
Downtown Foxborough Parking Analysis and Workshop

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TABLE OF CONTENTS

Executive Summary.....	4
Introduction.....	5
Study Area.....	5
Existing Parking Analysis.....	9
Parking Availability	9
Parking Occupancy	12
Parking Duration.....	17
Parking Turnover.....	18
Theater Observations	18
General Parking Observations and Recommendations.....	19
Parking Workshop.....	22
Parking Policy Analysis.....	23
Parking Requirements within the Zoning Bylaw	23
Key Parking Issues.....	25
Parking Policy Recommendations	25
Creating a Parking Overlay District.....	25
Infrastructure Investment Recommendations	36
Summary and Recommendations	38
Resources.....	39

At the request of the Town of Foxborough, the Metropolitan Area Planning Council (MAPC) conducted a parking study in Downtown Foxborough with the intent of creating an inventory of existing on- and off-street parking and making recommendations for new parking policies. As part of the study, MAPC collected and studied existing parking capacity, occupancy, and turnover data. In addition to the parking study, an in-depth evaluation of existing parking requirements found in the Town's Bylaw was undertaken for the downtown area. Foxborough had requested the parking study in anticipation of the creation of a regional sewer district that will assist in the redevelopment of underutilized land and buildings in the Downtown.

The parking study analysis showed that there is adequate on- and off-street parking in Downtown Foxborough for all of its existing uses during weekday and Saturday peaks, with additional capacity for parking demand created by future development. MAPC's field observations revealed:

- Average occupancy was 21 percent on Saturday, and 33 percent on weekday observations
- Peak occupancy was 34 percent on Saturday, and 44 percent during weekday observations, highlighting the fact that even at the busiest times over half of the parking spaces in the downtown area were available

It does not seem appropriate at this time to build any new parking spaces in the downtown area for the existing uses, and it appears that a moderate amount of new development could be added without the need to construct additional parking spaces. In this report, MAPC outlines several parking policy changes the town should consider in the downtown which include:

- Creating a parking overlay district for the downtown to manage parking policy and infrastructure
- Consider lower parking minimums and more stringent maximums as a way to manage the amount of new parking provided through development projects
- A waiver of parking requirements for certain use categories (typically applies to non-residential uses in the parking overlay district)
- Un-bundling parking for multi-family residential developments
- Inclusion of a shared parking bylaw
- Requirements that parking related revenue collected within the overlay district be reinvested back into the district to help pay for maintenance and improvements to parking and transportation infrastructure

The downtown area also has several public surface parking lots that are not well utilized. Their use could be increased by adding better parking signage and marketing the lots on the Town's website and through local businesses. Changes to existing parking policies in the downtown, as well as some small infrastructure investment will help foster economic redevelopment while not overwhelming the landscape with surface parking lots.

INTRODUCTION

Foxborough, a suburban community with a population of approximately 17,000, has been unable to capitalize on development or redevelopment opportunities in its downtown area due to sewer capacity constraints over the last two decades. With the imminent creation of a regional sewer district with the Town of Mansfield and the construction of a new wastewater treatment plant, vacant land and buildings will be able to be reused. There is a desire for infill housing development in the residential parts of downtown and to utilize upper stories of downtown buildings to create mixed use development. While sewer capacity is likely to help catalyze new development in the downtown, there is the potential that perceived parking deficiencies could create a challenge for new development. Therefore, Foxborough has requested that a parking analysis be completed for the Downtown area (shown in **Figure 1**) to determine the existing parking availability, usage, and turnover, and to determine how best to regulate and manage existing and future parking demand.

The Metropolitan Area Planning Council (MAPC) has collected and studied existing parking capacity, occupancy, and turnover data in the Downtown Foxborough area. In addition to the parking study, an in-depth evaluation of parking requirements found in the town's bylaw was performed for the downtown area.

STUDY AREA

Downtown Foxborough is walkable and compact, and centers around a town common. The study area is generally one-quarter mile in distance, or approximately a five minute walk from end to end (as shown in **Figure 2**). The study area includes the following public on- and off-street parking areas in Downtown Foxborough:

- Bird Street, between Main Street and Railroad Avenue
- Central Street, between South Street and Liberty Street/Wall Street
- Cocasset Street, between Bird Street and Wall Street
- Liberty Street, between South Street and Central Street
- Mechanic Street, between Cocasset Street and Railroad Avenue
- School Street, between Rockhill Street and South Street
- South Street, between Liberty Street and Cocasset Street
- Wall Street, between Central Street and Cocasset Street
- Off-Street Parking: Town Hall Parking Lot
- Off-Street Parking: Shared Parking Lot (bordered by Central/South/Cocasset/Wall Street)
- Off-Street Parking: Railroad Avenue Lot 1 (north of Bird Street)
- Off-Street Parking: Railroad Avenue Lot 2 (south of Bird Street)

The study area is shown in **Figure 3**, along with a count of parking spaces in each area.

Figure 1 Downtown Foxborough

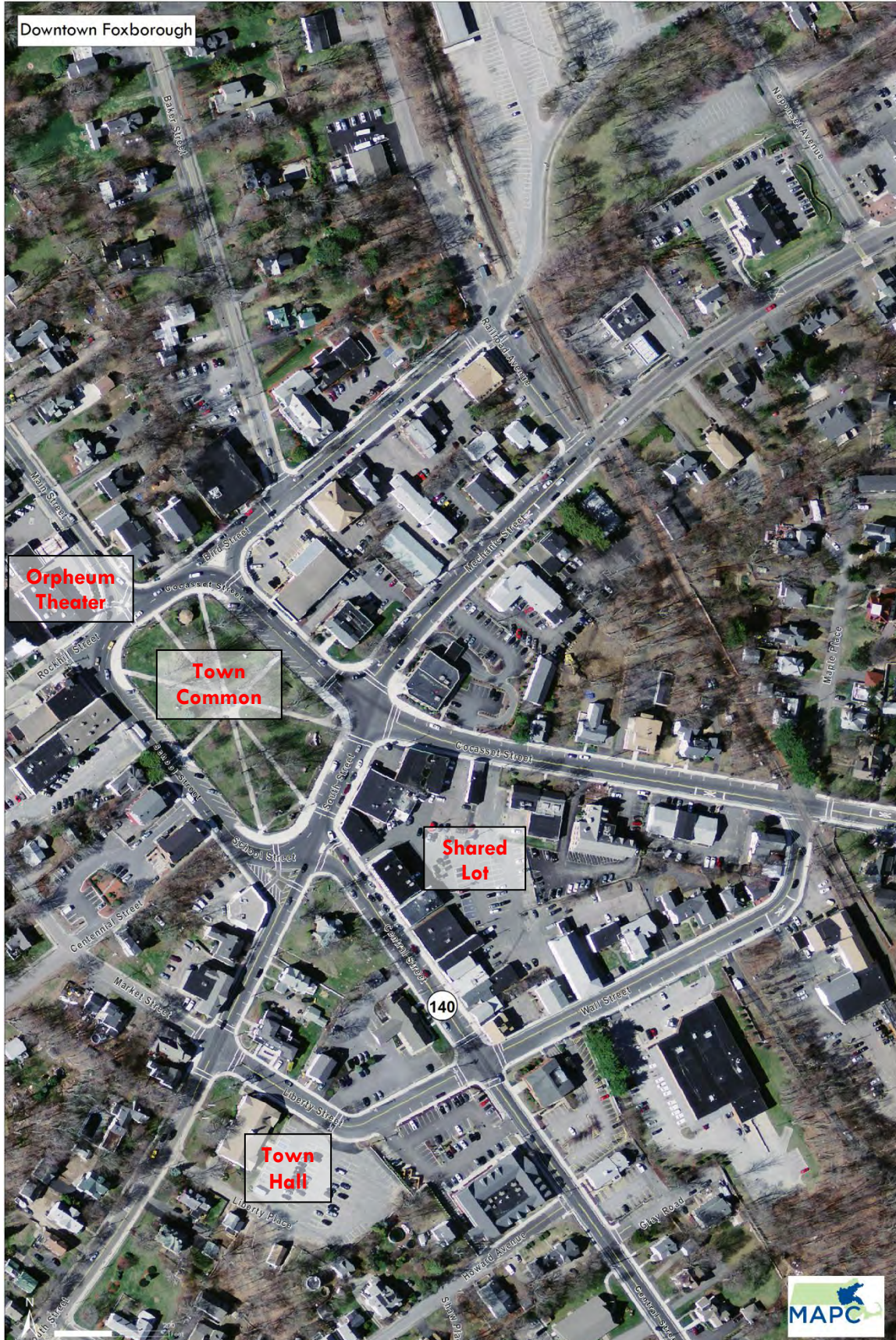


Figure 2 Study Area Walking Distance

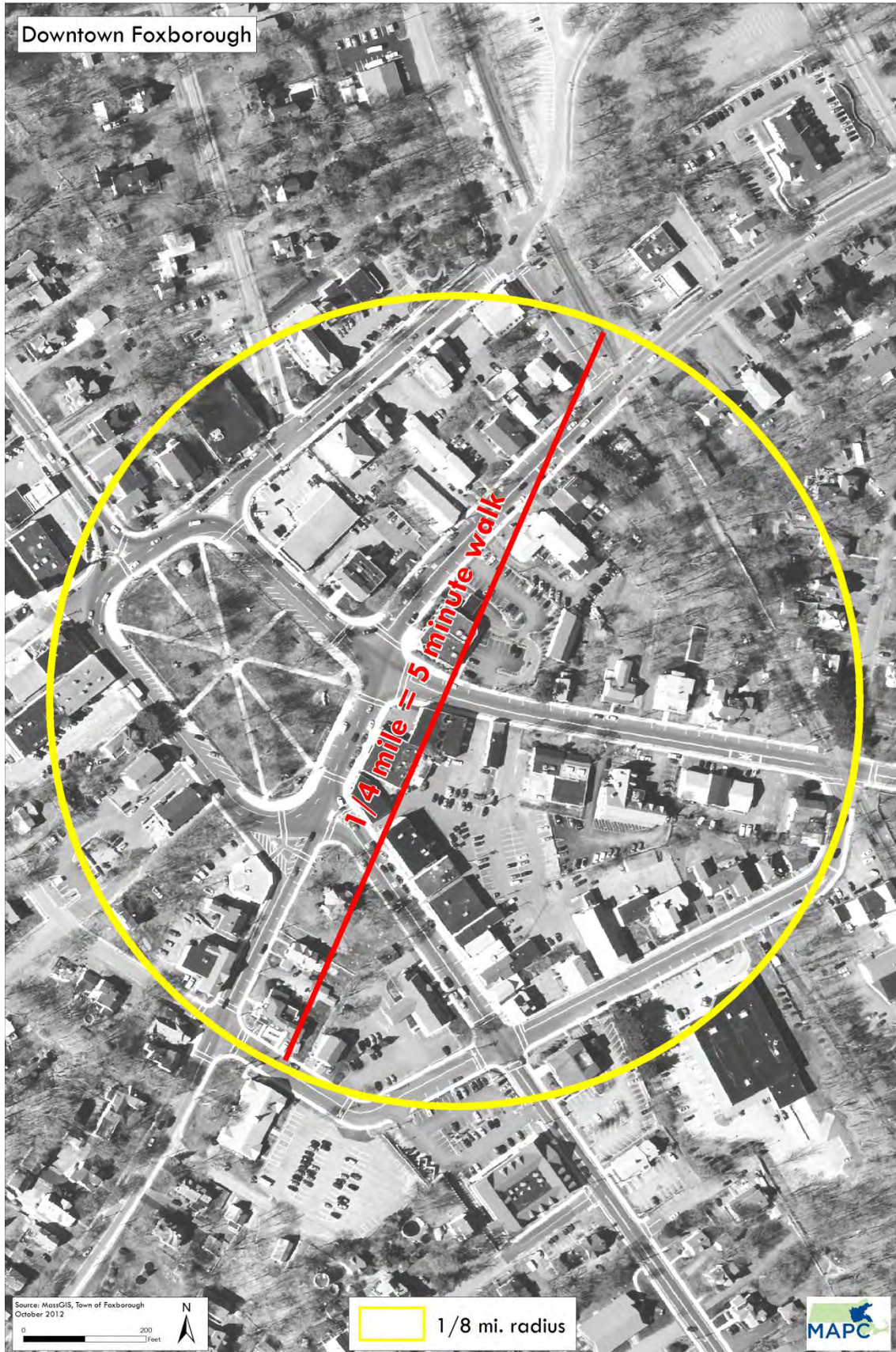


Figure 3 Downtown Parking Locations and Number of Spaces



EXISTING PARKING ANALYSIS

In order to determine the existing parking conditions within Downtown Foxborough, MAPC and Foxborough staff conducted a parking study on Saturday, September 29 and Wednesday, October 3, 2012, from 8:00 a.m.–6:00 p.m. Prior to the data collection effort, the number, type, and location of all parking spaces within the study area were documented. The downtown area consists of multiple types of parking, all of which are documented in **Figure 4**.

The purpose of the parking study is to determine how existing downtown parking spaces are currently being utilized, how often, and for what duration. This effort will help determine if the existing parking capacity is appropriate, it provides a comparison of existing parking guidelines with recommended guidelines, and determines whether future development would require additional parking resources.

Parking Availability

The number and type of parking spaces in Downtown Foxborough by block is shown in **Table 1**. The downtown area includes a variety of parking restrictions, including 1 hour, handicap parking, as well as unrestricted parking. In addition, there are spaces designated for United States Marines in the shared parking area.

There are a total of 321 public parking spaces within the study area, of which 165 are on-street spaces and 156 are off-street (located in the Town Hall, central shared parking lot, and Railroad Avenue parking lots). The majority (78%) of the on-street parking spaces are 1 hour parking spaces, and with the exception of handicap and Marine parking spaces, all public off-street parking spaces are unrestricted.

Figure 4 Parking Spaces by Type

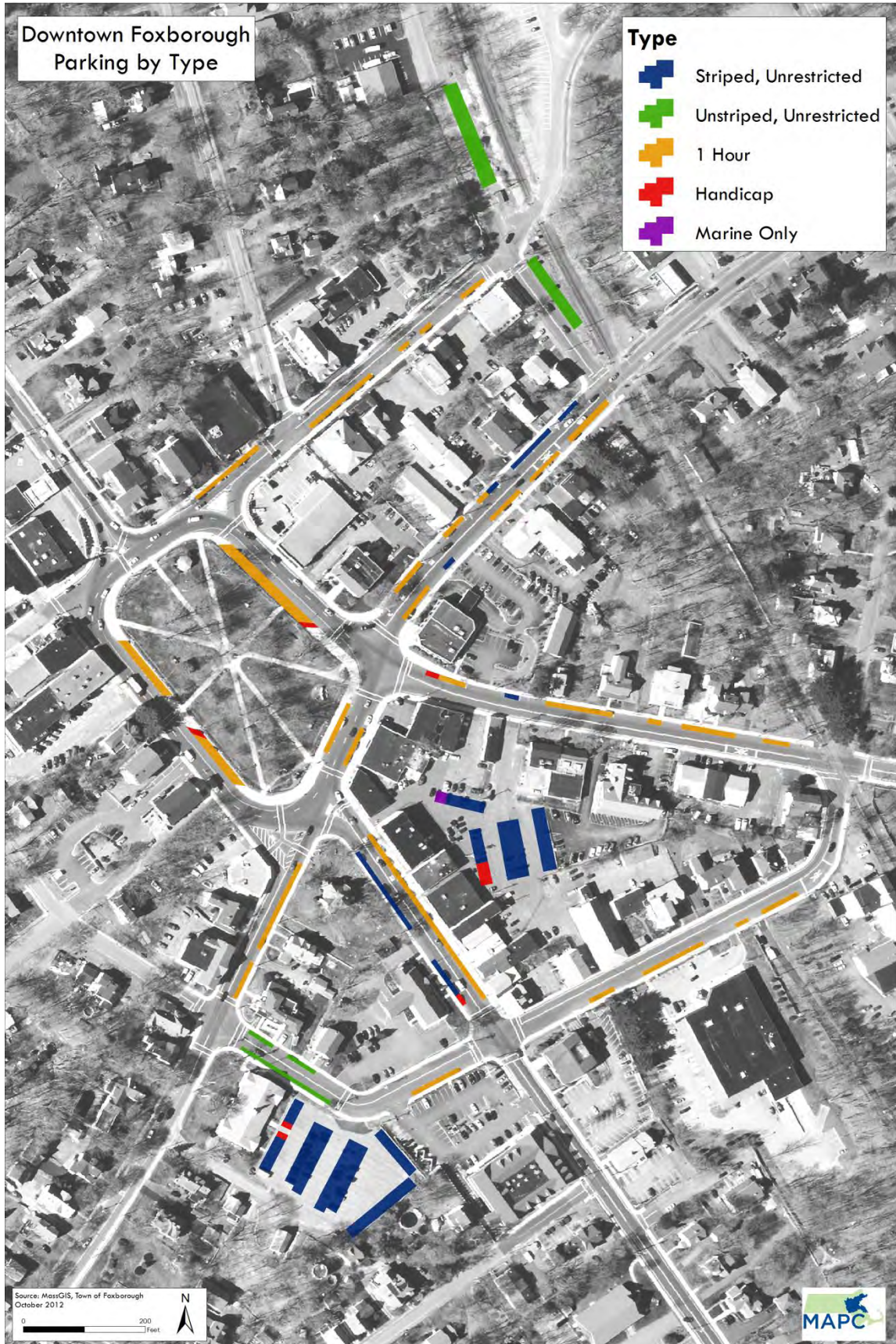


Table 1. Parking Availability by Type¹

Location	Type of Parking				
	1 Hour	Unrestricted (Striped)	Unrestricted (Un-striped) ²	Handicap	Marines
On-Street Parking Spaces					
Bird St – North (Main to Baker)	6	-	-	-	-
Bird St – South (Cocasset to Railroad)	10	-	-	-	-
Central St – West (South to Liberty)	-	10	-	1	-
Central St – East (South to Wall)	15	-	-	-	-
Cocasset St – West (at Town Common)	14	-	-	1	-
Cocasset St – East (Mechanic to Wall)	14	1	-	1	-
Liberty St – North (South to Town Hall)	-	-	6	-	-
Liberty St – South (South to Town Hall)	-	-	8	-	-
Liberty St – South (Town Hall to Central)	4	-	-	-	-
Mechanic St – North (Cocasset to Railroad)	6	7	-	-	-
Mechanic St – South (Cocasset to Railroad)	13	1	-	-	-
School St – East (at Town Common)	18	-	-	1	-
South St – North (at Town Common)	4	-	-	-	-
South St – South (Liberty to Central)	10	-	-	-	-
South St – South (Central to Cocasset)	3	-	-	-	-
Wall St – South (Central to Cocasset)	11	-	-	-	-
<i>On-Street Parking Subtotal (165 spaces)</i>	<i>128</i>	<i>19</i>	<i>14</i>	<i>4</i>	<i>0</i>
Off-Street Parking Spaces					
Town Hall Parking Lot	-	84	-	2	-
Shared Retail Parking Lot	-	43	-	3	2
Railroad Avenue Lot 1 (Gravel)	-	-	10	-	-
Railroad Avenue Lot 2 (Paved)	-	-	12	-	-
<i>Off-Street Parking Subtotal (156 spaces)</i>	<i>0</i>	<i>127</i>	<i>22</i>	<i>5</i>	<i>2</i>
Total (321 spaces)	128	146	36	9	2

¹Parking analysis performed in September, 2012

²Number of parking spaces in un-striped areas was assumed and may vary

Parking Occupancy

During the parking observation hours, partial license plate numbers were documented each half hour at spaces within the study area in order to determine parking duration and parking space turnover. The study was able to determine the parking occupancy by time of day for each type of parking space. A summary of the on-street and off-street parking occupancy is shown below in **Table 2**. The occupancies by time of day are also shown in chart form in **Figure 5**.

The peak occupancy on Saturday was observed at 11:00 a.m. for on-street and off-street parking. The overall peak for all parking spaces was also 11:00 a.m, when 34% of all spaces were occupied.

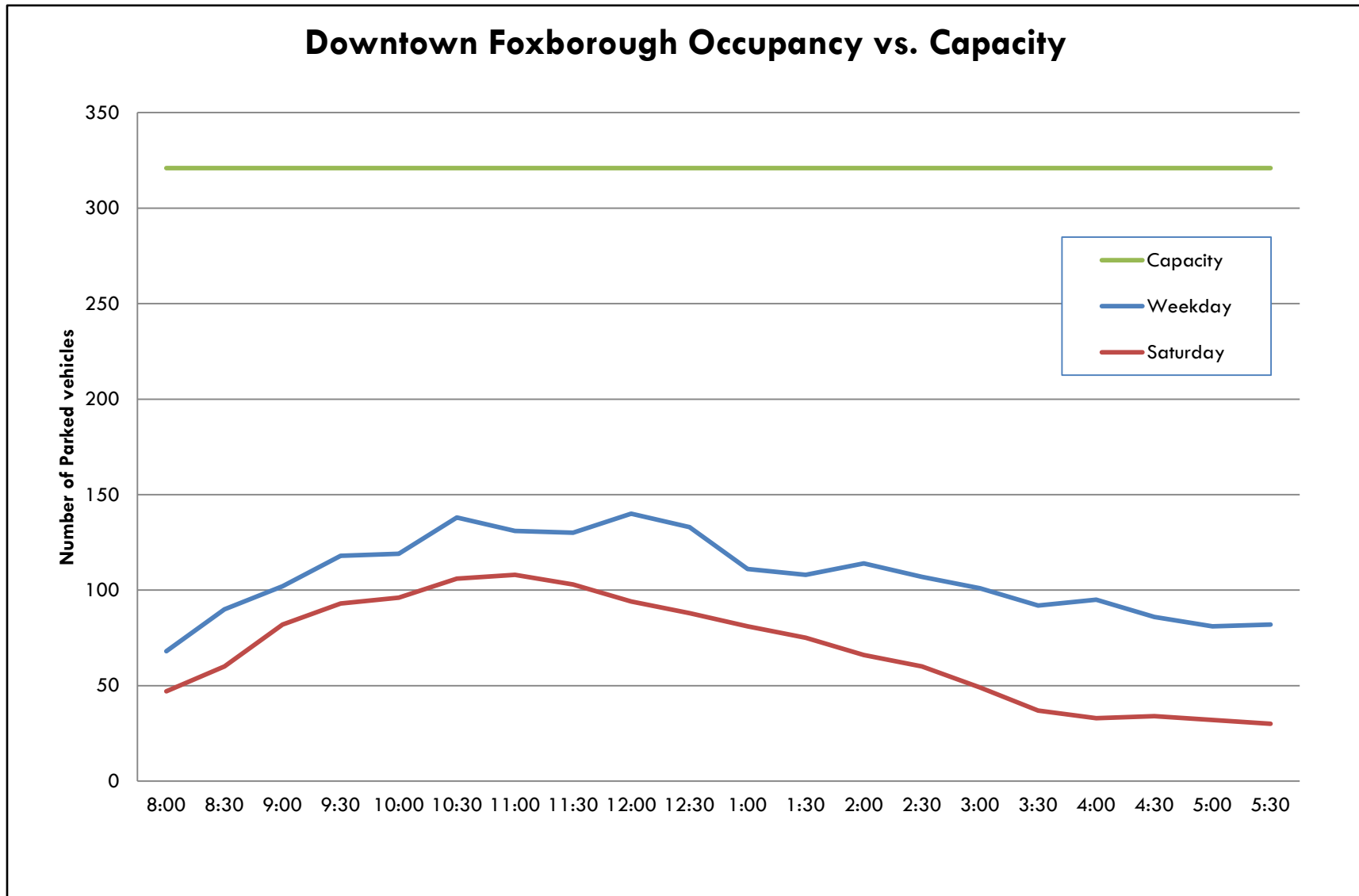
The peak occupancy for weekday parking was 12 p.m. for on-street parking, and 10:30/11:00 a.m. for off-street parking. The overall peak for all parking spaces was 12:00 and 12:30 p.m, when 44% of all spaces were occupied. Throughout the day, the weekday occupancies were higher than weekend occupancies.

Table 2. Percent of Occupied Spaces by Time of Day

Time of Day	Saturday			Weekday		
	On-Street (165 Spaces)	Off-Street (156 Spaces)	Total (321 Spaces)	On-Street (165 Spaces)	Off-Street (156 Spaces)	Total (321 Spaces)
8:00 a.m.	16%	13%	15%	19%	24%	21%
8:30 a.m.	18%	19%	19%	23%	33%	28%
9:00 a.m.	29%	22%	26%	23%	41%	32%
9:30 a.m.	33%	25%	29%	33%	40%	37%
10:00 a.m.	33%	27%	30%	31%	44%	37%
10:30 a.m.	38%	28%	33%	41%	46%	43%
11:00 a.m.	39%	28%	34%	36%	46%	41%
11:30 a.m.	38%	26%	32%	38%	44%	40%
12:00 p.m.	34%	24%	29%	44%	43%	44%
12:30 p.m.	34%	21%	27%	40%	43%	44%
1:00 p.m.	32%	19%	25%	28%	42%	35%
1:30 p.m.	28%	18%	23%	30%	37%	34%
2:00 p.m.	22%	19%	21%	35%	37%	36%
2:30 p.m.	24%	13%	19%	28%	39%	33%
3:00 p.m.	20%	10%	15%	26%	37%	31%
3:30 p.m.	13%	10%	12%	24%	34%	29%
4:00 p.m.	13%	8%	10%	28%	31%	30%
4:30 p.m.	13%	8%	11%	29%	24%	27%
5:00 p.m.	12%	8%	10%	30%	21%	25%
5:30 p.m.	11%	8%	9%	30%	21%	26%
Average Occupancy	25%	18%	21%	31%	36%	33%

Parking analysis performed on Saturday September 29, 2012 and Wednesday October 3, 2012 (Weekday data).
Shading indicates the highest occupancy rate of the day.

Figure 5 Occupancy vs. Capacity



Peak and average parking occupancies by location are shown in **Table 3**, as well as illustrated in **Figure 6** and **Figure 7**. Parking occupancies are highly varied throughout the downtown with pockets of busy areas surrounding local businesses. Areas with generally high parking occupancies include Bird Street, Central Street, School Street, South Street, and the shared parking lot. Areas with generally low parking occupancies include Cocasset Street, Liberty Street, Mechanic Street, Wall Street, Railroad Avenue and the Town Hall parking lot.

Table 3. Parking Occupancy by Location

Location	Saturday Occupancy		Weekday Occupancy	
	Average	Peak	Average	Peak
Bird St – North (Main to Baker)	1%	17%	58%	100%
Bird St – South (Cocasset to Railroad)	53%	90%	53%	90%
Central St – West (South to Liberty)	44%	91%	48%	82%
Central St – East (South to Wall)	51%	93%	58%	93%
Cocasset St – West (at Town Common)	2%	7%	7%	27%
Cocasset St – East (Mechanic to Wall)	8%	19%	6%	19%
Liberty St – North (South to Town Hall)	19%	50%	18%	33%
Liberty St – South (South to Town Hall)	9%	38%	29%	38%
Liberty St – South (Town Hall to Central)	19%	75%	43%	75%
Mechanic St – North (Cocasset to Railroad)	17%	38%	28%	54%
Mechanic St – South (Cocasset to Railroad)	24%	43%	27%	43%
School St – East (at Town Common)	41%	74%	47%	95%
South St – North (at Town Common)	28%	75%	43%	100%
South St – South (Liberty to Central)	9%	30%	4%	20%
South St – South (Central to Cocasset)	55%	100%	45%	100%
Wall St – South (Central to Cocasset)	18%	45%	13%	45%
Town Hall Parking Lot	8%	14%	37%	49%
Shared Retail Parking Lot	39%	65%	43%	58%
Railroad Avenue Lot 1 (Gravel)	2%	10%	0%	0%
Railroad Avenue Lot 2 (Paved)	14%	58%	35%	58%

Parking analysis performed on Saturday September 29, 2012 and Wednesday October 3, 2012 (Weekday data). Shading indicates high parking occupancy areas.

Figure 6 Saturday Peak and Average Occupancy by Location



Figure 7 Weekday Peak and Average Occupancy by Location



Parking Duration

Average duration data by type of parking is shown in **Table 4**. During the observations, the overall average parking duration was 1.3 hours (78 minutes) on Saturday and 1.6 hours (96 minutes) on the weekday. Although there was no parking enforcement in the area observed during data collection, vehicles tended to park in 1 hour parking spaces for an average of 1 hour, although some vehicles parked in 1 hour spaces for much longer periods of time, some longer than 8 hours. Unrestricted parking was observed to have longer durations, especially on weekdays. Handicap parking had relatively short parking durations, averaging 30 minutes on Saturday and 42 minutes on the weekday.

Table 4. Average Parking Duration by Type of Parking

Type of Parking	Saturday (hours)	Weekday (hours)
1 Hour	1.0	1.1
Unrestricted (striped)	1.8	2.1
Unrestricted (unstriped)	1.4	3.4
Handicap	0.5	0.7
Overall Duration	1.3	1.6

Parking analysis performed on Saturday September 29, 2012 and Wednesday October 3, 2012.

Duration by type of parking is shown in **Table 5**. Approximately 80 percent of 1 hour parking spaces were observed to have a duration of less than one hour. Unrestricted parking spaces (striped and unstriped) had much longer durations, as many local employees were observed parked in unrestricted parking areas.

Table 5. Percent of Vehicles Parked by Duration and Type of Parking

Type of Parking	Saturday			Weekday		
	<1 hour	1-2 hours	2+ hours	<1 hour	1-2 hours	2+ hours
1 Hour	81%	13%	6%	79%	11%	9%
Unrestricted (striped)	66%	15%	18%	60%	11%	28%
Unrestricted (unstriped)	50%	46%	4%	23%	32%	46%
Handicap	100%	0%	0%	83%	17%	0%
Overall Duration	75%	16%	9%	69%	11%	19%

Parking analysis performed on Saturday September 29, 2012 and Wednesday October 3, 2012.

Overall, the majority of vehicles parking in the downtown area are parking for relatively short periods of time. Less than 10 percent of vehicles on Saturday and less than 20 percent of vehicles during weekday observations were parking longer than two hours.

Parking Turnover

Parking turnover refers to how many vehicles are using a particular parking space in a given amount of time. Parking space turnover by type within the study area is shown in **Table 6**. The overall parking space turnover per hour was 0.2 on Saturday and 0.3 during the weekday observation. A parking turnover rate of less than 1.0 indicates a parking space is not being completely utilized each hour. Turnover is generally low because of low occupancy levels and a surplus of parking.

Table 6. Daily Parking Turnover Rate by Type of Parking

Type of Parking	Saturday (vehicles/stall/hr)	Weekday (vehicles/stall/hr)
1 Hour	0.3	0.3
Unrestricted (striped)	0.2	0.4
Unrestricted (unstriped)	0.1	0.2
Handicap	0.0	0.0
Overall Turnover	0.2	0.3

Parking analysis performed on Saturday September 29, 2012 and Wednesday October 3, 2012.

Theater Observations

The events at the Orpheum Theater in Downtown Foxborough are an issue of concern for many in the community. The theater seats 400 people and does not have a designated parking area, therefore many attendees park on local streets and limit the amount of short-term parking available for residents and businesses in the area.

In order to understand the demand from theater events, the parking areas surrounding the theater were observed the afternoon of Saturday, November 17 from 12:30 to 3:00 pm. This observation was timed to capture demand and occupancy surrounding a 2:00 pm performance at the theater.

The parking areas most heavily utilized by theater patrons were:

- South Street
- Church Parking Lot (adjacent to the theater)
- Parking spaces at the Town Common (Cocasset Street, South Street, School Street)
- Nearby residential streets (Market Street, Granite Street, Rockhill Street)

Although they are only a short distance away from the theater, parking areas such as the Town Hall and shared parking lots were not observed to be utilized by theater patrons. It is recommended that these large parking areas be designated as parking for theater events. Town Hall hours and theater events generally do not overlap so there is ample parking available. Maps and signage could be provided at the theater to direct attendees to nearby parking lots. On-street parking closest to the theater can be reserved for elderly and handicap parking.

General Parking Observations and Recommendations

A number of observations were made during the parking study:

- Parking restrictions – 78 percent of on-street parking is restricted to 1 hour parking, with the remaining parking areas being unrestricted or handicap spaces. According to the Town officials and local residents, the restriction is rarely enforced by the local police, but may be a deterrent for people unfamiliar with the area to remain and shop, dine, or attend theater events in the area when most parking is restricted to one hour. Restrictions also may encourage people to park multiple times (at every destination) rather than parking once and making multiple trips from that one parking space.
 - Recommendation: On-street parking restrictions should be studied and determined whether or not they are appropriate. Parking enforcement should be examined and restrictions should be removed if they are not enforced. Theater and restaurant parking should be established in areas that are not restricted to 1 hour parking.
- Shared parking lot – Vehicular and pedestrian access to the lot is confusing and does not encourage use of the lot.
 - Recommendation: Wayfinding for public lots should be improved and tree growth should be cleared from signage where appropriate. In addition, signage within the lot should be improved to highlight parking restrictions (or lack thereof) as well as to differentiate private spaces from public spaces. Local employees should be encouraged to use this lot instead of on-street spaces.
- Loading – there are no designated loading spaces for trucks in the downtown area. Trucks were observed parking on sidewalks and in the middle of the shared parking area, blocking vehicular access or egress.
 - Recommendation: As there are many small businesses in the downtown area with local deliveries every day, designating areas for these deliveries could help minimize confusion as well as create a safer environment for drivers and pedestrians.
- Handicap Parking – It was observed that some of the handicap parking spaces (namely in the shared parking lot and along Central Street) may not be in appropriate locations for elderly and handicap users to utilize due to grade changes and/or lack of wheelchair ramps.
 - Recommendation: The location of handicap parking spaces within the Town should be studied and determined if any additional spaces are appropriate.



- Pedestrian safety – Vehicular speeds are high throughout the study area roadways, preventing people from parking further away and walking to their destinations.
 - Recommendation: Slow vehicular speeds through roadway narrowing and enhance pedestrian safety at intersections and crosswalks through geometric modifications.

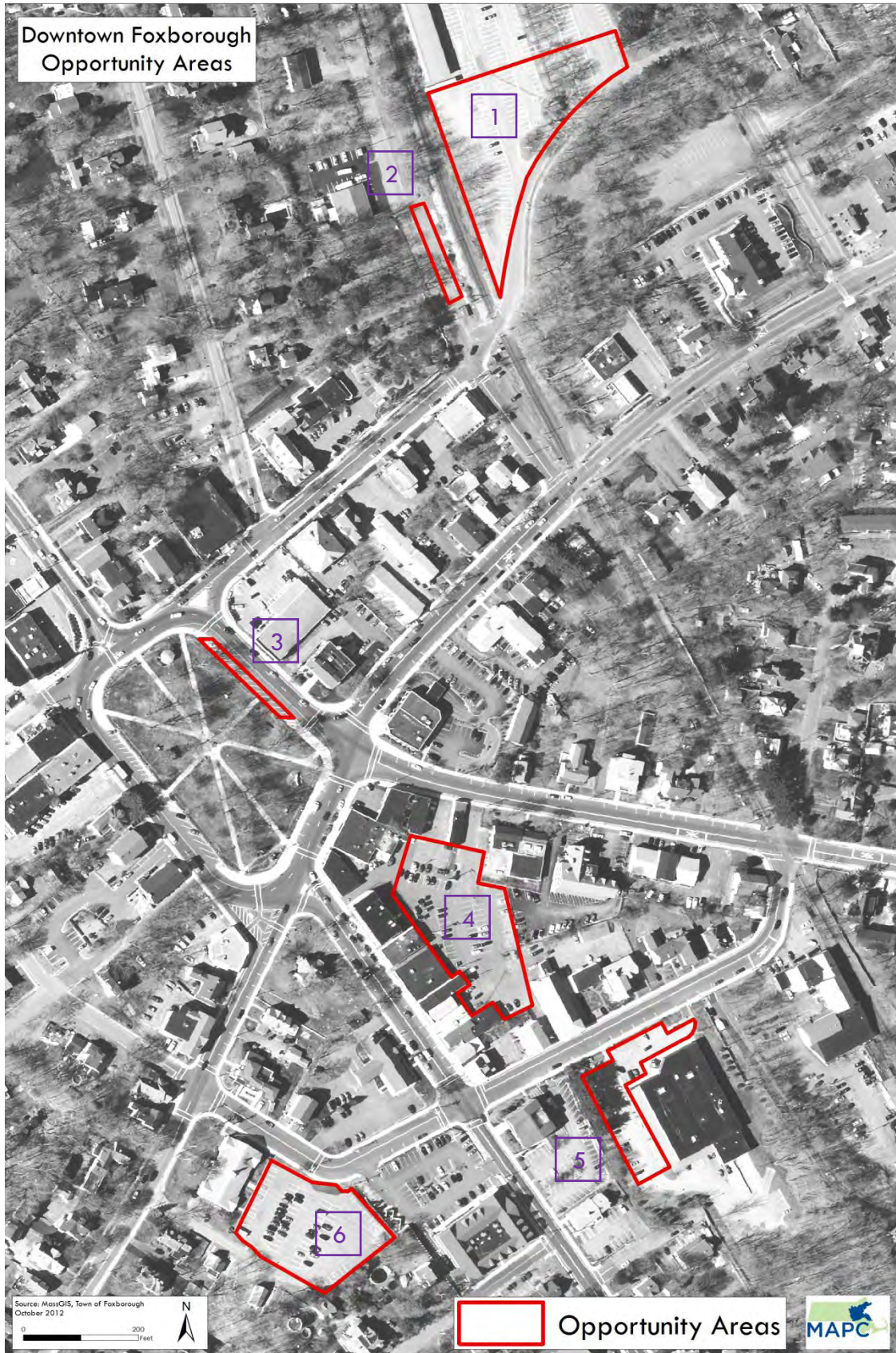
In addition to the general observations, six opportunity areas in Downtown Foxborough have been highlighted (areas are illustrated in **Figure 8**).

- Area 1: Invensys Parking Lot. A large portion of the Invensys lot (privately owned) is unutilized and may be an optimal location for future downtown development.
- Area 2: Railroad Avenue. An unmarked and unpaved parking area along the railroad tracks could be designated as parking for library staff, local employees, or shoppers. Limiting long-term parking to the exterior of the downtown and public parking lots will enable on-street parking spaces to be utilized for short term parking.
- Area 3: Parking along Town Common. The area to the east of the Town Common was observed to be underutilized on both Saturday and weekday observations, raising concerns about whether this area is unsafe for pedestrians or vehicles.

During the parking workshop this area was identified as a parking area for library staff. All parking spaces adjacent to the Town Common are currently signed as 1 hour parking. If the Town wishes to designate this as an area for local employees, the parking restriction should be removed and pedestrian crossings and vehicle safety should be prioritized.

- Area 4: Shared Parking Lot. The shared parking lot is a great resource for the local community and is the result of many years of work and coordination between private landowners. However, the lot is generally unsigned, confusing to newcomers and thus may discourage its use. Continuing to refine the shared lot through improved grading and striping, signage within the lot to help determine any restrictions, and wayfinding to help highlight the public lot location will help enhance and increase the utilization of this parking lot. In addition, highlighting this as a long-term lot will help free up on-street parking spaces for short-term uses.
- Area 5: Post Office Lot. The post office lot has been cited for redevelopment by the Town. Given its close proximity to major destinations in town, a future use should be well designed, consider reduced parking strategies, and integrated into the character of the existing downtown environment.
- Area 6: Town Hall Parking Lot. With 86 spaces, the Town Hall lot provides nearly double the amount of public parking spaces as the shared parking lot and is the downtowns largest public parking resource. However, many local residents don't consider the Town Hall lot to be "public" and therefore don't utilize it on a regular basis. Highlighting the lot for use during theater and other local events would be beneficial, and would keep long-term parkers off of on-street spaces.

Figure 8 Opportunity Areas



On November 1, 2012, a parking workshop was held in Foxborough. The workshop was open to the public and local planning board members, residents, and business owners attended. A presentation was made by MAPC that included an overview of the downtown parking study, results and observations, as well as highlighting opportunity areas in the area.

At the conclusion of the presentation, small breakout groups were formed to discuss parking issues in the downtown area, potential needs for the future, and how to better include alternative modes of transportation in the area.

Results of the breakout groups varied and included the following items/themes:

- Pedestrian crossings are unsafe and discourage people from walking into and around town
- The Town Common is cut off by high speed vehicles traveling around it
- Shared parking lot should provide improved directional signage
- Shared parking lot should be restriped and reallocated to reduce confusion and maximize the available space
- Designated areas for loading needed
- Parking management needed for Orpheum theater and funeral home, so on-street spaces can be available for local residents and businesses
- Restrictions for existing parking are generally ignored and unenforced

PARKING POLICY ANALYSIS

As a complementary component to the parking observations performed in the downtown area, MAPC also reviewed the current parking requirements in Foxborough's Zoning Bylaw to determine potential changes that could reduce the amount of parking associated with future development. Several examples from across Massachusetts are provided to illustrate what other municipalities are doing to help reduce parking in downtown areas and thereby increase economic development potential for the town.

Parking Requirements within the Zoning Bylaw

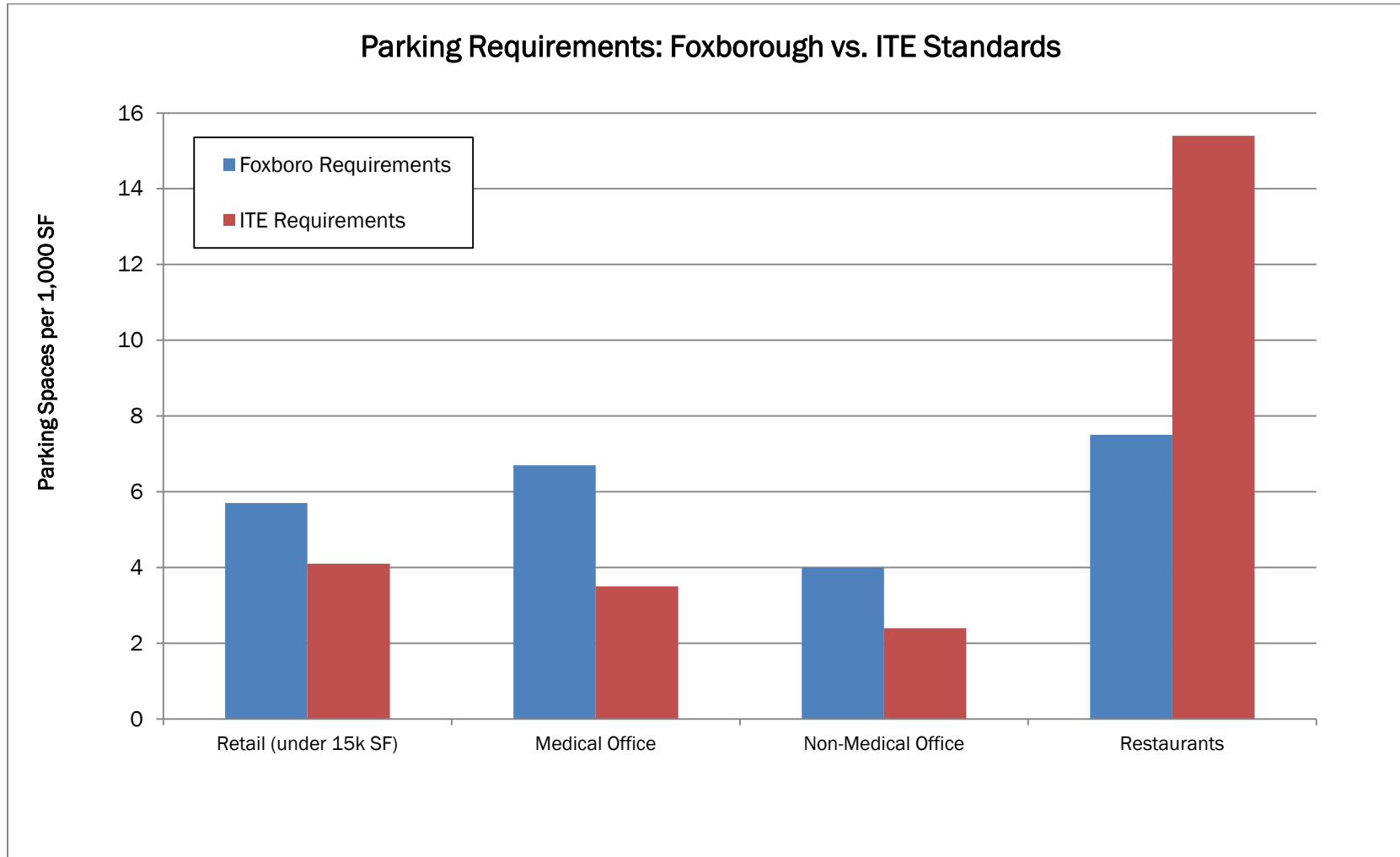
In reviewing the parking requirements within Foxborough's Zoning Bylaws (*Section 6.0 – General Regulations*), MAPC compared the town's parking requirements to the Institute of Transportation Engineers (ITE) national recommended standards. MAPC looked at four common use categories currently or likely to be found in Downtown Foxborough:

- Retail establishments under 15,000 gross square feet
- Medical offices
- Non-medical offices
- Restaurants, nightclubs, bars, recreation halls

Under the first three categories, the town's parking requirements are significantly higher than the national standard and in the two office categories it is nearly double the national standard. The town is currently requiring about half of the national standard for parking under the restaurant use category. **Figure 9** compares Foxborough's parking requirements to that of ITE.

As described above, Downtown Foxborough has approximately 320 on- and off-street parking spaces available to the public. According to the parking analysis completed by MAPC for parking in the downtown area, during peak hours on weekdays and Saturdays parking utilization never exceeded 44% (140 spaces). On-street parking utilization never exceeded 45%. These levels of utilization do not indicate that the downtown is lacking available parking; in fact, it indicates that the downtown could support additional development without having to construct any additional parking.

Figure 9 Parking Zoning Requirements



Key Parking Issues

There are several parking issues in the downtown that are creating a *perception* by residents and business owners that there is a deficiency in the amount of parking available. Some of these include:

- *Existing Parking Requirements are Too High* – The existing parking requirements in the town’s bylaws are too high for the downtown where additional development and walkability should be prioritized over surface parking.
- *Location of Available Parking* – Parking is available in the downtown during peak hours, but on-street parking located along Central and Bird Streets directly in front of high use businesses and food establishments is often full. Much of the remaining on- and off-street parking within a short walking distance to these businesses remains highly underutilized.
- *Signage and Marketing of Parking Locations* – It may be difficult for drivers to locate the larger unrestricted parking lots in the downtown that currently have lower utilization during peak periods of activity.
- *Theater Creates Demand for Parking* – During theater show times, parking adjacent to the theater is taken up limiting parking for other uses at those times.

All of these issues can be addressed by adopting modifications to the town’s current parking regulations and by investing in additional infrastructure improvements like better wayfinding signage for surface parking lots, traffic calming, shortening crossing distances, and improving elements of the streetscape to make walking from parking areas to downtown attractions easier, safer and more pleasant.

Parking Policy Recommendations

Parking in a downtown area can be a critical asset to the vitality of businesses, but if it is not managed properly it can become an impediment to allowing new development to occur and to maintaining a pedestrian friendly walkable downtown. MAPC has outlined a series of policy recommendations that the town of Foxborough should consider as ways to manage the current and future parking assets in the downtown area.

Creating a Parking Overlay District

Parking needs and requirements often vary across the many different neighborhoods and business districts in a municipality. Highway-oriented business areas will have different parking demands than a downtown business district. Areas that are walkable, bikeable, or have access to transit provide travel choices besides driving, and will likely have different parking demands than areas where travel mode choices are limited. Creating a parking overlay district can provide a municipality with the flexibility to adjust the existing parking bylaw to the needs of a specific area. Parking overlays can be especially effective in downtown or central business districts where

a municipality may want to limit parking and encourage the use of other forms of transportation like walking or biking. Limiting the amount of parking in a downtown area can also help reduce traffic and congestion, especially when drivers have the ability to park once and walk to different destinations in the downtown.

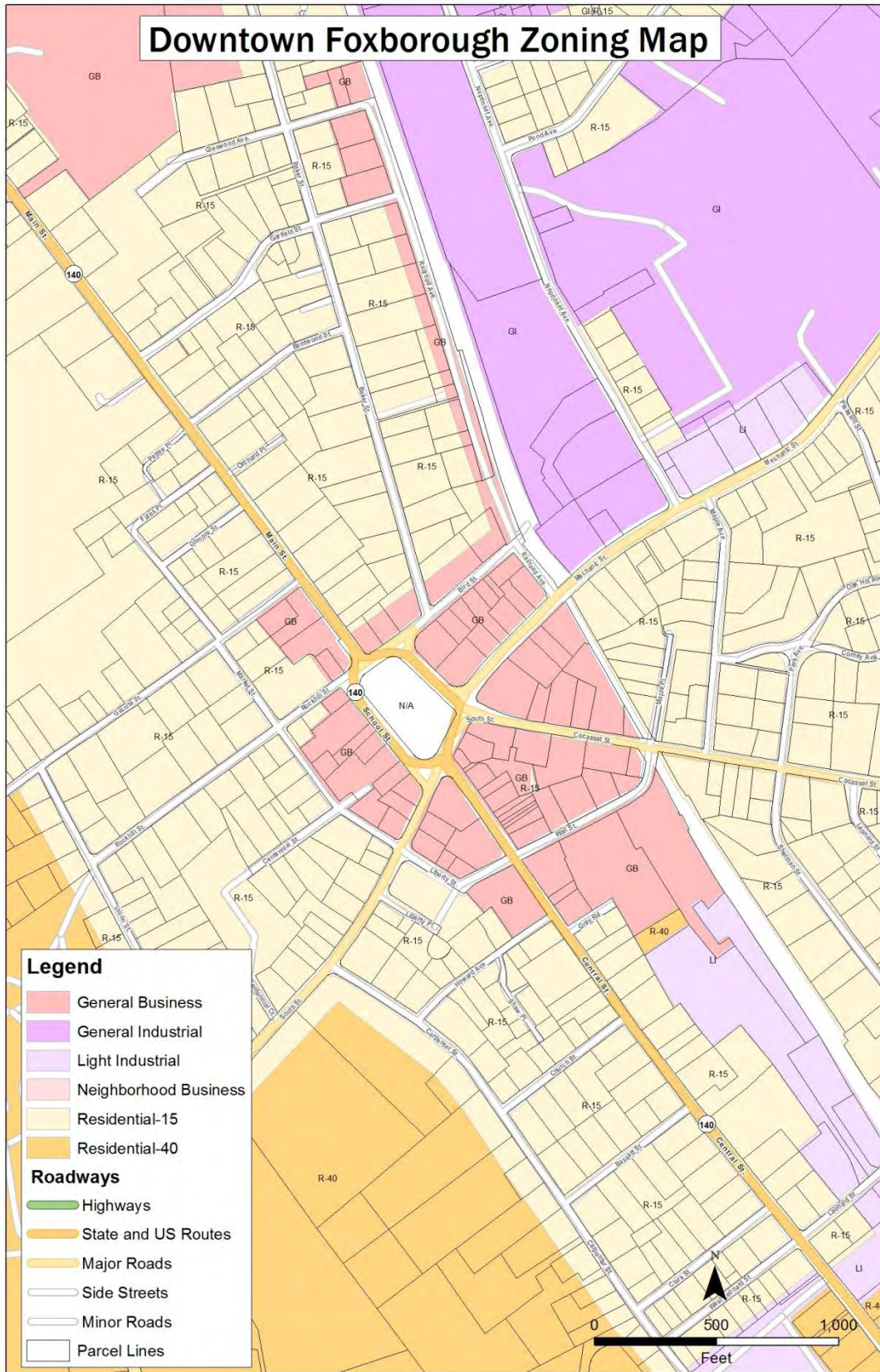
MAPC recommends that the town of Foxborough create a parking overlay district specifically for the downtown area as defined by the town. A parking overlay could be limited to the parcels in the downtown zoned General Business (GB) which is likely to be where future development or redevelopment would take place in the downtown area. The town may also want to include some parcels zoned Residential 15 (R-15) like Foxborough Town Hall and the Bethany Congregational Church which have large surface parking lots that could become assets in a parking management system for downtown. The geographic boundaries of the parking overlay district also allow the town to adopt changes to the parking bylaw for that specific overlay area and not have the changes impact other parcels zoned GB or R-15 in other parts of Foxborough. The existing zoning for Downtown Foxborough is shown in **Figure 10**.

There are several elements that could be incorporated into bylaws for a parking overlay district which include:

- A waiver of parking requirements for certain use categories (typically applies to non-residential uses in the parking overlay district)
- Lower parking minimums and more stringent parking maximums
- Un-bundling parking for multi-family residential developments
- Language for new developments to pay a fee in-lieu of actually constructing new parking
- Inclusion of a shared parking bylaw
- Requirements that parking related revenue collected within the overlay district be reinvested back into the district to help pay for maintenance and improvements to parking and transportation infrastructure

Listed below are several recommendations which could fit under a parking overlay district and help the town of Foxborough limit and manage the parking assets in the downtown area.

Figure 10 - Distance from Potential Shared Parking Lots



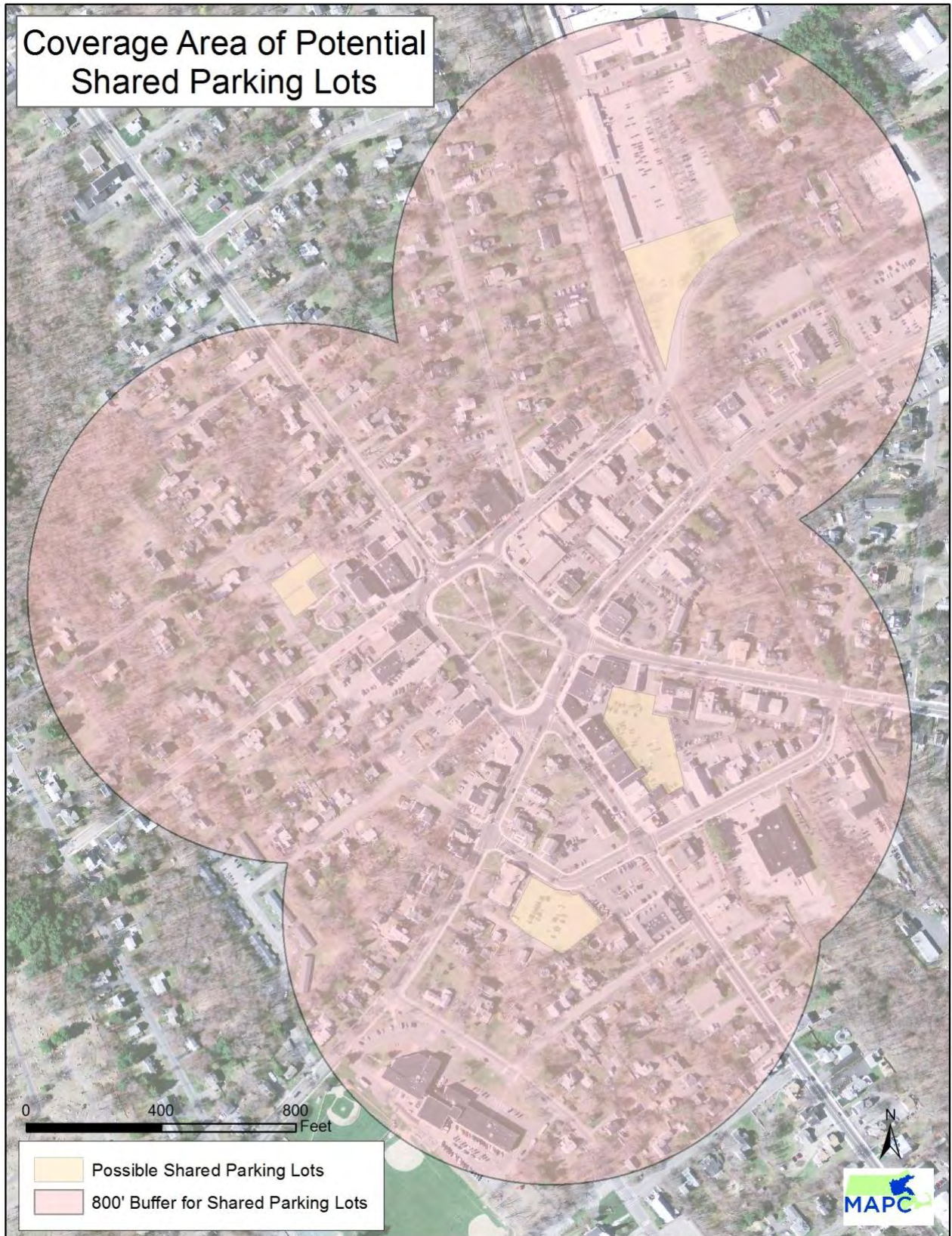
Parking Waivers

Given the relatively low utilization rate of existing on- and off-street parking in Downtown Foxborough, the town may want to consider establishing parking waivers for new development. Waiving parking requirements can be beneficial to both the town and developers. Parking waivers can create additional space on developable lots for buildings, open space, or other amenities that would have otherwise been covered by surface parking. This additional space has benefits to the town in the form of less impervious space contributing to stormwater runoff, more developable land area contributing additional tax revenue, and potential added open space as an amenity to the businesses and residents. Developers benefit from parking waivers by having more space on the parcel(s) to build upon, in turn generating added revenue for the developer on land that would have otherwise been used for parking. When developers are not required to build parking, they may be able to put more money into the aesthetic quality of the building or add more amenities that can benefit the downtown as a whole.

Parking waivers can be written to include a number of different provisions that regulate when and where waivers take place. Foxborough should consider some or all of these provisions if a parking waiver is applied to the downtown area:

- *Use Restrictions* – Parking waivers are often applied to non-residential uses like office and commercial/retail establishments. In a location like Downtown Foxborough that currently has few options for travel other than personal automobiles, residential parking waivers are not recommended because they may limit a developer’s ability to meet parking requirements from lenders or the developer’s ability to sell or rent the units. However, the existing amount of unutilized parking in the downtown would be enough to support a moderate level of new office, retail and restaurant uses. Residential and business parking should be treated differently because employees and business patrons come and go throughout the day and have a different parking utilization pattern than residents. Residential units tend to need long term parking, especially in the evenings, which could conflict with other uses in the downtown such as restaurants, bars, or the theater.
- *Size of the Development* – Foxborough should consider adding a size threshold to the parking waiver to cover a case of a large redevelopment project that could substantially change the character and layout of the downtown. A size threshold to consider could be buildings over 15,000 gross square feet which matches the parking requirement threshold in Table 6-1 under [Section 6.1.4 of the Foxborough Zoning Bylaw](#).
- *Distance to Shared Parking Areas* – Since the town already has several existing and some future opportunities for shared parking lots, there may be a need to set a distance threshold for new development and the waiving of parking requirements. **Figure 11** shows four parking lots (2 public and 2 private) that could be used for shared parking by existing and future development in the downtown. The light red shading indicates a distance of 800 feet from the center of each of the lots and shows these parking lots are in close proximity to any development in the downtown.

Figure 11 - Distance from Potential Shared Parking Lots



Several cities and towns in Massachusetts have created parking waivers within parking districts, central business districts, downtowns, or within specific zoning districts.

- [Amherst](#) – The town of Amherst created a Municipal Parking (MP) District in order to implement a separate set of parking regulations on development, namely establishing a waiver of off-street parking requirements within the District. The waiver applies to residential, retail, and research/industrial uses within the District. The MP District language can be found on page 82, Section 7.4 of their Zoning Bylaw.
- [Ipswich](#) – The town of Ipswich will waive parking requirements for businesses within the Central Business District (CBD) or if businesses are located within 500 feet of their two municipal parking lots. The Municipal Parking Lot Exemption can be found on page 45, Section VII, Bullet I.
- [Salem](#) – The city of Salem does not require off-street parking for any church or place of worship or secondary school or institution of higher education. The city also does not require parking for non-residential development within their Central Development (B5) District. Residential development within this district can also take advantage of locating their off-street parking in a municipal or other parking facility so long as it is within 1,000 feet of the facility. This information can be found on page 22, Section 5.1.9.
- [Walpole](#) – The town of Walpole does not require on-site parking for non-residential uses within the Central Business District zoning district or the East Walpole Center Parking Relief overlay district. Property owners who wish to provide parking for non-residential uses are required to follow the minimum parking standards found in the Zoning Bylaw. Information on Walpole’s parking relief can be found on page 57, Section 8.9 in the Zoning Bylaw.

Parking Minimums and Maximums

Parking minimums and maximums can establish upper and lower bounds for parking supply in an area or for particular uses in a municipality. Establishing a parking maximum, in conjunction with already established minimums in most zoning bylaws, can prevent a developer from providing too much parking. By lowering parking minimums and setting a ceiling with the maximums, developers also have added flexibility built into the bylaw to determine how much parking may actually be needed for a given development.

Section 6.1.6 of Foxborough’s Zoning Bylaw does allow for a parking reduction of up to 25% of the required parking for a development by issuance of a Special Permit from the Planning Board. While this can help ease parking requirements, there are no listed criteria or standards for the types of development proposals that qualify for the parking reduction, and much is left to the discretion of the Planning Board. Established parking minimums and maximums in a Zoning Bylaw would make it clear to a developer the lower and upper bounds for parking requirements desired by the town.

If a parking waiver is implemented for development under 15,000 square feet, MAPC would encourage the town to consider parking minimums and maximums to cover development over 15,000 square feet and all new residential development in the downtown area. This would help ensure that when parking is required, developers are constructing an appropriate amount considering the size of the development and the downtown location.

Table 7 compares Foxborough’s current parking requirements by use category to MAPC’s recommended parking minimums and maximums for uses that may be found in the downtown. It’s recommended that these parking changes be implemented through a mechanism like a downtown parking overlay district.

Table 7. Recommended Parking Minimums and Maximums

Use	Current Parking Ratio	Recommended Minimum	Recommended Maximum
Multi-Family Dwellings	2 per unit, 1 visitor space per 4 units	1 per unit	1.5 per unit
Retail Stores	4 per 1,000 S.F.	3 per 1,000 S.F.	3.5 per 1,000 S.F.
Office Space (non-medical)	4 per 1,000 S.F.	2.5 per 1,000 S.F.	3 per 1,000 S.F.
Office Space (medical)	6.7 per 1,000 S.F.	4 per 1,000 S.F.	5 per 1,000 S.F.
Restaurants, nightclubs, bars	7.5 per 1,000 S.F. ¹	6 per 1,000 S.F.	8 per 1,000 S.F.

¹ Assumes net square footage is 75% of the gross

Municipalities that have adopted parking maximums include:

- [Burlington](#) – The town of Burlington adopted minimum and maximum parking requirements for new development. These can be found on page 3, Section 7.2.0.
- [Bedford](#) – The town of Bedford adopted a town-wide set of parking maximums with the specifically stated intent of preventing the creation of unnecessary or surplus amounts of parking that can contribute to additional Single Occupancy Vehicle (SOV) trips.

Un-bundling Residential Parking

The cost of parking for residential units is often passed on to the occupants indirectly through the rent or purchase price ("bundled") rather than directly through a separate charge. For example, a three bedroom unit might come with two parking spaces included in the purchase price or rent. This means that tenants or owners are not able to purchase only as much parking as they need, and are not given the opportunity to save money by using fewer parking spaces. The alternative is to unbundle parking - rent or sell parking spaces separately, rather than automatically including them with building space. This is not only more equitable, but can also reduce the total amount of parking required for the building.

Unbundling can be done in several ways:

- Parking can be bought or rented separately when the apartment or condo is bought or leased

- Renters can be offered a discount on their rent for not using parking spaces
- Parking costs can be listed as a separate line item in lease agreements to show tenants the cost and enable them to negotiate reductions
- Unbundling can be encouraged informally by creating a market for available parking spaces - building managers can keep a list of tenants or owners with excess spaces available for rent

Fees In-Lieu of Parking

Municipalities can also elect to establish a fee in-lieu of parking system for developers who elect to not build as much parking as is required by the town's bylaw. Under this type of fee system, the town would have the ability to collect fees on an annual basis from the developer or property owner in exchange for providing the developer a partial or complete reduction in parking requirements. The fee can be charged annually or as a one-time cost to the developer, and is charged on a per parking space basis. The town can then use the fees collected to make specific improvements within the designated downtown parking overlay district. These improvements could be limited to parking-related costs such as striping, metering, enforcement, or the establishment of additional centralized parking facilities. The fees could also be used for improvements to pedestrian and bike facilities in the downtown like sidewalk improvements, bike racks or bike lanes that could help reduce the demand for vehicular parking spaces.

Several municipalities in Massachusetts have established a fee in-lieu of parking structure. Some examples are listed below:

- [Braintree](#) – The town of Braintree established an annual fee system for new uses or changed uses in the Village Zoning District where constrained sites caused developers to not be able to meet the minimum parking requirements. The fee charges are established through the Special Permit process and set by the Planning Board at a public meeting. Language detailing the fee in-lieu of parking can be found in Section 135-815.
- [Northampton](#) – The city of Northampton makes special provisions for meeting off-street parking requirements in the Central Business District. Payment in-lieu of parking is actually allowed by right in this district where a one-time fee of \$2,000 per space is paid by the developer to the City. The money can be used to add public parking, improve utilization of existing spaces or reduce the need for parking in the District. Language for this ordinance can be found in Section 350.8.10.
- [Oak Bluffs](#) – The town of Oak Bluffs allows uses in the B-1 zoning district that cannot meet their off-street parking requirements to make a payment in-lieu of providing the spaces. The payments are on an annual basis and charged per space. The payments range from \$50-\$100 per space depending on the number of spaces required. Language detailing this program can be found in Section 5.1.5.

Shared Parking Bylaw

A shared parking facility is one that serves multiple developments and destinations, and work best when they share patrons to encourage a behavior of parking once and walking to multiple destinations. It is critical that shared parking facilities support uses that have different peak parking demands to ensure parking spaces are available for businesses when their customers need them. Shared parking tends to work best as part of mixed use developments or existing downtowns and central business districts where a mix of uses already exists. For example, a mixed use development that includes office uses with a restaurant or movie theater would be a good candidate for shared parking because office workers use the parking during the workday and the restaurant and movie theater have peak hours in the evening and on weekends.

Shared parking can benefit businesses by reducing costs of developing and maintaining parking facilities and can also help promote foot traffic in the area by promoting a park once and walk arrangement. Shared parking can also free up land for new development that would have otherwise been used for parking for each individual development. New development can add to the vibrancy of the area and add to the municipal tax base. Finally, shared parking facilitates communication among individual businesses, and among a business district and neighborhood residents that may have never communicated otherwise.

There are a few different ways municipalities have incorporated shared parking regulations into their bylaws:

- For all uses, some bylaws include a parking credit schedule chart which contains a set of uses, a set of weekday and weekend peak periods, and percentages of peak demand by use by time period. To use the chart, a developer would calculate the minimum parking requirement for each use and multiply that use's requirement by the peak demand percentage for each time period. Then sum the total parking required for each peak time period, and use the highest total as the development's parking requirement.
- For non-competing uses, some bylaws require the developer to calculate the minimum number of parking spaces required for each use separately and then provide parking for the use with the highest minimum parking requirement. For example, if a mixed-use development has an office use requiring 20 parking spaces and a restaurant requiring 26 parking spaces the developer would be required to build 26 spaces.
- For competing uses, some bylaws provide a percentage reduction for shared parking facilities. This can be calculated by determining the minimum parking requirement for each use, summing the parking requirements of each use, and then reducing the total parking required by X percent.
 - Mixed use developments that include uses where some have daytime peak parking demands and others have nighttime peak demands (e.g., office vs. restaurant uses), a municipality may require a developer to calculate the daytime and nighttime parking demands separately to determine which set of uses has a higher

parking demand. The percentage discount would then be applied to the set of uses with the higher parking demand.

- Another method is to allow all parties sharing the parking to determine the appropriate number of spaces. The Urban Land Institute has an excellent publication titled [Shared Parking](#) which includes analytical methods and time-of-day parking utilization for local governments and developers to use to calculate parking needs for specific projects.

Several municipalities in Massachusetts have adopted variations on shared parking regulations in their bylaws and ordinances. Some examples include:

- [Walpole](#) – The town of Walpole established a shared parking bylaw that has calculations for both competing and non-competing uses. Language on shared parking can be found in on page 51 in Section 8.5.A.
- [Waltham](#) – The city of Waltham calculates minimum parking requirements for all developments having two or more distinguishable purposes (uses) by using a parking credit schedule chart. The City's shared parking schedule chart can be found in Article 5, Section 5.22.
- [SWAP Parking Bylaw](#) – MAPC created a model parking bylaw for the towns in the South West Advisory Planning Committee (SWAP) subregion. The parking bylaw contains examples of how to craft a shared parking bylaw, as well as other examples of model parking bylaws. Shared parking information can be found on page 20.

Cautions When Restricting Parking

Strategies for reducing parking in municipalities can be challenging for developers, property owners, business owners, and residents especially in locations where there is a real or perceived parking deficiency. If reductions are made to parking requirements through one or a combination of the ideas listed above, the municipality needs to manage and track parking assets closely to minimize any negative impacts. There are several steps municipalities can take in addition to changing the actual bylaw that can help ensure parking reduction policies are successful.

- Establish satellite and/or shared parking lots that can be used by existing and future developments. These parking lots can be municipally owned or privately owned, but need to be marketed as locations where visitors and employees can park during certain times of the day. The town could consider the lot at the Town Hall or work with other property owners around the downtown area to see if sharing parking is an option on their lots.
- Both the town and local businesses should work on creating parking maps that can be made available at Town Hall, at the Orpheum Theater, in local businesses, and online. Marketing the on- and off-street parking and drawing awareness to these locations can help reduce time spent by drivers circling certain blocks and areas looking for parking.

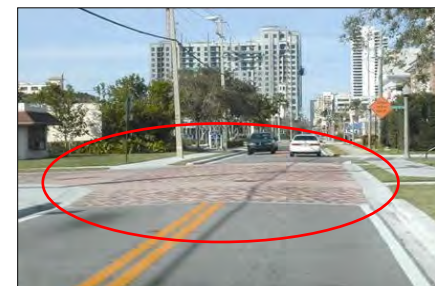
Wayfinding signage in the downtown area clearly directing people to off-street parking lots can also be very helpful to visitors looking for parking.

- The town should continue to monitor and manage parking for each development on a case by case basis and compare the parking impacts of a particular development on the overall parking supply and demand in the downtown. This parking inventory and report should be used as a baseline that the town can build off of.
- The town may want to require developers to provide a parking study as part of the development approval process to have a better sense of how a particular development will impact the parking assets in the downtown area. A parking study is particularly important when applying for a reduction in parking or to utilize off-site parking per section 6.1.2.2 of the Zoning Bylaw.

Infrastructure Investment Recommendations

In addition to making changes to the town's parking requirements, there are several infrastructure improvements that could help the relative comfort and safety of pedestrians who may be parking in a shared parking lot and walking to one or multiple destinations. The walkability of a downtown can greatly increase or inhibit the success of a shared parking plan. There are a number of low to medium cost improvements that can be made to improve the walking experience as pedestrians explore the downtown area.

- *Intersection and Mid-Block Curb Extensions* – Curb extensions reduce the crossing distance at intersections and mid-block locations providing faster and safer crossings for pedestrians. Curb extensions, particularly at mid-block locations, can help create higher visibility of crossing pedestrians to passing motorists reducing the chances of crashes involving vehicles and pedestrians.
- *Increase Size of Pedestrian Islands* – Creating larger pedestrian refuge islands at intersections is important for the safety and comfort of pedestrians. This is especially true for locations where one or more directions of traffic are not required to stop by either a stop sign or traffic signal. A pedestrian refuge island can be particularly helpful for slower moving pedestrians.
- *Speed Tables* – When traffic is traveling at higher rates of speed in locations where pedestrian crossings are high, speed tables can be an excellent way to slow traffic down and make crossing safer for pedestrians. Speed tables are typically designed as a raised platform and usually marked with striping or with colored pavement. The raised pavement forces vehicles to slow down as they go up and over the speed table.
- *High Visibility Crosswalks* – Utilizing a higher visibility design for crosswalks can greatly increase safety for crossing pedestrians and help raise awareness for vehicles that they should expect pedestrians to be crossing at these locations. The “ladder” style of crosswalk striping can be a low-cost high return safety improvement for higher volume crossing locations.



- *Crosswalk Signage* - Crosswalks should be coupled with the centerline “Yield to Pedestrians” sign. These signs have shown to be more visible and effective when compared to the traditional crosswalk signage found on the sides of the road.



SUMMARY AND RECOMMENDATIONS

In general, there is adequate on- and off-street parking in Downtown Foxborough for all of its existing uses during weekday and Saturday peaks, with additional room for parking demand created by potential new development. During observations, average occupancy was 21 percent on Saturday, and 33 percent on weekday observations. Peak occupancy was 34 percent on Saturday, and 44 percent during weekday observations, highlighting the fact that even at the busiest times over half of the parking spaces in the downtown area were available.

There is a perceived lack of parking in the downtown area but there are adequate numbers of available parking spaces within a 1-2 minute walk of every destination in the downtown. Many people seem unaware of the existing parking availability because of poor signage and marketing of the shared parking lots. Better wayfinding and parking signage would help residents and visitors find available parking. Encouraging increased pedestrian activity and increased use of the Town Hall and other shared parking lots for long-term parking and employee parking will free up on-street parking for short-term retail uses.

It does not seem appropriate at this time to build any new parking spaces in the downtown area for the existing uses, and it appears that a moderate amount of new development could be added without the need to construct additional parking spaces. Prior to new development occurring in the downtown, the Town should consider updating their current parking requirements and creating a downtown parking overlay district as a way to implement those changes.

A number of recommendations and next steps have been identified for this area, including:

Parking and Safety:

- On-street parking restrictions should be studied and determined whether or not they are appropriate
- Employee parking areas should be designated
- Wayfinding for public parking lots should be improved
- Loading areas should be designated
- Handicap parking areas should be reviewed and improvements should be made wherever necessary
- Pedestrian Safety should be prioritized and vehicular speeds should be reduced

Parking Guidelines:

- Create a parking overlay district, including elements such as parking waivers, parking minimums and maximums, unbundling residential parking spaces, fees in lieu of parking spaces, and a shared parking bylaw

Infrastructure Recommendations:

- Pedestrian improvements, including intersection and mid-block curb extensions, increase size of pedestrian islands, speed tables, high visibility crosswalks, and crosswalk signage

RESOURCES

There are several resources that could be used to put the recommendations into action. Local resources, both in terms of funding and staff time, will push the recommendations forward, but additional outside resources will likely be necessary for completing improvements. A listing of potential outside resources, which include planning toolkits and funding, is detailed below:

- Sustainable Transportation: Parking Toolkit – This toolkit is designed to help local officials, developers, citizen board members, and advocates understand the sources of parking issues in their communities and identify potential solutions. The strategies outlined in the toolkit address a variety of situations and concerns in ways that save money, protect the environment, support local businesses, and encourage alternatives to driving. <http://www.mapc.org/resources/parking-toolkit>
- SWAP Parking Bylaw – The SWAP Parking Bylaw Project develops a series of recommended regulations that can be adapted by individual communities to update existing parking requirements. The draft language can be modified by the Town Planner and Planning Board to suit a specific community, and presented to Town Meeting for incorporation into town zoning bylaws. The goal is to provide communities with information and tools to make informed decisions about parking so that the demand and supply are balanced and appropriate. <http://www.mapc.org/resources/swap-parking>
- Mixed Use Zoning Toolkit – Mixed Use Zoning: A Planners Guide presents the fundamentals you need to plan a mixed use bylaw. A version of the guide for citizens is also available for download. This guide is based primarily on the experiences of five suburban communities that have prepared bylaws with assistance from the Metropolitan Area Planning Council (MAPC), supported by grants from the state's Priority Development Fund. <http://www.mapc.org/resources/mixed-use-zoning-toolkit>
- Pedestrian Transportation Plan – This toolkit identifies actions local governments, advocacy organizations, the private sector, and individuals should take to encourage walking. The plan recommends policies and practices that will facilitate walking as a convenient, safe, and practical form of transportation. <http://www.mapc.org/resources/ped-plan>
- Downtown Revitalization – DHCD's Massachusetts Downtown Initiative (MDI) offers a range of services and assistance to communities seeking help on how to revitalize their downtowns. The primary mission of the MDI is to make downtown revitalization an integral part of community development in cities and towns across the Commonwealth. http://www.mass.gov/?pageID=eheadterminal&L=3&L0=Home&L1=Community+Development&L2=Community+Planning&sid=Ehed&b=terminalcontent&f=dhcd_cd_mdi_mdi&csid=Ehed