

Design Consultants, Inc.

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MEMORANDUM

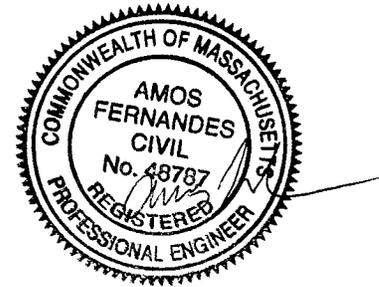
DCI JOB NO. 2014-0XX

TO: Luz Londono & Vincent Beaudet

FROM: Amos Fernandes, P.E., PTOE, AICP
Transportation Manager

SUBJECT: **Parking Study**
508-510 Somerville Ave
Somerville, MA

DATE: July 1, 2014



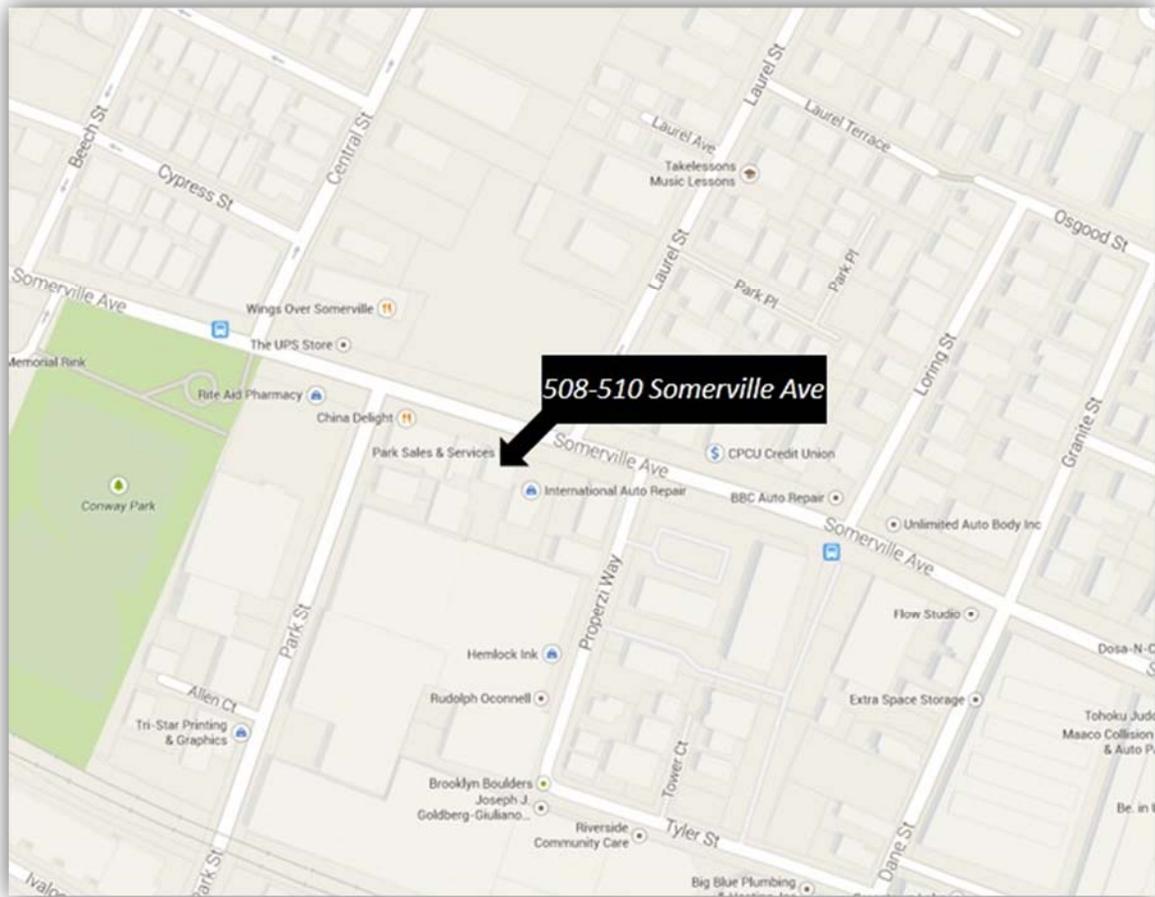
Design Consultants, Inc. has evaluated the transportation and parking impacts of the project site at 508-510 Somerville Avenue, in Somerville, Massachusetts. The proposed project will introduce twelve (12) residential units in two buildings with a shared driveway from an existing curb cut. A total of approximately 1,201 square feet of ground floor retail will be provided.

The 508 Somerville Avenue building will be 4 story's and include seven (7) residential units (2-bedroom), 633 square feet of ground floor retail, and has seven (7) compact on-site parking spaces (8'x16') and one (1) ADA parking space with access aisle. The required number of off-street parking according to Article 9 of the Somerville Zoning Ordinance (SZO) is thirteen (13) spaces. Therefore, 508 Somerville Avenue seeks relief from the SZO for five (5) spaces.

The 510 Somerville Avenue building will be 3 story's and include five (5) residential units (2-bedroom), 568 square feet of ground floor retail, and has five (5) compact on-site parking spaces (8'x16') and one (1) ADA parking space with access aisle. The required number of off-street parking according to Article 9 of the Somerville Zoning Ordinance (SZO) is nine (9) spaces. Therefore, 510 Somerville Avenue seeks relief from the SZO for three (3) spaces.

Combined, 508-510 Somerville Avenue seeks parking relief for eight (8) spaces. A project locus map of the Site is shown in Figure 1.

Figure 1: Project Location



Map Source: Google Maps

This memorandum serves to identify whether or not the Site will have an adverse impact on the surrounding neighborhood's on-street parking supply. The following characteristics of the Site and the study area are analyzed and discussed:

- Proximity to Public Transit;
- Transportation Modes and Characteristics; and,
- On-Street Parking Utilization.

Transit Supply

The Site is conveniently situated close to public transportation. The Site is approximately 1-mile away from the Porter Square Transit Station and approximately 1-mile from the Harvard Square Transit Station. Moreover, the Site is served by the following MBTA bus routes #83 and #87 on Somerville Avenue.

The Green Line Extension (GLX) project will have a proposed transit stations at Gilman Square and Union Square Station – both less than 1-mile away. The anticipated completion date for the Union Square Station is 2016. Gilman Square Station is expected to be

complete by 2019. This project will extend the existing MBTA Green Line service from a relocated Lechmere Station in East Cambridge to Union Square in Somerville and College Avenue in Medford. This project is a major transportation priority of the Commonwealth and will offer a “one-seat” ride along the project corridor to downtown Boston, (eliminating the need for transfers at Lechmere Station and at Orange and Red Line stations) improving travel times within the project corridor. The new transit station will meet or exceed the Americans with Disabilities Act (ADA) standards. Once completed, trains will operate every five to six minutes in the peak periods, providing fast and efficient service to downtown Boston.

Existing Transportation Modes and Characteristics

Local transportation data for the area encompassing 508-510 Somerville Avenue was obtained and analyzed using information from the US Census Bureau and the latest American Community Survey (ACS) 5-Year Estimate (2008-2012).

The ACS is a nationwide survey that collects and produces information on demographic, social, economic, and housing characteristics about the US population every year. With respect to local transportation and the subject site, this information provides an important tool to identify unique community characteristics and allows decision makers to obtain a clear picture of their population so that scarce transportation infrastructure can be allocated efficiently and effectively.

508-510 Somerville Avenue is located in Census Tract 3512.04. The Site within the Census Tract is shown in Figure 2. Census Tracts are small, relatively permanent statistical subdivisions of a county or equivalent entity that are updated by local participants prior to each decennial census as part of the Census Bureau's Participant Statistical Areas Program. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people.

According to the 2008-2012 ACS data for Census Tract 3512.04, approximately 33.5% of the local population have no automobile. According to the same US Census Tract Data, 57.8% of Somerville workers in the area travel to work without the use of an automobile. The vehicle ownership data for Census Tract 3512.04 is summarized in Table 1 and Figure 3.

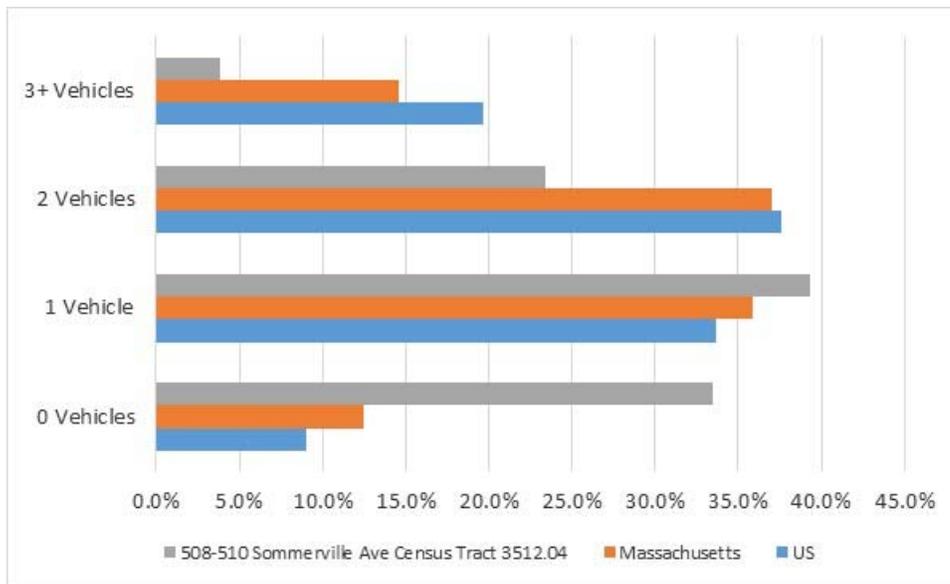
Table 1: Vehicle Ownership Summary (2008-2012 ASC Data)

Automobile Ownership	US	Massachusetts	508-510 Somerville Ave Census Tract 3512.04
0 Vehicles	9.0%	12.5%	33.5%
1 Vehicle	33.7%	35.9%	39.3%
2 Vehicles	37.6%	37.0%	23.4%
3+ Vehicles	19.7%	14.6%	3.8%
Total	100.0%	100.0%	100.0%

Figure 2: 508-510 Somerville Avenue in Census Tract 3512.04



Figure 3: Vehicle Ownership Summary (2008-2012 ASC Data)



As summarized in Table 1 and illustrated in Figure 3, 508-510 Somerville Avenue is located in an area where vehicle ownership for occupied housing units is not as prevalent compared to the State and the Nation. For the entire nation and the State of Massachusetts, 91% and 87.5% of occupied housing units have access to at least 1 automobile, respectively. For the local community that encompasses 508-510 Somerville Avenue, 33.5% of the occupied housing units has no automobile.

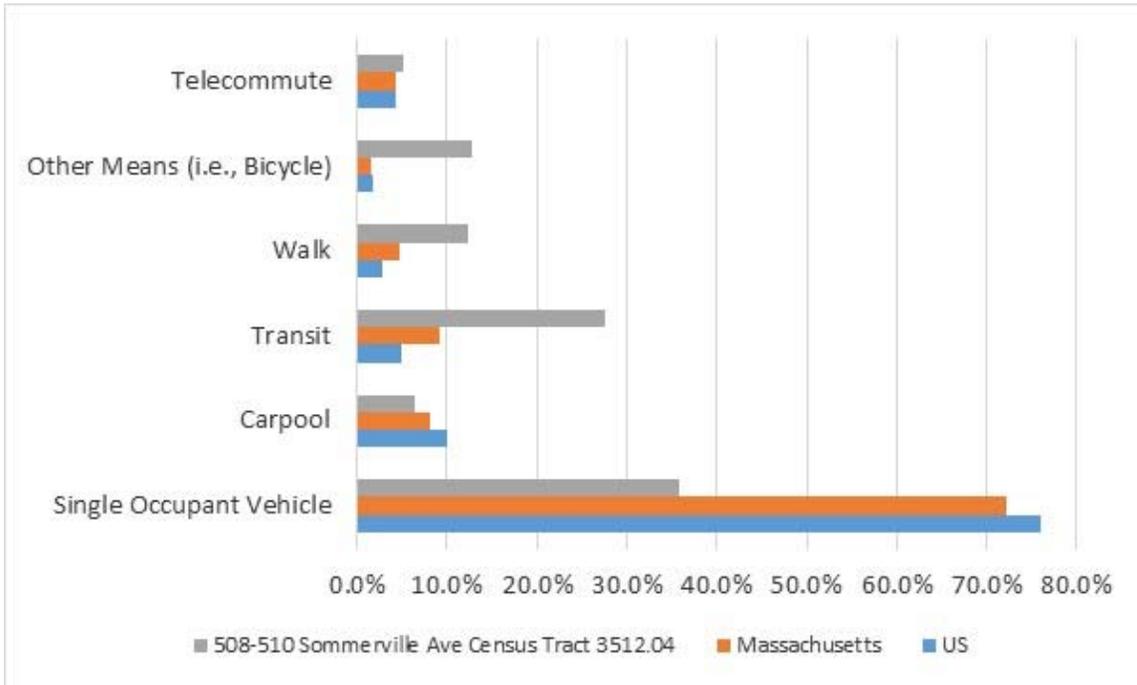
In terms of mode split for the commute to work, 57.8% of the local working community find transportation to work without use of an automobile. Approximately 27.5% of the local working population use transit and 25.1% of the local working population walk or

bicycle to work. Just over 5% of the local working population in the area of 508-510 Somerville Avenue work from home. The mode split data for Census Tract 3512.04 is summarized in Table 2 and Figure 4.

Table 2: Mode Split for the Commute to Work (2008-2012 ASC Data)

Commuting to Work	US	Massachusetts	508-510 Somerville Ave
			Census Tract 3512.04
Single Occupant Vehicle	76.1%	72.2%	35.9%
Carpool	10.0%	8.1%	6.3%
Transit	5.0%	9.2%	27.5%
Walk	2.8%	4.7%	12.4%
Other Means (i.e., Bicycle)	1.8%	1.6%	12.7%
Telecommute	4.3%	4.2%	5.2%
Total	100.0%	100.0%	100.0%

Figure 4: Mode Split for the Commute to Work (2008-2012 ASC Data)



As summarized in Table 2 and illustrated in Figure 4, 508-510 Somerville Avenue is located in an area where the automobile as a means of transportation to work is relatively obsolete compared to the State and the Nation. For the entire nation and the State of Massachusetts, 86.1% and 80.3% of the population use the automobile for the work commute, respectively. For the local community at 508-510 Somerville Avenue, only 42.2% use the automobile for the work commute (including car poolers).

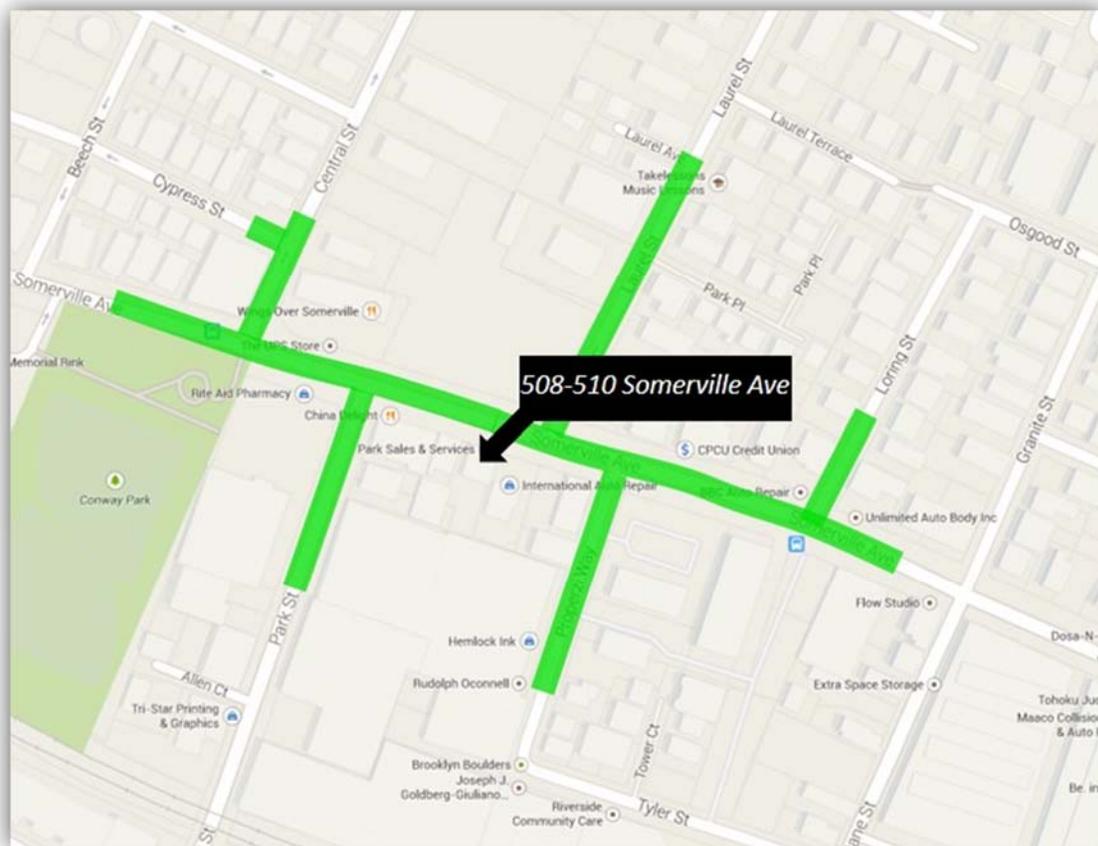
Existing On-Street Parking Utilization

The study area included all on-street parking in the vicinity of 508-510 Somerville Avenue within 500 linear feet. DCI performed a parking survey of all available on-street parking areas to determine the existing parking utilization. The study area included the following roadways:

- Somerville Avenue, from 467 Somerville to 545 Somerville
- Loring Street, from 9 Loring Street to Somerville Avenue
- Properzi Way, from End of the Street to Somerville Avenue
- Laurel Street, from Park Place to Somerville Avenue
- Park Street, from Allen Court to Somerville Avenue
- Central Street, from 8 Central Street to Somerville Avenue
- Cypress Street, form 2 Cypress Street to Central Street

This study area is shown in Figure 5.

Figure 5: Parking Utilization Study Area



Map Source: Google Maps

On-Street Parking Inventory

DCI recorded the number of available parking spaces in the study area streets during a typical weekday and during a typical Saturday. The parking data were collected during on Wednesday, June 25, 2014 (12:00 – 2:00 PM, 5:00 – 7:00 PM) and Saturday, June 28, 2014 (12:00 – 2:00 PM). The results of the parking surveys are summarized in Table 3. Detailed tables with the complete parking survey data are contained in the attached Appendix. As indicated by the parking survey summary, an average total of 63 parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 58 parking spaces were available during the weekday evening period (5:00 PM to 7:00 PM). On Saturday, during the mid-day observation period (12:00 PM to 2:00 PM), an average of 55 parking spaces were available. The results of this parking survey indicate that there is under-utilized permit parking spaces spread amongst the study area streets.

Table 3: Parking Survey Summary

Street	Section		Subsection	Weekday		Weekend	
	From	to		Afternoon Average	Evening Average	Afternoon Average	
Loring Street	9 Loring Street	Somerville Avenue	East Side	1	2	2	
			(Capacity)	(3)	(3)	(3)	
			West Side	3	2	0	
			(Capacity)	(5)	(5)	(5)	
Properzi Way	End of the Street	Somerville Avenue	East Side	3	1	0	
			(Capacity)	(4)	(4)	(4)	
			West Side	10	9	8	
			(Capacity)	(15)	(15)	(15)	
				2	5	3	
			(Capacity)	(6)	(6)	(6)	
Laurel Street	Park Place	Somerville Avenue	East Side	1	1	6	
			(Capacity)	(8)	(8)	(8)	
			West Side	0	0	2	
			(Capacity)	(4)	(4)	(4)	
				1	4	4	
			(Capacity)	(8)	(8)	(8)	
Park Street	Allen Court	Somerville Avenue	East Side	8	7	9	
			(Capacity)	(14)	(14)	(14)	
			West Side	0	1	0	
			(Capacity)	(2)	(2)	(2)	
Central Street	8 Central Street	Somerville Avenue		2	4	4	
			(Capacity)	(5)	(5)	(5)	
Cypress Street	2 Cypress Street	Central Street	East Side	0	2	3	
			(Capacity)	(3)	(3)	(3)	
			West Side	0	2	0	
			(Capacity)	(2)	(2)	(2)	
Somerville Avenue	467 Somerville	545 Somerville	North Side	4	2	1	
			(Capacity)	(5)	(5)	(5)	
				2	1	1	
			(Capacity)	(3)	(3)	(3)	
			South Side	3	5	2	
			(Capacity)	(9)	(9)	(9)	
				4	0	6	
			(Capacity)	(7)	(7)	(7)	
LEGEND				TOTAL CAPACITY	102	102	102
	Permit Parking, Only except on Sundays	TOTAL OCCUPIED		40	44	48	
	2 Hour parking only, except by permit	TOTAL AVAILABLE		63	58	55	
	Metered Parking						
	15 Minute Parking						
	1 Hour Parking only, except by permit Sundays & Holidays						

Conclusions

This study examined the parking impacts of the project site at 508-510 Somerville Avenue, in Somerville, Massachusetts. The proposed project will introduce a combined twelve (12) residential units in two buildings with a shared driveway from an existing curb cut. A total of approximately 1,201 square feet of ground floor retail will be provided between the two buildings.

The 508 Somerville Avenue building will be 4 story's and include seven (7) residential units (2-bedroom), 633 square feet of ground floor retail, provide for seven (7) compact on-site parking spaces (8'x16') and one (1) ADA parking space with access aisle. The required number of off-street parking according to Article 9 of the Somerville Zoning Ordinance (SZO) is thirteen (13) spaces. Therefore, 508 Somerville Avenue seeks relief from the SZO for five (5) spaces.

The 510 Somerville Avenue building will be 3 story's and include five (5) residential units (2-bedroom), 568 square feet of ground floor retail, provide for five (5) compact on-site parking spaces (8'x16') and one (1) ADA parking space with access aisle. The required number of off-street parking according to Article 9 of the Somerville Zoning Ordinance (SZO) is nine (9) spaces. Therefore, 510 Somerville Avenue seeks relief from the SZO for three (3) spaces.

Combined, 508-510 Somerville Avenue seeks parking relief for eight (8) spaces. As indicated by the parking survey summary, an average total of 63 parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 58 parking spaces were available during the weekday evening period (5:00 PM to 7:00 PM). On Saturday, during the mid-day observation period (12:00 PM to 2:00 PM), an average of 55 parking spaces were available. The results of this parking survey indicate that there is under-utilized permit parking spaces spread amongst the study area streets.

The Site is located in an area where the automobile as a means of transportation to work is relatively obsolete. For the local community at 508-510 Somerville Avenue, 57.8% of the working population commute via transit, bike, walk, and/or telecommute. Moreover, 33.5% of the occupied housing units in the same US Census Tract have no automobile at home. The findings from this study indicate that the proposed development at 508-510 Somerville Avenue will not have any negative parking impacts to the surrounding transportation system and is expected to encourage the use of multi-modal transportation options in Somerville and the region beyond.

Appendix

Parking Survey Data Sheets & Calculations

Parking Survey

City: Somerville, MA

Proj. No.: _____

Street: 508 Somerville Avenue

Sheet No.: 1

Date: 6/28/2014

Field by: Frantz Renard

Weather: Overcast 80's

Notes: _____

Total Available Parking Spaces

Street	Section		Subsection	Total Available Spaces
	From	to		
Loring Street	9 Loring Street	Somerville Avenue	East Side	3
			West Side	5
Properzi Way	End of the Street	Somerville Avenue	East Side	4
			West Side	6
				15
Laurel Street	Park Place	Somerville Avenue	East Side	8
			West Side	4
				8
Park Street	Allen Court	Somerville Avenue	East Side	14
			West Side	0
Central Street	8 Central Street	Somerville Avenue	East Side	0
			West Side	2
				5
Cypress Street	2 Cypress Street	Central Street	East Side	2
			West Side	2
Somerville Avenue	467 Somerville Avenue	545 Somerville Avenue	North Side	5
			South Side	9
				3
				7
TOTAL:				102

LEGEND

	Permit Parking, Only except on Sundays
	2 Hour parking only, except by permit
	Metered Parking
	15 Minute Parking
	1 Hour Parking only, except by permit Sundays & Holidays

Parking Survey

City: Somerville, MA

Street: 508 Somerville Avenue, Somerville, MA

Date: June 25, 2014 (12-2pm & 5-7pm)

Weather: Overcast 80's

Proj. No.: _____

Sheet No.: 2

Field by: Frantz Renard

Notes: _____

Weekday Occupied Parking Spaces

Street	Section		Subsection	12:00 PM	1:00 PM	5:00 PM	6:00 PM
	From	to		to 1:00 PM	to 2:00 PM	to 6:00 PM	to 7:00 PM
Loring Street	9 Loring Street	Somerville Avenue	East Side	1	1	2	2
			West Side	2	3	1	2
Properzi Way	End of the Street	Somerville Avenue	East Side	2	3	1	1
			West Side	10 2	10 1	5 2	12 4
Laurel Street	Park Place	Somerville Avenue	East Side	1	0	0	2
			West Side	0 1	0 1	0 3	0 5
Park Street	Allen Court	Somerville Avenue	East Side	8	8	8	5
			West Side	0	0	0	0
Central Street	8 Central Street	Somerville Avenue	East Side	0	0	0	0
			West Side	0 2	0 1	1 4	0 4
Cypress Street	2 Cypress Street	Central Street	East Side	0	0	2	2
			West Side	0	0	1	2
Somerville Avenue	467 Somerville Avenue	545 Somerville Avenue	North Side	4 2	3 1	3 1	1 0
			South Side	2 3	3 4	4 0	5 0
			TOTAL:	40	39	38	47

LEGEND

	Permit Parking, Only except on Sundays
	2 Hour parking only, except by permit
	Metered Parking
	15 Minute Parking
	1 Hour Parking only, except by permit Sundays & Holidays

Parking Survey

City: Somerville, MA

Street: 508 Somerville Avenue, Somerville, MA

Date: June 28, 2014 (12-2pm)

Weather: Overcast 80's

Proj. No.: _____

Sheet No.: 2

Field by: Frantz Renard

Notes: _____

Saturday Occupied Parking Spaces

Street	Section		Subsection	12:00 PM	1:00 PM
	From	to		to 1:00 PM	to 2:00 PM
Loring Street	9 Loring Street	Somerville Avenue	East Side	1	2
			West Side	0	0
Properzi Way	End of the Street	Somerville Avenue	East Side	0	0
			West Side	8 3	7 2
Laurel Street	Park Place	Somerville Avenue	East Side	6	6
			West Side	0 3	3 4
Park Street	Allen Court	Somerville Avenue	East Side	10	8
			West Side	0	0
Central Street	8 Central Street	Somerville Avenue	East Side	0	0
			West Side	0 4	0 4
Cypress Street	2 Cypress Street	Central Street	East Side	2	3
			West Side	0	0
Somerville Avenue	467 Somerville Avenue	545 Somerville Avenue	North Side	0 2	1 0
			South Side	2 5	2 6
TOTAL:				46	48

LEGEND

	2 Hour parking only, except by permit
	Metered Parking
	15 Minute Parking
	1 Hour Parking only, except by permit Sundays & Holidays