

NEEDHAM CENTER PLAN

LAND USE, ZONING & BUILDOUT ANALYSIS

INTRODUCTION

Community Opportunities Group, Inc., has been engaged by DiNisco Design Partnership Limited to assist with a review and analysis of existing land uses, zoning, and future development potential in Needham Center, and to provide zoning and economic development recommendations to address the Town's goals for the downtown area. This report presents our analysis of existing conditions in Needham Center, the role that Needham's zoning plays in fostering or constraining new investment, and the additional development potential of existing downtown properties under current zoning requirements.

STUDY AREA

The Needham Center Study Area consists of three zoning districts: the Business District on Highland Avenue; the Center Business District on Great Plain Avenue; and the Chestnut Street Business District, which runs along the east side of Garden Street from May Street to Eaton Square, and includes both sides of Chestnut Street from Great Plain Avenue south to the Needham Junction MBTA Station. The districts include a combined total of 131 parcels with 54.4± acres of land and 1.2 million square feet of gross floor area, mainly in commercial or retail use.

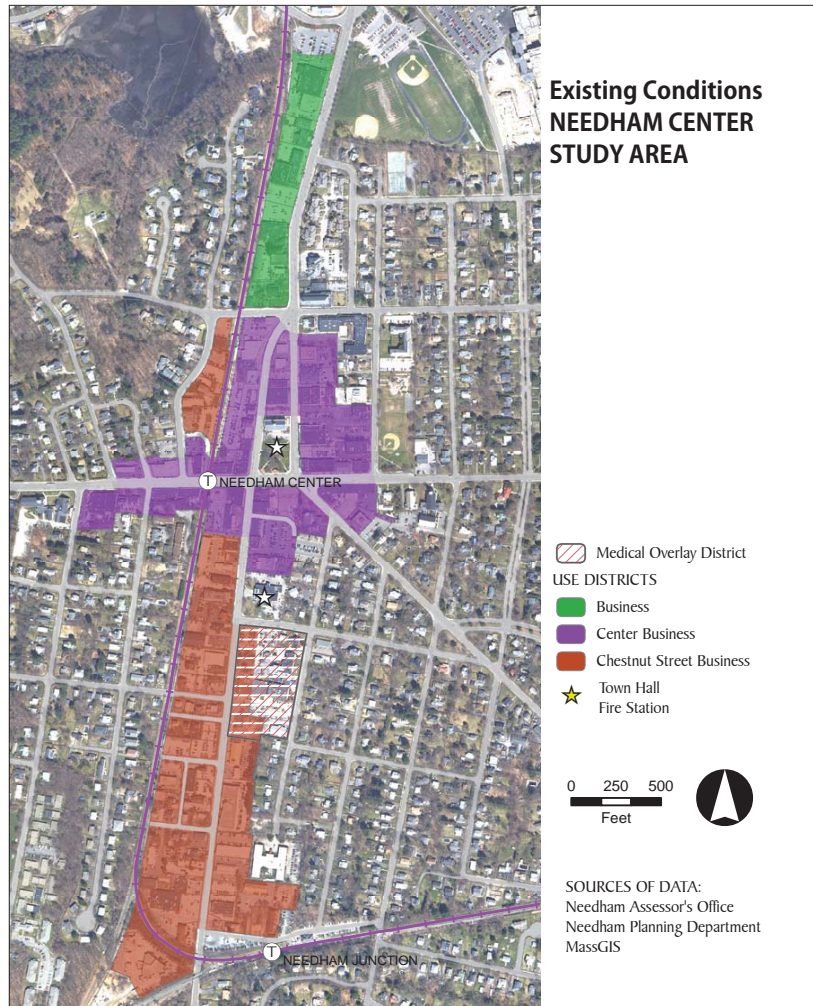


TABLE 1. ZONING DISTRICTS BY LAND AREA AND EXISTING DEVELOPMENT

Zoning District	Number of Parcels	Assessor's Parcel Area (Sq. Ft.)	Existing Gross Floor Area (Sq. Ft.)*
Business	15	307,972	118,829
Center Business	52	918,245	554,710
Chestnut Street Business	64	1,144,106	556,147
Total**	131	2,370,323	1,229,686

*Existing floor area is an estimate, based on an assumption that on average, gross floor area = finished floor area x 1.3.

**The Study Area also includes a portion of the Medical Overlay District on Chestnut Street. For purposes of the buildout study, development capacity on the Deaconess Hospital site (within the Medical Overlay) was computed separately from other properties in the Study Area, and represents buildout under Medical Overlay regulations, not the regulations that apply in the Chestnut Street Business District.

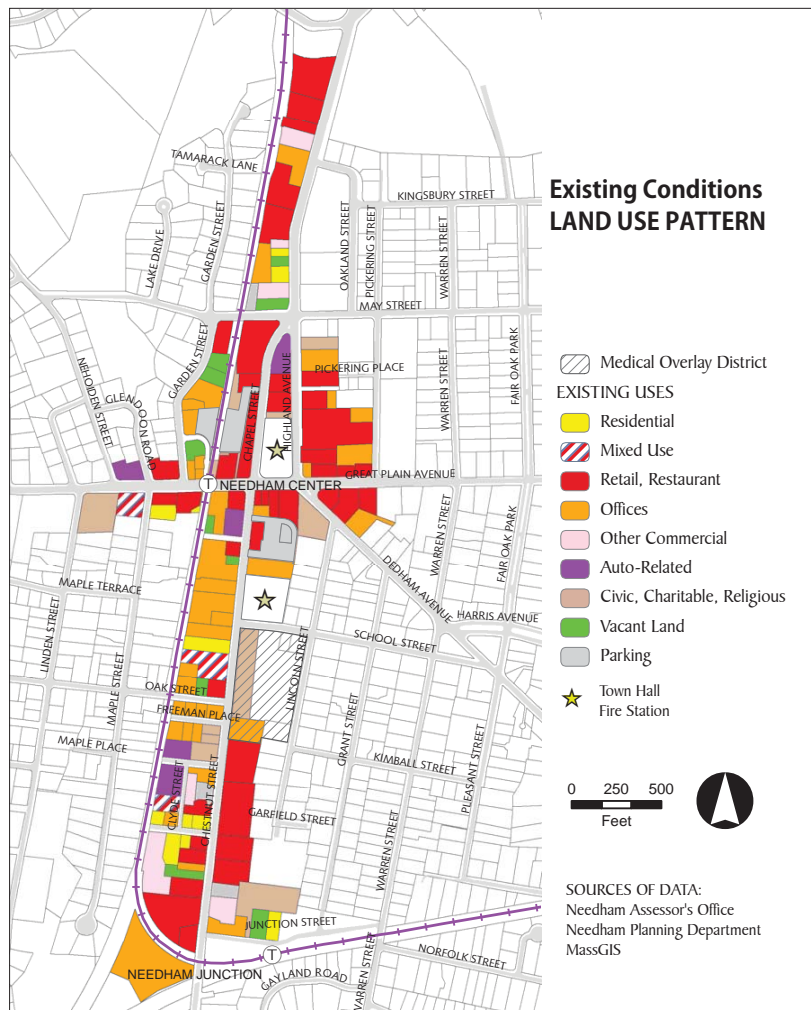
Data Sources: Needham Assessor's Office, Planning Department; DiNisco Design Partnership, Community Opportunities Group, Inc.

Of the Study Area's 131 parcels, seven extend into adjacent zoning districts, i.e., split lots. In addition, two parcels in the Chestnut Street Business District fall within the Medical Overlay District, which covers a total of four parcels, two located entirely in residential zones just outside the Study Area. Finally, the geographic boundary of the Study Area contains six parcels that have been excluded from this analysis: property owned by the Town of Needham or the MBTA, and a split lot that lies primarily in an adjacent zoning district. Table 1 reports the Study Area's allocation of land and existing built space by zoning district.¹

STUDY AREA CHARACTERISTICS

Land Use Pattern

In many ways, Needham Center is the kind of downtown that other



¹ For a detailed list of characteristics by parcel in each zoning district, see Appendix A.

communities yearn for. It has shops, services, a post office, public transportation, a hospital, and charitable and religious uses, and Needham Town Hall occupies a prominent spot at the corner of Great Plain Avenue and Highland Avenue, overlooking a well-kept town common. Many of the buildings are locally owned, attractive, and interesting from a pedestrian's point of view. Needham Center also has buildings that need improvements, yet even they are relatively valuable.

Retail uses account for nearly 50% of the development that exists in Needham Center today. Data from the local assessor indicate that retail and restaurant uses occupy approximately 573,000 sq. ft. of the total floor area in the three zoning districts. Banks, office space and medical offices occupy another 287,000 sq. ft., while mixed commercial and residential uses and free-standing residential uses occupy about 86,000 sq. ft. The remaining floor area is devoted to other types of commercial uses, and public, religious or charitable uses, the most noteworthy being Beth Israel-Deaconess Hospital on Chestnut Street. Table 2 reports the approximate amount of development in each major use class for each zoning district in the Study Area.

TABLE 2. EXISTING LAND USES BY GROSS FLOOR AREA

Class of Use	Floor Area by Zoning District			Total	Percent
	Business	Center Business	Chestnut Street		
Mixed Commercial-Residential	0	20,482	23,254	43,736	3.5%
Residential	4,477	0	37,844	42,322	3.4%
Retail, Restaurants	73,570	312,322	187,178	573,070	46.6%
Offices	19,575	119,399	144,479	283,453	23.1%
Other Commercial	19,387	0	26,601	45,988	3.7%
Auto-Related Uses	1,820	11,592	16,487	29,899	2.4%
Public Services	0	20,108	0	20,108	1.6%
Charitable, Religious	0	70,807	120,305	191,112	15.5%
Total	118,829	554,710	556,147	1,229,687	100.0%

Sources: Needham Assessor's Office, Planning Department; DiNisco Design Partnership, Community Opportunities Group, Inc.

Mix of Businesses

The amount of floor area allocated to various classes of land use does not always provide a clear picture of the number or types of businesses found in a commercial district, and this can be seen in Needham Center. A field survey conducted by the Needham Planning Department (April 2007) indicates that about 320 establishments operate within or immediately adjacent to the Study Area, excluding government agencies of the Town of Needham or the U.S. Postal Service. Retail constitutes 29% of the total, and professional and business services, 30%. The Study Area has a conspicuously large percentage of personal service establishments, 14%. Table 3 reports the number of establishments by industrial classification in Needham Center, based on data provided by the Planning Department.

TABLE 3: FOR-PROFIT AND NON-PROFIT ESTABLISHMENTS IN THE STUDY AREA

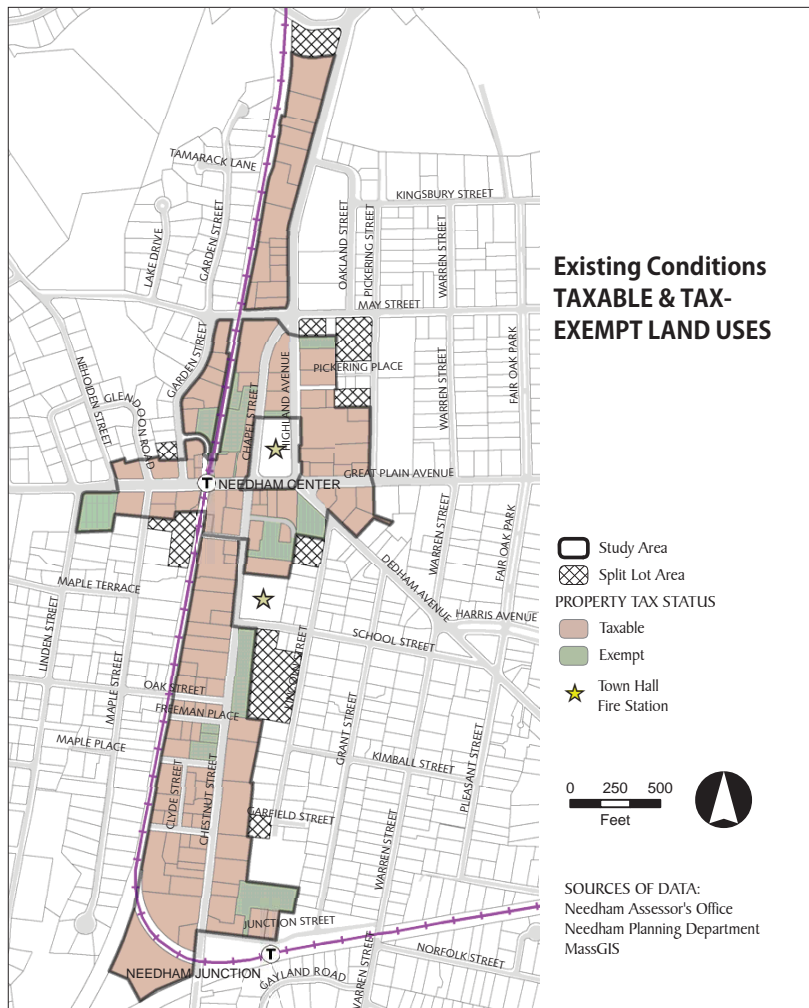
Establishment	Number	Establishment	Number
Professional Services	100	Charitable, Other Non-Profit	13
Retail	96	Auto-Related	9
Personal Services	47	Construction, Industrial	8
Finance, Real Estate	20	Other	20
Business, Technical Services	15	Total	328

Sources: Joyce Moss, Nicole Bourassa, Needham Planning Department; data coded by Community Opportunities Group, Inc. Note: Table 3 excludes government entities.

Economic Characteristics

The Study Area includes or is intersected by taxable and tax-exempt properties, as one would expect in a central business district. Of the 17 tax-exempt parcels, five have been excluded from the area calculations used to estimate Needham Center’s future development potential. They include four parcels are owned by the Town of Needham – Town Hall at the corner of Great Plain Avenue and Highland Avenue, the Fire Station on Chestnut Street, the town common, and off-street parking – and the MBTA right-of-way.

Tax-exempt properties included in the Study Area analysis include the Beth Israel-Deaconess Hospital facility and associated parcels on Chestnut Street, three Town-owned parcels, a parcel owned by the MBTA, the Post Office, and two parcels occupied by religious or educational uses. In FY07, the total assessed value of commercial and industrial property in the Study Area is \$102M, or 14% of the assessed value of all commercial and industrial properties for the Town as a whole (real property only).



ZONING REVIEW

Use Regulations

The Study Area's three commercial zoning districts have similar use regulations, but there also are noteworthy differences. Viewed in their entirety, the use regulations anticipate intensive retail activity in the core of downtown and a somewhat broader range of commercial uses along corridors leading into the downtown area. For example, the Zoning Bylaw provides for retail development throughout Needham Center, but the Business and Chestnut Street Business Districts have been designated for larger retail establishments while the Center Business District's regulations favor small stores and shops, presumably in multi-tenant buildings. Offices also are allowed throughout, but only in upper-story space in the Center Business District in order to preserve the street for retail.

All of the districts allow some residential uses, but not the same types of residential uses or the same amount of residential space within a building. Single-family and two-family homes are permitted in the Business District and prohibited in the Center Business and Chestnut Street Business Districts. In contrast, multi-family units are allowed by Special Permit in the Center Business and Chestnut Street Districts, and prohibited in the Business District. Not surprisingly, the use regulations in these districts discourage or prohibit auto-related uses such as gas stations and auto repair shops, and uses unlikely to generate much foot traffic for retailers. A remarkable feature of Needham Center's zoning regulations is that all food service establishments, regardless of size or type, require a Special Permit from the Planning Board. A limited repertoire of industrial uses is allowed by Special Permit in the Business District. In general, the Business District's use regulations are somewhat archaic and less appropriate for a downtown gateway than the regulations that govern activity in the Chestnut Street Business District. Table 4 provides a summary of the use regulations for each district in the Study Area.

Density and Dimensional Regulations

A basic set of lot dimensional regulations applies consistently throughout the Study Area: a minimum lot size of 10,000 sq. ft. and minimum frontage of 80 feet. However, the maximum allowable use intensity varies by district. To some extent, the differences relate to the type of business environment that is fostered by the use regulations – a compact retail core along Great Plain Avenue with less intensive, mixed commercial uses within the gateways.

In the Center Business and Chestnut Street Business Districts, intensity of use is controlled by a maximum gross floor area ratio (FAR) of 1.00 and 0.70 respectively. The Business District involves a more complicated approach, however. In lieu of FAR standards, the Business District establishes a sliding scale of lot coverage and building height for three use groupings, by lot location. The regulations were designed to promote three outcomes: to encourage more prominent buildings at street corners, to encourage taller buildings in general, and to control bulk by correlating the maximum allowable building footprint with building height. Although the Business District does not have explicit FAR requirements, the lot coverage and height regulations effectively simulate a maximum FAR of 0.40 to 0.75 for interior lots and 0.50 to 1.05 for corner lots.

TABLE 4: OVERVIEW OF STUDY AREA USE REGULATIONS			
Class of Use	Business	Chestnut Street Business	Center Business
Agricultural	Y	Y	Y
Public, Institutional			
Religious	Y	Y	Y
School (public, religious, sectarian, denominational)	Y	Y	Y
School dormitory	Y	N	N
Public library, museum, philanthropic institution	Y	Y	Y
Park, playground	Y	Y	Y
Public passenger station	Y	SP	SP
Child care center	Y	Y	Y
Other private school, nursery, kindergarten	SP	SP	SP
Nursing home, hospital	SP	SP	SP
Cemetery	SP	N	N
Private non-profit club	SP	SP	SP
Residential			
Single-family detached	Y	N	N
Two-family dwelling	Y	N	N
Single-family to two-family conversion	N	N	N
Multi-family dwelling, subject to density regulations of Apartment-1 District *On second floor only **On second floor and half-story above	N	SP*	SP**
Shared elderly housing, owner-occupied	SP	N	N
Boarding house	Y	N	N
Business			
Retail exceeding 5,750 sq. ft. gross floor area			
Grocery store	Y	Y	N
Outdoor storage of motor vehicles for motor vehicle leasing or sales	SP	N	N
Other outdoor display	Y	N	N
Retail sale of custom goods made on the premises	Y	Y	Y
Other retailing	Y	Y	Y
Retail less than 5,750 sq. ft. gross floor area			
Grocery store (*if under 1,000 sq. ft.)	Y	Y	Y*
Outdoor storage of motor vehicles for motor vehicle leasing or sales	SP	N	N
Other outdoor display	Y	N	N

TABLE 4: OVERVIEW OF STUDY AREA USE REGULATIONS

Class of Use	Business	Chestnut Street Business	Center Business
Retail sale of custom goods made on the premises	Y	Y	Y
Other retailing	Y	Y	Y
Manufacturing incidental to a retail use	Y	Y	Y
Bank	Y	Y	Y
Offices *Only on second floor	Y	Y	Y*
Other commercial establishment	Y	Y	Y
Theatre	Y	SP	SP
Electronic game and amusement arcade	Y	N	N
Bowling alley, skating rink	Y	N	N
Auto service station	SP	SP	N
Auto repair	SP	N	N
Car wash	SP	N	N
Self-service laundry, dry cleaning	SP	SP	SP
Lumber or fuel establishment, contractor's yard	SP	N	N
Hotel, motel	SP	N	N
Restaurant *Excluding food service establishments primarily engaged in take-out food sales	SP	SP	SP*
Veterinary office			
With boarding of animals	SP	N	N
Without boarding of animals	SP	SP	SP
Medical clinic	SP	SP	SP
Manufacturing			
Wholesale distribution or storage facility	SP	N	N
Industrial services	SP	N	N
Garment manufacturing	SP	N	N
Laboratory (excluding genetic or biological research), medical or dental laboratory	SP	N	N
Medical reference laboratory not accessory to a medical office or clinic	SP	N	N
Dental prosthesis laboratory not accessory to a dental office	SP	N	N
Ratio, television studio	SP	N	N
Light manufacturing	SP	N	N
Other	SP	N	N
Multiple nonresidential buildings on a single lot	SP	SP	SP

TABLE 4: OVERVIEW OF STUDY AREA USE REGULATIONS			
Class of Use	Business	Chestnut Street Business	Center Business
Accessory Uses			
Home occupation or professional office	Y	N	N
Café, lecture room, research laboratory associated with a school	SP	N	N
Lunch counter accessory to a principal use	Y	SP	SP
Off-street parking for a use located on a different lot	SP	SP	SP
Other	Y	SP	SP
<i>Source: Needham Zoning Bylaw, Section 3.2.2. Note: many of the uses listed in Table 4 are subject to additional requirements not cited here due to space limitations.</i>			

The districts also have somewhat different rules for building height, and these differences are important. Buildings of three stories and 40 feet are permitted in the Business District, and no building may have more than three occupied stories. In contrast, the Center Business District regulations limit buildings to 2 ½ stories and 35 feet. Nonresidential uses may occupy a maximum of two stories, or alternatively, residential uses may occupy the second story and the half story above it. Building heights of 2 ½ stories and 35 feet are also permitted in the Chestnut Street Business District, with occupancy (other than storage) limited to two stories. Table 5 summarizes the basic density and dimensional requirements that apply in each district.

Off-Street Parking

In addition to density and dimensional controls, off-street parking regulations affect the amount of development that can occur on a lot. In Needham, parking areas with more than five parking spaces have to comply with design, landscaping, lighting and setback standards, and parking areas with more than 40 spaces must accommodate bicycles (one bicycle rack per 20 vehicular parking spaces). Most nonresidential uses are required to provide one space per 300 sq. ft. of gross floor area, but a higher standard applies to medical offices and other medical-related uses. The Zoning Bylaw does not provide explicit off-street parking standards for multi-family uses except for lots in an Apartment District. However, since the Apartment-1 density regulations apply to upper-story residential uses in the Center and Chestnut Street Business Districts, it is reasonable to assume that Apartment District parking requirements also apply (at least 1.5 spaces per unit). For mixed-use developments, Needham requires a separate off-street parking calculation for each use in a building, with the total required off-street parking equal to the sum of all uses.

In all zoning districts except the Center Business District, the Zoning Board of Appeals has authority to waive the required number of parking spaces by Special Permit. Parking waivers may be granted for unique conditions on a lot or circumstances that make it unnecessary for a particular project to provide the amount of parking that would normally be required under the Zoning Bylaw. Somewhat different standards apply in the Center Business District, where the Planning Board serves as Special Permit Granting Authority (SPGA). According to the Planning Department, the Planning Board generally grants parking waivers for projects involving the redevelopment of existing structures with no net increase in total floor area.

TABLE 5. OVERVIEW OF DENSITY AND DIMENSIONAL REGULATIONS

Dimensional Standard	Business	Center Business	Chestnut Street Business
Minimum Lot Area (sq. ft.)	10,000	10,000	10,000
Minimum Frontage (ft.)	80	80	80
Setbacks			
Front (ft.)*	10/20	3	20
Side/Rear (ft.)†	50	50	50
Building Height			
Stories‡	3.0	2.5	2.5
Feet	40	35	35
Maximum Floor Area Ratio	N/A	1.00	0.70
Lot Coverage§			
Corner Lots	35-50%	N/A	N/A
Interior Lots	25-40%	N/A	N/A

Source: Needham Zoning Bylaw, Section 4.4.

Notes to Table 4

*The setback of 10 feet applies to Business District lots created prior to 1952, and 20 feet to lots created thereafter.

†Side/rear setbacks apply on lots adjacent to a residential district. For the Business District, the side and rear setback to residential districts applies to areas rezoned to Business after 1952. In the Center Business and Chestnut Street Business Districts, at least 25 feet within the 50-foot setback must be landscaped in accordance with Section 4.4.8.5 of the Zoning Bylaw. An exception to the 50-foot rule applies in the Chestnut Street Business District for lots abutting the MBTA right-of-way.

‡Height is further regulated by limiting the number of stories that may be occupied for nonresidential or residential purposes.

§Coverage requirements may be increased in exchange for underground parking or parking located within a building, at a rate of 2 ½ % points above the maximum coverage ratio for each one sq. ft. of parking space.

ANALYSIS OF DEVELOPMENT CAPACITY

Methodology and Assumptions

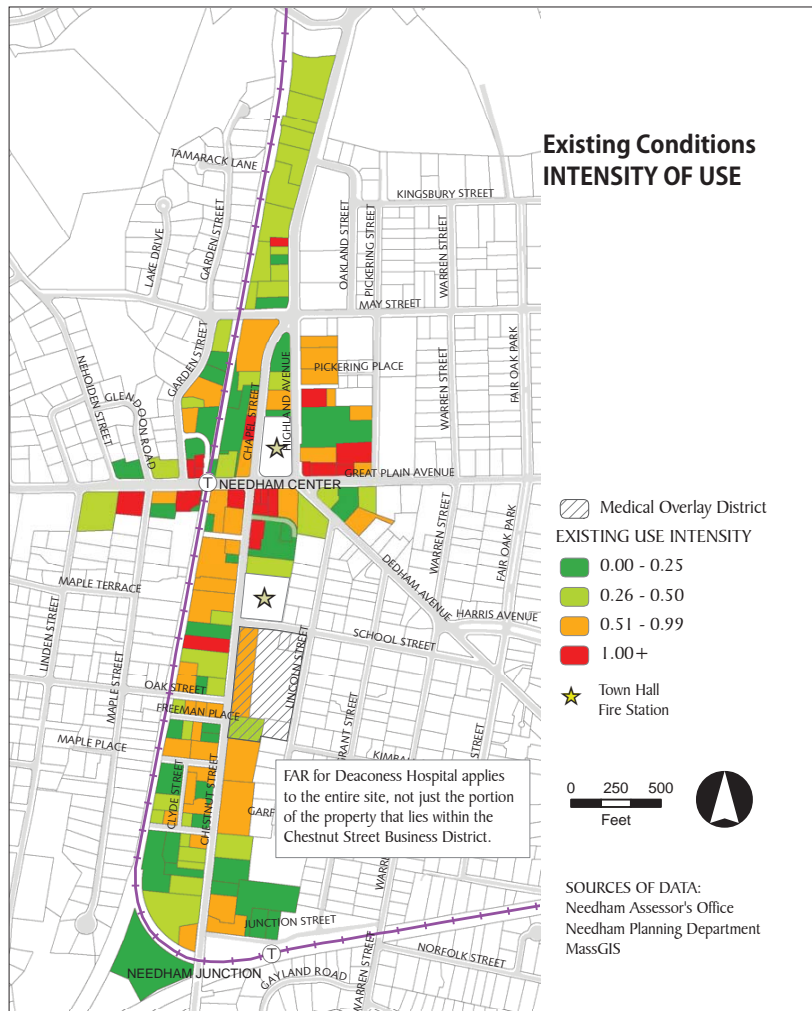
The Town of Needham's Geographic Information System (GIS) data library and records from the assessor's office provided the foundation for analyzing the Study Area's property characteristics, degree of conformance with existing zoning, and the amount of additional development that could occur under existing zoning. For the Needham Center Study, an assessor's parcel database was joined to a GIS parcel shapefile that had been clipped from the GIS assessor's map to the boundaries of the Study Area. An initial series of maps helped to confirm several erroneous or missing property features for the Study Area's parcel set. This occurred because the original assessor's database omitted a number of crucial property features. To address

these limitations, the Planning Department gathered additional information from the assessor's office and compiled the results in parcel-ID based spreadsheets. The consultants also supplemented the original database by manually entering new data for the following additional fields for all parcels in the Study Area: lot frontage, and detailed floor area by use class for buildings with multiple tenants.

Despite the many advantages of a GIS-based land analysis, using assessor's data for a business district study has important limitations. In most communities, the assessed value of commercial or industrial real estate is derived through the "income" method of property appraisal, i.e., net operating income divided by an appropriate capitalization rate. As a result, assessors usually track and record building floor area by space that generates income to the property owner. The total floor area of a commercial building is therefore the sum of income-generating components and components used for accessory purposes such as storage, or the building's total finished area. While this approach meets appraisal needs, it produces a total floor area estimate that differs from the floor area required to determine zoning compliance.

Consultations with the local assessor confirmed that in most cases, the floor area data contained in the database represents finished or net floor area, not gross floor area. Similarly, assessed values do not always represent the actual market value of any property regardless of use. To adjust for these types of under-representations in the database, the consultants estimated gross floor area as 1.30 times the finished (net) floor area for each building, and market value as 1.10 times assessed value. Some additional database corrections had to be made from spot-checks in the field, notably areas used predominantly or exclusively for off-street parking.

A literal application of Needham's current FAR regulations suggests that many parcels in the Study Area have additional development potential. However, some of the Town's dimensional requirements coupled with off-street parking effectively reduce the actual development potential of most properties in the Study



Area. To establish an “effective” FAR, or the FAR that is actually attainable given the impact of off-street parking, the consultants created a prototype development plans from three sample properties (Petrini, 392 Chestnut Street; Rinaldi, 1110 Great Plain Avenue; Macken’s Theatre Block, 916 Great Plain Avenue). The first parcel has surface parking only while the others incorporate underground parking. This analysis reveals that the projects with underground parking have an average FAR of 0.77 and the project with surface parking has an FAR of 0.31. Assuming that half the projects going forward under existing zoning would use underground parking and half would use surface parking, the resulting average FAR is 0.54.

All parcels in the Study Area were then sorted by size: under 15,000 sq. ft.; between 15,000 sq. ft. and 30,000 sq. ft.; and greater than 30,000 sq. ft. The consultants made an assumption that parcels under 15,000 sq. ft. have no effective development capacity under current zoning. About half of the parcels in this sub-set do not comply with current frontage requirements. For parcels between 15,000 sq. ft. and 30,000 sq. ft., the consultants applied the average effective FAR of 0.54 from the prototype plan with surface parking, and for parcels greater than 30,000 sq. ft., the consultants applied a modified version of the average FAR for existing projects with underground parking. If 70% of potential projects on large parcels included underground parking and 30% utilized only surface parking, the larger parcels would attain an average effective FAR of 0.63.

The average effective FAR for mid- and larger-size parcels provided a basis for estimating the maximum development potential under existing zoning for each parcel. Properties with existing building area greater than 50% of the maximum development potential building area were subsequently excluded on the assumption that they do not have enough incentive for redevelopment. The sum of the potential additional building area on the remaining parcels forms the basis for estimating the total development potential under Needham’s existing zoning.

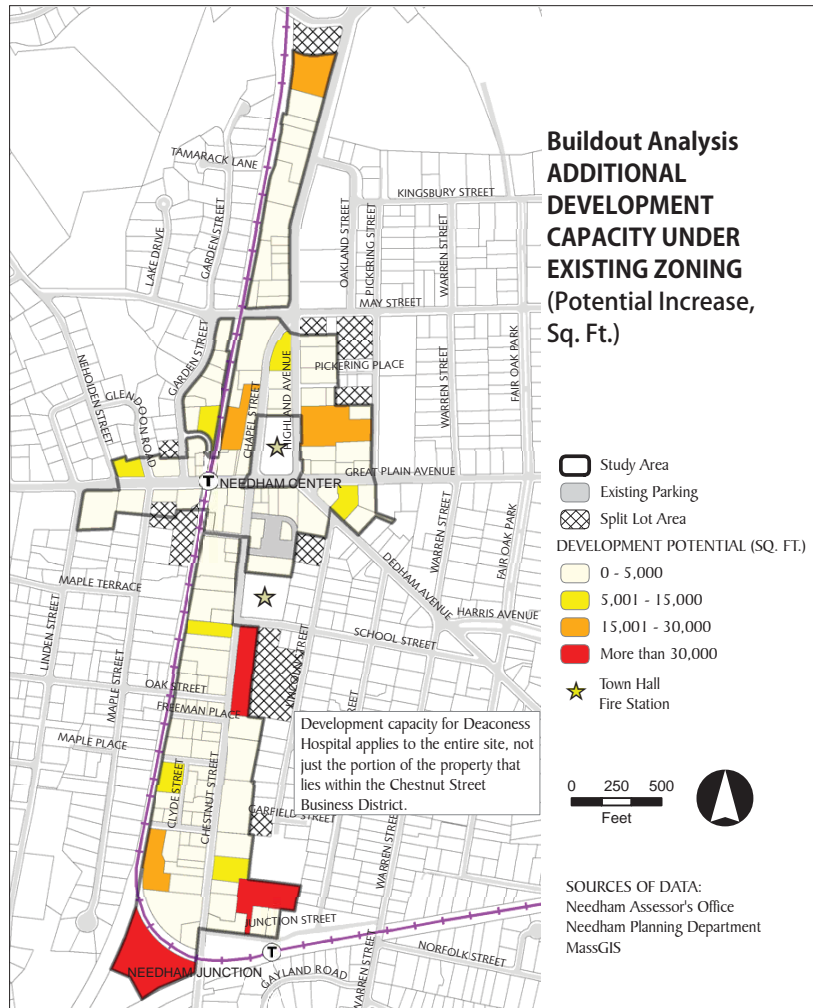
Findings

In the **Business District** on Highland Avenue:

- Five parcels lack sufficient frontage and lot area to comply with existing zoning, but all are in common ownership with adjacent parcels.
- The average floor area ratio (FAR) for existing properties is 0.46. Under an effective FAR analysis, however, most of the properties do not have enough additional development capacity to support the required investment. On average, properties in the Business District already support about 76% of their total development potential.
- One parcel has potential to support 28,637 sq. ft. of additional space.

In the **Center Business District:**

- Thirteen parcels lack sufficient frontage and lot area to comply with existing zoning, but most are in common ownership with adjacent parcels.
- The average floor area ratio (FAR) for existing properties is 0.84. However, the height regulations and off-street parking requirements under existing zoning mean that in effect, most of the properties do not have enough incentive to redevelop. On average, properties in the Center Business District already support about 88% of their total development potential.
- Six parcels have potential to support a combined total of 114,986 sq. ft. of additional space.



In the **Chestnut Street Business District:**

- Sixteen parcels lack sufficient frontage and lot area to comply with existing zoning, but most are in common ownership with adjacent parcels.
- The average floor area ratio (FAR) for existing properties is 0.42. However, the dimensional regulations and off-street parking requirements under existing zoning mean that in effect, most of the properties do not have enough additional development capacity to support the required investment. On average, properties in the Chestnut Street Business District already support about 78% of their total development potential.
- Seven parcels have potential to support a combined total of 129,502 sq. ft. of additional space.

Overall, in the primary **Use Districts**:

- Fourteen out of 131 parcels have the potential to support additional development under Needham's present zoning requirements.
- The combined development capacity of the 14 parcels is 273,124 sq. ft., *if* redevelopment of the larger parcels includes underground parking to support the additional space.

In the **Medical Overlay District**:

- Land in the district is developed at approximately 64% of its total capacity under current zoning.
- Since the Medical Overlay District excludes structured parking from FAR limitations, additional development is possible in this area despite a relatively large percentage of development that already exists in the district.
- The effective FAR derived from the prototype development plans is not applicable to a single-user, non-profit charitable project such as a hospital. However, it *is* applicable to other uses permitted in the Medical Overlay District, such as a for-profit medical services building.

APPENDIX A
STUDY AREA PARCELS BY EXISTING CHARACTERISTICS AND ESTIMATED
BUILDOUT POTENTIAL

Part II. Center Business District Parcels

PID	In Study Area	Address	Owner Name	Zone	Assessment Characteristics				Lot Characteristics		Building Characteristics				Under Existing Zoning				
					Building Value	Land Value	Total Value	Tax Class	Land Use Class	Lot Area (Sq. Ft.)	Frontage Conforms?	Finished Area	Ground Floor Area	Floors	Gross Floor Area	Existing FAR	Effective FAR	% Developed	Additional Development Potential
051-082	Yes	0 Great Plain Ave	MBTA	CB	\$0	\$0	\$0	E	901	871	False			0					
051-012	Yes	1055 Great Plain Ave	The Needham Cooperative Bank	CB	\$271,600	\$181,700	\$453,300	T	341	2,614	False	2,484	480	1	3,229	1.24			
051-013	Yes	10 Eaton Sq	Rockwood, Carol S.	CB	\$134,000	\$223,500	\$357,500	T	340	3,485	False	3,772	1,864	1	4,904	1.41			
047-066	Yes	996 Great Plain Ave	Katz, Jeffrey A. & Gary M., Trust	CB	\$469,000	\$304,500	\$773,500	T	325	3,485	False	6,862	1,344	1	8,921	2.56			
047-067	Yes	1004 Great Plain Ave	Katz, Jeffrey A. & Gary M., Trust	CB	\$748,700	\$301,700	\$1,050,400	T	325	3,485	False	4,651	2,298	1	6,046	1.73			
050-026	Yes	961 Great Plain Ave	S-Bnk Needham Centre, LLC	CB	\$468,200	\$195,300	\$663,500	T	341	3,920	False	6,797	782	1	8,836	2.25			
051-014	Yes	1063 Great Plain Ave	Needham Cooperative Bank	CB	\$609,400	\$202,800	\$812,200	T	341	4,356	False	5,629	1,783	1	7,318	1.68			
047-071	Yes	0 Keith Pl	Salamone, Douglas G. & Dunn, Sel	CB	\$8,100	\$212,100	\$220,200	T	390	4,792	False			0					
050-016	Yes	13 Highland Pl	15 Highland, LLC	CB	\$118,200	\$209,400	\$327,600	T	340	4,792	False	2,312	1,156	2	3,006	0.63			
047-062	Yes	0 Chestnut Rd	Simon Ii Associates Limited Part	CB	\$11,000	\$19,900	\$30,900	T	337	5,663	Yes			0					
047-065	Yes	18 Chestnut St	Greymont, Alfred, Trustee	CB	\$525,100	\$396,900	\$922,000	T	340	5,663	False	9,224	4,612	2	11,991	2.12			
051-007	Yes	81 Chapel St	The Gatto Family Limited Partn	CB	\$60,600	\$143,900	\$204,500	T	325	6,098	Yes	2,892	828	1	3,760	0.62			
050-028	Yes	921 Great Plain Ave	Hartman, Frederick M., Ii, Tr	CB	\$692,100	\$219,700	\$911,800	T	325	6,098	Yes	8,928	4,464	1	11,606	1.90			
050-030	Yes	905 Great Plain Ave	Tsg Properties, LLC	CB	\$463,900	\$226,900	\$690,800	T	325	6,534	False	4,747	4,747	1	6,171	0.94			
051-009	Yes	91 Chapel St	Pesiridis, James, Trs.	CB	\$874,500	\$239,500	\$1,114,000	T	325	7,841	Yes	8,676	1,027	1	11,279	1.44			
047-064	Yes	990 Great Plain Ave	Neary, Glen, Trustee	CB	\$1,512,300	\$353,700	\$1,866,000	T	325	8,276	False	13,398	5,670	2	17,417	2.10			
132-003	Yes	1076 Great Plain Ave	Katsikaris, Peter & Paul, Trustee	CB	\$487,200	\$255,800	\$743,000	T	325	9,148	Yes	6,747	6,747	1	8,771	0.96			
050-019	Yes	52 Pickering St	Higgins, Christopher H & Thomas	CB	\$537,800	\$260,400	\$798,200	T	340	9,583	False	6,948	3,474	1	9,032	0.94			
051-006	Yes	53 Chapel St	Pham, Tuyen D., Trustee	CB	\$276,200	\$264,300	\$540,500	T	325	10,019	False	3,680	3,682	1	4,784	0.48			
047-068	Yes	1016 Great Plain Ave	Sullivan, James M, Trustee.	CB	\$467,600	\$360,900	\$828,500	T	325	10,019	Yes	8,062	8,062	1	10,481	1.05			
051-015	Yes	0 Garden St	Needham Cooperative Bank	CB	\$21,600	\$266,200	\$287,800	T	390	10,890	Yes			0					
047-004	Yes	934 Great Plain Ave	Malone, John E Trustee	CB	\$633,200	\$289,600	\$922,800	T	325	10,890	Yes	4,190	8,381	1	5,447	0.50			
050-027	Yes	935 Great Plain Ave	Sullivan, James M, Trustee	CB	\$2,482,000	\$282,400	\$2,764,400	T	325	10,890	Yes	19,312	9,656	1	25,106	2.31			
047-059	Yes	30 Chestnut St	Greymont, Alfred &	CB	\$973,000	\$445,800	\$1,418,800	T	325	12,197	Yes	11,490	4,790	1	14,937	1.22			
051-003	Yes	1433 Highland Ave	Anton, Charles A. Tr.	CB	\$177,300	\$270,200	\$447,500	T	325	12,632	Yes	3,810	3,810	1	4,953	0.39			
132-001	Yes	1056 Great Plain Ave	Katsikaris, George, Tr.	CB	\$551,000	\$350,000	\$901,000	T	325	13,068	Yes	10,138	3,828	1	13,179	1.01			
047-002	Yes	902 Great Plain Ave	Bartzokis, Constantinos & Andr	CB	\$0	\$492,000	\$492,000	T	325	13,504	Yes	4,545	4,545	1	5,909	0.44			
050-015	Yes	1450 Highland Ave	Topliff Street Associates Limite	CB	\$1,218,500	\$369,600	\$1,588,100	T	325	13,939	Yes	13,521	6,465	1	17,577	1.26			
051-002	Yes	74 Chapel St	1451 Highland Ave, LLC	CB	\$459,700	\$376,600	\$836,300	T	325	14,375	Yes	10,218	7,564	1	13,283	0.92			
051-011	Yes	1027 Great Plain Ave	Thomas, Dina &	CB	\$644,000	\$425,000	\$1,069,000	T	323	14,810	Yes	4,731	1,970	1	6,150	0.42			
051-010	Yes	1013 Great Plain Ave	Heffernan, Michael A. &	CB	\$1,587,000	\$385,800	\$1,972,800	T	325	14,810	Yes	11,197	11,197	1	14,556	0.98			
047-069	Yes	37 Chestnut St	Salamone,Douglas G. & Dunn, Sel	CB	\$93,700	\$547,200	\$640,900	T	330	15,246	Yes	6,247	2,080	1	8,121	0.53	0.54	99%	
051-043	Yes	1111 Great Plain Ave	Philnorstan Realty LLC	CB	\$127,300	\$636,200	\$763,500	T	333	15,682	Yes	665	665	1	865	0.06	0.54	10%	7,604
050-025	Yes	1492 Highland Ave	Sullivan, James M, Trustee	CB	\$496,400	\$363,600	\$860,000	T	325	16,553	Yes	9,120	4,560	1	11,856	0.72	0.54	133%	
050-014	Yes	1424 Highland Ave	Georgacopoulos, Tasos, Tr	CB	\$693,200	\$448,900	\$1,142,100	T	326	16,988	Yes	8,199	8,199	1	10,659	0.63	0.54	116%	

LAND USE & BUILDOUT ANALYSIS

6-29-07

PID	In Study Area	Address	Owner Name	Zone	Assessment Characteristics				Lot Characteristics		Building Characteristics				Under Existing Zoning				
					Building Value	Land Value	Total Value	Tax Class	Land Use Class	Lot Area (Sq. Ft.)	Frontage Conforms?	Finished Area	Ground Floor Area	Floors	Gross Floor Area	Existing FAR	Effective FAR	% Developed	Additional Development Potential
047-005	Yes	60 Dedham Ave	Cox, Gilbert W Jr +	CB	\$619,700	\$633,600	\$1,253,300	T	340	17,424	Yes	10,474	5,237	2	13,616	0.78	0.54	145%	
047-070	Yes	1032 Great Plain Ave	Kingsbury Building ¹	CB	\$1,717,600	\$0	\$1,717,600	T	343	19,166	False	13,614		0	13,514	0.71	0.54	171%	
051-004	Yes	1417 Highland Ave	1401/1417 Highland Ave., LLC	CB	\$386,600	\$501,600	\$888,200	T	334	19,166	Yes	2,005	1,991	1	2,607	0.14	0.54	25%	7,743
132-050	Yes	1110 Great Plain Ave	Great Plain Ventures, LLC	CB	\$1,316,000	\$505,200	\$1,821,200	T	31	19,166	Yes	15,755	3,108	1	20,482	1.07	0.54	198%	
047-063	Yes	970 Great Plain Ave	Simon Ii Associates LLC	CB	\$2,341,100	\$707,100	\$3,048,200	T	325	19,602	Yes	14,402	14,402	1	18,723	0.96	0.54	177%	
047-003	Yes	916 Great Plain Ave	Feuer, Curt R., Trustee	CB	\$343,600	\$727,500	\$1,071,100	T	325	20,038	Yes	3,900	3,900	1	5,070	0.25	0.54	47%	5,751
050-024	Yes	20 Pickering St	The Journal Of Bone And Joint Su	CB	\$2,597,600	\$490,700	\$3,088,300	T	340	23,087	Yes	25,424	1,276	2	33,051	1.43	0.54	265%	
050-005	Yes	1410 Highland Ave	Giannacopoulos, Peter +	CB	\$431,300	\$800,300	\$1,231,600	T	342	24,394	Yes	11,028	5,694	1	14,336	0.59	0.54	109%	
047-057	Yes	66 Chestnut St	Grace L. Lane Family Limited Par	CB	\$273,900	\$622,200	\$896,100	T	340	25,265	Yes	7,753	1,024	2	10,079	0.40	0.54	74%	
051-037	Part	1077 Great Plain Ave	Philnorstan Realty LLC	CB	\$1,058,800	\$486,600	\$1,545,400	T	325	27,443	Yes	10,566	10,526	1	13,736	0.50	0.54	93%	
047-042	Yes	23 Dedham Ave	First Parish In Needham - Unitar	CB	\$1,012,000	\$439,600	\$1,451,600	E	906	29,185	Yes	6,120	2,601	1	7,956	0.27	0.54	50%	
051-008	Yes	0 Off Chapel St	Town Of Needham	CB	\$60,100	\$265,400	\$325,500	E	903	34,412	False			0		-	0.63	0%	21,680
132-052	Yes	1150 Great Plain Ave	United States Postal Service	CB	\$823,500	\$953,500	\$1,777,000	E	900	43,124	Yes	15,468	15,468	1	20,108	0.47	0.63	74%	
051-005	Yes	1 Chapel St	Petrini Corporation	CB	\$1,574,900	\$1,044,700	\$2,619,600	T	325	47,045	Yes	18,782	14,553	1	24,417	0.52	0.63	82%	
047-058	Part	0 Chestnut St	Town Of Needham	CB	\$41,800	\$1,558,700	\$1,600,500	E	903	69,260	Yes			0		-	0.63	0%	43,634
050-022	Yes	1478 Highland Ave	Benenson, Charles B.	CB	\$555,800	\$1,471,900	\$2,027,700	T	325	73,181	Yes	13,484	13,484	1	17,529	0.24	0.63	38%	28,575
050-004	Part	90 Pickering St	Roman Catholic Archdioces	CB	\$5,676,400	\$3,575,900	\$9,252,300	E	906	14,588	Yes	48,347	833	1	62,851	0.75	0.63	119%	
			SUMMARY STATISTICS																
			Total Parcel Area (Sq. Ft.)		918,245														
			Total Parcel Area (Acres)		21.1														
			Number of Parcels		52														
			Average Parcel Size		15,581														
			Median Parcel Size		13,286														
			Minimum Parcel Size		871														
			Maximum Parcel Size		73,181														
			Existing Gross Floor Area		554,710														
			Maximum Additional Floor Area		114,986														

¹ Note: the assessed value shown for 1032 Great Plain Avenue is the sum of assessed values for the commercial condominiums. Parcel 047-070 is actually the master deed parcel.

Part III. Chestnut Street Business District Parcels

PID	In Study Area	Address	Owner Name	Zone	Assessment Characteristics					Lot Characteristics		Building Characteristics				Under Existing Zoning			
					Building Value	Land Value	Total Value	Tax Class	Land Use Class	Lot Area (Sq. Ft.)	Frontage Conforms?	Finished Area	Ground Floor Area	Floors	Gross Floor Area	Existing FAR	Effective FAR	% Developed	Additional Development Potential
047-073	Yes	0 Chestnut St	Maiorana, Henry L Trustee	CS	\$0	\$0	\$0	T	390	3,485	False	0	0	0	0	0.00		0	
046-052	Yes	20 Marsh Rd	Tiernan, Richard E.	CS	\$79,700	\$315,000	\$394,700	T	101	3,920	False	1,390	0	0	1,807	0.46		0	
046-045	Yes	23 Marsh Rd	Craft, Francis &	CS	\$91,500	\$315,000	\$406,500	T	101	3,920	False	1,440	0	0	1,872	0.48		0	
046-035	Yes	0 Chestnut St	Deaconess-Glover Hospital Corp	CS	\$9,800	\$177,900	\$187,700	E	905	4,792	False	0	0	0	0	0.00		0	
047-086	Yes	10 Oak St	Ariansen, Arnold J. & Joseph A., T	CS	\$162,200	\$233,100	\$395,300	T	340	4,792	False	2,860	474	1	3,718	0.78		0	
047-087	Yes	14 Oak St	Richards, Paul C	CS	\$163,700	\$233,100	\$396,800	T	340	4,792	False	3,612	400	1	4,696	0.98		0	
046-036	Yes	0 Chestnut St	Deaconess-Glover Hospital Corp	CS	\$10,600	\$181,600	\$192,200	E	905	5,227	False	0	0	0	0	0.00		0	
046-038	Yes	30 Freeman Pl	Bernard, John A. +	CS	\$60,500	\$257,800	\$318,300	T	340	5,663	False	1,248	624	2	1,622	0.29		0	
046-043	Yes	47 Marsh Rd	Edgehill Construction Corp	CS	\$79,600	\$396,800	\$476,400	T	101	5,663	False	1,399	0	0	1,819	0.32		0	
047-088	Yes	20 Oak St	Adamson, Clara B. Tr.	CS	\$118,500	\$258,300	\$376,800	T	340	5,663	False	1,380	690	1	1,794	0.32		0	
046-044	Yes	33 Marsh Rd	Edgehill Construction	CS	\$82,500	\$185,900	\$268,400	T	340	5,663	Yes	3,240	1,296	3	4,212	0.74		0	
046-037	Yes	20 Freeman Pl	Polayes, Maurice B, Tr	CS	\$104,700	\$337,200	\$441,900	T	340	5,663	False	3,424	1,712	1	4,451	0.79		0	
046-054	Yes	339 Chestnut St	London, Cliff B.	CS	\$116,000	\$340,900	\$456,900	T	340	6,098	False	1,576	156	1	2,049	0.34		0	
047-083	Yes	0 Oak St	Petrini Corporation	CS	\$0	\$141,500	\$141,500	T	390	6,534	False	0	0	0	0	0.00		0	
051-019	Yes	232 Garden St	Alexander, Harvey L. +	CS	\$141,800	\$158,200	\$300,000	T	340	6,534	False	1,872	936	1	2,434	0.37		0	
046-050	Yes	297 Chestnut St	McInerney, Jeffrey M.	CS	\$38,200	\$226,400	\$264,600	T	101	7,405	Yes	744	0	0	967	0.13		0	
047-085	Yes	199 Chestnut St	Haskell, George F. &	CS	\$213,500	\$267,400	\$480,900	T	340	7,405	Yes	5,023	1,403	1	6,530	0.88		0	
046-051	Yes	315 Chestnut St	Rosenthal, Marc L., Tr.	CS	\$249,100	\$350,000	\$599,100	T	325	7,405	Yes	4,800	2,400	2	6,240	0.84		0	
047-081	Yes	15 Oak St	Rooney, John M., Trustee	CS	\$190,400	\$203,300	\$393,700	T	342	7,841	False	3,356	110	1	4,363	0.56		0	
046-039	Yes	40 Freeman Pl	Adamson, Donald J., Keith A, &	CS	\$95,000	\$272,300	\$367,300	T	340	8,712	Yes	1,298	778	2	1,687	0.19		0	
047-077	Yes	117 Chestnut St	Becker, Jeffrey A.	CS	\$228,800	\$251,800	\$480,600	T	342	9,148	False	2,676	1,338	2	3,479	0.38		0	
046-048	Yes	267 Chestnut St	Petrini, L + Son Inc	CS	\$5,600	\$361,300	\$366,900	T	337	10,019	Yes	0	0	0	0	0.00		0	
051-021	Yes	0 Garden St	Trudeau, Thomas & James Truste	CS	\$19,500	\$410,000	\$429,500	T	390	10,019	Yes	0	0	0	0	0.00		0	
051-022	Yes	0 Garden St	Needham Co-Operative Bank	CS	\$19,500	\$410,000	\$429,500	T	391	10,019	Yes	0	0	0	0	0.00		0	
046-046	Yes	16 Clyde St	Tramontozzi, Egidio &	CS	\$9,800	\$361,300	\$371,100	T	400	10,019	Yes	5,335	5,335	1	6,936	0.69		0	
047-072	Yes	53 Chestnut St	Brett, Llc	CS	\$143,300	\$424,500	\$567,800	T	325	10,019	Yes	5,950	1,295	1	7,735	0.77		0	
046-047	Yes	257 Chestnut St	Continental Cablevision Of Nee	CS	\$338,100	\$297,600	\$635,700	T	340	10,019	Yes	5,733	902	1	7,453	0.74		0	
047-084	Yes	173 Chestnut St	Friendlys Realty Ii, Llc	CS	\$610,800	\$361,300	\$972,100	T	326	10,019	Yes	2,145	2,145	1	2,789	0.28		0	
047-082	Yes	17 Oak St	Picardo, Stephen R. Tr, 17 Oak St	CS	\$218,400	\$367,700	\$586,100	T	342	10,890	Yes	4,548	2,274	2	5,912	0.54		0	
051-018	Yes	244 Garden St	Alexander, Harvey L. +	CS	\$333,700	\$264,100	\$597,800	T	340	10,890	Yes	4,283	3,250	2	5,568	0.51		0	
046-049	Yes	283 Chestnut St	Malone, John E Trustee	CS	\$274,100	\$387,000	\$661,100	T	325	10,890	Yes	6,862	564	2	8,921	0.82		0	
046-013	Yes	32 Junction St	Junction Place Llc	CS	\$0	\$0	\$0	E	102	11,326	False	0	0	0	0	0.00		0	
046-017	Yes	358 Chestnut St	Roche Bros. Supermarkets, Inc.	CS	\$0	\$406,400	\$406,400	T	337	11,326	False	0	0	0	0	0.00		0	
046-055	Yes	0 Chestnut St	Needham Oil Co	CS	\$10,700	\$308,200	\$318,900	T	390	11,761	False	0	0	0	0	0.00		0	
046-053	Yes	329 Chestnut St	Bejian, Alex M.	CS	\$107,900	\$380,100	\$488,000	T	325	12,632	Yes	4,748	1,716	2	6,172	0.49		0	
046-061	Yes	399 Chestnut St	Farley, Jane Barrett &	CS	\$577,800	\$485,700	\$1,063,500	T	325	13,504	Yes	8,522	4,261	1	11,079	0.82		0	
046-014	Yes	24 Junction St	Petrini Corporation	CS	\$0	\$456,600	\$456,600	T	130	14,375	Yes	0	0	0	0	0.00		0	

PID	In Study Area	Address	Owner Name	Zone	Assessment Characteristics					Lot Characteristics		Building Characteristics				Under Existing Zoning			
					Building Value	Land Value	Total Value	Tax Class	Land Use Class	Lot Area (Sq. Ft.)	Frontage Conforms?	Finished Area	Ground Floor Area	Floors	Gross Floor Area	Existing FAR	Effective FAR	% Developed	Additional Development Potential
046-056	Yes	30 Marsh Rd	Needham Oil Co Inc	CS	\$177,100	\$392,900	\$570,000	T	104	14,375	Yes	2,607	0	0	3,389	0.24			0
046-042	Yes	35 Clyde St	Nowak, Edward J., Jr. +	CS	\$273,300	\$286,300	\$559,600	T	31	14,375	Yes	5,566	4,400	1	7,236	0.50			0
046-034	Yes	237 Chestnut St	Deaconess-Glover Hospital Corp	CS	\$25,500	\$336,600	\$362,100	E	905	14,810	Yes	8,250	0	0	10,725	0.72			0
046-040	Yes	33 Chestnut Pl	Malone, John E Trustee	CS	\$235,500	\$541,900	\$777,400	T	332	14,810	Yes	8,182	8,182	1	10,637	0.72			0
051-023	Yes	168 Garden St	Tfs Franchise Corporation	CS	\$16,400	\$427,100	\$443,500	T	325	15,246	Yes	4,200	4,200	1	5,460	0.36	0.54	66%	0
046-015	Yes	392 Chestnut St	Petrini Corporation	CS	\$78,400	\$464,600	\$543,000	T	340	17,424	Yes	0	5,144	2	9,939	0.57	0.54	106%	0
051-017	Yes	0 Eaton Sq	Town Of Needham	CS	\$26,100	\$304,100	\$330,200	E	903	18,295	Yes	0	0	0	0	0.00	0.54	0%	9,879
047-074	Yes	87 Chestnut St	Corcoran, Gerald P Md +	CS	\$1,030,700	\$463,200	\$1,493,900	T	342	18,295	Yes	10,404	3,468	3	13,525	0.74	0.54	137%	0
047-078	Yes	129 Chestnut St	Fitchburg Federal Savings &	CS	\$114,700	\$271,200	\$385,900	T	341	18,731	False	2,575	2,575	1	3,348	0.18	0.54	33%	6,767
046-059	Yes	355 Chestnut St	Needham Oil Company, Inc.	CS	\$274,800	\$413,000	\$687,800	T	325	18,731	Yes	4,690	4,790	1	6,097	0.33	0.54	60%	0
047-079	Yes	141 Chestnut St	Roche, Jeffrey E. Sr.,	CS	\$2,963,400	\$395,800	\$3,359,200	T	112	19,166	False	21,531	5,993	3	27,990	1.46	0.54	270%	0
051-020	Yes	214 Garden St	Trudeau, Thomas & James, Trust	CS	\$440,900	\$475,800	\$916,700	T	340	20,038	Yes	7,892	500	2	10,260	0.51	0.54	95%	0
047-054	Yes	214 Chestnut St	Sherry D Condominium ¹	CS	\$1,065,500	\$0	\$1,065,500	T	343	20,909	Yes	7,802		0	7,802	0.37	0.54	69%	0
046-016	Yes	380 Chestnut St	Petrini Corporation	CS	\$122,700	\$557,000	\$679,700	T	376	20,909	Yes	8,272	8,272	1	10,754	0.51	0.54	95%	0
046-041	Yes	40 Chestnut Pl	Salamone, Douglas	CS	\$28,100	\$434,400	\$462,500	T	332	23,958	Yes	4,500	3,450	1	5,850	0.24	0.54	45%	7,087
046-018	Yes	340 Chestnut St	R.H.C. Associates	CS	\$247,900	\$457,200	\$705,100	T	326	25,700	Yes	2,668	2,668	1	3,468	0.13	0.54	25%	10,410
046-019	Yes	320 Chestnut St	Petrini Corporation	CS	\$302,400	\$626,800	\$929,200	T	325	27,878	Yes	9,643	9,643	1	12,536	0.45	0.54	83%	0
047-080	Yes	165 Chestnut St	Petrini Corporation	CS	\$1,373,700	\$511,100	\$1,884,800	T	13	31,799	Yes	12,322	1,218	1	16,019	0.50	0.63	80%	0
047-076	Yes	105 Chestnut St	Chestnut Green Condominium	CS	\$3,177,200	\$0	\$3,177,200	T	343	33,106	Yes	21,828		2	21,828	0.66	0.63	136%	0
047-074	Yes	73 Chestnut St	Sokolowski, Michael, Trustee	CS	\$1,197,300	\$447,000	\$1,644,300	T	325	39,640	Yes	15,324	980	2	19,921	0.50	0.63	80%	0
046-058	Yes	50 Marsh Rd	Needham Oil Company, Inc.	CS	\$221,200	\$454,600	\$675,800	T	310	42,689	Yes	6,855	4,455	1	8,912	0.21	0.63	33%	17,983
046-033	Yes	232 Chestnut St	Malone, John E Trustee	CS	\$1,103,900	\$959,100	\$2,063,000	T	325	42,689	Yes	19,192	1,431	1	24,950	0.58	0.63	93%	0
046-012	Yes	20 Junction St	Vets Of Foreign Wars	CS	\$278,100	\$227,200	\$505,300	E	905	57,935	False	3,620	3,620	1	4,706	0.08	0.63	13%	31,793
046-060	Yes	377 Chestnut St	Linse, Laurence W. Trustee	CS	\$632,100	\$1,330,400	\$1,962,500	T	324	62,726	Yes	17,823	17,823	1	23,170	0.37	0.63	59%	0
046-032	Part	266 Chestnut St	Petrini, L. & Son Inc	CS	\$2,588,000	\$1,532,000	\$4,120,000	T	323	68,389	Yes	37,416	17,973	1	48,641	0.71	0.63	113%	0
045-006	Yes	433 Chestnut St	Tobin, Mark J. & Et Al, Trs.	CS	\$608,100	\$291,800	\$899,900	T	340	100,624	False	13,700	4,500	1	17,810	0.18	0.63	28%	45,583
047-055	Part	148 Chestnut St	Deaconess-Glover Hospital Corp	CS	\$17,554,100	\$607,800	\$18,161,900	E	905	50,108	Yes	80,672	2,849	1	104,874	0.64	0.63	102%	0
			SUMMARY STATISTICS																
			Total Area (Sq. Ft.)		1,144,106														
			Total Area (Acres)		26.3														
			Number of Parcels		64														
			Average Parcel Size		17,877														
			Median Parcel Size		11,326														
			Minimum Parcel Size		3,485														
			Maximum Parcel Size		102,964														
			Existing Gross Floor Area		556,147														
			Maximum Additional Floor Area		129,502														

¹ Note: the assessed value shown for 214 Chestnut and 105 Chestnut represent the sum of assessed values for the commercial condominiums. Parcel 047-054 and 047-076 are the master deed parcels.