

Design Consultants, Inc.

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

MEMORANDUM

DCI JOB NO. 2013-149

TO: Steven J. Caruso
231 Lowell Street, LLC
One Industrial Way, Georgetown, MA 01833

FROM: Tom Bertulis, P.E., PTOE
Design Consultants, Inc.

SUBJECT: **Parking Study**
231 Lowell Street
Somerville, MA

DATE: November 20, 2015, Updated January 15, 2016

As per a request by the client, Design Consultants, Inc. (DCI) undertook a parking study for the project located at 231 Lowell Street in Somerville, Massachusetts. The current site is a single-family residential building. The proposed redevelopment calls for one building that will consist of two (2) commercial studios and two (2) duplex units, one residential building that will consist of eighteen (18) 2-bedroom units, and a third building consisting of two (2) attached single-family units with three bedrooms each. As currently proposed, there will be thirty one (31) parking spaces provided on site.

The Somerville Zoning Ordinance requires a total of thirty five (35) residential parking spaces, three (3) visitor parking spaces (one for every six dwelling units), and four (4) parking spaces for the two commercial studios on the ground floor of this project. This is a total of 42 required spaces. Therefore the client is seeking relief of eleven of these parking spaces.

This memorandum serves to demonstrate that the relief of eleven parking spaces will have negligible impact on the local neighborhood parking supply. The project location is shown in Figure 1.

Proposed Off-Street Parking

The proposed on-site parking will be accessed via a 21 foot wide curb cut and a ramp from Woodbine Street. The proposed site plan provides a total of thirty-one (31) off-street parking spaces. Thirty (30) spaces will be provided in the basement level and one (1) space will be at grade. The project site plan is shown in Figure 2.

Existing Off-Street Parking Utilization

To determine the actual parking demand in the vicinity of the 231 Lowell Street project site, off-street parking surveys were conducted at four other similar residential development within the City of Somerville. Off-street parking utilization studies were carried out at the following locations:

- 1) 303 Lowell Street – 36 residential units
- 2) 301 Lowell Street – 34 residential units
- 3) 100 Fellsway West – 27 residential units
- 4) 625 McGrath Highway – 34 residential units

DCI recorded the number of available parking spaces in the parking lot/garages during a typical Thursday and during a typical Saturday. The parking data was collected during the following time periods:

Thursday January 7, 2015 (7-9 PM)
Saturday January 9, 2015 (12-2PM)
Saturday January 9, 2015 (5-7 PM)

The results of the parking surveys are summarized in Table 1. The parking observation field data sheets are included in the attached appendix.

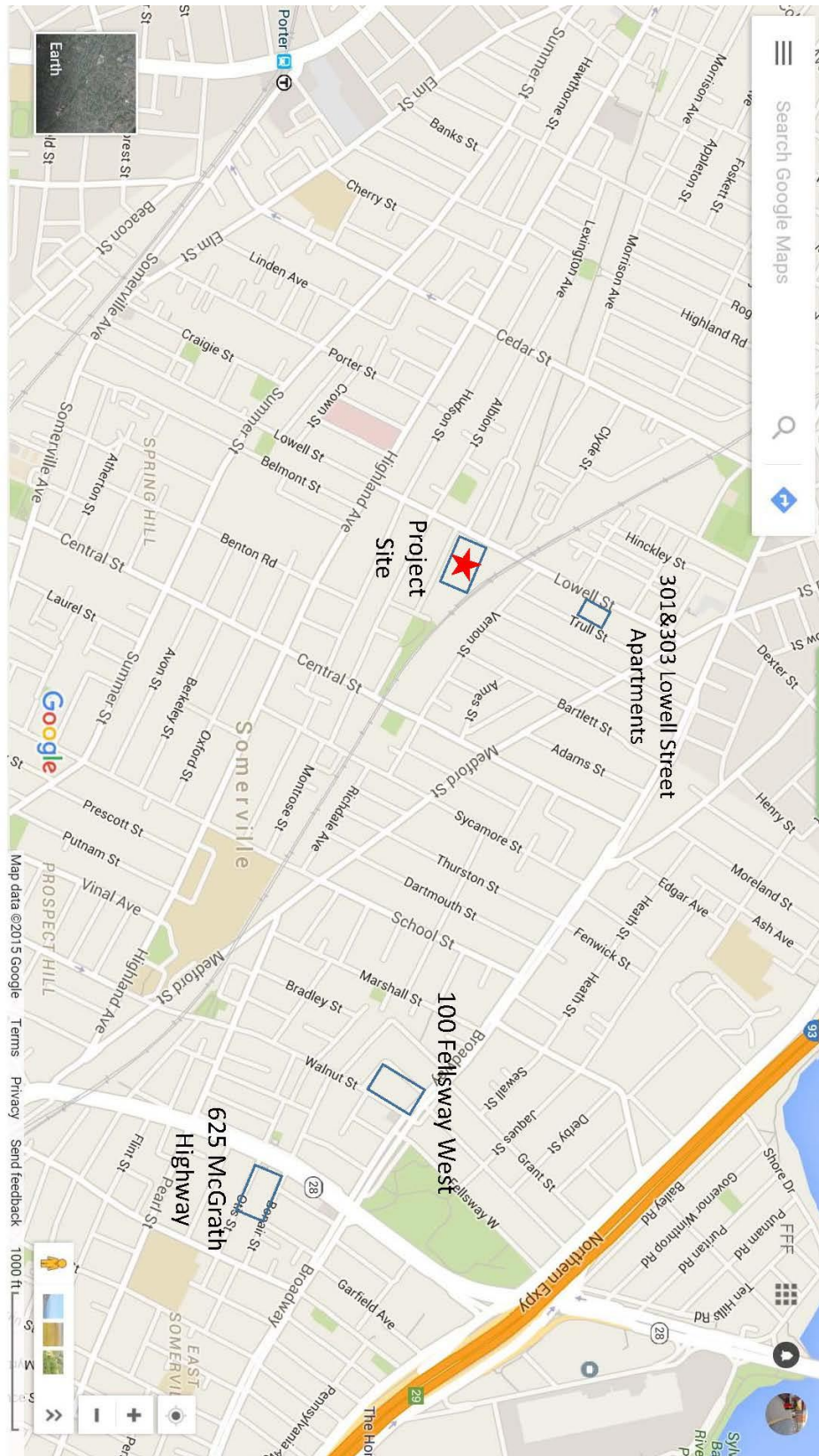


Figure 1 Project Location

SITE PLAN



231 LOWELL STREET
SEPTEMBER 21, 2015

Figure 2 Project Site Plan

Table 1: Parking Survey Summary

Location	Total Num. of Residential Units	Total Num. of Off-Site Parking Spaces						
			Thursday		Saturday			
			7-8 PM	8-9 PM	12-1 PM	1-2 PM	5-6 PM	6-7 PM
303 Lowell Street	36	19	10	11	9	11	11	11
301 Lowell Street	34	19	11	14	8	7	9	9
100 Fellsway	27	34	12	14	14	13	15	14
625 McGrath Highway	34	58	29	32	21	21	26	25
			Thursday		Saturday			
			7-8 PM	8-9 PM	12-1 PM	1-2 PM	5-6 PM	6-7 PM
303 Lowell Street			0.28	0.31	0.25	0.31	0.31	0.31
301 Lowell Street			0.32	0.41	0.24	0.21	0.26	0.26
100 Fellsway			0.44	0.52	0.52	0.48	0.56	0.52
625 McGrath Highway			0.85	0.94	0.62	0.62	0.76	0.74
Average Rate			0.47	0.54	0.41	0.40	0.47	0.46
Average Rate (overall)			0.46					

As indicated in Table 1, the average overall parking demand at all five residential sites is 0.46 parking spaces per unit.

Empirical Parking Data from City of Somerville

The City of Somerville has conducted a parking use study for residential buildings with seven or more units in Somerville. The study looked at 86 buildings, for a total of 3,757 dwelling units. According to the study, titled “Residential Parking”, the average number of off-street spaces in Somerville is 0.60 spaces per unit, and the average car ownership rate is 0.39 cars per unit for buildings with 7 or more units. 46.6% of households have only one car in Somerville, and 24% of households do not have any cars. It should be noted that the overall car ownership rate is 0.99 cars per unit in Somerville.

This study indicates that car ownership rates in larger buildings are much lower than the city-wide average. Based on this information and the results of this parking survey, an argument can be built for relief of parking spaces for this project. This study points out evidence that building more parking in a development encourages more people to own cars.

Mode Split and Vehicle Ownership Comparison

Commuting characteristics were analyzed from the 2009-2013 American Community Survey 5-Year Estimates. Census Tract 3503, which covers the project site, was analyzed and used to estimate mode splits for journeys to work in the project area. Figure 2 and Figure 3 below show the average difference in mode split and vehicle ownership levels between the study areas of 231 Lowell Street, the city of Somerville, and the State of Massachusetts.

Figure 2: Mode Split Comparison

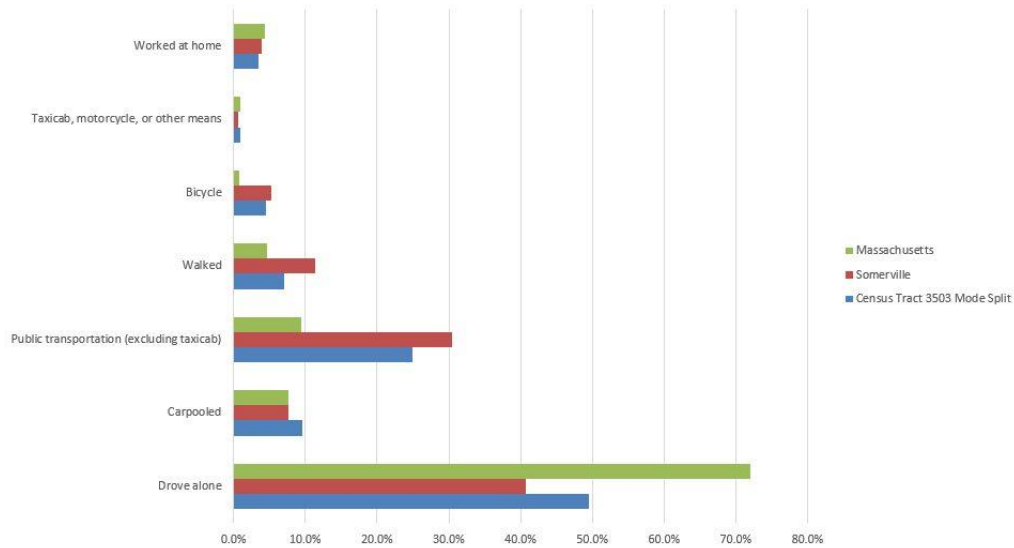
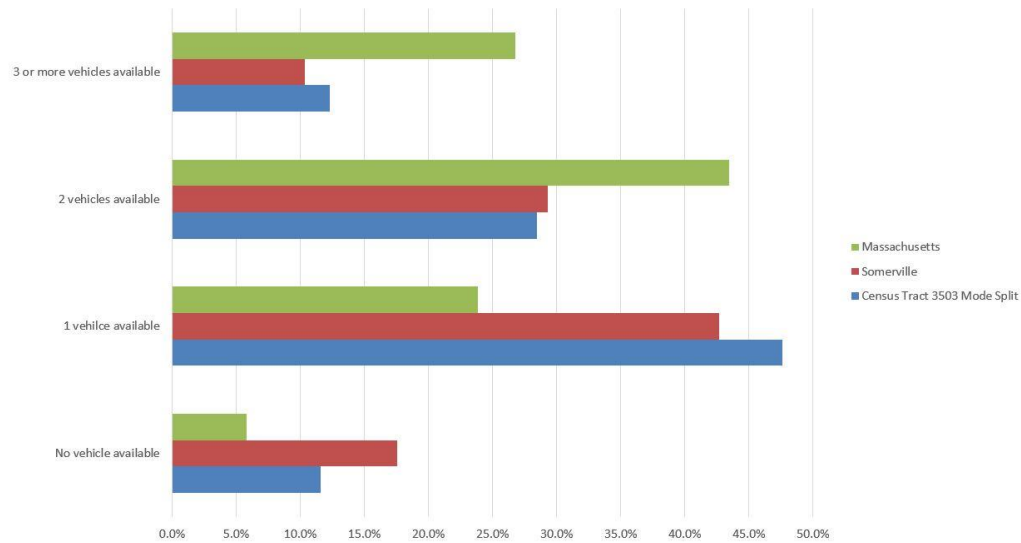


Figure 3: Vehicle Ownership Comparison



Proximity to Public Transit

The MBTA services the study area with bus routes 88 and 90. Bus route 88 runs between MBTA Lechmere Station in Cambridge and Clarendon Hill in Somerville. Bus route 90 runs between MBTA Wellington Station in Medford and Davis Square in Somerville.

The Massachusetts Department of Transportation (MassDOT) is partnering with the Massachusetts Bay Transportation Authority (MBTA) to extend the Green Line from its current terminus at Lechmere Station in East Cambridge, to continue through Somerville and Medford.

The proposed Lowell Street Station in Somerville will be at the Lowell Street Bridge that crosses the MBTA commuter rail tracks near the Visiting Nurse Assisted Living Community. From this station, it will be approximately 500 feet, a two minute walk, to the 231 Lowell Street project site.

The Somerville Community Path extension will be adjacent to the proposed Lowell Street Station. The Somerville Community Path is a shared-use path in Somerville that starts at the Alewife Linear Park and currently ends at Lowell Street. According to the MBTA's published plans for the Green Line Extension project, the MBTA has committed to extending the community path from Lowell Street to North Point. This extended shared use path will encourage residents to walk or ride bicycles versus driving a motor vehicle.

Given the project proximity to the future Lowell Street station and the Community Path Extension, it is expected that a significant increase of public transit and bicycle trips will arrive in the vicinity of 231 Lowell Street.

Conclusion

The project at 231 Lowell Street will have 22 residential units and 2 commercial studios in total. The proposed development requires forty two (42) parking spaces, based on the Somerville Zoning Ordinance. This includes thirty five (35) spaces for residents, three (3) visitor parking spaces (one for every six dwelling units), and four (4) parking spaces for the commercial space. Thirty one (31) spaces are proposed, therefore the proponent is seeking relief of eleven (11) spaces.

This parking study determined that the impact of the eleven (11) parking spaces that require relief will be negligible on the local neighborhood's parking supply during typical weekday and Saturday periods. The measured parking demand of similar developments in the area was 0.46 parking spaces per residential unit. This would result in ten residential parking spaces for the project at 231 Lowell Street. Consequently, the proposed thirty one (31) parking spaces will be sufficient to support the parking demand at the 231 Lowell Street site.

The parking use study conducted by the City of Somerville supports that the parking demand is currently less than the parking supply for large residential buildings with seven or more units. For larger buildings, the estimated parking demand is 0.46 parking spaces per unit. Given the sharp increase in transit and biking options the area will see with the completion of the Green Line Extension project, and the associated decrease in motor vehicle trips, it can be stated that the demand for parking at 231 Lowell Street will likely continue to decrease. Based on these facts and the results of this study, DCI recommends granting relief for eleven parking spaces for the project at 231 Lowell Street in Somerville, Massachusetts.

APPENDIX

Design Consultants, Inc
Off-Site Parking Utilization Survey
January 7, 2016

Job No.: 2013-149

Field: DC

Location	Total Num. of Residential Units	Total Num. of Off- Site Parking Spaces	Observed Number of Cars Parked	
			Thursday	
			7-8 PM	8-9 PM
303 Lowell Street	36	19	10	11
301 Lowell Street	34	19	11	14
100 Fellsway	27	34	12	14
625 McGrath Highway	34	58	29	32

Design Consultants, Inc
Off-Site Parking Utilization Survey
January 9, 2016

Job No.: 2013-149

Field: DC

Location	Total Num. of Residential Units	Total Num. of Off-Site Parking Spaces	Observed Number of Cars Parked			
			Saturday			
			12-1 PM	1-2 PM	5-6 PM	6-7 PM
303 Lowell Street	36	19	9	11	11	11
301 Lowell Street	34	19	8	7	9	9
100 Fellsway	27	34	14	13	15	14
625 McGrath Highway	34	58	21	21	26	25