Design Consultants, Inc.

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

MEMORANDUM

DCI JOB NO. 2016-011

TO: David Winick
Cedarwood Development
167 Athens Street
Boston, MA 02127

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

SUBJECT: **Parking Study**
400 Mystic Avenue
Somerville, MA

DATE: July 8, 2016

As per a request by the client, Design Consultants, Inc. (DCI) undertook a parking study for the project located at 400 Mystic Avenue in Somerville, Massachusetts. The current site consists of three buildings: two commercial and one residential. The proposed redevelopment calls for the demolition of the three buildings and the construction of a new mixed-use building. The first floor will consist of 2,974 square feet of commercial space, and there will be four floors consisting of twenty seven (27) residential units. The plan is to provide thirty (30) off-street parking spaces.

As shown in Table 1, the Somerville Zoning Ordinance (SZO) requires a total of forty one (41) residential parking spaces, four (4) visitor parking spaces (one for every six dwelling units), and twelve (12) parking spaces for the commercial property. This is a total of fifty seven (57) required spaces. Therefore the client is seeking relief of twenty seven (27) of these parking spaces.

This memorandum serves to demonstrate that the relief of twenty seven (27) parking spaces will have negligible impact on the local neighborhood parking supply, and that the mixed-use building at 400 Mystic Avenue will generate less parking demand that what the SZO calls for. The project location is shown in Figure 1.

Table 1: Required Spaces According to Somerville Zoning Ordinance

	Number of Bedrooms/ Total Sq ft	Required Spaces per Bedroom/Sq Ft	Total Required Spaces
Proposed Building			
1 Bedroom	5	1.5	8
2-Bedroom	22	1.5	33
Commercial Space	2974	1 per 250 sqft	12
Visitor Parking (1 per 6 Dwelling Units)		4	
Total Spaces Required by SZO for 400 Mystic proposal	**57**		

Off-Street Parking

The off-street parking is accessed via one curb cut and ramp from Grant Street. As mentioned, the proposed site plan provides a total of thirty (30) off-street parking spaces. The project parking lot layout is shown in Figure 3.

Existing Off-Street Parking Utilization

To determine the actual expected parking demand at the 400 Mystic Avenue 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, that had residential units as mentioned below, and shown in Figure 2.

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

DCI recorded the number of available parking spaces in the parking lots/garages during a typical Thursday and during a typical Saturday. The parking data was collected during the following time periods, and the results of the parking surveys are summarized in Table 2.

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

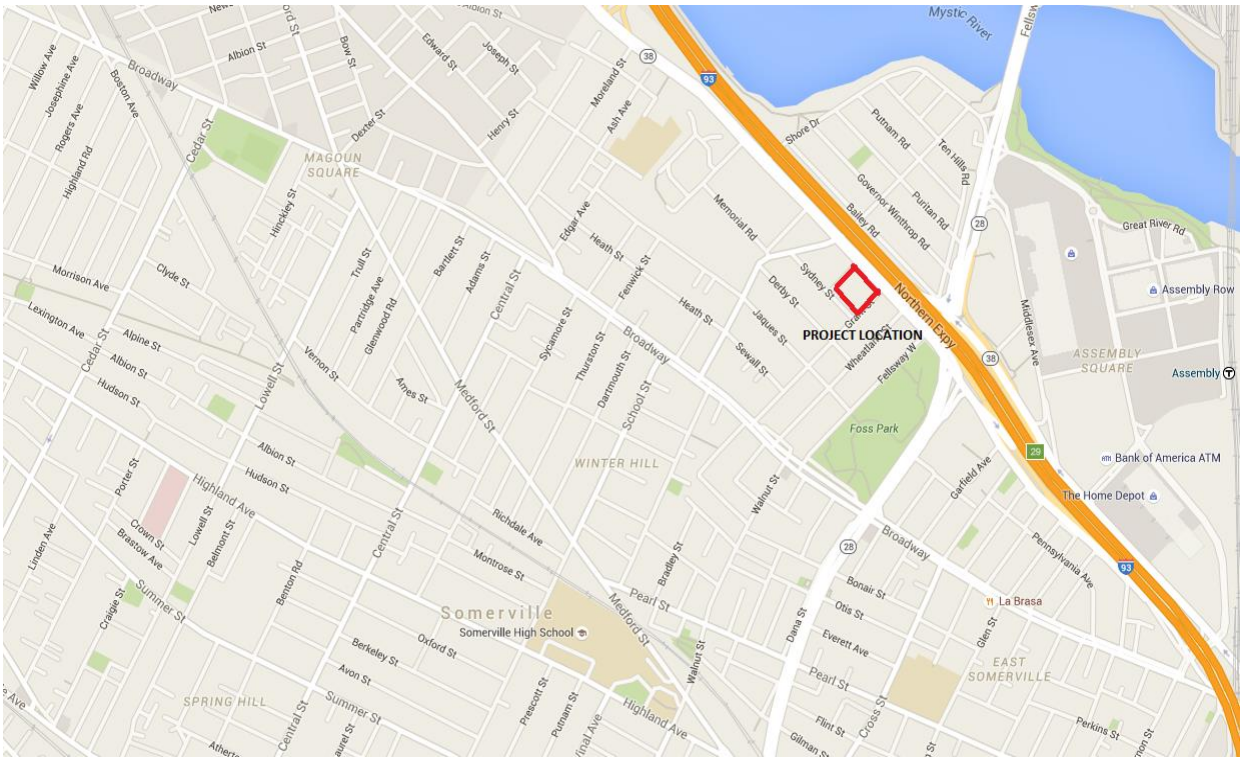

Figure 1: Project Location

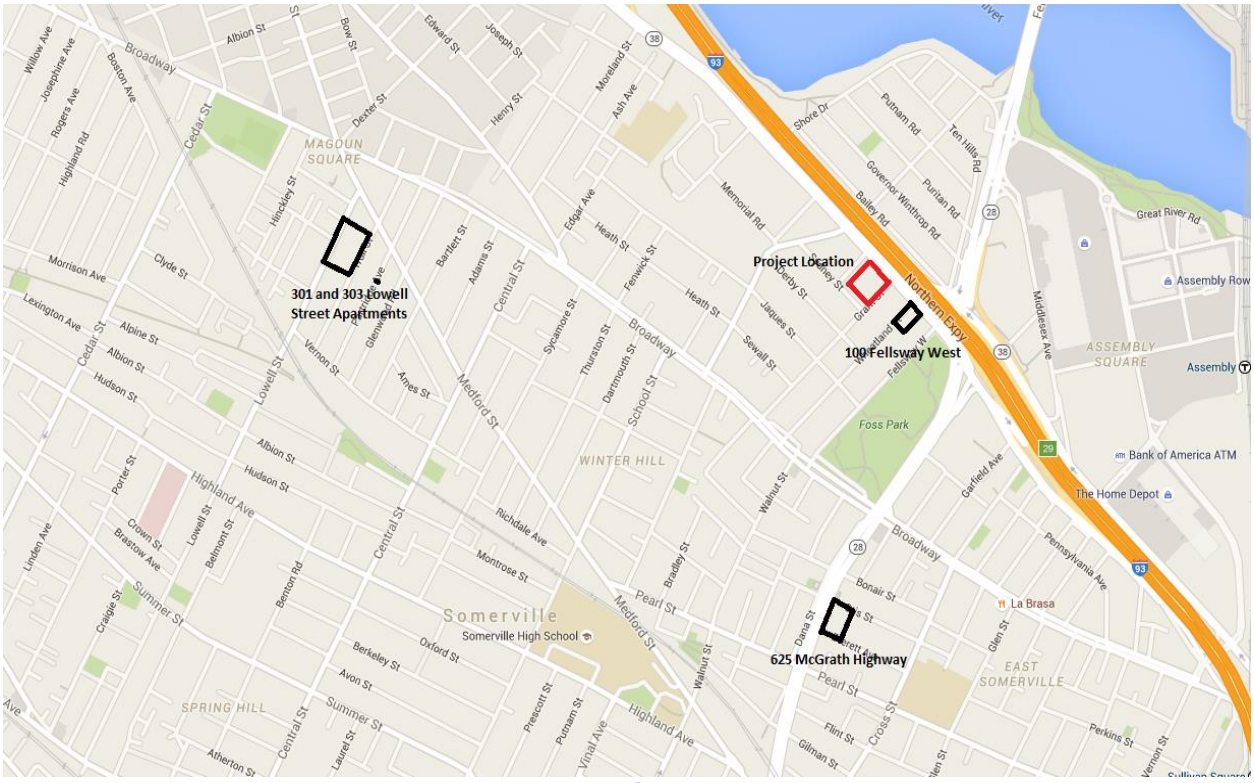

Figure 2: Study Locations

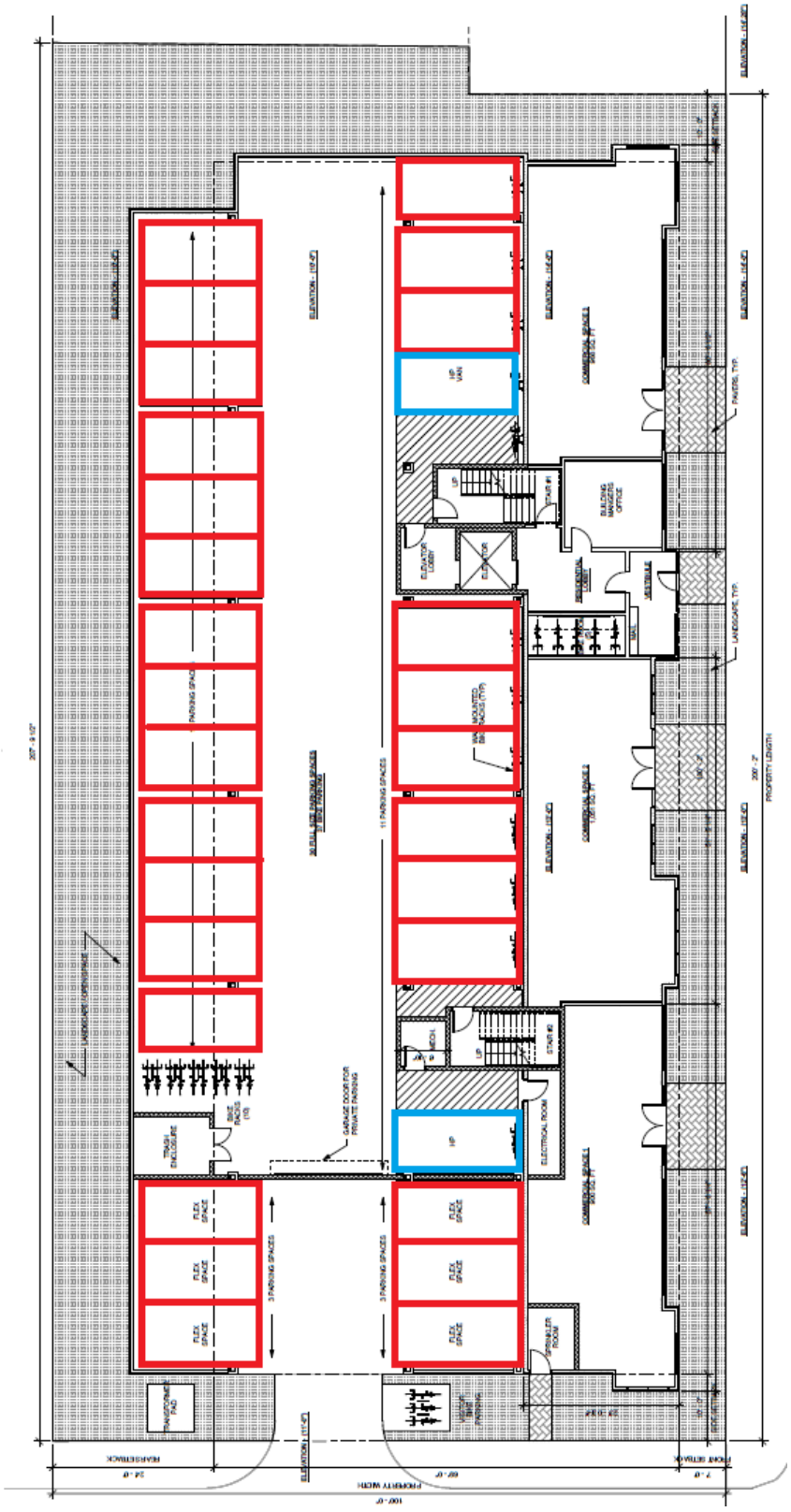

Figure 3: At-Grade Parking Lot Layout

Table 2: Parking Survey Summary

Location	Total Number of Residential Units	Total Number of Off-Street 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 2, the average overall parking demand at all four residential sites is 0.46 parking spaces per unit.

It should be noted that residents of the area may also purchase visitor permits from the City of Somerville for someone who is visiting them. This permit costs $20 for two-day parking or $40 for three-day parking, with both options being valid for up to one year. These can be purchased by an individual whether they have a vehicle or not, as long as they are an official resident of the City of Somerville. This permit allows a visitor to stay for up to two or three days in a row on the resident's street or an adjacent street. Each household is able to purchase up to two visitor permits if they choose to do so.

Existing On-Street Parking Utilization

DCI performed a field parking survey of all available on-street parking to determine the existing parking utilization. The study area includes all on-street parking in the vicinity of 400 Mystic Avenue within approximately 250 linear feet. Parking on-street in this area of Somerville is limited to mostly permit parking and time-limited parking. Parking permits can be bought by residents of Somerville at a cost of $30 for the year and it allows them to park on any street at any time within city limits. Time-limited parking does not require payment, however vehicles may only park in these spaces for the allotted amount of time between the times of 8am and 6pm. The study area is shown in Figure 4 and includes the following roadways:

- Mystic Avenue
- Grant Street
- Taylor Street

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

- Saturday June 25, 2016 from 12pm-2pm
- Saturday June 25, 2016 from 5pm-7pm
- Thursday June 30, 2016 from 7pm-9pm

The results of these surveys are shown in Table 3.

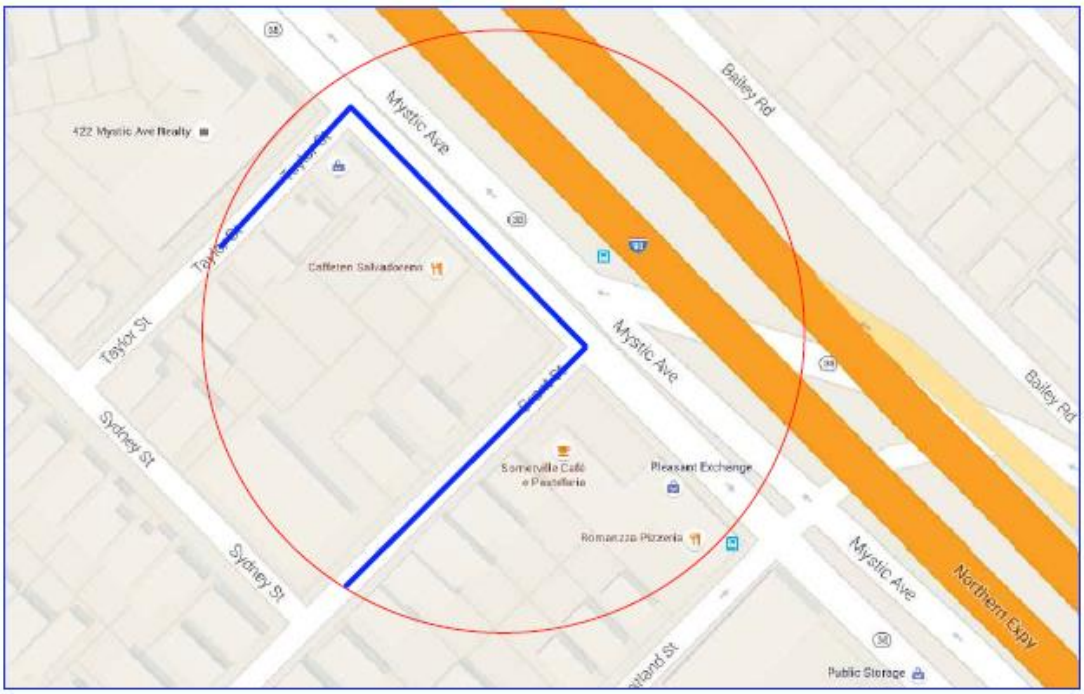

Figure 4: On-Street Parking Utilization Study Area

Table 3: On-Street Parking Survey Summary

							Average Number of Cars Parked		
							Weekday	Saturday	Saturday
	Street	Side	From	To	Parking Notes /Type	Total No. of Spaces	Evening (7pm to 9pm)	Afternoon (12pm to 2pm)	Evening (5pm to 7pm)
1	Taylor Street	Eastside	15 Taylor Street	Mystic Avenue	Permit Parking	5	5	3	3
		Eastside	15 Taylor Street	Mystic Avenue	Handicap Parking	1	1	1	1
		Westside	Opposite #15 Taylor Street	Mystic Avenue	Permit Parking	6	6	4	5
2	Grant Street	Eastside	#89 Grant Street	Mystic Avenue	Permit Parking	9	8	5	5
		Westside	#84 Grant Street	Mystic Avenue	Permit Parking	7	7	5	5
3	Mystic Avenue	Northside	--	--	--	--	--	--	--
		Southside	#414 Mystic Avenue	#406 Mystic Avenue	15-Minute Parking	2	2	0	1
4	Mystic Avenue	Northside	--	--	--	--	--	--	--
		Southside	#406 Mystic Avenue	#400 Mystic Avenue	2 HR Parking	7	4	4	5
5	Mystic Avenue	Northside	--	--	--	--	--	--	--
		Southside	#376 Mystic Avenue	#376 Mystic Avene	No Restriction	1	1	1	1
					Permit Parking Only Totals	***27***	***26***	***17***	***18***
					Number of Permit Parking Spaces Available		**1**	**10**	**9**
					% of Permit Parking Spaces Available		**4%**	**37%**	**33%**
					2 HR (No Meter) Parking Totals	***7***	***4***	***4***	***5***
					Number of 2 HR Parking Spaces Available		**3**	**3**	**2**
					% of 2 HR Parking Spaces Available		**43%**	**43%**	**29%**
					Handicap Parking Totals	***1***	***1***	***1***	***1***
					Number of Handicap Parking Spaces Available		**0**	**0**	**0**
					% of Handicap Parking Spaces Available		**0%**	**0%**	**0%**
					"No Restriction" Parking Totals	***1***	***1***	***1***	***1***
					Number of "No Restriction" Parking Spaces Available		**0**	**0**	**0**
					% of "No Restriction" Parking Spaces Available		**0%**	**0%**	**0%**
					15-Minute (No Meter) Parking Totals	***2***	***2***	***0***	***1***
					Number of Total Parking Spaces Available		**0**	**2**	**1**
					% of Total Parking Spaces Available		**0%**	**100%**	**50%**
					Total Parking	***38***	***34***	***23***	***26***
					Number of Total Parking Spaces Available		**4**	**15**	**12**
					% of Total Parking Spaces Available		**11%**	**39%**	**32%**

As shown in Table 3, there is parking that is under-utilized on street in the vicinity of the project site. Since residents who purchase a parking permit are allowed to park in any parking space in the area, the most important data is shown in "Total Parking Available". As shown in Table 3, there are 4 parking spaces available within 250 feet of the project site during the weekday evening period, 15 parking spaces available during the Saturday afternoon period, and 12 parking spaces available during the Saturday evening period. This further reduces the amount of required parking on site, allowing residents to park on street in the vicinity of the redeveloped site.

Mode Split and Vehicle Ownership Comparison

Commuting characteristics were analyzed from the 2010-2014 American Community Survey 5-Year Estimates. Census Tract 3501.04, which covers the project site, was analyzed and used to estimate mode splits for journeys to work in the project area. It was determined that for census Tract 3501.04 the median individual income was $72,000. The mode split from people of that income (from that census tract) was compared to other mode splits in two figures. Figure 5 and Figure 6 show the average difference in mode split and vehicle ownership levels between the study areas of 400 Mystic Avenue (total and an individual median income of $72,000), the City of Somerville, and the State of Massachusetts. Detailed Census Data is shown in the Appendix.

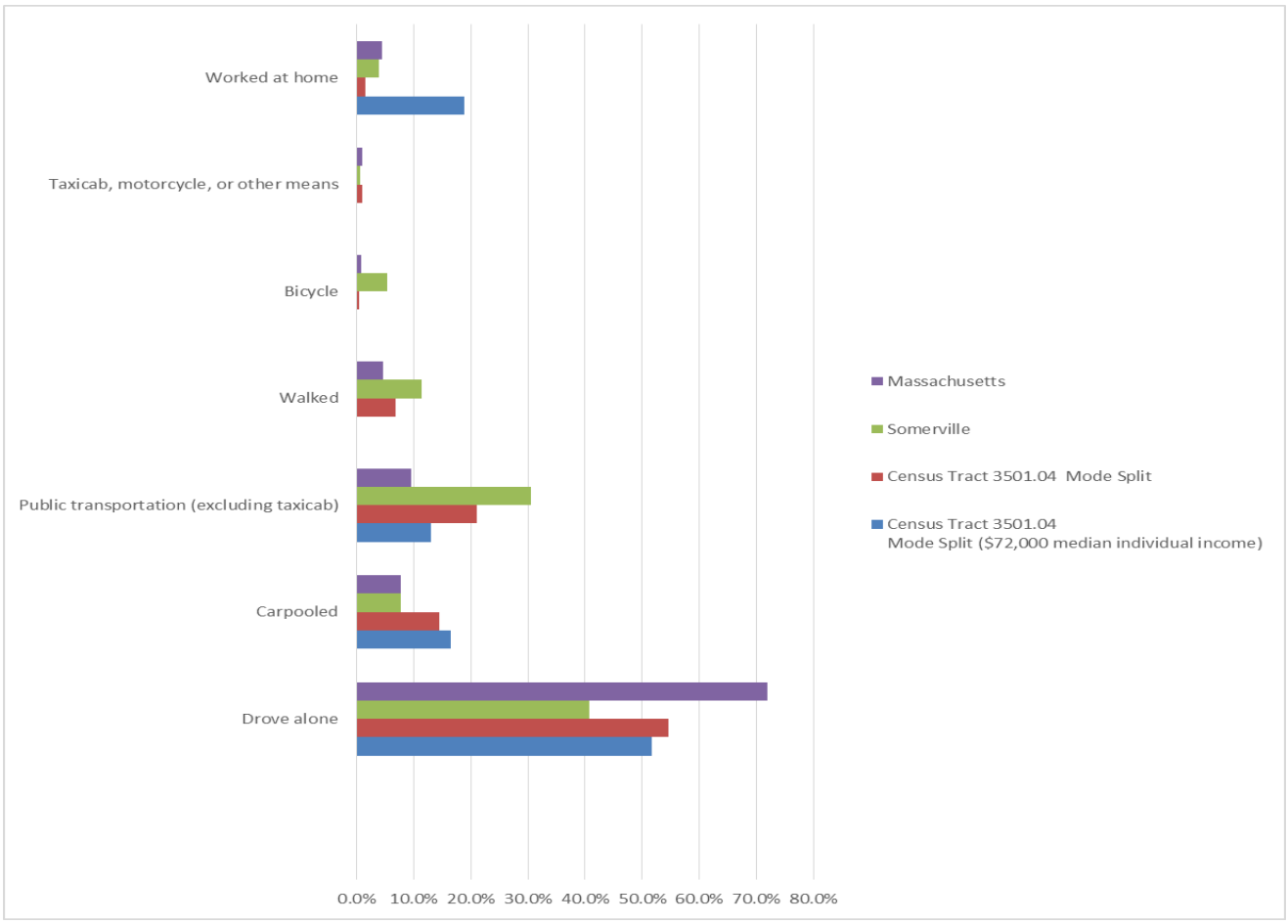

Figure 5: Mode Split Comparison

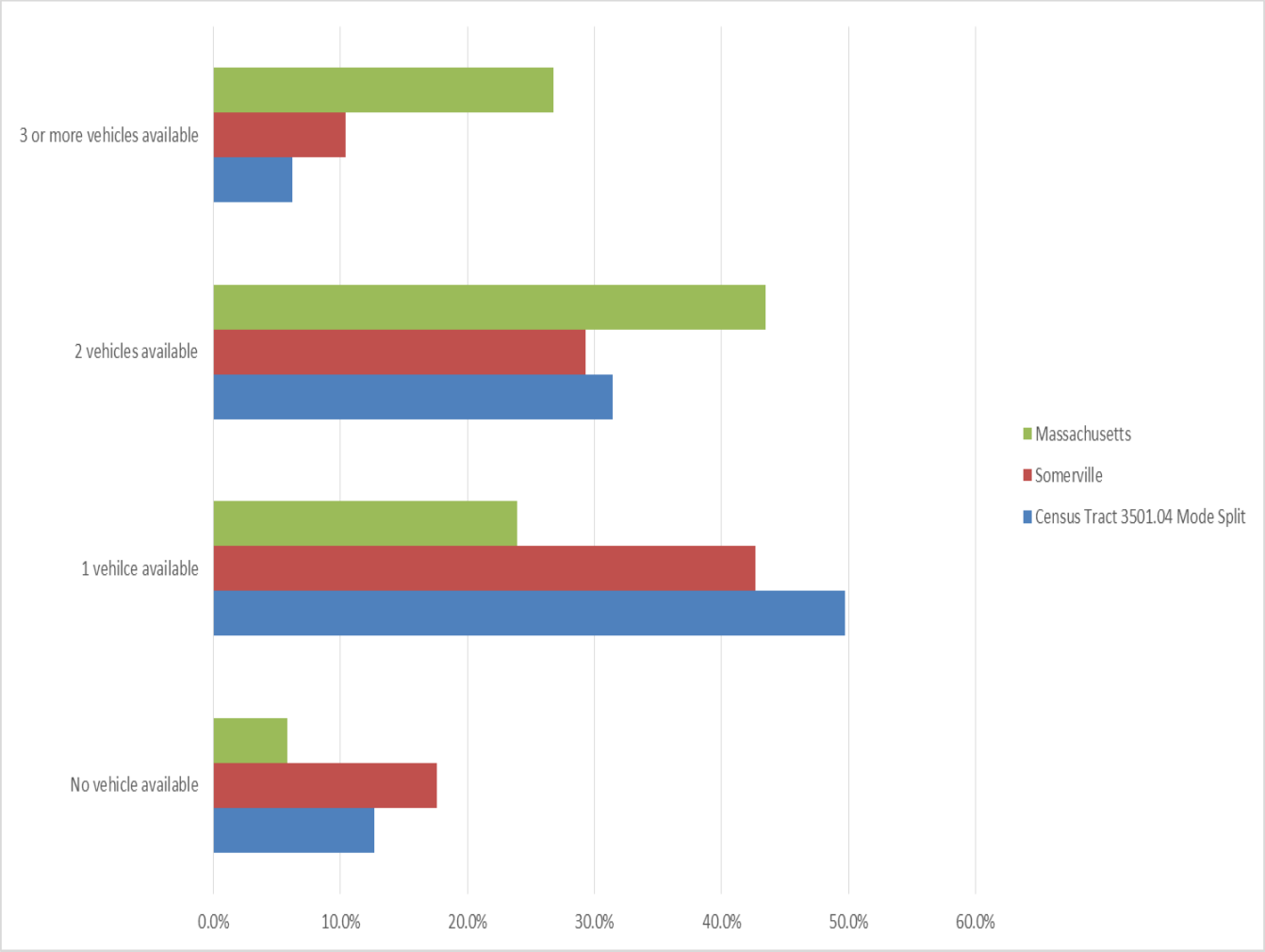

Figure 6: Vehicle Ownership Comparison

Proximity to Public Transit

The MBTA services the study area with bus routes 89, 93, 95, and 101. Bus route 87 runs along Broadway, approximately 0.25 miles from the project site, between Sullivan Square in Somerville and Clarendon Hill in Somerville. Bus route 93, also runs along Broadway, runs between Sullivan Square in Somerville and Devonshire Street at Milk Street in Downtown Boston. Bus route 95 runs along Mystic Avenue, with a stop being less than 300 feet from the project site, between either Sullivan Square in Somerville and West Medford Square in Medford. Bus route 101 runs along Broadway between Sullivan Square in Somerville and Malden Center Station in Malden.

Given the project proximity to multiple bus routes, as well as the already high rate of public transportation use in this area, it is expected that there will continue to be a high use of public transit in the area of the 400 Mystic Avenue project. It is likely that less than a 0.46 parking ratio is needed. Thirty (30) parking spaces would likely meet the parking demand for this location.

Conclusion

The project located at 400 Mystic Avenue will have 27 residential units and 2,974 square feet of commercial space in total. The proposed development requires fifty seven (57) parking spaces, based on the Somerville Zoning Ordinance. This includes forty one (41) spaces for residents, four (4) visitor parking spaces, and twelve (12) parking spaces for the commercial spaces. Thirty (30) parking spaces will be provided on-site, therefore the proponent is seeking relief of twenty seven (27) parking spaces.

This parking study determined that the impact of the twenty seven (27) 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 twelve (12) required residential parking spaces for the project at 400 Mystic Avenue. Additionally, an on-street parking study determined the number of available on-street parking spaces within the vicinity of the project site during a weekday evening and Saturday afternoon and evening period. This study showed that there is under-utilized on-street parking near the site that can be used by residents who purchase a resident parking permit from the City of Somerville. There are 4 parking spaces available within 250 feet of the project site during the weekday evening period, the critical time period.

Critically, the residential parking and the commercial parking are complementary of each other. Most parking spaces used for the commercial land use will be occupied during the daytime hours, whereas most of the residential parking spaces will be occupied during the nighttime hours. Overall, there will be less of a need for the total amount of the required parking for each land use, providing further justification for parking relief. There will be 30 parking spaces provided. There are an estimated 16 parking spaces required during evening land uses for the residents (based on 27 dwelling units times 0.46 spots needed per unit plus four visitor spots.) There will be 16 spots required during daytime land uses (based on 12 required plus four visitor). It is estimated that most of the 30 spots will be vacated during the daytime, freeing up sufficient space for daytime needs. The additional 4 evening parking spaces available within 250 feet of the site will further complement the 30 parking spaces provided. Consequently, based on this analysis, the thirty (30) parking spaces will be sufficient to support the expected parking demand at 400 Mystic Avenue after the redevelopment.

The City of Somerville also allows residents to buy Visitor Permits, which allows a visitor to park on the resident's street or an adjacent street, which will help mitigate the need for visitor spots on-site. Based on these facts and the results of this study, DCI recommends granting relief for twenty seven (27) parking spaces for the project at 400 Mystic Avenue in Somerville, Massachusetts.

APPENDIX

S0801 | COMMUTING CHARACTERISTICS BY SEX

2010-2014 American Community Survey 5-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Subject	Census Tract 3501.04, Middlesex County, Massachusetts	Somerville city, Massachusetts	Massachusetts
	Total	Total	Total
	Estimate	Estimate	Estimate
Workers 16 years and over	3,460	46,642	3,284,998
MEANS OF TRANSPORTATION TO WORK			
Car, truck, or van	69.0%	48.4%	79.7%
Drove alone	54.6%	40.7%	72.0%
Carpooled	14.4%	7.7%	7.7%
In 2-person carpool	11.0%	5.8%	6.2%
In 3-person carpool	1.4%	1.0%	0.9%
In 4-or-more person carpool	2.0%	0.9%	0.7%
Workers per car, truck, or van	1.13	1.10	1.06
Public transportation (excluding taxicab)	21.1%	30.5%	9.5%
Walked	6.8%	11.3%	4.7%
Bicycle	0.5%	5.3%	0.8%
Taxicab, motorcycle, or other means	0.9%	0.6%	0.9%
Worked at home	1.6%	3.9%	4.4%
PLACE OF WORK			
Worked in state of residence	100.0%	98.7%	96.0%
Worked in county of residence	60.9%	61.1%	65.3%
Worked outside county of residence	39.1%	37.6%	30.7%
Worked outside state of residence	0.0%	1.3%	4.0%
Living in a place	100.0%	100.0%	69.8%
Worked in place of residence	17.4%	16.5%	23.8%
Worked outside place of residence	82.6%	83.5%	46.0%
Not living in a place	0.0%	0.0%	30.2%
Living in 12 selected states	100.0%	100.0%	100.0%
Worked in minor civil division of residence	17.4%	16.5%	31.1%
Worked outside minor civil division of residence	82.6%	83.5%	68.9%
Not living in 12 selected states	0.0%	0.0%	0.0%

Subject	Census Tract 3501.04, Middlesex County, Massachusetts	Somerville city, Massachusetts	Massachusetts
	Total	Total	Total
	Estimate	Estimate	Estimate
Workers 16 years and over who did not work at home	3,405	44,809	3,139,018
TIME LEAVING HOME TO GO TO WORK			
12:00 a.m. to 4:59 a.m.	8.6%	2.2%	2.8%
5:00 a.m. to 5:29 a.m.	5.1%	1.4%	2.9%
5:30 a.m. to 5:59 a.m.	0.4%	1.5%	4.0%
6:00 a.m. to 6:29 a.m.	2.1%	4.3%	8.1%
6:30 a.m. to 6:59 a.m.	4.5%	5.8%	9.9%
7:00 a.m. to 7:29 a.m.	12.4%	14.0%	14.6%
7:30 a.m. to 7:59 a.m.	9.5%	12.4%	12.5%
8:00 a.m. to 8:29 a.m.	19.0%	20.4%	13.6%
8:30 a.m. to 8:59 a.m.	4.7%	10.9%	6.9%
9:00 a.m. to 11:59 p.m.	33.7%	27.2%	24.6%
TRAVEL TIME TO WORK			
Less than 10 minutes	10.7%	7.3%	11.5%
10 to 14 minutes	8.1%	9.9%	12.8%
15 to 19 minutes	14.0%	12.0%	13.4%
20 to 24 minutes	22.9%	13.2%	13.2%
25 to 29 minutes	1.3%	6.4%	5.9%
30 to 34 minutes	15.7%	19.0%	14.1%
35 to 44 minutes	10.8%	12.0%	7.9%
45 to 59 minutes	9.1%	11.8%	9.9%
60 or more minutes	7.2%	8.4%	11.1%
Mean travel time to work (minutes)	26.0	29.2	28.3
VEHICLES AVAILABLE			
Workers 16 years and over in households	3,460	45,715	3,222,591
No vehicle available	12.7%	17.6%	5.8%
1 vehicle available	49.7%	42.7%	23.9%
2 vehicles available	31.4%	29.3%	43.5%
3 or more vehicles available	6.2%	10.4%	26.8%
PERCENT IMPUTED			
Means of transportation to work	19.5%	11.3%	7.7%
Private vehicle occupancy	23.1%	12.0%	8.6%
Place of work	25.0%	14.0%	10.3%
Time leaving home to go to work	24.0%	16.6%	16.2%
Travel time to work	27.4%	14.2%	11.4%
Vehicles available	1.7%	1.4%	1.1%

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The 12 selected states are Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2010-2014 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

B08119

MEANS OF TRANSPORTATION TO WORK BY WORKERS' EARNINGS IN THE PAST 12 MONTHS (IN 2014 INFLATION-ADJUSTED DOLLARS)

Universe: Workers 16 years and over with earnings
2010-2014 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Census Tract 3501.04, Middlesex County, Massachusetts	
	Estimate	Margin of Error
Total:	3,460	+/-480
$1 to $9,999 or loss	318	+/-142
$10,000 to $14,999	272	+/-110
$15,000 to $24,999	594	+/-224
$25,000 to $34,999	691	+/-234
$35,000 to $49,999	611	+/-191
$50,000 to $64,999	175	+/-106
$65,000 to $74,999	122	+/-89
$75,000 or more	677	+/-192
Car, truck, or van - drove alone:	1,889	+/-306
$1 to $9,999 or loss	171	+/-112
$10,000 to $14,999	98	+/-61
$15,000 to $24,999	220	+/-109
$25,000 to $34,999	419	+/-194
$35,000 to $49,999	388	+/-175
$50,000 to $64,999	107	+/-85
$65,000 to $74,999	63	+/-65
$75,000 or more	423	+/-143
Car, truck, or van - carpooled:	499	+/-244
$1 to $9,999 or loss	42	+/-49
$10,000 to $14,999	0	+/-17
$15,000 to $24,999	131	+/-124
$25,000 to $34,999	112	+/-98
$35,000 to $49,999	134	+/-116
$50,000 to $64,999	11	+/-18
$65,000 to $74,999	20	+/-32
$75,000 or more	49	+/-49
Public transportation (excluding taxicab):	730	+/-263
$1 to $9,999 or loss	59	+/-58
$10,000 to $14,999	104	+/-79
$15,000 to $24,999	185	+/-162
$25,000 to $34,999	129	+/-96
$35,000 to $49,999	23	+/-29
$50,000 to $64,999	25	+/-29
$65,000 to $74,999	16	+/-27

	Census Tract 3501.04, Middlesex County, Massachusetts	
	Estimate	Margin of Error
$75,000 or more	189	+/-140
Walked:	237	+/-164
$1 to $9,999 or loss	46	+/-53
$10,000 to $14,999	70	+/-75
$15,000 to $24,999	17	+/-29
$25,000 to $34,999	31	+/-53
$35,000 to $49,999	48	+/-72
$50,000 to $64,999	9	+/-16
$65,000 to $74,999	0	+/-17
$75,000 or more	16	+/-27
Taxicab, motorcycle, bicycle, or other means:	50	+/-58
$1 to $9,999 or loss	0	+/-17
$10,000 to $14,999	0	+/-17
$15,000 to $24,999	32	+/-51
$25,000 to $34,999	0	+/-17
$35,000 to $49,999	18	+/-28
$50,000 to $64,999	0	+/-17
$65,000 to $74,999	0	+/-17
$75,000 or more	0	+/-17
Worked at home:	55	+/-51
$1 to $9,999 or loss	0	+/-17
$10,000 to $14,999	0	+/-17
$15,000 to $24,999	9	+/-15
$25,000 to $34,999	0	+/-17
$35,000 to $49,999	0	+/-17
$50,000 to $64,999	23	+/-36
$65,000 to $74,999	23	+/-38
$75,000 or more	0	+/-17

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2010-2014 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.