



# CITY OF STAMFORD PARKING STUDY

---

November 2023

*This Page Left Intentionally Blank*

## Table of Contents

<b>Executive Summary.....</b>	<b>2</b>
<b>1. Project Background .....</b>	<b>5</b>
<b>2. Stamford Parking: Issues and Opportunities.....</b>	<b>10</b>
<b>3. Parking System Operations &amp; Management Review .....</b>	<b>50</b>
<b>4. Public Engagement: Key Areas of Community Concern/Opportunities .....</b>	<b>61</b>
<b>5. Recommendations .....</b>	<b>65</b>
<b>6. Implementation .....</b>	<b>77</b>
<b>Appendices.....</b>	<b>85</b>

# Executive Summary

## Study Goals and Work Scope

The Stamford City-Wide Parking Study was initiated in February 2020, just prior to the start of the COVID-19 pandemic. Whereas the pandemic affected some of the original work tasks and the study schedule, the overall goals of the Parking Study remained as initially planned:

- Undertake a City-wide parking assessment with a focus on key neighborhoods: Downtown, South End, West Side, Glenbrook, Springdale.
- Develop a set of data-based recommendations and implementation strategies to strengthen the City's parking resources and requirements.

As the study evolved over the 3-year period an additional need became apparent:

- Assist the City of Stamford in dealing with the consequences of the COVID-19 pandemic on its parking system usage.

The original scope of work included detailed occupancy surveys of on-street and off-street parking. These surveys were not felt to be valuable due to the reduced commutation that took place as the result of the pandemic. Instead, the team focused on a detailed inventory of on-street parking and curb-side regulations, using the Coord platform to digitally collect curb assets for the purpose of GIS integration and mapmaking.

As the Parking Study process evolved, the scope of work adjusted to account for the following:

- A detailed West Side inventory of on-street parking was collected and mapped.
- Multi-Family parking occupancy surveys were conducted to assess actual peak parking demand, as they relate to parking supplies required by zoning.

## Advancing Stamford's Broader Policy Goals

A comprehensive parking study can significantly advance a city's broader policy objectives in multiple ways. Below are examples of active Stamford policies and initiatives that this Parking Study strives to advance in its recommendations:

- **Vision Zero** – The City's Vision Zero Program is a citywide effort to eliminate roadway fatalities from local streets by 2032. The Parking Study recommends incentives that promote alternative transportation modes thus reducing vehicle miles of travel, a major driver of crashes. A well-managed parking system leads to more predictable and orderly behavior of drivers which will make the Stamford streets safer.
- **Promotion of Sustainability/Resiliency** – Stamford is committed to promoting sustainability and resiliency, as evidenced in recent initiatives such as the Climate Executive Order (2023) and the overall policy work advanced by the Mayor's Climate Task Force. A refined parking management strategy can help reduce greenhouse gas emissions, encourage mixed-use developments, enhance curb access for a wide variety of needs, and support electric vehicle (EV) infrastructure.
- **Promotion of Affordable Housing Development** – Stamford's robust support of affordable housing includes Inclusionary Zoning regulations that require developers of certain residential projects to set aside a percentage of units as affordable housing. Reduced parking requirements will enhance the economic feasibility of affordable housing development.

## Public Engagement

Robust Public Engagement was conducted with the objective to hear from stakeholders that represent different study areas. While some outreach targeted specific entities, other sessions were setup as community forums to hear from residents of specific neighborhood areas. Input collected during these sessions helped to tailor existing conditions documentation as well as recommendations.

The following public engagement sessions were conducted:

- Multifamily Residential Property Owners / Managers
- Downtown Stamford Stakeholders
- Stamford Chamber of Commerce
- Glenbrook & Springdale
- South End / East Side
- West Side / Waterside

## Key Findings

A culmination of stakeholder engagement, review of zoning requirements, along with data collected and analyzed resulted in the following key findings:

- There is a substantial reserve of underutilized parking in municipally-owned facilities.
- Current parking requirements for multi-family residential buildings appear to result in an oversupply of parking, in particular for market-rate buildings. Combining this review with the results of parking occupancy surveys in multi-family buildings allowed us to pinpoint specific ratio adjustments. There is also opportunity to solidify the parking requirements for a number of commercial uses.
- The consultant team identified a need to clarify policies and regulations related to parking requirements and sustainability incentives, such as unbundling of parking and shared parking. Quantifiable parking credits and procedures were investigated for various smart parking strategies to supplement and streamline the City's parking management reports.
- Stamford's rail access and other transportation resources present opportunities for reducing car ownership and dependency.
- The engagement sessions with some of the neighborhoods identified conflicts between the older homes that rely largely on on-street parking and the more recent additions of multi-family buildings or the intrusions of commuter parking.
- Although the City's Transportation, Traffic, and Parking Department (TTPD) does an excellent job managing the city's on- and off-street parking supply, there are opportunities to streamline certain operational procedures and for the City to investment in new parking technologies (i.e. enforcement and payment).

## Key Recommendations

The City-wide parking study produced detailed recommendations that can be grouped into the following key initiative areas:

- Update Parking requirement ratios in the City's zoning code, especially for market rate multi-family residential developments and by calibrating to industry standards a number of commercial ratios. Quantifiable parking incentives are proposed to encourage sustainable transportation and efficient land use.
- Encourage shared parking within mixed-use projects and within municipal parking garages.
- Protect residential neighborhoods from parking intrusions through parking regulations and enforcement, and through a solidified residential parking permit system.
- Increase the usage of underutilized municipal garages through user-friendly and attractively priced regulations and promoting payment-in-lieu-of-parking (PILOP) procedures.
- Expand the PILOP process to a mobility in-lieu-of parking fee (Mobility Fee) to allow these funds to be used for a broader range of mobility uses, and lower the per-space fee.
- Continue to invest in cost-effective parking management technologies that enhance enforcement and user-experience.

# 1. Project Background

## Introduction

The City of Stamford Parking Study was convened to identify recommendations and strategies that can alleviate ongoing and emerging parking concerns. In order to achieve effective parking management strategies, this Study explores the multi-faceted relationship between existing parking supplies and demand on both a Citywide and targeted neighborhood basis.

Parking challenges have increased in recent years as Stamford has grown. This parking study considers such development trends brought about from the 2015 Stamford Master Plan and projects for continued growth. Planning for a parking system that promotes sustainability and land-use efficiencies embraces multi-pronged approaches that include enhanced system coordination, the use of new technologies, as well as the adoption of regulations and policies that right-size parking supplies and encourages alternative modes of transportation.

Original study objectives that guided data collection and review of Stamford's parking system include:

1. Collect on-street parking inventory data within select study areas to better understand parking availability and regulation distributions.
2. Develop contextual understanding of parking challenges and opportunities for select study neighborhoods.
3. Review zoning code requirements for parking to assess opportunities to right-size new development parking provisions.
4. Review an assortment of other parking system management tools, e.g.:
  - Enforcement operations and protocols
  - Pricing and payment
  - The relationship and coordination between public and private parking resources

## Parking Study Neighborhood Focus Areas

In addition to Downtown Stamford, parking challenges are often evident in Stamford's dense neighborhood areas that contain multi-family developments and a mix of uses. In order to illuminate and understand both City-wide and neighborhood-specific parking challenges, fieldwork and data collection were conducted in the Downtown area, the South End, West Side, and station neighborhood areas in both Springdale and Glenbrook. The community engagement process also included sessions with stakeholders representing the East Side and West Side neighborhoods in order to better understand parking challenges and opportunities in these areas.

## Overview: Population Trends and Commutation Patterns

Population and workforce shifts have notable impacts on parking patterns and demand. Comparative Census data were analyzed in order to assess broad population-level demographic changes that have impacted mobility and parking patterns since 2010.

- Stamford's population grew by 11.5% to over 134,800 residents as of 2020.<sup>1</sup>
- From 2010-2019 Stamford's City-wide workforce grew by almost 10% to over 70,513 jobs. This growth was consistent for both residents who live and work in Stamford and workers who commute into the City.<sup>2</sup>

---

<sup>1</sup> Source: American Community Survey 2016-2010; 2016-2020

<sup>2</sup> Source: US Census Bureau, Longitudinal Employer– Household Dynamics (LEHD), 2010-2019; Data based on Primary Jobs.

- As the City's residential population grew, the share of residents who work outside of the City has increased more significantly (nearly 22%) between 2010-2019.
- Also as the City grew from 2010 to 2020, the share of households without a car has dropped from 11% to 9%.

Development in Stamford's Downtown and South End have been leading drivers of City change. As the residential population in these areas has grown, so has the share of residents who work outside of Stamford.

- As the residential population Downtown has increased, the core Downtown<sup>3</sup> workforce population decreased by 11% from 2010-2019 (roughly 17,000 jobs in 2010 to 15,150 jobs in 2019).
- Downtown residential growth was second only to the South End<sup>4</sup> which grew 95% Between 2010 and 2020. This growth is consequent of a wave of multi-family developments.

These data demonstrate that residential parking needs have become more prominent both Downtown and in the South End. While these areas have experienced significant area-wide changes in recent years, it is also recognized that development and change in other neighborhoods has impacted parking conditions.

Table 1.1 demonstrates the modal split of individuals who work in Stamford. While personal automobiles dominate as the primary mode of transportation for commuters, public transportation and other alternative transit modes are a viable resource for a share of commuters. Rail service at the Transportation Center is cornerstone to Stamford's public transit accessibility. Note that the data presented in Table 1.1 are based on pre-pandemic numbers, which is the most recently available modal split data on workers in Stamford.

**Table 1.1- Modal Split of Commuters that Work in Stamford:  
Downtown Versus Citywide**

Mode of Transit	Downtown		Citywide	
	Total	% Share	Total	% Share
Single Occupancy Vehicle	10,065	72%	59,375	74%
Carpool	835	6%	6,615	8%
Bus	580	4%	3,695	5%
Rail	1,820	13%	5,885	7%
Bicycle	80	0.6%	270	0.3%
Walk	635	5%	3,050	4%
Other	55	0.4%	855	1%
Total	14,070		79,745	

Source: U.S. Census Bureau, American Community Survey 2012-2016 Five-year estimates.

Special Tabulation: Census Transportation Planning

Note: Downtown data are based on Census Tract 201 (Fairfield County); Data totals exclude residents who work from home.

<sup>3</sup> Defined as Census Tract 201.02 (Fairfield County) for purposes of this analysis.

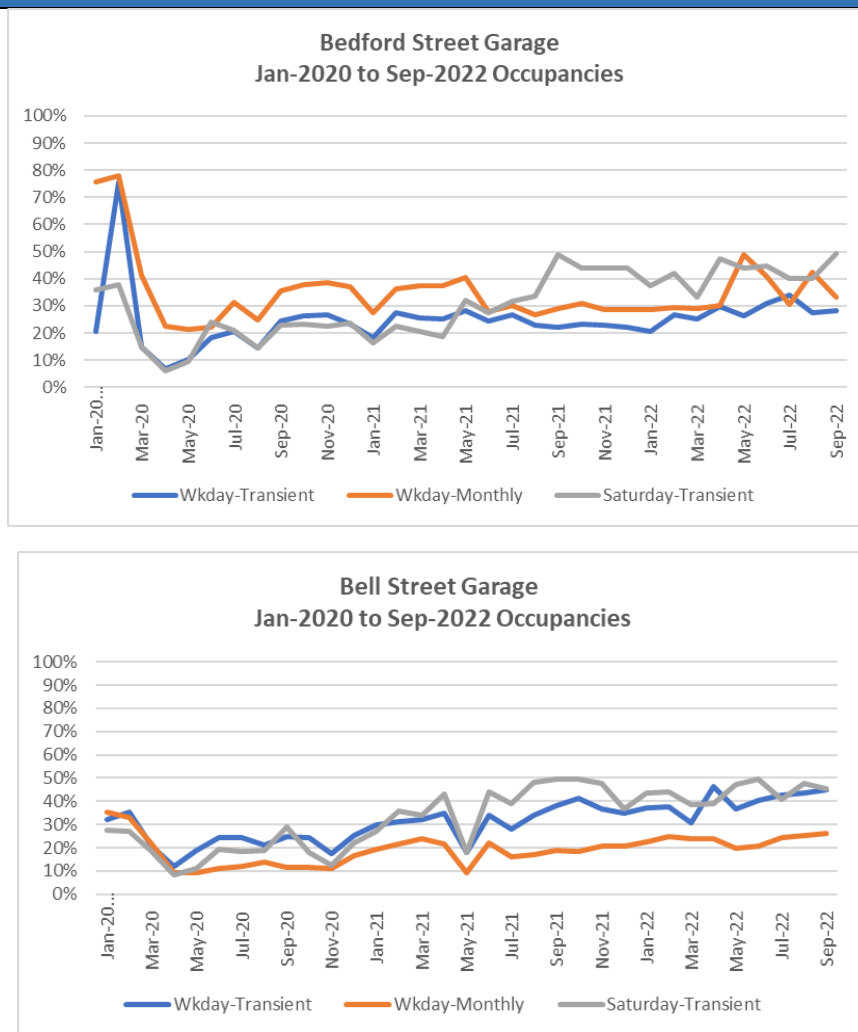
<sup>4</sup> Defined as Census Tract 222 (Fairfield County) for purposes of this analysis. 2020 Census data considers the creation of Tracts 222.01 and 222.02.

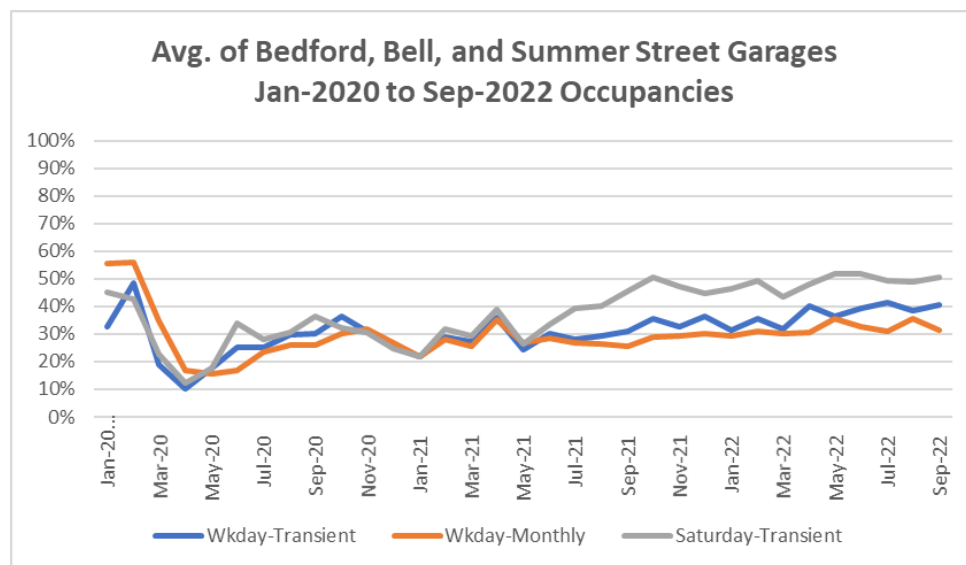
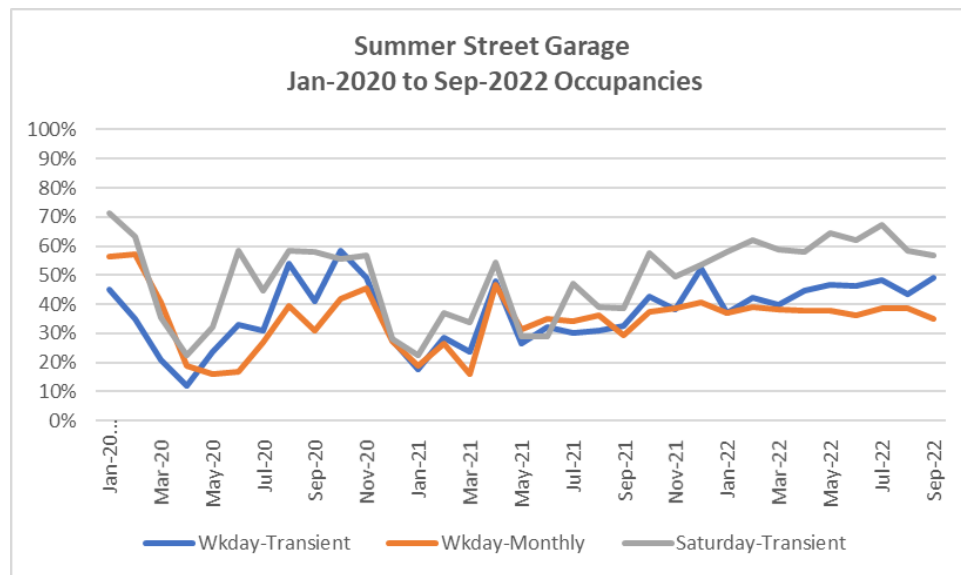
## Impact of COVID-19

The Stamford Parking Study was initiated three weeks prior to the start of the COVID-19 pandemic. The effect of the pandemic affected the scope of the study in the sense that the parking occupancy surveys that were part of the scope of work had to be canceled. The only data collection efforts that remained valid during this assignment are the occupancy surveys designed to determine the peak parking demands of multi-family residential buildings, which were undertaken primarily in the spring of 2021. The other complication caused by the pandemic is the difficulty to predict parking demands for commuter stations, office buildings and retail establishments, since it appears that future travel pattern will not revert to pre-pandemic levels.

Figure 1.1 shows the evolution of parking occupancies at three main municipal garages from January 2020 to September 2022 based on the capacity of transient spaces and monthly permit spaces within each facility. As of the date of this report, it is not certain whether parking utilization will increase again to the levels of January and February 2020.

**Figure 1.1: Evolution of Parking Occupancies at the Bedford Street, Bell Street, and Summer Street Garages – January 2020 to September 2022**





## Parking Trends and the Future of Parking

A key question that was raised as part of this three-year planning effort is what the likely outlook is in regards to future parking demands given the evolution of autonomous vehicles (AV). Will mobility as a service (MaaS) replace private auto-ownership? Back in 2014 and 2017 there were numerous organizations and institutions projecting that by today (2023) AVs would be part of our daily lives and that we would move away from private auto-ownership. Uber valuation increased tremendously based on the idea that the ride-hailing services offered by Uber and Lyft were precursors to the mobility-as-a service era by continuing to use their platform, but replacing the ride-hailing drivers and their cars with AVs. Conference speakers – often academics and consultants retained by the AV industry - presented an image of very safe, sustainable and affordable mobility to the point where we started to wonder what to do about our parking infrastructure. We did hear occasionally

from the experts about the need to re-educate the users and maybe a need to corral the pedestrians and bicycles so that they don't interfere with AV circulation.

What have we learned since then? The introduction of the ride-hailing services in the large, dense cities does not seem to affect car ownership. In New York City car ownership has actually slightly increased over the period when the ride hailing services became prevalent. Today's MaaS users in large cities that rely on ride-hailing services and car sharing rentals (like Zip Car) were already MaaS users prior to the introduction of these new mobility services, except that they used yellow cabs, public transportation and regular car rentals. The productivity of the ride-hailing services (measured as passenger trips per vehicle mile) is less than standard yellow cabs due to the greater distances of driving without passengers. It appears that ride-hailing services worsen congestion rather than alleviating congestion. Traffic safety seems to improve with the autonomous mode, but not to the point that some predicted. There is also no sign that large numbers of car owners are ready to abandon their personal car whether that is a Subaru or a BMW to rely on a mobility service that may be subject to temporal disruptions, surge pricing and long delays in rural areas.

Car drivers are enjoying the electrification of the automobiles and the improved navigation and safety features. They will appreciate the autonomous operating mode on the more open highways, but will probably shift to the manual mode in dense urban areas to get around the pesky pedestrians, e-scooters and cyclists.

To conclude, we do not expect any significant changes to parking demands related to the prospect of autonomous vehicles in the near future (5 to 10 years). We will probably see changes related to work-from-home pattern and possibly 4-day work weeks. In regards to designing parking garages, it is not cost-effective to design them such that they can be converted to office space or multi-family housing – the incremental cost for this convertibility is excessive. The only cost-effective adjustment is to design the ground floor so that it can be converted to another use.

## 2. Stamford Parking: Issues and Opportunities

### 2.1: On-Street Parking

#### Regulations

Study area parking inventory maps and summary tables that include time-limit rules and other regulations that are in effect in Stamford are provided in the following sections. As an overview:

- 30-minute or less parking is generally utilized for pick-up and drop-off purposes.
- Metered parking is utilized throughout downtown with a range of 1 to 3-hour time limits.
- The majority of time-limited parking in the South End is non-metered and typically ranges from 1 to 3-hour time limits.
- Commercial or mixed-use areas that do not have metered parking often have time-limit regulations to promote turnover for businesses.
- Unrestricted parking (no regulations) is prevalent on many established residential streets (e.g. South End, Springdale and Glenbrook).

The City of Stamford's Transportation, Traffic, and Parking Department (TTPD) enforces on-street parking regulations from 8am to 8pm, Monday through Saturday.

#### On-Street Parking Rates

Stamford's on-street meter rates are \$1.25/hour which became effective June 3, 2019. On-street parking provides quick and convenient access to local businesses and is often preferred by users or patrons in comparison to off-street parking lots or garages. From a parking management standpoint, the main goal of on-street parking is to promote turnover of these parking spaces due to their greater convenience and ability to serve multiple parkers throughout the day. To accomplish increased turnover, a basic parking management premise stipulates that on-street parking should be priced at a higher hourly rate than off-street parking lots or garages in order to dissuade longer term parkers from monopolizing the on-street spaces. Unfortunately, on-street parking is often priced lower than it should be which has multiple negative effects including:

- Encouraging long-term parkers to monopolize the most convenient on-street spaces. Often it is the employees and business owners that are parking in the most convenient spaces right in front of their businesses.
- Creating high occupancy of on-street spaces and forcing patrons to cruise the area thereby adding to traffic congestion.
- Contributing to illegal parking in loading zones, bus stops, and other prohibited areas which forces trucks and busses to double park, thereby increasing traffic congestion.

## On-Street Parking Inventory

On-street parking inventories were collected in four study areas:

- 1) Downtown: bounded by Hoyt Street to the north, North State Street to the south, Grove Street to the east and Washington Blvd./Clinton Avenue to the west.
- 2) The South End
- 3) Springdale Metro-North station area (defined as a 1/4 mile walking distance from the station).
- 4) Glenbrook Metro-North station area (defined as a 1/4 mile walking distance from the station).
- 5) West Side (generally bound by I-95 to the south, Havemeyer Lane to the west, Broad Avenue to the north and west Main Street to the east).

Notably, these study areas were chosen as key representative areas of Stamford. However, neighborhood areas such as the East Side were also included in community outreach efforts. This Study considers scalable recommendations across relevant areas of Stamford.

## Downtown

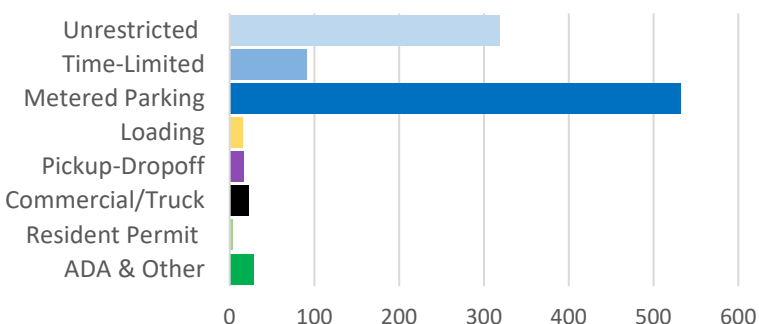
Figure 2.1 and the corresponding summary chart below exhibit the inventory of Downtown on-street parking spaces by regulation type. There are over 550 metered parking spaces in the downtown study area, with concentrations in areas such as Main Street between Atlantic Street and Washington Boulevard, Bank Street, West Park Place, Forest Street, Atlantic Street, Bedford Street, and Summer Street. A 'ParkMobile only' pilot zone is currently in place between Washington Boulevard and Tresser Boulevard on Division and Clinton Streets.

Unrestricted parking spaces exist at locations such as Main Street west of Washington Boulevard and scattered locations north of Broad Street. Nearly 100 non-metered time-limited spaces are scattered across Downtown, most of which are intended for quick drop-off/pickup purposes. Many street and curb areas in downtown do not provide parking. Figure 2.2 and the corresponding summary chart below show the locations and summary totals of on-street parking spaces in the South End by time-limit duration. Two-hour time limitations are the most common throughout Downtown. However, 1-hour time limits are common on Bedford Street north of Broad as well as Prospect Street. Three-hour limitations are utilized on Franklin.

Pickup/Drop-off (PUDO) needs have risen in recent years tied to food deliveries and similar transactions. While there are existing pickup/drop-off spaces downtown, a rise in double parking demonstrates a need for additional PUDO spaces.

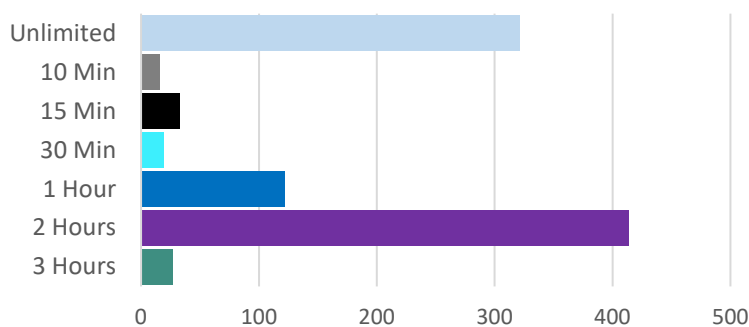
### Downtown On-Street Parking Spaces by Regulation

*Corresponds with Figure 2.1*



### Downtown On-Street Parking Spaces by Duration

*Corresponds with Figure 2.2*



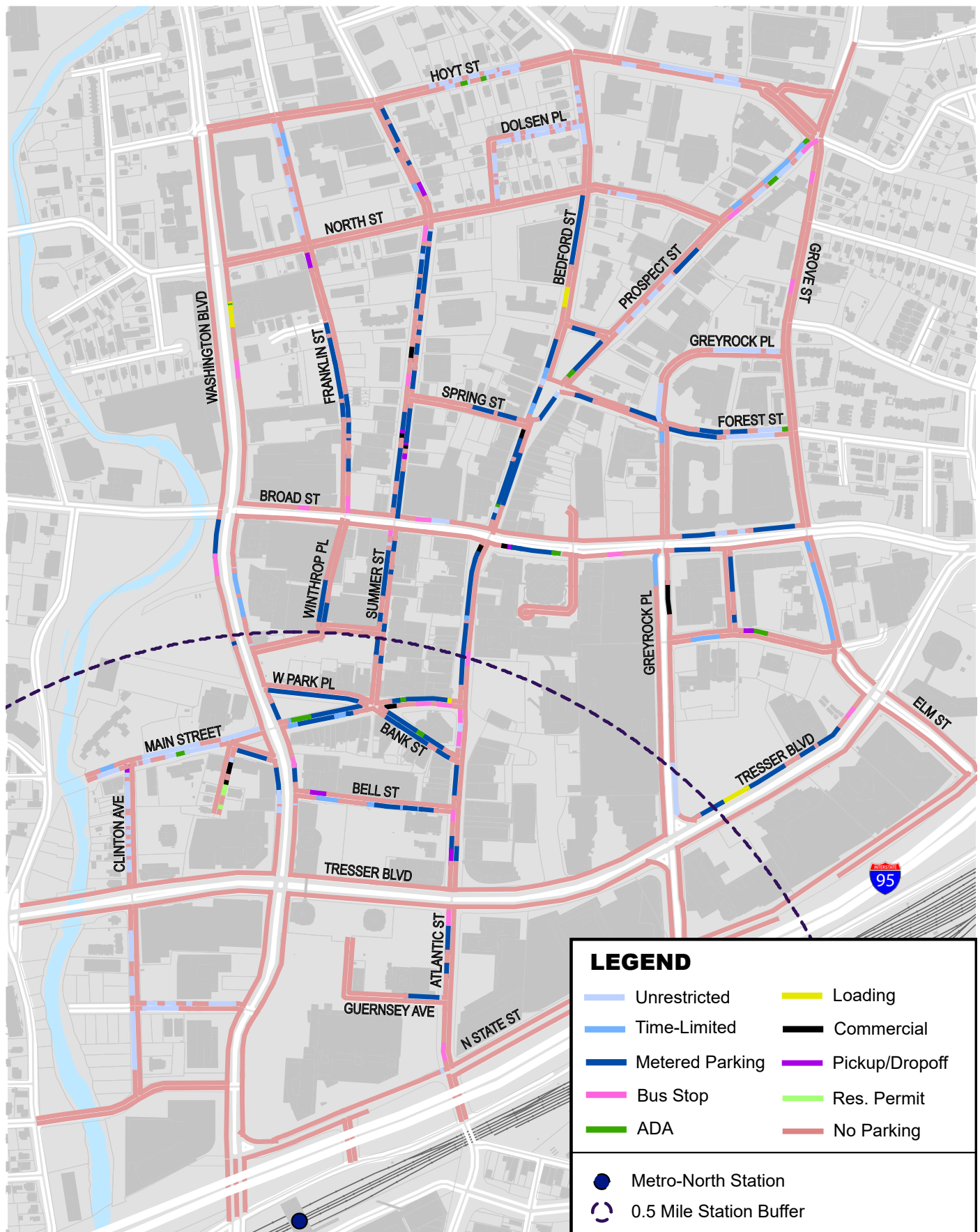


Figure 2.1 Downtown On-Street Parking by Regulation

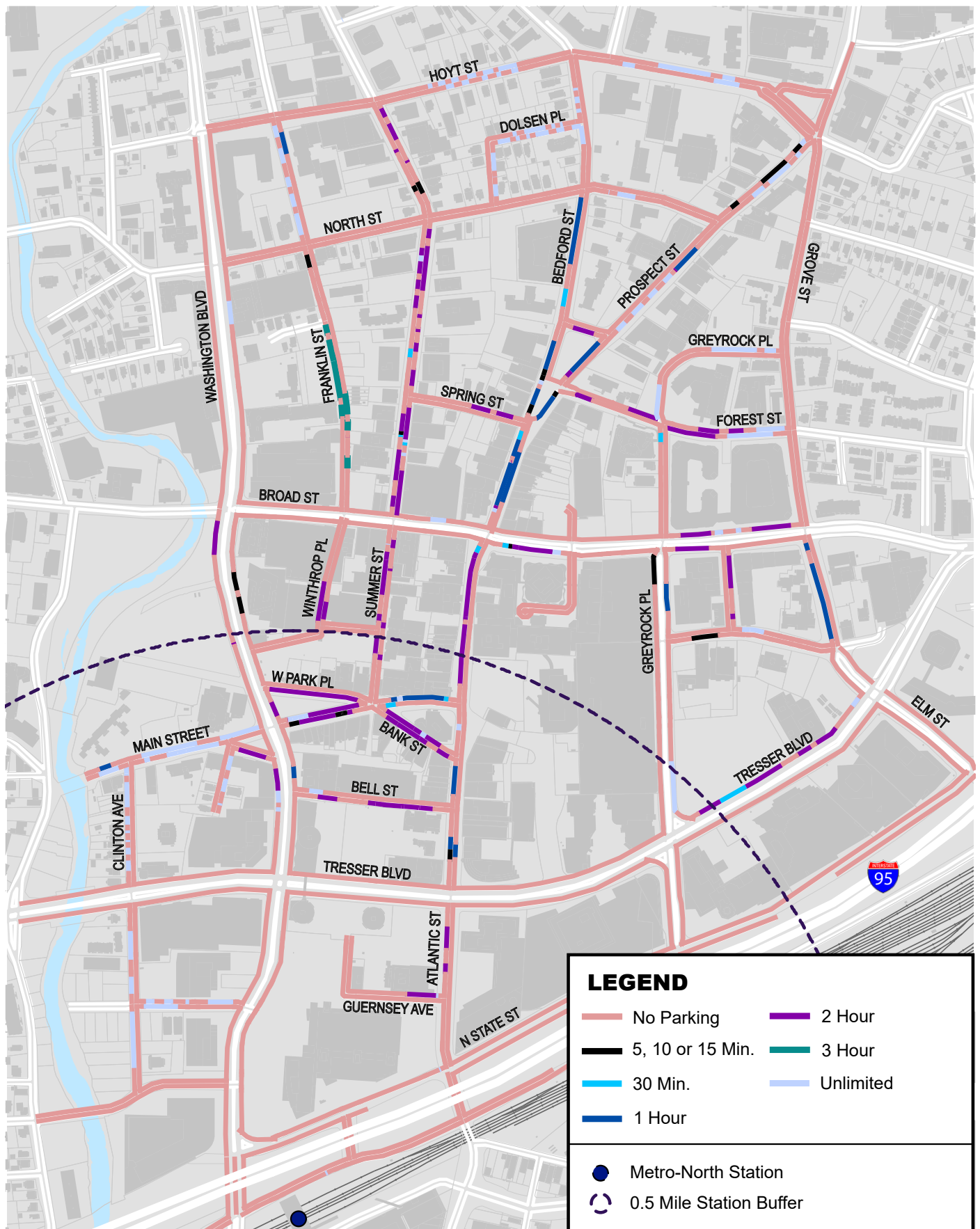


Figure 2.2 Downtown On-Street Parking by Duration

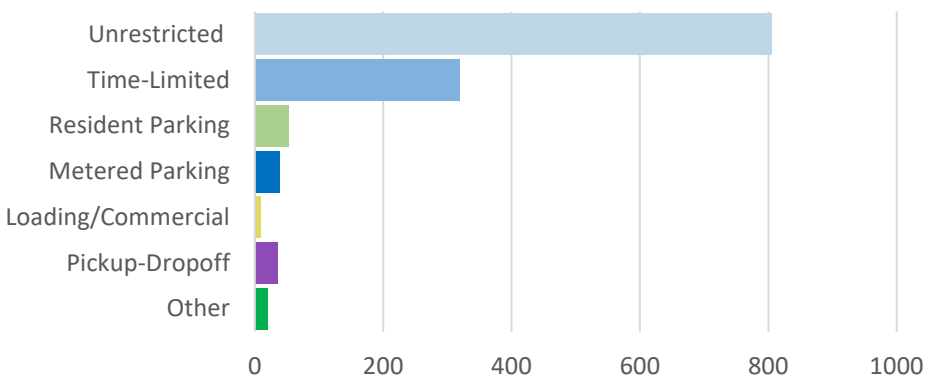
## South End

In contrast to Downtown, the majority of on-street parking in the South End is unrestricted. There are over 800 on-street spaces that are unrestricted and over 300 spaces that are time-limited (no payment required). Metered parking in the South End is limited, with allocations on Washington Blvd. between Atlantic Street and Pacific Street, and Pacific Street west of Belden Street to promote parking turnover for the ground floor retail uses. There are three residential parking zones in the South end that serve Berkeley Street and portions of both Stone Street and Pacific Street. Refer to the summary chart below and Figure 2.3 for a map of on-street parking regulations in the South End and summary totals of regulations by type.

Figure 2.4 and the corresponding chart below show the locations and summary totals of on-street parking spaces in the South End by time-limit duration. Time-limited parking is most common on streets adjacent to new multifamily buildings. Two-hour parking is the most commonly utilized time limit duration and is found in areas such as Washington Blvd. and Market St. One-hour parking can be found On Commons Park South and on Atlantic Street north of Henry Street. Three-hour parking is located on Old Yale Place outside of The Lofts multifamily building. Notably, 48-hour parking is located on the unnamed roadway between Woodland Avenue and Walter Wheeler Street which currently is adjacent to large parcels of vacant land.

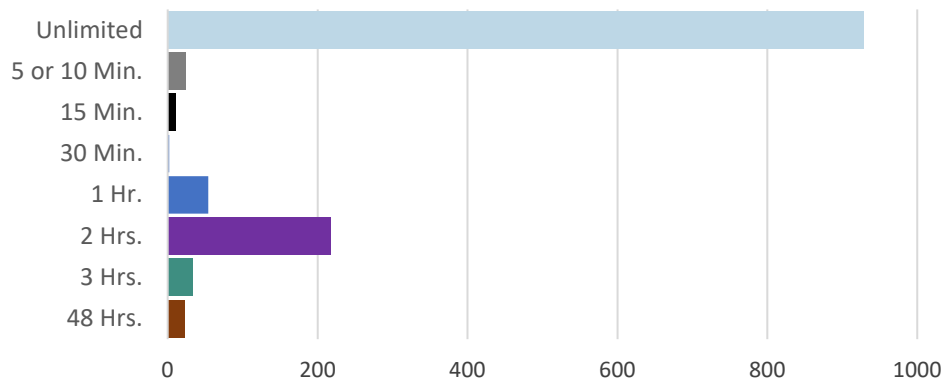
### South End On-Street Parking Spaces by Regulation

*Corresponds with Figure 2.3*



### South End On-Street Parking Spaces by Duration

*Corresponds with Figure 2.4*



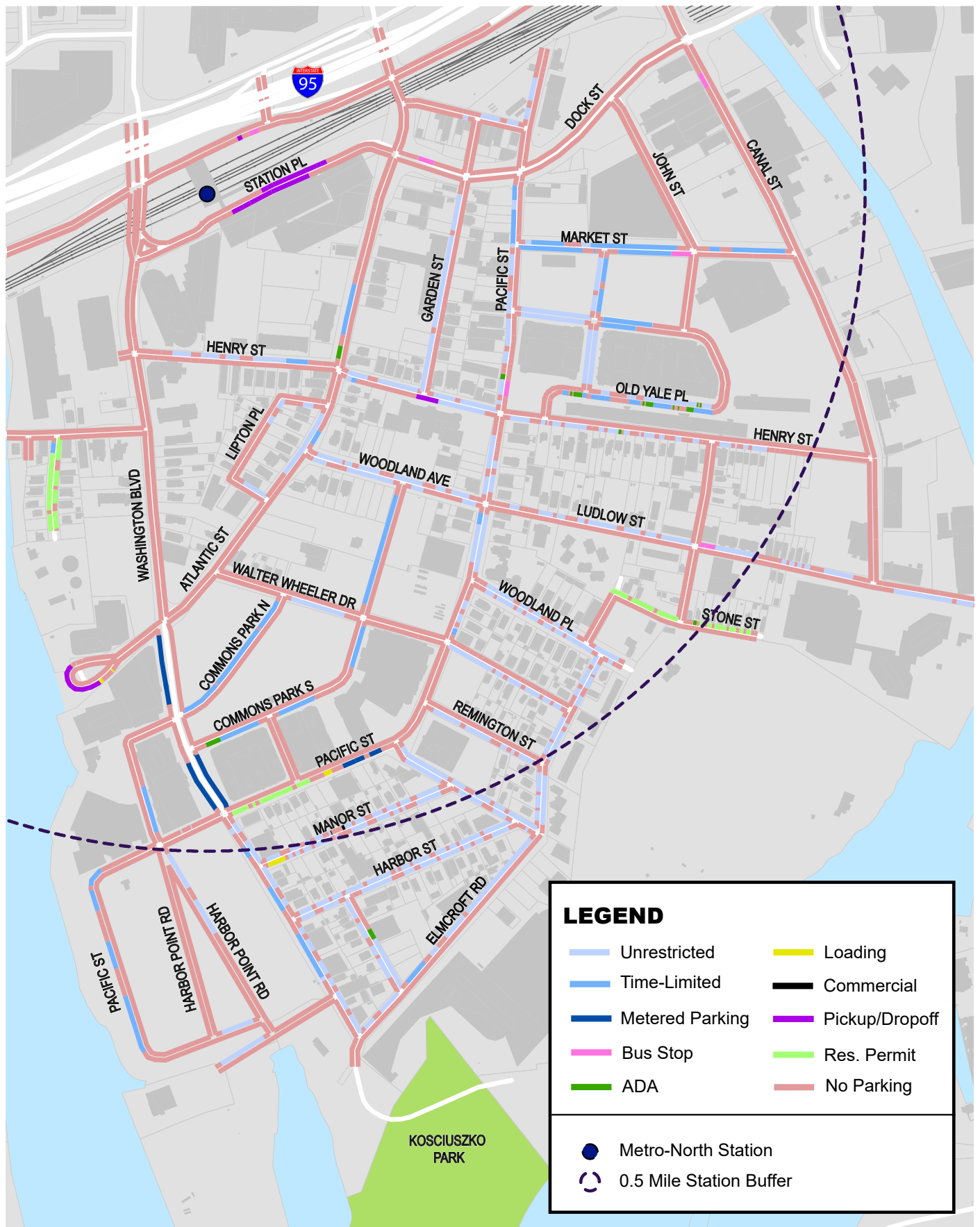


Figure 2.3 South End On-Street Parking by Regulation

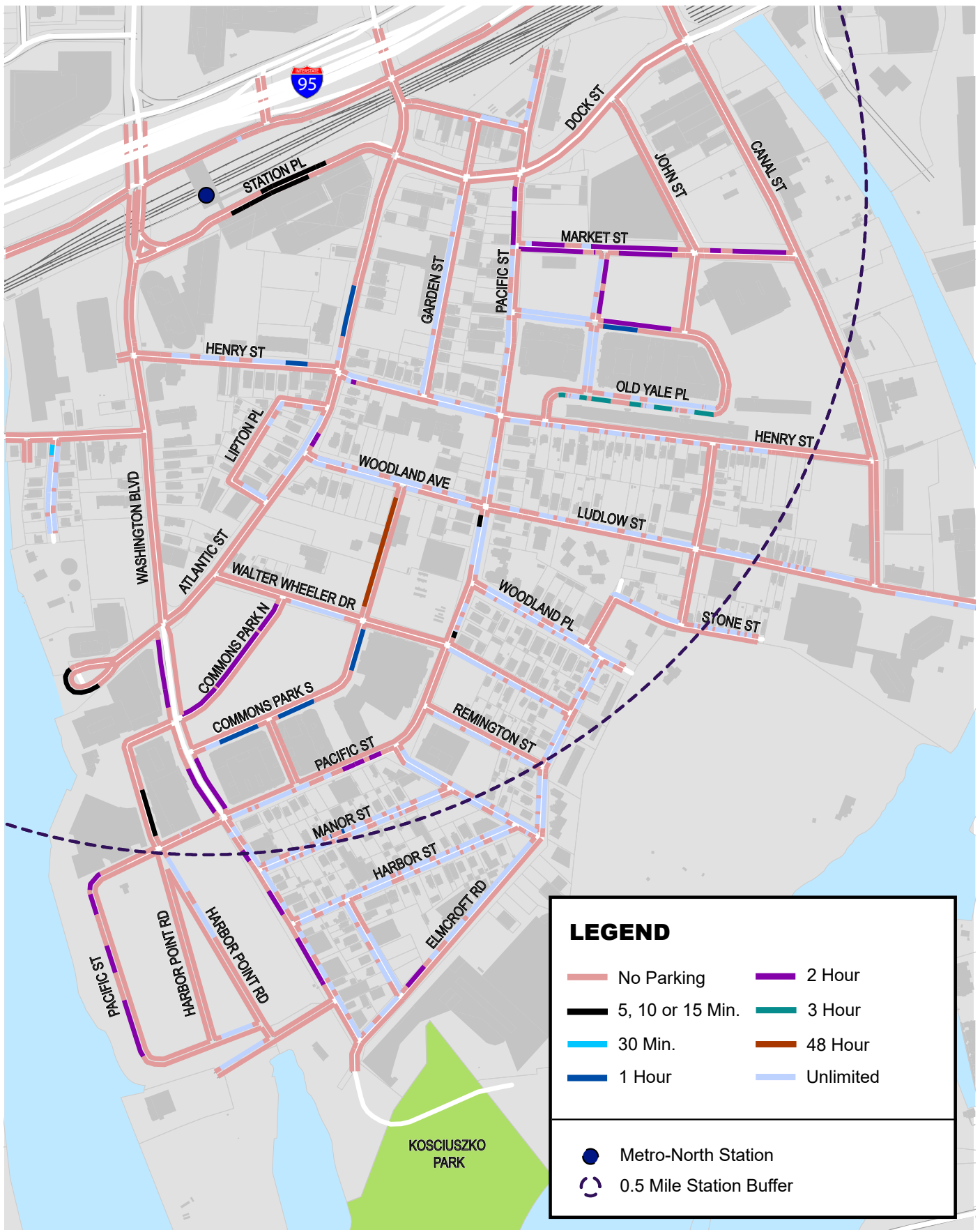


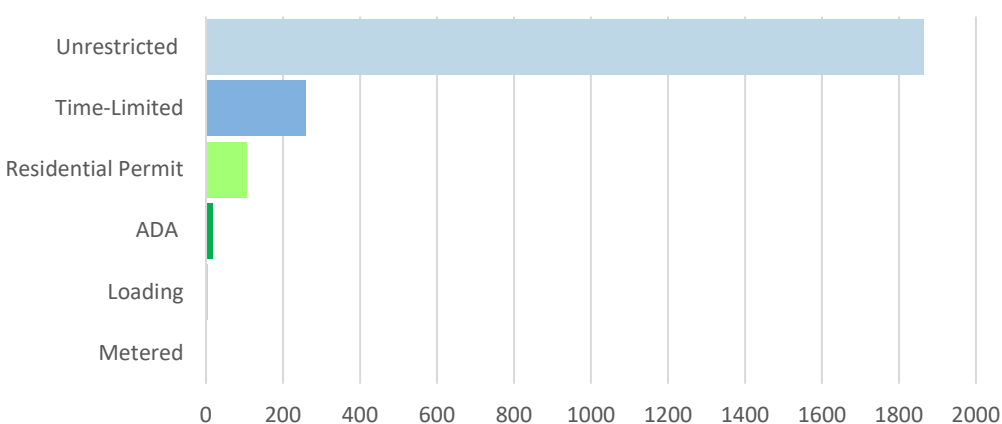
Figure 2.4 South End On-Street Parking by Duration

## West Side

Figure 2.5 and the corresponding summary chart below exhibit the West Side on-street parking inventory by regulation type. There are over 2,100 parking spaces in the West Side study area. The vast majority (over 1,800) are unrestricted spaces along the West Side's many residential streets. Time-limited spaces are predominantly located on the two key corridors of West Main Street and Stillwater Avenue. Figure 2.6 and the corresponding table shows that of the time-limited spaces in the West Side, 2 Hour regulations are the most common (roughly 140 spaces), followed by 1 Hour (roughly 50 spaces). There are two Residential Parking Permit Zones in the West Side which include Spruce Street between West Main Street and Richmond Hill Avenue, and on Stephen Street.

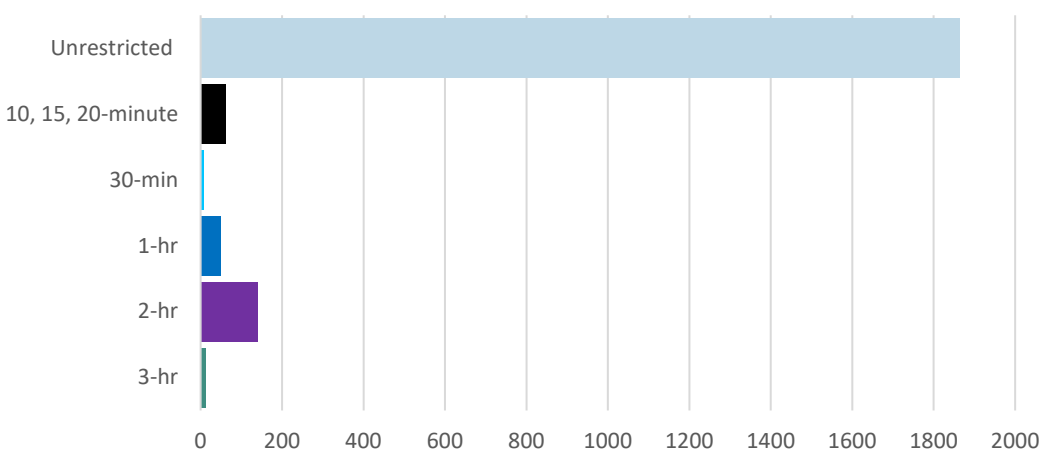
### West Side Study Area On-Street Parking Spaces by Regulation

*Corresponds with Figure 2.5*



### West Side Study Area On-Street Parking Spaces by Duration

*Corresponds with Figure 2.6*



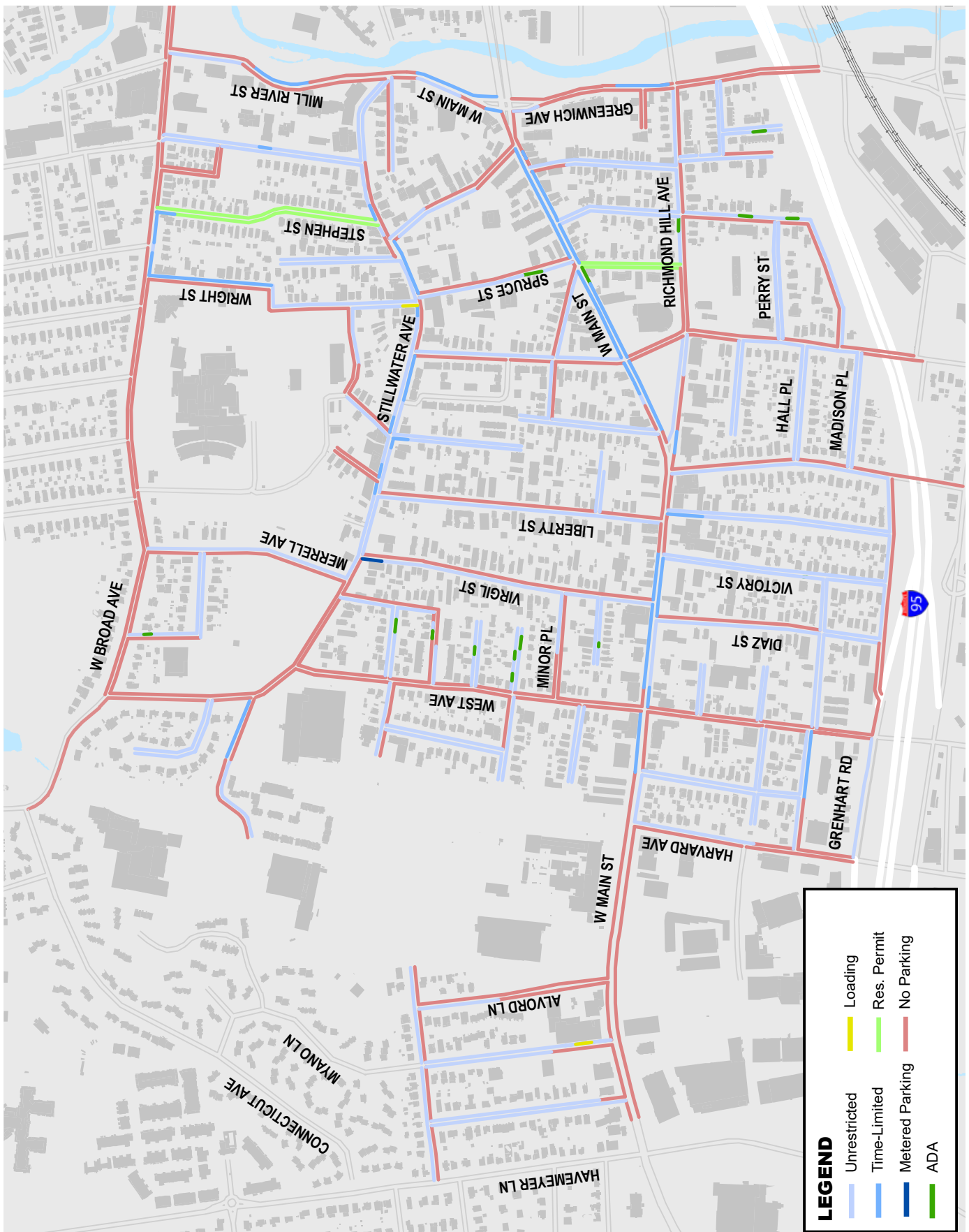


Figure 2.5 West Side On-Street Parking by Regulation

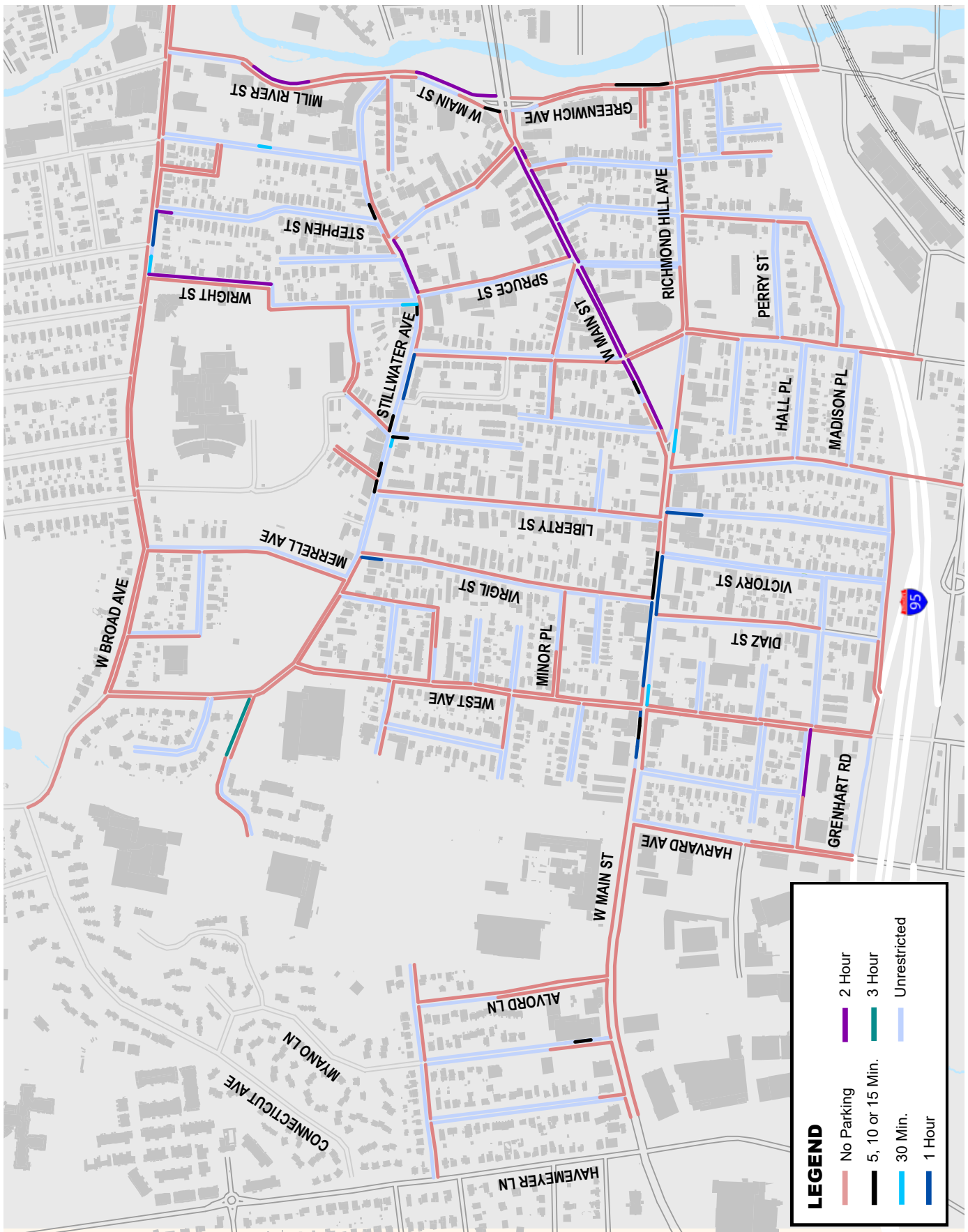


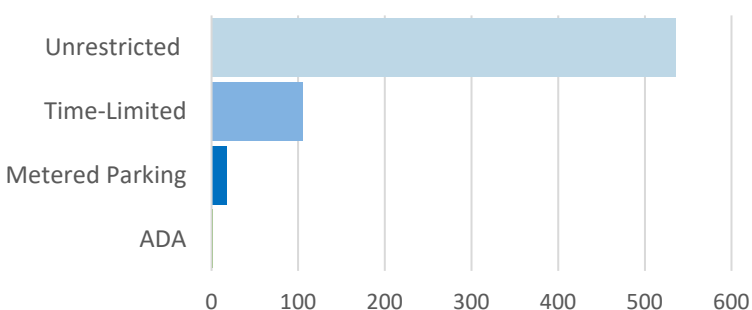
Figure 2.6 West Side On-Street Parking by Duration

## Springdale

Parking inventory conditions in Springdale were documented within a quarter-mile radius of the train station in order to demonstrate the conditions of the mixed-use station area. Figure 2.7 and the summary chart below document parking regulations in the area. Hope Street and certain immediately adjacent street areas consist of the neighborhood's time-limited and metered parking for both 2 and 12-hour durations. Other non-metered time-limited parking on Hope Street consists of either one- or two-hour time limits. 30-minute parking is found at the intersection of Hope Street with Fahey Street and Bennett Street. Notably, there is a considerable supply of unrestricted parking within a quarter mile of the Springdale Station, primarily to the west on residential streets. The topography and elevation difference impedes the convenience of parking along some of the streets to access the Springdale Station. There are no residential permit parking areas located within or immediately adjacent to the Springdale study area. Figure 2.8 and the corresponding charts below show the locations and summary totals of on-street parking spaces in the Springdale study area by time-limit duration.

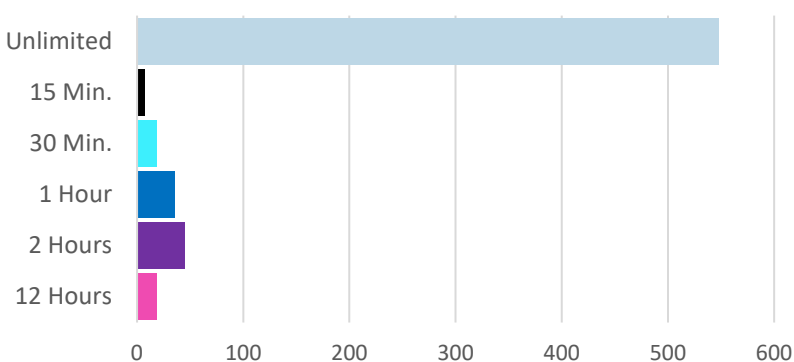
### Springdale Study Area On-Street Parking Spaces by Category

*Corresponds with Figure 2.7*



### Springdale Study Area On-Street Parking Spaces by Duration

*Corresponds with Figure 2.6*



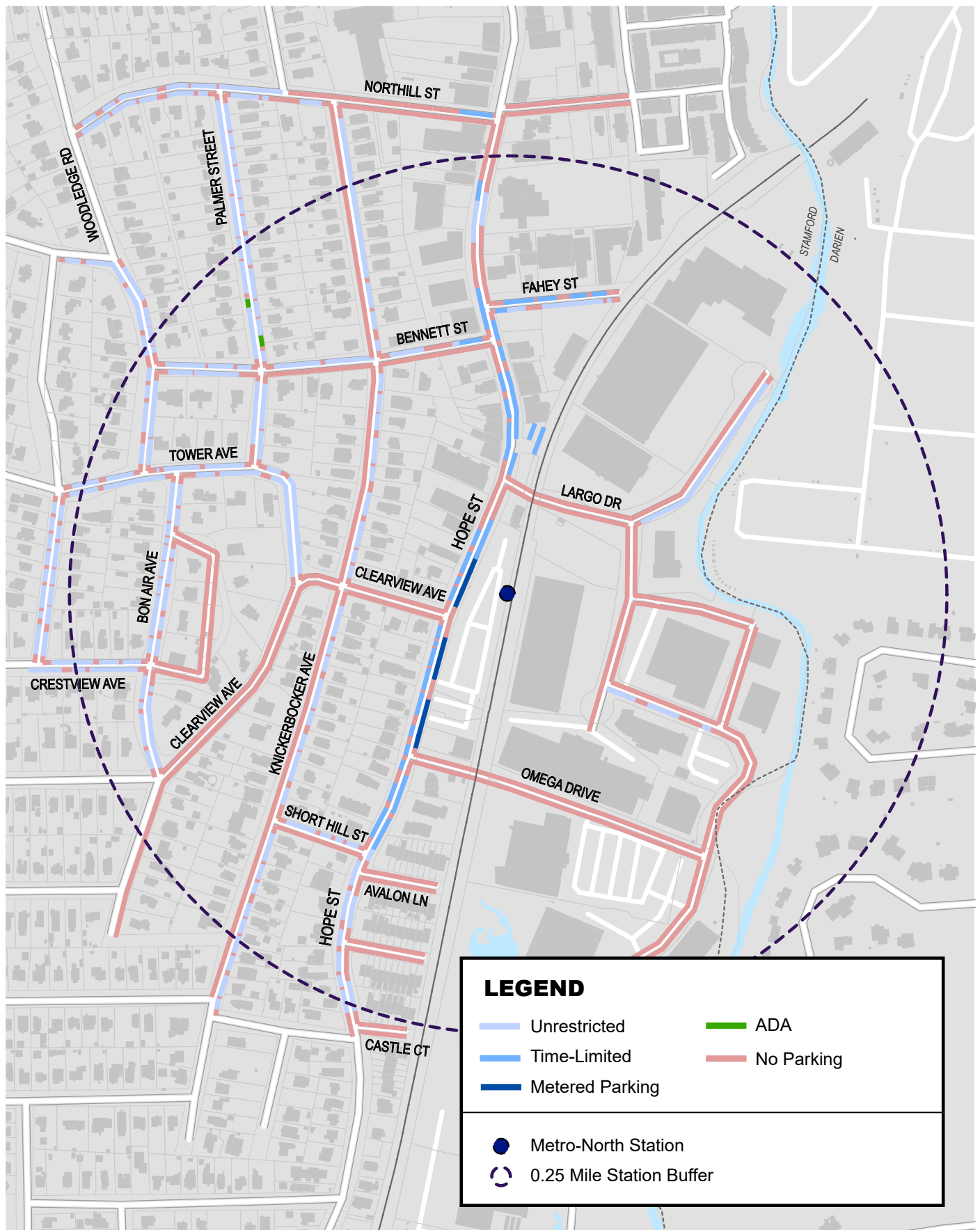


Figure 2.7 Springdale On-Street Parking by Regulation

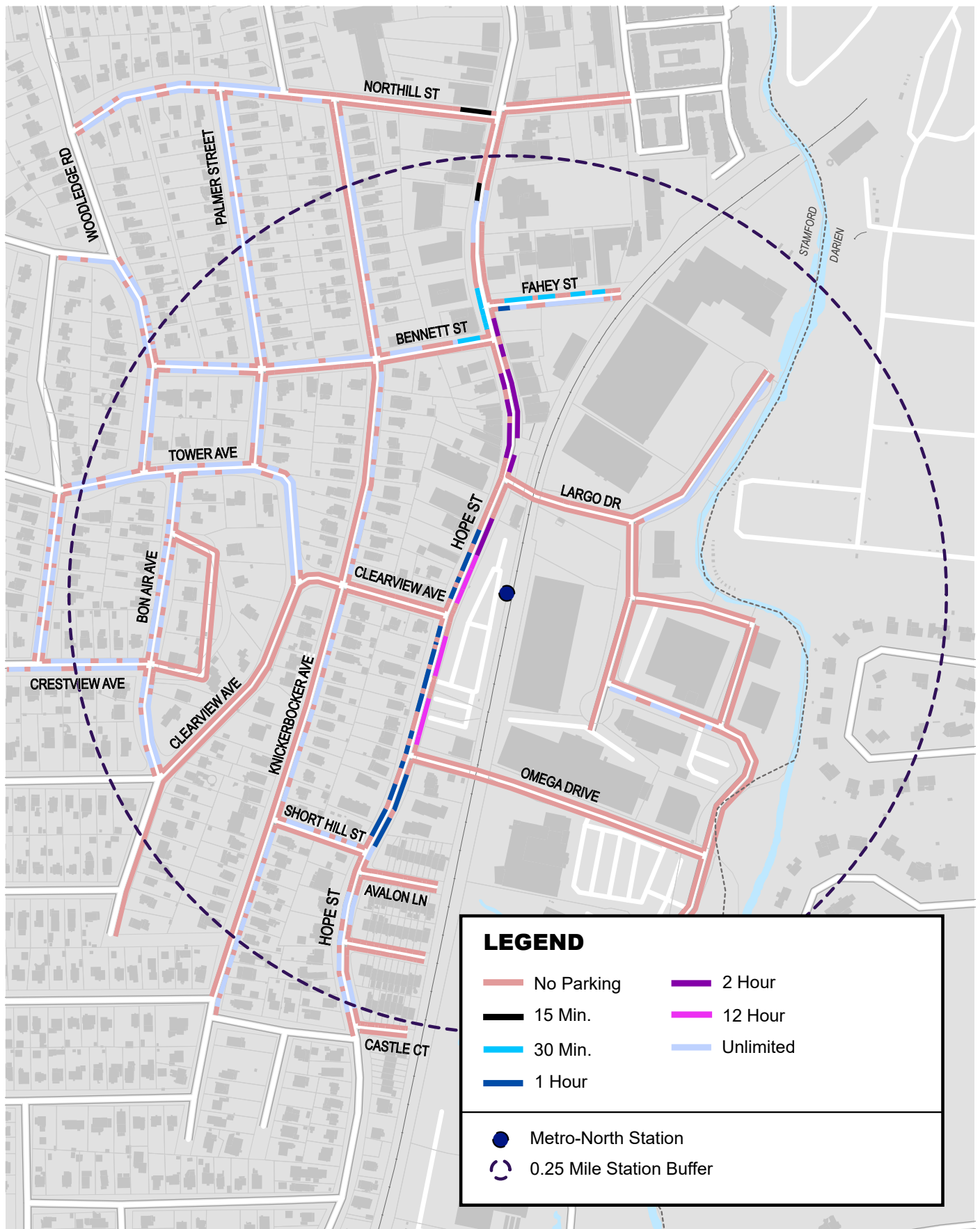


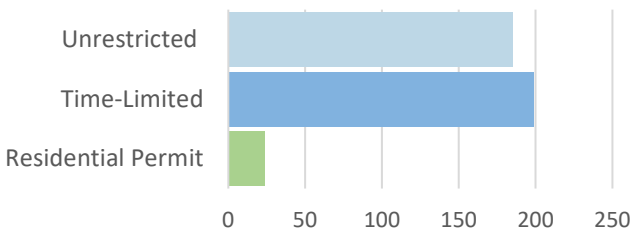
Figure 2.8 Springdale On-Street Parking by Duration

## Glenbrook

Similar to Springdale, parking conditions in Glenbrook were documented within a quarter-mile radius of the train station. Figure 2.9 and the corresponding chart below summarize parking regulations in the area. The quarter-mile station area around Glenbrook consists of more time-limited on-street parking spaces than unrestricted spaces. Two-hour time limits are more common than one-hour limits. Two-hour time limitations are posted primarily on Glenbrook Road and Elm Tree Place whereas one-hour time limitations are posted on Arthur Place and Cowing Place. Existing duration regulations that are in place to prevent commuters accessing Glenbrook station from parking on-street all day include AM peak-hour no parking restrictions (e.g. No Parking 7am-9am or 7am-10am on Glenbrook south of Scofield Avenue and on Crescent Street). Figure 2.10 and the corresponding charts below show the locations and summary totals of on-street parking spaces in the Springdale area by time-limit duration.

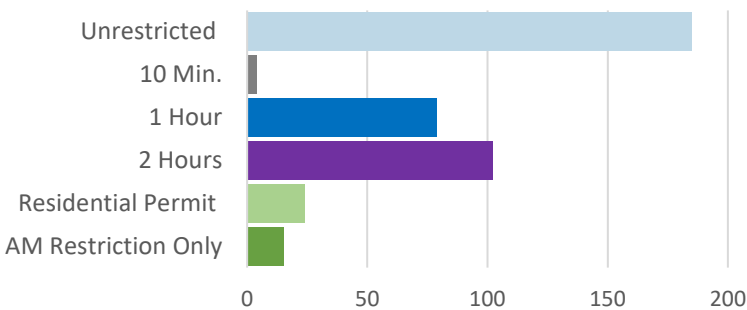
### Glenbrook Study Area On-Street Parking Spaces by Regulation

*Corresponds with Figure 2.9*



### Glenbrook Study Area On-Street Parking Spaces by Duration

*Corresponds with Figure 2.10*



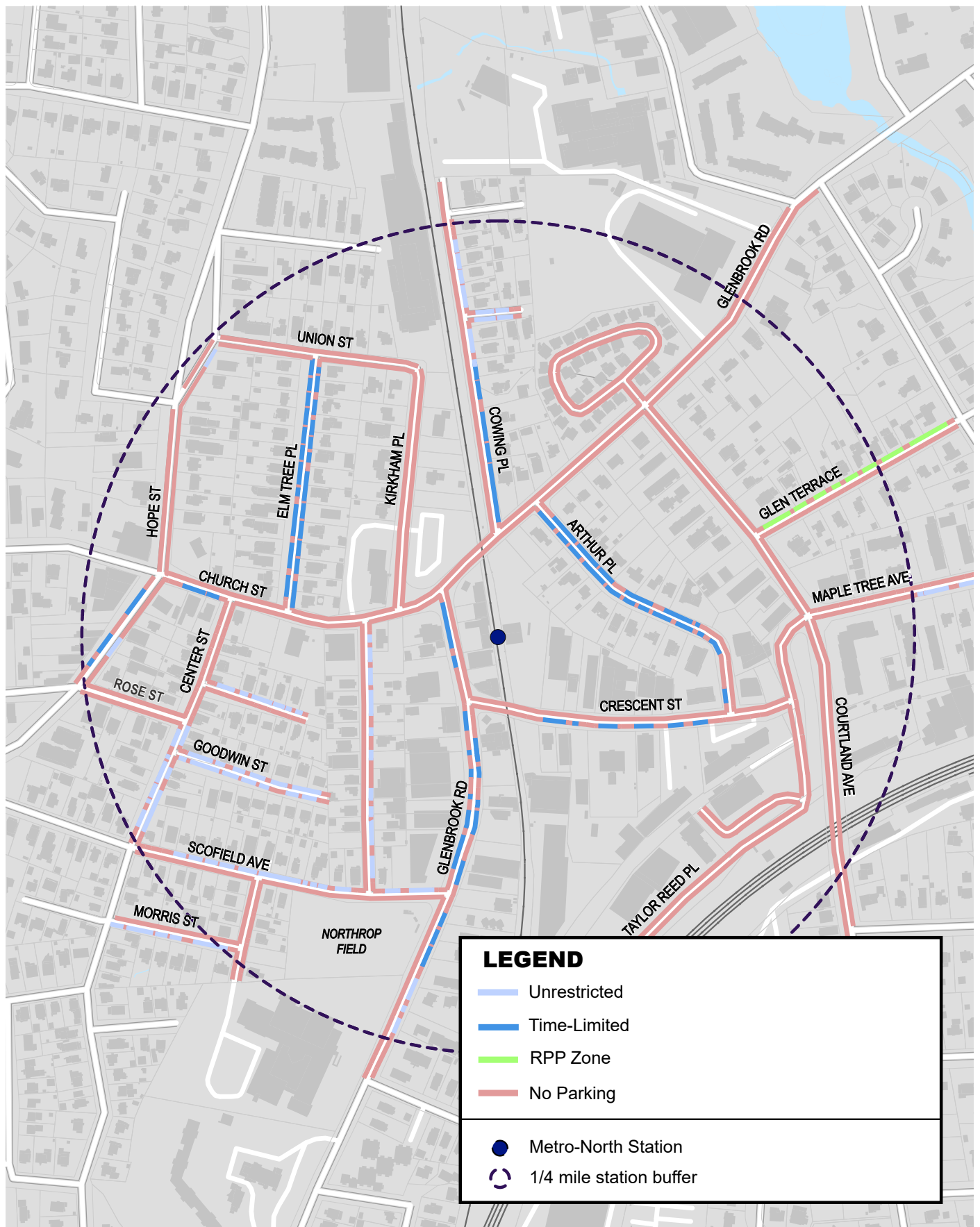


Figure 2.9 Glenbrook On-Street Parking by Regulation

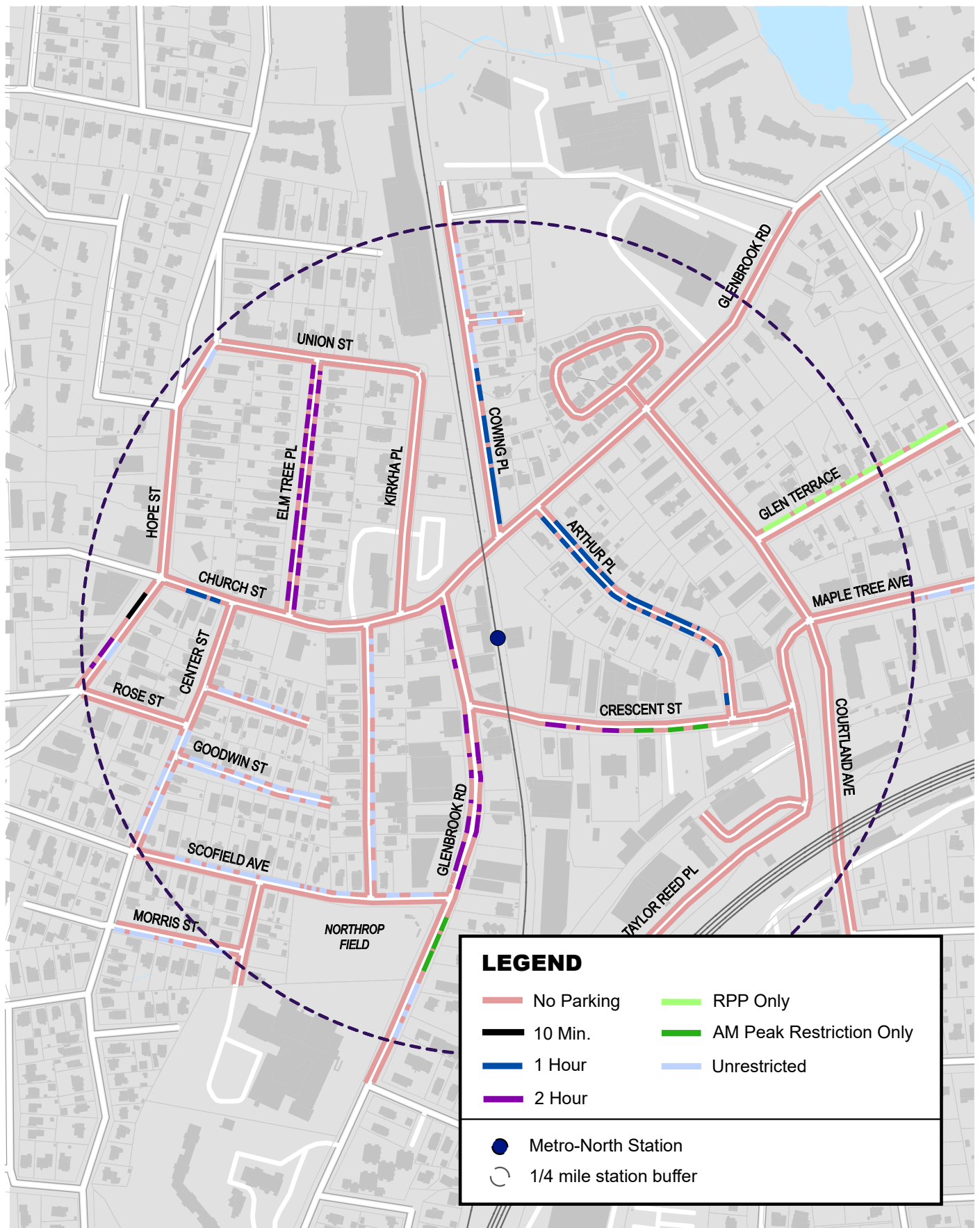


Figure 2.10 Glenbrook On-Street Parking by Duration

## Payment options for On-Street Parking

### Parking Meters

The City of Stamford has approximately 240 standard POM on-street parking meters, as well as 430 IPS on-street parking meters, totaling 670 on-street meter spaces. The City's IPS meters are single-space and double-space, and only IPS on-street meters accept debit cards or credit cards. Stamford is looking to expand its metered parking to include pay-by-license plate technologies.



*Stamford On-Street Meters*



### Multi-Space Parking Pay Stations

primarily utilizes IPS multi-space parking pay stations in off-street parking facilities. There are a few key on-street locations with multi-space stations such as Winthrop Place Downtown and Washington Blvd. in the South End. Multi-space meter pay stations are well received by the public and provide the convenience of multiple payment options including coin, bills, and debit/credit cards. They can also be programmed to offer various parking rates and time limits, according to time of day. They are very cost-effective when regulating multiple (30-50 parking spaces) off-street parking spaces in a lot or are in a facility that has a single pedestrian point of entry and exit. When installed for on-street parking, the pay stations are typically used to regulate up to 8-10 parking spaces on the same side of the street.

### The City of Stamford



### Pay-by-Cell (ParkMobile)

Pay-by-Cell is presently deployed in Stamford and is being implemented in a growing number of cities in the US. With the current COVID-19 pandemic, this parking payment method offers parkers a touchless option, which may encourage more people to utilize this technology moving forward. Stamford implemented the ParkMobile program in 2016, providing a cashless way for parkers to pay for parking throughout the City using their mobile devices. Stamford's ParkMobile system is fully operational at all downtown locations including on-street meters and municipal garages and lots.

## On-Street ADA Parking

Stamford makes available on-street ADA parking spaces in residential areas for eligible residents who request a space and meet the required criteria. Residents can go to the City's website and fill out the form to request an ADA parking space and these requests are reviewed and approved by the TTPD. If approved, the TTPD installs the ADA signage, however, this space is not reserved exclusively for the resident requesting the space, but can be used by anyone with an ADA permit. Once the ADA space is approved and the signage installed, there is no periodic renewal requirement by the City.

## Residential Parking Permit Zones

There are 47 Residential parking permit zones in Stamford which limit parking to only residents of approved zone areas. Section 2.4 outlines the Residential Parking Permit program in more detail.

## 2.2: Publicly Accessible Off-Street Parking Facilities

Parking inventories were gathered from public facilities that the City of Stamford owns as well as key facilities that are privately owned but publicly accessible. Facilities included in this analysis fall within the Downtown Study Area boundaries or serve commuter needs at one of Stamford's station areas (Transportation Center, Springdale, and Glenbrook). Figure 2.11 maps the locations of public City-owned parking facilities as well as key private facilities that are publicly accessible.

### Downtown Publicly-Owned Parking Facilities

In Downtown Stamford, there are a total of **6,465** off-street parking spaces within City-owned facilities: **6,299** parking spaces are within the six City-owned parking garages and **166** parking spaces are within the three City-owned parking lots. Table 2.1 summarizes these facilities.

**Table 2.1 - Downtown City-Owned Public Parking Facility Inventories**

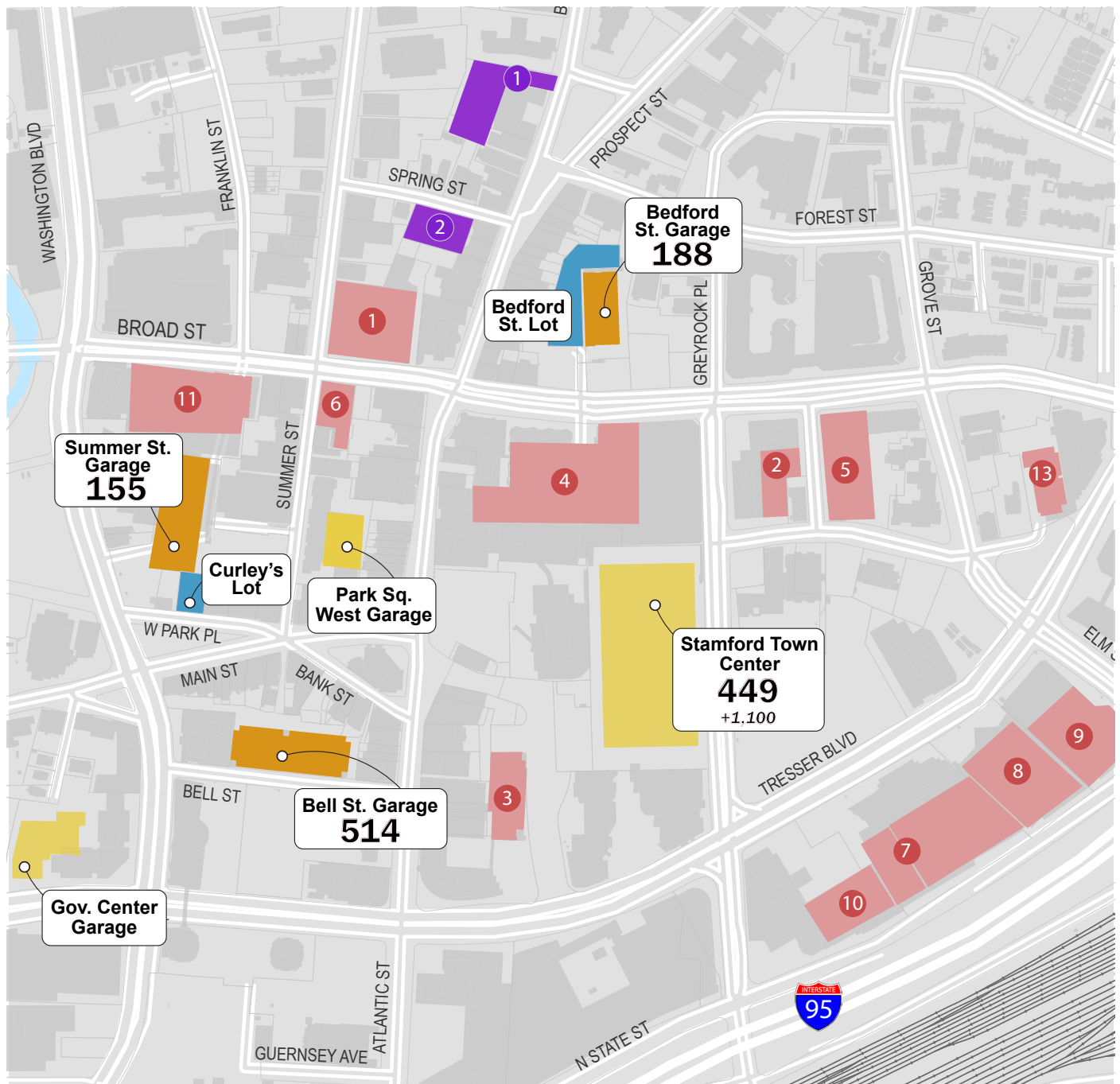
Public Garages	Capacity
Bedford Street Garage	684
Summer Street Garage	473
Park Square West Garage	48
Bell Street Garage	868
Government Center Garage	561
Stamford Town Center	3,665
<b>Subtotal</b>	<b>6,299</b>
Public Lots	
Bedford Street Lot	62
Curley's Lot	23
<b>Subtotal</b>	<b>85</b>
<b>Total</b>	<b>6,384</b>

**Table 2.2 – Parking Inventory Breakdown in the Bell, Bedford, and Summer Street Garages**

Facility Name	Inventory	Transient	Permit	Reserved
Bell Street Garage	868	214	654	N/A
Bedford Street Garage	684	187	397	100
Summer Street Garage	473	114	268	91
<b>Total</b>	<b>2,025</b>	<b>515</b>	<b>1,319</b>	<b>191</b>


Three of these garages, the Bell Street Garage, the Bedford Street Garage, and the Summer Street Garage, are managed for the City by LAZ Parking and overseen by the TTPD. These garages operate 24 hours a day, 7 days a week and parking is enforced in the facilities 24 hours a day, excluding Sundays from 10am to 5pm. The Stamford Town Center garage is also managed by the Town Center but owned by the City. TTPD directly manages the Government Center Garage, the Park Square West Garage, and the two City-owned parking lots: the Bedford St. Lot and the Curley's lot.

In the three LAZ-managed facilities (Table 2.2) there are a total of 2,025 parking spaces: 515 parking spaces for transient parkers; 1,319 parking spaces for monthly parkers; and, 191 parking spaces that are reserved for specific user groups, including 100 reserved parking spaces for the Stamford Police Department in the Bedford Street Garage and 91 reserved parking spaces for Vela on the Park residential project in the Summer Street Garage. Table 2.2 summarizes the three publicly owned parking garages managed by LAZ Parking.




## LEGEND

### Downtown Publicly-Owned Facilities

 Publicly-Owned Garage: Managed by LAZ Parking and City of Stamford

**514** Number of Peak Hour Vacancies

 Publicly-Owned Garage: Managed by City of Stamford or Other


 Publicly-Owned Lot

### Downtown Privately-Owned Facilities

 Privately-Owned Garage

 Privately-Owned Lot

 Privately-Owned Lot No.

 Privately-Owned Garage No.

**Figure 2.11 Vacancies in Downtown Public Parking Facilities**



Parking reserves in City-owned facilities are also impacted by set-asides in instances where Stamford leases spaces to residential developers or commercial uses. For example, Stamford Town Center, which is owned by the City of Stamford but privately operated by Taubman Centers, has consistently leased 1,100 spaces to auto dealers.

### *Public Facility Parking Fees*

Hourly, daily, resident and employee parking are available in the Bell Street, Bedford Street, and Summer Street garages as well as the Bedford Street Lot and Bell Street Annex. The hourly, daily, and permit rates per user group in public and private owned garages are outlined in Table 2.3. The hourly rate in Stamford’s public garages and lots is \$1.00. The average daily parking rate in the public garages is \$16 for 24 hours. The non-resident monthly rate in the public garages ranges from \$90.00 to \$110.00.

**Table 2.3: Parking Rates in Downtown Publicly Owned Garages and Lots**

Facility Name	Daily Rate	Hourly Rate	Resident Monthly Rate	Non-Resident Monthly Rate	Downtown Resident Monthly Rate	Retail Voucher/ Group Monthly	Multiple Discount Monthly
Publicly-Owned Garages							
Bell Street Garage	\$16	\$1	\$80	\$90	\$65	\$58	\$78
Bedford Street Garage	\$16	\$1	\$80	\$90	\$75	\$58	\$78
Summer Street Garage	\$16	\$1	\$90	\$110	\$65	\$58	\$78
Park Square West Garage	n/a	\$1	\$80	\$90	n/a	\$58	\$78
Government Center Garage	Permit	n/a	n/a	Permit	\$75	\$58	\$78
Stamford Town Center	\$9	\$1 - 2 hrs \$3 - 3 hrs \$1 - Addtl Hr.	\$90				
Publicly-Owned Lots							
Bedford Street Lot / Metered	n/a	\$1	\$80	\$90	\$65	\$58	\$78
Summer 3 Lot	n/a	\$1	n/a	n/a	n/a	n/a	n/a

### *Electric Vehicle (EV) Parking*

There are three, 40 Amp charging stations (6 spaces) in the Bell Street, Summer Street, and Bedford Street Garages. Additionally, there are two, 30 Amp charging stations (four spaces) in the Bedford Annex Parking Lot. The Transportation, Traffic & Parking Department is currently in the process of adding a fourth charging space in each publicly-owned Downtown Parking Garage. While users pay for these parking spaces, there is no extra cost for the electricity.

### Downtown Privately Owned, Publicly Accessible Facilities

Table 2.4 lists the publicly accessible, privately-owned parking garages and lots with the total number of parking spaces at each location. The locations of these facilities are also shown on Figure 2.11. These sites vary in terms of public parking rates and share of spaces designated for public access. However, these facilities have the existing means to provide public parking and their supplies are considered within the City-wide parking supply strategy.

**Table 2.4 - Downtown Privately-Owned Parking Facility Inventories**

ID #	Private Garages	Capacity
1	Burlington Coat Factory Garage	200
2	177 Broad Street Garage	504
3	300 Atlantic Street Garage	825
4	Landmark Square Garage & Valet	1,080
5	Canterbury Green	393
6	Courtyard Marriott Garage (Valet Only)	130
7	Stamford Plaza One and Two Garage	1,132
8	Three Stamford Plaza Garage	611
9	Four Stamford Plaza Garage	610
10	Marriott Hotel Garage	360
11	Target Garage	550
<b>Subtotal</b>		6,395
ID #	Private Lots	
1	M&T Lot	300
2	Spring Street Lot	60
<b>Subtotal</b>		360
<b>Total</b>		6,755

## Downtown Pre-Pandemic Parking Utilization

Due to the coincidence of the Stamford Citywide Parking Study beginning less than a month prior to the start of the COVID-19 Pandemic, off-street parking facility occupancy analysis is based on available Fall 2019 data. The parking study team requested pre-pandemic peak weekday parking occupancy data from facility operators in Downtown Stamford. Notably, historical occupancy data are not available for all parking facilities included in this analysis. Despite cases of unavailable occupancy data, these facilities remain in the analysis of off-street parking considerations.

**Table 2.5 - Downtown Publicly-Owned Parking Facility Peak-Period Vacancies (Pre-COVID 19)**

Public Garages	Capacity	% Vacant
Bedford Street Garage	684	27%
Summer Street Garage	473	33%
Park Square West Garage	48	n/a
Bell Street Garage	868	59%
Government Center Garage	561	n/a
Stamford Town Center*	2,565	18%
<b>Subtotal</b>	<b>5,199</b>	<b>25%</b>
Public Lots		
Bedford Street Lot	137	n/a
Summer Street Lot	23	n/a
Bell St. Annex Lot	6	n/a
<b>Subtotal</b>	<b>166</b>	<b>n/a</b>
<b>Total</b>	<b>5,365</b>	<b>24%</b>

\*There is an additional supply of 1,100 spaces within the Stamford Town Center that are leased to auto dealers

**Table 2.6 - Downtown Privately-Owned Parking Facility Peak-Period Vacancies (Pre-COVID 19)**

ID #	Private Garages	Capacity	% Vacant
1	Burlington Coat Factory Garage	200	n/a
2	177 Broad Street Garage	504	30%
3	300 Atlantic Street Garage	825	24%
4	Landmark Square Garage & Valet	1,080	8%
5	Canterbury Green	393	16%
6	Courtyard Marriott Garage (Valet Only)	130	61%
7	Stamford Plaza One and Two Garage	1,132	42%
8	Three Stamford Plaza Garage	611	19%
9	Four Stamford Plaza Garage	610	37%
10	Marriott Hotel Garage	360	n/a
11	Target Garage	550	n/a
	<b>Subtotal</b>	<b>6,395</b>	<b>22%</b>
ID #	Private Lots		
1	Peoples United Bank Lot	300	n/a
2	Spring Street Lot	60	n/a
	<b>Subtotal</b>	<b>360</b>	<b>n/a</b>
	<b>Total</b>	<b>6,755</b>	<b>21%</b>

## Parking Utilization: City-Owned Public Parking Facilities

Of Stamford's City-owned facilities, only the Bedford Street Garage, the Summer Street Garage, Bell Street Garage, and Stamford Town Center have Fall 2019 data on record. Other Stamford City-owned facilities such as Park Square West Garage, Government Center Garage, and the City-owned lots do not have historical occupancy data on record. Of the data available from the four publicly owned facilities shown in Table 2.5, an estimated **1,306 spaces** remain vacant during the 9am to 4pm peak weekday period. Underutilized parking is most prominent at the Bell Street Garage and Stamford Town Center. More detailed data from LAZ-operated facilities include:

- **Bell Street Garage** - In October 2019, the Bell Street Garage had the highest weekday occupancy at **12pm - 354 spaces or 40.8%** occupancy. The highest Saturday parking occupancy also occurred at **12pm - 221 spaces or 25.4%** occupancy.
- **Bedford Street Garage** - In October 2019, the Bedford Street Garage had the highest weekday occupancy at **12pm - 496 spaces or 72.5%** occupancy. The highest Saturday occupancy occurred at **10pm - 400 spaces or 58.5%** occupancy.

- **Summer Street Garage** - In October 2019 during the 9am to 4pm period, the Summer Street Garage had the highest recorded occupancy at **2pm - 318 spaces or 67.2%** occupancy. The highest Saturday parking occupancy occurred at **8pm - 317 spaces or 67.1%** occupancy.

Off-peak (after 4pm) weekday data from these facilities from LAZ Parking's 2019 parking occupancy reports further show that the Bell Street Garage had approximately **70%** availability after **4pm**, the Bedford Street Garage had approximately **30%** availability after **4pm**, and the Summer Street Garage had approximately **30%** availability after **4pm**. Notably, these data demonstrate that the Summer Street Garage has higher demand after 4pm than during the 9am to 4pm period.

#### *Parking Utilization: Privately-Owned Public Parking Facilities*

Publicly accessible private facilities included in Table 2.6 demonstrate nearly 1,400 vacant spaces during the peak demand period for eight of the thirteen parking facilities, an average vacancy of 30% at each facility. As with the City-owned public parking supply, the number of peak period vacant spaces in Downtown's publicly accessible private parking facilities is higher than the 1,400 reported here, in an account of facilities where data were not obtained.

#### *Downtown Private Facility Parking Fees*

Parking fees at the eleven privately-owned parking garages and two privately owned parking lots in Downtown Stamford are outlined in Table 2.7. As of February 2020, the average hourly rate in Stamford's privately-owned parking garages that were researched is \$4.05.

**Table 2.7 - Parking Rates in Downtown Publicly Owned Garages and Lots**

ID #	Private Garages	Daily Rate	Hourly Rate	Monthly Rate
1	Burlington Coat Factory Garage	n/a	Free (Customers)	\$75.00
2	177 Broad Street Garage	\$18	\$4	\$120
3	300 Atlantic Street Garage	\$18	\$4	\$120
4	Landmark Square Garage	\$16	\$3	\$95
5	Canterbury Green	\$18	\$4	\$120
6	Courtyard Marriott Garage (Valet Only)	\$24	\$5	\$125
7	Stamford Plaza One and Two Garage	\$18	\$4	\$120
8	Three Stamford Plaza Garage	\$18	\$4	\$120
9	Four Stamford Plaza Garage	\$18	\$4	\$120
10	Marriott Hotel Garage	\$23	\$4.50	n/a
11	Target Garage	\$15	First 2 hrs. \$1	\$85
<b>Average</b>		<b>\$18.60</b>	<b>\$4.05</b>	<b>\$110.00</b>
ID #	Private Lots			
1	Peoples United Bank Lot	\$5	n/a	n/a
2	Spring Street Lot	\$10	1 hr. \$2; 2 hr. \$3	n/a
<b>Average</b>		<b>\$7.50</b>		

\* Note that the parking garage hourly rate average excludes the BCF Garage and the Target Garage as these facilities cater to customers.

## Transit Center Garages

### *Inventory and Pre-Pandemic Parking Demand*

Figure 2.12 maps parking facilities in proximity to the Stamford Transportation Center station. The State-owned Transportation Center Garage has a total of 1,435 parking spaces and functions as Stamford's key commuter parking facility. The facility offers the following rates: 1-hour (\$1.00); 16-hours (\$8.00); 24-hours (\$10.00); Monthly permit (\$70.00).

The Transportation Center State Street lot provides an additional 110 permit spaces. Table 2.8 summarizes the total parking spaces and Pre-COVID Fall 2019 vacancy data that are available for the State-owned public parking facilities. Pre-pandemic, the Transportation Center Garage averaged a weekday peak occupancy of 93% during the 9am-5pm period. The Transportation Center Garage's pre-pandemic high occupancy (at practical capacity) is largely due to its relatively low monthly rate. Notably, a new State-owned Transportation Center is under construction on the current State Street Lot site which will offer commuters 960 spaces once it is completed. This structure will replace portion of the existing State-owned garage for a net increase of approximately 130 spaces.

The Metro Center Garage (302 total spaces) and the Metro Green Garage (300 total spaces) provide daily and permit pricing options for commuters and office workers. However, rates at the Transportation Center are more economical for the public compared to the Metro Center and Metro Green Garages.

**Table 2.8 – Transportation Center Garage Pre-COVID 19 Typical Parking Occupancies**

Parking Facility Name	# of Spaces	Typical Peak Occupancies			
		Weekdays	Weekday Evenings	Weekday Nights	Saturdays
		<i>Between 9 AM and 5 PM</i>	<i>between 7 PM and 10 PM</i>	<i>Midnight to 5 AM</i>	<i>Between 11 AM and 4 PM</i>
Transportation Center Garages	1,435	1,334 (93%)	708 (49%)	261 (18%)	368 (26%)
South State St Lot	110	86 (78%)	34 (31%)	3 (3%)	17 (15%)

Source: Republic Parking

\*Vacancy data are based on Fall 2019 pre-pandemic data.

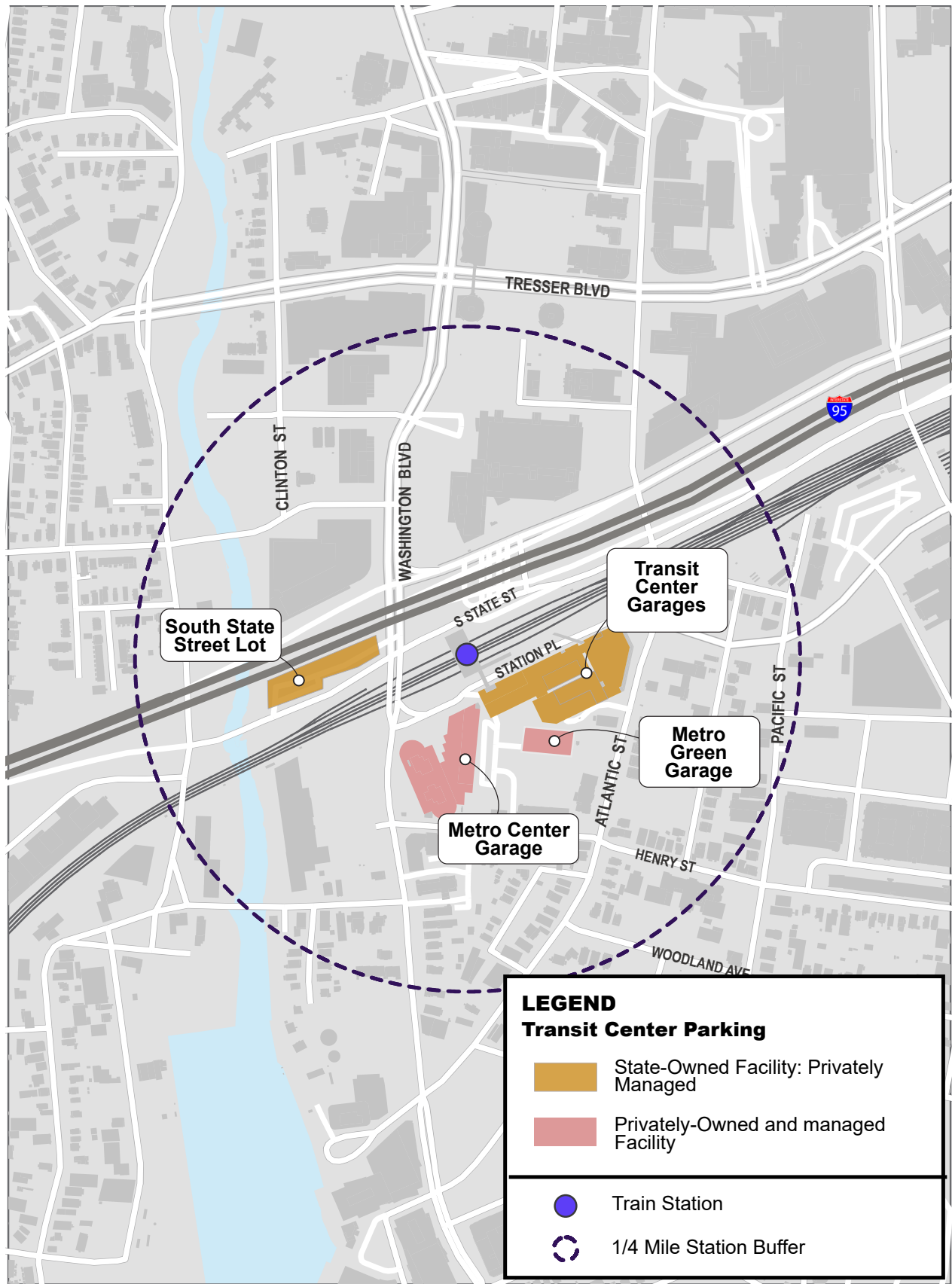
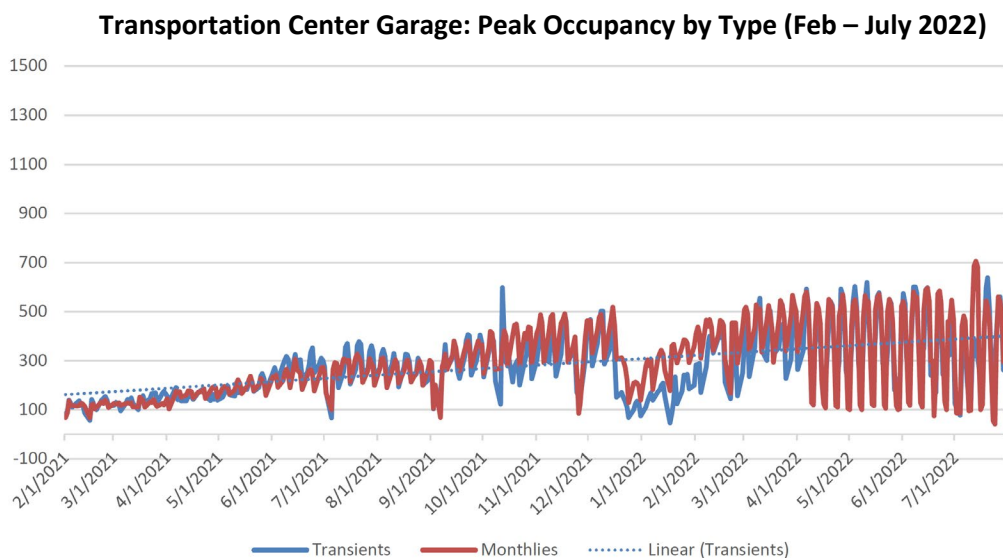


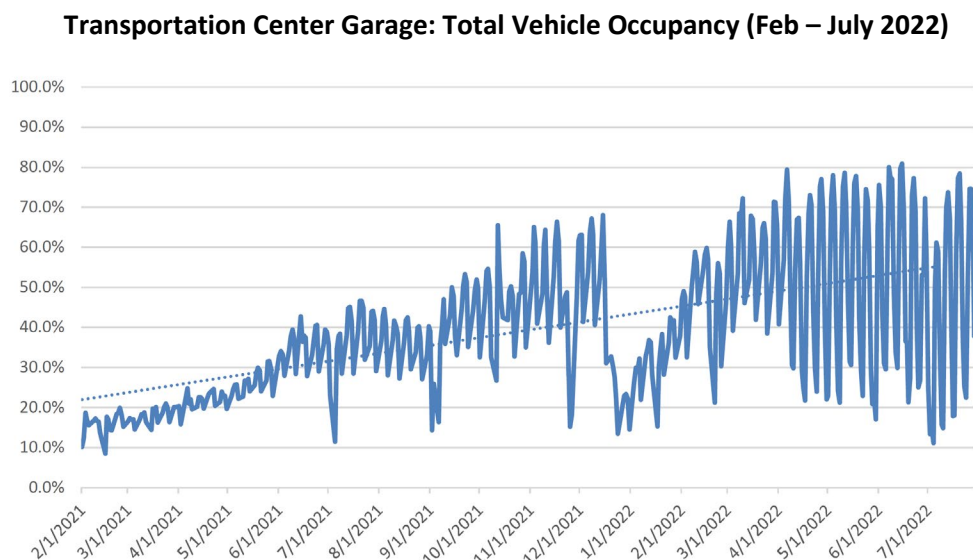
Figure 2.12 Transit Center Commuter Parking

### Impacts of COVID-19 on Transportation Center Parking Utilization

Parking utilization has been monitored at the Transportation Center to measure ongoing impacts of the COVID-19 pandemic in relation to commutation patterns. Parking occupancy counts have been conducted at 8am and 11am during the work week since early 2021 to monitor evolving Pandemic conditions. Monthly summary data are presented below. The first graph below demonstrates documented daily workweek occupancy totals separated by daily rate customers (*Transients*) and monthly permit holders from February 2021-July 2022. The second graph presents the combined daily peak occupancy during this same period of time. Since February 2021, Transportation Center Garage peak parking occupancy has increased steadily from less than 20% to rates that have been more consistently above 60% since spring 2022. Conditions will continue to be monitored into the future as Pandemic impacts are expected to dissipate.



Source: Building and Land Technology (BLT)



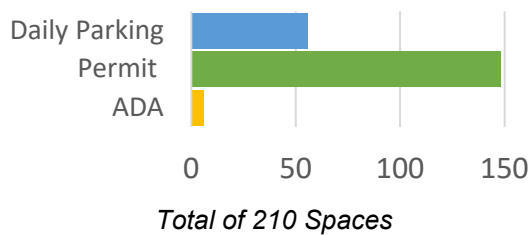
Source: Building and Land Technology (BLT)

## Glenbrook and Springdale Commuter Parking Lots

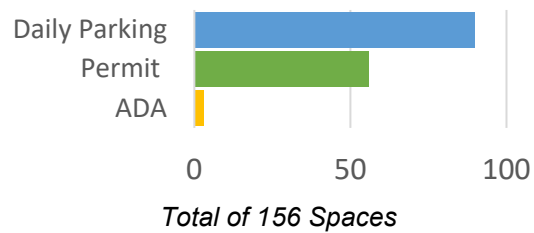
The City of Stamford operates parking lots at the Springdale and Glenbrook Metro-North Railroad stations for customers of the New Canaan Branch line. Both lots provide daily parking for \$4 and monthly permit spaces that cost Stamford residents \$50 and non-residents \$98. Daily rate payments are accepted via pay stations that require users to enter their license plate number or by the ParkMobile app. The Springdale lot has a total of 210 spaces and the Glenbrook lot has a total of 156 spaces. Pre-pandemic occupancy data are not available for these lots.



**Springdale Station Lot Parking Inventory**



**Glenbrook Station Lot Parking Inventory**



## 2.3 Analysis of Zoning Requirements for Parking

In an effort to right-size Stamford's residential parking supplies, an initial analysis informed the most recent Stamford Zoning Regulations for Parking Requirements. This initial review compared proposed Stamford parking requirements to industry data in the Parking Generation Manual 5<sup>th</sup> Edition published by the Institute of Transportation Engineers (ITE). These statistics are based on empirical occupancy data collected for land uses all over the United States. The peak parking ratios provided by the ITE Parking Manual are often based on 20 to 100 different site surveys and are expressed in relation to one or more independent variables. The ITE manual also provides parking demand data for different settings such as Center City Core, Dense Multi-Use Urban, General Urban/Suburban and Rural. From each ITE dataset analyzed, the 85<sup>th</sup> percentile ratio from ITE was utilized as the best basis for zoning codes as long as the settings are comparable. The 85<sup>th</sup> percentile ratio is the peak ratio that is exceeded by only 15% of the samples that were collected for that use category.

### Multi-Family Residential Development Parking

Residential parking requirements in Stamford are delineated by three distinct geographically-based Parking Categories (shown on Figure 2.11 further down):

- Category 1 primarily consists of the core Downtown area and South End.
- Category 2 consists of denser areas peripheral to Downtown, as well as Springdale and Glenbrook neighborhood areas that are zoned Village Commercial.
- Category 3 consist of the remaining areas of Stamford that have low-rise development, including one- and two-family residential areas.

Parking demand analysis specifically explored right-sizing parking requirements for Categories 1 and 2 with the consideration of variables such as:

#### Density of Development

ITE data are nuanced by building density (e.g. low-, medium-, or high-rise) as well as location density (e.g. General urban/suburban, Dense Multi-Use urban, etc.). The diversity of these factors, even within a given Parking Category, were considered as indicators of parking demand.

#### Station Proximity

Easy walking access to well-connected public transportation, such as train stations, can reduce parking demand for multi-family developments when car ownership becomes less essential for mobility. Since ITE provides

parking data for multi-family developments that are not nearby rail transit stations and developments that are within 0.5 mile to a rail station, this variable was proposed for adoption into the Stamford code. As Stamford's transportation hub, the Transportation Center serves as a key resource that enables residents to more easily live Downtown without having a car. Compared to the Transportation Center, the Springdale and Glenbrook stations provide a reduced level of transit service because of their function as a connector line to the Transportation Center.



*New Developments in the South End*

## Existing Multi-Family Residential Parking Requirements in Stamford

Current multi-family zoning requirements for residential developments are shown below in Table 2.9.

**Table 2.9 - City of Stamford Existing Zoning Regulations:  
Multi-Family Development Parking Requirements by Parking Category**

	Category 1			Category 2			Category 3		
	Market	BMR	Deeply Aff.	Market	BMR	Deeply Aff.	Market	BMR	Deeply Aff.
Studio Apt.	0.75	0.5	0.33	1	0.75	0.33	1	0.75	0.5
1-Bdrm. Apt.	1	0.75	0.33	1.5	1	0.33	1.5	1.25	0.5
2-Bdrm. Apt.	1.25	1	0.33	1.75	1	0.33	1.75	1.5	0.75
3-Bdrm. Apt.	1.5	1.25	0.33	2	1.25	0.33	2	1.5	1

Source: City of Stamford Zoning Code, Section 12 (April 30<sup>th</sup>, 2021)

## Multifamily Building Parking Occupancy Counts

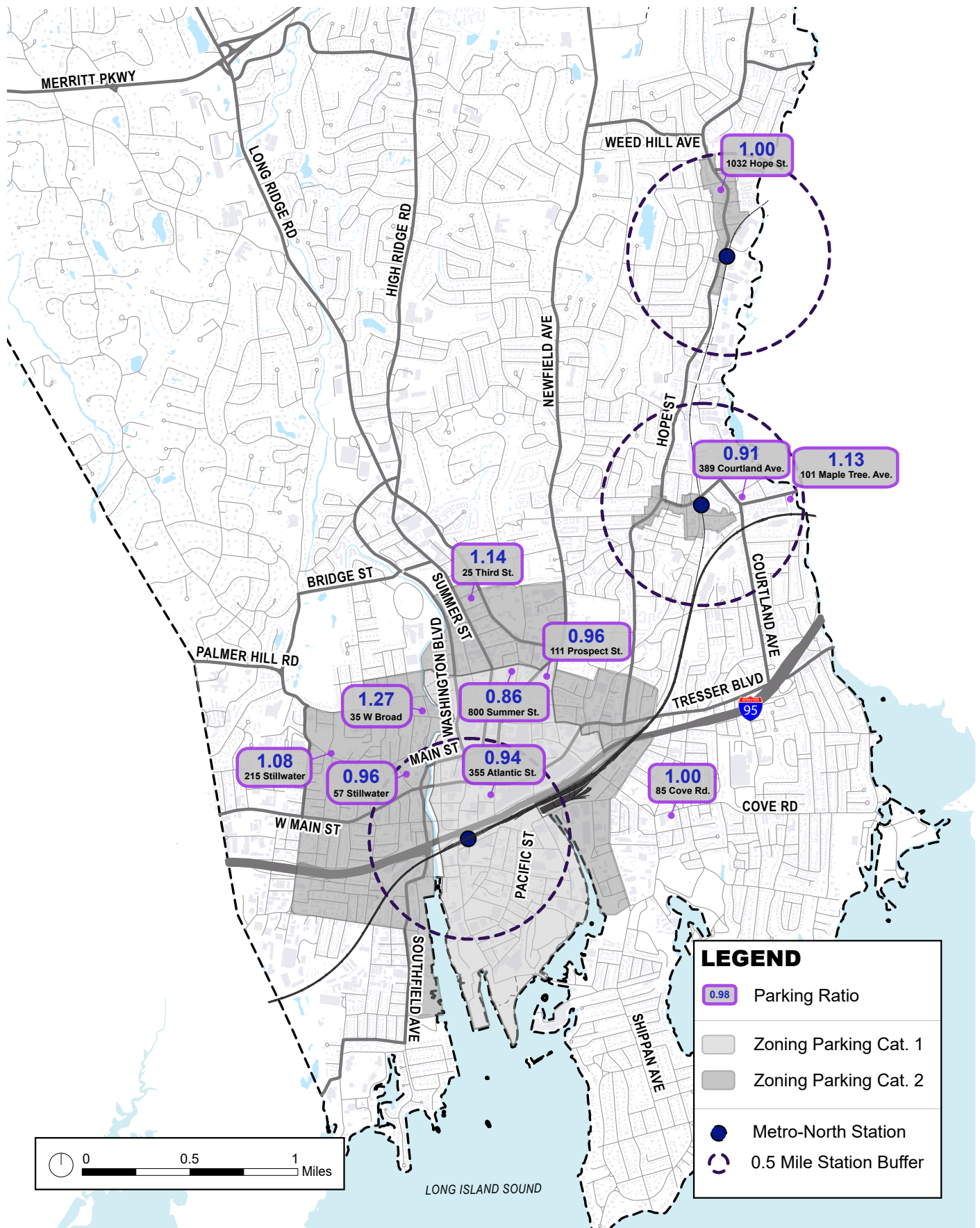
In an effort to further right-size parking requirements in Stamford, overnight peak-period parking data were collected and analyzed from a sample of multi-family buildings. The sample of developments vary by characteristics such as total number of units, unit bedroom mix, unit affordability, and their location in respect to Parking Categories, as well as train station proximity. Figure 2.13 maps multi-family buildings where data were collected along with ratios for the actual peak parking demand. Mapped ratios express the peak-period parking demand based on the total number of parked cars divided by the total number of units. These ratios were compared against a zoning analysis for each site to determine the number of parking spaces that would be required at each site based on specific bedroom mix. Table 2.10 compares the parking requirements as per the zoning regulations to the observed peak parking occupancies.

**Table 2.10 – Comparison of Zoning Requirements for Ten Multi-Family Buildings to Actual Peak Parking Demand**

Site #	Address	Parking Categ.	Location	Distance to Station	Total Res. Units	% Studios	% Afford.	Per Zoning		Per Occupancy Counts		Comparison Between Zoning Requirement and Actual Peak Demand	
								Total Parking Req.	Ratio	Peak Occup.	Ratio	Oversupply	Undersupply
1	800 Summer St.	1	Downtown	0.8	92	97%	15%	69	0.75	76	0.83		-0.07
2	111 Prospect St.	1	Downtown	0.9	55	100%	15%	39	0.71	53	0.96		-0.25
3	355 Atlantic	1	Downtown	0.25	325	6%	0%	358	1.10	307	0.94	0.16	
4	1032 Hope St.	2	Springdale	0.35	88	53%	18%	105	1.19	88	1.00	0.19	
5	25 Third St.	2	Downtown	1.2	50	26%	14%	69	1.37	57	1.14	0.23	
6	215 Stillwater	2	West Side	0.8	78	0%	60%	68	0.87	84	1.08		-0.20
7	35 W Broad	2	West Side	0.7	92	0%	12%	156	1.69	117	1.27	0.42	
8	57 Stillwater Ave.	2	West Side	0.47	45	27%	13%	64	1.42	43	0.96	0.46	
9	389 Courtland Ave.	3	Glenbrook	0.2	32	25%	0%	44	1.38	29	0.91	0.47	
10	101 Maple Tree Ave.	3	Glenbrook	0.42	32	6%	0%	52	1.63	36	1.13	0.50	
11	85 Cove Rd.	3	East Side	1	32	31%	0%	48	1.48	32	1.00	0.48	

The table shows that eight of the eleven buildings have peak parking demands that are less than the zoning requirements, in some cases by as much as 0.47 to 0.50 cars per apartment unit and 3 buildings have a parking demand that is higher than what zoning requires. A closer analysis of these comparisons leads to the following conclusions:

1. All sites are oversupplied except for the 3 sites that have either a high percentage of affordable units (60%) or have a very high percentage of studios (97% or 100%).
2. The Category 3 sites are the most oversupplied sites – by as much as 0.50 spaces per apartment – followed by the Category 2 sites and then by the Category 1 sites. Note that none of the Category 3 sites included affordable units.
3. It appears that the City’s zoning ratios for studios are too low in Category 1 and that in all categories the studio ratios should be closer to the ratios for 1-bedroom apartments.
4. It appears that the City’s parking requirements for affordable units are lower than the actual parking demand for these units. It appears that the parking demand of below market units (BMR) is very close to the ratio for market units.
5. The parking demands for 2 –bedroom or 3-bedroom units compared to 1-bderoom units do not increase as significantly as the Stamford zoning code projects. In many cases the additional bedrooms do not generate an additional parked car, as the additional bedroom may sometimes be used as an office or other amenity room, or as a bedroom for kids. This incremental parking demand seems to vary also by category zone.
6. It appears that the distance to the train station has an influence, however, this effect may be influenced by other variables as well.



**Figure 2.13 Multifamily Building Peak Parking Utilization Ratios**

### *Parking Requirements for Affordable Units*

Parking occupancy data suggest that current parking requirements for Below Market Rate (BMR) affordable units may be lower than actual demand. Unit affordability varies based on a range of 31% to 80% of the Area Median Income (AMI) which reflects a spectrum of income circumstances.<sup>5</sup>

Additional data provided by the City of Stamford were analyzed which demonstrate rates of registered vehicles per affordable unit from a sample of 15 multi-family developments. Analysis utilized the number of registered vehicles as a proxy for parking demand and demonstrates that BMR studios, 1-bedroom and 2-bedroom units in Parking Categories 1 and 2 nearly all have higher parking demand than what the current zoning code requires.<sup>6</sup> The greatest difference between parking demand and zoning requirements exists for BMR studios in both Parking Category 1 and 2. Category 1 zoning requires 0.5 spaces for a studio whereas registered vehicle data for this sample cohort is 1.02. Similarly, Category 2 zoning requires 0.75 spaces for a studio whereas registered vehicle data for this sample cohort is 1.00.

### *Bundled or Unbundled Parking?*

Unbundling parking refers to charging for automobile parking separately from the residential unit charges. In practice, a renter would sign a lease for an apartment, and then a separate lease or would purchase a monthly permit for the amount of needed parking. A homeowner would purchase the deed for a home separately from the deed for a parking space or from a permit to use a space that is owned by an HOA/Condo association.

The purpose of unbundling parking is to allow people to purchase or lease the amount of parking they want, instead of being forced to purchase what is “bundled” along with their purchased or rented space. This allows homeowners and renters to spend money only on the space they intend to use, instead of wasting money on parking spaces they may not need. Based on studies comparing similar developments except for the bundling policy, unbundling reduces car ownership and traffic impacts to a small degree. Most importantly, unbundling reduces the cost of housing in general, but especially for those residents who do not need or want to park a car or two cars. Unbundled parking is a transportation demand management (TDM) strategy in that it encourages residents to reduce their car ownership.

A 2018 study of TDM measures provided in multifamily housing developments in Arlington, Virginia found that unbundling parking is an effective way to lower auto ownership and reduce rates of driving. The study found that residential buildings with unbundled parking had an approximately 6 percent lower rate of auto ownership per unit and approximately 13 percent lower auto ownership per adult resident. This study also found that when looking at a larger toolset of TDM measures, unbundled parking was the most consistent predictor of lower rates of driving alone.

A University of California Study that analyzed nationwide Census Data found that carless renters who rented a unit that included a space in a parking garage paid a 13 percent premium (\$621 per year) on the cost of their rental.

### *What are potential negative impacts of unbundled parking?*

When a new multi-family development with unbundled parking is built in a neighborhood that has free on-street parking with no or minimal time-limit regulations, it is very tempting for residents to take advantage of the free parking and avoid paying for parking on site. If this residential development occurs in an older neighborhood with homes and apartment buildings that rely on the provision of on-street parking, competition

---

<sup>5</sup> Stamford’s Zoning Regulations for parking requirements distinguishes Deeply Affordable Units as households that earn 30% or less of the AMI. These units have reduced requirements compared to BMR affordable units.

<sup>6</sup> The one exception to this is 1-Bedroom affordable units in Category 2.

and friction may rise to the point where the older residents will reach out to the elected officials asking for protection against the “new comers”. These reactions have led some communities to request bundled parking instead of unbundled parking.

#### *How can the negative impacts of unbundling be mitigated?*

The most direct way to mitigate the friction between older residents and newcomers is to limit competition for on-street parking by controlling access through a residential permit program. Charging a reasonable fee for residential permits may be the most efficient way to limit competition. Residential Parking Permits (RPP) will be discussed in more detail in the following section. RPP holders – presumably living in the older housing units - would maintain protected access to on-street parking. Any new multi-family developments that have to satisfy current zoning requirements and have to provide off-street parking would then not be eligible for RPPs. Given the benefits of unbundled parking (transportation sustainability, land-use efficiency and housing affordability) it should be seen as a valuable policy for Stamford, especially since the negative impacts of the unbundled parking in areas with an older housing stock can be controlled fairly efficiently with residential parking permit programs.

### Senior, Assisted and Supportive Housing

Current parking requirements for senior and other type of assisted and supportive housing are shown below in Table 2.11 and differ from other residential requirements. Recommendation 5.9 in the concluding section of this report recommends right-sizing these ratios.

**Table 2.11: Parking Requirements for Senior and Supportive Housing**

Current Stamford Zoning Use	Existing Ratio	
Assisted Living Facility	0.5	per unit
Memory Care	0.7	per bed
Independent Living / All other housing for the elderly	1.0	per unit
Nursing Homes	0.3	per bed
Supportive Housing	0.3	per bed, AND
	2.0	per 1,000 sq. ft. of space used for supportive services

## 2.4: Residential Parking Permit (RPP) Program

Residential Parking Permit (RPP) Programs are a means to regulate on-street parking in neighborhoods and communities that are adjacent to high parking generators such as train stations, hospitals, theaters, etc. RPP Programs prohibit parking intrusion by non-residents in designated areas helping to ensure that convenient on-street parking spaces are not taken over by surrounding high-density residential, institutional, commercial or industrial activities, but rather are available to local residents. The previous section also outlined how RPP programs can manage the supply of on-street parking for established lower density neighborhood streets in areas adjacent to dense newer multi-family housing where residents may decide to park on- street to avoid paying for parking within their developments.

In 2019 the City sold approximately 3,200 residential parking permits (RPPs) at a cost of \$15 per permit. Residents are limited to purchasing a maximum of three (3) parking permits per household and have to renew permits annually. Residents obtain visitor permits at no cost. The number of visitor parking permits issued per household is dependent upon the determination of the Director of Operations if the maximum number of residential parking permits per household has been reached. Businesses can also obtain permits in RPP zones for employees and the number of parking permits available to a commercial property is again determined by the Director of Operations based on a study or a report provided by the business. To accommodate social events in RPP zones, residents can obtain a one (1) day suspension of enforcement for a fee of \$50.

Presently, Stamford has 48 RPP zones throughout the City. Figure 2.12 and Table 2.12 illustrate Stamford's RPP zones. Five (5) of the zones located near City beaches, Zones 1, 2, 3, 6 and 18, require permits from May 1<sup>st</sup> to September 30<sup>th</sup>, while all other zones require permits year-round. RPP enforcement hours are in effect 24/7 except for Zones 1, 2, 3, 6 and 18.

Permit issuance and fee collection is the responsibility of the City's Cashiering and Permitting Department. The City presently uses a virtual permit system. With the virtual permit system, residents can access the permit application on the TTPD's website, upload the residency data requirements, and with the virtual permit system, the resident's license plate becomes their credential or "permit". With the virtual permit system, the enforcement of the RPP areas occur efficiently with the integration and use of the City's License Plate Recognition (LPR) system.



*Residential Permit Zone 10: Berkeley Street, South End*

## RPP Zone Eligibility and Designation

Presently, the issuance of residents' visitor permits and the determination of new RPP zones is based to a great extent on the direction of the "Director of Operations." Historically, this has been the Bureau Chief and/or Traffic Engineer. When TTP receives an application for a new RPP zone, TTPD typically conducts the following steps:

1. Count the number of households on the street.
2. Review the petition for accuracy of signatures (e.g. 1 signature per household) and that 65% of the households<sup>7</sup> signed.
3. Measure the available parking on the street based on curb cuts, restrictions, etc.
4. Count how many vehicles are parked on the street. A determination is made whether the street is 75% occupied.
5. Divide the number of available spaces by the number of households to determine the number of passes each can receive. The number of passes per household cannot exceed three.
6. Hold a public meeting to share findings and application determination.

After a new RPP zone is established, signs are installed, passes are sold as requested, and enforcement begins. TTPD typically allows one permit per business that falls within an RPP zone, but this is reviewed on a case-by-case basis. A common challenge in the RPP evaluation process is the presence of illegal units on certain blocks which makes it more difficult to decipher parking demand and the total number of households. Additionally, the evaluation process does not currently include an evaluation metric that considers the availability of off-street parking (e.g. garage, parking lot, driveway).

The City should consider modifying the RPP program to determine the number of permits and visitor permits issued to residential households and commercial properties based on defined property characteristics. For example, residential permits and visitor permits should be issued based on driveway availability, numbers of bedrooms, etc. Commercial properties should be issued based on type of use, square footage of the building, number of employees, etc.

## Peer Cities Residential Parking Permit (RPP) Programs

To evaluate the City's RPP program the RPP Programs of "peer" municipalities were identified and researched: the City of New Rochelle, NY, the City of New Haven, CT, and the City of Cambridge, MA. Table 2.12 illustrates the RPP Program information in the peer municipalities

**Table 2.12: Peer Municipalities' Residential Parking Permit Rates**

Municipalities	Annual Residential Parking Permit Rate	Issuance per Household (Resident Permits)	Issuance per Household (Visitor Permits)
<b>Stamford</b>	<b>\$15.00</b>	<b>3 permits/household</b>	<b>N/A*</b>
New Rochelle	N/A**	2 permits/household	N/A
New Haven	Free	Unlimited residents permit,	Limit of 3 visitor passes
Cambridge	\$25.00	Unlimited residents permit	Limit of 1 visitor pass
<b>Average</b>	<b>\$20.00</b>	<b>N/A</b>	<b>N/A</b>

Note\* The number of visitor permits available per dwelling is dependent upon the determination of the Director of Operations or his/her designee if the maximum number of residential parking permits per resident have been reached.

\*\* New Rochelle does not have RPP for on-street parking. It offers discounted parking permits for their residents to park in the parking lots and garages.

Source: City of Stamford, City of New Rochelle, City of New Haven, City of Cambridge, 2020

<sup>7</sup> For RPP evaluation purposes, a household is determined by the number of units. For example, a three family house is considered as three household.

**Table 2.13: Inventory of Stamford's Residential Parking Permit Zones**

Zone	Street
Zone 1*	Albin Road
Zone 2*	Aquila Road
Zone 3*	Dora Street, Island Heights Circle, Island Heights Drive
Zone 5	Seventh St., Weil St., Waterford Ln., Eighth St., 2530 Summer Street, 65 Bridge St.
Zone 6*	Euclid Ave, 973 & 995 Cove Road
Zone 7	Clovelly Road
Zone 8	Marshall Place
Zone 9	Court Street
Zone 10	Berkeley Street
Zone 11	Van Buren Circle
Zone 12	Square Acre Drive
Zone 13	Hillcrest Avenue
Zone 14	Brandywine Road
Zone 15	Morgan Street
Zone 16	Glen Terrace
Zone 17	Hillcrest Avenue for 125 Prospect Street residents
Zone 18 *	Dean Street
Zone 19	Brooklawn Avenue, Howes Avenue, Nash Place
Zone 20	Bonner Street
Zone 21	Clovelly Road
Zone 22	Avery Street
Zone 23	Hinckley Avenue
Zone 24	Faucett Street
Zone 25	Revonah Avenue
Zone 26	Lenox Avenue
Zone 27	Waterbury Ave, East Main to Birch
Zone 28	Seaside Ave, Sylvan Knoll to Cove
Zone 29	Relay Place
Zone 30	Woodcliff Street
Zone 31	Ardsley
Zone 32	Chester Street
Zone 33	Spruce Street
Zone 34	Valley Road
Zone 35	Frisbie Street
Zone 36	Center Street & Hallmark Place
Zone 37	Oakdale Road
Zone 38	Stephen Street
Zone 39	Pacific Street
Zone 40	Stamford Avenue
Zone 41	Hobson Street between Shippan Ave and Ocean Drive East
Zone 42	Fairview Street
Zone 43	Stone Street
Zone 44	Hubbard Heights
Zone 45	Burley Avenue
Zone 46	Scott Place
Zone 47*	Lanell Drive
Zone 48*	Shippan Ave between Sound Ave and Fairview Ave

\* Zones where permits are required May 1st - September 30th. All other zones permits apply year-round.

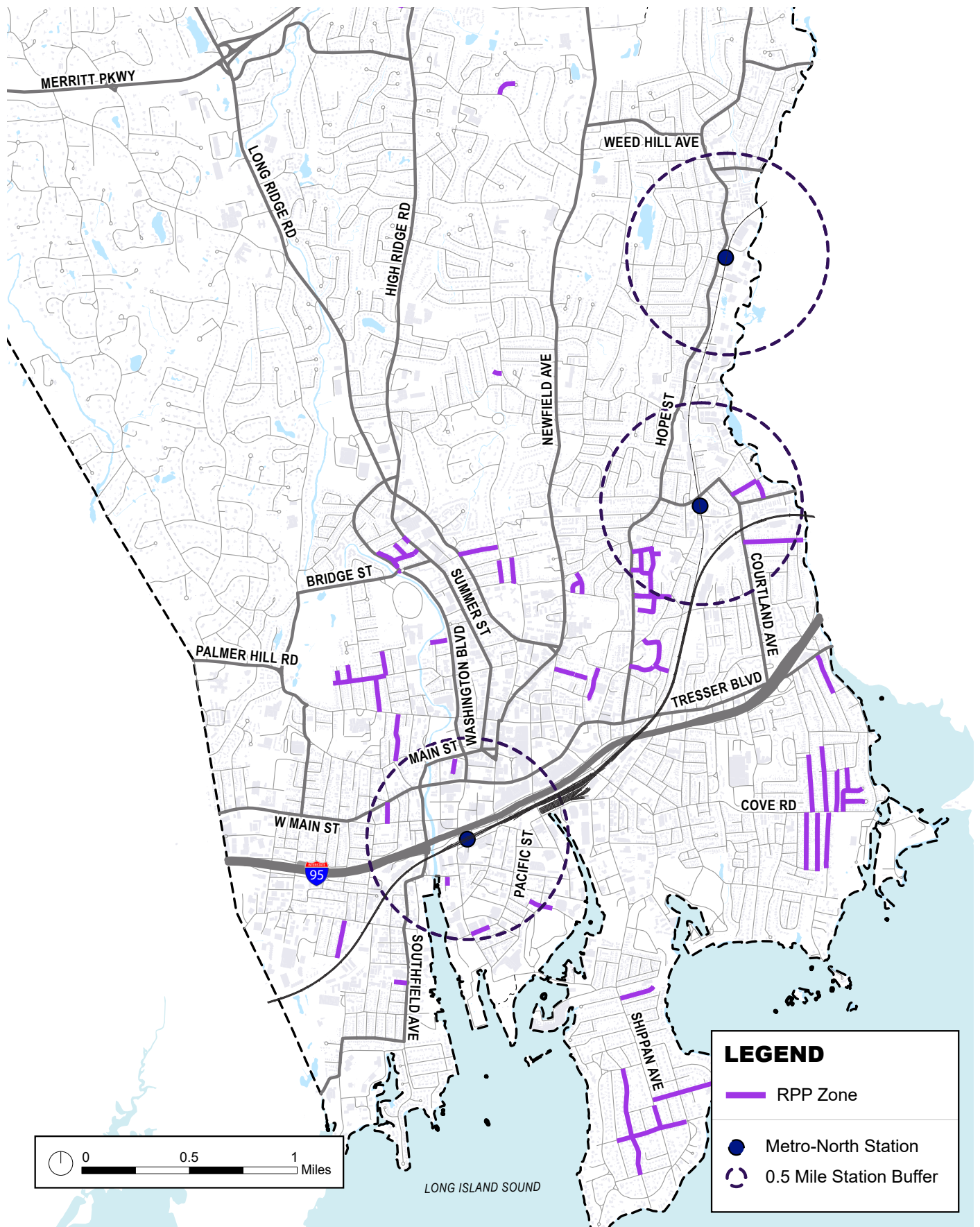


Figure 2.14 Residential Parking Permit Zones

## 2.5 Parking Requirements for Commercial Uses

BFJ reviewed the current zoning requirements for parking associated with commercial uses and compared them to general industry standards (ITE Parking Generation Manual 5th Edition). In addition to “right-sizing” the ratios based on the latest data, other changes are recommended as explained below. Recommendation 4.3 in the concluding section of this report presents opportunities to right-size commercial ratios, along with related recommendations.

## 2.6 Electric Vehicle (EV) Parking Requirements – Residential and Commercial

In order to promote sustainability goals and meet growing demand for Electric Vehicles (EV), the City has specific charging and parking requirements in place (Section 12.L of the City’s Zoning Code).

EV requirements apply when 10 or more off-street parking spaces are required and also apply to shared parking spaces used to satisfy requirements. The table below outlines the existing Level 2 charging space requirements:

**Table 2.14: Required Level 2 Charging Facilities (Per Zoning Requirements)**

Number of Required Parking Spaces	Minimum Number of Charging Spaces
10-19	1
20-49	3
50-99	5
100+	1 additional charging space for each 25 required parking space increment in excess of 99 spaces.

*Source: City of Stamford Zoning Code, Section 12 (December 7<sup>th</sup>, 2022)*

The Zoning Code further specifies:

- A charging space may count as one-half (1/2) of a required off-street Parking Space. If an applicant provides double the number of required charging spaces, then each charging space shall count towards required off-street parking.
- For each charging space, there shall be one reserved Parking Space for Electric Vehicles only. These reserved Parking Spaces shall count towards required off-street parking.

## 2.7 Bicycle Parking Requirements – Residential and Commercial

Subsection 12.J of the City's zoning code establishes requirements for Bicycle Parking for building occupants and visitors. Bicycle parking is required for all new residential developments with 10 or more dwelling units and all new non-residential developments that are 5,000 sf or larger. Bicycle parking requirements also apply to instances of additions or changes in use that generate 10 or more dwelling units or 5,000 sf of new non-residential space.

Per the City's zoning code, **Class A Bicycle Parking** is defined as parking intended to accommodate those who expect to park their bicycles for more than two hours and come to a destination regularly (i.e. residents, employees, staff). All Class A Bicycle Parking is required to be a fully enclosed permanent storage space with controlled access in a secure location. **Class B Bicycle Parking** is intended to accommodate use of less than two hours (i.e. visitors and customers). Such parking should be in the front or side of the building and in close proximity to the site's main entrance.

For all non-residential uses that generate a requirement of 20 or more Class A bicycle parking spaces, other bicycle amenities are required such as showers and changing rooms (one shower and one changing room for each 10 required Class A spaces) and lockers (one locker per bicycle parking space).

Refer to Appendix 1 for current bicycle parking requirements (per zoning).

A review of bicycle parking requirements (Class A and Class B) was conducted to understand how Stamford's ratios compare with other cities. Although it appears that Stamford's requirements for Class A and Class B are higher than some peer cities (i.e. New Rochelle, Hartford, and Princeton) for certain uses such as multi-family housing and retail, it is not recommended that the current ratios are changed. However, the City could conduct occupancy surveys to better understand utilization of bicycle parking in newer developments.

### 3. Parking System Operations & Management Review

#### *Introduction*

This review focuses on the public parking system and assets which are managed by the City's Transportation, Traffic, and Parking Department (TTPD). While the parking study recognizes the importance of coordinating public and private parking supplies and resources, parking management discussion here is pertinent to TTPD's structure and operations as a City entity.

#### *Background*

Parking management plays a multi-faceted and vital role in various components of the City of Stamford's economic development, quality of life, safety and access. Proper parking management can address parking problems, reduce operating costs, improve user convenience, provide more available parking for multiple users, reduce congestion, and generate revenue to support downtown improvements and alternative modes of transportation. In addition, good parking management and planning can lead to more efficient land use.

TTPD recognizes the important role that parking plays in supporting the City's economic development, access and livability. The department is focused on undertaking and implementing strong management practices and is presently in the process of rolling out substantial parking management, efficiency, technological, and customer service upgrades including a virtual parking permitting system, License Plate Recognition (LPR) enforcement, and contactless parking payment technologies.

#### 3.1: Parking Management / Operations Review (Public Parking)

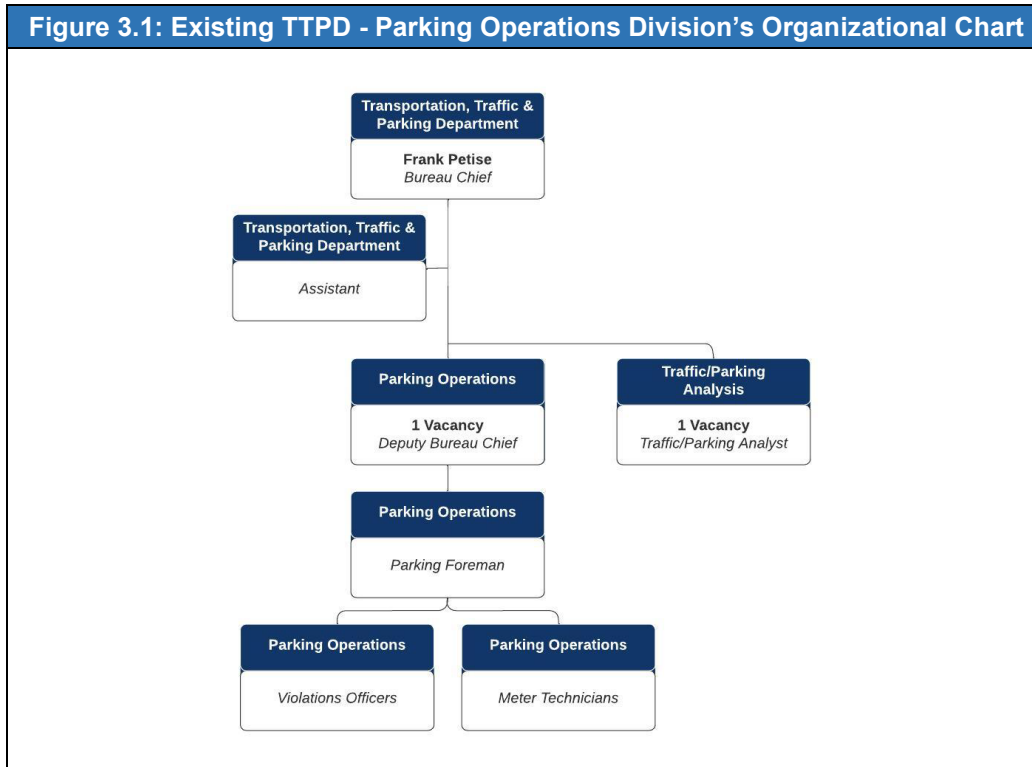
A comprehensive parking strategy for a municipality includes assessing parking needs and implementing solutions that address both supply and demand objectives. A well-managed and operated municipal parking system promotes the free flow of traffic and pedestrian safety, enhances residential quality of life, provides convenient parking to support local businesses and generates adequate revenue to cover operating costs, facility improvements, Transportation Demand Management (TDM) initiatives, and future parking and economic development. Given the finite parking resources in Stamford, it is critical to effectively manage and maximize the utilization of existing parking assets to enhance the overall public parking system and maintain a vibrant downtown. This includes opportunities to improve operations and efficiency, increase convenience of parking for patrons, coordinate both on-street and off-street parking pricing, encourage the delivery of parking information, and improve the user comfort of downtown parking resources.

TTPD is organized into several divisions that work to ensure the efficacy of broader transit and traffic operations, however its parking-related responsibilities include:

- Manage On- and Off-Street Parking
- Manage Residential Parking Permit Program
- Issue Street Use Permits
- Review Zoning Board Applications with regards to parking
- Assist Traffic Advisory Committee
- Parking Enforcement Operations
- Management of Municipal Parking Lots and Garages

### *TTPD Existing Organization Chart*

Stamford's Bureau Chief of the TTPD oversees the Parking Operations Division presently consisting of the following positions: one (1) traffic engineer, one (1) signal engineer, one (1) transportation planner position, one (1) parking foreman, a team of parking meter technicians and a team of full-time parking violation officers. Notably, a number of these positions are currently vacant. Figure 2.32 illustrates the TTPD Parking Operations Division's existing organizational chart.



Job duties and responsibilities for both filled and currently vacant positions are summarized as follows:

- **The Traffic Engineer** reports to the TTPD's Bureau Chief and oversees the Department's Parking Operations Division. This role is primarily responsible for mentoring / staff development, oversight, and technical quality control of traffic signal modernization, and signs and pavement markings.
- **Transportation Planner** reports to the TTPD's Bureau Chief and provides the analytical support that is necessary to operate effectively and to help plan future parking policies, regulations, time limits, and pricing strategies.
- **The Traffic (Parking) Foreman** reports to the traffic engineer and supervises the three (3) parking meter technicians and the seven (7) full-time violation officers. The Parking Foreman interacts with the Office of Operations and the public on a regular basis, as well as Stamford Police and Highway personnel during snow removal operations. The Parking Foreman handles the day-to-day activities and operations for Stamford's Parking Enforcement and Meter Divisions including parking equipment. This role is responsible for overseeing parking operations, facilities, and programs, as well as the staff that are assigned to parking enforcement, parking meter repair, and collections. The Parking Foreman also ensures that all of the equipment assigned to the Parking Enforcement Division is maintained properly, including vehicles and supplies.
- **The Violations Officers (I and II)** report to the Parking Foreman and are primarily responsible for enforcing parking on-street and in City parking lots and garages.

- **The Violations Officer II** is primarily responsible for enforcing parking and performing scofflaw booting operations.
- **The Meter Technicians** report to the Parking Foreman and interact often with police and cashiering personnel. They handle all things related to parking payment equipment including cleanliness and security for on-street meters and in City lots and garages. This position is responsible for installing, maintaining, troubleshooting and repairing mechanical and electronic parking meters, pay stations, programming and maintaining the database for computerized parking meter systems, and performing revenue collections.

The management of the City's parking permit system, including parking permit sales and distribution / issuance, is the responsibility of the City's Cashiering and Permitting Department. Although the TTPD reviews and approves the Residential Parking Permits and assesses the parking occupancy in the garages to determine how many permits can be sold, the TTPD does not presently oversee the distribution and issuance of parking permits and the associated financial administration.

### Parking Enforcement

One of the most important aspects of overall parking operations is parking enforcement. Proper enforcement of parking rules regulates the use of parking, lessens safety hazards, and reduces the number of crashes. A successful enforcement program also promotes on-street parking turnover to support local business districts and residential parking areas, so residents have adequate parking. Paramount to a parking operation is that, to the greatest extent possible, parking enforcement is perceived by the general public as consistent, fair, and not arbitrary and capricious.

The Traffic Engineer presently oversees parking enforcement and the Violations Officers who issue parking citations and boot or tow scofflaw vehicles. Day-to-day oversight of enforcement is the responsibility of the Parking Foreman. On-street parking enforcement functions are carried out by nine (9) budgeted Violations Officers. Parking enforcement is presently efficiently performed through the use of License Plate Recognition (LPR) technology.

### Standard Operating Procedures

The Standard Operating Procedures (SOP) manual for parking enforcement outlines policies and procedures that guide staff and define roles and functions of enforcement personnel. The SOPs should be periodically reviewed and amended to ensure accuracy and applicability. The TTPD's parking enforcement unit's SOP is currently in process of being written.

### Coverage Requirements

The City has a total of **1,351** metered parking spaces and Violations Officers also patrol the City's 48 residential permit parking (RPP) zones. While covering 48 RPP zones would appear a tall order, the City's RPP zones are small and can be covered efficiently. A small-scale deployment of virtual permitting has already been implemented for the City's seasonal Beach Permits. Once fully implemented for RPP, enforcement will be conducted using LPR technology, which will greatly enhance enforcement efficiency.

Other areas of the City and regulations that require enforcement attention include:

- Rush hour / no standing (7:00am – 9:00am; 4:00pm – 6:00pm) restrictions on downtown thoroughfares.
- Safety violations such as double-parked vehicles and vehicles parked at fire hydrants, fire lanes, sidewalks, and bus stops.
- Loading zones in the Central Business District (CBD) and commercial zones outside the CBD.
- Vehicles parked at ADA spaces

**Table 3.1: Existing TTPD Coverage Requirements**

Parking Location	Number of Metered Spaces	Hours of Enforcement
On-Street	670 Metered Spaces	8:00AM to 8:00PM, Monday through Saturday (Excluding Holidays)
Bell, Bedford and Summer Street Parking Garages	515 Metered Spaces (Pay-by-Plate, multi-space)	24 Hours/Day (Excluding 10AM to 5PM on Sundays)
Bedford St Annex Lot, Summer 3 Lot and, Bell St Annex Lot	166 Metered Spaces (Pay-by-Plate, multi-space)	8:00am to Midnight, Monday through Sunday
<b>Total</b>	<b>1,351 Metered Spaces</b>	<b>N/A</b>

Source: City of Stamford (2020)

To meet these coverage requirements, the deployment plan for Violations Officers is shown in **Table 3.2**.

**Table 3.2: Violations Officers Assigned Shifts**

Shift Hours	Officers Assigned / Days of Week
7:30 AM to 4:30 PM	2 Officers / Monday through Friday
9:00 AM to 6:00 PM	4 Officers / Monday through Friday
2:30 PM to 11:30 PM	3 Officers / Tuesday through Saturday

Source: City of Stamford (2022)

## Enforcement Performance

In municipalities like Stamford, there is a wide variation in enforcement activity. Many factors influence the number of citations issued by an officer while on duty, including whether the officer is assigned solely to citation issuance or has other duties such as scofflaw enforcement, traffic control, parking ambassador duties, etc. For the most part, the Violations Officers in Stamford focus their time and attention on enforcing parking regulations and issuing citations, though three (3) Violations Officers spend some of time booting scofflaw vehicles.

Analyzing parking enforcement data will allow TTPD to have a more accurate picture of the City's parking system to guide personnel allocation, performance, rate adjustments, enforcement routes and strategies, time limits, etc. The City's LPR technology can produce similar performance data reports. While reporting tools are available to the enforcement unit, it appears that neither the Traffic Engineer or the Parking Foreman have the capacity required to fully utilize them. This important task is usually the responsibility of a parking analyst.

## Scofflaw Enforcement

In February 2019, TTPD added booting operations to its scofflaw enforcement. To enhance the efforts to collect outstanding debt, the enforcement unit implemented a self-releasing booting program that allows the owners of booted vehicles to settle their outstanding debt by calling a toll-free number to make payment. Once the payment is processed, the motorist is given a code that releases the boot. By releasing boots themselves, motorists do not have to wait for a boot release crew. More importantly for TTPD, officers assigned to booting can spend more time, using the LPR technology described above, searching for and booting scofflaws since they don't have to respond to boot-release requests. It should be noted that most cities that boot scofflaw vehicles do so using two-person crews. The rationale for this approach is officer safety.

## Meter Collections, Repair and Maintenance

The City presently has approximately 240 standard POM on-street parking meters, as well as 430 IPS on-street parking meters, totaling 670 on-street meter spaces. According to the TTPD there are presently no standard operating procedures (SOPs) for meter key control, meter collections and coin handling and counting. SOPs related to the control and management of meter keys, collection schedules and zones, and collection equipment with defined procedures should be established to reduce the opportunity for theft. The same employees from TTPD who conduct the meter collections also respond to meter repair calls and repair broken meters.

Typically, a well-managed parking system will achieve the following benchmarks:

- All meters and pay stations are required to be functioning properly no less than 90% of the time.
- Any defective meter should be replaced / repaired within 24 hours of a report of failure.
- A regular preventive maintenance schedule, including battery replacement, for all parking meters and pay stations should be established to reduce down time of equipment.
- A log of all complaints regarding meters and pay stations should be maintained noting date, meter / pay station number, location, the nature of the problem, and the date it was corrected.
- The collection of single space meters and pay stations should occur at least weekly and before the meter is 95% full to ensure no downtime.
- Ensure proper accountability and internal control of all monies collected.

## Event Parking Management Plan

Presently, Stamford does not have a formal event parking management plan / process in place. Instead, event parking is handled through the TTPD and involves meetings with the Downtown Special Service District (DSSD), Police Department, etc. for the larger events in Stamford. Effective management of special event parking is increasingly important to municipalities seeking to foster economic development, generate activity for local businesses, and enhance the vibrancy of the community. Special events, AliveatFive, Arts and Crafts on Bedford, or the Stamford Downtown Parade Spectacular, often serve as an introduction of the City to new future customers and residents, therefore, the parking experience must be positive to ensure future interaction. The effective management of event parking also improves the overall image of parking in Stamford and encourages patrons and visitors to return for future events, dining, and entertainment.

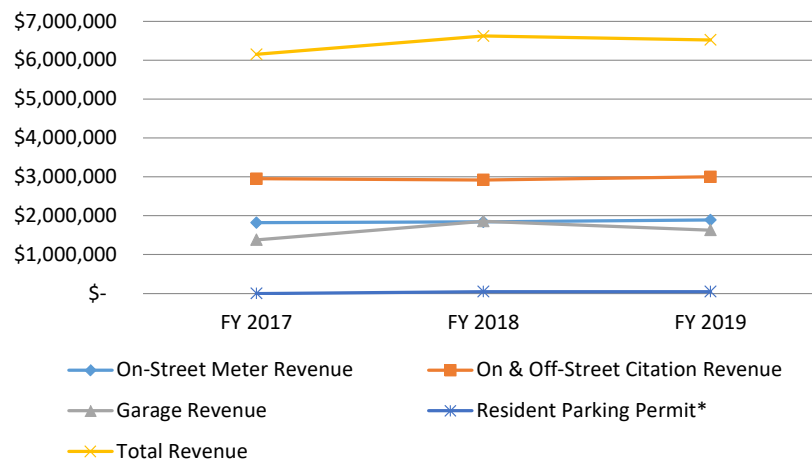
## Parking System Revenues and Expenses

Stamford parking revenue and expense information are collected based on fiscal year from July 1<sup>st</sup> through June 30<sup>th</sup>. Parking revenues consist of the following: on-street meter revenue, garage revenue, on- and off-street citation revenue, and Resident Parking Permit revenue.

The following Table breaks down Stamford's four (4) sources of Parking Revenues for the Fiscal Years 2017, 2018, and 2019.

**Table 3.3: Stamford's Parking Revenues – FY 2017 to FY 2019**

Revenue Types	FY 2017	FY 2018	FY 2019
On-Street Meter Revenue	\$ 1,820,000	\$ 1,840,000	\$ 1,890,000
Garage Revenue	\$ 1,380,000	\$ 1,860,000	\$ 1,630,000
On & Off-Street Citation Revenue	\$ 2,950,000	\$ 2,920,000	\$ 3,000,000
Resident Parking Permit*	\$ -	\$ 48,000	\$ 48,000
<b>Total Revenue</b>	<b>\$ 6,150,000</b>	<b>\$ 6,620,000</b>	<b>\$ 6,520,000</b>



Note\* Resident Parking Permit is estimated based on the number of RPP issued and the RPP rate, as provided by TTPD.

The Cashiering and Permitting Department is responsible for the reconciliation of parking revenues, while the expense budget is created by the TTPD in conjunction with the Cashier and Permitting Department. Both departments work together on the accounting of parking revenues and expenses. Net revenues from parking services are distributed between the City's general fund and to fund capital repairs based on an annual review. Presently, the City's parking revenue and expenses are not separated by individual cost center. Parking revenue and expenses should be allocated by individual facilities or cost centers to the greatest extent possible so that management can understand how each facility is performing thereby providing valuable information to inform future pricing and management.

For Fiscal Year 2019 parking expenses were approximately 5.6 million. Approximately 65% of FY2019's total operation expenses were comprised of Salary and Wages, Health, Pension, Workers Compensation and Contracted Services.

### Capital Maintenance

Presently, there is no designated annual capital reserve budget for the City's parking garages. Instead, net annual revenues from parking are reviewed by the Parking Operations Division and the Office of Policy and Management (OPM) and the funds are distributed between the City's general fund and a capital repair fund for the parking facilities. In 2018, the City retained Desman Design Management to perform a condition

appraisal on the Bedford Street Parking Garage, Bell Street Parking Garage, and Summer Street Parking Garage. According to the condition appraisal reports the garages are in good structural condition. Table 3.4 illustrates a summary of the estimated repair costs for each facility by priority. Total prioritized and early repairs were approximately \$5.3 million and the costs of all identified repairs were approximately \$16.8 million. In 2019 the City spent \$2.0 million in addressing the garage repairs outlined in the Desman report.

Table 3.4: Stamford Parking Garage Conditional Appraisal				
Repair Type	Bell Street Garage	Bedford Street Garage	Summer Street Garage	Total
Prioritized Repairs	\$ 1,278,695	\$ 852,115	\$ 807,738	\$ 2,938,548
Early Repairs	\$ 1,057,760	\$ 1,279,630	N/A	\$ 2,337,390
Programmed Repairs	\$ 826,540	\$ 1,149,500	\$ 234,537	\$ 2,210,577
Long Term Repairs	\$ 2,202,200	\$ 1,742,400	\$ 1,276,504	\$ 5,221,104
Extended Term Repairs	\$ 2,994,860	\$ 1,083,060	N/A	\$ 4,077,920
<b>Total</b>	<b>\$ 8,360,055</b>	<b>\$ 6,106,705</b>	<b>\$ 2,318,779</b>	<b>\$ 16,785,539</b>

Source: Desman Design Management, 2018

### Periodic Parking Assessments

For a parking program to adapt to ever changing parking conditions, it is important to collect qualitative, parking utilization data through periodic field surveys. Using data collected through parking activity surveys, the TTPD can tailor regulations, as well as deployment and patrol strategies that are responsive to parking conditions. Periodic reviews can also identify regulations that are poorly posted, and will provide accurate data related to parking demand and availability that can inform future decisions and strategies related to parking management, pricing, and the potential need for additional parking resources. Periodic parking assessments can be done with existing staff or with an outside consultant.

## 3.2: Parking Equipment and Technology

The reliability and convenience of parking equipment and technology is a critical component to a successful parking program. Parking technology is used to maximize the use of existing assets and increase the efficiency with which the parking system is utilized. In addition to parking meters, pay-by-cell technology, and multi-space parking pay stations outlined previously, this section highlights other parking technologies.

### Violation Issuance Devices

The TTPD recently retained a new citation issuance and processing services provider, and this included equipping the Violations Officers with new handheld issuance devices. These devices are Android based, equipped with global positioning system (GPS) capabilities and high-resolution cameras. The GPS capabilities of the issuance hardware provide an excellent management tool, as the Violation Officer's location in the field can be determined in real time. The issuance software that resides on these devices can also generate "bread-crumbs" reports to illustrate the route taken by an officer over a defined time period.

### *License Plate Recognition (LPR) Technology*

The use of both fixed and mobile LPR technology has seen widespread adoption in the parking industry in recent years. For parking enforcement purposes, license plates read automatically by vehicular patrols enable officers to identify:

- Vehicles that have not made payments at pay-by-plate kiosks;
- Vehicles that have not made meter payments via pay-by-phone apps;
- Non-permissioned vehicles parked in RPP zones, for agencies that have adopted virtual permitting;
- Vehicles that have exceed posted time limits;
- Scofflaw vehicles; and
- Stolen vehicles for agencies that collaborate with police departments.

The City currently uses three (3) LPR-equipped vehicles for scofflaw identification and the enforcement of the pay-by-plate multi-space meters and City's pay-by-cell system.

Currently, Violation Officers patrol both on foot and use vehicles with LPR cameras. Parking enforcement productivity increases significantly with LPR enforcement systems, allowing enforcement regardless of weather conditions and expediting the enforcement of time limitations since manual "chalking" is no longer required. LPR also yields increased parking compliance, which results in improved access and more available parking. This efficiency also provides the Violation Officers more time to perform other enforcement or downtown ambassador activities. In addition, permit parking enforcement is labor intensive and there are often issues with lost or fraudulent permits, and the permit system has recurring costs related to the purchase and issuance of new permits. With LPR and the virtual permit system that Stamford has implemented, the permit parker simply registers their license plate and enforcement staff would use LPR to read license plates and compare them to the permit database.

### *Digital Occupancy Signage*

Digital Signage Systems are increasingly used to provide real-time space availability to parking patrons. With these systems, parking occupancy is monitored in real-time and displayed on digital signage mounted at the entrance of parking garages and lots. These signs alert parkers to space availability in the parking facility prior to entering and the information can also be displayed on the City's website or via web-based devices, allowing patrons to check real-time availability from their mobile phone before their arrival. These systems enhance the customer experience by providing real time occupancy, thereby reducing visitor frustration and cruising for an available parking space.

In 2017, the City of Newark, Delaware implemented digital signage in their public lots through a pilot program as a way to make parking more convenient. The City also displays this parking information through an interactive parking map on their website<sup>8</sup>. Additionally, the City of Norwalk, Connecticut utilizes its parking website to display real-time parking occupancy and availability for its Maritime Garage and its South Norwalk Train Station Garage. The City should consider installing digital signage systems in its parking garages and lots with high parking demand.



*Examples of Real-Time Digital Parking Occupancy Signage; New Brunswick Church Street Garage Signage (Top), Newark Parking Lot Signage (Down)*

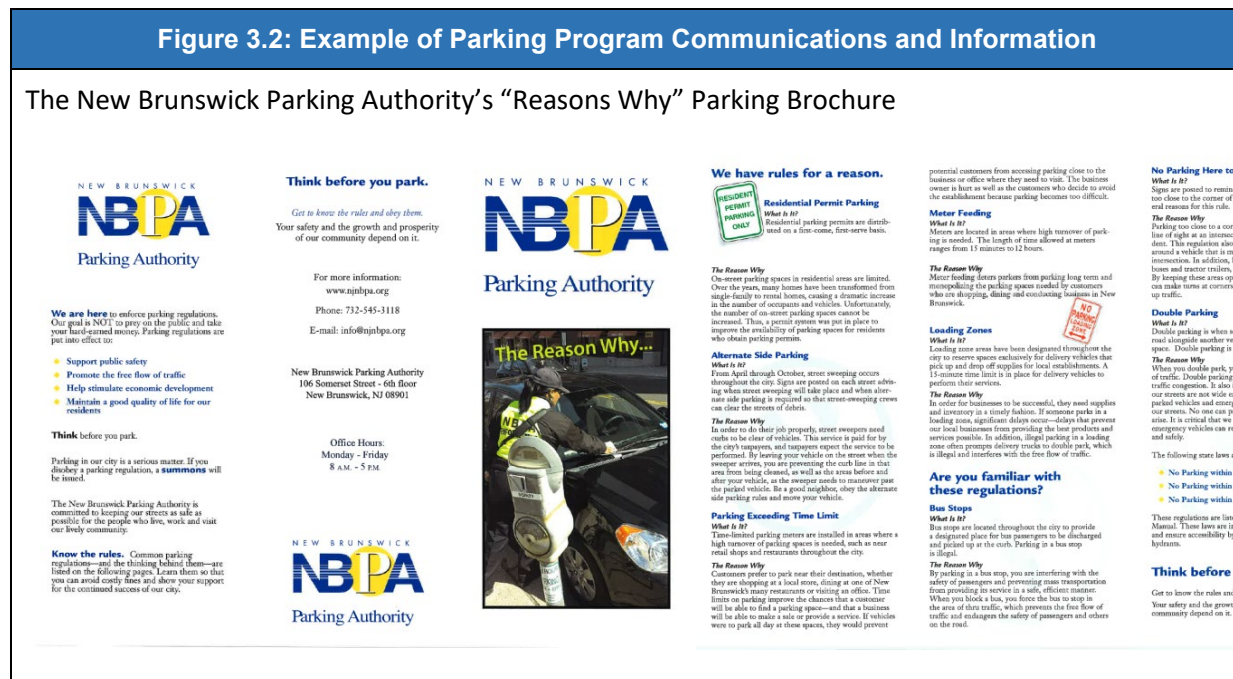
## 3.3 Parking Program Communications, Information and Marketing

### *Coordinate and Improve Parking Program Branding, Communications, and Information*

A common problem experienced by municipal parking systems is that there is little effort expended to communicate and promote the mission, assets, and functions of the parking system. The objective in promoting a parking system is to transform what can often be perceived as a negative image into a positive one. Stamford's parking website offers good information pertaining to rates, facilities and other parking information. However, the City should consider adding information pertaining to parking time limitations, frequently asked questions (FAQ's) related to parking, the reasons and rationale for parking enforcement and time limits, as well as links to off-street parking and permit information on the website. The parking website for Norwalk, CT ([www.norwalkpark.org](http://www.norwalkpark.org)), mentions an App specifically pertaining to parking problems, concerns, and comments, and the Hartford Parking Authority's website ([hartfordparking.com/](http://hartfordparking.com/)) contains real-time traffic information and live traffic conditions for parkers. In addition, social media outlets such as Facebook and Twitter are also cost-free methods to connect with the public and convey information related to Stamford's parking. The Miami Parking Authority uses a multitude of social media outlets to communicate to the parking public regarding events and promotions, and to relay timely information regarding their parking programs or situations that may impact local neighborhoods.

<sup>8</sup> City of Newark Parking Locator, <https://cityofnewarkde.maps.arcgis.com/apps/webappviewer/index.html?id=2db339cc672a49cf84dfe0d57503f255>

Figure 3.2 illustrates an example of parking communications materials in the form of a parking brochure from the New Brunswick Parking Authority.



Source: New Brunswick Parking Authority, 2020

## Parking Surveys

Online surveys are an effective tool and relatively inexpensive method to gain valuable information regarding the City's parking system and operations. Parking surveys provide a platform for parkers to express their parking experience, specific challenges or concerns, and opportunities to make improvements. The Norwalk Parking Authority has a parking survey link<sup>9</sup> on its website and includes a variety of questions pertaining to the parking experience in the City.

## Digital Marketing

**Linking to Downtown Businesses** – An opportunity to promote the utilization of the Bell Street, Bedford Street and Summer Street garages for dining and entertainment patrons of the downtown is to establish a "linking" program with local restaurants, shops and venues. A linking program offers downtown businesses with access to custom parking widgets for placement on their websites. Through the parking link on the businesses' website, patrons can conveniently connect to the Stamford's parking information for the downtown garages and obtain information regarding rates, location, hours of operations and potentially special discounts offered through the link.

**Waze** - Waze is one of the largest active community-based traffic and navigation Apps which drivers utilize to mark traffic hazards, find important locations, etc. The Waze advertising platform can provide patrons using Waze with parking information with the intent to drive customers to the Bell Street, Bedford Street

<sup>9</sup> Norwalk Parking Authority Parking Survey: [www.norwalkpark.org/about-us/parking-survey/](http://www.norwalkpark.org/about-us/parking-survey/)

and Summer Street garages when visiting the downtown Stamford. *Waze* can efficiently lead parkers to Bell Street, Bedford Street and Summer Street Garages.

**Google My Business** - Google My Business is a free tool that allows people to promote their business website on Google Search and Maps. With the Google “My Business account”, businesses can connect with their customers, post updates to their Business Profile, and see how customers are interacting with their website on Google. When one searches the Bell, Bedford and Summer Street garages on google, it shows the parking garage’s address, website, phone number and directions. Customers can access more detailed information of each parking garage, including other customers’ reviews, directions and contact information.

## 4. Public Engagement: Key Areas of Community Concern/Opportunities

Due to the COVID-19 pandemic, public outreach and community engagement activities shifted to a series of virtual forums conducted over Zoom and organized by the City. Each meeting began with an overview of Parking Study objectives, a snapshot of existing conditions tailored to each area of focus, and a series of proposed questions to guide participant discussion.

The following public engagement sessions were conducted:

- Multifamily Residential Property Owners / Managers: January 11<sup>th</sup>, 2021, 6:30pm
- Downtown Stamford Stakeholders: January 13<sup>th</sup>, 2021, 1:30pm
- Stamford Chamber of Commerce: January 13<sup>th</sup>, 9:30am; February 10<sup>th</sup>, 12pm
- Glenbrook & Springdale: February 15<sup>th</sup>, 6:30pm
- South End / East Side: February 17<sup>th</sup>, 6:30pm
- West Side / Waterside: February 22<sup>nd</sup>, 6:30pm

The following sections summarize themes and common sentiments that emerged during public engagement, organized by neighborhood areas.

### 1. Downtown

- Peak-hour parking vacancies in public and publicly accessible private facilities evidences opportunity to enhance/promote their utilization.
  - Parking facility contracts with private interests demonstrate additional reserves as well as opportunities for shared parking.
- An increase of short-term parking spaces (e.g. 10 or 15-minute metered or unmetered) could better support various small businesses (e.g. services and pickup/drop-off needs).
- Parking needs for Downtown Special Events (e.g. high parking volumes and related heavy vehicle access) should be supported by targeted parking planning.
- Management and wayfinding strategies can encourage small business patrons to park in nearby surface lots and garages, e.g. the Spring St. lot can be advertised for patrons of businesses on Bedford St. that often raise difficulty of finding on-street spaces.
- ParkMobile can be utilized for parking incentives and publicized to enhance user-friendliness of the system.
- Parking turnover can be promoted through targeted regulation adjustments as well as new measures such as tiered pricing.
- The pedestrian friendliness of areas adjacent to parking facilities can be enhanced in order to promote walking conditions to/from destinations.
- The provision of targeted new on-street parking spaces could help provide greater parking supply and improve accessibility in certain areas.

### 2. South End

- An increase of short-term parking spaces (e.g. 10 or 15-minute metered or unmetered) could better support various small businesses (e.g. services and pickup/drop-off needs).
- The on-street parking supply is increasingly limited in the South End:
  - Enhanced street and sidewalk designs have reduced on-street parking spaces in certain areas.

- New developments incite on-street parking use rather than containing demand to off-street facilities. A significant number of residents from these buildings rely on on-street parking for at least one vehicle instead of paying for parking where they live.
- Multi-family homes on certain established residential streets have considerable demand for on-street spaces, especially with buildings that lack driveway and ample off-street parking.
- Some streets where residents want to establish RPP zones have not been able to garner enough support.
- Regulations that are in place should be consistently enforced.
- Transportation Center station parking should continue to be monitored post-pandemic in order to ensure commuter parking needs are contained and provided for, rather than spilling over into adjacent South End neighborhood areas.
  - Some individuals take advantage of unrestricted on-street parking in South End residential areas rather than paying to park in Transportation Center facilities.
  - While the construction of a new State-operated garage will provide new parking opportunities for commuters, the management and coordination of existing facilities can be enhanced.

### 3. East Side

- High demand for on-street parking is driven by three- to five-family homes and condos that often do not provide enough off-street parking for residents.
- Auto-dependency in this area of Stamford is heightened because of its distance from transit stations, which is correlated to higher rates of car ownership.
- The RPP program is seen as an imperfect solution, but the benefits to alleviate concerns for particular streets are recognized. Some streets where residents want to establish RPP zones have not been able to garner enough support.
- Southerly areas of the East Side (Cove/East Shippan) have particular seasonal parking needs for beach visitors.

### 4. West Side / Waterside

- Residents express concern that new developments will dramatically exacerbate chronic on-street parking challenges.
- The previous removal of on-street parking from West Main Street is cited as a considerable supply burden.
- Some streets where residents want to establish RPP zones have not been able to garner enough support.
- Commercial uses compound on-street parking challenges, e.g.: Hospital-related parking, Yerwood Center, and high-volume small businesses such as Half-Full Brewery.
- While new public parking garages are not a realistic short-term remedy that can address on-street parking challenges, the opportunity for small surface lots could be explored to alleviate parking supply challenges in key areas.

## 5. Glenbrook / Springdale

- Participants of the RPP program generally cite its advantages but also question opportunities to enhance the program to better function and meet their needs – e.g. enforcement, number of permits per household, guest passes, etc.
- A number of participants cited that residents from certain established multifamily condo buildings (e.g. 100 Hope Street) utilize on-street parking on adjacent streets which crowds one- and two-family residential areas. Depending on the multifamily building, this results from either a lack of on-site parking or residents preferring to park on-street.
- New developments in the Village Commercial districts aim to right-size parking but it remains unclear if current parking requirements achieve this.
  - Data collection can help better understand parking supply and utilization of new TOD-oriented developments.
  - Commercial parking needs of new mixed-use condominiums should be monitored.
- Various residential streets reportedly have substandard configurations (e.g. narrow one-way streets with parking on both sides) that compromise safety and traffic flow.
- Regulations that are in place should be consistently enforced.
- While some small businesses would like to see greater opportunity for turnover (e.g. time limited spaces 1 hour and under), others would like more reliable on-street spaces for employee parking.
- Station commuter parking can be enhanced (including the support of needs/efforts that have been previously identified):
  - Pre-pandemic trends demonstrate that metered (daily) spaces at the Springdale station lot are often fully utilized whereas a number of permitted spaces remained unused during weekdays. The permit system should be monitored to ensure efficient utilization and turnover.
  - Station amenities and transportation demand management strategies can continue to promote non-auto trips to/from station, e.g. biking.
  - Shared parking opportunities for commuters should remain a resource - e.g. the Union Memorial Church parking lot in Glenbrook while also considering new opportunities.

## 6. Transportation Center

- Rail commutation patterns consequent of the pandemic will continue to unfold. While ridership rates will rebound to an extent, a shift away from the traditional five days a week commuter pattern will change ridership volumes.
  - New payment and pricing flexibilities should accommodate these changes in order for public transit entities (Metro-North) and commuter parking facilities to remain competitive.
  - The relative consistency of revenue from stable monthly transit tickets and parking permits will bring new revenue challenges as commutation patterns even out. New options could include a ticket system that is based on the total number of days parked, e.g. a “30 day ticket” instead of a monthly pass.
  - The CT State-owned garage is the main commuter parking facility and has had a \$70/month parking permit. With parking availability here, the other parking facilities are not as competitive for commuters.
  - Affordability of rates here and absence of time limit regulations are reported to produce a degree of car “hoteling” where people park in the State garage for multiple days when they leave town. It is reported that Manhattan residents take advantage of this resource to save

several hundred dollars per month of parking costs in Manhattan. Updated regulations could address this, especially when parking demand increases.

- Accessibility
  - “Last mile” connections that utilize micro modes and other transit services to/from the Transit Center can improve accessibility and enhance the commuter experience and encourage alternative transit uses.
  - Improved ADA considerations around the Transit Center should be considered in future efforts here.
- State Garage conditions
  - Capital maintenance is needed for the facility
  - Enhanced wayfinding is needed and could enhance the parking garage experience/navigability.
  - The new State garage proposed at the South State Street lot will accommodate demand and expand commuter circulation around the Transit Center area.

## 5. Recommendations

Recommendations are organized by the following topic areas:

- Managing on- and off-street parking;
- Zoning Requirements for Parking;
- Parking Operations and Enforcement;
- Managing the City's Parking Assets

### Managing On- and Off-Street Parking

#### 5.1 Increase On-Street Parking Turnover

As on-street parking demands increase it becomes important to maintain parking turn-over and discourage long-term parkers from taking over these valuable spaces. Parking turn-over is a key attribute for a healthy local economy. Two alternative strategies are recommended:

##### **Demand-Based Pricing**

Demand based pricing allows for different rates in different areas of the City based on parking demand levels. In order to maintain a healthy turn-over and always have a minimum of vacant spaces on each block the City should increase parking rates in the areas of high demand (where peak occupancies exceed 85%). The TTPD department should be authorized to monitor occupancies in high-demand areas and automatically increase parking rates. All duration limitations would remain the same as today.

##### **Progressive Pricing**

Progressive Pricing promotes the proper utilization and turnover of the high-demand on-street parking by providing a reasonable fee for the shorter time limits, but dissuades long-term parking by progressively increasing the hourly fee. By charging a higher hourly rate for each additional hour, short-term parking is encouraged and turnover increases, while providing flexibility and convenience to users who need to park for longer time periods. In order to implement progressive pricing, time-restricted zones would either have to be lifted or extended (i.e. two-hour limits could be extended to four-hour limits or greater). Table 5.1 illustrates a sample progressive pricing fee schedule for Stamford.

Table 5.1: Example of a Progressive Pricing Fee Schedule for Stamford	
Hour	Rate Per Hour
1st and 2nd Hour	\$1.25
3rd Hour	\$1.75
4th Hour	\$2.75
5th Hour	\$3.75
6th Hour	\$4.75
7th Hour	\$5.75
8th Hour	\$6.75

As the purpose of increased turn-over is to make more parking spaces available, the City should continue to identify locations to add more on-street parking. This will enhance business conditions along these streets and will act as a traffic calming measure.

## 5.2 Promote Shared Parking

In addition to the City's zoning regulations that encourage shared parking for new developments, there are opportunities to promote shared parking in other instances. Prime candidate properties are uses that have peaked parking demands and properties that are significantly over-parked. These may include houses of worship, entertainment and sports facilities. The promotion of shared parking is an important strategy to help the City achieve its sustainability and resiliency goals because it encourages more efficient resource utilization and reduces sprawl. Given land-use and economic efficiencies, the City should encourage shared parking in multiple arrangements:

- Within new mixed-use developments
- Between municipal parking resources and private developers
- Between two or more private property owners

TTPD and Stamford's Land Use Bureau could further collaborate on a shared-parking registration system wherein existing private commercial and institutional parking lots or facility owners that are very over-parked could be incentivized to open up parking surpluses for public use. The City could act as a clearinghouse that can promote this practice, not only in downtown but also in residential areas. A key condition to allow shared parking is to prohibit assigned parking spaces.

The City of Stamford (TTPD) currently practices a form of shared parking by leasing a certain number of spaces in municipal garages to residential developers. However, leasing a number of parking spaces for the exclusive use of another entity is like splitting the garage into two garages, each operating with its own parking demand pattern and not taking advantage of the different peaking characteristics. A real shared parking program consists in selling parking permits to the other entity under the assumption that these new users will use the same parking spaces.

The City should use and require standard shared-parking analyses that calculate the parking demand of each component use for each potential critical time period. The Institute of Transportation Engineers (ITE) provides parking demand data for numerous uses including data by time period that can be used for these analyses.

A typical shared-parking calculation is provided in Appendix 2.



*Union Memorial Church in Glenbrook practices shared parking and advertises to commuters*

### 5.3 Increase Usage of Municipal Garages

Since the City's garages are underutilized it is incumbent to optimize the use of these assets. The following initiatives are recommended:

- Institute a user-friendly evening parking program such as a flat fee of \$3 or \$4 to park all evening after 4 pm in the Bell Street, Bedford Street and Summer Street garages, and a similar flat fee for Saturday parking. This will have a positive impact on adjacent businesses.
- Market parking garages to developers undertaking projects within a reasonable walking distance of the garages (600-800 feet) as a shared-parking resource. As discussed in the shared parking section, this should be done on the basis of a number of parking permits, avoiding the assignment or reservation of spaces. In some cases, shared parking agreements with developers could help advance the economic feasibility of affordable housing development while also promoting more sustainable development.
- Lowering the cost of Payments-in-Lieu-of Parking (PILOP) payments for all of downtown or just near the underutilized garages to make this a more attractive option for developers. See Recommendation 5.12.
- When downtown parking demand levels increase in the future, increase the daytime hourly rate in the City's publicly owned garages to \$1.50 or \$2.00 per hour. Garage rates should remain lower than on-street parking rates.

### 5.4 Protect the City's Neighborhoods from On-Street Parking Overflows

The following recommendations address the concerns raised in some of the neighborhood meetings:

- Add on-street regulations where needed to minimize commuter intrusion into residential neighborhoods. This could consist of time restrictions or metered parking (or residential parking permit programs as discussed below). Any unrestricted parking spaces within a half mile of the Transportation Center that were not brought into regulation of the recent ParkMobile pay-by-cell zone should become metered parking. Additional meters will be a necessary tool to manage on-street parking in the South End, especially as new multi-family development sites are constructed and density increases.
- In areas of chronic residential parking shortages areas in the West Side and East Side neighborhoods, the City should look for small-scale lot assemblages to provide small neighborhood parking areas that would then become available for permit parking. These permits could be issued to residents and to local merchants/employees in a shared parking arrangement.

### 5.5 Residential Parking Permit Program

- In granting a number of RPPs to a particular street block the City should take into consideration the number of households on each parcel, the number of parking spaces that are on the parcels or that could reasonably be used on the parcel (e.g. driveways and parking lots).
- Increase the annual fee of the RPP program (e.g. \$50 or \$100).
- Investigate the needs of a commercial parking permit program. This type of parking permit zone may be appropriate where parking regulations are set up for short-term parking and may not allow employees to park on street.
- Any new developments that are proposed in, or adjacent to, an RPP zone should not be allowed to participate in the RPP program as they should provide sufficient on-site parking for residents. These

new developments would also not be taken into consideration in the approval process of new RPP zones.

## 5.6 Adjust Parking Regulations at Rail Stations to account for Post-COVID Commutation Patterns

- Shift some of the monthly permit spaces at the Glenbrook and Springdale station lots to 12-hour metered parking. The number of spaces that shift should be informed by the monitoring of commutation trends consequent of the pandemic.
- Consider instituting a virtual 30-day parking book.
- Prohibit parking for more than 72 hours in the Transportation Center Garage to avoid car storage by New York City residents. This measure can be instituted when the parking demand increases again.



*Minimal parking occupancies at the Springdale Station lot during the COVID-19 pandemic*

## 5.7 Encourage Electric Vehicle (EV) Use

Investing in EV infrastructure will help the City achieve its resiliency and sustainability goals by promoting lower carbon footprints through the use of renewable energy over fossil fuels.

- In addition to the zoning requirements to install EV charging stations in new developments, the City should install an EV charging hub close to the downtown restaurant and retail activities, that is also accessible from I-95, to attract EV users who would otherwise pass through the City. On-street locations such as Main Street and underutilized parking lots should be considered.
- Conduct a feasibility study for providing curbside charging for residents who do not have access to off-street parking to charge EVs. Such a program could especially benefit low/moderate income residents who live in multi-family buildings with limited off-street parking, making access to EVs more equitable.
- Explore partnering with an EV charging station contractor to install charging stations in surface lots and garages. The City could lease public land to the contractor, who would install charging facilities that operate similar to a gas station. This program could also include partnership with private property owners.

## Zoning Requirements for Parking

### 5.8 Expand Zoning Parking Category 1 to cover all areas within a ½-Mile of the Downtown station.

The purpose of the City's existing Zoning Parking Categories is to assign tiered parking requirements to specific areas of the City. For example, across different uses, Category 1 (generally covering Downtown and the South End) has lower parking requirements than Category 2 which covers other neighborhoods on the periphery of Downtown.

It is recommended that the City expand Zoning Parking Category 1 to all areas within 1/2-mile of the Downtown train station. This would primarily lower parking requirements in a portion of the West Side that is adjacent to Downtown and in a small portion of the East Side. Such changes would primarily target multi-family parking requirements – however, any commercial uses that have specific Parking Category tiers and are <2,000 sf would also benefit from this reduction.

### 5.9 Right-Size Multi-Family Parking Ratios

Table 5.2 below shows current zoning ratios for multi-family parking requirements. Right-sizing parking requirements is critical to help the City achieve its sustainability/resiliency goals while also promoting the economic feasibility of affordable housing development in multi-family buildings.

**Table 5.2: Current City of Stamford Multi-Family Parking Ratios**

	Category 1			Category 2			Category 3		
	Market	BMR	Deeply Aff.	Market	BMR	Deeply Aff.	Market	BMR	Deeply Aff.
Studio Apt.	0.75	0.5	0.33	1	0.75	0.33	1	0.75	0.5
1 BR Apt.	1	0.75	0.33	1.5	1	0.33	1.5	1.25	0.5
2 BR Apt.	1.25	1	0.33	1.75	1	0.33	1.75	1.5	0.75
3 BR Apt.	1.5	1.25	0.33	2	1.25	0.33	2	1.5	1

Section 2.3 of this report compared the parking requirements for ten multi-family developments in Stamford to the actual peak parking demands as surveyed by BFJ during peak night times. This comparison yielded calibrated parking ratios that are significantly closer to the actual peak parking demand. Whereas the current zoning ratios produced oversupplies of parking as much as 0.5 spaces per unit (see Table 2.10 in Section 2.3), the calibrated ratios reduce these oversupplies significantly and also eliminate the significant undersupplies. One general conclusion is that the studio ratios should be closer to the ratios for 1-bedroom apartments, ideally within 0.05 to 0.10 from the 1-bedroom ratios.

In order to achieve right-sized parking ratios for Stamford, further adjustments are recommended to reflect some of the City's other goals and initiatives.

- The first change is a 10% to 15% reduction to the parking ratios of market rate units in Category 1. Research in urban areas has shown that parking supply in itself influences demand. In other words, there is a phenomenon of induced parking demand similar to induced traffic demand created by the increase of roadway capacity. Table 5.3 shows a further reduction for the Category 1 developments with the intent to avoid this induced parking demand and increase the overall transportation

sustainability in the part of Stamford that has good transportation alternatives and where it is easy to live with fewer or even without any automobile.

- The second diversion from the calibrated parking ratios is for the below market and deeply affordable apartment units. In recognition of the City's goal to encourage more affordable housing, BFJ recommends maintaining the existing ratios for the affordable housing, except to raise the ratios for studios so that they are within 0.05 or 0.10 of the ratios of 1-bedroom units. This will provide for a more balanced parking pattern for affordable units. The City needs to take into consideration that these zoning ratios for Below Market and Deeply Affordable units, intending to advance the production of affordable housing, may result in localized parking shortages and that other mitigation measures may have to be implemented.

Table 5.3 below shows the recommended parking ratios that take into consideration these two changes.

**Table 5.3 Recommended Parking Ratios for Multi-Family Developments**

	Category 1			Category 2			Category 3		
	Market	BMR	Deeply Aff.	Market	BMR	Deeply Aff.	Market	BMR	Deeply Aff.
Studio Apt.	0.85	0.65	0.33	1.0	0.9	0.33	1.05	1	0.5
1 BR Apt.	0.9	0.75	0.33	1.1	1.0	0.33	1.15	1.25	0.5
2 BR Apt.	1.05	1.0	0.33	1.4	1.0	0.33	1.45	1.5	0.75
3 BR Apt.	1.2	1.15	0.33	1.5	1.25	0.33	1.55	1.5	1

### Incentive Parking Measures

The purpose of the incentive measures is to incorporate a transparent mechanism that encourages sustainable behavior and is based on actual impacts on parking demands. The incentive measures together with the right-sizing of the ratios discussed above will streamline the parking management plans that are submitted in conjunction with development applications. The code has currently a provision (12.D.1.e) that allows the applicant to reduce the parking requirement by 4 spaces for each shared car in a garage up to a maximum reduction of 10%. BFJ recommends maintaining this incentive for parking facilities in multi-family developments with a least 40 spaces. In this minimum case the addition of 1 shared car space would allow the reduction of 4 spaces, i.e. a total supply of 37 spaces, including the shared car space.

Additional incentive measures are recommended below:

**Unbundled parking**, whereby the parking space(s) are leased or sold separately from the apartment does impact the average car ownership and transportation behavior in a multi-family residential building. BFJ recommends providing a **credit of 5%** of the required number of parking spaces if the parking spaces are 100% unbundled. This credit is not available if one space per apartment is bundled and the next one is unbundled.

**Unassigned Parking Spaces:** Parking occupancy surveys in large multi-family residential buildings have shown that the parking spaces that are leased or assigned to the residents are never fully occupied. These surveys have shown that even at 2 or 3 AM there are between 8 and 12% of assigned or leased parking spaces that are vacant. This may be due to a combination of residents being on vacation, business travel, working at more than

one location, spending the night somewhere else or the car may be in the shop for maintenance or repair. This pattern can be expected in all large parking facilities related to multi-family developments. The surveys have also shown that these garages never reach their maximum occupancy at 6 pm when residents typically return from work, but around midnight. Three benefits can be created by unassigned parking spaces: 1) The parking supply can be reduced since there is never a time when all cars will be present in the garage, 2) there is no need for separate visitor parking and 3) shared parking becomes much easier to implement.

Regarding visitor parking we are concerned with two types of visitors: weekday midday visitors and evening or weekend visitors. The weekday midday visitors are often individual apartment support staff (cleaning, therapy, nannies) and contractors such as cable or telephone company, maintenance or repair contractors, etc. Evening visitors are primarily social visits (dinners, family visits, sleepovers, etc.). Note that for every evening visitor to an apartment building –generally social visits, dinners or party - there are more residents staying away from the building, either for social/dinner visits somewhere else, or for recreational, educational or cultural purposes. During the weekday midday periods parking occupancies of apartment buildings are in the range of 40% to 50%, in the evenings prior to 11 pm they range between 85% and 95% and on weekends typical occupancies are in the range of 65% to 95% depending on the time period. Some of the occupancy surveys underlying the above occupancies did include visitor cars. Visitor cars can thus easily use the vacant spaces in a garage with unassigned spaces.

To conclude, BFJ recommends that in any residential garage with a base requirement of 40 or more spaces the requirement can be **reduced by 5%** if no parking spaces are assigned.

As previously discussed with City staff the **proximity to the train station** should also be a factor affecting parking demand. Based on ITE ratios for residential buildings within half a mile to a transit station and those that are not near a transit station the difference in parking demands range from 12% to 24% depending on the environments and type of building. In this case the proximity to transit is already taken into consideration to some degree by the category 1 zone for the main train station and the category 2 zone around the Glenbrook and Springdale stations. However, since the Category 1 zone extends beyond the half-mile radius from the Stamford train station, it is felt that an additional 5% reduction can be granted to a development that is within a 0.5-mile radius from the Stamford train station. This credit would not be granted to the areas near the Springdale and Glenbrook stations.

To make sure that the development applicants will not create any external parking impacts, it should be made clear that any development approved under current zoning regulations will not be allowed to participate in any RPP.

## 5.10 Senior Living and Assisted Living Ratios

Based in ITE recommended ratios, Table 5.4 below shows that ratios should be lowered specifically for Memory Care Independent Senior Living developments.

**Table 5.4 Existing and Recommended Parking Requirements for Senior and Supportive Housing**

Current Stamford Zoning Use	Existing Ratio		Recommended Ratios	
Assisted Living Facility	0.5	per unit	0.50	per DU
Memory Care	0.7	per bed	0.50	per DU
Independent Living / All other housing for the elderly	1.0	per unit	0.70	per DU
Nursing Homes	0.3	per bed	0.50	per bed
Supportive Housing	0.3	per bed, AND	1.20	per DU
	2.0	per 1,000 sq. ft. of space used for supportive services		

Source: City of Stamford Zoning Code, Section 12 (December 7th, 2022)

## 5.10 Commercial Ratios

A review of existing commercial parking requirements resulted in three recommendation areas: 1) requiring further study to determine parking requirements for certain commercial or institutional uses, 2) new uses that should be considered for inclusion in Zoning Regulations and 3) right-sizing of existing parking requirement ratios.

### Recommended Commercial Ratios

Appendix 3 presents a summary review of Stamford's existing commercial parking requirements (Section 12 of the City's Zoning Regulations), along with recommended ratios for right-sizing which are based on ITE data. As much as possible, it is recommended that the City uses ITE use categories, since ITE provides significant data for these categories and will continue to update these ratios.

### Replace Certain Parking Ratios with a Requirement "To Be Determined Based on Study"

The City's code currently includes uses that are rare occurrences in the overall development process (such as volunteer fire stations) or have parking needs that can vary substantially depending on a number of project features. An example of such variation may be institutions of higher learning where the parking demand may depend on the number of students commuting versus students living on campus and the school's policies regarding student permission to have a car on campus. The following are the uses where we recommend that the applicant must submit a specific analysis of their parking demand prepared by a qualified professional. This recommendation applies to the following uses:

- Schools and institutions of higher learning
- Volunteer fire stations

- Passenger transportation terminals
- Dormitories
- Child care centers (see below)

It is recommended that the parking ratios for these land use categories be eliminated from the zoning code and be replaced by a statement “To be determined based on study”. A general statement should be added specifying that any use not listed in the code needs a parking demand analysis and that all parking demand analyses need to be prepared by a qualified professional.

*Child Care Centers* – Although ITE provides an 85<sup>th</sup> percentile ratio of 3.75 spaces per 1,000 sq. ft. GFA for child care centers, ITE does not distinguish between parking needs related to staff and visitors versus queuing needs for drop off and pick up. These are important distinctions that can vary depending on the operation of the child care center, especially on whether the drop-offs and pick-ups occur on specific schedules or are flexible.

#### **Addition of New Uses to the List**

The City should consider adding parking requirements for any uses that are fairly common, but are not currently included in the zoning code. The following includes such uses:

- Health/Fitness Club: focusing on individual fitness and training, providing exercise classes, fitness equipment, weight room, spa, locker rooms, small restaurant or snack bar, possibly swimming pool, racquet ball or tennis courts.
- Athletic Club: offers comprehensive athletic facilities, courts for racquet sports, basket ball court, sauna or spa, fitness and weight lifting rooms.
- Recreational Community Center: Stand-alone public facility (YMCA) providing classes, clubs for adults and children, day care or nursery school, swimming pool, sauna, ball courts.
- Medical Office

## **5.12 Replace Payments-in-Lieu-of Parking Fee with Mobility Fee**

The Payment In-Lieu-of Parking (PILOP) should be replaced by a Mobility In-Lieu-of Parking (MILOP) Fee with the following adjustments: the in-lieu mobility fee would be as of right for Category 1 and Category 2 parcels and should be lowered to a range of \$12,000 to \$18,000 per space. The lower per space payment is justified by the fact that the fees collected from development applicants could be used to provide for municipal parking in a shared parking manner, i.e. a situation where a parking space can be used by one parker during day-time hours and another parker during night hours. It is also a way to make in the in-lieu payments more attractive, thus shifting some of the parking demand to underutilized municipal garages. The other important change is that the funds that are collected can be used for a broad range of mobility uses in addition to the standard parking improvements. These in-lieu fees would be deposited in a Mobility Fund that can then be used by the City of Stamford to pay for parking improvements, bicycle and pedestrian infrastructure improvements, shuttle bus operations, shared bicycles, scooters and other micro-mobility enhancements. Such a fund would help the City promote alternative transportation viability in Stamford, ultimately aiding the City to achieve its sustainability/resiliency goals.

### 5.13 Electric Vehicle (EV) Requirements

It is recommended that Table 12.14 (Required Level 2 Charging Facilities) in the City's zoning code is edited to clarify the number of minimum charging spaces required. Current numbers refer to the number of charging stations, rather than spaces (i.e. one charging station actually serves two spaces). For example, an edited table should read:

#### Required Level 2 Charging Facilities (Amended)

Number of Required Parking Spaces	Minimum Number of Charging Spaces
10-19	<del>1</del> 2
20-49	<del>3</del> 6
50-99	<del>5</del> 10
100+	2 additional charging spaces for each 25 required parking space increment in excess of 99 spaces.

Source: City of Stamford Zoning Code, Section 12 (December 7th, 2022)

## Parking Operations & Enforcement

Recommendations in this section play a role in enhancing the safety, maintenance and operation of Stamford streets, ultimately helping to achieve conditions that are supportive of the Vision Zero program.

### 5.14: Enhance TTPD's Staffing and Resources

- The Parking Operations Division should consider including the supervision of the off-street facility management under the Parking Foreman's jurisdiction and fill the vacant Traffic Analyst position.
- The TTPD should provide parking staff and Violations Officers with service-specific customer service training and conflict resolution training to better perform their responsibilities. The Bureau Chief and/or the Deputy Bureau Chief should be enrolled in the Certified Administrator of Public Parking (CAPP) program.
- Fill the two (2) vacant Violations Officer positions.

### 5.15: Optimize Enforcement Workflows and Procedures

- The TTPD should continue to encourage Violations Officers to review the Standard Operating Procedures (SOPs) manual composed to date and suggest any updates or revisions.
- To improve the consistency of enforcement, the City should produce and track summary enforcement reports, related to ticket issuance by type, zone, and the Violation Officers. This information will identify appropriate benchmarks for Violation Officers' and help determine priority enforcement initiatives.
- The City should develop Standard Operating Procedures (SOPs) and guidelines for meter collection and repairs with appropriate segregation of key control and collection responsibilities to reduce the possibility of theft. In addition, the monies from each meter collection zone should be counted and recorded individually so that City staff can monitor the financial performance of the meter system by individual collection zones.
- Develop enforcement patrol routes to create greater Violations Officers accountability and update regularly.

- The Violation Officers Supervisor should review daily the enforcement reports, data, trends and enforcement “gap” report.
- The City should consider performing periodic parking assessments, either on an annual or bi-annual basis, to determine the actual utilization of existing public on- and off-street parking assets.

#### 5.16: Further Develop Parking Communications and Information Sharing

- Add information to the City’s website that pertains to parking time limitations, frequently asked questions (FAQ’s) related to parking, the reasons and rationale for parking enforcement and time limits, as well as links to off-street parking and permit information.
- Consider producing a parking brochure and e-brochure that provides valuable parking information such as parking locations, number of parking spaces, parking rates, and time limitations, etc. for residents, downtown customers, commuters and visitors. The brochure should include an FAQ section with instructions, definitions of parking policies, paying and contesting parking tickets, etc. The City can also coordinate with the Downtown Special Service District (DSSD) using their website and parking map to create promotional initiatives to market downtown retail and restaurant establishments and communicate the location of available parking for customers.
- Add a parking survey component to their website and review the survey results periodically.
- Encourage retail, dining and entertainment venues to establish a “linking” program via their websites to the City’s parking resources.
- Continue to market and advertise ParkMobile for all user groups in Stamford, with potential incentives offered to residents.

#### 5.17: Create relevant special events parking management plans for the Downtown and seasonal traffic generation related to the beaches.

- The City should establish the Parking Division as the department responsible for special event parking and creating an established event parking management plan / process to coordinate the provision of parking resources for major downtown events.
- Create an established event parking management plan / process under the jurisdiction of the Parking Operations Division.
  - Define special events as all events in the downtown and elsewhere that would necessitate a significant change in the normal parking and traffic patterns and regulations
  - Require all sponsors of special events to proactively request parking and transportation arrangements. Establish the Parking Division, as the department responsible for special events parking.
  - Identify and inventory parking facilities for special events.
  - Develop a special events parking plan outlining the necessary facilities, supervision, signage, traffic control, and standard operating procedures for the collection of event parking fees.
  - When feasible, identify a pickup/drop-off location for ride hailing services such as Uber and Lyft that can be advertised to patrons in advance of the event.
  - The existing separate event rate for Downtown Special Services District (DSSD) sponsored events should be eliminated as more organizations now sponsor events. Ideally, all downtown special events that are coordinated with the Parking Division would follow a single standard rate.

## 5.18 Monitor the Parking System

For a parking program to adapt to ever changing parking conditions, it is important to collect parking utilization data through periodic field surveys. Using data collected through parking activity surveys, the TTPD can tailor regulations, as well as deployment and patrol strategies that are responsive to parking conditions. Periodic reviews can also identify regulations that are poorly posted, and will provide accurate data related to parking demand and availability that can inform future decisions and strategies related to parking management, pricing, and the potential need for additional parking resources. Periodic parking assessments can be done with existing staff or with an outside consultant. Parking assessments should inform parking system decisions mentioned in previous strategies and should include:

- Parking utilization rates on key commercial streets to inform potential alternative pricing strategies.
- Consider an annual renewal of ADA parking space applications to ensure that the ADA space is still necessary by its applicant.
- Short-term pickup/drop-off (PUDO) parking evaluations.
- The City should continue to review curb areas in those neighborhoods to identify potential additions to the on-street parking supply.
- Monitor post-COVID 19 commutation trends and occupancy trends in municipal garages.
- The City should continue to monitor the usage of EV charging spaces within public garages to determine when more should be added to these facilities.

## Managing the City's Parking Assets

### 5.19 Reinforce the management and maintenance of the City's Downtown public parking facilities

To maximize the benefits of the City's municipal parking resources, in relation to the parking system as a whole, a number of actions can be considered to enhance utilization and performance

- Allow LAZ Parking (3rd Party Parking Operator) to manage the City-owned public lots along with the Bell Street Garage, the Bedford Street Garage, and the Summer Street Garage.
- Establish a capital reserve of \$100-\$125 per parking space per year for each garage to address future capital maintenance needs and consider revenue bonds for major upgrades.

### 5.20: Strategize capital investments, including new parking technologies that can produce a more efficient and user-friendly parking system

- The City should prioritize the repair / replacement of all missing / inoperable meters; Concentrate maintenance in high demand parking areas; Consistently track work orders for repairs and replacement to reduce down time; Ensure that an adequate inventory of meter replacement parts for repair are on hand.
- Consider in-ground parking sensors (Pilot Program) to monitor short-term parking spaces in real-time.
- To further increase mobile payment adoption rates, work with ParkMobile to provide incentives for parkers such as a promotional code or validation strategy for existing and new ParkMobile users.
- Consider a resident discounted parking program through the ParkMobile service.
- Consider installing digital signage systems in parking garages and lots with high parking demand.

## 6. Implementation

The summary matrices below show the implementation procedures for each recommendation.

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Managing On- and Off-Street Parking</b>					
<b>5.1 Increase On-Street Parking Turnover</b>					
Implement areas of Demand-Based Pricing or Progressive Pricing	TTPD	Medium	Medium	Medium	Operating
<b>5.2 Promote Shared Parking</b>					
TTPD and Stamford's Land Use Bureau could further collaborate on a shared parking registration system.	TTPD, Land Use Bureau	Medium-Term	Medium	Medium	Operating
<b>5.3 Increase Usage of Municipal Garages</b>					
Reinstate a flat rate in the Bell Street, Bedford Street, and Summer Street Garages after 4PM on weekdays and throughout the day on weekends.	TTPD	Short-Term	High	Minimal	Operating
Market parking garages to developers as parking resources for the projects and obtain PILOP payments.	TTPD, Developers / Property Owners	Short-Term	High	Minimal	Operating
Lower the cost of Payments-in-Lieu-of Parking (PILOP) payments for all of downtown or just near the underutilized garages to make this a more attractive option for developers.	TTPD, Land Use Bureau, Zoning Board	Short-Term	High	Minimal	Operating
When Downtown parking demand increases, raise the hourly rate in the City's publicly owned garages to \$1.50 or \$2.00 per hour.	TTPD	Medium-Term	Medium	Minimal	Operating

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Managing On- and Off-Street Parking</b>					
<b>5.4 Protect the City's Neighborhoods from On-Street Parking Overflows</b>					
Add on-street regulations where needed to minimize commuter intrusion into residential neighborhoods.	TTPD, Land Use Bureau	Ongoing	High	Medium	Capital
Explore opportunities for new small-scale parking assemblages in areas of parking shortages	TTPD, Land Use Bureau	Short-Term	High	Medium (research stage); Note that the provision of new parking would be a significant cost	Operating; Capital costs could result
<b>5.5 Residential Parking Permit Program</b>					
In granting a number of RPPs to a particular property the City should take into consideration the number of households on the parcel, the number of parking spaces that are on the parcel (e.g. driveways and parking lots).	TTPD, Land Use Bureau	Short-Term	High	Minimal	Operating
Increase the annual fee of the RPP program (e.g. \$50 or \$100).	TTPD	Short-Term	High	Minimal	Operating
Investigate the needs of a commercial parking permit program.	TTPD; Small Business Owners	Medium-Term	Medium	Minimal	Operating

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Managing On- and Off-Street Parking</b>					
<b>5.6 Adjust Parking Regulations at Rail Stations to account for Post-COVID Commutation Patterns</b>					
Shift some of the monthly permit spaces at the Glenbrook and Springdale station lots to 12-hour metered parking.	TTPD	Short-Term	High	Minimal	Operating
Consider adjusting the current monthly permit structures (a virtual 30-day parking book).	TTPD	Short-Term	High	Minimal	Operating
Prohibit parking for more than 72 hours in the Transportation Center Garage.	CT DOT	Medium-Term	Medium	Minimal	Operating
<b>5.7 Encourage Electric Vehicle (EV) Use</b>					
Install an EV charging hub close to the downtown.	TTPD, Land Use Bureau	Medium-Term	Medium	High	Capital
Conduct feasibility study for curbside charging for multi-family residents.	TTPD, Land Use Bureau	Medium-Term	Medium	Medium	Operating

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Zoning Requirements for Parking</b>					
<b>5.8 Expand the Category 1 Parking zone to cover all areas within a ½-Mile of the Downtown Station.</b>					
Ensure that the geography of Parking Category 1 is meeting its intention of reduced ratios for developments.	Land Use Bureau, Zoning Board	Short-Term	High	Minimal	Operating
<b>5.9 Right-Size Multi-Family Parking Requirements Ratios</b>					
Ensure that the City's parking requirements for new multifamily developments are right-sized	Land Use Bureau, Zoning Board	Ongoing	High	Minimal	Operating
<b>5.10 Senior Living and Assisted Living Ratios</b>					
Ensure that the City's parking requirements for Senior Living developments are right-sized	Land Use Bureau, Zoning Board	Ongoing	High	Minimal	Operating
<b>5.11 Commercial Ratios</b>					
Ensure that the City's parking requirements for commercial uses are right-sized	Land Use Bureau, Zoning Board	Ongoing	High	Minimal	Operating
<b>5.12 Replace Payments-in-Lieu-of Parking Fee with Mobility Fee</b>					
The Payment In-Lieu-of Parking (PILOP) should be replaced by a Mobility In-Lieu-of Parking (MILOP) Fee with adjustments	TTPD, Land Use Bureau, Zoning Board;	Short-Term	High	Minimal	Operating
<b>5.13 Electric Vehicle (EV) Requirements</b>					
Table 12.14 (Required Level 2 Charging Facilities) in the City's Zoning code is edited to clarify the number of minimum charging spaces required	Land Use Bureau, Zoning Board;	Short-Term	High	Minimal	Operating

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Parking Operations &amp; Enforcement</b>					
<b>5.14: Enhance TTPD's Staffing and Resources</b>					
Include the supervision of the off-street facility management under the Parking Foreman's jurisdiction and fill the vacant Parking Analyst position.	TTPD; Office of Operations	Short-Term	High	Medium	Operating
Provide parking staff and Violations Officers with service-specific customer service training and conflict resolution training.	TTPD; Office of Operations	Short-Term	High	Medium	Operating
Fill the two (2) vacant Violations Officer positions.	TTPD; Office of Operations	Short-Term	High	Medium	Operating
<b>5.15: Optimize Enforcement Workflows and Procedures</b>					
Violations Officers to review the Standard Operating Procedures (SOPs) manual and update.	TTPD	Short-Term/ Ongoing	High	Minimal	Operating
Tracking summary enforcement reports, related to ticket issuance and Violation Officers.	TTPD	Short-Term/ Ongoing	High	Minimal	Operating
Standard Operating Procedures (SOPs) and guidelines for meter collection and repairs.	TTPD	Short-Term/ Ongoing	High	Minimal	Operating
Develop enforcement patrol routes to create accountability.	TTPD	Short-Term/ Ongoing	High	Minimal	Operating
Violation Officers Supervisor should review daily the enforcement reports.	TTPD	Short-Term/ Ongoing	High	Minimal	Operating

The City should consider performing periodic parking assessments, either on an annual or bi-annual basis, to determine the actual utilization of existing public on- and off-street parking assets.	TTPD	Short-Term/ Ongoing	High	Minimal	Operating
---	------	------------------------	------	---------	-----------

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Parking Operations &amp; Enforcement</b>					
<b>5.16: Further Develop Parking Communications and Information Sharing</b>					
Add information to the City's website regarding parking time limitations, regulations, FAQ's, etc.	TTPD	Short-Term	Medium	Minimal	Operating
Parking brochure and e-brochure that provides valuable parking information.	TTPD; Downtown SSD	Ongoing	High	Minimal	Operating
Add a parking survey component to their website and review the survey results periodically.	TTPD	Ongoing	Medium	Minimal	Operating
Encourage retail, dining and entertainment venues to establish a "linking" program via their websites to the City's parking resources.	TTPD; Downtown SSD; Small Businesses	Short-Term/ Ongoing	Medium	Medium	Operating
Continue to market and advertise ParkMobile.	TTPD; Downtown SSD	Short-Term/ Ongoing	Medium	Medium	Operating

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Parking Operations &amp; Enforcement</b>					
<b>5.17: Create relevant special events parking management plans for the Downtown and seasonal traffic generation related to the beaches.</b>					
The City should establish the Parking Division as the department responsible for special event parking.	Office of Operations; TTPD	Medium-Term	Medium	Minimal	Operating
Create an established event parking management plan.	Office of Operations; TTPD	Medium-Term	Medium	Minimal	Operating
<b>5.18: Monitor the Parking System</b>					
Monitor post-COVID 19 commutation trends and needs;	TTPD	Short-Term/ Ongoing	High	Minimal	Operating
<b>Managing the City's Parking Assets</b>					
<b>5.19 Reinforce the management and maintenance of the City's Downtown public parking facilities</b>					
Allow LAZ Parking to manage the City-owned public lots.	TTPD	Short-Term	Medium	Minimal	Operating
Establish a capital reserve of \$100-\$125 per parking space per year for each garage to address future capital maintenance needs.	TTPD	Medium-Term	High	High	Capital

	Responsible Entity	Timeline	Priority	Implementation Cost	Capital or Operating Cost
<b>Managing the City's Parking Assets</b>					
<b>5.20: Strategize capital investments, including new parking technologies that can produce a more efficient and user-friendly parking system</b>					
Prioritize repair / replacement of all missing / inoperable meters.	TTPD	Medium-Term	High	High	Capital
In-ground parking sensors (Pilot Program) to monitor short-term parking spaces in real-time.	TPPD	Medium-Term	Medium	High	Capital, Operating
Work with ParkMobile to provide incentives for parkers.	TTPD, Office of Operations, Downtown SSD, ParkMobile	Medium-Term	Medium	Medium	Operating
Resident discounted parking program through ParkMobile.	TTPD	Medium-Term	Medium	Medium	Operating
Digital signage systems in parking garages and lots with high parking demand.	TTPD	Long-Term	Medium	High	Capital

## Appendices

### Appendix 1 – Bicycle Parking Requirements

**Table A-1: Bicycle Parking Standards (Per Zoning Requirements)**

Use	Class A Bicycle Parking (Long-Term)		Class B Bicycle Parking (Short-Term)	
	1 per 5 Dwelling Units (60 units or less)	1 per 10 Dwelling Units (for additional units in excess of 60)	1 per 10 Dwelling Units (60 units or less)	1 per 10 Dwelling Units (for additional units in excess of 60)
Residential uses with 10+ DU				
Commercial/Office uses of 5,000 sf Gross Floor Area or more	1 per 5,000 sf (first 50,000 sf)	1 per 7,500 sf (for additional floor area in excess of 50,000 sf)	1 per 2,000sf (first 50,000 sf)	1 per 10,000 sf (for additional floor area in excess of 50,000 sf)
Educational and Recreational uses of 5,000 sf Gross Floor Area or more	1 per 2,500 sf (first 50,000 sf)	1 per 5,000 sf (for additional floor area in excess of 50,000 sf)	1 per 500sf (first 50,000 sf)	1 per 2,000sf (for additional floor area in excess of 50,000 sf)
Restaurant/Retail uses of 5,000 sf Gross Floor Area or more	1 per 5,000 sf (first 50,000 sf)	1 per 10,000sf (for additional floor area in excess of 50,000sf)	1 per 500sf (first 50,000 sf)	1 per 2,000 sf (for additional floor area in excess of 50,000 sf)
Theaters, Entertainment, Assembly or Religious uses of 5,000 sf Gross Floor Area or more	1 per 5,000 sf (first 50,000 sf)	1 per 1,000sf (for additional floor area in excess of 50,000sf)	1 per 1,000 sf (first 50,000 sf)	1 per 2,000sf (for additional floor area in excess of 50,000 sf)
Public Uses such as Museums, Libraries, or Community Centers of 5,000 sf Gross Floor Area or more	1 per 2,500 sf (first 50,000 sf)	1 per 5,000sf (for additional floor area in excess of 50,000 sf)	1 per 1,000 sf (first 50,000 sf)	1 per 2,000sf (for additional floor area in excess of 50,000 sf)
Hospitals	1 per 5,000sf (first 75,000 sf)	1 per 10,000sf (for additional floor area in excess of 75,000 sf)	1 per 20 beds (first 75,000 sf)	1 per 50 beds (for additional floor area in excess of 75,000 sf)
All other non-residential uses	1 per 5,000sf (first 75,000 sf)	1 per 10,000sf (for additional floor area in excess of 75,000 sf)	1 per 2,000sf (first 50,000 sf)	1 per 5,000 sf (for additional floor area in excess of 75,000 sf)

Source: City of Stamford Zoning Code, Section 12 (December 7th, 2022)

## Appendix 2 – Typical Shared Parking Analysis (Example)

**Table A-2: Typical Shared Parking Analysis**

Building Use	Size 1000 SF DUs Seats	Peak Parking (individ. peaks)		Weekday AM (10-11 AM)		Weekday Lunch (12-2 PM)		Weekday PM (3-4 PM)		Weekday Eveng (7-8 PM)		Weekday Night (11pm-6am)		Saturday Midday (12-2 PM)	
		Ratio	Spaces	% Present	Cars	% Present	Cars	% Present	Cars	% Present	Cars	% Present	Cars	% Present	Cars
Retail	117.6	4	470	70%	329	85%	400	75%	353	80%	376	0%	0	100%	470
Restaurant	10	10	100	30%	30	75%	75	50%	50	100%	100	10%	10	75%	75
Health Club	33	5	165	70%	116	50%	83	75%	124	90%	149	0%	0	75%	124
Office	18.5	3	56	100%	56	85%	47	90%	50	10%	6	5%	3	20%	11
Residential	156	1.25	195	45%	88	45%	88	45%	88	70%	137	100%	195	60%	117
Cinema	1,200	0.33	396	0%	0	0%	0	20%	79	80%	317	80%	317	50%	198
<b>Total</b>			<b>1,382</b>		618		692		743		<b>1,084</b>		525		995
# of Spaces Saved											<b>298</b>				
Percent Saved											<b>22%</b>				

- Notes:
1. The peak parking column represents the amount of parking that would have to be supplied if each use was built independently on its own lot. These ratios may be the ratios required by zoning or the ratios given for each use by the ITE publication "Parking Generation" 5th Edition, 2019 and adjusted for the modal split.
  2. The percentages for the presence of each peak parking demand by time period are based on "Parking Generation" 5th Edition, Institute of Transportation Engineers, 2019, and on BFJ experience.
  3. No parking spaces are reserved or assigned

BFJ Planning March 2023

## Appendix 3 – Existing Commercial Parking Ratio Review and Recommendations

**Table A-3- Existing Commercial Off-Street Parking Space Requirements and Recommendations**

Code 12D#	Current Stamford Zoning Use	Existing Ratio	Independent Variable	Adjusted Ratio	Adjusted to	Recommended Ratios		
4	Religious Institution, Club, Recreational Building	1	per 4 seats *See code for details	0.25	per seat	0.30	per seat	
	Ice Skating Rink	1	per 4 seats, OR	0.25	per seat	3.00	per 1,000 SF GFA	
		1	per every 500 sq. feet GFA (whichever is greater)	2	per 1000 SF GFA			
5	Schools and other Institutions of Learning	1	per staff member, AND	0.33	per student 11th grade and up	Subject to Study		
		1	per each three (3) students in 11th year or over, AND		per seat in assoc. auditorium or stadium			
		1	per three seats in any associated auditorium or stadium	0.33				
6	Offices, Professional and Studios	1	per 500 sq. ft. or portion thereof of gross floor area which is used for offices or studios	2	per 1,000 sq. ft.	Category 1	2.00	per 1,000 sq. ft.
						Category 2	2.80	per 1,000 sq. ft.
						Outside Cat. 1 and 2	3.00	per 1,000 sq. ft.
	Medical/Dental office	N/A	Category 1	2.50	per 1,000 sq. ft.			
			Category 2	4.00	per 1,000 sq. ft.			
		Beyond Cat. 2	4.5	per 1,000 sq. ft.				
7	Hospitals (Limited Stay)	1	per bed, PLUS	1	per bed PLUS	3.5	per 1000 sq. ft.	
	Hospital (Convalescent), Rest Homes, or comparable institutions	1	per every two (2) staff members in hospital of limited stay	0.5	per staff member	0.50	per bed	
		1	for every two (2) beds, PLUS	0.5	per bed			
		3	per doctor					
	Clinic	3	per 1,000 sq. ft. GFA			4.50	per 1000 sq.ft.	
	Surgery Center, Out Patient	9	per operating room or treatment room, provided no less than 3 spaces per 1,000 GFA			9	per operating room	
8	Theater, Auditorium or Stadium	1	per three (3) seats or similar accommodations *See code for details	0.33	per seat	0.33	per seat	
9	Restaurant (standard), Night Clubs, etc.	1	per three (3) seats, OR	0.33	per seat	Category 1 and 2	10	per 1,000 sq.ft
		1	per every one hundred (100) sq. ft. GFA (the more restrictive shall govern)	10	1,000 sq. ft. GFA	Outside category 1 and 2	20	per 1,000 sq ft
10	Restaurant (Carry-out)	1	per 50 sq. ft. GFA, min of 10 spaces	20	1,000 sq. ft. GFA	17	per 1000 sq ft	
	Restaurant (Drive-Thru)	1	per 50 sq. ft. GFA	20	1,000 sq. ft. GFA	17	per 1,000 sq ft	
	Restaurant (Fast-Food)	1	1 (minimum) per three (3) persons of legal occupancy load OR			17	per 1,000 sq ft	
		1	per 50 sq. ft. (whichever is greater)	20	1,000 sq. ft. GFA			
11	Indoor Amusements: Radio-Controlled Miniature Car Facility or Family Rec. Center	1	per 300 sq. ft. GFA	3.33	1,000 sq. ft. GFA	3.33	1,000 sq. ft. GFA	
12	Hotel or Boarding House ( <u>&lt; than 100 guest rooms</u> )	1	per guest room or suites of guest room			0.85	per room	
	Automobile Courts or Motels ( <u>&lt; than 100 guest rooms</u> )	1	per sleeping room of motel			0.85	per room	
13	Hotel or Motel of 100+ Guest Rooms and Addtl. Facilities	1.5	per guest room			1	per room	

**Table A-3 Continued - Existing Commercial Off-Street Parking Space Requirements and Recommendations**

14	Retail Store	4	per 1,000 sq. ft. GFA			4	per 1,000 sq ft GFA
	Convenience Market		N/A			5.40	per 1,000 sq. ft. GFA
	Supermarket		N/A			6.90	per 1,000 sq. ft. GFA
	Offices	3	per 1,000 sq. ft. GFA, OR			See Category #6, same ratios apply	
		2.5	per 1,000 sq. ft. GFA in areas within 1,500' of Transit Center				
		1	per three (3) employees, AND Adequate parking spaces to facilitate passenger arrivals and departures	0.33	per employee		
15	Wholesale and Industrial Uses					Subject to study	
16	Passenger Transportation Terminals	1	per three (3) employees employed on premises	0.33	per employee	Subject to study	
17	Marina	1.5	per mooring, slip or other unit accommodating a boat or vessel in the water			1	per berth
18	Home Occupation	2	per home occupation in addition to any residential requirements			2	Per resident professional person or home occupation
19	Resident Professional Person	4	per (resident professional) person in addition to any residential req.				
20	Recreational Community Center (YMCA, YWCAs, Civic Centers)	1	per 500 sq. ft. of floor area AND	2	1,000 sq. ft. GFA	3.5	per 1,000 sq. ft. GFA
		1	per every three guest rooms in any adjacent residence units annexed to or part of facility				
	Health/Fitness Club					Add these to list	8.9 per 1,000 sq. ft. GFA
	Athletic Club					5.0	per 1,000 sq. ft. GFA
21	Fire Station - Volunteer	1	per full time paid employee, AND			Subject to study	
		1	per every three (3) bunks, AND				
		2	Visitor Spaces, AND				
		1	per emergency vehicle				
22	Warehouses	1	per 2,000 sq. ft. GFA	0.5	1,000 sq. ft. GFA	1.0	per 1,000 sq. ft. GFA
23	Self-Storage Facilities	1	5,000 sq. ft. GFA at any point not more than 500' distant in direct line from nearest part of bldg. served, PROVIDED	0.2	1,000 sq. ft. GFA	0.25	per 1,000 sq. ft. GFA
		1	per 2,000 sq. ft. of accessible GFA for directly accessible ground level units	0.5	1,000 sq. ft. GFA		
24	Child Day Care Center	1.25	per employee on the maximum shift			Subject to study	
25	Dormitories		Note: Shall satisfy the residential parking standards, including parking reduction options, of the zoning district in which they are located			Subject to study	
26	Shooting Range Facilities	1	per shooting lane, plus spaces as determ.by Zoning Board for employees and other ancillary uses. Zoning Board will review application for determination.			Subject to study	