

Newton Village Study

Auburndale Survey Report

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NEWTON COLLECTION

THE NEWTON VILLAGE STUDY

AUBURNDALE SURVEY REPORT

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AUBURNDALE SURVEY REPORT

INTRODUCTION AND SUMMARY OF FINDINGS

2.2.0

INTRODUCTION

The Newton Village Study is a two year effort to examine and prepare a comprehensive plan for the future of the City's fifteen village centers. The study was begun in response to the growing community awareness and concern of the land development pressures that are being experienced throughout the City, particularly in the village commercial centers.

The study was designed to have four phases, each phase building on the next so that effective input of all citizens of Newton can be obtained.

- I. A kickoff phase, in which the study was announced and its design publically presented in meetings before the Board of Aldermen, the Economic Development Commission, and a land use forum conducted by the Newton Conservators and the League of Women Voters. In cooperation with the Economic Development Commission, a full scale citizen participation process was also designed in this phase.
- II. A survey phase, to examine and discuss the development issues and problems from a city-wide as well as village perspective. The problems of traffic, parking, urban design, zoning and the economy are examined and presented in survey reports for each village center.
- III. An alternative plans phase, to examine and discuss a number of alternatives for the future of the village centers, and the impacts of the alternative futures on the City's quality of life.
- IV. A final plan phase, to prepare consensus plans and the necessary zoning amendments and other public actions necessary to achieve it.

SUMMARY OF FINDINGS

- Auburndale can presently still be classified as a lower density, local convenience center, but uses in the area are shifting to those with a wider market focus.
- The Star Market shopping plaza presents a poor visual image to the traditional Auburndale convenience center, and to the neighboring residences on Commonwealth Avenue.
- While there is heavy a.m. and p.m. peak traffic on Commonwealth Avenue and Lexington Street, no significant traffic delays were observed. However, Wolcott and Webster Streets experience volumes of traffic higher than those normally expected by residential streets.
- Illegal turning movements due to the Commonwealth Avenue frontage road, and the proximity of Wolcott Street reduces the functioning capacity of the Lexington Street and Commonwealth Avenue intersection.
- Auburndale has a small parking deficit, but this deficit is larger in the convenience "core". The public parking lot on Melrose Avenue does not act to supplement shopper oriented parking.
- No significant business-related parking was observed in residential areas.
- Present zoning will allow substantial growth to occur in Auburndale. A total of 368,500 square feet of new office and commercial floor area could be built.
- Only 13 new dwelling units could be built as-of-right in the study area.
- Future development will remain suburban in nature, characterized by surface parking lots, although parking structures may appear.

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2.2.1 MARKET ORIENTATION/THE ROLE OF THE CENTER

Most of Newton's retail business and service economy is located in the City's 15 village centers. While there are substantial activities elsewhere (e.g. Needham Street), these centers function in varying degrees as the centers of the City's economy. Newton's commercial pattern is unusual for a city of its size. Most medium size cities are characterized by a substantial "downtown" where retail and business services and governmental activities tend to be concentrated, and perhaps a number of smaller neighborhood convenience centers or strips. In Newton, there is no one center that can be called the City's "downtown", although Newton Centre comes closest.

An important aspect of the Village Study is to determine the present role of each village center in the City's economy and to forge a consensus on what roles each should play in the future.

Therefore, the "market orientation" of the retail businesses in each center was examined and categorized into three orientations: neighborhood, community/city-wide, and city-wide/regional. These characterizations were made on the basis of the type of business and what is considered by market researchers to be its normal market area. For example, a small variety store or delicatessen normally serves a convenience business. An automobile dealer, large plumbing supply outlet or discount store normally serves a wider community or city-wide market. Large shopping malls or office complexes and employment centers tend to attract shoppers and business from throughout the metropolitan area. Although the Chestnut Hill Mall and shopping center may contain small shops, the area as a whole is a regional attraction.

There is a mix of businesses in all village centers, but some have a much wider range of goods and services than others. Most village centers also contain businesses whose market orientations vary, so that with the exception of Waban and Oak Hill, there are no centers which can be considered purely neighborhood, community-wide or regional in nature. However, it is possible and appropriate to estimate the amount of business floor area in each village center oriented in each of these ways.

FINDINGS

Table 1.1 and Figure 1.1 show that the market orientation of Auburndale's retail and service businesses is primarily local. However, there is also a strong presence of businesses serving a wider market, or oriented to the community at large.

When existing industrial uses are also considered, Auburndale's local convenience nature is shifting to a wider focus. Auburndale's visibility from the Mass. Turnpike and proximity to Route 128 is a primary factor in this change.

The big challenge to the Auburndale neighborhood is whether or not the center can continue to grow and change yet retain its neighborhood service orientation. While the new liquor store may be viewed as a positive sign, it should be noted that the store is large and serves a considerably wider area than the Auburndale local market. The growth of large liquor and food outlets is a city and region-wide phenomena and is happening at the expense of the smaller village-scale outlets.

TABLE 1.1

MARKET ORIENTATION OF BUSINESS ACTIVITY IN AUBURNDALE
BY BLOCK AND FLOOR AREA

	<u>Blocks</u>	<u>Floor Area</u>	
1. Neighborhood	41013	5216	
Convenience shops	41015	37280	
and Services	41016	33364	
	41017	1800	
	44023	54577	
	44025	64219	
	44026	641	
		Sub Total	197097
2. Community-wide	14016	28691	
Business and	41014	12218	
Services	44025	57331	
		Sub Total	98240
		Total	295337

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2.2.2 URBAN DESIGN AND ENVIRONMENT

INTRODUCTION

In the visual survey we have endeavored to discuss the general environment of the Village Center with special emphasis devoted to those areas which are "perceived" as the "central core", (usually the central commercial block.) Within this discussion, emphasis is further placed on the quality and clarity of entry (gateways), "spatial definition" (the quality and continuity of the commercial edge and the space formed by the building massing scheme) and the effect of these elements on the perception of the viewer. Other positive and negative aspects specific to the center are also discussed. Considerations such as areas of negative residential/commercial interface, the role and extent of vehicular/pedestrian participation in the space, as well as facade/signage problems, are examined to provide insight into the many seemingly unrelated elements within the center which contribute to our perceptions of it as an environmental whole.

FINDINGS

Figure 2.1 presents the findings of the visual survey.

Auburndale is a unique village center in that it contains within its central commercial block a number of detached residential units. These structures are located at the interior and western edge of this somewhat mixed use block and suffer acutely from a negative residential/commercial interface. In the worst instances, houses face directly into disorganized unbuffered areas of parking contained also within this commercial block.

At the exterior/sidewalk area, facades and signage interrelate poorly and detract from the area's "visual identity." As an exception to this rule, commercial structures on the east side of Lexington/Grove Street display recent facade signage improvements, and exemplify how successful conformance contributes to a "positive streetscape identity."

To the east is the Star Market/Brigham's shopping plaza which is poorly linked to the central core area by a number of gas stations. Both this linkage and the plaza itself evoke a negative visual response due to a lack of continuity and insufficient landscape buffers.

Landscape buffering is also lacking at the median of Commonwealth Avenue which separates the commercial areas from the residential.

Finally, access to this area is most clearly defined, and positively enjoyed, from the south of the village center on Grove Street.

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2.2.3 LAND USE

INTRODUCTION

Information on existing land uses in the village centers was obtained from the Newton Assessors. The information was aggregated into the categories shown in Table 3.1 and figure 3.1. The table shows for each use the amount of land area in acres, the amount of commercial, office and industrial floor area in square feet, the number of dwelling units located within the village study boundaries, and the Floor Area Ratio (FAR) of the non-residential buildings. (The concept of FAR is illustrated in Section 2.2.8.)

FINDINGS

Auburndale presently has a balanced mix of commercial, office and industrial uses, although industry is concentrated in the area east of Commonwealth Avenue. The density of non-residential uses is presently relatively low, the highest density being less than an FAR of 1. The recently completed new liquor store matches the present commercial density of .297, but is at a lower density than expected in the future. (Section 2.2.8)

Existing residential units are primarily single, 2 and 3 family homes. Except for the 24 multi-family units, density is moderate, ranging from 4 to 10 units per acre.

These existing densities, residential and non-residential, are lower than the average for the village centers, except for the mixed use category found primarily in Auburndale's traditional convenience "core".

TABLE 3.1

AUBURNDALE

EXISTING LAND USE CHARACTERISTICS

<u>CATEGORY</u>	<u>LAND AREA IN ACRES</u>	<u>FLOOR AREA IN SQ. FT.</u>	<u>FAR%</u>	<u>DWELLING UNITS</u>
Residential:				
Single Family	18.26	--	--	80
2 and 3 Family	9.84	--	--	107
Apartments/Condos	0.33	42,802	.568	24
Commercial	7.64	98,825	.297	--
Office	4.30	144,179	.770	--
Industrial/Manufacturing	6.80	139,767	.470	--
Mixed Use - mostly Commercial	0.51	19,767	.864	--
Mixed Use - mostly Residential	0	--	--	--
Transportation/Parking	NA	--	--	--
Institutional	NA	--	--	--
Open Space/Recreation	NA	--	--	--
Vacant Land	5.10	--	--	--

AUBURNDALE SURVEY REPORT

2.2.4 TRAFFIC CONDITIONS

This report conveys the results of the manual and automatic traffic counting program initiated in October 1985, by the City and consultant, together with pre-existing traffic count data from previous City counts and consultant studies made available to us by the Newton Planning and Public Works Departments.

The objective of assembling available information on traffic volumes, intersection geometrics, and existing traffic control was to create a "Base Case" traffic scenario against which alternative future scenarios can be compared in later phases of the study. Since the principal traffic impact of additional development in any center will be the generation of added volumes, it was important to have reasonable estimates of existing volumes on key streets.

In conducting the traffic surveys, we noted existing intersection geometry and traffic control, pointing out where these create or accommodate present-day bottlenecks. We also tried to identify parallel routes most likely to be used as bottleneck bypasses by drivers familiar with existing traffic conditions.

We used the Level of Service methodologies for analyzing signalized and unsignalized intersections to characterize existing operations, with one important caveat related to signalized intersections: signal phasing and timing patterns assumed at such intersections were not those in current operation. We deemed it more useful to analyze an optimal allocation of signal green time based on existing traffic volumes, in order to be able to compare operations given potential capacity and existing volumes, with future operations when these volumes can be assumed to increase with different development scenarios. This approach corresponds to the "planning" approach to traffic operations analysis, compared with the more fine-tuned "engineering" approach which is appropriate when one is actually involved in intersection design. Thus, the reported Levels of Service may not correspond with current daily experience at existing signalized intersections operating with less-than-ideal phasing and timing.

1. AUBURNDALE

Traffic Conditions

The principal streets providing access to and circulation within the small commercial district of Auburndale Center are Commonwealth Avenue, its frontage road and parking areas, Lexington Street, Melrose Street, and Auburn Street. Auburndale straddles the Massachusetts Turnpike, but there is no direct Turnpike connection at Auburndale. Both Lexington Street and Melrose Street are signallized at their intersections with Commonwealth Avenue.

Automatic traffic counts, conducted over a 24-hour period, were assembled from existing traffic data; in addition, a new automatic count was conducted on Lexington Street south of Commonwealth Avenue. The results of these volume counts, factored to represent Average Daily Traffic (ADT) are illustrated in Figure 4.1 Peak hour turning movement counts collected during an earlier study* were factored to represent existing traffic volumes at the major Auburndale intersections. These volumes are depicted in Figure 4.2 Peak hours reported from that study were 7:45-8:45 AM and 4:45-5:45 PM.

As one might expect, Commonwealth Avenue carries the heaviest volumes through Auburndale during both morning and evening peak hours; but Lexington Street also experiences moderately heavy volumes, particularly in the southbound direction approaching Commonwealth Avenue. A fairly high portion of this traffic turns right onto the Commonwealth Avenue frontage road, suggesting that Lexington Street is used as a through route by traffic from Waltham which might otherwise use Route 128. Likewise, Wolcott/Webster Streets connect Auburndale with West Newton, and therefore experience volumes of traffic higher than those normally experienced by residential streets.

No significant traffic delays were observed during our periods of observation. However, some degree of confusion is experienced by vehicles traveling southbound on Lexington Street and westbound on Wolcott Street as they approach Commonwealth Avenue. This is because the Wolcott approach to Lexington is not signal-controlled. Both Wolcott and Lexington Southbound experience moderate volumes which conflict at the intersection of the 2 streets. In addition, the location of the Commonwealth Avenue frontage road, here as elsewhere along its length, provides the opportunity for a number of illegal and/or conflicting moves which complicate matters at this intersection.

Existing operations at Commonwealth Avenue/Lexington Street and Commonwealth Avenue/Melrose Street were analyzed using Level of Service analysis procedures for signallized intersections. The purpose of the analysis was to determine how well these intersections could function, given their present geometric design and ideal or desirable signal timing, and existing traffic volumes, as a measure of how much potential capacity at each intersection is presently utilized. At a later phase of the study, projected

volumes can be compared against present volumes, assuming an optimal traffic throughput at each existing intersection.

The results of this analysis are illustrated on Figure 4.3. As can be seen, each of the 2 intersections analyzed theoretically has enough capacity to function at a high level of service given existing traffic volumes. This capacity is diminished somewhat at Lexington Street by the existence of the frontage road moves, and by the proximity of Wolcott Street, which reduces the available queue storage space on Lexington and creates problems for Wolcott traffic exiting onto Lexington Southbound.

*Storch, 1981.

INTRODUCTION

This report presents the results of the following parking studies and analyses performed for the Auburndale study area:

- A parking inventory (figure 5.1)
- A parking supply/demand analysis (figure 5.2)
- A parking use survey

The parking inventory was prepared from field survey and from information provided by the Newton Departments of Public Works and Planning and Development. The inventory identifies all available public and private, on-and off-street, posted and metered, parking spaces in the study area.

The parking supply/demand analysis was performed using computerized land use data provided by the Newton Assessors, and the above parking data. This analysis provides a measure of the difference between an assumed business parking demand and actual supply.

The parking use survey was conducted on Friday, November 8, 1985, between the hours of 8 a.m. and 2 p.m. The area survey included all the public metered and posted on-street spaces associated with commercial activity in Auburndale Center, consisting of Commonwealth Avenue, Melrose, Lexington, and Auburn Streets and Melrose Avenue. Observation was also made of the Ash and Melrose Street residential areas.

The purpose of the survey was to measure the actual level of use (as a percent of capacity) and the turnover rate, or parking duration, of all metered spaces and in many cases, posted spaces. Friday was chosen as the day of survey, since it is traditionally the busiest day, combining end-of-week convenience shopping and local employee and commuter parking.

SUMMARY OF FINDINGS

a. Supply vs Demand

1. It is estimated that, overall, Auburndale has a small parking deficit. However, parking demand and supply are not evenly distributed in the project area, so that there are sections with significant parking deficits.
2. The Star Market shopping center block bordered by Commonwealth Avenue and Bennett Street has the largest parking deficit. At peak periods this area can generate the need for 119 more spaces than there are available.
3. The convenience commercial block bordered by Commonwealth Avenue, Auburn Street, Melrose Street and Lexington Street

has a deficit of 33 spaces. Rapid parking turnover helps to minimize the deficit situation in this area.

4. The industrial area on Rowe Street has a 168 space surplus. Located on the eastern edge of the project area it has no direct parking relationship to the retail areas. If this site were removed from the parking analysis, the remainder of Auburndale would have an estimated parking deficit of 108spaces.

b. Parking Use Survey

1. Overall parking use is very high: from 9:30 a.m. on the level of parking use exceeds 85%. The area gives the appearance of being very busy and at capacity all day.
2. Average parking duration was the lowest of any center surveyed (36 minutes). Auburn Street in particular exemplifies the convenience oriented nature of the parking demand with an average turnover rate of approximately 10 minutes.
3. The Melrose Avenue public parking lot was at capacity by 9 a.m. with no recorded parking turnover after 9 a.m. The lot does not supplement shopper oriented parking in Auburndale.
4. No significant commercial related parking was observed in the abutting residential neighborhoods.

DEMAND VS SUPPLY

Table 5.1 shows that there are 884 parking spaces within the commercial areas of Auburndale, of which 78% or 693 are private spaces and 22% or 191 are public spaces. The private spaces are concentrated in two areas; the Star Market Shopping Center and the Rowe Street Industrial Developments. The public spaces are mostly found near the convenience retail core, the block bordered by Auburn, Melrose, and Lexington Streets, and Commonwealth Avenue. It is estimated that, for the entire commercial area, there is a small parking deficit of approximately 17 spaces. However, this estimate is misleading since the match between parking demand and supply is not evenly distributed. The area with the largest parking surplus, the Rowe Street industrial area, is far removed from the retail core of Auburndale. If this area's 91 space surplus is removed from the supply/demand analysis, a more representative picture of Auburndale's parking profile emerges: Auburndale's convenience center has a deficit of 108 spaces.

The Star Market Shopping Center (Sec/B1 #44025) has a deficit of 119 spaces, while the block bordered by Melrose, Lexington and Auburn Streets and Commonwealth Avenue has a deficit of 39 spaces (Sec/B1 #'s 41015 and 41016).

Auburndale's commercial area is spread out along Commonwealth Avenue. To fully understand parking conditions and availability it is necessary to analyze three separate sections. The Rowe Street industrial area has no perceived parking problems and operates independently from the remainder of the commercial area. The Shopping Center does impact the other commercial areas, but usually only during high volume periods. The convenience core has a strong daily parking demand. The key to its operating success is the efficient use of the on-street spaces. The recorded rapid turnover rate cited below is vital to the existing and future operation of this area.

PARKING USE CHARACTERISTICS -- ON STREET

Of the 109 on-street spaces, 76 are regulated by parking meters for one hour parking. These spaces are located on Auburn and Lexington Streets, and on the southerly side of Commonwealth Avenue. The remaining on-street spaces (33) are located on the northerly side of Commonwealth Avenue between Melrose and Lexington Street.

Average turnover for the short term spaces was 38 minutes, well below the on-hour legal limit. Turnover rates were high for the entire area, but especially Auburn Street, which registered an observed 10 minute turnover rate. The low parking duration indicate a strong convenience orientatation to Auburndale Center.

The 33 unregulated on-street spaces on the northerly side of Commonwealth Avenue between Lexington and Melrose Streets were used for long-term parking purposes. The average duration was 3 hours 45 minutes, and fully 80% of the cars surveyed were parked for 6 hours or more.

Average use for all on-street spaces was 84%. For the short-term spaces, average use was 81% with 96% use at 12 noon. From 12 noon to 2 p.m., the average is 86%, a level exceeding the perceived capacity level of 85%. The survey area gives the appearance of being full for at least two hours (12 noon to 2 p.m.) and at the peak hour almost reaches full capacity.

The parking areas along Auburn Street have an 89% average use and, similar to the entire project area, experience an increase in use to 98% from 12 noon to 2 p.m.

PARKING USE CHARACTERISTICS -- OFF STREET

The Melrose Avenue parking lot has 21 spaces, and by 9 a.m. the lot was full. The lot appears to be used by commuters and possibly for some long term employee parking. However, given the level of use of both the unregulated on-street portion of Commonwealth Avenue and the MBTA lot, it is our conclusion that long term employee parking is occurring on Commonwealth

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2.2.8 ZONING/THE DEVELOPMENT ENVELOPE

INTRODUCTION

This report presents the results of the analysis of existing zoning in Auburndale. The purpose of the analysis is to provide an understanding of the present and future development environment of the study area, or to answer several basic questions:

- 1) How much growth is allowed by present zoning?
- 2) How much of this growth could most likely occur in this village center?
- 3) What will this development most likely consist of and look like?

A fourth, and equally important question, (what will be the impact of this growth?) will be examined in the next phase of the study.

In order to answer these questions, the following analyses or estimations were performed:

The Zoning Envelope: This estimates the total amount of residential, commercial and office development that is presently allowed by the zoning ordinance on each parcel of land and for the study area as a whole. This represents the "as-of-right" capacity of zoning as if every parcel of land were developed to the fullest extent allowed by present zoning.

The Development Envelope: This is an estimate of the amount of development that could and is more likely to occur when existing and recent development is considered along with present zoning. This development envelope, or umbrella, combines the concept of zoning "right" and the realities of the marketplace to produce a more reasonable estimate of long term development that could occur "as-of-right" or without special permit.

A Development Model: This is a simple representation of the kind of development that exists, has been recently built, or proposed in the area, and is most likely to be built in the foreseeable future.

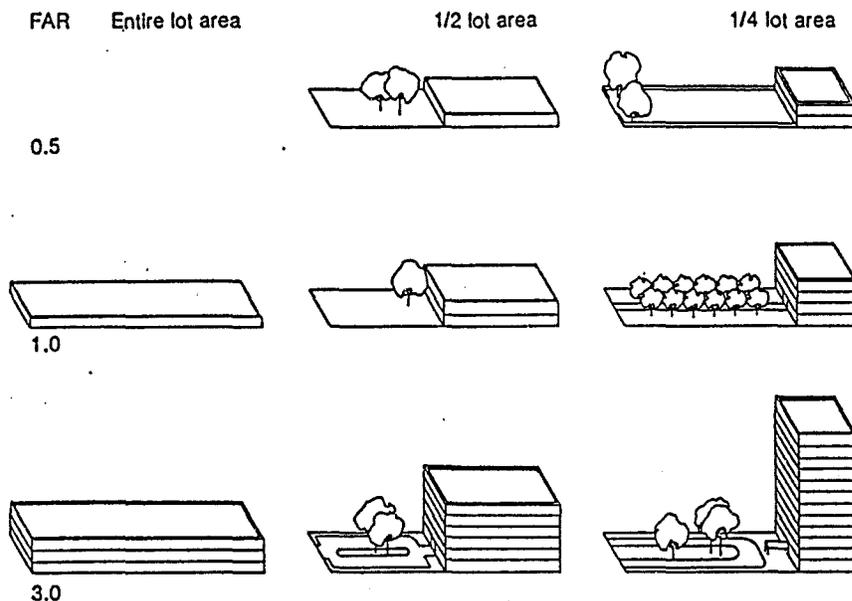
SUMMARY OF FINDINGS

1. Present zoning will allow substantial growth to occur in Auburndale, particularly in office space.
2. Present zoning is weighted toward commercial development.
3. A total of 368,500 square feet of new office and commercial floor area could be built under present zoning, an increase of 140%.
4. Only 13 new dwellings could be built under present zoning in Auburndale Center, so that the substantial growth that could occur would not significantly increase housing opportunities.
5. Future development will follow present patterns and remain suburban in nature, with surface parking lots as the primary feature.
6. Over 50% of the development could occur in the industrial area east of Commonwealth Avenue and Rowe Street.

WHAT IS FAR?

The Floor Area Ratio (FAR) is a simple measure of development intensity. It expresses the ratio of a building's total floor area to the size of its site. A one-story building covering its entire site or parcel has an FAR of 1.0. A three story building of 100% coverage has an FAR of 3.0. The same building covering 50% of a site has an FAR of $3 \times .50$, or 1.50.

FLOOR AREA RATIOS ILLUSTRATED



WHAT IS THE ZONING ENVELOPE?

The zoning envelope is a measure of the amount of development allowed by the provisions of the existing zoning ordinance. This allowable development is expressed as total non-residential floor area and number of dwelling units that can be developed on each parcel of land and for an area as a whole. The floor area is determined by translating the provisions of the zoning ordinance into effective maximum allowable FAR's, or number of dwelling units for typical development that might occur in each zoning district. The estimated FAR's are shown in Table 8.1.

TABLE 8.1

EFFECTIVE MAXIMUM AS-OF-RIGHT FLOOR AREA RATIOS ALLOWED BY THE EXISTING ZONING ORDINANCE

Typical Development	Zoning Districts/FARs				
	BAA	BA	BB	LM	M
1. Retail-surface prkg					
. 1 story	0.25	0.40	0.40	0.25	0.40
. 2 stories	0.50	0.62	0.62	0.44	0.62
. 3 stories	0.62	0.70	0.70	0.60	----
. 4 stories	----	----	----	0.70	0.81
2. Office-surface prkg.					
. 1 story	0.25	0.40	0.40	0.25	0.40
. 2 stories	0.50	0.59	0.59	0.41	0.59
. 3 stories	0.58	0.69	0.69	----	----
. 4 stories	0.61	----	----	0.60	----
3. Retail Ground floor, offices above-surface prkg.					
. 2 stories	----	0.59	0.59	0.44	0.59
. 3 stories	0.58	0.69	0.69	----	----
. 4 stories	0.60	----	----	0.58	----
4. Office-Ground floor prkg. or 1 prkg. level under building					
. 2 stories	0.50	0.98	0.98	0.50	0.98
. 3 stories	0.75	0.98	0.98	0.50	0.98

5. Retail Ground Floor office above - all prkg underground					
. 3 stories	0.75	2.70	2.70	0.75	2.70
. 4 stories	1.00	-----	-----	1.00	-----
6. Retail Ground Floor above - surface parking garage					
. 3 stories	0.75	1.41	1.41	.75	1.41
7. Retail Ground Floor, offices above - 90% prkg. underground, 10% in surface garage					
. 3 stories	0.75	2.34	2.34	.75	2.34
. 4 stories	1.00	-----	-----	1.00	-----
8. Storage Warehouse					
. 1 story	-----	-----	0.42	0.25	0.89
. 2 stories	-----	-----	1.67	0.50	1.61
9. Wholesale, manufacture, R&D labs - surface prkg.					
. 1 story	-----	-----	0.80	0.25	0.76
. 2 stories	-----	-----	1.27	0.50	1.25
. 3 stories	-----	-----	2.32	0.75	2.32
. 4 stories	-----	-----	-----	1.00	-----

Based upon analysis of the existing zoning ordinance and most recent non-residential development in Newton, the following FAR's were used to determine the total floor area of commercial/office development that can be built as-of-right in each zoning district. (The Zoning Envelope)

<u>ZONING DISTRICT</u>	<u>FAR ALLOWED</u>
Business (BAA)	1.00
Limited Manu- facturing (LM)	1.00
Business A (BA)	2.70
Business B (BB)	2.70
Manufacturing (M)	2.70

Estimation of an allowable dwelling unit envelope for parcels in residential zoning districts is relatively straight-forward. The residential zoning districts control density either through lot size or lot square feet per unit controls. Maximum allowable dwelling units for each zoning district are

as follows:

<u>ZONE</u>		<u>DWELLING UNITS PER ACRE</u>
Residence A	(RA)	1.74
Residence B	(RB)	2.40
Residence C	(RC)	4.36
Private		
Residential	(PR)	8.72
Residence D	(RD)	8.72
Residence E	(RE)	27.20

The allowable floor area ratios and unit densities are now applied to the actual zoning in the study area as shown on Figure 8.1. The results, the zoning envelope are as follows:

The Zoning Envelope in Auburndale

- TOTAL COMMERCIAL FLOOR AREA ALLOWED	571,206
- TOTAL NEW OFFICE FLOOR AREA ALLOWED	1,350,779
- TOTAL NEW DWELLING UNITS ALLOWED	13

PRESENT AND RECENT DEVELOPMENT

The above estimates assume that all properties will be redeveloped to the maximum allowable. Therefore, as estimates of actual possible development, the figures are very high and do not represent a realistic picture of the amount and type of development that could actually occur. Market forces and resulting rent levels, economic constraints, construction costs and site constraints must also be considered. These factors greatly temper the amount and density of development that does and will most likely occur in many of the village centers.

Therefore, allowable FAR's must be compared with those obtained from recent development, or development that has been proposed or is under construction.

Table 8.2 shows the FAR's of commercial projects most recently proposed or under construction that have been or may be permitted as-of-right under present zoning. Many of these projects include surface parking structures so that the resulting FAR's, or actual office building floor areas, are less than allowable. That is, despite the intensity of the 5 story office development under construction at 29 Crafts Street, Newtonville, (FAR 2.23) it would have been built to an even greater intensity had all parking been planned to be underground. Based on Newton's strong office and retail market and the resulting high land values, it is expected that development of underground parking will become the rule

rather than the exception in areas such as Newton Corner, Chestnut Hill and Newton Centre.

TABLE 8.2

FLOOR AREA RATIOS (FAR) FOR DEVELOPMENT PROPOSED OR UNDER CONSTRUCTION

<u>DEVELOPMENT</u>	<u>ADDRESS</u>	<u>FAR</u>	<u>ZONE</u>
AUBURNDALE			
1. 3 story offices, surface parking	11 Bennett St.	0.56	BB
2. 2 story offices, surface parking	73 Lexington St.	0.48	BB
CHESTNUT HILL			
1. 3 story offices, 1 story retail, underground prkg.	300 Boylston St.	2.38	BA
NEWTON CENTRE			
1. 4 story offices, parking garage	1320 Centre St.	2.59	BB
NEWTON CORNER			
1. 4 story offices, parking garage	1 Newton Pl.	2.12	BA
2. 3 story offices, parking garage	2 Newton Pl.	2.45	BA
3. 4 story offices, parking garage	313 Washington	2.67	BA
NONANTUM			
1. 5 story offices, surface parking	459 Watertown	0.55	MFG
NEWTONVILLE			
1. 5 story offices, parking garage	29 Crafts St.	2.23	MFG
UPPER FALLS			
1. 3 story offices, surface parking	75 Oak St.	0.34	BA
2. 5 story offices, surface parking	233 Needham	0.77	MFG
3. 4 story offices, surface parking	118 Needham	0.57	MFG

NEWTON HIGHLANDS

1. Offices 0.53 BA

Average FAR for Office Development with parking in surface lots 0.54

Average FAR for Office Development with parking in a mix of underground and surface garages 2.41

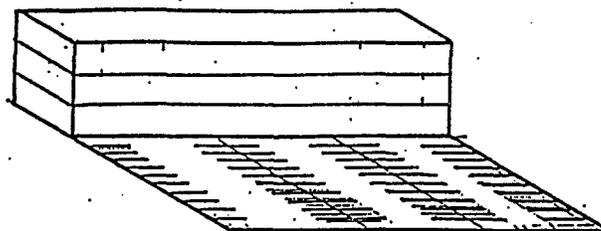
In other village centers, recent development has occurred at considerably less density. Surface parking lots are more the rule than the exception in these centers. Land values and marketable rents result in an economic environment in which the "suburban style" development is feasible and economically desirable.

It should also be noted that a number of these developments have had the benefit of the parking credit, so that the actual floor area ratio obtained was higher for the particular type of development that actually took place than would have been possible if the full parking requirements had been met. On the other hand, the popularity of areas such as Newton Centre and Newton Corner for office development may have justified the provision of the additional parking underground.

A MODEL OF RECENT DEVELOPMENT

The possibilities allowed by the zoning ordinance and a view of actual development resulting from market forces leads to an estimate of a type or model of development that may occur in a particular center. For Auburndale, the following non-residential development type is expected to continue to be built for the foreseeable future:

Figure 8.2 A MODEL OF RECENT OR EXPECTED DEVELOPMENT



3 STORY BUILDING - SURFACE PARKING LOT

FAR = 0.69

This type of development is now matched with the requirement of the present zoning ordinance to obtain its allowable floor area ratio:

DEVELOPMENT TYPE	ZONES/ALLOWABLE FLOOR AREA RATIO				
	BA	BB	M	BAA	LM
SURFACE PARKING LOT					
• 3 Story Office/Retail	.69	.69	.69	----	----
• 4 Story Office/Retail	----	----	----	.60	.58

THE DEVELOPMENT ENVELOPE

The estimate of total development allowable under present zoning (the Zoning Envelope) is now tempered with a more realistic view of the economic environment of the study area, and results in an estimated development envelope shown in Table 8.3 and Figure 8.3.

The estimated residential development envelope is the same as the residential zoning envelope. The number of units allowed is relatively small and there is no reason to assume that housing will not be built to the maximum allowed by zoning.

THE PATTERN OF POSSIBLE NEW DEVELOPMENT/REDEVELOPMENT

Figures 8.2 and 8.3 show the amount and probable pattern of possible new development or redevelopment. Figure 8.2 indicates the present intensity of use in the study areas, those parcels that are presently vacant, and those that are presently underused. The underused parcels are those whose present density is less than that allowed by existing zoning. While this map does not and cannot show which parcels will be developed to greater density, it provides a good indication of where new development activity might occur.

Figure 8.3 shows that the largest increment of new development in Auburndale will occur in those blocks east of Commonwealth Avenue that presently contain vacant land and surface parking lots. (Blocks 44023 and 44025). Present land uses in these blocks are oriented to a larger market than the Auburndale neighborhood, and new office uses will continue this pattern.

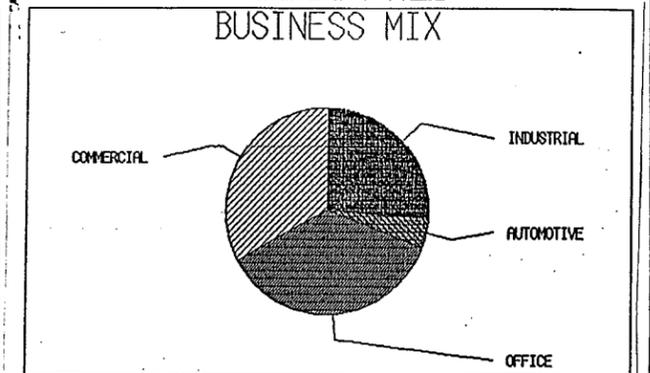
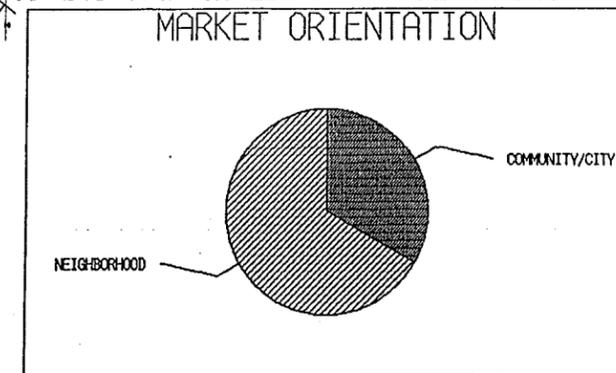
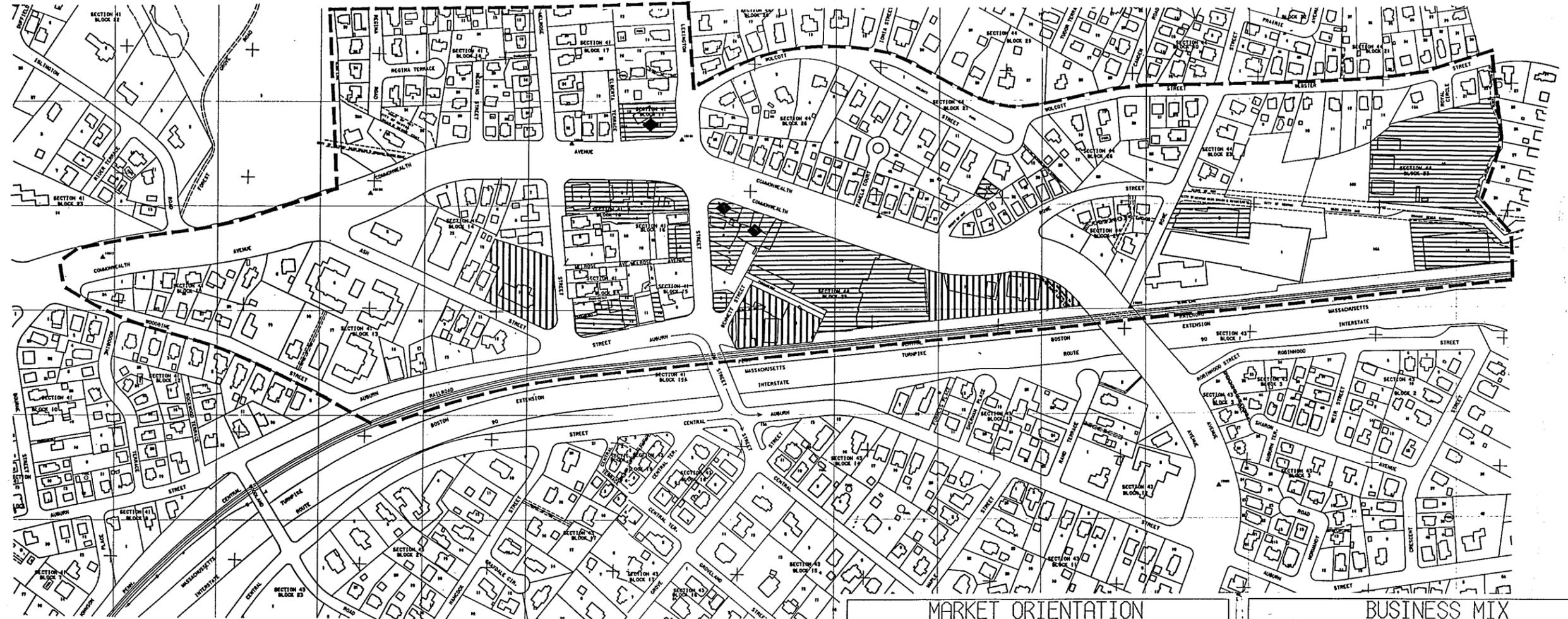
TABLE 8.3

THE PRESENT DEVELOPMENT ENVELOPE:

GROWTH THAT COULD OCCUR IN AUBURNDALE:

• New Commercial/Retail Floor Area that could be added	66,749	s.f.
• Existing Commercial/Retail Floor Area	118,592	
• Percent Added	56%	
• New Office Floor Area that could be added	301,805	
• Existing Office Floor Area	144,179	
• Percent Added	209%	
• New Dwelling Units that could be added	13	
• Existing Dwelling Units	211	
• Percent Added	6.2%	
• Total Commercial/Retail/Office Floor Area that could be Added	368,554	
• Total Existing Commercial/Retail/ Office Floor Area	262,771	
• Total Percent Added	140%	

AUBURNDALE



-  NEIGHBORHOOD CONVENIENCE BUSINESS AND SERVICES
-  COMMUNITY/CITY-WIDE BUSINESS AND OFFICES
-  REGIONAL/CITY-WIDE BUSINESS CENTERS AND OFFICES
-  AUTOMOTIVE SERVICES

FIGURE 1.1 MARKET ORIENTATION OF BUSINESS USES

NEWTON VILLAGE STUDY

DATE _____
 PREPARED FOR THE CITY OF NEWTON, MASSACHUSETTS
 THEODORE D. MANN, MAYOR
 BARRY C. CANNER, DIRECTOR OF PLANNING AND DEVELOPMENT

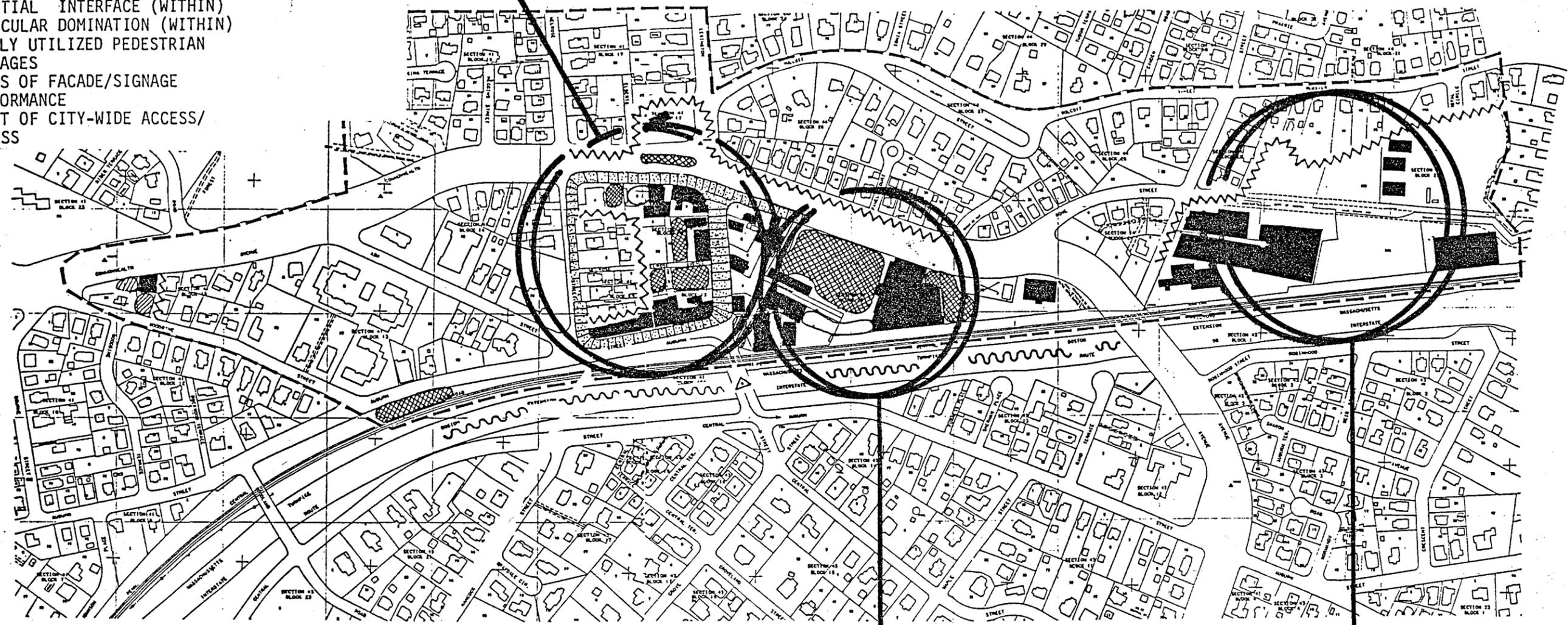
Connery Associates
 24 Woodlands Lane, Westborough, MA 01581 (508) 333-7211



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POOR CONTEXTUAL RELATIONSHIP

- NEGATIVE COMMERCIAL/RESIDENTIAL INTERFACE (WITHIN)
- VEHICULAR DOMINATION (WITHIN)
- POORLY UTILIZED PEDESTRIAN LINKAGES
- AREAS OF FACADE/SIGNAGE CONFORMANCE
- POINT OF CITY-WIDE ACCESS/EGRESS



LEGEND

- NON-COMMERCIAL STRUCTURE
- BUILDING AT COMMERCIAL CENTER OR COMMERCIAL BUILDING
- PERCEIVED POINT OF ENTRY (VISUALLY POSITIVE)
- PERCEIVED POINT OF ENTRY
- PARKING LOT REQUIRING IMPROVEMENTS
- AREA REQUIRING STREETScape IMPROVEMENTS
- AREA UNDER CONSTRUCTION
- NOISE
- AREA OR STRUCTURE OF HISTORIC VALUE
- NEGATIVE AREA AT RESIDENTIAL/COMMERCIAL INTERFACE

NEGATIVE VISUAL IDENTITY

- VEHICULAR DOMINATION
- ASPHALT DOMINATED LANDSCAPE
- VISUALLY DISCORDANT (SIGNAGE, FACADE, ETC.)

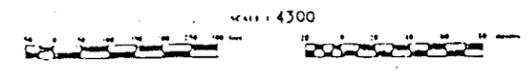
POOR CONTEXTUAL RELATIONSHIP

- DOMINANT INDUSTRIAL THEME
- NEGATIVE COMMERCIAL/RESIDENTIAL INTERFACE

FIGURE 2.1 URBAN DESIGN SURVEY

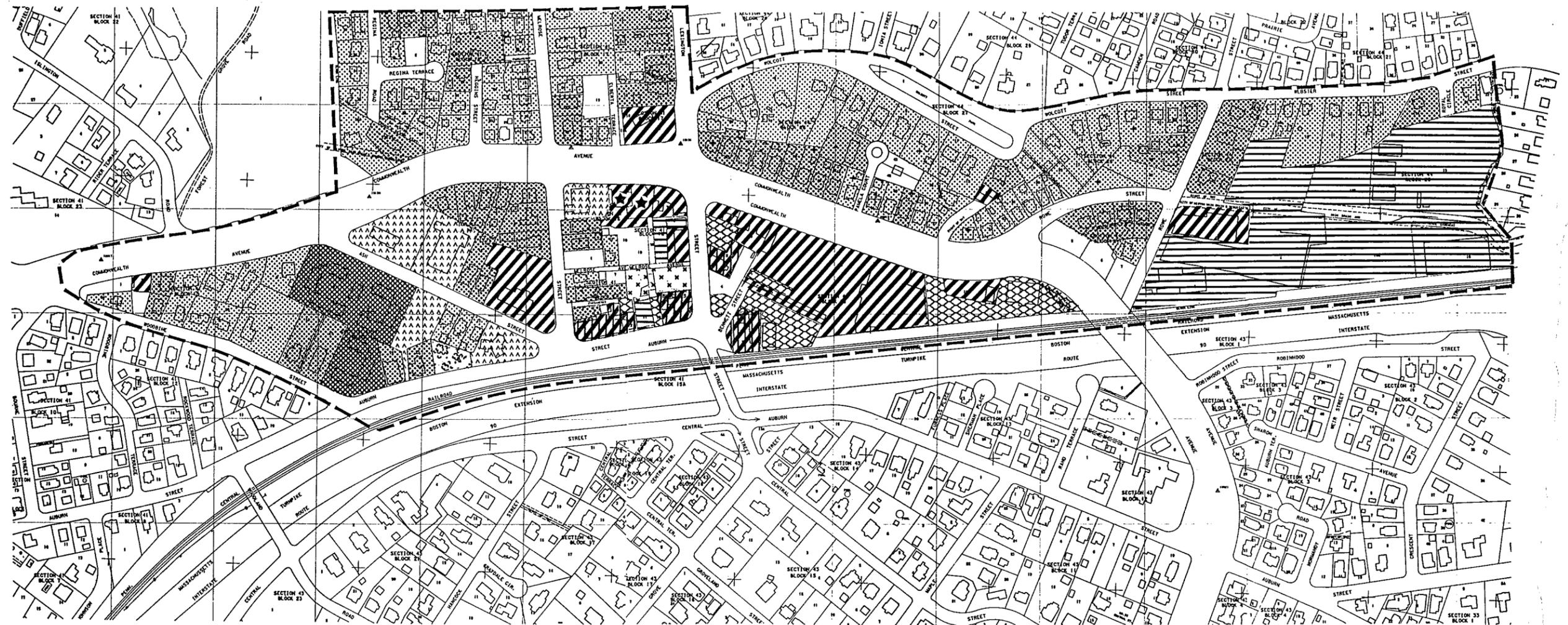
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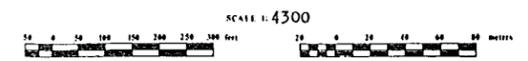
-  RESIDENTIAL—SINGLE FAMILY
-  RESIDENTIAL— 2 and 3 FAMILY
-  RESIDENTIAL—APARTMENTS/CONDOS
-  COMMERCIAL
-  OFFICE
-  INDUSTRIAL/MANUFACTURING
-  TRANSPORTATION/PARKING
-  MIXED USE—MOSTLY RESIDENTIAL
-  MIXED USE—MOSTLY COMMERCIAL
-  INSTITUTIONAL
-  OPEN SPACE/RECREATION
-  ★ PROPOSED OR UNDER CONSTRUCTION

FIGURE 3.1 EXISTING LAND USES

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Connelly Associates
 24 Woodbury Ave., Westwood, MA 01980 978/731-1994



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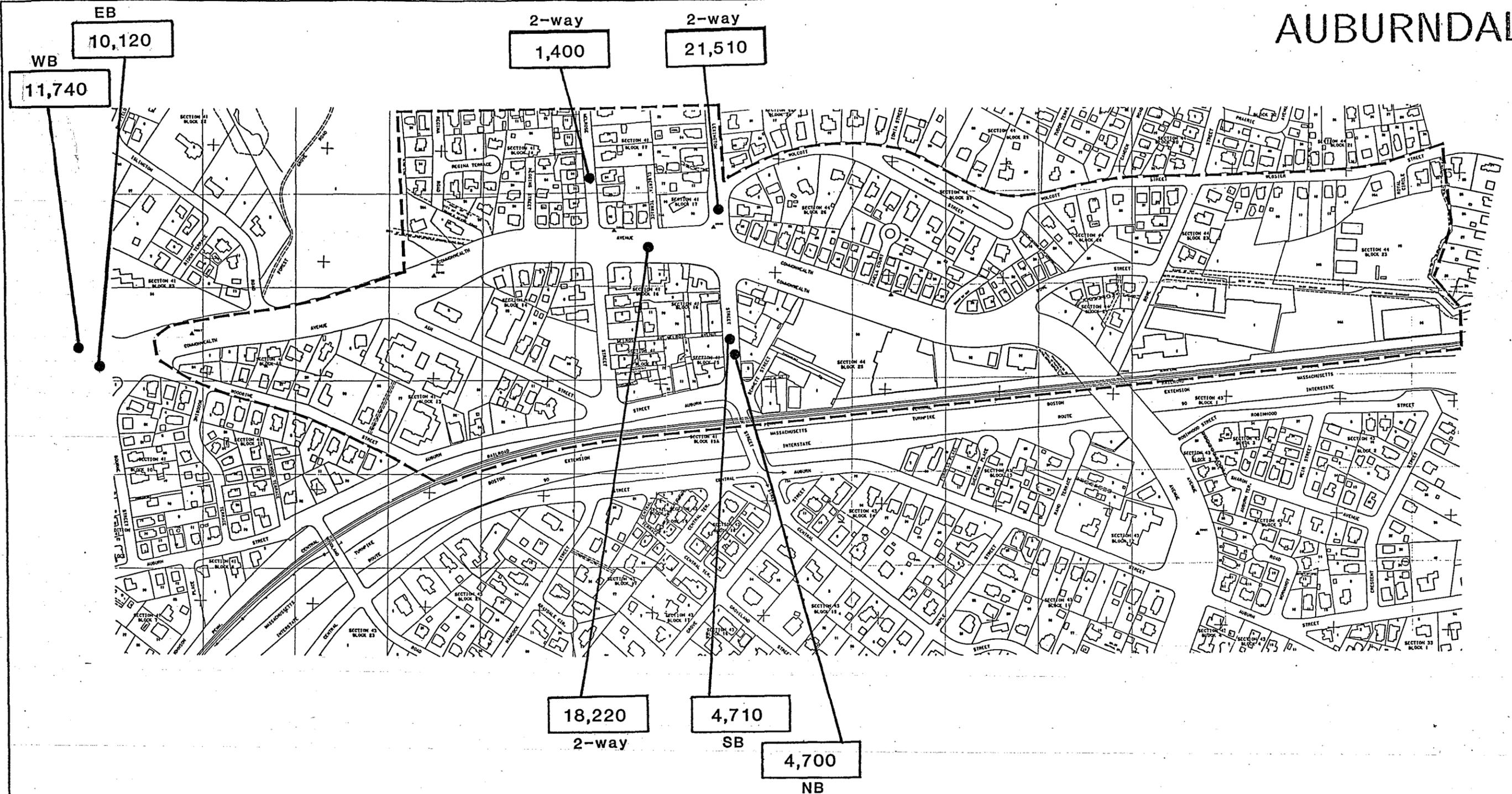


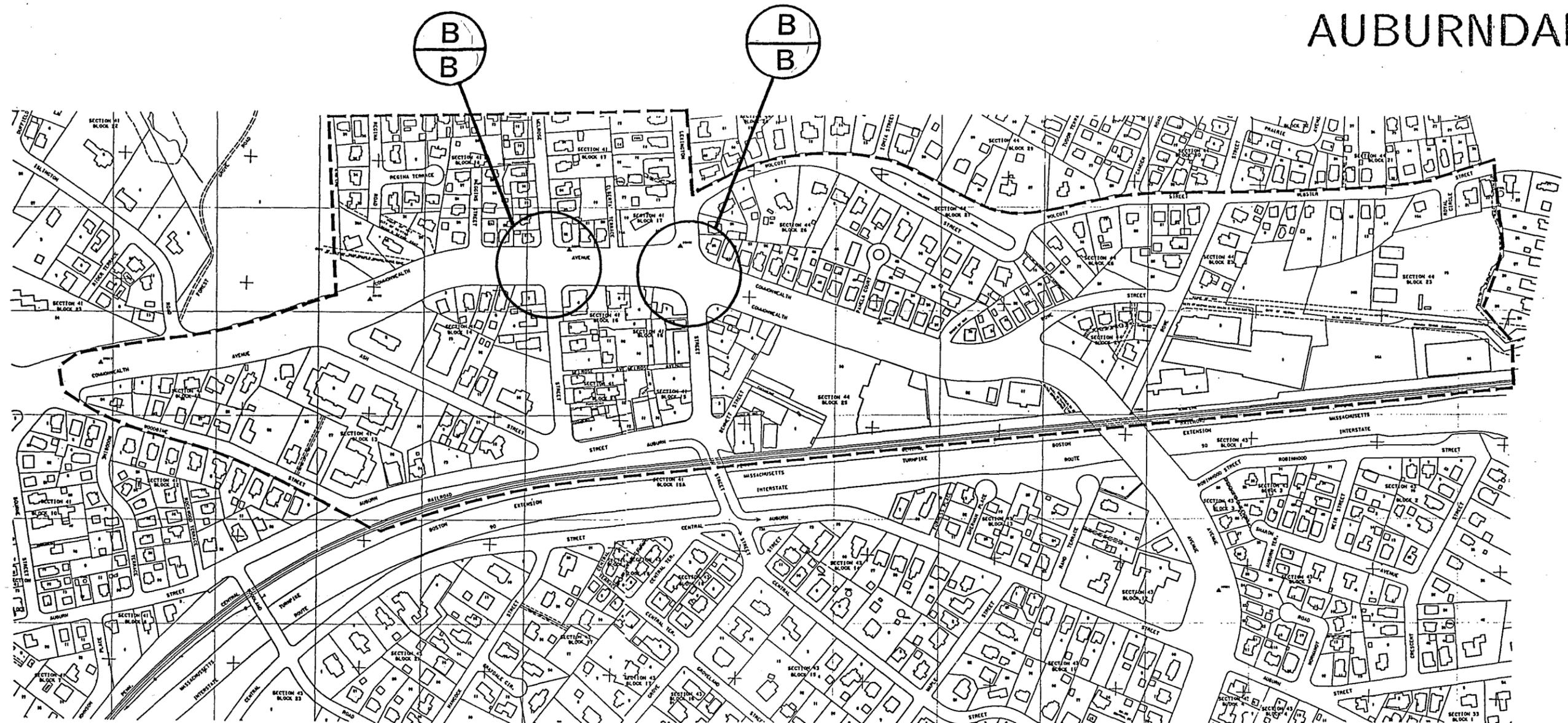
FIGURE 4.1 | AVERAGE DAILY TRAFFIC

NEWTON VILLAGE STUDY

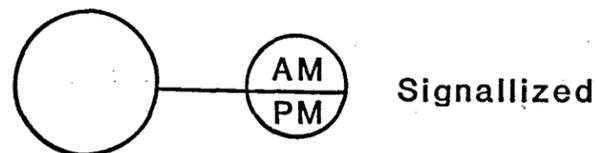
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 Connerly Associates
22 Woodland Street, Newton, MA 02459 (617) 552-1900

SCALE: 1" = 4300'

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KEY TO INTERSECTIONS



Signallized



Unsignallized:
left turns in/left turns out

LEVELS OF SERVICE

- A FREE FLOW; AVERAGE DELAY 10 SECONDS
- B STABLE FLOW; AVERAGE DELAY 15 SECONDS
- C STABLE FLOW; AVERAGE DELAY 20 SECONDS
- D APPROACHING UNSTABLE FLOW; AVERAGE DELAY 40-45 SECONDS
- E UNSTABLE FLOW; AVERAGE DELAY GREATER THAN 1-2 MINUTES
- F FORCED FLOW; AVERAGE DELAY INDETERMINATE

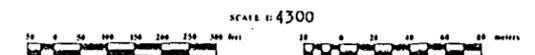
FIGURE 4.3 OPTIMAL INTERSECTION LEVEL OF SERVICE

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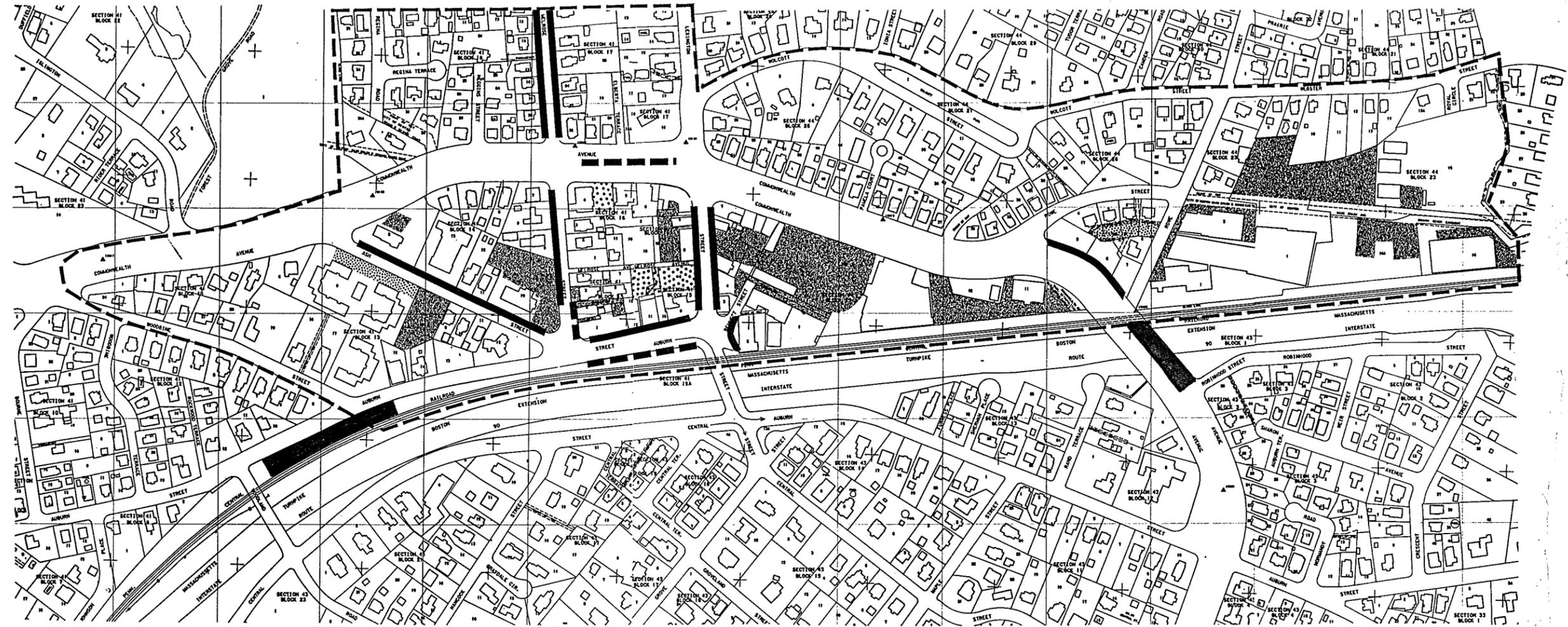
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- PRIVATE BUSINESS PARKING SPACES**
- IN SURFACE LOTS
- /○ IN PARKING GARAGES/PROPOSED
- PUBLIC PARKING SPACES**
- ▨ OFF-STREET METERED
- OFF-STREET NON-METERED
- ▬ ON-STREET METERED
- ▬ ON-STREET POSTED
- SPACES IN RESIDENTIAL LOTS
- ▨ SPACES IN INSTITUTIONAL LOTS

FIGURE 5.1 EXISTING PARKING INVENTORY

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Connery Associates
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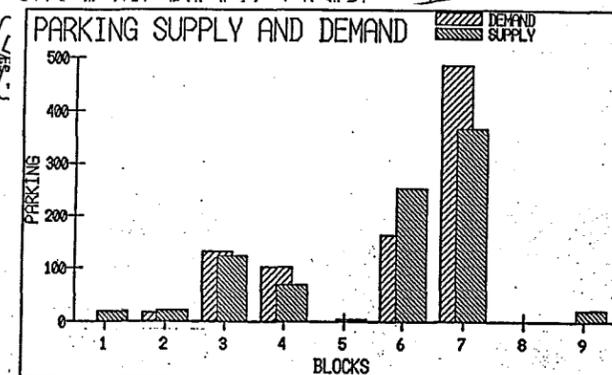
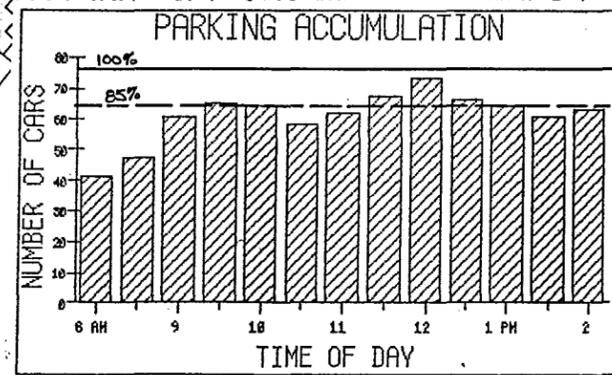
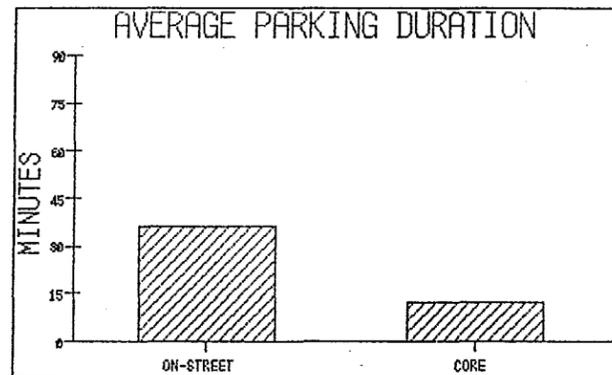
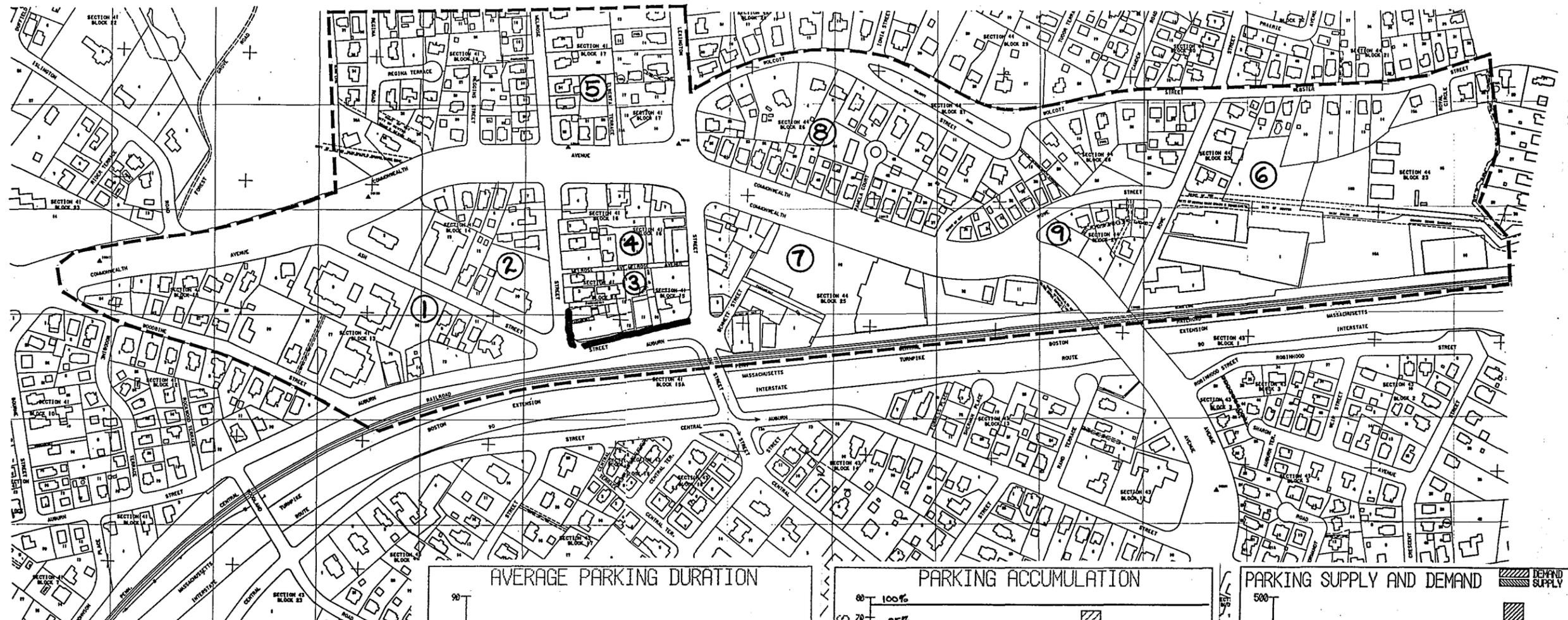


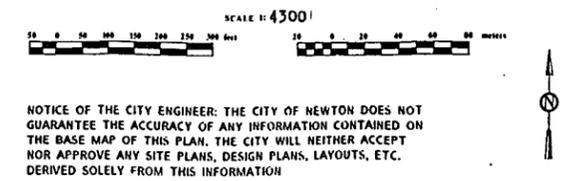
FIGURE 5.2 PARKING CHARACTERISTICS

— CORE AREA PARKING

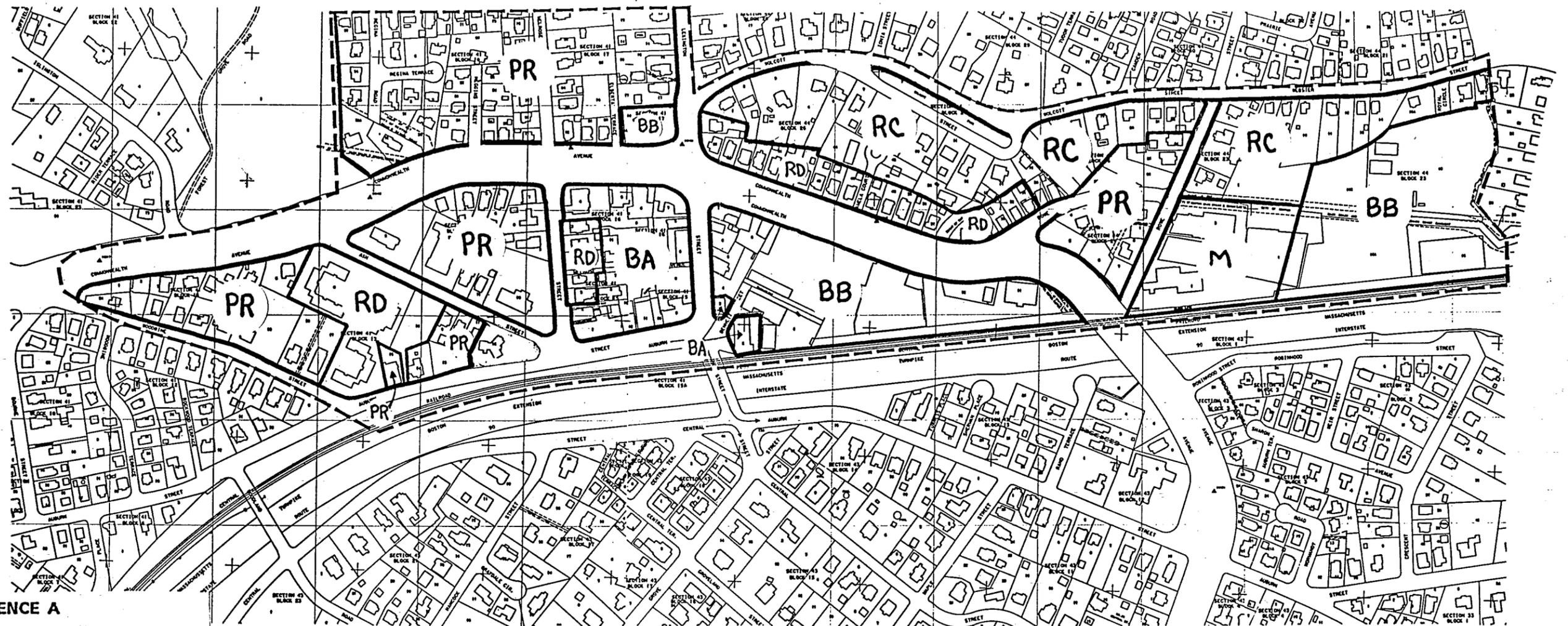
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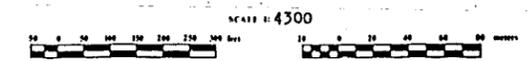
- RA RESIDENCE A
- RB RESIDENCE B
- RC RESIDENCE C
- PR PRIVATE RESIDENCE
- RD RESIDENCE D
- RE RESIDENCE E
- RF RESIDENCE F
- BAA BUSINESS AA
- BA BUSINESS A
- BB BUSINESS B
- LM LIMITED MANUFACTURING
- M MANUFACTURING

FIGURE 8.1 EXISTING ZONING DISTRICTS

NEWTON VILLAGE STUDY

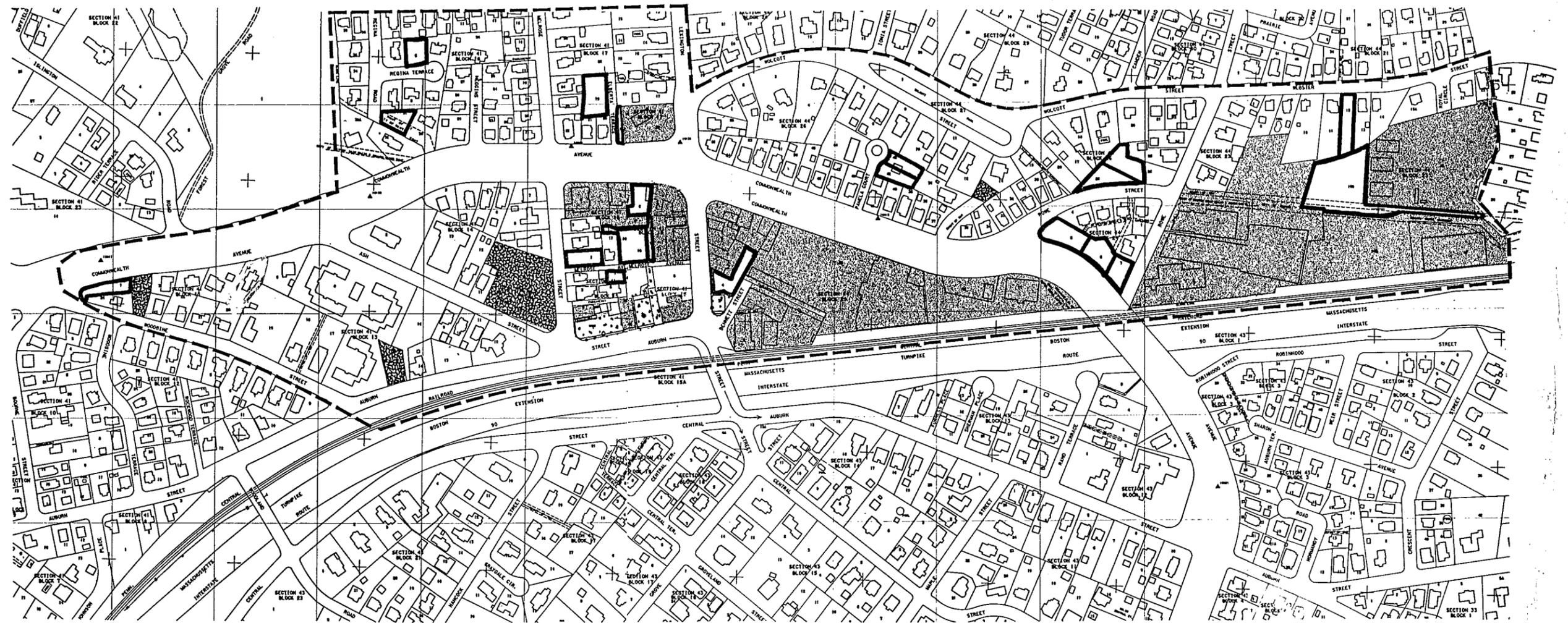
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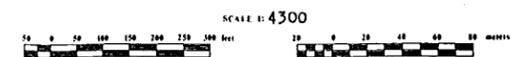
-  PRESENT DENSITY EXCEEDS THAT ALLOWED BY ZONING
-  PRESENT DENSITY IS 50% TO 90% OF THAT ALLOWED BY ZONING
-  PRESENT DENSITY IS LESS THAN 50% THAT ALLOWED BY ZONING
-  VACANT LAND

FIGURE 8.2 EXISTING INTENSITY OF DEVELOPMENT

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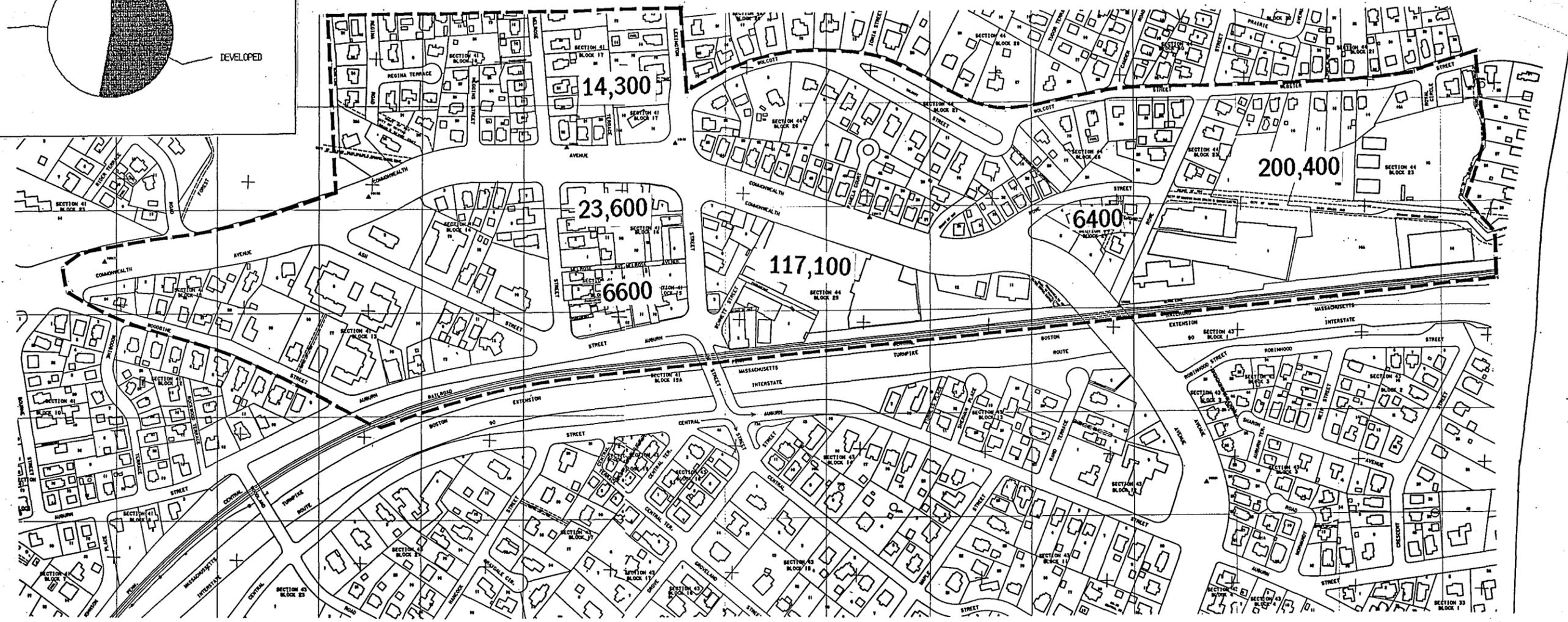
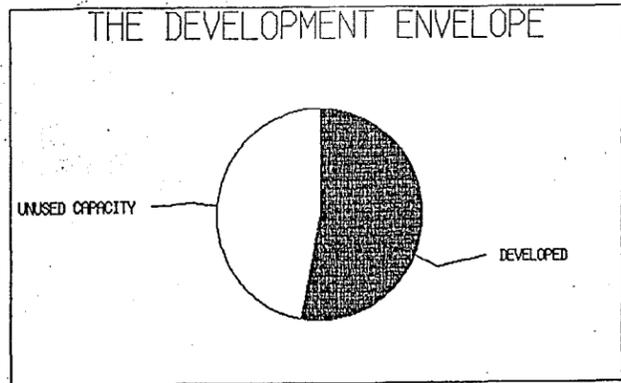


FIGURE 8.3 THE DEVELOPMENT ENVELOPE

NEW COMMERCIAL/OFFICE FLOOR AREA THAT COULD BE BUILT (IN SQUARE FEET)

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