

Design Consultants, Inc.

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

MEMORANDUM

DCI JOB NO. 2013-134

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

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

SUBJECT: **Parking Utilization Study**
82 Highland Avenue
Somerville, MA

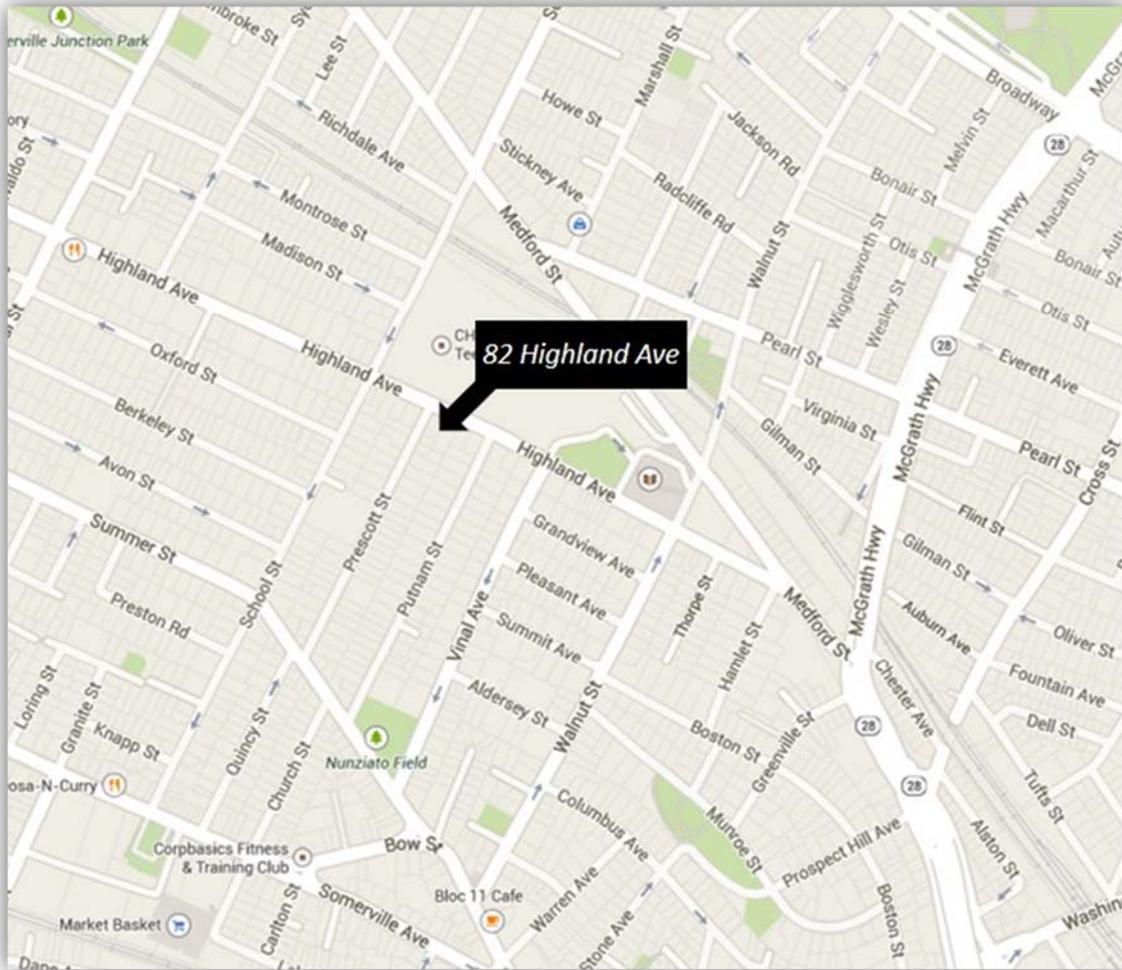
DATE: May 2, 2014

Design Consultants, Inc. has evaluated the transportation and parking impacts of the project site at 82 Highland Avenue in Somerville, Massachusetts. The Site at 82 Highland Avenue consists of the redevelopment of an existing dry cleaners into a new 6-unit (2bdm) residential building which will require relief from the Somerville Zoning Ordinance (Article 9) for three (3) spaces. 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 82 Highland Avenue. A project locus map of the Site is shown in Figure 1.

This memorandum serves to identify whether or not the redevelopment 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 and the Somerville Community Path;
- Transportation Modes and Characteristics; and
- On-Street Parking Utilization.

Figure 1: Project Location



Map Source: Google Maps

Transit Supply & the Somerville Community Path

The Site is served by MBTA Bus Routes 88 and 90. The Green Line Extension (GLX) project will have a proposed transit station at Gilman Square approximately 1,300 feet away (or a 6 minute walk). The 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. 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.

The Community Path will extend to within 1,300 feet (or a 6 minute walk) of the Site. The Path accommodates walkers, bicyclists, joggers, and rollerbladers. Once the Community Path is fully built, it will create a seamless link from the Minuteman Bikeway to the Charles River paths, creating a 48-mile continuous path network connecting 11 cities and towns in the Greater Boston region. With the assistance of the active community group Friends of the Community Path, the City of Somerville received a Tourism Grant from the Massachusetts Turnpike Authority to further develop the path. With the Grant, the City and advocates have worked towards extending the Community Path through Somerville with plans to extend into Boston (which has confirmed in April 2014 as part of the Green Line Extension Project). The Path in Somerville will eventually span approximately 2 miles. The extension of the Community Path in Somerville is occurring in three phases.

- Phase I connected the Community Path to the Linear Path across Davis Square to Cedar Street. This Phase was managed by MassDOT and completed in 2011.
- Phase II will extend the Community Path from Cedar Street to Lowell Street. This section will provide access to the new Lowell Street Green Line Extension T-station. Funding for this phase includes MassDOT Congestion Management Air Quality (CMAQ) funds, TIP funds, and an earmark secured by Congressman M. Capuano. Construction began in Spring 2013.
- Phase III will connect Lowell Street to Northpoint in Cambridge. Construction of this portion is being planned in conjunction with the Green Line Extension.

Existing Transportation Modes and Characteristics

Local transportation data for the area encompassing 82 Highland 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.

82 Highland Avenue is located in Census Tract 3513. 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 the 2008-2012 ACS data for Census Tract 3513, approximately 29.1% of the local population have no automobile. The vehicle ownership data for Census Tract 3513 is summarized in Table 1 and Figure 3.

Figure 2: 82 Highland Avenue in Census Tract 3513

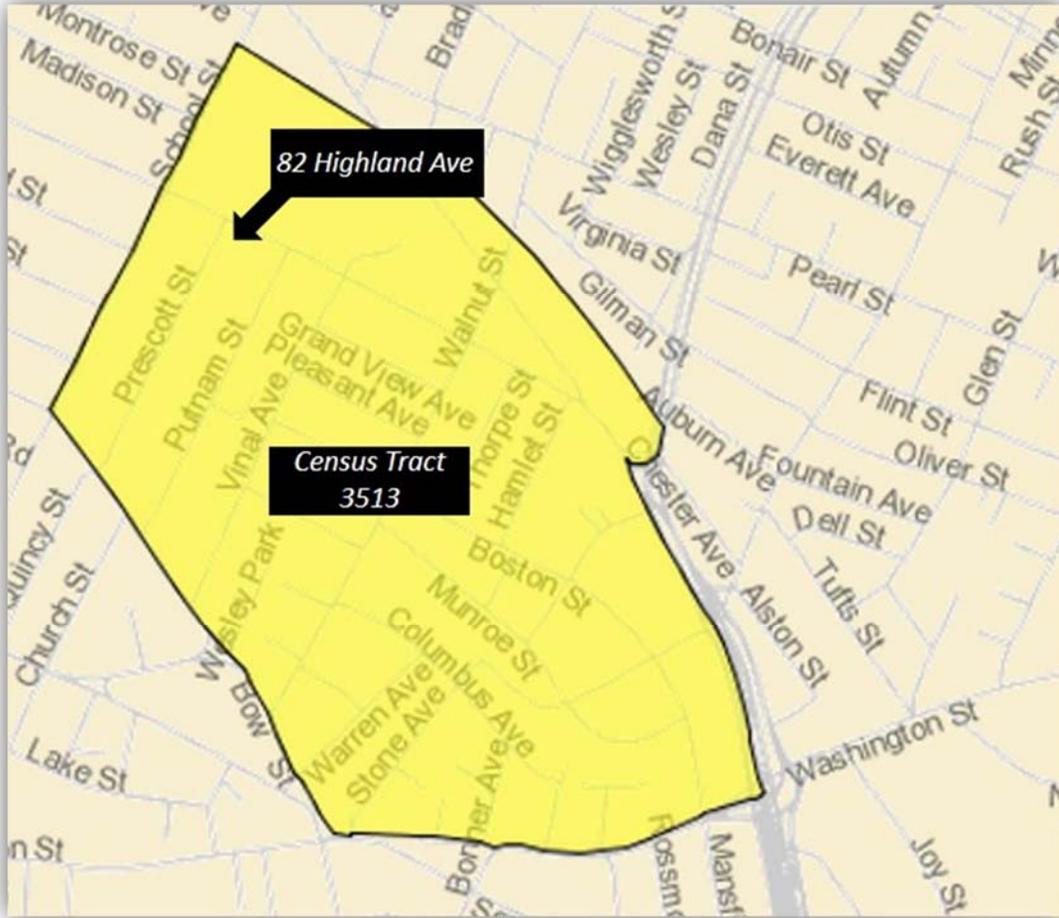
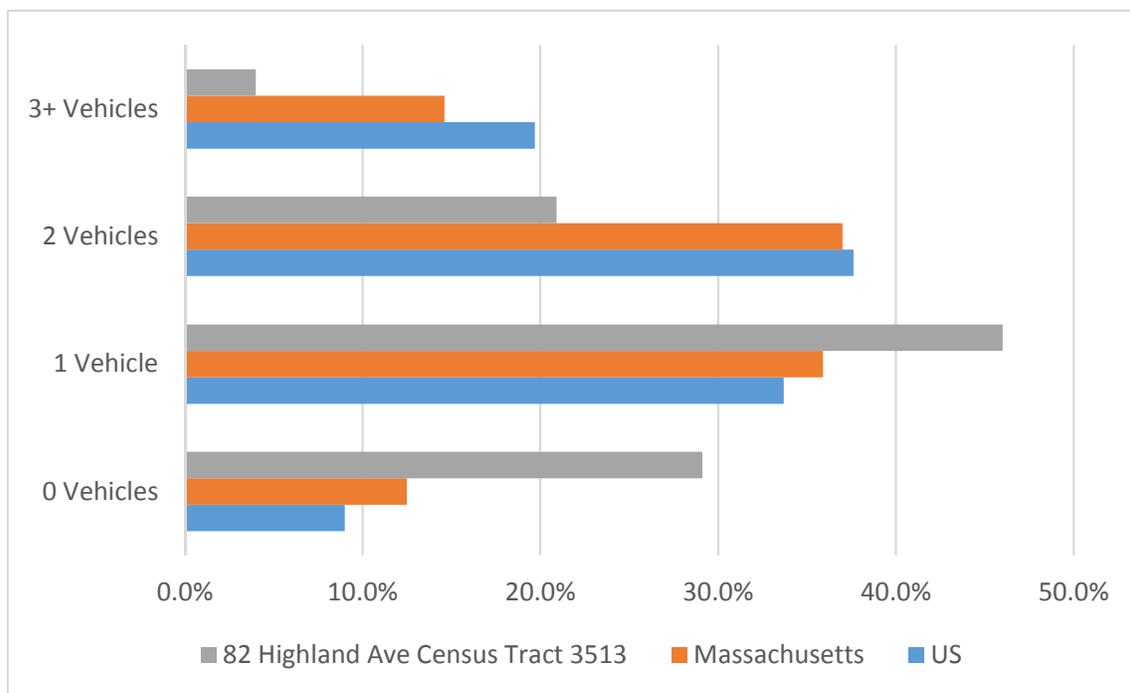


Table 1: Vehicle Ownership Summary (2008-2012 ASC Data)

Automobile Ownership	US	Massachusetts	82 Highland Ave
			Census Tract 3513
0 Vehicles	9.0%	12.5%	29.1%
1 Vehicle	33.7%	35.9%	46.0%
2 Vehicles	37.6%	37.0%	20.9%
3+ Vehicles	19.7%	14.6%	4.0%
Total	100.0%	100.0%	100.0%

As summarized in Table 1 and illustrated in Figure 3, 82 Highland 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 82 Highland Avenue, 29.1% of the occupied housing units has no automobile.

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

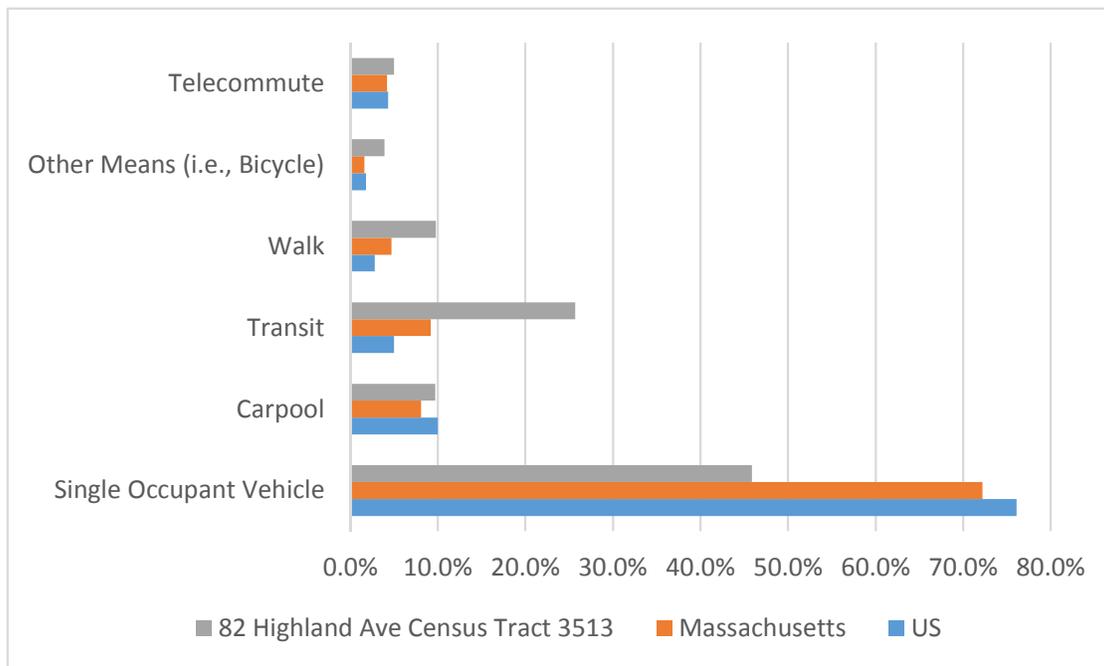


In terms of mode split for the commute to work, approximately 44.4% of the local working community commute to work without use of an automobile. Approximately 25.7% of the local working population use transit and 13.7% of the local working population walk or bicycle to work. 5% of the local working population in the area of 82 Highland Avenue work from home. The mode split data for Census Tract 3513 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	82 Highland Ave
			Census Tract 3513
Single Occupant Vehicle	76.1%	72.2%	45.9%
Carpool	10.0%	8.1%	9.7%
Transit	5.0%	9.2%	25.7%
Walk	2.8%	4.7%	9.8%
Other Means (i.e., Bicycle)	1.8%	1.6%	3.9%
Telecommute	4.3%	4.2%	5.0%
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, 82 Highland 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 82 Highland Avenue, only 55.6% use the automobile for the work commute.

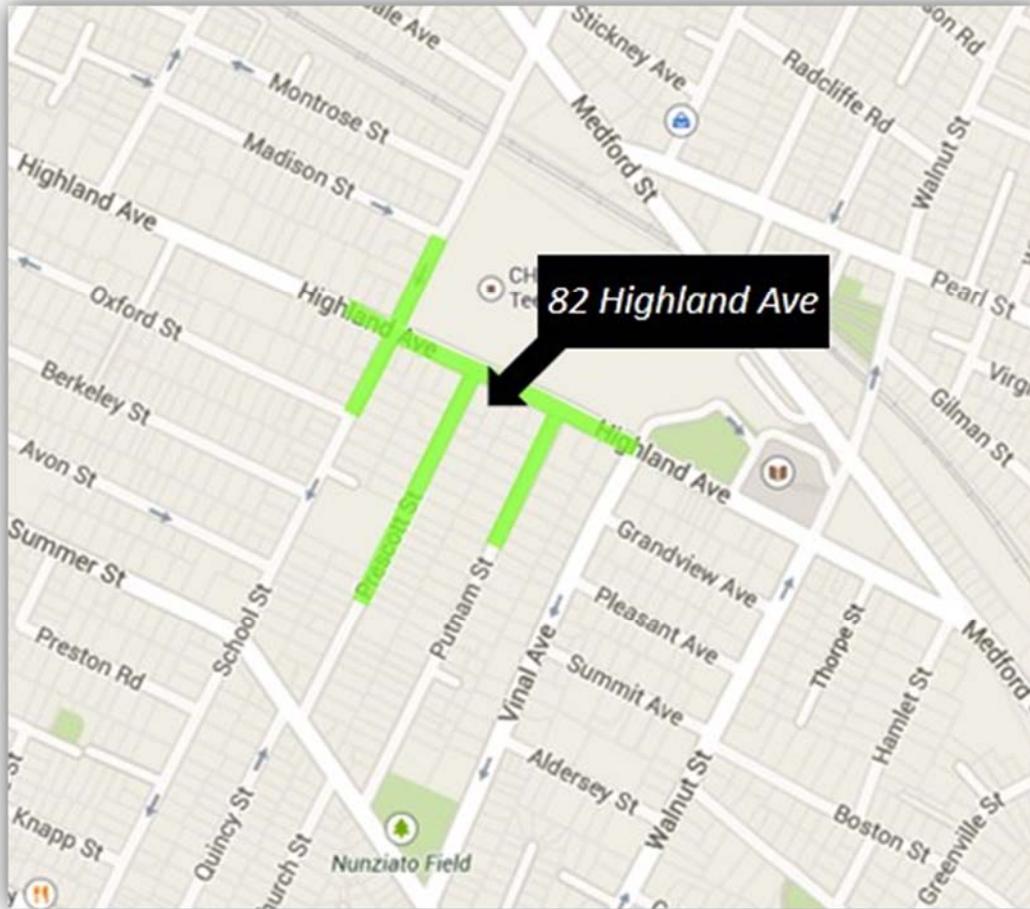
Existing On-Street Parking Utilization

The study area included all on-street parking in the vicinity of 82 Highland 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:

- Highland Avenue from 101 Highland Ave to Vinal Ave;
- Putnam Street from Highland Ave to 60 Putnam St;
- Prescott Street from Highland Ave to 41 Prescott St; and,
- School Street from City Hall Driveway to Oxford St.

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, April 26, 2014 (11:00 – 2:00 PM)
- Tuesday, April 29, 2014 (12:00 – 2:00 PM)
- Tuesday, April 29, 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 29 parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 89 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 54 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
School St	School St at City Hall/ High School Driveway	Oxford St	East Side	15 1	4 1	3 0
			West Side	18	9	13
Prescott St	Highland Ave	#41 Prescott St (at cross walk)	East Side	13	8	13
			West Side	6	9	13
Putnam St	Highland Ave	#60 Putnam St	East Side	8	5	6
			West Side	8	3	8
Highland Ave	#101 Highland Ave	Vinal Ave	North Side	28	10	15
			South Side	21	10	18
Total Capacity				145	145	145
Total Occupied				117	56	91
Total Available				29	89	54

Conclusions

This study has examined the transportation and parking impacts of the project site at 82 Highland Avenue in Somerville, Massachusetts. The Site at 82 Highland Avenue consists of the redevelopment of an existing dry cleaners into a new 6-unit (2bdrm) residential building which will require relief from the Somerville Zoning Ordinance (Article 9) for three (3) spaces.

DCI has conducted an on-street parking utilization study and confirmed the availability of on-street parking in the vicinity of the project site. An average total of 29 parking spaces were available during the weekday mid-day period (12:00 PM to 2:00 PM). An average of 89 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 54 parking spaces were available.

82 Highland 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 82 Highland Avenue, only 55.6% 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 the Site, 29.1% of the occupied housing units has no automobile.

The Site is conveniently situated close to public transportation. The Site is approximately 1,300 feet (or a 6-minute walk) from the proposed Gilman Green Line Transit Station and Somerville Community Path (for walking, running, or bicycling). The Green Line Extension (GLX) project will have a proposed transit station at Gilman Square less than a mile away by Year 2019. The Somerville Community Path will extend into Cambridge and Boston as announced in late April 2014 as part of the Green Line Extension Project.

Synthesizing these site characteristics holistically, in combination with the supporting multimodal transportation infrastructure, the proposed residential redevelopment will not negatively impact local on-street permit parking in the area and 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.: 2013-134

Street: 82 Highland Ave

Sheet No.: 1

Date: 4/29/2014

Field by: Steve Wen/Frantz Renard

Weather: cloudy

Notes: HP= Handicap

Total Available Parking Spaces

Street	Section		Subsection	Total Available Spaces
	From	to		
School St	School St at City Hall/ High School Driveway	Oxford St	East Side	17
			West Side	21
Prescott St	Highland Ave	#41 Prescott St (at cross walk)	East Side	16
			West Side	19
Putnam St	Highland Ave	#60 Putnam St	East Side	9
			West Side	10
Highland Ave	#101 Highland Ave	Vinal Ave	North Side	29
			South Side	22
			TOTAL:	145

	Permit Parking
	Accessible Parking
	15min, 30min, 1hr or 2hr Parking

Parking Survey

City: Somerville, MA

Proj. No.: 2013-134

Street: 82 Highland Ave

Sheet No.: 2

Date: 4/29/2014 Tuesday

Field by: Steve Wen/Frantz Renard

Weather: cloudy

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
School St	School St at City Hall/ High School Driveway	Oxford St	East Side	14	15	4	4
			West Side	18	18	9	8
Prescott St	Highland Ave	#41 Prescott St (at cross walk)	East Side	13	13	8	7
			West Side	6	6	11	7
Putnam St	Highland Ave	#60 Putnam St	East Side	8	7	4	5
			West Side	8	8	2	4
Highland Ave	#101 Highland Ave	Vinal Ave	North Side	28	27	13	6
			South Side	21	21	8	11
TOTAL:				117	116	60	52

	Permit Parking
	Accessible Parking
	15min, 30min, 1hr or 2hr Parking

Parking Survey

City: Somerville, MA

Proj. No.: 2013-134

Street: 82 Highland Ave

Sheet No.: 3

Date: 4/26/2014

Field by: Frantz Renard

Weather: cloudy

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
School St	School St at City Hall/ High School Driveway	Oxford St	East Side	6 0	2 0	2 0
			West Side	18	12	10
Prescott St	Highland Ave	#41 Prescott St (at cross walk)	East Side	15	13	11
			West Side	18	11	10
Putnam St	Highland Ave	#60 Putnam St	East Side	7	6	6
			West Side	11	7	7
Highland Ave	#101 Highland Ave	Vinal Ave	North Side	20	13	12
			South Side	19	17	19
TOTAL:				114	81	77

	Permit Parking
	Accessible Parking
	15min, 30min, 1hr or 2hr Parking