

Design Consultants, Inc.

120 Middlesex Avenue
Somerville, MA 02145
(617) 776-3350

MEMORANDUM

DCI JOB NO. 2014-030

TO: Terence Smith, Traffic & Parking
City of Somerville, MA

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

SUBJECT: **Parking Study**
45 Adrian Street
Somerville, MA

DATE: April 15, 2014

Design Consultants, Inc. has evaluated the transportation and parking impacts of the project site at 45 Adrian Street in Somerville, Massachusetts. The Site at 45 Adrian Street consists of modifications to the existing residential building which will require relief from the parking ordinance for two (2) spaces. 45 Adrian Street will add one (1) additional residential unit for a total of three (3) residential units. DCI has conducted an on-street parking utilization study to determine the availability of on-street parking in the vicinity of the project site at 45 Adrian Street. A project locus map of the Site is shown in Figure 1.

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.

Figure 1: Project Location



Map Source: Google Maps

Transit Supply

The Site is conveniently situated close to public transportation. 45 Adrian Street is approximately a mile from the Central Square Transit Station.

The Green Line Extension (GLX) project will have a proposed transit stations at Union Square less than a mile away. Union Square Station is expected to be complete by 2016. 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. Mitigation measures during construction will reduce existing noise and vibration impacts from area railroads. 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 45 Adrian Street 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.

45 Adrian Street is located in Census Tract 3512.03. 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 3512.03, approximately 28.5% of the local population have no automobile. The vehicle ownership data for Census Tract 3512.03 is summarized in Table 1 and Figure 3.

Figure 2: 45 Adrian St in Census Tract 3512.03

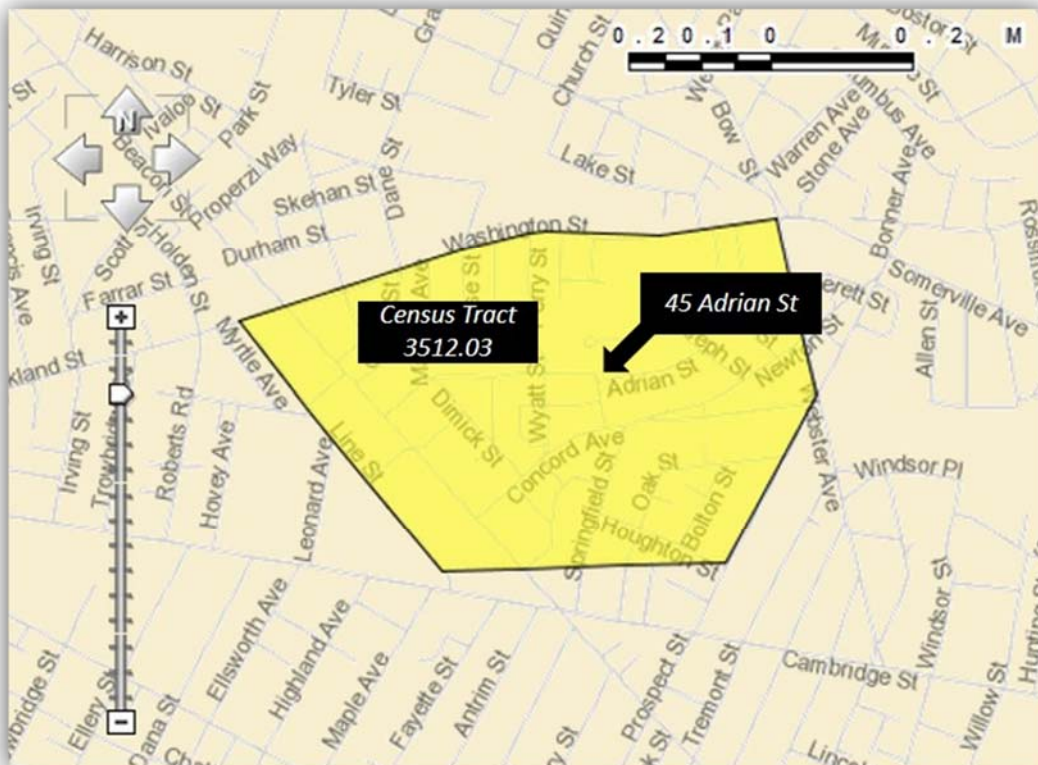
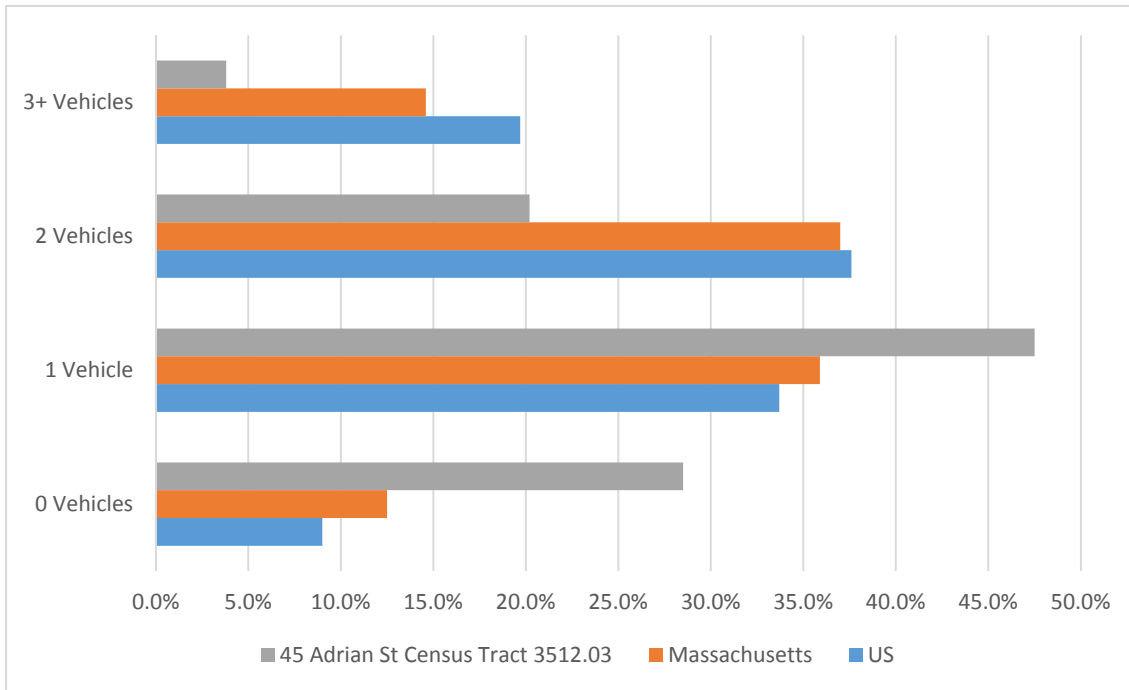


Table 1: Vehicle Ownership Summary (2008-2012 ASC Data)

Automobile Ownership	US	Massachusetts	45 Adrian St
			Census Tract 3512.03
0 Vehicles	9.0%	12.5%	28.5%
1 Vehicle	33.7%	35.9%	47.5%
2 Vehicles	37.6%	37.0%	20.2%
3+ Vehicles	19.7%	14.6%	3.8%
Total	100.0%	100.0%	100.0%

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



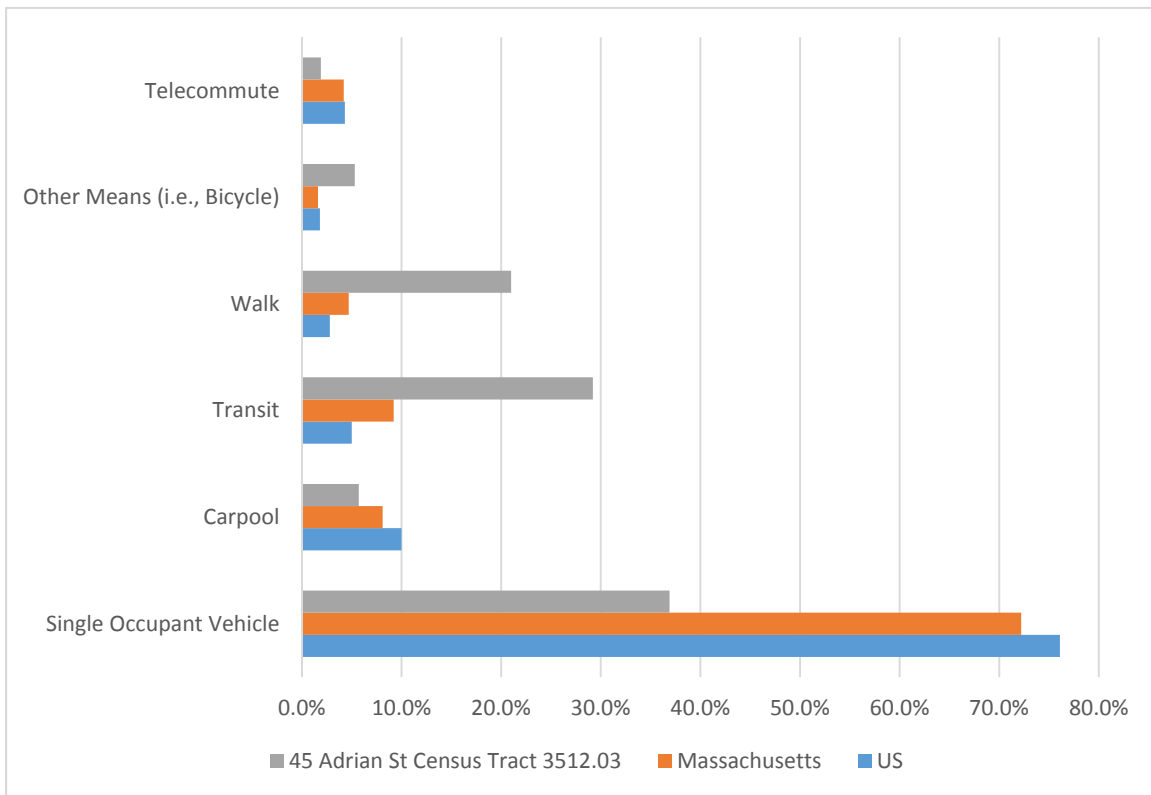
As summarized in Table 1 and illustrated in Figure 3, 45 Adrian Street is located in an area where vehicle ownership for occupied housing units is not as prevalent compared to the State and the Nation. For the entire nation and the State of Massachusetts, 91% and 87.5% of occupied housing units have access to at least 1 automobile, respectively. For the local community that encompasses 45 Adrian Street, 28.5% of the occupied housing units has no automobile.

In terms of mode split for the commute to work, approximately (57.4%) of the local working community find transportation to work without use of an automobile. Approximately 29.2% of the local working population use transit and 26.3% of the local working population walk or bicycle to work. Just under 2% of the local working population in the area of 45 Adrian Street work from home. The mode split data for Census Tract 3512.03 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	45 Adrian St
			Census Tract 3512.03
Single Occupant Vehicle	76.1%	72.2%	36.9%
Carpool	10.0%	8.1%	5.7%
Transit	5.0%	9.2%	29.2%
Walk	2.8%	4.7%	21.0%
Other Means (i.e., Bicycle)	1.8%	1.6%	5.3%
Telecommute	4.3%	4.2%	1.9%
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, 45 Adrian Street 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 45 Adrian Street, only 42.6% use the automobile for the work commute.

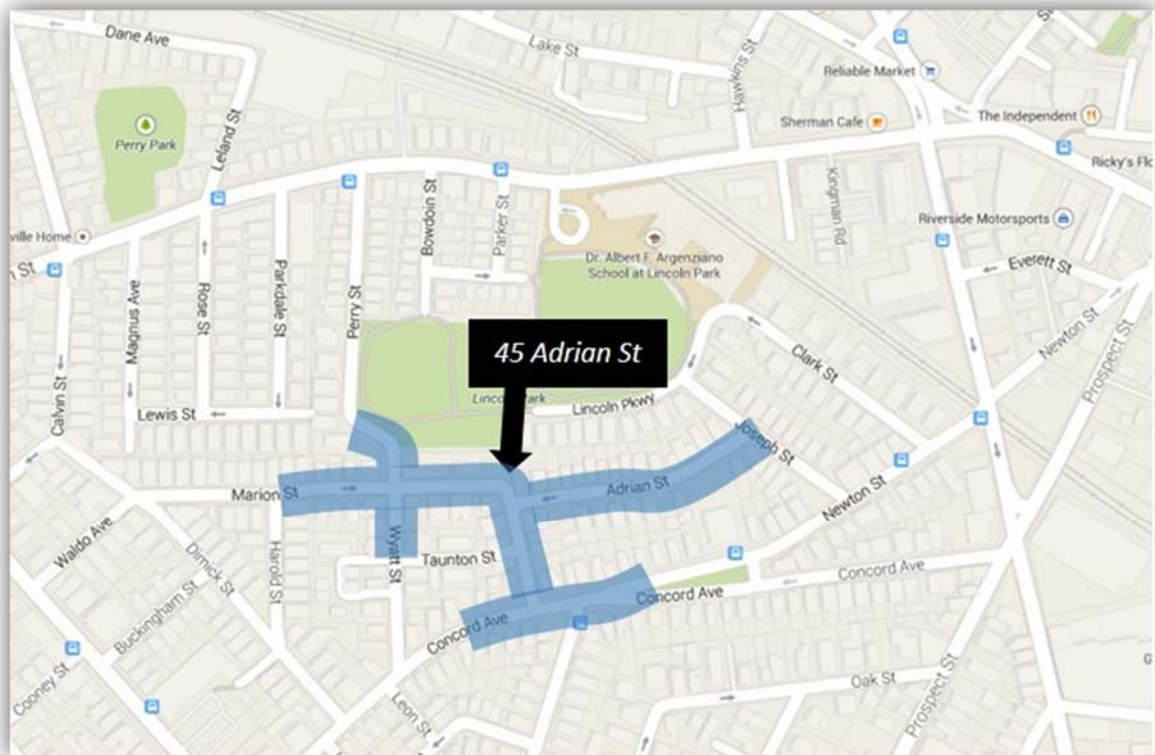
Existing On-Street Parking Utilization

The study area included all on-street parking in the vicinity of 45 Adrian Street 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:

- Adrian St, from Marion St to Joseph St
- Wyatt St, from # 47 Perry St to #16 Wyatt St (Wyatt Circle South)
- Marion St (North-South), from #33 Marion St to Concord Ave
- Marion St (East-West), from Harold St to #33 Marion St
- Concord Ave, from # 57 Concord Ave to # 79 Concord Ave

This study area is shown in Figure 3.

Figure 3: Project 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 the following time periods:

- Thursday, April 3, 2014 (12:00 – 2:00 PM)
- Saturday, April 5, 2014 (11:00 – 2:00 PM)
- Wednesday, April 9, 2014 (5:00 – 7:00 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 69 parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 59 parking spaces were available during the weekday evening period (5:00 PM to 7:00 PM). On Saturday, during the mid-day observation period (11:00 AM to 2:00 PM), an average of 61 parking spaces were available. The results of this parking survey indicate that there is a substantial amount of 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
Wyatt St	# 47 Perry St	#16 Wyatt St	East Side	5	5	8
			West Side	9	7	10
Marion St (North-South)	#33 Marion St	Concord Ave	North Side	0	5	5
			South Side	8	6	6
Marion St (East-West)	Harold St	#33 Marion St	East Side	8	8	7
			West Side	8	11	11
Concord Ave	# 57 Concord Ave	# 79 Concord Ave	North Side	7	9	3
			South Side	5	6	8
Adrian St	Marion St	Joseph St	North Side	7	9	9
			South Side	3	3	1
	Accessible parking		CAPACITY	136	136	136
	Permit parking		OCCUPIED	67	78	75
			REMAINING AVAILABLE	69	59	61

Conclusions

This study has examined the transportation and parking impacts of the project site at 45 Adrian Street in Somerville, Massachusetts. 45 Adrian Street consists of modifications to the existing residential building which will require relief from the parking ordinance for two (2) spaces. 45 Adrian Street will add one (1) additional residential unit for a total of three (3) residential units. DCI has conducted an on-street parking utilization study and confirmed the availability of on-street parking in the vicinity of the project site at 45 Adrian Street. An average total of 69 parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 59 parking spaces were available during the weekday evening period (5:00 PM to 7:00 PM). On Saturday, during the mid-day observation period (11:00 AM to 2:00 PM), an average of 61 parking spaces were available.

45 Adrian Street 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 45 Adrian Street, only 42.6% use the automobile for the work commute. 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 45 Adrian Street, 28.5% of the occupied housing units has no automobile.

The Site is conveniently situated close to public transportation. The Site is approximately a mile away from the Central Square Transit Station. The Green Line Extension (GLX) project will have a proposed transit station at Union Square less than a mile away by Year 2016.

Synthesizing these site characteristics holistically, in combination with the supporting multimodal transportation infrastructure, the proposed residential redevelopment is expected to fit the lifestyle and goals of the local community and the City of Somerville.

Appendix

Parking Survey Data Sheets & Calculations

Parking Survey

City: Somerville, MA

Proj. No.: 2014-030

Street: 45 Adrian St

Sheet No.: 1

Date: 4/3/2014 Thursday

Field by: Steve Wen

Weather: sunny

Notes: _____

Total Available Parking Spaces

Street	Section		Subsection	Total Available Spaces
	From	to		
Wyatt St	# 47 Perry St	#16 Wyatt St (Wyatt Circle South)	East Side	16
			West Side	12
Marion St (North-South)	#33 Marion St	Concord Ave	North Side	6
			South Side	7
Marion St (East-West)	Harold St	#33 Marion St	East Side	16
			West Side	19
Concord Ave	# 57 Concord Ave	# 79 Concord Ave	North Side	9
			South Side	11
Adrian St	Marion St	Joseph St	North Side	18
			South Side	19
			TOTAL:	136

	Accessible parking
	Permit parking

Parking Survey

City: Somerville, MA

Proj. No.: 2014-030

Street: 45 Adrian St

Sheet No.: 3

Date: 4/5/2014 Saturday

Field by: Frantz Renard

Weather: sunny, overcast 50's

Notes: _____

Weekday Occupied Parking Spaces

Street	Section		Subsection	11:00 AM	12:00 PM	1:00 PM
	From	to		to 12:00 PM	to 1:00 PM	to 2:00 PM
Wyatt St	# 47 Perry St	#16 Wyatt St (Wyatt Circle South)	East Side	7	8	8
			West Side	10	10	10
Marion St (North-South)	#33 Marion St	Concord Ave	North Side	5	6	5
			South Side	6	5	6
Marion St (East-West)	Harold St	#33 Marion St	East Side	6	6	8
			West Side	11	11	11
Concord Ave	# 57 Concord Ave	# 79 Concord Ave	North Side	2	4	4
			South Side	9	7	8
Adrian St	Marion St	Joseph St	North Side	7	10	10
			South Side	3	10	10
TOTAL:				66	78	81

	Accessible parking
	Permit parking

Parking Survey

City: Somerville, MA

Street: 45 Adrian St

Date: 4/3/2014 Thursday (12-2pm) 4/9/2014 Wednesday (5-7pm)

Weather: sunny, overcast 50's

Proj. No.: 2014-030

Sheet No.: 2

Field by: Steve Wen & 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	6:00 PM	7:00 PM
Wyatt St	# 47 Perry St	#16 Wyatt St (Wyatt Circle South)	East Side	5	5	6	4
			West Side	9	9	7	7
Marion St (North-South)	#33 Marion St	Concord Ave	North Side	0	0	5	5
			South Side	2	2	6	6
Marion St (East-West)	Harold St	#33 Marion St	East Side	8	8	6	9
			West Side	8	7	9	12
Concord Ave	# 57 Concord Ave	# 79 Concord Ave	North Side	6	7	8	10
			South Side	5	5	7	5
Adrian St	Marion St	Joseph St	North Side	7	6	9	9
			South Side	3	3	3	3
			TOTAL:	60	62	73	82

	Accessible parking
	Permit parking