

## Design Consultants, Inc.

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### MEMORANDUM

DCI JOB NO. 2014-023

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

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

**SUBJECT:** **Parking Study**  
50-52 Whitman Street  
Somerville, MA

**DATE:** March 11, 2014

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Design Consultants, Inc. has evaluated the transportation and parking impacts of the project site at 50-52 Whitman Street in Somerville, Massachusetts. 50-52 Whitman Street consists of modifications to the existing residential building and a conversion to a group home. As part of this conversion, a special permit is necessary and the City's Planning staff has suggested that a parking study may help in addressing neighborhood concerns. As a result, DCI will conduct an on-street parking utilization study to determine the availability of on-street parking in the vicinity of the project site at 50-52 Whitman Street. A project locus map of the Site is shown in Figure 1.

This memorandum serves to demonstrate that the site will not have an adverse impact on the surrounding neighborhood's on-street parking supply. The following characteristics of the Site and the surrounding area are 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. The Site is approximately half a mile from the Davis Square Transit Station.

The Green Line Extension (GLX) project will have a proposed transit stations at Ball Square approximately half mile away. Ball 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. 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

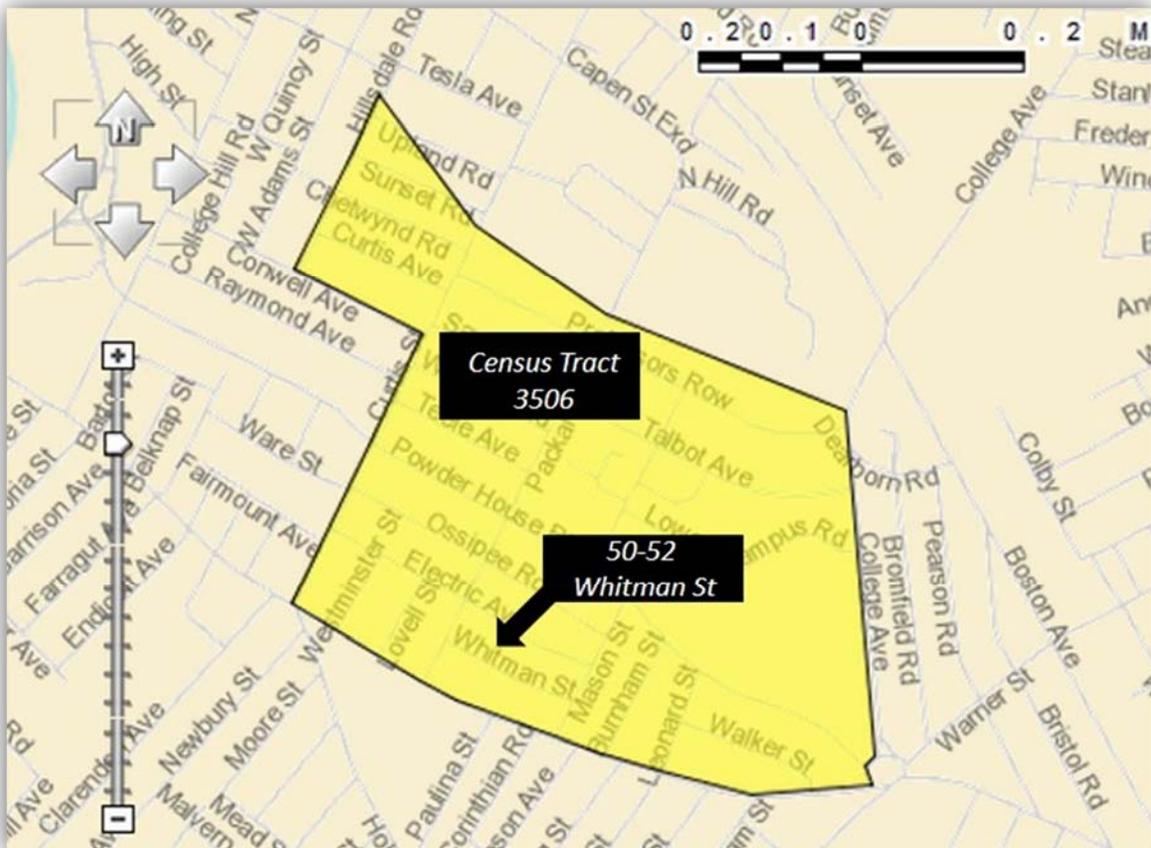
Local transportation data for the area encompassing 50-52 Whitman Street was obtained and analyzed using information from the US Census Bureau and the latest American Community Survey (ACS) 5-Year Estimate (2008-2012).

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.

50-52 Whitman Street is located in Census Tract 3506. 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 3506, approximately 13% of the local population have no automobile. The vehicle ownership data for Census Tract 3506 is summarized in Table 1 and Figure 3.

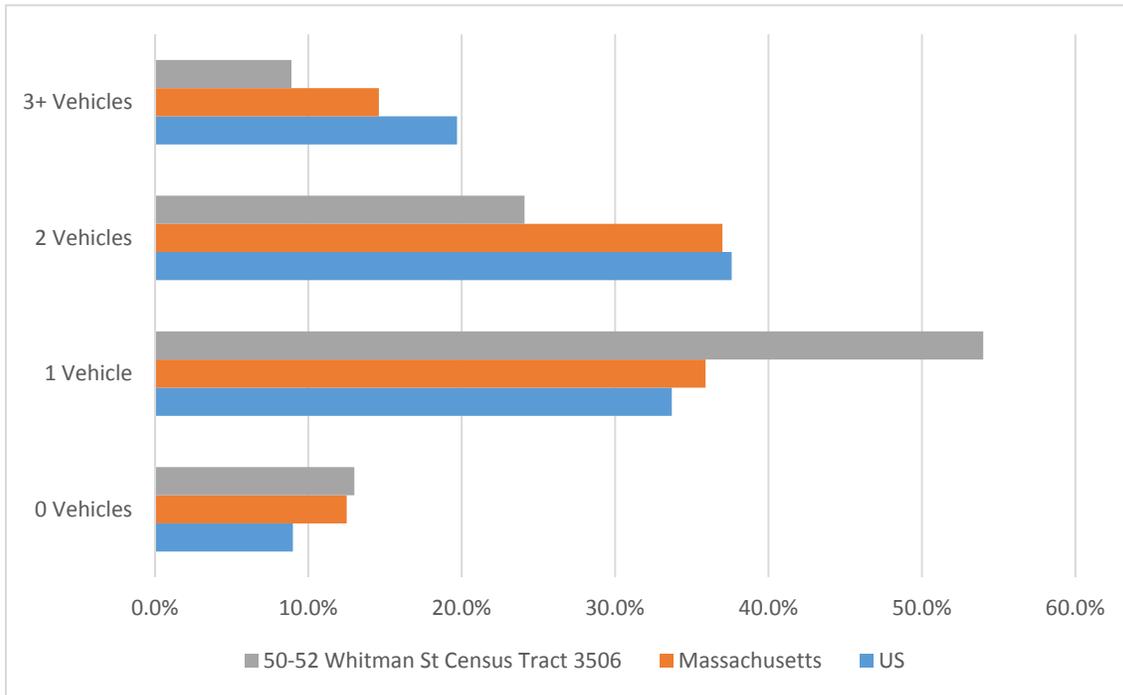
**Figure 2: 50-52 Whitman Street in Census Tract 3506**



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

Automobile Ownership	US	Massachusetts	50-52 Whitman St
			Census Tract 3506
0 Vehicles	9.0%	12.5%	13.0%
1 Vehicle	33.7%	35.9%	54.0%
2 Vehicles	37.6%	37.0%	24.1%
3+ Vehicles	19.7%	14.6%	8.9%
Total	100.0%	100.0%	100.0%

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



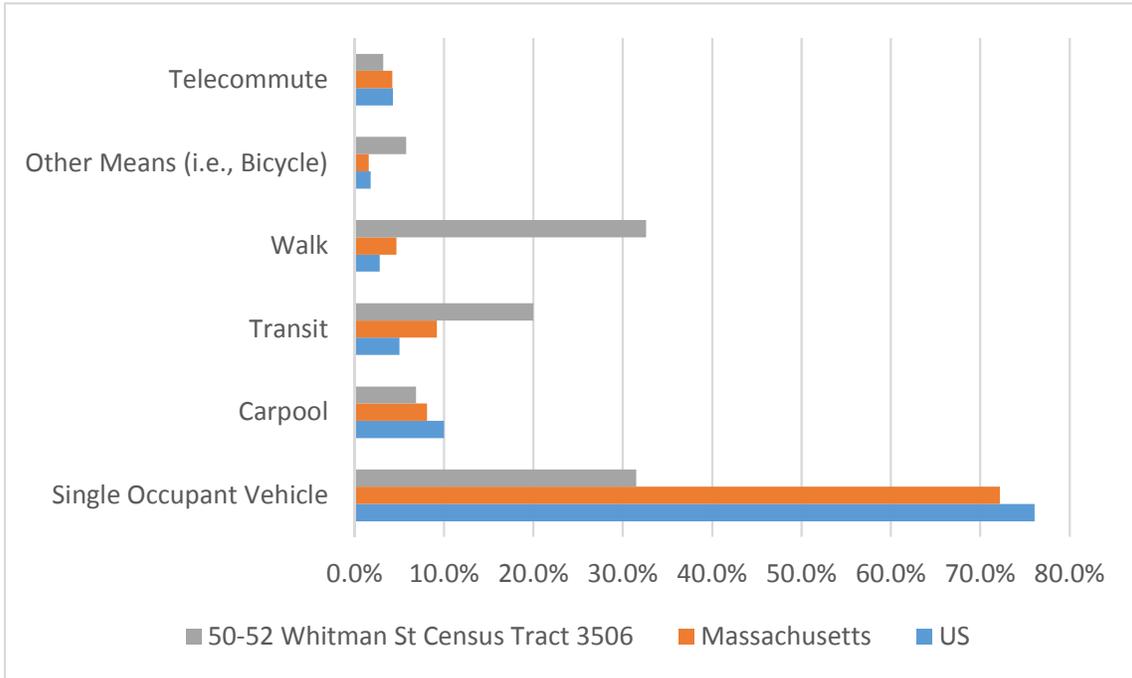
As summarized in Table 1 and illustrated in Figure 3, 50-52 Whitman Street is located in an area where vehicle ownership for occupied housing units is not as prevalent compared to the State and the Nation. For the entire nation and the State of Massachusetts, 91% and 87.5% of occupied housing units have access to at least 1 automobile, respectively. For the local community that encompasses 50-52 Whitman Street, only 67% of the occupied housing units has up to 1 automobile.

In terms of mode split for the commute to work, approximately (61.6%) of the local working community find transportation to work without use of an automobile. Approximately 20% of the local working population use transit and over a third (38.4%) of the local working population walk or bicycle to work. Just over 3% of the local working population in the area of 50-52 Whitman Street work from home. The mode split data for Census Tract 3506 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	50-52 Whitman St
			Census Tract 3506
Single Occupant Vehicle	76.1%	72.2%	31.5%
Carpool	10.0%	8.1%	6.9%
Transit	5.0%	9.2%	20.0%
Walk	2.8%	4.7%	32.6%
Other Means (i.e., Bicycle)	1.8%	1.6%	5.8%
Telecommute	4.3%	4.2%	3.2%
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, 50-52 Whitman 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 50-52 Whitman Street, only 38.4% use the automobile for the work commute.

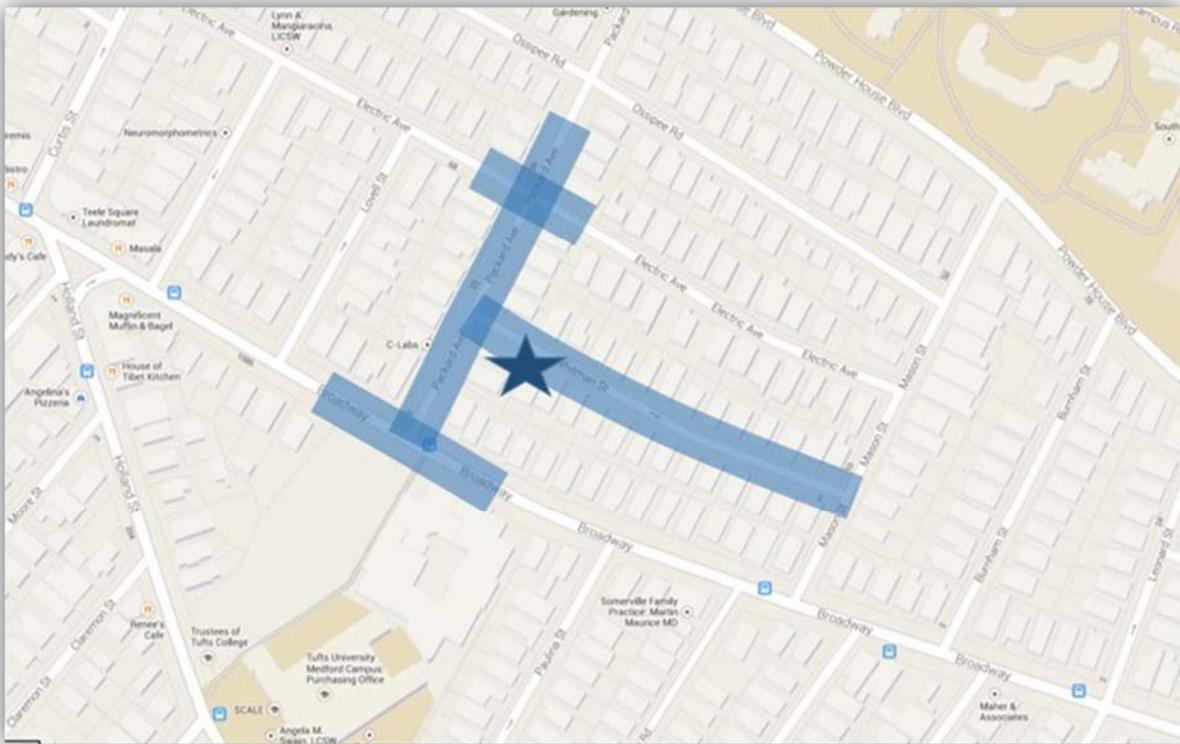
## Existing On-Street Parking Utilization

The study area included all on-street parking in the vicinity of 50-52 Whitman 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:

- Whitman St: From 50-52 Whitman St to 2 Whitman Street
- Packard Ave: From 45 Packard Ave to Broadway
- Broadway: From 1087 Broadway to 1057 Broadway
- Electric Ave: From 47 Electric Ave to 71 Electric 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:

- Saturday, March 8, 2014 (11:00 – 2:00 PM)
- Thursday/Friday, March 6 and 7, 2014 (12:00 – 2:00 PM & 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 88 permit parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 89 permit 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 77 permit 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
Whitman St.	50-52 Whitman St	2 Whitman Street	North Side	16	19	7
			South Side	6	8	14
Packard Ave.	45 Packard Ave	Broadway	East Side	10	8	10
			West Side	12	11	14
Broadway	1087 Broadway	1057 Broadway	North Side	7	6	7
			South Side	7	4	8
Electric Ave	47 Electric Ave	71 Electric Ave	North Side	7	7	8
			South Side	2	4	9
			TOTAL:	65	65	76
			Permit Parking Capacity	153	153	153
			Occupied Permit Parking	65	65	76
			<b>Total Available Parking</b>	<b>88</b>	<b>89</b>	<b>77</b>

## Conclusions

This study has examined the transportation and parking impacts of the project site at 50-52 Whitman Street in Somerville, Massachusetts. 50-52 Whitman Street consists of modifications to the existing residential building and a conversion to a group home. As part of this conversion, a special permit is necessary and the City's Planning staff has suggested that a parking study may help in addressing neighborhood concerns. As a result, 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 50-52 Whitman Street. An average total of 88 permit parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 89 of permit 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 77 permit parking spaces were available.

50-52 Whitman 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 50-52 Whitman Street, only 38.4% 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 50-52 Whitman Street, only 67% of the occupied housing units has up to 1 automobile.

The Site is conveniently situated close to public transportation. The Site is approximately half mile away from the Davis Square Transit Station. The Green Line Extension (GLX) project will have a proposed transit station at Ball Square approximately a half mile away.

It should be noted that after this study was commissioned by 3LPlace, the non-profit has secured off-site parking for weeknights and weekends.

Synthesizing these site characteristics holistically, in combination with the supporting multimodal transportation infrastructure, the proposed 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.: \_\_\_\_\_

Street: 50-52 Whitman Street

Sheet No.: 3

Date: March 8, 2014

Field by: Christopher Ryan

Weather: Overcast 50's

Notes: \_\_\_\_\_

### Saturday 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
Whitman St.	50-52 Whitman St	2 Whitman Street	North Side	19	20	18
			South Side	13	14	14
Packard Ave.	45 Packard Ave	Broadway	East Side	9	10	10
			West Side	14	15	14
Broadway	1087 Broadway	1057 Broadway	North Side	6	7	7
			South Side	8	7	9
Electric Ave	47 Electric Ave	71 Electric Ave	North Side	8	8	9
			South Side	9	9	8
TOTAL:				86	90	89

### Parking Survey

City: Somerville, MA

Proj. No.: \_\_\_\_\_

Street: 50-52 Whitman Street, Somerville, MA

Sheet No.: \_\_\_\_\_

Date: 3/6/2014+3/7/2014

Field by: Christopher Ryan

Weather: Overcast 50's

Notes: \_\_\_\_\_

#### Weekday Occupied Parking Spaces

Street	Section		Subsection	12:00 PM	12:30 PM	1:00 PM	1:30 PM	5:00 PM	6:00 PM
	From	to		to 12:30 PM	to 1:00 PM	to 1:30 PM	to 2:00 PM	to 6:00 PM	to 7:00 PM
Whitman St.	50-52 Whitman St	2 Whitman Street	North Side	19	16	14	16	19	18
			South Side	6	6	4	6	7	9
Packard Ave.	45 Packard Ave	Broadway	East Side	10	12	9	9	8	7
			West Side	11	11	12	12	11	10
Broadway	1087 Broadway	1057 Broadway	North Side	5	8	7	7	5	7
			South Side	9	7	7	6	2	5
Electric Ave	47 Electric Ave	71 Electric Ave	North Side	8	6	6	6	6	8
			South Side	1	2	1	2	2	5
TOTAL:				69	68	60	64	60	69

## Parking Survey

City: Somerville, MA

Street: 50-52 Whitman Street

Date: 3/6/2014

Weather: Overcast 20's

Proj. No.: \_\_\_\_\_

Sheet No.: 1

Field by: Frantz Renard

Notes: \_\_\_\_\_

### Total Available Parking Spaces

Street	Section		Subsection	Total Available Spaces
	From	to		
Whitman St.	50-52 Whitman St	2 Whitman Street	North Side	33
			South Side	30
Packard Ave.	45 Packard Ave	Broadway	East Side	19
			West Side	23
Broadway	1087 Broadway	1057 Broadway	North Side	9
			South Side	12
Electric Ave	47 Electric Ave	71 Electric Ave	North Side	12
			South Side	15
			TOTAL:	153