



**WALKER**  
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December 2, 2014

Richard Slingerland  
Village Manager  
Village of Mamaroneck  
123 Mamaroneck Avenue  
Mamaroneck, NY 10543

RE: Parking Study for the Village of Mamaroneck  
Mamaroneck, New York  
Walker Project #18-1197.00

Dear Mr. Slingerland:

Enclosed please find our Parking Study for the Village. The report includes the findings of our parking utilization study, an analysis of management techniques to improve the parking operation currently, a study of options to augment the parking supply, and a review of financial issues associated with the growth of the system.

Please do not hesitate to contact us if you have questions or would like to discuss the report further.

Sincerely,

WALKER PARKING CONSULTANTS

Carolyn H. Krasnow, Ph. D.  
Vice President

Megan Gardo  
Parking Analyst



Ahead of the Curve  
in creative parking solutions

PARKING DEMAND AND MANAGEMENT  
ANALYSIS

## VILLAGE OF MAMARONECK

FINAL REPORT  
DECEMBER 2, 2014



**WALKER**  
PARKING CONSULTANTS

PROJECT NO. 18-1197.00

PARKING DEMAND AND  
MANAGEMENT ANALYSIS

VILLAGE OF  
MAMARONECK  
MAMARONECK, NY

DECEMBER 2, 2014



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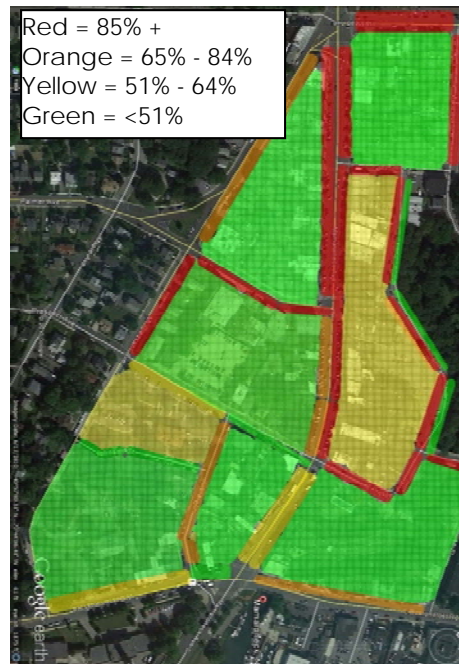
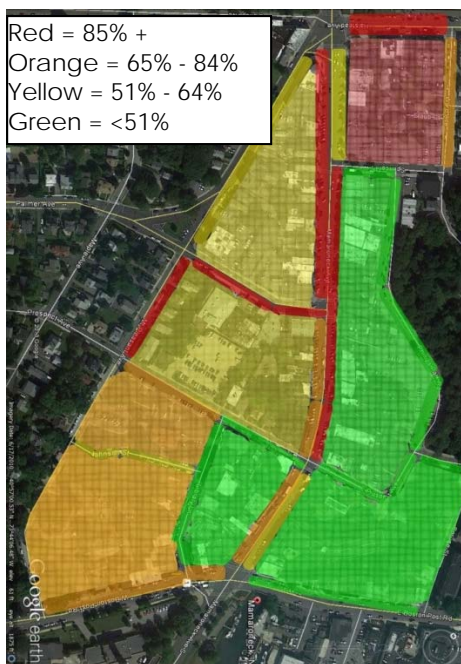
### EXECUTIVE SUMMARY

Walker was retained by the Village of Mamaroneck to prepare a parking study of conditions in the downtown area. There are three main tasks involved in the study:

- The first part of the study is designed to quantify parking utilization patterns in the downtown and determine whether parking is adequate to accommodate current demand, and project whether it will be adequate under anticipated future conditions.
- The second part of the study is to make recommendations to improve the functioning of the existing inventory. The goal is to improve the efficiency and customer service level of the existing system to that capacity is maximized before money is spent on additional resources (if needed).
- Part three of the study is to look at opportunities to increase the parking supply and project the impact on the Village budget of building more parking.

### DEMAND STUDY FINDINGS

Walker conducted occupancy counts of the parking system on a typical weekday and Saturday in October of 2013. Our counts found a significant surplus of parking available during both peaks (late morning on the weekday and dinner hour on the weekend). During these periods, there were over 150 public spaces available for use despite very crowded conditions along Mamaroneck Avenue. The “heat maps” below show the occupancy rates during the weekday and weekend peaks, respectively.



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Further insight into utilization patterns was gained through an hourly license plate survey<sup>1</sup> conducted along Mamaroneck Avenue between Prospect and Spencer during a weekday. The survey results are shown below. Out of 143 spaces surveyed, 27 were occupied for four or more hours by the same car (including cars that moved after two hours). These 27 cars used 143 hours-worth of parking time which, at an average stay of 1.2 hours in the area, could have served 119 retail or restaurant patrons. It is assumed that most, if not all, of the 4+ hour cars are employees in the area using Mamaroneck Avenue for convenience.

Area	Street:	Side:	From:	To:	Total Inventory	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	Total > 2 Hours
1	Mamaroneck Ave	E	Prospect	Palmer	34	162	17	5	0	0	0	0	0	0	5
2	Mamaroneck Ave	E	Palmer	Spencer	36	128	13	3	0	0	1	0	0	0	4
3	Mamaroneck Ave	W	Spencer	Palmer	37	127	16	4	0	0	0	2	0	0	6
4	Mamaroneck Ave	W	Palmer	Prospect	36	180	27	4	3	0	1	1	0	0	9
Total - Cars that remaining in same stall					143	597	73	16	3	0	2	3	0	0	24
Total including cars that moved after two hours								30	11	6	3	5	2	0	57

Our surveys suggest that the parking problem is, at this point, more an imbalance than a true lack of parking. People naturally prefer Mamaroneck Avenue parking for its convenience, but parking is available within a reasonable radius – especially along Phillips Park Road and in the Hunter Tier Garage. The imbalance is exacerbated by long-term parking along Mamaroneck Avenue by employees.

Detailed information on future growth in the downtown area is not available at this time. Larger-scale, new developments would be built with on-site parking, but infill developments on parcels that lack parking would generate demand for public parking. This includes existing properties that convert from uses like retail that generate parking at a lower rate (retail typically needs about 4 spaces per 1,000 sf) to those that generate at a very high rate like restaurants (upwards of 20 spaces per 1,000 sf). Thus if 10,000 square feet of retail converted to restaurant along Mamaroneck Avenue, the net new demand generated would likely tax the parking system. It is not clear when, or if, this level of growth in demand will occur.

## RECOMMENDATIONS

Given the findings of the utilization study, our recommendations are aimed at encouraging more balanced parking. Mamaroneck Avenue will always be the most convenient and most crowded, but the system can be improved. We recommend the following and refer the reader to the body of the report for a full discussion:

- Create a “no reparking” zone alone Mamaroneck Avenue and upgrade enforcement technologies to include license plate recognition cameras and software. This technology allows enforcement personnel to track license plates that stay longer than two hours, even if they move down the street.

<sup>1</sup> In the interest of privacy, we do not write full license plate numbers.



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- Install pay-by-license meters along Mamaroneck Avenue to streamline enforcement and offer a higher level of service for customers (credit cards instead of change, automatic warning if a patron tries to repark, capacity for pay-by-cell or other apps in the future).
- Convert all of the Phillips Park Road area to four-hour parking to ensure there is adequate parking for those visitors who do want to stay longer than two hours. Most other resources (Hunter Tier Lot etc.) are four-hour zones already.
- Increase the rate on Mamaroneck Avenue to \$1 but keep other areas at their current rates to provide an alternative to the rate increase. As a “premium product,” Mamaroneck Avenue’s rates should be markedly different than less convenient alternatives.
- Create a few 15-minute loading spaces on each block of Mamaroneck Avenue to make it easier for take-out customers and others with quick transactions to patronize businesses along Mamaroneck Avenue.
- Extend meter hours on Mamaroneck Avenue to 8:00 p.m. to keep nighttime employees from using that parking.
- As much as possible, minimize reserved permit areas and let permit parkers simply use metered spaces in certain areas. This will be a more efficient use of space and will require less confusing signage that makes the existing system hard for visitors to use.
- Review permit usage and update the number of permit spaces accordingly.
- As much as possible, remove permit restrictions at night. Hunter Tier lot in particular is a good overflow solution for the neighborhood but much of it is restricted.
- Work towards shared parking opportunities with private lot owners as feasible. Private lots had 150+ empty spaces at the peak hours; if agreements can be made that enable the public to use these spaces, the system will function more smoothly and be able to support more growth before investing in a garage.
- Upgrade downtown signage and wayfinding so that people can easily find, identify and understand restrictions for each public resource.
- Upgrade the Village’s parking page on its website so that visitors to the area can identify options in advance.

### SITE ALTERNATIVES FINDINGS

The Village asked Walker to review several sites that could potentially be locations for new garages if and when demand outstrips supply in the Village core. The sites included the Spencer Lot, the public lot behind CVS, and the Hunter Tier deck, which could potentially be part of a redevelopment of Village offices. Our analysis concluded the following:

- The CVS lot is well located, but is too narrow for a self-park garage. A robotic structure would work in this location, but since the garage is being developed with the restaurant peak in mind, we do not think robotic parking is the best solution. The number of lifts required to accommodate high turnover in a short span of time (e.g.,





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lots of people arriving for a 7 p.m. dinner reservation) could make this a challenging application.

- The Spencer lot is also a convenient location and, like the CVS lot, would be more efficient as a robotic structure. However, the same caveat regarding peak-hour loading applies. It would be feasible to put a self-park garage on this site, with the potential to add up to 82 spaces (a four-level structure) for a total of 128. At \$40,000 per stall, the total cost would be \$5,120,000.
- The Hunter Tier deck is fairly efficient, and could be rebuilt with the same configuration but expanded by one level (111 spaces) to a total of 292 spaces. At \$30,000 per space, the total cost would be \$8,760,000. The Hunter Tier lot is not as well located vis-à-vis the most congested areas in the downtown and is currently underutilized. However, with better policies regarding evening and weekend use, and with better signage, the garage could be a useful resource for downtown parkers.

### FINANCIAL CONSIDERATIONS

A projection of the parking system's revenue and expenses, including a projection of new demand associated with an increase in restaurant square footage (as discussed on page iv), suggests that the Village could support construction of a new garage on Spencer Place. In most cities, meter revenue helps support the debt service on new off-street parking, and that would be the case in Mamaroneck. Although the parking system could support the new structure, we project that it would generate \$500,000 less in surplus back to the General Fund.

Alternatively, there might be an opportunity to create a public-private partnership that would enable the Village to have a publically available parking structure built at no cost to the Village. These sorts of deals are increasingly common. More information on the type of deal and the future parking generators would be needed to prepare a projection.

# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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### INTRODUCTION

The Village of Mamaroneck has a dense, multi-use downtown that includes an active retail district, private and Village offices, theatres, and residences. Parking is perceived to be difficult in some parts of the Village core, particularly along Mamaroneck Avenue, which has become a popular dining area that generates a high volume of cars. The Village has discussed options, and commissioned this study to understand the current parking patterns and evaluate options for improving the system for current and future use.

The goal of this study is to analyze the parking system from a quantitative and qualitative perspective and identify solutions that will improve parking now and for the future.

### BACKGROUND

There is agreement in the Village that the parking along Mamaroneck Avenue is very crowded and concern that this is, or will likely become, a hindrance to the success of businesses on the Avenue. The Village has been working on parking improvements, and this study was initiated to add third-party expertise to help guide the on-going discussions within the Village. Recent reviews of the parking situation have come from The Mayor's Ad Hoc Committee on Parking and from the Village's Budget Committee. The Ad Hoc Committee has looked at potential to build automated, structured parking on some lots in the core Village area as a way of making additional resources available to support Mamaroneck Avenue business and downtown growth in general. The Budget Committee has focused on parking management and revenues, and recently recommended extending the hours on the parking meters along Mamaroneck Avenue and upgrading to multi-space meters.

### STUDY FOCUS

The Study Area outlined by the Village consists of approximately eight blocks located in the core business district, bordered by Halstead Avenue, Ward Avenue/Phillips Park Road, Boston Post Road and Mt. Pleasant Avenue. A map of the study area is detailed in the following figure. Blocks have been numbered for identification in subsequent tables. Elsewhere in the report, tables refer to parking lots by ID letters; these ID letters are shown in a map in the Appendix.

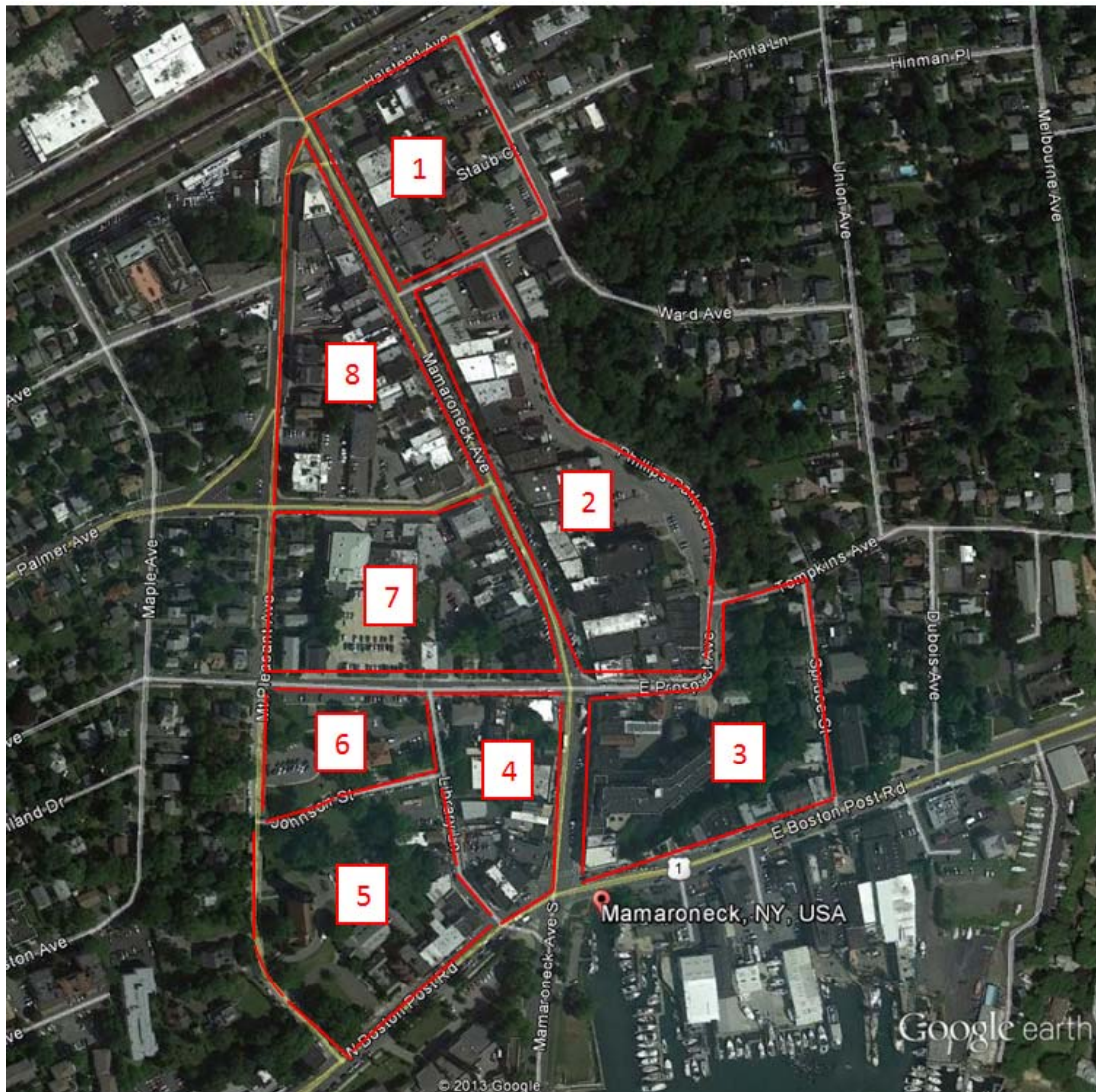
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Figure 1: Study Area



Source: Google & Walker Parking Consultants, 2013

### PUBLIC PERCEPTION AND INPUT

The opinions and perceptions of the community that lives with the parking system every day is an important input in an analysis of how a parking system functions. Walker attended a public session and encouraged public feedback via email and an on-line survey.

As is frequently the case in public forums, opinions expressed in the meeting, the online survey, and independent emails ran the gamut from “we need a garage” to “there are always spaces available.” In general, comments received were weighted more towards the latter; most of the speakers at the public meeting said that Mamaroneck Avenue gets very busy but that parking is always available on Phillips Park Road or in the Regatta Garage and Hunter Tier Parking Deck. The problem, in the opinion of many speakers, is that people either don’t know about these

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resources (e.g., people from other Westchester towns coming for dinner) or do not want to walk the extra distance. A few people commented that a garage is needed to offer a pool of parking that is conveniently located, and subsequent comments were received to that effect as well.

The concern shared by both sides, whether they think a garage is an appropriate solution or not, is that downtown businesses will potentially suffer (some think they already are) because of the crowding on Mamaroneck Avenue. People perceiving a lack of parking may stop people going to, or getting take-out from, restaurants in that area. Respondents to the on-line survey supported that:

<b>Were there times in the past when you would have liked to visit the Village of Mamaroneck but decided against it because you felt it would be difficult</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
No, never	25.0%	1
Rarely	25.0%	1
Sometimes	25.0%	1
Often	25.0%	1
<b><i>answered question</i></b>		<b>4</b>
<b><i>skipped question</i></b>		<b>0</b>

Take-out service was mentioned several times. Parking is particularly sensitive for this group because parking at a distance for a five-minute transaction does compromise the on-the-go quality of the take-out experience. Some people commented that even double parking and leaving a passenger in the car doesn't work because enforcement officers make the passengers move double-parked cars. A number of commenters felt that enforcement is a little too vigorous in this regard.

Enforcement was also mentioned several times. In addition to comments about enforcement being over-zealous, there were also comments advocating for an extension of the enforcement hours. It is noted that enforcement levels and overall number of tickets issued has remained fairly level over the past several years. These commenters felt that since the dinner hour is the difficult time and other municipalities nearby have longer meter hours, it would help restaurants rather than hurt them to extend the meters later into the evening. This was mentioned in emails and the survey, as well.

Finally, many commenters who thought parking was adequate overall felt that some of the problem is due to store owners and employees parking on Mamaroneck Avenue and moving their cars every few hours to avoid tickets. A few people disagreed, but the complaint came up repeatedly.

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### CURRENT CONDITIONS

#### PARKING SUPPLY

Our inventory of parking supply in the study area found a total of 1,429± spaces in the Study Area. Table 1 shows the breakdown by block and by type. Please note that the designations “public” and “private” have nothing to do with ownership, but rather with how lots are used. A public lot is any lot available to the general public for free or for a rate. A private lot is any lot, even if owned by a public entity, that is restricted to particular user groups (“customer only” or “resident parking,” for example).

Table 1: Parking Supply

Block	Public		Private	Total
	On-Street	Off-Street	Off-Street	
1	51	46	46	143
2	138	99	41	278
3	49	66	155	270
4	18	15	13	46
5	41	16	80	137
6	44	23	18	85
7	50	212	33	295
8	82	0	93	175
Total	473	477	479	1,429

Source: Walker Parking Consultants, 2013

In addition to identifying public and private parking on each block, Walker further separated the parking supply to distinguish between permit, metered, or reserved/other spaces, as shown in Tables 2 and 3. A full inventory of all lots and block faces is included in Appendix A.

Table 2: On-Street Parking Supply

Block	On Street Permit	On Street Meter	On Street Other	On Street Subtotal
1	0	51	0	51
2	32	106	0	138
3	0	49	0	49
4	0	18	0	18
5	18	15	8	41
6	8	23	13	44
7	0	36	14	50
8	0	68	14	82
Total	58	366	49	473

Source: Walker Parking Consultants, 2013



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In Mamaroneck, approximately one third of the available parking supply is located on-street. On-street parking is the preferred parking option for most customers. The Village has designated some spaces as reserved for specific users or permit holders, but the majority of available parking is metered.

The majority of off-street parking in downtown Mamaroneck consists of public and private surface parking lots. However, there are two parking garages within the Study Area – the Regatta garage on block 3 and the Hunter Tier Deck on block 7.

**Table 3: Off-Street Parking Supply**

Block	Permit		Meter		Public Total	Reserved		Reserved Total
	Surface	Garage	Surface	Garage		Garage	Off-Street	
1	23	0	23	0	46	0	46	46
2	26	0	73	0	99	0	41	41
3	22	21	3	20	66	124	31	155
4	0	0	15	0	15	0	13	13
5	16	0	0	0	16	0	80	80
6	23	0	0	0	23	0	18	18
7	0	148	0	64	212	0	33	33
8	0	0	0	0	0	0	93	93
<b>Total</b>	<b>110</b>	<b>169</b>	<b>114</b>	<b>84</b>	<b>477</b>	<b>124</b>	<b>355</b>	<b>479</b>

Source: Walker Parking Consultants, 2013

### EFFECTIVE PARKING SUPPLY

When we evaluate the ability of a parking system to accommodate demand, we do not assume that every last space in the inventory can be used efficiently. When occupancy rates are very high, people have a difficult time finding the last few spaces, and circulation problems ensue. Also, there are inevitably mis-parked vehicles, minor construction, or other obstructions that prevent every last space from being used. Therefore, we consider a parking system to be at its “effective” capacity before it reaches 100 percent occupancy.

The analysis of the parking system uses a reduced, or “effective” supply, adjusted to account for the circulation and operation cushions needed to make the system run smoothly. The reduction is 5 to 15 percent of the supply, depending on the following factors:

- Capacity – Large, scattered surface lots operate less efficiently than a more compact facility, such as a parking structure, which offers consolidated parking in which traffic generally passes more available parking spaces in a more compact area. Moreover, it is more difficult to find the available spaces in a widespread parking area than a centralized parking facility.
- Type of users – Monthly or regular parking patrons can find the available spaces more efficiently than infrequent visitors because they are familiar with the layout of the parking facility and typically know where the spaces will be available when they are parking.

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- On-street vs. off-street – On-street parking spaces are less efficient than off-street spaces due to the time it takes patrons to find the last few vacant spaces. In addition, patrons are typically limited to one side of the street at a time and often must parallel park in traffic to use the space. Many times on-street spaces are not striped or are signed in a confusing manner, thereby leading to lost spaces and frustrated parking patrons.

In the current analysis, on-street parking is adjusted by a 15 percent effective supply factor, because of the relative difficulty of finding an open space while negotiating traffic. Public off-street parking is adjusted by 10 percent to account for user unfamiliarity and the challenges of safely navigating the area while searching for a space. Private off-street parking is adjusted by five percent because employees or repeat users are familiar with the area and generally park in the same location each day. The Study Area contains a total of 1,429± spaces before any adjustments are made to account for an effective supply. After the effective supply factor is applied to the overall supply numbers, the Study Area's effective supply is 1,286± spaces, as shown in Table 4.

Table 4: Effective Parking Supply Summary

Block	Public		Private	Total
	On-Street	Off-Street	Off-Street	
1	43	41	44	128
2	117	89	39	245
3	42	59	147	248
4	15	14	12	41
5	35	14	76	125
6	37	21	17	75
7	43	191	31	265
8	70	0	88	158
Total	402	429	455	1,286

Source: Walker Parking Consultants, 2013

### WEEKDAY CONDITIONS

To determine the parking patterns of patrons in the Study Area, the usage of parking facilities located in the Study Area was evaluated. An understanding of these parking patterns helps define both patron types and parking locations. Occupancy counts were taken for on- and off-street parking spaces on Tuesday, October 22<sup>nd</sup>. The weekday Survey Day was deemed representative of typical conditions in Mamaroneck, insofar as no special events or school holidays were in effect and the weather was not unusual.

Three counts were taken at 11:00 am, 2:00 pm and 6:00 p.m. The following tables summarize the observed occupancy rates for on-street and off-street parking by block. 11:00 a.m. was the overall peak hour, which is typical in areas with office presence. The discussion that follows focuses on this peak hour. (Patterns for the evening peak are covered in the section on weekend demand.)



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Table 5: Peak Weekday Parking Occupancy Summary

Block	% On-Street Occupied		% Public Off-Street Occupied		% Private Off-Street Occupied		% Total Occupied	
1	36	71%	35	76%	46	100%	117	82%
2	67	49%	40	40%	23	56%	130	47%
3	24	49%	33	50%	69	45%	126	47%
4	13	72%	6	40%	4	31%	23	50%
5	20	49%	4	25%	61	76%	85	62%
6	29	66%	20	87%	10	56%	59	69%
7	43	86%	107	50%	19	58%	169	57%
8	72	88%	0	0%	55	59%	127	73%
Total	304	64%	245	51%	287	60%	836	59%

Source: Walker Parking Consultants, 2013

Overall, peak occupancy occurred with 836± vehicles parked or 59 percent occupancy. On-street and private off-street spaces were occupied at higher percentages (64 and 60, respectively) than the overall rate. A heat map is shown below.

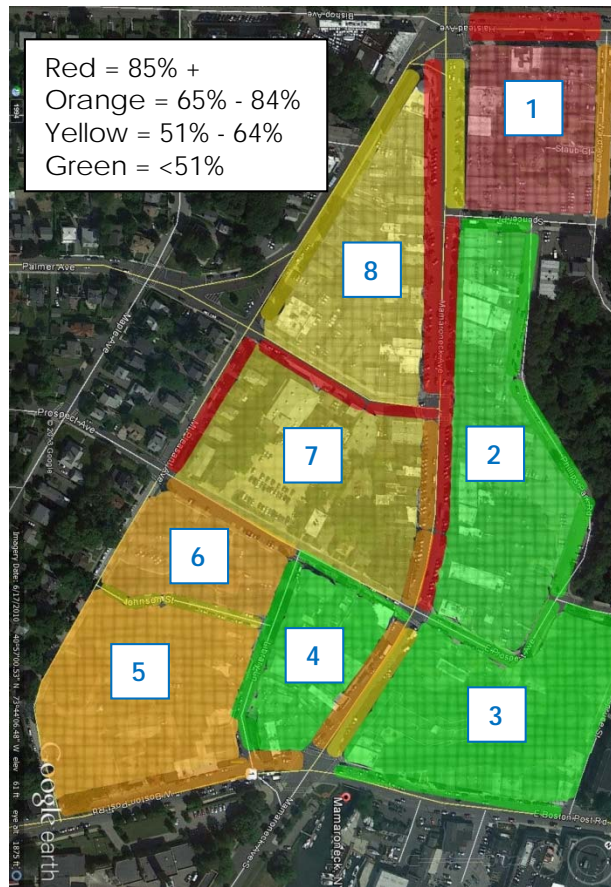
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Figure 2: Weekday Peak Hour - 11 a.m.



Source: Walker Parking Consultants, 2013

### *OFF-STREET PARKING OCCUPANCY*

Several lots on blocks 1, 2, and 6 experienced parking occupancy rates greater than 85%. It is important to note that the high occupancy rates are mostly in small lots – the two busiest lots on block 2 have less than 10 spaces, and the permit lot on Spencer Place (Lot I on Block 1) only has 23 (as does Lot E on block 6). The occupancy of the largest lot on block 2, lot J (metered lot behind CVS), was only 56%.

The letters applied to each facility in the tables that follow refer to the lettering system on the lot identification maps provided in Appendix A.

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Table 6: Peak Weekday Occupancy – Off-Street

Block	Facility	Permit Spaces		Metered Spaces		Public Subtotal	Reserved Spaces		Private Subtotal
		Lot	Garage	Lot	Garage		Garage	Lot	
1	Lot E							92%	92%
1	Lot F							107%	107%
1	Lot G							80%	80%
1	Lot H			52%		52%			
1	Lot I	100%				100%			
2	Lot C							64%	64%
2	Lot D	64%				64%			
2	Lot E	125%				125%			
2	Lot F							100%	100%
2	Lot G							40%	40%
2	Lot H							100%	100%
2	Lot I	100%				100%			
2	Lot J			56%		56%		0%	0%
2	Lot K	0%				0%			
2	Lot R							29%	29%
3	Lot D	33%				33%		61%	61%
3	Lot E		52%		75%		42%		42%
3	Lot F	25%		33%		26%			
3	Lots G and H							46%	46%
4	Lot C							31%	31%
4	Lot D			40%		40%			
5	Lot D	25%				25%			
5	Lot E							76%	76%
6	Lot E	87%				87%			
6	Lot F							56%	56%
7	Lot A		39%		77%				
7	Lot C							43%	43%
7	Lot D							83%	83%
8	Lot B through I							59%	59%
<b>Total</b>		<b>62%</b>	<b>41%</b>	<b>39%</b>	<b>76%</b>	<b>51%</b>	<b>42%</b>	<b>66%</b>	<b>60%</b>

Source: Walker Parking Consultants, 2013

### ON-STREET PARKING OCCUPANCY

Table 7 shows a detailed breakdown of the peak hour parking occupancy for on-street spaces by type. During the 11:00 a.m. peak, 64% of the available on-street parking was occupied; as with off-street parking, occupancy varied. Occupancy of Mamaroneck Avenue was high in some areas but not overall, since retail and restaurant demand pick up later in the day. By 2:00 p.m. Mamaroneck Avenue was busy on every block face.

# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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Table 7: Peak Weekday Occupancy – On-Street

Block	Facility	On Street Permit	On Street Meter	On Street Other	On Street Subtotal
1	Mamaroneck		57%		57%
1	Halstead		100%		100%
1	Ward		75%		75%
2	Mamaroneck		67%		67%
2	Spencer		0%		0%
2	Phillips Park Inner		0%		0%
2	Phillips Park Outer	63%	0%		36%
3	Mamaroneck		52%		52%
3	Prospect/Tompkins		33%		33%
3	Boston Post		50%		50%
4	Mamaroneck		80%		80%
4	Boston Post		33%		33%
5	Johnson	61%			61%
5	Library Lane		0%	0%	0%
5	Boston Post		70%	67%	69%
6	Prospect/Tompkins		74%	67%	73%
6	Johnson	50%		60%	56%
7	Mamaroneck		81%		81%
7	Palmer			100%	100%
7	Mount Pleasant			100%	100%
8	Mamaroneck		97%		97%
8	Mount Pleasant		75%	50%	56%
<b>Total</b>		<b>60%</b>	<b>65%</b>	<b>63%</b>	<b>64%</b>

Source: Walker Parking Consultants, 2013

### PARKING ADEQUACY SUMMARY

Parking adequacy is the ability of the parking supply to accommodate the parking demand. The observed occupancy was subtracted from the effective supply to determine the adequacy for the Study Area. The parking adequacy for the Study Area is summarized in tables 8-10.

# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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Table 8: Peak Weekday Parking Adequacy Summary

Block	On-Street			Public Off-Street			Private Off-Street			Total		
	Effective Supply	Demand	Adequacy	Effective Supply	Demand	Adequacy	Effective Supply	Demand	Adequacy	Effective Supply	Demand	Adequacy
1	43	36	7	41	35	6	44	46	(2)	128	117	11
2	117	67	50	89	40	49	39	23	16	245	130	115
3	42	24	18	59	33	26	147	69	78	248	126	122
4	15	13	2	14	6	8	12	4	8	41	23	18
5	35	20	15	14	4	10	76	61	15	125	85	40
6	37	29	8	21	20	1	17	10	7	75	59	16
7	43	43	(1)	191	107	84	31	19	12	265	169	96
8	70	72	(2)	0	0	0	88	55	33	158	127	31
Total	402	304	98	429	245	184	455	287	168	1,286	836	450

Source: Walker Parking Consultants, 2013

Overall, adequate parking is available to support peak weekday parking demand. Peak weekday parking adequacy occurred with a surplus of 450 spaces during the 11 o'clock A.M. hour. Even omitting private spaces, there were over 275 vacant spaces. Much of that supply was allocated in the lots and metered spaces along Phillips Park Road and in the Hunter Tier Garage on block 7. With the exception of Block 8, every block had a public surplus of some kind.

# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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Table 9: Peak Weekday Parking Adequacy – Off-Street

Block	Facility	Permit Parking			Metered Parking			Reserved/Private Parking		
		Effective Supply	Occ.	Adequacy	Effective Supply	Occ.	Adequacy	Effective Supply	Occ.	Adequacy
1	Lot E	0	0	0	0	0	0	12	12	0
1	Lot F	0	0	0	0	0	0	27	30	(3)
1	Lot G	0	0	0	0	0	0	5	4	1
1	Lot H	0	0	0	21	12	9	0	0	0
1	Lot I	21	23	(2)	0	0	0	0	0	0
2	Lot L	0	0	0	25	0	25	0	0	0
2	Lot C	0	0	0	0	0	0	10	7	3
2	Lot D	10	7	3	0	0	0	0	0	0
2	Lot E	3	4	(1)	0	0	0	0	0	0
2	Lot F	0	0	0	0	0	0	8	8	(0)
2	Lot G	0	0	0	0	0	0	5	2	3
2	Lot H	0	0	0	0	0	0	4	4	(0)
2	Lot I	4	4	(0)	0	0	0	0	0	0
2	Lot J	0	0	0	41	25	16	6	0	6
2	Lot K	7	0	7	0	0	0	0	0	0
2	Lot R	0	0	0	0	0	0	7	2	5
3	Lot D	5	2	3	0	0	0	17	11	6
3	Lot E	19	11	8	18	15	3	118	52	66
3	Lot F	14	4	10	3	1	2	0	0	0
3	Lots G and H	0	0	0	0	0	0	12	6	6
4	Lot C	0	0	0	0	0	0	12	4	8
4	Lot D	0	0	0	14	6	8	0	0	0
5	Lot D	14	4	10	0	0	0	0	0	0
5	Lot E	0	0	0	0	0	0	76	61	15
6	Lot E	21	20	1	0	0	0	0	0	0
6	Lot F	0	0	0	0	0	0	17	10	7
7	Lot A	133	58	75	58	49	9	0	0	0
7	Lot C	0	0	0	0	0	0	20	9	11
7	Lot D	0	0	0	0	0	0	11	10	1
8	Lot B through I	0	0	0	0	0	0	88	55	33
Total		251	137	114	178	108	70	455	287	168

Source: Walker Parking Consultants, 2013

# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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Table 10: Peak Weekday Parking Adequacy – On-Street

Block	Facility	Total Effective Supply	Total Demand	Adequacy			Total Adequacy
				On Street Permit	On Street Meter	On Street Other	
1	Mamaroneck	24	16	0	8	0	8
1	Halstead	9	11	0	(2)	0	(2)
1	Ward	10	9	0	1	0	1
2	Mamaroneck	60	47	0	13	0	13
2	Spencer	3	0	0	3	0	3
2	Phillips Park Inner	9	0	0	9	0	9
2	Phillips Park Outer	47	20	7	20	0	27
3	Mamaroneck	23	14	0	9	0	9
3	Prospect/Tompkins	5	2	0	3	0	3
3	Boston Post	14	8	0	6	0	6
4	Mamaroneck	13	12	0	1	0	1
4	Boston Post	3	1	0	2	0	2
5	Johnson	15	11	4	0	0	4
5	Library Lane	9	0	0	4	4	9
5	Boston Post	11	9	0	2	1	2
6	Prospect/Tompkins	22	19	0	3	1	3
6	Johnson	15	10	3	0	3	5
7	Mamaroneck	31	29	0	2	0	2
7	Palmer	3	3	0	0	(0)	(0)
7	Mount Pleasant	9	11	0	0	(2)	(2)
8	Mamaroneck	54	62	0	(8)	0	(8)
8	Mount Pleasant	15	10	0	0	5	5
<b>Total</b>		<b>402</b>	<b>304</b>	<b>14</b>	<b>73</b>	<b>11</b>	<b>98</b>

Source: Walker Parking Consultants, 2013



# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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### WEEKEND CONDITIONS

#### *PARKING OCCUPANCY*

Weekend occupancy counts were taken for on- and off-street parking spaces on Saturday, October 26<sup>th</sup>. The Survey Day was deemed representative of typical conditions in Mamaroneck. Three counts were taken at 11:00 am, 2:00 pm and 6:00 p.m. Table 11 summarizes the observed occupancy rates for on-street and off-street parking by block.

Table 11: Peak Weekend Parking Occupancy

Block	% On-Street Occupied		% Public Off-Street Occupied		% Private Off-Street Occupied		% Total Occupied	
1	48	45%	31	43%	9	28%	88	62%
2	100	67%	51	33%	29	59%	180	65%
3	34	67%	33	39%	72	51%	139	51%
4	9	56%	6	53%	6	0%	21	46%
5	24	71%	8	0%	39	50%	71	52%
6	21	52%	15	74%	8	22%	44	52%
7	43	94%	95	40%	19	70%	157	53%
8	78	82%	0	0%	42	48%	120	69%
Total	357	75%	239	50%	224	47%	820	57%

Source: Walker Parking Consultants, 2013

Peak parking demand occurred around 6:00 p.m. with approximately 820 spaces or 57% of the total supply occupied. Both public and private off-street parking occupancy was lower than the overall average (50% and 47%, respectively), while the on-street parking occupancy was significantly greater than the overall average (75%).

On-street, public off-street, and private off-street parking occupancies varied significantly on a block-by-block basis. Walker observed some blocks less than 50 percent occupied, while other blocks were more than 90 percent occupied. Additionally, parking occupancies varied on a facility-by-facility and street-by-street basis. A more in-depth analysis of the on- and off-street parking demand is included in the sections below.

# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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Figure 3: Weekend Peak Hour – 6 p.m.



Source: Walker Parking Consultants, 2013.

### *OFF-STREET PARKING OCCUPANCY*

During the evening peak, several lots on blocks 2 and 3 experienced parking occupancy rates greater than 85%. Unlike weekday conditions where the parking occupancy was mixed from lot to lot, Walker observed high occupancies in both the small private lots and largest lot, lot J (metered lot behind CVS), on block 2.

While there were hotspots of parking demand within the Study Area, generally the off-street parking occupancy was low.

# VILLAGE OF MAMARONECK PARKING STUDY

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Table 12: Peak Weekend Occupancy – Off-Street

Block	Facility	Off-Street Permit	Garage Permit	Off-Street Meter	Garage Meter	Public Subtotal	Garage Reserved	Off-Street Private	Private Subtotal
1	Lot E							15%	15%
1	Lot F							21%	21%
1	Lot G							20%	20%
1	Lot H			78%		78%			
1	Lot I	57%				57%			
2	Lot C							55%	55%
2	Lot D	45%				45%			
2	Lot E	100%				100%			
2	Lot F							100%	100%
2	Lot G							140%	140%
2	Lot H							100%	100%
2	Lot I	50%				50%			
2	Lot J			87%		87%		0%	0%
2	Lot K	25%				25%			
2	Lot R							57%	57%
3	Lot D	83%				83%		44%	44%
3	Lot E		29%		55%		48%		48%
3	Lot F	50%		100%		58%			
3	Lots G and H							31%	31%
4	Lot C							46%	46%
4	Lot D			40%		40%			
5	Lot D	50%				50%			
5	Lot E							49%	49%
6	Lot E	65%				65%			
6	Lot F							44%	44%
7	Lot A		32%		73%				
7	Lot C							43%	43%
7	Lot D							83%	83%
8	Lot B through I							45%	45%
<b>Total</b>		<b>55%</b>	<b>32%</b>	<b>58%</b>	<b>69%</b>	<b>50%</b>	<b>48%</b>	<b>46%</b>	<b>47%</b>

Source: Walker Parking Consultants, 2013

### ON-STREET PARKING OCCUPANCY

Seventy-five percent of the available on-street parking was occupied during peak weekend conditions. While Walker observed a few blocks with parking occupancies less than 65%, the majority of the available on-street parking supply was at least 75% occupied, with several streets well above their effective supply.

# VILLAGE OF MAMARONECK PARKING STUDY

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Table 13: Peak Weekend Occupancy – On-Street

Block	Facility	On Street Permit	On Street Meter	On Street Other	On Street Subtotal
1	Mamaroneck		93%		93%
1	Halstead		100%		100%
1	Ward		92%		92%
2	Mamaroneck		90%		90%
2	Spencer		100%		100%
2	Phillips Park Inner		90%		90%
2	Phillips Park Outer	63%	22%		45%
3	Mamaroneck		56%		56%
3	Prospect/Tompkins		100%		100%
3	Boston Post		81%		81%
4	Mamaroneck		60%		60%
4	Boston Post		0%		0%
5	Johnson	44%			44%
5	Library Lane		100%	60%	80%
5	Boston Post		80%	0%	62%
6	Prospect/Tompkins		61%	0%	54%
6	Johnson	75%		10%	39%
7	Mamaroneck		81%		81%
7	Palmer			100%	100%
7	Mount Pleasant			100%	100%
8	Mamaroneck		100%		100%
8	Mount Pleasant		75%	79%	78%
<b>Total</b>		<b>59%</b>	<b>80%</b>	<b>59%</b>	<b>75%</b>

Source: Walker Parking Consultants, 2013

It is important to note that while the overall weekend parking demand occurred at 5:00 p.m., on-street parking demand was higher during the 2:00 p.m. count, with 81% of the total available parking supply occupied.

# VILLAGE OF MAMARONECK PARKING STUDY

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### PARKING ADEQUACY SUMMARY

Table 14: Peak Weekend Parking Adequacy Summary

Block	On-Street			Public Off-Street			Private Off-Street			Total		
	Effective Supply	Demand	Adequacy	Effective Supply	Demand	Adequacy	Effective Supply	Demand	Adequacy	Effective Supply	Demand	Adequacy
1	43	48	(5)	41	31	10	44	9	35	128	88	40
2	117	100	17	89	51	38	39	29	10	245	180	65
3	42	34	8	59	33	26	147	72	75	248	139	109
4	15	9	6	14	6	8	12	6	6	41	21	20
5	35	24	11	14	8	6	76	39	37	125	71	54
6	37	21	16	21	15	6	17	8	9	75	44	31
7	43	43	(1)	191	95	96	31	19	12	265	157	108
8	70	78	(8)	0	0	0	88	42	46	158	120	38
Total	402	357	45	429	239	190	455	224	231	1,286	820	466

Source: Walker Parking Consultants, 2013

Overall, adequate parking is available to support peak weekend parking demand. Peak weekend parking adequacy occurred with a surplus of 466 spaces during the evening count. Even disregarding private spaces that are not available to the general public, there were over 200 vacant public spaces.

Block-by-block parking adequacy is shown in the following tables. There was a significant surplus of parking available in the garage on block 7(almost 100 spaces), most of it located on the permit level of the garage. Phillips Park Road also showed a significant surplus. Block 8 was the only block with insufficient public resources to accommodate any more demand. However, that block has a large surplus of private parking. Some other blocks had slim margins, but significant surpluses remained on nearby blocks.

# VILLAGE OF MAMARONECK PARKING STUDY

## PARKING STUDY – FINAL REPORT



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Table 15: Peak Weekend Parking Adequacy – Off-Street

Block	Facility	Permit Parking			Metered Parking			Reserved/Private Parking		
		Effective Supply	Occ.	Adequacy	Effective Supply	Occ.	Adequacy	Effective Supply	Occ.	Adequacy
1	Lot E	0	0	0	0	0	0	12	2	10
1	Lot F	0	0	0	0	0	0	27	6	21
1	Lot G	0	0	0	0	0	0	5	1	4
1	Lot H	0	0	0	21	18	3	0	0	0
1	Lot I	21	13	8	0	0	0	0	0	0
2	Lot L	0	0	0	25	0	25	0	0	0
2	Lot C	0	0	0	0	0	0	10	6	4
2	Lot D	10	5	5	0	0	0	0	0	0
2	Lot E	3	3	(0)	0	0	0	0	0	0
2	Lot F	0	0	0	0	0	0	8	8	(0)
2	Lot G	0	0	0	0	0	0	5	7	(2)
2	Lot H	0	0	0	0	0	0	4	4	(0)
2	Lot I	4	2	2	0	0	0	0	0	0
2	Lot J	0	0	0	41	39	2	6	0	6
2	Lot K	7	2	5	0	0	0	0	0	0
2	Lot R	0	0	0	0	0	0	7	4	3
3	Lot D	5	5	0	0	0	0	17	8	9
3	Lot E	19	6	13	18	11	7	118	60	58
3	Lot F	14	8	6	3	3	(0)	0	0	0
3	lots G and	0	0	0	0	0	0	12	4	8
4	Lot C	0	0	0	0	0	0	12	6	6
4	Lot D	0	0	0	14	6	8	0	0	0
5	Lot D	14	8	6	0	0	0	0	0	0
5	Lot E	0	0	0	0	0	0	76	39	37
6	Lot E	21	15	6	0	0	0	0	0	0
6	Lot F	0	0	0	0	0	0	17	8	9
7	Lot A	133	48	85	58	47	11	0	0	0
7	Lot C	0	0	0	0	0	0	20	9	11
7	Lot D	0	0	0	0	0	0	11	10	1
8	Lot B - I	0	0	0	0	0	0	88	42	46
		251	115	136	178	124	54	455	224	231

Source: Walker Parking Consultants, 2013

### ON-STREET PARKING ADEQUACY

Most of the on-street parking surpluses were in locations farther from the core area and its Saturday night destinations (block 6, etc.). However, the on-street parking along Phillips Park Road continued to show a surplus which, when combined with the public lot "L" in the same area, creates a significant pool of available parking.

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Table 16: Peak Weekend Parking Adequacy – On-Street

Block	Facility	Total Effective Supply	Total Demand	Adequacy			Total Adequacy
				On Street Permit	On Street Meter	On Street Other	
1	Mamaroneck	24	26	0	(2)	0	(2)
1	Halstead	9	11	0	(2)	0	(2)
1	Ward	10	11	0	(1)	0	(1)
2	Mamaroneck	60	63	0	(4)	0	(4)
2	Spencer	3	3	0	(0)	0	(0)
2	Phillips Park Inner	9	9	0	(1)	0	(1)
2	Phillips Park Outer	47	25	7	15	0	22
3	Mamaroneck	23	15	0	8	0	8
3	Prospect/Tompkins	5	6	0	(1)	0	(1)
3	Boston Post	14	13	0	1	0	1
4	Mamaroneck	13	9	0	4	0	4
4	Boston Post	3	0	0	3	0	3
5	Johnson	15	8	7	0	0	7
5	Library Lane	9	8	0	(1)	1	1
5	Boston Post	11	8	0	1	3	3
6	Prospect/Tompkins	22	14	0	6	3	8
6	Johnson	15	7	1	0	8	8
7	Mamaroneck	31	29	0	2	0	2
7	Palmer	3	3	0	0	(0)	(0)
7	Mount Pleasant	9	11	0	0	(2)	(2)
8	Mamaroneck	54	64	0	(10)	0	(10)
8	Mount Pleasant	15	14	0	0	1	1
<b>Total</b>		<b>402</b>	<b>357</b>	<b>15</b>	<b>17</b>	<b>13</b>	<b>45</b>

Source: Walker Parking Consultants, 2013

### SUMMARY OF FINDINGS – PARKING DEMAND

The counts show a healthy surplus of parking during both the weekday daytime peak and the Saturday evening peak. Meter revenue data from the Village shows a fairly even level of parking revenue from month to month, so we assume our October counts were fairly typical.

Over 160 private spaces were empty during both peaks, but even omitting them from the analysis and disregarding public surplus farther from the core area (Mt. Pleasant near Boston Post Road, say), we still count over 150 vacant public spaces during both periods of time. Many of these spaces are in permit areas, a point we will return to in our management analysis.



# VILLAGE OF MAMARONECK PARKING STUDY

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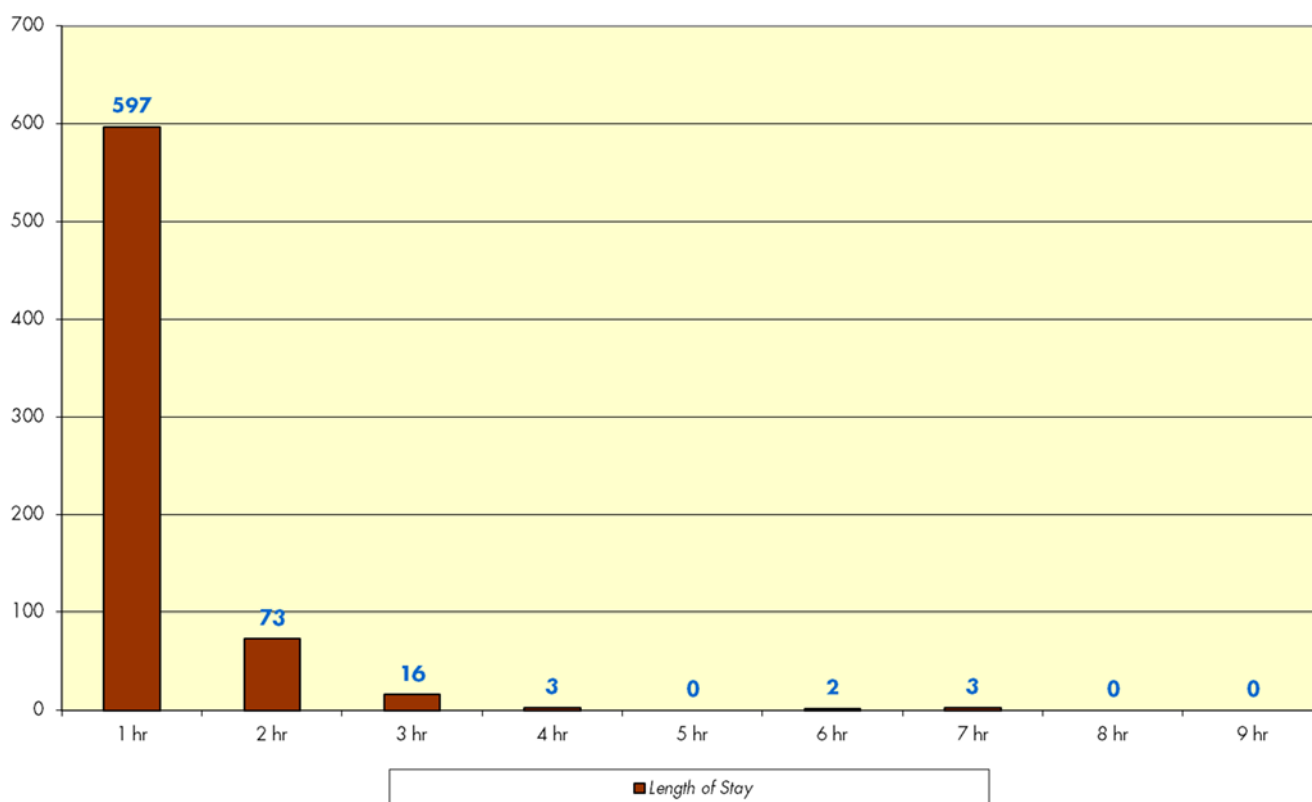
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Parking along Mamaroneck Avenue is very busy most of the time<sup>2</sup> but spaces are available not too far off the Avenue. This is a familiar pattern in downtown areas. People naturally want to park very close to their destination, preferably within viewing range and preferably on street. So it is not surprising that lots around the corner or behind the store remain less utilized while people are circling on Mamaroneck Avenue.

### *LICENSE PLATE INVENTORY*

Many respondents to our request for public input felt that employees of the stores along Mamaroneck Avenue contribute to the parking problem by staying parked for longer than the two-hour limit, even if it means moving their car around. To test this, we conducted a license plate inventory for 143 spaces along Mamaroneck Avenue. The inventory involved writing down the last three digits of license plates for each space every hour from 9:00 a.m. until 5 p.m. on a weekday. Figure 4 below shows the duration of stay for these vehicles.

Figure 4: Length of Stay Summary



Source: Walker Parking Consultants, 2013

<sup>2</sup> The overall busiest time for Mamaroneck Avenue was during our 2:00 count on Saturday – not the overall peak for the neighborhood. At that time every block face on Mamaroneck Avenue showed a negative adequacy. This was higher overall occupancy than at the dinner peak, since it extended down to Boston Post Road.

# VILLAGE OF MAMARONECK PARKING STUDY

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Of further significance is the number of cars that moved to avoid time limit rules:

**Table 17: Length of Stay (Including Moved Vehicles)**

Area	Street:	Side:	From:	To:	Total Inventory	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	Total > 2 Hours
1	Mamaroneck Ave	E	Prospect	Palmer	34	162	17	5	0	0	0	0	0	0	5
2	Mamaroneck Ave	E	Palmer	Spencer	36	128	13	3	0	0	1	0	0	0	4
3	Mamaroneck Ave	W	Spencer	Palmer	37	127	16	4	0	0	0	2	0	0	6
4	Mamaroneck Ave	W	Palmer	Prospect	36	180	27	4	3	0	1	1	0	0	9
Total - Cars that remaining in same stall					143	597	73	16	3	0	2	3	0	0	24
Total including cars that moved after two hours								30	11	6	3	5	2	0	57

Source: Walker Parking Consultants, 2013

We cannot assume that all 57 cars that stayed more than two hours, either in the same space or a new one, were all employees. It is a good bet that almost all of the 5+ hour cars, plus the 3-4 hour cars that moved after two hours, are employees – a total of 38 cars. The average length of stay for retail and restaurant customers is typically under two hours.

The number of long-term (5+ hours) is notable. Sixteen cars stayed five hours or longer, which means that more than 10 percent of the 143 spaces surveyed were out of commission for short-term customers for a significant portion of the day. If we multiply the number of long term cars in each category by the number of hours they stayed (6 cars x 5 hours, 3 cars x 6 hours, etc.) we get 99 hours' worth of parking that could have served over 80 customers at an average stay of 1.2 hours (the average for the surveyed spaces as a whole). From that perspective, the long stays are even more significant. Furthermore, the problem is probably greater in the evening since the regulations are relaxed after 6 p.m.

## FUTURE GROWTH

From discussions with the Village's Planners, we understand that developments of a significant scale in the study area are likely to be TOD residential developments. Such development would be built with on-site parking for residents' cars and would not be a net contributor to parking demand downtown. Residential development should actually decrease parking demand to an extent, because a greater proportion of patrons shopping or dining at a given time would be "walk-ins" from the neighborhood.

Growth in parking demand would come from smaller-scale retail and restaurant development on redeveloped parcels, or from restaurants leasing a space formerly occupied by retail. Restaurants can generate five times the number of cars that retail generates at peak.

No firm numbers exist at this point for the amount of square footage that might become, say, high-generating restaurants, but Village staff are aware of some opportunities along Mamaroneck Avenue that are likely to lead to turnover of retail or restaurant. Where restaurant turns over to a new restaurant, the net gain is small (theoretically zero, but in fact a low-generating restaurant becoming a very popular restaurant will see an uptick in demand).

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Where retail turns into a restaurant, the net gain in demand is 16 spaces per 1,000 square feet. At that rate, an additional 10,000 sf of restaurant replacing the same amount of retail may use up the 150-space surplus of public spaces identified in our counts.<sup>3</sup> It should also be noted that there are over 150 private spaces vacant during the peak hour. If shared parking arrangements could be made, there are hundreds of surplus spaces in private lots, and if shared parking arrangements could be made with these owners, the area would have a greater supply available to accommodate growth. As the calculation above shows, even small-scale growth can add up to a lot of parking demand if the generator is a dense one like restaurants.

The Village will have to assess the likelihood of 10,000 sf of vacant or retail space being re-tenanted by restaurants that will lack on-site parking. Such development could trigger a need for more parking if private facilities are not available for shared parking arrangements. Our next phase of work will examine some specific sites for potential parking expansion, and the financial implications associated with such undertakings. Structured parking is expensive to build and operate, and in a Village where the idea of raising rates from 75¢ to \$1 was contested in the public meeting, it is difficult to offset the cost of building parking. It is also a last resort for many people; most people prefer on-street parking and will choose surface parking over a garage if possible.

In summary, the parking system is able to accommodate current demand, and should be able to accommodate some small-scale development, even of dense generators like restaurants. The extent to which the parking system can accommodate additional development will depend on (a) the amount parcel redevelopment and/or building re-leasing, (b) the type of tenants (density of parking demand, what type of business the tenant replaces, and whether there is on-site parking) and (c) the extent to which permit and private parking supplies can be opened to the public at certain times.

The next section will look at ways to make the parking system function more efficiently, to accommodate current and future demand more comfortably.

### **PARKING MANAGEMENT**

Whether or not Mamaroneck adds a garage at some point, the Village needs to rebalance parking utilization. Adding a garage doesn't help if everyone is still circling the Avenue looking for a space within 100 feet of the door of their destination; the fact is there is space available under current conditions, but people perceive the parking system as "full" because they want to park on Mamaroneck Avenue. Short of charging much, much more for Mamaroneck Avenue than other areas – something most municipalities are unwilling to do – Mamaroneck Avenue will continue to be highly utilized and crowded regardless of how much parking is available elsewhere. However, parking management tools can mitigate the problem in several ways:

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<sup>3</sup> By way of comparison, a large restaurant on Mamaroneck Avenue is estimated to be about 4,000 sf, whereas a more typical storefront restaurant was estimated to be less than 1,400 square feet.

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- For locals who know the parking system and simply want the convenience of parking on Mamaroneck Avenue, parking management tools include incentives and disincentives that can shift some parking demand off Mamaroneck Avenue. These include rate differentials, time limit differentials, enforcement, and convenience. The Village does all of these things now, but they can be strengthened and the parking “products” further differentiated.
- For people who don’t know the parking system, guidance is needed to make alternatives more apparent.
- In general, parking management tools can help free up resources that exist but are not easily utilized.

### ENFORCEMENT

Car shuffling is an issue along Mamaroneck Avenue; the problem was cited by attendees at the public meeting, and was confirmed by our license plate survey. Parking enforcement is already active along Mamaroneck Avenue, but there are a fair number of people avoiding the time limits, presumably by removing chalk marks from their tires and/or moving the car. Given the extent of the problem, it would be advisable to institute a stronger policy regarding Mamaroneck Avenue, and stronger enforcement tools to go with it.

We recommend instituting a two-hour maximum for parking anywhere on Mamaroneck Avenue. Cars should not be able to move a few spaces away, or even from the 200 block to the 400 block. Instead, spaces should be signed for “No Reparking” (see example, this page). The signage could indicate that the rule applies to Mamaroneck Avenue from Halstead to Boston Post.

The reparking ban needs to be backed up; chalk will not suffice and is inefficient. Mobile license plate scanning technology is commonly used by enforcement departments and is a more efficient and more effective approach than chalking. We understand that the Village has one unit that is old and does not function well. We recommend replacing it with a new one, as the technology has improved.

Advantages include:



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- Significantly easier for the enforcement staff than walking between cars to leave or check chalk marks, allowing one staff person to cover more ground.
- Can't be removed by drivers.
- Software can track repeat offenders over a period of time, making it easy for the Village to institute enforcement measures, such as booting, for habitual offenders of this or other regulations or, conversely, provide "courtesy notices" rather than tickets for first-time offenders. This is a nice public relations outreach for residents or visitors who don't see the new signage and make an honest mistake; they aren't charged that first time, but they are notified and the software knows if they repeat.

Mobile license plate recognition technology costs roughly \$45,000 for two cameras (which get mounted to enforcement vehicles), the processor, a mounted computer with touch screen for the car, and a server.

### *MULTI-SPACE METERS*

While not essential to support the license-plate based enforcement system, multi-space meters would make that system easier to manage both for enforcement staff and parkers and would improve the revenue stream from metered parking.

We would recommend pay-by-license plate meters, which are like pay-by-space meters except that the patron enters their license plate number rather than a space number. Either a pay-by-plate or pay-by-space is preferable to pay-and-display. Pay-and-display is the type of multi-space meter used in New York City, where the parker pays at the meter, which issues a receipt with an expiration time on it. The parker then walks back to their car to post the receipt. Although common in this area, pay-and-display is not convenient for the parker or for enforcement. The parker must walk back to their car from the machine, and enforcement must walk past each dashboard to check tickets (actually more labor intensive than checking the red "expired" flag on a traditional meter). Pay-and-display is also not compatible with pay-by-cell software that allows patrons to add time to a meter from their phone without walking back to the car. Although we don't see the need for that software at this time, it would be good to invest in a meter system that is compatible with it, for the future.

Like pay-and-display, pay-by-space and pay-by-plate also use a centralized meter, but allow the patron to complete their transaction at the meter rather than walking back to the car, so they are efficient<sup>4</sup>. They are also easier for enforcement, as the officer can get a listing of out-of-compliance spaces electronically without having to walk by each car. In the case of pay-by-space, the officer can get a list directly from the meter of all the space numbers that are out of compliance, and can then address those spaces directly. In the case of pay-by-plate, the computer in the car ties in to the meter's computer, so that when the officer scans the license plate, s/he finds out not only whether the car has been there since the last scan, but also whether the car has stayed past the amount of time the driver entered in the meter (or has not paid at all...).

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<sup>4</sup> Assuming the patron knows to remember their space number or license plate; there can be some learning curve associated with that, but signage on the defunct meter heads at each space can remind people.



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The main reasons we recommend pay-by-plate over pay-by-space is (1) the convenience of the tie-in between the meter and the license plate scanning system and (2) it will prevent errors on the part of patrons who don't see the "no reparking" signs, because the machine will notify anyone who tries to repark on Mamaroneck Avenue that they cannot repark and must move to another zone.

Regardless of whether the City chooses pay-by-plate or pay-by-space, the multi-space meters offer a few advantages over the existing meters:

- Easier enforcement;
- More secure cash storage;
- More auditable revenue stream;
- Can accept credit cards or "smart cards" for ease of use;
- Can be upgraded for pay-by-cell so patrons can extend the meter time from inside a store or restaurant. This might be more valuable for Phillips Park Road and other long-term areas than Mamaroneck Avenue.
- Better information reporting, including utilization and also maintenance (can alert manager to problems with the equipment).
- Improved revenue stream, generally at least 20 percent or more, from:
  - Reduction in "piggybacking" (using leftover time on the meter from the previous parker)
  - Reduction in theft due to auditability, security of coin box, and use of credit cards.
  - Tendency of patrons to buy more time when they are using credit cards rather than fishing for quarters.
  - Fewer patrons risking tickets.
- Variable rate structure for evenings and weekends.

Multi-space meters can manage many spaces, but in an on-street configuration it is best to space them 15-20 spaces apart. At this spacing, Mamaroneck Avenue from Halstead to Boston Post Road would require 15 meters. The cost of purchasing and installing 15 meters would be roughly \$150,000 - \$200,000.<sup>5</sup> Currently, meter revenue in the Village is about \$437,000 annually (including all metered areas, not just Mamaroneck Avenue). Assuming 80 percent of the revenue comes from Mamaroneck Avenue, and that multi-space meters increase revenue by 20 percent, the revenue increase from installing meters on Mamaroneck Avenue would be about \$70,000, so the meter cost would be offset within about two to three years. Extending the meter hours, as discussed below, would add revenue and reduce the payback period. However, the payback period would be longer if Mamaroneck Avenue is a smaller percentage of the revenue stream.

As budget allows, it would make sense to invest in multi-space meters for the Phillips Park Road area and the Hunter Tier Lot.

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<sup>5</sup> Costs vary depending on vendor, options selected, and number of machines purchased; the budget cited above is an order-of-magnitude budget for planning purposes.

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### RATES AND TIME LIMITS

Meter rates and time limits can create differentiation between a premium “product” like the parking on Mamaroneck Avenue and less desirable parking products like Phillips Park Road. The Village is doing this already – parking on the Avenue costs more and has a shorter time limit than most of the other resources. Our recommendations are meant to expand and improve the system already in place.

#### *EXTENDED HOURS:*

Given that the restaurants have extended the busy period on Mamaroneck Avenue into the evening, it would make sense to extend the meter hours until 8:00 P.M. The two-hour parking limit along Mamaroneck Avenue needs to be enforced until this hour to discourage dinner-shift employees from parking on Mamaroneck Avenue, so extending the meters would make for a less confusing set of rules than one in which meters aren’t enforced but time limits are. Extending the meter hours would further encourage employees to use alternative parking resources, thus reducing strain on Mamaroneck Avenue. It might encourage some cost-sensitive patrons to park off the Avenue as well – a reasonable market-based approach to encouraging balance,

#### *TIME LIMITS:*

Concomitant with the “no repark” two-hour limit on the Avenue, time limits in alternative locations should be four hours. This is mostly true already – the tier garage, the Regatta, and much of Phillips Park Road have a four hour limit. Remaining two-hour spaces along Phillips Park Road should be turned into four-hour spaces. Shorter on-street limits, especially near the train station (Halstead, Ward) are appropriate.

#### *RATES:*

As a general rule, rates should be well differentiated between a premium parking area and its less convenient alternatives. At only 25¢ more per hour than Phillips Park Road or other parking areas, Mamaroneck Avenue does not adhere to this rule of thumb, and that may be part of the reason it is so crowded. A rate of \$1 per hour, compared to 50¢ in the “overflow” lots, would be appropriate, and the Budget Committee has already made that recommendation. We recognize the comments by some respondents, worrying that increasing rates would drive people away from the downtown retail. However, we think a 25¢ increase, to a rate that is still quite typical for meters in the area, should not be a hindrance to business. Additionally, we are not recommending an increase in any of the other facilities, so cheap alternatives will still exist for those who are sensitive to cost.

#### *SHORT-TERM PARKING:*

A few strategically spaced 15-minute spaces should be available on each side of Mamaroneck Avenue on each block from Halstead to Prospect (three blocks). This will make it easier for people to run quick errands, pick up pre-ordered items or take-out, etc. Restaurants with heavy take-out business should be encouraged to offer back-door service as much as is feasible in their location. Two spaces per side should be tested; more can be added if needed. Halstead to Spencer may only need one per side.



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### PARKING SUPPLY AVAILABILITY

#### *PERMIT SPACES:*

Part of the confusion for a visitor – and even some residents, since it was mentioned in public feedback – is the permit system. Some permit areas are open to the public nights and weekends. Some is reserved at all times. Sometimes public and permit areas are mixed within an area, such that it is necessary to check multiple signs (e.g., along Phillips Park Road).

We recommend a reconsideration of the permit policies and allocations, as follows:

- Minimize reserved areas to the extent possible. Reserved areas work against shared parking goals by keeping spaces empty even when they are not needed. In addition to its inefficiency, this can be frustrating for a visitor who can't find a space but sees lots of empty ones. A better option, where feasible, is simply to allow permit parkers to use spaces within a metered area. Phillips Park Road is a good example – rather than have a whole side of the street reserved for permit-holders, perhaps the Village could not set an area aside, but rather allow permit holders to park at any metered space within a given area. This would make sense for the Hunter Tier Deck as well. The caveat is that the Village should have an understanding of the number of permit users who use that area at a given time, so that there is confidence that permit-holders won't flood the lot and leave no room for visitors or vice versa.



RESERVED PERMITS AREAS MAKE IT DIFFICULT FOR CUSTOMERS TO FIND PARKING. SIGNAGE ADDS TO THE CONFUSION, AS DISCUSSED IN A SEPARATE SECTION.

Taking the attention to permit usage a bit further, if staff resources exist, would allow the Village to switch to a system where a permit is only valid in a single lot. This requires more oversight, because if a permit-holder doesn't have the option to drive to the next lot if their preferred lot is full, it becomes important to be more precise about the number of permits each lot can support. The benefit of a single-lot permit program is that it encourages a "park once" approach. Currently, there is nothing to discourage an employee who parks in the Regatta Garage to drive up to the Spencer Lot when they go out to lunch at that end of Mamaroneck Avenue; this is environmentally wasteful, and also inefficient for the parking system if permit spaces in one area empty out as spaces in another area fill.

- Where reserved areas are necessary, conduct frequent occupancy counts to track utilization. If there is always a sizable surplus, then either the reserved area should be made smaller or permits should be "moved" from another area. For example, if the permit areas of the Hunter Garage always have the large surplus we saw on our survey day, it would be possible to offer cheap monthly permits for Mamaroneck Avenue employees that would be valid only in the Hunter Tier garage. This fills the space and takes pressure off Phillips Park Road.

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- Permit areas should be unrestricted at night as much as possible. We understand some lots have nighttime permits for residents, but unless these take up most spaces (as they seem to do at the small Spencer Avenue Lot), either of the options above could be used to enable shared parking. The Hunter Tier Deck could be a great resource for the portion of Mamaroneck Avenue near Prospect Street, as well as for the Emelin Theatre, if the reserved area was open at night.

### *SHARED PARKING:*

There is a large surplus of spaces in the private lots that is unavailable to the general public. The facilities vary in size from a few spaces to a large garage serving the Regatta residences. Some lot owners may be willing to provide shared parking on their lots, either leasing spaces for use by permit-holders or leasing the space to the Village for incorporating into the municipal supply. Though there are challenges (insurance issues, establishing a lease rate, standards and costs for lighting and maintenance, etc.), some municipalities have achieved these shared parking arrangements to good effect. Small lots aren't very useful for the general public but can serve as a good location for employee permit parking. Although it is beyond our scope to investigate specific possibilities along these lines, we see value in opening supplies to the public where possible. Perhaps the most important such opportunity would be the lots on Mt. Pleasant Avenue just below Halstead (H and I on block 8). These lots were underutilized in our counts and have an alleyway that leads to Mamaroneck Avenue, similar to the walkway adjacent to CVS on the other side of Mamaroneck. Block 8 is the one part of the study area that has no overflow resource within the block, and the good overflow options like Phillips Park Road or the Hunter Tier garage are less convenient from the north end of this block than they are for other parts of the study area. The ability to use the Post Office lots during nights and weekends would be helpful as well.

### *PERIPHERAL RESOURCES:*

Public comment included some queries about the possibility of using parking down at Harbor Island Park and having shuttle service up to the commercial core. While we think this would be a good shared use opportunity in the evenings, it would be an expensive proposition that would likely be underutilized. The cost of leasing a van, providing gas and maintenance, and paying a driver and insurance can be significant - \$45 per hour per shuttle is common. Shuttling to a restaurant for dinner is unlikely to appeal to most customers. If parking rates in the neighborhood were higher, employees might be willing to shuttle (it is more palatable to shuttle or walk a long distance for an eight-hour shift than for a one-hour dinner) but at 50¢ per hour in many lots, most employees would pay or find closer-in residential street parking than shuttle. The Village has found that shuttles work best for special events, which is what we typically find as well.

### *VALET PARKING:*

Valets can often make use of spaces that the public finds inconvenient, and in some areas valet service in front of restaurants is common. The problem with valet parking is that it requires a reservoir of spaces at the curb for a drop-off area, and could thus exacerbate the curb-side traffic along Mamaroneck Avenue. That said, removing even 10 percent of restaurant-goers cars to Phillips Park Road or another area would ease parking congestion. The possibility of offering valet service should be discussed amongst merchant members of the downtown business association; bids can be obtained from a valet company.

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### PARKING ACCESSIBILITY

Creating an incentive to consider alternatives to Mamaroneck Avenue is most effective for locals who know the alternatives well. This section focuses on some of the challenges that make it difficult to navigate for people less familiar with the parking system.

#### *SIGNAGE AND WAYFINDING*

As shown in the photo at right, the signage currently used by the Village is typical parking directional signage. But it is easy to miss, and inconsistent. In general, the parking facilities are hard to identify; for someone unfamiliar with the parking system, there are two challenges:

- The route to key resources like Phillips Park Road and, to a lesser extent the Hunter Tier Garage, is circuitous from entry points to the area (e.g., Halstead or Boston Post Road). One is therefore dependent on signage or GPS to find alternatives when Mamaroneck Avenue is clearly busy. There is signage at the key decision points (i.e., right where you need to turn), but not necessarily in advance of those points. It's also somewhat easy to miss.
- Once a driver does follow the signage to a lot, it can be hard to figure out whether the lot is public or private, and if public whether it is open to the general public or permit only. A newcomer to the area might stop at the wrong entry to the lot on Spencer Place, read the sign that says "permit only" and then have to drive to the next entry and read that sign as well. There is additional text, or sometimes multiple signage, to explain time limits – whether a permit space is always a permit space or available at night, and such – which adds to the confusion. The same is true for the Hunter Tier lot (see excessive signage on page 28), and for the entry to Phillips Park Road which has different rules from one side to the next. This is frustrating for a visitor, especially when they are holding up traffic. It can also lead to tickets – we understand the signage regarding night-time permit parking in metered spaces at the Spencer Lot results in tickets.



SIGNAGE, SPENCER PLACE AT PHILLIPS PARK ROAD

A new signage system would be helpful to direct people towards parking resources other than the most obvious one. Two examples are shown to the right, of more visible signage that "brands" the parking system. The far right is signage in San Francisco that very economically accomplishes three things: it directs attention to a logo that tells the driver parking is nearby, it gives the driver a location and name for the parking, and it directs the driver at a decision point in advance of the actual turn.

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New signage on the thoroughfares will get people to the right area. Once there, signage identifying the lot as public would be helpful; it is not immediately clear whether lots are public or private when they aren't clearly signed. A sign like the one below would encourage people to turn onto Phillips Park Drive and know they are in the right place (as opposed to the existing sign at that intersection, shown on the previous page). It would also clear up confusion about which entry to the Spencer Lot and the Tier Garage is

the public area.

Better branding of the lots would be further helped by simplified signage, including better identification of any restrictions. Larger signs that clearly state "Permit Parking Weekdays 8-5, Public Parking Nights & Weekends" would be better than the current signs.<sup>6</sup>

In general, Phillips Park Road should be made more accessible. It would be helpful to have better pedestrian wayfinding to the walkway and, if possible, more stores opening to that parking area.

### *PARKING INFORMATION*

The Village should consider investing in a webpage specifically addressing parking resources in the downtown. At some point, real-time parking apps will likely supersede static webpages, but real-time parking availability technologies are not needed in the Village now and apps like bestparking.com only address larger municipalities at this point. Yet people coming out to dinner in Mamaroneck should be able to identify parking options before they come, quickly and easily. Typing "parking Mamaroneck" into Google turns up the Village's page on purchasing a permit, but doesn't tell an out-of-towner about the parking on Phillips Park Road. The Village website should identify rates and restrictions for on-street parking as well as locations, rates and restrictions for off-street parking.



An example of a comprehensive, interactive webpage for downtown parking is shown in the figure below. Mamaroneck may not need this level of detail – photos of the lots and such - but visitors should be able easily to identify where parking resources are and what the rates and

<sup>6</sup> Again, it is preferable to simply allow permit-holders to park in a lot than to have "permit only" areas.



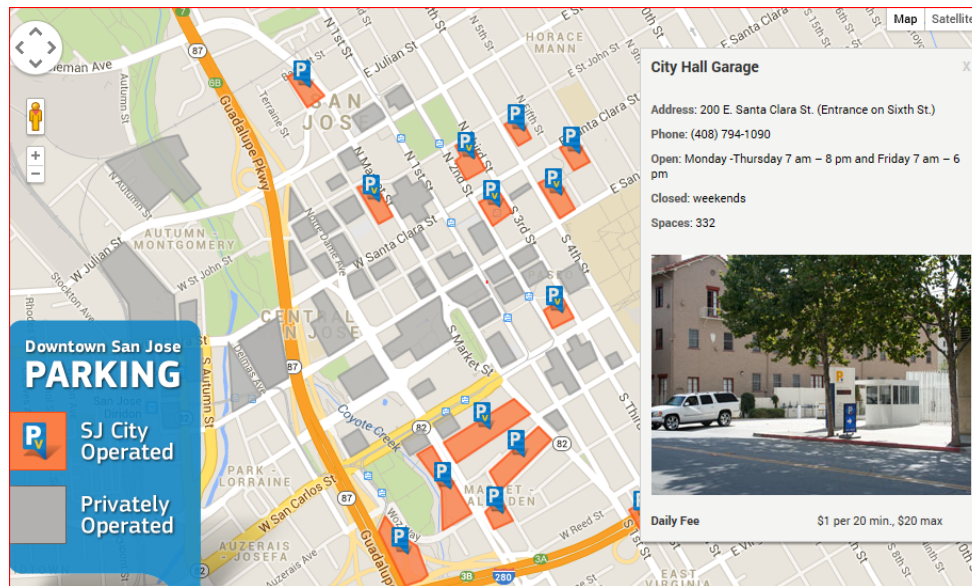
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regulations are. It would be valuable to have the parking lots show up on mapping programs, as they do in municipalities where the parking lots are named as businesses.



## OTHER CONSIDERATIONS

The Village zoning code has some high requirements that we recommend re-visiting:

- The office zoning code requires 1 space for every 250 sf of space up to 3,500 sf, which is a little higher than it needs to be, but generally appropriate. However, for office spaces over 3,500 sf, the code requires 14 spaces (appropriate for 3,500 sf) and then 1 space for every 150 sf in excess of 3,500. That amount to 6.67 spaces per thousand square feet after the first 3,500 sf, which is very high. Call centers generate this level of demand, but not regular offices.
- Similarly, the retail zoning code escalates, starting at 1 spaces for every 350 sf of building space for spaces less than 3,500 sf, then escalating to 1 per 200 sf for the next 3,500 sf up to 7,000, and then 1 space per 100 square feet. This is a very high code – 1 space for 250 sf is more in line with community-oriented retail.
- The zoning code for restaurant should be rewritten to be on a square footage basis. The current code relies on number of employees, which makes it hard to calculate a requirement.
- Other provisions, including in-lieu fees and shared parking, are appropriate. We received comments that some businesses perceive the in-lieu fees to create a burden and thus the policy may not be being fully utilized.
- The Vehicle and Traffic code is very complex and could be streamlined. As measures recommended in this report are put into place, several sections will need to be updated anyway (permits, meter zones, meter rates, etc.), and this will be a good opportunity to improve the document. Rules for parking zones (there are 30 meter

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zones), meter rates, and permit locations and policies could all be made easier to use. A full review of all sections and cross-references would be valuable.

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### SITE ALTERNATIVES – POTENTIAL NEW CONSTRUCTION

Although the parking projections do not show a clear short-term need for additional parking, the Village is interested to plan for the future by looking at options for potential future structured parking. Per discussion with staff, the following sites within the study area were evaluated:

- Phillips Park Road/CVS Lot
- The Hunter Tier Deck
- The Spencer Lot

In addition to these publically-owned sites, there may be privately-owned sites in the study area that could become available for a public structure. As there are no sites available at this time, private sites were not evaluated.

#### PHILLIPS PARK ROAD/CVS LOT

The CVS lot would be a good option insofar as it has a walkway to Mamaroneck Avenue and offers a large amount of surface parking along with any potential structure – a good consolidation of parking. The failing, however, is that the CVS lot is too narrow to allow for the ramping needed for a self-park garage. The garage would have to extend over part of Phillips Park Road, and it would be difficult to create ramping from the street level to the upper level(s) of the garage, especially because truck access has to be accounted for.

Figure 5: Concept for Phillips Park Road





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If truck access is not an issue, a mechanical (“robotic”) parking structure would be feasible within the CVS lot, but robotic parking is challenging in a high-turnover area. Robotic structures are a good way of adding parking on a site that is too constrained to allow for ramps or full bays, and are becoming popular in New York City for this reason. However, they are used mostly in applications where the majority of parking is residential (storage) and/or where turnover is evenly spread such that the turnover in any given period of time is low. In these applications, the robotic system can function efficiently. In a high turnover retail area (e.g., where a dozen cars might all arrive within a few minutes of each other for 7:00 dinner reservations), the number of lifts inside the garage, and thus the number of entry/exit stations, becomes prohibitive. Given that the garage would be built mainly to accommodate a heavy restaurant peak, it is not clear at this point that a robotic structure would be the right solution. A traffic analysis to project peak-hour turnover in a future scenario with more restaurants should be conducted if robotic parking is desired.

### HUNTER TIER DECK

We understand that the Village is considering consolidating its offices at the site of the Hunter Tier Deck, and that the project would require rebuilding the parking area. The parking garage is already in need of restoration.

Currently the garage is underutilized. In part this is because too many spaces are reserved at all times and signage is confusing, both of which reduce the garage’s visibility as a public resource. Although it is near a busy part of Mamaroneck Avenue, it is not seen as an overflow resource. The management analysis in this report highlights ways to encourage better utilization of the garage, and these tools will be more important if the garage is enlarged.

The garage is efficient in its layout, so space gains would come from adding more levels. Currently the upper tier has 111 spaces; a similar number could be added per new level.

Assuming a three-level garage with 292 stalls (the current 181 plus an additional level of 111) at \$30,000 per stall, the cost would be roughly \$8.7 million to replace the facility. That equates to about \$79,000 per net new stall.

### SPENCER LOT

The Spencer Lot is too small to make for an efficient self-park garage, but it is feasible. A robotic garage would create a more efficient use of space, but the same problems apply here as with the potential structure on the CVS Lot: the high-turnover nature of a busy retail area could make it challenging to operate robotic parking.

As a self-park garage, the Spencer Lot could accommodate roughly 32 spaces per level. Since the lot has 46 spaces, a two-level garage would only add a net of 18 spaces. At three levels, it would add roughly 50 spaces. A four-level garage would add 82 spaces. (It is important to note that these are preliminary concepts; actual inventories will likely be lower after ADA

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requirements are taken into account.) The location near a busy part of Mamaroneck Avenue is good.

At \$40,000 per stall, the cost per added space to construct four levels (128 spaces replacing 46) would be \$62,000.

Figure 6: Self-Park Concept for Spencer Lot



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### FINANCIAL CONSIDERATIONS

To aid the Village in planning for future growth, Walker looked at the finances associated with a potential parking expansion, as discussed in Management and Alternatives Analyses sections of the report. Given the range of variables for future changes and growth, the projections are preliminary in nature, to provide an order-of-magnitude assessment of the impact of the recommended changes.

### REVENUE ASSUMPTIONS

Short Term: In the short term, revenue increases will come from the rate increase (\$1 on Mamaroneck Avenue) and extension of enforcement hours (until 8 p.m.) recommended in the demand/management analysis. Although meter revenue is only reported as a lump sum, and thus impossible to segment by hours and streets, we have used the findings of our occupancy analysis to estimate revenue by street so that we can project the impact of the rate increase specifically on Mamaroneck Avenue.

The Village is also planning to install electronic multi-space meters along Mamaroneck Avenue, and these can lead to a 20 percent boost in revenue. In the interest of a conservative projection, we have estimated a ten percent increase in revenues from installation of electronic meters along Mamaroneck. We have also reduced the revenue loss factor by five percent due to the introduction of LPR license enforcement, which should improve compliance.

While there may be some increase in revenue from more people coming to restaurants as management changes make it easier to find parking, we do not expect this to be a large volume (there is not a shortage currently, just inconvenience) and we anticipate it to be offset by the minor decrease in revenue that will result from some parkers shifting away from Mamaroneck Avenue when rates and enforcement policies change.

Longer Term: As discussed in the parking demand portion of the study, the Village does not have a specific development projection for downtown land uses at this time, so there is not a solid basis for projecting an increase in volume of cars in the future. In the absence of a development scenario, we have used the “test case” from the demand study – an assumption that 10,000 feet of space would redevelop as restaurants – to show potential future demand.

The table below shows the projected revenues for each scenario, in stabilized (2014) dollars. Current revenue is estimated from documents provided by the Village. Ramp ups for rate increases and typical volume increases will be provided in the pro forma in Table 20.

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Table 18: System-wide Revenue Projections - 2014 \$

	Current (Est)	Short Term	Longer Term
<b>Revenues</b>			
Permit	\$ 370,300	\$ 370,300	\$ 370,300
Meter Keys	\$ 4,400	\$ 4,400	\$ 4,400
Meters (estimated)	\$ 436,000	\$ 436,000	\$ 436,000
Added Rev - new rates/hours	\$ -	\$ 285,700	\$ 285,700
Added Revenue - Restaurants	\$ -	\$ -	\$ 108,000
<b>Subtotal - Revenue</b>	<b>\$ 810,700</b>	<b>\$ 1,096,400</b>	<b>\$ 1,204,400</b>

Note: Short-term projection includes extended meter hours and increased rate on Mamaroneck Ave. Longer term includes 10,000 sf of additional restaurant space and a 128-space garage on the site of the Spencer Lot.

Source: Village of Mamaroneck, Walker Parking Consultants

## EXPENSES

**Short Term:** The installation of new meters and the extension of enforcement hours will result in increased operating costs for the parking system. We project increased cost from:

- One additional half-time enforcement officer to cover evening enforcement, plus benefits
- Cost of a maintenance contract for the new meters
- Cost of additional gas for the enforcement vehicles
- Costs associated with supplies for the new meters and the LPR enforcement software – paper forms, software, etc.
- Debt service on the new meters, signage, LPR cameras and software (a total of \$330,000) projected at 5 percent interest on the full purchase cost, paid over five years.

**Longer Term:** The long-term scenario shows the expenses for a garage in addition to the short-term expenses described above. We assume a 128-space garage on Spencer Place, with expenses including:

- Additional enforcement labor for collections, including benefits
- Electricity and other utilities
- Additional insurance costs
- Equipment maintenance
- Elevator maintenance
- Typical garage maintenance including minor repairs, bulb replacement, sign replacement, etc.
- Cleaning and other supplies
- A "sinking fund" for major maintenance
- Debt service projected at 5 percent interest on the full construction cost, paid over 25 years. Construction cost for the 128-space Spencer Garage is projected at \$40,000 per stall plus soft costs (surveys and testing, design fees, financing, etc.) at 25 percent of the construction cost.

Snow removal and other inter-departmental charges (other than benefits) are not included in the budget.

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### *HUNTER TIER ALTERNATIVE*

A replacement garage at the Hunter Tier Garage would have higher expenses and higher debt service. We project construction costs of \$30,000 per stall for a three-level, 292-space replacement structure, for a total hard cost of \$8,760,000 and debt service of \$740,000 annually. By comparison, a garage on the Spencer Lot is projected to have hard costs of \$5,120,000 and debt service of \$432,500. The Hunter Tier expansion would add 111 spaces as compared to 82 in a four-story garage on the Spencer Lot. For the purposes of this analysis we assume the more cost effective Spencer Lot option.

The table below shows the projected expenses in 2014 dollars. Current expenses include only items included as specific “departments” in the Village’s budget (On-street Expenses, Meter Repair, Off-street Parking), but do not include chargebacks or general services such as snow plowing. Employee benefits are not included in the department budgets for current expenses, but Walker includes them in future labor projections. Sinking Fund and Debt Service projections are not included in the operating budgets, but are shown in the pro forma in Table 20.

**Table 19: System-wide Expense Projections - 2014 \$**

	Current (Est)		Short Term	Longer Term
<i><b>Expenses</b></i>				
On-Street Expenses	\$	195,100	\$	195,100
Meter Repair	\$	13,400	\$	13,400
Off-Street Parking	\$	5,700	\$	5,700
Added Expenses - Meters	\$	-	\$	58,700
Added Expenses - Garage	\$	-	\$	145,700
<i>Subtotal - Expenses</i>	\$	214,200	\$	418,600

Note: Short-term projection includes operating costs associated with extended meter hours and electronic meters and LPR. Longer term includes the short-term scenario plus operating costs associated with the potential garage on the site of the Spencer Lot.

Source: Village of Mamaroneck, Walker Parking Consultants

### **NET OPERATING INCOME**

Table 20 provides a projection of net operating income over the next ten years, assuming the meter and rate changes go into effect in Year 1 (2015) and a garage is built in Year 4 (2018). The 2018 projection also assumes that 10,000 sf of restaurant space has been added in the area. The projections are preliminary assessment based on broad, early-stage operating assumptions.

The projections show that a garage on Spencer is likely to be financially feasible if it is backed by the revenue stream from the entire parking system. Since net new revenue is only projected to be about \$100,000, we do not project the garage to be able to support its debt service independently of the larger system; even if it filled, it would because it was taking cars, and thus revenue, from an existing resource.

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However, although the meter revenues system-wide would cover the garage's costs, it would mean that the system would be putting roughly \$500,000 less back into the General Fund annually than would be the case without a garage. Thus it becomes a question of opportunity cost for the Village. From a parking demand perspective the garage is not necessary at this point. Pursuing management changes to make better use of existing resources will improve availability while allowing the system to contribute back to the General Fund.

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Table 20: Net Operating Income - 2015 - 2024

REVENUES	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Transient Revenue (before sales tax)	436,000	743,351	765,652	788,600	923,500	951,200	979,700	1,009,100	1,039,400	1,070,600	1,102,700
Monthly Contract Revenue (before sales tax)	370,300	381,409	392,851	404,600	416,700	429,200	442,100	455,400	469,100	483,200	497,700
Other Parking Revenue	4,400	4,532	4,668	4,800	4,900	5,000	5,200	5,400	5,600	5,800	6,000
Sub-Total - Revenue	810,700	1,129,292	1,163,171	1,198,000	1,345,100	1,385,400	1,427,000	1,469,900	1,514,100	1,559,600	1,606,400
Less Credit Card (CC) Processing Fees	5,400	7,500	7,700	7,900	8,900	9,100	9,400	9,700	10,000	10,300	10,600
<b>Effective Gross Revenue (EGR)</b>	<b>816,100</b>	<b>1,136,800</b>	<b>1,170,900</b>	<b>1,205,900</b>	<b>1,354,000</b>	<b>1,394,500</b>	<b>1,436,400</b>	<b>1,479,600</b>	<b>1,524,100</b>	<b>1,569,900</b>	<b>1,617,000</b>
EXPENSES											
On-Street Expenses	195,100	261,400	269,200	277,300	285,600	294,200	303,000	312,100	321,500	331,100	341,000
Meter Repair	13,400	13,800	14,200	14,600	15,000	15,500	16,000	16,500	17,000	17,500	18,000
Off-Street Parking	5,700	5,900	6,100	6,300	156,600	161,300	166,100	171,100	176,200	181,500	186,900
Sub-Total - Operating Expenses	214,200	281,100	289,500	298,200	457,200	471,000	485,100	499,700	514,700	530,100	545,900
<b>Net Operating Income (before reserve fund) - Projected</b>	<b>601,900</b>	<b>855,700</b>	<b>881,400</b>	<b>907,700</b>	<b>896,800</b>	<b>923,500</b>	<b>951,300</b>	<b>979,900</b>	<b>1,009,400</b>	<b>1,039,800</b>	<b>1,071,100</b>
Debt Service	-	72,600	72,600	72,600	577,700	577,700	577,700	577,700	577,700	577,700	577,700
Structural Repairs & Replacement (reserve fund)	-	-	-	-	13,200	13,200	13,200	13,200	13,200	13,200	13,200
<b>Net Operating Income - (after debt service/reserve fund) - Projected</b>	<b>\$601,900</b>	<b>\$783,100</b>	<b>\$808,800</b>	<b>\$835,100</b>	<b>\$305,900</b>	<b>\$332,600</b>	<b>\$360,400</b>	<b>\$389,000</b>	<b>\$418,500</b>	<b>\$448,900</b>	<b>\$480,200</b>

### Notes:

Baseline is current operating scenario

Year 1 includes electronic meters, extended enforcement hours, and \$1/hour rate on Mamaroneck Ave.

Year 4 includes 10,000 sf of additional restaurant space on Mamaroneck Avenue, and 128-space garage on Spencer Place Lot

Revenues are projected to increase at three percent annually (rate increases and/or general volume increase).

Expenses are projected to increase at three percent annually.

Source: Village of Mamaroneck and Walker Parking Consultants, 2014



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### SENSITIVITY ANALYSIS

A sensitivity analysis is provided in the following table, to project impact on the bottom line of better than expected revenue increases from the new policies and equipment, and also worse performance than expected. The comparison is shown in stabilized 2014 dollars.

Table 21: Sensitivity Analysis (Stabilized 2014 Dollars)

	Current (Est)	Short Term	Longer Term
<b>Base Scenario<sup>1</sup></b>			
Revenues	\$ 810,700	\$ 1,096,400	\$ 1,204,400
Expenses	\$ 214,200	\$ 272,900	\$ 418,600
NOI	<b>\$ 596,500</b>	<b>\$ 823,500</b>	<b>\$ 785,800</b>
Debt Service/Sinking Fund	\$ -	\$ 72,600	\$ 518,300
Adjusted NOI	<b>\$ 596,500</b>	<b>\$ 750,900</b>	<b>\$ 267,500</b>
<b>High Scenario<sup>2</sup></b>			
Revenues	\$ 810,700	\$ 1,241,600	\$ 1,349,600
Expenses	\$ 214,200	\$ 272,900	\$ 418,600
NOI	<b>\$ 596,500</b>	<b>\$ 968,700</b>	<b>\$ 931,000</b>
Debt Service/Sinking Fund	\$ -	\$ 72,600	\$ 518,300
Adjusted NOI	<b>\$ 596,500</b>	<b>\$ 896,100</b>	<b>\$ 412,700</b>
<b>Low Scenario<sup>3</sup></b>			
Revenues	\$ 810,700	\$ 1,008,900	\$ 1,044,500
Expenses	\$ 214,200	\$ 278,800	\$ 439,100
NOI	<b>\$ 596,500</b>	<b>\$ 730,100</b>	<b>\$ 605,400</b>
Debt Service/Sinking Fund	\$ -	\$ 72,600	\$ 518,300
Adjusted NOI	<b>\$ 596,500</b>	<b>\$ 657,500</b>	<b>\$ 87,100</b>

Notes:

(1) Base scenario assumes 10% increase from multi-space meters, 20% loss factor. Also includes adjustments for extended meter hours and rate increase on Mamaroneck.

(2) High Scenario includes same adjustments as base case for extended meter hours and rate increase, but assumes a 20% increase from multi-space meters and 10% loss factor; no savings on expenses.

(3) Low Scenario assumes 10% increase from multi-space meters, 25% loss factor. Also assumes smaller increase from meter hours extension and increased rate on Mamaroneck Ave (i.e., more people choosing alternatives), lower demand from new restaurants, and 10% higher operations costs for new equipment/facilities.

Source: Walker Parking Consultants, 2014

### FINANCING ALTERNATIVE

As an alternative to supporting garage construction through the General Fund, the Village may create a public-private partnership to build the garage at no cost to the Village. There are many ways to structure these partnerships, and more information would be needed to project financial impact, if any, on the Village.

## APPENDIX A: PARKING INVENTORY AND ID MAPS



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Block	Facility	On Street Permit	On Street Meter	On Street Other	On Street Subtotal	Off-Street Permit	Off-Street Meter	Off-Street Subtotal	Garage Permit	Garage Meter	Garage Reserved	Garage Subtotal	Off-Street Private	Total	Notes
1	Mamaroneck	0	28	0	28	0	0	0	0	0	0	0	0	0	28 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
1	Halstead	0	11	0	11	0	0	0	0	0	0	0	0	0	11 Metered Spaces; varied limits (60 to 90 min); \$0.25 per 60 minutes
1	Ward	0	12	0	12	0	0	0	0	0	0	0	0	0	12 8 Meters with 2 hr limit and \$0.25 per hour; 4 Meters with 90 minute limit and \$0.25 per hour
1	Lot E	0	0	0	0	0	0	0	0	0	0	0	13	13	13 B&A Automotive Service Center
1	Lot F	0	0	0	0	0	0	0	0	0	0	0	28	28	28 141 Halstead Avenue; State Farm Insurance and other offices
1	Lot G	0	0	0	0	0	0	0	0	0	0	0	5	5	5 Small lot at 5 Staub Ct.
1	Lot H	0	0	0	0	0	23	23	0	0	0	0	0	0	23 Metered spaces; 4 hour limit; \$0.25 per 30 minutes
1	Lot I	0	0	0	0	23	0	23	0	0	0	0	0	0	23 GP permit; 8am to 6pm; overnight with permit allowed
2	Mamaroneck	0	70	0	70	0	0	0	0	0	0	0	0	0	70 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
2	Spencer	0	3	0	3	0	0	0	0	0	0	0	0	0	3 Metered Spaces; 2 hour limit; \$0.25 per 60 minutes
2	Phillips Park Inner	0	10	0	10	0	28	28	0	0	0	0	0	0	Southbound or "Inner" Phillips Park Rd.varied limits (2 or 4 hours) and rates (10 meters @ 38 \$0.25 per 60 minutes; 28 meters @ \$0.25 per 30 minutes)
2	Phillips Park Outer	32	23	0	55	0	0	0	0	0	0	0	0	0	Northbound or "Outer" Phillips Park Rd. near Spencer on-street spaces are GP Permit from 55 8am to 6pm; near Prospect Meters with 4 hour limit and \$0.25 per 30 minutes
2	Lot C	0	0	0	0	0	0	0	0	0	0	0	11	11	11 359 Mamaroneck Ave; Private Lot Behind Emilio's Brick Oven Pizza
2	Lot D	0	0	0	0	11	0	11	0	0	0	0	0	0	11 351-363 Mamaroneck Ave; Permitted Spaces Behind Mercuio Fresh Pasta/Best Chinese
2	Lot E	0	0	0	0	3	0	3	0	0	0	0	0	0	3 343 Mamaroneck Ave; Permitted Sapces Behind Ralph's Electric
2	Lot F	0	0	0	0	0	0	0	0	0	0	0	8	8	8 317 Mamaroneck Ave; Private Lot Behind Natural Motion Haircutters
2	Lot G	0	0	0	0	0	0	0	0	0	0	0	5	5	5 Private Lot Behind Auto Mechanic
2	Lot H	0	0	0	0	0	0	0	0	0	0	0	4	4	4 Private Spaces Behind 305 Mamaroneck Avenue and Frankie & Fanucci's
2	Lot I	0	0	0	0	4	0	4	0	0	0	0	0	0	4 Permitted Spaces Behind Frankie & Fanucci's
2	Lot J	0	0	0	0	0	45	45	0	0	0	0	6	6	51 CVS Metered Lot
2	Lot K	0	0	0	0	8	0	8	0	0	0	0	0	0	8 GP Permitted Spaces Next to Fedex
2	Lot R	0	0	0	0	0	0	0	0	0	0	0	7	7	7 Private Lot Next to Prospect Laundromat
3	Mamaroneck	0	27	0	27	0	0	0	0	0	0	0	0	0	27 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
3	Tompkins	0	6	0	6	0	0	0	0	0	0	0	0	0	6 Metered Spaces; 1 hour limit; \$0.25 per 60 minutes
3	Boston Post	0	16	0	16	0	0	0	0	0	0	0	0	0	16 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
3	Lot D	0	0	0	0	6	0	6	0	0	0	0	18	18	24 18 Private Space and 6 GP/ON Permit Spaces
3	Lot E	0	0	0	0	0	0	0	21	20	124	165	0	0	21 RM Permit Spaces, 20 Meters with varied time limits (90 minute and 4 hour) and 124 165 Private Residential
3	Lot F	0	0	0	0	16	3	19	0	0	0	0	0	0	19 16 GP Permits and 3 Meters (\$0.25 per 60 minutes)
3	Lots G and H	0	0	0	0	0	0	0	0	0	0	0	13	13	13 Lot G serves the Cigar Lounge and Lot H serves Trustco Bank and other commerical space
4	Mamaroneck	0	15	0	15	0	0	0	0	0	0	0	0	0	15 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
4	Boston Post	0	3	0	3	0	0	0	0	0	0	0	0	0	3 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
4	Lot C	0	0	0	0	0	0	0	0	0	0	0	13	13	13 Private Lot Behind Lum Yen
4	Lot D	0	0	0	0	0	15	15	0	0	0	0	0	0	15 Metered Spaces below Emelin Theater; 1 hour limit; \$0.25 per 60 minutes
5	Johnson	18	0	0	18	0	0	0	0	0	0	0	0	0	18 GP Permit; 8am to 6pm
5	Library Lane	0	5	5	10	0	0	0	0	0	0	0	0	0	10 5 Metered Spaces with 2 hour limit and \$0.25 per 20 minutes and 5 Free Spaces with 1 hour
5	Boston Post	0	10	3	13	0	0	0	0	0	0	0	0	0	10 Metered Spaces with 2 hour limit and \$0.25 per 20 minutes and 3 Free Spaces with 1
5	Lot D	0	0	0	0	16	0	16	0	0	0	0	0	0	13 hour time limit; free space includes 1 ADA
5	Lot E	0	0	0	0	0	0	0	0	0	0	0	80	80	16 GP/ON Permitted lot next to Washingtonville Housing Alliance
5															80 Private lot for St. Thomas Episcopal Church
6	Tompkins	0	23	3	26	0	0	0	0	0	0	0	0	0	26 Meters with 90 minute limit and \$0.25 per 30 minutes and 3 Free Spaces (15 minutes
6	Johnson	8	0	10	18	0	0	0	0	0	0	0	0	0	26 only); free space includes 1 ADA
6	Lot E	0	0	0	0	23	0	23	0	0	0	0	0	0	18 10 Spaces for police cars only; 8 GP Permit Spaces
6	Lot F	0	0	0	0	0	0	0	0	0	0	0	18	18	23 M Permit Spaces, municipal employees only
7	Mamaroneck	0	36	0	36	0	0	0	0	0	0	0	0	0	18 Private lot for municipal/police vehicles only
7	Palmer	0	0	3	3	0	0	0	0	0	0	0	0	0	36 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
7	Mount Pleasant	0	0	11	11	0	0	0	0	0	0	0	0	0	3 Spaces with 60 minute limit between 9am and 5pm
7	Lot A	0	0	0	0	0	0	0	148	64	0	212	0	0	11 Spaces with 3 hour limit between 9am and 5pm
7	Lot C	0	0	0	0	0	0	0	0	0	0	0	21	21	212 148 GP Permit Spaces and 64 Meter Spaces with 8 hour limit and \$0.25 per 60 minutes
7	Lot D	0	0	0	0	0	0	0	0	0	0	0	12	12	21 Private lot for Chase Bank
8	Mamaroneck	0	64	0	64	0	0	0	0	0	0	0	0	0	12 Private lot for NYSC
8	Mount Pleasant	0	4	14	18	0	0	0	0	0	0	0	0	0	64 Metered Spaces; 2 hour limit; \$0.25 per 20 minutes
															4 Metered Spaces with 1 hour limit; 5 Free Spaces with 15 minute limit (including 1 ADA); 4
8	Lot B through I	0	0	0	0	0	0	0	0	0	0	0	93	93	18 Free Spaces with 90 minute limit
															Includes private lots associated with rehab center, Hudson City Bank, and Post Office, the
															lots in front of and behind the Cromwell Group, and the unstripped and loading areas
															93 behind Sleepy's, La Herradura, Vinifera, etc.
Total		58	366	49	473	110	114	224	169	84	124	377	355	1,429	

# VILLAGE OF MAMARONECK

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