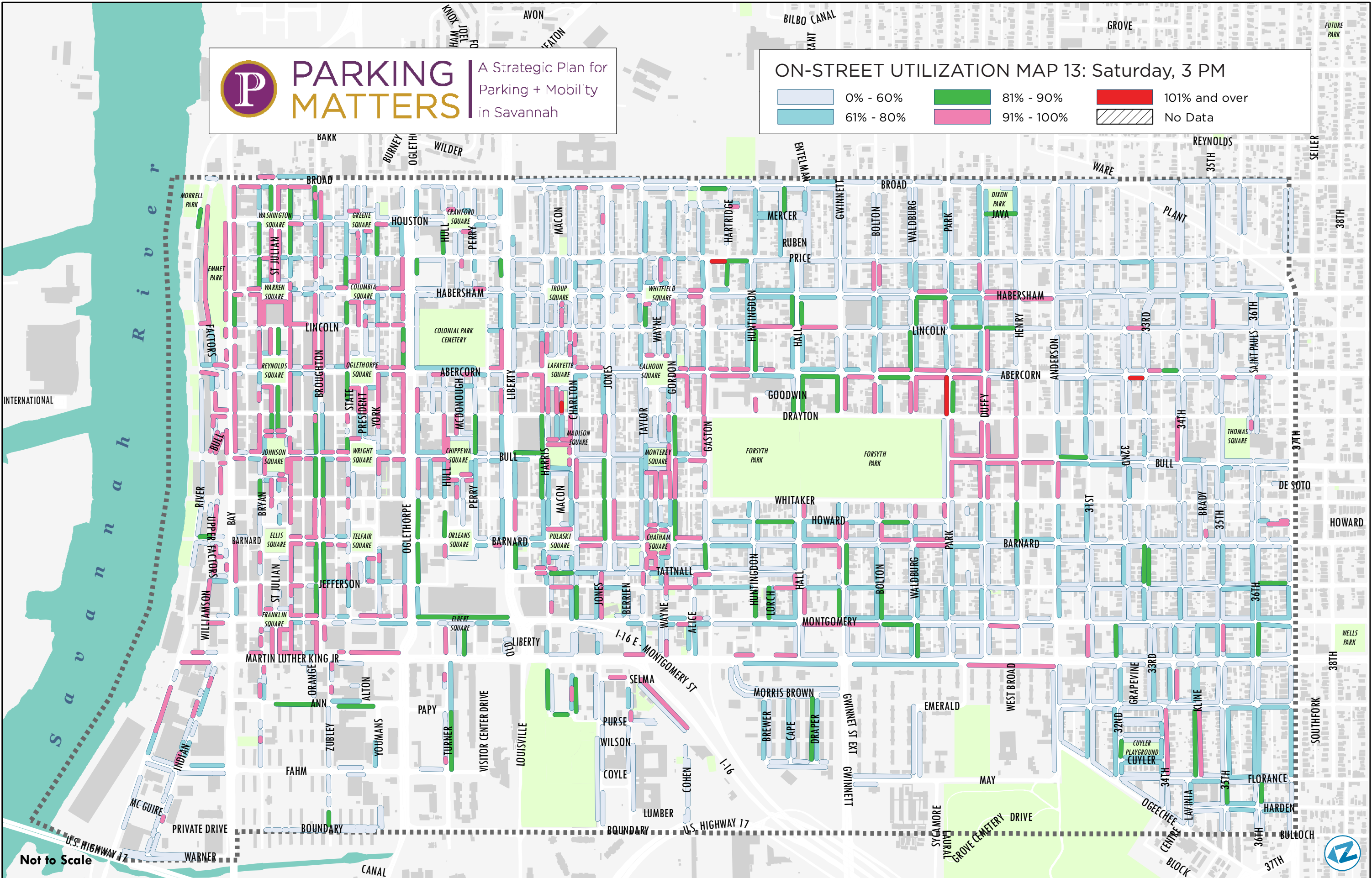
ON-STREET UTILIZATION MAP 11: Saturday, 11 AM

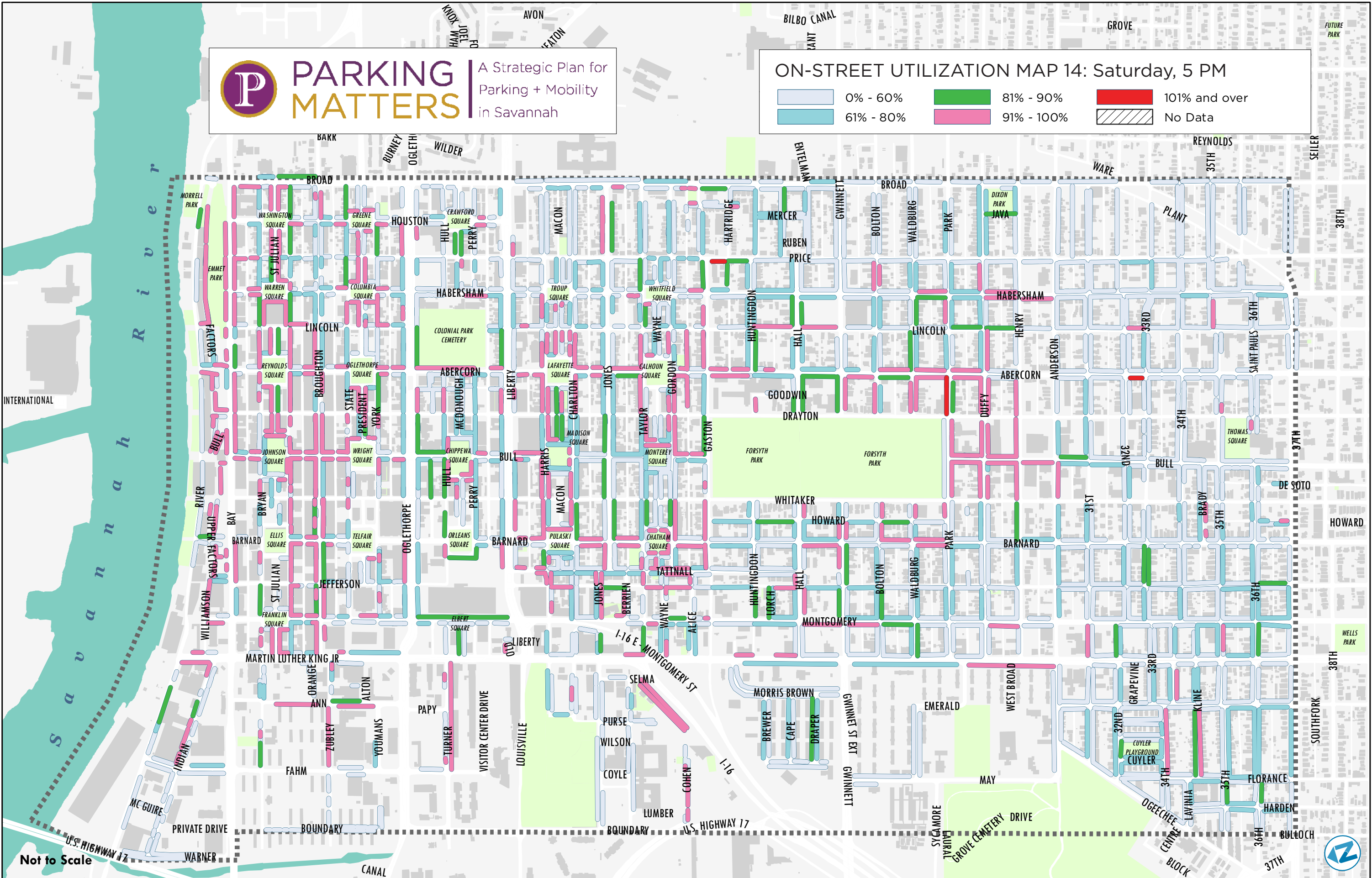
0% - 60%	81% - 90%	101% and over
61% - 80%	91% - 100%	No Data

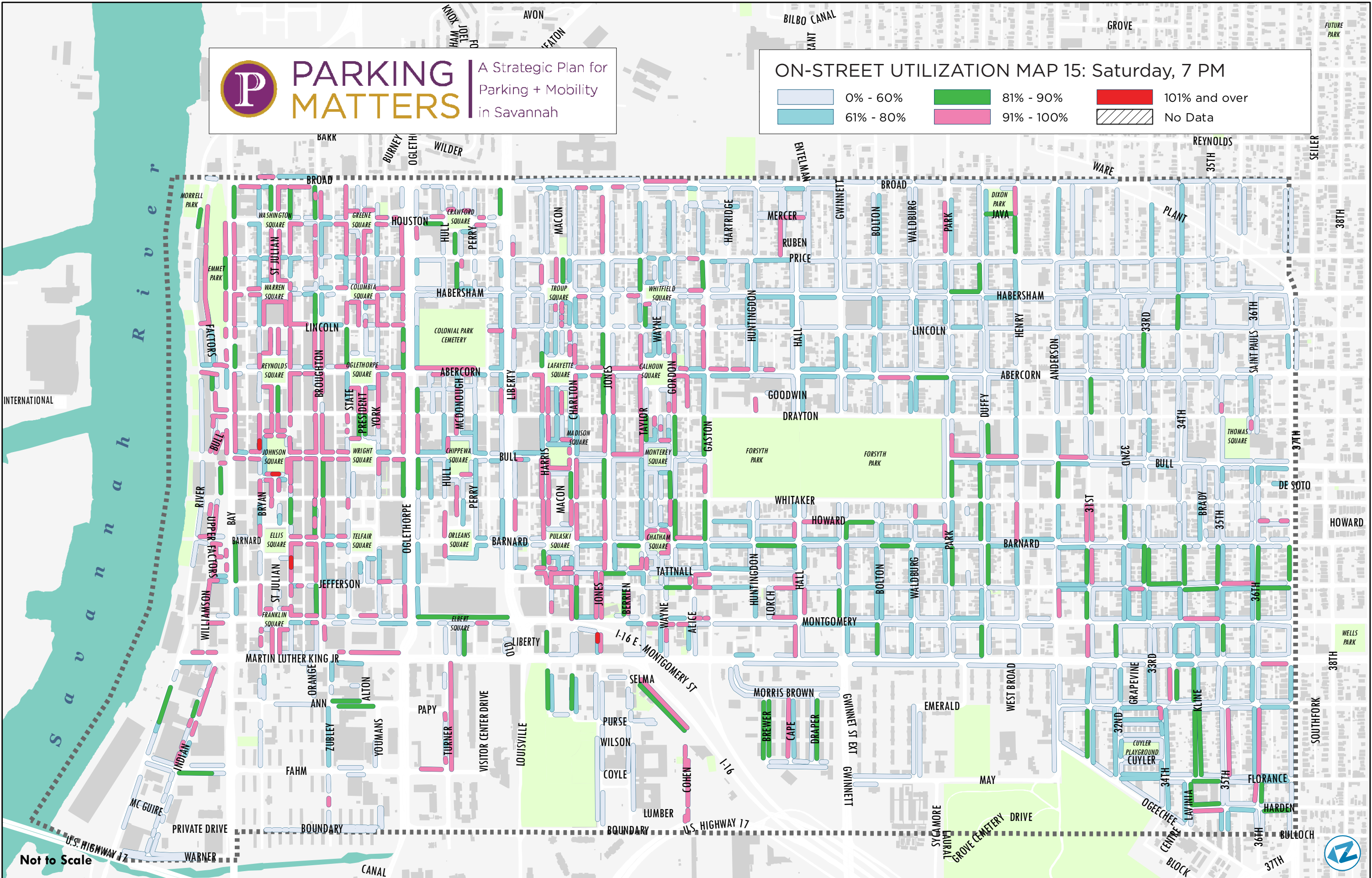
Not to Scale

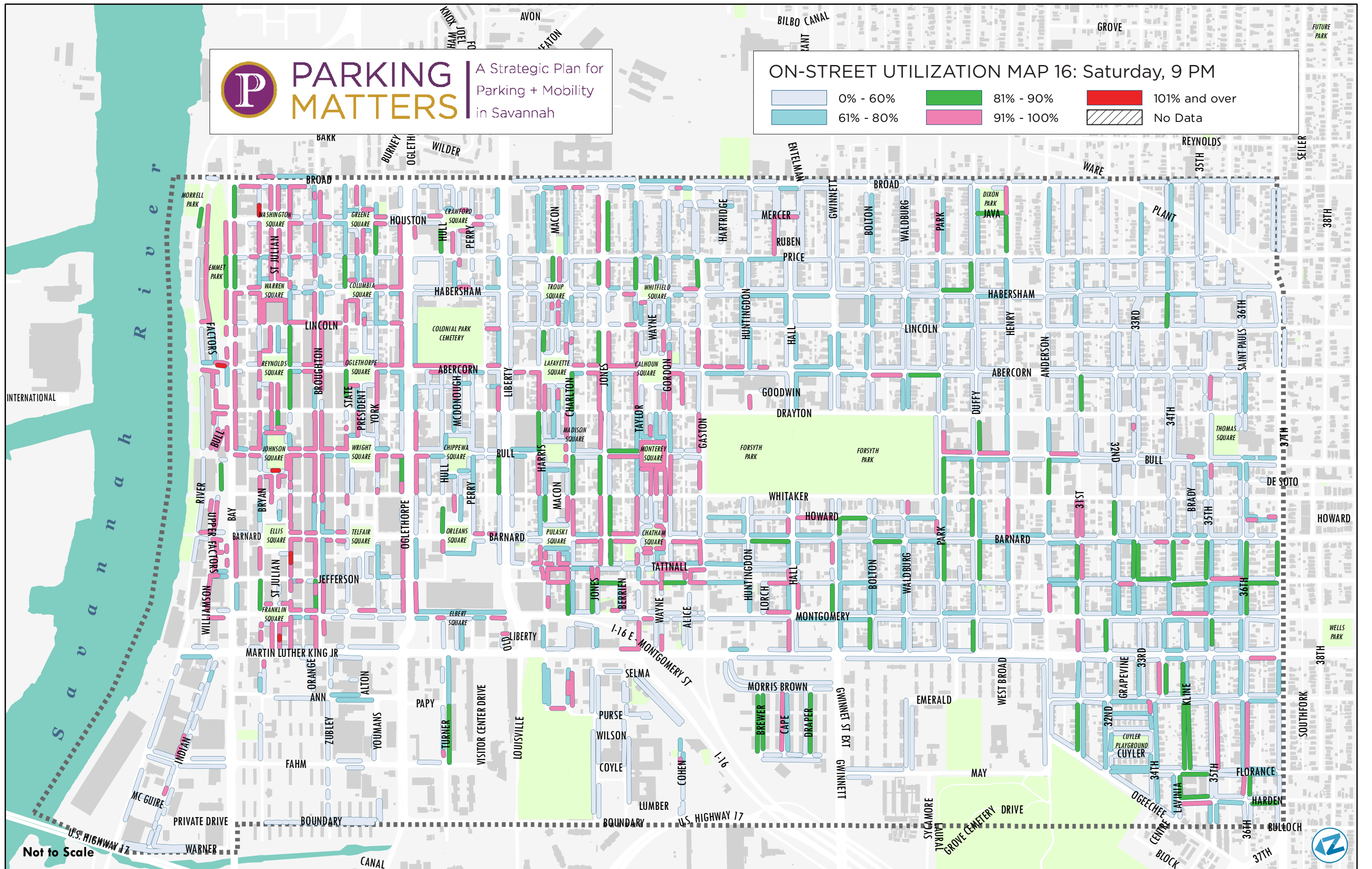
Source: SAGIS; MPC; City of Savannah











Section 3

Demand for Off-Street Parking Facilities

Key Findings

City garages and lots experience their highest demand around weekday lunchtime.

On weekends, paid City garages and lots are busiest at 7 p.m., just above 50% full.

Demand varies from facility to facility—some publicly available facilities experience their highest utilization on weekends and evenings, while others are busiest at other times.

The majority of the available parking in the Parking Matters study area is in off-street facilities, including the five City-owned garages downtown, the Chatham County garage, and numerous off-street surface lots. Overall, these facilities have similar utilization levels to on-street parking, with a comparable mid-day peak demand. However, there is a strong contingent of lots reserved for private use, most often serving employment-based land uses, and their utilization remains more uniform throughout the business day.

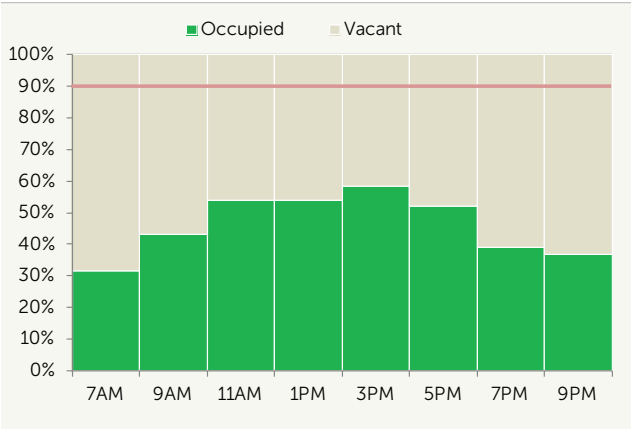
Occupancy counts for the City garages used a slightly different methodology than those for on-street spaces and surface lots. The Parking Matters team relied on entry gate-arm activity data provided by the City of Savannah Mobility and Parking Services Department, in which garage activity—entries and exits as measured by the gates— was reported for each of the two-hour time intervals. City of Savannah staff performed spot checks on the actual number of cars parked in each of the five garages and compared this to the gate-arm data available for that time. The difference between this actual count and the net number of vehicles as measured by the gate arms was used as a ‘baseline’ constant and added to each of the gate-arm counts for each of the two-hour intervals. This was intended to account for any vehicles parked in the garage overnight, when the gate arm data system’s counter automatically resets and begins counting entering and exiting vehicles from zero.

The team also worked closely with other garage operators in the study area to compile gate-arm counts for a number of facilities in the study area. However, several garage operators may have provided estimates of their facility’s utilization based on their general experience and understanding of utilization trends across the high season, as opposed to actual counts on the specific data collection days. In addition, two garages declined to participate and share this information with the study team. Nonetheless, the actualy utilization count effort reflects a very high rate of participation for a study area covering approximately 25,000 parking spaces, which is more than sufficient for this effort.

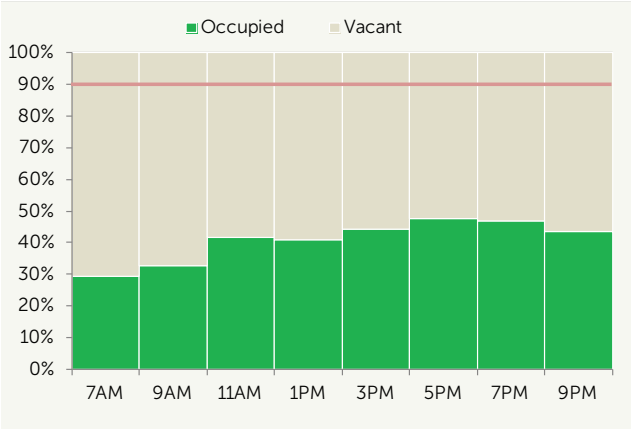
These data allow the team to determine preliminary findings on the study area based on overall utilization patterns, incorporating actual counts from other dates, and keeping the possibility open for refining the data for areas of specific concern and interest in the future.

OVERALL UTILIZATION OF OFF-STREET SPACES

Thursday 15,409 spaces



Saturday 15,409 spaces

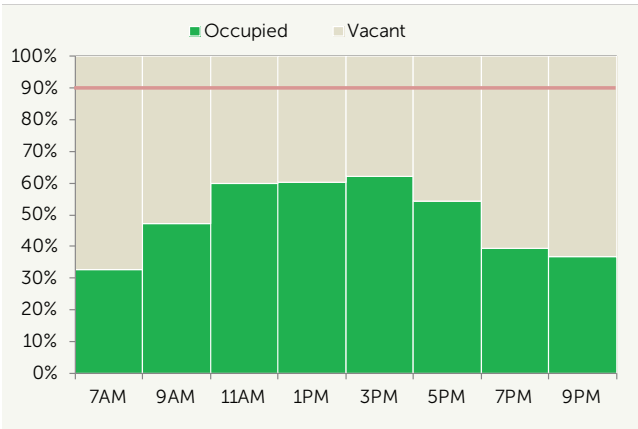


OFF-STREET SPACES BY GENERAL LOCATION

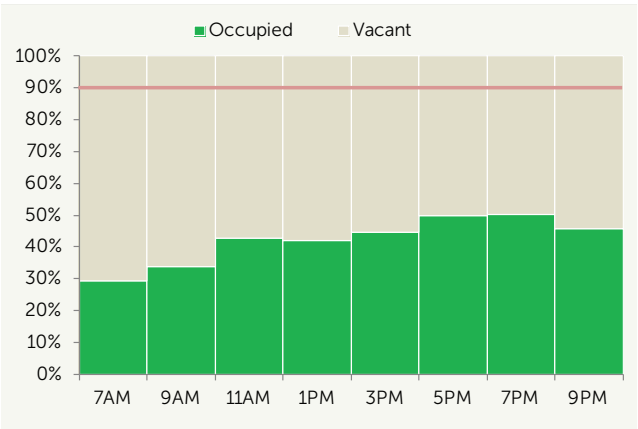
Off-street parking is generally utilized at lower levels than on-street parking, and the variation in use profiles from weekdays to weekends is greater. Around

Thomas Square, off-street spaces are utilized at low rates on Saturdays, due largely to the employment-focused use of these spaces.

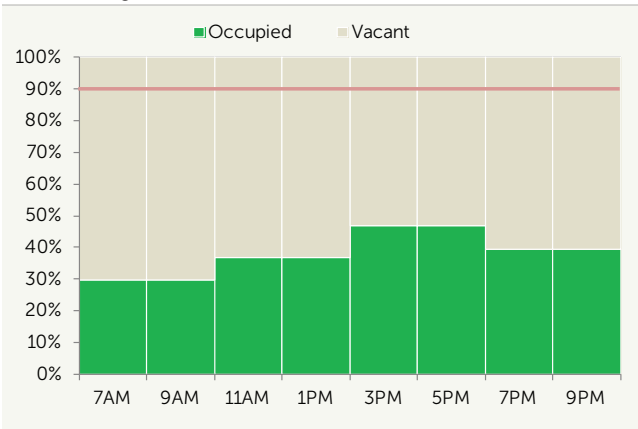
Thursday: North of Gaston 11,213 spaces



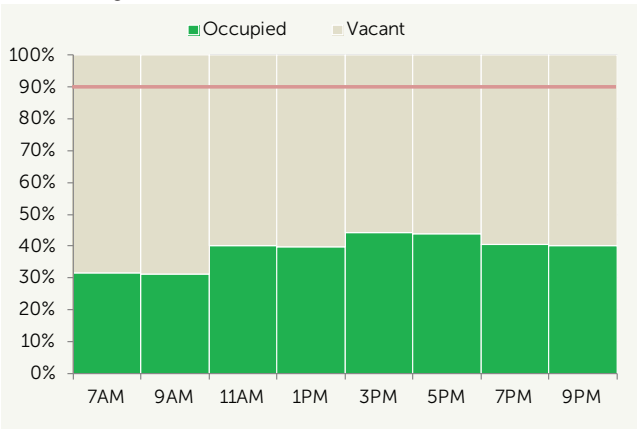
Saturday: North of Gaston 11,213 spaces



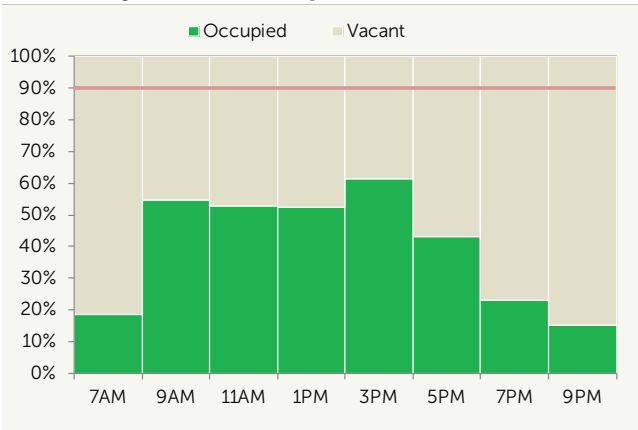
Thursday: South of Gaston 3,886 spaces



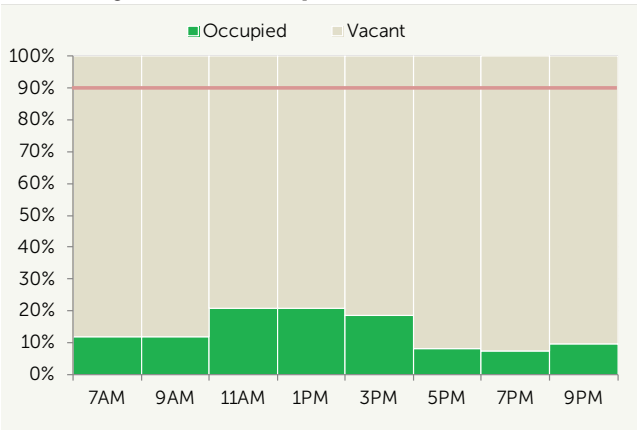
Saturday: South of Gaston 3,886 spaces



Thursday: Thomas Square 310 spaces



Saturday: Thomas Square 310 spaces

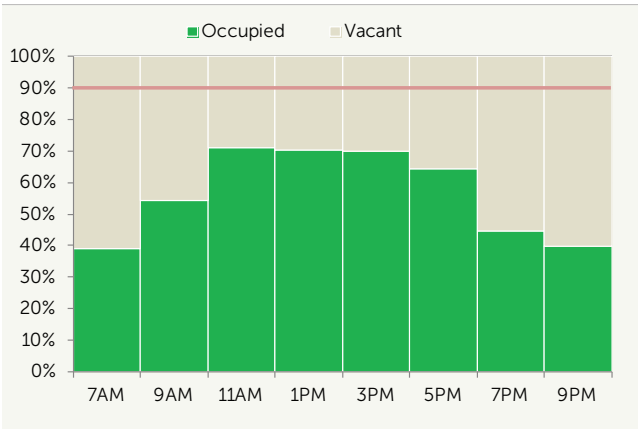


OFF-STREET SPACES BY FACILITY TYPE

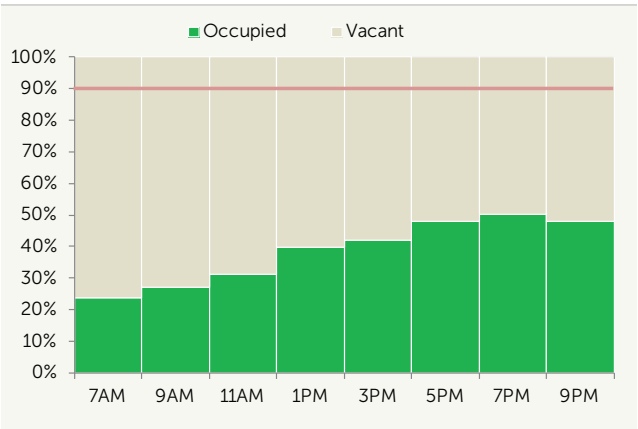
Garages are more heavily used on the weekdays than the weekends. Garages also have a higher rate of utilization than lots, reaching nearly 70% full at peak.

Surface lots tend to have a more even demand profile during the day, especially on weekends.

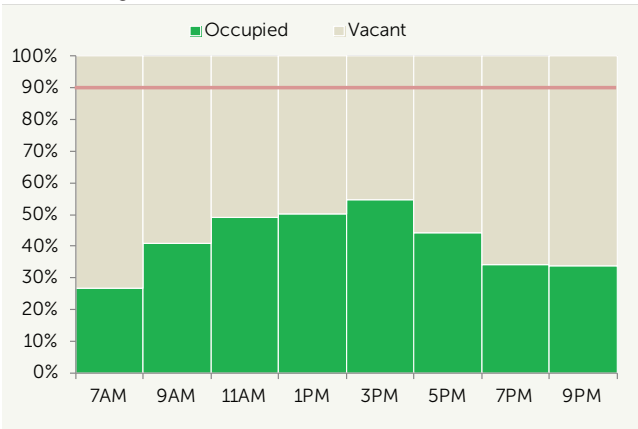
Thursday: All Garages 5,541 spaces



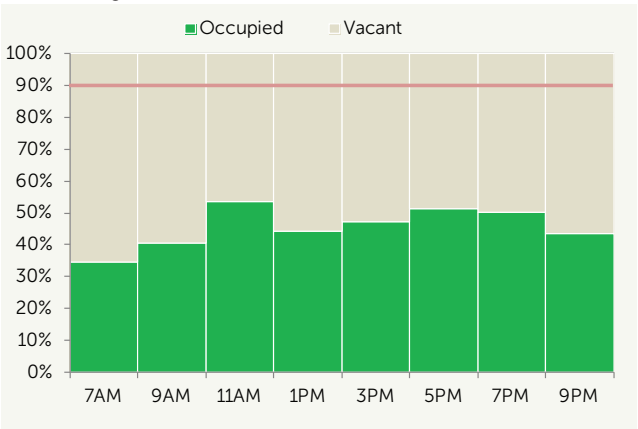
Saturday: All Garages 5,541 spaces



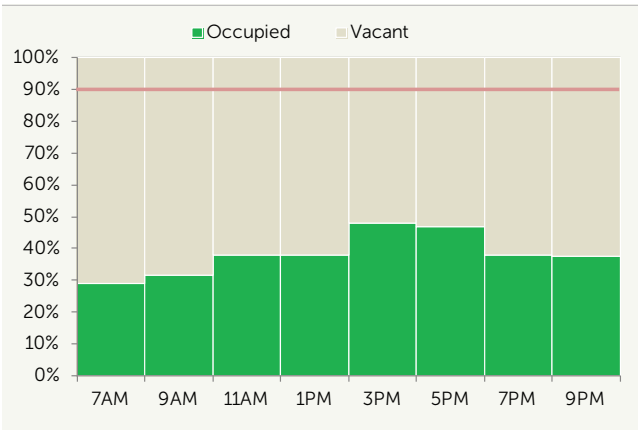
Thursday: Lots North of Gaston 5,672 spaces



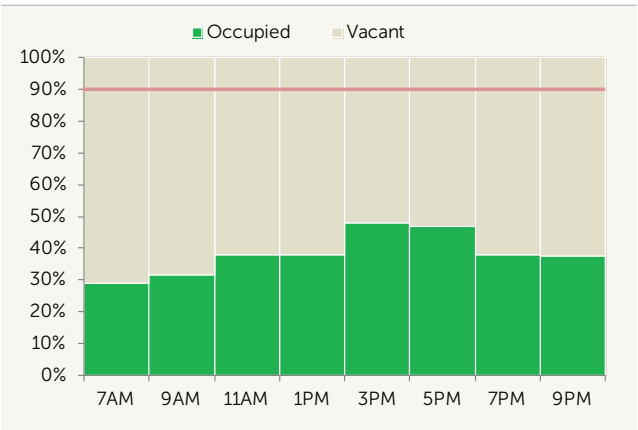
Saturday: Lots North of Gaston 5,672 spaces

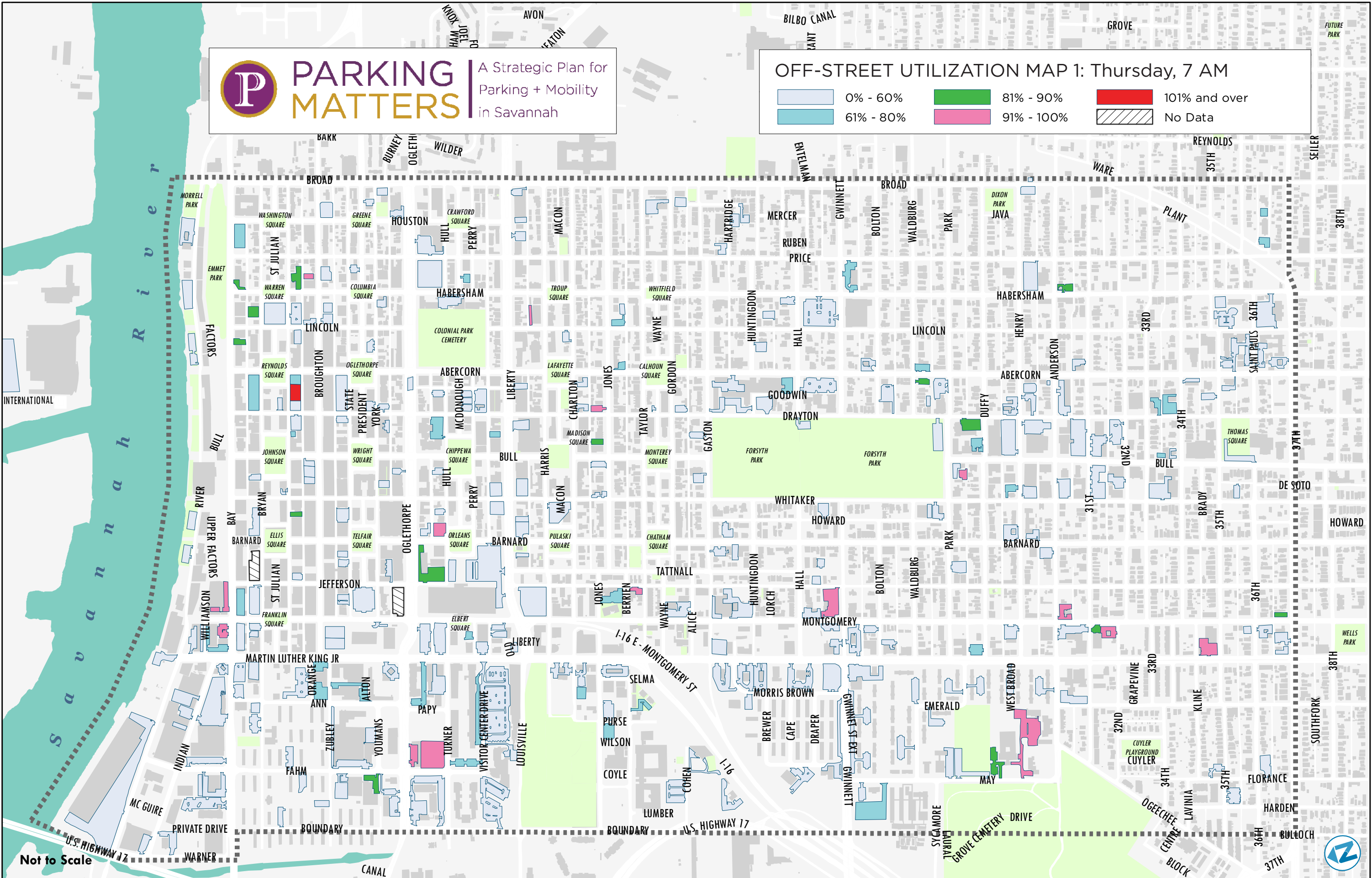


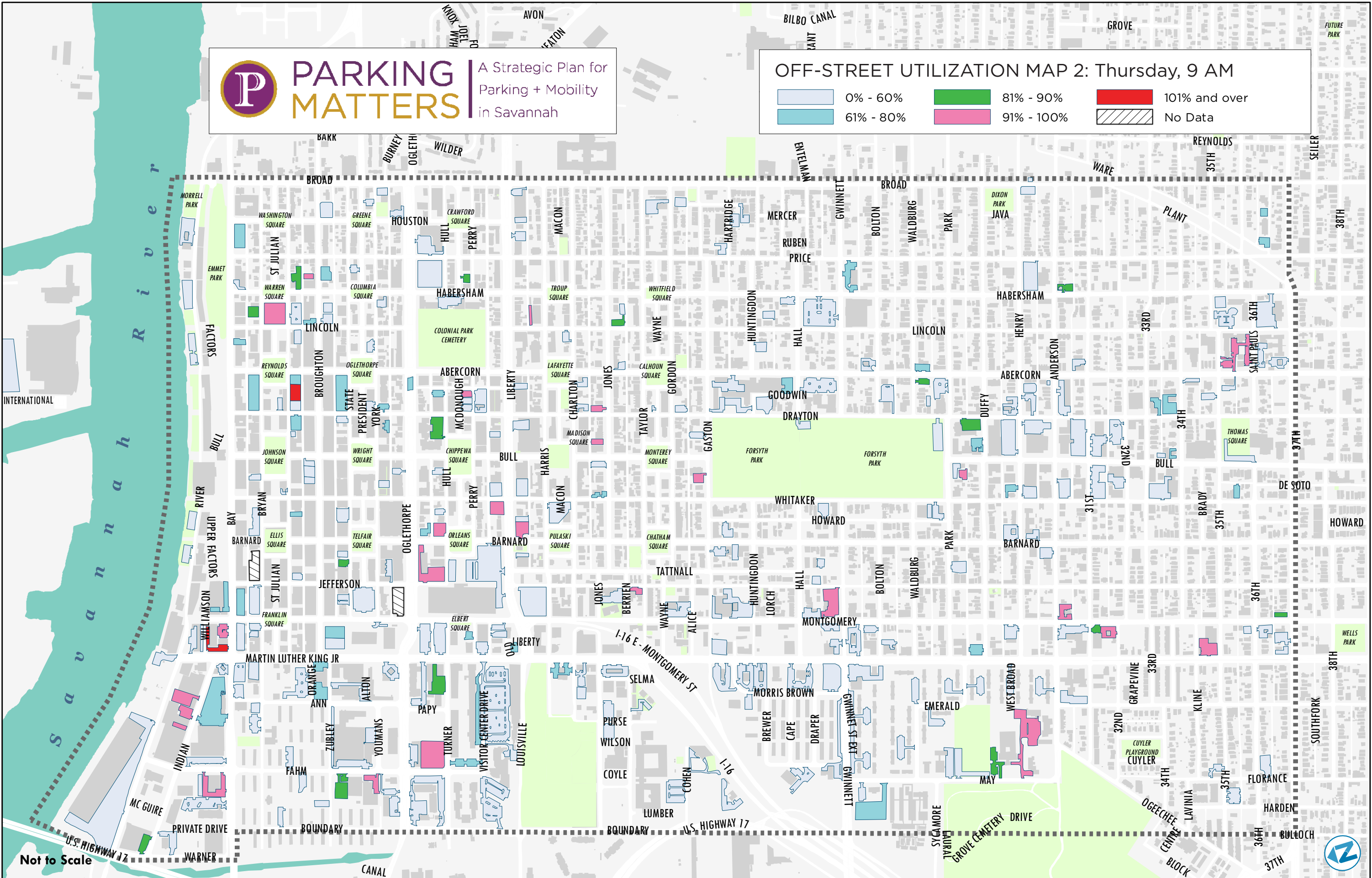
Thursday: Lots South of Gaston + Thomas Square 4,196 spaces

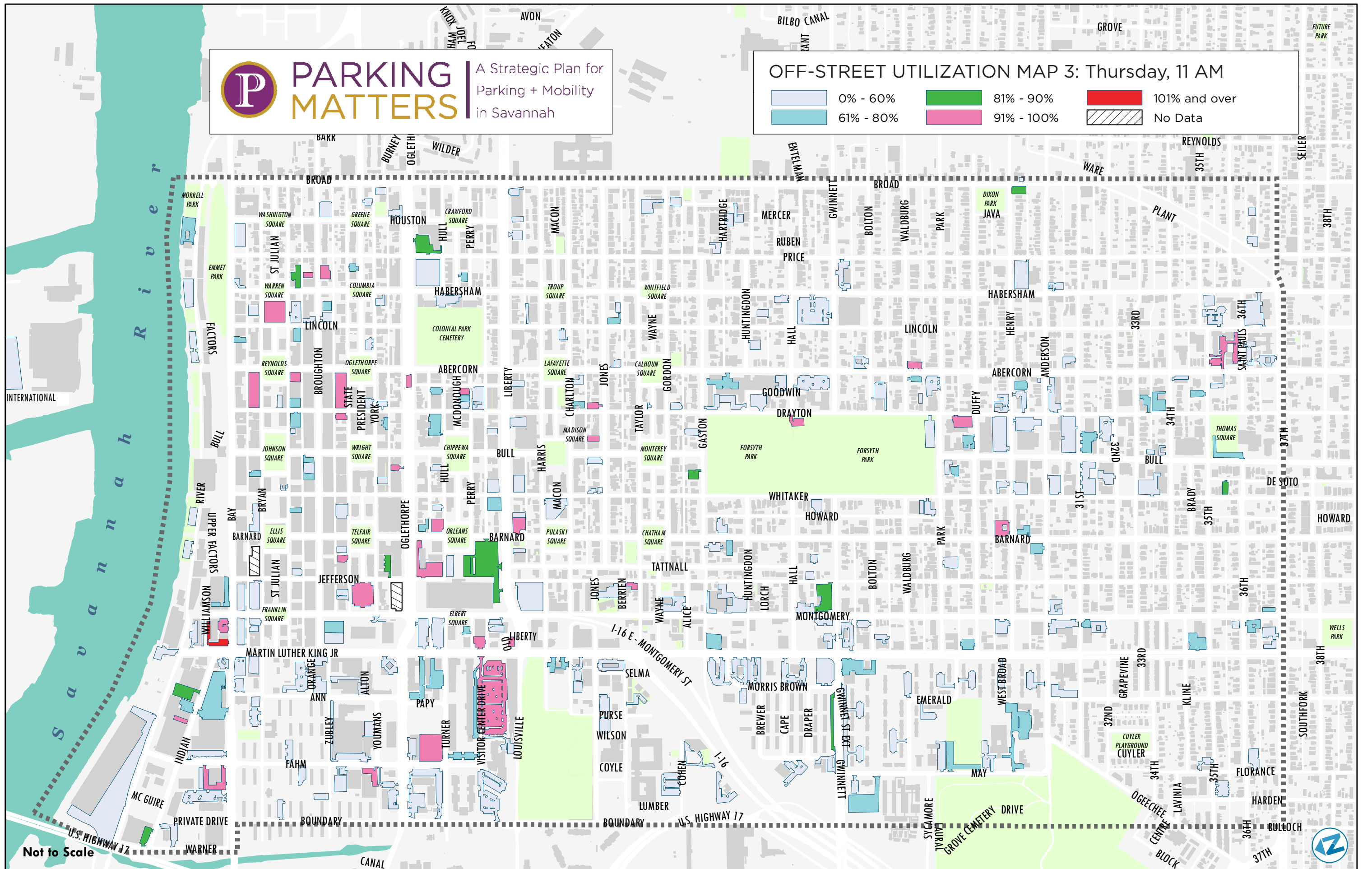


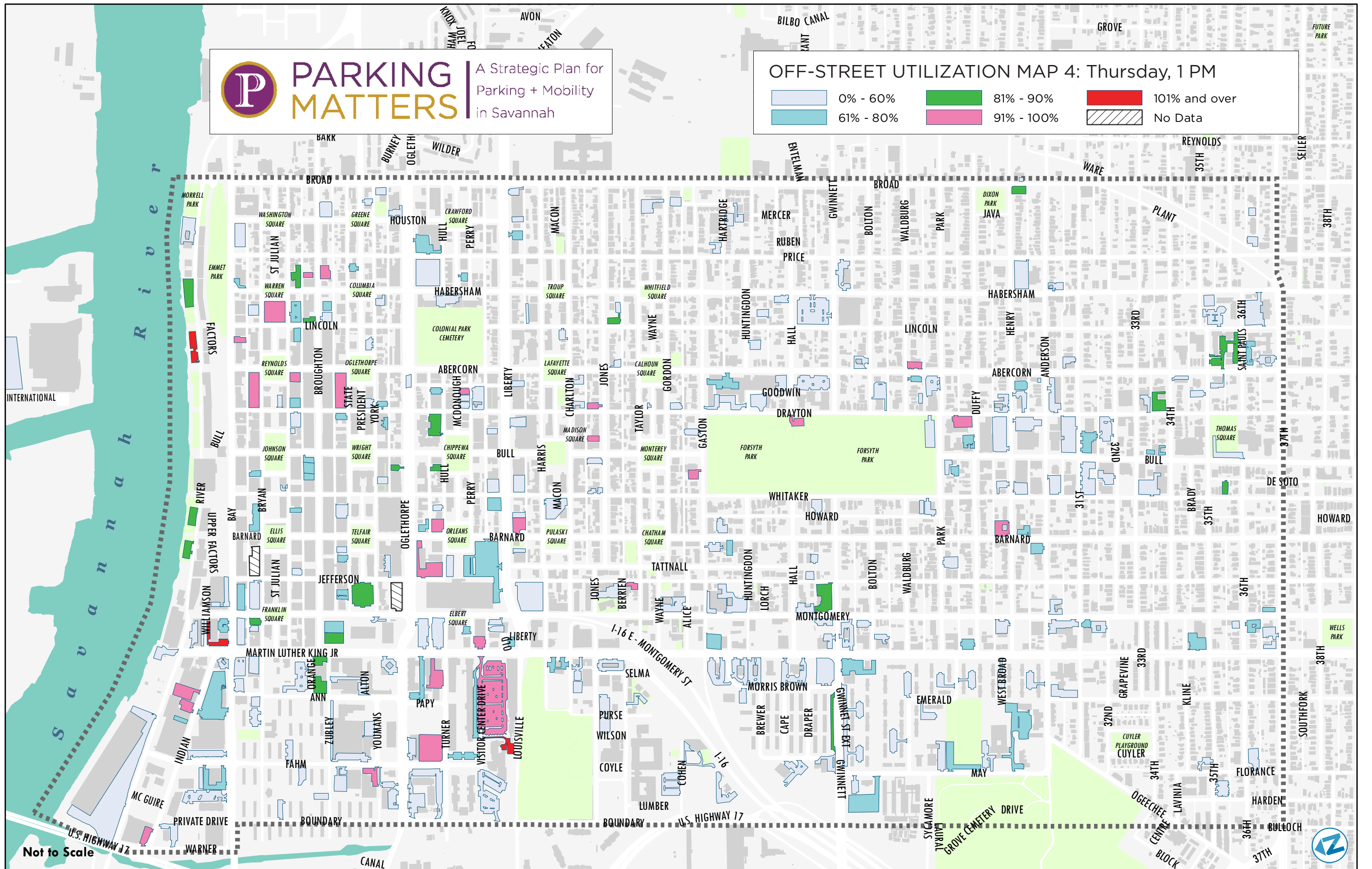
Saturday: Lots South of Gaston + Thomas Square 4,196 spaces

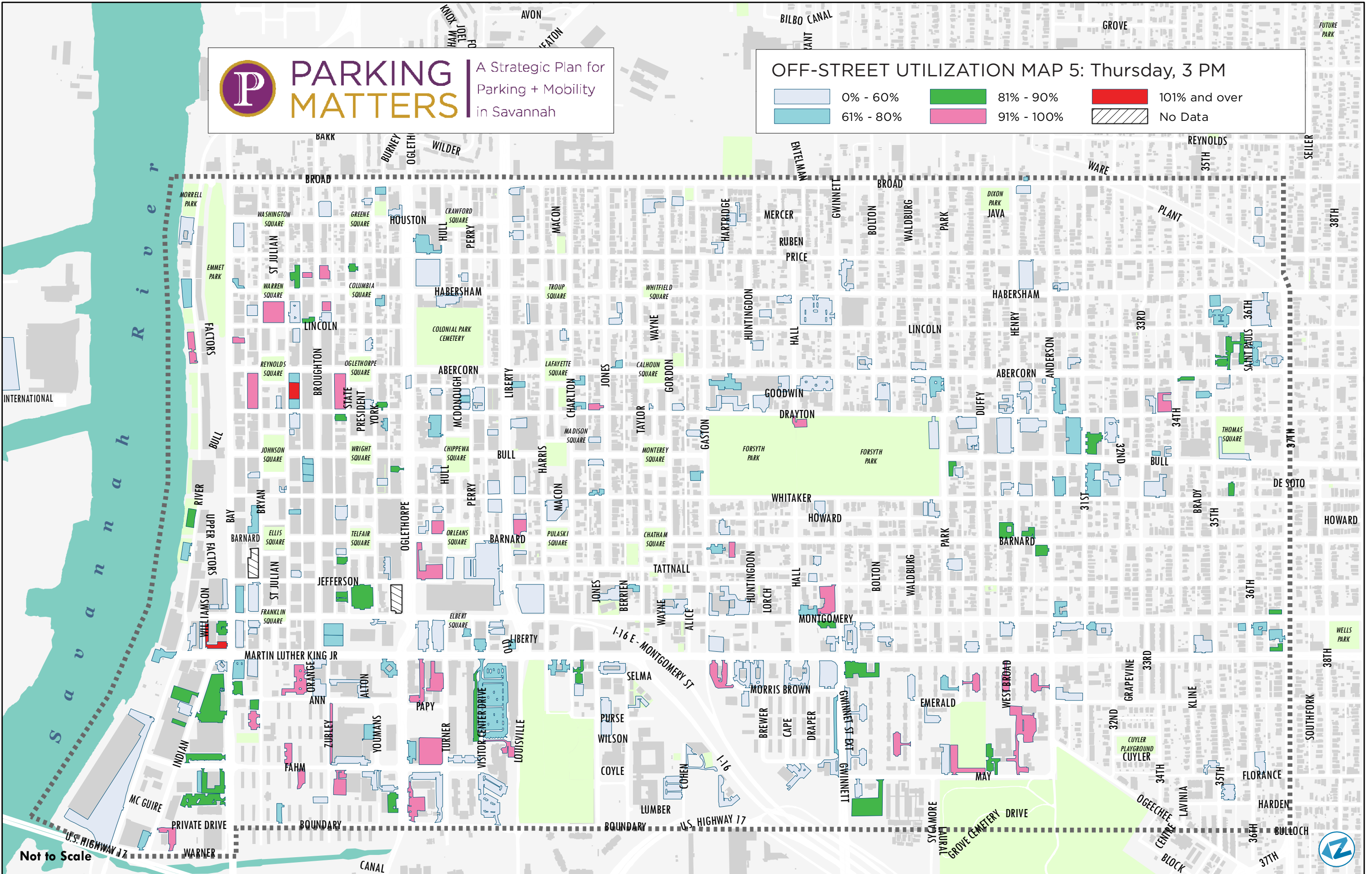


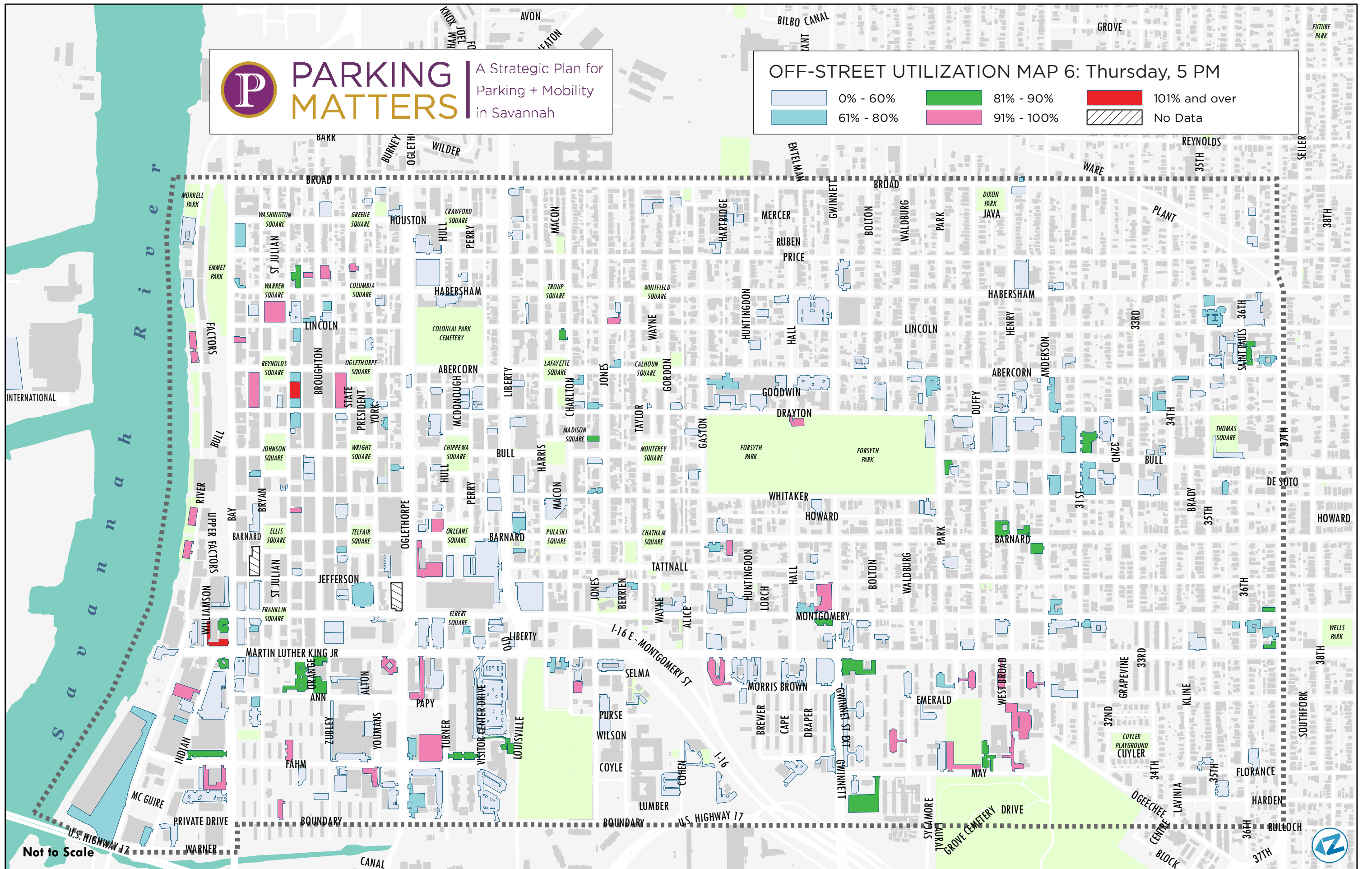


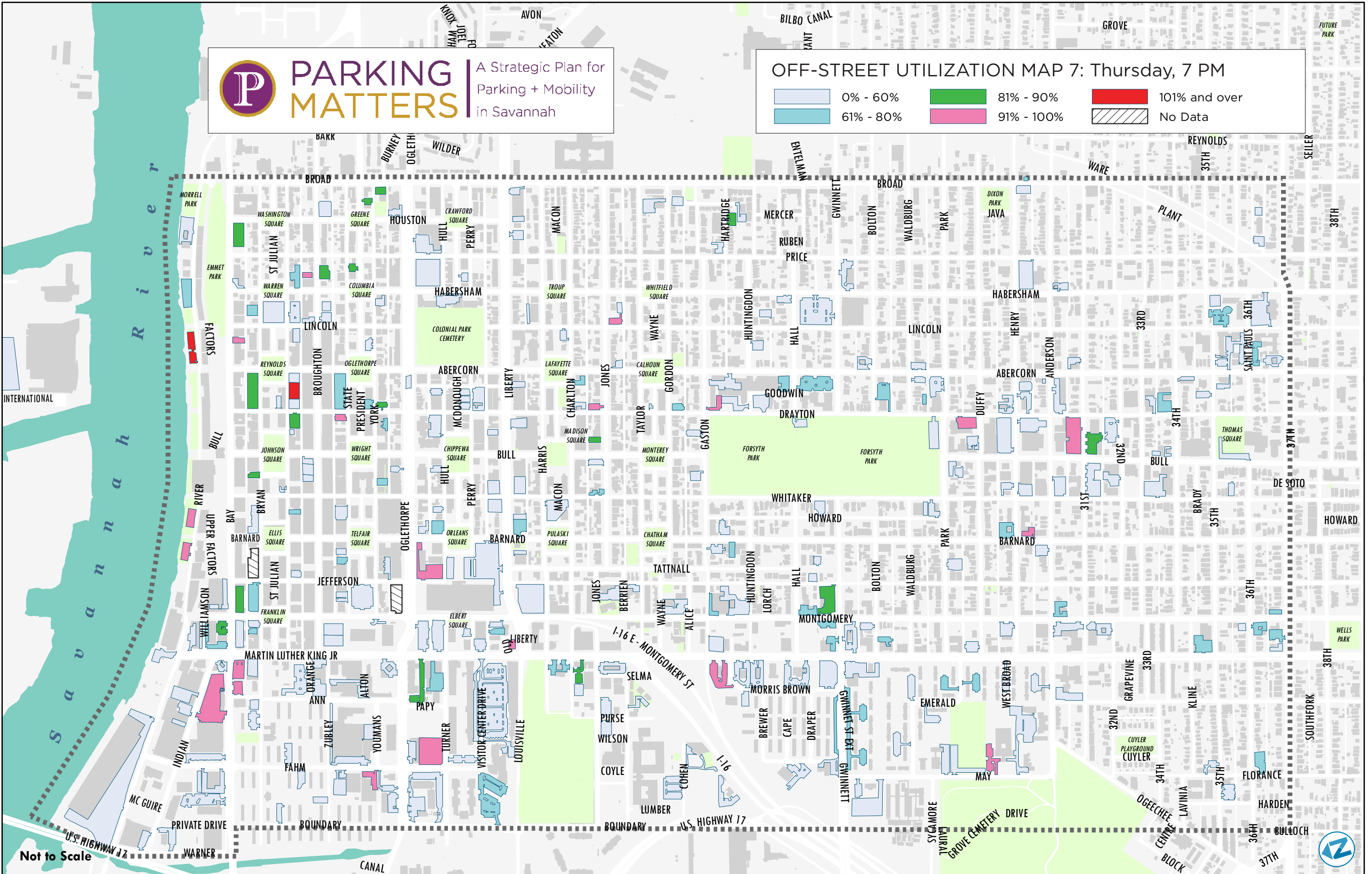


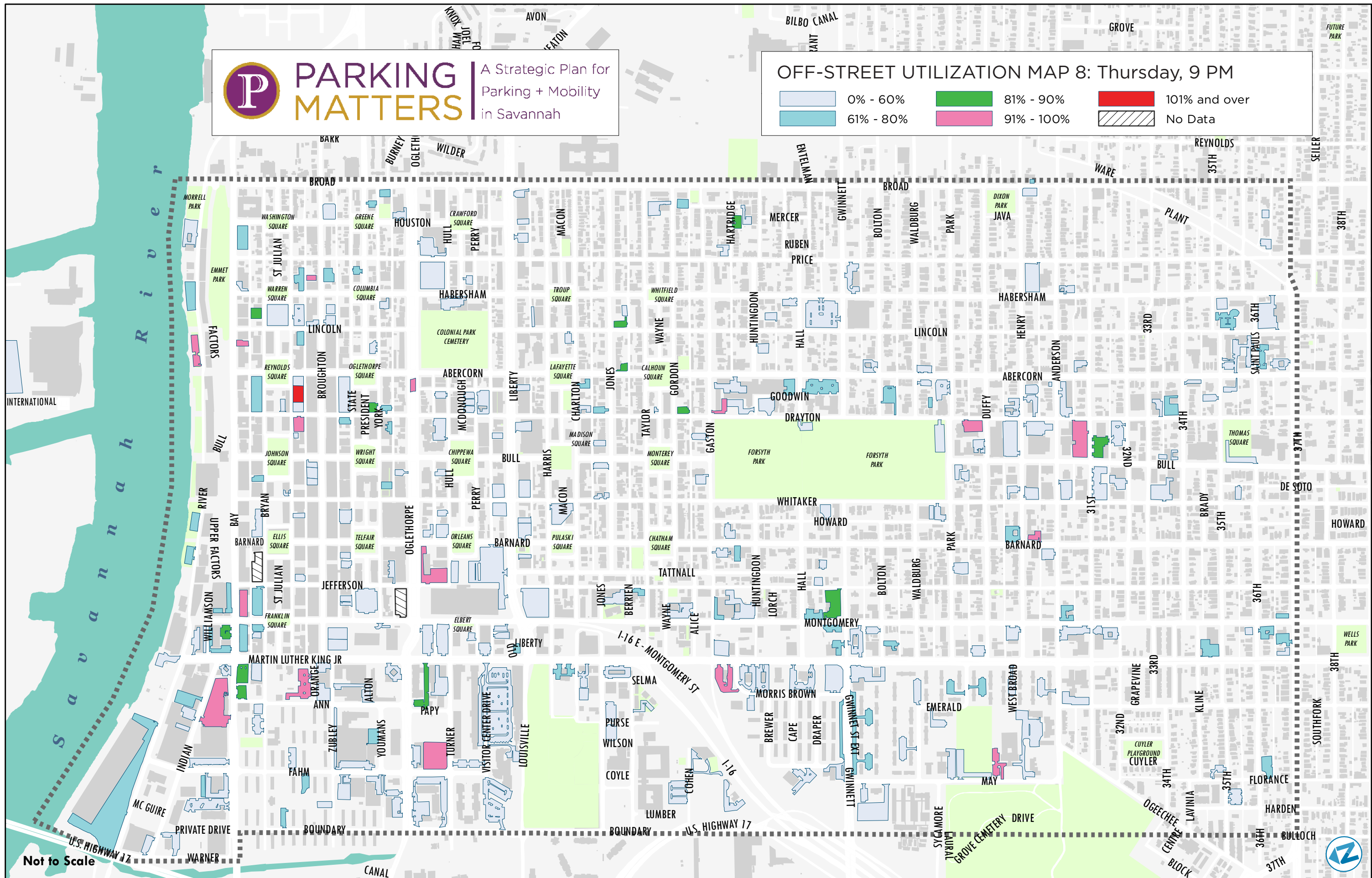


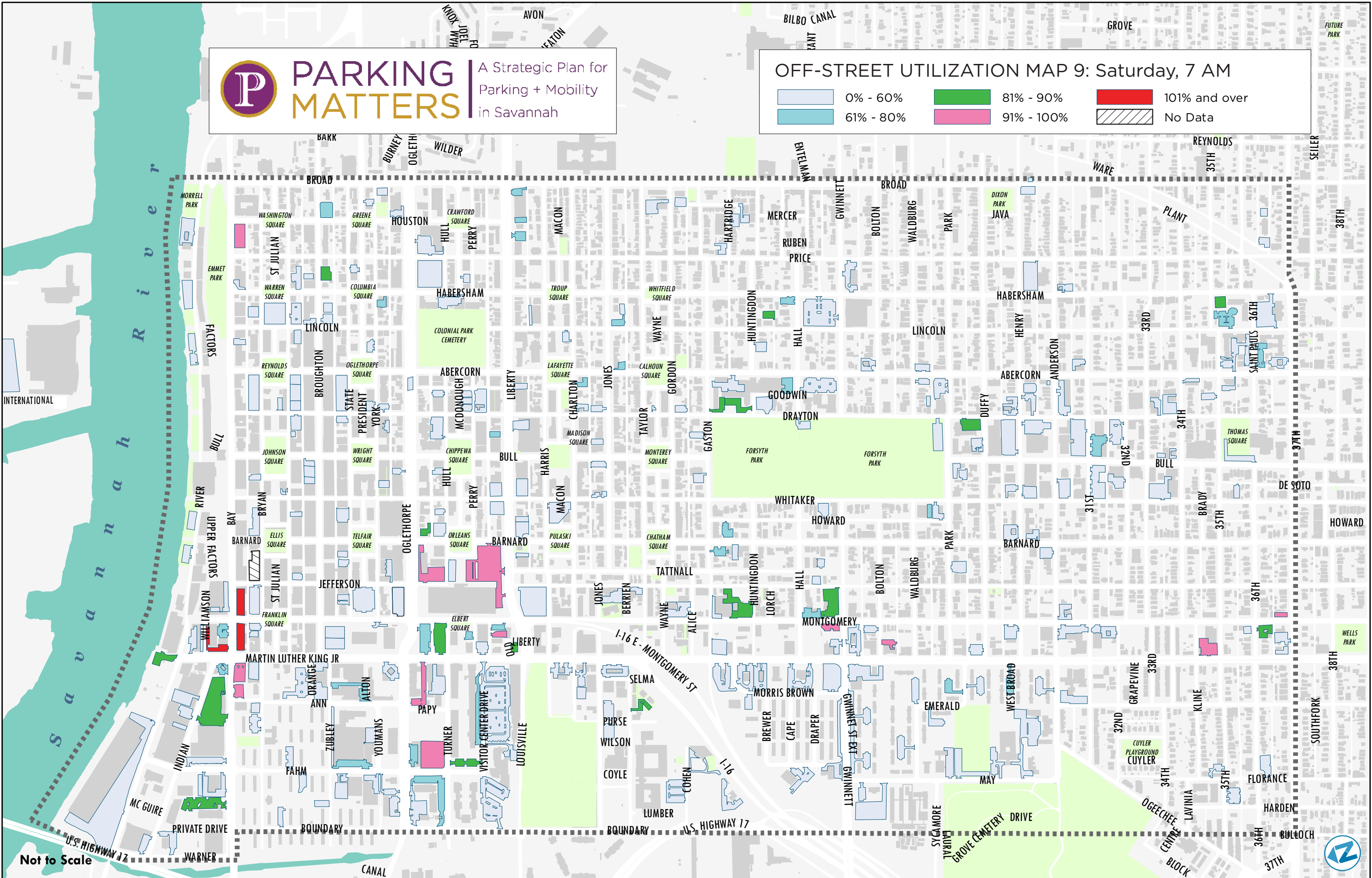


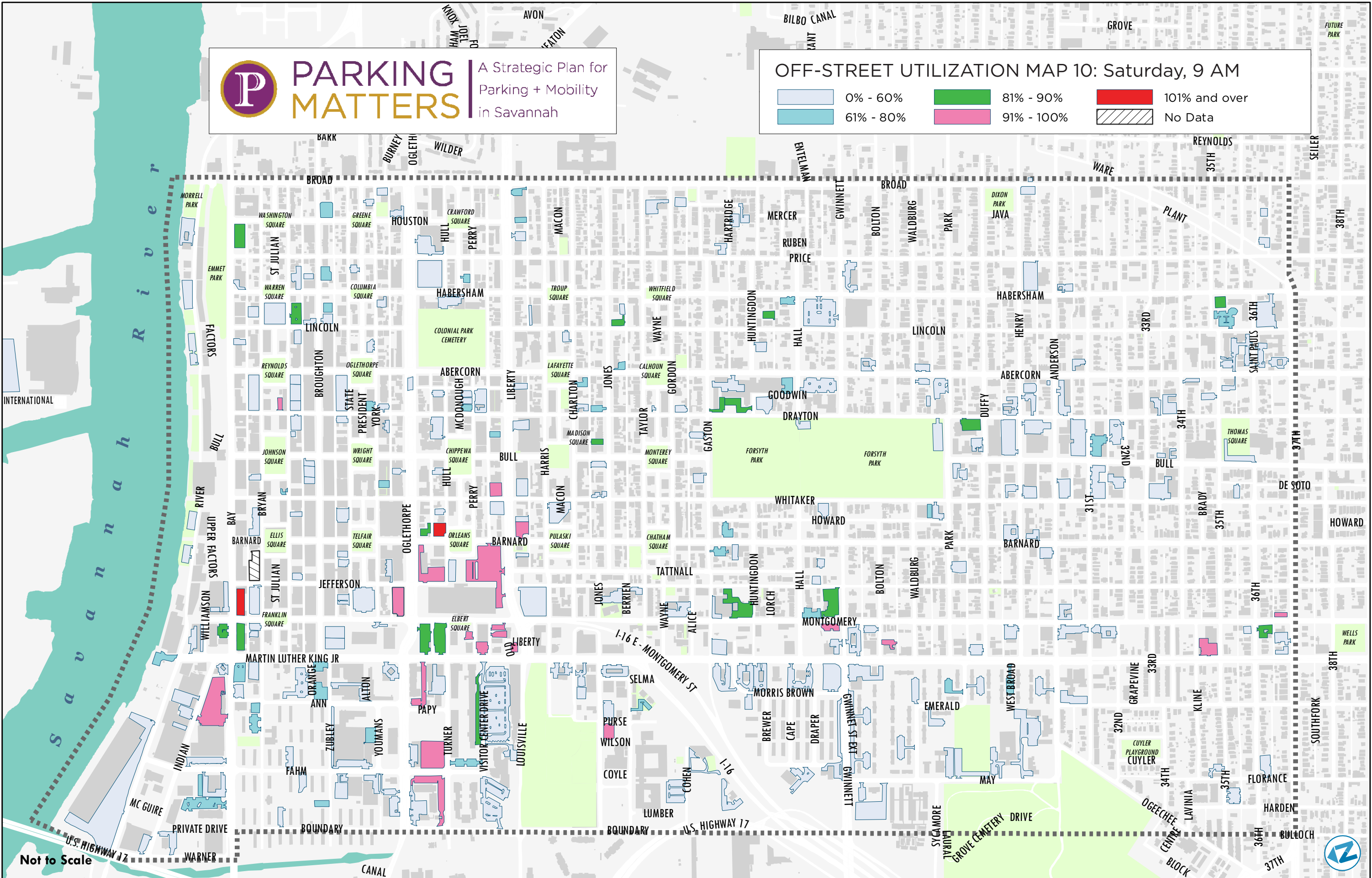


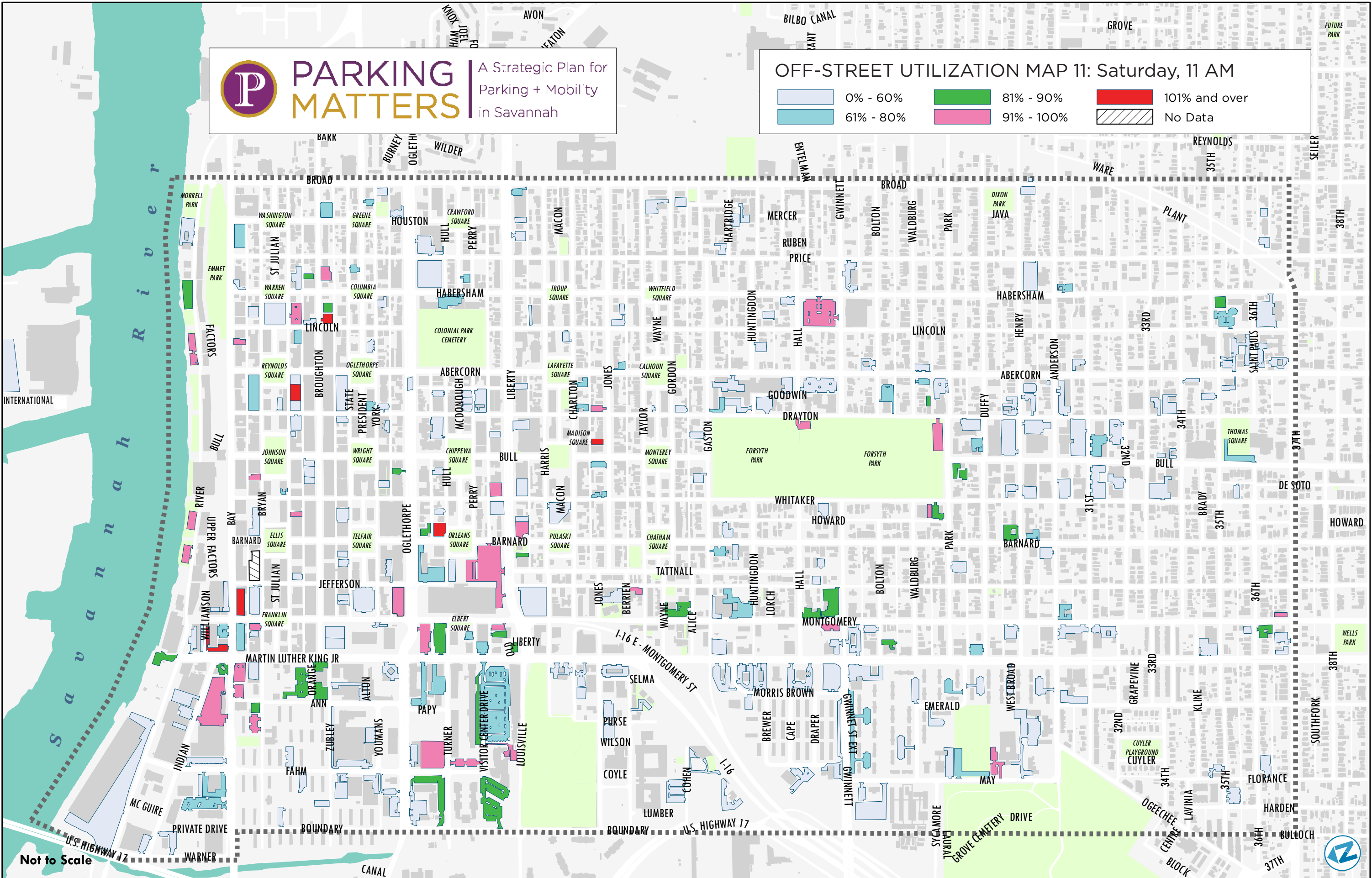


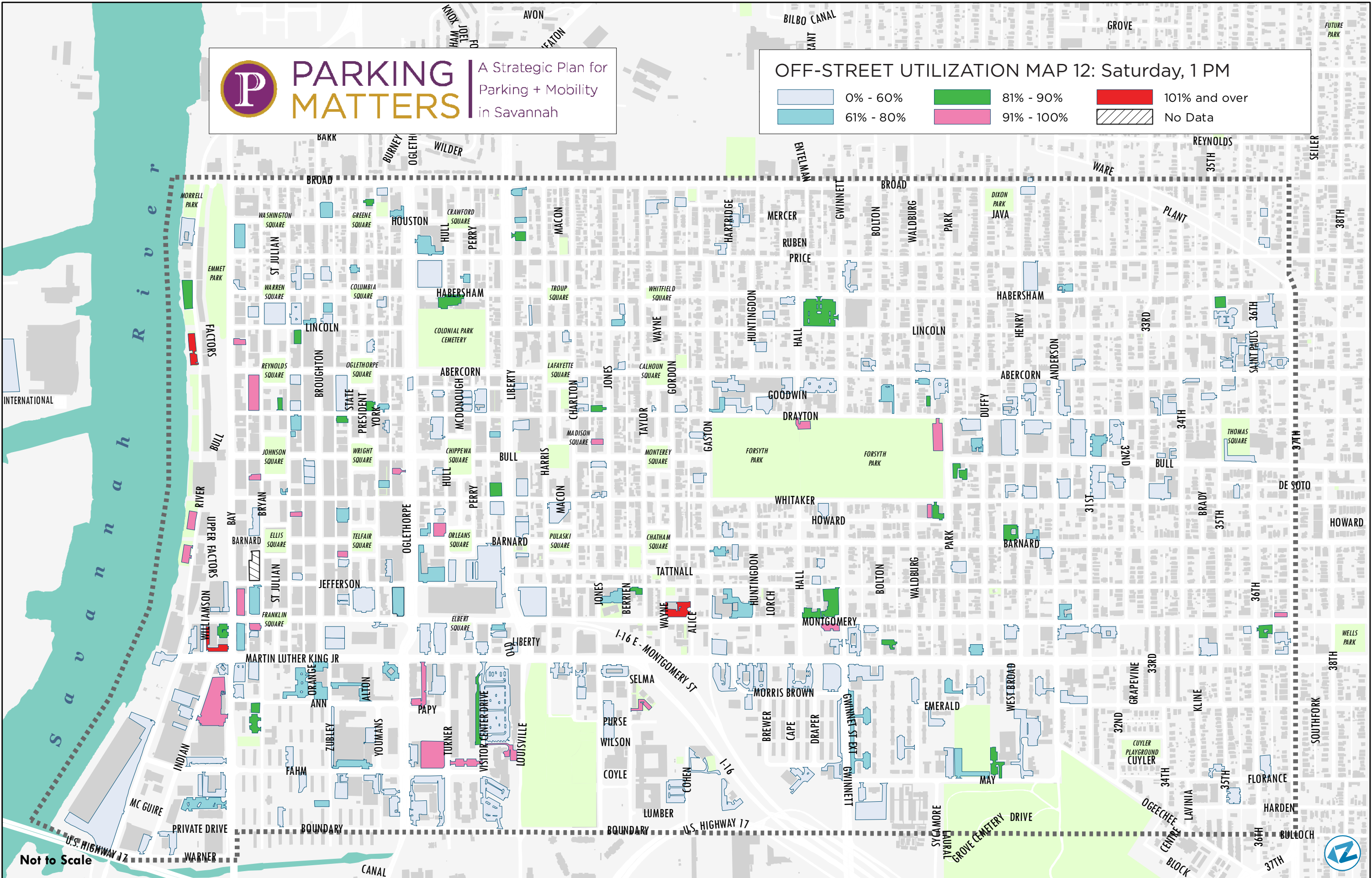








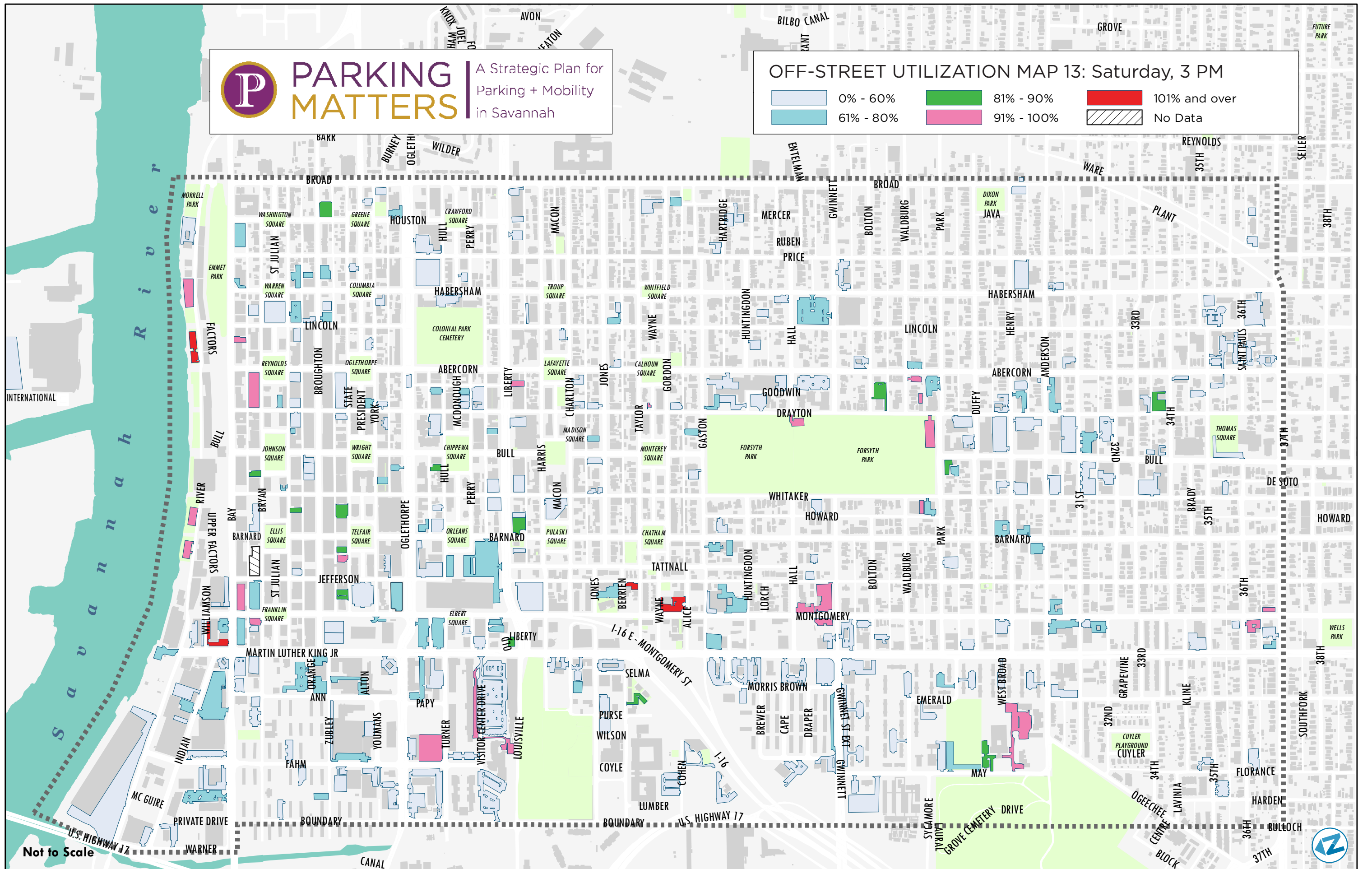


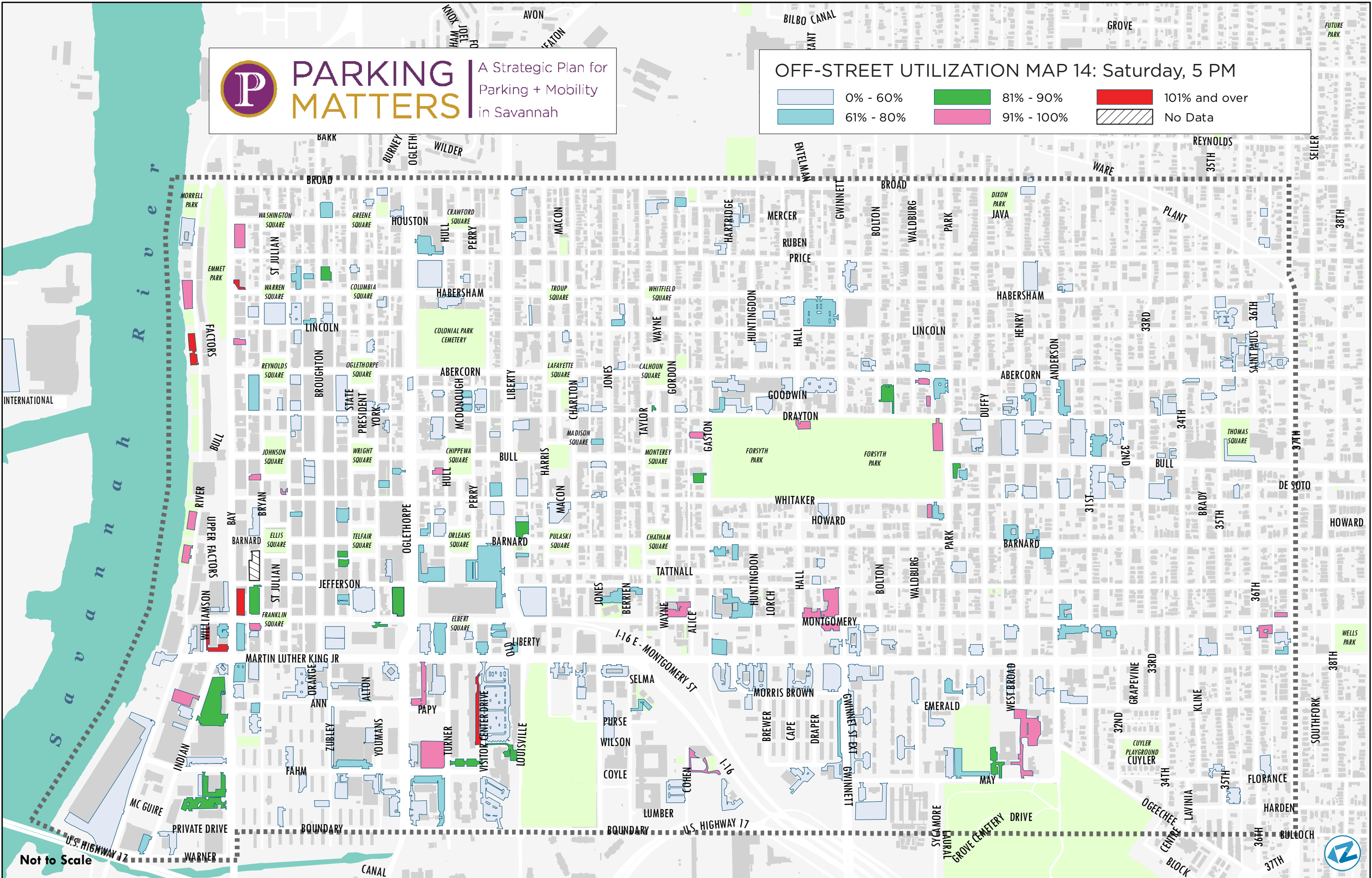


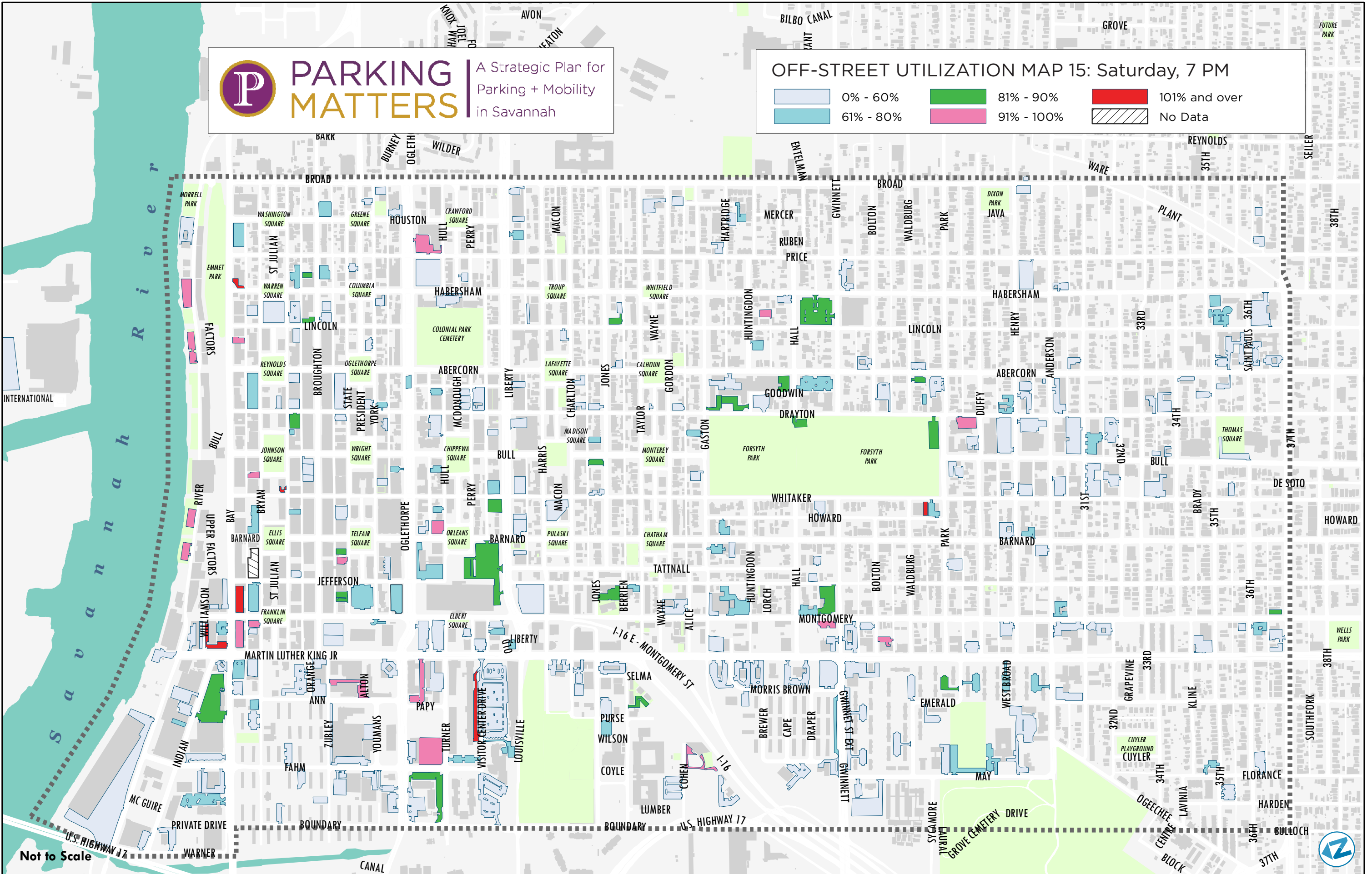
P **PARKING MATTERS** | A Strategic Plan for
Parking + Mobility
in Savannah

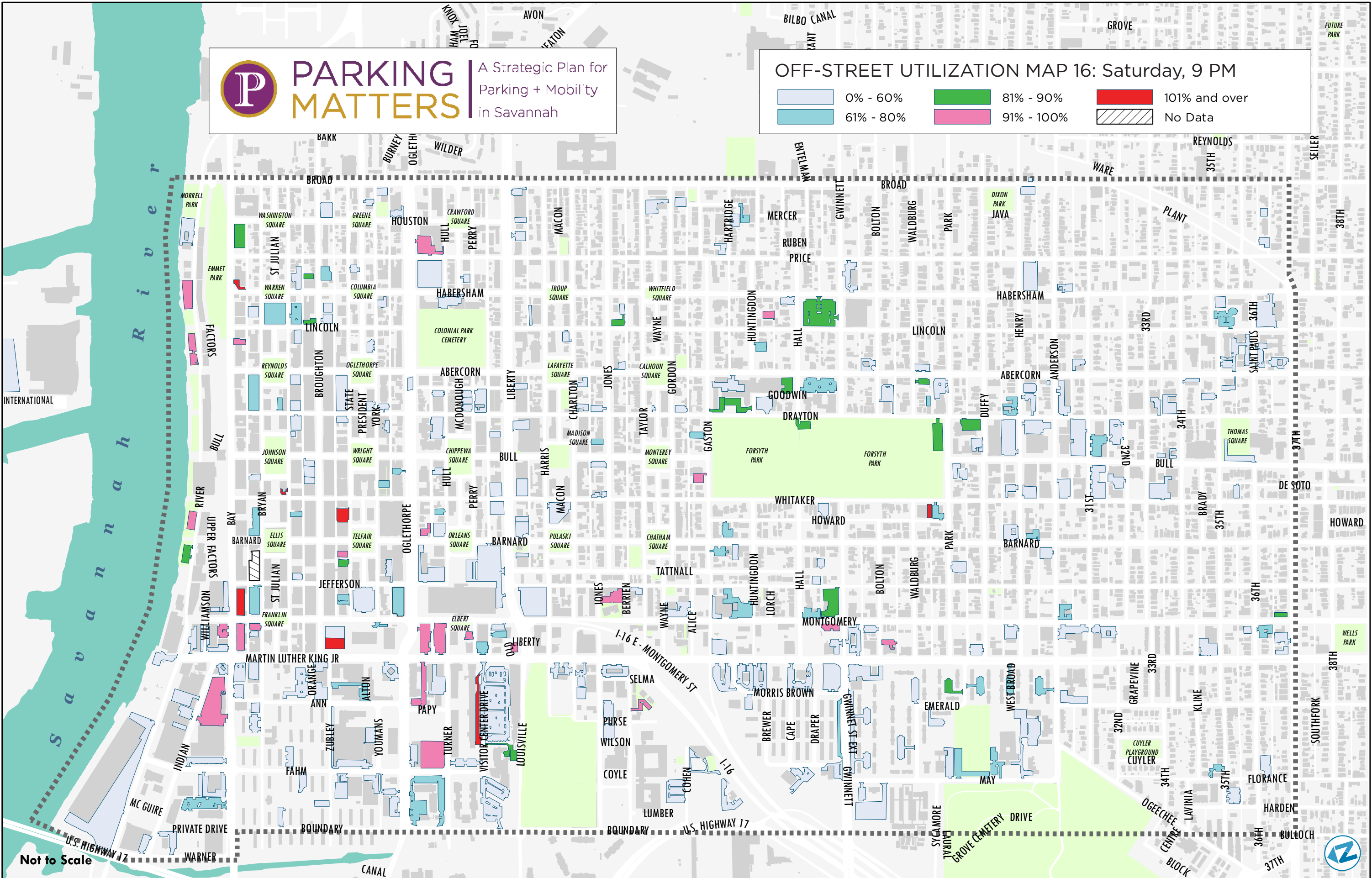
OFF-STREET UTILIZATION MAP 12: Saturday, 1 PM

0% - 60%	81% - 90%	101% and over
61% - 80%	91% - 100%	No Data









Section 4

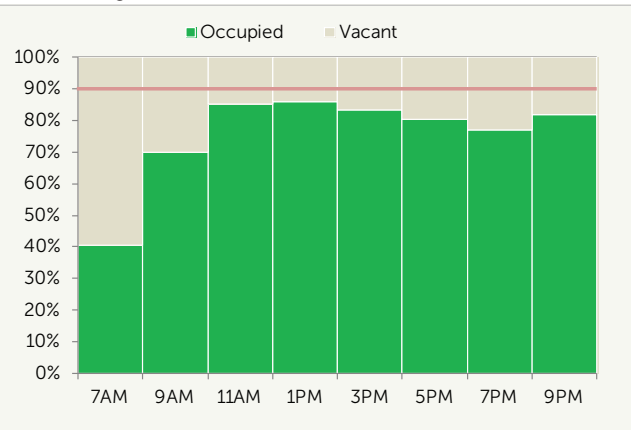
Additional Comparisons

This section provides additional series of utilization graphs to illuminate other relationships in central Savannah’s parking dynamics.

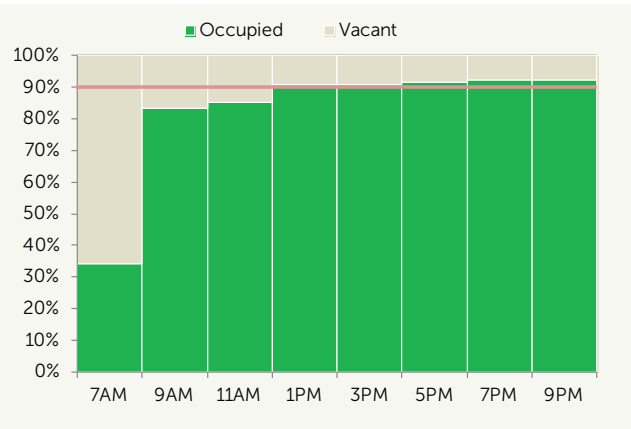
BROUGHTON STREET

Downtown’s main retail street currently features a unique system of regulations, with no pricing or meters, but a time limit that varies by portions of the street. The time limits are in effect during regular enforcement hours. Community and stakeholder feedback has indicated that it is difficult to find parking on this street, and utilization patterns suggest this may be the case: Thursday rates are at or near 85 percent full almost all day, and Saturdays have times that reach or exceed 90 percent full, leaving very few spaces available.

Thursday 143 spaces



Saturday 143 spaces

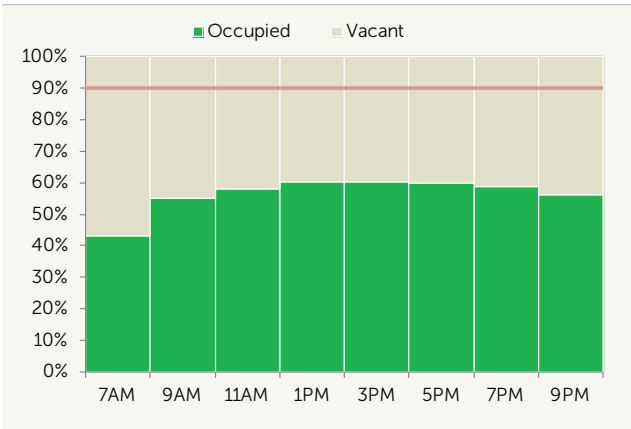


NORTH OF GASTON STREET: ALL SPACES

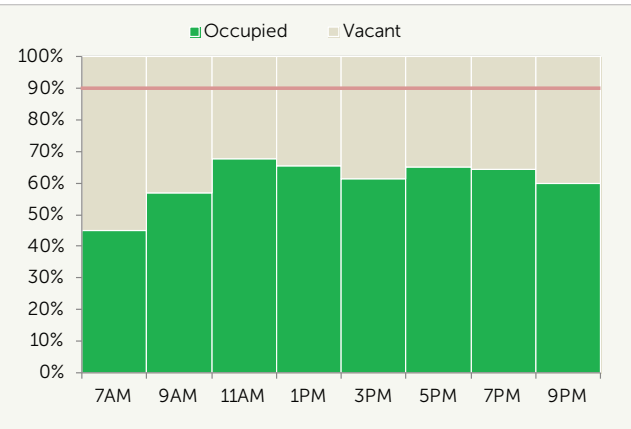
With on-street parking, there is a more even demand profile between weekdays and Saturdays than there is with off-street parking. The off-streem demand profile

on weekdays may be reflective of a greater number of regular downtown commuters who use garages.

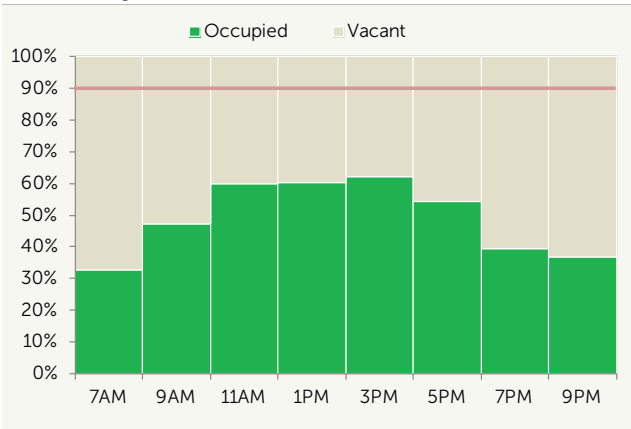
Thursday: On-Street 5,702 spaces



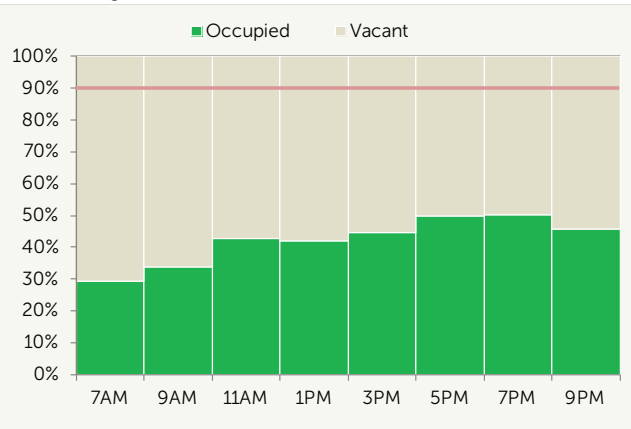
Saturday: On-Street 5,702 spaces



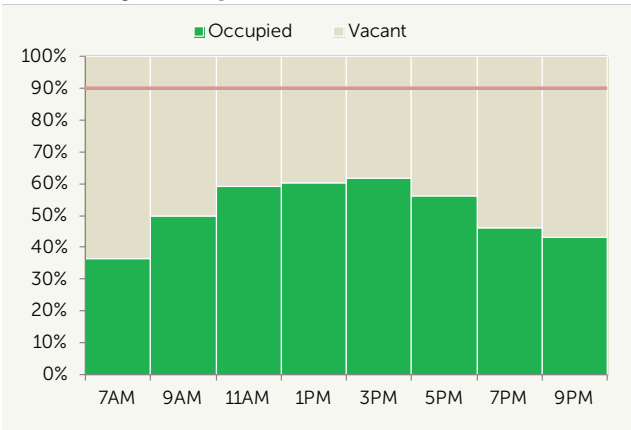
Thursday: Off-Street 11,213 spaces



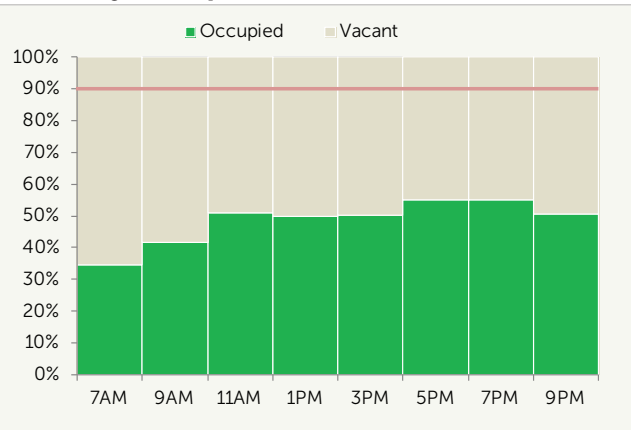
Saturday: Off-Street 11,213 spaces



Thursday: All Spaces 16,915 spaces



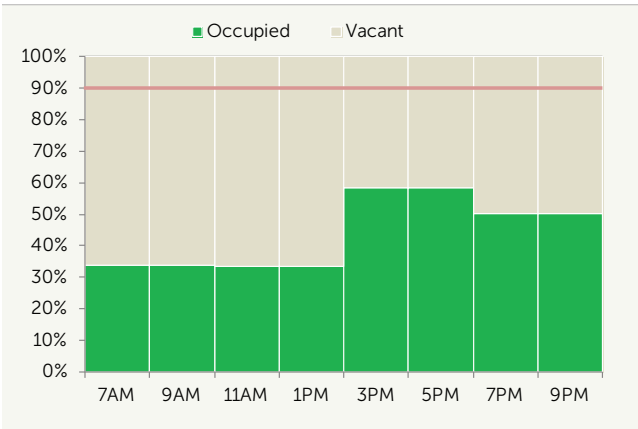
Saturday: All Spaces 16,915 spaces



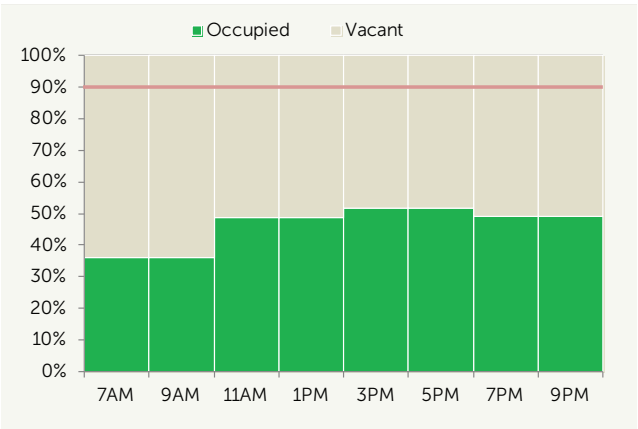
SOUTH OF GASTON STREET: ALL SPACES

South of Gaston Street, parking is used less overall. This is due in part to the area’s predominantly residential land use patterns.

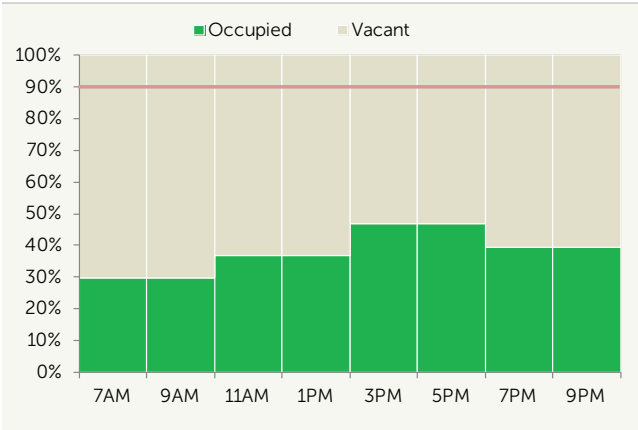
Thursday: On-Street 5,895 spaces



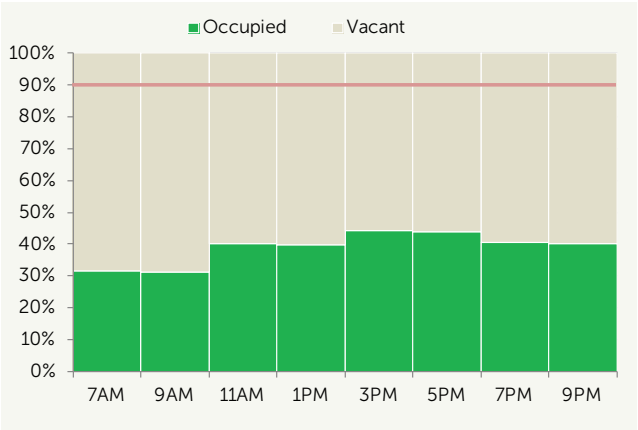
Saturday: On-Street 5,895 spaces



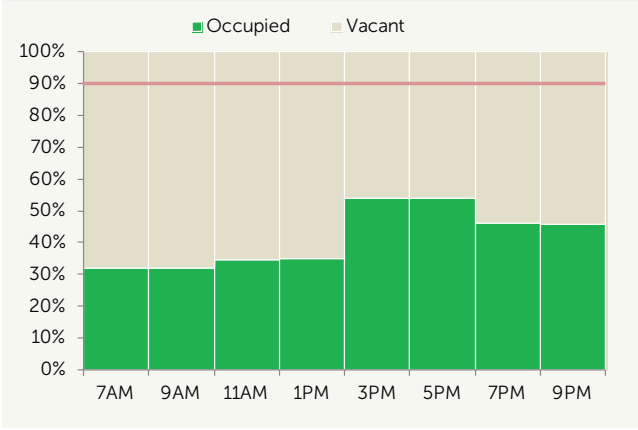
Thursday: Off-Street 3,886 spaces



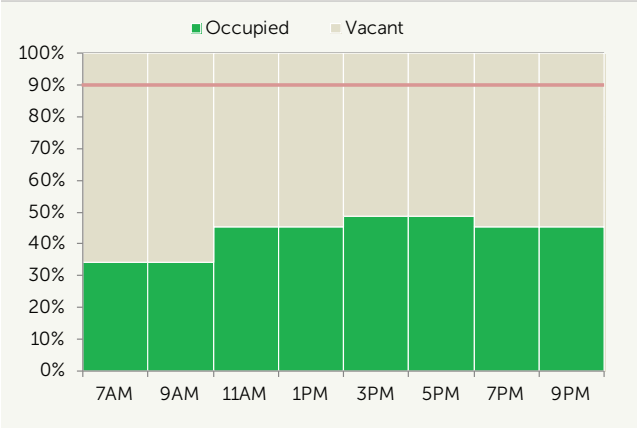
Saturday: Off-Street 3,886 spaces



Thursday: All Spaces 9,781 spaces



Saturday: All Spaces 9,781 spaces

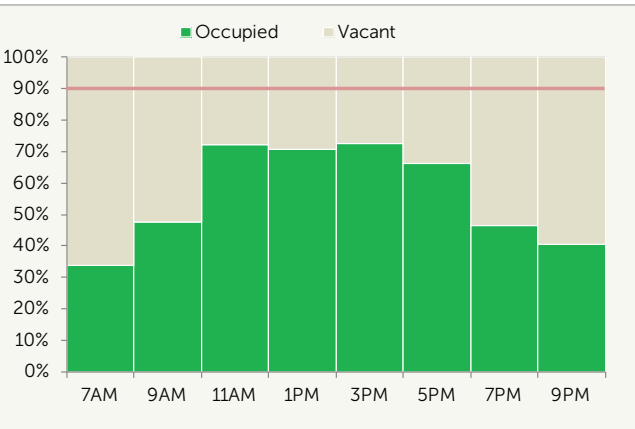


OFF-STREET SPACES BY OWNER

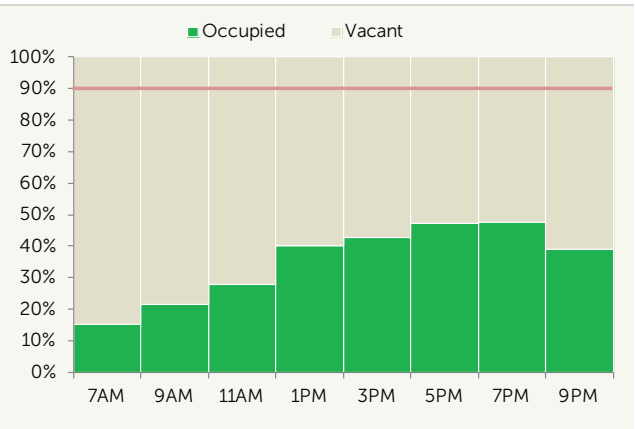
Peak demand in City garages occurs during the traditional weekday midday hours, and there is substantial capacity during the evenings.

City lots experience a lunchtime peak in demand, and on the weekend, afternoon activity extends through dinnertime.

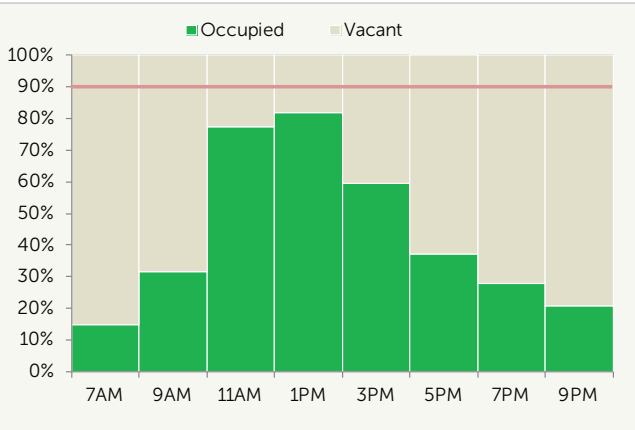
Thursday: All City Garages 3,413 spaces



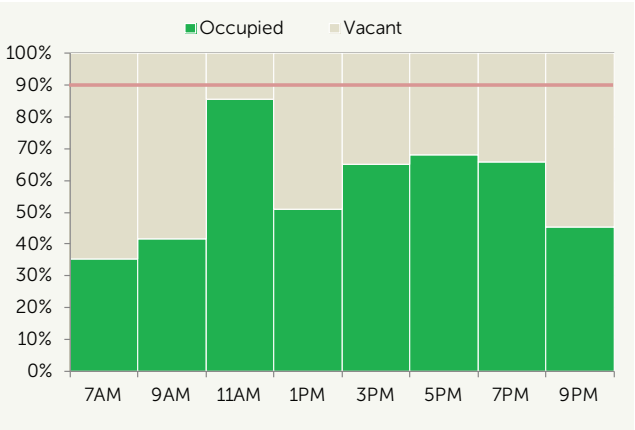
Saturday: All City Garages 3,413 spaces



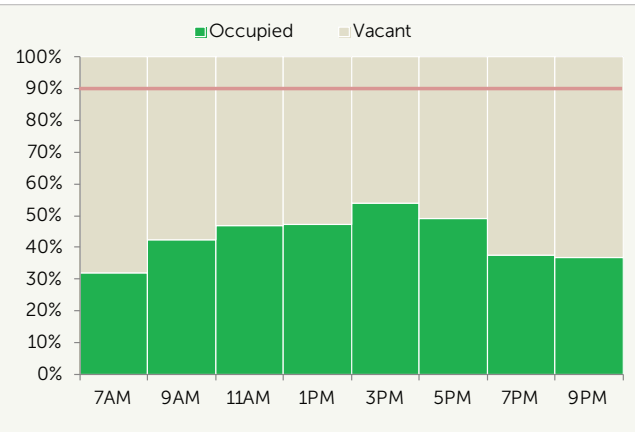
Thursday: All City Lots 706 spaces



Saturday: All City Lots 706 spaces



Thursday: All Non-City Facilities 11,290 spaces



Saturday: All Non-City Facilities 11,290 spaces

