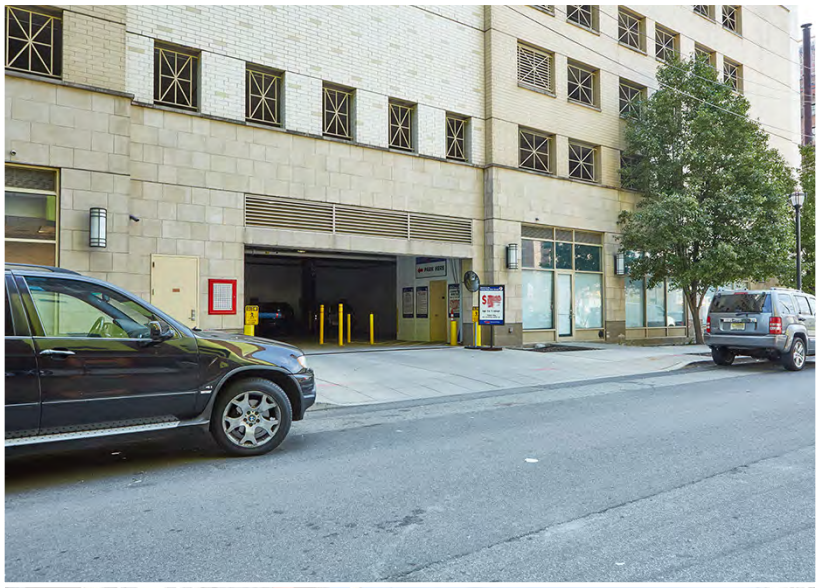
JERSEY CITY PARKING PLAN



FINAL REPORT – June 2020

NJTPA NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

Contents

Report Prepared by

City of Jersey City and North Jersey Transportation Planning Authority (NJTPA)

With support from the consultant team:
Arup USA, Inc.
Fitzgerald & Halliday, Inc.
Weinberger & Associates

Disclaimer

The preparation of this report has been financed in part by the U.S. Department of Transportation, North Jersey Transportation Planning Authority, Inc., Federal Transit Administration and the Federal Highway Administration. This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or its use thereof.

1 Executive Summary

The City of Jersey City initiated the Jersey City Parking Management Plan to address concerns about parking within the City and obtained a Subregional Studies Program grant from the North Jersey Transportation Planning Authority (NJTPA) to fund the development of the plan. The goals of this study were to optimize the use of current parking supply and identify parking management strategies to inform policy and regulations for future development. The main objectives of the study were to create a citywide parking inventory, present innovative strategies for parking management, and develop recommendations for the City to adjust its parking regulations in support of those strategies.

The City can make strides towards managing parking in a comprehensive way by using parking demand management strategies and implementing the associated actions. Primary benefits include improving the parking experience for users, reducing conflicts between residents, commuters and visitors over parking space, maximizing the use of limited space, and minimizing the demand for parking and vehicular travel. Secondary benefits include reducing traffic congestion, sharing resources instead of providing redundant supply that remains partially unused, avoiding the costs of building unnecessary parking supply, and ensuring new development complies with the City's larger sustainability goals.

This parking management plan supports the wider planning efforts undertaken by Jersey City and NJTPA, including the City's recent planning efforts including the *Let's Ride JC Bicycle Master Plan*, the Jersey City *Pedestrian Enhancement Plan*, and the *Vision Zero Action Plan*. These plans developed specific design, policy and planning recommendations both for immediate implementation and longer term roll out. Parking is a shared topic addressed by all the plans; parking enforcement was frequently mentioned as a concern, as well as considerations for safety, allocation of curb space, and commuter parking. Broader goals such as equality of access to mobility, climate resilience, and sustainability are major considerations for Jersey City and NJTPA, and parking management is part of the toolkit that supports these. Good parking management can support larger quality-of-life goals, such as economic development, environmental sustainability, improved access for a diverse population, and increased space for affordable housing and community facilities. Reducing parking demand encourages the use of active travel modes such as walking and bicycling.

As part of this plan, a comprehensive outreach program, which included meetings in every Ward, a public workshop and an online survey, solicited feedback from the public and produced valuable information on the City's biggest parking issues. Parking availability was the most mentioned challenge across all Wards and across all channels of outreach. The public also expressed a perceived lack of communication, a lack of public understanding of the City's goals, and a lack of coordination between new development parking and transit. Building a centralized parking garage was a frequently suggested potential solution, however many residents expressed concerns about subsidizing parking, incentivizing driving, and aesthetics. Overall, this feedback was integral in the development of the recommended strategies, and combined with the City's concerns, formed the basis of this parking management plan.

This report serves as the final version of the parking management plan. Parking management is a complex topic. The 10 strategies recommended in this report contain associated short-, medium-, and long-term actions and are intended to provide a framework for City staff to implement. The success of

implementation depends upon continued engagement of the City, local and regional stakeholders, and the public.

Based on evaluation of previous documents, a review of existing parking regulations and utilization (although this data was not comprehensive), and extensive and engaged dialog with the public and stakeholders, the following strategies are recommended:

1. Modify the “Parking Zones” residential permit system
2. Expand shared parking programs and manage parking through a centralized system
3. Coordinate on-street and off-street parking prices in response to demand
4. Improve enforcement of parking regulations
5. Comprehensively manage on-street curb space
6. Shift commuter and visitor parking away from residential areas
7. Improve communications of City’s policies to residents, commuters and visitors
8. Re-examine the City's curb cut policy
9. Re-examine parking requirements in the City’s zoning code
10. Implement transportation demand management (TDM) measures and expand alternative mobility options

Notably, this plan does not include a recommendation to build additional parking supply in the form of a parking garage. The plan instead recommends focusing on gathering more data to better understand the existing parking supply and then implementing measures to use that supply more efficiently. These recommended strategies aim to achieve a more efficient use of the existing parking supply, an increase in parking availability, a reduction in overall parking demand, and a more manageable citywide parking system. By following these strategies and implementing the associated actions, the City will make strides towards managing parking in a comprehensive way. Next steps for implementing the parking management plan are detailed in Section 7 and are summarized in Section 8 of this report.

Additional documents and information about this study can be found at the webpage the city has created for the project: https://www.jerseycitynj.gov/parkingplan

2 Project Background

Jersey City is one of the most diverse cities in the United States, and the second most-populous city in New Jersey with approximately 247,000 residents and a population density of approximately 16,700/square mile according to the 2010 US Census. Population has increased steadily with approximately 262,000 residents in 2019. It is also one of the densest cities in the country and an emerging regional hub for employment, shopping and recreation in the greater New York City metropolitan region.

The City is highly urbanized and well served by an established street grid and a multimodal public transportation network. The City experiences heavy congestion due to commuters traveling both to the City to access the Hudson River Waterfront and through the City to access Manhattan. The City has an extensive transit network, however not all parts of the city have access to the existing rail network. Despite the City's extensive transit network and high mode share for commuting to work by transit (about 52 percent) still 62 percent of residents own at least one car. While this is a comparatively low car ownership rate for New Jersey, it does show that parking is a reality for most City residents.

2.1 Regional and City Context

The City of Jersey City, in coordination with NJTPA, conducted this parking study to develop its first-ever Parking Management Plan to address the emerging issues around parking that both residents, workers and visitors alike have encountered. These issues include a lack of available spaces; competition between residents, visitors and commuters for space; and congestion related to parking maneuvers. The Parking Management Plan aims to comprehensively address these issues.

As the City's and Region's population continues to grow, mitigation of traffic congestion will be more and more important. Jersey City has identified parking as a key factor in reducing congestion and improving the quality of life for residents, workers and visitors. There have been 5,600 new residential units brought online in the City since 2013, and 14,000 additional residential units are projected over the next 15 years. This increase in residents will almost certainly increase parking demand in the City.

Jersey City residents are highly engaged on the matter of parking. Top concerns from the community include parking availability, both in residential neighborhoods and in destination commercial districts. The idea of centralized parking garages has been raised by the community before, however strategy may conflict with the City's sustainable development goals. Other potential solutions that have been discussed but so far not implemented include reduced curb cuts and shared parking initiatives as potential solutions.

As of 2015, the City provided approximately 118,000 jobs, about 94,000 of which were filled by non-Jersey City residents, and 24,000 by residents. This means that almost 80 percent of the labor force in Jersey City must commute into the City from elsewhere, straining the parking supply and transit network further. Additionally, the City provides access to important Hudson River crossings into New York City including the Holland Tunnel, the PATH train to World Trade Center and Midtown Manhattan, and multiple ferry landings. The City is also home to Liberty State Park, a 1,200-acre waterfront park opposite Liberty and Ellis Islands, which includes a ferry terminal with service to the Statue of Liberty and attracts thousands of visitors each year.

The City is well-connected to the regional highway system. The New Jersey Turnpike extension enters the City from the southwest and terminates at the Holland Tunnel in the northeast. US Highway 9 (The Pulaski Skyway) connects Jersey City on its western edge, and multiple state routes traverse the City. It is also well-served by public transit, with both PATH heavy rail service and Hudson-Bergen Light Rail (HBLR) service, in addition to numerous NJ TRANSIT and private bus lines. This confluence of good highway and transit access make Jersey City an attractive multimodal hub for commuters from other parts of New Jersey parking in Jersey City to continue their commute into Manhattan.

Since public transit is well-used, both PATH and NJ TRANSIT are at or nearing capacity. Private bus carriers provide critical long haul transit service from Monmouth, Somerset, Morris, Bergen Sussex, Hunterdon and Ocean counties to Newark, Jersey City and New York City. As stated in NJTPA's *Plan 2045: Connecting North Jersey*, there is continued need to identify park and ride opportunities for bus passengers, as well as bus storage facilities close to the urban core.

Jersey City is one of the most ethnically diverse cities in the country, and as such its population has a wide variety of needs. The City's built environment is also diverse, ranging from high-rise residential and commercial towers along the Waterfront, to historic brownstone neighborhoods Downtown, to low-rise multifamily and single-family homes in the Heights and Bergen-Lafayette. There are countless neighborhoods in between, each with their own history and character. To help residents get around, Jersey City launched a bikeshare program in 2015 with CitiBike, which has expanded to all six Wards, and in 2020 the City launched a partnership with rideshare service Via.

2.2 Project Vision

Jersey City's stated goal of this study was to optimize the use of current parking supply citywide and identify parking management strategies to inform municipal zoning and policy regulations for future development. A Parking Management Plan can encourage the City to grow wisely, promote more efficient use of existing parking, reduce single-occupancy vehicles in favor of alternate modes of transportation, increase economic productivity by allowing more affordable, efficient and diverse land uses, and provide a wide range of environmental benefits.

As part of this Parking Plan, Jersey City convened a Technical Advisory Committee, which included representatives of various City departments (Planning, Commerce, Traffic, and Housing Economic Development & Commerce) and NJTPA. The group agreed to the following broad vision for the plan:

- To optimize the use of current parking supply citywide
- To identify parking management strategies to inform municipal zoning and policy regulations for future development
- To limit land dedicated to parking uses near transit stations
- To encourage the use of public transit and active modes of transportation throughout the City

What is a Parking Plan?

Parking studies examine how parking works in a specific geography, whether it be for a site, neighborhood or entire city. Parking plans use this information to make recommendations regarding parking availability, location, cost, enforcement, technology and land-use policies. This Plan is what

will guide the City's decision-making and management processes. Although parking may seem simple, it can be challenging to determine community needs, particularly in dense cities like Jersey City. Good parking management can support larger quality of life goals such as economic development, environmental sustainability, improved access for a diverse population, and more affordable housing, among other goals.

2.3 Project Goals and Objectives

The major goal of this study was to identify parking management strategies to optimize the use of current parking supply before exploring the creation of additional supply, and to inform zoning and policy regulations for future development. Another objective of this study was to develop a citywide parking inventory to assess current parking supply and identify gaps in available data. The parking inventory catalogs the existing supply of on and off-street, public and private parking along with characteristics such as pricing, regulations, and restrictions. The study also assesses the City's current residential permit system of parking zones and offers recommendations for improvement.

This study will align with the goals in the City's most recent bicycle, pedestrian and Vision Zero plans to encourage the use of public transit and active modes of transportation throughout the City.

What does this Parking Study accomplish?

- Create a citywide parking inventory
- Offer innovative strategies for parking management
- Develop recommendations to adjust City parking regulations

3 Data Collection and Inventory

This section describes the data obtained and assessed as part of this study, based on existing information compiled from previous plans developed by Jersey City in recent years.

3.1 Previous and Related Plans

In the past few years, the northern New Jersey region, Hudson County and Jersey City have been the subject of several plans. These plans offer clear guidance on the City's multimodal transportation goals.

The latest studies and plans include:

- Let's Ride JC Bicycle Master Plan (2019)
- Vision Zero Action Plan (2019)
- Pedestrian Enhancement Plan (2018)
- NJTPA's Plan 2045: Connecting North Jersey (2017)

All three city-level plans highlight the issues of illegal parking and curb space management, while the NJTPA's regional plan places its focus on the system-wide safety and efficiency challenges related to parking.

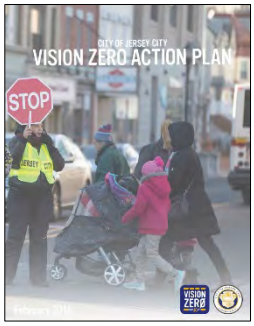
Another study, the Jersey City Regional Waterfront Access and Downtown Circulation Study, was reviewed but deemed obsolete. The study was published in July 2007, before the impacts of the financial crisis of 2008 and the growing emergence of the sharing economy in the 2010s. Recommendations made by the study included large intercept parking garages that would rely on either the existing HBLR system, the extension of the system into Secaucus and other neighboring towns, or the introduction of new ferry services from Elizabeth to move people into the Waterfront neighborhood. The report also recommended that new development in the Waterfront neighborhood rely on mass transit rather than building new parking supply.

In addition to the above plans, Jersey City has 97 individual redevelopment districts, with varying provisions for parking, including both minimum and maximum parking ratios. Each of these districts has the potential to affect the parking supply and demand within their immediate area, while not always aligning directly with the City's goals for multimodal transportation.

3.1.1 Let's Ride JC Bicycle Master Plan

Let's Ride JC Bicycle Master Plan is Jersey City's first master plan devoted to improving cycling. Released in 2019, the plan outlines street design and a range of policy and program recommendations to transition the City into a place where cycling is a viable and enjoyable transportation option for people of all ages and abilities year-round. The infrastructure plan is built around two focuses: a bike lane network plan and a bike parking plan. Each of these may affect the usage of curb space for parking by either moving parking away from the curb or reallocating some curb space from vehicle parking to designated bike parking.

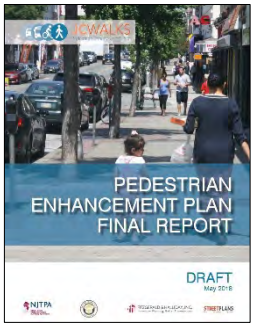
3.1.2 Vision Zero Action Plan



Jersey City developed the *Vision Zero Action Plan* in 2019 to achieve its vision of a city without traffic fatalities and serious injuries by 2026. With a focus on local city roads, this plan identified a High Injury Network (HIN) and recommends solutions that address traffic safety while promoting equity and sustainable travel including walking, biking and transit.

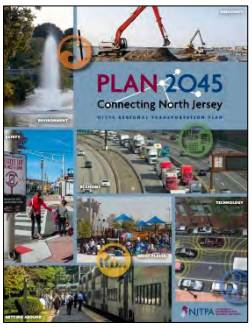
During the public outreach process, two of the five most noted traffic safety issues were related to parking: illegal parking and safety at intersections. To address these issues the plan recommended eliminating ambiguity over where on-street parking is, and is not, allowed, especially within 25 feet of crosswalks and near fire hydrants, and increasing the visibility of crossing pedestrians at intersections and mid-block crosswalks through design strategies such as painted curbs, flex posts, and bike corrals.

3.1.3 Pedestrian Enhancement Plan



The 2018 *Pedestrian Enhancement Plan* (PEP) was developed to prioritize pedestrian experience through improvements to safety and aesthetics and to promote placemaking. The public outreach process carried out in this study shed light on some of the major conflicts between different users of the city's roads, curb space and sidewalks. Some of the most mentioned conflicts were illegal parking blocking bus stops and illegal parking blocking crosswalks. The plan recommends context-sensitive safety improvements that can address these issues through enhanced enforcement near bus stops and curb extensions/bulb outs at crosswalks to prevent illegal parking and enhance pedestrian safety.

3.1.4 Plan 2045: Connecting North Jersey



NJTPA, as the regional Metropolitan Planning Organization (MPO), focuses on overarching transportation objectives in the northern New Jersey region and provides system-wide implementation and investment guidance to local municipalities. In 2017, NJTPA approved *Plan 2045: Connecting North Jersey*, which addresses transportation needs for all modes and facilities in the region rather than rules and regulations specific to a single mode.

Specifically, the sections around transit, roadways and corridor management technologies offer important recommendations on how parking should be managed in the region. For example, the plan identifies improved access to transit as key for travel demand management, and building such transit accessibility requires support from parking, either as park-and-ride facilities or commuter parking permit programs.

Plan 2045 is available online at: **https://www.njtpa.org/Plan2045**

Summary of Parking Related Strategies

The following table provides a summary of parking-related strategies that were proposed in the above plans:

Category	Parking-related Strategies
Parking Enforcement	• Restrict car parking around intersections • Procure equipment to support increased enforcement against parking violations • Remove any barriers at the City level to ticketing vehicles parked in bike lanes and blocking driveways • Increase fines for certain parking and moving violations • Eliminate ambiguity over where on-street parking is, and is not, allowed, especially within 25 feet of crosswalks and near fire hydrants • Increase enforcement of parking restrictions at corners and within 25 feet of crosswalk at intersections on pedestrian and bicycle HINs
Space Enhancement	• Curb extensions are recommended to take up the space within 25 feet of the crosswalk to prevent illegal parking and at all intersections or mid-block locations as long as there is on-street parking • Explore best practice solutions to mark and protect no parking zones

Category	Parking-related Strategies
Programming and Policy	• Establish "parking improvement districts" that reinvest parking revenue into community improvements • Support park-and-ride facilities and commuter parking permit programs • Manage on-street parking and loading space to accommodate locally focused freight needs in a way that is safe for all users

3.1.5 Redevelopment District Plans

Jersey City has 97 separate districts designated as Redevelopment Plan Areas. These are described in 97 individual plan documents and supersede the underlying zoning code. These districts range in size from a single lot, to a collection of lots on a block, up to an entire sub-district, and are spread throughout the city geographically. While the diversity of these districts points to the need for different approaches to parking, the differences in parking requirements among these districts is much wider and varied than typical differences among regular zoning codes.

Some Redevelopment Plan Areas have maximum parking ratios tied to their land use while others have minimum parking ratios, and still others have both or neither. Parking minimums require new developments to provide a minimum number of off-street parking spaces based on an assumed demand for parking generated by designated use. This demand has traditionally been derived from the Institute of Transportation Engineers Trip Generation Manual, which is generally based on more car-centric suburban land uses. Parking maximums, on the other hand, cap the total number of off-street parking spaces allowed for a specific use, and therefore control the amount of land associated with parking. Parking minimums have been shown to increase the cost and mass of new developments, while also implicitly subsidizing and encouraging more car travel. Parking maximums aim to attenuate this effect.

A breakdown of parking ratios for the 97 redevelopment districts is shown in Table 1 and a map of redevelopment district locations is shown in Figure 1.

Table 1: Redevelopment District Parking Ratios

Type of Parking Ratio:	Minimum	Maximum	Both	Neither
Percentage of redevelopment districts:	35%	26%	35%	3%

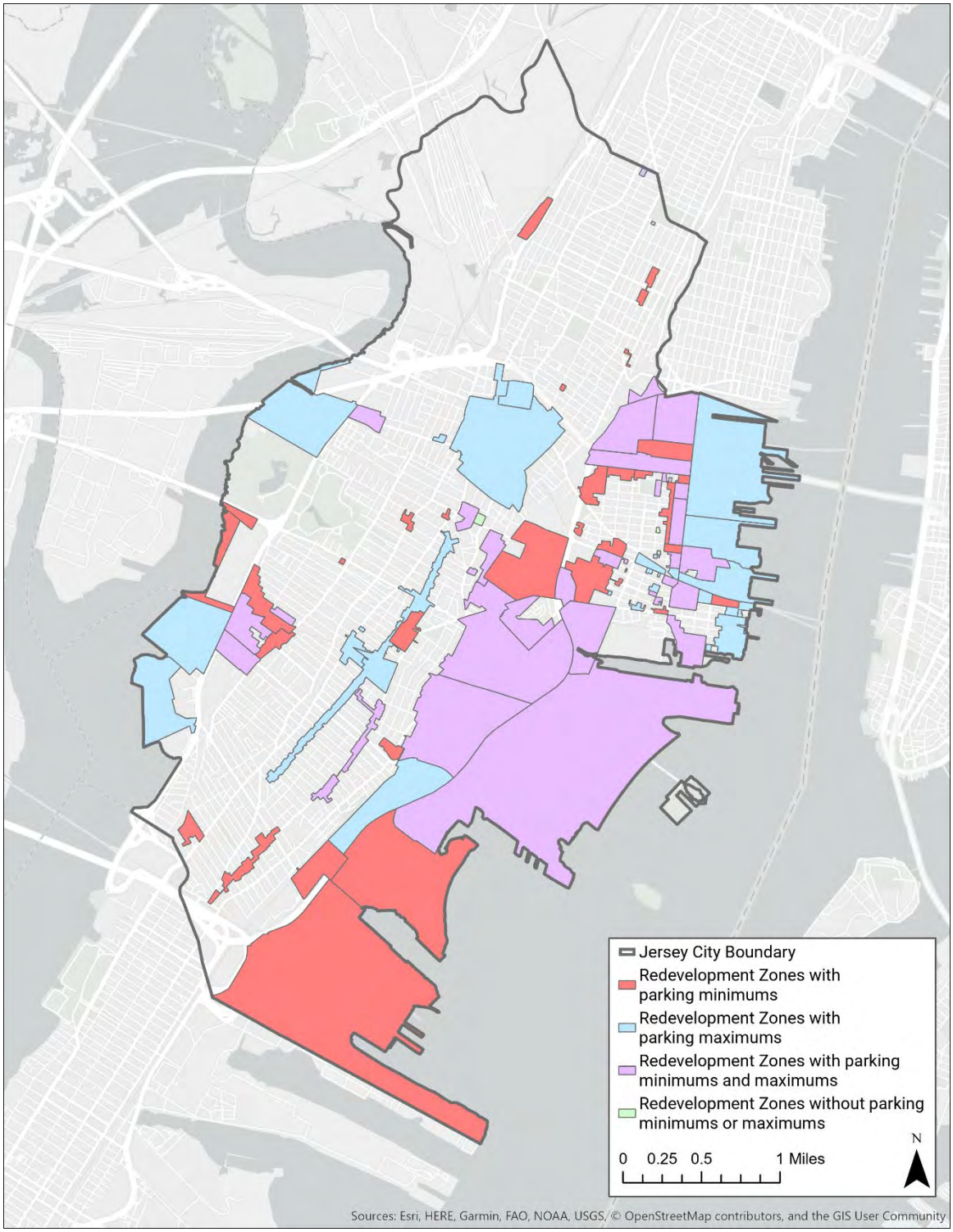


Figure 1: Redevelopment Districts (Zones)

3.2 Inventory of Parking Supply

Jersey City did not previously have an inventory of existing on-street parking supply. To determine this supply, the consultant team ran an analysis to compute the amount of on-street parking based on total linear miles of streets in each Ward and removing those streets or street sections where parking is not permitted. The results of this analysis show that the city has approximately 60,000 on-street parking spaces, of which approximately 1,600 are metered. Details by Ward are shown in the table below and available streets for parking are shown in Figure 2.

Approximately 60,000 on-street parking spaces

Approximately 1,600 metered parking spaces

Approximately 30,000 off-street parking spaces

Table 2: On-street parking supply by Ward

Ward	Number of Spaces	Total Curb Length (miles)	Curb Length Permitted for Parking		Total Population	Population Density (people per sq. mile)
			Total Length (miles)	Percent of Total		
A	8,900	56	33	59%	45,200	12,000
B	9,000	51	34	67%	44,200	19,100
C	9,400	54	36	67%	40,100	27,600
D	7,700	48	29	60%	38,800	16,400
E	10,600	53	40	75%	48,300	28,900
F	13,700	71	52	73%	45,000	13,900
Citywide	60,000	333	223	67%	261,600	n/a

In addition to this, the consultant team determined that there are approximately 30,000 off-street spaces that are available for public use at municipal and commercial lots and garages. This supply is discussed in greater detail in Sections 3.3.4 and 3.3.5.

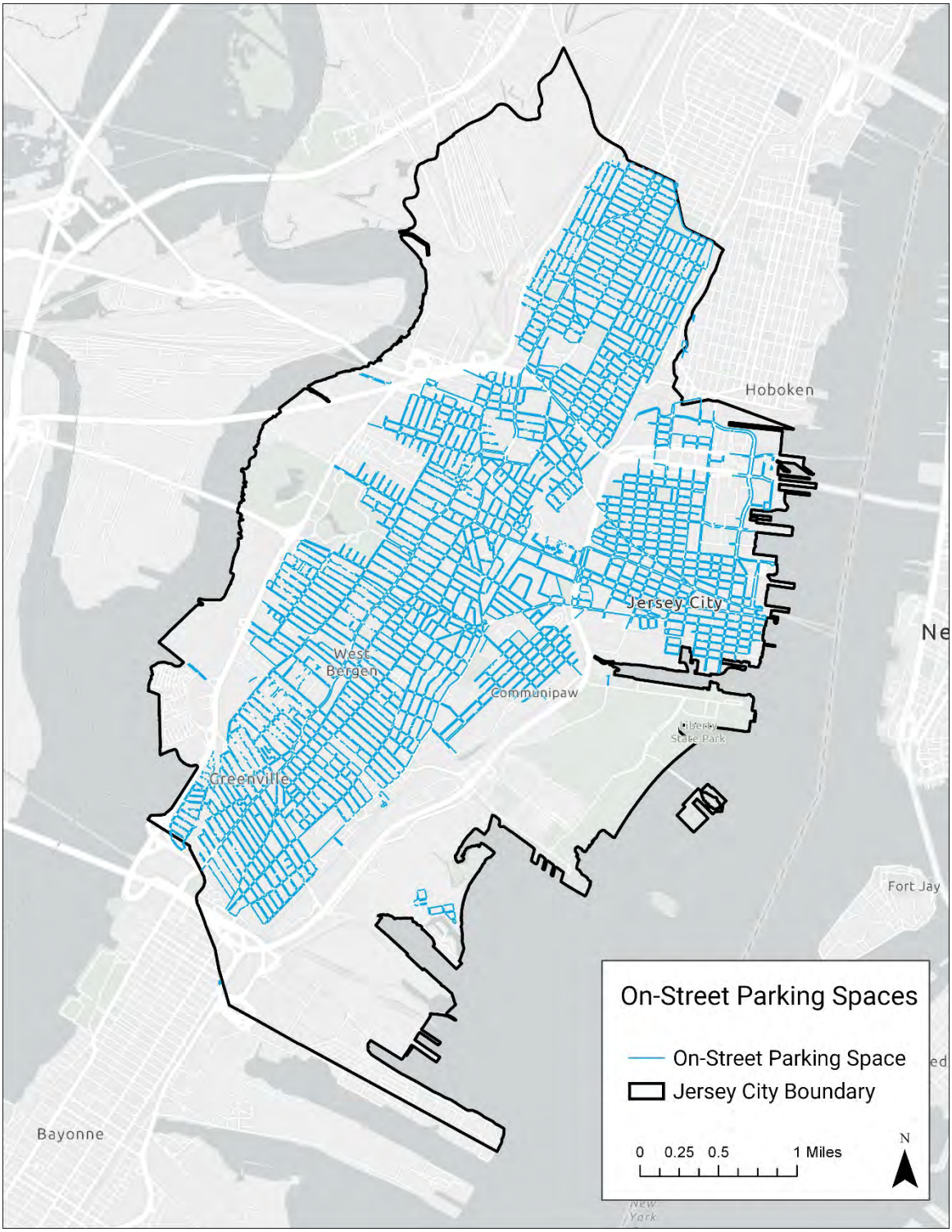


Figure 2: On-Street Parking Spaces

3.3 Current Parking Regulations and Policies

Parking in Jersey City is governed by State and municipal regulations that delineate where and when parking is permitted. Parking zones, meters, and variances are defined in the Municipal Code of Ordinances. A brief overview of these general regulations is provided below.

3.3.1 Permit Parking

Jersey City's permit parking system, as established by the Code of Jersey City, includes four types of permit parking. While all four types require a permit, different conditions apply in each:

- **Residential Zones**: Describes a set of zones with designated time frames during which a zone-specific permit is needed to park on-street. Anyone can park in these zones for a certain amount of time (determined by zone) but a permit is required to park for a longer amount of time.
- **On-Street Resident Only Permit Parking Zones**: Describes a set of zones with designated time frames during which only residents with a zone-specific permit may park on-street.
- **On-Street Permit Parking Zones:** Describes streets with designated time frames during which a permit is needed to park on-street.
- **Municipal Lots**: Describes municipal lots in which a permit is needed to park.

Different types of permits are offered for each of the four types of permit parking. The standard Residential Parking Permit costs $15 annually while the standard Non-Residential Parking Permit costs $300 annually. Additional permit options are also available depending on the type of permit parking zone.

A simplified fee breakdown by zone is provided in Table 3. Several groups are exempt from paying these permit fees, including residents who are over the age of 65 or those who live in a property restricted to occupancy by low- or moderate-income persons, while others, including residents to whom off-street parking is available, are not eligible to receive a parking permit at all.

Table 3: Permit Fee Schedule (Simplified)

Permit Type	Residential Zones	On-Street Resident Only Permit Parking Zones	On-Street Permit Parking Zones	Municipal Lots
Residential Parking Permit/New Resident Temporary Parking Permit	$15	N/A	N/A	N/A
Non-Residential Parking Permit (1 Year)	$300	N/A	N/A	N/A
Non-Residential Student Parking Permit	Not Specified	N/A	N/A	N/A
Temporary Work Permit (90 Days)	$125	N/A	N/A	N/A

Permit Type	Residential Zones	On-Street Resident Only Permit Parking Zones	On-Street Permit Parking Zones	Municipal Lots
Temporary Residential Permit (14 Days)	$15	N/A	N/A	N/A
Home Health Care Permit (90 Days)	$50	N/A	N/A	N/A
Contractor Parking Permit (6 Months)	$125	N/A	N/A	N/A
Contractor Parking Permit (Daily)	$15	N/A	N/A	N/A
Visitor Parking Permit (Daily)	$5	N/A	N/A	N/A
Transfer Permit (14 Days)	$15	N/A	N/A	N/A
Zone 16-1 Parking Permit	N/A	N/A	N/A	N/A
Zone 16-2 Parking Permit (6 Months)	N/A	N/A	N/A	N/A
On-Street resident only permit parking zones permit	N/A	Not Specified	N/A	N/A
On-Street Permit Parking Zone Permit	N/A	N/A	$200	N/A
Nighttime parking only (7pm - 7am)	N/A	N/A	N/A	$55
All day/all night parking (24 hours)	N/A	N/A	N/A	$55 - $105

A detailed permit parking fee schedule is included in Appendix A3. However, as discussed below in Section 3.7, parking permit information in the Code and its amending Ordinances is sometimes missing, incomplete, or inconsistent, and thus may affect the content of the detailed fee schedule, and these data gaps are also included in Appendix A3.

The City may create new residential permit parking zones in areas where significant portions of on-street parking are regularly occupied by commuters. The following factors[1] are used to determine whether an area is eligible for the creation of a new residential permit parking zone:

- The extent of the desire and need of the residents for residential permit parking and their willingness to bear the associated administrative costs.
- The extent to which motor vehicles registered to persons residing in the residential area cannot be accommodated by the number of available off-street parking spaces.
- Ninety percent of the legal on-street parking spaces must be occupied by motor vehicles during the period proposed for parking restriction.
- Twenty percent of the vehicles parking in the area during the period proposed for parking restrictions must be commuter vehicles.

[1] Source: Jersey City Code of Ordinances § 332-64. Criteria for determination of residential permit parking areas

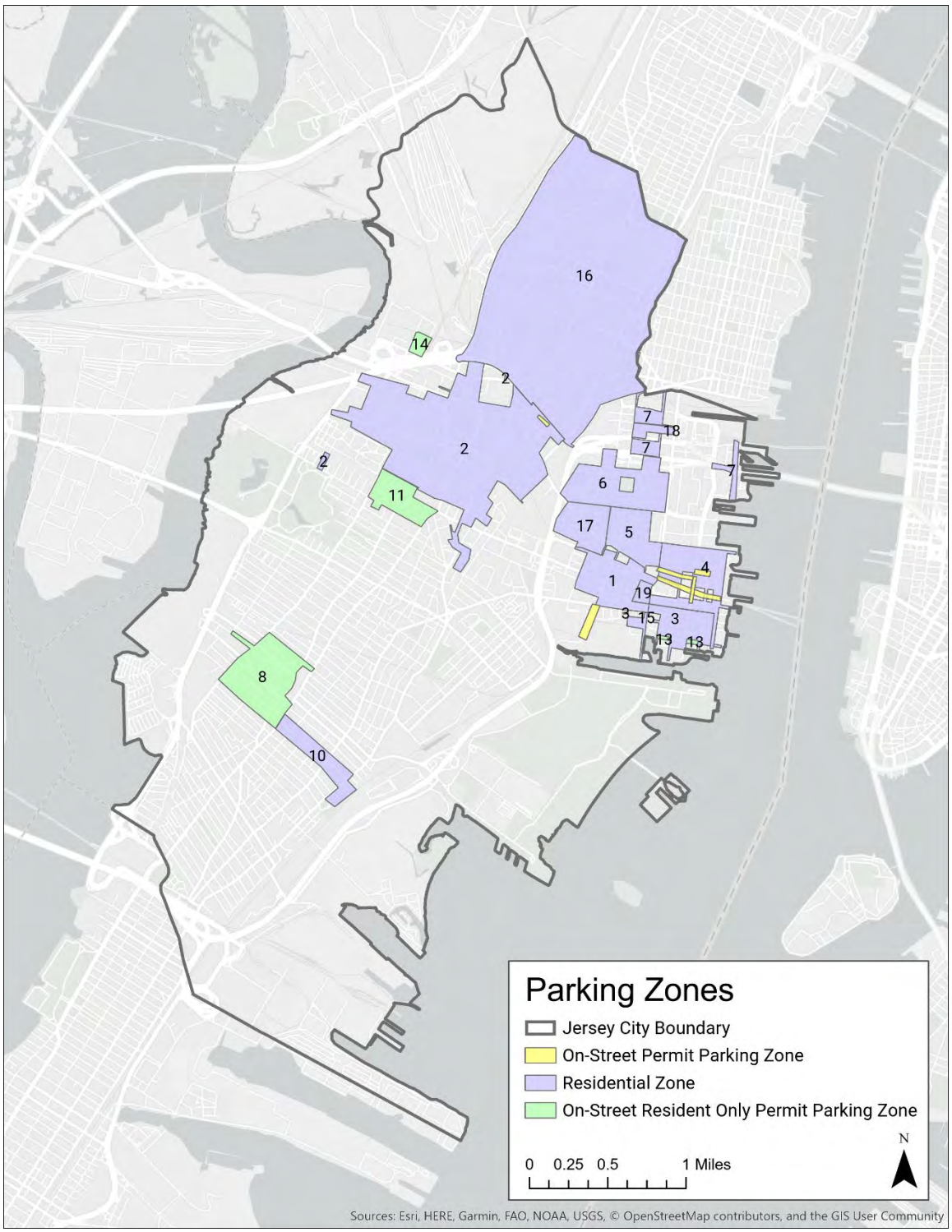


Figure 3: Permit Parking Zones

The permit parking zones are largely concentrated in the northern third of the City, areas of historically denser development and better transit access than other parts of the City. While some zones are quite large, encompassing entire neighborhoods (e.g., zones 2 and 16) other zones are very small and therefore very limited in who may apply for a residential permit (zones 13 and 18).

Table 4: Parking Zone Types in Jersey City

Zone Type	Residential Zones	Resident-Only Zones	Permit Parking Zones
Definition	A valid residential permit is required to park in excess of the allowed time period	A valid residential permit is required for anyone to park within the zones	A monthly permit is required to park in the zones
Zones	1, 2, 3, 4, 5, 6, 7, 9, 10, 15, 16, 17, 18, 19	8, 11, 13, 14	Not Numbered (Red Lines on map)

3.3.2 On-Street Metered Parking

Jersey City has parking meters on streets in high traffic business districts to allow people to pay for parking by duration. Recently, Jersey City began offering a mobile application called Park Mobile to support a more convenient way of finding and paying for parking at more than 1,600 spaces. Options to use cash and credit cards are still available in all metered locations.

The parking rates are consistent across Jersey City, at $0.25 for every 20 minutes and $0.75 per hour. All on-street meters are effective Monday through Saturday, with more than 1,280 spaces starting at 9 a.m. and ending at 6 p.m. and the remaining approximately 320 spaces ending at 9 p.m. Time restrictions (e.g., two-hour parking) apply in some metered areas.

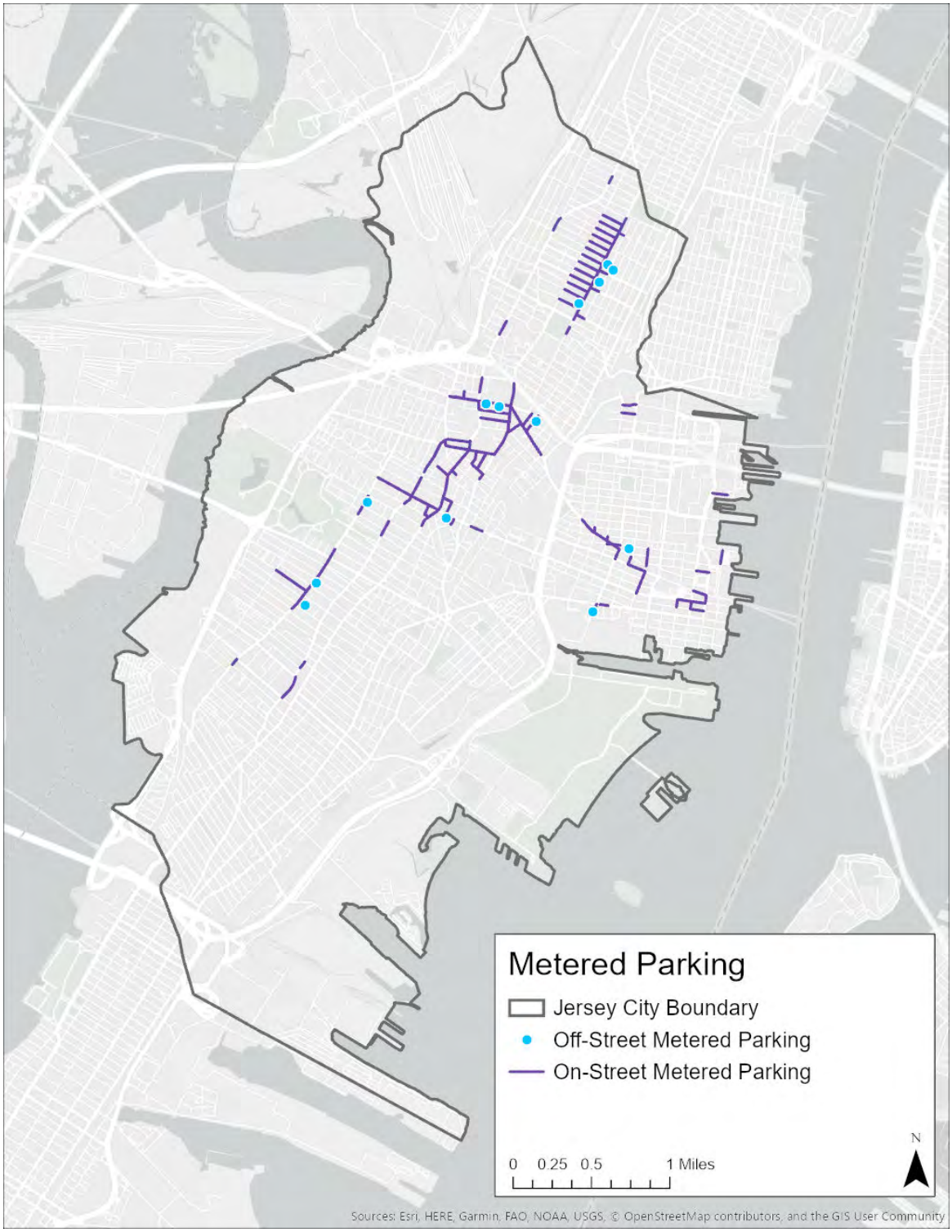


Figure 4: Metered Parking Spaces

3.3.3 Other On-Street Regulations

Jersey City imposes a variety of restrictions on on-street parking spaces to provide residents and visitors a safe and convenient parking and traveling experience. These regulations include prohibiting parking entirely or during certain hours on certain streets, prohibiting trucks and tractors from parking on City streets and restricting parking during street cleaning and snow emergencies.

In addition to these restrictions, the City can also establish **reserved spaces** for disabled drivers. Jersey City also provides **electric vehicle spaces** to promote low-emission travel. The City may create a reserved space near the residence of a disabled driver provided the driver does not have a driveway, carport, garage, or other off-street space available that can accommodate their vehicle. In this context, the term disabled means that a person has lost the use of one or more lower limbs or has a severely limited ability to move. The City will only create a reserved space for use by a non-disabled driver if the following criteria[2] are met:

- The non-disabled driver lives in the same household as the disabled person
- The disabled person needs to be transported at least five days per week to work or school
- The disabled person's disability prevents them from waiting on the sidewalk until their driver arrives or finds parking
- The parking conditions in the disabled person's immediate neighborhood warrant this exception
- A reasonable person would deem it highly unusual and unjust to deny a restricted parking zone, even considering competing demands for parking spaces

Applications for reserved spaces must be notarized and are investigated by the Jersey City Division of Engineering, Traffic and Transportation. Applications for reserved spaces are accompanied by a medical evaluation, the costs of which must be completely borne by the applicant. If approved, each applicant will receive only one parking permit.

Additional restricted parking zones may be created in front of schools, hospitals, public buildings, public parking facilities, shopping districts, and business districts for use by drivers with special vehicle identification cards or for electric vehicles.[3]

The data on reserved spaces is incomplete in that there are no zip codes or Wards identified for each permit. We've identified this as a data gap for the City.

3.3.4 Municipal Off-Street Parking

Jersey City owns and manages 16 municipal public parking lots. According to the Municipal Code § 332-58.1, a valid permit is required to park in 15 out of the 16 lots, and there are two types of parking permits: nighttime parking only and all day/all night parking. Eleven lots have meters installed and either ParkMobile or cash can be used to pay for parking. These lots are generally located near

[2] Source: Jersey City Code of Ordinances § 332-69. Restricted parking zones in front of or near residences of disabled drivers

[3] Source: Jersey City Code of Ordinances § 332-71. Municipal Engineer to issue regulations establishing restricted parking spaces

commercial activity centers, such as Downtown and Central Avenue in The Heights, or within/adjacent to parks or other major attractions.

Liberty State Park includes a municipal paid parking lot and a commercial paid parking lot at the northern end of the park, closest to Ellis Island and the ferry to Liberty Island, while there are large free parking lots at the south end of the park. Lincoln Park provides ample parking spaces for the public to use free of charge.

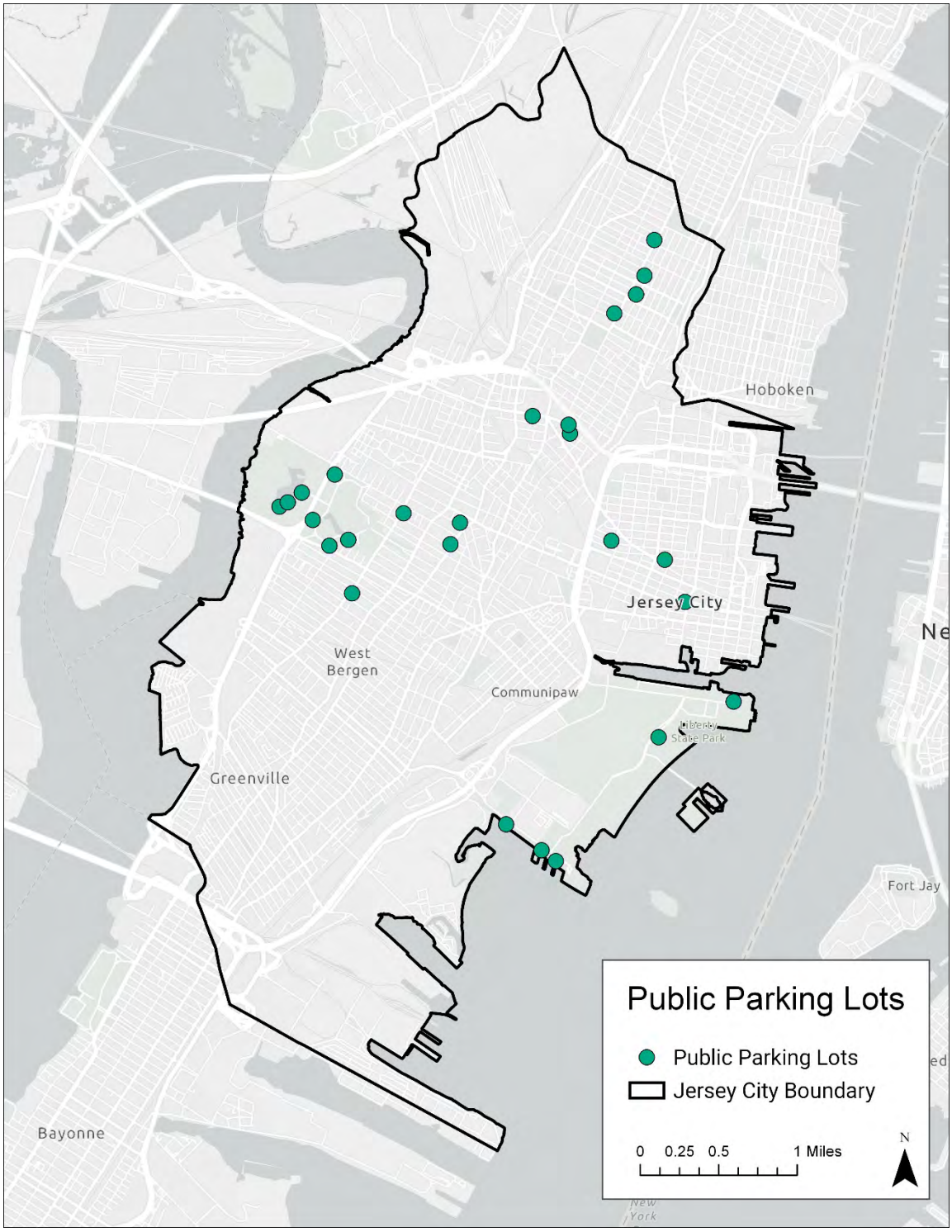


Figure 5: Locations of Municipal Public Parking Lots

3.3.5 Private Off-Street Parking

Commercial Garages and Lots

The City also has approximately 114 privately owned commercial parking lots, of which 63 are surface lots and 51 are structured garages. Their parking capacity ranges from as small as 6 to more than 1,000 spaces. The parking rates and operation hours also vary by location. Typical 1-hour rates on weekdays are in the $8-10 range. Most of these facilities offer both short-term and long-term parking, and 27 of them offer monthly parking. These garages and lots are largely concentrated around the Journal Square and Waterfront/Downtown areas, and typically cater to commuters and visitors.

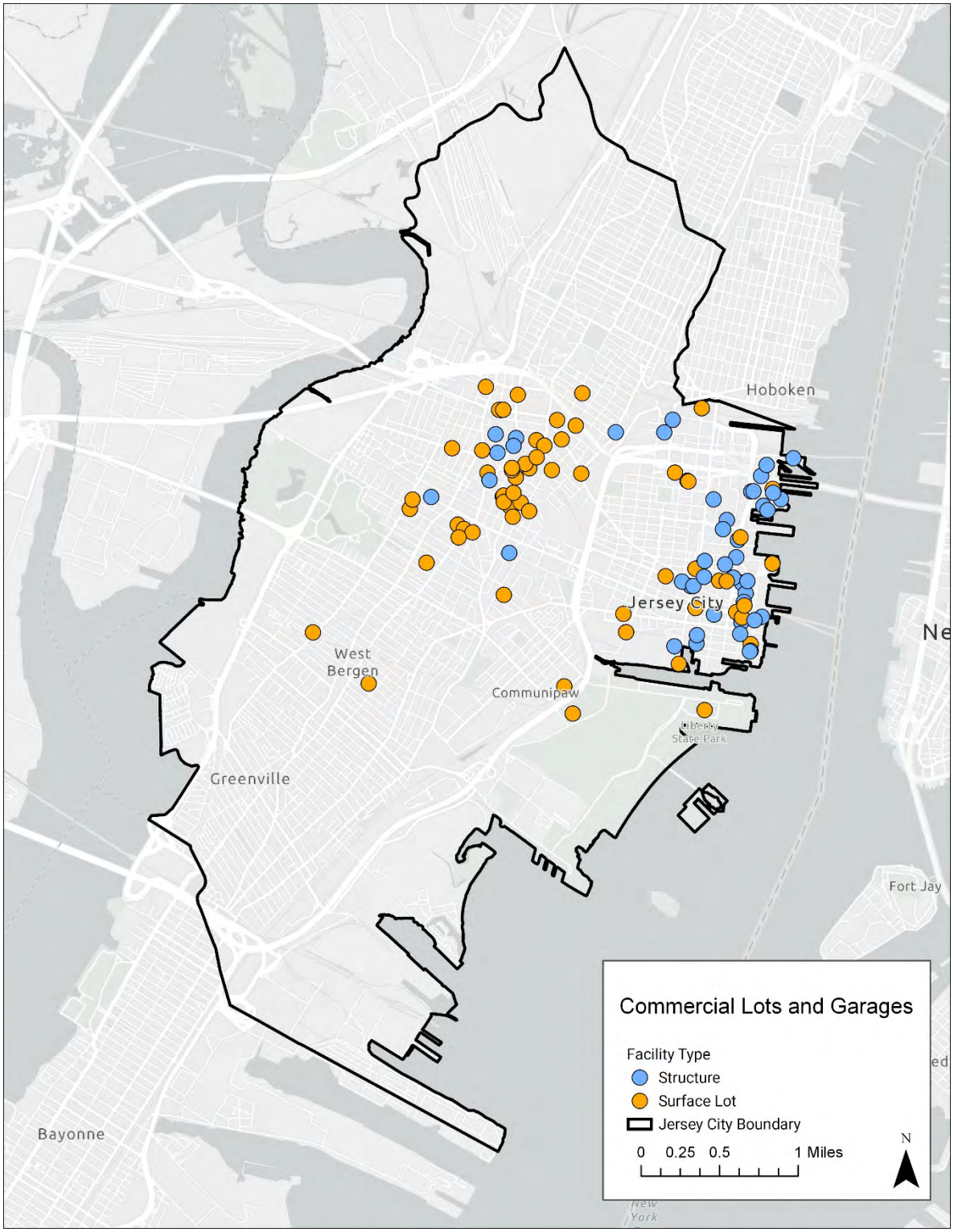


Figure 6: Locations of Privately-Owned Commercial Parking Lots and Garages (additional verification to be executed by Jersey City)

Privately-Owned Accessory Garages

Several residential and commercial buildings in the city provide their own parking garages. For example, the residential complex in Newport has multiple garages that offer the community residents either exclusive use of the space or a much lower parking rate than non-residents. Retail, hotels, and offices in the neighborhood also provide parking for their workers and visitors. This accessory parking adds to the existing parking supply and, when properly managed, could help the City reduce demand for on-street parking spaces. The City will first need to collect more data on use restrictions and occupancy rates at these garages. Looking ahead, it is important for Jersey City to review the parking requirements for future developments and balance the need to meet the residents' parking demand and the city's long-term goal to reduce the need to travel by car and promote sustainable travel.

3.3.6 Enforcement Policies

It is in violation of Article VI of Chapter 332 of the Code of Jersey City to park on City streets or lots without a valid permit where required or without paying a parking fee where meters have been installed. The summonses issued under this Article will typically be in the form of the uniform traffic ticket. The City is permitted to boot or tow an owner's car if they have failed to respond to three or more parking tickets and have received failure to appear notices from the Jersey City Municipal Court. In Zone 3 or Zone 8, however, a car may be towed or booted before the receipt of three or more parking tickets and a failure to appear notice. A car may also be towed in an emergency or if it is found to be unreasonably impeding vehicular or pedestrian traffic. These regulations are enforced by the Department of Public Safety and Parking Enforcement Officers of its Division of Parking Enforcement. According to Section 160-1 of the Code of Jersey City, any person convicted of a violation of a provision of Chapter 332 (Vehicles and Traffic) is liable to a fine of not more than $50, or imprisonment for no more than 5 days, or both.

3.3.7 Parking Tax

There is a 15 percent tax levied on parking in Jersey City. This tax applies to all fees, whether paid directly or through a lease, for parking, garaging, or storing of motor vehicles on commercial, residential, or industrial property. Valet parking, hospital parking, and parking offered by NJ TRANSIT are all subject to the tax. Parking offered by religious, charitable, and educational institutions; nonprofit organizations (excluding hospitals); and the Division of Parking Enforcement is exempt from the tax. Parking that is part of premises occupied only as one- or two-family dwellings or leased to residential tenants of multiple dwellings is also exempt from the tax. It is the responsibility of the person or organization offering parking to collect the parking tax on behalf of the City of Jersey City. In any prior calendar year, a maximum of 12 percent of the revenues collected from the parking tax are to be used for administrative costs.

In January 2020, Governor Phil Murphy signed a bill into law that provides New Jersey's largest municipalities the ability to levy a new tax on parking, specifically to raise funds to improve accessibility to mass transit. Assembly Bill 5070 gives local officials the option to add a 3.5 percent parking tax at public and private parking facilities in New Jersey's most populous municipalities, which include Jersey City.

The revenue raised goes towards improving pedestrian safety and access to mass transit stations. This includes building bridges, tunnels, platforms, walkways, elevators, escalators, and stairways directly related to mass-transit pedestrian accessibility. It can also be used for “quality of life” projects. The law exempts private residential parking, employee parking at employer-owned facilities, and all municipal parking, including metered parking. Residents are eligible for a discount on the tax.

3.4 Available Data Sources

As part of the Parking Management Plan, the consultant team reviewed all parking related data the City provided to understand the existing parking supply. The City provided data in various formats and documents. NJTPA also provided data and the consultant team acquired additional information from other publicly-available sources. This includes:

Geodatabase:

1. Land Use

JPEG:

2. Parking Zones

Map Package:

3. City-Owned Parking Lots/Garages

PDF:

4. Parking Zone Street List
5. Jersey City Development Maps

Shapefile:

6. Parking Zones Downtown
7. Hudson County Parcels
8. Demographic Data by block group
9. Demographic Data by census tract
10. Jersey City Road Network
11. Wards
12. Transit
13. Freight

Spreadsheet:

14. ParkMobile Meters Locations
15. Private Parking Lots/Garages

16. Jersey City Parking Financial and Complaint Data
17. ParkMobile Transaction Records
18. Turning Movement Counts
19. 2010-2011 Regional Household Travel Survey

Text:

20. Parking Ordinances

Some data needs were not met by the sets available. First, while the City has explicit parking rules organized by street, these rules were not geocoded and there was no parking stock data available to support a precise parking inventory analysis. Parking in Jersey City is managed by multiple layers of rules – State laws, and municipal ordinances enacting parking zones, metered parking, and variances, but they are not stored within a geographical format.

The consultant team has recommendations to improve the quality and usability of parking related data. The goal of these recommendations is to help Jersey City maintain a comprehensive dataset that will save the city resources in future analysis efforts. The recommendations are as follows:

- Consolidate the geospatial information in a geodatabase, to expedite map making, data sharing, and quality control;
- Consolidate time series data in normalized tables that can be ported into any database system;
- Structure community outreach meeting outcomes to preserve quantitative and qualitative insights;
- Outline a plan for a parking stock survey that will bridge the data gaps identified.

Additionally, a future data collection program could be set up in which data is collected over time (e.g. every quarter), thus building a picture of parking around the year and how external factors (e.g. weather, events, holidays, etc.) can impact parking demand in the City. This would also allow for parking policy and price changes to be monitored over time, helping to evaluate the impacts of interventions.

3.5 Geodatabase

The consultant team assembled a collection of feature classes, or geospatial datasets, that were developed throughout the planning process into one geodatabase. The geodatabase includes 17 feature classes with data on sociodemographic variables, parking resources, and parking regulations. Each feature class is described in Table 5.

Table 5: Data Classes included in the Geodatabase

Feature Class Name	Type	Description
ADA_EV_Reserved_Space	Point	ADA and EV reserved parking
Commercial_Lots_and_Garages	Point	Commercial parking lots and parking garages
Communities_of_Concern_Exclusive	Polygon	Jersey City block groups which are classified as Exclusive Communities of Concern (as described in Section 3.7)

Feature Class Name	Type	Description
Communities_of_Concern_Inclusive	Polygon	Jersey City block groups which are classified as Inclusive Communities of Concern (as described in Section 3.7)
Demographic_Data	Polygon	Includes various sociodemographic variables for Jersey City block groups
Driveways	Polygon	Driveways
Free_On_Street_Parking	Line	Free on-street parking
Metered_Parking_Off_Street	Point	Parking lots with metered parking
Metered_Parking_On_Street_MultiSpace	Line	Curb frontage with multiple consecutive metered parking spaces
Metered_Parking_On_Street_SingleSpace	Point	Metered on-street parking spaces that are not directly adjacent to other metered on-street parking spaces
Metered_Parking_Table	Table	Location, regulation, and price data for metered parking
On_Street_Permit_Parking_Streets	Line	Streets in On-Street Permit Parking Zones
On_Street_Permit_Zones	Polygon	Boundaries of On-Street Permit Parking Zones
Public_Parking_Lots	Point	Parking lots with public parking
Redevelopment_Zones	Polygon	Boundaries of redevelopment zones
Residential_Parking_Zones	Polygon	Boundaries of Residential Zones and On-Street Resident Only Permit Parking Zones
Residential_Zone_Parking_Streets	Line	Streets in Residential Zones and On-Street Resident Only Permit Parking Zones

Maps are a critical tool for both decision makers and residents to understand where and what exists in different parts of the city. Understanding the spatial coverage and distribution of parking could help identify potential issues, gaps and opportunities of potential policy changes and operational adjustments.

A geodatabase, therefore, was created to meet the mapping purpose. The geodatabase encompasses five different layers of parking with each layer carrying georeferencing information that could be used to create maps through ESRI ArcMap or other mapping software. Accompanying the georeferencing information are a few key data attributes associated with the respective parking type. For example, the layer of public parking lots comes with the lot address, the number of spaces in the lot as well as additional notes indicating any special features of the lot.

Creating a consolidated database is the first step towards an integrated and centralized parking management system. Thanks to the mapping and analytical functionality of ArcGIS, any GIS user with access to the geodatabase could perform plenty of analyses and the insights from which could have great potential to inform the City's parking management policies. Here are some example analyses City agencies could perform either as a stand-alone study or as part of an on-going and coordinated effort:

- Parking Division could create one map for each parking type displaying where parking restrictions and regulations are located. Doing this could **synchronize the understanding of parking** among staff in the Division and from other city agencies.

- Parking Division could use ArcGIS to turn on and off layers of parking to identify potential issues of **under-supply or over-supply**. This, especially when overlaid with land uses, could be an informative process for the City's decision makers to determine where parking is lacking for certain activities and where parking is overwhelmingly supplied and could be restricting the development and use of the adjacent land.
- Parking Division could also compare the availability of on-street and off-street parking spaces and analyze the proximity to each other in a certain neighborhood to explore the feasibility of **coordinating on-street and off-street parking.**
- The enforcement section of the Parking Division could compare the permit parking map and the locations where commuters and other non-residents are frequently observed to wrongfully park. The comparison could not only help the City understand the effectiveness of enforcement, but also provide insights about the necessity of **adjusting existing zone boundaries or establishing commuters parking zones.**
- Department of Zoning and Planning could overlay with transit districts to identify potential opportunities to **eliminate parking minimums** in transit-accessible areas.
- Department of Traffic, Transportation and Engineering could intersect on-street parking spaces with bike lanes and bus stops to identify locations of **high safety concerns** where drivers, cyclists and bus riders are mostly like to run into each other.

These are just a few examples of potential geodatabase uses. Monitoring the City's massive parking inventory should be an on-going process. While the Transportation Department or Parking Division may be the owner of it, it is imperative for the owner to hold periodic data update sessions and check-ins with related agencies to incorporate all recent changes and ensure the geodatabase always stays up to date. Additionally, it is important to designate one or two staff to centrally manage the database and facilitate the revisions. In doing so, Jersey City could reap the benefits of maintaining a centralized database and taking coordinated actions.

3.6 ParkMobile Data

The ParkMobile application provided on-street parking data that was useful in determining trends for duration and occupancy of spaces. It included 112 days of parking data (from 3/12/19 through 7/17/19) and included key transaction details such as: Zone Code, Start Time, End Time, Customer ID, and Payment (Total, Fixed Fees, Variable Costs).

However, there were several limitations to the data set, which ultimately only provides a partial picture of demand for on-street parking. Records were limited to ParkMobile transactions only, thus excluding any records of cash transactions at on-street meters. Parking sessions that started before midnight and ended after midnight were cut off at 11:59PM, and thus there isn't a full record of their stay. Finally, while meters measure stay length in four-minute long intervals, there were 3,035 sessions that were shorter than four minutes.

To determine overall parking trends from the ParkMobile data, it was necessary to scale the data to reflect total parking behavior including cash transactions. To do this, the consultant team assumed that drivers paying cash for parking have parking sessions of approximately the same duration and

frequency as those using ParkMobile, and that ParkMobile usage rates were the same in all parts of the city.

The percentage of parking sessions captured in the ParkMobile data set was estimated by identifying the 99th percentile busiest parking zone in terms of occupancy during the peak hour. The 99th percentile was used instead of the maximum because a small amount of variation in ParkMobile usage would skew the maximum value unrealistically high. It is presumed that this 99th percentile highest occupancy peak hour represents 100 percent occupancy in real life. Following this procedure yields an estimate that 25.2 percent of all parking activity was captured in the ParkMobile data set. This is confirmed by anecdotal information suggesting that 25 percent of the City's parking revenue comes from ParkMobile. Details of this analysis can be found in Appendix A4.

The analysis of this data reveals that while some parking zones in Jersey City are very busy, others have a fairly low occupancy. This suggest that parking demand is not evenly distributed, and even while some zones are overwhelmed others have plenty of free spaces. Also, occupancy throughout the city is generally even from the time the meters begin charging until the time they end. This would indicate that there is no clearly defined morning, midday, or evening peak, and parking is in demand throughout the day. See Figure 7.

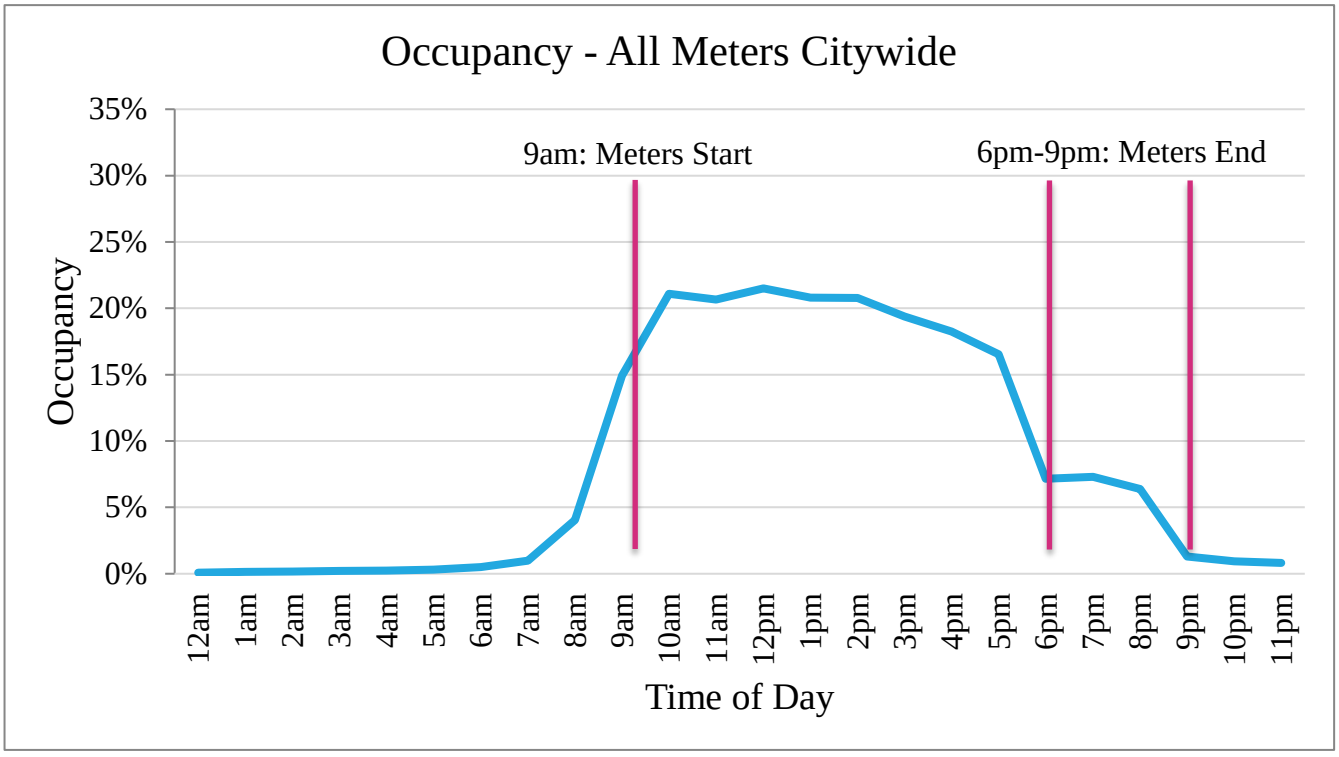


Figure 7: ParkMobile Occupancy at All Meters Citywide

These findings may indicate that a key challenge in managing on-street parking supply in the City may be to reduce demand in key areas through pricing or policy changes, and lure drivers to park more in areas that have available spaces.

3.7 Environmental Justice Assessment

Planning for parking in Jersey City requires an effort to understand and address equity. The consultant team undertook an Environmental Justice (EJ) analysis to examine the intersection between the City's current parking supply and disadvantaged populations and investigate any key equity considerations. This analysis helped facilitate an understanding of the distribution of benefits and burdens of a City resource (such as parking) on traditionally disadvantaged populations. Such an understanding is an important part of preventing the perpetuation of impediments to socioeconomic growth that can restrict opportunities for residents of EJ communities.

An area may be identified as a community of concern if it meets or exceeds the regional threshold for environmental justice and/or disadvantaged population indicators. To identify these communities the value of each indicator for every Census block group in Jersey City was compared to the regional thresholds. Block groups in which either of the EJ indicators (minority concentration and low-income concentration) or two of the disadvantaged population indicators (female head of household with children, carless households, persons with limited English proficiency, and elderly over 75 years of age) met or exceeded the regional thresholds are considered communities of concern. Using this definition, 98 percent of Jersey City residents qualify as a community of concern.

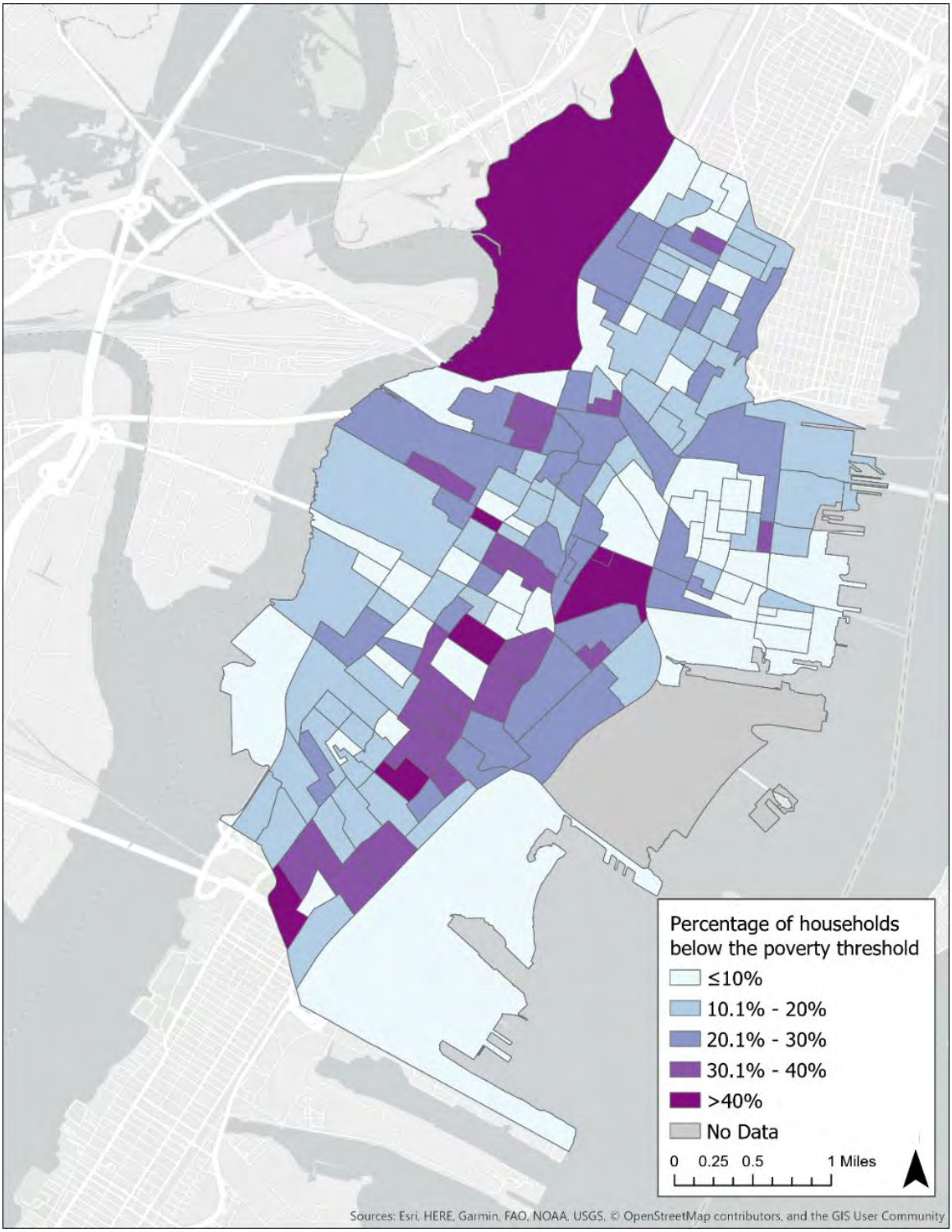


Figure 8: Percent of households below the poverty threshold

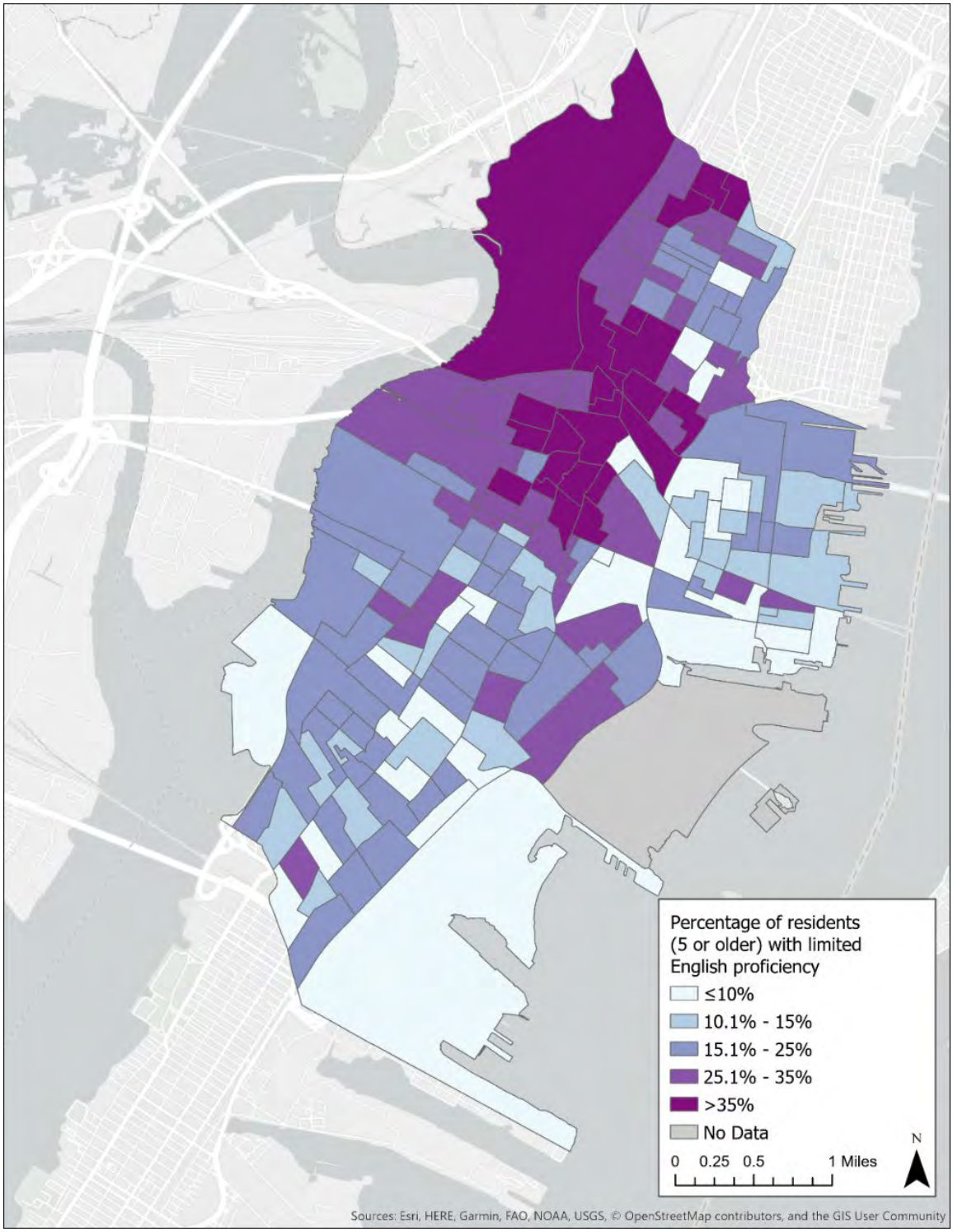


Figure 9: Percentage of residents with limited English proficiency

When comparing communities of concern to parking supply, no significant patterns emerged. Although a low proportion of communities of concern have their on-street parking regulated by residential permits, there doesn't appear to be a correlation between communities of concern and the location of zones for the residential permit system. See map of parking zones in Appendix A5.

There also doesn't appear to be a significant correlation between communities of concern and the location of public and commercial off-street lots and garages. These are generally concentrated in the most commercialized areas of the City such as Downtown, the Waterfront and Journal Square. The absence of commercial parking in large areas of the City, though, is not a problem because they are associated with land uses that induce paid parking and are not correlated to EJ concerns. See maps of commercial off-street parking locations and municipal off-street parking locations in Appendix A5.

In summary, there are no significant patterns that arise when comparing the City's parking supply to the communities of concern in the City. Therefore, there were no direct findings from the EJ assessment that could be used to inform the study's recommendations. However, there are considerations the City should keep in mind when moving forward with implementing the plan. These include:

- Encouraging shared parking in existing underutilized parking lots in communities that have fewer public and private parking lots and garages.
- Expanding alternative travel options for low-income neighborhoods that have lower rates of car ownership. (See Figure 8)
- Supporting communities with limited English proficiency with dedicated multilingual community outreach. (See Figure 9).
- Prioritizing safety during parking enforcement in areas with high concentrations of seniors and children.

Since so much of Jersey City is considered a community of concern, the City should continue its outreach efforts to all the Wards across the City. Targeted outreach should be focused on those areas identified during the study with lower participation rates, including Wards A and F, as noted in Section 5.

Although there were no discernable patterns that arose between communities of concern and parking supply, the consultant team did take this assessment into account when developing the recommended strategies. The actions detailed in this plan aim to ensure the strategies do not disproportionately impact communities of concern. For example, graduated permit pricing should not have a burdensome impact on communities of concern because most households don't own more than one vehicle, and the price for permits only increases for the second and third vehicle. Graduated permit pricing is described in detail in Section 7.1.

For further detail, see the Environmental Justice section of the Appendix A5.

4 Data Analysis and Modeling

While it would be ideal to have a comprehensive inventory of the City's current parking supply before enacting changes, the current data gaps (identified in Section 4.1) should not prevent the City from moving forward. It's possible to advance parking strategies without data in an experimental, pilot-program based manner. In other cities, like San Francisco and Seattle, pilot projects and trial and error methods have been used to achieve their parking goals.

The recommendations in this report are oriented towards creating better management and utilization of the existing parking system, and some recommendations are not informed by existing data. Pilot programs will need to be used to develop near-term successes and obtain broader, real-world data to inform longer-term goals. Section 4.2 provides a general approach to future data collection.

This study doesn't include a parking model due to the limited utility of such models without massive amounts of data. Parking models are limited in what they can produce and can't account for all possible scenarios. This is discussed in more detail in Section 4.3.

4.1 Parking Inventory and Data Gaps

Parking Inventory Spreadsheet

The consultant team developed a Parking Inventory spreadsheet to catalogue public and private parking resources in Jersey City. The spreadsheet has four sheets, each of which correspond to a different type of parking: Private Parking, Permit Parking, Metered Public Parking, and Free Public Parking. The data recorded in each sheet differs slightly to reflect operational and administrative differences amongst the four types of parking. Individual sheets include information on the location, manager (if applicable), total number of spaces (if applicable), regulations (if applicable), and price (if applicable) for a given unit of parking. While the unit of parking for the Private Parking sheet is a parking lot, the unit of parking on the Permit Parking, Metered Public Parking, and Free Public Parking sheets may be a parking lot, a stretch of curb frontage, or, in some cases, an individual parking space. This spreadsheet is not intended to be a complete catalogue of all of Jersey City's parking resources, but rather a template that demonstrates what information should be collected by the City moving forward to properly manage each type of parking.

Missing Data

Permits/Parking Zones

- Total number of permits
- Database of permit holders, names, addresses, number of vehicles, etc.
- Geocoding of permit-holder addresses
- Number of permits issued by Ward
- Number of permits issued per Zone

On-Street Parking Supply

- Inventory/Exact number of all on-street spaces

- Geocoding of all on-street spaces, by space
- Duration and turnover data for non-metered spaces in commercial corridors
- Geocoding of Reserved spaces, by space

Metered On-Street Parking

- Cash transaction records
- Geocoding of on-street metered spaces, by space
- Duration and turnover data for metered spaces

Off-Street Parking – Public/Municipal

- Confirmation from JC Parking Authority that Montgomery St/Orchard St lot and 733-735 Newark Ave lot listed in Municipal Code are public lots (it was decided 4/3/20 that Jersey City will add these in later, to both geodatabase and pertinent tables)
- Occupancy data for publicly owned off-street parking

Off-Street Parking – Commercial & Accessory Use

- Clarification of whether facilities in database provided by JC Commerce Division are commercial, accessory-use, or both
- Database of accessory-use facilities, including address, number of spaces, etc.
- Occupancy data for privately-owned off-street parking

Data that the consultant team has manually coded for Jersey City:

- Geocoded the parking regulations – Permits/Parking Zones
- Geocoded block faces with metered parking

Data Gaps and Inconsistencies in the Municipal Code

Jersey City's permit parking system is defined in Chapter 332 (Vehicles and Traffic) and Chapter 160 (Fees and Charges) of the Code of Jersey City, New Jersey, available online[4]. Chapter 332 (Vehicles and Traffic) defines the zones and municipal lots which have permit parking regulations and details the time frames during which permit parking is in effect. Chapter 160 (Fees and Charges) defines Jersey City's permit parking fee schedule, outlining the price of available permits and the duration of time for which they are valid.

Updates to the Code of Jersey City are made by City Ordinances, which are listed in the Code near the section or chapter that they amend. Two recent Ordinances are of relevance to Jersey City's current permit parking system: Ordinance 19-087 and Ordinance 19-150. Ordinance 19-087, which took effect on October 1, 2019, changed the times of enforcement in several zones, created a zone around City Hall to allow for free parking during events, and modified the extents of certain zones. Ordinance 19-150, which took effect on January 1, 2020, restricted the issuance of on-street residential parking

[4] https://library.MuniCode.com/nj/jersey_city/codes/code_of_ordinances?nodeId=COJENEJE

permits for residents of properties within the Journal Square 2060 Redevelopment Plan to support the Plan's objective of reducing car dependency.

While the regulations governing Jersey City's permit parking system are detailed, some of the information in the relevant chapters and ordinances is missing, inconsistent, or incomplete. Key instances are briefly described in the following non-exhaustive list:

- Chapter 160 (Fees and Charges) of the Code of Jersey City states that the on-street parking permit fees listed therein apply as of July 1, 2015. However, page 9 of City Ordinance 19-087, which came into effect in October 2019, states that changes have been made in Chapter 160 of the Code. Therefore, it seems that the most up-to-date permit fee schedule information is not available.
- Both the Code and Ordinance 19-087 have two "Zone 3" sections, each of which applies to a different set of streets. These zones have the same permit regulations, but different designated time frames during which the permit regulations are enforced.
- There is contradictory information regarding the hours during which permit parking regulations are enforced in Zone 2. Ordinance 19-087 claims that no change has been made to the regulations for Zone 2. However, a summary at the end of the Ordinance states that the hours of enforcement have been updated for all zones excluding the City Hall zone (Zone 19). To be specified by Jersey City at a later time.
- It is not specified which permits may be used in the On-Street Resident Only Permit Parking Zones. To be specified by Jersey City at a later time.
- It is not specified which permits may be used in the On-Street Permit Parking Zones. The price of the permit for the zone that includes only Douglas and Arthur Skinner Memorial Drive is given in Chapter 160, but no additional information is given about the permits for the General On-Street Permit Parking Zones or the Itinerant Vendor Truck Zones (both of which fall under On-Street Permit Parking Zones). To be specified by Jersey City at a later time.
- It is not specified whether only Permits 16-1 and 16-2 may be used within Zone 16, or whether some of the permits available for the other Residential Zones are available here as well. To be specified by Jersey City at a later time.
- There are several types of permits which are mentioned throughout Chapter 332 (Vehicles and Traffic) of the Code but which are not mentioned in Chapter 160 (Fees and Charges) and thus have no given price. These include (a) the Non-Residential Student Parking Permit, (b) the Zone 16-1 Permit, (c) Permits for the On-Street Resident Only Permit Parking Zones, and (d) Permits for the On-Street Permit Parking Zones (excluding the zone that includes Douglas and Arthur Skinner Memorial Drive). To be specified by Jersey City at a later time.
- The difference between the New Resident Temporary Parking Permit (time period not specified; mentioned in both Chapters 332 and 160), the Temporary Resident Parking Permit (90 days; mentioned only in chapter 160), and the Temporary Residential Permit (14 days; mentioned in both Chapters 332 and 160) is not clear. To be specified by Jersey City at a later time.

4.2 Data Collection

To properly manage the citywide parking system, the City will need to collect and organize data in a variety of manners.

Field Data

The main metrics used to measure the performance of any parking system or program, be it the coordination of pricing between on-street and off-street parking, or restructuring a zone permit system, are duration, turnover, and occupancy. These data points measure:

1. **Duration:** The length of time a single vehicle remains in a given parking space.
2. **Turnover:** The average number of vehicles that use a parking space in a given period of time. It is determined by dividing the number of parking events in a given time period (an event is counted each time a vehicle parks) by the number of spaces in a study area.
3. **Occupancy:** The percent of spaces that are occupied by a vehicle over a given period of time.

Duration provides a picture of the type of parking that is occurring, either short-term or long-term. This can give insight into what type of demand there is for parking in a study area and study time period. However, it can also be used to determine how external factors, such as pricing or surrounding land use, can affect parking demand.

Turnover is related to duration; it provides a rate of utility of a group of spaces. Low or high turnover may be desirable depending on the context, surrounding land use, and goal of the study or pilot program being measured. For instance, an average turnover rate of 1.0 vehicle a day for a commuter parking lot during a weekday may be desirable, as this indicates vehicles are parked for the duration of the study period. That same turnover rate of 1.0 vehicle a day during a weekday would be less desirable for on-street metered spaces in a busy neighborhood commercial area, as it may indicate long-term commuters or neighborhood workers are using these spaces to park for the whole day, limiting access to parking for short-term visitors.

Occupancy provides an indicator of how easy/difficult it will be for a prospective parker to find an available space. An occupancy rate of 85 percent is generally desired, as it will ensure there is always one parking space available on a typical block of eight on-street parking spaces. Occupancy can be used to measure the effectiveness of pricing strategies (if occupancy is too low then the price is too high, and vice versa), and measure the desirability of parking lots and garages. A low occupancy rate at a parking lot in an area of popular nightlife might indicate that the lot is hard to find, that parkers feel unsafe using the lot, or that other issues exist which may require further qualitative study.

The key data points that the City should collect in the field are:

- Duration and turnover data for non-metered spaces in commercial corridors
- Duration and turnover data for metered spaces
- Occupancy data for publicly-owned off-street parking
- Occupancy data for privately-owned off-street parking

Desktop Survey

Some available data needs to be clarified to properly understand, categorize, and apply the findings. The key data points that the City should clarify are:

- Confirmation from JC Parking Authority that Montgomery St/Orchard St lot and 733-735 Newark Ave lot listed in Municipal Code are public lots (confirmation needed on ownership of lots)
- Clarification of whether facilities in database provided by JC Commerce Division are commercial, accessory-use, or both

Inventory/Organization of Data on Hand

Some available data should already exist, but the City will need to catalog it to better understand the existing conditions and current operations of the parking system. The key data points that the City should inventory are:

- Total number of permits
- Number of permits issued by Ward
- Number of permits issued per Zone
- Exact number of all on-street spaces
- Cash transaction records

Database Creation

Once the above data has been collected and cataloged, the City should create spreadsheet databases to manage systems, analyze the data and draw conclusions. The key databases that the City should develop are:

- Database of permit holders, names, addresses, number of vehicles, etc.
- Database of accessory-use facilities, including address, number of spaces, etc.

Geocoding

Finally, geocoding certain data sets will help the City perform analysis on the geospatial distribution of parking supply and demand, which inform the City's parking management policies. The data that the City should geocode are:

- Permit-holder addresses
- All on-street spaces, by space
- On-street metered spaces, by space
- Reserved spaces, by space

4.3 Parking Model Considerations

The consultant team investigated a parking model approach that sought to assess parking supply and demand by parking type (on-street/off-street), assess changes to parking demand due to price elasticity and/or population and employment growth, and evaluate the impact on parking demand and supply of the various parking strategies recommended.

However, several limitations were discovered during the development of the model framework, chiefly the absence of a statistically significant Stated Preference Survey regarding drivers' willingness to pay for parking. Without the inputs from such a survey, the consultant team determined that the results of this model would not be useful to inform the recommendations of the Jersey City Parking Plan. A parking model would not inform strategies around performance-based pricing or graduated residential permit pricing. In fact, there are no known US case studies of graduated residential permit pricing. All the cities that implemented performance-based pricing—most notably San Francisco, Seattle, and Los Angeles—did so experimentally. The key to determining the right prices was the ability of city parking authorities to adjust pricing as frequently as needed to maintain a target parking occupancy. Through the process of trial and error these cities were able to determine the correct price point to meet local demand. Therefore, a model would not be necessary to advance the recommendations included in this plan. Instead of a model, the consultant team recommends Jersey City fill in the identified data gaps before proceeding further.

5 Community Engagement

The community engagement process was a multi-pronged effort that sought community and stakeholder input at key project milestones. Community engagement helped the project team define the parking challenges and develop potential solutions. Meetings were hosted in every Ward and included graphically-rich presentations and boards, and offered multiple opportunities for feedback through in-person conversations, written comments, and online engagement. The process included the following:

Table 6: Community Engagement Process

Task	Role in Study
Ward-based community meetings	Provided an overview of study and community engagement process Gathered an understanding of major challenges and identified areas with the greatest parking challenges in each Ward Collected feedback on potential solutions
Technical Advisory Committee (TAC)	Gathered perspective of various City and regional agencies Oversaw technical tasks Shared feedback from the public Modified the data collection process Made recommendations for community engagement Reviewed documents
Public perception survey	Gathered public understanding of existing parking environment Collected feedback on community priorities and challenges Gauged support for potential solutions
Public Workshop	Presented draft recommendations Gauged support for and suggested modifications to draft recommendations Provided additional opportunity to understand challenges and opportunities
Stakeholder meeting	Gathered input on how parking impacts businesses and public housing residents Gauged support for and suggested modifications to draft recommendations Discussed potential engagement strategies moving forward
Public meeting	Presented updated draft recommendations Encouraged public comments for additional revisions to draft recommendations
E-mail	Provided an opportunity to provide written feedback throughout the study

This section summarizes the community engagement that took place as a part of the JC Parking Plan. It includes key findings, lessons learned, and suggestions for future engagement. Meeting summaries, the public perception survey summary, and the public participation plan are included in the appendix of this document.

5.1 Community Engagement Process

The consultant team held the following public meetings as part of the project's effort to engage the community, listen to community concerns and solicit input from local stakeholders. More than 2,500 Jersey City residents participated in this planning effort.

Table 7: Summary of Outreach Events, Dates, Locations, and Participation

Meeting		Date	Location	Participants
Ward-based community meetings	Ward A	8/1/2019	A Better Life Ministry 129 Linden Avenue	30
	Ward B	9/19/2019	Hank Gallo Community Center 1 Lincoln Park	36
	Ward C	9/14/2019	HCCC STEM Building 263 Academy Street	28
	Ward C & D	9/16/2019	Office of Council Member Michael Yun 366 Central Avenue	37
	Ward E	10/17/2019	Grace Van Vorst Church 39 Erie Street	38
	Ward F	10/30/2019	The Factory 451 Communipaw Avenue	24
Public perception e-survey		12/15/2019- 2/28/2020	Online	2,501
Public workshop		2/19/2020	Dickinson High School 2 Palisade Avenue	52
Stakeholder meeting		2/27/2020	Department of City Planning One Jackson Square	8
Public meeting		5/4/2020	Online	52

The figure on the following page illustrates the community engagement process, highlighting how the meetings and e-survey informed the technical tasks.

Figure 10: Summary of the JC Parking Plan Community Engagement Process

5.2 Public Feedback

The public engagement effort played an essential role in defining current parking challenges and finding appropriate strategies to improve parking management. The key findings from the community engagement process are summarized below. More detailed feedback from each meeting is shared in the following sections. Full meeting summaries of comments received at each meeting are in the appendix.

Parking Availability

- **Parking availability** was the most mentioned challenge across all Wards and across all channels of outreach.
- Building a **centralized parking garage** was a frequently suggested potential solution. Yet, many residents expressed concerns about subsidizing parking, incentivizing driving, and aesthetics.
- Some members of the public said **parking minimums** should be increased. Meeting participants suggested that new developments did not have enough parking and were increasing competition for street space. However, other participants disagreed.
- It typically takes drivers less than 10 minutes to find a parking space when they arrive home. Residents of The Heights reported spending the most amount of time searching for parking.

Recommended Strategies

- **Shared parking initiatives** were a popular potential solution, but this recommendation has some challenges. Several residents expressed concerns about security, and TAC members noted shared parking would generate some logistical and enforcement challenges. Moreover, some neighborhoods (e.g., McGinley Square) do not have many off-street lots available.
- Most members of the public feel strongly that **curb cuts should be minimized** because they reduce on-street parking. This policy, however, was strongly opposed by individuals who were seeking to construct curb cuts to use their property for parking.
- Residents say **improving transit** is a potential solution because it may reduce the amount of driving and may even reduce car ownership. Residents of Bergen-Lafayette expressed at multiple meetings a strong interest in improving transit so they would not have to own a car.
- Results from the survey as well as community meetings revealed that opinions on **parking zones and residential permit parking** vary considerably, even within the same neighborhood.

- Participants at the public workshop showed **strong support for the draft recommended strategies** that were presented. These strategies included: tiered pricing at metered locations, using parking revenue to fund active transportation and transit infrastructure, graduated pricing for residential parking zones, and a program to restrict illegal curb cuts.

Figure 11: Ward D Meeting

Cost

- **Paying for overnight parking is uncommon** in Jersey City – less than 10 percent of survey respondents pay for parking. Those who pay for parking typically pay $100-$199 a month per vehicle.
- **Raising the annual permit fee** to generate revenue for transit, centralized parking garages, and/or pedestrian, bicycle, or streetscape improvements was supported by roughly 30 to 50 percent of survey respondents. Participants at the community meetings and workshop suggested that an increased fee could work to reduce parking demand. Other participants raised equity concerns pertaining to cost increases.

Enforcement

- Survey respondents and meeting participants generally advocated for increased **parking enforcement**. However, there were concerns that parking enforcement has disproportionate impacts on lower income families or punishes people living in areas without off-street parking options. Concerns about over-enforcement were particularly common in Greenville and Bergen-Lafayette.

5.2.1 Ward Meetings

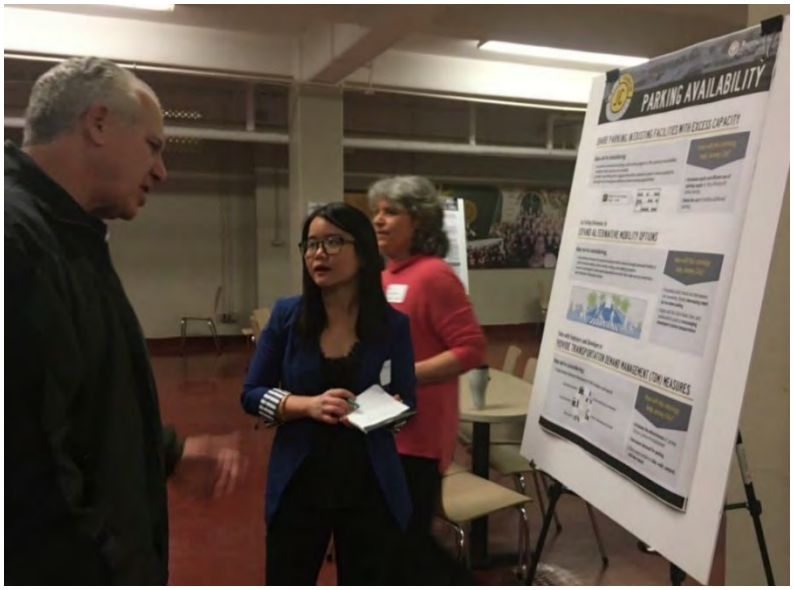
Each Ward in Jersey City represents a diverse and unique community, so it was important for the project team to go to each Ward to seek input from individual communities across the city. The meetings were structured differently depending on available time, but all featured opportunities for both spoken and written comments. Most of the meetings included engagement exercises that allowed for both quiet reflection and small-group consensus building (called a "1-2-4-All exercise). Below is a summary of the key concerns, ideas and focus areas brought up at each meeting.

Table 8: Feedback from Ward Meetings

Ward	Key Concerns	Boldest Ideas	Limited Parking Locations
A	• Safety concerns that impact parking decisions and transit	• Allow parking in underutilized commercial lots • Explore parking apps	• Pearsall/Lembeck Avenues near Kennedy Boulevard • Streets adjacent to Bay View Cemetery
B	• Street cleaning schedule is challenging • On-street space needed for pedestrians, bicycles & transit	• Remove illegal driveways • Create parking zones	• Communipaw Avenue • West Side Avenue

Ward	Key Concerns	Boldest Ideas	Limited Parking Locations
C	• Growth of private driveways	• Reallocating on-street parking for transit, bike and pedestrian infrastructure • Increase affordable, off-street parking supply	• Tonnelle Avenue • Sip Avenue and Kennedy Boulevard • Bergen Square
C/D	• Inconsistent enforcement of blocked sidewalks, curb cuts, etc. • New developments not providing enough parking	• Increased enforcement of parking zone • Allow parking at schools overnight	• McGinley Square and Journal Square • Central Avenue and neighboring streets
E	• Lack of transparency in the development review process • New development without parking	• Enforce permit parking • Provide better information and wayfinding for visitors	• Streets adjacent to the Newark Avenue Pedestrian Plaza
F	• New development without enough parking	• Improve transit options • Parking zones near transit hubs	• Near Light Rail stations

5.2.2 Public Workshop



The Public Workshop was an open house format with a 45-minute presentation, followed by open discussion at various board stations. Additional feedback was collected through comment cards, a comment board, and through conversations with team members at board stations. A listening session was held after the presentation to allow participants to share their primary concerns.

Feedback shared at the boards included:

- Expand the shared parking initiative at schools
- Consider building new parking garages and lots in The Heights and designate parking for employees
- Develop pricing and regulation policies that helped reduce car ownership including graduated pricing for parking permits
- Implement tiered pricing, but keep the price low for the first two hours and increase from there
- Revise the zone boundaries
- Improve transit and active transportation options

The presentation included a live polling survey with four questions. The results, shown in the table below, suggest support for tiered pricing at metered locations, using parking revenue to fund active transportation and public transit, implementing graduated pricing for residential parking zone permits, and developing a curb management program for restricting illegal curb cuts.

Table 9: Public workshop live poll results

Question	"Yes!"	"Interested but would like to know more"	"I don't support this"	"I don't know"
Do you support tiered pricing at metered locations?	50%	33%	15%	3%
Should the City use parking revenue to fund active transportation and transit infrastructure?	68%	15%	13%	5%
Should the City implement graduated pricing for residential parking zone permits?	66%	9%	23%	3%
Should the City create a curb management program to restrict illegal curb cuts?	81%	14%	5%	0%

5.2.3 Virtual Public Meeting

The JC Parking Plan team met with City Council members to present the strategies developed in the draft final report. Due to shutdowns related to COVID-19, this meeting was a Teams Live event held during the City Council Caucus. The meeting was recorded and posted to the Jersey City TV YouTube account. Participants shared their input through written comments during the meeting and in the two-week public comment period following the meeting. A summarized list of comments is below:

- **Parking availability.** Several community members expressed concerns about the plan including new parking. Some participants wanted to see municipal garages and increased parking minimums, but others were concerned that parking garages have a negative impact on the community.
- **Data and implementation**. Several participants were curious about the implementation timeline and feasibility of certain recommendations (e.g., shared parking initiatives). One participant wished to see the City start implementing rather than doing additional data collection.
- **Out of state license plates**. There were several comments regarding the frequency of out of state license plates in Jersey City. One participant suggested people with out of state license plates are opposed to parking zones because they cannot acquire a permit without their vehicle being registered to their Jersey City address.
- **Enforcement.** There was inconsistent feedback from the public on enforcement. Some participants wanted increased enforcement and others noted that ticketing is unfair when there are no legal parking spaces available. A couple participants requested clearer parking signage.
- **Community engagement.** The City should reach out to environmental/sustainability groups, Division of Parks and Forestry, and pedestrian and bicycle safety groups going forward.

- **Transit and active transportation.** Many participants asked for improved access to transit and active transportation, this included participants who wanted to see the parking supply increased.
- **Pedestrian safety and car-free zones.** Participants raised concerns about pedestrian safety and called for establishing pedestrian plazas. They noted that even parked vehicles present certain hazards because they limit visibility of pedestrians.
- **Curb cuts and curb management.** Curb cuts were seen as a challenge for not just parking availability but also the potential to provide safe pedestrian and bicycle infrastructure and tree plantings. One participant noted their support for pick-up/drop-off and delivery truck areas.

5.3 Online Public Perception Survey

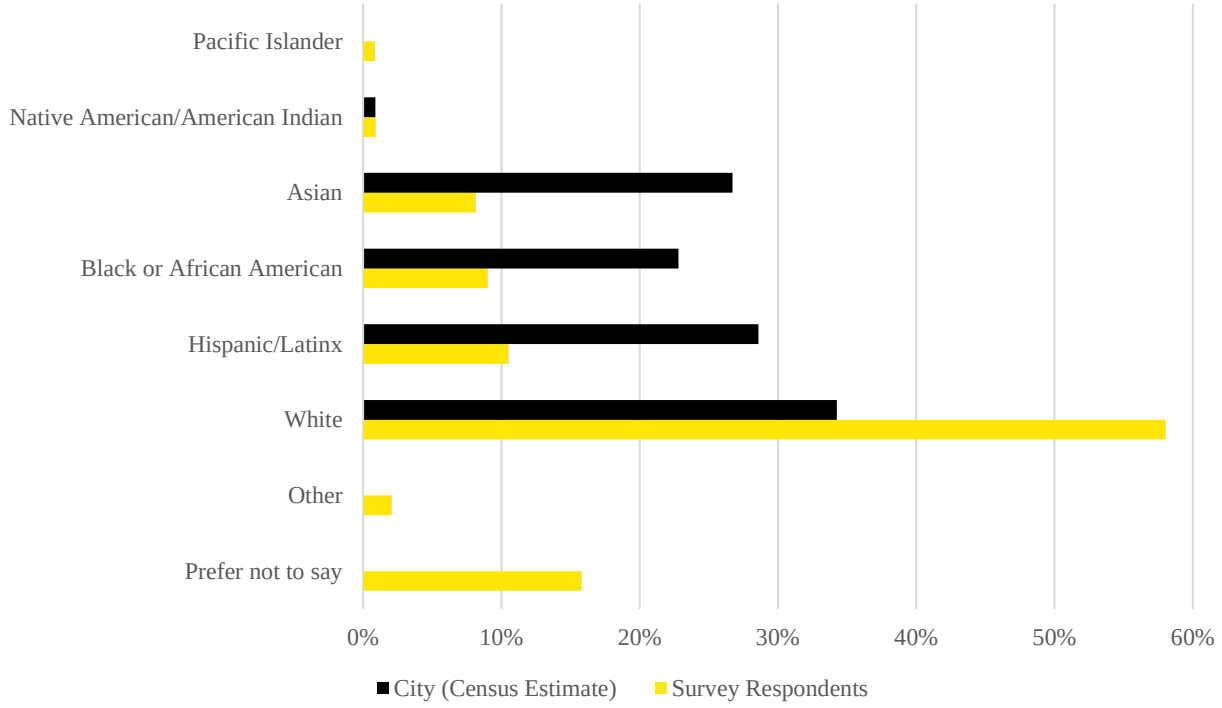
The Jersey City Parking Plan consultant team conducted a public perception survey that was shared widely through e-blasts, social media, and the project website. Paper surveys were also available at each of the public libraries in the Jersey City system and at Jackson Hill Main Street Development Corporation. The survey was live from December 15, 2019 to February 28, 2020. In total, 2,501 surveys were completed. The survey sought to better understand the existing parking environment, gain feedback on community priorities and challenges, and gauge support for potential solutions.

Key takeaways include the following:

- Availability is by far the greatest parking challenge among residents, and building centralized parking is the most popular solution to address this challenge.
- Less than 10 percent of respondents pay to park their car in a garage or lot. Among those who pay to park, the majority pay $100 to $199 per month per vehicle.
- Most respondents who park their vehicle on the street spend less than 10 minutes looking for a space. Respondents from ZIP code 07307 (The Heights) reported spending more time looking for parking than other ZIP codes.
- In addition to availability, curb cuts were commonly shared as a challenge because they reduce the number of available spaces. This challenge was mentioned most frequently in ZIP code 07307 (The Heights).
- Respondents said improving transit and shared parking initiatives were two potential solutions to alleviating their parking issues.
- Opinions on parking zone policies vary considerably, but nearly half of respondents living in a parking zone said they are satisfied or very satisfied with the effectiveness of providing parking for residents.

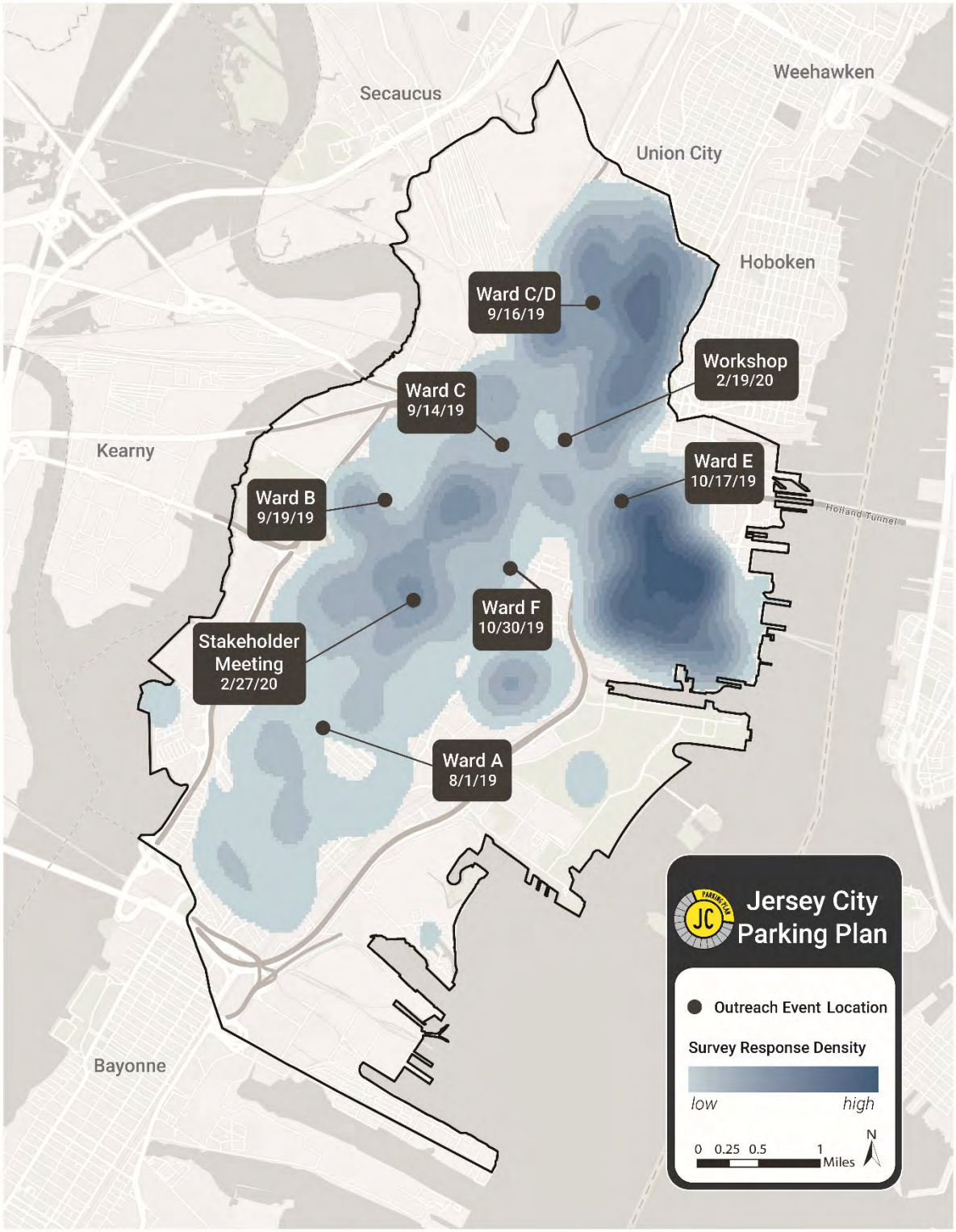
It should be noted that this survey is not representative of the Jersey City population. Vehicle owners are over-represented in this survey by a wide margin. Only 15 percent of respondents said they did not have access to a vehicle. According to the US Census, 38 percent of Jersey City households do not have access to a vehicle. This survey also received more than half of its responses from two ZIP codes: 07302 (Downtown, Exchange Place, Hamilton Park, Harsimus Cove) and 07307 (The Heights). Non-white Jersey City residents are under-represented, as are older residents (see figure below).

Figure 12: Race/Ethnicity of Respondents (n=1985) v. Census Estimates[5]



[5] U.S. Census 2018 American Community Survey 1-Year Estimates (n=265,560)

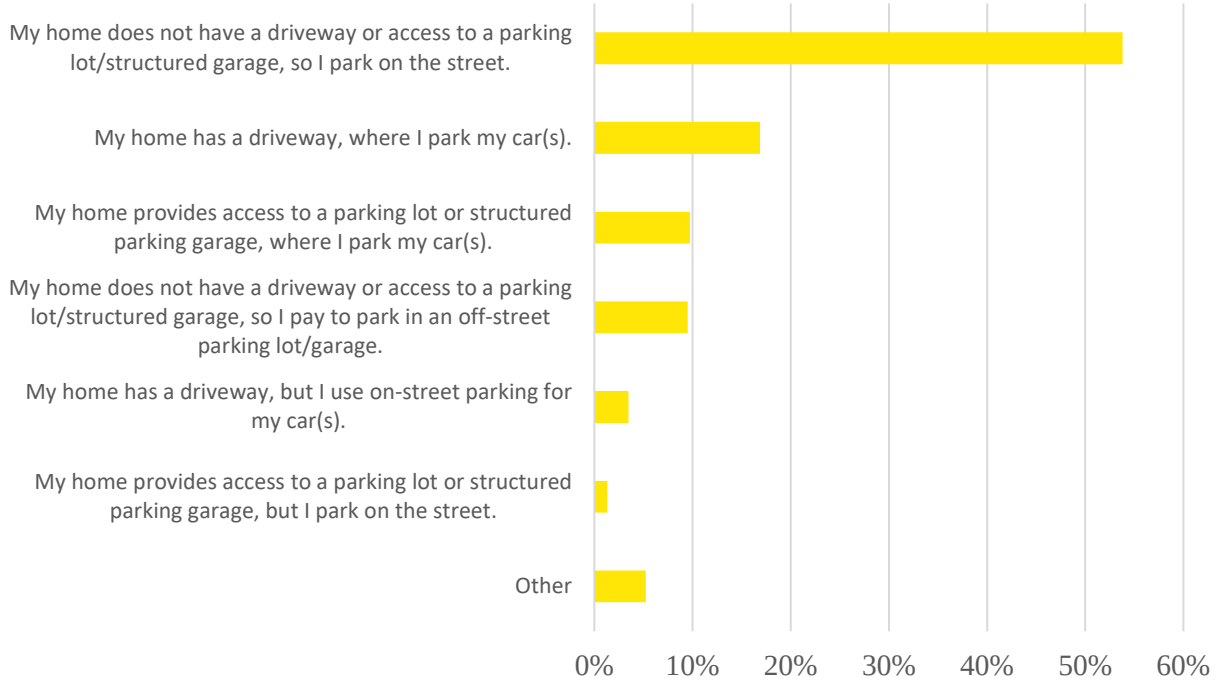
Figure 13: Map of Survey Response Density and Meeting Locations



Where do drivers in Jersey City park their cars?

More than half of respondents with access to vehicles said they park their cars on the street. Seventeen percent reported having a driveway. About 10 percent said they use the parking lot or structure at their home, and another 10 percent said they pay to park in an off-street lot or garage. A small share of respondents (about 4 percent) say their home offers a driveway, lot, or garage, yet they park on the street. Among respondents who have a driveway but park on the street, most of them reported doing this because they do not have room for multiple vehicles in their driveway.

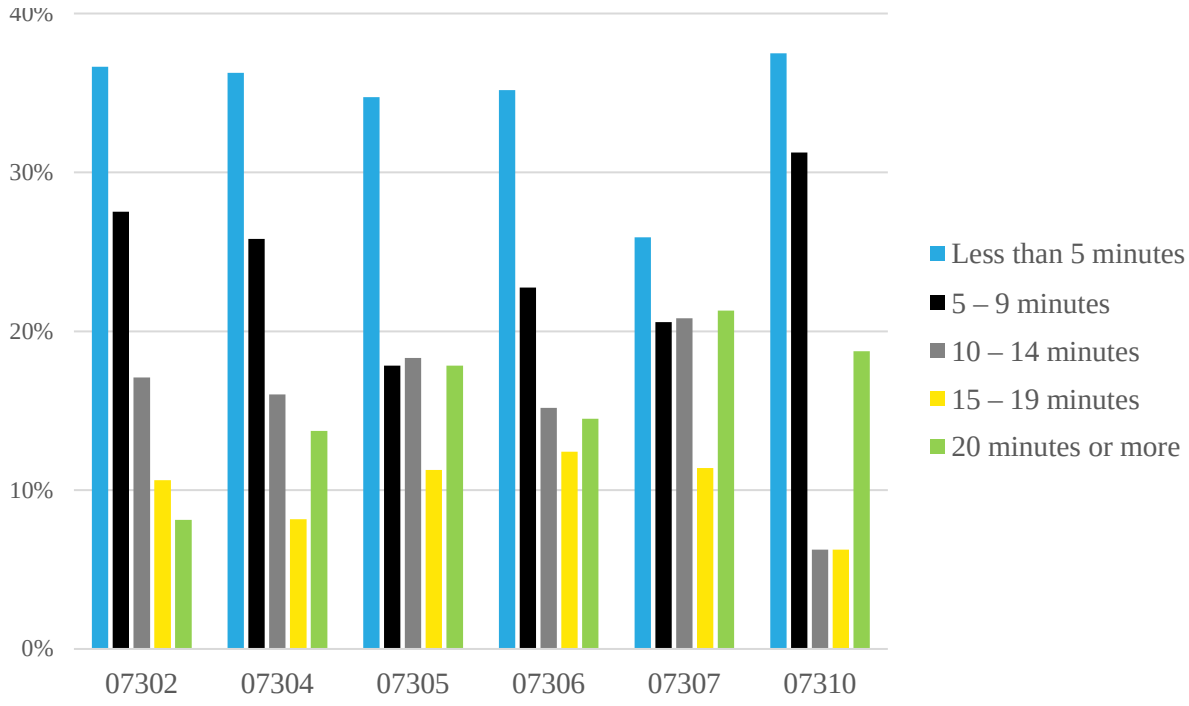
Figure 14: Survey results, how you usually park at or near your home



What are the priorities and challenges related to parking in Jersey City?

Perceptions on priorities and challenges were not the same throughout the City. Most respondents said it takes them less than 10 minutes to find parking once they arrive home. The most common answer was less than 5 minutes, but it's worth noting that respondents living in The Heights appear to spend more time looking for parking than other areas. More than 20 percent of respondents from The Heights said it takes them 20 minutes or more to find a space.

Figure 15 Time Drivers Spend Looking for Parking by ZIP Code



Respondents were asked to rank their highest priorities related to the following themes:

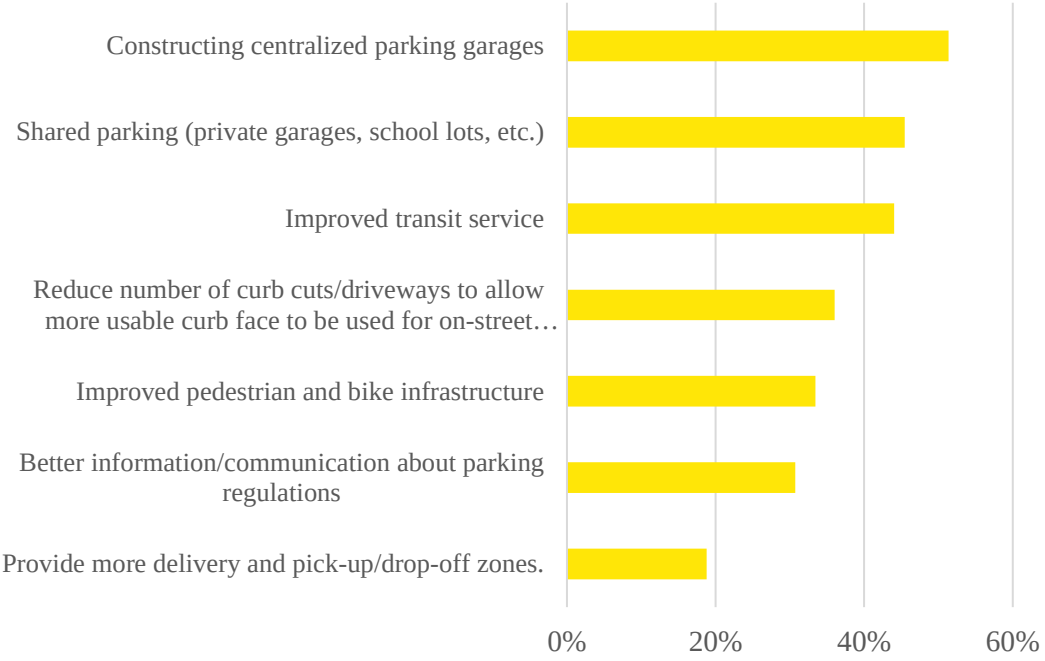
- *Availability* of parking spaces, loading zones, or pick-up/drop-off areas.
- *Cost* of parking permits, garages, and lots.
- *Safety* of parking locations and level of comfort walking to/from parked vehicles.
- *Access* to using modes of transportation other than driving (e.g., transit access).
- *Enforcement* of parking violations such as double parking or blocking bus stops and bike lanes.

Availability was by far the top concern among respondents regardless of ZIP code. The remaining themes received roughly the same average rank.

Possible Solutions

The survey aimed to gain an understanding of public perception of potential solutions. The most popular solution among residents was constructing centralized parking garages (Figure 16: Survey results, Possible solutions**Error! Reference source not found.**). Expanding shared parking initiatives (e.g., allowing public parking in school lots outside of school hours) and improving transit were two other popular solutions. About a third of respondents hoped to see curb cuts reduced, pedestrian and bicycle infrastructure improved, and better communication about parking regulations.

Figure 16: Survey results, Possible solutions



For more survey results, please refer to Appendix A1.

5.4 Lessons Learned

Parking is a concern for both drivers and non-drivers in Jersey City, and a key challenge for the outreach was channeling the focus on concerns into forward-thinking solutions that could improve quality of life. The following bullets outline some lessons learned from the engagement process:

- **Start community engagement early.** The community engagement process began early in the study, which allowed an opportunity for the project team to work with the public to define the array of issues pertaining to parking.
- **Get on the agenda of existing community meetings.** Stand-alone parking meetings are certainly useful, but those meetings tend to attract mostly drivers. In addition to having a higher turnout, attending regularly scheduled meetings can help the City receive feedback from a more representative sample of Jersey City residents.
- **Meetings should work to engage all participants.** Parking meetings often attract vocal members of the community who are frustrated with the parking situation in their neighborhood. Planning for everyone – through structured group activities, written comment forms, and live polling activities – can help the project team understand the needs of everyone, not just the loudest voices. The 1-2-4-All exercise used at the Ward-based community meetings and the live polling tool used at the public workshop helped document feedback from all participants.
- **Be transparent about the complexity of parking.** Acknowledge that solutions to parking problems are not always easy so that community members do not expect immediate fixes.
- **Surveys should not be limited to online platforms.** The project team worked with libraries, council members, and community-based organizations to share paper copies of the online survey.

Although only about 1 percent of surveys were submitted on paper copies, those surveys helped boost participation among under-represented groups.

- **Special Improvement Districts (SIDs) are enthusiastic partners.** The SIDs welcomed the opportunities to be involved. SIDs helped distribute the survey and advertise meetings. At the stakeholder meeting, the SIDs offered to support the City as they implement recommendations.
- **Although parking challenges are citywide, parking solutions are community level.** Limited availability, too many curb cuts, and lack of alternatives to driving were mentioned at nearly every part of the community engagement process. Yet, strategies to address these challenges require a more nuanced look at the communities than a citywide parking study can accommodate. This is particularly true for parking permit zones and enforcement.

5.5 Future Outreach Efforts

The most important suggestion for future engagement is to continue to communicate through attending established community meetings. Periodic updates can help build community trust and help remind community members that they are important partners in improving parking management. Additional suggestions include:

- **Continue to collaborate with the SIDs.** The SIDs have offered to help with outreach, data collection, and document review. They may be able to progress the conversations in their community and help develop creative solutions.
- **Conduct targeted outreach in Wards A and F.** Although the community meetings in Wards A and F were well attended, residents of these Wards were under-represented in the survey and public workshop. A follow-up meeting is recommended.
- **Ask representatives from parking enforcement to join meetings with community.** These meetings are opportunities to develop community-oriented enforcement, which aims to personalize officers and share goals of enforcement policies.
- **Include non-drivers.** The community engagement effort thus far over-represents car owners. As a result, there were topics that were not discussed. For instance, traffic safety was not commonly mentioned, even though on-street parking plays an important role in reducing pedestrian visibility. Other topics related to parking that were not discussed in detail with the public include housing affordability, dedication of street space, and equity considerations.
- **Host focus groups**. Many groups were under-represented by the survey, including seniors, low English proficiency populations, and non-white community members. Focus groups could also include community organizations, such as environmental/sustainability organizations and pedestrian/bicycle safety groups. Consider more focused conversations to incorporate their input.

5.6 Considerations for the Parking Management Plan

The community engagement described above formed the basis of a two-step process to develop the recommended strategies for this plan. First, the consultant team gathered the issues and concerns that were heard and then developed broad strategic ideas to address issues. Second, the consultant team reviewed these strategies with the public and used their feedback to refine the strategies. The consultant team incorporated the public's suggestions for actions except in instances where it conflicted with the City's stated goals, such as sustainability, and balanced some suggestions with others where there was no clear consensus.

6 Key Areas of Community Concern

This section explains the core categories of community concerns around parking. The specific concerns raised by either the public, City staff, or the consultant team and why these concerns present a problem for Jersey City are presented in the subsections below. These concerns and the issues were a key foundation of the strategy recommendations that are covered in the next section of the report.

6.1 Permit Parking Areas

People in Jersey City who require parking on a regular basis or for an extended period, but do not have their own off-street parking at their home or office, may either rent parking in a private parking facility or obtain a parking permit for their zone from the City. The amount that people pay for these parking options can vary dramatically.

Costs for annual parking permits are:

Senior Citizen:	Free
Resident:	$15
City Worker:	$200
Non-Resident:	$300

By contrast, 12 months of long-term parking (typically billed by the month) at private facilities costs $3,037 on average. This is more than 10 times higher than the price of a non-resident permit, and more than 200 times higher than the cost of a resident permit. In exchange for these high prices, parkers have assurance that they will be able to find a space in the same location every day and they do not need a City parking permit. Meanwhile, holding a City parking permit does not guarantee a space will be available when one is needed.

This contrast raises some concerns, which are similar to those voiced by the public.

Concern: Resident parking permit price is too low

Problem(s): Indirectly subsidizes car ownership

Forfeits the opportunity to use permits and pricing as a demand management tool

Concern: Residents can obtain permits for multiple cars per household

Problem(s): Erodes the effectiveness of using permits as a demand management tool

Concern: Permit zone boundaries are arbitrary

Problem(s): Decreases clarity on parking policy

Creates inequity between different areas

Concern: Difficult to find parking at night/after work even with a permit

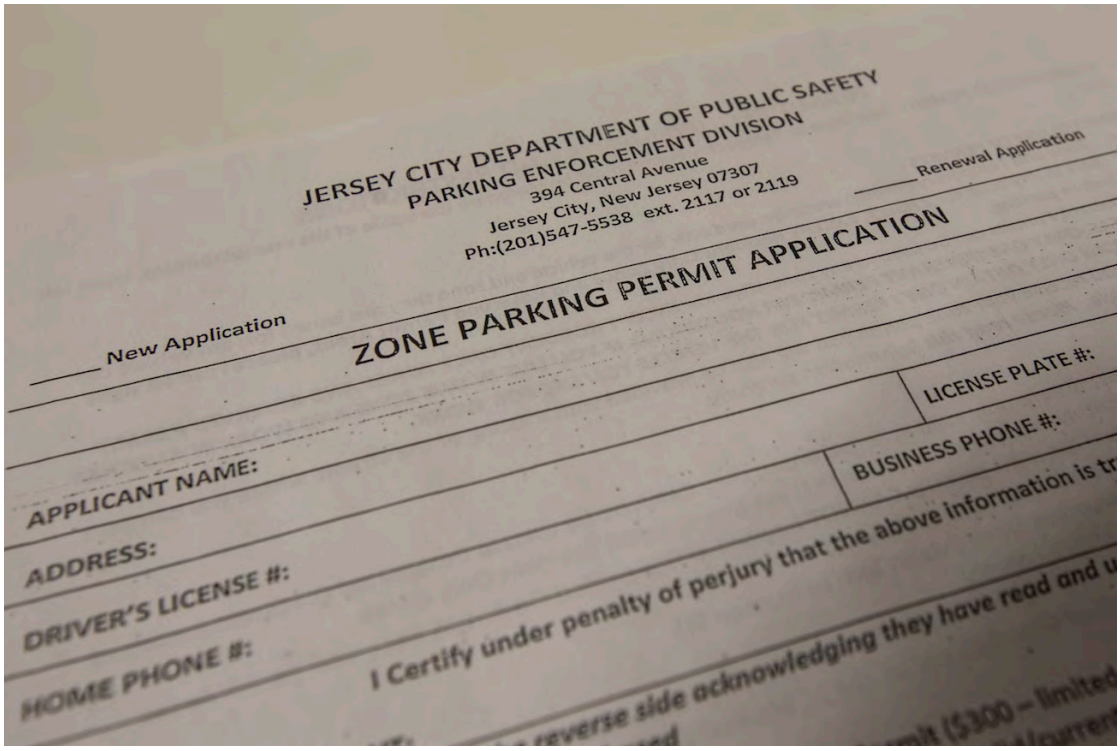
Problem(s): Affects resident quality of life

Concern: Permit hours and grace periods are inconsistent and/or confusing

Problem(s): Inconsistency can cause inequity and difficulty in compliance and enforcement

Concern: Residents of developments with garages can get on-street parking permits; how to address under- or non-utilization of off-street parking spaces at one- and two-family homes with off-street parking?

Problem(s): Promotes inefficient use of parking supply since only residents in developments have access to building garages



6.2 Metered Parking Areas

An analysis of the existing parking options in Jersey City reveals clear differences between the operations and pricing of private parking facilities and on-street metered parking.

Private parking facilities cost much more than on-street parking. The average hourly parking rate of all spaces available in private lots for which data was available is $9.01. By contrast, the rate for on-street meters is $0.75 across the entire city. So, parking in private facilities costs just more than 12 times the rate of public on-street parking on average.

It should be noted, also, that the price of parking at private facilities varies depending on the location. This is not true of on-street parking; the meter rate is always $0.75 per hour, regardless of how in-demand those spots are.

It could be argued that rates in garages are structured to favor longer stays, while on-street parking is structured to favor short parking sessions. The average 4-hour rate at private facilities that offer a 4-hour parking rate is $11.28. At $2.82 per hour, this is considerably less than the cost of a single hour. However, even at this rate, private parking costs nearly four times more per hour than on-street parking.

On-street parking may benefit local businesses by charging a lower rate by only allowing people to park for a short time. This higher turnover rate allows the limited spaces to serve more customers. Nearly all (95 percent) of the on-street metered parking spaces in Jersey City have a maximum parking time of 120 minutes or less, while most garages allow full-day or long-term parking. However, it's worth noting that parking tickets for those who overstay their meter contribute to City revenues.

These stark operations and pricing differences lead to a list of concerns voiced by the public and identified by the consultant team, which should be addressed as part of a new parking plan.

Concern: Limited availability of metered parking in commercial areas

Problem(s): Leads to encroachment of short-term parking on residential areas

Concern: Traffic impeded by double-parking by on-demand services, deliveries, etc.

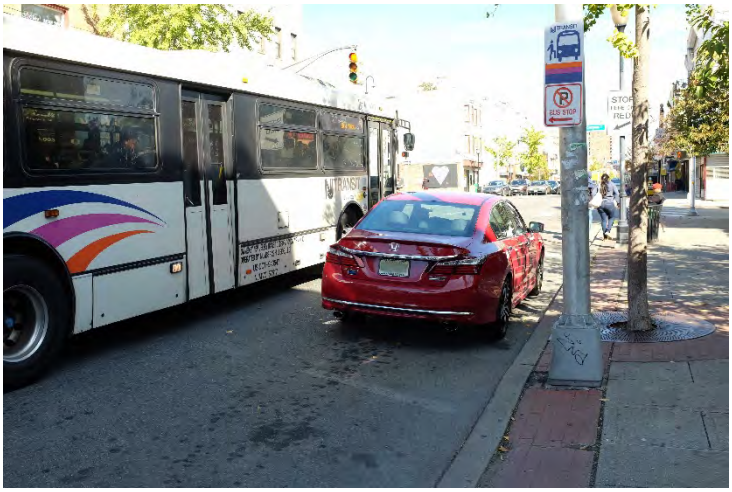
Problem(s): Loading and unloading obstructs traffic and creates potential safety issues

Concern: Meter rates not coordinated with garage rates

Problem(s): Encourages the unintended use of on-street parking (metered areas should facilitate short-term parking and encourage turnover)

Concern: Meter parking hours do not always match neighborhood context (adjacent land uses)

Problem(s): Meters operate when there's low demand and are underutilized when there's high demand



6.3 Non-Metered and Non-Permitted Residential Areas

Concern: Traffic/double parking caused by on-demand services, deliveries, etc.

Problem(s): Loading and unloading obstructs traffic and creates potential safety issues

Concern: Commuters park in residential areas

Problem(s): Promotes inefficient use of parking supply

Concern: Difficult to find parking at night/after work in non-permitted residential areas

Problem(s): Affects resident quality of life

6.4 Non-Metered and Non-Permitted Commercial Areas

Concern: Commuters and residents take up parking spaces in commercial areas, near transit stations, etc.

Problem(s): Commuters and Residents who park on-street for extended periods (i.e. the workday) reduce availability of short-term parking in commercial districts. (On-street parking in these areas should be high turnover and short stay.)

6.5 Enforcement and Management

Concern: Mixed perceptions on parking enforcement (some say too much, some say too little)

Problem(s): Residents dissatisfied with governance

Concern: Signage and regulations are confusing/contradictory for residents and visitors

Problem(s): Promotes "cruising for parking" which contributes to traffic congestion

Concern: Properties have illegal curb cuts

Problem(s): Reduces available on-street parking

Transfers shared public space to private use

Concern: Residents with driveways park on street

Problem(s): Promotes inefficient use of parking supply

Concern: Homeowners with sub-standard driveways park on and block the sidewalk

Problem(s): Encroaches on pedestrian space and creates unsafe conditions, especially for seniors and the disabled

Concern: Parking tickets are easily dismissed when appealed in court

Problem(s): Decreases clarity on parking policy

Undermines the effectiveness of enforcement

Concern: Some areas are lacking transit options and access

Problem(s): Transit accessibility is a challenge in some areas, which increases reliance on driving

6.6 Off-Street Parking Related to New Development

Concern: New developments are approved without requiring "adequate" parking for people moving in (e.g. new developments with lowered parking minimums or maximums)

Problem(s): This indicates a disconnect between residents' expectations and city's sustainability goals. In the near term this results in additional demand on the parking supply in the area surrounding the new development.

Concern: Parking requirements at new developments not coordinated with transit policies (transit infrastructure not used to its full potential)

Problem(s): By incompletely leveraging transit connections, the City is implicitly subsidizing car ownership

Parking requirements at new developments may contribute to increased traffic congestion

6.7 On-Street Parking for Increased Visitors and Commuters

Concern: Visitors and commuters take parking spaces in commercial areas, near transit stations, etc.

Problem(s): Visitors and commuters who park on-street for extended periods (i.e. the workday) reduce availability of short-term parking in commercial districts. (On-street parking in these areas should be high turnover and short stay.)

Concern: People who work in Jersey City don't have places to park

Problem(s): Impacts the attractiveness of Jersey City as a place of employment

Concern: Curb cuts decrease available space on the street

Problem(s): Decreases available parking supply

6.8 Parking Supply Opportunities

Concern: Lots and garages empty out and are under-utilized in the evening/overnight when metered parking is free

Problem(s): When coupled with competition for on-street parking, implies that more parking is needed when that's not the case

Concern: Various groups including Jersey City's Special Improvement Districts (SIDs) and Hudson County's Transportation Management Association (TMA) are available and willing to participate in discussions about managing parking in Jersey City

Problem(s): A lack of participation from local groups will hinder communication of parking conditions to city management and of city policies to the public

7 Strategies and Actions for Implementation

The consultant team developed an initial list of recommendations based on community feedback that were submitted for review by the City. This initial list included 11 preferred strategies and 9 potential strategies along with use case examples for each. The team revised this set of strategies in response to City feedback in preparation for the TAC#3 meeting and public workshop. Out of that effort, the recommendations were re-organized as a set of 17 strategies and associated actions, which were presented for consideration at a Public Workshop. After the workshop, the project team worked to refine, consolidate and clarify these strategies into a more concise and direct set of strategies, based on public feedback and input from Jersey City. The final set of recommended strategies are listed in Table 10: Revised Strategies. Additional descriptions are included in Appendix A6.

Table 10: Revised Strategies

ID	Revised Strategy
1	Modify the “Parking Zones” residential permit system
2	Expand shared parking programs and manage through a centralized system
3	Coordinate on-street and off-street parking rates; set parking rates to ensure availability and respond to demand
4	Improve enforcement of parking regulations
5	Comprehensively manage on-street curb space
6	Consider designated areas for commuters and visitors and incentives to shift commuter and visitor parking away from residential areas
7	Improve communications of City’s policies to residents, commuters and visitors
8	Re-examine the City's curb cut policy
9	Re-examine parking requirements in the City's zoning code
10	Implement TDM (Transportation Demand Management) measures and expand alternative mobility options

The following sections provide detailed explanations of each of the parking management strategies along with action steps for implementing each of the ten parking management strategies recommended as part of this plan, including barriers to implementation, immediate steps that can be taken by the City, the expected outcomes and measures of success. The actions are categorized by short-term (0-1 year), medium-term (2-4 years), and long-term (5+ years) timeframes. Examples of how these strategies were implemented in other cities across the country are also provided.

7.1 Modify the Parking Zones Residential Permit System

This strategy seeks to modify the existing residential permit parking zones system to address community concerns that the current system is confusing, priced too low, and does little to limit demand for on-street parking in residential areas. The strategy broadly seeks to first better understand existing conditions, then modify the system based on these findings, and finally introduce new measures to better manage demand.

Short Term Actions

These actions aim to create a comprehensive inventory of the number of permits that have been issued according to street address, and to understand how many permits have been issued to residents who have access to off-street parking.

- Freeze existing zones and create no new zones while further assessing the zone permit system
- Conduct an inventory to determine how many permits are active in the City
- Conduct a study using tax roll data to determine how many residents have access to off-street garages and in what locations they are most prevalent
- Assess a higher administrative fee to individual permit applicants to cover the parking permit validation effort

Medium Term Actions

The City should seek to modify the existing system to better address demand according to where permits are in highest demand and to formulate a plan for future large-scale changes to the permit system and zone boundaries.

- Modify zone boundaries to better manage demand and address community concerns and to standardize parking zone policies
- Explore process of removing zones
- Require residential building owners to provide lists of tenants with access to off-street parking to curtail misuse of the on-street permit system

Long Term

The City could consider introducing a graduated pricing system for permits, like the one recently enacted in Hoboken, where the price of a permit increases for each additional vehicle registered to the same address.

- Implement graduated permit pricing system in which cost of a parking permit increases with each additional vehicle a household owns
- Adjust residential permit prices on a regular schedule such that demand matches the supply of available on-street spaces

How This Will Help Jersey City

- Aligns price to the market value of parking, bringing demand in line with available supply
- Ensures that parking for at least one vehicle per household is available
- Creates zone boundaries that better reflect the different needs of varying neighborhoods
- Improves livability and equity by reducing competition between residents to find parking near their homes
- Simplifies the permit system to increase compliance

- Increases equity and efficient use of parking supply by maximizing use of off-street parking

Implementation

Restructuring the residential permit parking zones in Jersey City is one of the key recommendations presented in this plan. The modified system of parking zones should serve a few purposes. First, it should be easy for residents to understand, so they can easily understand where their parking permits do and do not allow them to park. Second, it should allow for the City to control parking supply and demand by matching the number of permits issued to the number of parking spaces in an area. Third, it should be easy to administer, which means there should not be too many or too few zones and their boundaries should align with current administrative boundaries in Jersey City.

For residents to be able to easily understand where their parking permit allows them to park, they must be able to mentally understand the boundaries of their parking zones with ease. If one can drive from one parking zone to another while moving around a neighborhood with similar development patterns and street typologies, it is difficult to tell where zones begin and end. However, if the parking zones are drawn in line with natural barriers and changes in development pattern, such as along major streets or at places where development patterns change from single-family homes to apartment blocks, it is very easy to understand where the boundaries of the parking zone are. Further, it is not easy to track the boundaries of a parking zone if the shape of the zone is too convoluted; the zones should have clear rectangular or other simple geographic forms that conform to natural dividing lines.

To control parking supply and demand, parking zones must be neither too large nor too small. If parking zones are too large, they will contain areas that are more densely developed and areas that are less densely developed, as well as areas with more parking demand and areas with less parking demand. Thus, even if the number of permits issued for the zone matches the parking supply, there will be too much parking demand in the areas where many people desire to park, and there will be a surplus of vacant spaces in other parts of the zone. It is most desirable to have the parking zones cover as much land as possible while still encompassing an area of roughly equal density and parking demand.

From an administrative perspective, the system will function most smoothly if it aligns with established administrative boundaries. This is not just because it makes mapping the zones simpler. Rather, it is because it gives City planners and transportation officials the opportunity to coordinate parking policies with other initiatives of local leadership, will enable decisions to be informed by available data for city subsections, and will allow for enhanced coordination between different divisions of City government.

Considering the criteria described above, the consultant team recommends that parking zone boundaries should be drawn along Jersey City Ward boundaries, or simple subdivisions of the Wards (e.g. Ward D-West and Ward D-East). These will fit cleanly within existing organizational divisions and provide easy-to-comprehend boundaries for residents. They can also provide areas of uniform development density. It may be necessary in a small number of cases where one Ward contains areas of much different density to subdivide that Ward into two or three parking zones that are more uniform in their development patterns.

Smaller or specialized zones should be created with consideration for the City's land use zoning code. Because the interaction between parking and transit is so clear, and transit stations in Jersey City are important to the flow of residents and commuters alike, the parking plan should include transit overlay zones that include several blocks around rail stations (see Section 7.9). These should be managed using

different guidelines and policies than the principal parking zones, with the policies designed to benefit the flow of transit users as much as possible.

Regarding graduated pricing for residential permits, the consultant team recommends the City begin with establishing the legislative apparatus to permit implementation of graduated pricing. It does not make sense to start with a pilot project in a specific location since this recommendation also includes reshaping parking zones to align with existing municipal boundaries (i.e., Wards). Once the legislative mechanism is in place for such a cost structure, it is best to start with a low-price arrangement. This will also allow residents time to adjust to the system and the City time to gather feedback and adjust the system as needed before making any major increases to prices.

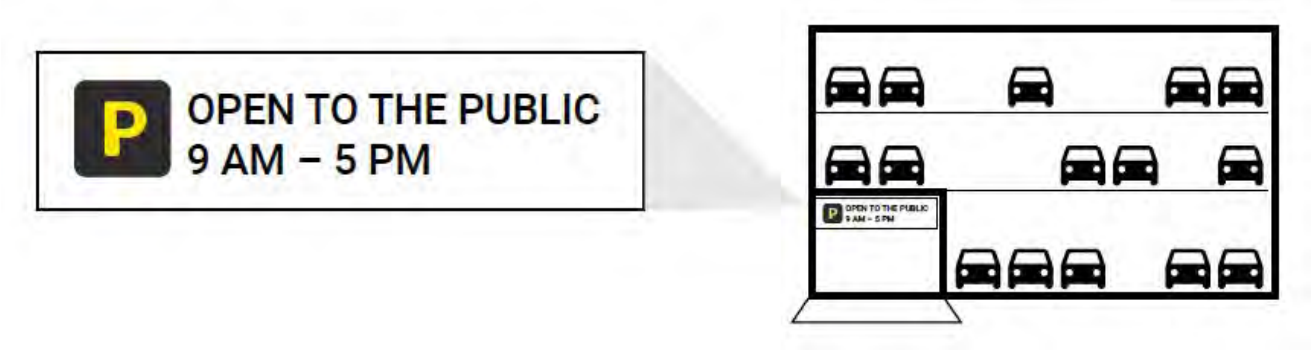
Outcomes	• Reduces demand • Creates availability • Increases revenue • More manageable system
Measures of Success	• Reduction in number of permits issued each year • Complete database of all parking permits issued
Barriers	• Potential resistance to increased parking prices • Requires administrative reorganization of parking permit management system • Missing data on parking permits
First Steps	• Conduct inventory of current permits and access to off-street parking • Track permits in a database management system

Use Cases

Graduated permit pricing is still a relatively new idea which has yet to be widely adopted. However, Hoboken implemented a new graduated permit pricing scheme in March 2020. Hoboken's pricing scheme is aimed at reducing demand for residential on-street parking by setting a relatively low price for a household's first permit and increasing the rate for additional permits. This is intended to encourage households to reduce their overall car ownership and/or to encourage households to begin parking lesser-used vehicles in off-street locations. The cost for permits is $52/year ($1/week) for the first vehicle in a household, $104/year ($2/week) for the second vehicle in a household, and $208/year ($4/week) for the third and each additional vehicle in a household. Thus, a home with two vehicles would pay approximately $150 per year for on-street parking, significantly less than prevailing market price for off-street parking.

7.2 Expand Shared Parking Programs and Manage Parking Through a Centralized System

This strategy seeks to help the City use the existing parking supply more effectively. To do so the City must first better understand both existing parking supply and the temporal usage of that supply. This allows the City to promote shared parking arrangements whereby spaces are not left unoccupied for long periods of time. In addition to more effective use of existing supply, it has the potential to open new revenue streams for owners of available parking spaces and has the potential of reducing the need to add more parking in the near-term. It is also recommended that the City manage this parking through a centralized system that can help facilitate connecting owners of parking supply with parking demand.



Short Term

These actions include collecting space availability data and providing initial incentives to private accessory garages and lots to make surplus supply available to a broader source of demand.

- Explore ability to require residential building owners to provide space availability data
- Incentivize private accessory garages to offer parking to non-residents

Medium Term

These actions seek to build on these initial actions and expand the parking supply database.

- Make off-street parking available to non-residents if it is unoccupied
- Incentivize private garages to share parking occupancy and availability with the City

Long Term

The City should create a centralized management system to organize, continue to collect, and analyze parking supply data, and to use this data to inform future policies.

- Implement a centralized parking management system to collect, organize, and analyze data
- Use data to update and adjust policy based on real-world data and trends identified in the centralized parking management system, and implement centralized decision making so regulations are applied consistently citywide

How This Will Help Jersey City

- Optimizes the use of available parking supply
- Reduces the need for future building parking supply

Implementation

Shared parking programs can be especially useful in mixed-use areas. The City should create incentive programs, such as offering a reduction in parking requirements or tax breaks for new developments. Additionally, two pilot programs should be pursued. First, a pilot program for shared parking in the Waterfront office district could take advantage of reduced occupancy in office parking garages overnight for the benefit of residents and visitors. Second, the City should expand the current pilot program providing overnight parking for residents at public schools to additional schools where a need for more resident parking is identified. The City could work with neighborhood associations to help identify areas of demand and potential schools where such a program could work. One such suggestion came from a representative of the Bayview-Skyline Neighborhood Association during the public workshop, piloting sharing parking at PS 41 (Fred W. Martin Elementary School). If possible, such programs should also be extended to weekend parking as well.

Outcomes	• Meets demand with existing supply • Reduces costs to businesses • Reduction in parking vacancy
Measures of Success	• Reduction in vacant privately-owned parking space • City has complete and up-to-date information on utilization of private parking lots • Businesses routinely make empty space available to the public for a fee
Barriers	• Private garage owners unlikely to offer cooperation without a financial incentive • Creating a Centralized Parking Management System will require time and technical knowledge
First Steps	• Create programs to incentivize shared parking through various levers • Make reduction in minimum parking requirements or tax breaks contingent on businesses sharing data

Use Cases

Oak Park, IL

The Village of Oak Park has roughly 30 privately-owned commercial parking lots in the Village center. The Village manages and collects revenue for the lots, and after administrative, operations, and maintenance costs are subtracted, the remaining funds are split equally with the building owner. The functions performed by the Village include maintaining and snowplowing the lots, managing the signs, installing payment technology, collecting revenue, and enforcing payment through the Police Department. This has resulted in increased revenues, which are shared by the building owner and the Village, more available parking, efficient use of resources, reduced congestion, reduced development costs, and more land area for buildings, open space, and other land uses.[6]

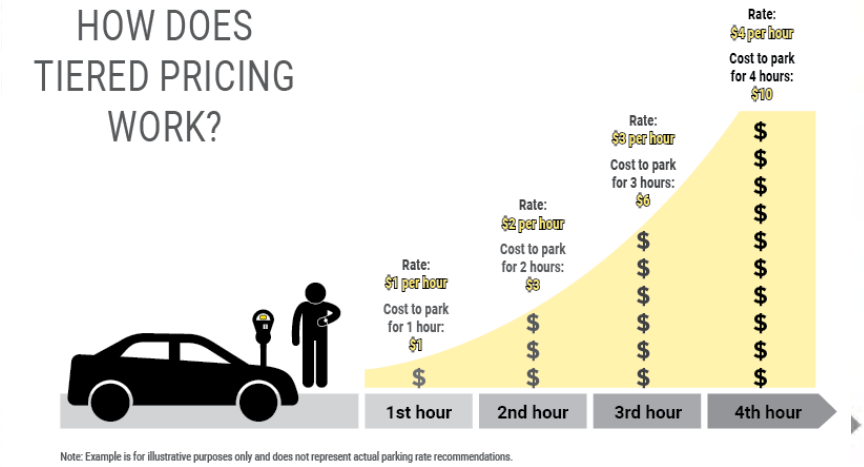
Santa Monica, CA

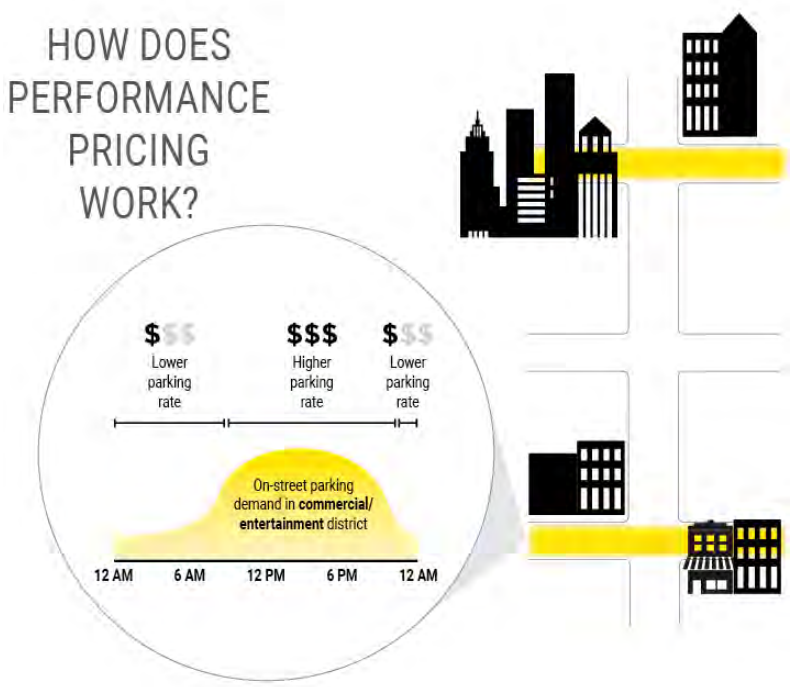
The City of Santa Monica aspires to be the most walkable place in the greater Los Angeles area. To make this happen, they must limit the amount of space dedicated to parking in their downtown core, and ensure businesses are oriented towards pedestrians and sidewalks rather than parking lots. To this end, the City's General Plan indicates that a district approach should be taken to parking, in which downtown parking is centralized in a limited number of structures. Visitors should park only one time, and then visit any local destinations on foot rather than driving between them. In the interim, parking space owners can apply to the City to share parking with other land uses or new developments, allowing for a reduction in the amount of parking that must be provided. This allows the City to avoid vacant parking space, property owners to capitalize on their excess parking, and developers to reduce the amount of parking they must construct.

[6] https://www.usdn.org/uploads/cms/documents/2015usdnconvening_summary.pdf

7.3 Coordinate On-street and Off-street Parking Prices in Response to Demand

This strategy aims to increase the availability of on-street parking and rationalize demand between on- and off-street parking facilities. As noted in prior sections of this report, the cost for an hour of metered parking on a typical Saturday afternoon is $0.75, in contrast to $8.00-$10.00 for an off-street parking space during the same time. By coordinating prices, the City will better serve the needs of businesses, which rely on nearby available parking for their customers. Higher prices for longer-term parking on-street will shift more long-term parking to off-street facilities, creating more availability on-street for short-term parking. It will also identify and implement metered on-street parking where demand and adjacent land uses warrant it.



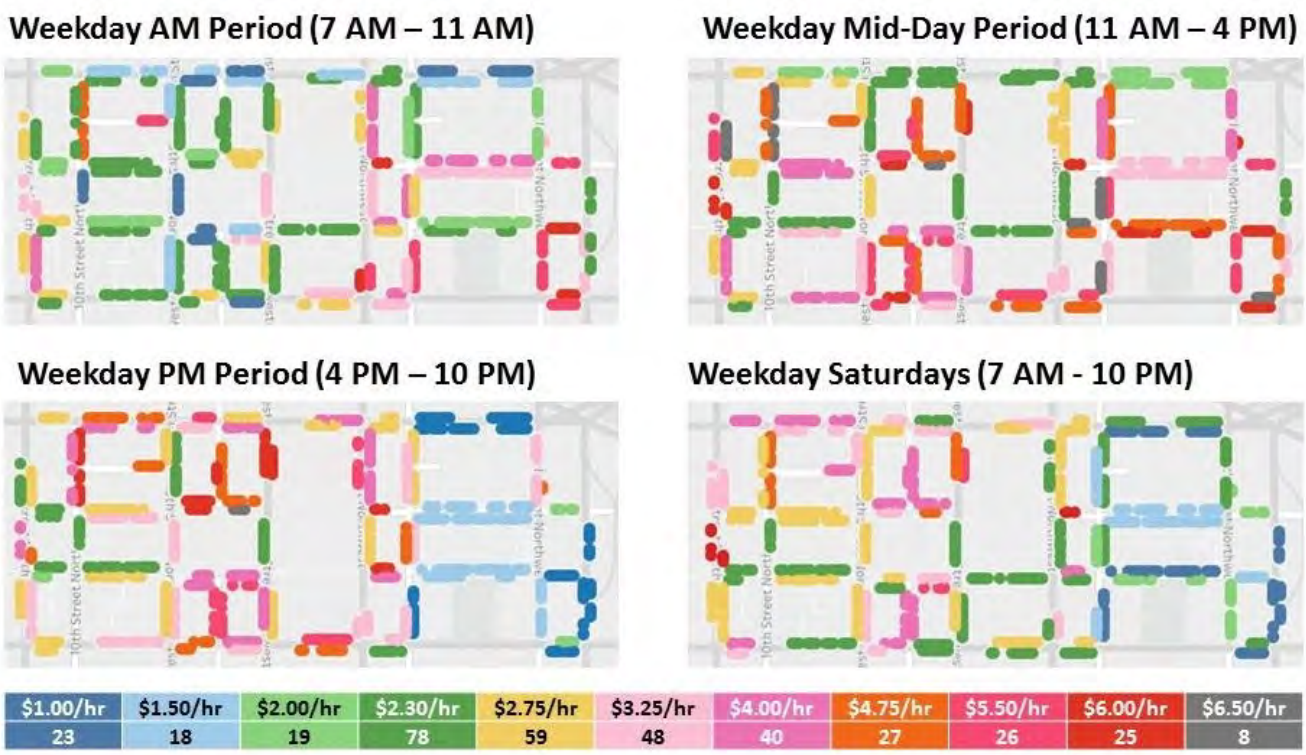


Short Term

These actions to address on-street availability include conducting a pilot program of tiered pricing (where the cost to park increases with length of stay) to help determine appropriate pricing schemes, investigate where existing metered hours could be extended to match commercial demand and where new meters could be installed.

- Conduct a pilot for tiered pricing at metered parking spaces that increases the meter rates the longer a user takes up a parking space
- Modify metered parking hours to align with land use and activity (i.e. align metered hours with business hours)
- Identify priority areas for new meter installation

Figure 17: Performance-based pricing: Parking meter rate schedule in the Penn Quarter and Chinatown neighborhoods of Washington, DC (DDOT)



Medium Term

These actions focus on refining the pricing schemes and coordinating prices between facilities citywide and exploring new ways to direct parking revenues into community improvements.

- Coordinate on-street rates and off-street garage rates
- Price off-street parking for desired occupancy and offer discounts for commuters/visitors seeking all-day parking so they do not park on-street
- Use parking benefit districts (in which any revenue generated from on-street and off-street parking facilities within the district is returned to the district to finance neighborhood improvements) to help implement metering where not currently present
- Consider implementing more meters, especially in high turnover areas, to create fair parking opportunities for residents, visitors, and commuters

Long Term

- Implement either tiered meter pricing or performance-based meter pricing depending on the findings from previous actions

Performance-based pricing (or demand-responsive pricing) is a parking management tool that periodically adjusts meter rates based on demand to achieve a target **level of parking availability.** It is used to **encourage** drivers **to park in underutilized** areas**, helping to free spaces in busy areas and at busy times.**

How This Will Help Jersey City

- Increases short duration high-turnover parking in commercial areas and discourages short-term parking from encroaching on residential areas
- Reduces obstructions to traffic flow which contribute to congestion and create safety issues
- Increases utilization of off-street parking and discourages long duration parking at curbs
- Matches parking availability to peak business hours and increases revenue potential

Implementation

To manage parking availability to balance the needs of short-term vs. long-term parking, prices must be set accordingly. There are a variety of ways to implement and adjust pricing to better match demand, and intelligent transportation systems (ITS) hardware and software allow limitless ways to track occupancy and vary pricing, including video detection technology and in-space sensors.

The following publications, which are available to the public, provide good guidance on pricing parking:

Seattle

Demand-responsive pricing

Operation:
SeaPark uses demand-responsive pricing to reduce circling and double-parking while maintaining one or two spaces per block for shopper and visitor access.

Tools and Technologies:
Instead of sensors and cameras to gather continuous data and adjust prices monthly, SeaPark relies on **annual occupancy data that is collected in person by employees**.
Because of this, parking rates are **only adjusted once per year and are set at the neighborhood level** instead of individual block levels, but the program is much cheaper.

Results:
The program has achieved its goal of 70-85% occupancy during working hours in the city's core commercial area.

- *Contemporary Approaches to Parking Pricing: A Primer* (May 2012) published by the U.S. Department of Transportation, Federal Highway Administration. Available online: https://ops.fhwa.dot.gov/publications/fhwahop12026/fhwahop12026.pdf

- *Parking Pricing Implementation Guidelines* (April 2018) published by the Victoria Transport Policy Institute. Available online: https://www.vtpi.org/parkpricing.pdf

Piloting tiered meter pricing in areas of high demand would be a good way for the City to better understand organizationally how to implement such a pricing scheme, educate the public and gauge public sentiment, and collect data to better refine what pricing scheme would create the desired outcomes. The metered parking areas near the Newark Avenue pedestrian plaza downtown and in the Journal Square area are two examples of locations where pilot projects would be high-profile enough to gather data and measure public feedback.

Expanding metered parking into commercial areas that don't currently have it can help increase turnover, improve user convenience, reduce traffic problems, and increase revenues for the City and local SID. Three areas that the City should investigate for metered parking expansions include:

- Palisade Avenue from Ferry Street to Griffith Street
- Griffith Street from Central Avenue to John F. Kennedy Boulevard
- 8th Street from Marin Boulevard to McWilliams Place

Any study undertaken by the City to determine if metered parking may be warranted should also consider existing plans for the streets, such as the Pedestrian Enhancement Plan, the Let's Ride JC Bicycle Master Plan, and the City's Vision Zero Action Plan.

Outcomes

- Increases on-street availability
- Discourages long-term parking
- Increases utilization of off-street parking
- Reduces cruising for parking

Measures of Success	• Metered occupancy rate of 85 percent • Increased turnover levels on-street and usage of off-street facilities for long-term parking
Barriers	• Possible resistance to increased meter rates • Tiered and/or performance-based meter pricing will require technology upgrades
First Steps	• Communicate clearly to ensure public is not surprised by changes to price of parking • Install additional meters in commercial districts with high demand for short-term parking

Use Cases

Poughkeepsie, NY

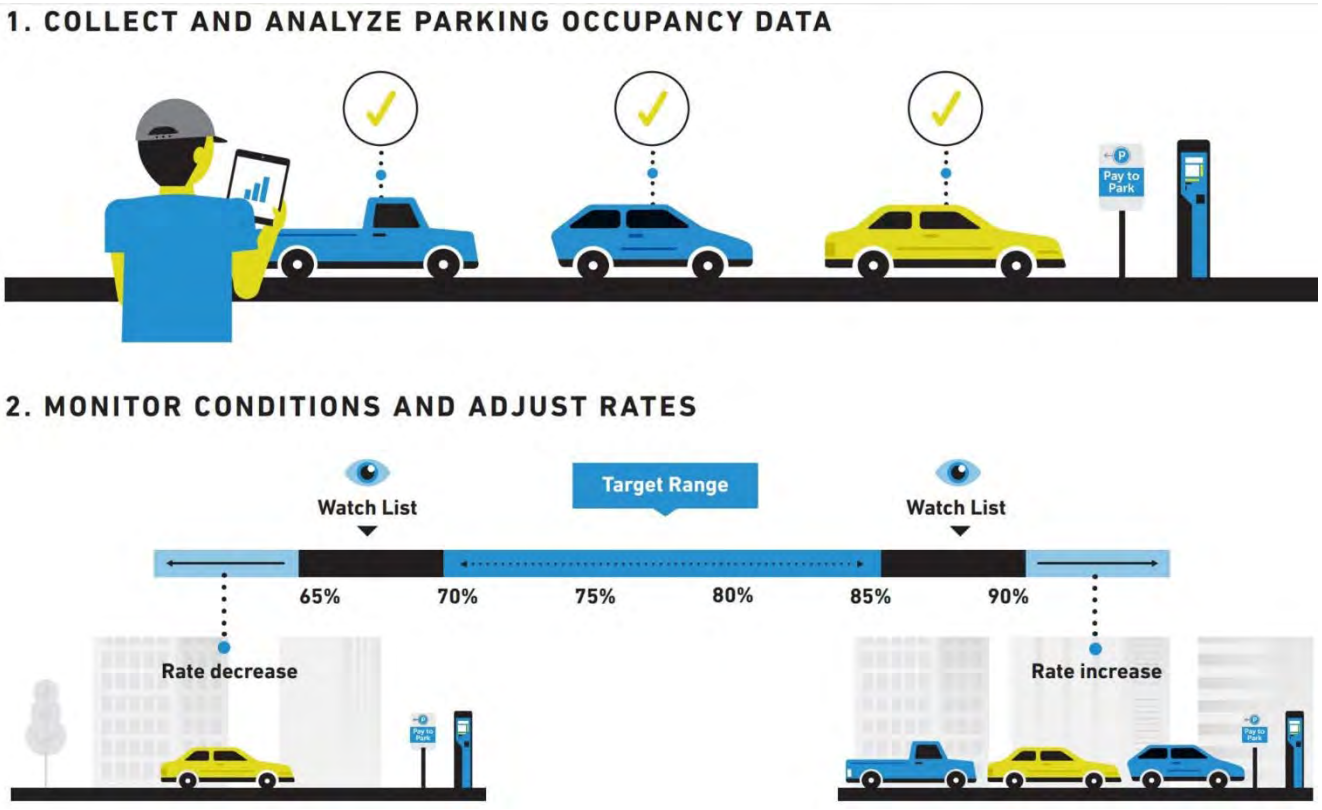
As the City of Poughkeepsie developed plans to continue the revitalization of its downtown, they determined that to be functional and sustainable, further development must be supported by smart parking policy. One of the City's tools for implementing smart parking policy was through the coordination of on-street parking rates with off-street private parking rates. Coordination of on-street and off-street parking prices helped spread demand evenly across the available parking supply. Additionally, user satisfaction among both visitors and residents increased due to the simplified and standardized parking rates throughout the City.[7]

San Francisco, CA

The San Francisco Municipal Transportation Authority, the City's transportation department, implemented a variety of price-based parking management strategies that included variable rates for on-street parking. Rates vary by block and time of day to allow for specific differences in land use and are adjusted once per month to meet the 80 percent occupancy goal. In many cases SFMTA lowered garage rates to draw more users from the curb into municipal garages. The SFMTA has been operating this program for over a decade and has seen an overall decrease in parking rates, an increase in parking availability, improved compliance with parking regulations, and a decrease in vehicle miles traveled and greenhouse gas emissions.

The SFMTA also recommended coordinating on-street and off-street parking prices as part of a suite of price-based parking management strategies. This was done with the goal of reducing the prevalence of parkers' tendency to circle the block looking for cheaper on-street parking. Reducing circling reduces delays and congestion for drivers, as well as safety conflicts and emissions from vehicles.[8]

[7] https://www.dutchessny.gov/Departments/Transportation-Council/Docs/Poughkeepsie-Parking-Improvement-Plan.pdf
[8] https://archive.sfcta.org/sites/default/files/content/Planning/ParkingManagementStudy/pdfs/parking_study_final.pdf



7.4 Improve Enforcement of Parking Regulations

Enforcement of parking regulations is one of the strongest tools the City has to control parking behavior. However, infrequent enforcement can embolden people to break even the smallest regulations, while uneven enforcement can lead to accusations of inequity. Therefore, improving the consistency and right-sizing the quantity of enforcement are key strategies to help manage both the current parking supply as well as future policies.

Short Term

These actions are aimed at communicating more clearly when and where parking regulations are enforced by enhancing the markings for no-parking zones as well as ensuring all metered hours are clearly posted. Short-term actions also seek to develop a consistent and equitable approach to enforcement.

- Work with parking enforcement and courts to develop a consistent and targeted parking enforcement plan
- Prioritize neighborhood safety and universal access when addressing curb cut and parking infractions

- Improve communication and enforcement of metered parking time limits to decrease use of metered parking by commuters
- Improve communication of enforceable parking offenses and the impact on City residents
- Clearly mark out No Parking areas (i.e.: fire hydrants, 25 feet from crosswalks, bike lanes, etc.)

Medium Term

- More detailed study of enforcement patterns to determine where lax or overly zealous enforcement is concentrated to help frame how and where to reallocate resources to parking enforcement
- Allocate more personnel and resources to parking enforcement in high demand areas

Long Term

The City should investigate adopting smart technology to enable more efficient enforcement, such as using a camera-based system to scan license plates to better spot offenders and check for permits, as well as consider revising the parking penalties to increase fines for repeat offenders.

- Revise parking ticket penalties in municipal code to increase fines for repeat offenders
- Adopt technology-enabled smart parking solutions to support monitoring and enforcement, such as automated license plate readers (ALPR)

How This Will Help Jersey City

- Reduces obstructions to traffic flow which contribute to congestion and create safety issues
- Improves safety for residents of all ages and abilities
- Clarifies the policy goals of the City and encourages compliance
- Optimizes the use of available parking supply and maximizes the effectiveness of regulations by increasing clarity
- Increases compliance with City's parking policy and discourages repeat offenses

Implementation

Clearly signed and painted curb space can help reduce confusion, while a uniform use of enforcement technology can help remove unintentional bias. In conjunction with Strategy 7 (improve communications), the City should develop a clear means of communicating existing parking regulations at the curb. This could entail a new system of signage, painted curbs, and the use of clear pavement markings at intersections that will help improve compliance and remove confusion around enforcement.

The adoption of ALPR can make enforcement more efficient and equitable. This technology, which is already in use elsewhere, can help improve the efficiency of enforcement of metered parking and other time-restricted curb uses, such as loading zones and passenger pick-up and drop-off locations. It can also be used in off-street municipal lots to easily identify vehicles that are in violation of time

restrictions. The results of such enforcement would improve turnover and increase parking availability. The application of this should be citywide, and not focused in any one neighborhood over another.

Outcomes	• Increases compliance • Better community relations • Discourage long-term on-street parking in commercial areas
Measures of Success	• Reduction in illegal parking • Safer conditions for bicyclists, pedestrians, and vehicles
Barriers	• Changes to city code needed • Public may initially react poorly to changes in enforcement
First Steps	• Hold workshop with parking enforcement staff to identify locations of current enforcement focus • Meet with City Council to discuss revised ticket penalties

Use Cases

Claremont, CA

The City of Claremont uses a tiered, or graduated, parking fine system to penalize illegal parking behavior. The first ticket for overtime parking is $35, the second is $70, and the third is $105. This tiered parking fine system shifts the bulk of the punishment to repeat offenders, instead of drivers who make inadvertent one-time mistakes. The City follows a similar process for illegally parking in spaces reserved for people with disabilities, with the first offense ticket being $325, the second being $650, and the third being $925.

7.5 Comprehensively Manage On-street Curb Space

This strategy is focused on managing non-parking related activities at the curb, including deliveries, commercial loading, and passenger pickup and drop-off. By more closely managing these activities and providing dedicated space for these activities, either physically or temporally, more curb space can be made available for public use including parking, transit, and bikeshare. These actions should be coordinated with existing plans where necessary, such as the Pedestrian Enhancement Plan, the Let's Ride JC Bicycle Master Plan, and the City's Vision Zero Action Plan.

Short Term

The City should identify and implement designated pick-up and drop-off areas in areas of high demand, such as around the Journal Square Transportation Center (similar to that in place currently near Hoboken Terminal in Hoboken), and pilot a shift in delivery activity to lower-demand times.

- Designate geofenced (virtually delineated) transportation network company (TNC) pick-up/drop-off areas within high-demand districts
- Conduct an off-hours delivery pilot program at buildings that use on-street space for loading

Medium Term

- Building off the pilot program, designate more loading zones in high-demand commercial areas

Long Term

The City should study the areas of highest demand, such as around the Newark Avenue pedestrian plaza in Downtown and develop a comprehensive curb management plan that matches supply to demand throughout the day and night, balancing the needs of deliveries, pick-ups and drop-offs, parking, and other curbside uses.

- Consider developing a curb management plan for Downtown or locations where curb space is at a premium

How This Will Help Jersey City

- Discourages long-term parking in commercial areas, allowing more visitors to frequent local businesses during the day
- Effectively and efficiently allocate the use of curb space between competing demands

Implementation

Pilot programs in neighborhood commercial corridors, such as Central Avenue or West Side Avenue, can help inform a broader roll-out of a curb management system. Working with the SIDs in these areas, implementing new designated loading zones and passenger pick-up/drop-off zones can help reduce competition for the limited curb space in these bustling neighborhood centers and create safer conditions for vehicles, cyclists and pedestrians, improving the attractiveness of these areas for businesses.

Outcomes	• Reduces obstructions to traffic flow which contribute to congestion and create safety issues • Improves safety for residents of all ages and abilities
Measures of Success	• Fewer resident complaints for blocked streets
Barriers	• Requires coordination with TNC operators • Private businesses may resist change to their delivery schedules • Installing drop-off areas requires removing space from parking or some other use
First Steps	• Provide loading zones as a pilot near Journal Square • Meet with representatives of Uber and Lyft to discuss geofenced pick-up/drop-off areas • Conduct off-hours delivery pilot in a commercial corridor

Use Cases

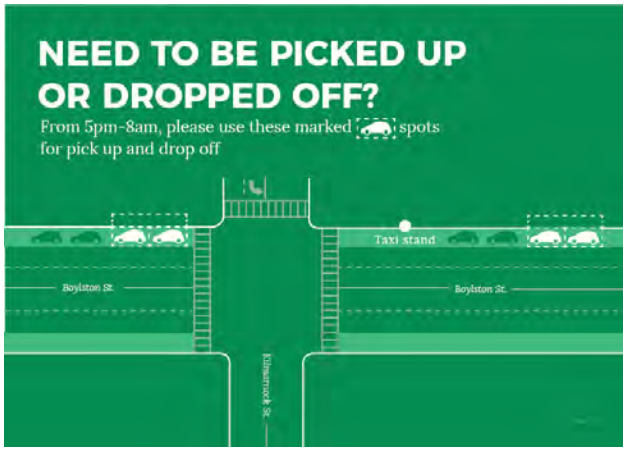
New York, NY

The New York City Off-Hours Delivery (NYC OHD) program asked receivers of freight supplies to voluntarily accept deliveries between the hours of 7 p.m.–6 a.m.[9] The aim of the pilot program was to reduce instances of double-parking and illegal parking by delivery trucks during peak business hours in Midtown Manhattan. The program was beneficial for both shipping companies and receivers. Due to faster and more reliable travel times and fewer parking fines, shipping companies were able to reduce their costs between 35 and 40 percent over regular hour deliveries. Receiving customers reported that they were able to maintain lower in-store stocks due to more reliable shipments, which reduced on-site storage needs. Additionally, the program was successful in reducing truck-born emissions between 60 and 70 percent.[10] The voluntary program is now expanding to Lower Manhattan, Downtown Brooklyn, and Jamaica, Queens, where high volumes of trucks, cars and pedestrians compete for limited curb space.

[9] https://ohdnyc.com/home
[10] https://www.informs.org/Impact/O.R.-Analytics-Success-Stories/The-New-York-City-Off-Hours-Deliveries-Project-A-Business-and-Community-Friendly-Sustainability-Program

Boston, MA

The City of Boston was experiencing high levels of congestion in the Fenway neighborhood due to the increased use of TNC services to travel to and from games, nightlife, and newly built residential developments. To address this, the City implemented a program that designated certain spaces for pick-up and drop-off activity only from 5 p.m. – 8 p.m. The City coordinated with TNC companies operating in the area to geofence the matching blocks in the area, and direct passengers in the apps to the proper pick-up and drop-off zones. The Police Department enforced turnover and the requirement that drivers must remain in their vehicles. The program resulted in a 350 percent increase in curb productivity and utilization, an 8 percent decrease in parking citations, and a notable decrease in unsafe driving behaviors like double parking in the travel lane to pick-up or drop-off a passenger.



7.6 Shift Commuter and Visitor Parking Away from Residential Areas

Due to its good highway access to the rest of the state, varied transit options, and close proximity to New York City, Jersey City is an attractive location for regional commuters to switch modes between car and transit. This can lead to commuters overtaxing the parking supply in the City and taking away available parking spaces from residents. In addition, Jersey City has become a popular destination for its restaurants, bars, parks, and cultural institutions, attracting visitors from around the region. Acknowledging this demand and efficiently accommodating this demand is what this strategy seeks to achieve.

Short Term

In the short-term, it is necessary to better understand the problem of where commuters and visitors are parking, often perceptions do not exactly reflect actual dynamics. It is also necessary to analyze where there is existing surplus supply that can be leveraged to help meet this demand. Shared parking agreements that allow typically empty parking spaces at certain times of day (for instance, at apartment buildings during the day) to be used by other users is one way to more efficiently use the existing supply.

- Identify where commuters are parking and to what extent
- Consider shared parking at existing garages and lots that are empty at night
- Continue to pursue Shared Parking agreements

Medium Term

In the medium-term, a comprehensive strategy of allocating parking near transit stations for commuter use should be explored, while also maintaining Jersey City's goals of creating vibrant, dense and walkable neighborhoods around its transit stations.

- Extend ParkMobile technology to off-street parking lots
- Implement time limits or No Parking regulations, for limited periods, during daytime hours to disincentivize commuters from parking on street in residential areas
- Require commuters to park in existing commercial lots near transit stations
- Re-examine existing parking supply near transit stations to optimize balance between short-term and long-term parking supply

Long Term

In the long-term, the City could investigate whether more intercept parking, which provides parking and first/last-mile connections outside of a city center (similar to the lot at the Liberty State Park light rail station), might help ease demand and nudge commuters to a more multimodal commute.

- Explore opportunities for intercept parking areas (or centralized parking garages). Consider that garages, while addressing the local problem of spot shortages, can also create city and regionwide problem of exacerbating traffic and pollution

Montreal

Digital wayfinding

Operation:

Sensors would be connected to each parking space and relay information about their availability to motorists through an app. This would allow drivers to see in real time where there are free parking spaces, which would help commuters avoid the dreaded turning-around-in-circles.

Tools and Technologies:

Sensors

Data Warehousing and Real Time Communication

Benefits:

The technology would save drivers 15 minutes on average when looking for a space,

Clear up traffic congestion due to parking by 33%, and

Reduce carbon dioxide emissions by 950,000 tons a year.

How This Will Help Jersey City

- Discourages long-term parking in commercial areas, allowing more visitors to frequent local businesses during the day
- Provides an outlet to accommodate commuter parking demand
- Reduces parking demand stemming from employee commuting needs and increases the attractiveness of Jersey City as a place of employment
- Creates more available on-street parking in residential areas

Implementation

Managing parking for visitors is a common problem for cities, but Jersey City has the additional burden of commuters who drive and park in the City to use transit for the last leg of their commute. While commuters are parking near key PATH stations, more data is needed to determine the extent of commuter parking, especially if and where commuters may be using parking that is intended for residents. Collecting information on commuter parking location and extent, either by random survey or by canvassing license plates within 1/2 mile of key transit stations, will provide data to help guide a new signage and wayfinding system that targets commuters. Working with public parking operators, this system can better direct commuters to available off-street parking facilities within the vicinity of these transit stations by using clear directional wayfinding at highway exits to attract customers. The goal is to eliminate competition for parking between residents, commuters and visitors. The consultant team recommends coordinating with NJ TRANSIT and PANYNJ regarding the lots they own near transit stations as a first step in the process.

Outcomes	• Prioritizes access to transit • Increases off-street utilization • Decreases conflicts between residents and commuters
Measures of Success	• Reduced use of on-street parking by commuters • Increased awareness of parking options for visitors
Barriers	• Missing data on commuter parking location and extent • Depending on commuter demand, more off-street parking may be required
First Steps	• Collect information on commuter parking location and extent • Identify underutilized lots within 1/2 mile of transit stations

Use Cases

Baton Rouge, LA

Although the rest of the City is car-oriented, the downtown core of Baton Rouge, Louisiana is intended to be a dense and walkable area, and the immediately adjacent neighborhoods of Spanish Town and Beauregard Town are maintained as historically significant districts. The City provides two parking garages, the River Center and State Parking Garages, immediately to the north and south of the downtown core. Vehicular directional signs direct cars to these parking garages, so that traffic can be intercepted before drivers proceed to the central downtown areas. Once cars are parked, pedestrian directional signs provide clear guidance to people on foot from these parking garages to points of interest. Kiosks with more detailed information for visitors are provided at key locations. Additionally, a downtown trolley connects these parking facilities with other key points in the downtown core. These measures are designed to intercept vehicular traffic before it enters the downtown core itself, while still fully accommodating the needs of drivers.

Scottsdale, AZ

The City of Scottsdale implements a payment in lieu of parking requirements system that allows developers and property owners to satisfy parking requirements by making a payment to the City's downtown parking program. The goal of the program is to assist the property owners and developers in reinvesting, developing, and redeveloping to the best use of the property and to accommodate different land uses throughout the life span of a development. Additionally, it serves the purpose of creating a more pedestrian-oriented environment by reducing the total number of physical parking spaces on a property. The payments made to the City's downtown parking program are used to maintain public parking spaces and operate tram shuttle services that link public parking facilities and downtown activity centers.[11]

7.7 Improve Communications of City Policies

This strategy seeks to better inform residents, commuters and visitors of Jersey City's policies, from zoning codes to parking regulations. It also includes the promotion of a "park once" approach for visitors. A frequent concern of residents is a perceived lack of parking supply being built within the City. This is in part true, because the City, recognizing that growth opportunities rely on a broader set of travel options, has been moving away from a "car-first" development approach for several years and has been vocally promoting a multimodal and/or "car light" lifestyle. For visitors who drive to Jersey City, parking could be easily incorporated into wayfinding related to tourism, which is identified in the NJTPA's *Plan 2045* as an important economic development strategy.

This strategy should be undertaken thoughtfully, and further focus group input is likely needed for it to be successful. Residents expressed a fear that the City disregards the real need to drive for many residents, particularly those with lower incomes and who reside outside the higher income neighborhoods. The communications strategy should emphasize benefits for all residents and acknowledges a diversity of travel needs.

[11] https://library.MunicipalCode.com/az/scottsdale/codes/code_of_ordinances?nodeId=VOLII_APXBBAZOOR_ARTIXPALORE_S9.108SPPAREDI

Short Term

The City should roll out a public education program around the City's transportation policy, including the use of parking maximums that limit parking supply at new developments. This will help inform City residents of existing policies and the role everyone can play to create a more sustainable and multimodal city.

- Reiterate the City's sustainability goals and clarify how lowered parking requirements support these goals
- Engage in an online and traditional advertising campaign to explain the City's sustainability goals related to transportation, and how parking policy fits into those goals
- Conduct additional public outreach or focus groups to engage in dialog with the public about how parking policy supports the City's sustainability goals, and how they benefit all residents, car owners and transit users

Medium Term

The City should explore a new wayfinding system for visitors and commuters that helps guide them to "park once" locations when entering the city and provides information on how to get around after parking. The City should also consider revising its existing on-street parking regulation signage to be clearer and more concise, so drivers can quickly understand the rules of an available space.

- Explore citywide wayfinding signage to guide visitors and commuters to designated parking
- Provide clear signage so parking regulations are easily identifiable

How This Will Help Jersey City

- Clarifies the policy goals of the City
- Improves safety for residents of all ages and abilities
- Providing guidelines with a simplified system of signage that is easy to understand will increase compliance

Implementation

The key to implementing this strategy is through enhanced community engagement. By engaging the public more broadly to communicate City's sustainability goals, the public will be better informed on how Jersey City is working to improve parking and overall quality of life.

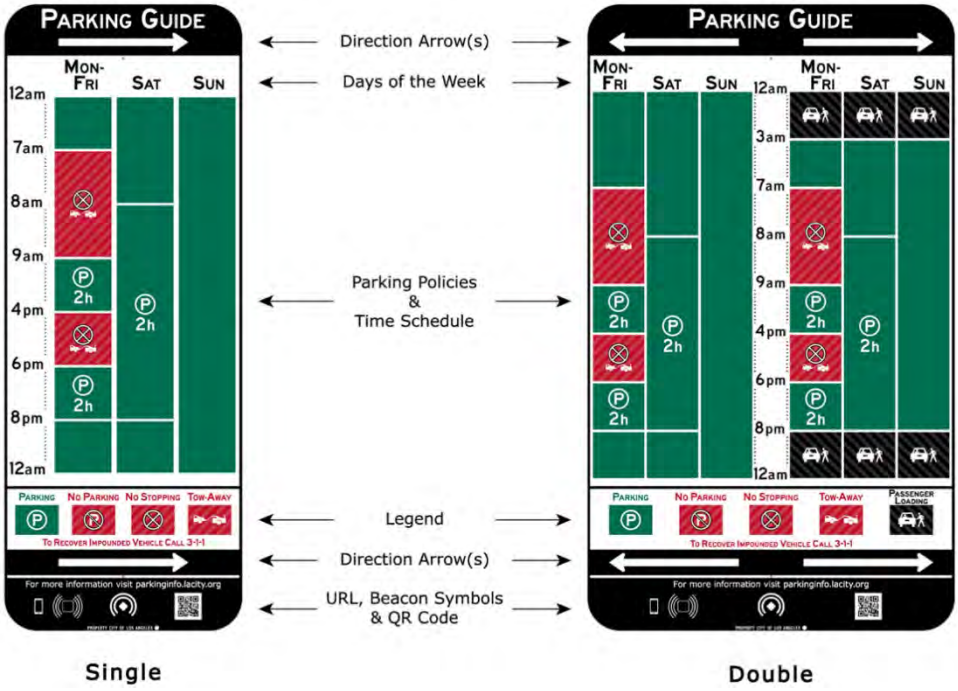
Additionally, more public meetings that address parking issues around new developments and present both traffic impact and parking impact studies will help garner public buy-in of the parking requirements set for these developments.

Outcomes	• Clarifies the policy goals of the City and encourages compliance • Public buy-in will make all strategies more effective
Measures of Success	• Increased public awareness of City sustainability goals
Barriers	• Public may resist changes to parking regulations if they do not understand the bigger picture • Design and installation of signage required
First Steps	• Schedule public meeting to present sustainability goals and discuss parking • Meet with a wayfinding consultant to discuss design and production of signage

Use Cases

Los Angeles, CA

In 2015, the City of Los Angeles redesigned their parking regulation signs to be clearer and more easily understood by visitors and residents alike. The new signs used a visual representation of a 24-hour time period to show how parking regulations changed over the course of the day. Responses were overwhelmingly positive, and the signs were praised for their simplicity and clarity in relaying important parking regulation information to drivers.[12]



Single Double

[12] https://www.latimes.com/local/lanow/la-me-ln-confusing-parking-signs-20150403-story.html

7.8 Re-Examine the Curb Cut Policy

This strategy seeks to address the City's policy around new curb cuts on to residential streets. New curb cuts effectively reduce on-street parking supply and can exacerbate an already capacity-strained street. Removing and reducing the number of curb cuts can also provide public space for new community amenities like tree plantings in addition to restoring on-street parking.

Short Term

The City should identify any illegal curb cuts from vacant land uses to eventually remove these curb cuts and reclaim this on-street supply. The City should also freeze all request for new curb cuts while evaluating the overall policy.

- Identify illegal curb cuts to be removed from vacant/unoccupied land uses
- Compile a database of existing locations and permits for curb cuts

Medium Term

- Consider a variety of courses of action to address to existing illegal curb cuts including establishing pathways for owners to legalize curb cuts, grandfathering in existing curb cuts, ongoing payments or penalties, setting a grace period for removal by owner, and/or removal upon future sale of property
- Study whether presence of permitted curb cuts could be included in assessed home values, which could discourage future applications for curb cuts as they may increase a home's property tax

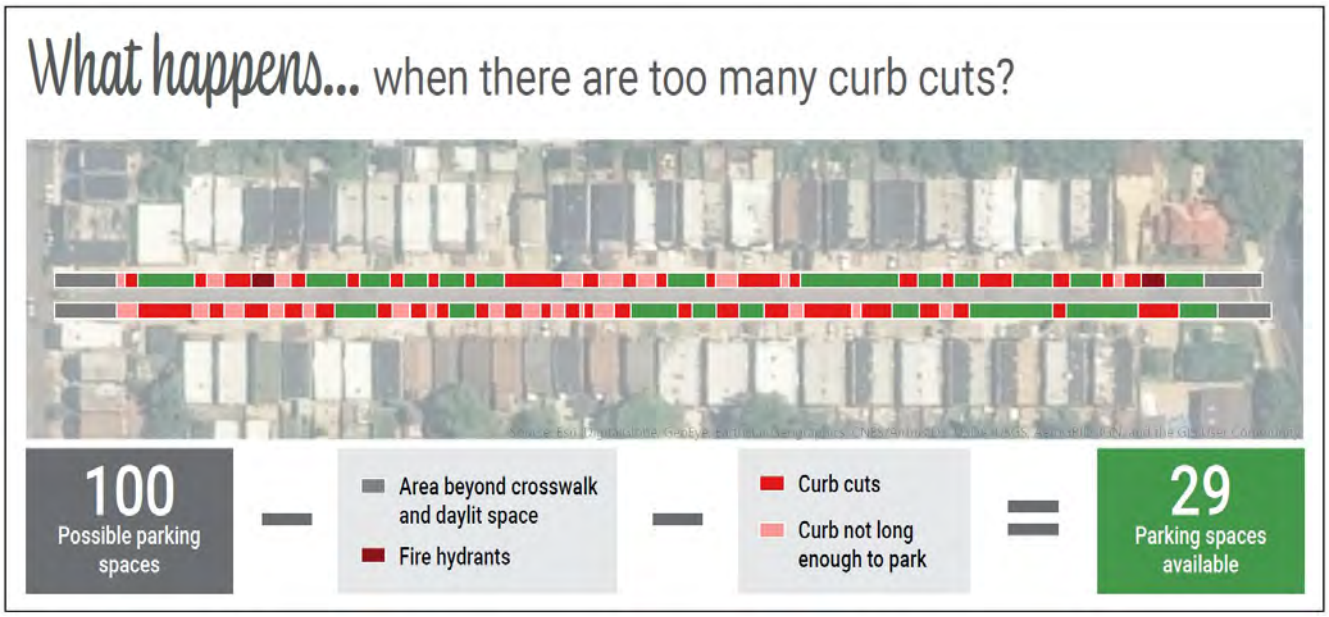
Long Term

The City should work with the Council and the public to address the issue at its source in the Municipal Code, through strengthening enforcement and making it more difficult to win approval for new curb cuts.

- Pass legislation to further empower the City to monitor and enforce illegal curb cuts (i.e. removing illegal curb cuts and charging owner for construction) and legally define curb as a public good
- Change curb cuts policy in municipal code

How This Will Help Jersey City

- Incrementally reduces illegal curb cuts to return on-street parking supply from private to public use
- Discourages competition between residents for on-street parking
- Improves safety for residents of all ages and abilities



Implementation

The first step to implementing a new curb cut policy is to establish the baseline. The City should freeze any permits for new curb cuts while compiling a database of existing curb cuts, locations, and permits. This database can be used to determine which cuts are permitted and which are not and be used to assess the impact of future curb cut applications on the same block. Additionally, any curb cuts found on abandoned or vacant lots that are not permitted should be removed to re-establish on-street parking. The City should also consider establishing pathways for owners to legalize curb cuts through grandfathering of existing curb cuts, assessing ongoing payments or penalties, setting a grace period for removal by owner, and/or stipulating removal upon future sale of property.

The City should align any future curb cut policy with revised parking requirements established in the zoning code (see Strategy 9, re-examine parking requirements in the City's zoning code) to create a cohesive and unified approach.

Outcomes

- More on-street parking space
- Improves livability and equity by reducing competition between residents to find parking near their homes
- Incrementally reduces illegal curb cuts to return on-street parking supply from private to public use

Measures of Success	• Number of illegal curb cuts decreases from current number • Reduction in number of future curb cut requests
Barriers	• Property owners may resist removal of illegal curb cuts • Missing data on legal vs illegal curb cuts
First Steps	• Catalog all curb cuts in the City and classify as illegal or legal • Remove illegal curb cuts and issue fines to whoever installed • Petition City Council to pass legislation necessary to enforce

7.9 Re-Examine Parking Requirements in the Zoning Code

This strategy seeks to streamline the parking requirements across the City's zoning code to make it simpler for developers to understand and assess parking requirements for their respective projects, as well as better align parking standards with the City's sustainability goals.

Short Term

These actions aim to revamp the parking requirements across City's 97 redevelopment zones, to a more uniform and centrally managed system, which should make parking requirements and development rules within these areas more transparent and understandable. Additionally, the City can leverage the existing transit system to reduce parking needs and encourage transit use with transit district overlays – such overlays often include reduced parking, transportation demand management (TDM) techniques (see Strategy 10), and increased densities. These can be paired with requirements for fees in lieu of providing accessory parking for developers, which encourage improvement of alternate modes of transportation. Focusing new development near transit hubs supports the City's sustainability goals.

- Define parking requirements centrally and uniformly, rather than individually across 97 redevelopment zones
- Identify transit overlay zones to set parking maximums
- Fees in lieu of meeting parking requirements (developers provide money for infrastructure upgrades) for any legacy minimum requirements in areas zoned for redevelopment

Medium Term

The City should consider standardizing the zoning code to reduce the number of zone types and more easily regulate parking through the introduction of parking maximums for these new zones.

- Standardize parking maximums for new developments in Jersey City and explore lower maximums for transit supportive areas
- Refine the boundaries of transit overlays in the City's zoning code
- Request building owners provide a list of tenant parking registrations to the City

Long Term

The City should investigate the possibility of requiring building owners to provide lists of tenant-occupied parking, which can be fed into the centralized parking management system (see Strategy 2, expand shared parking and manage through a centralized system), and further compel developers to invest in alternate modes of transportation through fees and requirements, such as the inclusion of secure bike parking in new buildings.

- Consider amending ordinance to require building owners to provide list of tenant parking registrations to the City (consistent with recent Ward C legislation)
- Tie parking requirements at new developments to transit resources
- Implement bike parking/infrastructure requirements into zoning code

How This Will Help Jersey City

- Increases public buy-in of city's sustainability goals by clarifying the purpose of lower parking requirements and encouraging investment in alternative transportation
- Ensures that public transit is being fully utilized as a form of transportation, decreasing car dependency and reducing parking demand

Implementation

The current system, which designates parking requirements by redevelopment districts in Jersey City, presents management and enforcement challenges. In the zoning code, there are 97 redevelopment districts. They range in size from a single parcel to as large as several city blocks. Each has different parking requirements from the others creating a chaotic, seemingly ad hoc policy approach to something that requires a coordinated, citywide planning strategy.

Moreover, the current parking requirements in the districts where minimums are prescribed, base the number of parking spaces on floor area. This approach to parking does not reflect the complex access needs and consumer/resident behaviors seen in dense cities. The consultant team recommends consolidating the parking policy for the 97 districts to follow a standard approach. The approach should be based on access related principles to determining parking.

Right-sizing parking requirements should be tailored to the needs of Jersey City and based on the following principles:

- Determined by activity instead of square-foot-based ratios
- Based on community needs and occupancy
- Number of spaces must reflect the availability of travel options including transit, carpooling, and other modes
- Policies should be uniform within zones for city staff to easily apply and enforce
- Require developers to provide a parking demand analysis in addition to a traffic impact study to incentivize developers to accommodate their tenants' travel needs multimodally
- Provide developers credit for agreeing with other property owners to utilize vacant parking space, making more efficient use of citywide parking supply

Our proposed revision to the redevelopment districts zoning would make developers complete a parking demand analysis *in addition to* the required traffic study for new developments. The parking study would perform a parking generation analysis to determine the number of spaces required by the new development. This analysis must be based on activity, not simply square footage by use. Parking generation guidance should be obtained from the recent work by Reid Ewing, DDOT, Arlington County, VA, and Kristina Currans or based on models such as the EPA's MXD model. Guidance provided in ITE's Parking Generation Manual is geared toward single-use, car-oriented, suburban contexts; it is poorly suited to mixed-use, medium- and high-density contexts like Jersey City.

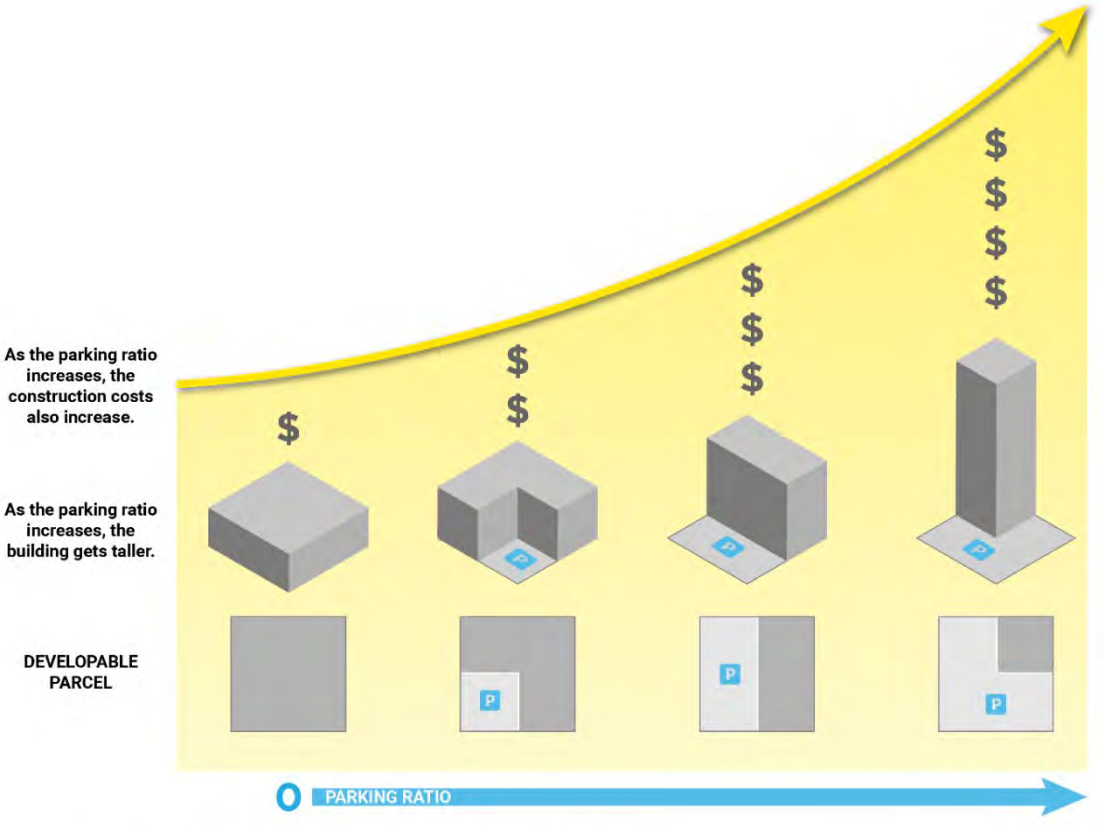
Since usage can change within a given building (e.g. restaurant becomes dry cleaner), and formats within use categories can be very different, for instance a coffee house could have table service or only takeout, parking should be flexible. It should also account for how much of the development is generating trips versus adding amenities. The estimated number of spaces must account for the impact

of shared parking, encouraging the construction of complementary land uses to reduce the total burden on the City's parking resources. This estimate must be adjusted to reflect the impacts of other travel options on parking demand, such as PATH access, bus access, or bike lanes. The study would require approval by City planners and/or traffic engineers for development to proceed. Some local governments that require a TDM plan as part of their site plan review include Arlington County, VA, (see Use Cases, below), Sunnyvale, CA, and the North Bayshore district of Mountain View, CA.

The parking analysis would also provide an opportunity to incentivize developers to take the parking question into their own hands. In the case that the City decides to keep parking minimums, it could allow a reduction in the number of spaces required based on the impacts of TDM measures the developer adopts, which would motivate developers to accommodate their tenants' travel needs multimodally. Developers could also be credited for agreeing with other property owners to use vacant parking space they own, making more efficient use of the parking supply.

This system for determining parking needs on a case-by-case basis would be uniform citywide and would ensure the construction of new parking meets the needs of the public, while motivating developers to minimize wasted space and excess parking.

Figure 18: Parking minimums increase the mass of new developments



The graphic above assumes the number of units and unit size remain the same for each scenario.

Outcomes	• Zones better reflect neighborhood character and needs • Available parking used more efficiently • Maximizes clarity
Measures of Success	• Maximum parking requirements applied citywide • Parking requirements defined by primary district, not by redevelopment district
Barriers	• Restructuring of city code necessary to simplify parking regulations • City Council must approve changes to parking requirements
First Steps	• Meet with transit agencies to workshop ideal transit overlay boundaries • Revise sections of city code to place redevelopment zones within the main zone structure

Use Cases

Arlington County, VA

Arlington County, Virginia has introduced several policies that promote shared parking in its transit corridors. One of these policies allows for a reduction in the number of spaces required when the presence of complementary land uses in a development allows parking spaces to be shared efficiently. Another provides for meeting parking requirements by identifying empty space in existing private garages. If developers can demonstrate that spaces in a private garage are not used, the garage owner and the developer may sign an agreement that lets parking requirements of the new development be met using those spaces, rather than constructing new lots. These policies reduce the amount of space devoted to parking supply while meeting existing demand.

Washington, DC

The District Department of Transportation (DDOT) recently developed a document entitled "Guidance for Comprehensive Transportation Review"[13] for the review of new developments. This guidance considers the base parking calculations for each land use and then outlines various means of reducing this parking requirement. The guideline allows for a 50 percent reduction in required parking for parcels within 1/2-mile of a Metrorail station or 1/4-mile of a streetcar or priority bus route. For a

[13] https://nacto.org/wp-content/uploads/2015/04/CTR-Guidance-June-2019-Version-1.0.pdf

reduction of five or more parking spaces, the guidance requires the developer to provide a Parking Occupancy Study to evaluate the availability of parking within a reasonable walking distance from the site. DDOT also set preferred parking rates at levels that advance the MoveDC[14] goal to increase the amount of citywide home-work commute trips made by non-auto modes to 75 percent. An example of DDOT's preferred vehicle parking rates is shown below:

DDOT-Preferred Vehicle Parking Rates

Land Use		Less than ¼ Mile from Metrorail	¼ to ½ Mile from Metrorail OR Less than ¼ Mile from Priority Transit**	½ to 1 Mile from Metrorail	More than 1 Mile from Metrorail
Residential *(spaces/unit)*	**DDOT:** ZR16 Min-Max:	**0.30 or less** 0.17* - 0.67	**0.40 or less** 0.17* - 0.67	**0.50 or less** 0.33 – 0.67	**0.60 or less** 0.33 – 0.67
Office *(spaces/1,000 GSF)*	**DDOT:** ZR16 Min-Max:	**0.40 or less** 0.25* - 1.00	**0.50 or less** 0.25* - 1.00	**0.65 or less** 0.50 – 1.00	**0.85 or less** 0.50 – 1.00
Hotel *(spaces/1,000 GSF)*	**DDOT:** ZR16 Min-Max:	**0.40 or less** 0.25* - 1.00	**0.45 or less** 0.25* - 1.00	**0.60 or less** 0.50 – 1.00	**0.75 or less** 0.50 – 1.00
Retail *** *(spaces/1,000 GSF)*	**DDOT:** ZR16 Min-Max:	**1.00 or less** 0.67* - 2.66	**1.25 or less** 0.67* - 2.66	**1.60 or less** 1.33 – 2.66	**2.00 or less** 1.33 – 2.66
Other Uses	**DDOT:** ZR16 Min-Max:	**75% of § 701.5 or less** 50% - 200% of § 701.5*	**90% of § 701.5 or less** 50% - 200% of § 701.5*	**120% of § 701.5 or less** 100% - 200% of § 701.5	**150% of § 701.5 or less** 100% - 200% of § 701.5

Notes:
* There is no vehicle parking requirement in Downtown "D" and several other zones. DDOT strongly encourages Applicants to provide no on-site vehicle parking where allowable by zoning.
** Priority transit includes the H Street Streetcar, Streetcar Benning Road Extension, DC Circulator, and Priority Corridor Network Metrobus Routes defined by zoning in DCMR 11, Subtitle C § 702.1(c).
*** Retail rates can be used for either standalone buildings or first floor users of mixed-use projects. The Retail category also includes a wide range of related uses such as fast casual restaurant, bank, drinking establishment, pet grooming, coffee shop, grocery, etc.

7.10 Implement Transportation Demand Management and Expand Alternative Mobility Options

Transportation demand management (TDM) programs have the potential to greatly reduce the need for employees to drive to work, which can significantly reduce demand in the Downtown Jersey City area, a key concern among residents and businesses alike. This strategy helps frame how the City can work with local businesses to implement such programs, often at little to no cost to the City.

Short Term

The key actions to take are to understand the current state of TDM programs within the City and to engage with Hudson TMA to help support the City in developing TDM requirements.

- Conduct a study of employers across Jersey City to identify employee parking issues and preferred solutions
- Require employers to provide priority parking for carpools, vanpools, and HOV

[14] http://www.wemovedc.org/

- Coordinate with the Hudson TMA to leverage their resources in support of TDM and alternative mobility

Medium Term

In conjunction with other actions related to Strategy 9 (re-examine parking requirements in the City's zoning code) in this plan, the City can work with developers to invest in alternate transportation and other TDM measures and begin to see local businesses implementing robust TDM plans with proper reporting to the City. Additionally, the City should continue to invest and expand its existing alternate modes of transportation, such as Citi Bike and Via.

- Provide incentives to developers to move toward investing in alternative transportation and TDM measures in place of providing parking supply
- Encourage employers to provide commuter benefits such as carpooling and transit incentives and transit discounts, and implement other TDM strategies like bike parking on-site, car-share and bike-share memberships, and/or shuttles to and from transit stations
- Continue to expand bikeshare programs in the city and to promote bike lanes
- Continue to build upon the City's contract with Via or a similar on-demand shred ride provider to expand on-demand shared micro-transit
- Use parking revenues to fund alternative transportation programs, such as mobility hubs that concentrate multiple modes of transportation into transfer nodes to better enable multi-modal trips

Long Term

The City should explore a public-private partnership for additional types of shared mobility, such as car sharing, and allocate new parking revenue to non-motorized transportation improvements. Members of the community also suggested looking into using revenue from the recently passed Mass Transit Access Parking Tax to fund improvements.

Boston
Bike Parking

Operation:
The city replaced 163 car parking spaces with 1,644 bike parking spaces.

Results:
Huge increase in curb productivity. The utilization rate of the curb increased by more than 350 percent in the pick-up/drop-off zone.
Parking incidents decreased. 8% drop in overall parking citations in the area.
Safer behaviors observed. A notable decrease in pick-up/drop-off activity happening in the travel lane.

- Explore a public-private partnership for implementation of TDM programs, such as carshare, bikeshare, pedestrian improvements, etc.
- Use parking revenues to improve pedestrian and bicycle connections to rail and bus stations

How This Will Help Jersey City

- Optimizes the use of available parking supply
- Improves safety for residents of all ages and abilities
- Ensures that public transit is being fully utilized as a form of transportation, decreasing car dependency and reducing parking demand
- Reduces parking demand stemming from employee commuting needs and increases the attractiveness of Jersey City as a place of employment

Implementation

Some specific Transportation Demand Management tools may include:

1. Alternative Work Schedules
2. Carsharing
3. Parking Cash Out
4. Rideshare
5. Walking
6. Biking and Bikeshare
7. Telecommuting
8. Public Transit

Improving transit was the third most popular strategy in the online survey (out of 7), approved by almost half of respondents. Additional ideas that were presented at the public workshop include carpooling incentives, transit discount, expanded bike parking, shuttles in areas underserved by transit, and discounted carshare and bikeshare memberships. The City should work with local and regional partners, such as the Hudson County TMA and NJTPA, to engage city employers and develop a framework to introduce voluntary TDM programs.

Another suggestion to consider is a pilot project to run shuttles from Journal Square to local employment centers. For example, workers who take transit to Journal Square can then take a shuttle to work at Central Avenue businesses. The consultant team recommends working with local employers to develop the pilot. This could also include leveraging the City's existing Via contract for shuttle arrangements.

Outcomes	• Reduces parking demand stemming from employee commuting needs and increases the attractiveness of Jersey City as a place of employment • Decreases the conflict between residents and commuters for parking in residential areas • Discourages long-term parking in commercial areas, allowing more visitors to frequent local businesses during the day • Provides an outlet for accommodating commuter parking demand
Measures of Success	• Decreased drive-alone mode share for commuters
Barriers	• Missing information on Jersey City commuter travel demand and openness to alternate modes • Employers may not be motivated to proactively manage travel demand unless offered relaxed parking requirements or some other incentive • Funding needed for TDM measures • Many residents must own a car to commute to work, even if they would prefer not to own a car
First Steps	• Survey Jersey City employers to identify employee parking issues • Meet with Hudson TMA to discuss TDM measures • Meet with Via and CitiBike to discuss expanding shared mobility options • Workshop with City traffic engineers to discuss pedestrian and bicycle amenities at transit stations

Use Cases

Biogen, Cambridge, MA

Biogen is a global biotechnology company headquartered in Cambridge's Kendall Square neighborhood, a district that is heavily developed with other big employers and is directly adjacent to many residential neighborhoods. Due to the urban and already-constrained nature of the environment, Biogen implemented a strong TDM program that greatly reduced the need for employees to drive to

work and park on nearby side streets. This included a monthly transit subsidy that could also be used to pay for parking at transit stations; park and ride shuttles equipped with Wi-Fi, coffee, and satellite tv and located in five convenient locations to pick employees up before they drive to Kendall Square; and a "flex out" program that offers $150 in cash to employees that neither drive nor take transit to work. Additionally, the company offered complementary programs like Guaranteed Ride Home to provide flexibility, as well as on-site showers and lockers.[15]

Biogen has seen a 10 percent decrease in the number of employees participating in the parking pass program, and a 6 percent and 9 percent increase in the park and ride and flex out programs respectively. The company's TDM program is supported by the City of Cambridge's extensive Parking and Transportation Demand Management Ordinance which helps companies in the City reduce the number of parking spaces needed as well as promote TDM programming.[16]

7.11 Why New Parking Garages Aren't Part of This Plan

Notably, this plan does not include a recommendation to build additional parking supply in the form of a parking garage. The plan instead recommends focusing on gathering more data to better understand the existing parking supply and then implementing measures to use that supply more efficiently. Data can shed light on where current inefficiencies exist and the parking management techniques at the City's disposal, described in this report, can be tried first to provide more efficiency at lower cost than building a garage. Better management of the system may create conditions where the perceived need for building new parking garages diminishes.

While adding supply may seem like a quick solution, it is not so simple. Parking garages in the region cost between $30,000 and $65,000 per space to construct, which means even a modest garage could cost millions of dollars to build. Although garages may solve a local problem, they create some global problems such as more traffic, lower density development for the same bulk, more pollution, and more car dependence. Garages take up space that could be used for parks, community centers, businesses and housing. Building garages also implicitly subsidizes the cost of driving, which conflicts with citywide sustainability goals. Studies have shown that an increase in available parking is linked to an increase in automobile mode share.[17] When parking is relatively inexpensive and readily available near a destination, driving to that destination becomes a more attractive option. Conversely, when parking is more expensive and more scarce, alternative modes of travel become more attractive options.

Balancing parking with alternative travel modes, and managing that parking efficiently is one of the most effective ways a city can combat the externalities of driving and parking. Only after parking management techniques are tried and found to be insufficient to solve the problems should the building of new parking supply be considered.

[15] https://www.usdn.org/uploads/cms/documents/2015usdnconvening_summary.pdf
[16] https://www.cambridgema.gov/CDD/Transportation/fordevelopers/ptdm.aspx
[17] https://journals.sagepub.com/doi/abs/10.3141/2543-19

8 Next Steps

This report documents the study findings and serves as the City's Parking Management Plan. This plan, however, will not be useful without the City and the stakeholders acting upon these recommendations. Parking management is a complex topic, and the 10 strategies recommended in this report contain multiple individual actions that support each, ranging from short- to long-term. This allows for phased implementation. The success of implementation depends upon continued engagement of the City, local and regional stakeholders, and the public.

The next step is for the City to begin implementing the short-term actions detailed in this plan. The City should use pilot projects and trial and error methods to find the right formula that will achieve their parking goals. Table 11 provides a blueprint for City implementation of all the recommended actions and assigns priority levels. The City will need to assign a lead agency and supporting agencies to each action to streamline the workflow.

Table 11: Implementation of Recommended Actions

Strategy 1: Modify the "Parking Zones" Residential Permit System					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Freeze existing zones and create no new zones while further assessing the zone permit system	Short-Term	$	N	N/A	High
Conduct an inventory to determine how many permits are active in the City	Short-Term	$	N	N/A	Med
Conduct a study using tax roll data to determine how many residents have access to Off-street garages and in what locations they are most prevalent	Short-Term	$	N	N/A	Low
Assess a higher administrative fee to individual permit applicants to cover the parking permit validation effort	Short-Term	$	Y	N/A	Low
Modify zone boundaries to better manage demand and address community concerns and to standardize parking zone policies	Medium-Term	$	Y	N/A	Med
Explore process of removing zones	Medium-Term	$	N	N/A	Med
Require residential building owners to provide list of tenants with access to off-street parking to curtail misuse of the on-street permit system	Medium-Term	$	N	N/A	Low
Implement graduated permit pricing system in which cost of a parking permit increases with each additional vehicle a household owns	Long-Term	$	Y	N/A	Med

Adjust residential permit prices on a regular schedule to allow the pricing of residential permits at the current market clearing price	Long-Term	$	Y	N/A	High
Strategy 2: Expand shared parking programs and manage through a centralized system					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Explore ability to require residential building owners to provide space availability data	Short-Term	$	N	N/A	Low
Incentivize private garages to offer parking to non-residents	Short-Term	$	N	N/A	Med
Make off-street parking available to non-residents if it is unoccupied	Medium-Term	$	N	N/A	Med
Incentivize private garages to share parking occupancy and availability with the City	Medium-Term	$	N	N/A	Med
Implement centralized parking management system to collect, organize, and analyze data	Long-Term	$$	N	FHWA Advanced Transportation and Congestion Management Technologies Deployment Grant, NJDOT Local Aid and Economic Development Municipal Aid	High
Use data to update and adjust policy based on real-world data and trends identified in the centralized parking management system, and implement centralized decision making so regulations are applied consistently citywide	Long-Term	$	N	N/A	High
Strategy 3: Coordinate on-street and off-street parking rates; set parking rates to ensure availability and respond to demand					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Conduct a pilot for Tiered Pricing at metered parking spaces that increases the meter rates the longer a user takes up a parking space	Short-Term	$$	Y	FHWA Advanced Transportation and Congestion Management	Med

				Technologies Deployment Grant, NJDOT Local Aid and Economic Development Municipal Aid	
Modify metered parking hours to align with land use and activity (i.e. align metered hours with business hours)	Short-Term	$	Y	N/A	Med
Identify priority areas for new meter installation	Short-Term	$	Y	N/A	High
Coordinate on-street rates and off-street garage rates	Medium-Term	$	Y	N/A	Med
Price off-street parking for desired occupancy and offer discounts for commuters/visitors seeking all-day parking so they do not park on-street	Medium-Term	$	Y	N/A	Med
Use parking benefit districts to help implement metering where not currently present	Medium-Term	$	Y	N/A	Low
Consider implementing more meters, especially in high turnover areas, to create fair parking opportunities for residents, visitors, and commuters	Medium-Term	$$	Y	N/A	Low
Implement either tiered meter pricing or performance-based metered pricing depending on the findings from previous actions	Long-Term	$$	Y	FHWA Advanced Transportation and Congestion Management Technologies Deployment Grant, NJDOT Local Aid and Economic Development Municipal Aid	High
Strategy 4: Improve enforcement of parking regulations					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Work with parking enforcement and courts to develop a consistent and targeted parking enforcement plan	Short-Term	$	N	N/A	High

Prioritize neighborhood safety and universal access when addressing curb cut and parking infractions	Short-Term	$	N	N/A	Med
Improve communication and enforcement of metered parking time limits to decrease use of metered parking by commuters	Short-Term	$	N	N/A	High
Improve communication of enforceable parking offenses and the impact on City residents	Short-term	$	N	N/A	Med
Clearly mark out 'No Parking' areas (i.e.: fire hydrants, 25-foot offset from crosswalks, bike lanes, etc.)	Short-Term	$$$	N	NJDOT Local Aid and Economic Development Municipal Aid Program	Med
More detailed study of enforcement patterns to determine where lax or overly zealous enforcement is concentrated	Medium-Term	$	N	N/A	Low
Allocate more personnel and resources to parking enforcement in high demand areas	Medium-Term	$	N	N/A	Med
Revise parking ticket penalties in municipal code to increase fines for repeat offenders	Long-Term	$	Y	N/A	Med
Adopt technology-enabled smart parking solutions to support monitoring and enforcement, such as automated license plate readers (ALPR)	Long-Term	$$$	Y	FHWA Advanced Transportation and Congestion Management Technologies Deployment Grant, NJDOT Local Aid and Economic Development Municipal Aid	Med
Strategy 5: Comprehensively Manage On-Street Curb Space					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Designate geofenced Transportation Network Company (TNC) pick-	Short-Term	$	N	N/A	Low

up/drop-off areas within high-demand districts					
Conduct off-hours delivery pilot at buildings that use on-street space for loading	Short-Term	$	N	NJDOT Local Aid and Economic Development Municipal Aid Program	Low
Designate more loading zones in commercial areas	Medium-Term	$$	N	N/A	Low
Consider developing a curb management plan for Downtown or locations where curb space is at a premium	Long-Term	$	N	NJDOT Local Aid and Economic Development Municipal Aid Program	Med
Strategy 6: Consider Designated Areas for Commuters and Visitors and Incentives to Shift Commuter and Visitor Parking Away from Residential Areas					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Identify where commuters are parking and to what extent	Short-Term	$	N	N/A	Med
Consider shared parking at existing garages and lots that are empty at night	Short-Term	$	Y	N/A	High
Continue to pursue Shared Parking agreements	Short-Term	$	Y	N/A	Med
Extend ParkMobile technology to Off-street parking lots	Medium-Term	$	Y	N/A	Med
Implement time limits or No Parking regulations during daytime hours to disincentivize commuters from parking on street in residential areas	Medium-Term	$	N	N/A	Low
Require commuters to park in existing commercial lots near transit stations	Medium-Term	$	N	N/A	Med
Re-examine existing parking supply near transit stations to optimize balance between short-term and long-termlong-term parking supply	Medium-Term	$	N	N/A	Med

Explore opportunities for intercept parking areas or centralized parking garages	Long-Term	$$$	Y	NJDOT Local Aid and Economic Development Municipal Aid Program, 3.5% Mass Transit Parking Tax	Low
Strategy 7: Improve Communications of City's Policies to Residents, Commuters and Visitors					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Reiterate the City's sustainability goals and clarify how lowered parking requirements support these goals	Short-Term	$	N	N/A	Low
Engage in an online and traditional advertising campaign to explain the City's sustainability goals related to transportation, and how parking policy fits into those goals	Short-Term	$$	N	N/A	Low
Conduct additional public outreach or focus groups to engage in dialog with the public about how parking policy supports the City's sustainability goals, and how they benefit all residents, car owners and transit users	Short-Term	$$	N	N/A	Med
Explore citywide wayfinding signage to guide visitors and commuters to designated parking	Medium-Term	$$	N	NJDOT Local Aid and Economic Development Transportation Alternatives Program, NJDOT Local Aid and Economic Development Municipal Aid Program, NSC Safe System Innovation Grant	Med
Provide clear signage so parking regulations are easily identifiable	Medium-Term	$$	N	NJDOT Local Aid and Economic Development Municipal Aid Program	Med
Strategy 8: Re-examine the City's curb cut policy					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority

Identify illegal curb cuts to be removed from vacant/ unoccupied land uses	Short-Term	$	N	NJDOT Local Aid and Economic Development Municipal Aid Program	Low
Compile a database of existing locations and permits for curb cuts	Short-Term	$	N	N/A	High
Consider a variety of courses of action to address to existing illegal curb cuts including establishing pathways for owners to legalize curb cuts, grandfathering in existing curb cuts, ongoing payments or penalties, setting a grace period for removal by owner, and/or removal upon future sale of property	Medium-Term	$	N	N/A	High
Study whether presence of permitted curb cuts could be included in assessed home values	Medium-Term	$	N	N/A	Med
Pass legislation to further empower the City to monitor and enforce illegal curb cuts (i.e. removing illegal curb cuts and charging owner for construction) and legally define curb as a public good	Long-Term	$	N	N/A	High
Change curb cuts policy in municipal code	Long-Term	$	N	N/A	Med
Strategy 9: Re-examine parking requirements in the City's zoning code					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Define parking requirements centrally and uniformly, rather than individually across 97 redevelopment zones	Short-Term	$	N	N/A	High
Identify transit overlay zones to set parking maximums	Short-Term	$	N	N/A	High
Fees in lieu of meeting parking requirements (developers provide money for infrastructure upgrades) for any legacy minimum requirements in areas zoned for redevelopment	Short-Term	$	Y	N/A	Low
Standardize parking maximums for new developments in Jersey City and explore lower maximums for transit supportive areas	Medium-Term	$	N	N/A	Med

Refine the boundaries of transit overlays in the City's zoning code	Medium-Term	$	N	N/A	Med
Request building owners provide a list of tenant parking registrations to the City	Medium-Term	$	N	N/A	Low
Consider amending ordinance to require building owners to provide list of tenant parking registrations to the City (consistent with recent Ward C legislation)	Long-Term	$	N	N/A	Low
Tie parking requirements at new developments to transit resources	Long-Term	$	N	N/A	Med
Implement bike parking/infrastructure requirements into zoning code	Long-Term	$	N	N/A	Med
Strategy 10: Implement TDM (Transportation Demand Management) Measures and Expand Alternative Mobility Options					
Action	Timeframe*	Cost**	Revenue Potential?	Potential Funding Sources	Priority
Conduct a study of employers across Jersey City to identify employee parking issues and preferred solutions	Short-Term	$$	N	NJTPA Transportation Alternatives Set-Aside Program, NJDOT Local Aid and Economic Development Transportation Alternatives Program	Low
Require employers to provide priority parking for carpool, vanpool, and HOV	Short-Term	$	N	N/A	Low
Consider coordinating with the Hudson TMA to leverage their resources in support of TDM and alternative mobility	Short-Term	$	N	N/A	Med

Provide incentives to developers to move toward investing in alternative transportation and TDM measures in place of providing parking supply	Medium-Term	$$	N	NJDOT Local Aid and Economic Development Transportation Alternatives Program, NJTPA NJ-Job Access and Reverse Commute, NJTPA Transportation Alternatives Set Aside Program	Med
Encourage employers to provide TDM strategies for employees such as carpooling incentives, transit incentives and discounts (e.g. commuter benefits), bike parking on-site, car-share and bike-share memberships, and/or shuttles to and from transit stations	Medium-Term	$	N	N/A	Med
Continue to expand bikeshare programs in the city and to promote bike lanes	Medium-Term	$$$	Y	NJDOT Local Aid and Economic Development Transportation Alternatives Program, NJTPA Transportation Alternatives Set Aside Program	Med
Continue to build upon the City's contract with Via or a similar on-demand shared ride provider to expand on-demand shared micro-transit	Medium-Term	$$	N	NJTPA NJ-Job Access and Reverse Commute, NJTPA Transportation Alternatives Set Aside Program, FTA Public Transit Innovation Grant	Low
Use parking revenues to fund alternative transportation programs, such as mobility hubs	Medium-Term	$	N	N/A	Low
Explore a public-private partnership for implementation of TDM programs, such as carshare, bikeshare, pedestrian improvements, etc.	Long-Term	$$$	Y	N/A	Low
Use parking revenues to improve pedestrian and bicycle connections to rail and bus stations	Long-Term	$	N	3.5% Mass Transit Parking Tax	Med

*Timeframe: Short-Term (0-1 year), Medium-Term (2-4 years), Long-Term (5+ years).

**Cost: Rough order of magnitude estimate.

Appendix List