Newton Village Study

Oak Hill Survey Report

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NEWTON COLLECTION

THE NEWTON VILLAGE STUDY

OAK HILL CENTER SURVEY REPORT

February 1986

PREPARED FOR THE CITY OF NEWTON, MASSACHUSETTS
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BY

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OAK HILL SUMMARY REPORT

2.2.0 INTRODUCTION AND SUMMARY OF FINDINGS

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.

This survey report is one product of Phase II. It presents in detail the findings of four months of study, and is organized as follows: Section 1 highlights all important findings, Sections 2 through 8 present the results of the detailed studies in each subject area; a summary of findings is provided at the beginning of each section for ease of reading and understanding the whole.

SUMMARY OF FINDINGS

Oak Hill center is a very small convenience center immediately surrounded by the Oak Hill Park neighborhood. It is somewhat isolated with regard to access and market exposure.

Therefore, it seems unlikely that new development would occur in this center to the full extent allowed by zoning.

However, additional non-residential development could occur, ranging from 8700 square feet to over 59,000 square feet.

This new development could occur in forms ranging from expanded retail and new office space adjacent to the existing apartment building, to additional floor area through redevelopment or reuse of the apartment building as well for office use.

Presently, the center lacks landscaping and screening to soften its visual impact on surrounding residences.

There is presently sufficient parking to serve existing retail uses. However, present parking here is not well-defined, and access is located on Colella Road close to residential driveways.

OAK HILL SUMMARY REPORT

2.2.1 MARKET ORIENTATION

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

Figure 1.1 describes the present orientation of Oak Hill center. It is obviously a small neighborhood center consisting of a convenience store, a barber shop, a tailor/cleaners, a Community Center, a paint store, and a plumber's shop, and serving a limited market of surrounding homes. One business, the plumbing company, most likely serves a wider radius, but as it is not a retail business, it does not attract customer traffic. This center is somewhat isolated and the surrounding neighborhod is not densely developed so that larger businesses would not appear to be "marketable" in this location.

OAKHILL SURVEY REPORT

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.

Oak Hill Center is not a "village center" as compared with other Centers being studied, but rather is a small mixed use complex comprised of convenience stores, a community building, and an apartment building. The stores are in keeping with the scale of the surrounding one story ranch houses but the apartment building is not. This structure stands three stories high and has a steep pitched roof which contributes to its conspicuous verticality. In addition, the broad, flat expanse of lawn area on either side of the Saw Mill Brook Parkway lacks sufficient buffer plantings.

Access to the retail parking lot is from Colella Road which is somewhat disadvantageous to those homes fronting on this street. Although the rear of the retail building faces these homes, the service area is screened and appears well maintained. The parking lot is poorly defined and does not appear to be completely paved, giving this area an unfinished character. The lack of plantings contributes to this unfinished look.

OAK HILL SUMMARY REPORT

2.2.2 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 for each use, 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

Oak Hill Park is a very low density, planned surburban community consisting of small ranch-style homes, cul-de-sacs and interior pathways. The study boundaries encompass one block consisting primarily of the small retail center, a three-story apartment building, and a community center building on one parcel of 1.96 acres. Total business space is 5907 square feet. The remaining land uses within the study boundary are 14 single family homes.

These businesses do not attract much traffic and therefore do not appear to adversely affect nearby homes. However, access to the retail lot is from Colella Road, close to residential driveways.Access to parking for the apartment building and the parking lot itself are located on Saw Mill Parkway and have little impact on nearby homes.

TABLE 3.1 OAK HILL EXISTING LAND USE CHARACTERISTICS

CATEGORY	LAND AREA IN ACRES	FLOOR AREA IN SQ. FT.	FAR%	DWELLING UNITS
Residential:				
Single Family	2.66	--	--	14
2 and 3 Family	0	--	--	0
Apartments/Condos	1.67	--	--	34
Commercial	.29	5,907	.47	--
Office	0	--	--	--
Industrial/Manufacturing	0	--	--	--
Mixed Use - mostly Commercial	0	--	--	--
Mixed Use - mostly Residential	0	--	--	--
Transportation/Parking	NA	--	--	--
Institutional	NA	--	--	--
Open Space/Recreation	NA	--	--	--
Vacant Land	0	--	--	--

OAK HILL SURVEY REPORT

2.2.4 TRAFFIC CONDITIONS

This report conveys the results of the manual and automatic traffic counting program initiated in October 1985, 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 signallized and unsignallized intersections to characterize existing operations, with <u>one important caveat</u> related to signallized intersections: signal phasing and timing patterns assumed at such intersections were not those in current operation. We deemed it more useful to analyze an <u>optimal</u> 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 signallized intersections operating with less-than-ideal phasing and timing.

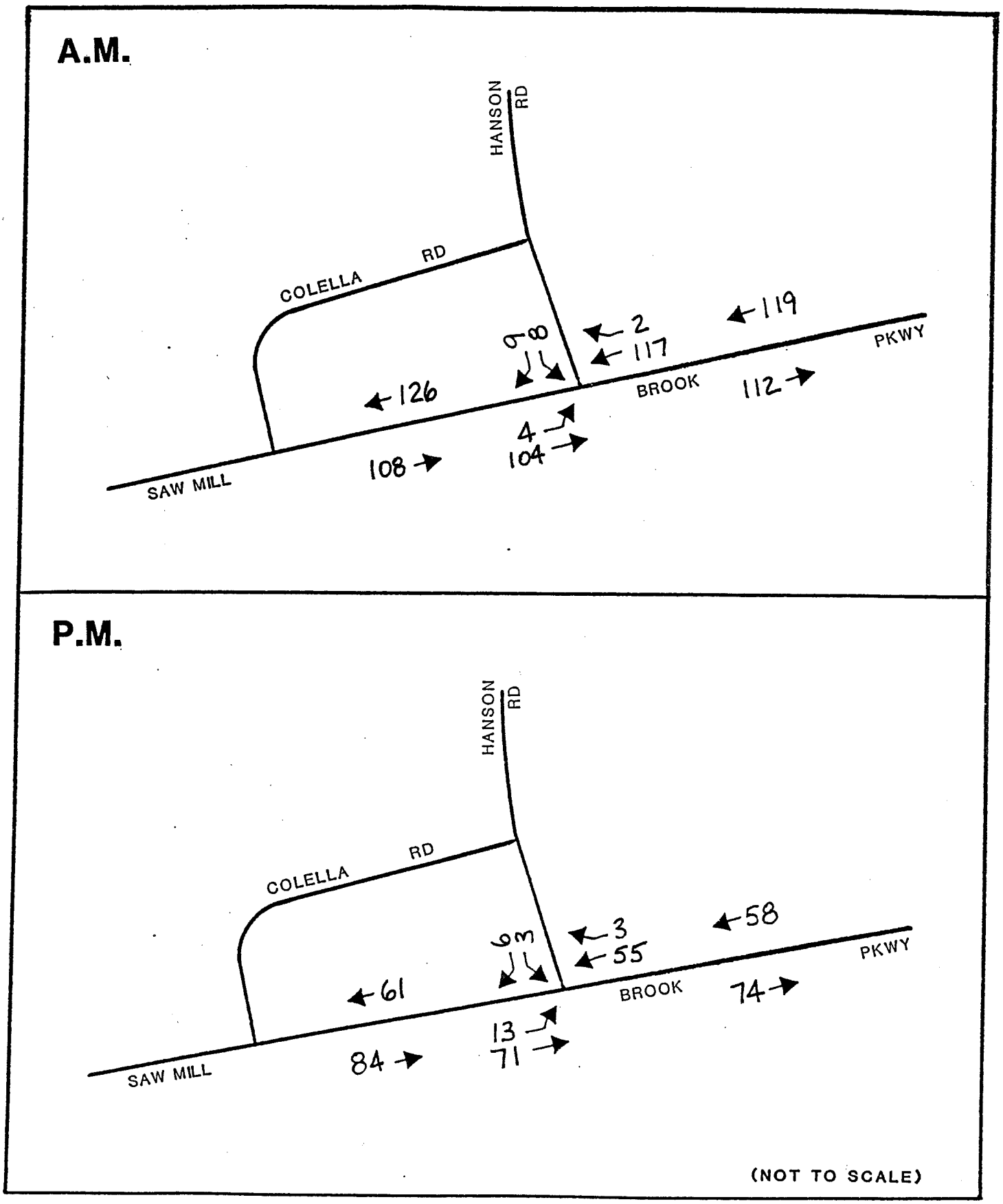
OAK HILL

Traffic Conditions

The Oak Hill area, in South Newton, is defined for this study as centering upon Saw Mill Brook Parkway and Hanson Road. This area is primarily residential, with no significant recreational or business uses. It is located south of Dedham Street, which, together with Nahanton Street, serves as the major collector street in South Newton. However, counts in the area suggest that the Oak Hill neighborhood itself is not directly impacted by the through traffic on Dedham/Nahanton Streets.

A peak hour turning movement count was conducted at the intersection of Saw Mill Brook Parkway and Hanson Road in November 1985. The volumes obtained during this count were adjusted to represent average annual existing peak hour traffic volumes, depicted in Figure 4.2. Peak hours observed from this count were 7:45-8:45 AM and 4:00-5:00 PM.

Existing operations at this intersection were analyzed using Level of Service analysis procedures for unsignallized intersections. The results of this analysis are illustrated on Figure 4.3. As can be seen, the low traffic volumes during both morning and evening peak hours in the area result in excellent levels of service for all movements at this location, including left turns from Hanson onto Saw Mill Brook Parkway. Only the addition of major new development, on an improbable scale, would be likely to generate traffic volumes high enough to degrade performance significantly at this intersection.



NEWTON VILLAGE STUDY	PEAK HOUR TRAFFIC VOLUMES - OAK HILL	FIGURE 4-2

Segal DiSarcina Associates
Transportation Consultants

OAK HILL SURVEY REPORT 2.2.5 PARKING

INTRODUCTION

This report presents the results of the following parking studies and analyses performed for the Oak Hill study area.

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

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.

SUMMARY OF FINDINGS

a. Supply vs Demand

Table 5.1 presents the results of the supply and demand analysis. The table shows that Oak Hill Center enjoys an estimated surplus of spaces. The supply consists of the 30 off-street spaces contained in the business lots, one of which is paved, containing 15 spaces. There are an estimated 38 on-street spaces on Colella Road and Saw Mill Parkway that can be considered available as supply for business use, including the posted spaces. The parking lot for the apartment building is not included as business supply. The size and nature of the existing businesses result in low demand, significantly lower than typical of neighborhood convenience centers.

b. Parking Use Survey

This area was observed on a Saturday to note any parking problems. None were observed, as there is plenty of on- and off-street parking in this low density area.

However, primary access to the retail parking lot is from Colella Road, so that retail expansion could adversely affect the homes fronting on this street.

TABLE 5.1 OAK HILL

PARKING SUPPLY AND DEMAND BY BLOCK

SEC/BL	DEMAND	PRIV	OFFST	ONST	PUBL	SPPLY	SURPLUS
84015	15	30	0	38	38	68	53
TOTAL	15	30	0	38	38	68	53

PRIV: Private off-street spaces
OFFST: Public off-street spaces
ONST: On-street metered and posted spaces
PUBL: Total off-and on-street metered and posted spaces
SPPLY: Total public and private spaces

OAK HILL SURVEY REPORT

2.2.8 ZONING/THE DEVELOPMENT ENVELOPE

INTRODUCTION

This report presents the results of the analysis of existing zoning in Oak Hill Center. 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:

<u>The Zoning Envelope</u>: 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.

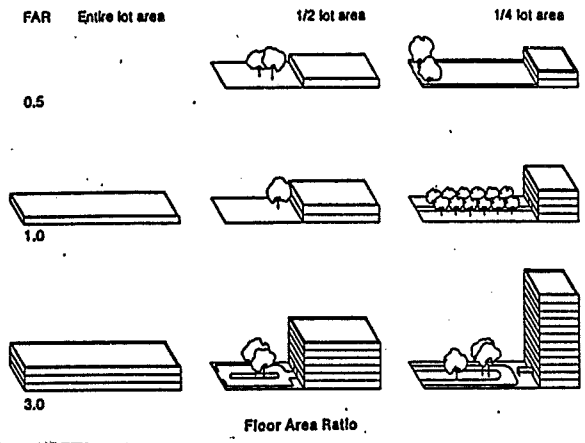
<u>The Development Envelope</u>: This is an estimate of the amount of development that could and is more likely to occur when existing and recent development is considered along with present zoning. This development envelope, or umbrella, combines the concept of zoning "right" and the realities of the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

<u>A Development Model</u>: 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 forseeable future.

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 x .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	----
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	----	----	----	----
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	----	----	----	----
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	----	----	----	----
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	----	----	----	----

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

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)

ZONING DISTRICT		FAR ALLOWED
Business	(BAA)	1.00
Limited Manufacturing	(LM)	.75
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 straightforward. 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:

ZONE		DWELLING UNITS PER ACRE
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 Oak Hill Center

. TOTAL NEW COMMERCIAL/OFFICE FLOOR AREA ALLOWED	225,690
. TOTAL NEW DWELLING UNITS ALLOWED	0

PRESENT AND RECENT DEVELOPMENT

The above estimates assume that all properties will be redeveloped to the maximum allowable by zoning. 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.

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.

TABLE 8.2

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

DEVELOPMENT	ADDRESS	FAR	ZONE
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 parking	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

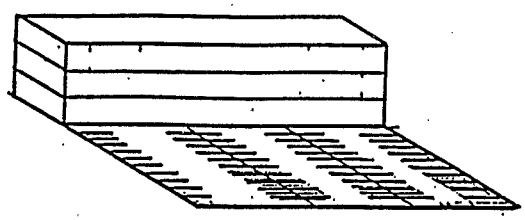
****

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

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 Oak Hill, the following non-residential development type is expected to continue to be built for the forseeable 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	.58	.58
4 story office/retail	----	----	----	.60	----

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 zero.

TABLE 8.3

THE PRESENT DEVELOPMENT ENVELOPE:

GROWTH THAT COULD OCCUR IN OAK HILL

New Commercial/Retail Floor Area that could be added	14,792
Existing Commercial/Retail Floor Area	5,907
Percent Added	250%
New Office Floor Area that could be added	44,386
Existing Office Floor Area	0
Percent Added	*
New Dwelling Units that could be added	0
Existing Dwelling Units	48
Percent Added	0
Total Non-residential floor area that could be added	59,178
Existing non-residential floor area	5,907
percent Added	1001%

This estimated development envelope must be further qualified. This envelope assumes redevelopment or renovation of the entire mixed use site including the existing apartment structure, an unlikely event for the forseeable future. As stated earlier, Oak Hill Center is not advantageously located with regard to retail or office space market exposure. It is doubtful that renovation of the apartment building for use as offices would even be economically feasible unless the entire Oak Hill area changed.

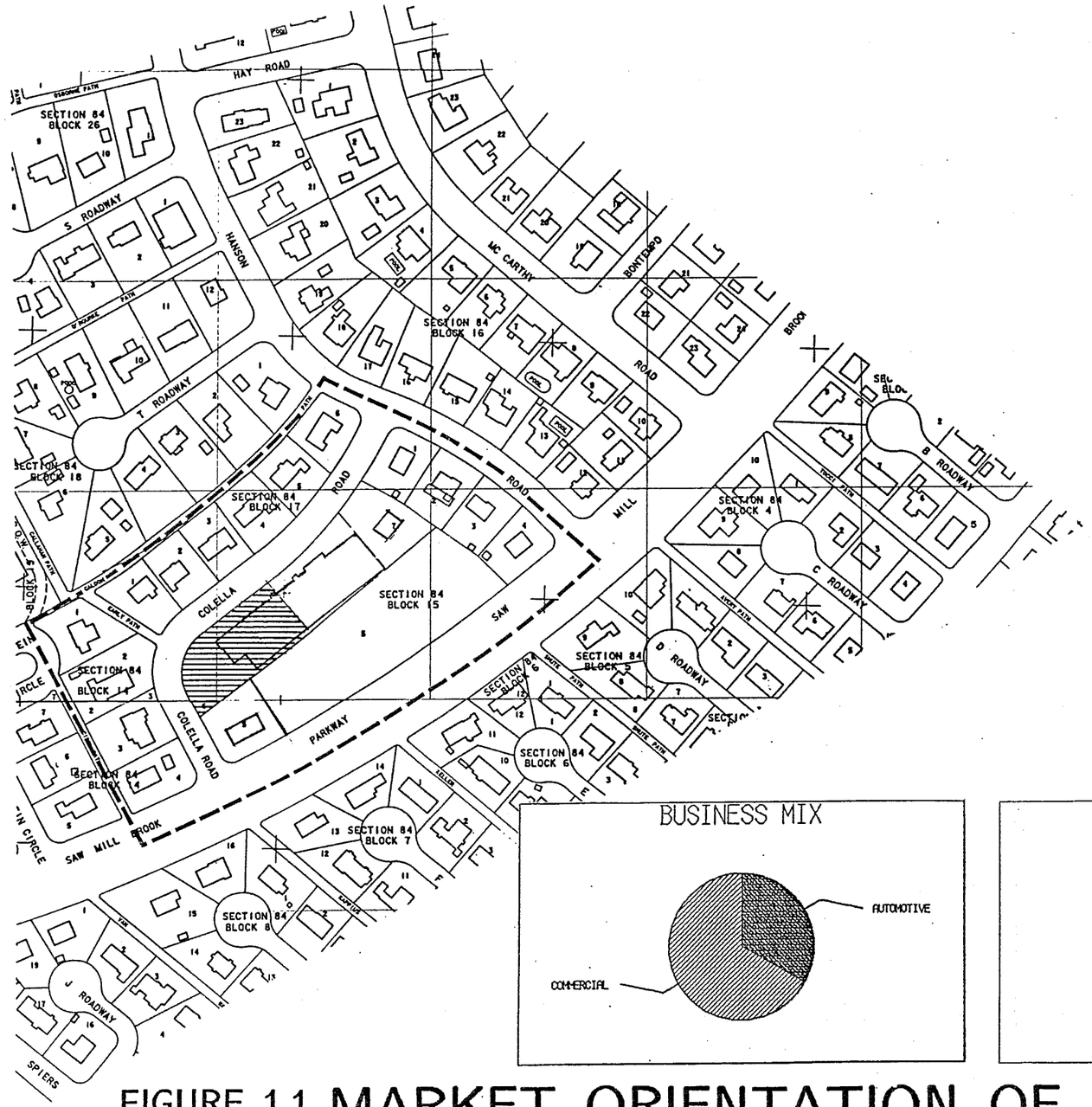
Therefore, if the existing apartment building and associated parking lot is excluded from the possibility of reuse, a more

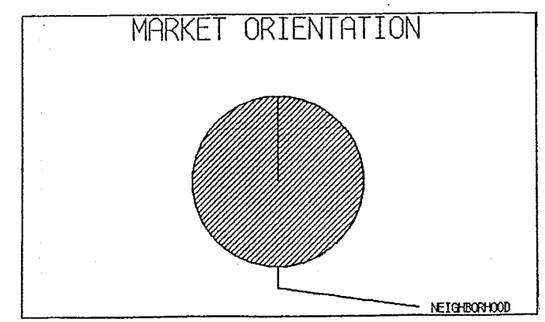
conservative estimate of the amount of new floor area that could be developed is as follows:

TABLE 8.3a ADJUSTED DEVELOPMENT ENVELOPE

New Non-residential Floor Area that Might be Added	8733 s.f.
Existing Non-Residential Floor Area	5907 s.f.
Percent Added	147%

OAK HILL





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

SCALE 1:2400

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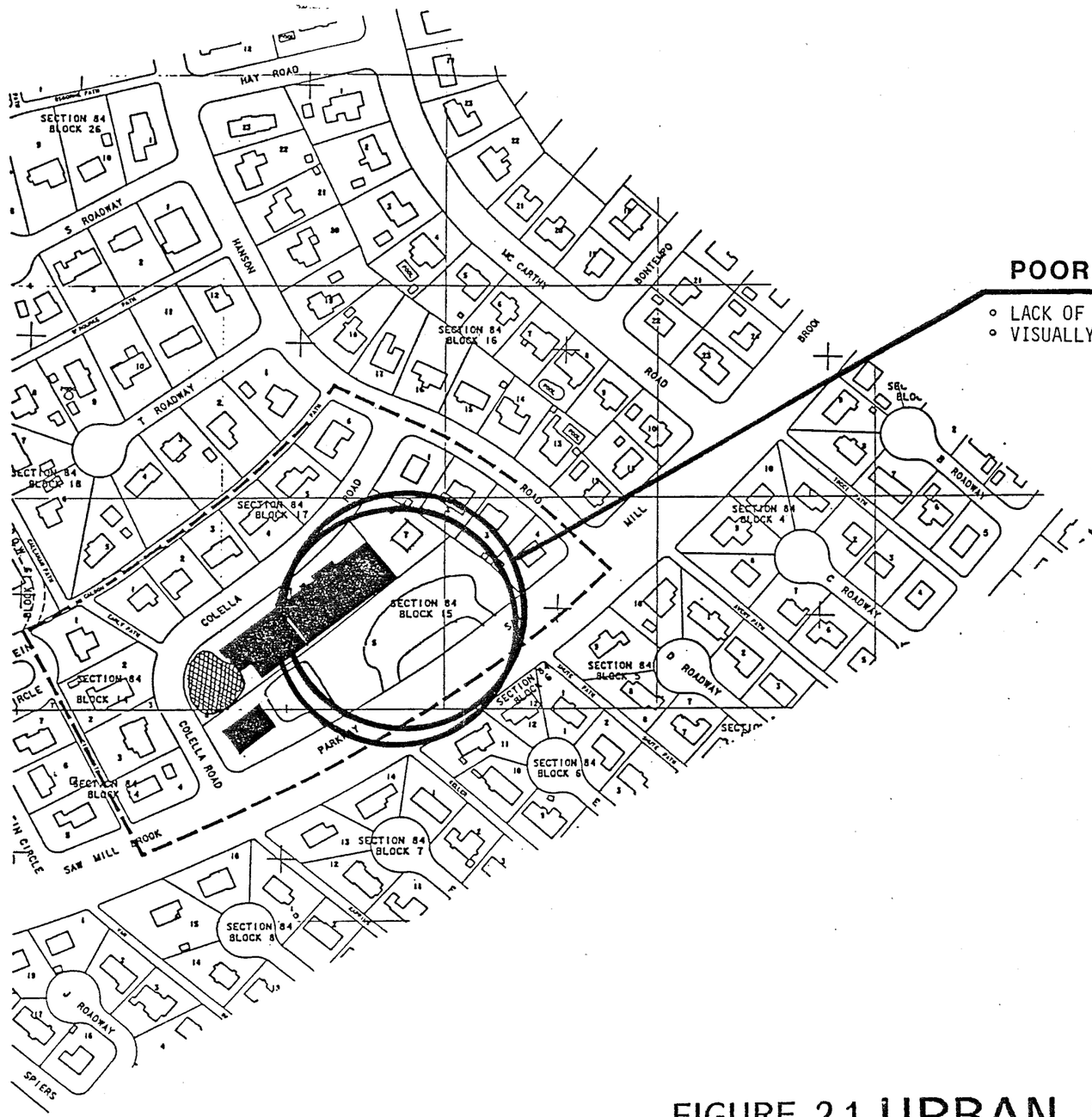
OAK HILL



POOR CONTEXTUAL RELATIONSHIP

- LACK OF SPATIAL DEFINITION
- VISUALLY INCONGRUOUS-LACKS SUFFICIENT BUFFER

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

FIGURE 2.1 URBAN DESIGN SURVEY

NEWTON VILLAGE STUDY

DATE_____

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

Cooney Associates

SCALE: 1:2400

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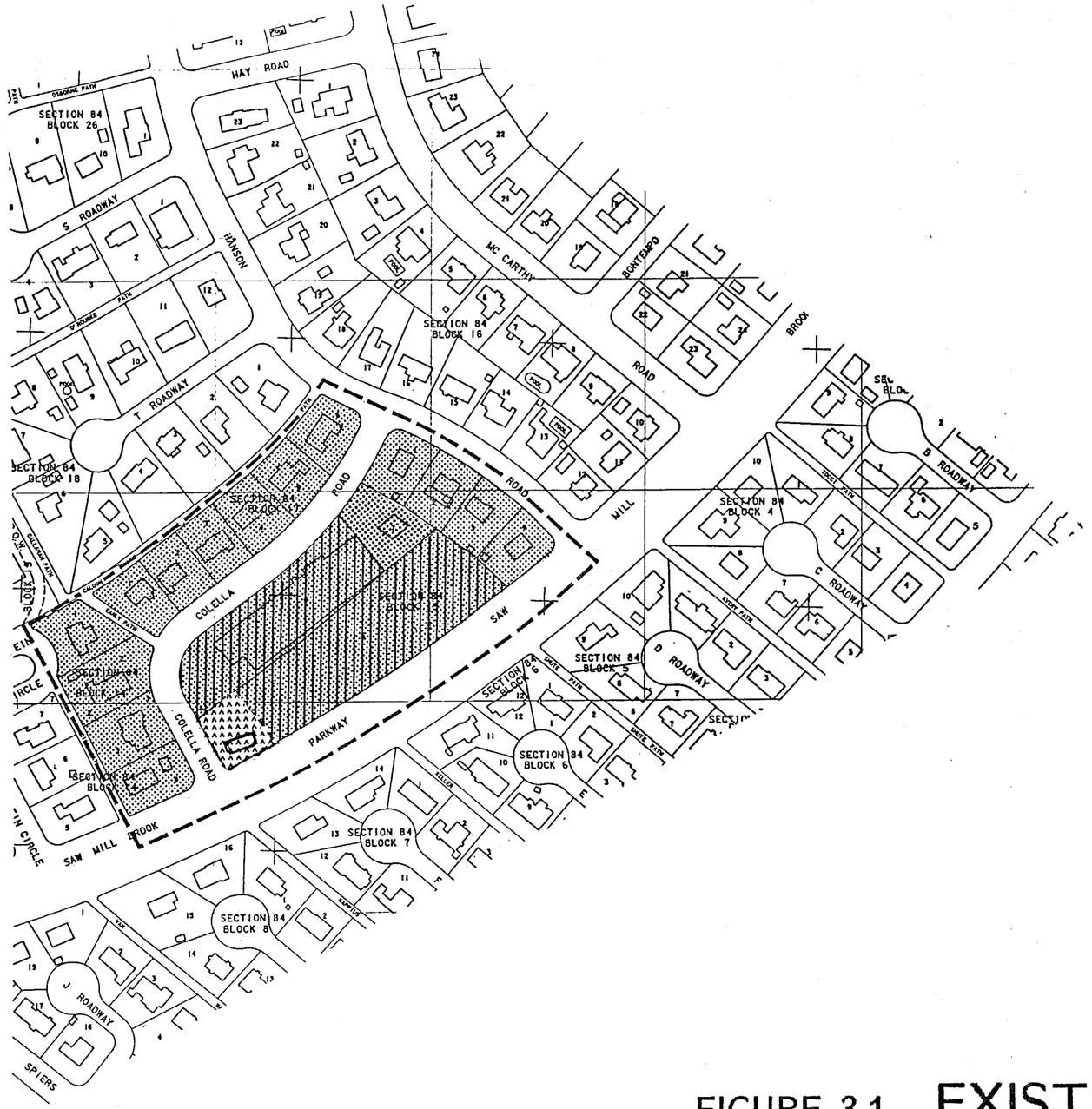
OAK HILL



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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KEY TO INTERSECTIONS

AM / PM — Signallized

AM / PM — 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

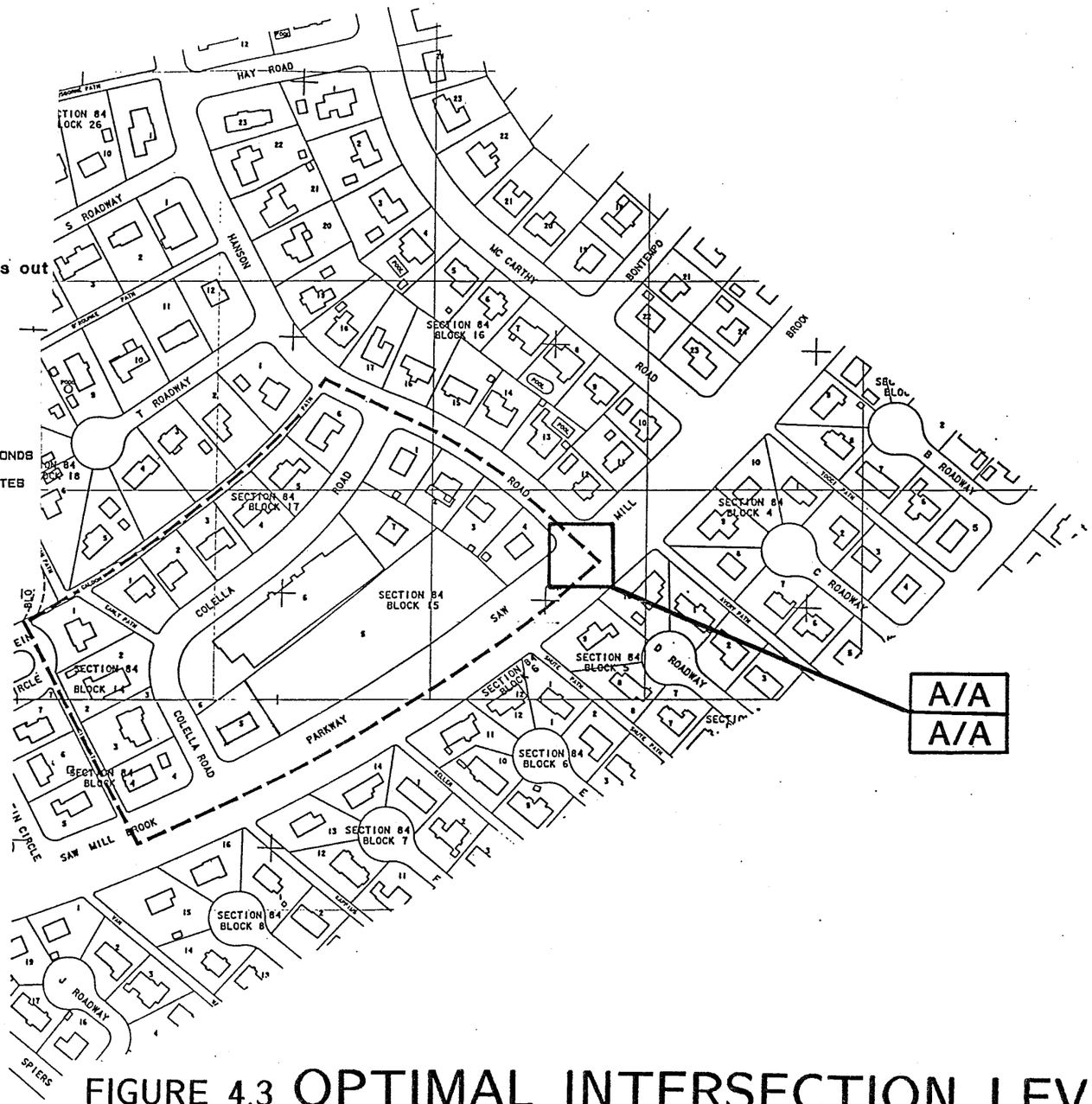

FIGURE 4.3 OPTIMAL INTERSECTION LEVEL OF SERVICE

NEWTON VILLAGE STUDY

DATE_____

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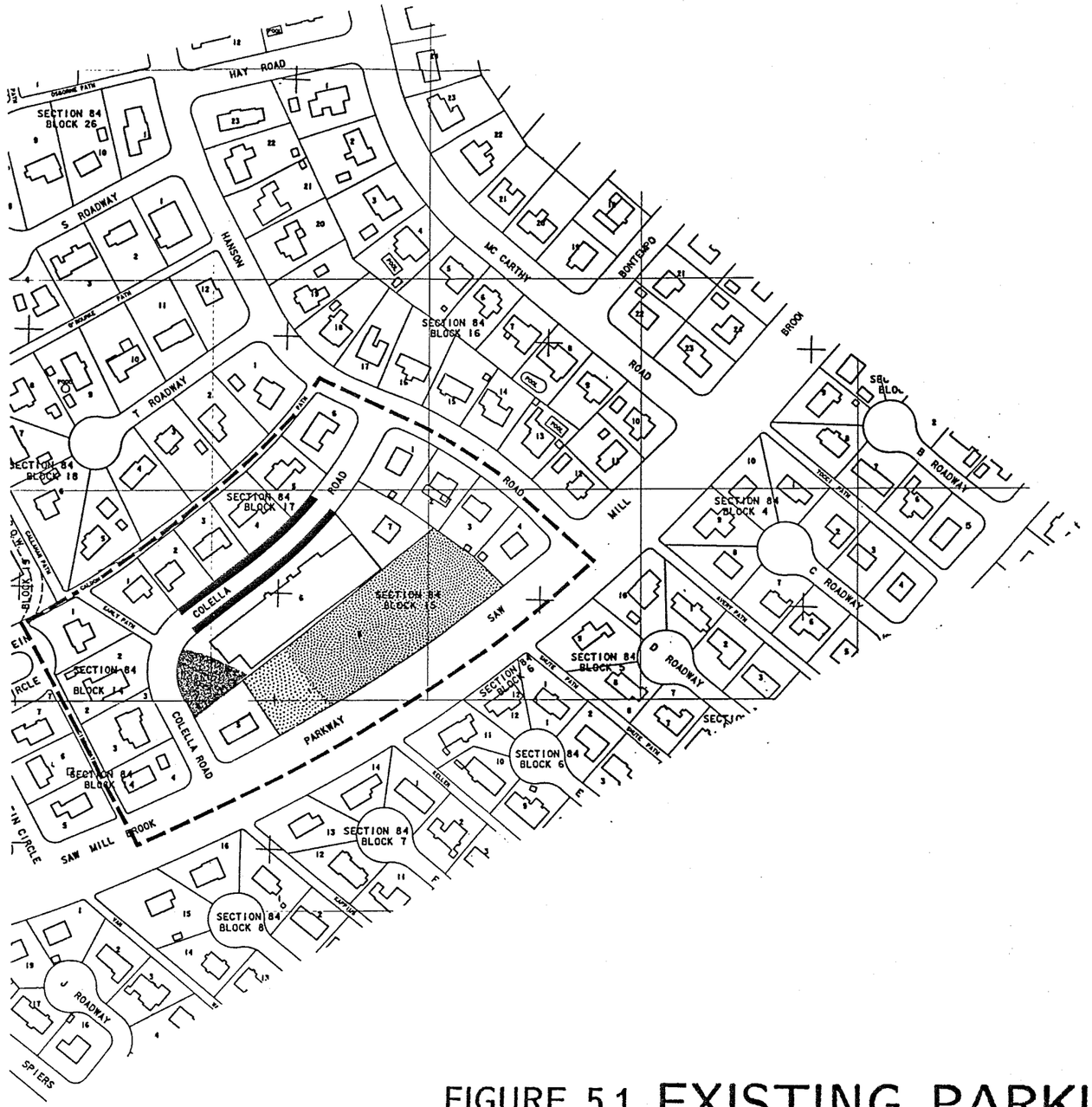

PRIVATE BUSINESS PARKING SPACES

- 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

NEWTON VILLAGE STUDY

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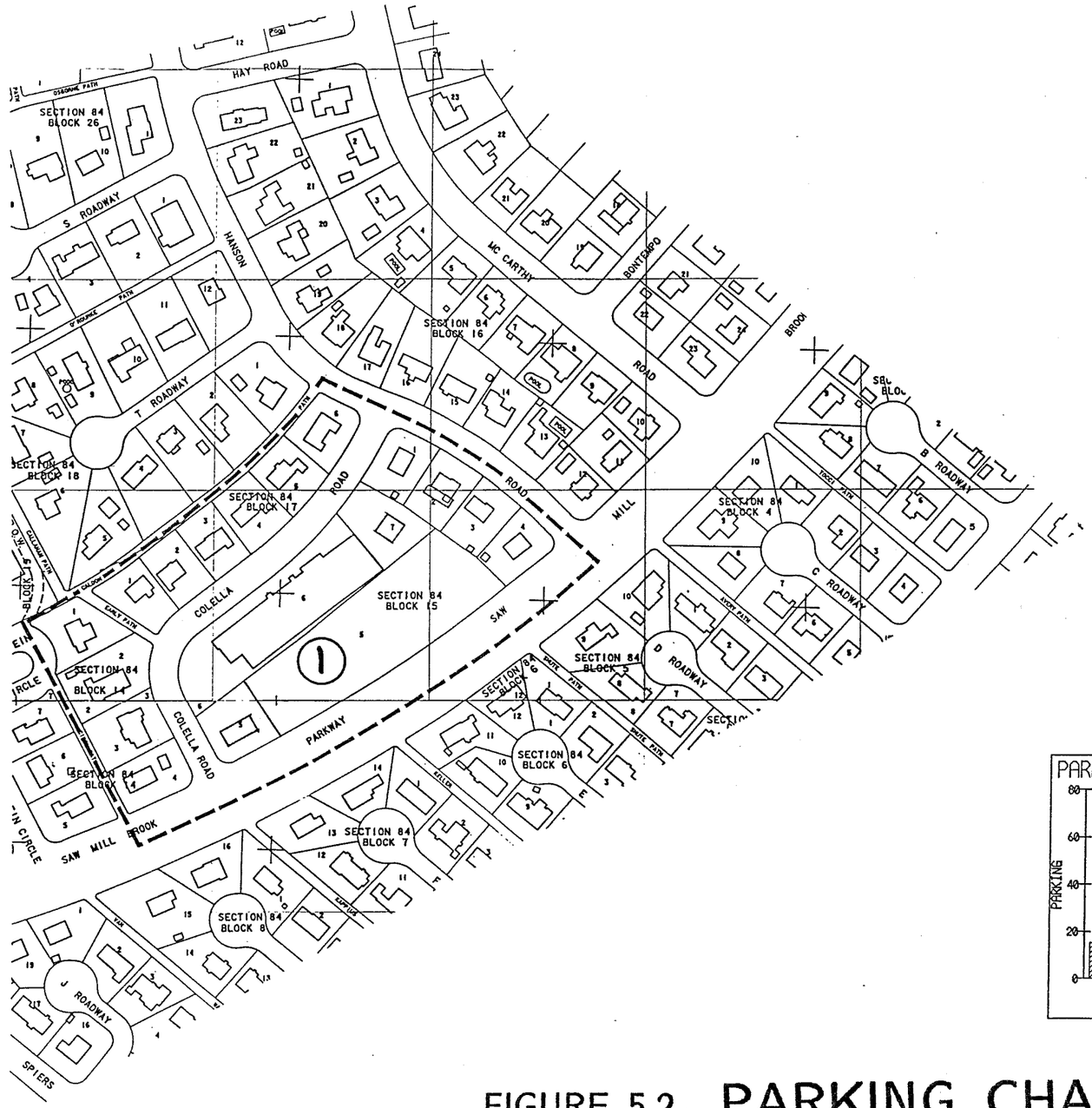

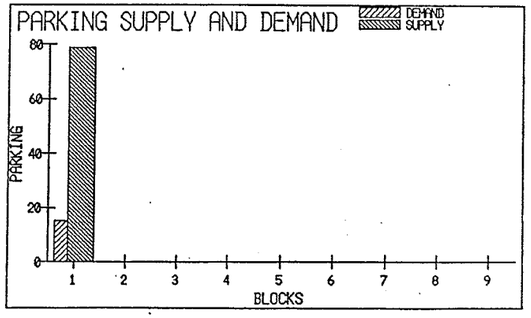

FIGURE 5.2 PARKING CHARACTERISTICS

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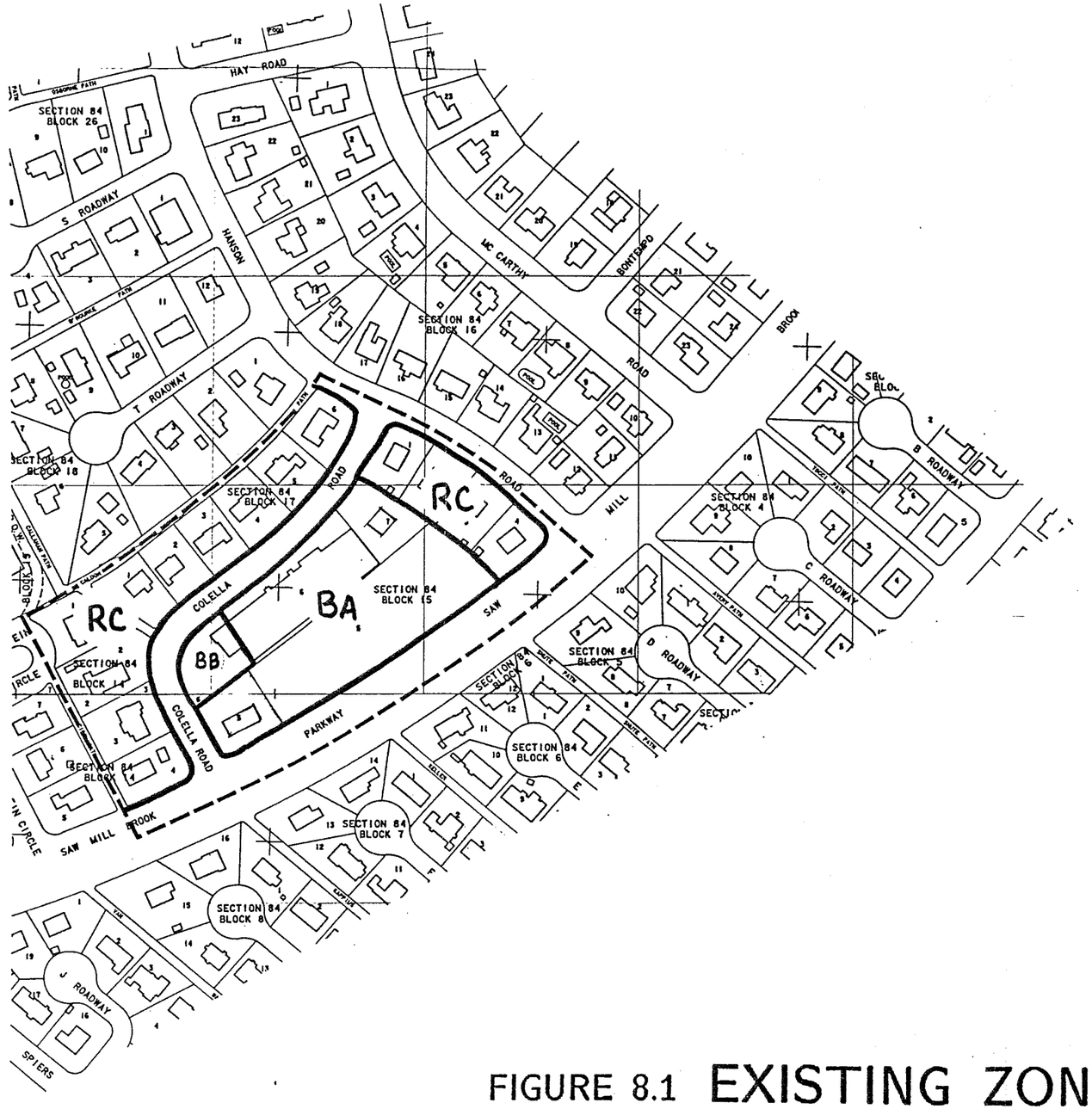

RA RESIDENCE A

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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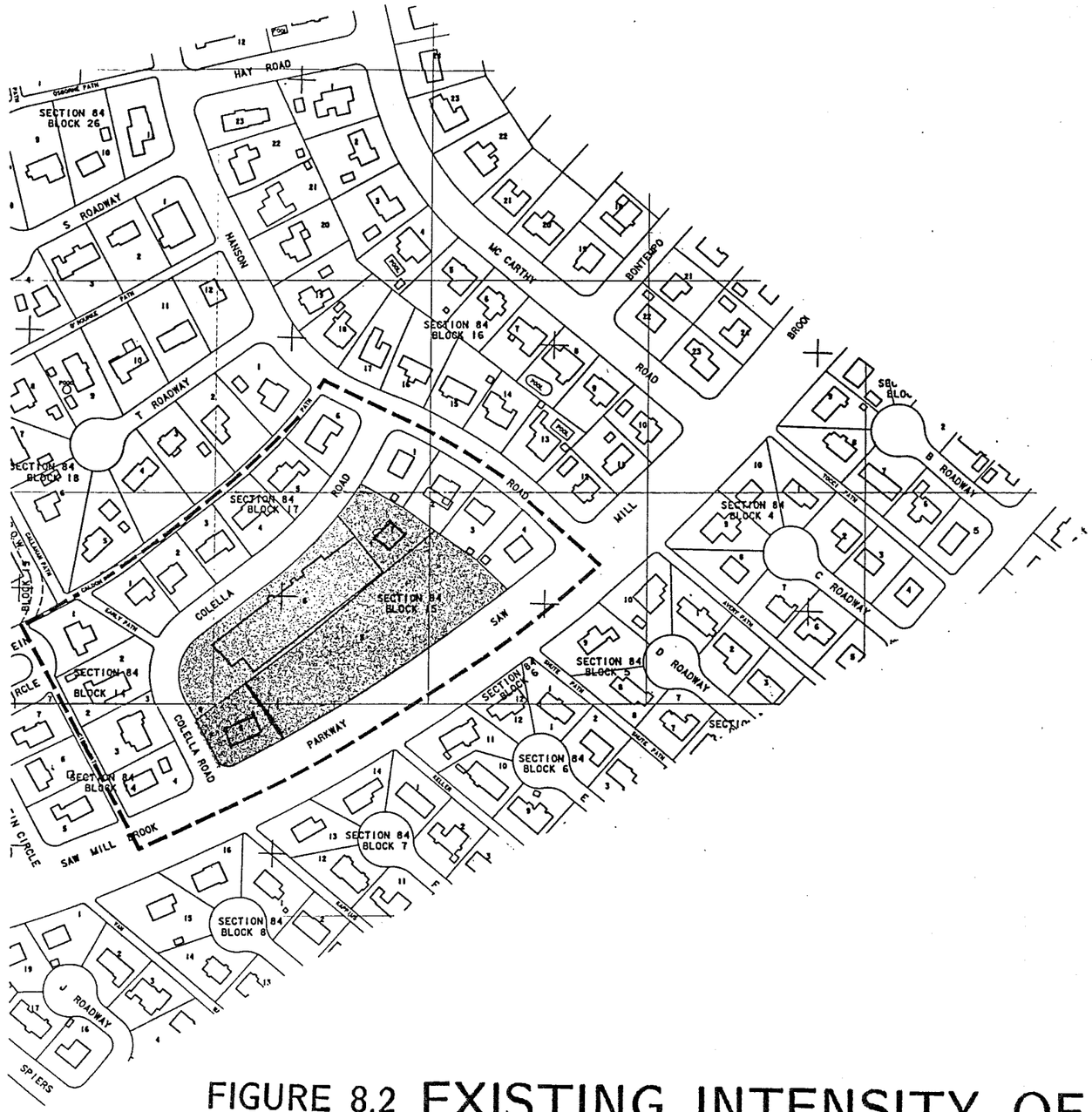

PRESENT DENSITY EXCEEDS THAT ALLOWED BY ZONING

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

NEWTON VILLAGE STUDY

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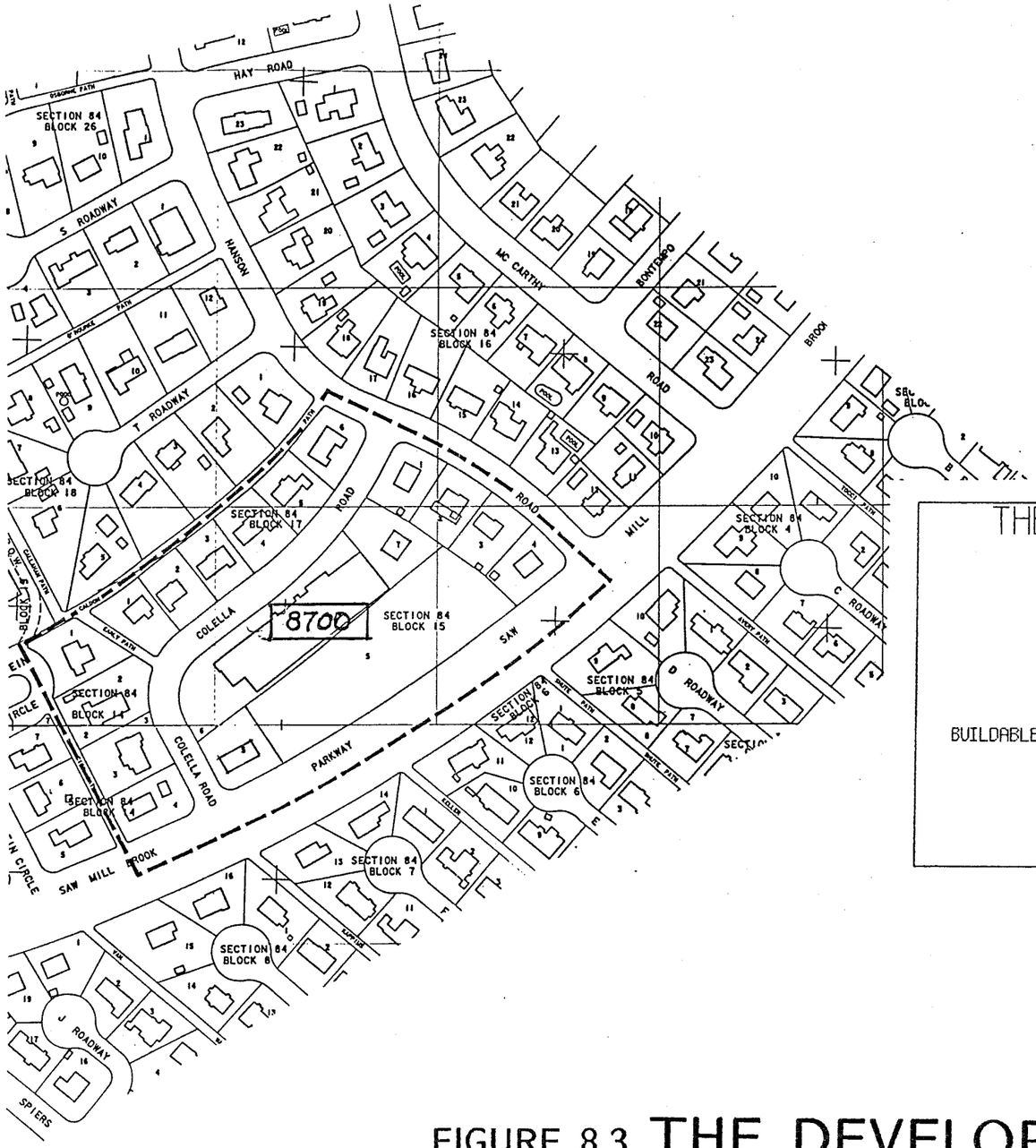

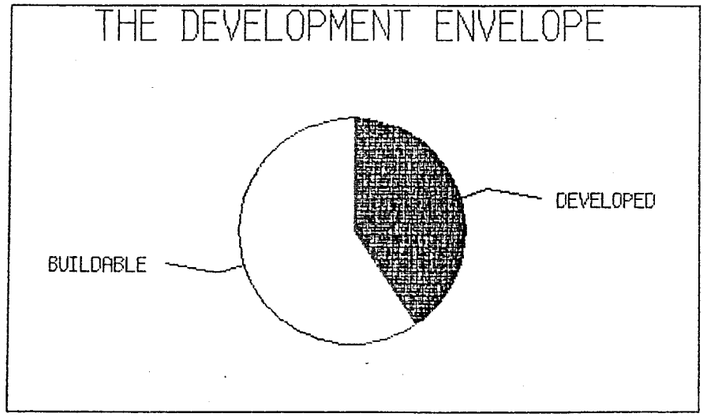

NEW COMMERCIAL/OFFICE FLOOR AREA THAT COULD BE BUILT (IN SQUARE FEET)

FIGURE 8.3 THE DEVELOPMENT ENVELOPE

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