

Design Consultants, Inc.

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MEMORANDUM

DCI JOB NO. 2014-008

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

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

SUBJECT: Parking Utilization Study
240 Elm Street
Somerville, MA

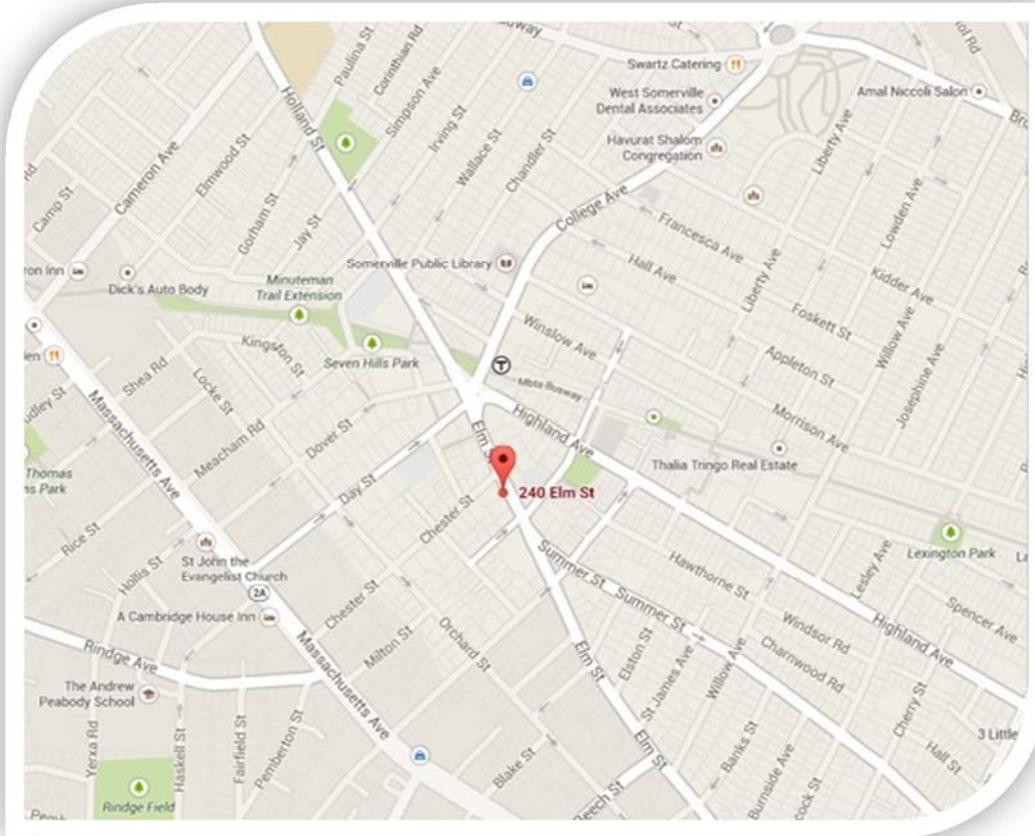
DATE: February 3, 2014

Design Consultants, Inc. has been retained by Davis Square Realty Ventures, LLC to evaluate the transportation and parking impacts of the project site at 240 Elm Street in Somerville, Massachusetts. The property at the corner of Elm Street and Chester Street will undergo a change of use. It is proposed that 14,800 SF of existing office space and 3,200 SF of retail space will be converted to an 18,000 SF gymnasium facility. Because there is no on-site parking, the Somerville Planning Department has requested a parking utilization study. Therefore, DCI has conducted a parking utilization study to determine the availability of on-street parking and off-street parking in municipal parking lots in the vicinity of the project site.

Transit Supply

The Site is conveniently situated close to public transportation. The Site is 730 feet from the Davis Square Transit Station. The Davis Square Transit Station serves the Red Line subway route and various bus routes. The Red Line connects Alewife Station to Braintree Station and Mattapan Station. The Site is served by the following existing MBTA bus routes #87, #88, #89, #90, #94, #96 on Elm Street.

Figure 1: Project Location



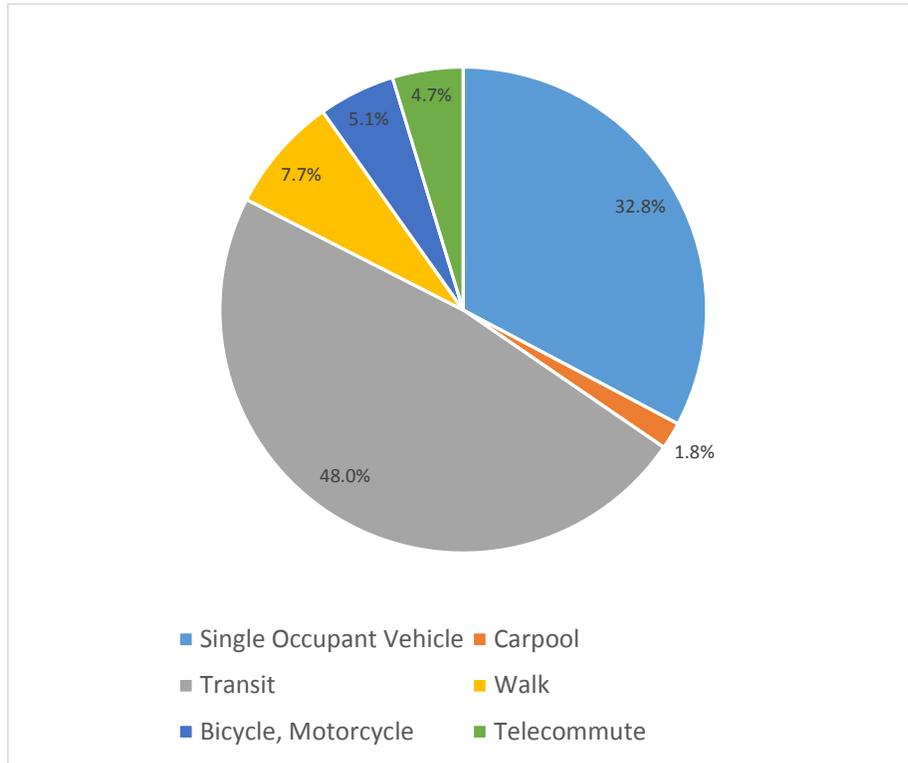
Map Source: Google Maps

Transportation Modes

The Site is located in an area that has a relatively high portion of non-vehicular travel to and from employment. Non-vehicular modes of transportation includes bicycling, walking, transit, and telecommuting.

The latest data (2008-2012) associated for US Census Tract 3509 (which encompasses 240 Elm Street) shows that 67.2% of the working residential population in the area travel to work via modes other than by a single occupant vehicle (SOV). Figure 2 shows all the mode choice distributions for the area. Moreover, the Census Data indicates that 27% of the residents in Census Tract 3509 do not own a vehicle.

Figure 2: Mode Choice for 240 Elm Street Vicinity



Parking Demand

According to ITE’s Parking Generation, 4th Edition, for Health and Fitness Clubs (LUC 492), the weekday peak period parking demand for an 18,000 square feet gymnasium is 95 spaces during the evening from 6:00 to 7:00PM. The Saturday peak period parking demand for an 18,000 square feet gymnasium is 52 spaces from 9:00AM to noon and 7:00 to 8:00PM.

As shown earlier, the US Census Tract Data for 240 Elm Street indicates that 65.5% of the working population does not use an automobile for commuting purposes. These 65.5% use transit, bike, or walk. Therefore, the peak hour parking demand for the weekday and weekend is expected to be approximately 33 spaces and 18 spaces, respectively.

Existing Parking Utilization

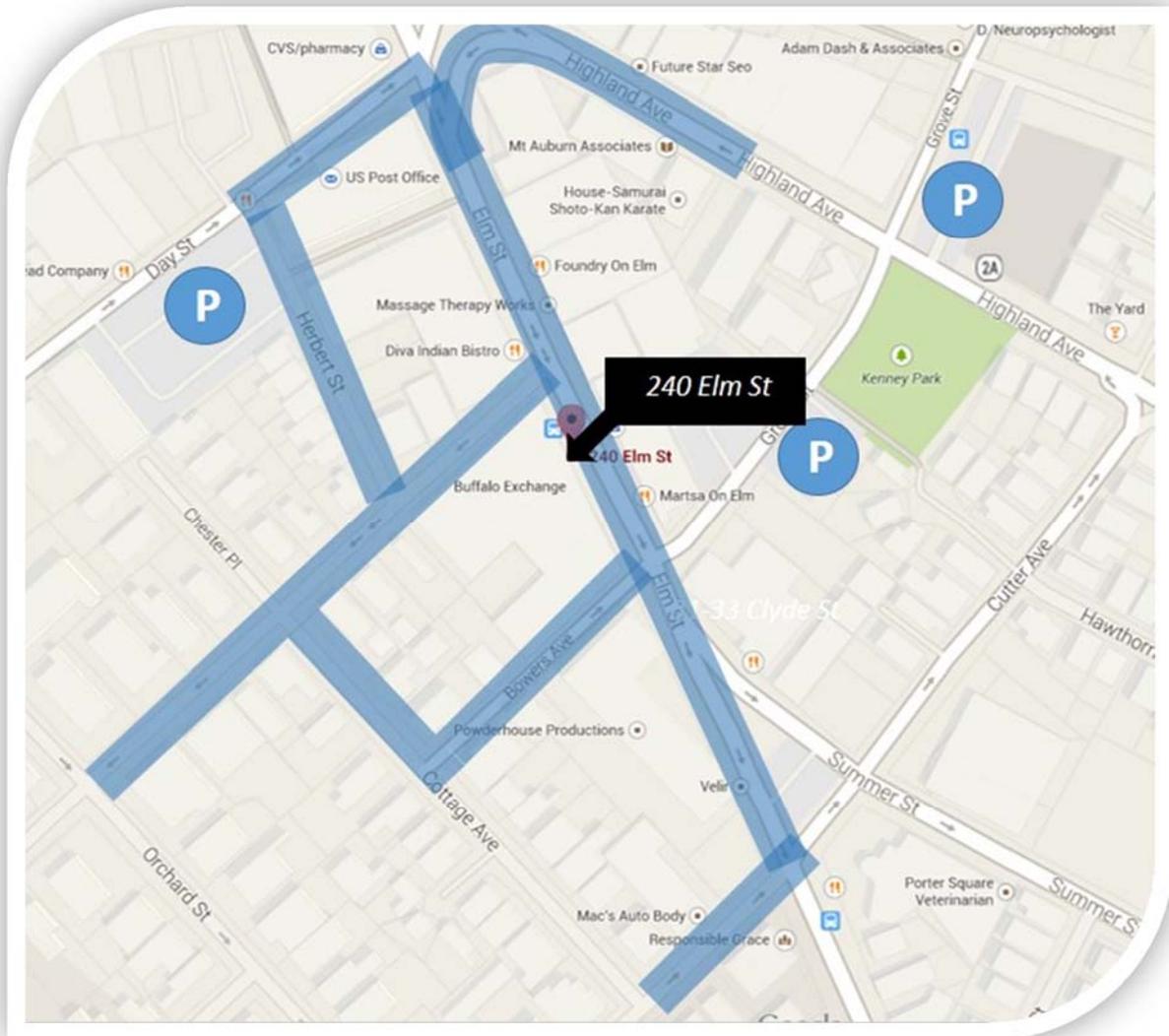
The study area included all on-street parking and off-site municipal parking in the vicinity of 240 Elm Street within 500 linear feet. DCI performed a parking survey of all available on-street parking and off-site municipal parking in the area to determine the existing parking utilization. The study area included the following roadways and municipal parking lots:

- Elm St between Dover St and Russell St

- Herbert St between Day St and Chester St
- Cottage Ave between Chester St and Bowers Ave
- Day St between Elm St and Herbert St
- Highland Ave between Day St and #407 Highland Ave
- Chester St between Elm St and Orchard St
- Bowers Ave between Elm St and Cottage Ave
- Grove St between Elm St and Highland Ave
- Russell St between Elm St and Cottage Ave
- Parking Lot at - #394 Highland Ave
- Parking Lot at - Grove St
- Parking Lot at - Summer St/ Elm St
- Parking Lot at - Day St/ Herbert St

This study area is shown in Figure 3.

Figure 3: Project Study Area



Map Source: Google Maps

Parking Inventory

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

- Thursday, January 30, 2014 (12:00 – 2:00 PM)
- Thursday, January 30, 2014 (5:00 – 7:00 PM)
- Saturday, February 1, 2014 (12:00 – 2:00 PM)
- Saturday, February 1, 2014 (5:00 – 7:00 PM)

The results of the parking surveys are summarized in Table 1. Detailed tables with the complete parking survey data are contained in the attached Appendix.

Table 1: Parking Survey Summary

Street	Section		Subsection	Weekday		Weekend	
	From	to		Afternoon Average	Evening Average	Afternoon Average	Evening Average
Elm St	Dover St	Russell St	East Side	15	17	15	16
			West Side	23	22	17	20
Herbert St	Day St	Chester St	East Side	6	6	4	4
Cottage Ave	Chester St	Bowers Ave	East Side	7	5	3	2
			West Side	9	8	5	4
Day St	Elm St	Herbert St	North Side	4	4	4	5
			South Side	1	1	2	2
Highland Ave	Day St	#407 Highland Ave	North Side	7	2	7	6
			South Side	3	3	3	3
Chester St	Elm St	Orchard St	North Side	20	22	16	14
			South Side	23	22	20	17
Bowers Ave	Elm St	Cottage Ave	North Side	5	6	5	3
Russell St	Elm St	Cottage Ave	South Side	7	5	6	5
Parking Lot at #394 Highland Ave			East Side	11	12	8	12
			West Side	13	13	8	12
Parking Lot at Grove St (East)			West Side	9	7	9	8
Parking Lot at Grove St (West)			North Side	9	7	8	9
			Center Side	3	3	3	3
			South Side	6	5	6	6
Parking Lot at Summer St/ Elm St			North Side	4	5	3	5
			South Side	4	5	4	6
Parking Lot at Day St/ Herbert St			North Side	20	29	26	27
			South Side	19	27	26	27
			Permit Parking Capacity	65	65	65	65
			Occupied Permit Parking	57	53	43	35
			Available Permit Parking	8	12	22	30
			Metered Parking Capacity	118	118	118	118
			Occupied Metered Parking	108	102	97	103
			Available Metered Parking	10	16	21	15
			Kiosk Parking Capacity	86	86	86	86
			Occupied Kiosk Parking	63	81	68	78
			Available Kiosk Parking	23	5	18	8
			Total Available Parking	41	33	61	53

As indicated by the parking survey summary, an average total of 41 parking spaces were available during the weekday afternoon period (12:00 to 2:00 PM). Of these spaces, 8 were permit parking, 10 were metered parking, and 23 were kiosk parking. An average of 33 of parking spaces were available during the weekday evening period (5:00 PM to 7:00 PM). Of these spaces, 12 were permit parking, 16 were metered parking, and 5 were kiosk parking.

On Saturday, during the afternoon period (12:00 to 2:00 PM), an average of 61 permit parking spaces were available. Of these spaces, 22 were permit parking, 21 were metered parking, and 18 were kiosk parking. On Saturday, during the evening period (5:00 to 7:00 PM), an average of 53 permit parking spaces were available. Of these spaces, 30 were permit parking, 15 were metered parking, and 8 were kiosk parking.

Conclusions

This memorandum has determined that the proposed change of use at 240 Elm Street from office and retail to a gymnasium facility should have available parking within 500 feet of the Site to satisfy the expected parking demand. The following characteristics of the Site and the surrounding area serve to justify this finding:

- Proximity to Public Transit;
- Mode Choice;
- Expected Parking Demand; and,
- Available On-Street and Off-Street Parking Utilization.

The Site is located in an area that has a relatively high portion of non-vehicular travel to and from employment. The latest data (2008-2012) associated for US Census Tract 3509 (which encompasses 240 Elm Street) shows that 67.2% of the working residential population in the area travel to work via modes other than by a single occupant vehicle (SOV). Moreover, the Census Data indicates that 27% of the residents in Census Tract 3509 do not own a vehicle.

The Site is conveniently situated close to public transportation. The Site is 730 feet from the Red Line at Davis Square Transit Station. The Site is served by the following existing MBTA bus routes #87, #88, #89, #90, #94, and #96 on Elm Street.

At 240 Elm Street, it is proposed that 14,800 SF of existing office space and 3,200 SF of retail space will be converted to an 18,000 SF gymnasium facility. There is no parking provided at the Site.

According to ITE's Parking Generation Manual, 4th Edition, for Health and Fitness Clubs (LUC 492), the weekday peak period parking demand for an 18,000 square feet gymnasium is 95 spaces. The Saturday peak period parking demand for an 18,000 square feet gymnasium is 52 spaces. US Census Tract Data for 240 Elm Street indicates that 65.5% of

the working population does not use an automobile for commuting purposes. These 65.5% use transit, bike, or walk. Therefore, the peak hour parking demand for the weekday and weekend is expected to be approximately 33 spaces and 18 spaces, respectively.

The parking study found an average total of 41 parking spaces available during the weekday afternoon period within 500 feet of the Site. An average of 33 of parking spaces were available during the weekday evening period.

On Saturday, during the afternoon period, an average of 61 permit parking spaces were available. During the evening period, an average of 53 permit parking spaces were available.

Synthesizing these site characteristics holistically, in combination with the supporting multimodal transportation infrastructure, the proposed change of use at 240 Elm Street is expected to fit the local community texture and the City of Somerville.

Appendix

Parking Survey Data Sheets & Calculations

Parking Survey

City: Somerville, MA

Proj. No.: 2014-008

Street: 240 Elm St.

Sheet No.: 3

Date: 2/1/2014 Saturday

Field by: Steve Wen

Weather: sunny

Notes: _____

Saturday 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
Elm St	Dover St	Russell St	East Side	14	16	15	16
			West Side	16	18	19	20
Herbert St	Day St	Chester St	East Side	2	5	4	3
			West Side	No Parking	No Parking	No Parking	No Parking
Cottage Ave	Chester St	Bowers Ave	East Side	3	3	2	2
			West Side	4	6	4	4
Day St	Elm St	Herbert St	North Side	5	3	4	5
			South Side	1	2	2	1
Highland Ave	Day St	#407 Highland Ave	North Side	7	7	6	5
			South Side	3	3	3	3
Chester St	Elm St	Orchard St	North Side	14	18	14	13
			South Side	19	21	18	16
Bowers Ave	Elm St	Cottage Ave	North Side	5	4	3	3
			South Side	No Parking	No Parking	No Parking	No Parking
Grove St	Elm St	Highland Ave	North Side	No Parking	No Parking	No Parking	No Parking
			South Side	No Parking	No Parking	No Parking	No Parking
Russell St	Elm St	Cottage Ave	North Side	No Parking	No Parking	No Parking	No Parking
			South Side	6	6	5	4
Parking Lot at #394 Highland Ave (Rite-Aid Pharmacy)	-	-	East Side	6	9	11	12
			West Side	5	10	12	12
Parking Lot at Grove St (East)	-	-	East Side	2	4	4	3
			West Side	8	9	8	7
Parking Lot at Grove St (West)	-	-	North Side	7	9	8	9
			Center Side	3	3	3	3
			South Side	6	6	6	6
Parking Lot at Summer St/ Elm St	-	-	North Side	1	5	4	5
			South Side	2	6	6	6
Parking Lot at Day St/ Herbert St	-	-	North Side	22	29	27	27
			South Side	21	30	28	25
TOTAL:				182	232	216	210

Parking Survey

City: Somerville, MA

Proj. No.: 2014-008

Street: 240 Elm St.

Sheet No.: 2

Date: 1/30/2014 Thursday

Field by: Steve Wen

Weather: sunny

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
Elm St	Dover St	Russell St	East Side	15	14	17	17
			West Side	24	22	21	22
Herbert St	Day St	Chester St	East Side	5	6	6	6
			West Side	No Parking	No Parking	No Parking	No Parking
Cottage Ave	Chester St	Bowers Ave	East Side	7	6	5	5
			West Side	9	8	8	8
Day St	Elm St	Herbert St	North Side	3	5	4	4
			South Side	1	0	1	0
Highland Ave	Day St	#407 Highland Ave	North Side	7	7	1	3
			South Side	3	3	3	3
Chester St	Elm St	Orchard St	North Side	19	20	22	22
			South Side	23	23	22	22
Bowers Ave	Elm St	Cottage Ave	North Side	4	6	5	6
			South Side	No Parking	No Parking	No Parking	No Parking
Grove St	Elm St	Highland Ave	North Side	No Parking	No Parking	No Parking	No Parking
			South Side	No Parking	No Parking	No Parking	No Parking
Russell St	Elm St	Cottage Ave	North Side	No Parking	No Parking	No Parking	No Parking
			South Side	7	7	5	5
Parking Lot at #394 Highland Ave (Rite-Aid Pharmacy)	-	-	East Side	10	12	12	12
			West Side	12	13	12	13
Parking Lot at Grove St (East)	-	-	West Side	8	9	7	7
Parking Lot at Grove St (West)	-	-	North Side	9	9	7	6
			Center Side	3	3	2	3
			South Side	5	6	5	5
Parking Lot at Summer St/ Elm St	-	-	North Side	4	4	5	5
			South Side	4	4	4	5
Parking Lot at Day St/ Herbert St	-	-	North Side	18	22	28	29
			South Side	16	22	26	27
TOTAL:				216	231	228	235

Parking Survey

City: Somerville, MA

Proj. No.: 2014-008

Street: 240 Elm St.

Sheet No.: 1

Date: 1/30/2014 Thursday

Field by: Steve Wen

Weather: sunny

Notes: _____

Total Available Parking Spaces

Street	Section		Subsection	Total Available Spaces
	From	to		
Elm St	Dover St	Russell St	East Side	17
			West Side	26
Herbert St	Day St	Chester St	East Side	6
			West Side	No Parking
Cottage Ave	Chester St	Bowers Ave	East Side	9
			West Side	9
Day St	Elm St	Herbert St	North Side	4
			South Side	1
			South Side	3
Highland Ave	Day St	#407 Highland Ave	North Side	1
			South Side	7
Chester St	Elm St	Orchard St	North Side	7
			Permit	13
			South Side	5
			Permit	18
Bowers Ave	Elm St	Cottage Ave	North Side	7
			South Side	9
Grove St	Elm St	Highland Ave	North Side	No Parking
			South Side	No Parking
Russell St	Elm St	Cottage Ave	North Side	No Parking
			South Side	7
Parking Lot at #394 Highland Ave (Rite-Aid Pharmacy)	-	-	East Side	12
			West Side	13
Parking Lot at Grove St (East)	-	-	East Side	9
			West Side	9
Parking Lot at Grove St (West)	-	-	North Side	9
			Center Side	4
			South Side	6
Parking Lot at Summer St/ Elm St	-	-	North Side	5
			South Side	7
Parking Lot at Day St/ Herbert St	-	-	North Side	30
			South Side	31
			TOTAL:	271
			Residential Permit	65
			Parking lot Kiosk	86
			Parking Meter	118
			HP	2