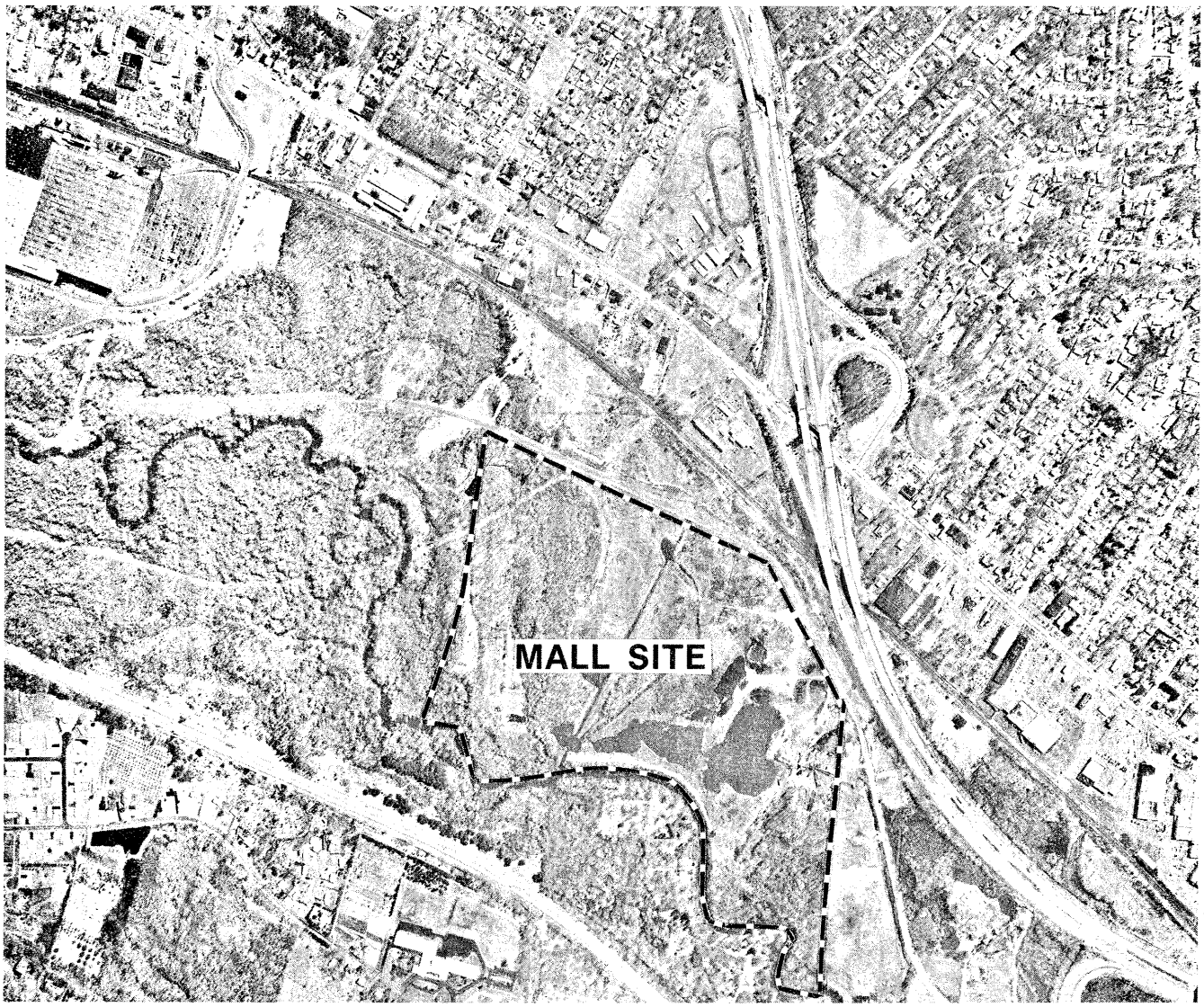
APPENDIX L

Economics and Land Use

NORTH HAVEN MALL

NORTH HAVEN, CONNECTICUT



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US Army Corps of Engineers

New England Division

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Appendix L

Economics and Land Use

The material contained in this appendix was prepared for Mall Properties, Inc., by Gladstone Associates. It has been provided to the Corps of Engineers as information in support of application #13-79-561 for a permit under Section 404 of the Clean Water Act of 1977, and Section 10 of the River and Harbor Act of 1899.

APPENDIX L:

ECONOMICS AND LAND USE

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INTRODUCTION

This report discusses potential economic and land use impacts associated with the proposed regional shopping center known as the North Haven Mall, in North Haven, Connecticut.

Principal issues discussed here include: retail supply/demand impacts on the region's economic base as well as on existing retail activity in the region; associated fiscal impacts on both the Town of North Haven and the region in general; employment impacts generated by construction as well as operation of the proposed mall;and spin-off development impacts related to the mall.

Section I, Summary Highlights, provides a brief discussion of all salient findings and conclusions. A full impact discussion is contained in Section II, Economic and Land Use Impacts, while statistical and methodological detail is provided in the attachments of Section III.

I. SUMMARY HIGHLIGHTS

I. SUMMARY HIGHLIGHTS

Principal findings of this economic and land use impact analysis, detailed in subsequent sections of this report, are briefly highlighted here.

Project Description: The proposed North Haven Mall would be located in the northern tier of the New Haven SMSA.[1/] It would contain four major department stores and a variety of other specialty and convenience retail establishments amounting to a total of about 1.12 million square feet. An estimated 817,000 square feet of that complement would be devoted to stores featuring shoppers goods. (Shoppers goods include general merchandise apparel, furniture and miscellaneous shoppers goods. See Glossary for further detail.)

The Mall's opening is projected for late 1983 when approximately two-thirds of the programmed space would be occupied. Full operations and leasing are expected by the end of 1985.

In common with major projects of this type, retail productivity for the center (measured in sales per square feet) would likely achieve industry norms 3-5 years after opening or, in this case, by the end of the decade. While some shoppers goods stores would likely exceed these standards, others would be subject to a more attenuated market acceptance so that, on average, the center's sales productivity would increase gradually during the first 3-5 years after opening.

1/ The New Haven-West Haven SMSA (Standard Metropolitan Statistical Area) includes New Haven, North Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, Orange, Wallingford, Woodbridge and Clinton. See map on page 4.

Retail Impacts

Public Need: Development of the North Haven Mall would meet a public need presently unserved by current retailing within the metropolitan New Haven area. The mall would provide a level of retail services that has been deficient for a considerable time. The proposed mall would also provide a depth and variety of merchandise not presently available and an increased level of merchant competition which would sharpen and improve retail services to area shoppers.

Of key importance, the Mall would introduce one new department store entry to this marketplace (G. Fox & Company), one expanded department store which has been present but operating in a nominal and standby facility (J.C. Penney) and two other stores that have long been associated with metropolitan New Haven and seek to improve their market coverage and penetration (Sears Roebuck & Company and Macy's). These anchor establishments, coupled with the diversity of specialized stores featured in the Mall, would fill a current void in the metropolitan area retailing base. They would also provide a higher level of service to consumers immediately outside the metropolitan area.

The public need for such a regional shopping mall is highlighted by the New Haven metropolitan area's current loss of approximately $66 million in expenditures to non-metropolitan retail facilities. This leakage of sales is projected to increase in the ensuing decade absent the provision of any new large retail facilities within the metropolitan area. By virtue of its size and location proximate to the growing suburban ring of metropolitan communities, the proposed North Haven Mall would reverse that projected leakage of sales and also enhance sales flows into the metropolitan area from nearby, non-metropolitan communities.

Retail Evaluation Approach: This assessment of prospective Mall impacts within the metropolitan area, in accord with accepted retail methodology, has taken account of:

- -- a delineation of relevant trade areas for major retail concentrations;
- -- an examination of retail sales trends;
- -- projected shoppers goods volumes for the metropolitan area under two conditions (covering the inclusion and exclusion of a North Haven Mall);
- -- a forecast 1985 and 1990 sales baseline for two of the metropolitan area's principal centers (namely, Hamden's Magic Mile and downtown New Haven); and,
- -- a specific assessment of prospective impacts on those two centers as well as other metropolitan area retail locations assuming development of the North Haven Mall.

Trade Areas: The respective trade area penetrations for the proposed North Haven Mall, New Haven's Central Business District and Hamden's Magic Mile are substantially different as a result of several factors, including: changing retailing patterns within the metropolitan area; store representation; and market penetration of primary sectors within these trade areas.

With respect to changing retailing patterns, downtown New Haven has increasingly lost ground to other metropolitan area retailing nodes. As reflected in sales trends (detailed further below) and recent shoppers surveys, downtown's primary trade area has become increasingly constricted, focusing in large measure on the city itself with some extensions into close-in areas of nearby suburban towns. Hamden, by contrast, has succeeded in serving a substantial portion of the metropolitan area's northern suburban tier and has also gained considerable penetration into downtown New Haven's primary trade area.

See Page 30

for

Figure on

Trade Areas of Selected Retail Centers

In terms of store representation and market penetration, the constriction of downtown New Haven's primary trade area, in common with cities throughout the United States, has occurred in relation to changes within so-called downtown department store "flagship" units. The increase of department store branches in this trade area (as in others across the nation), has diminished the "magnet" attraction of downtown stores making them "co-equal" with many others rather than "primary" or "flagship" units.

Hamden's Magic Mile, by contrast, has consisted largely of discount department stores whose appeal (given a concentration of such outlets) is more limited than would be the case with full-line department stores with complementary shops. In this instance, Hamden has served (and will continue to serve) an important segment of the marketplace through the presence of these discount stores.

By virtue of its location near the metropolitan area's growing suburban finge, the North Haven Mall fits the evolving department store strategy for locating branches throughout the metropolitan area to better access the growth in suburban purchasing power (currently underserved by the present supply of metropolitan area retail facilities). This location, coupled with the mall's depth and selection of merchandise, is expected to achieve strong market penetration in the suburban tier of the metropolitan area, thereby stemming the substantial outflow of sales and enhancing sales inflows from nearby non-metropolitan communities.

Retail Sales and Supply Trends: Shoppers goods volumes (measured in constant 1977 dollars) remained virtually level for the metropolitan area between 1972 and 1977 (moving from $377.3 million to $374.8 million; an average annual decline of 0.1 percent). This relatively flat performance, however, masked substantial differences between key centers within the metropolitan area.

Downtown New Haven shoppers goods sales, for example, were off an average 3.1 percent per year ($99.4 million in 1972 versus $83.9 million in 1977). Hamden's Magic Mile paralleled the metropolitan average (off 0.1 percent from $55.5 million to $55.2 million) while the balance of metropolitan retail centers -- many of them located in suburban communities -- picked up the slack from downtown New Haven with an average annual increase of 1.2 percent ($222.4 million to $235.7 million).

Supply Changes: During this period the metropolitan area floor space inventory remained relatively constant. More specifically, about half of the 400,000 square feet of new space that came on line during the latter portion of the 1970's was devoted to shoppers goods. This was primarily in the form of discount department stores which anchored community shopping centers.

Department Store Strategy: Despite the relatively constant sales performance reflected by past trends, metropolitan New Haven has been closely examined by major department stores with respect to corporate locational strategies for the 1980's. These plans view the metropolitan area as a "two store" market. Stated in other terms, the level of anticipated shoppers goods expenditures coupled with the geographic structure of the area are viewed as capable of supporting two stores, properly located, for each of these retailing organizations. Accordingly, the proposed North Haven Mall represents an important and long planned strategic move for each of the stores programmed to locate in that center.

Metropolitan Shoppers Goods Sales Outlook: Sales levels for the metropolitan area throughout the 1980's has been forecast in relation to:

-- the outlook for consumer expenditures;

-- sales flows in and out of the metropolitan area; and

-- two basic conditions reflecting a baseline or "current supply" with respect to metropolitan shoppers goods space and another envisioning a supply addition in the form of the proposed North Haven Mall.

Key aspects of these component elements of metropolitan area shoppers goods projections are detailed in this report. Of primary importance in this analysis, however, has been the nature of shoppers goods sales flows in and out of the metropolitan area. Shoppers goods sales flows consist of four principal elements:

-- Sales Outflows: representing consumer expenditures on the part of metropolitan area residents which are being spent at locations outside the metropolitan area;

-- Untapped Inflow Potentials: standing for consumer expenditures of individuals outside the metropolitan area which are spent at locations also outside of the metropolitan area;

-- Sales Inflows: accounting for consumer expenditures on the part of non-metropolitan area residents which are registered as sales by metropolitan area establishments; and

-- Sales Retention: representing consumer expenditures on the part of metropolitan residents which are reported as sales by metropolitan area establishments.

These critical components were measured through analyses that traced sales and expenditure levels by individual municipalities and major retail centers. Detailed expenditure-sales comparisons were then established in a matrix form of 380 data cells (i.e., 19 expenditure originations or resident locations and 20 sales destinations or store locational points). This evaluation, which utilized shoppers surveys and Connecticut Department of Transportation data, revealed that in 1977 the

shoppers goods sales inflows of $95 million was substantially offset by sales outflows of $66.4 million.

> A key issue in relation to future metropolitan New Haven retailing pertains to possibilities for both reversing current sales outflows and maintaining or increasing sales inflows from non-metropolitan area residents.

With this background, shoppers goods sales have been forecast for the metropolitan area throughout the 1980's.

Under a baseline condition, which assumes that the inventory of shoppers goods floor space will remain constant, metropolitan shoppers goods sales by 1990 would range between $368.3 million (under a most conservative "no growth" in per capita real income) to $408.3 million (were a likely "one percent per annum" real growth in per capita personal income utilized). Sales outflows would increase to $70.4 million under a "no income growth" scenario and to $80.2 million under a "one percent income growth" assumption.

Correspondingly, metropolitan sales have also been forecast under a second, incremental supply condition, in which substantial additions of retail space would be anticipated in the form of the proposed North Haven Mall. This condition would result in considerable enhancement for both greater sales retention on the part of metropolitan area consumer expenditures and increased sales inflows from market penetration into communities outside the metropolitan area.

> With the North Haven Mall, metropolitan area shoppers goods sales are expected to range from $426.9 million (under zero percent growth in real personal income) to $474.9 million (under one percent real growth) by 1990 -- a 16 percent gain in metro sales over the baseline supply condition under either assumption.

Prospective Impacts: The baseline and incremental supply sales forecasts described above have been utilized to ascertain prospective impacts of the mall upon existing major retail nodes in the metropolitan area. Similar to the approach taken for the metro as a whole , baseline sales expectations for downtown New Haven, Hamden's Magic Mile and the balance of the metropolitan area have been projected to 1990, on the basis of historical capture rates, retail trends, examination of changing trade area characteristics and related factors.

Estimated shoppers goods sales under the baseline condition for these areas (measured once again in constant 1977 dollars) are as follows:

New Haven CBD	$69.6 million
Hamden's Magic Mile	$55.2 million
Balance of Metropolitan Area	$283.5 million.

These forecasts are predicated on a modest but likely income growth in real terms of one percent per annum. (Under a zero percent income total metro sales would be approximately 10 percent lower. See Section III(D)(4) for detail.)

Shoppers goods sales at the North Haven Mall are projected at $85 million, in constant terms, for 1990. These prospective sales volumes for the Mall have been analyzed and forecast by the following principal components:

-- Sales Leakage Recapture with respect to metropolitan area expenditures currently flowing to retail establishments outside the metropolitan area but which would be retained by the mall;

-- Improved Sales Inflow with respect to consumer expenditures from non-metropolitan area communities flowing into the metropolitan area which would otherwise go to non-metro establishments; and,

-- Transfer Sales covering sales diverted from existing metropolitan centers.

Under the "worst case" -- i.e., no real per capita personal income growth and the highest transfers projected in this analysis -- sales diverted from other metropolitan locations as a result of the proposed North Haven Mall might amount to $26.4 million annually by 1990. These would represent a "transfer" of 7.2 percent from the previously forecast metropolitan area baseline.

Under the more likely one percent income growth scenario, transfer sales in 1990 would amount to $18.4 million, or about 4.5 percent against total metropolitan area baseline sales.

Such sales transfer impacts would likely be differentiated among metropolitan area retail centers. Downtown New Haven, for example, would have to rely increasingly on a more constricted primary trade area to account for shoppers goods sales. Hamden, by contrast, would continue to share sales within the suburban tier as well as tapping other communities on the periphery in much the same fashion as that anticipated for the proposed North Haven Mall.

Accordingly, it is estimated that the North Haven Mall would have a limited impact on Magic Mile's shoppers goods sales -- estimated to be off approximately 8.5 percent ($4.7 million) in 1990 under the "worst case" scenario of no real per capita personal income growth, and $2.9 million or 5.3 percent assuming a one percent annual income growth.

Downtown New Haven's shoppers goods sales, correspondingly, would be affected by a decline of 8.3 percent from its projected baseline sales in 1990 representing a transfer volume of $5.8 million. Assuming the more plausible annual income growth of one percent, the impact would shift to $3.5 million or 5.0 percent.

Other metropolitan locations, as a result of the effects noted for both downtown and New Haven Magic Mile, would be off about 6.5 percent ($15.9 million) from their baseline forecasts in 1990 under the

conservative forecast of zero personal income growth noted above. With income growth at one percent, impacts here are projected at $12.0 million or 4.2 percent.

The distribution of these transfer sales impacts amongst the two principal retail centers and the balance of the metro was tested through an alternative distribution matrix as discribed in Section IIID.5. In this instance, transfer impacts on New Havens CBD and Hamden's Magic Mile are projected at approximately two percentage points higher under each condition while the impact on the balance of the metro would diminish by approximately one percentage point.

In any event, as noted further below, municipal fiscal impacts associated with these retail impacts are judged to be negligible.

For the Town of North Haven itself, some initial transfers from existing retail establishments may take place but would, of course, be dramatically offset by the addition of the mall's sales. These initial sales impacts may be on the order of five to nine percent, in 1990, against a town-wide shoppers goods sales base of $13 to $17 million

On the other hand, it is anticipated that most retail establishments in the town -- especially along Washington Avenue -- would benefit from the increased consumer traffic generated by the mall and, in any event, the mall would increase the town's shoppers goods sales (net of transfers) by some $84 million on top of the $13 to $17 million baseline projection.

Mitigating Measures: Several steps can be taken to mitigate the effects of limited shoppers goods sales declines in metropolitan area retail nodes as a result of the proposed North Haven Mall. Among these are:

-- Continued and increased attention to overall planning within affected communities in providing a supportive retailing environment, especially with respect to key factors of access, parking and other amenities demanded by contemporary shoppers.

-- Improved merchandising appeal to shoppers within primary trade areas. In the case of downtown New Haven, for example, the increasingly constricted primary trade area for that center relies on the City itself. Accordingly, downtown merchants must be more accute in discerning and serving the needs of that population.

-- Effective action with respect to the changing roles for downtown areas and other business districts in relation to office, institutional, and residential developments. In the case of downtown New Haven, for example, this would involve deepening the already established office markets that have been tapped in the past, increasing the area's attractiveness as an entertainment center, improving the housing inventory for downtown workers and others with a central place orientation and enhancing retail opportunities in relation to these "captive" market segments (workers, residents and other users of the area).

As a result of all of these steps, the competitive position of these existing retail nodes can be strengthened and the limited prospective sales impacts forecast here mitigated.

Fiscal Impacts

Local: The Town of North Haven would receive significant fiscal benefits from construction and operation of the North Haven Mall. The proposed Mall would produce local property tax revenues substantially in excess of town costs associated with services required by the Mall.

It is estimated that this "surplus" would be more than $1 million annually and -- assuming a continuance of today's service levels -- would have the effect of reducing the property tax rate by six percent town-wide.

Region: From a regional perspective, potential fiscal impacts have been assessed here in relation to retail sales transfer impacts within the New Haven-West Haven metropolitan area.

The retail sales diversions to the North Haven Mall may have limited impact on the fiscal situation of other cities and towns in the metro. This would occur to the extent that there would be a direct reduction of property values and associated tax revenues resulting from retail sales diversions within the metropolitan area. It is unlikely that, on an individual basis, sales reductions associated with the North Haven Mall would be at such a level as to induce a proportionate reduction or subsequent elimination of such space from municipal tax rolls. Therefore, any regional fiscal impacts associated with the operation of the North Haven Mall are judged to be nominal.

Even assuming a direct, proportionate decrease in a community's property tax base, the average reduction would be approximately three-tenths of one percent of a given municipality's total assessed property value.

Employment Impacts

The construction and operation of the North Haven Mall would create a substantial number of employment opportunities for the residents of the New Haven-West Haven SMSA.

Construction: Construction of the Mall would require nearly 11,000 person-months of labor and would generate on the order of $21.8 million in wages. These labor requirements would vary over the projected 36 month construction period and are expected to peak from months 13 to 25, as well as in the last 7 months of construction.

It is estimated that on the order of 45 percent of the construction phase labor requirements would be filled by workers from the New Haven Labor Market Area. Information from the Connecticut Department of Labor indicates that the construction worker pool in the New Haven Labor Market Area is sufficient to fill these projected requirements. As such, these positions would represent an infusion of about $918 million in new wages into the New Haven metropolitan area.

Operations: The operations phase of the Mall would generate nearly 2,000 permanent jobs. Approximately 600 to 750 of these positions represent potential personnel transfers from existing metropolitan retail establishments. Net new positions associated with the operations of the North Haven Mall are therefore projected at between 1,250 and 1,400 jobs in 1990. Between 1,200 and 1,300 of these positions are expected to be filled by residents of the New Haven metropolitan area -- an increase of about 3 percent over existing employment in the wholesale and retail trade sector, and an increase in total regional employment of between 0.6 percent and 0.7 percent. Wages generated by these net new positions would be on the order of $8.2 million to $9.5 million (in today's dollars) and would increase the total wages paid out in the New Haven Labor Market Area by about 0.4 percent.

The injection of construction-related and mall operations wages into the metropolitan economy would generate additional economic activity as a result of a "multiplier effect." The construction phase of the mall would have a one-time impact of $24.5 million in economic activity, beyond the direct wages paid out. The operations of the Mall, however, would result in a longer term economic benefit of between $20 million and $24 million annually. This translates into a potential secondary impact of an additional 700 to 800 jobs in the SMSA.

Land Use Impacts

Development of the North Haven Mall may carry with it the potential for altering land use patterns in the immediate area. Through secondary development, or induced growth, the North Haven Mall would generate a substantial amount of "consumer traffic" along Washington Avenue, Valley Service Road and Mall Drive. Its size would reinforce the area as a commercial corridor and improve its competitive position. As such, within the physical constraints of development sites, it is projected that ancillary retail development is likely to take place along Valley Service Road and on in-fill sites along Washington Avenue. Also, opportunities for development of small-scale office development would be enhanced along Valley Service Road.

Development along Valley Service Road would likely be limited to approximately 60 acres of land. It is reasonable to expect that about 40 percent of the available land might be developed within the first ten years following the mall opening, with the remaining land being developed within the second ten-year period.

Cumulative Impacts

The impact analyses carried out here have been undertaken in a comparative fashion -- that is, prospective metropolitan retail market conditions were evaluated with and without the increased retail space supply represented by the North Haven Mall.

The only other reasonably foreseeable, known proposal for retail supply additions affecting the metro is a modest (20,000 square feet) increase in the retail floor area of the existing Connecticut Post Shopping Center in Milford, as well as a refurbishment of the Center's existing space. In addition, although there are no reasonable foreseeable proposals, it is not unreasonable to expect that new shoppers goods retail

space might be added in new neighborhood or community centers dispersed over several locations (perhaps some 250,000 square feet through 1990, as occurred in the 1970's).

The cumulative impacts of these discrete supply additions (North Haven Mall, Connecticut Post additions and general, scattered activity) are expected to be only nominally different than those associated with the mall itself.

Because of Connecticut Post's location outside the western edge of the metro, it would serve an estimated six of the metro's fourteen municipalities. Through increased sales volumes, it is projected that Connecticut Post would draw an additional $1.6 to $2.2 million out of these metro towns that would otherwise have been spent at metro retail establishments -- an impact of approximately one-half of one percent.

The general, scattered supply additions referenced above are likely to be located on the periphery of the metro in those communities most severely underserved by existing retail supply. Since no specific proposals are known to date, the potential impacts cannot be reasonably quantified. However, typically constricted trade areas for neighborhood and community shopping centers suggest that there is little likelihood of any impacts on New Haven's CBD, although Hamden's Magic Mile (given its discount store orientation and more "suburban" locations) may be somewhat impacted.

II. ECONOMIC AND LAND USE IMPACTS

A. Retail Impacts

A. RETAIL IMPACTS

Potential retail impacts associated with the proposed North Haven Mall are discussed here. For ease of review, the materials are organized as follows:

1. The Public Need
2. General Approach
3. Impact Evaluation

1. Summary Findings

Development of the North Haven Mall would meet a public need presently unserved by current retailing within the metropolitan New Haven[1/] area.

Through the addition of approximately 817,000 square feet of shoppers goods space (out of a proposed project total of 1.12 million square feet of gross leasable area), existing commercial deficiencies within the area would be overcome, producing major benefits for local shoppers. First, through the introduction of several new and expanding department and specialty stores, the depth and variety of retail merchandise within the metro would be broadened. Also, the increased level of merchant competition would sharpen and improve the nature of retail service to area shoppers.

1/ The terms "metropolitan New Haven," "New Haven metro," "the metropolitan area" are used synonymously with the New Haven-West Haven Standard Metropolitan Statistical Area (SMSA) as defined by the U.S. Bureau of the Census.

Additionally, through the expansion of the retail supply, projected metropolitan area shoppers goods sales would increase by approximately 16 percent with the development of the mall.

Sales at the North Haven Mall would be generated by recapturing sales currently flowing to non-SMSA locations, increased sales inflows and transfer sales from existing SMSA locations (detailed more fully in the sections following). With regard to transfer sales, the impacts on the New Haven CBD and Hamden's Magic Mile have been specifically analyzed.

The impacts projected for these two centers are limited in relation to both 1985 and 1990. In 1985, the first year of full mall operations, shoppers goods sales in New Haven and Hamden would be off approximately 7.3 and 7.4 percent respectively, from their baseline levels. Corresponding impacts for 1990 have been assessed at approximately 5.0 and 5.3 percent for these two retail locations.

Associated impacts on other major retail centers and towns within the metropolitan area have been examined as part of this work and have been found to be limited. Further, these impacts would be even less in 1990, at the end of the first five years of mall development.

More specifically, these principal conclusions may be summarized as follows:

Public Need: The North Haven Mall would provide a level of retail services that has been deficient in metropolitan New Haven for a considerable time.

The public need here would be served through a depth and variety of merchandise not presently available and through an increased level

of merchant competition which would sharpen and improve the nature of retail service to area shoppers.

Of key significance, the mall would introduce one new department store entry to this marketplace (G. Fox & Company), one expanded department store which has been present, but operating in a nominal and standby facility (J.C. Penney), and two other stores that have been long associated with metropolitan New Haven and seek to improve their marketing coverage and penetration (Sears and Macy's).

These anchor establishments, coupled with the variety and depth of specialized stores featured within the mall, would fill a current void within the metropolitan's present retailing base.

Additionally, the presence of this regional shopping center would obviate the need for metropolitan shoppers to travel to other more distant points to statisfy their retail requirements and would provide a higher level of service to consumers immediately outside the metropolitan area.

New Haven CBD and Hamden's Magic Mile Impacts: Anticipated effects in relation to these two major retailing concentrations have been assessed in the context of "baseline" forecasts which take full account of past trends and probable sales levels both in 1985 and 1990.

The impacts projected for New Haven and Hamden in this context are limited in relation to both 1985 and 1990.

By the middle of the decade, the first complete year anticipated for full North Haven Mall operations, shoppers goods sales in New Haven and Hamden would be off approximately 7.3 and 7.4 percent, respectively, from their baseline levels.

Corresponding impacts for 1990 have been assessed at approximately 5.0 and 5.3 percent for these two retail concentrations.

Accordingly, we conclude that the public need served by the prospective North Haven Mall would outweigh any adverse economic or retail effects it might have elsewhere within metropolitan New Haven and, therefore, represents an important contribution to the area's retail base.

It should also be noted that projected metropolitan area shoppers goods sales by 1990 would grow by approximately 16 percent with development of the Mall.

2. The Public Need

The public need served by the North Haven Mall is the provision of retail service facilities that have been substantially unavailable to metropolitan New Haven residents for many years. The absence of adequate retail facilities has resulted in the diversion of New Haven SMSA purchasing power to sales destinations beyond metropolitan boundaries. Specifically, in 1977 $66 million of the available $346.2 million in metropolitan purchasing power -- 19.1 percent -- was spent in non-SMSA sales locations. These include Connecticut Post in Milford, Meriden Square in Meriden, Trumbull Shopping Park in Trumbull, West Farm Mall in Hartford, and Naugatuck Valley Mall in Waterbury, as well as other smaller retail centers.

Under a baseline situation, that is, static supply conditions, these sales outflows to non-SMSA sales destinations, or sales leakage, are projected to increase. In 1990, assuming no growth in personal income and the continuation of current shopping patterns, sales outflows

are projected to increase to $70.4 million. Should personal income growth exceed these conservative assumptions and increase -- as is likely -- at an annual rate of one percent, sales outflows could amount to $80.2 million. (For a more detailed discussion and explanation of 1977, 1985 and 1990 sales flows, see Section II under Metropolitan Shoppers Goods Sales Outlook and Section III(B).)

These problems have been exacerbated by the continued growth and expansion of suburban communities ringing the central urban core. Population gains in these suburban jurisdictions have exceeded those for the metropolitan area as a whole and comparable levels for the State of Connecticut (detailed in Section IV(A), Background Economic Indicators).

The North Haven Mall presents an opportunity for satisfying this long deficient public need.

The principal trade area for the North Haven Mall has been defined to include the SMSA cities/towns of: North Haven, New Haven, Hamden, Wallingford, North Branford, East Haven, Bethany, Woodbridge, Orange, West Haven, Branford, Guilford and Madison. In addition, the following non-metropolitan locations are included: Durham, Middlefield, Meriden and Cheshire.

Four major anchor stores have committed to branch locations within this facility. The complement of these stores brings a range and depth of merchandise selection unavailable to date in a single concentration of activities elsewhere in the region. The presence of these anchor stores, together with other mall shops, would enable New haven area

shoppers to satisfy their retail purchases within one comprehensive planned facility rather than traveling to many distant points to accomplish the same purpose. (A more detailed discussion of these anchor stores may be found further in this section under the heading, Anchor Stores Current Status and Future Plans.)

Equally as important, the public need can be served within the near term owing to the plans that have been completed and specific commitments that have been obtained with respect to these four anchor stores. No other proposal or plan within the metropolitan area can be "on-stream" and provide for the public need here in the near term. This, in effect, means that the presently substantial sales outflows from the SMSA would continue for the foreseeable future absent immediate development of the North Haven Mall.

3. General Approach

This evaluation of prospective North Haven Mall impacts has followed conventional and professionally accepted retail analytic techniques.

These are focused on the metropolitan New Haven area and have traced sales outflows and inflows in relation to the existing retail complement of shoppers goods -- i.e., comparison items as contrasted with convenience commodities[2/] -- over the next decade.

2/ See Glossary for full definition.

Paralleling that investigation has been a forecast level of activities for two principal retail concentrations located in downtown New Haven and Hamden's Magic Mile. These forecasts have established the "baseline" -- for the total metropolitan as well as specific retail centers -- against which prospective North Haven Mall impacts have been measured.

Specifically taken into account, therefore, as an integral part of these procedures have been the following:

-- The Trade Areas for North Haven Mall, Downtown New Haven, Magic Mile and Other Major Retail Centers: a fundamental point of departure in any analytic assessment of prospective sales outlook and possible impacts that might follow from development of the North Haven Mall.

-- Retail Sales Trends: changes in which must be evaluated and interpreted prior to undertaking forecasts of future retail volumes.

-- Shoppers Goods Sales Metropolitan New Haven, 1985 and 1990: provide a key reference point for characterizing and quantifying public need in the commercial area as relates to consumer expenditures flowing out of the region.

   Similarly, these volumes -- projected on the basis of two conditions: covering the inclusion and exclusion of the North Haven Mall -- firmly establish the basis for assessing prospective impacts for and among other metropolitan New Haven retail nodes.

-- Prospective Impacts: attributable to the North Haven Mall with respect to downtown New Haven and Hamden, in turn, can be directly assessed in the context of anticipated levels of sales without the Mall (i.e., the "baseline case") and those forecast under the condition of a fully operating North Haven regional center.

This approach, described here in overview and detailed on the pages which follow, has set the basis for the evaluation of prospective retail

impacts. Corresponding fiscal, employment and land use impacts associated with Mall development are also noted further below in this report following detailed discussion of prospective retail impacts.

4. Impact Evaluation

Paralleling the methodological approach outlined above, this section assesses prospective impacts on retail concentrations within metropolitan New Haven and covers:

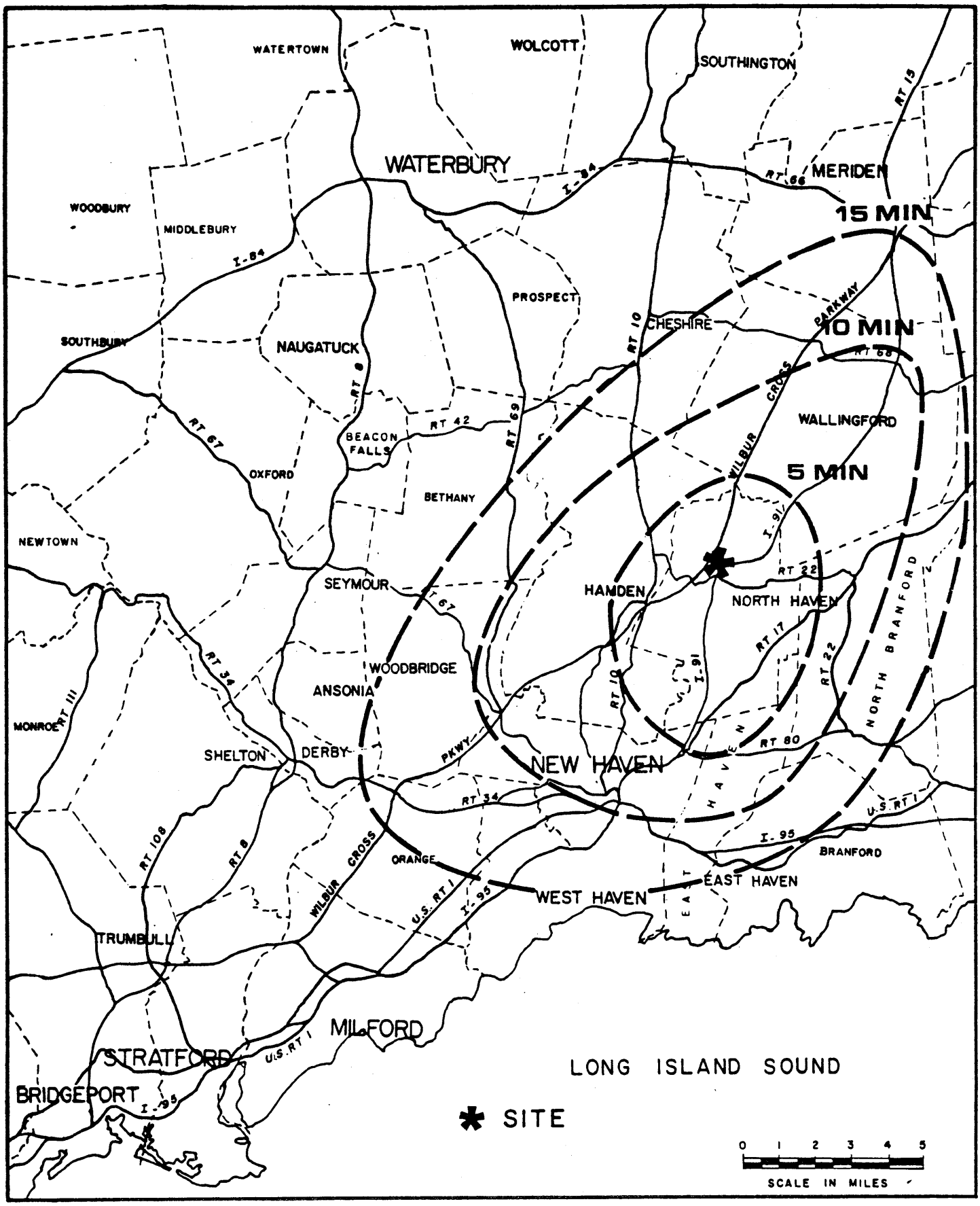
- -- a delineation of relevant trade areas;
- -- an examination of retail sales trends;
- -- projected shoppers goods volumes for the metropolitan area under two conditions covering the inclusion and exclusion of a North Haven Mall;
- -- a forecast 1985 and 1990 sales baseline for Hamden's Magic Mile and downtown New Haven; and
- -- a specific assessment of prospective impacts for downtown New Haven and Magic Mile assuming development of the North Haven Mall.

Delineation of Relevant Trade Areas

North Haven Mall Trade Area: The potential trade area for the North Haven Mall, as proposed, was initially defined through standard driving time and competitive center analyses. It was later refined once detailed sales flow analyses, showing discrete retail sales patterns throughout regional subareas, were completed, thus enabling a center-by-center competitive assessment (see Section III(B)(2)).

As such, the North Haven Mall market area has been defined to include the following:

- -- SMSA: North Haven, New Haven, Hamden, Wallingford, North Branford, East Haven, West Haven, Orange, Bethany, Woodbridge, Branford, Guilford, and Madison.



NORTH HAVEN MALL

VALLEY SERVICE ROAD

NORTH HAVEN, CONNECTICUT

DRIVING TIMES

NEW HAVEN SMSA

-- Non SMSA: Durham, Middlefield, Meriden, and Cheshire.

As may be seen further below in this section, the principal retail concentrations currently operating within the metropolitan area consist of downtown New Haven and Hamden's Magic Mile. These two centers each registered $100 million or more in total retail sales for 1977 (the last year for which comprehensive data are available), a level considerably above any other location within the region.

Trade areas for these two retail concentrations have been established through:

- an examination of previous studies undertaken within the area; and
- complementary shoppers surveys carried out in the course of this EIS study.

New Haven/Hamden Trade Areas: New Haven's central business district and Hamden's "Magic Mile" serve trade areas that are clearly different although with some significant overlaps. As noted further below, these trade areas are substantialy different from that anticipated for the proposed North Haven Mall although again there are important overlaps.

On the basis of a prior survey completed in December 1977 for the City of New Haven by Halcyon, Ltd. and Gladstone Associates' shoppers surveys, the market or trade area for the New Haven CBD has been defined as the New Haven-West Haven SMSA or metropolitan area. Approximately 90 percent to 95 percent of the downtown's sales are drawn from this area.

Eighty percent of the shoppers identified in the Halcyon survey were drawn from a "core area" consisting of the city itself and a ring

of communities immediately surrounding New Haven. Forty-three percent were from New Haven alone.

Thus, while the total trade area of the CBD appears to cover a large geographic area, its market coverage in the metropolitan area is quite constrained.

Although the trade area for Hamden's Magic Mile is substantially similar to the CBD, Halcyon and Gladstone surveys for Hamden's Magic Mile show a more diffuse distribution of patrons throughout the metropolitan area. Stated in other terms, Magic Mile has a deeper market penetration in outlying suburban areas than does downtown New Haven. Illustratively, "Magic Mile" drew over one half of its patrons from those cities/towns which are located in downtown New Haven's primary market area.

Thus, suburban centers have already gained appreciable sales penetration into the relatively confined areas representing downtown's "primary trade area" and source of principal patronage. As well, these outlying centers have substantially penetrated the suburban areas which are not being fully served by the New Haven CBD. It is in these suburban areas that population growth has been and is projected to continue to occur. (See Section IV (A), Background Economic Indicators).

On the strength of survey results and close examination of metropolitan retailing patterns, market areas for both downtown and Hamden have been delineated as follows:

DOWNTOWN NEW HAVEN AND MAGIC MILE TRADE AREAS

Trade Area	Downtown New Haven	Magic Mile
Primary	New Haven Hamden North Haven West Haven East Haven	New Haven Hamden North Haven Woodbridge Bethany Cheshire Wallingford
Secondary	Bethany Branford Orange Wallingford North Branford Guilford Madison Clinton	West Haven North Branford Orange East Haven Branford

Note: Definition of primary and secondary trade areas is included in the Glossary.

Other Retail Concentrations: Trade areas have also been identified for a number of other principal retail centers within the region. As a result, it was possible to identify and assess possible overlapping trade areas for various centers. It was also possible, using the detailed sales flows matrix[1/] (described more fully under Shoppers Goods Sales Flows in this section) to evaluate sales which may be flowing outside of the SMSA.

1/ This sales matrix details 1977 sales flows from the city/town of origination to 20 SMSA and non-SMSA sales destinations. A complete description and analysis are included in Sections III(B) and (C).

These include:

-- Connecticut Post in Milford;

-- Trumbull Shopping Park in Trumbull;

-- Naugatuck Valley Shopping Center in Waterbury;

-- Meriden Square in Meriden;

-- West Farms in West Hartford/Farmington; and

-- White Acres in Orange.

Trade areas for certain of these centers as well as that expected for the North Haven Mall may be seen graphically in the map which follows.

Retail Sales Trends and Current Supply Conditions

As reported by the Census of Retail Trade (and adjusted by Gladstone Associates to account for under-reporting in State Sales Tax -- see Section III(D)(1), Methodology), metropolitan area shoppers goods sales measured in constant 1977 dollars were approximately $376.8 million in 1972 and $374.8 million in 1977.

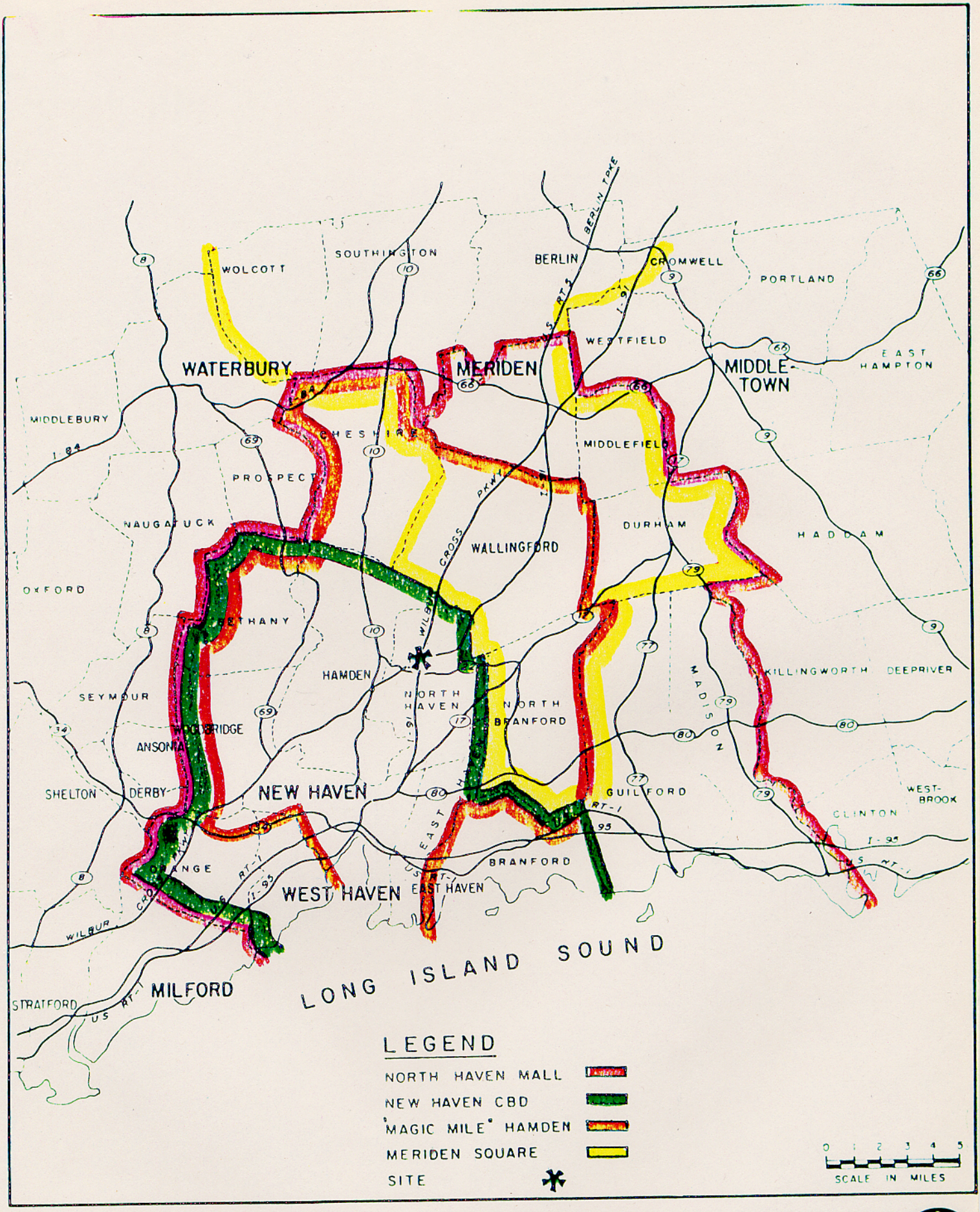
A summary comparison of these changes relative to total retail sales follows:

METROPOLITAN AREA SALES TRENDS
1972-1977
(In Millions of 1977 Constant Dollars)1/

Year	Sales	
	Total	Shoppers Goods
1972	$1,072.4	$376.8
1977	$1,068.0	$374.8

1/ Adjusted by retail price indices as reported by the Bureau of Labor Statistics.

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting. Total sales exclude automotive dealers and service stations.



NORTH HAVEN MALL

VALLEY SERVICE ROAD

NORTH HAVEN, CONNECTICUT

TRADE AREAS OF SELECTED RETAIL CENTERS

FIGURE 30

As examined in greater detail further below in this report, the sales components of metropolitan area retail volumes in 1977 were influenced appreciably by inflows and outflows of consumer expenditures. Specifically, an estimated $68 million in metropolitan New Haven resident consumer expenditures -- representing approximately 20 percent of the area's purchasing power for shoppers goods -- flowed out of the region to other locations. This substantial "sales leakage" underscores the conclusion that the present scale and character of retail establishments are not sufficient to capture these potential metropolitan area expenditures. (See Section III(D)(2).)

New Haven Sales Trends: In the course of the same period, downtown New Haven's sales -- measured in constant 1977 dollars -- went from approximately $121 million in 1972 to $104 million in 1977; an average annual decline of $3.4 million (2.9 percent).

The level of overall retail volumes and shoppers goods sales for the central business district is shown in the table directly below.

DOWNTOWN NEW HAVEN RETAIL SALES
1972-1977
(In Millions of 1977 Constant Dollars)1/

Year	Total	Shoppers Goods 2/
1972	$120.9	$ 99.4
1977	$103.9	$ 83.9
Average Annual Change: 1972-1977		
Volume	-$ 3.4	-$ 3.1
Percent	-2.9%	-3.1%

1/ Adjusted by retail price indices as reported by Bureau of Labor Statistics.

2/ 1972 shoppers goods sales reported by Halcyon and Regional Planning Agency memorandum dated March 8, 1979.

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting.

Hamden Trends: Hamden's total retail sales for 1972-77 went from approximately $106 million to $103 million -- a yearly decline of $600,000 or 0.5 percent.

It is important to note that by the end of the 1970's, Hamden's Magic Mile district matched downtown New Haven's sales volumes, bringing it in line with the City's central business district as one of the metropolitan area's principal retail centers.

In the course of these changes, New Haven maintained a major share of shoppers goods sales but continued to lose its relative position with respect to Hamden's Magic Mile -- where shoppers goods volumes remained level in constant terms in the face of downtown's decline.

Sales trends for Hamden are presented in the Table which follows.

HAMDEN'S MAGIC MILE RETAIL SALES
1972-1977
(In Millions of 1977 Constant Dollars)1/

Year	Total	Shoppers Goods
1972	$106.3	$55.5
1977	$103.4	$55.2
Average Annual Change: 1972-1977		
Volume	-$ 0.58	-$ 0.07
Percent	-0.5%	-0.1%

1/ Adjusted by retail price indices are reported by Bureau of Labor Statistics.

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting.

Other Metropolitan Locations: Overall, realignments in metropolitan area sales for 1972-77 reflected continued erosion in downtown's relative position.

As central business district volumes declined and Magic Mile remained relatively stable, other retail locations within the metropolitan area gained in both total retail sales and those for shoppers goods. These changes reflected a shift in area-wide retailing when viewed against the broader context of state and regional trends.

New Haven declines, for example, were contrary to changes taking place elsewhere. In Connecticut, shoppers goods sales were up approximately 1.1 percent per annum between 1972 and 1977. More widely, southern New England (consisting of Connecticut, Massachusetts and Rhode Island) showed average gains of 0.4 percent per year for the corresponding period.

The relatively level performance for shoppers goods volumes in Hamden generally approximated changes for southern New England. Downtown New Haven, on the other hand, showed reverses in the face of a relatively stable level of shoppers goods volumes for the metropolitan area between 1972 and 1977.

The table below reflects these changes in shoppers goods sales for the respective areas under examination here.

SHOPPERS GOODS SALES
(In Millions of 1977 Constant Dollars)

	1972	1977	Average Annual Change
New Haven CBD	$ 99.4	$ 83.9	-3.1%
Hamden's Magic Mile	$ 55.5	$ 55.2	-0.1%
Balance of Metro	$ 222.4	$ 235.7	1.2%
Metropolitan Area	$ 376.8	$ 374.8	-0.1%
State of Connecticut	$2,607.7	$2,752.9	1.1%
Southern New England	$8,162.9	$8,347.3	0.4%

Recent Supply Changes: Shifts in metropolitan retail sales noted above took place without any significant addition of commercial floor area for the 1972-77 period. Specifically, about 400,000 square feet of new space (of which about one half was devoted to shoppers goods) came on line throughout the latter portion of the 1970's in significantly sized shopping centers.

This floor space was accounted for by the Woolco Plaza in North Haven (135,000 s.f.), the Wallingford Shopping Plaza (135,000 s.f.) and the Peck Lane Plaza in Orange (152,000 s.f.). The Woolco Plaza opened in 1973 and the others in 1974. These centers are primarily convenience in orientation, anchored by food stores and/or discount department stores. The suburban location of these new centers underscores once again that retail establishments have tended to locate in areas in which population growth has or is expected to occur.

While other retail space may have been added in free-standing and neighborhood centers, this nominal increment of retail floor space indicates that the metropolitan area's retail inventory in community and regional shopping centers[3/] was relatively unchanged for the period.

Current Supply Conditions: Within metropolitan New Haven, there are currently two major retail centers -- downtown New Haven and Magic Mile in Hamden.

In addition, a series of other centers outside of the metropolitan area serve segments of the local population. Illustratively, Connecticut Post Plaza in Milford covers several towns on the southwestern edge of metropolitan New Haven while West Farms and Meriden Square accommodate a number of communities on the northern edge.

3/ See Glossary for full definition.

Each of these centers is regional in scope, encompassing from 500,000 to one million plus square feet of retail space and including two or more anchor stores as major tenants.

The majority of the space in these centers is typically occupied by department stores and specialty retail establishments selling shoppers goods merchandise. These retail lines, also termed GAF, include general merchandise, apparel, furniture and miscellaneous shoppers goods. Other types of retailing establishments in these shopping centers include convenience stores (food and drug) as well as restaurants and miscellaneous stores of various types. Personal service establishments, such as banking, hairdressers, optometrists, etc., may also be represented.

The specialty retail stores (within the shoppers goods category) tend to carry more limited retail lines but products that are generally found within standardized department stores. These products are those for which consumers engage in considerable comparison shopping before making their purchases.

The major retail centers identified above and the shoppers goods supply represented here are concentrated at the periphery of the central and western portions of the metropolitan area where there are larger population centers. By contrast, communities to the east tend to be less populated and as a result are not well served by any large retail concentrations.

The extensive highway network that links the SMSA to other nearby metropolitan areas and the proximity of various regional centers to one another leads to an overlapping of trade areas among regional centers, characteristic of retailing patterns throughout the United States.

The map on the following page graphically displays the locations of these centers for which more detailed information is provided in Section III (B).

Anchor Stores Current Status and Future Plans: Department stores, both with respect to their locations and coverage, are of prime importance in understanding area-wide retailing patterns.

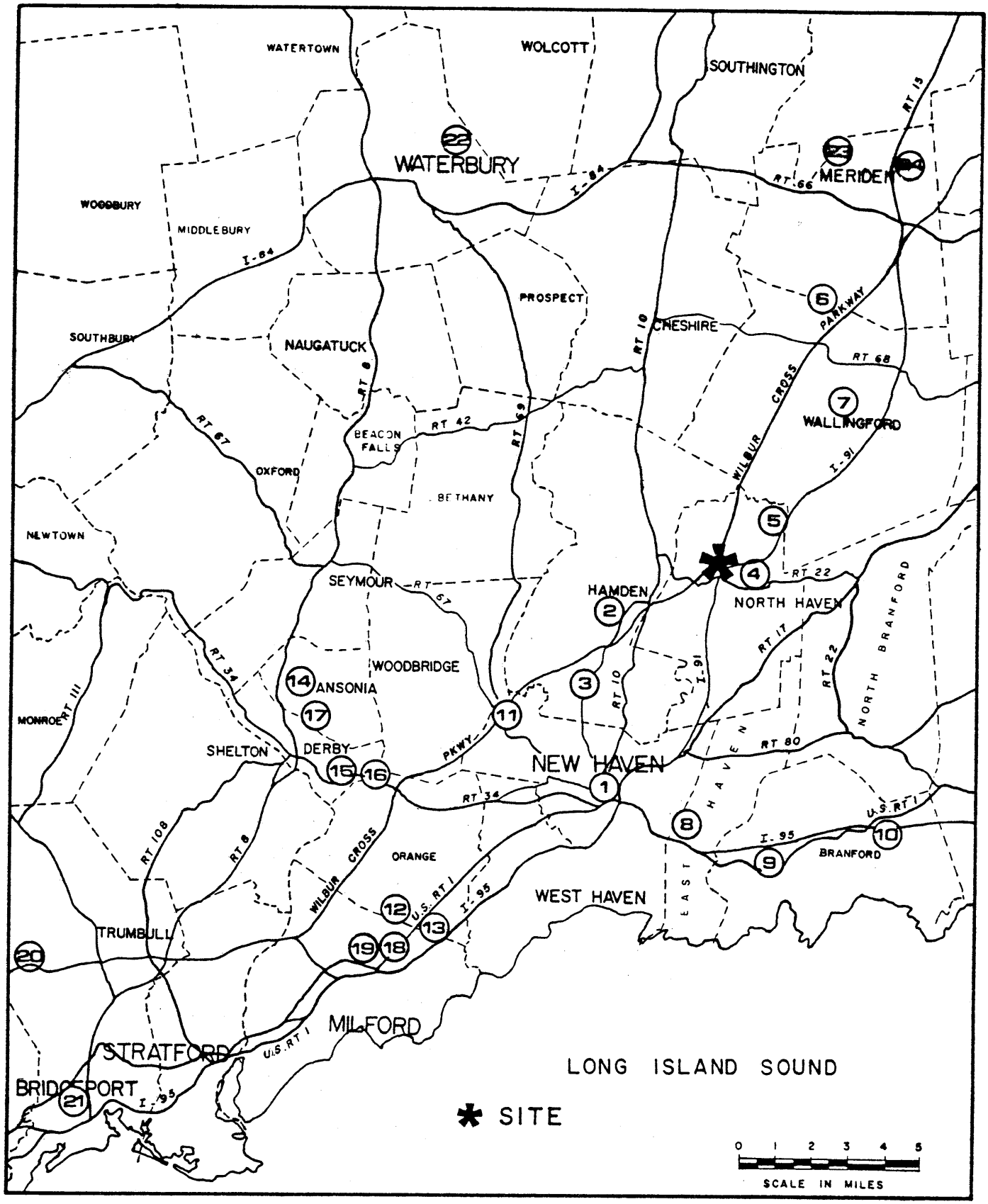
This understanding, moreover, is essential to any impact analysis since these stores exert a predominant influence as "major retailers" in the existing and future retail supply distribution governing any area.

Since retailing is a highly competitive field in which all retailers -- especially large chains -- are constantly vying for increased volumes through improved sales penetration and market position, the current status and future plans of these "anchors" presents an important point of departure for evaluating future impacts between and among major centers.

The position of major department stores is both a function of their individual retailing strengths as well as a combination of stores that work together in providing an overall or total retailing environment.

The development form that can accommodate this type of cooperative action increasingly has been the creation of comprehensively planned centers which make available physical space appropriately configured to accommodate both anchor stores and associated specialty retailers in so-called "mall shops."

Together the two groups complement one another and make available a full line of retailing services that will be both attractive and viable in the marketplace.



NORTH HAVEN MALL

VALLEY SERVICE ROAD

NORTH HAVEN, CONNECTICUT

SELECTED MAJOR SHOPPING CENTERS

NEW HAVEN REGION

SELECTED SHOPPING CENTERS

1980

Map Key	Name/Location	Date Opened	Total Square Feet	Major Tenants
SMSA				
1	Chapel Square Mall New Haven	1967	600,000	Mally's, Macy's
2	Magic Mile, Hamden			
	A. Hamden Plaza	1955	300,000	Marshalls, Child World
	B. Hamden Mart	1960	300,000	Bradlees, Stop & Shop, Howlands
	C. Caldor Shopping Center	N/A	N/A	Caldors, Pegnataro's Food
	D. Sears	N/A	N/A	Sears
3	Acme Mall Hamden	1970	201,600	Kings, Pegnataro's Food
4	Woolco Plaza North Haven	1973	135,000	Woolco, Food Mart
5	North Haven Shopping Center North Haven	1950	N/A	Stop & Shop
6	Wallingford Plaza Wallingford	1969	129,500	Caldor, Food Mart
7	Wallingford Shopping Plaza Wallingford	1974	135,000	K-Mart, First National
8	Frontage Road East Haven	N/A	N/A	K-Mart, A&P, Bradlees, Stop & Shop
9	Branhaven Plaza Branford	1972	175,012	Caldor, Food Mart
10	Branford Shopping Plaza Branford	N/A	N/A	Woolco, Stop & Shop
11	Amity Road Shopping Center New Haven	1961	131,200	Stop & Shop
12	Peck Lane Plaza Orange	1974	152,000	Woolco, A&P
13	Whiteacre Orange	N/A	252,000	Sears', Marshall's Stop & Shop
Non-SMSA				
14	Ansonia Mall Ansonia	1971	180,870	K-Mart, Finast
15	Orange-Derby Shopping Center Derby	1973	175,012	Reads, Klarides
16	Caldor Shopping Center Derby	1974	230,000	Caldor, Shop Rite
17	Valley Shopping Center Derby	1958	130,000	Bradlees, Woolworths, Stop & Shop
18	Connecticut Post Shopping Center Milford	N/A	800,000	Alexanders, Stop & Shop, Caldors
19	Milford Plaza Milford	1958	125,000	Kings, Finast
20	Trumbull Shopping Park Trumbull	1963	834,000	G. Fox, Reads
21	Lafayette Plaza Bridgeport	1968	720,000	Sears, Gimbels
22	Naugatuck Valley Mall Waterbury	1969	500,000	G. Fox, Sears
23	Meriden Square Meriden	1971	546,000	J.C. Penney, G. Fox
24	Meriden Mall Meriden	N/A	300,000	Stop & Shop
Not Shown	Westfarms West Hartford	1974	1,009,115	G. Fox, J.C. Penney, Sage-Allen

Source: Shopping Center Directory; Gladstone Associates Field Survey.

> Locational decisions on the part of major retailers represent a substantial long-term investment which must ultimately be based on decisions to access substantial and sustainable sales levels. These decisions, which are arrived at through deliberate and painstaking internal evaluations, take special account of location, highway access, potential increased market penetration and -- of equal importance -- a variety of considerations in conjunction with a proposed regional center's physical configuration. Corporate strategies for major retail organization in relation to branch locations take account not only of individual sites but also possible future locational decisions of other competitive retailers. Thus, anchor stores singly and in combination are a major influence on the structure of regional retailing.

With that background, the current status and anticipated plans of department stores presently operating or moving into the New Haven area has been fully reflected in the impact study presented herein. A brief summary of the current status and future plans for these organizations -- based on direct discussions with market analysts, real estate managers and other representatives of the companies in question -- follows.

Sears, Roebuck and Company

As with all other organizations approached in the course of this evaluation, corporate management here views the New Haven area as a "two-store" region. Stated in other terms, the level of anticipated shoppers goods expenditures coupled with the geographic structure of the region is viewed as capable of supporting two stores, properly located, for a single major retailing organization.

Both of these stores would be full-line operations providing, across the board, all of the commodities and services that the organization is capable of delivering.

Sears presently operates a 100,000 square foot facility within the Magic Mile district in Hamden. This store is an older facility, poorly configured and of inadequate size to meet Sears' corporate plans for this portion of the New Haven metropolitan area.

As a result, the corporation has planned to move into the proposed North Haven Mall thereby upgrading the size and providing contemporary fixturing in its new facility. While no official policy has been established, it seems likely that Sears would no longer maintain its Hamden operation given the proximity of this location to the North Haven Mall site. (As noted elsewhere within this report, however, the space that might be vacated in Hamden is viewed as an excellent retail facility and likely would continue in retail use.)

Sears also operates a 60,000 square foot store at White Acres Shopping Center in Orange. While no specific plans have been made in relation to that operation, it would continue for the foreseeable future as part of the "two-store" strategy noted above.

Macy's

This organization retains a strong commitment to continued operations in the New Haven central business district where it has a store of approximately 300,000 square feet featuring a full line of retail merchandise.

Macy's, as all others contacted in the course of this evaluation, is moving ahead with a "two-store metropolitan strategy."

As such, it has formulated and approved a plan for a full line facility in the proposed North Haven Mall so as to gain greater penetration into new market areas to the north and east of its current downtown branch.

G. Fox

This long-established Connecticut-based department store does not presently operate a branch within the metropolitan New Haven area. Nevertheless, G. Fox has served segments of the metropolitan market through peripheral stores at Meriden Square to the northeast and Naugatuck Valley Mall to the northwest and Trumbull Shopping Park to the west.

In line with a corporate strategy now in place, G. Fox's first entry into the market would be the programmed North Haven Mall store.

Thereafter, further deliberation would be given to the possibility of a second store in light of the organization's present branches which include the aforementioned Meriden and Naugatuck Valley and Trumbull outlets.

Patently, the commitment made to North Haven indicates G. Fox's perceptions of area purchasing power and its desire to increase market penetration with respect to this, as yet, unserved part of the state vis-a-vis its other store locations.

J. C. Penney

Currently operating a full line store at Meriden Square consisting of approximately 140,000 square feet and a nominal 12,000 square foot outlet on Washington Street in North Haven (as a temporary solution awaiting development of the North Haven Mall), this chain has formulated a "two-store" strategy to serve south central Connecticut for some time.

At present, the immediate plans for J.C. Penney contemplate a North Haven Mall branch, replacing a similar operation (though of a smaller and somewhat older design) which formerly operated within Hamden's Magic Mile.

Discussions with market analysts and management officials conducted in the course of this evaluation indicated that no other near-term plans are in place with reference to a second location either directly within metropolitan New Haven or on the periphery that might serve areas to the west.

Other Department Store Representation

The Edward J. Malley store in downtown New Haven's Chapel Square Mall is the only other major, non-discount department store in the metropolitan area at the present time.

Indications are that this store has been looking for opportunities to expand its penetration into the suburban market so as to improve its competitive position.

Owing to corporate changes, however -- the store changed hands in the mid-1970's and has been recently sold as part of a larger retail interest by the Outlet Corporation of Providence, Rhode Island -- no plans for a possible expansion are known at this time.

Discount: All other retail nodes of consequence are principally anchored by discount department stores[1/] and/or large scale supermarkets. Included here are such operators as:

-- Bradlees, at:
- Magic Mile in Hamden;
- Frontage Road in East Haven;
- Valley Shopping Center in Derby;

-- Caldors, at:
- Wallingford Plaza in Wallingford;
- Branhaven Plaza in Branford;
- Caldor Shopping Center in Derby;
- Connecticut Post in Milford;

1/ See Glossary.

-- K-mart, at:

- Wallingford Plaza in Wallingford;
- Frontage Road in East Haven;
- Ansonia Mall in Ansonia;

-- Zayres at Orange/Derby Shopping Center in Derby;

-- Woolco, at:

- Valley Shopping Center in Derby;
- Peck Lane Plaza in Orange;
- Washington Street in North Haven;

-- Kings, at:

- Milford Shopping Center in Milford;
-- Acme Mall in Hamden.

These discount stores represent a different retailing character compared with the conventional department stores described earlier.

As such they occupy a different niche in the retail market place by featuring, as a primary shopping orientation, less expensive goods and services and, for the most part, specializing in soft goods[1/] with selective appliance presentations.

Virtually all significant metropolitan area shopping nodes (defined as those with 100,000 square feet or more) with the exception of downtown New Haven and Hamden's Magic Mile rely heavily on convenience retail outlets (principally supermarkets) and one or two discount anchor stores with a limited variety of retail lines.

There are a number of retail centers located outside the SMSA which offer a full range of shoppers goods stores and feature in-depth selections in price and product lines. These centers enjoy a substantial sales penetration into the New Haven metropolitan area (as described more fully below.)

1/ See Glossary.

In addition to these retail concentrations, there are a number of strip commercial and free standing commercial centers within various metropolitan area towns. These tertiary retailing places primarily serve the retailing needs of the residents of the towns in which they are located. As such, they have limited market penetration. Thus, their individual roles in the larger, metropolitan retailing picture is not significant in comparison to those major retail centers which have been examined in greater detail earlier in this report.

Metropolitan Shoppers Goods Sales Outlook

The level of metropolitan shoppers goods sales to 1985 and 1990 has been forecast in relation to the following factors:

- -- the outlook for consumer expenditures;
- -- sales flows in and out of the metropolitan area; and
- -- two basic conditions reflecting a baseline or "static supply condition" with respect to metropolitan shoppers goods space and another envisioning a substantial increase in supply in the form of the proposed North Haven Mall.

Key aspects of each of these component elements of metropolitan area shoppers goods sales projections follow in the paragraphs below.

Consumer Expenditures: Demand for goods and services is a function of income available and expended on retail purchases by individuals and households residing within a given area.

This demand is a critical variable in understanding the nature of retailing no matter where such dollars are ultimately spent. Typically, consumer expenditures are largely "captured" within the trade area in which they are generated while some portion is diverted elsewhere in the form of so-called "sales leakage."

Thus, consumer expenditures are not properly measured by the level of sales registered within a given geographic area. Rather, this demand is a function of three principal elements encompassing:

-- population;

-- personal income; and

-- the ratio or percentage of aggregate personal income typically spent for retail goods and services.

Consumer expenditure patterns for metropolitan New Haven have been carefully examined in light of these factors as noted immediately below.

Population/Personal Income: Economic indicators reflecting population and income trends in the immediate past are readily available from United States Census and other (state published) materials on a town-by-town basis.

In general population in the SMSA has increased moderately over the last several years -- 0.3 percent annually since 1970. The population in the city of New Haven has continued to decline from 152,000 in 1960 to 137,700 in 1970 to a current estimate of about 130,000. At the same time, growth in the suburbs has continued at a rate of 0.8 percent annually since 1970. At the present time about 70 percent of the SMSA population is living in areas outside of the city of New Haven.

Per capita income in the SMSA was estimated at $6,493 in 1977.

In combination these two factors represent (what is termed) aggregate personal income. (See Section III(A) for detail.)

Expenditures as a Percent of Aggregate Personal Income: By contrast, the relationship of consumer expenditures to aggregate personal income is not readily available in published form. Rather, such a ratio or percentage may be derived by identifying -- in the context of larger

geographical areas -- an "equilibrium point" where purchasing power represented by individuals living within that area is judged to be in balance with actual sales recorded.

Thus, in comparing sales against aggregate personal income it is possible to obtain a ratio which represents the "level of expenditures as a percent of aggregate personal income."

This relationship was given careful attention in the course of the study reported herein. The southern New England area -- consisting of Connecticut, Massachusetts and Rhode Island -- was selected as being most representative of a region in balance or in "equilibrium" for this purpose based on the following premises:

- -- the overall economic base of this large, multi-state region presents similar characteristics for the states individually as well as within sub-areas of the states;
- -- on balance, retail dollars flowing into the area were offset by retail dollars flowing out resulting in a net equilibrium.

Since the sales inflows and outflows within southern New England appear to be balanced, the region represents an appropriate "prototype" to calibrate the likely level of expenditures as a percentage of aggregate personal income for persons residing in metropolitan New Haven.

Accordingly, our analysis of the region in both 1972 and 1977 shows that shoppers goods sales as a percentage of aggregate personal income remained a constant 13.5 percent. The results of these evaluations are reflected directly below:

RETAIL SALES AS A PERCENT OF INCOME[1/]
SOUTHERN NEW ENGLAND 2/
1972-1977
(In 1977 Constant Dollars)[3/]

	1972		1977	
	Number	As a Percent Aggregate Income	Number	As a Percent Aggregate Income
Population	9,824,018	--	9,990,062	--
Per Capita Income	$ 6,144	--	$ 6,188	--
Aggregate Income (000)	$60,358,766	--	$60,868,963	--
Shoppers Goods Sales (000)				
General Merchandise	$ 4,040,784	6.7%	$ 4,115,[illegible]53	6.7%
Apparel	$ 1,689,143	2.8%	$ 1,805,344	2.9%
Furniture	$ 1,519,288	2.5%	$ 1,363,258	2.2%
Miscellaneous Shoppers Goods	$ 913,718	1.5%	$ 1,063,327	1.7%
Total	$ 8,162,933	13.5%	$ 8,347,282	13.5%

1/ Adjusted to reflect State Sales Tax.

2/ Includes Rhode Island, Massachusetts and Connecticut.

3/ Converted using full CPI for income and retail CPI for sales.

Source: U.S. Census of Retail Trade; U.S. Census P-25 Estimates; Gladstone Associates.

The data cited above reflect a restatement of 1972 sales in constant 1977 dollars to account for the effects of inflation. This "constant dollar analysis" in relation to past trends is consistent with a similar constant dollar evaluation for future conditions as projected further below in this report.

Metropolitan New Haven Shoppers Goods Expenditures 1972-77: On the basis of overall population and income patterns discussed more fully elsewhere in this report (Section III(A), Background Economic Indicators), metropolitan shoppers goods expenditures in 1977 have been estimated at $346.4 million (in constant 1977 terms) down slightly (0.2 percent annually) from an estimated $350.1 million in 1972.

These changes for the entire metropolitan area were a function of a relatively nominal increase in population and, of key importance, a loss in personal income in real terms owing to effects of the recession in the mid-1970's. Equally as significant, the level of consumer

expenditures for shoppers goods varied between the core city of New Haven and other communities in the metropolitan area.

By way of illustration, the overwhelming share of expenditure declines for 1972 to 1977 occurred in the central city and, to a lesser extent, in Hamden (see Section III(B)(1), Retail Trends). By contrast, the balance of the metropolitan area -- all of which (except Clinton) would be served by the North Haven Mall -- showed nominal average annual increases, as may be seen in the table which follows.

SHOPPERS GOODS EXPENDITURES
NEW HAVEN SMSA
1972-1977
(In Thousands of 1977 Constant Dollars)

	1972	1977	Average Annual Change
Urban Core 1/	$205,798.3	$195,904.0	-1.0%
Balance of SMSA	$144,253.9	$150,302.0	0.8%
Total SMSA	$350,052.2	$346,206.0	-0.2%

1/ Includes New Haven, Hamden, East Haven and West Haven.
Source: Gladstone Associates.

-- The preceding analysis of consumer expenditures for shoppers goods within metropolitan New Haven provides basic information upon which to analyze sales flows in and out of the area as noted immediately below.

Shoppers Goods Sales Flows: Of key interest to this analysis is an understanding of the flows of sales into and out of the metropolitan New Haven area. Metropolitan (SMSA) shoppers goods sales for 1977 (the most recent year for which census information is available) were compared against an estimated level of SMSA consumer expenditures as presented in the table below. (Expenditures were estimated at 13.5 percent of

aggregate income. See Section III(D), Methodology). This comparison indicates the general direction of sales flows within the metropolitan area which showed a modest net inflow for 1977.

Metropolitan Shoppers Goods Sales	$374.8 million
Metropolitan Area Consumer Expenditures	$346.2 million
Net Inflow	$ 28.6 million
Net Inflow as a Percentage of Metropolitan Shoppers Goods Sales	7.5%

Of importance, however, is the detailed sales flows, on a town by town basis, into and out of metropolitan New Haven since these reflect, as noted earlier, the central information with respect to the public need for the retail services to be provided by the North Haven Mall. Four principal aspects of sales flows have been identified in this respect:

-- Sales Outflow representing consumer expenditures on the part of metropolitan area residents which are being spent at locations outside of the metropolitan area;

-- Untapped Inflow Potentials standing for the consumer expenditures of individuals outside of the metropolitan area which are spent at locations also outside of the metropolitan area;

-- Sales Inflows accounting for consumer expenditures on the part of non-metropolitan area residents which are registered as sales within metropolitan area retail outlets; and

-- Sales Retention representing consumer expenditures on the part of metropolitan area residents which are reported as sales by metropolitan area establishments.

Each of these individual components of consumer expenditures have been carefully examined in the context of this technical memorandum.

The methodology employed in this respect is detailed in Section III(D), of this report. (A graphic portrayal of the analysis techniques

engaged here together with the logic associated with this approach may be seen in the exhibit which follows.)

The process starts with reported sales for major retail centers, individual municipalities and the metropolitan area as a whole as set forth in the United States Census of Retail Trade. In addition, previously noted data on population, income and expenditure patterns have been utilized to establish control totals for overall shoppers goods sales and expenditure levels for each of the municipalities and selected major retail centers under examination.

Critical to this latter analysis -- i.e., tracing sales and expenditure levels by municipality and major retail centers -- has been detailed short-purpose trip data published by the Connecticut Department of Transportation. These trip data detail, by sub-municipal zone, the origination and destination of all short purpose trips in the state. Through this analysis it was possible to estimate sales destinations of expenditures originating from each town within the SMSA. This process is explained more fully in Section III(D), Methodology.

On the basis of this information, detailed expenditure-sales comparisons were carried out in matrix form for 380 data cells (i.e., 19 sales originations and 20 sales destinations or store locational points).

In summary form, the results of this analysis of 1977 shoppers goods expenditures in relation to reported sales may be seen in the Table which follows.

SHOPPERS GOODS SALES FLOWS
NEW HAVEN SMSA
1977

Sales Components	Volume (000's)
Metropolitan Shoppers Goods Sales 1/	$374,813
Sales Retention 2/	$279,827
Sales Inflows 3/	$ 94,986
Metropolitan Consumer Expenditures 4/	$346,205
Sales Retention 2/	$279,827
Sales Outflows 5/	$ 66,378
Net Inflow ($94,968 3/ - $66,378 5/)	$ 28,608

Note: The following footnotes key the above summary figures to the detailed sales flow matrix for 1977 which is presented on the two tables which appear later in this section.

1/ Represents the sum of all SMSA columns ("Center Within SMSA" and "SMSA Cities/Towns") and equals sales reported by U.S. Census Bureau and adjusted for sales tax by Gladstone Associates, as noted.

2/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."

3/ Represents sum of all data cells falling within the "Non-SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."

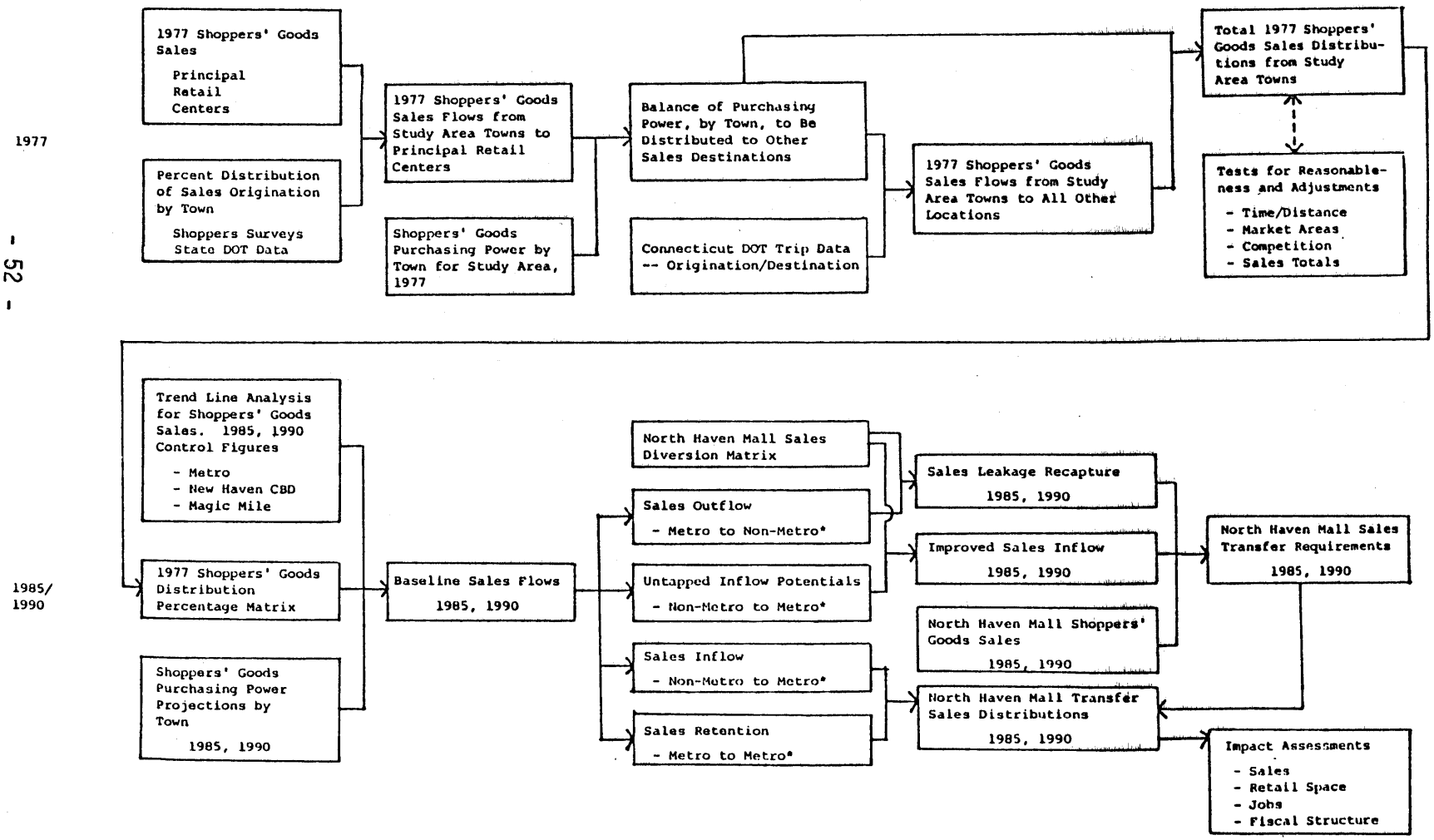
4/ Total of "Shoppers Goods Purchasing Power" column for "SMSA Cities/Towns" rows.

5/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Outside SMSA" or "Non-SMSA Cities/Towns."

Source: Gladstone Associates.

Specifically, the analytic approach identifies discrete components of sales flows in relation to metropolitan area shoppers goods expenditures on the one hand and reported sales by metropolitan establishments on the other.

GENERAL METHODOLOGY
RETAIL IMPACT ANALYSIS



* Reflects Origination/Destination or place of consumer residence to place of sales transaction.

By tracing the flows in the table above, retail establishments within the metropolitan area reported 1977 shoppers goods sales of $374.8 million. The analysis indicates that only $279.8 million of this total came from metropolitan area residents. Thus, $95.0 million originated with non-metropolitan residents and is labelled "Sales Inflow."

Further, the analyses indicate that people living within the metropolitan area actually spent $346.2 million on shoppers goods in 1977. As noted above, however, only $279.8 of this total was spent at establishments inside the metropolitan area. Thus, metropolitan residents spent $66.4 million on shoppers goods at retail stores located outside the metropolitan area. This element is labelled "Sales Outflow."

The two tables which follow display the full detail for 1977 sales flows keyed to the summary table above.

A key issue posed in relation to the future outlook of metropolitan New Haven retailing patterns, with respect to public need, pertains to possibilities for reversing current sales outflows and maintaining or increasing sales inflows from non-metropolitan area residents.

Additionally, a delineation of the components of sales flows as set forth above also serves as a basis for estimating likely future shoppers goods sales within the metropolitan area under "baseline" conditions as well as those pertaining to added retail supply -- the two conditions which have been postulated with respect to examining both the outlook for metropolitan area retailing and prospective impacts on existing retail concentrations as covered in the sections which follow.

Shoppers Goods Sales Baseline -- 1985-1990: Metropolitan area shoppers goods sales levels anticipated for the mid and end of the present decade have been established by two scenarios. The first of these -- the baseline condition -- assumes that the inventory of shoppers goods

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS[1/]
NEW HAVEN REGION
1977
(In Thousands of 1977 Constant Dollars)

SMSA Cities/Towns	Shoppers Goods Purchasing Power	Centers Within SMSA: New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Centers Outside SMSA: Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley	Subtotal Outside SMSA	Total	Balance Shoppers Goods Purchasing Power
North Haven	$ 21,574	$ 6,631	$ 5,669	$ 133	$ 12,433	$ 52	--	$ 729	$ 560	$ 43	$ 1,384	$ 13,817	$ 7,757
New Haven	$ 93,095	$36,705	$ 9,035	$ 2,249	$ 47,989	$ 455	$ 467	$ 487	$ 261	$ 77	$ 1,747	$ 49,736	$ 43,359
Wallingford	$ 29,202	$ 1,025	$ 7,145	$ 68	$ 8,238	$ 32	--	$ 4,970	$ 2,129	$ 121	$ 7,252	$ 15,490	$ 13,712
Hamden	$ 44,517	$ 6,651	$20,668	$ 384	$ 27,703	$ 107	$ 467	$ 487	$ 784	$ 114	$ 1,959	$ 29,662	$ 14,855
North Branford	$ 8,941	$ 1,175	$ 1,121	$ 43	$ 2,339	$ 20	--	$ 1,981	$ 336	$ 19	$ 2,356	$ 4,695	$ 4,246
East Haven	$ 17,520	$ 6,380	$ 1,477	$ 242	$ 8,099	$ 87	--	--	--	$ 24	$ 111	$ 8,210	$ 9,310
Bethany	$ 4,613	$ 1,427	$ 768	$ 105	$ 2,300	$ 36	--	--	$ 37	$ 70	$ 143	$ 2,443	$ 2,170
Woodbridge	$ 12,814	$ 1,427	$ 354	$ 666	$ 2,447	$ 127	--	--	$ 186	$ 20	$ 333	$ 2,780	$ 10,034
Orange	$ 16,853	$ 1,427	$ 354	$ 5,806	$ 7,587	$ 1,148	$ 467	--	--	$ 19	$ 1,634	$ 9,221	$ 7,632
West Haven	$ 40,772	$ 9,317	$ 591	$ 6,586	$ 16,494	$ 1,659	$ 975	--	--	$ 34	$ 2,668	$ 19,162	$ 21,610
Branford	$ 20,598	$ 4,197	$ 1,477	$ 133	$ 5,807	$ 52	--	--	--	--	$ 52	$ 5,859	$ 14,739
Guilford	$ 14,492	$ 1,343	$ 354	$ 59	$ 1,756	$ 30	--	--	$ 186	--	$ 216	$ 1,972	$ 12,520
Madison	$ 12,552	$ 1,175	--	$ 34	$ 1,209	$ 20	--	--	$ 411	--	$ 431	$ 1,640	$ 10,912
Clinton	$ 8,662	$ 84	--	--	$ 84	--	--	--	--	--	--	$ 84	$ 8,578
Total-SMSA	$346,205	$78,964	$49,013	$16,508	$144,485	$ 3,825	$ 2,376	$ 8,654	$ 4,890	$ 541	$ 20,286	$164,771	$181,434
Non-SMSA Cities/Towns													
Durham	$ 4,171	--	--	--	--	$ 6	--	$ 1,008	$ 859	$ 17	$ 1,890	$ 1,890	$ 2,281
Middlefield	$ 3,500	--	--	--	--	$ 4	--	$ 487	$ 1,120	$ 29	$ 1,640	$ 1,640	$ 1,860
Meriden	$ 43,248	--	$ 354	$ 31	$ 385	$ 16	--	$22,944	$ 6,386	$ 306	$ 29,652	$ 30,037	$ 13,211
Cheshire	$ 19,833	$ 839	$ 4,489	$ 46	$ 5,374	$ 22	--	$ 1,252	$ 4,070	$ 1,118	$ 6,462	$ 11,836	$ 7,997
Total-Non-SMSA	$ 70,752	$ 839	$ 4,843	$ 77	$ 5,759	$ 48	--	$25,691	$12,435	$ 1,470	$ 39,644	$ 45,403	$ 25,349
Total SMSA and Non-SMSA	$416,957	$79,803	$53,856	$16,585	$150,244	$ 3,873	$ 2,376	$34,345	$17,325	$ 2,011	$ 59,930	$210,174	$206,783
Other Non-SMSA	--	$ 4,140	$ 1,305	$10,411	$ 15,856	$15,048	$60,002	$ 6,056	$110,162	$74,766	$266,034	$281,890	--
Total Center GAF Sales	--	$83,943	$55,161	$26,996	$166,100	$18,921	$62,378	$40,401	$127,487	$76,777	$325,964	$492,064	--

1/ Estimated at 13.5% of aggregate income.

Source: Gladstone Associates.

DISTRIBUTION OF BALANCE SHOPPERS GOODS PURCHASING POWER TO TOWNS
NEW HAVEN REGION
1977
(In Thousands of 1977 Constant Dollars)

SMSA Cities/Towns	Balance Shoppers Goods Purchasing Power	SMSA Cities/Towns: North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Wood-bridge	Orange	West Haven	Branford	Guilford	Madison	Clinton	Non-SMSA Cities/Towns: Durham	Middlefield	Meriden	Cheshire	Milford	Other
North Haven	$ 7,757	$ 3,335	$ 233	$ 1,008	$ 310	$ 78	$ 310	--	$ 155	$ 78	--	--	--	--	--	--	--	--	$ 233	--	$ 2,017
New Haven	$ 43,359	$ 1,734	$22,980	$ 867	$1,300	--	$1,734	--	--	$ 3,469	$ 1,734	$ 867	--	--	--	--	--	--	--	$ 867	$ 7,807
Wallingford	$ 13,712	$ 1,783	$ 411	$ 8,090	$ 137	$137	$ 274	--	--	--	$ 137	$ 274	--	--	--	--	--	$ 1,097	$ 274	--	$ 1,098
Hamden	$ 14,855	$ 1,931	$ 1,783	$ 446	$4,902	--	$ 149	--	$ 149	$ 149	$ 149	--	--	--	--	--	--	$ 149	$ 149	--	$ 4,899
North Branford	$ 4,246	$ 637	$ 212	$ 255	$ 42	$425	$ 297	--	--	--	--	$ 510	$ 85	--	--	$ 42	--	$ 42	--	--	$ 1,699
East Haven	$ 9,310	$ 372	$ 2,141	$ 93	$ 186	$186	$3,072	--	--	$ 186	$ 279	$ 1,397	$ 93	--	--	--	--	--	--	$ 93	$ 1,212
Bethany	$ 2,170	$ 87	$ 195	$ 43	$ 87	--	--	$738	$ 174	$ 65	$ 65	--	--	--	--	--	--	--	$ 43	$ 43	$ 630
Woodbridge	$ 10,034	$ 401	$ 2,007	$ 100	$ 401	--	--	--	$3,813	$ 803	$ 301	--	--	--	--	--	--	--	--	$ 401	$ 1,807
Orange	$ 7,632	$ 76	$ 611	--	$ 76	--	--	--	$ 76	$ 3,205	$ 916	--	--	--	--	--	--	--	--	$ 1,450	$ 1,222
West Haven	$ 21,610	$ 216	$ 3,674	--	--	--	$ 216	--	--	$ 3,674	$ 8,428	$ 216	--	--	--	--	--	--	--	$ 2,161	$ 3,025
Branford	$ 14,739	$ 147	$ 1,474	--	$ 147	--	$1,327	--	--	--	$ 147	$ 9,286	$ 590	--	--	--	--	--	--	$ 147	$ 1,474
Guilford	$ 12,520	$ 125	$ 501	--	--	--	$ 376	--	--	--	--	$ 1,753	$ 6,761	$ 501	$ 103	--	--	--	--	--	$ 2,400
Madison	$ 10,912	$ 109	$ 218	$ 109	--	--	$ 218	--	--	--	--	$ 764	$ 2,073	$2,401	$ 436	--	--	--	--	--	$ 4,584
Clinton	$ 8,578	--	$ 86	--	--	--	--	--	--	--	--	$ 257	$ 343	$1,115	$1,750	--	--	--	--	--	$ 5,027
Subtotal-SMSA	$181,434	$10,953	$36,526	$11,011	$7,588	$826	$7,973	$738	$4,367	$11,629	$12,156	$15,324	$ 9,945	$4,017	$2,289	$ 42	--	$ 1,288	$ 699	$ 5,162	$38,901
Non-SMSA Cities/Towns																					
Durham	$ 2,281	--	$ 23	$ 160	--	--	--	--	--	--	--	$ 23	$ 68	$ 23	--	$639	$ 68	$ 46	--	--	$ 1,231
Middlefield	$ 1,860	--	--	$ 93	--	--	--	--	--	--	--	--	--	--	--	$ 37	$409	$ 130	--	--	$ 1,191
Meriden	$ 13,211	--	$ 132	$ 2,510	--	--	--	--	--	--	--	--	--	--	--	--	--	$ 7,266	$ 264	--	$ 3,039
Cheshire	$ 7,997	$ 320	$ 160	$ 640	$ 160	--	--	--	--	--	--	--	--	--	--	--	--	$ 160	$ 3,999	--	$ 2,558
Subtotal-Non-SMSA	$ 25,349	$ 320	$ 315	$ 3,403	$ 160	--	--	--	--	--	--	$ 23	$ 68	$ 23	--	$676	$477	$ 7,602	$ 4,263	--	$ 8,019
Total SMSA and Non-SMSA	$206,783	$11,273	$36,841	$14,414	$7,748	$826	$7,973	$738	$4,367	$11,629	$12,156	$15,347	$10,013	$4,040	$2,289	$718	$477	$ 8,890	$ 4,962	$ 5,162	$46,920
Other Non-SMSA	--	$ 3,510	$12,646	$16,111	$1,292	$143	$1,883	$257	$ 831	$22,621	$ 4,132	$ 4,566	$ 902	$ 104	$ 58	--	--	$12,239	$ 6,477	$38,066	--
Total	--	$14,783	$49,487	$30,525	$9,040	$969	$9,856	$995	$5,198	$34,250	$16,288	$19,913	$10,915	$4,144	$2,347	--	--	$21,129	$11,439	$43,228	--

Source: Gladstone Associates.

floor space within metropolitan New Haven will remain relatively constant, much as it did throughout the 1972-77 period.

The second of these -- the incremental supply condition -- as the term implies is predicated on a substantial addition of retail space in the form of the proposed North Haven Mall.

Each of these conditions has been analyzed on a conservative basis in several respects.

First, no growth -- in real terms -- is forecast for personal income on a per capita basis. While implicitly contrary to the anticipated gains in employment forecast for the region through State of Connecticut sources, the analysis which follows incorporates this "no growth" assumption to examine the implications on retail sales on the "low side" of a prospective range in the period ahead.

Second, population projections established by the State's Office of Policy and Management have also been utilized although they too are judged to be on the conservative side. (Given the level of employment projected over the next 20 years, it is judged that these increases may likely be accompanied by similar increases in population.)

For comparative purposes, we have also examined the prospective outlook for metropolitan shoppers goods expenditures under a more optimistic though nominal real income growth rate of 1 percent per annum. This change in income growth assumptions, as may be seen below, increases the outlook for shoppers goods expenditures by an order of 8 percent (e.g., $383.9 million as compared to $354.5 million for metropolitan area residents in 1985 as may be seen in the Table below.)

Under these conservative working assumptions of no growth in per capita real income and only nominal population increases, the expenditure levels for the metropolitan area in shoppers goods are expected

to go from $346.2 million in 1977 to $354.5 million and $360.6 million, respectively, in 1985 and 1990.

More detail with respect to the outlook for metropolitan area shoppers goods expenditures throughout the 1980's on the basis of the aforementioned assumptions may be seen in the table which follows.

Baseline Sales Forecasts: Future shoppers goods volumes in the metropolitan area, as previously noted, would be a function of sales inflows and outflows, sales retention and untapped inflow opportunities.

Under the baseline condition, the improved inflows sales component is not expected to occur without substantial floor area additions in retail supply.

Each of the other components have been estimated on the basis of the information outlined in 1977 sales patterns. These estimates were based on the metropolitan flow analysis on a town by town and metropolitan retail center basis as noted previously.

SHOPPERS GOODS EXPENDITURES
NEW HAVEN SMSA
(In Millions of 1977 Constant Dollars)

	1977	1985	1990
Scenario 1 1/	$346.2	$354.5	$360.6
Scenario 2 2/	$346.2	$383.9	$410.4

1/ Assumes 0 percent income growth.

2/ Assumes 1 percent real income growth per year.

Source: Gladstone Associates.

Forecasts for metropolitan area shoppers goods sales, reflecting both the "no growth" and "one percent per annum" real growth in per capita personal income are presented immediately below.

As may be seen, on a conservative basis metropolitan area shoppers goods sales are expected to effectively level off at approximately $370 million in 1990. Were a more likely scenario of real per capita income growth of 1.0 percent annually considered, those sales levels would be up appreciably to more than $408 million in 1990.

The profile of metropolitan area shoppers goods sales for 1990 under both of the working assumptions may be seen in the table immediately below.

BASELINE
SHOPPERS GOODS SALES FLOWS
NEW HAVEN SMSA
1990

Sales Components	Volumes (Millions) Scenario 1	Scenario 2
Metropolitan Shoppers Goods Sales	$368.3	$408.3
Sales Retention 1/	$290.2	$330.2
Sales Inflows 1/	$ 78.2	$ 78.1
Metropolitan Consumer Expenditures	$360.6	$410.4
Sales Retention	$290.2	$330.2
Sales Outflows	$ 70.4	$ 80.2
Net Inflow (Outflow)	$ 7.7	($ 2.1)

1/ Under a one percent income growth assumption increased metropolitan sales ($408.3 versus $368.3 million) are assumed to come from improved sales retention ($330.2 versus $290.2 million) while inflows would remain stable. This is a conservative assumption recognizing that under a static supply condition inflows would likely decrease.

Source: Gladstone Associates

In addition to the component sales flows, the net inflow/outflow forecasts under a baseline condition are of particular consequence from a regional economic perspective.

Specifically, the net inflow of $28.6 million estimated for 1977 would be reduced to $7.7 million by 1990 under Scenario 1 and to a potential 1990 outflow of $2.1 million under Scenario 2.

> -- Thus, without a significant increase in the region's shoppers goods supply continued erosions of the area's retail economy are expected and area demand for such goods and services will increasingly flow to major centers outside the SMSA.

Projected Shopper Sales -- Incremental Supply Condition: The incremental supply condition, as noted previously, contemplates a major addition of retail space in the form of the proposed North Haven Mall. Under this condition, the metropolitan area would likely gain sales from non-metropolitan locations thereby penetrating currently "untapped inflow potentials."

In addition, further sales gains can be anticipated through increased sales retention and reduced sales outflows. These possibilities have been extensively examined through the methodological approach detailed in Section III(D). Specifically, the origin and destination matrix constructed on the basis of State Department of Transportation data and shoppers surveys allows evaluation of potential competitive impacts and effects on 380 separate sales flow relationships within metropolitan New Haven and a tier of communities immediately proximate to it. The techniques applied in this instance permit the tracing of likely impacts of the North Haven Mall by comparing the previously determined baseline sales levels with those that would occur under the incremental supply condition.

The following sample output from the computer model used in this analysis illustrates the above described approach. In this instance, baseline sales to various sales locations are analyzed by way of their potential diversion to the North Haven Mall.

DETAIL TO ANALYSIS OF
SALES RECAPTURE AND IMPROVED INFLOW
NORTH HAVEN MALL
1990 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH HAVEN					
CONNECTICUT POST	$ 54	90%	95%	$ 49	$ 51
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 763	70%	75%	$ 534	$ 572
WEST FARMS	$ 586	90%	95%	$ 527	$ 557
NAUGATUCK VALLEY	$ 45	90%	95%	$ 41	$ 43
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 244	25%	30%	$ 61	$ 73
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2111	80%	85%	$ 1689	$ 1794
SUBTOTAL	$ 3803	76%	81%	$ 2900	$ 3091
NEW HAVEN					
CONNECTICUT POST	$ 450	60%	65%	$ 270	$ 293
TRUMBULL	$ 462	70%	75%	$ 323	$ 347
MERIDEN SQUARE	$ 482	85%	90%	$ 410	$ 434
WEST FARMS	$ 258	90%	95%	$ 232	$ 245
NAUGATUCK VALLEY	$ 76	80%	85%	$ 61	$ 65
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 858	45%	50%	$ 386	$ 429
OTHER	$ 7725	75%	80%	$ 5794	$ 6180
SUBTOTAL	$ 10311	73%	78%	$ 7476	$ 7992

For example, based upon sales flows detailed above, it is projected that, in 1990 under a baseline situation, North Haven residents would spend $763,000 at Meriden Square. Under an incremental supply condition, however, that is the North Haven Mall, some North Haven residents who would have shopped at Meriden Square would instead shop at the North Haven Mall. It is judged that 70 percent to 75 percent of that amount,

or $534,000 to $572,000, would be diverted to the North Haven Mall. This judgment is based on an evaluation of the likely competitive relationship between the North Haven Mall and, in this case, Meriden Square, vis-a-vis the town of North Haven (or whatever origin is under consideration). This evaluation was based on: travel distance; accessibility; department store representation; and, general type and variety of retail goods. (See Section III(D) for more detail.)

Projected Increased Supply Shoppers Goods Sales: Upon completion, the North Haven Mall would generate an estimated $85 million in shoppers goods sales. This level reflects full industry productivity factors that can be reached approximately three to five years after Mall opening or, as presently contemplated, by the late 1980's.

Detailed information with respect to the proposed North Haven Mall is described in Section III(C). In brief, however, it is anticipated that the Mall would include approximately 1.1 million square feet of retail space (gross leasable area) of which 440,000 square feet would represent Mall shops and 660,000 square feet would be devoted to four anchor stores consisting of J.C. Penney's, Macy's, G. Fox, and Sears. The majority of this space would be occupied by shoppers goods retailers in line with the anticipated mix of stores, shown immediately below:

ANTICIPATED RETAIL MIX
NORTH HAVEN MALL

User Type	GLA
Retail	
Shoppers Goods	
- Anchors	575,000 s.f.[1/]
- Mall Shops	242,000 s.f.
Total Shoppers Goods	817,000 s.f.
Other Retail	169,000 s.f.
Restaurants	90,000 s.f.
Subtotal	1,076,000 s.f.
Non-Retail	
Service and Entertainment	40,000 s.f.
Total Mall	1,116,000 s.f.

1/ Includes 30,000 ± s.f. available for expansion, but not to be built initially.

Productivity factors, reflected in annual sales volumes per square foot of gross leasable area, have been carefully examined for each of the retail categories noted. These factors together with their corresponding sales volumes -- measured in 1977 constant dollars -- are shown in the table which follows:

Use Type	Productivity Factor	Sales Volume (000)
Retail		
Shoppers Goods		
Anchors	$ 97/s.f.	$ 55,775 1/
Mall Shops	$121/s.f.	$ 29,225
Total Shoppers Goods	$104/s.f.	$ 85,000
Other Retail	$118/s.f.	$ 19,942
Restaurants	$109/s.f.	$ 9,810
Subtotal	$107/s.f.	$114,752
Non-Retail		
Service and Entertainment	$ 50/s.f.	$ 2,000
Total Mall	$105/s.f.	$116,752

1/ Includes $2.9 million related to potential expansion space.

A significant increase in retail shoppers goods supply within metropolitan New Haven would result in several decided gains for this region from the standpoint of shoppers goods volumes. These gains include improved sales inflow and reductions in previously determined sales leakage under the baseline condition.

With the North Haven Mall, therefore, metropolitan area shoppers goods sales are expected to increase appreciably from the previously determined 1990 baseline level of $368.3 million to $426.9 million, assuming no real growth in per capita personal income -- a 15.9 percent gain.

SHOPPERS GOODS SALES
NEW HAVEN SMSA
INCREASED SUPPLY CONDITION
1985, 1990
(in millions of 1977 constant dollars)

	Scenario 1		Scenario 2	
	1985	1990	1985	1990
SMSA Baseline Sales	$370.8	$368.3	$394.5	$408.3
Improved Inflow/Recapture	$ 55.9	$ 58.6	$ 60.6	$ 66.6
Total SMSA - Increased Supply	$426.7	$426.9	$455.1	$474.9

These gains would be even more substantial in the event real income grows during the decade. Specifically, assuming a more realistic and likely scenario of a one percent per annum increase in per capita personal income, 1990 metropolitan area shoppers goods sales would be $474.9 million with the Mall versus $408.3 million under baseline -- a 16.3 percent gain.

Prospective metropolitan area shoppers goods sales under each of these conditions -- predicated on an incremental addition of retail floor space supply as represented by the proposed North Haven Mall -- are shown in the table directly above.

Prospective Impacts

Impacts of the proposed North Haven Mall on other metropolitan New Haven retail concentrations, as previously noted, would be a function of "baseline" sales volumes expected for these centers compared with volumes forecast for these centers under the increased supply condition. Capture rates for downtown New Haven and Hamden -- two principal retail centers within the metropolitan area -- have been examined for 1972 and 1977 as a point of departure in this baseline analysis.

As shown in the tabular summary below, downtown New Haven's share of metropolitan shoppers goods sales declined from 26.3 percent in 1972 to 22.4 percent in 1977. Hamden maintained a constant 14.7 percent share of these sales levels for the corresponding period.

Shoppers Goods Sales "Captures"
Metropolitan New Haven
1972, 1977

Center	Shoppers Goods Sales Shares 1972	1977
Downtown New Haven	26.3%	22.4%
Hamden	14.7%	14.7%

The Outlook to 1985 and 1990: In light of the aforementioned trends for the major retail centers, it is judged that, given population growth in suburban areas and recent shoping patterns, the shifts noted for the 1970's are likely to continue in the 1980's. The graph on the following page illustrates this expectation of continued declines, but at moderating rates.

Baseline estimates have been prepared under trend line analysis and on the expectation that any supply changes that may occur would be nominal in line with the "baseline" formulation presented above (in accordance with nominal increases in the supply of retail space in the metropolitan area in recent years as noted earlier).

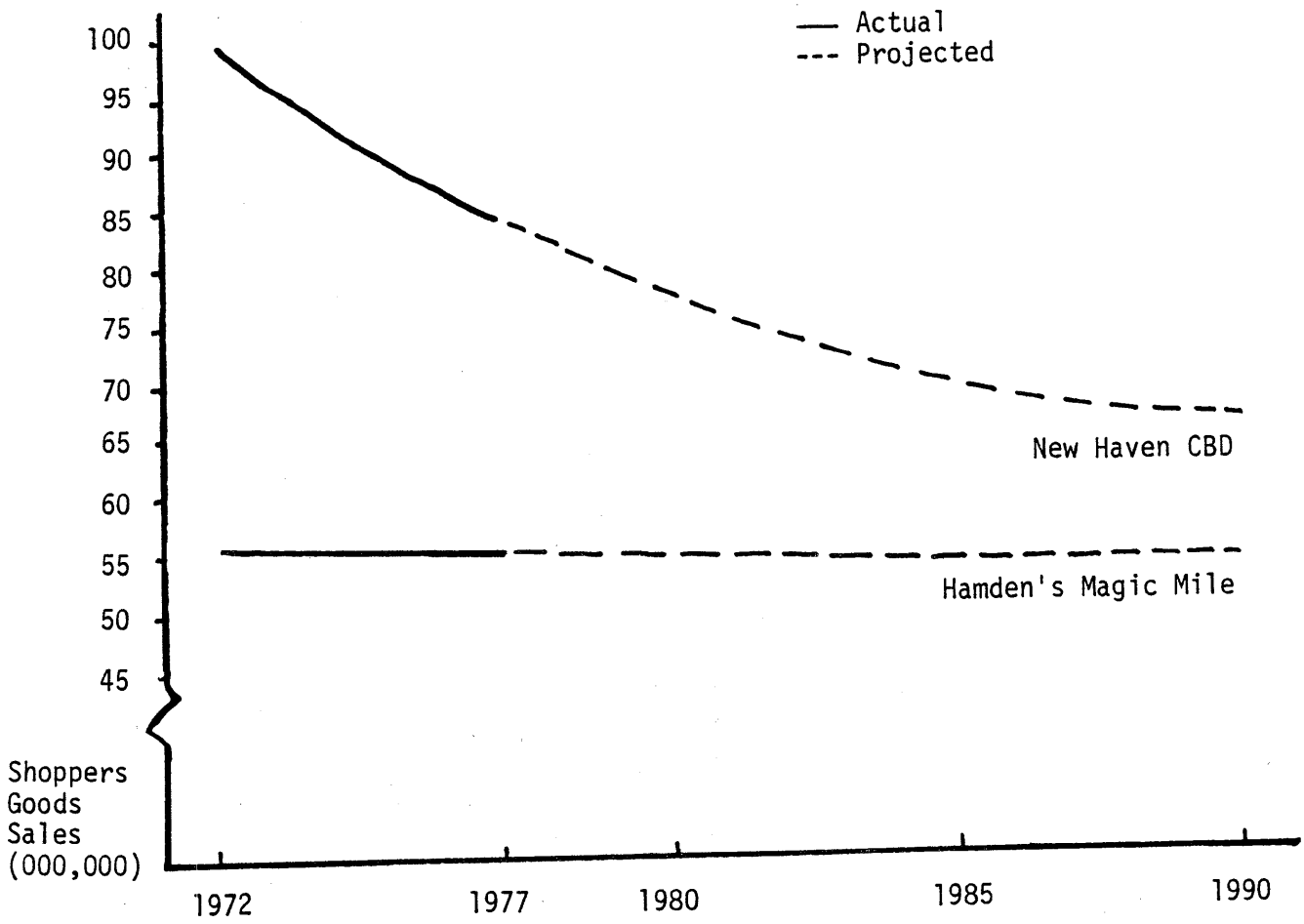
Other Retail Centers: Given the shifts noted for downtown New Haven and Hamden's Magic Mile as well as overall forecasts of metropolitan shoppers goods sales under the baseline conditions to 1985 and 1990, other retail centers are expected to show nominal increases. These sales volumes, in aggregate terms, are projected as follows:

ESTIMATED SHOPPERS GOODS SALES
BASELINE CONDITIONS 1/
1985, 1990
(In Millions of 1977 constant dollars)

	Sales	
	1985	1990
Downtown New Haven	$ 73.0	$ 69.6
Hamden's Magic Mile	$ 55.2	$ 55.2
Balance of SMSA	$266.3	$283.5
Total SMSA	$394.5	$408.3

1/ Senario 2.

SHOPPERS GOODS SALES



Mall Sales: As noted previously, the level of Mall sales under the incremental supply condition is expected to amount to $85 million in constant 1977 dollar terms for both 1985 and 1990. (In reality, the Mall would likely not reach this full productivity level, or normalized operations, until three to five years after opening and after development of some 30,000 s.f. of expansion space included in these figures. However, these adjustments are not reflected here and this analysis represents a "worst case" assumption.)

A majority of these sales would be attributable to the "increased supply" effects of reduced sales leakage and improved sales inflow. Utilizing the State Department of Transportation data previously noted, analysis on a town-by-town and major retail center basis indicates that these two sales components would range between $60 million and $67 million by 1990 under the respective "no-growth and "one percent" per capita real income growth scenarios.

The remaining portion of sales attracted to the North Haven Mall would be those "transferred" from other metropolitan area locations, noted as Transfer Sales in the following table:

SOURCE OF SALES
NORTH HAVEN MALL
1985, 1990

	Shoppers Goods Volumes (Millions)			
	Scenario 1		Scenario 2	
North Haven Mall	1985	1990	1985	1990
Sales Leakage Recapture	$40.4	$41.3	$43.8	$46.9
Improved Sales Inflow	$15.5	$17.3	$16.8	$19.7
Transfer Sales	$29.1	$26.4	$24.4	$18.4
Total	$85.0	$85.0	$85.0	$85.0

Downtown New Haven/Hamden Impacts: The level of transfer sales estimated above represents volumes that would flow to North Haven Mall which might otherwise be registered in various retail centers throughout the metropolitan area (see Sections III(D)(5) and III(F).

Under the "worst case" -- i.e., no real per capita personal income growth and the highest transfers projected -- sales diverted from these other centers might amount to $29.1 million in 1985 and $26.4 million in 1990. Overall these would represent a "transfer" of 7.8 percent and 7.2 percent, respectively, of metropolitan area baseline shoppers goods sales as forecast earlier in this report and assuming no real income growth.

Under the more likely one percent income growth scenario, transfer sales would be $24.4 million in 1985 and $18.4 million in 1990 -- or 6.2 percent and 4.5 percent respectively, against total metropolitan baseline sales.

Thus, were all retailing concentrations within metropolitan New Haven affected proportionately in relation to these transfers, the level of sales declines relative to the baseline forecasts for the mid and end of this present decade would approximate those percentages.

It is expected, however, that these impacts would be differentiated among all metropolitan centers. Downtown New Haven, for example, would rely increasingly on its primary trade area (noted previously) to account for its shoppers goods sales. Hamden, by contrast, would continue to share sales penetration within the suburban tier of the metropolitan area as well as tapping other communities on the periphery in much the same fashion as that anticipated for the proposed North Haven Mall. The key differences here, of course, relate to the type of merchandising carried out in these respective centers -- with Hamden continuing to be characterized by major discount anchor stores in comparison to the full-line department stores at the proposed North Haven Mall.

Accordingly, it is judged that the impact on Hamden's overall shoppers goods sales and total activity would be limited by virtue of the community's existing complement of retail space. As further support to this prospect, there is reason to believe that even with the departure of Sears -- noted in the report above -- this retail inventory would likely be replaced. Investigations have indicated that several specific offers are likely to be tendered for commercial use should Sears choose to vacate their present Hamden facility after a move to North Haven.

Under these circumstances, and recognizing that differential impacts are likely to occur, it is projected that the level of sales transferred from Hamden would not be greater than $3 million in relation to previously estimated baseline conditions (given a possible Sears shift and subsequent replacement), or slightly more than 5 percent of its anticipated baseline sales.

Sales transfers against downtown New Haven would likely be more pronounced in absolute terms (approximately $3.5 million under Scenario 2 and as much as $5.8 million assuming no income growth through 1990) but the relative impact would be very much in line with that anticipated for Hamden's Magic Mile.

NORTH HAVEN MALL
SALES TRANSFER IMPACTS
1990
(In millions of 1977 constant dollars)

	Scenario 1		Scenario 2	
	Transfer Volume	Percent of Baseline	Transfer Volume	Percent of Baseline
New Haven CBD	$ 5.8	8.3%	$ 3.5	5.0%
Magic Mile	$ 4.7	8.5%	$ 2.9	5.3%
Balance of Metro	$15.9	6.5%	$12.0	4.2%
Total Metro	$26.4	7.2%	$18.4	4.5%

This distribution of transfer sales impacts amongst New Haven's CBD, Hamden's Magic Mile and the balance of the metro is based on the careful examinations of market areas served and corresponding sales flows previously discussed. Their use in the transfer impact distribution is detailed in Section IIID.5. As a check, however, an alternative distribution matrix was established and applied (also as described in Section IIID.5). In this instance, transfer sales projections would increase by about two percentage points for both the CBD and Magic Mile (approximately 10 percent in 1990 under no income growth and 7 percent assuming the more likely 1 percent income growth). At the same time, the impact on the balance of the metro would decline approximately one percentage point (in 1990, from 6.5 percent to 5.6 percent with no income growth and from 4.2 percent to 3.4 percent with a 1 percent income growth).

> Through anticipated population and personal income growth, metropolitan area consumer expenditures are forecast to increase into the 1990's. Using 1990 as a near term impact horizon, these analyses indicate that the proposed North Haven Mall would have a limited competitive impact on existing metropolitan area retail centers -- on the order of 4.5 percent to 7.2 percent of projected sales (baseline condition without the Mall). Further, through the addition of a substantial amount of incremental retail space in the form of the proposed North Haven Mall, an annual net gain of 15 percent to 16 percent (see page 63-64) in metropolitan area shoppers goods sales would accrue to the regional economy and, most important, the public need that has up to this point been unmet would be served.

North Haven Impacts: Shoppers goods sales, of course, would increase dramatically in the Town of North Haven with the North Haven Mall. At the same time, however, there may well be some initial market adjustments and shifting of sales from one location to another within the town. For example, although always considered a temporary location, J.C. Penney's would not retain its present 12,000 square foot store

on Washington Avenue, once its new 140,000 square foot full-line store was opened in the mall. It is most likely that this space would be filled by another retail tenant, but there would be an initial transfer of dollars and subsequent market adjustment.

Shoppers goods sales within the Town of North Haven were reported at approximately $14.8 million in 1977. Of this total, $11.3 million came from residents of the SMSA plus those four non-SMSA towns analyzed in the course of this study. (The remaining $3.5 million comes from residents outside of these identified areas. The discussion which follows focuses on the $11.3 million figure and corresponding sales projections emanating from that same geographical area.)

Under baseline sales conditions, these town-wide shoppers goods sales volumes are projected to increase from the $11.3 million to $13.4 million in 1990, under a zero percent average annual income growth assumption. Should income follow a more likely growth pattern of one percent annually, then town-wide shoppers goods sales would be more on the order of $16.6 million in 1990, under baseline conditions.

Generally, it is anticipated that other retailing within the Town of North Haven would benefit from the presence of the North Haven Mall through increased consumer traffic -- at least in the Washington Avenue area. Any potential sales losses or transfers from existing establishments are expected to be nominal, given the generally non-competitive characteristics of present shoppers goods establishments within the town vis-a-vis the North Haven Mall. At least in the short term, however, some shifting of sales from existing retail stores in the town to the North Haven Mall might occur. As described in the table below, these transfer sales might be on the order of $0.9 million (assuming a one percent average annual income growth) to $1.2 million (under a zero percent income growth assumption) by 1990. Against baseline sales,

these would represent a sales transfer of roughly five to nine percent (see Section III(F)).

PROJECTED SHOPPERS GOODS SALES

TOWN OF NORTH HAVEN

(In Millions of 1977 Dollars)

	1990	
	Scenario 1	Scenario 2
Town Sales (Baseline)	$ 13.4	$ 16.6
Transfers to Mall	$ 1.2	$ 0.9
Percent Impact	-8.7%	-5.3%
Mall Sales	$ 85.0	$ 85.0
Town Sales (with Mall)	$ 97.2	$100.7
Percentage Impact	625.4%	506.6%

Source: Gladstone Associates.

Such transfer sales might take the form of: a single retail establishment dividing its efforts between a mall location and another North Haven store; a modest reduction in sales without any corresponding reduction in space; or possibly, the closing of some marginal operations unable to respond to competition. As noted, however, most retail establishments within the town should benefit from the presence of the North Haven Mall, given a greater consumer awareness of retailing activities in this area and improved access to mall-generated traffic on the part of retail establishments here.

The mall itself would add $85 million in shoppers goods sales to the town's base and, after accounting for the potential sales transfers from other existing retail establishments in the town, would increase shoppers goods sales on a town-wide basis by some 500 to 600 percent above baseline conditions as decribed in the table above.

5. Mitigation Potentials

Several steps can be taken to mitigate the effects of limited shoppers goods sales declines in metropolitan area retail nodes as a result of the proposed North Haven Mall. Among these are:

-- Continued and increased attention to overall planning within affected communities in providing a supportive retailing environment, especially with respect to key factors of access, parking and other amenities demanded by contemporary shoppers.

-- Improved merchandising appeal to shoppers within primary trade areas. In the case of downtown New Haven, for example, the increasingly constricted primary trade area for that center relies on the City itself. Accordingly, downtown merchants must be more acute in discerning and serving the needs of that population.

-- Effective action with respect to the changing roles for downtown areas and other business districts in relation to office, institutional, and residential developments. In the case of downtown New Haven, for example, this would involve deepening the already established office markets that have been tapped in the past, increasing the area's attractiveness as an entertainment center, improving the housing inventory for downtown workers and others with a central place orientation and enhancing retail opportunities in relation to these "captive" market segments (workers, residents and other users of the area).

As a result of all of these steps, the competitive position of these existing retail nodes can be strengthened and the limited prospective sales impacts forecast here mitigated.

B. Fiscal Impacts

B. FISCAL

Potential fiscal impacts associated with the proposed North Haven Mall have been assessed for the Town of North Haven and, more generally, from a regional perspective.

In sum, the North Haven Mall would generate local property tax revenues substantially in excess of its associated public service costs. The anticipated "surplus" may be used by the town either to reduce the overall property tax rate or pay for increased services or increased costs of services without proportionately raising its tax rate.

From a regional perspective, potential fiscal impacts have been assessed in relation to retail sales transfer impacts within the New Haven-West Haven metropolitan area, as described in Section II(A), above. These potential impacts are expected to be negligible on an individual municipality basis.

1. Town of North Haven

While actual property taxes paid to the Town of North Haven by owners of the North Haven Mall would depend on the particular tax rate in effect at some future point and upon the assessed value actually placed on the Mall, it is estimated that this facility would generate approximately $1.2 to $1.4 million, annually (conservatively assuming an assessed value of $30 million at the town's current tax rate of $46.30 per thousand).

The cost of providing public services to the Mall -- police and fire protection, sewage treatment, public works and general governmental

administration -- on an incremental basis are expected to be nominal. However, since the precise public service needs of the North Haven Mall are not known at this time, the following conservative assumptions have been made:

- -- General Government: There may be certain modest increases in workload with regard to general government activities. It is likely that such demands can be adequately handled by existing staff, but an annual budget increment of $20,000 is assumed here to accommodate the Mall.

- -- Police Protection: It is anticipated that the Mall would have its own security force for providing police protection within and around the Mall itself. However, the town may see fit to increase its own police capability in response to the generally higher levels of activity represented by the Mall. Thus, it is again conservatively assumed that an additional police patrol representing two officers and one car might be required at an estimated annual cost of $70,000.

- -- Fire Protection: While it is unlikely that the town would need to increase its firefighting capacity in response to the mall's presence, a general expense increase of $10,000 is assumed.

- -- Public Works: Again, no specific demands are envisioned, but an annual expense increase of $10,000 is assumed here for analytical purposes.

- -- Utilities: It is assumed that for supply of water, sewer collection and treatment, and other utilities, the Mall would pay for such usage through separate user fees unrelated to general property tax revenues. Thus, it is assumed that these elements would be fully covered by such fees.

It is anticipated then that the Mall might generate, at a maximum, demands for public services that might cost the Town of North Haven $110,000 per year. It should be emphasized that these figures are most likely on the high side and that actual town expenditures for such services would be substantially less. In fact, town officials have indicated

that they project no incremental public service costs in relation to the mall except those capital costs discussed below.

Specifically, the town is required, by the terms of its agreement with the North Haven Mall developers, to provide various capital improvements such as road access and sewer capacity. The agreement, however, limits the amount of capital that the town would have to invest to $2.5 million.

Assuming that the town might be required to spend the full amount noted above, it would incur annual debt service costs of approximately $250,000 (for perhaps 20 years), assuming that municipal bonds were used to finance such improvements.

By the terms of the above noted agreement, the owners of the North Haven Mall would be required to pay minimum taxes ranging from $350,000 in the first taxable year to $525,000 in the twelfth year of taxation. Again, it should be noted that these are minimum taxes and that actual taxes would be well in excess of such figures -- more on the order of $1.2 million to $1.4 million.

Thus, by contrast, the mall would produce at least a break-even situation under the minimum required taxes in year one, and a surplus of at least $150,000 under the minimum requirements of year 12. More likely, the mall would generate an annual tax "surplus" of more than $1 million.

Recognizing that the Town of North Haven would experience at least some level of positive fiscal impact from the mall, the likely anticipated annual tax revenues would, in today's dollars, substantially reduce the present town-wide property tax rate.

> That is, against actual 1979 fiscal data for the town, the generation of, say, $1.3 million in property tax revenues and the expenditure of $110,000 for public services and $250,000 in debt service would, on a town-wide basis reduce the current tax rate of $46.30 per thousand to $43.40, a 6 percent town-wide reduction.

Mall Feasibility

The $1.2 to $1.4 million tax level assumes basic mall feasibility and operational success. Even the minimum taxes noted by way of the development agreement between the town and the project sponsors assumes some minimal level of financial success on the part of the mall and an ability to meet the terms of such an agreement. Given these assumptions, the theoretical question then arises as to the consequences of potential mall failure. That is, what is the "downside" risk to the Town of North Haven, particularly with regard to the capital investment represented by the various improvements that the town would have to make?

Available Market Supports: The extensive analyses undertaken as a principal element of this retail impact study have identified strong market supports available to a project such as the North Haven Mall. For example, the lack of comparable retail facilities within the metropolitan area in conjunction with the estimated $66.4 million outflow in metro resident shoppers goods purchasing power are indicators of substantial market potentials.

Further, independent analyses undertaken by the research divisions of the proposed mall's four major department stores -- and their resultant commitments to the mall -- corroborate these findings.

As a result, the market feasibility of the proposed mall is well established and the question of mall failure is essentially a theoretical issue.

In that theoretical vein, however, the above-noted "downside" risk potential is further examined below.

Timing and Ownership: Should the mall not succeed, this eventuality would occur not in the immediate short term, but would unfold over perhaps a ten-year period or longer. The substantial investment represented by the proposed mall would not be relinquished except under the most difficult of circumstances and only after many successive years of unsatisfactory operation. In the meantime, of course, the project sponsors would be committed to the minimum taxes dictated by the above-noted agreement. Thus, these taxes are likely insured throughout the minimum twelve years dictated by the agreement.

Further, the four anchor stores would be owned individually by each of the respective companies. As such, the tax liability for these properties would be associated with that ownership and would not be solely reliant on the project sponsors -- a single business entity.

Re-Use Prospects: Assuming a "worst case" -- which is considered here from a theoretical perspective -- of mall failure, alternative uses might be sought to make this property productive and able to contribute to the town's tax base.

One possible option, for example, is for a single major corporate user to take over this substantial amount of space for use as a corporate headquarters. Under such a scenario, values would probably remain fairly high and the town's tax revenue would likely exceed minimum requirements, as previously discussed.

Under a "worst case" perspective, one might anticipate that this space could be re-used for some form of warehousing activity, particularly given the site's excellent highway access. Such a re-use would not support the value levels of a regional mall and would occur only if the original investment value were substantially written down through some liquidation proceedings. This worst case re-use alternative could probably generate annual revenues of $2.50 to $3.00 per square foot of warehouse uses.

Assuming that approximately 10 percent of such rentals might go toward real estate taxes, then the worst case re-use propostion would generate annual revenues to the town of perhaps $250,000 to $300,000 -- an amount approximately equal to the obligations the Town of North Haven would incur were it to float bonds up to the agreed-upon level of $2.5 million for meeting mall infrastructure needs in line with the above-described contract.

Thus, under a theoretical mall failure, prospects for at least covering the town's fiscal obligations in line with this proposed project are reasonable. The timing and ownership issue described above provides a "buffer" that would eliminate any fiscal risk that the town might experience.

Most important, however, is the improbability that mall failure would in fact occur, given the available market supports substantiated by the analyses carried out in this study, as well as other independent analyses that form the basis for the major capital investment commitments that have already been made here.

2. Regional Impacts

Regional fiscal impacts associated with the North Haven Mall may come into play with regard to the retail sales impacts noted in Section II(A), above. That is, as retail sales may be reduced within a given municipality -- as a result of the mall's competitive impact -- local property tax revenues associated with the impacted retail space may be diminished if the business purpose to which this space is put is adversely impacted.

At an extreme, one might trace the potential sales impacts directly through to supportable space, market value, taxable value and property tax revenues on a directly proportional basis under the theory that, over time, reduction in sales volumes would eventually lead to reductions in economic value of space and ultimately to taxable value.

Such an analysis was undertaken and the results are shown in the following table which presents prospective 1990 conditions under the 0% and 1% income growth scenarios, respectively. As shown, under the 0% income growth assumption, the maximum projected reduction in assessed valuation base for any municipality would be approximately six-tenths of one percent, with an "average" municipal level impact of three-tenths of one percent. Under the no income growth scenario, the City of New Haven might experience -- assuming this direct proportional impact on taxable base -- a three-tenths of one percent reduction of total assessments, all else being equal. Under the one percent income growth scenario, this impact would be approximately two-tenths of one percent.

For the Town of Hamden, such fiscal impacts would be in line -- on a percentage basis -- with those stated for New Haven.

Such minimal potential impacts on a municipality's taxable base could be easily offset by a single moderate development in a given municipality. For example, even under these "worst case" assumptions the potential loss to New Haven of $3.7 million in taxable property could be offset by about 50,000 square feet of Class A office development.

It should be noted, however, that these minimal fiscal impacts from a regional perspective would likely be even less significant. Specifically, it is probable that the direct proportional fiscal impact resulting from retail sales diversions would not take place. That is, even if individual retail establishments within a given municipality experience some diminution of retail sales it is unlikely that, on an individual establishment basis, they would be at such a level as to induce an actual reduction and elimination of such space from municipal tax rolls. Thus, it is likely that any region-wide fiscal impacts would be even less than those shown in the aforementioned table.

In any event, regional fiscal impacts are judged to be nominal.

FISCAL IMPACTS OF NORTH HAVEN MALL
NEW HAVEN - WEST HAVEN SMSA
1990
(In Thousands of 1977 Constant Dollars)

Destination	Mall Sales Impact 1/	Projected Impact on Shoppers Goods Retail Space* Long Term Supportable Space (s.f.) 2/	Estimated Market Value 3/	Current Assessment Value 4/	Estimated Assessed Value 5/	Total Current Assessment	Impact as a Percent of Total Assessments
No Income Growth							
North Haven 6/	+$83,830	+803,200 s.f.	+$36,070	60%	+$21,650	$ 305,780	+7.08%
New Haven	$ 9,440	111,000 s.f.	$ 5,550	70%	$ 3,890	$1,178,234	0.33%
CBD	$ 5,777	68,000 s.f.	$ 3,400	70%	$ 2,380	--	--
Balance	$ 3,663	43,000 s.f.	$ 2,150	70%	$ 1,510	--	--
Wallingford	$ 1,558	18,300 s.f.	$ 920	65%	$ 600	$ 251,219	0.24%
Hamden	$ 5,493	64,600 s.f.	$ 3,230	70%	$ 2,260	$ 739,720	0.31%
Magic Mile	$ 4,710	55,400 s.f.	$ 2,770	70%	$ 1,940	--	--
Balance	$ 783	9,200 s.f.	$ 460	70%	$ 320	--	--
North Branford	$ 86	1,000 s.f.	$ 50	70%	$ 35	$ 182,853	0.02%
East Haven	$ 814	9,600 s.f.	$ 480	65%	$ 310	$ 124,903	0.25%
Bethany	$ 80	940 s.f.	$ 50	70%	$ 30	$ 89,174	0.04%
Woodbridge	$ 447	5,300 s.f.	$ 260	50%	$ 130	$ 89,518	0.15%
Orange	$ 2,613	30,700 s.f.	$ 1,540	60%	$ 920	$ 168,065	0.55%
White Acres	$ 1,463	17,200 s.f.	$ 860	60%	$ 520	--	--
Balance	$ 1,150	13,500 s.f.	$ 680	60%	$ 400	--	--
West Haven	$ 1,213	14,300 s.f.	$ 710	70%	$ 500	$ 639,709	0.08%
Branford	$ 1,638	19,300 s.f.	$ 960	65%	$ 630	$ 244,149	0.26%
Guilford	$ 1,172	13,800 s.f.	$ 690	70%	$ 480	N/A	--
Madison	$ 470	5,500 s.f.	$ 280	60%	$ 170	$ 152,708	0.10%
Clinton	$ 255	3,000 s.f.	$ 150	65%	$ 100	$ 103,140	0.09%
Total	+$58,551	+505,860 s.f.	+$21,200	--	+$11,595	N/A	--
One Percent Income Growth							
North Haven 6/	+$84,116	+806,600 s.f.	+$36,280	60%	+$21,750	$ 305,780	+7.11%
New Haven	$ 6,290	74,000 s.f.	$ 3,700	70%	$ 2,590	$1,178,234	0.20%
CBD	$ 3,524	41,500 s.f.	$ 2,070	70%	$ 1,450	--	--
Balance	$ 2,766	32,500 s.f.	$ 1,630	70%	$ 1,140	--	--
Wallingford	$ 1,176	13,800 s.f.	$ 690	65%	$ 450	$ 251,219	0.18%
Hamden	$ 3,465	40,800 s.f.	$ 2,040	70%	$ 1,430	$ 739,720	0.19%
Magic Mile	$ 2,874	33,800 s.f.	$ 1,690	70%	$ 1,180	--	--
Balance	$ 591	7,000 s.f.	$ 350	70%	$ 250	--	--
North Branford	$ 65	760 s.f.	$ 40	70%	$ 30	$ 182,853	0.01%
East Haven	$ 615	7,200 s.f.	$ 360	65%	$ 240	$ 124,903	0.19%
Bethany	$ 60	700 s.f.	$ 35	70%	$ 25	$ 89,174	0.03%
Woodbridge	$ 338	4,000 s.f.	$ 200	50%	$ 100	$ 89,518	0.11%
Orange	$ 1,884	22,200 s.f.	$ 1,110	60%	$ 660	$ 168,065	0.39%
White Acres	$ 1,016	12,000 s.f.	$ 600	60%	$ 360	--	--
Balance	$ 868	10,200 s.f.	$ 510	60%	$ 300	--	--
West Haven	$ 916	10,800 s.f.	$ 540	70%	$ 380	$ 639,709	0.06%
Branford	$ 1,237	14,600 s.f.	$ 730	65%	$ 470	$ 244,149	0.19%
Guilford	$ 885	10,400 s.f.	$ 520	70%	$ 360	N/A	--
Madison	$ 355	4,200 s.f.	$ 210	60%	$ 130	$ 152,708	0.08%
Clinton	$ 193	2,300 s.f.	$ 110	65%	$ 75	$ 103,140	0.07%
Total	+$66,637	+600,840 s.f.	+$25,995	--	+$14,810	N/A	--

* Figures in columns 1-5 and 7 are all negatives or "losses" except where preceeded by a "+" sign.

1/ Represents sales originating from SMSA and selected Non-SMSA locations only.

2/ At productivity factors of $85/s.f.

3/ At $50/s.f.

4/ At current assessment/value ratio.

5/ At current tax rate.

6/ Includes the North Haven Mall with shoppers goods sales of $85 million on 817,000 s.f. (market value of $36.8 million) of shoppers goods space.

Source: Gladstone Associates

C. Employment Impacts

C. EMPLOYMENT IMPACTS

The North Haven Mall would generate a significant number of jobs in the New Haven region -- temporary jobs through the construction phase of the Mall and long-term, permanent positions associated with the operations of the Mall. Additionally, these jobs would result in a multiplier effect, whereby the infusion of an extra dollar into the regional economy creates activity in excess of that one dollar. Briefly:

- -- The construction phase of the Mall would require about 10,052 person months and generate on the order of $21.8 million in wages. It is estimated that about 45% of these labor requirements would be filled by workers from within the New Haven Labor Market Area. This would result in an infusion of about $9.8 million in new wages into the New Haven SMSA.
- -- Employment associated with the operation of the North Haven Mall is estimated at approximately 1960 jobs. Accounting for jobs which may be transferred from Sears and Penney's as well as sales jobs which may be lost in the SMSA but replaced at the Mall, Mall operations would create about 1400 new permanent positions in 1990.
- -- These new positions would result in an annual payroll of $11.3 million in new wages.
- -- Approximately 1250 to 1300 of these new positions are expected to accrue to New Haven area residents. This would represent an annual infusion of $9.1 million to $9.5 million in new wages into the region.
- -- The multiplier effects of these new wages in the New Haven region would be a one-time effect of $24.5 million resulting from construction wages and a more long term effect of about $23 million per year as a result of net new positions associated with mall operations.

1. Construction Employment

The exact number of jobs to be generated in the construction phase of the North Haven Mall would depend upon the final design of the anchors and mall shops. Estimates of construction employment levels have been made, however, using the following assumptions:

1. The total construction budget (excluding land acquisition and fees) is estimated at $75 to $80 million. This figure includes labor, materials and equipment, costs for site work, building construction and tenant finishes.
2. Gross wages per employee are estimated at $12.49 per hour, given prevailing rates in the New Haven area (1980 dollars) and anticipated skill requirements.
3. The average person-month consists of 174 working hours.
4. The total labor requirements for the construction phase of the mall would be about 10,052 person-months. This estimate includes labor requirements for site work at 1,152 person-months; for building at 5,600 person-months; and for tenant finishes at 3,300 person-months. Labor requirements would vary over the course of the 36-month construction period with peak labor demand occurring from months 13 to 25 as well as in the last 7 months of construction.

Gross wages per person-month, given prevailing rates in the New Haven area and anticipated skill requirements, are estimated at $2,170. Total wages to be generated, therefore, through the North Haven Mall construction program, are estimated at $21.8 million over three years (in 1980 dollars).

TOTAL LABOR AND WAGE REQUIREMENTS
NORTH HAVEN MALL CONSTRUCTION PROGRAM

Month	Person-Month Requirements: Sitework	Building	Tenant Finishes	Total	Wages ($000)
1	60	--	--	60	$ 130.2
2	60	--	--	60	$ 130.2
3	60	--	--	60	$ 130.2
4	60	--	--	60	$ 130.2
5	60	--	--	60	$ 130.2
6	60	--	--	60	$ 130.2
7	37	122	--	159	$ 345.0
8	37	127	--	164	$ 355.9
9	37	135	--	172	$ 373.2
10	37	149	--	186	$ 403.6
11	37	175	--	212	$ 460.0
12	37	251	--	288	$ 625.0
13	95	327	--	422	$ 915.7
14	95	321	--	416	$ 902.7
15	95	320	--	415	$ 900.6
16	95	320	--	415	$ 900.6
17	95	321	--	416	$ 902.7
18	95	320	--	415	$ 900.6
19	--	320	--	320	$ 694.4
20	--	321	--	321	$ 696.6
21	--	320	--	320	$ 694.4
22	--	314	--	314	$ 681.4
23	--	292	--	292	$ 633.6
24	--	271	--	271	$ 588.1
25	--	255	--	255	$ 553.4
26	--	207	--	207	$ 449.2
27	--	181	--	181	$ 392.8
28	--	117	--	117	$ 253.9
29	--	67	330	397	$ 861.5
30	--	47	330	377	$ 818.1
31	--	--	528	528	$ 1,145.7
32	--	--	528	528	$ 1,145.7
33	--	--	528	528	$ 1,145.7
34	--	--	528	528	$ 1,145.7
35	--	--	528	528	$ 1,145.7
Total	1,152	5,600	3,300	10,052	$21,812.7

Source: Standard Industry Computer Model; Gladstone Associates.

The impact of the mall's construction phase on the New Haven regional economy would be related, in large measure, to the number of jobs filled from within the New Haven region.

The North Haven Mall site is within a one-hour drive of the major labor market areas in the state -- Bridgeport, Stamford, Waterbury, Hartford -- as well as the New Haven Labor Market Area itself. Total employment in these labor market areas has been increasing steadily since 1975, with average annual gains ranging from a low of 1.4 percent to a high of 3.8 percent.

Construction employment has, as one would expect, followed general economic trends. For example, between 1972 and 1975, each of the above-mentioned labor market areas lost substantial numbers of construction jobs. The number of construction jobs lost in these five labor market areas during this period totaled 9,588 jobs. The largest losses occurred in the New Haven and Hartford Labor Market areas which lost a total of 1,990 and 4,140 construction jobs respectively. As economic conditions began to improve, the number of construction employment also began to increase. Between 1975 and 1979, each of the labor market areas exhibited increases in construction employment. The greatest increases occurred in the Bridgeport and Stamford Labor Market Areas. Increases of 920 construction jobs in the New Haven Labor Market Area and 1,420 jobs in the Hartford Labor Market Area between 1975 and 1979 were not high enough to offset previous losses.

CONSTRUCTION AND MINING EMPLOYMENT
SELECTED LABOR MARKET AREAS
1972-1979

									Average Annual Change					
									1972-1975		1975-1979		1972-1979	
Labor Market Area	1972	1973	1974	1975	1976	1977	1978	1979	Number	Percent	Number	Percent	Number	Percent
New Haven	8,590	8,920	8,340	6,600	6,080	6,360	6,690	7,520	-663	-7.7%	230	3.5%	-153	-1.8%
Bridgeport	5,830	6,590	5,800	4,510	4,520	4,500	5,320	6,330	-440	-7.5%	445	10.0%	71	1.2%
Stamford	4,060	3,890	3,680	3,160	3,350	4,460	4,970	5,080	-300	-7.4%	480	15.2%	146	3.6%
Waterbury	4,150	4,110	3,760	2,910	2,700	3,060	3,380	3,510	-413	-10.0%	150	5.2%	-91	-2.2%
Hartford	16,240	17,210	15,920	12,100	10,500	11,170	12,050	13,520	-1,380	-8.5%	355	2.9%	-389	-2.4%
Total	38,870	40,720	37,500	29,280	27,150	29,550	32,410	35,960	-3,196	-8.2%	1,670	5.7%	-416	-1.1%

Note: These figures represent data for the month of June.

Source: Connecticut Labor Department; Gladstone Associates.

Construction employment in the New Haven Labor Market Area (as reported by the Connecticut Department of Labor) has consistently represented about 22 percent of the total construction employment in the five labor market areas mentioned above -- New Haven, Bridgeport, Stamford, Waterbury and Hartford. Hence, at minimum, 22 percent of the labor requirements generated by the construction of North Haven Mall are projected to be filled by New Haven area residents.

Since the North Haven Mall site is located within the New Haven labor market area, however, it is likely that the number of jobs filled by New Haven area residents would greatly exceed this 22 percent estimate. Given the significant travel and time cost which might be saved through employment of area workers, it is estimated that more on the order of 45 percent of the construction phase labor requirements would be filled by workers from the New Haven region -- representing an infusion of about $9.8 million (in 1980 dollars) in new wages into the New Haven labor market area. This figure represents 0.4 percent of all wages paid out in the region during 1978.

Of the remaining 5,525 person-months required for the construction phase of the North Haven Mall, it is projected that approximately 75 percent of these positions (slightly more than 4,100 person-months or about $9 million in wages) would go to workers in the Bridgeport, Stamford, Waterbury and Hartford labor market areas.

It must be recognized that the demand for labor has been expressed in person-months and that this is not equivalent to the actual number of jobs that would be created during the construction phase of the North Haven Mall. Peak labor demands would likely require the employment of 400 to 500 individuals (with about 200 of these projected to come

POTENTIAL MONTHLY PAYROLL AND EMPLOYMENT
LOCAL LABOR FORCE 1/
NORTH HAVEN MALL CONSTRUCTION PROGRAM

Month	Employment (person-months)	Payroll ($000)
1	27	$ 58.6
2	27	$ 58.6
3	27	$ 58.6
4	27	$ 58.6
5	27	$ 58.6
6	27	$ 58.6
7	72	$ 156.2
8	74	$ 160.6
9	77	$ 167.1
10	84	$ 182.3
11	95	$ 206.2
12	130	$ 282.1
13	190	$ 412.3
14	187	$ 405.8
15	187	$ 405.8
16	187	$ 405.8
17	187	$ 405.8
18	187	$ 405.8
19	144	$ 312.5
20	144	$ 312.5
21	144	$ 312.5
22	142	$ 308.1
23	131	$ 284.3
24	122	$ 264.7
25	115	$ 249.6
26	93	$ 201.8
27	81	$ 175.8
28	53	$ 115.0
29	179	$ 388.4
30	170	$ 368.9
31	238	$ 516.4
32	238	$ 516.4
33	238	$ 516.4
34	238	$ 516.4
35	238	$ 516.4
Total	4,527	$9,823.5

1/ Represent jobs and payroll accruing to construction workers residing within the New Haven-West Haven SMSA.

Source: Gladstone Associates

from the New Haven labor market area). During the slacker periods, however, the services of some of these individuals would not be required, resulting in the continual employment of approximately 100 of the original 500. Recognizing this, it appears that the projected demand for New Haven area construction workers can be readily met from within the existing labor force. Information from the Connecticut Department of Labor indicates that as of June, 1980, 1,350 individuals were actively seeking construction-related employment. At such levels, the mall construction labor requirements could be accommodated from within the New Haven labor market area.

Multiplier Effects of the Construction Phase. Because of the trading interrelationships among various economic units, both inside and outside the local economy, the initial expenditure of a dollar ordinarily creates economic activity in excess of that one dollar. In other words, an expenditure in the local economy from an outside source becomes income to some economic unit (business or individual) within the local economy. This economic unit, in turn, spends this income for a second level of goods and services, some of it locally and some of it non-locally which, again, takes the form of income to a third level of economic unit which, in turn, expends this income, etc.

Such a process is known as the "multiplier effect", and is measured by applicable multiplier rates -- a quantitative measure of the number of times an initial expenditure is "respent" within the local economy.

Appropriate multiplier rates vary from one economy to another and even from one industry, or type of economic activity, to another within the same local economy. A model, called the "input-output analysis" determines these rates but is available for only a very small number of regions in the United States. Such a model is not available for

the New Haven region and therefore precise multiplier rates cannot be obtained.

Nevertheless, reasonable estimates can be made for the appropriate multiplier rate. Multipliers can range from between 2.0 and 3.5. For purposes of this analysis, a conservative multiplier of 2.5 has been applied against projected wages from the North Haven Mall construction phase. Thus, the injection of an additional $9.8 million in wages into the New Haven region would generate about $24.5 million in economic activity.

It should be noted that although this impact is sizable, construction jobs are temporary and therefore this impact, essentially, would be a one-time effect over roughly a three-year period.

2. Mall Operations Employment

The number of jobs generated by operation of the North Haven Mall would depend on the hiring practices and needs of the anchors and individual mall shops. Based on conversations with retail management personnel, estimates of operations employment have been made incorporating the following assumptions:

1. The North Haven Mall would be in full operation by 1985. The employment and wages projected below are based on full operational needs.
2. On average, total selling and support staff requirements for the anchor stores would be as follows: 0.73 full-time employees per 1,000 square feet; 1.14 part-time employees per 1,000 square feet; and, 0.15 management per 1,000 per square feet. For the individual mall shops, employment needs are estimated at approximately 1.5 employees per 1,000 square feet. Total mall management staff is estimated at approximately 30 people.

3. Gross hourly wages per employee were estimated from salary ranges published by the Connecticut Department of Labor and are estimated as follows: sales and non-sales personnel at $4.00 per hour; management at $20.00 per hour; and mall management personnel at an average wage of $4.79 per hour. Total annual wages paid to mall personnel would be approximately $25.16 million.
4. Full-time and part-time employment are defined at 37.5 and 20.0 hours per week, respectively.
5. Mall operations would require about 1,960 employees -- 1,160 full-time personnel and 770 part-time personnel, for a full-time employment equivalent of 1,600 jobs.

As mentioned above, the mall is expected to be in full operation by the year 1985. Total employment associated with the operation of the anchor stores, the mall shops and the management of the mall itself is estimated at approximately 1,960 jobs. Approximately 206 of these positions -- 93 full-time and 113 part-time -- represent estimates of potential personnel transfers from the existing Sears and Penney's locations into new facilities at the North Haven Mall.

Additionally, due to potential sales transfers to the North Haven Mall from sales locations elsewhere within the SMSA, it is projected that in 1990, under a "worst case" scenario (detailed more fully in Section IIB Fiscal Impacts) approximately 216,000 s.f. to 311,000 s.f. of retail space may close down due to insufficient sales volume. Approximately 350 to 500 jobs could, therefore, be lost through these closings. As a result, not all the positions created at the North Haven Mall would represent new jobs and new wages into the region.

-- Net new positions as a result of the North Haven Mall are projected at between 1,250 and 1,400 positions in 1990. These positions would generate approximately $10.1 to $11.3 million in wages.

Part-Time Employment: About 466 to 523 new part-time positions are expected to be created at the North Haven Mall. Based on the nature of these jobs and the typical experience of retailers, all of these positions would likely be filled by individuals currently residing within the New Haven labor market area or within those fringe towns such as Cheshire, Meriden, Middlefield and so forth. Typically, these part-time positions are filled by individuals wanting to supplement family/household income from other part-time or full-time jobs. These new part-time positions are expected to generate about $2.0 to $2.2 million in annual wages.

Full-Time Employment: New, non-management full-time employment is projected at 700 to 787 new positions. The nature of the job and the average salary for sales personnel and other non-management positions are judged not high enough to induce a person to relocate or travel in excess of 30 to 40 minutes from his or her place of residence. It is conservatively projected, therefore, that the majority of full-time positions -- 85 to 90 percent or roughly 595 to 700 jobs --would be drawn from the New Haven SMSA labor force. Available skill levels in the New Haven labor market area and fringe area towns are adequate to fill this demand.

Employment in the wholesale and retail trade sectors in the New Haven labor market area has increased steadily since the 1975 recessionary

period. Between 1975 and 1979 approximately 1,300 jobs have been added annually in this sector for an average annual growth rate of 3.8 percent. During this time, the trade sector was second only to the service sector in growth.

Recent information from the Connecticut Department of Labor for June, 1980, indicates that at the present time, sales positions are being sought by approximately 650 individuals and support-type positions (clerical, bookkeeping, stock clerks, etc.) by an additional 2,639 individuals.

Further, experience has shown that the potential labor pool is greater than that implied by the State Labor Department figures, which do not reflect job seekers not using the services of the State Job Office. These figures also do not reflect the availability of individuals not currently in the labor force, but who would consider employment if a convenient opportunity arose -- i.e., homemakers, students, etc.

Additionally, the location of the North Haven Mall is such that workers are also likely to be drawn from certain towns on the fringe areas of the SMSA (Cheshire, Meriden, etc.) -- towns within a 20-minute driving time. The labor resources of these individuals are not included in information published for the New Haven Labor Market Area.

Management: Based on conversations with management of the intended anchor stores, it is projected that about 40 percent of the management positions may be filled by individuals who would relocate into the New Haven region. Information published by the Connecticut Department of Labor indicates that the remaining 60 percent of management positions could be easily filled from within the existing labor force. For June, 1980, there were approximately 129 individuals seeking management positions in the trade sector. These 34-38 new management positions would generate annual wages on the order of $1.3-$1.5 million.

New Haven SMSA Capture: Net new employment opportunities which would accrue to New Haven Labor Market Area residents would range between 1,120 to 1,300 positions. These new jobs would represent an increase of between 2.8 and 3.2 percent over existing employment in the wholesale and retail trade sectors, and an increase in total regional employment of between 0.6 and 0.7 percent. The subsequent wages generated by these new positions would be on the order of $8.2 million to $9.5 million and would increase the total wages paid in the New Haven labor market area by about 0.4 percent. The following table details total operational employment required by the North Haven Mall as well as those positions projected to accrue to New Haven area residents.

Multiplier Effects. Multiplier effects have already been explained in the preceding section entitled Construction Employment. A multiplier of 2.5 has also been used to estimate the total economic benefits that mall operational employment would have on the local economy. Based upon wage projections of $8.2 million to $9.5 million to be gained by New Haven area residents, total economic benefits are estimated at approximately $20.5 to $23.8 million per year. Assuming average wages of $15,000 per year, this would translate into secondary impacts of an additional 1,360 to 1,580 jobs. Assuming average wages of $15,000 per year and further assuming that 50 percent of the cost of these goods and services demanded (i.e., the $20.5 and $23.8 million in economic activity) is for labor, then secondary employment impacts are estimated at 680 to 790 jobs. These are permanent on-going jobs, stated on a full time equivalent basis.

NEW EMPLOYMENT OPPORTUNITIES 1/

NORTH HAVEN MALL OPERATIONS PROGRAM

1985 (0% Annual Income Growth)

Position	Total		New Haven SMSA Capture @ 85%		New Haven SMSA Capture @ 90%	
	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)
Selling						
Full Time	574	$ 4.5	488	$ 3.8	517	$ 4.1
Part Time 2/	337	$ 1.4	337	$ 1.4	337	$ 1.4
Subtotal	911	$ 5.9	825	$ 5.2	854	$ 5.5
Support Personnel						
Full Time	99	$ 0.7	84	$ 0.6	89	$ 0.6
Part Time 2/	110	$ 0.5	110	$ 0.5	110	$ 0.5
Subtotal	209	$ 1.2	194	$ 1.1	199	$ 1.1
Management (Full Time) 3/	57	$ 2.2	33	$ 1.3	33	$ 1.3
Mall Management (Full Time) 3/	30	$ 0.3	26	$ 0.2	27	$ 0.3
Total	1,207	$ 9.6	1,078	$ 7.8	1,113	$ 8.2

1/ Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

2/ Assumes all Part Time positions will be filled from within the SMSA.

3/ Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (includes clerical positions).

Source: Gladstone Associates

NEW EMPLOYMENT OPPORTUNITIES 1/

NORTH HAVEN MALL OPERATIONS PROGRAM

1990 (0% Annual Income Growth)

Position	Total		New Haven SMSA Capture @ 85%		New Haven SMSA Capture @ 90%	
	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)
Selling						
Full Time	597	$ 4.7	507	$ 4.0	537	$ 4.2
Part Time 2/	351	$ 1.5	351	$ 1.5	351	$ 1.5
Subtotal	948	$ 6.2	858	$ 5.5	888	$ 5.7
Support Personnel						
Full Time	103	$ 0.8	88	$ 0.7	93	$ 0.7
Part Time 2/	115	$ 0.5	115	$ 0.5	115	$ 0.5
Subtotal	218	$ 1.3	203	$ 1.2	208	$ 1.5
Management (Full Time) 3/	60	$ 2.3	34	$ 1.3	34	$ 1.3
Mall Management (Full Time) 3/	30	$ 0.3	26	$ 0.2	27	$ 0.3
Total	1,256	$ 10.1	1,121	$ 8.2	1,064	$ 8.8

1/ Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

2/ Assumes all Part Time positions will be filled from within the SMSA.

3/ Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (including clerical positions).

Source: Gladstone Associates

NEW EMPLOYMENT OPPORTUNITIES 1/

NORTH HAVEN MALL OPERATIONS PROGRAM

1985 (1% Annual Income Growth)

Position	Total		New Haven SMSA Capture @ 85%		New Haven SMSA Capture @ 90%	
	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)
Selling						
Full Time	616	$ 4.8	524	$ 4.1	554	$ 4.3
Part Time 2/	361	$ 1.5	361	$ 1.5	361	$ 1.5
Subtotal	977	$ 6.3	885	$ 5.6	915	$ 5.8
Support Personnel						
Full Time	106	$ 0.8	90	$ 0.7	95	$ 0.7
Part Time 2/	119	$ 0.5	119	$ 0.5	119	$ 0.5
Subtotal	225	$ 1.3	209	$ 1.2	214	$ 1.2
Management (Full Time) 3/	62	$ 2.4	35	$ 1.4	35	$ 1.4
Mall Management (Full Time) 3/	30	$ 0.3	26	$ 0.2	27	$ 0.3
Total	1,294	$ 10.3	1,155	$ 8.4	1,191	$ 8.7

1/ Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

2/ Assumes all Part Time positions will be filled from within the SMSA.

3/ Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (includes clerical positions).

Source: Gladstone Associates

NEW EMPLOYMENT OPPORTUNITIES 1/
NORTH HAVEN MALL OPERATIONS PROGRAM
1990 (1% Annual Income Growth)

Position	Total		New Haven SMSA Capture @ 85%		New Haven SMSA Capture @ 90%	
	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)
Selling						
Full Time	671	$ 5.2	570	$ 4.4	604	$ 4.7
Part Time 2/	394	$ 1.6	394	$ 1.6	394	$ 1.6
Subtotal	1,065	$ 6.8	964	$ 6.0	998	$ 6.3
Support Personnel						
Full Time	116	$ 0.9	99	$ 0.8	104	$ 0.8
Part Time 2/	129	$ 0.6	129	$ 0.6	129	$ 0.6
Subtotal	245	$ 1.5	228	$ 1.4	233	$ 1.4
Management (Full Time) 3/	68	$ 2.7	38	$ 1.5	38	$ 1.5
Mall Management (Full Time) 3/	30	$ 0.3	26	$ 0.2	27	$ 0.3
Total	1,408	$ 11.3	1,256	$ 9.1	1,296	$ 9.5

1/ Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

2/ Assumes all Part Time positions will be filled from within the SMSA.

3/ Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (includes clerical positions).

Source: Gladstone Associates

TOTAL WAGES
SELECTED LABOR MARKET AREAS
JUNE 1978
(In Thousands of Current Dollars)

Labor Market Area	Manufacturing	Non-Manufacturing	Total
New Haven	$ 627,022.9	$1,592,291.1	$ 2,219,314.0
Bridgeport	$ 977,099.0	$1,042,915.0	$ 2,020,014.0
Stamford	$ 611,656.0	$ 911,928.0	$ 1,603,584.0
Waterbury	$ 449,661.0	$ 524,994.0	$ 974,655.0
Hartford	$1,479,958.0	$3,238,653.0	$ 4,718,611.0
Total	$4,145,396.9	$7,390,781.1	$11,536,178.0

Source: Connecticut Labor Department; Gladstone Associates.

D. Land Use Impacts

D. LAND USE IMPACTS

Development of a major regional mall may carry with it the potential for altering land use patterns in its immediate area. For example, as a significant generator of "consumer traffic," such a facility may well prove an incentive to development of additional, ancillary retail space that would not otherwise take place.

This report section evaluates those potential land use impacts related to the proposed North Haven Mall. Specifically, the following issues are addressed with regard to secondary development:

-- What type and magnitude of space might be developed as a direct result of the mall given the retail traffic flow associated with the mall, an improved "sense of place," or identity for the area, and, possibly, improved infrastructure in the area?

1. Secondary Development

Secondary development has been defined as any residential, commercial, and/or industrial development which is likely to occur in the reasonable foreseeable future as a result of the construction and operation of the North Haven Mall. That is, if the Mall were not constructed, the projected secondary development would not likely take place.

To estimate the potential spin-off effects of the mall, in terms of additional development, the opportunities and constraints for various land uses were examined in several ways.

-- First, regional support for industrial, office, commercial and residential development was examined.

-- North Haven's historical capture rates for such development were also analyzed.

-- The competitive advantage and "sense of place" of the area which might be created as a result of the operation of the North Haven Mall was also evaluated.

-- Inspections of several major shopping centers in Connecticut were undertaken. The purpose was to determine the extent to which the location and operation of a particular shopping center may have influenced additional development.

The extent to which the corridor surrounding the North Haven Mall site (Washington Avenue, Valley Service Road and Mall Drive) would attract additional development was also analyzed and would depend on several factors:

-- ability to access Mall-generated traffic;
-- current land use and zoning;
-- barriers to development;
-- site availability; and
-- demand.

Factors Influencing Development

In analyzing the potential for secondary development as a result of North Haven Mall operations, the land use patterns around several other shopping centers were studied. The extent to which the operations of these centers may or may not have contributed to secondary development was found to be also influenced by other factors. These issues are highlighted in the brief descriptions of the commercial activity surrounding four major retail centers which appear immediately below. Following those brief summaries is an analysis of how those issues might diminish or enhance secondary development associated with mall operations.

Other Regional Shopping Centers

-- Meriden Square. Due to the scarcity of commercially-zoned land close to Meriden Square, it appears that there has been no new commercial development associated with this mall's operations. Built in 1971, Meriden Square contains 546,000 square feet of retail space and is anchored by G. Fox and J.C. Penney's. It is located on Lewis Avenue off Route 66 West. It is bounded by Route 66 on the south and by significant single family residential development on the remaining three edges. The lack of available sites as well as the extensive existing residential development appear primarily responsible for constraining further commercial development in the area.

-- West Farms Mall. The West Farms Mall, anchored by G. Fox, Sage-Allen and J.C. Penney's, was opened in 1974 and contains slightly more than 1 million square feet of space. It is located at the Corbin's Corner exit off I-84. The Corbin's Corner Parkade, built in 1962, is located opposite the Mall and includes Sears, Stop & Shop and a number of small retail establishments.

The West Hartford-Farmington area experienced considerable growth in the 1960's and early 1970's. Development of the Mall here was likely in response to this growth and the continued orientation of growth away from the City of Hartford itself. The locations of the West Farms Mall, in turn, established the area as a retail concentration, contributing to the area's attractiveness and convenience. The only significant development to date has been the recent construction of two small centers about one-quarter to one-half mile from the mall, totaling about 200,00 s.f.

The first of these is a community center planned for 166,150 square feet with on-site parking for 900 cars. It would be anchored by a K-Mart and a Waldbaum's Food Mart and contain several smaller shops. The other center is more of a neighborhood center and would contain a total of about 30,000 s.f. It is expected to include an auto parts type of store, a bank, a restaurant, a hair salon, a finance company, a woman's clothing store and a shoe store.

It is important to note these have been the only significant developments to date -- 200,000 s.f. built within six years after the opening of the mall.

-- Trumbull Shopping Park. Similar to Meriden Square, the operation of the Trumbull Shopping Park does not appear to have had any spin-off effects in terms of additional commercial development in the area surrounding the shopping center site. The mall itself is anchored by G. Fox and Read's and is located just off the Merritt Parkway. Although the easy access from the Parkway to the Mall makes the surrounding area attractive for commercial use, actual commercial development has been constrained by the lack of sites and by the predominance of the surrounding residential uses.

-- Magic Mile. Magic Mile is the name by which the commercial strip along Dixwell Avenue in Hamden is more commonly known. This strip is dominated by three large shopping centers -- Hamden Mart, Hamden Plaza and the Caldor Shopping Center -- totaling about 1 million square feet. There are also a large number of smaller retailing establishments: restaurants, gas stations, fast food chains, etc. The area is convenience-oriented, the major stores being large grocery chains and discount department stores.

Hamden Mart and Hamden Plaza were built in the late 1950's and early 1960's. The Sears store (located across the street from these centers) is over 20 years old as well. Access to this commercial district is excellent from the Wilbur Cross Parkway. Dixwell Avenue is also a main traffic route that runs between New Haven and Hamden and north. It would appear that the commercial growth here began as a response to the population increases in the New Haven suburbs. The fact that Dixwell Avenue is a major artery and that the area has excellent access from the Parkway also contributed to the attractiveness of this particular area. As the Magic Mile strip became a viable, identifiable retail concentration, business was further attracted to the area.

Some apartment units have been constructed on the hill behind the shopping centers. This development cannot be attributed to any one factor, but is likely the result of good access, residential demand, zoning and proximity to an identifiable commercial node.

Ability to Access Mall-Generated Traffic. The projections of Mall-generated traffic have indicated that the two major access routes to the Mall would be Valley Service Road and Mall Drive. Specifically:

-- 55 percent of the Mall-generated traffic would arrive via Valley Service Road. Of these, the majority would reach Valley Service Road from the west (via Wilbur Cross Parkway, State Street, Bishop Street, etc.), and the remaining traffic would arrive from the east -- via I-91 and Route 22.

-- Mall Drive would be the primary access route for 45 percent of all Mall-generated traffic. The majority of the cars would be coming off I-91 with some accessing Mall Drive directly from Washington Avenue.

The increased traffic along these routes would increase the visibility and attractiveness of sites along Washington Avenue, Mall Drive and Valley Service Road for commercial uses.

Current Zoning and Land Use. The North Haven Mall site, as well as those sites to the north and south along Valley Service Road are zoned light industrial. This includes various types of light manufacturing, research facilities, as well as shopping centers, restaurants, hotels and so forth. The corridor on the east side of Washington Avenue is zoned for general commercial and the west side for both commercial and light industrial. The commercial zone permits most of the uses allowed in the light industrial zone with the exception of warehousing and manufacturing establishments.

The land use in this area reflects the zoning restrictions placed upon it. The North Haven Mall site, as well as that land south to Route 22, is predominantly vacant. To the north of the site is the Pratt and Whitney complex and some vacant land. The Washington Avenue corridor is commercially-oriented with several community shopping centers, professional offices, banks and an assortment of fast food restaurants.

Barriers to Development. There are several natural and man-made barriers which are likely to constrain additional development in the vicinity of the North Haven Mall. Specifically, the channel encroachment lines would likely form the western boundary of any development

which might take place along Valley Service Road. Development along the western portion of Valley Service Road would be further contained by the Pratt and Whitney complex to the north and by the I-91 ramps and Route 22 bridge to the south.

On the eastern side of Valley Service Road, development would be constrained by I-91 and the railroad tracks to the east and by the channel encroachment line to some degree along the south.

Site Availability. One of the critical factors affecting induced development opportunities is the availability of feasible sites. Given its present commercial character, it would appear that Washington Avenue would be a prime location for additional commercial development which might occur as a result of the North Haven Mall. At the present time, however, there appears to be a lack of vacant sites which might accommodate any large scale office or retail development. There may be an opportunity, however, for modest expansion of the existing community shopping centers as well as better merchandising of some of the underutilized establishments.

The only major vacant parcels in the vicinity of the North Haven Mall site are along Valley Service Road. This area, given the projected traffic volumes and current land use and zoning, would be the area best suited to any modest scale commercial development.

Demand. The extent to which the North Haven Mall would act as a catalyst for additional development would depend in large part on not only regional demand for a particular service, but also on North Haven's historical capture rates for particular types of development.

-- Office. As a result of continuing growth in the office-using employment sectors (finance, services, etc.), demand for office space is projected at 120,000 s.f. annually over the next 10 years. Based on historical capture rates it was estimated that the town of North Haven might capture 5 percent to 10 percent of this regional market, or 60,000 to 120,000 s.f. over the next ten years. The North Haven Mall, however, would help to create an identifiable commercial node, enhancing the visibility and attractiveness of the surrounding sites. As a result, it is estimated that North Haven might capture an additional 50,000 s.f. of office space.

-- Retail. The demand for retail services is discussed fully in Section IIA. Any induced retail development which may occur would likely take place on sites close to the North Haven Mall. This development would occur less directly as a function of demand than of the increased attractiveness of the area as a retailing location. The increased, easily accessible traffic (generated from both the Mall and the Washington Avenue establishments), the identification of the area as a retailing node, as well as the area's convenient access to major highways are factors which would influence retailers' locational decisions.

-- Residential. It was projected in Section IIB, Employment, that about 40 management positions might be filled by individuals currently residing outside the New Haven SMSA. Assuming that all of these employees and their families relocate to the area, it is likely that a significant number would wish to live fairly close to their place of work. It is projected, therefore, that approximately 30 percent, or 12 families, would seek residence in the town of North Haven. The remaining 28 families are projected to relocate in the various cities and towns throughout the New Haven region.

Opportunities for Secondary Commercial Development

The brief summaries above point out the fact that the operation of a major shopping center would not, in and of itself, cause additional commercial (office or retail) or residential development to occur. Those factors which attract a regional shopping center to a particular

location are also attractive to other retail and office uses as well -- access, visibility, availability of land, proximity to population centers and so forth. Briefly,

- -- In the cases of Meriden Square and Trumbull Shopping Park, although access is good, additional commercial development has been inhibited by lack of available land and the extent of surrounding residential development.
- -- The development of Magic Mile appears to have been the result of uncontrolled, unplanned commercial growth which occurred over a long period of time. Growth probably became concentrated here because of access to major highways, the availability of sites, the growth of suburban towns and the gradual "snowballing" and massing of commercial establishments.
- -- With regard to West Farms Mall, secondary development cannot be attributed to the operations of West Farms itself, but to the combined influence of this center with the Corbins Corner Parkade, the level of traffic generated by these two centers, visibility and access to I-84 and the location of major population centers. Clearly, when all these factors are at play in one location, the potential for spin-off development opportunities are enhanced.

The conditions surrounding the North Haven Mall site are similar to that of the West Farms Mall and Magic Mile described above. As such, it is judged that the North Haven Mall would encourage additional commercial development for the following reasons:

- -- The Washington Avenue area is an established commercial corridor. The operation of the North Haven Mall would further contribute to this area's identification as a major retail node.
- -- The area has good access from both the Wilbur Cross Parkway and I-91.
- -- The demand for additional personal services and convenience retail services in this area may increase as a result of increased consumer traffic into the area.

-- Population growth continues to be concentrated in the suburban areas of the New Haven SMSA.

It is projected that any additional commercial development is likely to take place along Valley Service Road and along Washington Avenue. Due to density of existing commercial development and the lack of sites of adequate size, however, development along Washington Avenue is likely to be limited to some modest expansion of the existing centers and better utilization of vacant and underutilized space.

-- Retail. It is likely that some of the secondary development associated with mall operations would be in the form of new retail space. This development would be reinforced by the existing commercial character of the area. It is likely that retail development might occur on Washington Avenue on infill sites or as expansions of existing centers. Additional retail development might also take place on available sites along Valley Service Road.

-- Office. The provision of additional shopping and dining opportunities would enhance the attractiveness of this area for small scale office development.

-- Timing. Approximately 60 acres of land are potentially available for secondary development along Valley Service Road. It is reasonable to expect that secondary development may not occur until the mall has been successfully operating for 1 to 2 years. Additionally, the nature of the soils on some of these sites may require additional costs and a longer construction period. As such, it is judged that 40% of the available land might be developed within the first 10 years following the mall opening with the remaining land being developed within the second ten year period.

In addition, the extent of secondary development can be limited by the town of North Haven through the planning process and through zoning controls.

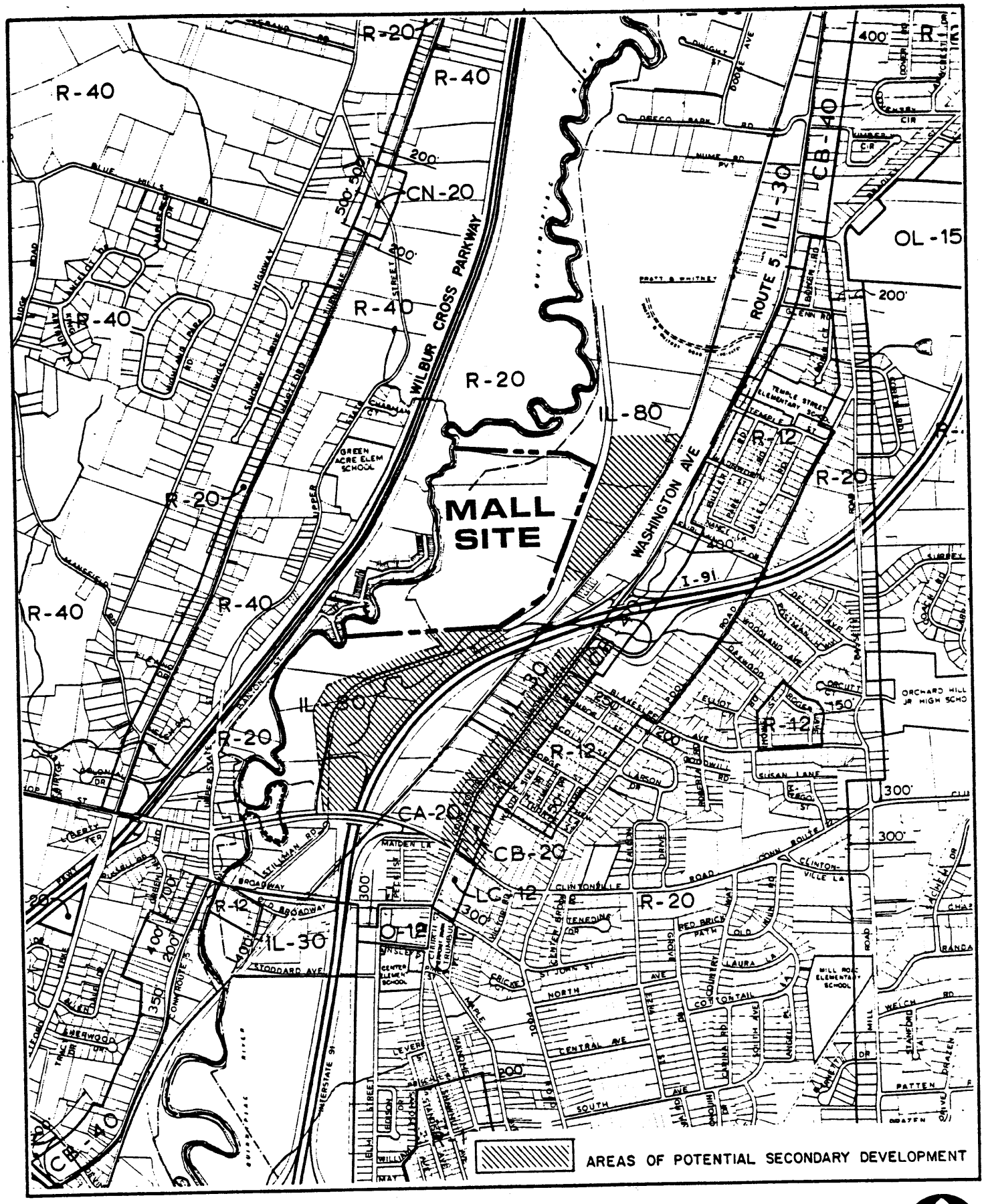
Opportunities for Induced Residential Development. The North Haven Mall would induce residential development only to the extent that people who may be working in the Mall and who are currently living outside the SMSA would relocate to cities/towns within the New Haven region. As mentioned previously, it is estimated that about 40 management positions would be filled by persons currently residing outside the SMSA. Due to the time, costs and inconveniences which may be involved in commuting, all of these individuals and their families are projected to relocate to New Haven SMSA locations.

-- Of these 40 families, it is judged that 30 percent, or 12 families, would relocate to the town of North Haven. This additional development can be accommodated within the existing residential sections of the town.

-- The remaining 28 families are projected to relocate in the various cities and town within the New Haven region.

-- The salaries for mall sales and support personnel are not judged high enough to attract individuals from outside the SMSA to move here for purposes of working at the mall.

-- The construction phase of the mall would not result in additional residential development. The construction jobs are not permanent and are expected to be drawn from a commuting radius of approximately a 1- to 1½-hour drive.



NORTH HAVEN MALL

VALLEY SERVICE ROAD

NORTH HAVEN, CONNECTICUT

POTENTIAL SECONDARY DEVELOPMENT

NORTH HAVEN

E. Cumulative Impacts

E. CUMULATIVE IMPACTS

The outlook for shoppers goods sales in the New Haven metropolitan area has been projected under both a baseline supply condition and the incremental supply condition of the North Haven Mall. These have been detailed in the preceding sections.

There are several proposals for possible additions of retail space devoted primarily to shoppers goods in and around the North Haven Mall trade area. Only one of these proposals -- the refurbishment and addition of 20,000 square feet of retail space at the Connecticut Post Shopping Center in Milford -- is reasonably foreseeable. None of the others are likely to be developed in the reasonably foreseeable future for a variety of reasons, including local zoning controls and approvals, lack of access and unavailability of critical utility services. In addition, the development of the North Haven Mall is likely to reduce the probability of implementation of the other proposals. (See "Retail Project Proposals" further below in this section for a discussion of these proposals.)

The aggregation of the discrete impacts that Connecticut Post and the North Haven Mall would exert on SMSA sales destinations has been defined as "cumulative impacts." The projected impacts of the expanded Connecticut Post facility, presented below, are in addition to the projected impacts of the North Haven Mall, discussed previously.

Further, aside from identifiable discrete projects, there may be new shoppers goods retail space added in new neighborhood or community centers dispersed over several locations (as occurred during the 1970s). The cumulative impacts of this type of development are also assessed here.

1. Connecticut Post Shopping Center

The Connecticut Post Shopping Center contains about 800,000 square feet of retail space, approximately 600,000 square feet of which is estimated to be in shoppers goods space. In 1977 total retail sales for the center (reported by the Census and adjusted by Gladstone Associates to reflect state sales tax) were estimated at $34.1 million, down from $61.7 million in 1972. A significant portion of this sales decline is attributable to the decrease in shoppers goods sales from $41.0 million in 1972 to $18.9 million in 1977. The loss implies a reduction in shoppers goods space productivity from $68 in 1972 to $32 in 1977. Overall productivity for the total center in 1977 is estimated at $43 per square foot. These estimates are well below industry standard which range from $85 to $100 per square foot.

Using Connecticut Department of Transportation data (detailed in the sales flows matrix and the Methodology section -- see Section III(D)(3)), it is estimated that 20.1 percent of the center's 1977 shoppers goods sales, $3.8 million, flowed from residents of the New Haven metropolitan area to Connecticut Post in Milford, which is not within the SMSA.

Under static supply conditions, 1990 Connecticut Post shoppers goods sales originating from New Haven metro households were projected at $3.9 million, assuming zero percent income growth. With the proposed North Haven Mall, it is estimated that approximately 35 percent -- or $1.4 million -- of these sales would be recaptured by the metro. Therefore, under the incremental supply condition (with the North Haven Mall), Connecticut Post's draw (absent any remerchandising or expansion) from the New Haven metropolitan area in 1990 under zero percent income growth

is estimated at $2.5 million. (Under the one percent income growth assumption, this draw would be $2.8 million.)

Connecticut Post Shopping Center -- Proposed

Connecticut Post has been granted permits to enclose and remerchandise the existing center, and to change the internal configuration to provide an additional 20,000 square feet of retail space. For purposes of this analysis, it is assumed that the addition would consist primarily of shoppers goods space. The addition of 20,000 square feet of new space together with enclosure and a partial remerchandising of the existing center's space is likely to occur by 1985. Such actions would likely improve the center's currently low productivity level. While it is not possible to precisely quantify this potential increase it is assumed, in order to provide some quantitative indication of potential impacts, that the center's productivity level might go to $45 per square foot by 1985 (a 40 percent increase over the most recently reported level), generating $8.7 million in new sales, and to $50 per square foot by 1990 (a 60 percent increase), resulting in an additional $11.8 million (again, over 1977 levels) in shoppers goods sales for the center. (It should be noted that these improved sales volumes and productivity levels are in 1977 constant dollar terms.)

POTENTIAL INCREASED SHOPPERS GOODS SALES[1/]

CONNECTICUT POST

(In millions of 1977 constant dollars)

	1985[2/]	1990[2/]
Refurbishing of Existing Space	$7.8	$10.8
New Space	$0.9	$ 1.0
Total	$8.7	$11.8

1/ Assumes remerchandising and a 20,000 s.f. addition.

2/ At an increase of $13 per square foot.

3/ At an increase of $18 per square foot.

Source: Gladstone Associates.

Impacts of Connecticut Post Expansion

As noted above, 20.1 percent of the 1977 shoppers goods sales at Connecticut Post originated from individuals residing within the New Haven SMSA. Given the relatively small increase in projected new space for the center, it has been assumed that shopping patterns would remain relatively constant and that the existing trade area for the center would remain essentially unchanged. Hence, it is estimated that 20.1 percent of the increase in sales for Connecticut Post would be generated by New Haven SMSA residents. This potential additional "capture" of metropolitan area expenditures would thus amount to $1.7 million in 1985 and $2.4 million 1990.

Not all these expenditures, however, would represent diversions from SMSA sales destinations. As noted, $1.7 to $2.4 million in the potential incremental Connecticut Post sales would come from residents of the New Haven SMSA (primarily from the six cities/towns of East Haven, Bethany, Woodbridge, Orange, West Haven and New Haven). Approximately 92% of these incremental sales would represent diversions from existing metropolitan area sales destinations. These diversions and subsequent impacts on SMSA sales are presented in the table below.

PROJECTED POTENTIAL CUMULATIVE IMPACTS
NEW HAVEN SMSA SHOPPERS GOODS SALES

(In millions of 1977 constant dollars)

	Scenario I		Scenario II	
	1985	1990	1985	1990
Projected SMSA Sales 1/	$426.7	$426.9	$455.1	$474.9
Potential Diversions to Connecticut Post	$ 1.6	$ 2.2	$ 1.6	$ 2.2
As Percent of SMSA Sales	0.4%	0.5%	0.4%	0.5%

1/ Under incremental supply. Includes improved inflow resulting from North Haven Mall.

Source: Gladstone Associates

Sales diversions to Connecticut Post would have a minimal impact on shoppers goods sales in the New Haven metropolitan area. Under both Scenarios I and II, these diversions would represent 0.4% of projected metropolitan area shoppers goods sales in 1985 and 0.5% of these sales in 1990.

Of particular interest here are the potential impacts of these diversions to Connecticut Post on the New Haven CBD and on Hamden's Magic Mile -- the two major retail centers in the New Haven metropolitan area. Under the incremental supply condition, expenditures at these two centers which would originate from the six SMSA locations noted above (East Haven, Bethany, Woodbridge, Orange, West Haven and New Haven) were expressed as a percentage of aggregated purchasing power in these towns. Expenditures at New Haven CBD originating from these SMSA locations range from 23 percent in 1985 and 1990 under Scenario I to 22 percent in 1985 and 1990 under Scenario II. The respective percentages of purchasing power from these locations spent at Hamden's Magic Mile are estimated at 5.9 percent under Scenario I and 5.4 percent under Scenario II. To determine the potential diversion of SMSA expenditures from these centers to Connecticut Post, these percentages were applied to the SMSA diversions projected above.

Under these conditions, it is estimated that an improved Connecticut Post (as described) might divert $400,000 to $500,000 annually from New Haven's CBD and $90,000 to $100,000 per year from Hamden's Magic Mile.

2. Community Shopping Centers

Based on past trends concerning additions to the regional retail supply, it is recognized that perhaps 250,000 square feet of additional shoppers goods space might be added to the regional supply through the year 1990 in the form of small community shopping centers, ranging in total size from, say, 100,000 to 150,000 square feet. The anchors of such centers would likely be a single discount department store and a major supermarket. Small specialty stores and personal service establishments might also be included in the centers. These centers would probably be located at the periphery of the New Haven metropolitan area in communities currently underserved by the existing retail supply.

Community shopping centers typically have a narrowly confined market area, perhaps within a driving range of approximately 15 to 20 minutes along local streets. Because of this constricted trade area, as well as the type of merchandise offered in these centers, it is judged that there would be minimal impacts on New Haven's CBD. On the other hand, depending on the location of these centers (no specific proposals are known to date), sales at Hamden's Magic Mile may be impacted to the extent that some shoppers may find comparable retail services in a new center. Such potential impacts can not be reasonably quantified, however, since there are no specific locations, centers or stores to be evaluated.

3. Retail Project Proposals

Possible candidate sites for the provision of additional retail services were identified through interviews with appropriate public agency technical personnel, a representative sampling of private retail

interests, and visits to a cross section of real estate brokers. These investigations have revealed the existence of several proposals relating to major retail centers in and around the trade area of the proposed North Haven Mall. A brief analysis of these proposals, set forth below, reflects that none of them are likely to be implemented in the reasonable foreseeable future.

-- Marsh Hill Road, Orange: This proposal is for a regional shopping mall at a currently undeveloped site near Exit 41 and I-95. No application respecting this possible development has been filed with the Town of Orange. There has been no public indication that any major chain retailer has entered into any commitment for this possible development.

The Town of Orange requires that a shopping center be sewered. With minor and immaterial exceptions, the entire town uses septic tanks. The neighboring municipality of West Haven has refused to allow Orange to tie into its sewer system. Thus, unless West Haven alters its position, this proposal would be required to have sewage treatment facilities. In addition, a mall would require the upgrading and widening of Marsh Hill Road to provide adequate access.

Finally, development of the North Haven Mall is likely to render this proposal more remote.

-- Milford Parkway and Wilbur Cross Parkway, Milford: This proposal is for a regional shopping center at a currently undeveloped site in Milford, Connecticut between the Milford Parkway and Wilbur Cross Parkway.

The property is zoned for low density residential use, and a zoning change is thus required. There is currently no application on file with the Town Planning and Zoning Commission for that change. In addition, a special permit would be necessary, and no application for that approval has been filed. There has been no public indication that any major chain retailer has entered into any commitment for this possible development.

Access is extremely limited and implementation of this proposal would require the construction of an interchange to the Milford Parkway. A plan for this interchange and traffic improvements, as part of an application for certification, has been submitted to the Connecticut State Traffic Commission.

In addition, truck traffic is banned on the Wilbur Cross Parkway and the Milford Parkway; thus, the only access for trucks to the potential site would be through local and principally secondary streets.

The town's sewage treatment plant, which would service a mall, possesses no additional capacity, and a planned expansion requires, at a minimum, federal approval, bond approval, and condemnation of necessary property before construction can commence.

Finally, development of the North Haven Mall would make implementation of this proposal less likely.

-- Magic Mile, Hamden: The most recent proposal by the Town of Hamden relating to this shopping area involves a phased expansion. This proposal involves a phased expansion. this proposal involves the demolition of two existing retail facilities on the eastern side of Dixwell Avenue, and extensive reconstruction of retail structures on top of parking facilities. This proposal has been rejected, according to the Town, by owners of the property.

There have also been, according to the Town, discussions about upgrading these two retail facilities through the addition of several small stores along Dixwell Avenue. The intent of such additions would be to make these centers more attractive from the Avenue. This proposal would require a variance as it would reduce the available parking below that required by the Town's zoning. This proposal has not advanced beyond the discussion stage.

-- East Main Street, Branford: There was a proposal for the possible construction of a shoping mall at East Main Street in Branford off Exit 56 of I-95. Until mid-1979, the proposed site was zoned industrial, a category which would not permit a regional shopping center. The developer sought a zoning change to a "special development area" district for 200 acres, which would have allowed a shopping center development, subject to various other town approvals. In July, 1979, the Town Planning and Zoning Commission granted re-zoning of only 30 of the requested 200 acres.

At present, this development proposal is inactive. Town officials indicated the absence of any active interest in the site for development of a regional shopping center.

III. ATTACHMENTS

A. Background Economic Indicators

A. BACKGROUND ECONOMIC INDICATORS

A detailed analysis of demand for retail goods and services appears in Section IIA of the body of this technical report. This analysis is based on the evaluation of various interrelated economic variables which are detailed below -- population, employment and income.

To better understand the relative position of the New Haven region against that of the State of Connecticut and the larger Southern New England region, trends and projections in population, employment and income for the three areas have been examined and compared. In general, the economic climate of the New Haven SMSA compares favorably with that of the State and the larger region.

- -- While population in the City of New Haven has been declining, population in the suburbs has increased at a rate at least equal to, if not greater than, that of the other larger geographic regions. Population projections indicate that this trend is expected to generally continue through 1990.
- -- Employment in the New Haven Labor Market Area (defined as the New Haven SMSA) has increased steadily since 1975. Recent unemployment rates are approximately equal to that of the State of Connecticut. Employment projections for the region indicate that the employment in the region is expected to increase by about 1 percent annually through 1990.
- -- Per capita income for the SMSA has generally been lower than that of the State of Connecticut but higher than per capita income for the Southern New England area.

These economic indicators are analyzed more fully below.

1. Definition of Relevant Geographic Areas

In the course of this analysis, several geographic areas would be referred to, discussed and/or compared. These have been defined as follows:

-- New Haven-West Haven SMSA. This area is of primary importance because it is the area for which published information is most readily available. In New England, the Standard Metropolitan Statistical Area (SMSA) is defined by the Bureau of the Census to include a city (cities) of specified population which constitute the central city. It also includes contiguous cities and towns when the economic and social relationships between these meet specified criteria of metropolitan character and integration. The composition of the SMSAs are reviewed periodically and certain cities/towns may be added or deleted as deemed necessary. The New Haven-West Haven SMSA is currently defined to include the following: Clinton, New Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, North Haven, Orange, Wallingford, and Woodbridge. (Clinton, Madison and Wallingford were added to the SMSA definition in April, 1973.)

-- North Haven Mall Market Area. Based on current retailing patterns, road networks, driving times and population centers, the principal market area for the proposed mall includes North Haven, New Haven, Wallingford, North Branford, East Haven, Cheshire, Bethany, Woodbridge, Branford, Guilford, Madison, Durham, Middlefield and Meriden.

-- South Central Connecticut Planning Region. The State of Connecticut has been divided into approximately 15 planning regions. These planning regions do not conform to SMSA boundaries and are not recognized by the Bureau of the Census as separate economic units. They have been designated as separate regions as a planning tool only. The South Central Region is centered around the New Haven metropolitan area but is defined differently than the SMSA. The planning region has been defined to include Bethany, Branford, Guilford, Hamden, Madison, Meriden, Milford, New Haven, West Haven, North Branford, North Haven, Orange, Wallingford, and Woodbridge.

NORTH HAVEN MALL

VALLEY SERVICE ROAD

NORTH HAVEN, CONNECTICUT

AREA DEFINITIONS

NEW HAVEN REGION

FIGURE

-- New Haven. The City of New Haven itself and, in particular, the central business district (CBD) are important in that they represent major centers of economic, employment and cultural activity in the region.

-- North Haven. As the municipal location for the proposed mall, the Town of North Haven would experience a series of direct impacts. It is important to understand the existing economic climate as well as recent trends taking place in the Town of North Haven in order to better assess any future impacts of the proposed mall.

-- Southern New England. This is defined to include the states of Massachusetts, Rhode Island and Connecticut. Given their geographic orientation in the Northeast, the major transportation routes running through these states, and general similiarities in terms of population growth, employment growth and economic base, it is important to understand this region as a single economic unit in which its various subareas -- that is the individual states, the SMSAs and the individual cities and towns -- operate.

-- State of Connecticut. The municipalities in the State are most directly affected by the economic policies and decisions made at the State level. Trends on the local and regional levels would be most directly compared to state trends to assess the New Haven region's relative position.

2. Population

New Haven-West Haven SMSA. Population in the metropolitan area, as a whole, has continued to show small increases in population over the last several years. This trend is expected to continue through 1990.

-- Between 1960 and 1970 population increased from 359,400 to 411,300 -- an annual increase of 5,200 persons or 1.4 percent compared with an annual rate of increase of 2.0 percent for the State.

-- This growth in the region slowed since 1970 to about 0.3 percent annually for an increase of about 1,300 persons per year.

-- Population projections indicate that population in the region is expected to increase by 0.3 percent annually through 1990 -- adding about 1,400 persons per year. Additional growth is expected during the period between 1990 and 2000 when total population is expected to increse from 436,100 to 451,900 for an annual growth rate of 0.7 percent.

City of New Haven. The population increases in the New Haven-West Haven SMSA were not distributed equally throughout the region. While many suburban areas were experiencing gains in total population, the City of New Haven has lost population over the last 20 years. For example:

-- between 1960 and 1970, population declined from 152,000 to 137,700 -- an average annual decline of 0.9 percent.

-- in the following five years population continued to decline at a somewhat slower rate -- 0.3 percent annually.

-- current population is estimated at about 130,000.

-- further decreases in the city's population are expected through 1985 when population is projected at 128,000. A reversal in past population trends is then expected and population is expected to reach 135,000 in the year 2000.

Suburbs. While the City of New Haven was experiencing population losses, the population in the suburbs was increasing at a rate at least equal to, if not greater than that of the State of Connecticut and the Southern New England region. These comparisons are detailed in the table below. Briefly,

-- the population in the New Haven suburbs increased at a rate of 3.2 percent annually between 1960 and 1970, adding 6,600 persons per year (as compared with annual rates of increase of 2.0 percent for Connecticut and 1.1 percent for Southern New England).

-- population continued to increase through 1977 at about 0.8 percent annually. This moderating trend reflects the population gains taking place in the state and larger Southern New England region during this same period.

-- the current population of the SMSA is estimated at 425,100 persons. Of this, 296,100 persons, 70 percent of the SMSA population, are residing in places outside of the city of New Haven.

-- These increases in population are expected to continue at a rate of about 0.3 percent annually through 1990 when suburban population is projected to be 306,100. Over the next 10 year period (1990-2000) the suburban growth rate is projected at 2,200 persons per year -- a 0.7 percent annual rate. This is comparable to that rate of increase projected for the state -- 0.7 percent -- but less than that projected for the Southern New England region -- 0.9 percent.

State of Connecticut. The State of Connecticut has had population increases at a rate slightly above that for the Southern New England area.

-- Between 1960 and 1970 the State's population increased at a rate of 2 percent annually, or about 50,000 persons from 2,525,000 in 1960 to 3,032,000 in 1970.

-- With current population at about 3,200,000 this growth is anticipated to have slowed considerably since 1970 to an annual rate of increase of 0.7 percent.

-- Population projections prepared by the Office of Policy and Management indicate that population in the State is expected to increase at less than 1.0 percent annually through the year 2000.

Southern New England. During the last 20 years, the most substantial gains in population occurred between 1960 and 1970 when population increased from 8,543,300 to 9,670,800.

-- During this period the region added approximately 112,700 people per year for an annual growth rate of 1.3 percent.

POPULATION TRENDS AND PROJECTIONS
NEW HAVEN REGION AND SOUTHERN NEW ENGLAND
1960-2000
(In Thousands)

									Average Annual Change											
									1960-1970		1970-1975		1975-1980		1980-1985		1985-1990		1990-2000	
	1960	1970	1975	1977	1980	1985	1990	2000	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
New Haven-West Haven SMSA[1/]																				
City of New Haven	152.0	137.7	132.3	131.4	130.0	128.0	130.0	135.0	-1.4	-0.9%	-1.1	-0.8%	-0.5	-0.3%	-0.4	-0.3%	0.4	0.3%	1.0	0.8%
Suburbs	207.4	273.6	284.7	288.9	295.1	300.9	306.1	316.9	6.6	3.2%	2.2	0.8%	2.1	0.7%	1.1	0.4%	1.0	0.3%	2.2	0.7%
Total	359.4	411.3	417.0	420.3	425.1	428.9	436.1	451.9	5.2	1.4%	1.1	0.3%	1.7	0.4%	0.7	0.2%	1.4	0.3%	3.2	0.7%
Southern New England																				
Connecticut	2,535.2	3,032.2	3,095.0	3,148.9	3,229.5	3,301.5	3,380.1	3,501.9	49.7	2.0%	12.6	0.4%	27.0	0.9%	14.4	0.4%	15.7	0.5%	24.4	0.7%
Balance	6,008.1	6,638.6	6,754.3	6,848.8	6,990.7	7,168.3	7,316.0	7,673.6	63.0	1.1%	23.1	0.3%	47.2	0.7%	35.5	0.5%	29.5	0.4%	71.5	1.0%
Total	8,543.3	9,670.8	9,849.3	9,997.7	10,220.2	10,469.8	10,696.1	11,175.5	112.7	1.3%	35.7	0.4%	74.2	0.7%	49.9	0.5%	45.2	0.4%	95.9	0.9%

Source: U.S. Census, P-25 Estimates; Office of State Planning, Massachusetts; Rhode Island Statewide Planning Program; State of Connecticut, Office of Policy and Management; Gladstone Associates.

-- Of the three states, Connecticut experienced the highest annual growth rate during this period -- 2.0 percent annually.

-- From 1970 to 1975 growth had slowed considerably with slightly more than 35,000 persons added each year for an annual growth rate of 0.4 percent. Current estimates place the region's population at about 10 million people.

-- Projections from each state indicate that population growth will not be as substantial as reported through the early 1970's. Through 1990, population growth in the region is projected at about 0.4 percent annually. Between 1990 and 2000, however, population is projected to reach 11.2 million for an annual increase of 0.9 percent.

3. Employment

Employment is measured in two ways: by place of residence, that is the number of residents of a particular area who are employed (these individuals may or may not work in the town in which they live); and by place of work -- for a given area the number of persons working for firms located in that particular area.

New Haven-West Haven SMSA. As mentioned in the previous section, the SMSA definition closely approximates that of the North Haven Mall Market Area. Therefore, employment data reported for this area is expected to be indicative of the employment situation in the Mall's Market Area. Employment trends in the region are outlined as follows:

-- Nonagricultural employment trends, as reported by place of work by the Bureau of Labor Statistics, show that between 1972 and 1975 the New Haven Labor Market Area lost slightly more than 1,100 jobs annually --a decline of 0.7 percent per year.

-- The largest decreases were in the construction and manufacturing sectors. Employment gains of 1.0 to 2.0 percent annually, however, were registered in the service and finance sectors.

-- These losses in employment were due more to national economic conditions than to circumstances peculiar to the New Haven SMSA economy. Since 1975, there have been significant increases in employment. An average of 4,567 jobs were added annually between 1975 and 1979 for an annual rate increase of 2.7 percent. The largest employment gains were in the following sectors:

Wholesale and Retail Trade	3.8% annual increase
Finance	3.1% annual increase
Services	4.0% annual increase
Government	3.5% annual increase

-- Employment projects prepared by the Connecticut Department of Transportation indicate that employment will increase by about 1,800 jobs per year through 1990. The largest increases are expected to occur in the trade sector.

These trends reflect shifts in the employment base of not only the New Haven region, but of Southern New England as well, away from manufacturing and into the services and trade sectors.

The unemployment rate in the SMSA (which is reported by place of residence) has generally reflected trends on the State level. Unemployment in the region did peak at a slightly higher point in 1976 -- 9.9 percent as compared with 9.5 percent for the state. Recent figures show unemployment rates for the SMSA and the State at 5.2 and 5.1 percent respectively.

TRENDS IN UNEMPLOYMENT RATES

	1972	1973	1974	1975	1976	1977	1978	1979
New Haven SMSA	8.0%	6.2%	6.1%	9.1%	9.9%	8.1%	4.8%	5.2%
State of Connecticut	8.6%	6.3%	6.1%	9.1%	9.5%	7.0%	5.2%	5.1%

NONAGRICULTURAL EMPLOYMENT TRENDS[1/]
NEW HAVEN LABOR MARKET AREA [2/]
1972-1977

	1972	1973	1974	1975	1976	1977	1978	1979	Average Annual Change 1972-1975 Number	1972-1975 Percent	1975-1979 Number	1975-1979 Percent	1972-1979 Number	1972-1979 Percent
Manufacturing	46,940	49,120	49,090	43,690	43,320	43,860	45,260	44,750	-1,083	-2.3%	265	0.6%	-313	-0.7%
Construction and Mining	8,530	8,480	7,750	6,120	5,690	5,670	6,020	6,130	-803	-9.4%	3	--	-343	-4.0%
T.C.U.[3/]	14,240	14,380	14,550	14,140	14,050	14,360	15,220	15,280	-33	-0.2%	285	2.0%	149	1.0%
Wholesale and Retail Trade	35,300	35,700	36,230	35,110	36,180	36,890	39,440	40,460	-63	-0.2%	1,338	3.8%	737	2.1%
F.I.R.E.[4/]	9,060	9,150	9,360	9,330	9,560	9,620	10,180	10,470	90	1.0%	285	3.1%	201	2.2%
Services	37,300	38,480	40,160	39,900	40,920	41,780	45,200	46,230	867	2.3%	1,583	4.0%	1,276	3.4%
Government	23,440	23,050	22,740	23,060	23,370	23,280	26,280	26,290	-127	-0.5%	808	3.5%	407	1.7%
Total	174,810	178,360	179,880	171,350	173,090	175,460	187,600	189,610	-1,152	-0.7%	4,567	2.7%	2,114	1.2%

1/ By place of work.

2/ Includes Clinton, New Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, North Haven, Orange, Wallingford and Woodbridge.

3/ Transportation, Communications and Utilities.

4/ Finance, Insurance and Real Estate.

Source: U.S. Department of Labor, Bureau of Labor Statistics; Gladstone Associates.

EMPLOYMENT TRENDS AND PROJECTIONS
NEW HAVEN-WEST HAVEN SMSA
1970-2000

							Average Annual Change									
							1970-1975		1975-1980		1980-1985		1985-1990		1990-2000	
	1970	1975	1980	1985	1990	2000	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Manufacturing	53,969	44,263	52,724	55,044	57,364	61,568	-1,941	-3.4%	1,692	3.8%	464	0.9%	464	0.8%	420	0.7%
Retail	33,021	35,307	39,809	42,877	45,945	48,984	457	1.4%	900	0.3%	614	1.5%	614	1.5%	304	0.7%
Service	64,329	56,543	60,120	62,455	64,789	70,261	-1,557	-2.4%	715	1.3%	467	0.8%	467	0.7%	547	0.8%
Other	24,443	38,170	38,391	39,814	41,236	40,910	2,745	11.2%	44	0.1%	285	0.7%	284	0.7%	-33	-0.1%
Total	175,762	174,283	191,044	200,190	209,334	221,723	-296	-0.2%	3,351	1.9%	1,830	1.0%	1,829	0.9%	1,238	0.6%

Source: Connecticut Department of Transportation; Gladstone Associates.

EMPLOYMENT AND UNEMPLOYMENT TRENDS[1/]
NEW HAVEN LABOR MARKET,[2/] STATE OF CONNECTICUT
1972-1979

	1972	1973	1974	1975	1976	1977	1978	1979	Average Annual Change 1972-1975 Number	1972-1975 Percent	1975-1979 Number	1975-1979 Percent	1972-1979 Number	1972-1979 Percent
Labor Market Area														
Labor Force	193,800	194,200	194,500	194,428	195,922	198,018	200,740	203,542	209	0.1%	2,274	1.2%	1,392	0.7%
Employed	178,200	182,200	182,600	176,769	176,507	181,970	191,078	192,968	-477	-0.3%	4,045	2.3%	2,110	1.2%
Unemployed	15,600	12,000	11,900	17,659	19,415	16,048	9,662	10,574	686	4.4%	-1,771	-10.0%	-718	-4.6%
Unemployment Rate	8.0%	6.2%	6.1%	9.1%	9.9%	8.1%	4.8%	5.2%	--	--	--	--	--	--
State of Connecticut														
Labor Force	1,410,000	1,421,000	1,439,000	1,454,000	1,464,000	1,500,000	1,519,000	1,581,000	14,667	1.0%	31,750	2.2%	24,429	1.7%
Employed	1,289,000	1,332,000	1,351,000	1,321,000	1,326,000	1,394,000	1,440,000	1,500,000	10,667	0.8%	44,750	3.4%	30,143	1.7%
Unemployed	121,000	89,000	88,000	133,000	138,000	106,000	79,000	81,000	4,000	3.3%	-13,000	-9.8%	-5.714	-4.7%
Unemployment Rate	8.6%	6.3%	6.1%	9.1%	9.5%	7.0%	5.2%	5.1%	--	--	--	--	--	--

1/ By place of residence.

2/ Includes Clinton, New Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, North Haven, Orange, Wallingford and Woodbridge.

Source: Connecticut Labor Department; Employment Security Division; Gladstone Associates.

City of New Haven. Unemployment rates among city residents have typically been higher than those of the Labor Market Area as a whole. Figures for 1979 show unemployment for the city at 6.4 percent down from a high of 11.7 percent in 1976.

Suburbs. Unemployment rates have varied among the cities and towns surrounding New Haven. In general, suburban residents have experienced a much lower rate of unemployment than have New Haven city residents. The larger and more urban communities such as East Haven and West Haven typically have had unemployment rates which have been higher than other suburban towns.

State of Connecticut. The employment base in the State is undergoing changes similar to those taking place in the New Haven region. The State's employment base is gradually shifting from a dependence on the manufacturing sector to the one which is more service oriented.

- -- Between 1972 and 1975 the construction, manufacturing and trade sectors were losing about 8,100 jobs annually. These losses were offset by gains in the trade, finance, service and government sectors totaling 19,100 jobs per year.
- -- Total employment increased by an annual rate of 0.9 percent between 1972 and 1975 from 1,190,300 to 1,223,400.
- -- The State appears to have recovered from the temporary effects of the 1975 recession. Between 1975 and 1979 total employment increased from 1,223,400 to 1,400,900 -- an average annual increase of 4.8 percent.

Unemployment in the state peaked at 9.5 percent in 1976 and has been at about 5 percent for the last two years.

TRENDS IN UNEMPLOYMENT RATES
NORTH HAVEN LABOR MARKET AREA
1975-1979

SMSA	1975	1976	1977	1978	1979
North Haven	7.5%	8.6%	7.0%	4.2%	4.4%
New Haven	11.3%	11.7%	9.5%	5.6%	6.4%
Wallingford	8.7%	8.6%	6.6%	3.8%	4.0%
Hamden	7.6%	9.2%	7.8%	4.5%	4.7%
North Branford	7.0%	8.2%	7.0%	4.1%	4.4%
East Haven	10.3%	11.6%	9.7%	6.0%	6.3%
Bethany	5.5%	7.3%	6.3%	4.1%	3.3%
Woodbridge	4.3%	5.5%	4.2%	2.6%	2.9%
Orange	5.5%	6.4%	5.3%	3.4%	3.8%
West Haven	10.9%	11.6%	9.5%	5.7%	6.3%
Branford	7.8%	9.1%	7.3%	4.8%	4.6%
Guilford	5.3%	6.4%	5.5%	3.2%	3.1%
Madison	4.5%	5.2%	4.4%	2.6%	2.6%
Clinton	7.2%	8.6%	7.8%	4.2%	3.5%

Source: Connecticut Department of Labor; Gladstone Associates.

EMPLOYMENT TRENDS
STATE OF CONNECTICUT
1972-1979
(In Thousands)

	1972	1973	1974	1975	1976	1977	1978	1979	Average Annual Change 1972-1975 Number	1972-1975 Percent	1975-1979 Number	1975-1979 Percent	1972-1979 Number	1972-1979 Percent
Manufacturing	400.1	420.2	430.9	389.8	397.0	406.7	419.6	435.1	-3.4	-0.8%	15.1	3.9%	5.0	1.2%
Construction	57.6	59.6	54.6	44.9	40.5	43.7	47.9	51.3	-4.2	-7.3%	2.1	4.7%	-0.9	-0.2%
Transportation and Public Utilities	54.5	56.0	56.1	53.1	52.9	55.4	57.8	61.3	-0.5	-0.9%	2.7	5.1%	1.0	1.8%
Wholesale and Retail Trade	235.0	244.5	250.4	251.0	256.2	267.3	284.2	297.3	5.3	2.3%	15.4	6.1%	8.9	3.9%
F.I.R.E.[1/]	78.2	82.6	85.2	86.0	87.7	90.7	95.2	99.7	2.6	3.3%	4.6	5.3%	3.1	4.0%
Services and Miscellaneous	199.7	208.1	215.9	219.9	230.4	242.9	262.2	274.7	6.7	3.4%	18.3	8.3%	10.7	5.4%
Government	165.2	167.7	171.0	178.7	175.1	173.3	179.2	181.5	4.5	2.7%	0.9	0.5%	2.3	1.4%
Total	1,190.3	1,238.7	1,264.1	1,223.4	1,239.8	1,280.0	1,346.1	1,400.9	11.0	0.9%	59.1	4.8%	30.1	2.5%

1/ Finance, Insurance and Real Estate.

Source: U.S. Department of Labor, Bureau of Labor Statistics; Gladstone Associates.

Southern New England. Employment in the Southern New England region has increased over the past seven years. Although there was a temporary decrease in total employment in 1975 due to the temporary effects of the recession, total employment has increased from 3,800,100 in 1972 to 4,268,400 in 1977 -- an annual increase of 2.3 percent.

The nature of employment in Southern New England has been changing as new jobs are added. The relative importance of manufacturing has been decreasing for several years. For example:

- In 1972, 29.8 percent of total employment was concentrated in manufacturing, 4.7 percent in construction and 5.0 percent in transportation and utilities.
- In 1979 these sectors represented 28.1 percent, 3.2 percent and 4.4 percent of total employment respectively.
- During this period the total number of service-related jobs were increasing at a rate greater than the rate of increase in total employment. Between 1972 and 1979, annual increases in employment in the trade sector was 2.1 percent, in the finance sector 2.9 percent, in the service sector 5.2 percent and in the government sector 2.4 percent. At the same time, the rate of increase in total employment was 2.3 percent.

4. Per Capita and Aggregate Income Trends

There are two ways in which income trends can be expressed. Income figures are typically reported in "current" dollars. These are dollars which are unadjusted for the effects of inflation. Income trends expressed in current dollars are contained within the data package at the end of these technical reports.

The second method adjusts these dollars for the effects of inflation by using the Consumer Price Index (CPI). By expressing all money in constant dollars, real changes in income or expenditures can be readily seen.

EMPLOYMENT TRENDS
SOUTHERN NEW ENGLAND[1/]
1972-1979
(In Thousands)

	1972	1973	1974	1975	1976	1977	1978	1979	Average Annual Change 1972-1975 Number	1972-1975 Percent	1975-1979 Number	1975-1979 Percent	1972-1979 Number	1972-1979 Percent
Manufacturing	1,131.3	1,180.4	1,196.2	1,080.3	1,113.5	1,156.5	1,206.4	1,237.7	17.0	1.5%	39.4	3.6%	15.2	1.3%
Construction	180.0	182.5	165.0	136.2	119.5	123.0	134.2	141.5	-14.6	-8.1%	1.3	0.9%	-5.5	-3.1%
Transportation and Public Utilities	191.3	194.8	194.7	180.1	179.0	183.6	188.4	194.9	-3.7	-1.9%	3.7	2.1%	0.5	0.3%
Wholesale and Retail Trade	810.6	836.5	844.2	834.2	850.7	878.4	910.9	945.8	7.9	1.0%	27.9	3.3%	19.3	2.1%
F.I.R.E.[2/]	223.9	233.8	240.3	239.0	241.5	253.0	261.9	268.8	5.0	2.2%	7.5	3.1%	6.4	2.9%
Services and Miscellaneous	697.9	735.2	764.0	774.3	815.7	723.1	898.4	949.9	25.5	3.7%	43.9	5.7%	36.0	5.2%
Government	565.1	574.8	580.4	600.6	607.9	588.0	668.2	661.2	11.8	2.1%	15.2	2.5%	13.7	2.4%
Total	3,800.1	3,938.0	3,984.8	3,844.7	3,927.8	3,905.6	4,268.4	4,399.8	48.9	1.3%	138.9	3.6%	85.6	2.3%

1/ Includes Massachusetts, Rhode Island and Connecticut.

2/ Finance, Insurance and Real Estate.

Source: U.S. Department of Labor, Bureau of Labor Statistics; Gladstone Associates.

Aggregate income is a function of both population trends and per capita income trends. Since income and population may not increase at similar rates, the rate of increse in aggregate income may be higher or lower than the changes reported in per capita income. Detailed tables for aggregate income trends are included in the data package at the end of these technical reports.

PER CAPITA INCOME TRENDS
1972-1977
(In 1977 Constant Dollars)

	1969	1972	1975	1977
New Haven-West Haven SMSA				
New Haven	$5,351	$5,428	$5,159	$5,249
Balance SMSA	$6,534	$6,679	$6,378	$6,493
Total	$6,137	$6,269	$5,990	$6,100
State of Connecticut	$6,560	$6,629	$6,407	$6,600
Southern New England	$5,958	$6,143	$5,907	$6,093

Source: U.S. Census, P-25 Estimates; Gladstone Associates.

New Haven-West Haven SMSA. As detailed above, per capita income for the SMSA has generally been lower than that of the State of Connecticut but higher than that reported for the Southern New England region. The lower overall per capita income figures for the SMSA are attributable primarily to the lower per capita income figures reported for the City of New Haven.

-- For example, in 1977, per capita income for the City of New Haven was estimated at $5,249 as compared to $6,100 for the SMSA.

-- Per capita income figures for the suburban areas are comparable to those of the State of Connecticut and higher than those reported for the Southern New England region. In 1977, per capita income for the suburban areas in the New Haven-West Haven SMSA was estimated at $6,493; for the State of Connecticut $6,600; and for Southern New England $6,093.

Growth in per capita income was negatively affected by the temporary downturn in the national economy in 1975. The loss of jobs in the New Haven Labor Market Area, described above, subsequently affected personal earnings.

-- The gains in per capita income reported between 1969 and 1972 (from $6,137 to $6,269) were eroded by the recession and fell to about $5,990 in 1975.

-- Given the substantial gains in employment between 1975 and 1977, however, 1977 income for the SMSA is estimated at $6,100.

-- In light of the substantial increases in employment in the New Haven Labor Market Area, the continued strengthening of the New Haven economy and that of the State of Connecticut, and the favorable outlook for the economy of the Southern New England region as a whole, it is anticipated that per capita income in the New Haven SMSA will likely increase at an annual rate of at least 1.0 percent over the next several years. For purposes of the retail analysis, increases in per capita income through 1990 have been conservatively estimated at a range of between 0 percent and 1 percent annually.
Source: Connecticut Department of Labor

State of Connecticut. Per capita income trends for the State of Connecticut have followed the pattern outlined above. Income increased from $6,560 in 1969 to $6,629 in 1972 but fell to $6,497 in 1975 as a result of the recession. Recent estimates place 1977 per capita income for the State at about $6,600.

Southern New England. Per capita income trends for the Southern New England region are detailed in the table above. Recent estimates place 1977 per capita income for the area at $6,093.

POPULATION TRENDS AND PROJECTIONS
NORTH HAVEN STUDY AREA
1960-2000

									Average Annual Change									
									1960-1970		1970-1980		1980-1985		1985-1990		1990-2000	
	1960	1970	1975	1977	1980	1985	1990	2000	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
SMSA Cities/Towns																		
North Haven	15,935	22,194	23,007	23,388	24,960	24,250	24,480	25,150	626	3.9%	177	0.8%	58	0.2%	46	0.2%	67	0.3%
New Haven	152,048	137,707	132,294	131,376	130,000	128,000	130,000	135,000	-1,434	-0.9%	-771	-0.5%	-400	-0.3%	400	0.3%	500	0.3%
Wallingford	29,920	35,714	35,248	36,349	38,000	39,500	40,500	42,500	579	1.9%	229	0.6%	300	0.8%	200	0.5%	200	0.5%
Hamden	41,056	49,357	50,005	50,283	50,700	51,100	51,300	51,600	830	2.0%	134	0.3%	80	0.2%	40	0.1%	30	0.1%
North Branford	6,771	10,778	11,500	11,680	11,950	12,100	12,350	13,100	400	5.9%	117	1.1%	30	0.3%	50	0.4%	75	0.6%
East Haven	21,388	25,120	24,816	24,710	24,550	24,600	24,950	25,250	373	1.7%	-57	-0.2%	10	0.1%	70	0.3%	30	0.1%
Bethany	2,384	3,857	4,302	4,381	4,500	4,650	4,800	5,070	147	6.2%	64	1.7%	30	0.7%	30	0.6%	27	0.5%
Woodbridge	5,183	7,673	8,392	8,475	8,600	8,700	8,800	8,950	249	4.8%	93	1.2%	20	0.2%	20	0.2%	15	0.2%
Orange	8,547	13,524	15,010	14,686	14,200	14,400	14,600	15,000	498	5.8%	68	0.5%	40	0.3%	40	0.3%	40	0.3%
West Haven	43,032	52,851	53,954	53,912	53,850	54,450	54,800	56,000	985	2.3%	100	0.2%	120	0.2%	70	0.1%	120	0.2%
Branford	16,610	20,444	21,358	21,803	22,470	22,940	23,390	24,050	383	2.3%	203	0.9%	94	0.4%	90	0.4%	66	0.3%
Guilford	7,913	12,033	14,212	15,227	16,750	17,520	18,250	20,100	412	5.2%	472	3.9%	154	0.9%	146	0.8%	185	1.0%
Madison	4,567	9,768	12,091	12,915	14,150	14,850	15,600	17,150	520	11.4%	438	4.5%	140	1.0%	160	1.1%	150	1.0%
Clinton	4,166	10,267	10,824	11,062	11,420	11,830	12,260	12,960	610	14.6%	115	1.1%	82	0.7%	86	0.7%	70	0.6%
SMSA Total	359,489	411,287	417,013	420,247	425,100	428,890	436,130	451,880	5,178	1.4%	1,361	0.3%	758	0.2%	1,448	0.3%	1,575	0.4%
Non-SMSA Cities/Towns																		
Durham	3,096	4,489	4,935	5,130	5,430	5,720	6,110	6,580	139	4.5%	94	2.1%	58	1.1%	78	1.4%	47	0.8%
Middlefield	3,255	4,132	4,207	4,250	4,300	4,500	4,700	4,820	88	2.7%	17	0.4%	40	0.9%	40	0.9%	12	0.3%
Meriden	51,850	55,959	56,294	56,700	57,350	,900	58,250	59,100	411	0.8%	139	0.2%	110	0.2%	70	0.1%	85	0.1%
Cheshire	13,383	19,051	21,104	21,862	23,000	24,500	26,000	28,000	567	4.2%	395	2.1%	300	1.3%	300	1.2%	200	0.8%
Non-SMSA Total	71,584	83,631	86,540	87,942	90,080	92,620	95,060	98,500	1,205	1.7%	645	0.8%	508	0.6%	488	0.5%	344	0.4%

Source: U.S. Census, 1960 and 1970; Connecticut Department of Health, Preliminary Population Projections, State of Connecticut, Office of Policy and Management; Gladstone Associates.

PER CAPITA INCOME TRENDS
NORTH HAVEN STUDY AREA
1969-1977
(In Thousands of 1977 Constant Dollars)

					Average Annual Change					
					1969-1972		1972-1975		1975-1977	
	1969	1972	1975	1977	Number	Percent	Number	Percent	Number	Percent
SMSA Cities/Towns										
North Haven	$ 6,928	$ 7,090	$ 6,717	$ 6,833	$ 54	0.7%	-$124	-1.7%	$ 58	0.9%
New Haven	$ 5,351	$ 5,428	$ 5,159	$ 5,249	$ 26	0.4%	-$ 90	-1.7%	$ 45	0.9%
Wallingford	$ 5,873	$ 6,022	$ 5,849	$ 5,951	$ 50	0.8%	-$ 58	-0.9%	$ 51	0.9%
Hamden	$ 6,945	$ 6,828	$ 6,446	$ 6,558	-$ 39	-0.6%	-$127	-1.9%	$ 56	0.9%
North Branford	$ 5,768	$ 5,985	$ 5,575	$ 5,671	$ 72	1.2%	-$137	-2.3%	$ 48	0.9%
East Haven	$ 5,285	$ 5,497	$ 5,163	$ 5,252	$ 71	1.3%	-$111	-2.0%	$ 44	0.9%
Bethany	$ 7,662	$ 7,867	$ 7,608	$ 7,740	$ 68	0.9%	-$ 86	-1.1%	$ 66	0.9%
Woodbridge	$11,178	$11,464	$11,008	$11,200	$ 95	0.8%	-$152	1.3%	$ 96	0.9%
Orange	$ 8,451	$ 8,777	$ 8,352	$ 8,497	$109	1.3%	-$142	-1.6%	$ 73	0.9%
West Haven	$ 5,724	$ 5,862	$ 5,507	$ 5,602	$ 46	0.8%	-$118	-2.0%	$ 48	0.9%
Branford	$ 7,021	$ 7,145	$ 6,870	$ 6,998	$ 41	0.6%	-$ 91	-1.3%	$ 64	0.9%
Guilford	$ 6,837	$ 7,096	$ 6,919	$ 7,039	$ 86	1.3%	-$ 59	-0.8%	$ 60	0.9%
Madison	$ 7,117	$ 7,398	$ 7,077	$ 7,199	$ 94	1.3%	-$107	-1.4%	$ 61	0.9%
Clinton	$ 5,751	$ 5,947	$ 5,707	$ 5,850	$ 65	1.1%	-$ 80	-1.3%	$ 72	1.0%
SMSA Total	$ 6,137	$ 6,269	$ 5,990	$ 6,100	$ 44	0.7%	-$ 93	-1.5%	$ 55	0.9%
Non-SMSA Cities/Towns										
Durham	$ 5,778	$ 6,123	$ 5,921	$ 6,023	$115	2.0%	-$ 67	-1.1%	$ 51	0.9%
Middlefield	$ 5,998	$ 6,109	$ 5,955	$ 6,058	$ 37	0.6%	-$ 51	-0.8%	$ 52	0.9%
Meriden	$ 5,707	$ 5,720	$ 5,535	$ 5,631	$ 4	0.1%	-$ 62	-1.1%	$ 48	0.9%
Cheshire	$ 6,831	$ 6,870	$ 6,606	$ 6,720	$ 13	0.2%	-$ 88	-1.3%	$ 57	0.9%
Non-SMSA Total	$ 5,730	$ 5,774	$ 5,591	$ 5,708	$ 15	0.3%	-$ 61	-1.1%	$ 59	1.1%

Source: U.S. Census, P-25 Estimates; Gladstone Associates.

AGGREGATE INCOME TRENDS
NORTH HAVEN SMSA AREA
1969-1977
(In Thousands of 1977 Constant Dollars)

	1969	1972	1975	1977	Average Annual Change 1969-1972 Number	1969-1972 Percent	1972-1975 Number	1972-1975 Percent	1975-1977 Number	1975-1977 Percent
SMSA Cities/Towns										
North Haven	$ 153,756	$ 159,665	$ 154,538	$ 159,810	$ 1,969	1.3%	-$ 1,709	-1.1%	$ 2,636	1.7%
New Haven	$ 736,850	$ 735,811	$ 682,505	$ 689,593	-$ 346	-0.1%	-$17,769	-2.4%	$ 3,544	0.5%
Wallingford	$ 209,734	$ 213,949	$ 206,166	$ 216,313	$ 1,405	0.7%	-$ 2,594	-1.2%	$ 5,074	2.5%
Hamden	$ 342,774	$ 338,796	$ 322,332	$ 329,756	-$ 1,326	-0.4%	-$ 5,488	-1.6%	$ 3,712	1.2%
North Branford	$ 62,167	$ 66,236	$ 64,112	$ 66,237	$ 1,356	2.2%	-$ 708	-1.1%	$ 1,062	1.7%
East Haven	$ 132,760	$ 137,418	$ 128,125	$ 129,777	$ 1,553	1.2%	-$ 3,098	-2.3%	$ 826	0.6%
Bethany	$ 29,554	$ 31,743	$ 33,331	$ 33,909	$ 730	2.5%	$ 529	1.6%	$ 289	0.9%
Woodbridge	$ 85,767	$ 91,265	$ 92,379	$ 94,920	$ 1,833	2.1%	$ 371	0.4%	$ 1,271	1.4%
Orange	$ 114,291	$ 123,914	$ 125,364	$ 124,835	$ 3,208	2.8%	$ 483	0.4%	-$ 265	-0.2%
West Haven	$ 302,520	$ 312,407	$ 297,125	$ 302,015	$ 3,296	1.1%	-$ 5,094	-1.6%	$ 2,445	0.8%
Branford	$ 143,533	$ 148,686	$ 146,729	$ 152,577	$ 1,718	1.2%	-$ 652	-0.4%	$ 2,924	2.0%
Guilford	$ 82,267	$ 91,575	$ 98,333	$ 107,183	$ 3,103	3.8%	$ 2,253	2.5%	$ 4,425	4.5%
Madison	$ 69,519	$ 79,136	$ 85,568	$ 92,975	$ 3,206	4.6%	$ 2,144	2.7%	$ 3,704	4.3%
Clinton	$ 59,045	$ 62,378	$ 61,770	$ 65,266	$ 1,111	1.9%	-$ 203	-0.3%	$ 1,748	-2.8%
SMSA Total	$2,524,539	$2,592,979	$2,498,377	$2,565,166	$22,816	0.9%	-$31,535	-1.2%	$33,395	1.3%
Non-SMSA Cities/Towns										
Durham	$ 25,937	$ 28,574	$ 29,220	$ 30,898	$ 878	0.3%	$ 215	0.8%	$ 839	2.9%
Middlefield	$ 24,782	$ 25,427	$ 25,053	$ 25,925	$ 215	0.9%	-$ 125	-0.5%	$ 436	1.7%
Meriden	$ 319,365	$ 320,860	$ 311,567	$ 320,355	$ 498	0.2%	-$ 3,091	-1.0%	$ 4,384	1.4%
Cheshire	$ 136,150	$ 139,608	$ 139,413	$ 146,913	$ 3,153	2.4%	-$ 65	-0.1%	$ 3,750	2.7%
Non-SMSA Total	$ 506,234	$ 514,469	$ 505,273	$ 524,091	$ 4,744	0.9%	-$ 3,066	-0.6%	$ 9,409	1.9%

Source: U.S. Census, F-25 Estimates; Gladstone Associates.

PER CAPITA INCOME TRENDS
NORTH HAVEN STUDY AREA
1969-1977
(In Thousands of Current Dollars)

					Average Annual Change					
					1969-1972		1972-1975		1975-1977	
	1969	1972	1975	1977	Number	Percent	Number	Percent	Number	Percent
SMSA Cities/Towns										
North Haven	$ 4,103	$ 4,792	$ 5,840	$ 6,833	$230	5.6%	$349	7.3%	$497	8.5%
New Haven	$ 3,169	$ 3,669	$ 4,486	$ 5,249	$167	5.3%	$272	7.4%	$382	8.5%
Wallingford	$ 3,478	$ 4,070	$ 5,086	$ 5,951	$196	5.6%	$338	8.3%	$432	8.5%
Hamden	$ 4,113	$ 4,615	$ 5,605	$ 6,558	$167	4.1%	$330	7.2%	$477	8.5%
North Branford	$ 3,416	$ 4,045	$ 4,847	$ 5,671	$210	6.1%	$267	6.6%	$412	8.5%
East Haven	$ 3,130	$ 3,715	$ 4,489	$ 5,252	$195	6.2%	$258	6.9%	$381	8.5%
Bethany	$ 4,538	$ 5,317	$ 6,615	$ 7,740	$260	5.7%	$433	8.1%	$562	8.5%
Woodbridge	$ 6,620	$ 7,748	$ 9,572	$11,200	$376	5.7%	$608	7.8%	$814	8.5%
Orange	$ 5,005	$ 5,932	$ 7,262	$ 8,497	$309	6.2%	$443	7.5%	$618	8.5%
West Haven	$ 3,390	$ 3,962	$ 4,788	$ 5,602	$191	5.6%	$275	6.9%	$407	8.5%
Branford	$ 4,158	$ 4,829	$ 5,973	$ 6,998	$224	5.3%	$381	7.9%	$513	8.6%
Guilford	$ 4,049	$ 4,796	$ 6,016	$ 7,039	$249	6.1%	$407	8.5%	$511	8.5%
Madison	$ 4,215	$ 5,000	$ 6,153	$ 7,199	$262	6.2%	$384	7.7%	$523	8.5%
Clinton	$ 3,406	$ 4,019	$ 4,962	$ 5,850	$204	6.0%	$314	7.8%	$444	8.9%
SMSA Total	$ 3,635	$ 4,237	$ 5,208	$ 6,100	$201	5.5%	$329	7.6%	$446	8.6%
Non-SMSA Cities/Towns										
Durham	$ 3,422	$ 4,138	$ 5,148	$ 6,023	$239	7.0%	$337	8.1%	$437	8.5%
Middlefield	$ 3,552	$ 4,129	$ 5,178	$ 6,058	$192	5.4%	$350	8.5%	$440	8.5%
Meriden	$ 3,380	$ 3,866	$ 4,813	$ 5,631	$162	4.8%	$316	8.2%	$409	8.5%
Cheshire	$ 4,406	$ 4,643	$ 5,744	$ 6,720	$199	4.9%	$367	8.4%	$488	8.5%
Non-SMSA Total	$ 3,766	$ 3,923	$ 4,924	$ 5,708	$ 52	1.4%	$344	8.5%	$261	5.3%

Source: U.S. Census, P-25 Estimates; Gladstone Associates.

AGGREGATE INCOME TRENDS
NORTH HAVEN STUDY AREA
1969-1977
(In Thousands of Current Dollars)

					Average Annual Change					
					1969-1972		1972-1975		1975-1977	
SMSA Cities/Towns	1969	1972	1975	1977	Number	Percent	Number	Percent	Number	Percent
North Haven	$ 91,062	$ 107,911	$ 134,361	$ 159,810	$ 5,616	6.2%	$ 8,817	8.2%	$ 12,725	9.5%
New Haven	$ 436,393	$ 497,304	$ 593,471	$ 689,593	$20,304	4.6%	$ 32,056	6.4%	$ 48,061	8.1%
Wallingford	$ 124,213	$ 144,599	$ 179,271	$ 216,313	$ 6,795	5.5%	$ 11,557	8.0%	$ 18,521	10.3%
Hamden	$ 203,005	$ 228,978	$ 280,278	$ 329,756	$ 8,658	4.2%	$ 17,101	7.5%	$ 24,739	8.8%
North Branford	$ 36,818	$ 44,766	$ 55,740	$ 66,465	$ 2,649	7.2%	$ 3,658	8.2%	$ 5,363	9.6%
East Haven	$ 78,626	$ 92,878	$ 111,399	$ 129,777	$ 4,751	6.0%	$ 6,174	6.6%	$ 9,189	8.2%
Bethany	$ 17,503	$ 21,454	$ 28,458	$ 34,172	$ 1,317	7.5%	$ 2,335	10.9%	$ 2,857	10.0%
Woodbridge	$ 50,795	$ 61,682	$ 80,328	$ 94,920	$ 3,629	7.1%	$ 6,215	10.1%	$ 7,296	9.1%
Orange	$ 67,688	$ 83,748	$ 109,003	$ 124,835	$ 5,353	7.9%	$ 8,418	10.1%	$ 7,916	7.3%
West Haven	$ 179,165	$ 211,143	$ 258,332	$ 302,015	$10,659	5.9%	$ 15,727	7.4%	$ 21,842	8.5%
Branford	$ 85,006	$ 100,491	$ 127,571	$ 152,577	$ 5,162	6.1%	$ 9,027	9.0%	$ 12,503	9.8%
Guilford	$ 48,722	$ 61,892	$ 85,499	$ 107,350	$ 4,390	9.0%	$ 7,869	12.7%	$ 10,926	12.8%
Madison	$ 41,172	$ 53,485	$ 74,396	$ 92,975	$ 4,104	10.0%	$ 6,970	13.0%	$ 9,290	12.5%
Clinton	$ 34,969	$ 42,159	$ 53,709	$ 65,266	$ 2,396	6.9%	$ 3,850	9.1%	$ 5,779	10.8%
SMSA Total	$1,495,137	$1,752,490	$2,171,816	$2,565,824	$85,783	5.7%	$139,774	8.0%	$197,007	9.1%
Non-SMSA Cities/Towns										
Durham	$ 15,361	$ 19,312	$ 20,470	$ 30,898	$ 1,317	8.6%	$ 386	2.0%	$ 5,214	25.4%
Middlefield	$ 14,677	$ 17,185	$ 21,784	$ 25,925	$ 836	5.7%	$ 1,533	8.9%	$ 2,071	9.5%
Meriden	$ 189,141	$ 216,856	$ 279,943	$ 320,355	$ 9,238	4.9%	$ 21,029	9.7%	$ 20,206	7.2%
Cheshire	$ 77,080	$ 94,355	$ 121,221	$ 146,913	$ 5,758	7.5%	$ 8,955	9.5%	$ 12,846	10.6%
Non-SMSA Total	$ 296,259	$ 347,708	$ 443,418	$ 524,091	$17,149	5.8%	$ 31,903	9.2%	$ 40,337	9.1%

Source: U.S. Census, P-25 Estimates; Gladstone Associates.

POPULATION TRENDS AND PROJECTIONS
SOUTHERN NEW ENGLAND
1970-2000
(In Thousands)

								Average Annual Change											
								1960-1970		1970-1975		1975-1980		1980-1985		1985-1990		1990-2000	
	1960	1970	1975	1980	1985	1990	2000	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Massachusetts	5,148.6	5,689.0	5,818.0	6,046.0	6,208.0	6,338.0	6,668.0	54.0	1.0%	25.8	0.5%	45.6	0.9%	32.4	0.5%	26.0	0.4%	33.0	0.5%
Rhode Island	859.5	949.6	936.3	944.7	960.3	978.0	1,005.6	9.0	1.0%	-2.7	-0.3%	1.7	0.2%	3.1	0.3%	3.5	0.4%	2.8	0.3%
Connecticut	2,535.2	3,032.2	3,095.0	3,229.5	3,301.5	3,380.1	3,501.9	49.7	2.0%	12.6	0.4%	26.9	0.9%	14.4	0.4%	15.7	0.5%	12.2	0.4%
Total	8,543.3	9,670.8	9,849.3	10,220.2	10,469.8	10,696.1	11,175.5	112.7	1.3%	35.7	0.4%	74.2	0.7%	49.9	0.5%	45.2	0.4%	48.0	0.4%

Source: U.S. Census, P-25 Estimates, State of Massachusetts, Office of State Planning; Rhode Island Statewide Planning Program; State of Connecticut, Office of Policy and Management; Gladstone Associates.

PER CAPITA INCOME TRENDS
SOUTHERN NEW ENGLAND
1969-1977
(In Thousands)

					Average Annual Change					
					1969-1972		1972-1975		1975-1977	
	1969	1972	1975	1977	Number	Percent	Number	Percent	Number	Percent
Constant Dollars										
Massachusetts	$5,753	$5,991	$5,709	$5,900	$ 79	1.4%	-$ 94	-1.7%	$ 96	1.7%
Rhode Island	$5,270	$5,509	$5,484	$5,600	$ 80	1.5%	-$ 8	-0.2%	$ 58	1.1%
Connecticut	$6,560	$6,629	$6,407	$6,600	$ 23	0.4%	-$ 74	-1.1%	$ 97	1.[illegible]
Total-Southern New England	$5,958	$6,143	$5,907	$6,093	$ 62	1.0%	-$ 79	-1.3%	$ 93	1.6%
Current Dollars										
Massachusetts	$3,407	$4,049	$4,964	$5,900	$214	6.3%	$305	7.5%	$468	9.4%
Rhode Island	$3,121	$3,723	$4,769	$5,600	$201	6.4%	$345	9.4%	$416	8.7%
Connecticut	$3,885	$4,480	$5,571	$6,600	$198	5.1%	$364	8.1%	$515	9.2%
Total-Southern New England	$3,529	$4,152	$5,136	$6,093	$207	5.9%	$328	7.9%	$479	9.3%

Source: U.S. Census, P-25 Estimates; Gladstone Associates.

AGGREGATE INCOME TRENDS
SOUTHERN NEW ENGLAND
1969-1977
(In Thousands)

	1969	1972	1975	1977	Average Annual Change 1969-1972 Number	1969-1972 Percent	1972-1975 Number	1972-1975 Percent	1975-1977 Number	1975-1977 Percent
Constant Dollars										
Massachusetts	$32,728,817	$34,760,947	$33,215,522	$34,506,091	$677,377	2.1%	-$515,142	-1.5%	$ 645,285	1.9%
Rhode Island	$ 5,004,392	$ 5,237,129	$ 5,135,444	$ 5,440,422	$ 77,579	1.6%	-$ 33,895	-0.6%	$ 152,489	3.0%
Connecticut	$19,891,232	$20,356,455	$19,830,305	$20,922,450	$155,074	0.8%	-$175,383	-0.8%	$ 546,073	2.8%
Total - Southern New England	$57,624,441	$60,354,531	$58,181,271	$60,868,963	$910,030	1.6%	-$724,420	-1.2%	$1,343,847	2.3%
Current Dollars										
Massachusetts	$19,382,423	$23,493,476	$28,880,552	$34,506,091	$1,370,351	7.1%	$1,795,692	8.4%	$2,812,770	9.7%
Rhode Island	$ 2,963,702	$ 3,539,557	$ 4,465,215	$ 5,540,422	$ 191,952	6.5%	$ 308,553	8.7%	$ 487,604	10.9%
Connecticut	$11,780,097	$13,758,080	$17,242,245	$20,922,450	$ 659,328	5.6%	$1,161,388	8.4%	$1,840,103	10.7%
Total - Southern New England	$34,126,222	$40,791,113	$50,588,012	$60,868,963	$2,221,631	6.5%	$3,265,633	8.0%	$5,140,477	10.1%

Source: U.S. Census, P-25 Estimates; Rhode Island Department of Statewide Planning; Massachusetts Department of Commerce; Connecticut Department of Policy and Management; Gladstone Associates.

B. Retail Sales Trends and Projections

B. RETAIL SALES TRENDS AND PROJECTIONS

1. Retail Sales Trends

This section discusses and compares general trends in retail sales for the major geographic areas outlined in Section A, Background Economic Indicators. Presented here are trends in total retail sales (exclusive of automobile dealers and gasoline service stations) with a particular emphasis on shoppers goods sales. The shoppers goods category has been defined to include general merchandise, apparel, furniture and miscellaneous shoppers goods. (The latter includes sporting goods, books, stationery, jewelry, hobby, camera, gift, luggage and sewing goods.) It is estimated that 73 percent of the potential sales of the North Haven Mall would be generated from the shoppers goods categories. (For adjustments made to reported sales to reflect State Sales Tax in 1972 and 1977 and underreporting of sales tax and finance charges in 1972, please refer to the Methodology Section following.)

Within the context of overall sales trends for the New Haven SMSA it is important to understand the detailed sales flows. Specifically, sales inflows -- dollars spent inside the New Haven SMSA by residents who live elsewhere -- and sales outflows -- dollars spent outside the SMSA by SMSA residents -- will be analyzed. An understanding of these flows is of prime importance in analyzing the need for additional retail services. These flows are discussed more fully later in this section.

In general, the information presented below will show that shoppers goods sales in the SMSA have decreased between 1972 and 1977 (the most recent year for which Retail Census information is available). These

sales losses are primarily attributable to losses in the City of New Haven and are of particular concern in light of increases in shoppers goods sales for both the State of Connecticut and the Southern New England Region (Massachusetts, Rhode Island and Connecticut).

SHOPPERS GOODS SALES TRENDS
1972-1977
(In Thousands of 1977 Constant Dollars)

	1972	1977	Average Annual Change 1972-1977 Number	Percent
New Haven-West Haven SMSA	$ 376,780	$ 374,812	-$ 394	-0.1%
State of Connecticut	$2,607,740	$2,752,945	$29,041	1.1%
Southern New England	$8,162,933	$8,347,282	$36,870	0.5%

Source: U.S. Census of Retail Trade; Gladstone Associates.

New Haven-West Haven SMSA. The New Haven metropolitan area experienced a decrease in both the total number of retail establishments as well as in total retail sales between 1972 and 1977. Specifically:

-- There was a net loss of 135 retail establishments during this five year period. Of these, 103 losses occurred within the City of New Haven. (Source: U.S. Census of Retail Trade)

-- Paralleling this loss in establishments in the SMSA was a loss in total retail sales. Retail sales dropped from $1072.0 million in 1972 to $1068.0 million in 1977 -- an annual loss of 0.1 percent, or $785,000 per year.

-- A significant portion of this decline in sales is attributable to sales losses within the City of New Haven. Sales in the city declined at an annual rate of 2.7 percent (as compared with a rate of decline in establishments of 1.8 percent) for an average annual loss in sales of $9.8 million.

-- Retail sales in the suburban areas were increasing to offset these declines. As detailed in the table below, retail sales in the balance of the SMSA increased at an annual rate of 1.3 percent or $9 million per year.

RETAIL SALES

(In Millions of 1977 Constant Dollars)

	1972	1977	Average Annual Change Number	Average Annual Change Percent
New Haven-West Haven SMSA				
City of New Haven	$ 361.1	$ 311.9	-$ 9.8	-2.7%
Balance of SMSA	$ 710.9	$ 756.1	$ 9.0	1.3%
Total	$1,072.0	$1,068.0	-$ 0.8	-0.1%

Trends in shoppers goods sales for the SMSA generally reflect the trends in total retail sales discussed above.

-- Between 1972 and 1977 SMSA shoppers goods sales dropped from $376.8 million to $374.8 million -- an average annual loss of 0.1 percent. These losses were concentrated in the apparel and furniture categories.

Due to disclosure problems within the general merchandise category, the Census Bureau did not publish total shoppers goods sales for the City of New Haven. From the information available and detailed below, however, it is evident that for those categories for which city sales information is available -- apparel, furniture and miscellaneous --sales did decrease between 1972 and 1977. These losses accounted for the major portion of sales registered within the SMSA. Annual rates of decline for reported shoppers goods categories were as follows:

RETAIL SALES TRENDS[1/]
NEW HAVEN-WEST HAVEN SMSA
1972-1977
(In Thousands of 1977 Constant Dollars)[2/]

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishments	Sales	Number	Percent	Amount	Percent
GAF								
General Merchandise	80	$ 182,992	71	$ 187,023	-2	-2.3%	$ 806	0.4%
Apparel	310	$ 93,349	294	$ 87,009	-3	-1.0%	-$1,268	-1.4%
Furniture	269	$ 66,600	273	$ 61,269	1	0.3%	-$1,[illegible]	-1.6%
Subtotal	659	$ 342,941	638	$ 335,301	-4	-0.6%	-$1,528	-0.4%
Convenience	663	$ 407,680	609	$ 358,748	-11	-1.6%	-$9,786	-2.4%
Eating and Drinking	736	$ 108,757	780	$ 148,848	9	1.2%	$8,018	7.4%
Building and Hardware	149	$ 54,462	156	$ 44,728	1	0.9%	-$1,947	-3.6%
Miscellaneous	1,119	$ 158,062	1,008	$ 180,351	-22	-2.0%	$4,458	2.8%
Total	3,326	$1,071,902	3,191	$1,067,976	-27	-0.8%	-$ 785	-0.1%

Note: 1972 SMSA definition does not include Clinton, Wallingford and Madison which were added to SMSA definition in April 1973.

1/ Adjusted to reflect State Sales Tax.

2/ Using retail CPI and separate food CPI.

Source: U.S. Census of Retail Trade; Gladstone Associates.

SHOPPERS GOODS SALES TRENDS
NEW HAVEN-WEST HAVEN SMSA
1972-1977
(In Thousands of 1977 Constant Dollars)1/

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishments	Sales	Number	Percent	Amount	Percent
General Merchandise	80	$182,992	71	$187,023	-2	-2.3%	$ 806	0.4%
Apparel	310	$ 93,349	294	$ 87,009	-3	-1.0%	-$1,268	-1.4%
Furniture	269	$ 66,600	273	$ 61,269	1	0.3%	-$1,066	-1.6%
Miscellaneous Shoppers Goods	252	$ 33,839	304	$ 39,510	10	4.0%	$1,134	3.4%
Total	911	$376,780	942	$374,811	6	0.7%	-$ 394	-0.1%

Note: Reflects adjustment for underreporting and State Sales Tax.

1/ Using retail CPI.

Source: U.S. Census of Retail Trade, 1972 and 1977; Gladstone Associates.

SHOPPERS GOODS SALES
CITY OF NEW HAVEN
1972-1977
(In Thousands of 1977 Constant Dollars)

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishments	Sales	Number	Percent	Amount	Percent
General Merchandise	18	(D)	19	$ 56,439	--	--	N/A	--
Apparel	144	$50,625	121	$ 37,765	-5	-3.2%	-$2,572	-5.1%
Furniture	100	$32,051	93	$ 24,608	-1	-1.0%	-$1,489	-4.6%
Miscellaneous Shoppers Goods	69	$16,129	71	$ 14,618	--	--	-$ 302	-1.9%
Total	331	N/A	302	$133,430	-6	-2.4%	N/A	--

Note: Reflects adjustment for underreporting and State Sales Tax.

Source: U.S. Census of Retail Trade, 1972 and 1977; Gladstone Associates.

	SMSA	City of New Haven
General Merchandise	0.4%	Not Available
Apparel	-1.4%	-5.1%
Furniture	-1.6%	-4.6%
Miscellaneous	3.4%	-1.9%

New Haven CBD. The New Haven CBD has been one of the major retail concentrations in the SMSA. As city population has decreased and suburban population increased, however, the importance of the CBD as a retailing core has substantially declined:

-- In 1977 total sales in the CBD were almost matched by sales in Hamden's Magic Mile. Sales in the CBD were estimated at $103.9 million as compared with $103.4 million for Magic Mile.

-- The number of establishments in the CBD declined from 236 in 1972 to 225 in 1977. Total sales fell from $120.9 million to $103.9 million -- an annual decrease in sales of 2.9 percent.

-- The losses in total sales and total retail establishments was paralleled by similar sales declines in the shoppers goods category. Shoppers goods sales declined by an average of $3.1 million annually from $99.4 million in 1972 to $83.9 million in 1977. Losses in establishments totaled thirteen, falling from 133 to 120. (Source: U.S. Census of Retail Trade)

DOWNTOWN NEW HAVEN RETAIL SALES

1972-1977

(In Millions of 1977 Constant Dollars)1/

Year	Total Sales	Shoppers Goods 2/
1972	$120.9	$ 99.4
1977	$103.9	$ 83.9
Average Annual Change:	1972-1977	
Volume	-$ 3.4	-$ 3.1
Percent	-2.9%	-3.1%

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting.

1/ Adjusted by retail price indices as reported by Bureau of Labor Statistics.

2/ 1972 shoppers goods sales reported by Halcyon and RPA memorandum dated March 8, 1979.

Source: U.S. Census of Retail Trade.

State of Connecticut. The losses in retail establishments and sales within the New Haven-West Haven SMSA were not reflected at the state level.

-- Total retail sales for the state increased by 1.4 percent annually between 1972 and 1977. Over this five year period sales increased from $7,641.0 million to $8,172.0 million. The most significant gains occurred in the Eating and Drinking category, a 7.5 percent annual increase, and in the Miscellaneous category, a 4.8 percent annual increase.

-- These sales increases occurred despite an overall loss in the number of retail establishments, from 23,478 in 1972 to 22,701 in 1977.

Shoppers goods sales also increased during this five year period although at a somewhat slower rate than total sales. Sales in this category increased from $2,607.7 million in 1972 to $2,752.9 million in 1977. This represents an annual increase of $29 million or 1.1 percent.

Major Retail Centers: A "major retail center" has been defined by the Bureau of the Census as a concentration of at least 25 retail stores located inside an SMSA but outside a CBD. At least one of these stores must be a general merchandise store with a minimum of 100,000 s.f. of total under-roof floor space. Three major retail centers have been identified within the New Haven SMSA. These include the New Haven CBD, Magic Mile and the White Acres Shopping Center in Orange. Census information for White Acres is only available for the year 1972.

There are also several major retail centers (MRCs) which are not within the SMSA. Based on a detailed analysis of sales flows (described further below), however, it was determined that these centers do, in fact, service the retailing needs of SMSA residents. As such, it is important to present trends in sales for these areas. Specifically:

- -- Between 1972 and 1977 total retail sales increased at both Meriden Square and the Naugatuck Valley Mall. The respective annual rates of increase were 4.1% and 3.1%.
- -- Due to disclosure problems, comparisons of total sales for 1972 and 1977 are not possible for the Trumbull Shopping Park. Shoppers Goods Sales, however, remained relatively stable during this period.
- -- West Farms Mall did not open until 1974. In 1977, however, it registered total sales of $134.6 million with 95% of this, or $127.5 million, in shoppers goods sales.
- -- Connecticut Post experienced a significant decline in sales during this period. Total sales decreased by $27.6 million from $61.7 million in 1972 to $34.1 million in 1977. (Source: U.S. Census of Retail Trade)

Southern New England. Due to changes in the definition of taxable items in Massachusetts between 1972 and 1977, it is not possible to accurately reflect trends for total retail sales in the region. It is possible, however, to discuss sales trends in the shoppers goods category during this period.

-- Between 1972 and 1977 shoppers goods sales, as expressed in constant dollars, increased slightly from $8,162.9 million in 1972 to $8,347.5 million in 1977 -- an annual rate of increase of 0.4 percent.

2. Shoppers Goods Sales Flows - New Haven SMSA 1977

The specific sales flows within the New Haven SMSA are of particular concern in this analysis. Using shoppers surveys and Connecticut Department of Transportation short-purpose trip data (as described in the Methodology section following), sales flows (based on shoppers goods purchasing power) on a town-by-town basis were estimated for each city/town in the North Haven Mall Market Area. These flows are detailed in the tables entitled, Distribution of Shoppers Goods Purchasing Power, 1977 included at the end of this Section. These sales flows have been summarized into four general categories:

-- Sales Retention. Purchasing power of SMSA residents which is spent at SMSA sales locations (referred to as metro to metro).

-- Sales Outflows. Purchasing power of SMSA residents which is spent at sales locations outside the SMSA (referred to as metro to non-metro).

-- Sales Inflows. Purchasing power of non-SMSA residents which is spent at sales locations within the SMSA (referred to as non-metro to metro).

-- Untapped Inflow Potentials. Purchasing power of individuals living outside the SMSA which is spent at sales locations outside the SMSA (referred to as non-metro to non-metro).

RETAIL SALES TRENDS[1/]
STATE OF CONNECTICUT
1972-1977
(In Thousands of 1977 Constant Dollars)[2/]

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishment	Sales	Number	Percent	Amount	Percent
GAF								
General Merchandise	654	$1,287,956	571	$1,345,392	-17	-2.5%	$ 11,487	0.9%
Apparel	2,089	$ 554,710	1,940	$ 596,764	-30	-1.4%	$ 8,410	1.5%
Furniture	1,884	$ 487,643	2,056	$ 486,777	34	1.8%	-$ 173	-0.03%
Subtotal	4,627	$2,330,309	4,567	$2,428,933	-13	-0.3%	$ 19,724	0.8%
Convenience	4,356	$2,934,517	3,962	$2,727,486	-79	-1.8%	-$ 41,406	-1.4%
Eating and Drinking	4,848	$ 693,861	5,169	$ 954,109	64	1.3%	$ 52,050	7.5%
Building and Hardware	1,105	$ 435,377	1,193	$ 513,564	18	1.6%	$ 15,637	3.6%
Miscellaneous	8,542	$1,246,907	7,810	$1,547,878	-146	-1.7%	$ 60,194	4.8%
Total	23,478	$7,640,971	22,701	$8,171,970	-156	-0.7%	$106,199	1.4%

1/ Adjusted to reflect State Sales Tax.

2/ Converted using separate retail CPI.

Source: U.S. Census of Retail Trade; Gladstone Associates.

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RETAIL SALES TRENDS
MAJOR RETAIL CENTERS
GREATER NEW HAVEN
1972-1977
(In Thousands of 1977 Constant Dollars)[4/]

	1972[1/]				1977[2/]				Average Annual Change, 1972-1977							
									Total Retail		GAF		Convenience		Other	
	Total Retail	GAF	Convenience[3/]	Other	Total Retail	GAF	Convenience[3/]	Other	Number	Percent	Number	Percent	Number	Percent	Number	Percent
New Haven CbD	$120,900	(D)	$15,636	(D)	$103,928	$ 83,943	$13,366	$ 6,619	-$3,394	-2.8%	N/A	--	-$ 454	-2.9%	N/A	--
"Miracle Mile", Hamden	$106,345	$55,504	$33,330	$17,512	$103,352	$ 55,161	$30,887	$17,304	-$ 600	-0.6%	-$ 69	-0.1%	-$ 489	-1.5%	-$ 42	-0.2%
Connecticut Post Area	$ 61,657	$40,996	$17,914	$ 2,747	$ 34,149	$ 18,921	$12,709	$ 2,519	-$5,502	-8.9%	-$4,415	-10.8%	-$1,041	-5.8%	-$ 46	-1.7%
Trumbull Shopping Park	N/A	$62,394	(D)	(D)	$ 73,494	$ 62,378	$10,567	$ 549	N/A	--	N/A	--	N/A	--	N/A	--
West Farms Area	N/A	N/A	N/A	N/A	$134,596	$127,487	$ 4,926	$ 2,183	N/A	--	N/A	--	N/A	--	N/A	--
Meriden Square Area	$36,301	$34,187	$ 1,617	$ 497	$ 43,685	$ 40,401	(D)	(D)	$1,476	4.1%	$1,243	3.6%	N/A	--	N/A	--
Naugatuck Valley Mall Area	$ 79,489	$61,038	$16,945	$ 1,506	$ 91,995	$ 76,777	$14,078	$ 1,140	$2,502	3.1%	$3,148	5.2%	-$ 573	-0.9%	-$ 73	-4.9%

Note: (D) Federal law prohibits publishing data which might disclose the operations of an individual establishment or business.

1/ Adjusted to reflect State Sales Tax which averaged 5.75% in 1972.

2/ Adjusted to reflect State Sales Tax which averaged 7% in 1977.

3/ These items are exempted from State Sales Tax.

4/ Using revised retail CPI.

Source: U.S. Census of Retail Trade, Major Retail Centers; Gladstone Associates.

SHOPPERS GOODS TRENDS[1/]
SOUTHERN NEW ENGLAND [2/]
1972-1977
(In Thousands of 1977 Constant Dollars)

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishments	Sales	Number	Percent	Amount	Percent
General Merchandise	2,687	$4,040,784	1,880	$4,115,353	-161	-6.0%	$14,914	0.4%
Apparel	6,191	$1,689,143	5,847	$1,805,344	-69	-1.1%	$23,240	1.4%
Furniture	5,558	$1,519,288	5,823	$1,363,258	53	1.0%	-$31,206	-2.1%
Miscellaneous Shoppers Goods	6,838	$ 913,718	7,863	$1,063,327	205	3.0%	$29,922	3.3%
Total	21,274	$8,162,933	21,413	$8,347,282	28	0.1%	$36,870	0.4%

1/ Adjusted to reflect State Sales Tax.

2/ Includes Rhode Island, Massachusetts, and Connecticut.

Source: U.S. Census of Retail Trade; U.S. Census P-25 Estimates; Gladstone Associates.

The purpose here is to identify where sales outflows are occurring and opportunities for stabilizing, if not improving, SMSA sales inflows.

To determine the level of sales inflows/outflows, sales to SMSA locations by SMSA and by the four mall market area, non-SMSA towns (Durham, Middlefield, Meriden and Cheshire) of origination (taken from matrices preceding), were aggregated and compared to total purchasing power in the New Haven SMSA in 1977. The specific methodology for this is described in more detail in the Methodology Section of this attachment.

On a net basis, it is evident that the SMSA is currently experiencing a net inflow of $28.6 million. This represents 7.6 percent of total SMSA 1977 shoppers goods sales. The analysis of sales flows on a net basis, however, masks actual shopping patterns in the region. While the region enjoys sales inflows on a net basis, a portion of the region's purchasing power is being spent at sales locations outside the SMSA. The detailed sales flow analysis, summarized above, reveals that $66.4 million of SMSA purchasing power, or 19.2%, is flowing outside the SMSA. A key issue in the future of retailing in the New Haven SMSA pertains to the possibilities for reversing current sales outflows on the part of metropolitan residents, and maintaining or increasing sales inflows from non-metropolitan residents.

SHOPPERS GOODS SALES FLOWS
NEW HAVEN SMSA
1977

Sales Components	Volume (000)
Metropolitan Shoppers Goods Sales 1/	$374,813
Sales Retention 2/	$279,827
Sales Inflows 3/	$ 94,986
Metropolitan Consumer Expenditures 4/	$346,205
Sales Retention 2/	$279,827
Sales Outflows 5/	$ 66,378
Net Inflow ($94,986 3/ minus $66,378 5/)	$ 28,608

Note: The following footnotes key the above summary figures to the detailed sales flow matrix for 1977 which is presented in the following two pages.

1/ Represents the sum of all SMSA columns ("Centers Within SMSA" and "SMSA Cities/Towns") and equals sales reported by U.S. Census Bureau and adjusted for sales tax by Gladstone Associates, as noted.

2/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."

3/ Represents sum of all data cells falling within the "Non-SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."

4/ Total of "Shoppers Goods Purchasing Power" column for "SMSA Cities/Towns" rows.

5/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Outside SMSA" or "Non-SMSA Cities/Towns."

Source: Gladstone Associates

3. Projected Shoppers Goods Sales, 1985 and 1990 Baseline Demand

Projected shoppers goods demand levels for 1985 and 1990 within the North Haven Mall Market Area were established under two principal scenarios or assumption sets. In both of these scenarios, population projections as established by the State's Office of Policy and Management were utilized, although they are judged to be on the conservative or low side. The essential difference between the two scenarios, however, relates to prospective income growth. Under a standard analytical approach that projects future dollar values in present dollar terms (in this case, 1977 for purposes of consistency with most recent statistical data), any anticipated growth in income would represent "real" growth after accounting for any increases offset by inflationary trends. In the analyses which follow, shoppers goods demand levels, as measured by purchasing power, have been developed under both a zero percent real income growth assumption and under a one percent per annum income growth projection.

The table immediately below presents these projections for the SMSA and for those four non-SMSA towns which are within the North Haven Mall Market Area.

SHOPPERS GOODS PURCHASING POWER

1977-1990

(In Millons of 1977 Constant Dollars)

Scenario 1[1/]	1977	1985	1990
SMSA Towns/Cities	$346.2	$354.5	$360.6
Non-SMSA[3/]	$ 70.8	$ 74.7	$ 81.1
Total	$417.0	$429.3	$441.7
Scenario 2[2/]			
SMSA Towns/Cities	$346.2	$383.9	$410.4
Non-SMSA[3/]	$ 70.8	$ 80.9	$ 92.3
Total	$417.0	$464.9	$502.8

1/ Assumes 0% of income growth

2/ Assumes 1% per annum income growth

3/ Includes Durham, Middlefield, Meriden and Cheshire only.

Source: Gladstone Associates

Sales Projections

Based on projections of puchasing power, the relative distribution patterns evidenced by the 1977 sales distributions described, the computer analysis described in the methodology section following and historical sales trends, projected sales flows into and out of the New Haven SMSA were established. These projections assume a baseline situation, that is static retail supply conditions. The detailed sales flows from cities/towns to specific sales destinations are presented in the detailed tables in the Methodology section of this attachment. A summary of these projected flows is as follows:

PROJECTED SMSA SHOPPERS GOODS SALES FLOWS
1985 AND 1990

Sales Components	Volume (Millions) Scenario I 1/ 1985	Scenario I 1/ 1990	Scenario 2 2/ 1985	Scenario 2 2/ 1990
SMSA Shoppers Goods Sales	$370.8	$368.3	$394.5	$408.3
Sales Retention 3/	$285.5	$290.2	$309.2	$330.2
Sales Inflows 4/	$ 85.3	$ 78.1	$ 85.3	$ 78.1
SMSA Purchasing Power 5/	$354.5	$360.6	$383.9	$410.4
Sales Retention 3/	$285.5	$290.2	$309.2	$330.2
Sales Outflows 6/	$ 69.0	$ 70.4	$ 74.7	$ 80.2
Net Inflow (Outflow) 7/	$ 16.3	$ 7.7	$ 10.6	($ 2.1)

Note: The following footnotes key the above summary figures to the detailed sales flow matrix for 1977 which is presented on the following two pages.

1/ Assumes zero percent income growth.

2/ Assumes one percent annual income growth.

3/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."

4/ Represents sum of all data cells falling within the "Non-SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."

5/ Total of "Shoppers Goods Purchasing Power" column for "SMSA Cities/Towns" rows.

6/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Outside SMSA" or "Non-SMSA Cities/Towns."

7/ Sales inflows minus sales outflows.

Source: Gladstone Associates

In summary:

-- Under a conservative zero percent income growth scenario and static retail supply conditions, SMSA sales would decrease to $370.8 million in 1985 and $368.3 in 1990. Outflows under this scenario would increase from $66.4 million in 1977 to a projected $69.0 million in 1985 and to $70.4 million in 1990. Correspondingly, based on trend line analysis of total SMSA shoppers goods sales, resultant inflows of non-SMSA expenditures would drop from $95 million in 1977 to $85.3 millionin 1985 and to $78.1 million in 1990. Thus, the net inflow of $28.6 that the New Haven SMSA enjoyed in 1977 would likely drop to $16.3 million in 1985 and $7.7 million in 1990.

-- Under a one percent per annum income growth assumption, SMSA sales would increase from $394.5 million in 1985 to $408.3 in 1990. As a result of increased purchasing power, with static supply conditions, outflows are projected to increase to $74.7 million in 1985 and to $80.2 million in 1990. Conservatively estimating inflows at previously projected levels, the net inflows decrease dramatically. From $28.6 million in 1977, net inflows under this scenario are projected to fall to $10.6 million in 1985. In 1990, a net outflow of $2.1 million is projected. In other words, the SMSA is projected to continue to rely more heavily on expenditures from SMSA residents.

Sales projections for the New Haven CBD and Magic Mile in Hamden were projected based on projected sales for the SMSA. As discussed earlier, shoppers goods sales in the CBD have been decreasing. As a result, the CBD's "share" of metro sales has also been decreasing. Sales at Magic Mile have decreased somewhat, but have remained relatively stable. Based on these past trends, sales for these specific centers have been projected as follows:

SHOPPERS GOODS SALES PROJECTIONS

1985, 1990

(In Millions of 1977 Constant Dollars)

	1972	1977	1985	1990
CBD	$99.4	$83.9	$73.0	$69.6
Magic Mile	$55.5	$55.2	$55.2	$55.2

(It should be noted that sales as displayed by the computer model print-outs do not reflect total sales for the specific centers or cities or towns. The model only projects sales generated from SMSA cities/towns and the four non-SMSA locations which are within the North Haven Mall market area -- Durham, Middlefield, Meriden and Cheshire.)

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS[1/]
NEW HAVEN REGION
1977
(In Thousands of 1977 Constant Dollars)

SMSA Cities/Towns	Shoppers Goods Purchasing Power	Centers Within SMSA: New Haven CbD	Miracle Mile	White Acres	Subtotal SMSA	Centers Outside SMSA: Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley	Subtotal Outside SMSA	Total	Balance Shoppers Goods Purchasing Power
North Haven	$ 21,574	$ 6,031	$ 5,669	$ 133	$ 12,433	$ 52	--	$ 729	$ 560	$ 43	$ 1,384	$ 13,817	$ 7,757
New Haven	$ 93,095	$36,705	$ 9,035	$ 2,249	$ 47,989	$ 455	$ 467	$ 487	$ 261	$ 77	$ 1,747	$ 49,736	$ 43,359
Wallingford	$ 29,202	$ 1,025	$ 7,145	$ 68	$ 8,238	$ 32	--	$ 4,970	$ 2,129	$ 121	$ 7,252	$ 15,490	$ 13,712
Hamden	$ 44,517	$ 6,651	$20,668	$ 384	$ 27,703	$ 107	$ 467	$ 487	$ 784	$ 114	$ 1,959	$ 29,662	$ 14,855
North Branford	$ 8,941	$ 1,175	$ 1,121	$ 43	$ 2,339	$ 20	--	$ 1,981	$ 336	$ 19	$ 2,356	$ 4,695	$ 4,246
East Haven	$ 17,520	$ 6,380	$ 1,477	$ 242	$ 8,099	$ 87	--	--	--	$ 24	$ 111	$ 8,210	$ 9,310
Bethany	$ 4,613	$ 1,427	$ 768	$ 105	$ 2,300	$ 36	--	--	$ 37	$ 70	$ 143	$ 2,443	$ 2,170
Woodbridge	$ 12,814	$ 1,427	$ 354	$ 666	$ 2,447	$ 127	--	--	$ 186	$ 20	$ 333	$ 2,780	$ 10,034
Orange	$ 16,853	$ 1,427	$ 354	$ 5,806	$ 7,587	$ 1,148	$ 467	--	--	$ 19	$ 1,634	$ 9,221	$ 7,632
West Haven	$ 40,772	$ 9,317	$ 591	$ 6,586	$ 16,494	$ 1,659	$ 975	--	--	$ 34	$ 2,668	$ 19,162	$ 21,610
Branford	$ 20,598	$ 4,197	$ 1,477	$ 133	$ 5,807	$ 52	--	--	--	--	$ 52	$ 5,859	$ 14,739
Guilford	$ 14,492	$ 1,343	$ 354	$ 59	$ 1,756	$ 30	--	--	$ 186	--	$ 216	$ 1,972	$ 12,520
Madison	$ 12,552	$ 1,175	--	$ 34	$ 1,209	$ 20	--	--	$ 411	--	$ 431	$ 1,640	$ 10,912
Clinton	$ 8,662	$ 84	--	--	$ 84	--	--	--	--	--	--	$ 84	$ 8,578
Total-SMSA	$346,205	$78,964	$49,013	$16,508	$144,485	$ 3,825	$ 2,376	$ 8,654	$ 4,890	$ 541	$ 20,286	$164,771	$181,434
Non-SMSA Cities/Towns													
Durham	$ 4,171	--	--	--	--	$ 6	--	$ 1,008	$ 859	$ 17	$ 1,890	$ 1,890	$ 2,281
Middlefield	$ 3,500	--	--	--	--	$ 4	--	$ 487	$ 1,120	$ 29	$ 1,640	$ 1,640	$ 1,860
Meriden	$ 43,248	--	$ 354	$ 31	$ 385	$ 16	--	$22,944	$ 6,386	$ 306	$ 29,652	$ 30,037	$ 13,211
Cheshire	$ 19,833	$ 839	$ 4,489	$ 46	$ 5,374	$ 22	--	$ 1,252	$ 4,070	$ 1,118	$ 6,462	$ 11,836	$ 7,997
Total-Non-SMSA	$ 70,752	$ 839	$ 4,843	$ 77	$ 5,759	$ 48	--	$25,691	$12,435	$ 1,470	$ 39,644	$ 45,403	$ 25,349
Total SMSA and Non-SMSA	$416,957	$79,803	$53,856	$16,585	$150,244	$ 3,873	$ 2,376	$34,345	$17,325	$ 2,011	$ 59,930	$210,174	$206,783
Other Non-SMSA	--	$ 4,140	$ 1,305	$10,411	$ 15,856	$15,048	$60,002	$ 6,056	$110,162	$74,766	$266,034	$281,890	--
Total Center GAF Sales	--	$83,943	$55,161	$26,996	$166,100	$18,921	$62,378	$40,401	$127,487	$76,777	$325,964	$492,064	--

1/ Estimated at 13.5% of aggregate income.

Source: Gladstone Associates.

DISTRIBUTION OF BALANCE SHOPPERS GOODS PURCHASING POWER TO TOWNS
NEW HAVEN REGION
1977
(In Thousands of 1977 Constant Dollars)

SMSA Cities/Towns	Balance Shoppers Goods Purchasing Power	SMSA Cities/Towns														Non-SMSA Cities/Towns					
		North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Wood-bridge	Orange	West Haven	Branford	Guilford	Madison	Clinton	Durham	Middlefield	Meriden	Cheshire	Milford	Other
North Haven	$ 7,757	$ 3,335	$ 233	$ 1,008	$ 310	$ 78	$ 310	--	$ 155	$ 78	--	--	--	--	--	--	--	--	$ 233	--	$ 2,017
New Haven	$ 43,359	$ 1,734	$22,980	$ 867	$1,300	--	$1,734	--	--	$ 3,469	$ 1,734	$ 867	--	--	--	--	--	--	--	$ 867	$ 7,807
Wallingford	$ 13,712	$ 1,783	$ 411	$ 8,090	$ 137	$137	$ 274	--	--	--	$ 137	$ 274	--	--	--	--	--	$ 1,097	$ 274	--	$ 1,098
Hamden	$ 14,855	$ 1,931	$ 1,783	$ 446	$4,902	--	$ 149	--	$ 149	$ 149	$ 149	--	--	--	--	--	--	$ 149	$ 149	--	$ 4,899
North Branford	$ 4,246	$ 637	$ 212	$ 255	$ 42	$425	$ 297	--	--	--	--	$ 510	$ 85	--	--	$ 42	--	$ 42	--	--	$ 1,699
East Haven	$ 9,310	$ 372	$ 2,141	$ 93	$ 186	$186	$3,072	--	--	$ 186	$ 279	$ 1,397	$ 93	--	--	--	--	--	--	$ 93	$ 1,212
Bethany	$ 2,170	$ 87	$ 195	$ 43	$ 87	--	--	$738	$ 174	$ 65	$ 65	--	--	--	--	--	--	--	$ 43	$ 43	$ 630
Woodbridge	$ 10,034	$ 401	$ 2,007	$ 100	$ 401	--	--	--	$3,813	$ 803	$ 301	--	--	--	--	--	--	--	--	$ 401	$ 1,807
Orange	$ 7,632	$ 76	$ 611	--	$ 76	--	--	--	$ 76	$ 3,205	$ 916	--	--	--	--	--	--	--	--	$ 1,450	$ 1,222
West Haven	$ 21,610	$ 216	$ 3,674	--	--	--	$ 216	--	--	$ 3,674	$ 8,428	$ 216	--	--	--	--	--	--	--	$ 2,161	$ 3,025
Branford	$ 14,739	$ 147	$ 1,474	--	$ 147	--	$1,327	--	--	--	$ 147	$ 9,286	$ 590	--	--	--	--	--	--	$ 147	$ 1,474
Guilford	$ 12,520	$ 125	$ 501	--	--	--	$ 376	--	--	--	--	$ 1,753	$ 6,761	$ 501	$ 103	--	--	--	--	--	$ 2,400
Madison	$ 10,912	$ 109	$ 218	$ 109	--	--	$ 218	--	--	--	--	$ 764	$ 2,073	$2,401	$ 436	--	--	--	--	--	$ 4,584
Clinton	$ 8,578	--	$ 86	--	--	--	--	--	--	--	--	$ 257	$ 343	$1,115	$1,750	--	--	--	--	--	$ 5,027
Subtotal-SMSA	$181,434	$10,953	$36,526	$11,011	$7,588	$826	$7,973	$738	$4,367	$11,629	$12,156	$15,324	$ 9,945	$4,017	$2,289	$ 42	--	$ 1,288	$ 699	$ 5,162	$38,901
Non-SMSA Cities/Towns																					
Durham	$ 2,281	--	$ 23	$ 160	--	--	--	--	--	--	--	$ 23	$ 68	$ 23	--	$639	$ 68	$ 46	--	--	$ 1,231
Middlefield	$ 1,860	--	--	$ 93	--	--	--	--	--	--	--	--	--	--	--	$ 37	$409	$ 130	--	--	$ 1,191
Meriden	$ 13,211	--	$ 132	$ 2,510	--	--	--	--	--	--	--	--	--	--	--	--	--	$ 7,266	$ 264	--	$ 3,039
Cheshire	$ 7,997	$ 320	$ 160	$ 640	$ 160	--	--	--	--	--	--	--	--	--	--	--	--	$ 160	$ 3,999	--	$ 2,558
Subtotal-Non-SMSA	$ 25,349	$ 320	$ 315	$ 3,403	$ 160	--	--	--	--	--	--	$ 23	$ 68	$ 23	--	$676	$477	$ 7,602	$ 4,263	--	$ 8,019
Total SMSA and Non-SMSA	$206,783	$11,273	$36,841	$14,414	$7,748	$826	$7,973	$738	$4,367	$11,629	$12,156	$15,347	$10,013	$4,040	$2,289	$718	$477	$ 8,890	$ 4,962	$ 5,162	$46,920
Other Non-SMSA	--	$ 3,510	$12,646	$16,111	$1,292	$143	$1,883	$257	$ 831	$22,621	$ 4,132	$ 4,566	$ 902	$ 104	$ 58	--	--	$12,239	$ 6,477	$38,066	--
Total	--	$14,783	$49,487	$30,525	$9,040	$969	$9,856	$995	$5,198	$34,250	$16,288	$19,913	$10,915	$4,144	$2,347	--	--	$21,129	$11,439	$43,228	--

Source: Gladstone Associates.

C. Project Profile — Economic Characteristics

C. PROJECT PROFILE -- ECONOMIC CHARACTERISTICS

The following materials provide a profile of the proposed North Haven Mall, from a retail perspective. The proposed mall's size and tenant mix, expected sales volumes and operating schedules are described here.

1. Gross Leasable Area

Gross Leasable Area (GLA) is a measure of retail floor space typically used for purposes of market analyses and sales volume calculations (i.e., productivity factor X GLA = annual sales volume, where productivity factor equals annual sales per square foot). GLA is generally defined as the total floor area designed for tenant occupancy and exclusive use, including any basements, mezzanines or upper floors.[1/]

Thus, in this definition of GLA, the mall area itself as well as areas taken up by mechanical systems and the like are excluded.

The following table outlines the breakdown of GLA for the proposed North Haven Mall.

ANTICIPATED TENANT MIX
NORTH HAVEN MALL

Tenant	GLA
J.C. Penney	140,000 s.f
Macy's	190,000 s.f.
G. Fox	190,000 s.f 1/
Sears	156,000 s.f
Subtotal	676,000 s.f.
Mall Shops	440,000 s.f
Total	1,116,000 s.f.

1/ Includes 30,000 s.f. of expansion space not to built initially.

1/ The Urban Land Institute, Dollars and Cents of Shopping Centers, 1978.

While most of this space, of course, would be devoted to retail activities (predominantly to what is referred to as GAF[1/], or Shoppers Goods), a modest amount of space in the proposed mall would likely be leased for non-retail activities and, as well, there would be a measurable amount of non-GAF retailing expected to take place here.

First, two comparably sized centers currently operated by Mall Properties were reviewed with respect to the type of "mall shop" (non-anchor store) tenants leasing space. It was found that 55 percent of these tenants were classified as Shoppers Goods establishments.

Second, interviews with representatives of each of the four proposed anchor stores (including reviews of their current store layouts and associated product lines) indicated that, on average, these anchors would devote approximately 15 percent of their floor area (GLA) to non-Shoppers Goods uses beyond what has been typical. Included in this category would be such functions as restaurant space, auto service centers and related parts sales, beauty salons, and the like.

With regard to this latter issue -- the anchor stores space inventory -- it should be noted that once the shoppers goods portion was separated out it was evaluated against demand for such items (in the form of purchasing power) and historical sales trends in the region for these types of goods, as described in Attachment D, following.

1/ General Merchandise, Apparel and Furnishings. See Glossary.

In the process, the U.S. Census was used for historical sales trends. These sales are reported by establishment rather than by product line so that the principal line of products that a store sells determines the single category in which the total sales for that establishment would be classified. In the case of department stores, their sales would be fully reported under the GAF (General Merchandise, Apparel and Accessories, Furnishings) category -- part of the total shoppers goods grouping -- even though they may sell certain non-shoppers goods items such as food, automotive supplies and the like.

On the other hand, the reverse is often the case. For example, large discount drug stores -- whose total sales would be reported under a convenience goods (non-shoppers goods) category -- often sell shoppers' goods items such as appliances, lawn furniture, selected clothing, jewelry and the like.

To achieve parity in comparing estimated mall sales against projected demand and/or baseline sales, two options were available:

1. adjust historical reported sales to reflect <u>product</u> sales only; or
2. use total <u>establishment</u> sales for the North Haven Mall.

Since it would not be possible to achieve acceptable accuracy under the first option the second was used although with a refinement. Specifically, as noted above, the anchor store floor area used for calculating anticipated shoppers goods sales was reduced by 15 percent from the total gross leasable area (GLA).

> This figure (15 percent) reflects the amount of anchor store floor area that would be devoted to non-shoppers goods products beyond what has been historically typical for such stores, in line with the merchandising strategies these four anchors have planned for North Haven.

That is, floor areas devoted to "in-house" restaurants, beauty salons, hardware departments, tires, batteries and accessories (TBA), non-prepared gourmet foods, etc., would be substantially increased over typical floor plans for existing department stores. Thus, it would be incorrect to compare the proposed Mall anchor store sales with historical sales reporting on a strict "establishment" basis.

It should be noted, in addition, that the 190,000 s.f. GLA assigned to the G. Fox stores includes a 30,000 s.f. expansion area that would not be built initially, or perhaps at all. If this 30,000 s.f. is factored out, then the incremental non-shoppers goods adjustment is 10 percent rather than the above noted 15 percent.

Based on this information, the following breakdown of mall uses by retail type was assumed.

ANTICIPATED RETAIL MIX

NORTH HAVEN MALL

Use Type	GLA
Retail	
Shoppers Goods	
Anchors	575,000 s.f.
Mall Shops	242,000 s.f.
Total Shoppers Goods	817,000 s.f.
Other Retail	169,000 s.f.
Restaurants	90,000 s.f
Subtotal	1,076,000 s.f.
Non-Retail	
Service and Entertainment	40,000 s.f.
Total Mall	1,116,000 s.f.

2. Anticipated Sales Volumes

Productivity factors were assigned to each of the major use categories above to derive anticipated sales volumes for the North Haven Mall, as follows:

Use Type	Productivity Factor	Sales Volume (000)
Retail		
Shoppers Goods		
Anchors	$ 97/s.f.	$ 55,775
Mall Shops	$121/s.f.	$ 29,225
Total Shoppers Goods	$104/s.f.	$ 85,000
Other Retail	$118/s.f.	$ 19,942
Restaurants	$109/s.f.	$ 9,810
Subtotal	$107/s.f.	$114,752
Non-Retail		
Service and Entertainment	$ 50/s.f.	$ 2,000
Total Mall	$105/s.f.	$116,752

It should be recognized that these productivity factors, and resultant sales volumes projections, are stated in 1977 dollars. Throughout the analyses in this study, the base retail statistics and calculations were stated in 1977 dollars in line with the most recently published census statistics for retail sales. Thus, the anticipated productivity factors and sales volumes for the mall were left in 1977 terms to remain consistent with that base data.

The sales forecast described above were based on careful examination of the folowing factors:

-- consumer expenditure patterns affecting sales inflows, outflows, and intraregional expenditures;

-- the current and anticipated composition of area retail markets in light of the supply of shoppers goods establishments in metropolitan New Haven;

-- comparable indexes of sales associated with regional malls similar to that proposed for the North Haven center, as well as malls operating within the New Haven metro or other nearby Connecticut markets; and

-- careful examination of sales productivity (a key measure of retail volumes) that can be anticipated at a major regional center such as that proposed for North Haven.

A thorough analysis of current retail market conditions in the New Haven region was initially conducted to understand the competitive setting into which the North Haven Mall would be inserted and the principal market area on which the mall would likely draw given such factors as driving times and location of competing centers. Combined with evaluations of current and prospective retail sales -- for the metro and its two key retail centers (New Haven CBD and the Magic Mile in Hamden) -- the potential sales performance of the mall could be judged. These evaluations and the approach behind them are described on pages 22-44 of this report.

As noted further below, specific sales volumes estimated for the mall were based on: industry-wide averages for similar malls; experience of other selected Connecticut centers; and consideration of the specific mix of mall shops anticipated in North Haven. These factors were all used, however, in the context of current and anticipated retail supply/demand conditions at play within the New Haven region.

As a reflection of these factors, the retail analyses here are based on an overall sales productivity of $105 per square foot including both shoppers goods and non-shoppers goods space.

The four anchor stores are expected to achieve a productivity of about $97 per square foot -- a level approximately 45 percent higher

than the median for similar stores as reported in Dollars and Cents of Shopping Centers, published by the Urban Land Institute. This projection is related directly to those individual anchor stores specifically programmed for the North Haven Mall and the performance they have achieved in similar centers elsewhere in New England. These sales projections are also in line with independent analyses carried out by the anchor stores themselves.

Similarly, a higher than average level of productivity is anticipated for shoppers goods mall stores. The analysis is keyed to a level of $121 per square foot, and is based on detailed examination of the merchandise profile -- i.e., store types -- anticipated within the mall shops and their associated productivity levels as reported in the above referenced ULI data.

More specifically, in relating these productivity expectations to levels attained in other centers, the forecasts here are 36 to 45 percent higher than might be otherwise considered a "norm." These comparisons may be seen immediately below with reference both to anchor stores and mall shops in general.

	Sales Productivity		
Store Type	North Haven Estimate	Median For Other Malls	Percent Difference
Anchor Stores	$ 97	$67	45%
Mall Stores	$121	$89	36%

As a further comparison, the sales and related productivity experience of several retail centers in Connecticut were assessed.

MAJOR RETAIL CENTERS

ESTIMATED PRODUCTIVITY

(In 1977 Constant Dollars)

Center	Total Size (estimated)	1977 Sales	Implied Productivity
Magic Mile	1,000,000	$103,352	$103
Connecticut Post	800,000	$ 34,149	$ 43
Trumbull	834,000	$ 73,494	$ 88
West Farms 1/	1,200,000	$134,596	$112
Meriden Square	545,000	$ 43,685	$ 80

1/ Includes Corbins Corner Parkade estimated at about 200,000 s.f.

Source: U.S. Census of Retail Trade; Gladstone Associates.

As can be seen, there is a wide range of sales performance represented here with the productivity estimates for the North Haven Mall falling very much at the high end of these comparative figures.

Components of Projected Sales for North Haven

The higher level of sales productivity reflected for the proposed North Haven Mall is in direct response to its location and the type of stores to be included. A corollary consideration in this respect also pertains to the market character of regional shopping elsewhere in the study area. As a result of these considerations, the analysis anticipates:

-- retaining a substantial proportion of sales that would otherwise "leak" from the metropolitan area;

-- drawing sales inflow into the metropolitan area from adjoining underserved towns; particularly Cheshire, Durham, and Middlefield; and

-- attracting, through transfers or diversions, intra-metropolitan area sales that might ordinarily have gone into other metro area shopping districts and centers.

The composite effect of these discrete sales components or "demand segments" is directly reflected in the higher sales productivity that has been attributed to the proposed North Haven Mall. As a result, the three sales components -- i.e., improved sales inflow, greater retention of sales outflows, and increased attractiveness for intrametropolitan area sales transfers -- have resulted in a shoppers goods sales forecast of approximately $85 million based on the aforementioned considerations of market area, competing centers, and productivity factors.

3. Operating Schedule

At the present time, a mid-1984 opening is anticipated for the North Haven Mall. At that time, it is expected that all four anchor stores would open plus some 50 percent to 60 percent of the mall stores. Thus, 1985 would be the first full year of operations, although the mall itself would not be fully occupied for all of 1985. The first full year of "full" occupancy for the mall would be 1986.

At the same time, productivity factors for the tenant stores would not be expected to be at 100 percent of industry standards until, perhaps, 1987 or 1988. In their first year of operations, it would be likely that retail tenants would experience productivity at perhaps 80 percent of industry standards working up to 100 percent within two years.

Nevertheless, full productivity and occupancy factors have been used for 1985 in its first few years of operation and overstating subsequent retail impacts.

D. Methodology For Retail Analysis

D. METHODOLOGY FOR RETAIL ANALYSIS

1. Adjustment to Historical Retail Sales, 1972 and 1977

Retail sales for geographic areas and major retail centers are reported every five years by the Bureau of the Census. The most recent information published is for the year 1977 and previous to that for the year 1972. Sales data as reported for these two years, however, are not strictly comparable. The 1972 sales statistics included two items not included in the 1977 data. The Census Bureau lists these two items as follows:

1. Sales taxes collected from customers and forwarded to taxing authorities; and
2. Carrying charges or other charges for credit.

The Census Bureau further states that these items were substantially underreported in the 1972 Census. These reported figures in 1972 were approximately $10 billion for the United States as a whole. Adjustments were needed, therefore, in order to compare these with 1977 sales data which, as noted, did not include these elements.

The adjustments were made by including estimates for sales tax in 1972 and 1977 sales estimates because the total price a consumer must pay for retail goods includes sales taxes as well as the base price of the good itself. At the same time, carrying charges were excluded from these retail sales estimates because they are not necessarily part of the total retail price which a consumer must pay. The finance charge is a reflection of a consumer's choice of how he/she wishes to pay for the good. It is considered a financial service rather than a retail item.

Estimate of 1972 Retail Sales: The purpose of the adjustments (detailed below) applied to reported 1972 retail sales is to have an estimate of retail sales, exclusive of carrying charges, which reflect the costs of retail goods as well as any applicable state sales tax.

As mentioned above, the Census Bureau estimated that reported carrying charges and sales taxes amounted to about $10 billion in 1972 for the entire United States. This represents 2.3 percent of all retail sales in the U.S. The average sales tax rate in the United States was about 4.60 percent and in the State of Connecticut 5.75 percent.

Connecticut retail sales for 1972 including state sales taxes were then estimated as follows:

$$S_a = S_r \left(1 - \left(\frac{T_s}{T_{us}} \times C_r\right)\right) (1.0575)$$

Where:

S_a = Adjusted 1972 retail sales

S_r = Reported 1972 retail sales

T_s = Average 1972 state sales tax

T_{us} = Average 1972 U.S. sales tax

C_r = Census Bureau estimate of all carrying charges and sales taxes as a percent of total U.S. retail sales.

Estimate of 1977 Sales: Retail sales for 1977 as reported by the Bureau of the Census do not include state sales tax. In order to include the Connecticut state sales tax of 7.0 percent, the following adjustment was made.

$$S_{a_1} = S_{r_1} (1.070)$$

Where:

S_{a_1} = Adjusted 1977 retail sales

S_{r_1} = Reported 1977 retail sales

Exceptions to Above Adjustments: Automotive dealers and gasoline service station sales were excluded entirely from the analysis. Food and drugs are included in the sales estimates for 1972 and 1977 but were not considered as taxable items.

Conversion of 1972 Retail Sales into 1977 Constant Dollars: In order to discount the effects of inflation when comparing 1972 and 1977 sales figures, it was necessary to express 1972 information in 1977 dollars. The Consumer Price Index (CPI) is published by the Bureau of Labor Statistics and is based on the prices of various items selected to be representative of all consumer goods and services. Separate indices are published for particular retail items.

The retail categories of specific concern in this analysis are those that make up Shoppers Goods Sales -- general merchandise, apparel, furniture and miscellaneous shopping goods. The separate indices for "Apparel Commodities" and "Home Furnishings" were used directly to convert the respective 1972 data into 1977 constant dollars. Separate indices for General Merchandise and Miscellaneous sales are not available. An average of the apparel and furnishings indices was therefore developed and applied as appropriate.

INDICES

	Full CPI	General Merchandise 1/	Apparel Commodities	Home Furnishings
1972	125.3	118.2	122.7	113.6
1973	133.1	121.5	127.1	115.8
1974	147.7	130.9	136.1	125.6
1975	161.2	139.3	141.2	137.4
1976	170.5	144.4	145.8	142.9
1977	185.4	149.6	151.6	147.6
1978	195.4	155.0	155.7	154.3

1/ Derived from indices for Apparel Commodities and Home Furnishings.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

2. Purchasing Power

Purchasing power is here defined as that portion of income which is available to spend on retail goods. The purchasing power in a particular region is a function of that region's population and income.

The methods for deriving population and income for the New Haven region are detailed below. In addition, the methodology for deriving purchasing power estimates -- that percent of a region's total income which is available for expenditures on retail goods and services -- is also presented.

Population Projections

Population estimates for all cities and towns for the years 1960 and 1970 were taken from Census data issued by the Bureau of the Census, Department of Commerce. Population projections for cities and towns within the State of Connecticut are those which have been developed by the State of Connecticut, Office of Policy and Management and published in February, 1980. These projections rely on a cohort-component model which incorporates births, deaths and migration. The initial set of projections was reviewed by local and state planning agencies and modifications were made when deemed necessary. As a result, a "modified trend" set of population projections were developed which do include some policy implications. These policy implications include an analysis of persons per household, types of available land, current and future land use, housing development patterns, new transportation facilities and other construction, water and sewer extension, etc.

Income Projections

Income growth in the New Haven region would be dependent on national economic conditions as well as potential employment increases in the North Haven area itself. Since national economic policies and their subsequent effects on the local economy are difficult to predict with any level of confidence, two scenarios of potential income growth have been developed. Under Scenario 1, it has been conservatively estimated that, discounting the effects of inflation, there would be no real growth in per capita income through 1990. This estimate reflects the experience of the region during the last recession (1974-1975). As a result of the economic conditions of that time, real per capita income estimates showed a decrease between 1972 and 1975.

On the other hand, there is evidence which indicates that real income growth in the New Haven region may increase by at least as much as one percent annually over the next ten years -- Scenario 2. For instance, between 1969 and 1972 and between 1975 and 1977, per capita income increased at a rate of close to one percent annually. In addition, the number of employed persons in the New Haven Labor Market Area has increased significantly over the last several years. Since 1975, total employment in the region (as reported by place of work) has increased by slightly more than 4,500 jobs per year for an average annual increase of 2.7 percent. In the last two years alone, employment has increased from 175,460 in 1977 to 189,610 in 1979 for an average annual increase of 4 percent. Employment projections prepared by the Connecticut Department of Transportation indicate that employment in the New Haven region is expected to grow by one percent annually over the next 10 years.

Aggregate Income

Growth in aggregate income is a function of both increases/decreases in population as well as any change in real per capita income. Aggregate income has been estimated by multiplying regional population by regional per capita income estimates for any given year.

Estimate of Shoppers Goods Purchasing Power

For purposes of this analysis, the specific concern is on shoppers goods purchasing power in the New Haven region. That is, the dollars in the region available for shoppers goods expenditures. Shoppers goods have been defined to include general merchandise, apparel, furniture and miscellaneous shoppers goods. The critical point in estimating shoppers goods purchasing power is the determination of what percent of aggregate income in the region is actually available for such expenditures. Such a ratio is not readily available in published form and must be derived by identifying -- in the context of larger geographic areas -- an "equilibrium point" where purchasing power of individuals living within that area is judged to be in balance with actual sales records. It is important to choose a geographical area similar to the particular one under study.

The Southern New England region, consisting of Connecticut, Massachusetts, and Rhode Island, was selected as being most representative of a region in "equilibrium" based on the following premises:

- -- the overall economic base of this large multi-state region shares similar characteristics with its sub-areas; and
- -- on balance, dollars spent outside the region by persons living within the area are offset or balanced by dollars spent within the region on the part of individuals living outside the area.

Shoppers goods sales as a percent of aggregate income for this Southern New England region were examined for the years 1972 and 1977. Expressed in 1977 constant dollars, shoppers goods sales represented 13.5 percent of aggregate income at both these points in time.

RETAIL SALES AS A PERCENT OF INCOME 1/
SOUTHERN NEW ENGLAND 2/
1972-1977
(In 1977 constant dollars)

	1972		1977	
	Number	As a Percent Aggregate Income	Number	As a Percent Aggregate Income
Population	9,824,018	--	9,990,062	--
Per Capita Income	$ 6,144	--	$ 6,188	--
Aggregate Income	$60,358,766	--	$60,868,963	--
Shoppers Goods Sales				
General Merchandise	$ 4,040,784	6.7%	$ 4,115,353	6.7%
Apparel	$ 1,689,143	2.8%	$ 1,805,344	2.9%
Furniture	$ 1,519,288	2.5%	$ 1,363,258	2.2%
Miscellaneous Shoppers Goods	$ 913,718	1.5%	$ 1,063,327	1.7%
Total	$ 8,162,933	13.5%	$ 8,347,282	13.5%

1/ Adjusted to reflect State Sales Tax.

2/ Includes Rhode Island, Massachusetts and Connecticut.

3/ Converted using PCI for income and retail CPI for sales.

Source: U.S. Census of Retail Trade; U.S. Census P-25 Estimates; Gladstone Associates.

Therefore, shoppers goods purchasing power for the New Haven region is estimated at 13.5 percent of aggregate income.

3. Sales Flows, 1977

The various types of sales flows in the New Haven-West Haven SMSA are of particular interest to this analysis. Specifically, for each city and town within the SMSA and for the four non-SMSA communities which are within the North Haven Mall market area, sales flows on a town-by-town basis were evaluated. That is, given the 1977 shoppers goods purchasing power for each city/town under study, the sales destination of these dollars was determined. These sales destinations were identified as eight major retail centers (three within the SMSA boundaries) and 19 specific city/towns (14 in the New Haven SMSA) and are detailed in the table entitled Distribution of Purchasing Power, 1977, a matrix of 380 separate cells appears at the end of this section. The dollars which could not be identified as going to one of these locations were assumed to flow to other non-SMSA locations, hence an Other column. The specific methodology is described further below.

Several types of sales flows have been identified for purposes of this analysis. These are listed below and are defined in the Retail Trends Section, and in the glossary:

- -- Sales Retention
- -- Sales Outflows
- -- Sales Inflows
- -- Untapped Inflow Potentials

An analysis of these flows was undertaken for the year 1977 (the most recent year for which reported sales are available) in order to project sales flows for 1985 and 1990 with and without the North Haven Mall.

Sales Flows to Major Retail Centers

The first step in detailing New Haven SMSA sales flows was to determine major sales destinations of residents' purchasing power. First, eight major retail centers within a one-hour drive of the New Haven region were identified. These include:

- -- SMSA Centers: New Haven CBD; Magic Mile in Hamden; and White Acres in Orange.
- -- Non-SMSA Centers: Connecticut Post in Milford; Trumbull Shopping Park in Trumbull; Meriden Square in Meriden; West Farms Mall in West Hartford; and Naugatuck Valley Mall in Waterbury.

Estimates of total 1977 shoppers goods sales for each of these major retail centers (MRC), with the exception of White Acres, were taken from the U.S. Census of Retail Trade, Major Retail Centers, 1977, and adjusted to reflect a state sales tax of 7 percent. White Acres was not classified as an MRC in 1977. An estimate of 1977 shoppers goods sales for this center was taken from a memo dated March 8, 1979 from Norris Andrews, Executive Director of the Regional Planning Agency of South Central Connecticut to Regional Planning Agency delegates. These sales estimates were projected from 1972 sales information published by the Bureau of the Census.

It was then necessary to determine, for each major retail center, the city/town of sales origination. That is, the amount of sales that each MRC draws from each town in the study area. Several levels of analyses were undertaken here. First, shoppers surveys were conducted at the following centers: Miracle Mile, Trumbull Shopping Park and Meriden Square. (Incomplete data was obtained, but not used from a shoppers' survey conducted at West Farms.) A sample questionnaire and tabulated results are included. The major assumption underlying the

use of these surveys is that those individuals surveyed are representative of all shoppers at that particular center and that each shopper spends approximately the same amount of money per trip. It was also assumed that shopping patterns in the Spring of 1980 were not dramatically different from shopping patterns in 1977. This being the case, the origination of sales to each MRC was distributed relative to the distribution of residences of the shoppers surveyed. This is, if 13 percent of the shoppers surveyed at Magic Mile lived in Wallingford, then 13 percent of shoppers goods sales at Magic Mile was assumed to be made by residents of Wallingford.

For downtown New Haven the results of the shoppers surveys conducted by Halcyon, Ltd. in 1978 as part of the study for the New Haven Central Business District (CBD) entitled, An Analysis of Market Potentials, were used. The results of this survey, which pertained to the residence of the shoppers, were applied to CBD reported sales in the manner described above -- the percent distribution of residence of shoppers was applied against reported CBD sales to arrive at sales by place of origin.

Survey information was not available for White Acres, Connecticut Post, West Farms and Naugatuck Valley Mall. Trade areas for each center were established using the following: short trip information generated by the Connecticut Department of Transportation (Connecticut DOT), the location of competitive centers, major highway routes, estimated driving times.

DOT trip data was analyzed for the four towns in which the above mentioned centers are located (Orange, Milford, West Hartford and Waterbury) and a distribution matrix by the city/town of origination was developed. (The DOT short purpose trip distribution was assumed to

be similar to the distribution of sales origination for these centers.) This percent distribution matrix was then applied, similar to the method described previously, to reported sales for each center. For example, it was determined that West Haven was within the trade area for Connecticut Post Shopping Center. Of all short purpose trips ending in the Town of Milford (from Connecticut DOT), 9 percent originated in West Haven. It was, therefore, assumed that of the center's $18.9 million in shoppers goods sales, 9 percent or $1.7 million, is generated from shoppers residing in West Haven.

For each town in the study area, an estimate of shoppers goods purchasing power spent at the identified major retail centers was developed. This distribution of purchasing power follows in the table entitled Distribution of Shoppers Goods Purchasing to Major Retail Centers, 1977.

Using the town of North Haven as an example:

-- 1977 shoppers goods purchasing power was estimated at $21,574,000; and

-- based on DOT short-purpose trip data, it was estimated that $6,631,000 was spent in the New Haven CBD; $5,669,000 of Magic Mile, and $133,000 at White Acres.

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER
TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA
1977
(In thousands of 1977 constant dollars)

	Shoppers Goods Purchasing Power	Centers Within SMSA			
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA
North Haven	$21,574	$ 6,631	$ 5,669	$ 133	$12,433
New Haven	$93,095	$36,705	$ 9,035	$2,249	$47,989
Wallingford	$29,202	$ 1,025	$ 7,145	$ 68	$ 8,238
Hamden	$44,517	$ 6,651	$20,668	$ 384	$27,703

Sales Flows to Cities and Towns

Approximately 50 percent of the purchasing power within the New Haven region can be accounted for by sales to the identified major retail centers. The balance of the area's purchasing power is spent in smaller centers and free-standing stores both inside and outside the SMSA boundaries. A method similar to the one described immediately above was used to distribute the remaining shoppers goods purchasing power among cities and towns in the New Haven region. Short-purpose trip data from Connecticut DOT was analyzed, and a matrix was developed. This matrix detailed, for each city and town in the North Haven Mall Market Area, the percent distribution of short-purpose trips by origin and destination. It was assumed that this percent distribution matrix of short-purpose trips mirrored expenditure patterns by place of origin for the market area. This is, if 4 percent of the short-purpose trips originating in North Haven ended in Hamden, then 4 percent of the purchasing power of North Haven, after accounting for sales to the major retail centers, was assumed to be spent in Hamden (exclusive of Magic Mile).

A matrix detailing estimated expenditures by city/town of origin to a destination within the New Haven region was developed from the percent distribution matrix described above. Purchasing power which could not be accounted for by sales to major retail centers or the designated cities/towns was assumed spent in sales locations beyond the New Haven region's boundaries and are shown under the "Other" column of detailed matrices. The 1977 sales flows to the various cities and towns appear in the table entitled Distribution of Balance Shoppers Goods Purchasing Power to Towns, 1977.

Tests for Reasonableness

As mentioned previously, the distribution of purchasing power of study area towns to major retail centers and other city/town sales destinations were based on shoppers surveys and traffic data generated by the Connecticut Department of Transportation.

These shoppers surveys were conducted directly in relation to retail shopping patterns so that results of these surveys are directly reflective of where people are shopping. The DOT data, on the other hand, deals with non-shopping as well as shopping travel patterns and thus is not solely attuned to where people go to shop. That is, the particular trip information used here -- labelled "short purpose trip" data -- is one of five major classifications used by Connecticut DOT. The other four groupings (and therefore excluded from the short-purpose trip data) are: Home Base to Work; Long-Social and Recreational; Trucks; and Non-home Base (i.e., trip originates from other than place of residence).

Within the Short-Purpose Trip classification are included the following subcategories:

Personal Business
Medical/Dental
Dining Out
Civic/Religious
Convenience Shopping
Shopping
Passenger Serving (e.g., taking someone to a train or bus); and
Other Short Trips.

Recognizing that there are non-shopping trips included here and that this information was used to help establish where retail dollars were flowing (both origination and destination), the question arises as to whether there are any particular biases in this data base and how that might influence the analysis. Considering both the type of data that is and is not included, it is judged that the non-shopping

trips in the short-purpose category would tend to be of shorter range or more locally confined than would shopping of the type under consideration here. Thus, there may be some bias toward understating the distance people are traveling for retail goods.

In turn, this sort of bias -- to the extent it does exist -- would tend to underestimate the level of retail sales leakage that is occurring and, therefore, subject to recapture.

To test the reasonableness of the sales distributions generated by these analyses, several relationships were examined and marginal adjustments made, where determined appropriate. Specifically, the time/distance relationships between each town where the purchasing power originates and each sales destination (major retail centers and the cities and towns in the North Haven Mall market area) as well as the implied market areas for various retail concentrations and the location of competitive sales locations in and around the SMSA were carefully examined in order to assess the reasonableness of the sales distribution matrix.

Two illustrations of the results of this process were shown below -- one looking at the Town of Hamden in terms of where its residents are spending their retail dollars (according to the sales distribution matrix) and the other looking at the Town of Hamden (excluding the major retail center known as Magic Mile) as a sales destination and where its sales are coming from (again, according to the sales distribution matrix).

-- It was estimated that, in 1977, the residents of Hamden spent $44.5 million on shoppers goods in the following locations:

Magic Mile	46%
New Haven CBD	15%
Subtotal	61%
Other Identified Shopping Centers	5%
Subtotal	66%
Hamden Other Than Magic Mile	11%
Other Metro Towns	11%
Subtotal	88%
Other Locations Outside the Metro	12%
Total	100%

-- As reported in the U.S. Census of Retail Trade (and adjusted as described on page 214), the Town of Hamden (excluding Magic Mile in this illustration) registered $9.04 million in shoppers goods sales. It was estimated that the people making these expenditures came from the following towns:

Hamden	54%
New Haven	14%
Subtotal	68%
Other Metro Towns	16%
Subtotal	84%
Non-Metro Towns	16%
Total	100%

These figures suggest that a very high percentage of Hamden residents' expenditures stay within the town (46% + 11% = 57%) and that a majority (54 percent) of the sales registered in Hamden (except Magic Mile) come from Hamden residents.

At the same time, dollars spent outside the metro by Hamden residents are at a reasonable 16 percent (about $500 per year for a household with a gross income of $25,000). Conversely, dollars coming to Hamden stores from outside the metro represent about 12 percent of its annual

sales, a figure consistent with the typical experience of most retailers. That is, as discussed in Section IIA.4 above, Hamden's trade area generally coincides with the SMSA. Experience suggests that a principal trade area contributes 85-90 percent of an area's sales while the remainder comes from broadly scattered points.

Beyond these above described tests for reasonableness, these sales flow distribution estimates were checked against (and adjusted where appropriate) actual sales reported through the U.S. Census. For instance, in the example described above shoppers goods sales were a known factor so that, as purchasing power for each town was distributed on the basis of surveys and DOT data, the results had to "add" to the reported sales figures for each destination. Adjustments made as a result of this check ranged from zero percent to five percent.

4. SMSA Shoppers Goods Sales Projections - Baseline

Shoppers goods sales in the New Haven SMSA in 1985 and 1990 would be a function of regional purchasing power, the availability, or supply of retailing opportunities, and particular consumer shopping patterns. Purchasing power in the area was projected under two scenarios -- assuming zero percent and one percent annual growth rates in per capita income as described in Section II preceding. Under a baseline situation (no North Haven Mall), it was assumed that there would be no major additions to the supply of retail space through 1990. It was also assumed that future shopping patterns and sales trends would continue to reflect past experience. Consequently, the sales distribution patterns evidenced by the 1977 sales distributions, described previously, would remain relatively unchanged.

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS[1/]
NEW HAVEN REGION
1977
(In Thousands of 1977 Constant Dollars)

SMSA Cities/Towns	Shoppers Goods Purchasing Power	Centers Within SMSA: New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Centers Outside SMSA: Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley	Subtotal Outside SMSA	Total	Balance Shopper's Goods Purchasing Power
North Haven	$ 21,574	$ 6,631	$ 5,669	$ 133	$ 12,433	$ 52	--	$ 729	$ 560	$ 43	$ 1,384	$ 13,817	$ 7,757
New Haven	$ 93,095	$36,705	$ 9,035	$ 2,249	$ 47,989	$ 455	$ 467	$ 487	$ 261	$ 77	$ 1,747	$ 49,736	$ 43,359
Wallingford	$ 29,202	$ 1,025	$ 7,145	$ 68	$ 8,238	$ 32	--	$ 4,970	$ 2,129	$ 121	$ 7,252	$ 15,490	$ 13,712
Hamden	$ 44,517	$ 6,651	$20,668	$ 384	$ 27,703	$ 107	$ 467	$ 487	$ 784	$ 114	$ 1,959	$ 29,662	$ 14,855
North Branford	$ 8,941	$ 1,175	$ 1,121	$ 43	$ 2,339	$ 20	--	$ 1,981	$ 336	$ 19	$ 2,356	$ 4,695	$ 4,246
East Haven	$ 17,520	$ 6,380	$ 1,477	$ 242	$ 8,099	$ 87	--	--	--	$ 24	$ 111	$ 8,210	$ 9,310
Bethany	$ 4,013	$ 1,427	$ 768	$ 105	$ 2,300	$ 36	--	--	$ 37	$ 70	$ 143	$ 2,443	$ 2,170
Woodbridge	$ 12,814	$ 1,427	$ 354	$ 666	$ 2,447	$ 127	--	--	$ 186	$ 20	$ 333	$ 2,780	$ 10,034
Orange	$ 16,853	$ 1,427	$ 354	$ 5,806	$ 7,587	$ 1,148	$ 467	--	--	$ 19	$ 1,634	$ 9,221	$ 7,632
West Haven	$ 40,772	$ 9,317	$ 591	$ 6,586	$ 16,494	$ 1,659	$ 975	--	--	$ 34	$ 2,668	$ 19,162	$ 21,610
Branford	$ 20,598	$ 4,197	$ 1,477	$ 133	$ 5,807	$ 52	--	--	--	--	$ 52	$ 5,859	$ 14,739
Guilford	$ 14,492	$ 1,343	$ 354	$ 59	$ 1,756	$ 30	--	--	$ 186	--	$ 216	$ 1,972	$ 12,520
Madison	$ 12,552	$ 1,175	--	$ 34	$ 1,209	$ 20	--	--	$ 411	--	$ 431	$ 1,640	$ 10,912
Clinton	$ 8,662	$ 84	--	--	$ 84	--	--	--	--	--	--	$ 84	$ 8,578
Total-SMSA	$346,205	$78,964	$49,013	$16,508	$144,485	$ 3,825	$ 2,376	$ 8,654	$ 4,890	$ 541	$ 20,286	$164,771	$181,434
Non-SMSA Cities/Towns													
Durham	$ 4,171	--	--	--	--	$ 6	--	$ 1,008	$ 859	$ 17	$ 1,890	$ 1,890	$ 2,281
Middlefield	$ 3,500	--	--	--	--	$ 4	--	$ 487	$ 1,120	$ 29	$ 1,640	$ 1,640	$ 1,860
Meriden	$ 43,248	--	$ 354	$ 31	$ 385	$ 16	--	$22,944	$ 6,386	$ 306	$ 29,652	$ 30,037	$ 13,211
Cheshire	$ 19,833	$ 839	$ 4,489	$ 46	$ 5,374	$ 22	--	$ 1,252	$ 4,070	$ 1,118	$ 6,462	$ 11,836	$ 7,997
Total Non-SMSA	$ 70,752	$ 839	$ 4,843	$ 77	$ 5,759	$ 48	--	$25,691	$12,435	$ 1,470	$ 39,644	$ 45,403	$ 25,349
Total SMSA and Non-SMSA	$416,957	$79,803	$53,856	$16,585	$150,244	$ 3,873	$ 2,376	$34,345	$17,325	$ 2,011	$ 59,930	$210,174	$206,783
Other Non-SMSA	--	$ 4,140	$ 1,305	$10,411	$ 15,856	$15,048	$60,002	$ 6,056	$110,162	$74,766	$266,034	$281,890	--
Total Center GAF Sales	--	$83,943	$55,161	$26,996	$166,100	$18,921	$62,378	$40,401	$127,487	$76,777	$325,964	$492,064	--

1/ Estimated at 13.5% of aggregate income.

Source: Gladstone Associates.

DISTRIBUTION OF BALANCE SHOPPERS GOODS PURCHASING POWER TO TOWNS
NEW HAVEN REGION
1977
(In Thousands of 1977 Constant Dollars)

SMSA Cities/Towns	Balance Shoppers Goods Purchasing Power	SMSA Cities/Towns: North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Wood-bridge	Orange	West Haven	Branford	Guilford	Madison	Clinton	Non-SMSA Cities/Towns: Durham	Middlefield	Meriden	Cheshire	Milford	Other
North Haven	$ 7,757	$ 3,335	$ 233	$ 1,008	$ 310	$ 78	$ 310	--	$ 155	$ 78	--	--	--	--	--	--	--	--	$ 233	--	$ 2,017
New Haven	$ 43,359	$ 1,734	$22,980	$ 867	$1,300	--	$1,734	--	--	$ 3,469	$ 1,734	$ 867	--	--	--	--	--	--	--	$ 867	$ 7,807
Wallingford	$ 13,712	$ 1,783	$ 411	$ 8,090	$ 137	$137	$ 274	--	--	--	$ 137	$ 274	--	--	--	--	--	$ 1,097	$ 274	--	$ 1,098
Hamden	$ 14,855	$ 1,931	$ 1,783	$ 446	$4,902	--	$ 149	--	$ 149	$ 149	$ 149	--	--	--	--	--	--	$ 149	$ 149	--	$ 4,899
North Branford	$ 4,246	$ 637	$ 212	$ 255	$ 42	$425	$ 297	--	--	--	--	$ 510	$ 85	--	--	$ 42	--	$ 42	--	--	$ 1,699
East Haven	$ 9,310	$ 372	$ 2,141	$ 93	$ 186	$186	$3,072	--	--	$ 186	$ 279	$ 1,397	$ 93	--	--	--	--	--	--	$ 93	$ 1,212
Bethany	$ 2,170	$ 87	$ 195	$ 43	$ 87	--	--	$738	$ 174	$ 65	$ 65	--	--	--	--	--	--	--	$ 43	$ 43	$ 630
Woodbridge	$ 10,034	$ 401	$ 2,007	$ 100	$ 401	--	--	--	$3,813	$ 803	$ 301	--	--	--	--	--	--	--	--	$ 401	$ 1,807
Orange	$ 7,632	$ 76	$ 611	--	$ 76	--	--	--	$ 76	$ 3,205	$ 916	--	--	--	--	--	--	--	--	$ 1,450	$ 1,222
West Haven	$ 21,610	$ 216	$ 3,674	--	--	--	$ 216	--	--	$ 3,674	$ 8,428	$ 216	--	--	--	--	--	--	--	$ 2,161	$ 3,025
Branford	$ 14,739	$ 147	$ 1,474	--	$ 147	--	$1,327	--	--	--	$ 147	$ 9,286	$ 590	--	--	--	--	--	--	$ 147	$ 1,474
Guilford	$ 12,520	$ 125	$ 501	--	--	--	$ 376	--	--	--	--	$ 1,753	$ 6,761	$ 501	$ 103	--	--	--	--	--	$ 2,400
Madison	$ 10,912	$ 109	$ 218	$ 109	--	--	$ 218	--	--	--	--	$ 764	$ 2,073	$2,401	$ 436	--	--	--	--	--	$ 4,584
Clinton	$ 8,578	--	$ 86	--	--	--	--	--	--	--	--	$ 257	$ 343	$1,115	$1,750	--	--	--	--	--	$ 5,027
Subtotal-SMSA	$181,434	$10,953	$36,526	$11,011	$7,588	$826	$7,973	$738	$4,367	$11,629	$12,156	$15,324	$ 9,945	$4,017	$2,289	$ 42	--	$ 1,288	$ 699	$ 5,162	$38,901
Non-SMSA Cities/Towns																					
Durham	$ 2,281	--	$ 23	$ 160	--	--	--	--	--	--	--	$ 23	$ 68	$ 23	--	$639	$ 68	$ 46	--	--	$ 1,231
Middlefield	$ 1,860	--	--	$ 93	--	--	--	--	--	--	--	--	--	--	--	$ 37	$409	$ 130	--	--	$ 1,191
Meriden	$ 13,211	--	$ 132	$ 2,510	--	--	--	--	--	--	--	--	--	--	--	--	--	$ 7,266	$ 264	--	$ 3,039
Cheshire	$ 7,997	$ 320	$ 160	$ 640	$ 160	--	--	--	--	--	--	--	--	--	--	--	--	$ 160	$ 3,999	--	$ 2,558
Subtotal-Non-SMSA	$ 25,349	$ 320	$ 315	$ 3,403	$ 160	--	--	--	--	--	--	$ 23	$ 68	$ 23	--	$676	$477	$ 7,602	$ 4,263	--	$ 8,019
Total SMSA and Non-SMSA	$206,783	$11,273	$36,841	$14,414	$7,748	$826	$7,973	$738	$4,367	$11,629	$12,156	$15,347	$10,013	$4,040	$2,289	$718	$477	$ 8,890	$ 4,962	$ 5,162	$46,920
Other Non-SMSA	--	$ 3,510	$12,646	$16,111	$1,292	$143	$1,883	$257	$ 831	$22,621	$ 4,132	$ 4,566	$ 902	$ 104	$ 58	--	--	$12,239	$ 6,477	$38,066	--
Total	--	$14,783	$49,487	$30,525	$9,040	$969	$9,856	$995	$5,198	$34,250	$16,288	$19,913	$10,915	$4,144	$2,347	--	--	$21,129	$11,439	$43,228	--

Source: Gladstone Associates.

Shoppers goods sales for the SMSA, were projected based on projected purchasing power and past sales trends in the area.

PROJECTED SMSA SHOPPERS GOODS SALES
1985 and 1990
(In Millions of 1977 Constant Dollars)

	1985	1990
Scenario 1 1/	$370.8	$368.3
Scenario 2 2/	$394.5	$408.3

1/ Assumes zero percent income growth.

2/ Assumes one percent annual income growth.

Shoppers goods sales for the New Haven CBD and the Magic Mile shopping strip in Hamden were projected based on past sales trend information for 1972 and 1977 (as published by the Bureau of the Census). These two major retail centers (MRCs) are the only two SMSA centers for which census information is available for more than one point in time. Sales trends for these centers, therefore, can be analyzed and projected independently. These sales trends for the years 1972 and 1977 were analyzed and used to project sales for 1985 and 1990 on a modified trend line basis. Implicit in this analysis are the sales flows originating from the individual SMSA cities and towns. Shoppers goods sales for the New Haven CBD and Magic Mile were projected as follows:

SHOPPERS GOODS SALES PROJECTIONS
1985, 1990
(In Millions)

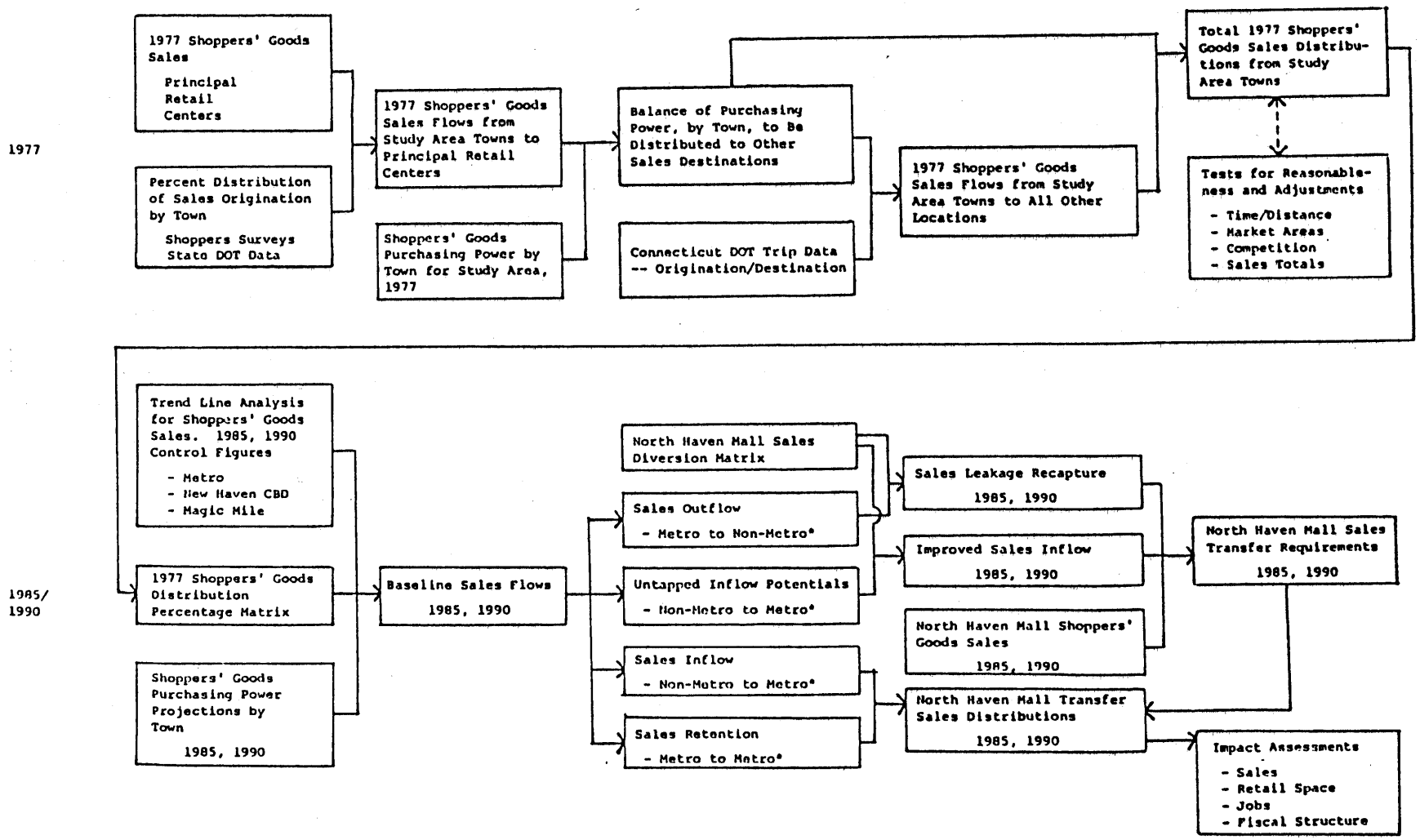
	1985	1990
New Haven CBD	$73.0	$69.6
Magic Mile	$55.2	$55.2

Detailed Sales Flows Analysis

Projections of purchasing power for the North Haven Mall Market Area and estimates of shoppers goods sales for those areas mentioned above were used to develop a computer model which would project detailed sales flows -- by city/town of origination to sales destinations -- for the designated MRCs and cities and towns for 1985 and 1990. (Purchasing power which as spent in other sales locations is accounted for in the "Other" column.)

This model assumes that the 1977 percent sales distribution evidenced in the analysis of 1977 sales flows would remain unchanged in 1985 and 1990 under a baseline situation. It should also be noted that this computer analysis details only sales originating from within the North Haven Mall Market Area and is unable to project the distribution and level of sales originating from other cities or towns. For example, while total SMSA sales have been projected at $370.8 million for 1985 and $368.3 million for 1990, under a zero percent income growth scenario, sales originating from the North Haven Mall Market Area and generated from the detailed sales flow analyses amount to $296.5 in 1985 and $302.7 in 1990, or 80 percent and 82.2 percent respectively of total projected SMSA sales. In other words, in 1985, 20 percent or $74.3 million of total SMSA sales are projected to be generated by unidentified non-SMSA locations.

These detailed sales flows for 1985 and 1990, under Scenarios 1 and 2 can be found in the statistical tabulations of these attachments. (A graphic portayal of these analysis techniques and the logic associated with this approach apear in the Exhibit following.)



* Reflects Origination/Destination or place of consumer residence to place of sales transaction.

5. Impact of North Haven Mall

The baseline supply/demand configurations for the New Haven-West Haven metropolitan area, would be measurably affected by a signficant increase in retail space supply, such as that represented by the proposed North Haven Mall.

The "lower half" of the logic flow chart, presented earlier, graphically describes the analytical approach used in evaluating such supply/demand impacts of the proposed Mall. This methodology or approach takes advantage of the extensive level of detail afforded by the origination/destination matrix and the resultant ability to individually evaluate potential competitive impacts on 380 separate sales flow relationships within and around the metropolitan area.

This approach also allows, as previously described, the separate measurement of four major sales flow categories: sales retention (metro to metro), sales inflow (non-metro to metro), sales outflow (metro to non-metro) and untapped inflow potentials (non-metro to non-metro).

In this fashion, the potential impact of the North Haven Mall can be evaluated from a retail sales perspective in the following illustrative fashion: given a baseline sales flow of $6.6 million from the town of North Haven to the New Haven CBD, what is the competitive relationship between the proposed North Haven Mall and the New Haven CBD in terms of travel distance from North Haven, accessability and type and variety of retail services? Further, if the North Haven Mall is implemented, what percentage of those sales currently flowing from the town of North Haven to the CBD would be diverted to the North Haven Mall?

Such an approach allows for a highly detailed analysis that is carefully tailored to current market organization patterns within the New Haven metropolitan area.

Sales Leakage Recapture: To the extent the North Haven Mall reduces current sales outflow (that is, SMSA area purchasing power going to non-SMSA sales locations), then this portion of the Mall's sales is defined as a recapture of sales leakage or outflow. The amount of current sales leakage that can be recaptured from various retail centers and other cities/towns outside the SMSA boundaries would depend on several factors:

-- Proximity: It is assumed that, given similar types of retail products, shoppers would choose to frequent the retail location which is closer to their place of residence. The closer the North Haven Mall is to the other cities/towns in the market area vis-a-vis currently frequented shopping centers outside the SMSA, the greater the likelihood of attracting back, or "recapturing," dollars currently being spent in non-SMSA locations.

-- Comparability of Retail Products: Here the specific stores and types of retail goods that are represented in the current shopping destinations were evaluated as compared with that which would be offered by the North Haven Mall. Size of center and concentration of shopping opportunities are likely to give the Mall an advantage. However, if the retail product offered in other locations is of a "specialty" type, then the Mall would be less able to capture a significant portion of the leakage.

-- Ambiance: To the extent that the North Haven Mall would provide easier access, a more attractive shopping environment and better security, it would be able to recapture sales from other retail centers outside the SMSA.

Using these criteria, individual recapture ranges were developed, in percentage terms, and applied to each baseline sales flow where the origination point was within the SMSA and the sales destination was outside the SMSA. These potential recapture sales, under Scenarios

1 and 2, for 1985 and 1990 are contained within the statistical tabulations at the end of this attachment.

Improved Sales Inflow: There are at least four towns along the northern fringe of the New Haven metropolitan area that are clearly within the principal market area of the proposed North Haven Mall. These include Cheshire, Durham, Middlefield and Meriden. Recognizing that the influence of the North Haven Mall might be felt beyond the boundaries of these towns, the analytical approach employed here has been to conservatively limit this potential area of influence. Purchasing power represented by residents of these non-metro area towns and which would be expected to flow to non-metro sales locations under baseline conditions represent untapped inflow potentials. To the extent that these sales flows are diverted to the North Haven Mall they would represent improved sales inflow for the New Haven SMSA.

Again, the potential for improved sales inflow into the New Haven SMSA has been very conservatively limited to the non-SMSA towns of Durham, Middlefield, Meriden and Cheshire. It is probable that additional sales inflow, beyond the level estimated here, would occur. Estimates of improved sales inflow are included in the previously mentioned tables which detail sales recapture.

Sales Transfers: The above two categories represent sales going to non-SMSA sales locations from both SMSA and non-SMSA residents. On the other hand, sales currently flowing to SMSA sales locations, regardless of whether they originate from SMSA or non-SMSA residents, would be considered sales transfers to the extent they are diverted to the North Haven Mall.

It should be noted that this last item, sales transfers, is the element of particular interest with regard to potential competitive retail impacts on downtown New Haven, Hamden's Magic Mile or other metropolitan area locations.

Having established anticipated sales volumes for the North Haven Mall (see Attachment C. Project Profile) and sales opportunities through leakage recapture and improved inflow (see immediately above) total transfer sales were derived as follows:

Total Mall Sales - (Leakage Recapture + Improved Outflow) = Transfer Sales

It should be noted that total mall sales were first estimated independent of inflow/outflow distinctions, as described in Attachment C. The leakage recapture/improved inflow elements represent the "easier" target markets or those sales flows most succeptible to competition and diversion. These are consumers who are relatively close to the proposed mall location (they reside, by definition, within the SMSA) yet who, at present, travel outside the metro to satisfy their retail needs. If goods they are seeking are offered within the metro then they are an "easier" market than those who are already shopping near their place of residence (i.e., within the metro). Thus, the resultant transfer sales (per the above formula) represent the more difficult markets or dollars to attract to reach the forecast sales levels. It is assumed here, however, that the mall would be successful in achieving those transfer sales and the total sales volumes anticipated.

In addition to the total level of metro sales transfers, however, likely sales transfers from individual retail concentrations within

the metro is of particular interest -- e.g., New Haven CBD or Hamden's Magic Mile.

The principal approach used for allocating the total metro sales transfers amongst individual sales locations has been to distribute them on the basis of the previously established baseline sales projections. Specifically, the relative distribution of baseline sales contained in the four sales flow matrices (see Attachment F. Detailed Sales Flow Matrices, Baseline Conditions, 1985 and 1990) were utilized in apportioning the transfer sales. These baseline sales matrices were established for 1985 and 1990 with 0 percent and 1 percent income growth assumptions under both years and each matrix contains 306 cells (17 metro sales destinations by 18 cities/towns of purchasing power origination). Each cell's value was expressed as a percentage of the total matrix value and that percentage then applied to the total metro transfer sales forecast to derive a sales transfer amount for each cell, which may be expressed as follows:

$$T_{C_i} = T_M \frac{B_{C_i}}{\sum_{i=1}^{306} B_{C_i}}$$

Where: T_{C_i} = Transfer sales for cell i in each matrix

T_m = Total metro transfer sales

B_{C_i} = Baseline sales value for cell i in each matrix.

The sum of all the values under each of the 17 columns in the resulting transfer sales matrix represents the projected impact on each of the 17 metro sales locations (individual centers, cities or towns).

Against the baseline values for each cell, column or matrix the resultant transfer sales value would represent a constant percentage. It is most important to note, however, that in these baseline matrices the sum of each column is not equal to total baseline sales for that center or municipality, but rather baseline sales for that locus coming from the eighteen study area towns only. Similarly, the sum of all 306 cells inthe matrix is equal to baseline metro sales coming from those eighteen towns only, but is not equal to total metro sales.

Since the eighteen municipalities noted here comprise the North Haven Mall market area, any sales coming to metro locations from other towns would not be impacted. For example, New Haven CBD draws 95 percent of its sales from these eighteen towns. If transfer sales are 10 percent against the baseline matrices the actual impact on New Haven CBD's total sales would be .95 x .10 or 9.5 percent rather than 10 percent. On the other hand, White Acres shopping center draws an estimated 61 percent of its sales from those towns, so the transfer impact in this example on total White Acre sales would be 6.1 percent not 10 percent. Similarly, for the town of Orange, it would be 3.4 percent, for North Branford 8.5 percent and so on.

Thus, the market area analyses built into these baseline matrices automatically differentiate transfer sales impacts from one location to another given sales flows that were based on travel times, center type, competition, and the like (see Section III, Sales Flows 1977, above).

As a test to this approach, an alternative cell-by-cell evaluation (without regard to the baseline values, per se) of the likely competitive impact of the North Haven mall on each of the 306 origination/destination cells was conducted. The results of this analysis, which differ to some degree from the primary methodology described above, are shown in the following percentage distribution table.

A combination of these two approaches would show the following transfer sales impact ranges for 1990:

	Scenario 1		Scenario 2	
	Transfer Volume (millions)	Percent of Baseline (millions)	Transfer Volume	Percent of Baseline
Primary Approach				
New Haven CBD	$ 5.8	8.3%	$ 3.5	5.0%
Magic Mile	$ 4.7	8.5%	$ 2.9	5.3%
Balance	$15.9	6.5%	$12.0	4.2%
Total Metro	$26.4	7.2%	$18.4	4.5%
Alternative Approach				
New Haven CBD	$ 7.1	10.2%	$ 4.9	7.0%
Magic Mile	$ 5.6	10.1%	$ 3.9	7.1%
Balance	$13.7	5.6%	$ 9.6	3.4%
Total Metro	$26.4	7.2%	$18.4	4.5%

Under either approach the total metro impact would remain the same while the relative impact from one location to another is tested here. Thus, for example, the impact on the New Haven CBD might range from 8.3 percent to 10.2 percent of baseline sales under a 0 percent income growth assumption and from 5.0 percent to 7.0 percent under a 1 percent growth assumption.

TRANSFER SALES IMPACT
ALTERNATIVE DISTRIBUTION PERCENTAGES

Expenditure Origination/ Sales Destination	New Haven CBD	Magic Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
North Haven	6.5%	5.1%	0.2%	4.5%	0.3%	0.6%	0.3%	0.1%	0.3%	--	0.1%	0.1%	--	--	--	--	--
New Haven	6.8%	2.9%	1.0%	3.1%	2.9%	0.7%	0.7%	--	0.9%	--	--	0.9%	0.9%	0.4%	--	--	--
Wallingford	1.1%	5.2%	0.1%	2.6%	0.5%	1.2%	0.1%	0.1%	0.2%	--	--	--	0.1%	0.2%	--	--	--
Hamden	3.8%	4.6%	0.4%	3.1%	0.9%	0.4%	0.6%	--	0.2%	--	0.1%	0.1%	0.1%	--	--	--	--
North Branford	0.7%	1.0%	--	0.9%	0.1%	0.2%	0.1%	0.1%	0.2%	--	--	--	--	0.3%	0.1%	--	--
East Haven	2.4%	0.7%	0.2%	0.5%	1.1%	0.1%	0.1%	--	0.4%	--	--	0.1%	0.1%	0.4%	0.1%	--	--
Bethany	0.9%	0.2%	0.2%	0.1%	0.1%	--	--	--	--	0.2%	--	--	--	--	--	--	--
Woodbridge	0.8%	0.1%	0.1%	0.5%	0.5%	0.1%	0.1%	--	--	--	0.5%	0.1%	0.1%	--	--	--	--
Orange	0.1%	--	0.7%	0.1%	0.1%	--	--	--	--	--	--	0.4%	0.1%	--	--	--	--
West Haven	0.9%	0.1%	0.8%	0.3%	0.5%	--	--	--	0.1%	--	--	0.5%	1.1%	0.1%	--	--	--
Branford	1.7%	1.0%	0.1%	0.2%	0.8%	--	0.1%	--	0.4%	--	--	--	--	1.3%	--	--	--
Guilford	0.6%	0.4%	0.1%	0.3%	0.2%	--	--	--	0.2%	--	--	--	--	0.5%	1.1%	0.1%	--
Madison	0.5%	--	--	0.2%	0.1%	0.1%	--	--	0.1%	--	--	--	--	0.2%	0.7%	0.4%	0.1%
Clinton	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1%	0.1%	0.2%	0.3%
Durham	--	--	--	--	--	0.1%	--	--	--	--	--	--	--	--	--	--	--
Middlefield	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Meriden	--	--	0.1%	--	0.1%	0.7%	--	--	--	--	--	--	--	--	--	--	--
Cheshire	0.1%	--	0.1%	0.6%	0.1%	0.2%	0.1%	--	--	--	--	--	--	--	--	--	--
Total	26.9%	21.3%	4.1%	17.0%	8.3%	4.4%	2.2%	0.3%	3.0%	0.2%	0.7%	2.2%	2.5%	3.5%	2.1%	0.7%	0.4%

E. Glossary

E. GLOSSARY

Community Shopping Center	Provides a wide range of facilities for the sale of shopping goods such as apparel and furniture, and may include banking and professional services and recreational facilities. A junior department store variety store, or discount department store is the principal tenant of this type of center. Average total area ranges from 91,000 to 268,000 square feet.
Comparison Goods	Those goods for which consumers are likely to "comparison shop." For purpose of this report, defined as shoppers goods.
Convenience Goods	Includes the retail categories of food and drug.
Discount Department Store	Establishments engaged in the sale of a variety of merchandise -- general merchandise, apparel, furniture, food and miscellaneous items -- in the low and popular price ranges.
Freestanding Retail	A single retail establishment which is not a physical part of a specific shopping center.
GAF	Retail sales are classified by the type of establishment from which they are sold. Strictly defined, GAF includes general merchandise, apparel and accessories and furniture. Frequently however, the term is used interchangeably with "shoppers goods" and is done so in this report.
Major Retail Center	As defined by the U.S. Bureau of the Census, a concentration of at least 25 retail stores located in an SMSA but outside a CBD. At least one of the stores must be a general merchandise store, with a minimum of 100,000 square feet of total under-roof floor space.
Neighborhood Shopping Center	Provides for the sale of daily living needs -- convenience goods such as food, drugs, hardware and personal services. A supermarket is the principal tenant of this type of center. Ranges in size from 27,000 to 96,000 square feet.
Principal Market Area	That area from which the North Haven Mall is expected to draw the majority of its sales. Includes those SMSA cities/towns of North Haven, New Haven, Wallingford, Hamden, North Branford, East Haven, Bethany, Woodbridge, Orange, West Haven, Branford, Guilford and Madison. Also includes the non-SMSA towns of Durham, Middlefield, Meriden and Cheshire.

Purchasing Power/ Expenditures	That portion of a region's total aggregate income which is available for purchasing retail goods and services. Shoppers goods purchasing power is defined here at 13.5% of aggregate income.
Regional Shopping Center	Provides a variety and depth of shopping goods comparable to those of a central business district in a small city, including general merchandise, apparel and home furnishings, as well as a variety of services and perhaps recreational facilities. One or two major department stores of generally not less than 100,000 square feet of GLA are the principal tenants. Total area ranges in size from 300,000 to 830,000 square feet.
Sales Inflows	Purchasing power of non-SMSA residents which is spent at sales locations within the SMSA (referred to as non-metro to metro).
Sales Leakage	Sales outflows (see below).
Sales Outflows	Purchasing power of SMSA residents which is spent at sales locations outside the SMSA (referred to as metro to non-metro).
Sales Recapture	Sales outflows which are projected to be diverted from non-SMSA sales destinations to the North Haven Mall.
Sales Retention	Purchasing power of SMSA residents which is spent at SMSA sales locations (referred to as metro to metro).
Sales Transfers	Expenditures at SMSA sales destinations which might be diverted, or transferred, to the North Haven Mall.
Selected Services	Included establishments primarily engaged in rendering a variety of services to individuals and business establishments: hotels, motels and trailer camps; personal services; automotive repair services; miscellaneous repair services.
Shoppers Goods	Includes the retail categories of general merchandise, apparel and accessories, furniture and miscellaneous shoppers goods. The latter category includes items sold in the following types of stores: sporting goods, books and stationery, jewelry, hobby, camera, gift, luggage and sewing.
SMSA	An abbreviation for Standard Metropolitan Statistical Area. It is defined by the U.S. Bureau of the Census and updated periodically. In New England, an SMSA is defined as consisting of

a central city and those cities and towns immediately adjacent to it when economic and social relationships among these areas meet specified criteria of metropolitan character and integration.

Soft Goods	Includes apparel, linens and general merchandise. Does not include appliances, hardware or furniture.
Strip Commercial	A massing of retail establishments -- small centers and freestanding establishments -- generally found along major local traffic routes.
Super Regional Shopping Center	Provides an extensive variety and depth of shopping goods comparable to those of the central business district of a major area. Includes a wide selection of general merchandise, apparel and home furnishings, as well as a variety of services and recreational facilities. The principal occupants must include at least three full-line department stores of generally not less than 100,000 square feet. Total area of the center ranges from 724,000 to 1,304,000 square feet.
Untapped Inflow Potentials	Purchasing power of individuals living outside the SMSA which is spent at sales locations outside the SMSA (referred to as non-metro to non-metro).

F. Statistical Tabulations

SHOPPERS SURVEYS

SHOPPERS SURVEY

Interview Location:_____ Interviewer:_____

Date of Interview:_____ Time of Interview:

Weekday _____ Aft. _____ Eve.

Saturday _____ AM _____ PM

1. PLACE OF RESIDENCE

Where do you live_____ and what is your Zip Code_____

How long does it take for you to travel from your home to here?_____

2. SHOPPING PATTERN

a. How often do you shop here?

_____ daily

_____ several times a week

_____ weekly

_____ bi-weekly

_____ monthly

_____ bi-monthly

_____ rarely

b. During your trip today at what stores do you plan to shop?

c. Where else do you frequently shop?

_____ New Haven CBD

_____ Meridan Square

_____ Naugatuck Mall, Waterbury

_____ Trumbull Shopping Park

_____ Bridgeport

_____ West Farms, Hartford

_____ White Plains

_____ Connecticut Post Shopping Center

_____ East Haven (Bradlees, K-Mart, etc.)

_____ Hamden Shopping Centers (Plaza, Mart, Caldors, Acme)

_____ Other (specify)_____

_____

Interviewer Observation

Age: Under 20 _____; 20-25 _____; 25-35 _____; 35-45 _____; 45-55 _____; 55-65 _____; Over 65 _____.

Sex: M _____; F _____.

SHOPPERS IN THE NEW HAVEN SMSA,
BY PLACE OF RESIDENCE, DECEMBER, 1977

Place of Residence	Downtown New Haven	Suburban Shopping Centers	Total
City of New Haven	43.0%	24.0%	33.3%
Hamden/North Haven	15.5%	15.7%	15.6%
East Haven/Branford	12.4%	2.5%	7.3%
West Haven	10.9%	15.7%	12.9%
Bethany/Woodbridge/ Orange	5.7%	20.1%	13.1%
Subtotal	(87.5%)	(78.0%)	(82.2%)
Other SMSA	5.8%	6.3%	6.3%
SMSA Total	93.3%	84.3%	88.5%
All Other	6.7%	15.7%	11.5%
Survey Total	100.0%	100.0%	100.0%

Source: Halcyon, Ltd. and New Haven Chamber of Commerce's Shoppers Survey, December, 1977.

Place of Residence	Hamden	Wallingford	New Haven	North Haven	Woodbridge	Fairhaven	Naugatuck	Yalesville	Cheshire	East Haven	Southington	Waterbury	Guilford	North Branford	Trumbull	Meriden	Norwalk	Milford	Branford	Bethany	Orange	Northford	Prospect	Total	Percent of Total
1. Travel Time																									
0- 5 Minutes	29	--	2	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	35	22.3%
5-10 Minutes	17	1	13	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36	22.9%
10-20 Minutes	9	13	5	6	--	--	--	--	5	1	--	--	--	2	--	--	--	--	--	--	--	2	--	43	27.4%
20-30 Minutes	--	5	3	--	2	--	--	2	5	3	1	--	--	--	--	--	--	--	4	--	--	--	--	25	15.9%
30+ Minutes	--	--	--	--	2	1	1	1	2	--	--	1	1	1	1	1	1	1	--	2	1	--	1	18	11.5%
Total	55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	2	1	2	1	157	100.0%
2a. Shopping Pattern																									
Daily	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9	5.7%
Several Times a Week	25	2	4	8	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	37	23.6%
Weekly	12	4	11	6	--	1	--	--	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	38	24.2%
Biweekly	7	4	4	1	2	--	1	--	2	2	--	--	--	--	--	--	--	--	--	1	--	2	--	26	16.6%
Monthly	--	5	2	3	2	--	--	2	5	1	1	1	1	--	--	1	--	--	--	1	--	--	--	25	15.9%
Bimonthly	--	--	1	--	--	--	--	1	2	--	--	--	--	--	--	--	--	1	--	--	1	--	--	6	3.8%
Rarely	2	4	1	1	--	--	--	--	--	--	--	--	--	1	1	--	1	--	4	--	--	--	1	16	10.2%
Total	55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	2	1	2	1	157	100.0%
2b. Stores[1/]																									
Bradlees	20	5	8	4	3	1	--	1	4	1	1	--	--	--	1	1	--	--	--	1	--	--	--	51	
Stop & Shop	20	--	2	1	--	1	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26	
Marshalls	5	5	3	4	1	--	--	--	2	1	--	1	--	2	--	--	--	--	--	1	1	--	1	24	
Child World	1	2	--	2	--	--	--	--	3	2	--	--	--	--	--	--	--	--	2	--	--	--	--	11	
2c. Where Else Shop?																									
New Haven CBD	16	1	18	5	--	--	--	--	10	2	--	--	1	--	--	--	--	--	2	1	--	--	--	56	
Meriden Square	8	14	4	6	--	--	--	3	6	1	1	--	--	2	1	1	--	--	--	--	--	--	--	47	
Naugatuck	--	--	2	--	--	--	1	--	1	1	1	1	--	--	1	1	--	--	--	1	--	--	--	10	
Trumbull	2	1	2	1	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	1	9	
Bridgeport	--	--	1	--	--	--	--	--	2	--	--	--	--	--	--	--	--	1	--	--	--	--	--	4	
Westfarms	2	4	1	1	--	--	--	2	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	11	
White Plains	3	1	--	--	3	--	--	--	--	1	1	--	1	--	1	1	--	--	--	--	--	--	1	13	
Connecticut Post	10	1	13	--	--	--	--	--	--	2	--	--	--	3	--	--	1	1	2	--	--	--	--	33	
East Haven	2	--	4	--	2	--	--	--	7	3	--	--	--	1	--	--	--	--	--	--	--	--	--	19	
Hamden	56	13	14	13	3	1	1	2	1	1	1	1	1	2	1	1	1	1	2	2	--	2	--	120	
Other	1	3	7	6	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2	1	--	--	--	21	
Total	100	38	66	32	8	1	2	7	27	13	4	2	3	9	4	4	3	3	8	5	--	2	2	345	
AGE: Less than 20	9	1	--	--	2	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	8.9%
20-25	10	5	5	6	1	--	--	--	3	--	1	1	--	--	--	--	--	--	--	1	--	2	--	35	22.3%
25-35	6	5	10	3	--	--	1	1	6	2	--	--	--	1	1	--	1	--	2	1	1	--	--	41	26.1%
35-45	13	2	4	3	--	--	--	--	--	1	--	--	--	2	--	--	--	1	2	--	--	--	1	29	18.5%
45-55	9	4	--	1	1	--	--	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	17	10.8%
55-65	5	2	3	3	--	--	--	--	1	1	--	--	--	--	--	1	--	--	--	--	--	--	--	16	10.2%
Over 65	3	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	3.2%
Total	55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	2	1	2	1	157	100.0%
SEX: Male	27	3	7	6	3	--	--	--	4	2	--	--	--	1	1	1	--	1	1	1	--	1	--	59	37.6%
Female	28	16	16	9	1	1	1	3	8	2	1	1	1	2	--	--	1	--	3	1	1	1	1	98	62.4%
Total	55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	2	1	2	1	157	100.0%

1/ Major anchor stores.

Source: Gladstone Associates Survey, March 1980.

RESPONSES TO SHOPPERS SURVEY

MERIDEN SQUARE

APRIL 1980

Place of Residence	Meriden	Wallingford	Northford	Cheshire	North Haven	Durham	Hamden	New Haven	Southbury	Middlefield	Prospect	Total	Percent of Total
1. Travel Time													
0- 5 Minutes	16	--	--	--	--	--	--	--	--	--	--	16	11.4%
5-10 Minutes	30	--	--	--	--	--	--	--	--	--	--	30	21.4%
10-20 Minutes	44	1	--	--	--	--	--	--	--	--	--	45	32.2%
20-30 Minutes	2	14	--	3	--	2	--	1	--	--	1	23	16.4%
30+ Minutes	--	5	8	2	3	2	2	1	1	2	--	26	18.6%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%
2a. Shopping Pattern													
Daily	--	--	--	--	--	--	--	--	--	--	--	--	--
Several Times a Week	9	--	--	--	--	--	--	--	--	--	--	9	6.4%
Weekly	45	2	--	--	--	--	--	--	--	--	--	47	33.6%
Biweekly	32	14	3	1	--	2	1	--	1	1	--	55	39.3%
Monthly	5	1	3	2	2	1	--	1	--	--	1	16	11.4%
Bimonthly	--	3	1	2	1	--	1	--	--	1	--	9	6.4%
Rarely	1	--	1	--	--	1	--	1	--	--	--	4	2.9%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%
2b. Stores 1/													
G. Fox	28	7	2	2	2	2	1	--	1	--	--	45	
J.C. Penney's	37	9	1	2	2	2	1	--	--	--	--	54	
2c. Where Else Do You Frequently Shop?													
New Haven CBD	6	14	7	2	3	3	1	2	--	--	--	38	
Meriden Square	--	--	--	--	--	--	--	--	--	--	--	--	
Nauguatuck	18	3	--	5	1	--	1	--	1	--	1	31	
Trumbull	1	--	--	--	--	--	--	--	--	--	--	1	
Bridgeport	--	--	--	--	--	--	--	--	--	--	--	--	
Westfarms	39	9	1	4	1	3	1	1	--	2	--	61	
White Plains	--	--	--	--	--	--	--	--	--	--	--	--	
Connecticut Post	--	2	4	--	--	--	--	2	--	--	--	8	
East Haven	--	4	5	--	1	--	1	2	--	--	--	12	
Hamden	4	14	7	2	3	3	1	2	--	1	--	37	
Other	2	--	--	--	--	--	--	1	1	--	--	4	
Total	71	46	24	13	9	9	5	10	2	2	1	192	
AGE: Less than 20	10	2	--	--	--	--	--	--	--	--	--	12	8.6%
20-25	23	4	--	--	--	--	--	--	--	1	1	29	20.7%
25-35	19	4	2	2	--	--	1	1	--	--	--	29	20.7%
35-45	17	2	4	2	1	1	--	1	--	1	--	29	20.7%
45-55	16	6	2	1	2	2	1	--	--	--	--	30	21.4%
55-65	6	2	--	--	--	1	--	--	1	--	--	10	7.2%
Over 65	1	--	--	--	--	--	--	--	--	--	--	1	0.7%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%
SEX: Male	40	5	1	--	--	--	--	--	--	2	--	48	34.3%
Female	52	15	7	5	3	4	2	2	1	--	1	92	65.7%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%

1/ Anchor department stores.

Source: Gladstone Associates Survey, April 1980.

RESPONSES TO SHOPPERS SURVEY
TRUMBULL SHOPPING PARK
APRIL 1980

Place of Residence	Bridgeport	Trumbull	Stratford	Fairfield	Monroe	Shelton	Huntington	Ansonia	Milford	Norwalk	Easton	Westport	Weston	Wilton	Seymour	West Haven	New Haven	Hamden	Orange	Darien	Oxford	Newton	Ridgefield	Bethal	Stamford	Simsbury	Total	Percent of Total
1. Travel Time																												
0- 5 Minutes	9	4	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	10.3%
5-10 Minutes	12	9	3	3	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	28	20.5%
10-20 Minutes	20	12	6	3	4	2	3	1	3	--	--	--	5	1	--	--	--	1	1	--	--	1	--	--	--	--	62	45.5%
20-30 Minutes	2	1	2	1	3	2	--	--	1	2	1	2	--	1	2	2	1	--	--	--	--	--	--	--	--	--	23	16.9%
30+ Minutes	--	--	--	--	--	--	--	1	--	2	--	--	--	--	--	--	--	--	--	1	1	--	1	1	1	1	9	6.6%
Total	43	26	11	8	7	4	3	2	4	4	2	2	5	2	2	2	1	1	1	1	1	1	1	1	1	1	137	100.0%
2a. Shopping Pattern																												
Daily	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	2.1%
Several Times a Week	6	2	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10	7.3%
Weekly	10	9	4	3	1	1	1	--	1	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32	23.4%
Biweekly	10	2	2	1	2	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	19	13.9%
Monthly	10	4	2	3	1	1	2	--	2	1	--	--	--	2	--	1	--	--	--	--	1	--	--	1	--	--	31	22.6%
Bimonthly	4	5	2	--	1	1	--	--	--	1	--	--	2	--	--	--	--	1	--	1	--	--	--	--	--	--	18	13.2%
Rarely	1	3	--	1	1	1	--	2	1	1	--	1	3	--	2	1	1	--	1	--	--	1	1	--	1	1	24	17.5%
Total	43	26	11	8	7	4	3	2	4	4	2	2	5	2	2	2	1	1	1	1	1	1	1	1	1	1	137	100.0%
2b. Stores 1/																												
G. Fox	11	19	6	3	4	2	2	2	2	3	2	2	2	2	2	1	1	1	--	--	--	--	1	--	1	--	70	
Read's	21	21	5	7	5	1	2	--	2	2	--	2	5	1	2	2	--	1	--	1	1	--	1	1	--	--	83	
2c. Where Else Do You Frequently Shop?																												
New Haven CBD	1	1	--	--	2	--	1	1	2	--	--	--	--	--	--	1	1	--	--	--	1	--	--	--	--	--	11	
Meriden Square	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	2	
Naugatuck	1	--	--	--	--	--	--	2	1	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	6	
Trumbull	17	6	--	3	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27	
Bridgeport	15	2	5	3	2	--	--	--	--	--	1	1	1	1	--	2	--	--	--	--	--	--	--	--	--	--	33	
Westfarms	1	3	--	--	1	--	--	2	2	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	11	
White Plains	1	1	--	--	1	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	5	
Connecticut Post	8	7	2	--	2	2	2	--	4	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--	30	
East Haven	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Hamden	1	--	--	1	--	1	1	--	--	--	--	--	--	--	--	2	--	1	--	--	1	--	--	--	--	--	8	
Other	11	11	7	3	4	2	1	--	--	3	--	1	5	--	1	--	--	--	--	--	--	1	1	1	1	1	54	
Total	57	31	14	10	12	5	6	5	9	4	1	2	6	3	4	6	2	2	1	1	1	1	1	1	1	2	188	
AGE: Less Than 20	7	5	2	2	2	--	1	--	2	2	1	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	26	18.9%
20-25	12	6	3	--	--	--	--	--	--	--	--	--	--	2	--	1	--	--	--	--	--	--	1	--	--	--	25	18.3%
25-35	9	3	3	4	2	1	2	--	--	2	--	--	1	--	--	--	--	--	--	--	--	1	--	1	1	1	31	22.6%
35-45	6	4	--	1	1	2	--	--	1	--	1	--	1	--	1	1	--	--	1	--	--	--	--	--	--	--	20	14.6%
45-55	2	4	1	--	1	1	--	2	--	--	--	1	2	--	--	--	--	--	--	--	--	--	--	--	--	--	15	11.0%
55-65	2	4	1	1	1	--	--	--	1	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	12	8.8%
Over 65	5	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	1	1	--	--	--	--	--	--	--	--	8	5.8%
Total	43	26	11	8	7	4	3	3	4	4	2	2	5	2	2	2	1	1	1	1	1	1	1	1	1	1	137	100.0%
SEX: Male	13	3	5	2	3	2	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	31	22.6%
Female	30	23	6	6	4	2	3	1	4	3	2	2	5	2	2	2	1	1	1	1	1	1	1	1	1	1	106	77.4%
Total	43	26	11	8	7	4	3	2	4	4	2	2	5	2	2	2	1	1	1	1	1	2	1	1	1	1	137	100.0%

1/ Anchor department stores.

Source: Gladstone Associates Survey, April 1980

DETAILED SALES FLOWS MATRICES

BASELINE CONDITIONS

1985 and 1990

SCENARIO I: 1985 and 1990

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; NO INCOME GROWTH

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA
1985
(IN THOUSANDS OF 1977 CONSTANT DOLLARS)

	Shoppers Goods Purchasing Power	Centers Within SMSA				Centers Outside SMSA						Total	Balance Shoppers Goods Purchasing Power
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley	Subtotal Outside SMSA		
NORTH HAVEN	22369	5949	5703	138	11790	54	0	756	581	45	1436	13226	9143
NEW HAVEN	90702	30942	8541	2191	41674	443	455	474	254	75	1701	43375	47327
WALLINGFORD	31735	964	7534	74	8572	35	0	5401	2314	131	7881	16453	15282
HAMDEN	45242	5840	20370	390	26616	109	475	495	797	116	1992	28608	16634
NORTH BRANFORD	9264	1053	1126	45	2224	21	0	2052	348	20	2441	4665	4599
EAST HAVEN	17442	5495	1426	241	7162	87	0	0	0	24	111	7273	10169
BETHANY	4897	1311	791	111	2213	38	0	0	39	74	151	2364	2533
WOODBRIDGE	13154	1268	352	684	2304	130	0	0	191	21	342	2646	10508
ORANGE	16523	1210	337	5693	7240	1126	458	0	0	19	1603	8843	7680
WEST HAVEN	41178	8142	579	6652	15373	1676	985	0	0	34	2695	18068	23110
BRANFORD	21671	3821	1508	140	5469	55	0	0	0	0	55	5524	16147
GUILFORD	16675	1337	395	68	1800	35	0	0	214	0	249	2049	14626
MADISON	14432	1169	0	39	1208	23	0	0	473	0	496	1704	12728
CLINTON	9263	78	0	0	78	0	0	0	0	0	0	78	9185
SUBTOTAL	354547	68587	48670	16466	133723	3832	2373	9178	5211	559	21153	154876	192671
DURHAM	4651	0	0	0	0	7	0	1124	958	19	2108	2108	2543
MIDDLEFIELD	3706	0	0	0	0	4	0	516	1186	31	1737	1737	1969
MERIDEN	44163	0	350	32	382	16	0	23429	6521	312	30278	30660	13503
CHESHIRE	22226	813	4881	52	5746	25	0	1403	4561	1253	7242	12988	9238
SUBTOTAL	74746	813	5231	84	6128	52	0	26472	13226	1615	41365	47493	27253
TOTAL	429293	69400	53901	16550	139851	3884	2373	35650	18437	2174	62518	202369	219924

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; NO INCOME GROWTH

DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
NORTH HAVEN MARKET AREA
1985
(IN THOUSANDS OF 1977 CONSTANT DOLLARS

	Balance Shoppers Goods Purchasing Power	SMSA Cities/Towns														Non-SMSA Cities/Towns					
		North Haven	New Haven	Walling-ford	Hamden	North Branford	East Haven	Bethany	Wood-bridge	Orange	West Haven	Branford	Guilford	Madison	Clinton	Durham	Middle-field	Meriden	Cheshire	Milford	Other
NORTH HAVEN	9143	3757	263	1135	349	88	349	0	175	88	0	0	0	0	0	0	0	0	242	0	[illegible]
NEW HAVEN	47327	1835	24325	918	1377	0	1835	0	0	3672	1835	918	0	0	0	0	0	0	0	[illegible]	[illegible]
WALLINGFORD	15282	2106	486	9552	162	162	324	0	0	0	162	324	0	0	0	0	0	1192	228	0	[illegible]
HAMDEN	16634	2132	1969	492	5413	0	164	0	164	164	164	0	0	0	0	0	0	151	151	[illegible]	[illegible]
NORTH BRANFORD	4599	717	239	287	48	478	335	0	0	0	0	574	96	0	0	44	0	44	0	0	[illegible]
EAST HAVEN	10169	402	2315	101	201	201	3322	0	0	201	302	1511	101	0	0	0	0	0	0	93	1297
BETHANY	2533	100	225	50	100	0	0	851	201	75	75	0	0	0	0	0	0	0	46	[illegible]	669
WOODBRIDGE	10508	448	2238	112	448	0	0	0	4252	895	336	0	0	0	0	0	0	0	0	112	1855
ORANGE	7680	81	651	0	81	0	0	0	81	3415	976	0	0	0	0	0	0	0	0	1422	1128
WEST HAVEN	23110	237	4032	0	0	0	237	0	0	4032	9248	237	0	0	0	0	0	0	0	2183	[illegible]
BRANFORD	16147	168	1685	0	168	0	1517	0	0	0	168	10615	675	0	0	0	0	0	0	155	1351
GUILFORD	14626	156	626	0	0	0	470	0	0	0	0	2191	8452	626	129	0	0	0	0	0	[illegible]
MADISON	12728	136	273	136	0	0	273	0	0	0	0	954	2589	3000	514	0	0	0	0	0	[illegible]
CLINTON	9185	0	100	0	0	0	0	0	0	0	0	299	399	1295	2033	0	0	0	0	0	[illegible]
SUBTOTAL	199671	12275	39427	12783	8347	929	8826	851	4873	12542	13266	17623	12312	4921	2706	44	0	1387	[illegible]	5156	[illegible]
DURHAM	2543	0	28	193	0	0	0	0	0	0	0	28	83	28	0	713	56	51	0	0	[illegible]
MIDDLEFIELD	1969	0	0	106	0	0	0	0	0	0	0	0	0	0	0	39	433	138	0	0	[illegible]
MERIDEN	13503	0	147	2785	0	0	0	0	0	0	0	0	0	0	0	0	0	7130	[illegible]	0	[illegible]
CHESHIRE	9238	390	194	779	194	0	0	0	0	0	0	0	0	0	0	0	0	179	6482	0	[illegible]
SUBTOTAL	27253	390	369	3863	194	0	0	0	0	0	0	28	83	28	0	752	509	7288	[illegible]	0	8501
TOTAL	226924	12665	39796	16646	8541	929	8826	851	4873	12542	13266	17651	12395	4949	2706	[illegible]	509	[illegible]	[illegible]	[illegible]	[illegible]

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; NO INCOME GROWTH

DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
NORTH HAVEN MARKET AREA
1990
(IN THOUSANDS OF 1977 CONSTANT DOLLARS

		SMSA Cities/Towns														Non-SMSA Cities/Towns					
	Balance Shoppers Goods Purchasing Power	North Haven	New Haven	Walling-ford	Hamden	North Branford	East Haven	Bethany	Wood-bridge	Orange	West Haven	Branford	Guilford	Madison	Clinton	Durham	Middle-field	Meriden	Cheshire	Milford	Other
NORTH HAVEN	9767	3933	275	1189	365	92	365	0	183	92	0	0	0	0	0	0	0	0	244	0	[illegible]
NEW HAVEN	50286	1933	25617	967	1449	0	1933	0	0	3867	1933	967	0	0	0	0	0	0	0	858	[illegible]
WALLINGFORD	15937	2238	516	10155	172	172	344	0	0	0	172	344	0	0	0	0	0	1222	305	0	1223
HAMDEN	17618	2219	2049	513	5634	0	171	0	171	171	171	0	0	0	0	0	0	152	152	0	4928
NORTH BRANFORD	4793	759	252	304	50	506	354	0	0	0	0	607	101	0	0	44	0	44	0	0	[illegible]
EAST HAVEN	10703	424	2436	106	212	212	3495	0	0	212	318	1588	106	0	0	0	0	0	0	94	1224
BETHANY	2720	107	241	53	107	0	0	911	215	80	80	0	0	0	0	0	0	0	47	47	[illegible]
WOODBRIDGE	10720	469	2348	117	469	0	0	0	4460	940	353	0	0	0	0	0	0	0	0	416	1876
ORANGE	7876	86	684	0	86	0	0	0	86	3589	1026	0	0	0	0	0	0	0	0	1442	[illegible]
WEST HAVEN	23794	248	4208	0	0	0	248	0	0	4208	9651	248	0	0	0	0	0	0	0	2197	3075
BRANFORD	16751	178	1781	0	178	0	1604	0	0	0	178	11223	713	0	0	0	0	0	0	158	[illegible]
GUILFORD	15335	169	676	0	0	0	508	0	0	0	0	2367	9130	676	139	0	0	0	0	0	[illegible]
MADISON	13494	149	297	149	0	0	297	0	0	0	0	1043	2830	3278	595	0	0	0	0	0	[illegible]
CLINTON	9524	0	107	0	0	0	0	0	0	0	0	321	428	1392	2184	0	0	0	0	0	[illegible]
SUBTOTAL	209318	12912	41487	13553	8722	982	9319	911	5115	13159	13082	18708	13308	5346	2918	44	0	1418	748	5212	[illegible]
DURHAM	3030	0	35	240	0	0	0	0	0	0	0	35	101	35	0	849	90	61	0	0	[illegible]
MIDDLEFIELD	2190	0	0	124	0	0	0	0	0	0	0	0	0	0	0	44	482	153	0	0	1103
MERIDEN	13824	0	155	2955	0	0	0	0	0	0	0	0	0	0	0	0	0	7592	276	0	[illegible]
CHESHIRE	11142	478	239	955	239	0	0	0	0	0	0	0	0	0	0	0	0	212	5300	0	[illegible]
SUBTOTAL	30186	478	429	4274	239	0	0	0	0	0	0	35	101	35	0	893	572	8018	5576	0	[illegible]
TOTAL	239504	13390	41916	17827	8961	982	9319	911	5115	13159	13082	18743	13409	5381	2918	937	572	9436	6321	5212	[illegible]

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; NO INCOME GROWTH

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA
1990
(IN THOUSANDS OF 1977 CONSTANT DOLLARS)

	Shoppers Goods Purchasing Power	Centers Within SMSA				Centers Outside SMSA						Total	Balance Shoppers Goods Purchasing Power
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley	Subtotal Outside SMSA		
NORTH HAVEN	22583	5626	5603	139	11368	54	0	763	586	45	1448	12816	9767
NEW HAVEN	92119	29439	8441	2225	40105	450	462	482	258	76	1728	41833	50286
WALLINGFORD	32536	926	7517	76	8519	36	0	5537	2372	135	8080	16599	15937
HAMDEN	45417	5500	19909	392	25801	109	476	497	800	116	1998	27799	17618
NORTH BRANFORD	9455	1007	1119	45	2171	21	0	2095	355	20	2491	4662	4793
EAST HAVEN	17689	5222	1408	244	6874	88	0	0	0	24	112	6986	10703
BETHANY	5054	1260	794	115	2177	39	0	0	41	77	157	2334	2720
WOODBRIDGE	13306	1201	347	692	2240	132	0	0	193	21	346	2586	10720
ORANGE	16754	1150	332	5772	7254	1141	464	0	0	19	1624	8878	7876
WEST HAVEN	41445	7677	567	6695	14939	1686	991	0	0	35	2712	17651	23794
BRANFORD	22097	3650	1497	143	5290	56	0	0	0	0	56	5346	16751
GUILFORD	17370	1305	400	71	1776	36	0	0	223	0	259	2035	15335
MADISON	15211	1154	0	41	1195	24	0	0	498	0	522	1717	13494
CLINTON	9599	75	0	0	75	0	0	0	0	0	0	75	9524
SUBTOTAL	360635	65200	47934	16650	129784	3872	2393	9374	5326	568	21533	151317	209318
DURHAM	5541	0	0	0	0	8	0	1339	1141	23	2511	2511	3030
MIDDLEFIELD	4122	0	0	0	0	5	0	574	1319	34	1932	1932	2190
MERIDEN	45187	0	349	32	381	17	0	23973	6672	320	30982	31363	13824
CHESHIRE	26285	901	5617	61	6579	29	0	1659	5394	1482	8564	15143	11142
SUBTOTAL	81135	901	5966	93	6960	59	0	27545	14526	1859	43989	50949	30186
TOTAL	441770	66101	53900	16743	136744	3931	2393	36919	19852	2427	65522	202266	239504

SCENARIO II: 1985 and 1990

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; INCOME GROWTH OF 1%

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA
1985
(IN THOUSANDS OF 1977 CONSTANT DOLLARS)

	Shoppers Goods Purchasing Power	Centers Within SMSA				Centers Outside SMSA						Total	Balance Shoppers Goods Purchasing Power
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley	Subtotal Outside SMSA		
NORTH HAVEN	24222	5949	5703	149	11801	58	0	818	629	48	1553	13354	10868
NEW HAVEN	98217	30943	8540	2373	41856	480	493	514	275	81	1843	43699	54518
WALLINGFORD	34364	964	7533	80	8577	38	0	5849	2505	142	8534	17111	[illegible]
HAMDEN	48990	5848	20378	423	26649	118	514	536	863	125	2156	28805	20185
NORTH BRANFORD	10031	1053	1127	48	2228	22	0	2222	377	21	2642	4870	5161
EAST HAVEN	18887	5496	1426	261	7183	94	0	0	0	26	120	7303	11581
BETHANY	5302	1310	791	121	2222	41	0	0	43	80	164	2386	2914
WOODBRIDGE	14244	1267	353	740	2360	141	0	0	207	22	370	2730	11511
ORANGE	17892	1211	337	6164	7712	1219	496	0	0	20	1735	9447	8445
WEST HAVEN	44590	8142	579	7203	15924	1814	1066	0	0	37	2917	18841	25749
BRANFORD	23467	3821	1508	152	5481	59	0	0	0	0	59	5540	[illegible]
GUILFORD	18056	1337	395	74	1806	37	0	0	232	0	269	2075	15981
MADISON	15627	1169	0	42	1211	25	0	0	512	0	537	[illegible]	13879
CLINTON	10031	78	0	0	78	0	0	0	0	0	0	78	9953
SUBTOTAL	383920	68508	48670	17830	135088	4146	2569	9939	5643	602	22899	[illegible]	[illegible]
DURHAM	5036	0	0	0	0	7	0	1217	1037	21	2282	2282	[illegible]
MIDDLEFIELD	4013	0	0	0	0	5	0	558	1284	33	1880	1880	2133
MERIDEN	47822	0	350	34	384	18	0	25371	7061	338	32788	[illegible]	14650
CHESHIRE	24068	813	4880	56	5749	27	0	1519	4939	1357	7842	13591	10477
SUBTOTAL	80939	813	5230	90	6133	57	0	28665	14321	1749	44792	50925	[illegible]
TOTAL	464859	69401	53900	17920	141221	4203	2569	38604	19964	2351	67691	208912	[illegible]

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; INCOME GROWTH AT 1%

DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
NORTH HAVEN MARKET AREA
1985
(IN THOUSANDS OF 1977 CONSTANT DOLLARS

		SMSA Cities/Towns														Non-SMSA Cities/Towns					
	Balance Shoppers Goods Purchasing Power	North Haven	New Haven	Walling-ford	Hamden	North Branford	East Haven	Bethany	Wood-bridge	Orange	West Haven	Branford	Guilford	Madison	Clinton	Durham	Middle-field	Meriden	Cheshire	Milford	Other
NORTH HAVEN	10868	4313	302	1304	401	101	401	0	200	101	0	0	0	0	0	0	0	0	262	0	[illegible]
NEW HAVEN	54518	2107	27927	1054	1580	0	2107	0	0	4216	2107	1054	0	0	0	0	0	0	0	915	[illegible]
WALLINGFORD	17253	2417	558	10966	185	185	371	0	0	0	185	371	0	0	0	0	0	1291	[illegible]	0	[illegible]
HAMDEN	20185	2448	2260	566	6215	0	189	0	189	189	189	0	0	0	0	0	0	164	164	0	[illegible]
NORTH BRANFORD	5161	824	274	329	54	549	384	0	0	0	0	659	109	0	0	47	0	47	0	0	[illegible]
EAST HAVEN	11584	462	2659	115	232	232	3815	0	0	232	347	1735	115	0	0	0	0	0	0	100	[illegible]
BETHANY	2916	115	258	56	115	0	0	977	230	86	86	0	0	0	0	0	0	0	49	49	[illegible]
WOODBRIDGE	11514	514	2570	128	514	0	0	0	4883	1027	386	0	0	0	0	0	0	0	0	446	[illegible]
ORANGE	8445	93	748	0	93	0	0	0	93	3920	1121	0	0	0	0	0	0	0	0	1549	[illegible]
WEST HAVEN	25749	272	4628	0	0	0	272	0	0	4628	10617	272	0	0	0	0	0	0	0	2363	[illegible]
BRANFORD	17927	192	1934	0	192	0	1742	0	0	0	192	12186	774	0	0	0	0	0	0	167	[illegible]
GUILFORD	15981	180	719	0	0	0	539	0	0	0	0	2516	9704	719	147	0	0	0	0	0	[illegible]
MADISON	13879	157	312	157	0	0	312	0	0	0	0	1095	2973	3443	625	0	0	0	0	0	[illegible]
CLINTON	9953	0	115	0	0	0	0	0	0	0	0	343	457	1487	2335	0	0	0	0	0	5821
SUBTOTAL	225933	14094	45264	14675	9581	106710132		977	5595	14401	15230	2023114132		5649	3107	47	0	1502	797	5580	[illegible]
DURHAM	2754	0	32	222	0	0	0	0	0	0	0	32	94	32	0	[illegible]	[illegible]	56	0	0	[illegible]
MIDDLEFIELD	2133	0	0	123	0	0	0	0	0	0	0	0	0	0	0	42	[illegible]	147	0	0	[illegible]
MERIDEN	14650	0	168	3197	0	0	0	0	0	0	0	0	0	0	0	0	0	8034	[illegible]	0	[illegible]
CHESHIRE	10477	447	223	895	223	0	0	0	0	0	0	0	0	0	0	0	0	194	4853	0	[illegible]
SUBTOTAL	30014	447	423	4437	223	0	0	0	0	0	0	32	94	32	0	814	551	8433	5145	0	[illegible]
TOTAL	255947	14541	45687	19112	9804	106710132		977	5595	14401	15230	2026314226		5681	3107	861	551	[illegible]	[illegible]	5580	[illegible]

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; INCOME GROWTH AT 1%

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA
1990
(IN THOUSANDS OF 1977 CONSTANT DOLLARS)

	Shoppers Goods Purchasing Power	Centers Within SMSA				Centers Outside SMSA						Total	Balance Shopping Goods Purchasing Power
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley	Subtotal Outside SMSA		
NORTH HAVEN	25701	5626	5603	158	11387	62	0	868	667	51	1648	13035	12666
NEW HAVEN	104841	29440	8441	2533	40414	512	526	548	294	87	1967	42381	62460
WALLINGFORD	37029	926	7516	86	8528	41	0	6302	2700	153	9196	17724	19305
HAMDEN	51688	5500	19908	446	25854	124	542	565	910	132	2273	28127	23561
NORTH BRANFORD	10761	1007	1119	52	2178	24	0	2384	404	23	2835	5013	5748
EAST HAVEN	20132	5221	1400	278	6907	100	0	0	0	28	128	7035	13097
BETHANY	5752	1267	795	131	2193	45	0	0	46	87	178	2371	3381
WOODBRIDGE	15143	1201	347	787	2335	150	0	0	220	24	394	2729	12414
ORANGE	19067	1150	333	6569	8052	1299	520	0	0	21	1840	9900	9167
WEST HAVEN	47168	7677	567	7619	15863	1919	1128	0	0	39	3086	18949	28219
BRANFORD	25149	3649	1496	162	5307	63	0	0	0	0	63	5370	19779
GUILFORD	19769	1305	401	80	1786	41	0	0	254	0	295	2081	17688
MADISON	17311	1154	0	47	1201	28	0	0	567	0	595	1796	15515
CLINTON	10925	75	0	0	75	0	0	0	0	0	0	75	10850
SUBTOTAL	410436	65198	47934	18948	132080	4408	2724	10667	6062	645	24506	156586	253850
DURHAM	6307	0	0	0	0	7	0	1524	1299	26	2858	2858	3449
MIDDLEFIELD	4691	0	0	0	0	5	0	653	1501	39	2198	2198	2493
MERIDEN	51427	0	349	37	386	19	0	27283	7594	364	35260	35646	15781
CHESHIRE	29914	901	5617	69	6587	33	0	1088	6139	1686	9746	16333	13581
SUBTOTAL	92339	701	5966	106	6973	66	0	31348	16533	2115	50062	57035	35304
TOTAL	502775	66099	53900	19054	139053	4474	2724	42015	22595	2760	74568	213621	289154

SCENARIO: POPULATION GROWTH PER JURISDICTION FORECASTS; INCOME GROWTH AT 1%

DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
NORTH HAVEN MARKET AREA
1990
(IN THOUSANDS OF 1977 CONSTANT DOLLARS

	Balance Shoppers Goods Purchasing Power	SMSA Cities/Towns														Non-SMSA Cities/Towns					
		North Haven	New Haven	Walling-ford	Hamden	North Branford	East Haven	Bethany	Wood-bridge	Orange	West Haven	Branford	Guilford	Madison	Clinton	Durham	Middle-field	Meriden	Cheshire	Milford	Other
NORTH HAVEN	12666	4869	341	1472	452	114	452	0	227	114	0	0	0	0	0	0	0	0	278	0	[illegible]
NEW HAVEN	62460	2393	31713	1196	1794	0	2393	0	0	4708	2393	1196	0	0	0	0	0	0	0	976	[illegible]
WALLINGFORD	19305	2771	638	12570	213	213	425	0	0	0	213	425	0	0	0	0	0	1391	[illegible]	0	[illegible]
HAMDEN	23561	2747	2537	635	6975	0	212	0	212	212	212	0	0	0	0	0	0	173	[illegible]	0	[illegible]
NORTH BRANFORD	5748	940	312	376	62	626	437	0	0	0	0	752	125	0	0	51	0	51	0	0	[illegible]
EAST HAVEN	13097	523	3015	131	262	262	4326	0	0	262	393	1967	131	0	0	0	0	0	0	[illegible]	[illegible]
BETHANY	3381	132	298	66	132	0	0	1127	266	99	99	0	0	0	0	0	0	0	51	51	[illegible]
WOODBRIDGE	12414	581	2907	145	581	0	0	0	5522	1163	436	0	0	0	0	0	0	0	0	[illegible]	[illegible]
ORANGE	9167	105	847	0	105	0	0	0	105	4443	1270	0	0	0	0	0	0	0	0	1611	1303
WEST HAVEN	28219	306	5208	0	0	0	306	0	0	5208	11948	306	0	0	0	0	0	0	0	2500	[illegible]
BRANFORD	19779	219	2206	0	219	0	1905	0	0	0	219	13894	882	0	0	0	0	0	0	[illegible]	1800
GUILFORD	17688	210	837	0	0	0	629	0	0	0	0	293011302	837	173	0	0	0	0	0	0	[illegible]
MADISON	15515	184	369	184	0	0	369	0	0	0	0	1292	3503	4057	736	0	0	0	0	0	[illegible]
CLINTON	10850	0	132	0	0	0	0	0	0	0	0	397	531	1723	2705	0	0	0	0	0	6540
SUBTOTAL	253850	15980	51360	1677510795	121511534	1127	6332	16289	17103	2315916474	6617	3614	51	0	1615	852	[illegible]	4[illegible]253			
DURHAM	3449	0	43	297	0	0	0	0	0	0	0	43	126	43	0	966	103	[illegible]	0	0	[illegible]
MIDDLEFIELD	2493	0	0	153	0	0	0	0	0	0	0	0	0	0	0	50	518	[illegible]	0	0	[illegible]
MERIDEN	15791	0	192	3658	0	0	0	0	0	0	0	0	0	0	0	0	0	8640	[illegible]	0	[illegible]
CHESHIRE	13581	592	295	1183	295	0	0	0	0	0	0	0	0	0	0	0	0	231	6032	0	[illegible]
SUBTOTAL	35304	592	530	5291	295	0	0	0	0	0	0	43	126	43	0	1016	651	9125	6346	0	[illegible]
TOTAL	289154	16572	51890	2206611090	121511534	1127	6332	16289	17103	2320216600	6660	3614	1067	651	10740	[illegible]	[illegible]	[illegible]			

IMPACT OF NORTH HAVEN MALL

SUMMARY REPORTS

SALES RECAPTURE, IMPROVED SALES INFLOW, SALES TRANSFERS

1985 and 1990

SCENARIO I: 1985 and 1990

SUMMARY REPORT
RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
1985 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
SALES LEAKAGE RECAPTURE					
CONNECTICUT POST	3832	34%	39%	1308	1500
TRUMBULL	2373	56%	61%	1324	1443
MERIDEN SQUARE	9178	60%	65%	5503	5962
WEST FARMS	5211	86%	91%	4457	4717
NAUGATUCK VALLEY	559	78%	83%	436	464
DURHAM	44	45%	50%	20	22
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1387	49%	54%	677	747
CHESHIRE	737	24%	29%	174	211
MILFORD	5156	32%	37%	1650	1908
OTHER	40571	57%	62%	23119	25147
TOTAL	69048	56%	61%	38668	42120
SALES INFLOW GAINS					
CONNECTICUT POST	52	87%	92%	45	48
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	26472	5%	5%	1236	1388
WEST FARMS	13226	76%	81%	10050	10711
NAUGATUCK VALLEY	1615	43%	48%	700	781
DURHAM	752	2%	2%	12	14
MIDDLEFIELD	509	4%	5%	23	27
MERIDEN	7788	2%	2%	149	168
CHESHIRE	4752	1%	2%	68	81
MILFORD	0	0%	0%	0	0
OTHER	8604	30%	35%	2569	3000
TOTAL	63770	40%	44%	14852	16218
LEAKAGE RECAPTURE AND INFLOW GAINS					
CONNECTICUT POST	3884	35%	40%	1353	1548
TRUMBULL	2373	56%	61%	1324	1443
MERIDEN SQUARE	35650	19%	21%	6739	7350
WEST FARMS	18437	79%	84%	1450	15428
NAUGATUCK VALLEY	2174	52%	57%	1136	1245
DURHAM	796	4%	4%	32	36
MIDDLEFIELD	509	4%	5%	23	27
MERIDEN	9175	9%	10%	826	915
CHESHIRE	5489	4%	5%	242	292
MILFORD	5156	32%	37%	1650	1908
OTHER	49175	52%	57%	25688	28147
TOTAL	132818	40%	44%	53520	58339

Source: Gladstone Associates.

SUMMARY REPORT
TRANSFER SALES
1985 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

NEW HAVEN CBD	$	6805
MIRACLE MILE	$	5285
WHITE ACRES	$	1623
NORTH HAVEN	$	1242
NEW HAVEN	$	3902
WALLINGFORD	$	1632
HAMDEN	$	837
NORTH BRANFORD	$	91
EAST HAVEN	$	865
BETHANY	$	83
WOODBRIDGE	$	478
ORANGE	$	1230
WEST HAVEN	$	1301
BRANFORD	$	1731
GUILFORD	$	1215
MADISON	$	485
CLINTON	$	265
Total	$	29070

Source: Gladstone Associates.

SUMMARY REPORT
RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
1990 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
SALES LEAKAGE RECAPTURE					
CONNECTICUT POST	3872	34%	39%	1323	1517
TRUMBULL	2393	56%	61%	1335	1455
MERIDEN SQUARE	9374	60%	65%	5614	6083
WEST FARMS	5326	86%	91%	4554	4820
NAUGATUCK VALLEY	568	78%	83%	443	471
DURHAM	44	45%	50%	20	22
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1418	49%	54%	692	762
CHESHIRE	748	24%	29%	177	214
MILFORD	5212	32%	37%	1669	1930
OTHER	41517	57%	62%	23628	25704
TOTAL	70472	56%	61%	39454	42978
SALES INFLOW GAINS					
CONNECTICUT POST	59	87%	92%	51	54
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	27545	5%	6%	1454	1633
WEST FARMS	14526	76%	81%	11100	11827
NAUGATUCK VALLEY	1859	43%	48%	792	885
DURHAM	893	1%	2%	13	15
MIDDLEFIELD	572	5%	6%	27	32
MERIDEN	8018	2%	2%	173	195
CHESHIRE	5576	1%	1%	69	83
MILFORD	0	0%	0%	0	0
OTHER	9603	30%	35%	2892	3372
TOTAL	68651	40%	44%	16571	18096
LEAKAGE RECAPTURE AND INFLOW GAINS					
CONNECTICUT POST	3931	35%	40%	1374	1571
TRUMBULL	2393	56%	61%	1335	1455
MERIDEN SQUARE	36919	19%	21%	7068	7716
WEST FARMS	19852	79%	84%	15654	16647
NAUGATUCK VALLEY	2427	51%	56%	1234	1356
DURHAM	937	4%	4%	33	37
MIDDLEFIELD	572	5%	6%	27	32
MERIDEN	9436	9%	10%	865	957
CHESHIRE	6324	4%	5%	246	297
MILFORD	5212	32%	37%	1669	1930
OTHER	51120	52%	57%	26520	29076
TOTAL	139123	40%	44%	56025	61074

Source: Gladstone Associates.

SUMMARY REPORT
TRANSFER SALES
1990 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

NEW HAVEN CBD	$	5777
MIRACLE MILE	$	4710
WHITE ACRES	$	1463
NORTH HAVEN	$	1170
NEW HAVEN	$	3663
WALLINGFORD	$	1558
HAMDEN	$	783
NORTH BRANFORD	$	86
EAST HAVEN	$	814
BETHANY	$	80
WOODBRIDGE	$	447
ORANGE	$	1150
WEST HAVEN	$	1213
BRANFORD	$	1638
GUILFORD	$	1172
MADISON	$	470
CLINTON	$	255
Total	$	26449

Source: Gladstone Associates.

SCENARIO II: 1985 and 1990

SUMMARY REPORT
RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
1985 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
SALES LEAKAGE RECAPTURE					
CONNECTICUT POST	4146	34%	39%	1415	1622
TRUMBULL	2569	56%	61%	1434	1562
MERIDEN SQUARE	9939	60%	65%	5959	6456
WEST FARMS	5643	86%	91%	4826	5108
NAUGATUCK VALLEY	602	78%	83%	469	500
DURHAM	47	45%	50%	21	24
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1502	49%	54%	733	808
CHESHIRE	797	24%	29%	189	228
MILFORD	5580	32%	37%	1784	2063
OTHER	43933	57%	62%	25035	27232
TOTAL	74758	56%	61%	41865	45603
SALES INFLOW GAINS					
CONNECTICUT POST	57	87%	92%	50	52
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	28665	5%	5%	1338	1502
WEST FARMS	14321	76%	81%	10882	11598
NAUGATUCK VALLEY	1749	43%	48%	758	846
DURHAM	814	2%	2%	13	15
MIDDLEFIELD	551	4%	5%	25	29
MERIDEN	8433	2%	2%	162	182
CHESHIRE	5145	1%	2%	73	88
MILFORD	0	0%	0%	0	0
OTHER	9315	30%	35%	2782	3247
TOTAL	69050	40%	44%	16083	17559
LEAKAGE RECAPTURE AND INFLOW GAINS					
CONNECTICUT POST	4203	35%	40%	1465	1674
TRUMBULL	2569	56%	61%	1434	1562
MERIDEN SQUARE	38604	19%	21%	7297	7958
WEST FARMS	19964	79%	84%	15708	16706
NAUGATUCK VALLEY	2351	52%	57%	1227	1346
DURHAM	861	4%	4%	34	39
MIDDLEFIELD	551	4%	5%	25	29
MERIDEN	9935	9%	10%	895	990
CHESHIRE	5942	4%	5%	262	316
MILFORD	5580	32%	37%	1784	2063
OTHER	53248	52%	57%	27817	30479
TOTAL	143808	40%	44%	57948	63162

Source: Gladstone Associates.

SUMMARY REPORT
TRANSFER SALES
1985 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

NEW HAVEN CBD	$	5285
MIRACLE MILE	$	4104
WHITE ACRES	$	1365
NORTH HAVEN	$	1107
NEW HAVEN	$	3479
WALLINGFORD	$	1455
HAMDEN	$	747
NORTH BRANFORD	$	81
EAST HAVEN	$	772
BETHANY	$	74
WOODBRIDGE	$	426
ORANGE	$	1097
WEST HAVEN	$	1160
BRANFORD	$	1543
GUILFORD	$	1083
MADISON	$	433
CLINTON	$	237
Total	$	24448

Source: Gladstone Associates.

SUMMARY REPORT
RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
1990 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
SALES LEAKAGE RECAPTURE					
CONNECTICUT POST	4408	34%	39%	1507	1727
TRUMBULL	2724	56%	61%	1520	1656
MERIDEN SQUARE	10667	60%	65%	6388	6921
WEST FARMS	6062	86%	91%	5183	5487
NAUGATUCK VALLEY	645	78%	83%	503	535
DURHAM	51	45%	50%	23	26
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1615	49%	54%	788	869
CHESHIRE	852	24%	29%	202	244
MILFORD	5931	32%	37%	1899	2196
OTHER	47253	57%	62%	26893	29255
TOTAL	80208	56%	61%	44906	48916
SALES INFLOW GAINS					
CONNECTICUT POST	66	87%	92%	58	61
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	31348	5%	6%	1655	1858
WEST FARMS	16533	76%	81%	12634	13461
NAUGATUCK VALLEY	2115	43%	48%	901	1007
DURHAM	1016	1%	2%	15	18
MIDDLEFIELD	651	5%	6%	31	36
MERIDEN	9125	2%	2%	197	222
CHESHIRE	6346	1%	1%	79	94
MILFORD	0	0%	0%	0	0
OTHER	10929	30%	35%	3291	3837
TOTAL	78129	40%	44%	18861	20594
LEAKAGE RECAPTURE AND INFLOW GAINS					
CONNECTICUT POST	4474	35%	40%	1565	1788
TRUMBULL	2724	56%	61%	1520	1656
MERIDEN SQUARE	42015	19%	21%	8043	8779
WEST FARMS	22595	79%	84%	17817	18947
NAUGATUCK VALLEY	2760	51%	56%	1403	1541
DURHAM	1067	4%	4%	38	43
MIDDLEFIELD	651	5%	6%	31	36
MERIDEN	10740	9%	10%	985	1090
CHESHIRE	7198	4%	5%	280	338
MILFORD	5931	32%	37%	1899	2196
OTHER	58182	52%	57%	30184	33093
TOTAL	158337	40%	44%	63767	69510

Source: Gladstone Associates.

SUMMARY REPORT
TRANSFER SALES
1990 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

NEW HAVEN CBD	$	3524
MIRACLE MILE	$	2874
WHITE ACRES	$	1016
NORTH HAVEN	$	884
NEW HAVEN	$	2766
WALLINGFORD	$	1176
HAMDEN	$	591
NORTH BRANFORD	$	65
EAST HAVEN	$	615
BETHANY	$	60
WOODBRIDGE	$	338
ORANGE	$	868
WEST HAVEN	$	916
BRANFORD	$	1237
GUILFORD	$	885
MADISON	$	355
CLINTON	$	193
Total	$	18363

Source: Gladstone Associates.

IMPACT OF NORTH HAVEN MALL

DETAILED REPORTS

SALES RECAPTURE, IMPROVED SALES INFLOW, SALES TRANSFERS

SCENARIO I: 1985 and 1990

1985 (0% INCOME GROWTH)

DETAIL TO ANALYSIS OF
SALES RECAPTURE AND IMPROVED INFLOW
NORTH HAVEN MALL
1985 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH HAVEN					
CONNECTICUT POST	$ 54	90%	95%	$ 49	$ 51
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 756	70%	75%	$ 529	$ 567
WEST FARMS	$ 581	90%	95%	$ 523	$ 552
NAUGATUCK VALLEY	$ 45	90%	95%	$ 41	$ 43
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 242	25%	30%	$ 61	$ 73
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2091	80%	85%	$ 1673	$ 1777
SUBTOTAL	$ 3769	76%	81%	$ 2875	$ 3063
NEW HAVEN					
CONNECTICUT POST	$ 443	60%	65%	$ 266	$ 288
TRUMBULL	$ 455	70%	75%	$ 319	$ 341
MERIDEN SQUARE	$ 474	85%	90%	$ 403	$ 427
WEST FARMS	$ 254	90%	95%	$ 229	$ 241
NAUGATUCK VALLEY	$ 75	80%	85%	$ 60	$ 64
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 845	45%	50%	$ 380	$ 423
OTHER	$ 7606	75%	80%	$ 5705	$ 6085
SUBTOTAL	$ 10152	73%	78%	$ 7361	$ 7868
WALLINGFORD					
CONNECTICUT POST	$ 35	90%	95%	$ 32	$ 33
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 5401	45%	50%	$ 2430	$ 2701
WEST FARMS	$ 2314	80%	85%	$ 1851	$ 1967
NAUGATUCK VALLEY	$ 131	80%	85%	$ 105	$ 111
DURHAM	$ 0	0%	0%	$ 0.	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 1192	45%	50%	$ 536	$ 596
CHESHIRE	$ 298	25%	30%	$ 75	$ 89
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1193	65%	70%	$ 775	$ 835
SUBTOTAL	$ 10564	55%	60%	$ 5804	$ 6333
HAMDEN					
CONNECTICUT POST	$ 109	70%	75%	$ 76	$ 82
TRUMBULL	$ 475	75%	80%	$ 356	$ 380
MERIDEN SQUARE	$ 495	80%	85%	$ 396	$ 421
WEST FARMS	$ 797	90%	95%	$ 717	$ 757
NAUGATUCK VALLEY	$ 116	75%	80%	$ 87	$ 93
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 151	70%	75%	$ 106	$ 113
CHESHIRE	$ 151	20%	25%	$ 30	$ 38
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 4979	70%	75%	$ 3485	$ 3734
SUBTOTAL	$ 7273	72%	77%	$ 5154	$ 5613

Source: Gladstone Associates.

	Baseline Sales	Diversion Percentages		Sales Diversions	
[illegible]					
CONNECTICUT POST	$ 21	90%	95%	$ 19	$ 20
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 2052	85%	90%	$ 1744	$ 1847
WEST FARMS	$ 348	90%	95%	$ 313	$ 331
NAUGATUCK VALLEY	$ 20	90%	95%	$ 18	$ 19
DURHAM	$ 44	45%	50%	$ 20	$ 22
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 44	80%	85%	$ 35	$ 37
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1760	70%	75%	$ 1232	$ 1320
SUBTOTAL	$ 4289	79%	84%	$ 3381	$ 3596
EAST HAVEN					
CONNECTICUT POST	$ 87	50%	55%	$ 44	$ 48
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 24	90%	95%	$ 22	$ 23
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 93	75%	80%	$ 70	$ 74
OTHER	$ 1207	70%	75%	$ 845	$ 905
SUBTOTAL	$ 1411	69%	74%	$ 980	$ 1050
BETHANY					
CONNECTICUT POST	$ 38	70%	75%	$ 27	$ 29
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 39	85%	90%	$ 33	$ 35
NAUGATUCK VALLEY	$ 74	55%	60%	$ 41	$ 44
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 46	20%	25%	$ 9	$ 12
MILFORD	$ 46	75%	80%	$ 35	$ 37
OTHER	$ 669	45%	50%	$ 301	$ 335
SUBTOTAL	$ 912	49%	54%	$ 445	$ 491
WOODBRIDGE					
CONNECTICUT POST	$ 130	55%	60%	$ 72	$ 78
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 191	90%	95%	$ 172	$ 181
NAUGATUCK VALLEY	$ 21	75%	80%	$ 16	$ 17
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 412	55%	60%	$ 227	$ 247
OTHER	$ 1855	30%	35%	$ 557	$ 649
SUBTOTAL	$ 2609	40%	45%	$ [illegible]	$ 1173

	Baseline Sales	Diversion Percentages		Sales Diversions	
ORANGE					
CONNECTICUT POST	$ 1126	20%	25%	$ 225	$ 282
TRUMBULL	$ 458	45%	50%	$ 206	$ 229
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 19	90%	95%	$ 17	$ 18
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 1422	20%	25%	$ 284	$ 356
OTHER	$ 1198	30%	35%	$ 359	$ 419
SUBTOTAL	$ 4223	26%	31%	$ 1092	$ 1303
WEST HAVEN					
CONNECTICUT POST	$ 1676	25%	30%	$ 419	$ 503
TRUMBULL	$ 985	45%	50%	$ 443	$ 493
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 34	90%	95%	$ 31	$ 32
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 2183	25%	30%	$ 546	$ 655
OTHER	$ 3055	35%	40%	$ 1069	$ 1222
SUBTOTAL	$ 7933	32%	37%	$ 2508	$ 2905
BRANFORD					
CONNECTICUT POST	$ 55	70%	75%	$ 39	$ 41
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 155	70%	75%	$ 109	$ 116
OTHER	$ 1551	70%	75%	$ 1086	$ 1163
SUBTOTAL	$ 1761	70%	75%	$ 1233	$ 1321
GUILFORD					
CONNECTICUT POST	$ 35	70%	75%	$ 25	$ 26
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 214	90%	95%	$ 193	$ 203
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2761	65%	70%	$ 1795	$ 1933
SUBTOTAL	$ 3010	67%	72%	$ 2012	$ 2162

	Baseline Sales	Diversion Percentages		Sales Diversions	
MADISON					
CONNECTICUT POST	$ 23	80%	85%	$ 18	$ 20
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 473	90%	95%	$ 426	$ 449
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5270	60%	65%	$ 3162	$ 3426
SUBTOTAL	$ 5766	63%	68%	$ 3606	$ 3894
CLINTON					
CONNECTICUT POST	$ 0	0%	0%	$ 0	$ 0
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5376	20%	25%	$ 1075	$ 1344
SUBTOTAL	$ 5376	20%	25%	$ 1075	$ 1344
DURHAM					
CONNECTICUT POST	$ 7	90%	95%	$ 6	$ 7
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1124	40%	45%	$ 450	$ 506
WEST FARMS	$ 958	75%	80%	$ 719	$ 766
NAUGATUCK VALLEY	$ 19	80%	85%	$ 15	$ 16
DURHAM	$ 713	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 76	30%	35%	$ 23	$ 27
MERIDEN	$ 51	40%	45%	$ 20	$ 23
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1373	30%	35%	$ 412	$ 481
SUBTOTAL	$ 4321	38%	42%	$ 1645	$ 1825
MIDDLEFIELD					
CONNECTICUT POST	$ 4	90%	95%	$ 4	$ 4
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 516	30%	35%	$ 155	$ 181
WEST FARMS	$ 1186	75%	80%	$ 890	$ 949
NAUGATUCK VALLEY	$ 31	90%	95%	$ 28	$ 29
DURHAM	$ 39	30%	35%	$ 12	$ 14
MIDDLEFIELD	$ 433	0%	0%	$ 0	$ 0
MERIDEN	$ 138	35%	40%	$ 48	$ 55
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1261	30%	35%	$ 378	$ 441
SUBTOTAL	$ 3608	42%	46%	$ 1514	$ 1673

	Baseline Sales	Diversion Percentages		Sales Diversions	
MERIDEN					
CONNECTICUT POST	$ 16	80%	85%	$ 13	$ 14
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$23429	0%	0%	$ 0	$ 0
WEST FARMS	$ 6521	70%	75%	$ 4565	$ 4891
NAUGATUCK VALLEY	$ 312	70%	75%	$ 218	$ 234
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 7420	0%	0%	$ 0	$ 0
CHESHIRE	$ 270	25%	30%	$ 68	$ 81
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3103	25%	30%	$ 776	$ 931
SUBTOTAL	$ 41071	14%	15%	$ 5639	$ 6150
CHESHIRE					
CONNECTICUT POST	$ 25	90%	95%	$ 23	$ 24
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1403	45%	50%	$ 631	$ 702
WEST FARMS	$ 4561	85%	90%	$ 3877	$ 4105
NAUGATUCK VALLEY	$ 1253	35%	40%	$ 439	$ 501
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 179	45%	50%	$ 81	$ 90
CHESHIRE	$ 4482	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2867	35%	40%	$ 1003	$ 1147
SUBTOTAL	$ 14770	41%	44%	$ 6053	$ 6568

Source: Gladstone Associates.

TRANSFER SALES MATRIX
NORTH HAVEN MALL
1985 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
NORTH HAVEN	583	559	14	360	26	111	34	9	34	0	17	9	0	0	0	0	0
NEW HAVEN	3034	837	215	180	2385	90	135	0	180	0	0	360	180	90	0	0	0
WALLINGFORD	95	739	7	207	48	937	16	16	32	0	0	0	16	32	0	0	0
HAMDEN	573	1998	38	209	193	48	531	0	16	0	16	16	16	0	0	0	0
NORTH BRANFORD	103	110	4	70	23	28	5	47	33	0	0	0	0	56	9	0	0
EAST HAVEN	539	140	24	39	227	10	20	20	326	0	0	20	30	148	10	0	0
BETHANY	129	78	11	10	22	5	10	0	0	83	20	7	7	0	0	0	0
WOODBRIDGE	124	35	67	44	219	11	44	0	0	0	417	88	33	0	0	0	0
ORANGE	119	33	558	8	64	0	8	0	0	0	8	335	96	0	0	0	0
WEST HAVEN	798	57	652	23	395	0	0	0	23	0	0	395	907	23	0	0	0
BRANFORD	375	148	14	16	165	0	16	0	149	0	0	0	16	1041	66	0	0
GUILFORD	131	39	7	15	61	0	0	0	46	0	0	0	0	215	829	61	13
MADISON	115	0	4	13	27	13	0	0	27	0	0	0	0	94	251	294	53
CLINTON	8	0	0	0	10	0	0	0	0	0	0	0	0	29	39	137	199
DURHAM	0	0	0	0	3	19	0	0	0	0	0	0	0	3	8	3	0
MIDDLEFIELD	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	34	3	0	14	273	0	0	0	0	0	0	0	0	0	0	0
CHESHIRE	80	479	5	38	19	76	19	0	0	0	0	0	0	0	0	0	0
TOTAL	6805	5285	1623	1242	3902	1632	837	91	865	83	478	1230	1301	1731	1215	185	265

Source: Gladstone Associates.

TRANSFER SALES AS A PERCENTAGE OF TOTAL METRO SALES
NORTH HAVEN
1985 (0% Income Growth)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
NORTH HAVEN	2.0%	1.9%	0.0%	1.3%	0.1%	0.4%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NEW HAVEN	10.4%	2.9%	0.7%	0.6%	8.2%	0.3%	0.5%	0.0%	0.6%	0.0%	0.0%	1.2%	0.6%	0.3%	0.0%	0.0%	0.0%
WALLINGFORD	0.3%	2.5%	0.0%	0.7%	0.2%	3.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
HAMDEN	2.0%	6.9%	0.1%	0.7%	0.7%	0.2%	1.8%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
NORTH BRANFORD	0.4%	0.4%	0.0%	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
EAST HAVEN	1.9%	0.5%	0.1%	0.1%	0.8%	0.0%	0.1%	0.1%	1.1%	0.0%	0.0%	0.1%	0.1%	0.5%	0.0%	0.0%	0.0%
BETHANY	0.4%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
WOODBRIDGE	0.4%	0.1%	0.2%	0.2%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	1.4%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%
ORANGE	0.4%	0.1%	1.9%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.3%	0.0%	0.0%	0.0%	0.0%
WEST HAVEN	2.7%	0.2%	2.2%	0.1%	1.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.4%	3.1%	0.1%	0.0%	0.0%	0.0%
BRANFORD	1.3%	0.5%	0.0%	0.1%	0.6%	0.0%	0.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.1%	3.6%	0.2%	0.0%	0.0%
GUILFORD	0.5%	0.1%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.7%	2.9%	0.2%	0.0%
MADISON	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.9%	1.0%	0.2%
CLINTON	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.7%
DURHAM	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MIDDLEFIELD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MERIDEN	0.0%	0.1%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CHESHIRE	0.3%	1.6%	0.0%	0.1%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Gladstone Associates.

1990 (0% INCOME GROWTH)

DETAIL TO ANALYSIS OF
SALES RECAPTURE AND IMPROVED INFLOW
NORTH HAVEN MALL
1990 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH HAVEN					
CONNECTICUT POST	$ 54	90%	95%	$ 49	$ 51
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 763	70%	75%	$ 534	$ 572
WEST FARMS	$ 586	90%	95%	$ 527	$ 557
NAUGATUCK VALLEY	$ 45	90%	95%	$ 41	$ 43
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 244	25%	30%	$ 61	$ 73
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2111	80%	85%	$ 1689	$ 1794
SUBTOTAL	$ 3803	76%	81%	$ 2900	$ 3091
NEW HAVEN					
CONNECTICUT POST	$ 450	60%	65%	$ 270	$ 293
TRUMBULL	$ 462	70%	75%	$ 323	$ 347
MERIDEN SQUARE	$ 482	85%	90%	$ 410	$ 434
WEST FARMS	$ 258	90%	95%	$ 232	$ 245
NAUGATUCK VALLEY	$ 76	80%	85%	$ 61	$ 65
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 858	45%	50%	$ 386	$ 429
OTHER	$ 7725	75%	80%	$ 5794	$ 6180
SUBTOTAL	$ 10311	73%	78%	$ 7476	$ 7992
WALLINGFORD					
CONNECTICUT POST	$ 36	90%	95%	$ 32	$ 34
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 5537	45%	50%	$ 2492	$ 2769
WEST FARMS	$ 2372	80%	85%	$ 1898	$ 2016
NAUGATUCK VALLEY	$ 135	80%	85%	$ 108	$ 115
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 1222	45%	50%	$ 550	$ 611
CHESHIRE	$ 305	25%	30%	$ 76	$ 92
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1223	65%	70%	$ 795	$ 856
SUBTOTAL	$ 10830	55%	60%	$ 5951	$ 6492
HAMDEN					
CONNECTICUT POST	$ 109	70%	75%	$ 76	$ 82
TRUMBULL	$ 476	75%	80%	$ 357	$ 381
MERIDEN SQUARE	$ 497	80%	85%	$ 398	$ 422
WEST FARMS	$ 800	90%	95%	$ 720	$ 760
NAUGATUCK VALLEY	$ 116	75%	80%	$ 87	$ 93
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 152	70%	75%	$ 106	$ 114
CHESHIRE	$ 152	20%	25%	$ 30	$ 38
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 4998	70%	75%	$ 3499	$ 3749
SUBTOTAL	$ 7300	72%	77%	$ 5273	$ 5638

Source: Gladstone Associates.

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH BRANFORD					
CONNECTICUT POST	$ 21	90%	95%	$ 19	$ 20
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 2095	85%	90%	$ 1781	$ 1886
WEST FARMS	$ 355	90%	95%	$ 320	$ 337
NAUGATUCK VALLEY	$ 20	90%	95%	$ 18	$ 19
DURHAM	$ 44	45%	50%	$ 20	$ 22
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 44	80%	85%	$ 35	$ 37
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1796	70%	75%	$ 1257	$ 1347
SUBTOTAL	$ 4375	79%	84%	$ 3449	$ 3668
EAST HAVEN					
CONNECTICUT POST	$ 88	50%	55%	$ 44	$ 48
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 24	90%	95%	$ 22	$ 23
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 94	75%	80%	$ 71	$ 75
OTHER	$ 1224	70%	75%	$ 857	$ 918
SUBTOTAL	$ 1430	69%	74%	$ 993	$ 1064
BETHANY					
CONNECTICUT POST	$ 39	70%	75%	$ 27	$ 29
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 41	85%	90%	$ 35	$ 37
NAUGATUCK VALLEY	$ 77	55%	60%	$ 42	$ 46
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 47	20%	25%	$ 9	$ 12
MILFORD	$ 47	75%	80%	$ 35	$ 38
OTHER	$ 690	45%	50%	$ 311	$ 345
SUBTOTAL	$ 941	49%	54%	$ 460	$ 507
WOODBRIDGE					
CONNECTICUT POST	$ 132	55%	60%	$ 73	$ 79
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 193	90%	95%	$ 174	$ 183
NAUGATUCK VALLEY	$ 21	75%	80%	$ 16	$ 17
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 416	55%	60%	$ 229	$ 250
OTHER	$ 1876	30%	35%	$ 563	$ 657
SUBTOTAL	$ 2638	40%	45%	$ 1054	$ 1186

	Baseline Sales	Diversion Percentages		Sales Diversions	
ORANGE					
CONNECTICUT POST	$ 1141	20%	25%	$ 228	$ 285
TRUMBULL	$ 464	45%	50%	$ 209	$ 232
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 19	90%	95%	$ 17	$ 18
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 1442	20%	25%	$ 288	$ 361
OTHER	$ 1215	30%	35%	$ 365	$ 425
SUBTOTAL	$ 4281	26%	31%	$ 1107	$ 1321
WEST HAVEN					
CONNECTICUT POST	$ 1686	25%	30%	$ 422	$ 506
TRUMBULL	$ 991	45%	50%	$ 446	$ 496
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 35	90%	95%	$ 32	$ 33
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 2197	25%	30%	$ 549	$ 659
OTHER	$ 3075	35%	40%	$ 1076	$ 1230
SUBTOTAL	$ 7984	32%	37%	$ 2524	$ 2924
BRANFORD					
CONNECTICUT POST	$ 56	70%	75%	$ 39	$ 42
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 158	70%	75%	$ 111	$ 119
OTHER	$ 1581	70%	75%	$ 1107	$ 1186
SUBTOTAL	$ 1795	70%	75%	$ 1257	$ 1346
GUILFORD					
CONNECTICUT POST	$ 36	70%	75%	$ 25	$ 27
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 223	90%	95%	$ 201	$ 212
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2877	65%	70%	$ 1870	$ 2014
SUBTOTAL	$ 3136	67%	72%	$ 2096	$ 2253

	Baseline Sales	Diversion Percentages		Sales Diversions	
MADISON					
CONNECTICUT POST	$ 24	80%	85%	$ 19	$ 20
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 498	90%	95%	$ 448	$ 473
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5555	60%	65%	$ 3333	$ 3611
SUBTOTAL	$ 6077	63%	68%	$ 3800	$ 4104
CLINTON					
CONNECTICUT POST	$ 0	0%	0%	$ 0	$ 0
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5571	20%	25%	$ 1114	$ 1393
SUBTOTAL	$ 5571	20%	25%	$ 1114	$ 1393
DURHAM					
CONNECTICUT POST	$ 8	90%	95%	$ 7	$ 8
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1339	40%	45%	$ 536	$ 603
WEST FARMS	$ 1141	75%	80%	$ 856	$ 913
NAUGATUCK VALLEY	$ 23	80%	85%	$ 18	$ 20
DURHAM	$ 849	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 90	30%	35%	$ 27	$ 32
MERIDEN	$ 61	40%	45%	$ 24	$ 27
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1635	30%	35%	$ 491	$ 572
SUBTOTAL	$ 5146	38%	42%	$ 1959	$ 2174
MIDDLEFIELD					
CONNECTICUT POST	$ 5	90%	95%	$ 5	$ 5
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 574	30%	35%	$ 172	$ 201
WEST FARMS	$ 1319	75%	80%	$ 989	$ 1055
NAUGATUCK VALLEY	$ 34	90%	95%	$ 31	$ 32
DURHAM	$ 44	30%	35%	$ 13	$ 15
MIDDLEFIELD	$ 482	0%	0%	$ 0	$ 0
MERIDEN	$ 153	35%	40%	$ 54	$ 61
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1403	30%	35%	$ 421	$ 491
SUBTOTAL	$ 4014	42%	46%	$ 1684	$ 1861

	Baseline Sales	Diversion Percentages		Sales Diversions	
MERIDEN					
CONNECTICUT POST	$ 17	80%	85%	$ 14	$ 14
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$23973	0%	0%	$ 0	$ 0
WEST FARMS	$ 6672	70%	75%	$ 4670	$ 5004
NAUGATUCK VALLEY	$ 320	70%	75%	$ 224	$ 240
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 7592	0%	0%	$ 0	$ 0
CHESHIRE	$ 276	25%	30%	$ 69	$ 83
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3175	25%	30%	$ 794	$ 953
SUBTOTAL	$ 42025	14%	15%	$ 5771	$ 6294
CHESHIRE					
CONNECTICUT POST	$ 29	90%	95%	$ 26	$ 28
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1659	45%	50%	$ 747	$ 830
WEST FARMS	$ 5394	85%	90%	$ 4585	$ 4855
NAUGATUCK VALLEY	$ 1482	35%	40%	$ 519	$ 593
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 212	45%	50%	$ 95	$ 106
CHESHIRE	$ 5300	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3390	35%	40%	$ 1187	$ 1356
SUBTOTAL	$ 17466	41%	44%	$ 7158	$ 7766

Source: Gladstone Associates.

TRANSFER SALES MATRIX
NORTH HAVEN MALL
1990 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	[illegible]
NORTH HAVEN	492	490	12	344	24	104	32	8	32	0	16	8	0	0	0	0	0
NEW HAVEN	2573	738	194	169	2239	85	127	0	169	0	0	338	169	85	0	0	0
WALLINGFORD	81	657	7	196	45	887	15	15	30	0	0	0	15	30	0	0	0
HAMDEN	481	1740	34	194	179	45	492	0	15	0	15	15	15	0	0	0	0
NORTH BRANFORD	88	98	4	66	22	27	4	44	31	0	0	0	0	53	9	0	0
EAST HAVEN	456	123	21	37	213	9	19	19	305	0	0	19	28	139	9	0	0
BETHANY	111	69	10	9	21	5	9	0	0	80	19	7	7	0	0	0	0
WOODBRIDGE	105	30	60	41	205	10	41	0	0	0	390	82	31	0	0	0	0
ORANGE	101	29	504	8	60	0	8	0	0	0	8	314	90	0	0	0	0
WEST HAVEN	671	50	585	22	368	0	0	0	22	0	0	368	843	22	0	0	0
BRANFORD	319	131	12	16	156	0	16	0	140	0	0	0	16	981	62	0	0
GUILFORD	114	35	6	15	59	0	0	0	44	0	0	0	0	207	798	59	12
MADISON	101	0	4	13	26	13	0	0	26	0	0	0	0	91	247	286	52
CLINTON	7	0	0	0	9	0	0	0	0	0	0	0	0	28	37	122	191
DURHAM	0	0	0	0	3	21	0	0	0	0	0	0	0	3	9	3	0
MIDDLEFIELD	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	31	3	0	14	258	0	0	0	0	0	0	0	0	0	0	0
CHESHIRE	79	491	5	42	21	83	21	0	0	0	0	0	0	0	0	0	0
TOTAL	5777	4710	1463	1170	3663	1558	783	86	814	80	447	1150	1213	1638	1172	470	256

Source: Gladstone Associates.

TRANSFER SALES AS A PERCENTAGE OF TOTAL METRO SALES
NORTH HAVEN MALL
1990 (0% Income Growth)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
NORTH HAVEN	1.9%	1.9%	0.0%	1.3%	0.1%	0.4%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NEW HAVEN	9.7%	2.8%	0.7%	0.6%	8.5%	0.3%	0.5%	0.0%	0.6%	0.0%	0.0%	1.3%	0.6%	0.3%	0.0%	0.0%	0.0%
WALLINGFORD	0.3%	2.5%	0.0%	0.7%	0.2%	3.4%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
HAMDEN	1.8%	6.6%	0.1%	0.7%	0.7%	0.2%	1.9%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
NORTH BRANFORD	0.3%	0.4%	0.0%	0.3%	0.1%	0.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
EAST HAVEN	1.7%	0.5%	0.1%	0.1%	0.8%	0.0%	0.1%	0.1%	1.2%	0.0%	0.0%	0.1%	0.1%	0.5%	0.0%	0.0%	0.0%
BETHANY	0.4%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
WOODBRIDGE	0.4%	0.1%	0.2%	0.2%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	1.5%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%
ORANGE	0.4%	0.1%	1.9%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.3%	0.0%	0.0%	0.0%	0.0%
WEST HAVEN	2.5%	0.2%	2.2%	0.1%	1.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.4%	3.2%	0.1%	0.0%	0.0%	0.0%
BRANFORD	1.2%	0.5%	0.0%	0.1%	0.6%	0.0%	0.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.1%	3.7%	0.2%	0.0%	0.0%
GUILFORD	0.4%	0.1%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.8%	3.0%	0.2%	0.0%
MADISON	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.9%	1.1%	0.2%
CLINTON	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.5%	0.7%
DURHAM	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MIDDLEFIELD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MERIDEN	0.0%	0.1%	0.0%	0.0%	0.1%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CHESHIRE	0.3%	1.9%	0.0%	0.2%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Gladstone Associates.

SCENARIO II: 1985 and 1990

1985 (1% INCOME GROWTH)

DETAIL TO ANALYSIS OF
SALES RECAPTURE AND IMPROVED INFLOW
NORTH HAVEN MALL
1985 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH HAVEN					
CONNECTICUT POST	$ 58	90%	95%	$ 52	$ 55
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 818	70%	75%	$ 573	$ 614
WEST FARMS	$ 629	90%	95%	$ 566	$ 598
NAUGATUCK VALLEY	$ 48	90%	95%	$ 43	$ 46
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 262	25%	30%	$ 66	$ 79
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2265	80%	85%	$ 1812	$ 1925
SUBTOTAL	$ 4080	76%	81%	$ 3112	$ 3316
NEW HAVEN					
CONNECTICUT POST	$ 480	60%	65%	$ 288	$ 312
TRUMBULL	$ 493	70%	75%	$ 345	$ 370
MERIDEN SQUARE	$ 514	85%	90%	$ 437	$ 463
WEST FARMS	$ 275	90%	95%	$ 248	$ 261
NAUGATUCK VALLEY	$ 81	80%	85%	$ 65	$ 69
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 915	45%	50%	$ 412	$ 458
OTHER	$ 8237	75%	80%	$ 6178	$ 6590
SUBTOTAL	$ 10995	73%	78%	$ 7972	$ 8522
WALLINGFORD					
CONNECTICUT POST	$ 38	90%	95%	$ 34	$ 36
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 5849	45%	50%	$ 2632	$ 2925
WEST FARMS	$ 2505	80%	85%	$ 2004	$ 2129
NAUGATUCK VALLEY	$ 142	80%	85%	$ 114	$ 121
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 1291	45%	50%	$ 581	$ 646
CHESHIRE	$ 322	25%	30%	$ 81	$ 97
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1292	65%	70%	$ 840	$ 904
SUBTOTAL	$ 11439	55%	60%	$ 6285	$ 6857
HAMDEN					
CONNECTICUT POST	$ 118	70%	75%	$ 83	$ 89
TRUMBULL	$ 514	75%	80%	$ 386	$ 411
MERIDEN SQUARE	$ 536	80%	85%	$ 429	$ 456
WEST FARMS	$ 863	90%	95%	$ 777	$ 820
NAUGATUCK VALLEY	$ 125	75%	80%	$ 94	$ 100
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 164	70%	75%	$ 115	$ 123
CHESHIRE	$ 164	20%	25%	$ 33	$ 41
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5391	70%	75%	$ 3774	$ 4043
SUBTOTAL	$ 7875	72%	77%	$ 5667	$ 6082

Source: Gladstone Associates.

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH BRANFORD					
CONNECTICUT POST	$ 22	90%	95%	$ 20	$ 21
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 2222	85%	90%	$ 1889	$ 2000
WEST FARMS	$ 377	90%	95%	$ 339	$ 358
NAUGATUCK VALLEY	$ 21	90%	95%	$ 19	$ 20
DURHAM	$ 47	45%	50%	$ 21	$ 24
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 47	80%	85%	$ 38	$ 40
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1906	70%	75%	$ 1334	$ 1430
SUBTOTAL	$ 4642	79%	84%	$ 3660	$ 3892
EAST HAVEN					
CONNECTICUT POST	$ 94	50%	55%	$ 47	$ 52
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 26	90%	95%	$ 23	$ 25
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 100	75%	80%	$ 75	$ 80
OTHER	$ 1307	70%	75%	$ 915	$ 980
SUBTOTAL	$ 1527	69%	74%	$ 1060	$ 1137
BETHANY					
CONNECTICUT POST	$ 41	70%	75%	$ 29	$ 31
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 43	85%	90%	$ 37	$ 39
NAUGATUCK VALLEY	$ 80	55%	60%	$ 44	$ 48
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 49	20%	25%	$ 10	$ 12
MILFORD	$ 49	75%	80%	$ 37	$ 39
OTHER	$ 724	45%	50%	$ 326	$ 362
SUBTOTAL	$ 986	49%	54%	$ 482	$ 531
WOODBRIDGE					
CONNECTICUT POST	$ 141	55%	60%	$ 78	$ 85
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 207	90%	95%	$ 186	$ 197
NAUGATUCK VALLEY	$ 22	75%	80%	$ 17	$ 18
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 446	55%	60%	$ 245	$ 268
OTHER	$ 2009	30%	35%	$ 603	$ 703
SUBTOTAL	$ 2825	40%	45%	$ 1128	$ 1270

	Baseline Sales	Diversion Percentages		Sales Diversions	
[illegible]					
CONNECTICUT POST	$ 1219	20%	25%	$ 244	$ 305
TRUMBULL	$ 496	45%	50%	$ 223	$ 248
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 20	90%	95%	$ 18	$ 19
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 1540	20%	25%	$ 308	$ 385
OTHER	$ 1297	30%	35%	$ 389	$ 454
SUBTOTAL	$ 4572	26%	31%	$ 1182	$ 1411
WEST HAVEN					
CONNECTICUT POST	$ 1814	25%	30%	$ 454	$ 544
TRUMBULL	$ 1066	45%	50%	$ 480	$ 533
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 37	90%	95%	$ 33	$ 35
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 2363	25%	30%	$ 591	$ 709
OTHER	$ 3308	35%	40%	$ 1158	$ 1323
SUBTOTAL	$ 8588	32%	37%	$ 2715	$ 3144
BRANFORD					
CONNECTICUT POST	$ 59	70%	75%	$ 41	$ 44
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 167	70%	75%	$ 117	$ 125
OTHER	$ 1679	70%	75%	$ 1175	$ 1259
SUBTOTAL	$ 1905	70%	75%	$ 1334	$ 1429
GUILFORD					
CONNECTICUT POST	$ 37	70%	75%	$ 26	$ 28
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 232	90%	95%	$ 209	$ 220
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2990	65%	70%	$ 1944	$ 2093
SUBTOTAL	$ 3259	67%	72%	$ 2178	$ 2341

	Baseline Sales	Diversion Percentages		Sales Diversions	
MADISON					
CONNECTICUT POST	$ 25	80%	85%	$ 20	$ 21
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 512	90%	95%	$ 461	$ 486
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5707	60%	65%	$ 3424	$ 3710
SUBTOTAL	$ 6244	63%	68%	$ 3905	$ 4217
CLINTON					
CONNECTICUT POST	$ 0	0%	0%	$ 0	$ 0
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5821	20%	25%	$ 1164	$ 1455
SUBTOTAL	$ 5821	20%	25%	$ 1164	$ 1455
DURHAM					
CONNECTICUT POST	$ 7	90%	95%	$ 6	$ 7
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1217	40%	45%	$ 487	$ 548
WEST FARMS	$ 1037	75%	80%	$ 778	$ 830
NAUGATUCK VALLEY	$ 21	80%	85%	$ 17	$ 18
DURHAM	$ 772	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 82	30%	35%	$ 25	$ 29
MERIDEN	$ 56	40%	45%	$ 22	$ 25
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1486	30%	35%	$ 446	$ 520
SUBTOTAL	$ 4678	38%	42%	$ 1780	$ 1976
MIDDLEFIELD					
CONNECTICUT POST	$ 5	90%	95%	$ 5	$ 5
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 558	30%	35%	$ 167	$ 195
WEST FARMS	$ 1284	75%	80%	$ 963	$ 1027
NAUGATUCK VALLEY	$ 33	90%	95%	$ 30	$ 31
DURHAM	$ 42	30%	35%	$ 13	$ 15
MIDDLEFIELD	$ 469	0%	0%	$ 0	$ 0
MERIDEN	$ 149	35%	40%	$ 52	$ 60
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1365	30%	35%	$ 410	$ 478
SUBTOTAL	$ 3905	42%	46%	$ 1639	$ 1811

	Baseline Sales	Diversion Percentages		Sales Diversions	
MERIDEN					
CONNECTICUT POST	$ 18	80%	85%	$ 14	$ 15
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$25371	0%	0%	$ 0	$ 0
WEST FARMS	$ 7061	70%	75%	$ 4943	$ 5296
NAUGATUCK VALLEY	$ 338	70%	75%	$ 237	$ 254
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 8034	0%	0%	$ 0	$ 0
CHESHIRE	$ 292	25%	30%	$ 73	$ 88
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3360	25%	30%	$ 840	$ 1008
SUBTOTAL	$ 44474	14%	15%	$ 6107	$ 6660
CHESHIRE					
CONNECTICUT POST	$ 27	90%	95%	$ 24	$ 26
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1519	45%	50%	$ 684	$ 760
WEST FARMS	$ 4939	85%	90%	$ 4198	$ 4445
NAUGATUCK VALLEY	$ 1357	35%	40%	$ 475	$ 543
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 194	45%	50%	$ 87	$ 97
CHESHIRE	$ 4853	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3104	35%	40%	$ 1086	$ 1242
SUBTOTAL	$ 15993	41%	44%	$ 6555	$ 7112

Source: Gladstone Associates.

TRANSFER SALES MATRIX
NORTH HAVEN MALL
1985 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
NORTH HAVEN	453	434	11	328	23	99	31	8	31	0	15	8	0	0	0	0	0
NEW HAVEN	2356	650	181	160	2127	80	120	0	160	0	0	321	160	80	0	0	0
WALLINGFORD	73	574	6	184	42	835	14	14	28	0	0	0	14	28	0	0	0
HAMDEN	445	1552	32	186	172	43	473	0	14	0	14	14	14	0	0	0	0
NORTH BRANFORD	80	86	4	63	21	25	4	42	29	0	0	0	0	50	8	0	0
EAST HAVEN	418	109	20	35	202	9	18	18	290	0	0	18	26	132	9	0	0
BETHANY	100	60	9	9	20	4	9	0	0	74	18	7	7	0	0	0	0
WOODBRIDGE	96	27	56	39	196	10	39	0	0	0	372	78	29	0	0	0	0
ORANGE	92	26	469	7	57	0	7	0	0	0	7	298	85	0	0	0	0
WEST HAVEN	620	44	548	21	352	0	0	0	21	0	0	352	808	21	0	0	0
BRANFORD	291	115	12	15	147	0	15	0	133	0	0	0	15	928	59	0	0
GUILFORD	102	30	6	14	55	0	0	0	41	0	0	0	0	192	739	55	11
MADISON	89	0	3	12	24	12	0	0	24	0	0	0	0	83	226	262	48
CLINTON	6	0	0	0	9	0	0	0	0	0	0	0	0	26	35	113	178
DURHAM	0	0	0	0	2	17	0	0	0	0	0	0	0	2	7	2	0
MIDDLEFIELD	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	27	3	0	13	243	0	0	0	0	0	0	0	0	0	0	0
CHESHIRE	62	372	4	34	17	68	17	0	0	0	0	0	0	0	0	0	0
TOTAL	5285	4104	1365	1107	3479	1455	747	81	772	74	426	1097	1160	1543	1083	433	237

Source: Gladstone Associates.

TRANSFER SALES AS A PERCENTAGE OF TOTAL METRO SALES
NORTH HAVEN MALL
1985 (1% Income Growth)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
NORTH HAVEN	1.9%	1.8%	0.0%	1.3%	0.1%	0.4%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NEW HAVEN	9.6%	2.7%	0.7%	0.7%	8.7%	0.3%	0.5%	0.0%	0.7%	0.0%	0.0%	1.3%	0.7%	0.3%	0.0%	0.0%	0.0%
WALLINGFORD	0.3%	2.3%	0.0%	0.8%	0.2%	3.4%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
HAMDEN	1.8%	6.3%	0.1%	0.8%	0.7%	0.2%	1.9%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
NORTH BRANFORD	0.3%	0.4%	0.0%	0.3%	0.1%	0.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
EAST HAVEN	1.7%	0.4%	0.1%	0.1%	0.8%	0.0%	0.1%	0.1%	1.2%	0.0%	0.0%	0.1%	0.1%	0.5%	0.0%	0.0%	0.0%
BETHANY	0.4%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
WOODBRIDGE	0.4%	0.1%	0.2%	0.2%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	1.5%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%
ORANGE	0.4%	0.1%	1.9%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.3%	0.0%	0.0%	0.0%	0.0%
WEST HAVEN	2.5%	0.2%	2.2%	0.1%	1.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.4%	3.3%	0.1%	0.0%	0.0%	0.0%
BRANFORD	1.2%	0.5%	0.0%	0.1%	0.6%	0.0%	0.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.1%	3.8%	0.2%	0.0%	0.0%
GUILFORD	0.4%	0.1%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.8%	3.0%	0.2%	0.0%
MADISON	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.9%	1.1%	0.2%
CLINTON	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.5%	0.7%
DURHAM	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MIDDLEFIELD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MERIDEN	0.0%	0.1%	0.0%	0.0%	0.1%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CHESHIRE	0.3%	1.5%	0.0%	0.1%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Gladstone Associates.

1990 (1% INCOME GROWTH)

DETAIL TO ANALYSIS OF
SALES RECAPTURE AND IMPROVED INFLOW
NORTH HAVEN MALL
1990 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH HAVEN					
CONNECTICUT POST	$ 62	90%	95%	$ 56	$ 59
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 868	70%	75%	$ 608	$ 651
WEST FARMS	$ 667	90%	95%	$ 600	$ 634
NAUGATUCK VALLEY	$ 51	90%	95%	$ 46	$ 48
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 278	25%	30%	$ 70	$ 83
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2403	80%	85%	$ 1922	$ 2043
SUBTOTAL	$ 4329	76%	81%	$ 3302	$ 3518
NEW HAVEN					
CONNECTICUT POST	$ 512	60%	65%	$ 307	$ 333
TRUMBULL	$ 526	70%	75%	$ 368	$ 395
MERIDEN SQUARE	$ 548	85%	90%	$ 466	$ 493
WEST FARMS	$ 294	90%	95%	$ 265	$ 279
NAUGATUCK VALLEY	$ 87	80%	85%	$ 70	$ 74
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 976	45%	50%	$ 439	$ 488
OTHER	$ 6792	75%	80%	$ 6594	$ 7034
SUBTOTAL	$ 11735	73%	78%	$ 8509	$ 9095
WALLINGFORD					
CONNECTICUT POST	$ 41	90%	95%	$ 37	$ 39
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 6302	45%	50%	$ 2836	$ 3151
WEST FARMS	$ 2700	80%	85%	$ 2160	$ 2295
NAUGATUCK VALLEY	$ 153	80%	85%	$ 122	$ 130
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 1391	45%	50%	$ 626	$ 696
CHESHIRE	$ 347	25%	30%	$ 87	$ 104
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1392	65%	70%	$ 905	$ 974
SUBTOTAL	$ 12326	55%	60%	$ 6773	$ 7389
HAMDEN					
CONNECTICUT POST	$ 124	70%	75%	$ 87	$ 93
TRUMBULL	$ 542	75%	80%	$ 407	$ 434
MERIDEN SQUARE	$ 565	80%	85%	$ 452	$ 480
WEST FARMS	$ 910	90%	95%	$ 819	$ 865
NAUGATUCK VALLEY	$ 132	75%	80%	$ 99	$ 106
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 173	70%	75%	$ 121	$ 130
CHESHIRE	$ 173	20%	25%	$ 35	$ 43
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 5688	70%	75%	$ 3982	$ 4266
SUBTOTAL	$ 7307	70%	77%	$ 5011	$ 5416

Source: Gladstone Associates.

	Baseline Sales	Diversion Percentages		Sales Diversions	
NORTH BRANFORD					
CONNECTICUT POST	$ 24	90%	95%	$ 22	$ 23
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 2384	85%	90%	$ 2026	$ 2146
WEST FARMS	$ 404	90%	95%	$ 364	$ 384
NAUGATUCK VALLEY	$ 23	90%	95%	$ 21	$ 22
DURHAM	$ 51	45%	50%	$ 23	$ 26
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 51	80%	85%	$ 41	$ 43
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 2045	70%	75%	$ 1432	$ 1534
SUBTOTAL	$ 4982	79%	84%	$ 3928	$ 4177
EAST HAVEN					
CONNECTICUT POST	$ 100	50%	55%	$ 50	$ 55
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 28	90%	95%	$ 25	$ 27
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 107	75%	80%	$ 80	$ 86
OTHER	$ 1393	70%	75%	$ 975	$ 1045
SUBTOTAL	$ 1628	69%	74%	$ 1131	$ 1212
BETHANY					
CONNECTICUT POST	$ 45	70%	75%	$ 32	$ 34
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 46	85%	90%	$ 39	$ 41
NAUGATUCK VALLEY	$ 87	55%	60%	$ 48	$ 52
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 54	20%	25%	$ 11	$ 14
MILFORD	$ 54	75%	80%	$ 41	$ 43
OTHER	$ 786	45%	50%	$ 354	$ 393
SUBTOTAL	$ 1072	49%	54%	$ 523	$ 577
WOODBRIDGE					
CONNECTICUT POST	$ 150	55%	60%	$ 83	$ 90
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 220	90%	95%	$ 198	$ 209
NAUGATUCK VALLEY	$ 24	75%	80%	$ 18	$ 19
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 474	55%	60%	$ 261	$ 284
OTHER	$ 2135	30%	35%	$ 641	$ 747
SUBTOTAL	$ 3003	40%	45%	$ 1200	$ 1350

	Baseline Sales	Diversion Percentages		Sales Diversions	
ORANGE					
CONNECTICUT POST	$ 1299	20%	25%	$ 260	$ 325
TRUMBULL	$ 528	45%	50%	$ 232	$ 264
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 21	90%	95%	$ 19	$ 20
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 1641	20%	25%	$ 328	$ 410
OTHER	$ 1383	30%	35%	$ 415	$ 484
SUBTOTAL	$ 4872	26%	31%	$ 1259	$ 1503
WEST HAVEN					
CONNECTICUT POST	$ 1919	25%	30%	$ 480	$ 576
TRUMBULL	$ 1128	45%	50%	$ 508	$ 564
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 39	90%	95%	$ 35	$ 37
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 2500	25%	30%	$ 625	$ 750
OTHER	$ 3500	35%	40%	$ 1225	$ 1400
SUBTOTAL	$ 9086	32%	37%	$ 2872	$ 3327
BRANFORD					
CONNECTICUT POST	$ 63	70%	75%	$ 44	$ 47
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 179	70%	75%	$ 125	$ 134
OTHER	$ 1800	70%	75%	$ 1260	$ 1350
SUBTOTAL	$ 2042	70%	75%	$ 1429	$ 1532
GUILFORD					
CONNECTICUT POST	$ 41	70%	75%	$ 29	$ 31
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 254	90%	95%	$ 229	$ 241
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3274	65%	70%	$ 2128	$ 2292
SUBTOTAL	$ 3567	67%	72%	$ 2385	$ 2564

	Baseline Sales	Diversion Percentages		Sales Diversions	
MADISON					
CONNECTICUT POST	$ 28	80%	85%	$ 22	$ 24
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 567	90%	95%	$ 510	$ 539
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 6322	60%	65%	$ 3793	$ 4109
SUBTOTAL	$ 6917	63%	68%	$ 4326	$ 4672
CLINTON					
CONNECTICUT POST	$ 0	0%	0%	$ 0	$ 0
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 0	0%	0%	$ 0	$ 0
WEST FARMS	$ 0	0%	0%	$ 0	$ 0
NAUGATUCK VALLEY	$ 0	0%	0%	$ 0	$ 0
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 0	0%	0%	$ 0	$ 0
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 6340	20%	25%	$ 1268	$ 1585
SUBTOTAL	$ 6340	20%	25%	$ 1268	$ 1585
DURHAM					
CONNECTICUT POST	$ 9	90%	95%	$ 8	$ 9
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1524	40%	45%	$ 610	$ 686
WEST FARMS	$ 1299	75%	80%	$ 974	$ 1039
NAUGATUCK VALLEY	$ 26	80%	85%	$ 21	$ 22
DURHAM	$ 966	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 103	30%	35%	$ 31	$ 36
MERIDEN	$ 70	40%	45%	$ 28	$ 32
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1861	30%	35%	$ 558	$ 651
SUBTOTAL	$ 5858	38%	42%	$ 2230	$ 2475
MIDDLEFIELD					
CONNECTICUT POST	$ 5	90%	95%	$ 5	$ 5
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 653	30%	35%	$ 196	$ 229
WEST FARMS	$ 1501	75%	80%	$ 1126	$ 1201
NAUGATUCK VALLEY	$ 39	90%	95%	$ 35	$ 37
DURHAM	$ 50	30%	35%	$ 15	$ 18
MIDDLEFIELD	$ 548	0%	0%	$ 0	$ 0
MERIDEN	$ 174	35%	40%	$ 61	$ 70
CHESHIRE	$ 0	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 1596	30%	35%	$ 479	$ 559
SUBTOTAL	$ 4566	42%	46%	$ 1916	$ 2117

	Baseline Sales	Diversion Percentages		Sales Diversions	
MERIDEN					
CONNECTICUT POST	$ 19	80%	85%	$ 15	$ 16
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$27283	0%	0%	$ 0	$ 0
WEST FARMS	$ 7594	70%	75%	$ 5316	$ 5696
NAUGATUCK VALLEY	$ 364	70%	75%	$ 255	$ 273
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 8640	0%	0%	$ 0	$ 0
CHESHIRE	$ 314	25%	30%	$ 79	$ 94
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3614	25%	30%	$ 904	$ 1084
SUBTOTAL	$ 47628	14%	15%	$ 6568	$ 7163
CHESHIRE					
CONNECTICUT POST	$ 33	90%	95%	$ 30	$ 31
TRUMBULL	$ 0	0%	0%	$ 0	$ 0
MERIDEN SQUARE	$ 1888	45%	50%	$ 850	$ 944
WEST FARMS	$ 6139	85%	90%	$ 5218	$ 5525
NAUGATUCK VALLEY	$ 1686	35%	40%	$ 590	$ 674
DURHAM	$ 0	0%	0%	$ 0	$ 0
MIDDLEFIELD	$ 0	0%	0%	$ 0	$ 0
MERIDEN	$ 241	45%	50%	$ 108	$ 121
CHESHIRE	$ 6032	0%	0%	$ 0	$ 0
MILFORD	$ 0	0%	0%	$ 0	$ 0
OTHER	$ 3858	35%	40%	$ 1350	$ 1543
SUBTOTAL	$ 19877	41%	44%	$ 8146	$ 8839

Source: Gladstone Associates.

TRANSFER SALES MATRIX
NORTH HAVEN MALL
1990 (1% Income Growth)
(In Thousands of 1977 Constant Dollars)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
NORTH HAVEN	300	299	8	260	18	78	24	6	24	0	12	6	0	0	0	0	0
NEW HAVEN	1570	450	135	128	1691	64	96	0	128	0	0	255	128	64	0	0	0
WALLINGFORD	49	401	5	148	34	670	11	11	23	0	0	0	11	23	0	0	0
HAMDEN	293	1061	24	146	135	34	372	0	11	0	11	11	11	0	0	0	0
NORTH BRANFORD	54	60	3	50	17	20	3	33	23	0	0	0	0	40	7	0	0
EAST HAVEN	278	75	15	28	161	7	14	14	231	0	0	14	21	105	7	0	0
BETHANY	68	42	7	7	16	4	7	0	0	60	14	5	5	0	0	0	0
WOODBRIDGE	64	19	42	31	155	8	31	0	0	0	294	62	23	0	0	0	0
ORANGE	61	18	350	6	45	0	6	0	0	0	6	237	68	0	0	0	0
WEST HAVEN	409	30	406	16	278	0	0	0	16	0	0	278	637	16	0	0	0
BRANFORD	195	80	9	12	118	0	12	0	106	0	0	0	12	741	47	0	0
GUILFORD	70	21	4	11	45	0	0	0	34	0	0	0	0	156	603	45	9
MADISON	62	0	3	10	20	10	0	0	20	0	0	0	0	69	187	216	39
CLINTON	4	0	0	0	7	0	0	0	0	0	0	0	0	21	28	92	144
DURHAM	0	0	0	0	2	16	0	0	0	0	0	0	0	2	7	2	0
MIDDLEFIELD	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	19	2	0	10	195	0	0	0	0	0	0	0	0	0	0	0
CHESHIRE	48	299	4	32	16	63	16	0	0	0	0	0	0	0	0	0	0
TOTAL	3524	2874	1016	884	2766	1176	591	65	615	60	338	868	916	1237	885	355	193

Source: Gladstone Associates.

TRANSFER SALES AS A PERCENTAGE OF TOTAL METRO SALES
NORTH HAVEN MALL
1990 (1% Income Growth)

	New Haven CBD	Miracle Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
NORTH HAVEN	1.6%	1.6%	0.0%	1.4%	0.1%	0.4%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NEW HAVEN	8.5%	2.5%	0.7%	0.7%	9.2%	0.3%	0.5%	0.0%	0.7%	0.0%	0.0%	1.4%	0.7%	0.3%	0.0%	0.0%	0.0%
WALLINGFORD	0.3%	2.2%	0.0%	0.8%	0.2%	3.6%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
HAMDEN	1.6%	5.8%	0.1%	0.8%	0.7%	0.2%	2.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
NORTH BRANFORD	0.3%	0.3%	0.0%	0.3%	0.1%	0.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
EAST HAVEN	1.5%	0.4%	0.1%	0.2%	0.9%	0.0%	0.1%	0.1%	1.3%	0.0%	0.0%	0.1%	0.1%	0.6%	0.0%	0.0%	0.0%
BETHANY	0.4%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
WOODBRIDGE	0.3%	0.1%	0.2%	0.2%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	1.6%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%
ORANGE	0.3%	0.1%	1.9%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.4%	0.0%	0.0%	0.0%	0.0%
WEST HAVEN	2.2%	0.2%	2.2%	0.1%	1.5%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.5%	3.5%	0.1%	0.0%	0.0%	0.0%
BRANFORD	1.1%	0.4%	0.0%	0.1%	0.6%	0.0%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%	4.0%	0.3%	0.0%	0.0%
GUILFORD	0.4%	0.1%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.9%	3.3%	0.2%	0.1%
MADISON	0.3%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	1.2%	0.2%
CLINTON	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.5%	0.8%
DURHAM	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MIDDLEFIELD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MERIDEN	0.0%	0.1%	0.0%	0.0%	0.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CHESHIRE	0.3%	1.6%	0.0%	0.2%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Gladstone Associates.