ACKNOWLEDGEMENTS

I am extremely grateful for the oversight and discussion of ideas from my thesis advisor, Professor Terry Szold, and my thesis reader, Professor Dennis Frenchman. Additionally, Professor Mark Shuster, who headed the City Design and Development thesis prep class, and Professor Eran Ben-Joseph, my academic advisor, greatly helped me conceive of and direct my inquiry.

I would also like to acknowledge the other students in the CDD thesis prep class, who provided an excellent forum to discuss our ideas, and the other members of the “Sustainability Thesis Support Group,” Ambika, Ginette, Jen, Jonna, Noah, Trish and Shanna, who gave me perspective, support and excellent potluck dinners.

Most importantly, I appreciate the support and encouragement throughout the process from my parents (all four of them), Star, and Diana, who had a thesis of her own to contend with.
Redeveloping Vacant Big Box Sites Toward A More Sustainable Land Use

by

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Submitted to the Department of Urban Studies and Planning on May 17, 2001 in Partial Fulfillment of the Requirements for the Degree of Master of City Planning

ABSTRACT

The history of shopping centers in the United States is closely associated with decentralizing urban trends and increased auto dependence, both of which have severe environmental effects. Retail formats have shifted over the years from downtown shopping to indoor shopping centers, and more recently to big box superstores. As retail formats and markets continue to evolve, many older, less modern stores have suffered. Most recently, this trend has affected big boxes, creating an opportunity to reuse and re-image many of these sites. Vacant shopping centers represent an expanding phenomenon that has been little studied. I survey examples of vacant superstores in the Boston region, and characterize their physical and neighborhood characteristics, as well as procedural barriers and opportunities toward reusing these sites in a way that promotes land-efficient, non-auto-dependent development.

I found two primary types of site: urban and suburban. In both types, site plan characteristics are similar. They have low density site plans, and are serviced almost entirely by the automobile. There are few concessions to pedestrian or transit amenity, and in both cases, sites are disconnected from surrounding parcels. Both also face similar procedural redevelopment difficulties, especially regarding ownership and tenant issues, sprawl-oriented zoning regimes, and known but uncertain levels of environmental contamination. However, characteristics of the surrounding areas differ greatly between the two types. “Urban” sites are located in compact, connected, older suburban areas with connected street grids. The shopping center parcels represent a coarse-grain anomaly in a fine-grain area. “Suburban” types are located in urban fringes, in areas that are primarily single-use, auto-oriented, and poorly connected.

Planning for both types of site should account for urban design and pedestrian connectivity deficiencies by encouraging connections among different sites and to circulation systems, and to take advantage of other underutilized parcels nearby. To this end, municipalities should plan for an entire area surrounding the shopping center sites, using the tools of design guidelines, site plan review, and flexible zoning regimes. Additionally, municipalities should engage and coordinate private and community sectors to promote cohesion among many sites. Suburban sites should emphasize site planning for connectivity and directing new superstores into existing space. Urban sites should capitalize on existing neighborhood infrastructure to reintegrate the sites into surrounding neighborhoods, and to direct investment and development away from auto-dependent greenfield sites to connected, accessible locations within the metropolitan region.

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I. INTRODUCTION

The strip mall, like the tract home suburb, the cul-de-sac and the highway, is an integral icon of the post-World War II American metropolitan landscape. Spread out along new highways, or positioned on large lots within existing communities, these sites are characterized by vast fields of parking, poor pedestrian environments, box-shaped buildings with flat facades, and giant signs at the scale of the automobile. Most centers consist of one or two “anchor” stores bracketed by several smaller stores. More recently, free-standing big box stores such as Wal-Mart, Target or Home Depot, and power centers, agglomerations of multiple superstores, have come to dominate urban, suburban and rural landscapes. As retail construction continues to expand at the urban fringe and elsewhere, many older, smaller stores are left with poor competitive characteristics, and begin to lose tenants and money. There are hundreds of underperforming shopping centers in the United States, struggling to reinvent themselves or simply sitting vacant, a blight upon their communities. I explore in this thesis the phenomenon of abandoned outdoor shopping centers (as opposed to indoor malls), and their potentials for redevelopment. These older, smaller centers represent strategic infill opportunities for older suburban communities. They are opportunities to reknit land use discontinuities and re-image a sprawl-associated land use in a manner that promotes land efficient practices and decreases automobile dependence, incremental steps toward a more sustainable metropolitan land use pattern.

The shopping center traces its origins to the turn of the 20th century, when a few “shopping villages” sprouted up near early suburbs. These centers contained free parking and a number of different stores owned and developed by a single entity, a feature new to retail. At this time, these quasi-suburban shopping centers were still secondary to downtown shopping, with its great variety of stores and large, centrally-located department stores. Nonetheless, the shopping villages illustrated a number of innovations, notably the multi-tenant, single-owner format, which later became the retail norm, and a planned development in conjunction with adjacent master-planned suburbs. An early example of this form is Country Club Plaza in Kansas City, built in 1925, which contains low buildings surrounded by surface parking. Country Club Plaza’s numerous stores face inner courtyards as opposed to public streets, also a
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Retail innovation at the time. Also at this time, early “superstores” such as Sears began locating at what were then urban edges in cities such as New York, Chicago and Los Angeles.

Beginning in the 1930s, suburban-style shopping centers began to gain importance versus downtown shopping. Increasing mobility from people’s ever greater access to cars fueled its growth. The rise of the supermarket as a retail form also contributed to shopping centers’ rise. The supermarket’s requirements necessitated a one-story layout with ample parking and a large lot size and highway or major road access for visibility and ease of truck delivery. This put it in opposition to the downtown department store, which contained a multi-level format, no surface parking and poor highway access. These requirements made it difficult for supermarket-anchored shopping centers to locate in downtowns; they were considerably better suited to suburban locations with highway access and large available lots. Despite the loss of centrality, this retail form worked because “peripheral location was no longer an inconvenience because most people drove to go shopping,” Witold Rybczynski notes. (1995) Early supermarkets in the 1930s and 1940s were often conjoined with other stores in suburban locations, creating a precursor to modern shopping centers.

Throughout the 1950s and 1960s, developers built thousands of shopping centers across the United States as the population became more and more reliant on the automobile. Kenneth Jackson argues, “the multiple-store shopping center with free, off-street parking represented the ultimate retail adaptation to the requirements of automobility.” (1986) By 1970, there were over 8,000 of these centers in the U.S. (Rybczynski 1995) Innovations included enclosing the inner courtyard spaces to create climate-controlled areas, adding second and third stories in order to consolidate retail space, and adding non-retail uses, such as entertainment, hotels, or even civic uses. Suburban retail changed from a place to satisfy basic needs in the most convenient manner possible to a destination in itself, much as downtown shopping previously had been. At the same time, its location near highways and growing suburban populations, and easy ample parking, meant it became the most convenient option for a growing suburban population who depended upon the automobile for their transportation needs. Meanwhile, downtown shopping, less accessible to the automobile’s needs, declined, as many department stores and their buying
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dollars shifted to the suburbs.

Indoor shopping center construction continued apace through the 1980s, as malls got larger and larger to draw ever wider customer catchments. Regional malls today are characterized by many million square feet of space, with two or more 100,000 square foot anchors. They often contain decked parking and major entertainment attractions. In many cities, downtown retail continued to decline in the 1980s, as suburban malls became more and more integral to our culture, iconized in movies and other pop culture forms. Rybczynski claims, “the debate about whether shopping malls could or should replace or augment downtown is academic. In places like Plattsburgh, there is little doubt that the shopping mall is now the downtown.” (1995)

Customer preferences, retail needs and retail formats continue to evolve from the indoor shopping center, bringing online a number of new retail forms. The International Council of Shopping Centers (ICSC) writes, “if consumers are locked into a pattern of continual lifestyle evolution, if technology is helping to multiply distribution channels, and if retailing itself is constantly evolving, isn’t it logical for shopping centers to change, evolve and adjust as well?” (2000)

Among the new forms to emerge in response to changing retail needs are the big box store and the power center. Big box construction represents an ever-increasing percentage of new retail construction and of retail consumption. Between 1992 and 1994, big box accounted for 55% of all new U.S. retail space. (Beaumont 1997) Wal-Mart itself accounts for roughly six per cent of non-auto consumer purchases in this country. (New York Times, 3/9/2001) The big box store is a free-standing store of anywhere from 10,000-100,000 square feet or more of leasable space. The store is typically surrounded by surface parking on the order of 4-6 spaces per 1000 square feet of retail space. Typically, big box stores are located on major arterials or along highways, and are functionally separated from other uses. Power centers consist of three or more big box stores of over 100,000 feet placed together in an enormous retail agglomeration. Often, the centers will have smaller, outbuildings housing restaurants, drive-thrus or banks. Power centers depend on superior highway visibility. Few new major indoor regional shopping
malls continue to be built, due to a competitive glut and a large necessary customer catchment area. Nonetheless, there continues to be a surge in big box and power center construction.

Both superstores (big box stores) and power centers, in contrast to the indoor mall, have separate, visible outdoor entrances and signage for every store. They arose in response to consumer desires for convenience and ease of access, in opposition to the indoor mall emphasis on experience. They house "category killers," superstores which have all products of a certain type, such as hardware, toys, or electronics, and "discount retailers," such as Wal-Mart or Kmart, which carry huge volumes and varieties of goods and combine with efficient storage and distribution mechanisms to sell these goods extremely cheaply. This retail form is even more dependent on the car, as it relies more heavily on highway visibility, rather than being a destination consumers more frequently arrive at with forethought, as regional malls often are. Customers can simply drive up to the entrance and walk in, rather than having to wander through a large mall first to get to the store they want. To a large degree, this retail form has supplanted going to the indoor mall.

Though the retail pendulum has swung back toward the importance of convenience and quickness, there are also signs that the experience of shopping still matters to consumers as well, and developers are trying to accommodate this. Many indoor regional malls are being reconfigured as outdoor Main Streets, mirroring the plan of Country Club Plaza, built 75 years ago. New power centers and strip shopping centers are adding landscaping, arcades and visual and pedestrian connections between stores in order to keep people on site longer and encourage cross-shopping. One observer writes, "The design of malls has come full circle. Nearly 70 years ago, the Highland Park Mall in Dallas was considered radical in its design because its stores turned away from the public street ... This basic design, which signaled that malls could create their own reality, isolated from the real world, was copied successfully by mall developers across the country. Today, however, retailers want their customers to be able to walk from the street directly into their store, rather than having to navigate through the mall first." (Salvesen 2001)

In the wake of rapid retail construction, especially of big box stores and power centers, there are a grow-
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ing number of failing or abandoned mass retail sites, particularly among older, smaller, and less highway-accessible big box sites. A prescient Kenneth Jackson wrote in 1986, “even that suburban bellweather, the shopping center, which revolutionized merchandizing after World War II, has come to seem small and out-of-date as newer covered malls attract both the trendy and the family trade… some have been remodeled to appeal to larger tenants and better-heeled customers. But others stand forlorn and boarded up.”

Recently, these indoor malls that killed off early strip centers and downtown retail primacy have suffered themselves, killed off in turn by superstore formats, illustrating the fickleness of the retail world. Constance Beaumont estimates there are 4,000 dead malls in the United States, while a recent report documents 7% of all U.S. regional malls are vacant, and another 12% are on their way. (Beaumont 1997, CNU/PWC 2001) While most estimates focus on the number of failing indoor malls, freestanding stores and strip centers are not immune to the challenges faced by an always competitive retail market. Tenants have vacated many less well-positioned stores and centers, and others are vulnerable to failure. Several prominent anchor stores have recently filed for bankruptcy or closed numerous stores. Much as regional shopping malls have for the most part reached their saturation point and in many cases declined, so it is foreseeable that the same trend could occur with respect to big box stores, the successive generation of retail form.

CONCEPTUAL FRAMEWORK

I have three goals for this study. First, I argue that abandoned shopping center sites represent a common phenomenon negatively affecting many jurisdictions, and may become increasingly common in the near future. Second, I characterize abandoned outdoor-entry shopping centers, using several sites in the Boston area as examples. A recent study by PriceWaterhouseCoopers and Congress for the New Urbanism (CNU/PWC) characterizes ailing indoor regional malls in terms of their financial, demographic and locational characteristics. Little other research has been conducted into this land use type’s characteristics, particularly regarding the characteristics specific to big box sites. My sample is small and geographically concentrated, consisting of five sites from within the Boston region. While this sample will not prove any definitive or generalizable characteristics of abandoned shopping centers, it defines the terms of further investigation into this topic and the relevant issues relating to redevelopment of aban-
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doned outdoor shopping centers. I emphasize site planning, urban form, transportation and environmental characteristics. Third, I present policy and design strategies for municipalities to approach the issue of abandoned big box stores, and outline further research directions.

It is not my purpose to dogmatically recommend the final use, design, density, or dimensions that should be placed on a redevelopable big box site. Rather, I present a framework for considering the opportunities and difficulties to deal with abandoned shopping centers, a preliminary characterization, and guidelines for best redevelopment practices. As a first step, municipalities need to acknowledge that vacant shopping centers are an existing, identifiable and characterizable type of land use, which present meaningful opportunities for infill development, taking development pressures off auto-dependent, greenfield sites. They possess a large size, a prominent image in citizens’ minds and on the landscape, and frequently strategic locations near natural assets and other underutilized parcels.

The imagery of shopping centers is commonly associated with arguments against urban sprawl: a simple web search turns up literally dozens of websites devoted to fighting the intrusion of “Sprawl-Mart” into rural or suburban communities who fear that the store will drive local, small businesses into bankruptcy, cause massive traffic pile-ups, and otherwise ruin a community’s character and quality of life. The shopping center’s origins and current requirements go hand in hand with the increased use of the automobile in this country, and are linked to many environmentally deleterious effects. Each has depended, and continue to depend, upon the other for their success and expansion. The automobile and the shopping center, along with the master-planned tract home suburb, form the iconography of sprawl, the physical language of unchecked urban growth, the reality of paved-over natural and agricultural areas.

Auto-oriented mass retail stores are a primary contributor to a host of environmental problems, including loss of undeveloped land, air quality deterioration caused by increased auto emissions, and a water quality reduction and flood hazard resulting from increases in impermeable ground surfaces. Constance Beaumont, writing for the National Trust for Historic Preservation, points out several typical problems with “sprawl-type superstores,” including up to 10,000 car trips a day generated due to no alternative
transportation modes, and unnecessary destruction of greenfields. (1997) The National Resources Defense Council writes, “commercial parking lots are undoubtedly one of the biggest contributors to impervious surfaces in urban and suburban watersheds.” (Benfield 1999) Others suggest that superstores negatively affect social patterns. Alex Achimore writes, “other important aspects of daily life were lost along the way to retail efficiency. Paramount among these is the loss of ‘habitat’ for community functions.” (1993) Beaumont continues, “[shopping centers create] insensitivity to local identity.” Abandoned mass retail sites add to the list of negative associations a blighted image to the community, a loss of tax revenue, and retail and other potential services foregone.

With an increasing number of shopping centers becoming vacant and losing their retail viability, there is an opportunity to capitalize on the iconography and highly visible nature of these sites to redevelop them to become less isolated from other uses and to be more sensitive to environmental considerations. Abandoned shopping center sites represent a prime opportunity for cities to direct new development away from low-density greenfield sites whose use would be primarily dependent on the automobile to urban infill opportunities, where there exist transportation choices and higher-density mixed-use communities. They can act as catalysts for redevelopment of the wider areas of underutilized parcels which they frequently inhabit. Vacant big box sites are both a blight and an opportunity (see Figures 1 and 2, following page). They represent a marketable asset, and often possess prominent locations and a large available site, making a wide range of development types possible without having to demolish existing architectural or business assets.

Given mass retailing’s environmentally harmful pattern and iconic association with urban sprawl, the redevelopment of failed shopping centers in a sustainable and community-centered manner can visibly and functionally reverse such trends. There are still few cases of failed shopping centers, and their redevelopment cannot fundamentally alter the tide of urban sprawl. Nonetheless, their sustainable reuse represents one element in a larger metropolitan effort toward stemming land-consumptive, auto-dependent development patterns.
FIGURES 1 AND 2: BARRIERS AND OPPORTUNITIES FOR PEDESTRIAN ORIENTATION PRESENTED BY A TYPICAL UNDERUTILIZED SHOPPING CENTER (TOWNLINE CENTER, MALDEN)
I. Introduction
Sustainability is a complex concept that involves environmental, social, and economic dimensions. It is a prevalently used, vaguely defined and often abused term. However, it is useful as an abbreviated definition that covers a wide array of environmental concerns. I emphasize the land use aspect of sustainability, because I am discussing a land use phenomenon. In this context, sustainability refers to land use practices that contribute to natural and agricultural area preservation and efficiently manage air and water quality concerns. The National Trust defines “sprawl” as “low-density, land-consumptive, automobile-oriented development located on the outskirts of cities and towns.” (Beaumont 1994) Sustainable land use reverses this pattern, redeveloping in a higher-density, regionally-connected, land-efficient manner that encourages transportation alternatives. An important indicator for land use sustainability is auto use reduction through the provision of transportation alternatives. Decreased vehicle miles traveled (VMT) leads to air quality improvement, because it causes auto emission reductions, greenfield preservation, by reflecting more compact cities, and water quality improvement, by reducing the need for vast parking lots, a major contributor to urban runoff into waterways. Throughout this paper, I will use this measure as a proxy for land use sustainability.

My primary inquiry focuses on stores that have been vacant a long time. It presents a snapshot of the Boston area at a given moment. Although I do not focus on cases of recent redevelopment or box sites soon to become vacant, they are no less important. My inquiry is applicable beyond the small number of stores that currently fit this category. These limitations make for a consistent survey, but are somewhat artificial; the retail world composes a highly dynamic process. Big box stores constantly turn over and change tenants, retail formats change, and tenants merge, consolidate, or go out of business. The Bradlee’s chain of discount stores, for example, recently filed for bankruptcy, affecting 105 stores in New England. Other box retailers have purchased many of the leases for these sites, but others face an uncertain future. The Bradlee’s example is but one illustration of a volatile retail market, in which over the long-term, retail viability is never certain. Consequently, the strategies, trends, and characteristics I discuss here may apply to not-yet-vacant superstores, in anticipation of potential future vacancy. Still more research on the determinants of shopping center vacancy is necessary in order that municipalities may proactively plan for their reuse even before they become obsolete. In sum, this analysis’ usefulness
extends beyond current vacant sites; it provides a framework for long-term thinking about box sites in general.

The following section sets out precedents and analogies to approach the issue of abandoned mass retail environments. Chapter Two presents several strands of research necessary to inform the redevelopment of abandoned big box sites, considering their land use, transportation and urban design impacts. I analyze retail theory and discuss recent retail trends. Chapter 3 explores the relationship between urban form and mode choice, to characterize the ways in which a site and area can be more or less friendly to transit, pedestrian and cycling use, or “alternative transportation modes.” Promoting transportation alternatives is a valuable end in itself, and I also use this measure as an indicator for a site’s overall sustainability. Following the literature review, Chapters 4 and 5 identify, survey, characterize and typologize five underutilized shopping centers in the Boston area across a number of dimensions. I analyze current site and neighborhood characteristics in terms of which alternative transportation mode-encouraging characteristics the sites have, and which they lack. I also discuss procedural barriers to sustainable reuse, including zoning regimes, environmental regulatory processes, ownership issues, and financing difficulties. Chapter 6 discusses the role of failed shopping centers among metropolitan land use patterns, and discusses sustainable reuse strategies and next research steps.

**Precedents and Analogies**

Ann Vernez Moudon’s recent article, “Suburban Clusters: The Nucleation Of Multifamily Housing In Suburban Areas Of The Central Puget Sound” (2000) provides a model for exploring shopping center redevelopment. She argues that there is an increasingly common yet unrecognized American land use phenomenon: mid- to high-density residential “clusters,” or “nucleated housing,” found in suburban locations. These clusters exhibit similar densities and land use characteristics to pre-war streetcar suburbs. Older suburbs, she points out, are pedestrian-oriented, and contain street grids and outward-facing buildings that relate to one another. Newer suburban residential clusters, while containing similar densities and percentages of different land uses, are unconnected and auto-oriented. Different land uses often
abut one another, but the only comfortable way to travel between them is by car due to circuitous pedestrian routes and barriers such as fences or fast arterials. Most developments are considered individually and inwardly, and are not conceived of as part of a larger neighborhood structure. Urban planners need to recognize this phenomenon, she concludes, in order to capitalize on the land use diversity and density potentials so as to create more meaningful, connected neighborhoods. She argues, “Recognizing these clusters opens up important new opportunities for housing and transportation policy in suburban areas.” (Moudon 2000)

Likewise, failed shopping centers are an emerging land use type that have only recently come to urban planners’ attention. Very little has been written or documented about this topic. The neighborhoods in which these sites are located possess density, land use, and regional location characteristics that make transit- and pedestrian-oriented development feasible, but they often lack connections between sites and cohesion as a neighborhood. In this regard, they present “opportunities for housing and transportation policy” municipal planners can use once they recognize and understand this recently identified land use type.

Another conceptual analogy links general revitalization and adaptive reuse thinking to the emerging land use type of failed shopping centers. Abandoned shopping centers should be thought of as a land use in transition, an opportunity for revitalization, much as many industrial uses have declined and been revitalized in the past. For example, older industrial buildings, such as mill buildings, were perceived as singularly obsolete for much of the century. In the 1970s and beyond, however, designers and the general public rediscovered these buildings and found ways to adapt and use them to new ends. New construction that would have taken place elsewhere was directed instead to these previously obsolescent sites. Similarly, many working harbors declined as waterfront industries weakened. Another wave of revitalization capitalized on these large and strategically located districts, and urban waterfronts have in numerous cases become catalysts for a larger area’s renewal. Recently, the government closed many well-located military bases. These too have become prime land use opportunities, where previously no land use potential was perceived.
Underutilized mass retail sites possess similar revitalizable assets. While store retailing continues to grow, it leaves a wake of vacant and lower achieving stores, creating a redevelopment prospect and an opportunity to change the nature of the site and wider area. Many sit on prominent sites with distinguishing, recognizable features. This is not to say that they are as architecturally significant as old mill architecture, or, like former industrial waterfronts, centrally-located for an entire metropolitan region. Nevertheless, due to their large and visible characters, these sites can be lynchpins or catalysts for neighborhood-wide strategic revitalization, particularly those located in areas with many other declining industrial and warehousing uses. Much as old industrial areas have been reused to new and exciting ends, so too can declining retail areas be repositioned.

Across the country, there have been a few efforts to integrate regional mall sites back into the neighborhoods they inhabit, such as "Mizner Park" in Boca Raton, Florida. Elsewhere, such as Chattanooga and San Diego, municipalities have taken the lead to try to integrate such sites into existing neighborhoods. Despite a diversity of efforts, innovative redevelopment initiatives remain scant against the growing number of abandoned or underperforming existing mass retail sites. This paper researches the characteristics of abandoned or underperforming shopping centers, and presents a framework for thinking about their redevelopment. This framework includes objectives for superstore redevelopment, an understanding of typical characteristics, acknowledgment of the potential role these sites can play in metropolitan form, and existing and conceptual models of reuse.
II. REVIEW OF RETAIL LITERATURE

This section discusses retail theory and recent retail trends that illustrate the causes for shopping center decline, particularly the reasons certain sites succeed while others fail. This discussion illustrates that many sites, such as many of the cases explored later, have lost their retail viability in an increasingly competitive and overbuilt retail environment. I also discuss the range of possible development responses to shopping center decline, from basic renovations to wholesale demolition and rebuilding, in order to evaluate the universe of redevelopment models and possibilities.

THEORIES OF RETAILING

What are the factors that explain a retail development's success?

Retail theory attempts to explain what determines a retail center’s relative success or decline. I discuss these theories in order to better understand the causes underlying the vacant or underutilized nature of the sites I explore. Second, this theoretical base can help shed light on whether these sites are viable or structurally deficient for different types of retail or other land uses. Finally, it can help explain what remedies would cause the sites to be more viable, not just for retail but for any development characterized by the sustainable, community-centered approach outlined in the introduction.

Retail theory begins with “Central Place Theory,” developed in the 1930s by Christaller. Central place theory argues that retail establishments depend on the range a customer is willing to travel to buy a good, and the threshold, the maximum number of retailers an area can have and still have each retain a minimum profitability. The range and threshold determines a market area. For more specialized or luxury goods, the area is larger, whereas for convenience goods, there is a smaller customer catchment area. While this theory captures the most basic retail success determinants, it is somewhat lacking given the contemporary retail environment, because it assumes shopping trips to be single-purpose. That is, consumers take an individual trip for each good they purchase, which is usually not the case. Eppli and Benjamin write, “Although central place theory established the theoretical foundations for the spatial organization of shopping centers, the model does not adequately capture all aspects of consumer
II. Review of Retail Literature

behavior.” (1994)

A more applicable early retail theory is “agglomeration” theory. Agglomeration theory argues that people comparison shop among slightly differentiated goods. To make this easier, stores selling similar goods tend to locate in close proximity. The larger the center size for a certain type of good, the larger the variety, and the further people are willing to travel to reach the center. Hence, the number of stores in a shopping center or relatively compact shopping area is the most important variable to its success. This theory helps explain the rise of multi-tenant malls, which contain many stores selling similar goods, such as clothing or shoes. Eppli writes, “Many consumers today are willing to bypass well-located, standalone stores and less desirable shopping centers to travel to a more distant shopping center that offers comparison shopping.” (1998) Agglomeration theory argues that location, the standard real estate industry buzzword, is not the only important factor to a center’s value. Shopping center size also approximates drawing power.

Factors other than location and size can also account for a shopping center’s success or failure. Life cycle theory holds that as shopping centers age, they become functionally obsolete and lose drawing power. Factors that lead to center obsolescence include changes in merchandising patterns, tenants that need different layouts, and changes in the surrounding area’s demography such as income, density, or age. Other factors include a shift in driving patterns (for example, a new highway may siphon traffic away from a previously heavily-used arterial road), or a decline in architectural design and physical building condition. Additionally, as will be further detailed in the next section, changes in the retail industry, such as company consolidation and new tenant needs, can also cause a center to become obsolete. Tauscher and Ross note that the economic life of a shopping center is often shorter than its physical life, meaning tastes change faster than buildings decay. Estimates of the length of time before centers need to be renovated or redeveloped range from 15 to 25 years. (Eppli 1998, CNU/PWC 2001) CNU/PWC found a general consensus that sales per square foot decline as a shopping center ages. (2001)

Less quantifiable variables also contribute to shopping center success or failure. Eppli points to “retail
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demand externalities," which refers to the recognition that certain stores have greater drawing power than others. The other stores in a shopping center derive benefits from being located near to a better-performing store. This theory explains the common practice of giving anchor stores in shopping centers a rent subsidy or free rent. Developers recognize anchor stores’ importance as a destination to draw consumers to the center as a whole. Their business will draw foot traffic and impulse buys to the center’s smaller stores. In one study, Eppli measured the benefit derived from anchor tenant draws as opposed to other variables such as location, finding that 28% of center sales are attributable to the anchor store. (Eppli 1998) A corollary is that the better an anchor store’s image is, the more of a draw it will be for the entire center. For this reason, as will be seen with the Boston cases, shopping centers that lose their anchors, or have anchors that are not big draws, are more susceptible to failure than those with stable anchors.

Shopping center design represents another important determinant of success. Design can have two implications, the image of a place and the functional layout. Shopping center image, as discussed with regards to anchor store draw, can draw people to or keep people away from a shopping center, especially for centers that rely primarily on destination rather than convenience traffic. Also as mentioned, one reason centers become obsolete is outdated image or architectural design. Such centers, argue many theorists, are in need of redevelopment or renovation in order to retain customers. Additionally, the image of an entire area can influence a center’s success. Will Fleissig, a developer who has redeveloped derelict malls, cites the physical character and “sense of place” as prime factors for a developer deciding where to locate. (Fleissig 1998) In sum, the image of a neighborhood, an entire shopping center, and its individual stores, in particular the anchors, contribute to the shopping center’s success.

Functional design is also an important variable. Theorists cite parking layouts, site circulation, sight lines between stores, and location of entrances as important variables as to how well a center performs, and which of its stores will fare better or worse than others. M. Gordon Brown argues that certain shopping centers can be “functionally obsolete” from the start due to bad layout. He argues for visibly open but compact layouts, that allow for more stores to be visible from other stores. He concludes, “Sometimes a well-designed and otherwise attractive shopping center can countervail a poor location. And while a
poorly designed shopping center can be redeemed by a good location, it is not inevitable, especially when a shopper has a choice where to shop.” (Gordon Brown) Ordway et. al. also found that centers with poorer visibility between stores had higher vacancy levels. (1988)

In sum, a number of different variables contribute to a shopping center’s success or failure, including location, size, anchor store image, age, and design. Many of these factors account for the failure of the Boston centers I explore. Of special note are loss of anchor stores due to bankruptcies or moving to a new location, changing access patterns (causing the centers to be in a poorer location), and center obsolescence. Strategies for redevelopment of failed malls need to take into account the reasons for the failure in order to remedy any deficiencies.

RECENT RETAIL TRENDS

What recent forces have caused shopping centers to become abandoned or underutilized?

Extent

Estimates differ as to the extent of abandoned or underutilized shopping centers in the United States, but there is a general consensus that the numbers are growing, leaving hundreds of sites within existing communities vacant or nearly so, even as new retail construction continues at the urban fringes and elsewhere. Beaumont estimates there are 4,000 dead malls in the United States, while Land Use Digest puts the figure at 4,400. (Beaumont 1997, Land Use Digest 1992) Another study estimates 175 vacant big box stores, totaling 9.5 million square feet of leasable space, in Chicago alone. (Knitter 2000)

Finally, a recent study by PriceWaterhouseCoopers and CNU estimates 19% of all malls will potentially be “greyfields,” underperforming or vacant centers, within five years. (CNU/PWC 2001) Shopping center industry-advocates ICSC contest this number, but a recent article in the trade journal Shopping Centers Today supports the basic finding: “Coupled with scores of store closings planned by three other major retailers, the situation [recent bankruptcies for Bradlee’s and Montgomery Ward] has prompted a number of questions about whether empty spaces will… oversupply the retail real estate market.”
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(Mitchell 2001) Additionally, an ICSC report observes, “there is a rise in shopping center gross leasable area nationwide in the face of declining numbers of retail units,” suggesting there are increasing numbers of vacant stores. (Casey 1998)

Causes of Nationwide Shopping Center Vacancy

Changes in the retail industry compose one of the primary factors underlying the rise in empty shopping center space. The retail industry has consolidated and many chains have been forced to close, downsize or shift their emphasis. Stores such as Target, Home Depot, and Wal-Mart are gaining increasing shares of their markets, while smaller regional chains go bankrupt. For example, a report by ICSC shows, the top three discount retail companies (Wal-Mart, Kmart, and Target) captured 85% of discount retail store sales in 1996, compared with only 61% ten years before. Similarly, the top three home improvement chains captured 31% in 1996, as opposed to just 11% in 1986. (Casey, 1998)

Changes in the industry have also forced out mid-price retailers, such as JCPenney, Sears and Montgomery Ward, all of which have severely cut back their store count. Montgomery Ward recently filed for bankruptcy. Higher name brand retailers continue to do well, but quality goods at cheap prices from discount retailers and category killers have greatly affected these mid-range retail chains. As discussed previously, success of anchor stores greatly determines the success of a shopping center as a whole, often to the degree that they are given free or discounted rent. Smaller stores, which rely on impulse or walk-by purchases, rely on the destination draw of anchor stores. Often, the smaller stores will have shorter lease periods than anchors, and can thus choose not to renew when anchor stores close up. Hence, the bankrupting and downsizing of many anchor store chains has a strong negative effect on the health of hundreds of shopping centers. The New York Times reports, “a wave of bankruptcies not only leaves less competition, but also offers an abundance of empty stores.” (Kaufman 2001) Table 1 (following page) lists many of the anchor chains who have recently been forced to close some or all of their stores.

One illustrative example of this trend’s implications is the Black Horse Shopping Center in Audubon,
TABLE 1: PARTIAL LISTING OF RECENT SUPERSTORE CLOSINGS

<table>
<thead>
<tr>
<th>New England/Northeast Regional Chains:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ames: 32 stores</td>
</tr>
<tr>
<td>• Ann and Hope: 4 stores</td>
</tr>
<tr>
<td>• Bradlee’s: all 105 stores</td>
</tr>
<tr>
<td>• Caldor’s: all 145 stores</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>National Chains:</td>
</tr>
<tr>
<td>• JCPenney: over 50 stores</td>
</tr>
<tr>
<td>• Kmart: 72 stores</td>
</tr>
<tr>
<td>• Montgomery Ward: all 250 stores</td>
</tr>
<tr>
<td>• Office Max: 50 stores</td>
</tr>
<tr>
<td>• Sears: 89 stores</td>
</tr>
<tr>
<td>• Stern’s: 24 stores</td>
</tr>
</tbody>
</table>
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Pennsylvania. The center was previously anchored by JCPenney and Bradlee's. Bradlee's went bankrupt and JCPenney closed its store in favor of a larger store nearby. One article estimates 30% of all business for the little stores between the anchors is directly attributable to the presence of JCPenney and Bradlee's, especially since the Bradlee's store is the only one visible from the highway. The future of the shopping center as a whole is in great doubt without the stability of its anchors. The Philadelphia Inquirer concludes, “Such ebbs and flows are not unusual at strip centers with department-store anchors. But the merchants say the configuration of the Audubon Center will make their situation particularly bleak once the anchors close.” (Rouse 2001)

At the same time, tenant needs have changed to require bigger, flexible-layout stores. Surviving chains rely on new layouts to accommodate their specific warehousing, delivery and display needs. These changes suggest difficult times for older retail developments whose anchor store space is often much smaller than today's anchors require. Additionally, developers are building an increasing share of centers as power centers. This trend has ominous implications for sites which consist of only one store isolated from any other stores in the area. Many new power centers are laid out to facilitate walking and cross-shopping between the many stores by providing arcades and sidewalks in front of the stores, traffic-calmed parking lots, and other pedestrian-facilitation strategies. Older developments often do not have this facilitated pedestrian access. The power center format allows the strip shopping center to become a destination in itself, much as the indoor regional mall. New developments are paying more attention to the attractiveness of the development, featuring regional architectural motifs, landscaping and amenities. These recent features enable such power centers to become destination retail without losing the highway visibility, individual entrances, and flexible interior spaces that enable their high-volume, low-margin format. This trend bodes poorly for indoor malls, which are destinations without the same degree of convenience, and also for older strip centers that do not possess these types of niceties that create a more pleasant shopping experience.

Additionally, the size of stores has been increasing, and smaller boxes cannot support the volume and selection of new discount retailers. Discount Retailer mentions that the average mass retail store size
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grew from 70,586 square feet in 1993 to 79,154 square feet just four years later. (Stankovich) These figures back up the “life cycle theory,” discussed in the previous section. Retail formats change, and older developments do not have the space, layout or locational needs to support new formats. Consequently, older, smaller stores decline. The New York Times reports, “It is part of the nature of any building to have a life cycle that ends in obsolescence.” (Brockman 1999)

These retail format changes are backed by differences in consumer needs. As already mentioned, consumers frequent discount retailers for the value and the convenience. Hugh Cook notes that people work longer hours now and have more time constraints, increasing the desire for convenience shopping. Made more attractive and combined into power centers, these forms can also accommodate consumer needs for a shopping “experience” or destination. Cook adds, “the increase in retail space has not been fully supported by an increase in consumer spending.” As proof, he cites a mismatch between the percent increase in retail sales from 1987-1994 (8.3%) versus the increase in the Consumer Price Index over the same period (32%). (Cook 1996) Finally, many of the older suburbs where the earliest shopping centers located are now declining in general, meaning there is less disposable income to be spent in those areas, and leading to the decline of the already ailing shopping centers there.

A fourth reason for shopping center decline is a general overbuilding of retail space brought on by rampant development in the 1980s. Eppli and Laposi claim, “the often discussed overbuilding of the retail product in the 1980s is a fallacy.” (1997) However, many writers point to an overbuilding of retail space in the 1980s that saturated the retail market with leasable area, and led to great competition for tenants and customers. Cook calls this a “surplus of undifferentiated property.” (1996) Beaumont points out that over the previous ten years, there was a 40% increase in retail space with only a corresponding 7% increase in retail spending. (Beaumont 1997)

An ICSC report entitled “Overstoring” looks more closely at this trend, pointing to indicators such as a slowing in the growth of shopping center sales, 7% over the last 30 years, but only 4% over the past five. The growth rate in number of U.S. shopping centers hovered around 2% in the 1990s, down from 4-8%
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throughout the 1980s. (National Research Bureau) The ICSC report concludes, “overstoring will continue to characterize the U.S. retail marketplace... Due to the amount of available space, competition for tenants will continue and centers that are not well-located and strongly anchored by leading retailers in modern, appealing formats will struggle...Shopping center performance will diverge from the mean, and there will be winners and losers.” The report argues that an implication of this trend is that renovation and redevelopment of existing properties will compose an increased share of retail construction, as opposed to new construction, because property owners will try to keep their developments among the “winners” category, and banks will be reluctant to lend to an already overbuilt retail market.

Retail space also faces competition from non-store retail formats, such as catalog, TV home shopping and, more recently, web-based buying (e-tailing). For example, catalog sales grew at twice the rate of other retail formats between 1990 and 2000. (Niemira, cited in ICSC 2000) Regarding e-tailing, real estate analyst Mark Borsuk argues, “Store sales cannibalization has a new meaning. It no longer needs to occur only when a rival opens down the street or the retailer adds another location in an existing trade area. Instead, cannibalization can occur without a nexus to location.” (Borsuk 1999) E-tailing possesses many of the advantages of big box discount stores, such as convenience (a consumer can buy from and have delivered to their own home) and the ability to sell high volumes of an extremely wide range of products with low overhead. As such, this retail format may come into direct competition with big box stores.

However, while many have made dire predictions about the demise of the store due to these new retail formats, the actual impacts of such forms are difficult to measure and may have far less impact than actually predicted. Many studies show web-based buying to have little negative implication for retail stores. Most products bought online are small and undifferentiable, such as computers, books, or music. Larger merchandise, such as furniture or appliances, or differentiable goods such as clothing, are not frequently purchased online. One report concludes, “Currently, mall tenant categories would not appear to be heavily exposed to online competition.” (Tubridy 2000) Another report notes, “In 1999, the internet captured a small share of sales and a large share of media attention.” (E-commerce 2000) While
non-store retail formats have quickly grown over the last few years, the overall percentage of retail sales is still very small (4% in 1995). Consequently, this trend cannot be seen as a major culprit regarding current shopping center vacancies.

A final factor leading to underperforming shopping centers is the revitalization of many main streets and downtowns as competitors to shopping center retail. *Architectural Record* argues, “Only recently has the mall’s retail hegemony finally faced a real threat, and it is, of all things, Main Street.” (Enquist 1998) This rebirth has come about due to people’s desire for real town centers with distinct identities, demographic changes away from the suburban nuclear family, rise in residential populations downtown, and the importance of smaller brand-name retailers possessing a more urban image, such as The Gap. Many shopping center owners have responded to this trend, by attempting to convert indoor malls to outdoor pedestrian environments with courtyards and new pedestrian pathways through the center. Many recent malls, such as CityWalk in Universal City, California, have also tried to recreate a main street environment. Ironically, this mimics early shopping villages, such as Country Club Plaza, that first offered a controlled alternative to downtown shopping and also contained private interior “streets.”

In summary, shopping center vacancies are widespread and increasing, among regional indoor malls and even big box retailers, a more recent retail form. There are myriad causes for this trend. Probably of greatest importance are changes in the mass retail market, consolidation of companies, anchor store bankruptcies, and changing formats to larger, more flexible, and less isolated individual stores. Many older shopping centers are architecturally obsolete. They are unable to adapt to these changing needs, and upon losing their anchor tenants, are poorly positioned to attract new anchors. Hence, the anchors remain vacant, smaller stores in the centers suffer as a result of less foot traffic, and they too begin to falter. Overbuilt retail space contributes to the inability of obsolete shopping centers to attract new tenants. Additionally, shopping centers face competition from non-store retail formats, such as catalog shopping and e-tailing, and from revitalized community main streets and downtowns. The following section discusses some of the responses shopping center developers and owners have taken to countervail these forces.
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DEVELOPMENT RESPONSES

Developers and cities employ a wide range of responses to deal with abandoned or declining shopping centers. Such development responses range from simple shopping center renovation and updating to combat obsolescence to major structural changes that create an entirely new shopping center type, such as taking the roof off of an indoor mall to expose its public pedestrian spaces. In other cases, shopping center redevelopers have introduced new uses into existing structures, such as office space, entertainment facilities, or even schools, often removing the retail component altogether. There are a few cases of shopping center redevelopments that add new buildings with non-retail uses, such as housing or public parks, to a dead shopping center’s parking lots in order to reconnect the center to its surrounding neighborhood. Finally, there are cases in which developers demolish all the site buildings, clear the site entirely build a new mixed-use neighborhood, possible because of the site’s large size. This section details the possible responses to improve abandoned shopping centers, and assesses them in regards to how well they meet the community-centered, sustainable framework presented earlier (see Figure 3, following page).

Basic shopping center renovations represent the least drastic move the owner of a dying shopping center can make in order to reposition it to successfully attract new tenants (especially anchors) and customers. Such renovations could include updating the center’s design scheme, adding landscaping and pedestrian connections between the buildings and doing basic construction maintenance. Additionally, in some cases, the developer may wish to reposition the shopping center to attract a different demographic base due to demographic changes in the area or a new competitive strategy. ICSC notes that renovation of this type is often necessary due to center obsolescence, as well as developers’ difficulties with building new centers elsewhere in the area, such as a location in a growth-conscious community or lender fear of overbuilding. In the latter example, lenders would be much more willing to give to recycle retail space because it does not add to overall retail space and create greater competition for what is already widely perceived as an overbuilt market. Shopping center renovations of this type probably represent the most common response developers utilize to deal with ailing centers (or to prevent a shopping center from reaching that point). For example, in Chicago in 1996, 39 existing big box stores were redeveloped with
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**Figure 3: Possible Development Responses and Models**

- **1. Basic Renovation/Retenanting**
  - a. Entertainment destination
  - Examples: Brookwood Village; Birmingham, AL

- **2. Re-imaging center**
  - b. Open-air "Main Street" marketplace
  - Example: "Village Shoppes" Canton, MA

- **3. Use existing structures with new uses**
  - c. Replace with big box
  - Example: Mercado La Paloma; Los Angeles, CA

- **4. Total Demolition**
  - b. Replace with entirely new set of uses
  - Example: "The Crossings" Mountain View CA

- **5. Parking lot infill Phased Development**
  - Example: Eastgate Mall; Chattanooga, TN
  - Mizner Park; Boca Raton, LA
II. Review of Retail Literature

new anchors. (Knitter 2001)

Slightly more substantial renovations involve reconceiving the shopping center as a different type of retail experience. For example, a center may decide to position itself as an entertainment draw, or may reconfigure its public spaces. There are several examples nationwide of shopping centers that have reinvented themselves as open-air villages. Examples include the Village Mall in Canton, Massachusetts, an indoor mall that replaced its central spaces with open air courtyards and renamed itself “Village Shoppes” and Brookwood Village in Birmingham, Alabama. Brookwood’s redevelopers converted an old regional mall into an open-air center, attracted tenants to serve the area’s increasingly wealthy residents and added an entertainment component as a draw. There are also numerous examples of indoor shopping centers that have been torn down and replaced with big box stores, to capitalize on the preeminence of this new retail format.

These two types of conversion do not effectively change the image or function of the shopping center toward a more community-centered, sustainable approach, except in that they draw new tenants that may otherwise locate in new construction on greenfield sites, decreasing demand for such greenfield growth. Basic shopping center renovations and changing retail formats do not change the basic form of the center and its relation to surrounding properties. Hence, it does not change the auto-oriented sprawl image of the place, nor make any concessions to reintegrate into a community or encourage alternatives to auto use, except perhaps to provide pedestrian connections for cross-shopping within the center. The above types still assume that a customer will drive to the shopping center, park in the lots that surround the center, and not use any of the surrounding land uses without making a separate car trip. The center itself may be more “urban” with an interesting streetscape and a pedestrian orientation, but it still retains an inward-looking orientation. Such centers recall early shopping centers, such as Country Club Plaza, that were among the first retail centers to turn their focus away from public streets and urban cores.

A third type of conversion involves abandoning retail uses on big box sites in favor of something entirely different. In Los Angeles, for example, a community non-profit has reformatted an old box as “Mercado
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La Paloma, housing numerous small market stalls, indoor community spaces and room for non-profit organizations to house their offices. There are several other examples in Los Angeles and Oakland of empty boxes reused as flea markets or produce markets. Another example of box conversion that reuses the existing structure, also in Los Angeles, is the Camino Nuevo Charter Academy. Architect Kevin Daly redesigned a small abandoned shopping center as a 270-student school, converting the parking lot into a playground, and dressing up the box structures with a variety of colorful architectural elements. Yet other shopping centers have been reused entirely as back-office space. The developers of the Sycamore Mall in Memphis, a 120,000 square foot indoor mall that had lost its anchors and had a poor retail location, converted it into a call center. One of the case studies I explore, the Townline Center in Malden, Massachusetts, is also planned as back-office space, in this case for an internet services company.

These cases of box adaptive reuse illustrate a wide range of possible new non-retail uses for derelict shopping centers. Many of these examples incorporate highly community-oriented uses into the boxes, such as schools or places for small businesses, and represent fascinating ideas for box reuse. The designs are often architecturally distinctive, and the conversions are environmentally sensitive, in that they reuse already harvested materials in existing structures. While they change the use of abandoned structures, however, they do not substantially alter the form in regards to the site’s connection to a neighborhood, or its relation to the street and to abutting parcels. Most of these examples retain a single box-like building
II. Review of Retail Literature

or strip of boxes surrounded by parking, and make little concession to surrounding sites or access via alternative means to the car.

A fourth type of big box retrofit involves the conversion of existing shopping center buildings and the addition of new structures housing a wide range of uses on the parking lots surrounding the original shopping center building. This type of redevelopment attempts to reintegrate the shopping center into its surrounding neighborhood by continuing existing street grids through the center site, providing housing on site, building on the parking lots to eliminate the visual discontinuity they create, and generally densifying the floor area on the shopping center parcel. There are several well-known redevelopments of this type, including Mashpee Commons in Mashpee, Massachusetts, the Eastgate Mall in Chattanooga, Tennessee, Winter Park in Orlando, Villa-Lakewood in Lakewood, Colorado and Mizner Park in Boca Raton, Florida.

In the following paragraphs, I discuss a few of the more well-known of these cases in order to describe and evaluate their features. This type of project shares many of the same objectives with the framework set out at the beginning of this paper, such as creating pedestrian and transit-friendly environments. Hence, I use their redevelopment experience and form as models. While I briefly touch on criticisms and praises for these projects, it is not my intent to explore the degree of their success in meeting their stated objectives. That would be a worthwhile subject for another research project. Here, however, I use these examples to help illuminate the difficulties, opportunities and innovations necessary to build developments with environmental and community-centered objectives on abandoned shopping center sites.

Developers renovated a strip shopping center in Massachusetts, Mashpee Commons, into a traditional New England town center. The site sits in Cape Cod at the edge of two highways, in a rapidly developing area, but is nonetheless relatively distant from any major population centers. The developers changed the mall’s plain facades to incorporate regional vernacular architecture, and re-oriented the stores toward new streets that they cut through the site. They built over many of the center’s parking lots, and included new uses such as a post office and upper-story housing. The development’s center contains on-street parallel
parking, but the development is still surrounded by open surface lots. An expanded master-plan developed by New Urbanist designers Duany/Plater-Zyberk calls for the creation of six residential communities surrounding the site and its former parking lots, adding 380 residential units. The development also preserves a significant portion of the development area (which includes a much wider undeveloped area than just the original mall site) as open space.

Mashpee Commons brings a significant amount of growth, no matter how compact or regionally contextual, to a relatively isolated location in growth-conscious Cape Cod. There are no major nearby job centers, and Mashpee Commons is a regional shopping draw, indicating that there are significant auto trips to and from the site, that the small new neighborhoods will not combat.

Consequently, the Mashpee development has struggled to get necessary permits for the residential neighborhoods since the development proposal’s completion in 1988. Two of the planned neighborhoods are currently permitted and are just now beginning construction; the rest still remain to receive permitting.

The Eastgate Mall in Chattanooga, Tennessee, is a similar project in a more regionally-connected location. The nearly vacant 1960s-era mall in a Chattanooga suburb represented a significant blight and a
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prime opportunity to revitalize an older neighborhood. The site is located in a typical suburban area, Brainerd, containing highly isolated land uses that are only accessible to each other via highways and individual access roads. The mall lost its prominence because of competition from a newer, larger mall, further into the Chattanooga suburbs.

The city and regional planning commission hosted a public charrette to determine how to convert the mall. The resulting plan includes several phases of construction. Planned uses include housing, office and park space built on the shopping center's parking lots. Over the project's phases, expected to take thirty years, the mall will be uncovered in pieces, and streets will be cut through its former bulk. The plan also divides up the parking lot areas into small blocks, fronted by a mix of uses. Parking will be kept in the center of blocks, so that buildings can front directly onto streets. New streets are intended to connect directly to sites abutting the Eastgate Mall, such as an office park and another shopping center. While there are currently no concrete plans to retrofit these uses in the same neighborhood-scale manner, the city seems interested in the long-term to change the character of neighboring sites as well. The phasing plan places development first on the portions of the parking lot closest to the mall's fronting arterial road, and works toward the back over time.

The plan proposes to create a town center for Brainerd, which doesn't currently have one. Project planner Carrie Osborne mentions other project objectives, such as the creation of a more pedestrian-friendly environment, reuse of parking lot space for more intense uses, connecting the street grid to surrounding uses, and creating a dense, transit-conducive environment. To date, the first phase, consisting of housing, office and neighborhood retail on one corner of the site, has been built.
II. Review of Retail Literature

Both Mashpee Commons and Eastgate Mall exist in typical suburban locations, where uses are isolated from one another, and very low density land use patterns prevail. Their similar objectives include reducing the horizontal rate of growth in suburban and exurban areas and creating town centers in areas that currently lack them. They have experienced some difficulties in convincing regulatory boards and communities to accept their non-traditional development type, and have been moderately successful over the long-term toward getting the projects built.

A final type of shopping center redevelopment involves the demolition of all the structures on the shopping center site, rebuilt with an entirely new mix of uses. An example from San Diego illustrates such a retrofit of an abandoned shopping center. An ailing Sears store, one large box building surrounded on all sides by parking, effectively cut in two a historic San Diego neighborhood, University Park. The developer wanted to redevelop this site with infill to create a more pedestrian-friendly, mixed-use and dense environment. The resulting development includes a 55,000 square foot grocery store in the center of the site, and multi-family housing, smaller-scale retail uses, and mixed-use buildings with ground floor retail and upper-story housing reaching out toward the surrounding neighborhoods. The developers and designers wanted to reconnect the site with its surroundings by reintegrating the street grid and gradually upping the scale of the buildings from the smaller, residential scale of the surrounding area, to the larger footprint of the grocery store in the site center.
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A final example is “The Crossings” in Mountain View, California. This project demolished a mostly vacant, 1960's-era, 18-acre mall and built a highly dense, mixed-use community centered on a train station. The project afforded New Urbanist designer Peter Calthorpe an opportunity to try out the idea of transit-oriented development. This project is slightly older than many of the others mentioned here; planning began in 1985, and construction was completed in 1998. The area surrounding The Crossings is fairly low density, consisting of office parks and low-density housing and retail. Beginning in the 1970s, the City of Mountain View saw the site as an opportunity for an area-wide revitalization, and zoned it for extremely high densities.

The project was built in phases, with the lowest-density housing built first (15-25 dwelling units per acre), moving to the higher density housing (35-50 d.u./acre) as the train station came on line. Housing forms include small-lot single-family homes, townhome rowhouses, and 4-5 story apartments. Major project goals included building at high enough densities to generate the ridership necessary to support a train station and creating a walkable, street-oriented neighborhood. As with many of the other projects discussed here, this project created an area anomaly, a very dense, mixed use neighborhood surrounded by a typical low-density environment, in the hopes that surrounding parcels would follow suit. Project designer Matt Taecker of Calthorpe Associates notes that for this project, having city support for such an unusual development was key. Often, he adds, the most difficult aspects of constructing this type of project include convincing cities and developers of the idea's worth.

The last two types of potential mall redevelopment, parking lot infill combined with renovation of the original shopping center buildings, and total demolition rebuilt as a mixed-use community, illustrate projects whose goals are similar to the framework provided at the beginning of this thesis. These objectives include the creation of pedestrian-friendly spaces, re-connection of formerly isolated sites into surrounding neighborhoods, and creating an environment conducive to transit use, which relies on mixed use and density. The objectives also include re-imaging an area blight, and radically changing the iconography of the site, from a sprawl-associated shopping center to a pedestrian-scale neighborhood environment.
Most of these projects are too recent to be able to evaluate their impact or success in achieving these goals. Also, as mentioned earlier, it is not my intent to critically evaluate these projects. However, it is worth mentioning one frequently voiced concern: while the sites create an interesting, pedestrian- and publicly-oriented neighborhood, in today's metropolitan environment, they are far from self-sufficient, and are frequently isolated pockets of pedestrian-friendly communities that people have to get in their cars to drive to and from. Michael Southworth writes, "The creation of walkable enclaves within regional sprawl, however delightful, may not reduce automobile dependence or solve regional transportation and environmental problems. To reduce auto dependence it will be essential to begin to manage regional patterns of land use and transportation while enhancing local livability." (Southworth 1997) Nonetheless, many of the characteristics these sites possess, such as a mix of uses, buildings fronting on streets, and streets connecting to surrounding land uses, are thought to encourage alternatives to auto use. The following section discusses in greater depth the characteristics of a site and neighborhood that reduce driving dependence and contribute to a greater land use sustainability.
III. URBAN FORM AND MODE CHOICE

What Are The Characteristics Of A Site And Neighborhood That Encourage Alternatives To Auto Use?

One important facet of achieving land use sustainability is the reduction in vehicle miles traveled (VMT) and the provision of transportation choices. Auto use generates concerns over local air quality and greenhouse emissions. Additionally, auto-based development uses land less efficiently due to large paved areas necessary for roads and parking. Hence, when thinking about redevelopment of shopping center parcels, municipalities should consider the transportation impacts of new development, and seek site planning and land use initiatives in the design of such sites so as to encourage transportation alternatives. A first step toward creating policy, regulatory and development initiatives that discourage auto use is to understand what the site and neighborhood features are that promote these transportation and land use patterns. The following section provides a discussion of research, guidelines, and conceptual frameworks for understanding what these qualities are.

Caveats

While there has been a good deal of research on the connections between land use patterns and mode choice, there remain theoretical differences, methodological difficulties, and research gaps. There is certainly no consensus as to what the features are that reduce auto VMT, or encourage greater transit use or pedestrian trips. Additionally, there is no consensus over whether physical features such as residential density or site design characteristics have any impact at all on people’s mode choices, or to reduce auto VMT. Authors have recognized three primary methodological limitations.

First, there are still a limited amount of studies comparing the way in which built environments influence mode choice. Robert Cervero points to an absence of quantifiable land use and urban design data, with which to compare more readily available mode choice data. (Cervero 1995) Hence, each comparative study, such as Cervero’s own studies of neo-traditional and traditional communities versus post-war suburban style neighborhoods, must use its unique measures of urban form to approximate a type of built
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environment. Researchers use features from number of 4-way and T-intersections versus number of cul-de-sacs (Cervero 1995, Southworth 1997), street “connectivity” (Moudon TRR #1578), or “pedestrian complexity” (Rapoport 1987), a measure of how interesting a streetscape is.

In most cases, these researchers do not argue that the individual variables themselves influence mode choice. Rather, they are proxies for a neighborhood type: the “neotraditional neighborhood,” “the streetcar suburb,” “the postwar suburb,” etc. As such, they may not get at what the essential explanatory qualities for mode choices are. While most studies have attempted to control for many variables such as income, transit frequency, or household size, each neighborhood’s unique qualities mean that there will always be uncontrolled variables. Additionally, land use density overwhelmingly overrides other characteristics, such as site design characteristics, that may also have some effect. (Cervero 1995) Higher densities and pedestrian-friendly design features are frequently found in the same neighborhoods. Hence, it is difficult to assess the impacts of design features independent of density.

Related to this, most studies rely on aggregate metropolitan data about travel patterns. Again, this is where the most detailed mode choice and trip end data is, while there is naturally less local land use or urban design data at this scale. Many researchers note the limitations of this type of study to understand what the features are that realistically determine mode choice. This type of data, and even brief surveys, cannot go inside people’s heads to see what effect their choices. What is needed, Susan Handy notes, are in-depth interviews with people that get at how they make their modal decisions. (Handy TRR #1552) Until the research contains this aspect, its findings will remain at best correlative, not causative.

Finally, writers disagree to various degrees about findings and their meanings. Whereas Ann Vernez Moudon posits, “…areas with direct pathways and a complete system of pedestrian facilities have significantly higher rates of pedestrian travel than areas with indirect pathways or an incomplete system of pedestrian facilities,” (TRR #1578) Susan Handy argues that urban form is a secondary factor to encouraging or discouraging walking trips, and distance is much more important. (TRR #1552) Cervero and Kockelman argue that density is the strongest determinant for mode choice (1996), while Gordon and Richardson argue that mode choice is primarily cultural, and the built environment exerts little influence.
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An additional contentious point is whether an environment that encourages alternative modes of transportation actually ends up decreasing auto use. Residents of a certain neighborhood may end up walking more, but still driving just as much to work or to regional shopping centers. Research that shows greater propensity for transit use or walking trips does not necessarily mean less driving. John Holtsclaw conducted one study that addresses this issue, by taking odometer readings of residents in various San Francisco Bay Area neighborhoods with varying built environment characteristics, finding that those people in dense neighborhoods drive considerably less than those in less dense, more suburban environments. (Holtsclaw 1990) However, most studies focus on whether people are walking or taking transit more, not whether they are driving less.

Despite these methodological and evaluative limitations, there is a surprising amount of overlap among the types of built environment features theorists posit as being beneficial to encouraging alternative transportation modes. Various transportation bodies have commissioned studies to determine guidelines and best practices for designing and implementing sustainable land use and transport systems. Urban designers such as Peter Calthorpe and other New Urbanists advocate for transit and pedestrian-oriented communities that share similar density, land use, and urban design characteristics. Recognizing the limitations of the research on the subject of built environment and mode choices, the following section describes some of the concurrencies and theories as to what makes a site and a neighborhood pedestrian, bicycle, and transit friendly. Working from this beginning, I will then assess which of these characteristics apply to the vacant big box sites described in the following chapter, and which of these characteristics they lack.

Framework

Transportation alternatives refers to any trip not taken in a privately-owned single-occupancy automobile. While carpooling, vanpooling, car sharing and other ridesharing initiatives represent a form of transportation alternative, much of the literature focuses on transit (buses, light rail, heavy rail), bicycling and pedestrian trips. Planning for these alternatives is much more dependent on physical characteristics, such
as parking availability, rights-of-way or land use characteristics, than transportation management programs, which tend to be more policy-oriented in nature. While such policy incentives are an important component of any attempt to discourage auto use, my focus here is on the physical redevelopment of existing sites, and so I will emphasize ways in which to encourage transit use, and bicycle and pedestrian trips over ride-sharing programs.

For each of these three transportation modes, there are three primary physical determinants that, to varying degrees, influence mode choice: residential and employment density, land use mixes and adjacencies, and site and urban design features. I will discuss the specific features of each of these three influences with regards to how they affect decisions about whether to drive, take transit, walk, or bike. There are, of course, many other factors which determine how people choose which transportation type to take. For example, income levels can be a primary determinant, as can age: children, the elderly and those too poor to afford a car do not have the option to drive, and neighborhoods with higher concentrations of these types of people will show higher levels of non-car use. Cultural factors play a role, as do pricing policies for different transportation modes and parking, and transit management and existing infrastructure. Nonetheless, as my primary focus is the reuse of specific (though meaningfully large) sites, I will focus on the influence of physical factors, specifically density, land use and site design.

The following section discusses the specific ways in which density, land use and site design can be planned to encourage the use of transit, pedestrian and bicycle trips. I explore the following questions: Do the physical dimensions exert an influence to encourage alternative transportation mode choices? Which are the most important features to affect this change?

**Density**

Density bears great influence on the feasibility of transportation alternatives, especially transit. Density can be measured by land use intensity, the square footages of building within a defined area (floor-area ratio, or FAR), or by residential density, number of dwelling units, households, or population within a given area. Beimborn et. al. note two benefits of increased density in encouraging transportation alterna-
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tives: it makes transit more feasible by providing a greater ridership base, and it makes trip distances shorter. (1991) Dunphy adds that density can allow for a variety of transportation choices, and make driving less attractive by increasing congestion in a limited area and making parking more difficult. (TRR #1552)

Some studies have tried to estimate what levels of density are necessary to reduce driving and to make transit feasible. Pushkarev and Zupan, in 1977, attempted to determine differing densities necessary for differing levels of transit service in the New York City region. The keys to transit demand, they argued, were residential density, downtown square footages, and distances between the neighborhood and downtown. For example, they found that 7 dwelling units (d.u.)/acre were necessary for 30 minute transit headways, and 15 d.u./acre for 10 minute headways (cited in Beimborn 1991). Cervero further notes that 12 d.u./acre are necessary for “moderate transit service,” (1997) and Beimborn advocates for FARs of 1-3 around transit nodes (1991). These numbers vary depending on the transit system, the urban form and many other characteristics, and should only be taken as a vague guide.

Following Pushkarev and Zupan, several studies have attempted to test whether density actually does have an effect in discouraging auto travel. Newman and Kenworthy showed that at certain levels, twice as much residential density decreased gas consumption 25-30%. Dunphy found a strong negative correlation between vehicle miles traveled (VMT) and population density, meaning the denser an area is, the less people drive. He adds, “walking and bicycling also become significant at higher densities.” (TRR #1552) John Holtsclaw surveyed odometer readings for San Francisco Bay Area communities, finding substantially less miles traveled for those living in high density neighborhoods as opposed to those in low-density suburbs. (1990) These and other studies lead Cervero to conclude, “the preponderance of evidence shows that higher densities and compact patterns of development lead to substantially higher rates of transit riding.” (1997)

It is important, however, to consider density in terms of a neighborhood’s location within a metropolitan region. The above-mentioned studies could be confounded by the fact that the most dense neighborhoods are almost always located in central cities. Michael Southworth cautions, “The creation of walkable
enclaves within regional sprawl, however delightful, may not reduce automobile dependence or solve regional transportation and environmental problems." (Southworth 1997) Additionally, the model that Pushkarev and Zupan describe, with downtown square footage as a major determinant of transit feasibility, are not as applicable in today's polycentric cities. The question remains, does densifying any neighborhood, including those in low-density suburban areas, help to decrease auto travel?

Two models emerge as to how to integrate higher densities at suburban locations within a metropolitan region. Peter Calthorpe and other New Urbanists advocate for transit-oriented developments (TODs), high density nodes that center a neighborhood around a denser core served by transit. Beimborn and others argue for a corridor-based approach, modeled after Curitiba, Brazil, in which high-density development would follow corridors paralleling more auto-oriented strips. He writes, “Both approaches have significant advantages over conventional land use patterns because they concentrate demand near stops and provide good accessibility for transit.” (Beimborn 1991) Both types rely on a density gradient away from more transit-oriented uses toward auto-oriented uses or highway corridors. Both of these forms would also possess many of the mixed-use and pedestrian-oriented design characteristics described below.

**Other Land Use Characteristics**

The most important land use characteristic, excepting density, a neighborhood can possess to discourage auto use is a mixed-use orientation. Cervero found a decrease in auto trips in suburban mixed-use areas as opposed to land use segregated areas. (cited in Moudon, TRR #1578) A mixed-use character means a mix of broad land use types, such as residential, retail, office, industrial, etc., as well as a mix of types within these categories. Susan Handy, Jan Gehl, and others mention the integration of multi-family and single-family housing types as important to encourage non-auto use, and to make transit feasible. (Handy 1996, Gehl 1987) Beimborn et. al. list types of land uses that are more transit-oriented than others, including multi-family housing, office buildings, educational facilities and shopping centers. He bases this on Institute of Transportation Engineers (ITE) criteria, including frequency of travelling to a place (daily or otherwise), the number of people a use draws, and other demographic characteristics. (1991)
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Of special note to encourage walking, cycling and transit is the interface between residential and commercial uses. Handy notes that the housing/commercial relationship is very important to encourage walking trips, measuring by how much residential population is within walking distance to commercial areas. She found that living in a neo-traditional mixed-use neighborhood can increase walking trips 2 to 4 times over auto-oriented areas. (TRR #1552) Likewise, Cervero found that having retail uses within 300 feet of a home, especially on a direct route to a transit stop, lowers auto commuting rates. (Cervero 1997)

Untermann calls for locating retail at corners, not along strips, and Dunphy also emphasizes the importance of corner stores. (Untermann 1987, Dunphy TRR #1552)

Several theorists note the importance of keeping distances between destinations short, enabling walking or cycling trips. This is a function of density, but also of land use mixing. Richard Untermann states, “the number and diversity of services in close proximity to residential quarters should be increased to minimize the travel distances between necessary shopping stores.” (1987) To this end, one land use strategy that many recommend is infill development, which refers to development within built up urban areas on vacant or underutilized lots, as opposed to on greenfield sites which have never been previously developed. Dunphy continues, “where growth can be accommodated in such infill locations, it is possible to capitalize on much of the existing infrastructure, not only of transit but also of the rich fabric of nearby community services.” (TRR #1552) Pivo et. al. and Elizabeth Deakin also mention infill development as a primary strategy to capitalize on existing transportation networks, decreasing auto use and increasing transportation choices. (Pivo et. al. 1992, Deakin 1998)

Finally, several writers call for parking limitations in order to encourage transportation alternatives. Untermann writes, “Parking lots reduce pedestrian activity and destroy the vitality of a street.” (1987) Beimborn and Pivo et. al. argue that parking requirements should be decreased in cases where there are ample transit alternatives.
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SITE DESIGN

Specific site design characteristics that writers mention as encouraging alternatives to auto use are too numerous and varied to discuss individually. However they can be grouped into a few broad categories, including streetscape characteristics, connectivity of pathway systems, pedestrian safety, comfort, and amenities, and distinct area identity.

Streetscape characteristics are a primary determinant of how pedestrian-friendly an area is perceived to be. Dimensions include how buildings are oriented to the street, setback distances, location of parking along a street, the degree of variation along a street façade, the permeability of street edges, and variety and public/private nature of uses housed in street-fronting buildings. Several writers argue for reduced building setbacks as a way to encourage pedestrian use. The effect of reduced setbacks is to create a more intimate and stimulating environment at the scale of someone who is walking, not driving. Jan Gehl discusses pedestrians’ desire for a prospect/refuge situation, in which they are sheltered on one side while enjoying open views to the other. Therefore, he argues, walking paths should be at the edge of spaces, not in the center. Buildings up against or near to sidewalks at street edges satisfy this condition. Amos Rapoport, stating the obverse, writes, “A roadside strip, full of parking lots and large elements, is extremely open spatially and provides inadequate information to pedestrians, since there are few visible changes.” (Rapoport 1987)

Related to reduced setbacks are the location of parking: typical shopping center environments have parking between the building and the street, while the preferred situation to encourage pedestrian use is to have parking either behind the building or on street so that pedestrians, as Rapoport suggests, do not have to walk in the middle of a void.

Rapoport further argues for “perceptual complexity” at the speed of the pedestrian, not the automobile. Highway strip environments, he argues, with their enormous signs and simple blocky buildings, are best suited to the car, where high speeds mean a limited amount of information that can be ingested from any one point. By contrast, these types of environment would seem dull and uninviting to a pedestrian.
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Pedestrians need complexity, which includes “transitions” “sequences” “levels” “emergences” “symmetry” “irregular rhythm” etc. Others speak to the element of complexity by suggesting a fine-grain of buildings on narrow, deep lots for varied façade (Gehl, Southworth), transitions from public to private space (Schumacher, Gehl), permeable edges, (Gehl) and small storefront widths (Cervero and Radisch). These factors combine to make a streetscape that is stimulating and encourages pedestrian use.

Equally important is a connected pathway system for pedestrians and cyclists. A basic element that achieves this goal is a connected sidewalk system on all streets, often lacking in suburban and highway environments. Street grid systems allow more varied path opportunities, more frequent pedestrian access, and enable shorter distances between origins and destinations. Southworth compares neighborhoods’ walkability based on the number of intersections, the number of blocks in an area, and the number of cul-de-sacs versus T and four-way intersections. All of these factors play into an area’s walkability vis its pedestrian pathway system. Moudon adds that short block length adds pedestrian choice, and directness of travel to one’s destination is an important factor in determining whether one walks. Where blocks are long or streets are not gridded, mid-block pedestrian connections can be added to enhance pedestrian travel. Beimborn adds that convenient pedestrian access to transit stations, where applicable, can encourage use of the transit system. Adjacent parcels, he argues, should relate to one another and be easily connected for pedestrians. For example, shopping center buildings should be clustered rather than scattered on isolated outpads. (Beimborn 1991) More generally, pedestrian networks should connect destinations people frequent, such as job or shopping centers, with residential areas. In sum, small blocks, connected street grids, frequent pedestrian access, and dedicated sidewalks between destination nodes can greatly influence people’s impetus to walk.

A third important concern is pedestrian safety, comfort and amenities. Untermann argues, “A lack of safety is a prime factor that decreases one’s desire to walk and cycle.” Safety includes both open, well-lit designs to reduce perceptions and potentials for crime (Beimborn 1991), as well as safety from fast-moving traffic. To the latter end, narrow, calmed streets, pedestrian islands through busy streets, less frequent and narrower driveways, and elimination of barriers that might cause pedestrians to have to walk
out into the street are all options writers recommend. (Moudon, Pivo et. al., Gehl, Handy, Untermann) Streets should also be comfortable and pleasant. Landscaping, wide sidewalks, attractive windows into buildings and pleasant street lighting are all elements that can add to the pedestrian experience. Claude Morelli lists a number of ambient factors that encourage non-motorized travel, including “shelter from intense sun and poor weather,” “cleanliness and maintenance of buildings and property,” and “pleasant visual, acoustic and other sensory stimuli.” (1998) Susan Handy sums up, “Urban form does in fact make a difference in determining whether residents perceive walking as an option available to them.” (1996)

Beimborn cites “area identity” as a final factor in creating a pedestrian or transit-oriented environment. While others don’t speak to this point precisely, the common current of creating an area that is stimulating and attractive at the human and pedestrian scale runs through most of these theorists’ arguments. The primacy of physical site and neighborhood design as a mode choice determinant is highly debated. Nonetheless, Cervero and Kockelman conclude “walking quality is moderately associated with travel demand, but it is stronger than density for non-work trips when controlling for trip distance.” (1996) and Moudon argues, “given appropriate land use conditions, pedestrian facilitating improvement programs in suburban areas can support pedestrian travel and have a significant influence on mode choice.” (TRR #1578)

OTHER FACTORS (NON-PHYSICAL)

Aside from physical urban form characteristics, many other factors can influence mode choice. Transit dependence plays a strong role. This concept refers to those who are too old, too young, physically disabled or do not have enough income, and for these reasons cannot drive a car. Mode choices in neighborhoods where this type of person prevail, such as in lower-income neighborhoods, will skew much more highly to transit and walking trips than in neighborhoods with far fewer captive transit users. In fact, Robert Dunphy et. al. suggest that other features will have little effect if a population is not transit-dependent, arguing that transit-oriented development will not shift trips because it often serves upper-income people who already have other options that are more convenient. (TRR #1552)
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Additionally, the effectiveness, frequency, dependency, price and general management of the local transit system will also play a role in determining peoples’ mode choice. This can have physical elements, such as how rights-of-way are aligned, but is primarily a question of management, funding, building a culture of transit use and other non-physical aspects. Finally, pricing and time barriers to auto use can influence people to drive less and to take transportation alternatives more. Examples of this include limiting the number of parking spaces available in a high-destination area, pricing parking and driving so that it is less attractive in relation to other transportation modes or refusing to widen heavily congested roads.

**CONCLUSION**

While there is debate about the effectiveness of influencing people to drive fewer miles through land use and urban physical form, a large body of research speaks to its effectiveness to a certain degree. Cervero and Kockelman conclude, “Overall, the premises of trip degeneration, more frequent non-motorized trip-making and shorter motorized trips provided by compact, mixed-use, pedestrian-friendly development are confirmed.” (1996) Additionally, pedestrian-oriented design has other, less tangible, positive effects. It provides a framework for social neighborhood interaction, enables recreational walking and cycling possibilities, and generally creates a human-scale neighborhood environment. More attention to pedestrian design has even been cited as a deterrent to crime and the perception of crime and safety threats from auto use brought to neighborhood public space by placing continual “eyes on the street” and slowed traffic. (Jacobs 1961, Newman 1972, and Switzky 2001) While I have concentrated on discussing the transportation benefits of pedestrian-oriented urban form, these socio-cultural factors, while more difficult to quantify, are no less important.

Using the specific site design, density and other land use factors detailed above, I will evaluate which factors the sites I have looked at contain and which they lack, and explore which transportation alternative encouraging factors these sites potentially could have, and what actions could cause these to come to fruition.
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TABLE 2: CHARACTERISTICS THAT ENCOURAGE ALTERNATIVE TRANSPORTATION MODES

I. Density:
- Compact neighborhoods; > 7 dwelling units/acre
- FAR intensities for office, institutional, commercial, residential and other uses (at least 1-3 near transit stations)
- Corridor or node form within metropolitan transportation system

II. Other Land Use Characteristics:
- Mix of residential, commercial, office, recreational, institutional, other
- Integration of housing types and incomes
- Retail within walking distance of residential neighborhoods
- Retail at nodes, not along strips
- Fewer parking lots to reflect availability of transportation alternatives
- Encouragement of infill development

III. Site Design:
- Pedestrian-oriented streetscapes:
  - Small setbacks, Buildings oriented to the street
  - Narrow facades
  - Indoor/outdoor and public/private space transitions
  - Visual complexity, Permeable edges
  - Parking behind buildings or on street
- Distinct Area Identity
- Connected pedestrian and bicycle pathway system:
  - No pedestrian barriers
  - Frequent access points, Gridded street patterns
  - Connections to transit system
  - Short block length
  - Continuous sidewalks
- Pedestrian safety, comfort and amenity:
  - “Open” design with lines of sight
  - Lighting
  - Narrow, calmed streets
  - Continuous sidewalks
  - Landscaping and median islands
- Adjacent parcels relate to one another
IV. CASES

METHODODOLOGY

My primary inquiry concerns cases of currently vacant and underperforming shopping centers in the Boston region, within and abutting the 95/128 highway belt. I identified five cases by speaking with Planning Directors from each municipality within this ring. The following section discusses the extent of the abandoned shopping center issue in Boston, and presents basic histories for the five sites. Next, I explore these sites across five dimensions: physical site characteristics, neighborhood characteristics, applicable land use regulations, environmental concerns, and procedural issues such as financing, leasing, and ownership. To inform my findings and analysis, I talked to Planning Directors, local real estate agents, community leaders, and developers in each of the five towns. I also looked at zoning regulations, assessor’s cards, land use histories, transportation studies, and environmental reports in order to assess regulatory, environmental and transportation characteristics. Finally, I visited each site and examined physical site and surrounding area characteristics, such as streetscape characteristics, activity on site, and interfaces between the shopping center and abutting uses.

To help define important shopping center redevelopment issues, I conducted conversations with land use, real estate, and transportation experts, and planners and developers experienced with shopping center redevelopment. Combining these conversations with my own explorations of sites in the Boston region, I hope to illuminate some of the major issues regarding the barriers and opportunities affecting the sustainable redevelopment of abandoned shopping centers. This five case study sample is not intended to prove statistical characteristics about abandoned big boxes. However, by exploring various dimensions for a number of sites, this study begins to define the issues important to consider for those who wish to undertake or influence the sustainable redevelopment of abandoned shopping centers. The sites I explore exhibit broad variety; they range from urban to suburban in location, in high- to low-density neighborhoods, on sites previously used for non-retail uses, or sites originally developed as shopping centers. The basic site narratives illustrate unique qualities about each case, but also a significant range of overlap.
FIGURE 4: LOCATION OF CASE STUDIES

EXTENT AND LOCATION

The number of vacant or underperforming shopping centers in Boston far exceeds the five cases I explore in greater depth here. Two indoor malls, the Assembly Square Mall in Somerville and the Mystic Mall in Chelsea, are also largely vacant. These two sites also present interesting redevelopment challenges; both cases have been the subject of debate over their proposed post-redevelopment uses, ranging from major mixed-use developments to replacement with big box retail. They exhibit many of the characteristics of
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the outdoor entry shopping centers I explore, such as good highway visibility but poor highway access, loss of anchors accounting for their initial downturns, a large single-use site surrounded by dense, multi-use neighborhoods, and undistinguished architectural design.

However, this paper focuses on shopping centers in which each store can be accessed individually from the outside, as opposed to indoor malls. New shopping centers predominantly have this building form. Many outdoor-entry centers are becoming and remaining vacant. To date, however, most of the dying shopping center research and most mall redevelopment projects have focused on indoor malls. Potentially, many abandonment and redevelopment issues have characteristics specific to big box stores, such as site planning, tenanting or access issues. In order to learn the issues facing redevelopment of outdoor-entry shopping centers, I focus specifically on that type of site for my primary case studies.

Additionally, several Boston big box sites that recently were vacant have since been reused. For example, a Malden supermarket vacated its site in favor of a better nearby location. Consequently, the highway-side site was redeveloped as a garden apartment complex. The owner decided to change the site’s use due to the strong area housing market. A Shaw’s in Quincy will soon re-open as a community bank. The Lechmere building in Dedham sat vacant for some time after Lechmere went out of business, before Filene’s Basement department store reused the store. Filene’s now seems to be performing poorly. There are many additional examples, illustrating the dynamic nature of the retail environment and the need for a framework for this issue, a tool for cities to deal with box redevelopment. For consistency, I do not focus on these cases either, pursuing only those sites that are currently vacant.

Of special concern in the Boston area is the recent demise of several regional chains, notably Bradlee’s and Caldor’s. These two chains alone closed 250 stores between them in the Northeast; 71 Caldor’s were immediately re-leased after it went bankrupt in 1998, and 35 Bradlee’s have been sold to new big box stores since its demise earlier this year. While several chains, such as Target and Kohl’s, have used the opportunity of less competition and large, existing available box sites to move into the Boston area, many Bradlee’s and Caldor’s stores will probably remain empty for some time. This points to an overabun-
dance of box stores in the Boston area as compared with an ever thinning competitive field of big box retailers. Again, cities will need a framework to explore box redevelopment options in the event that this phenomenon strikes their town.

Bradlee’s and other recent bankruptcies leave many shopping centers with major vacancies. Some of these anchor sites will quickly turnover, but others will remain vacant, and it is foreseeable that the shopping centers these stores anchor will decline as a result. Again, I do not focus on these cases. The poor performance of the centers I explore here are not solely the result of recent tenant turnover; I chose only sites which have been vacant over a year, and exhibit other reasons for remaining vacant. All five sites are seen as blights upon their communities. The centers as a whole have economically and aesthetically declined, not only the anchor stores. Some have redevelopment plans, but none yet have evident construction activity. That they have been vacant a long time allows exploration into their characteristics and redevelopment difficulties.

The five sites I explore are scattered throughout the Boston region. Two are in the older northern inner ring suburbs of Chelsea and Malden, along older arterial roads. Another one is along the Highway 1 corridor between Boston and Providence, in Dedham, which is lined with big box stores, malls, fast food restaurants and the like. The Braintree site is along another, though less heavily-trafficked surface highway, in an area that is an unusual amalgam of residential types, old industrial uses and a highway strip environment. The final site is in a suburban town center, in the town of Norwood, one-third of the way between Boston and Providence. The following discussion relates the history, a basic description, and future plans for each site individually. Following that, I analyze various dimensions of these sites to explore their potentials and challenges for redevelopment.
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**Basic Site Narratives**

*Former Stop and Shop site, Norwood*

Construction workers recently reduced the 2.5 acres where Stop and Shop used to stand to a pile of rubble. The site is positioned between Norwood's Central Business District and the Norwood Depot commuter rail station, less than ¼ mile from each. Stop and Shop built the store on that site in the 1960s, on the site of a former tannery, but closed over 17 years ago, as a result of an unfavorable retail location and a change to a larger store format. The former building contained only 27,000 square feet, small by today's supermarket standards, but a relatively big box in its own time. The site sat vacant for the last 17 years, and only recently developers have put forward plans to redevelop the site. The site is surrounded by a wide mix of uses, including a two-story walk-up public housing development, a cemetery, small shops and offices, and downtown civic and commercial uses. It sits one block behind Norwood's main thoroughfare, Washington Street, on two minor suburban roads. The area streetscape is of a pedestrian scale, with two- and three-story, semi-detached, slightly setback buildings. It is pleasant to walk through, though there are some major empty spaces, particularly around the train station. The site is fairly small for a big box site, and it is unusually well-located.

![Figure 5: Norwood Photo, Location, and Site Plan](image-url)
Norwood is a medium-sized suburban community between Boston and Providence. It is more populous, has greater residential density, is slightly less affluent, and contains a more diverse job base, including more industry, than many of the towns that surround it. Consequently, Norwood is somewhat of a sub-regional center. Nonetheless, its downtown has declined as national retailers and consumer dollars shifted to the nearby Highway 1 corridor. A few years ago, an estimated 22% of downtown retail space sat vacant. A 1998 Downtown study called for Norwood to reposition its CBD as a “vibrant commercial center for the Neponset Valley building a sense of place around the themes of specialty shopping, dining and entertainment, historic preservation…and convenient access to Downtown Boston” (Koff 1998)

The plan adds, “the town should be encouraging a mix of higher density uses of this property [parcels between downtown and the train station],” and calls for a rezoning. Consequently, the town did rezone the area for greater density and use flexibility, including residential uses. They saw the abandoned Stop and Shop site as a keystone parcel to encourage a residential presence, attracting young professionals that would largely use the commuter rail to get to work in Boston and use downtown Norwood’s shops and services, but not strain its social services. The town wanted a development dense enough to efficiently utilize the train station and bring life back to downtown Norwood, but still in keeping with Norwood’s suburban character.

In order to allow for this type of development the town had to change the area’s zoning, to allow for greater massing and less restrictive use regulations. Initial zoning amendments and development plans

PROPOSED HOUSING DEVELOPMENT AT FORMER STOP AND SHOP SITE (GRAPHIC: MAUGEL ARCHITECTS)
IV. Cases

for greater densities met with community concerns over “citifying Norwood.” The Stop and Shop developer countered with an affordable housing proposal, which the town would have been required to accept under Massachusetts law. The threat of a forced affordable housing development caused people to approve a scaled-down version of the development and a general zoning amendment to allow high-density residential uses in the downtown area.

The current plan calls for 105 housing units in a four-story building over an at-grade parking garage. The Norwood Planning Director refers to the project as “transit-oriented development.” The development has been approved and construction will begin soon.

Parkway Plaza, Chelsea

Chelsea is a blue-collar waterfront community close to central Boston. It houses a variety of major industries, including oil storage and distribution facilities, a historic center, and an ethnically diverse population. The city has well-documented problems such as a preponderance of environmentally contaminated sites, a lack of open space, and a strained municipal budget. Chelsea houses a highly dense

Figure 6: Site plan and aerial view of Parkway Plaza
IV. Cases

The Parkway Plaza is a major blight on this already stressed city. The 38-acre site is currently characterized by empty, weedy lots, vast, underused parking lots, numerous vacancies, and a few locally-serving businesses. The buildings and parking lots are in poor repair, and the sign at the entrance lists tenants who vacated the center years ago. Mounds of trash and debris, broken chain-link fences, and graffiti cover the site’s unused corners. In general, the center feels neglected and unsafe. Former tenants, such as Stop and Shop, Walgreen’s, and Bradlee’s, vacated the site five to ten years ago. Remaining tenants include a liquor store, a furniture store, and a laundry. An adult movie theater on the site was recently torn down, removing an unwanted use but leaving a vacant lot with no immediate redevelopment plans. The site has environmental problems from its history as a clay mining pit. Though at one point the center was the city’s primary retail shopping center, a report argues, “At best, the Parkway Plaza’s retail viability, like many older shopping centers throughout the country, must be viewed as a transient use.”

The site itself is visible from a major highway, the Revere Beach Parkway, but is accessible only by a convoluted series of ramps and from only one direction. It is not very accessible at all. The site does not front city streets, and is partially hidden behind a row of houses. The shopping center’s backside faces a public housing development. The public housing is highly isolated, because it faces the highway on two sides and
IV. Cases

the back of the shopping center on a third, and is on a dead end street. Residents often cut through a hole in the shopping center fence, along the side of the center, to reach Webster Street. The rest of the area is primarily composed of triple-decker homes, with some small businesses such as convenience stores and garages, and a smattering of larger apartment buildings. It is overall a very urban environment, close to Chelsea’s downtown, but the parkway and the sprawling shopping center make the immediate area appear much less dense.

The City of Chelsea is aggressively trying to upgrade this property, and would like to see it become something other than solely retail. Despite its problems, the site has a number of opportunities, including its large size in a built out city, an adjacent creek for which open space advocates have received funding for restoration, highway visibility, and a large portion of the site is under single ownership. The city’s objectives are to promote economic development with a mixture of new uses, enhance Chelsea’s open space, reintegrate the site back into the neighborhood, and form a centerpiece for an area-wide revitalization. The city developed a program of housing, office, hotel and open space uses and development guidelines capitalizing on a restored creek as a guide for developers.

This plan includes a street layout that connects to existing city streets and the Revere Beach Parkway, and turns the current access road into a building-fronted city street. Streets also connect to the isolated public housing development. The plan calls for the demolition of all site buildings. It suggests massing for redevelopment: 3-5 stories with higher buildings on a newly designed park and lower buildings abutting existing residential neighborhoods. Finally, it suggests uses for each parcel, including office space, apartment complexes, some minor neighborhood-serving retail, and a possible hotel. While the area is not zoned for such a wide mix of uses, the city expects the area to be negotiated as a planned unit devel-
opment. Chelsea is currently negotiating with the landowners, tenants, and community advocates to come to an agreement over how to redevelop the site.

Townline Center, Malden

The Townline Center is a medium-sized shopping center containing two buildings at right angles to each other, each with an anchor and three or four smaller stores. The anchors are vacant, the signs faded, and the windows boarded up. The bright colors and geometric motifs from a 1991 renovation provide a stark contrast to the absence of any activity around most of the stores. The parking lot paving is newly surfaced, as if the center were trying to appear in decent condition to attract new anchors. A few smaller stores remain open, and there is a buzz of activity around the one successful business, a drive-through Dunkin’ Donuts in an outbuilding squarely in the center of the parking lot.
IV. Cases

The Townline Center actually lies on the boundary between Malden and Medford, halfway within each city. The two towns are older Boston suburbs, well-connected by road and transit to downtown Boston, and contain a diversity of income levels, jobs and industry. They are both relatively built out. Recently, both cities, in partnership with the City of Everett, have managed to attract a large number of high-tech business with the Telecom City development, which reuses as office space a substantial amount of vacated industrial land abutting the Malden River.

The area immediately surrounding the shopping center is characterized by a mix of duplex and triple-decker homes, 3-4 story apartment buildings, small neighborhood commercial centers, other big box, gas station and fast food stores, and two train tracks, perpendicular to each other. Two neighborhood centers are within a ½ mile radius. The immediate area has a relatively dense concentration of residences and businesses, but the individual parcels are poorly connected to one another, both from a pedestrian and a visibility standpoint. Highland Avenue (Middlesex Road in Medford) is a narrow street with heavy traffic. It has minimal sidewalks, crosswalks, and other pedestrian amenities, creating an unsafe pedestrian environment.

The 11-acre Townline Shopping Center was built by a zoning exemption in 1972. The area at that time was largely industrial, but the character has since changed to a more highway retail strip character mixed with pre-existing small-scale residential and accompanying uses. There was a basic center renovation in 1991; the owner added new signs for all of the stores, and installed a common colorful design motif. Despite this updating however, the center continued to struggle. A nearby BJ’s wholesale store presents strong competition to Townline. The center lost both of its anchors, Food Depot and Caldor’s at the same time, three years ago. The remaining tenants have struggled or gone out of business, except for a drive-through located in the center of the site, which benefits from an empty parking lot that allows for a queue of cars to build up.
IV. Cases

The site has struggled for sometime, although it has not changed ownership. Nor have the owners proposed any drastic changes. According to one Malden official, they appear to be operating at a loss. According to a Medford official, there are plans for an internet services company to reuse the site as back-office space, capitalizing on the area’s emergent status as a high-tech center. Malden officials were unclear however as to any future plans for the parcel, and any necessary permitting processes have not yet begun. They noted that planning objectives for the area include encouraging housing to address a regional shortage, keeping development in character with the medium-scale area density and mitigating traffic impacts along Middlesex/Highland. Neither town has taken a proactive stance toward the redevelopment of this site, and, as the site is zoned for highway business, under a pyramidal zoning scheme, most uses are allowable by right. The Malden Planning Director notes that they are looking into site plan review, but as of now have little oversight for a site such as the Townline Center unless they make an effort to shape development on the site, which neither city seems willing to do at this time.

**Quintree Mall, Braintree**

Quincy Avenue used to be the primary thoroughfare from Boston to its South Shore suburbs. With the building of elevated Route 3, however, Quincy Avenue took on a more sub-regional role, connecting South Shore communities such as Quincy, Braintree, and Weymouth. The highway now carries less through traffic. It is characterized by typical

The Vacant Quintree Mall: Near Industrial, Residential and Strip Development

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FIGURE 8: QUINTREE MALL SITE PLAN

SHIPYARD NEAR QUINTREE MALL

highway strip development, but on a slightly smaller scale than other major area surface highways, such as Highway 1. It is here, at the Braintree/Quincy border, that the 20-acre Quintree Mall sits mostly vacant. The area contains a melange of land uses, from a major industrial port whose cranes can be seen from the mall site, to multi-story apartment and condo developments, to a smattering of historic single-family homes, to the retail strip environment mentioned earlier. Like many of the other cases here, the area has a fairly dense concentration of businesses and residences that are difficult to access from one another. Uses turn their backs to public streets and are not oriented to one another, and roads are quick and narrow and hard to cross.

The shopping center is hard to see from Quincy Avenue: it is setback extremely far, buildings in front block a view of the Quintree Mall, and the grade slopes down from the road to the shopping center buildings. The buildings back directly onto another street, Shaw Avenue, but the only entrance here is for deliveries. The buildings are in extremely poor condition, with cracked windows and sagging roofs. Behind the former Ames building there are rusted oil drums and other debris, and weedy trees and tufted marshes have reclaimed a corner of the

POOR REPAIR AT THE QUINTREE MALL
IV. Cases

site. The overall impression is of permanent neglect and inactivity, except around a small diner. One article characterizes the center as having “an overall lack of maintenance, torn-down fences, faulty security lighting, potholes, graffiti, and exposed wires in the mall’s signs.” (Holland 1998)

The Quintree Mall site is in an industrial area that left a legacy of environmental contamination to the degree that the site was once listed as a Federal Superfund site. It has since been partially cleaned and its regulatory status downgraded. Following its industrial use, the site housed a drive-in movie theater. In the 1960s, the shopping center was built on the parcel, capitalizing on easy access to Quincy Avenue and the drive-in’s large empty lot. The anchor parcels have been vacant since 1993: Stop and Shop left in favor of a “Super Stop and Shop” store less than a mile down Quincy Avenue, and Ames department stores went out of business around the same time. It faces competition from several other successful shopping center developments, such as the South Shore Plaza regional mall, the South Shore’s largest retail agglomeration, and a new eight-anchor power center in Braintree, “The Marketplace.” One article writes about this area, “While the amount of vacant retail space is growing, a seemingly contradictory trend also is occurring. New stores are being built at a brisk pace.” (Preer, 1998) In fact, the recent Braintree Master Plan, which does not mention the Quintree Mall, describes Braintree’s economic development climate this way: “The current retail market in Braintree should continue to evidence healthy behavior, and demand will continue for new retail space.” (Cecil 1998) Quintree exhibits many of the characteristics typically cited as reasons for abandoned shopping center: a loss of anchors, a smaller size and older buildings than in new construction, and changing traffic patterns meaning a less desirable location.

The former owners came up with almost annual announcements of possible redevelopment scenarios, proposing at different times various anchor tenants and a multiplex. However, the company was consistently in debt, owed a large amount of back property taxes, and never made even the most basic maintenance improvements. One news article notes that many city councilors ran on the specific platform of revitalizing the shopping center. Despite many potential plans and political awareness of the center’s blighted state, the center remained mostly vacant and run-down throughout this period. There have been
IV. Cases

no major initiatives to reconsider the site’s loss of retail viability, to master plan the site, or to see how it could be reused in other manners. In fact, Braintree’s Planning Director characterized the city’s objectives toward the site as, “whatever the zoning allows.” (Personal Interview 3/5/01)

Recently, Quintree was sold to another development company, who also says they will bring in new tenants and renovate the place.

*Former Levitz Furniture Store, Dedham*

Highway One through Dedham is a “miracle mile,” a miles-long strip of big box stores, indoor regional malls, fast food restaurants, strip shopping centers and similar auto-oriented uses dedicated to consumption. Among the stores, there is constant tenant turnover and significant competition.

Almost every major national chain has a store along this strip. Access to the stores from the divided surface highway is limited to service roads that often serve several boxes. There are no pedestrian facilities, and little in the way of cross-traffic or a gridded street system. That is, it would be an extremely convoluted adventure to try to reach the parcels on the other side of the strip of stores from the highway. There are residential communities and neighborhood centers abutting the opposite side of the strip from the highway, but there is no way to access the retail uses from the back side.
IV. Cases

The area originally hosted a variety of industrial uses, and a train track runs parallel to the highway. Beginning in the 1960s, the strip began to be converted to shopping centers, with the Dedham Mall built in the late 1960's. Long after the fact, in 1995, Dedham rezoned the area specifically for highway business uses, precluding industrial use. Levitz constructed their building in 1985 adjacent to the Dedham Mall, on a previously undeveloped site.

The former Levitz store is a mammoth structure visible along the highway for nearly a mile. It is adjacent to the Dedham Mall, a major indoor mall, as well as several other free-standing boxes, Toys R Us, Stop and Shop and a Sears Automotive Center. The auto center also exhibits poor economic performance, and generates little site activity. The Levitz store closed last year when Levitz went out of business. It is two stories inside, with a fixed layout specific to Levitz's needs as a furniture center. The store is surrounded by an amazingly vast space of empty parking, which belongs to the Levitz building and to surrounding tenants, but appears to belong completely to Levitz. The entire parking lot was vacant on the day I visited. Another possible redevelopment difficulty is multi-party ownership of the Levitz site, among owners with competing ideas about redevelopment goals. Additionally, the building is located in a highly competitive, active retail environment, but its specific location does not orient well toward other area stores, such as the Dedham Mall. It is relatively isolated, and given its current form, it would probably have to become a destination on its own to be successful. Finally, its layout is particular to the needs of a furniture retailer, and the structure has little flexibility for other types of box stores. As yet, there are no plans for any redevelopment or re-tenanting.
V. SITE CHARACTERISTICS AND REDEVELOPMENT ISSUES

The following section explores site characteristics and redevelopment issues for the Braintree, Chelsea, Dedham, Malden, and Norwood shopping centers. First, I describe the physical site and urban form characteristics of the site and the surrounding area, such as setbacks, lot shape, area density, and explore the opportunities or difficulties to sustainably redevelop the sites given current scenarios. Next, I describe procedural issues affecting redevelopment scenarios, including environmental issues, zoning regimes, and interactions between landowners, tenants, developers, financiers, and cities. This analysis is based on observations for these five sites, and the past experience of other shopping mall redevelopers. This section is not intended to present prescriptive solutions (design or otherwise) regarding ways to plan for the future of abandoned big boxes. Nor do I set out to statistically characterize their traits, or to argue that these exact characteristics apply to all other abandoned shopping center sites. Rather, this analysis attempts to define the terms for an investigation into what redevelopment issues might be encountered. Cities, developers, communities, and landowners can use this as a guide to direct preliminary investigations regarding redevelopment of this type of site.

<table>
<thead>
<tr>
<th>Name: Name:</th>
<th>Former Levitz</th>
<th>Former Stop n’ Shop</th>
<th>Parkway Plaza</th>
<th>Townline Center</th>
<th>Quintree Mall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town:</td>
<td>Dedham</td>
<td>Norwood</td>
<td>Chelsea</td>
<td>Malden</td>
<td>Braintree</td>
</tr>
<tr>
<td>Current Tenants:</td>
<td>vacant</td>
<td>vacant</td>
<td>Save-a-lot, Richies Home Furniture, Martignetti Liquor</td>
<td>Dunkin' Donuts, family restaurant</td>
<td>Chinese restaurant, jewelry store</td>
</tr>
<tr>
<td>Former Anchor Tenants:</td>
<td>Levitz</td>
<td>Stop and Shop</td>
<td>Bradlee’s, Stop and Shop, Walgreen’s</td>
<td>Caldor’s, Food Depot</td>
<td>Aunes, Stop and Shop</td>
</tr>
<tr>
<td>Years vacant:</td>
<td>1</td>
<td>17</td>
<td>n/a</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Site size:</td>
<td>7.5 acres</td>
<td>2.5 acres</td>
<td>38 acres</td>
<td>11 acres</td>
<td>20 acres</td>
</tr>
<tr>
<td>Development Plans:</td>
<td>none</td>
<td>105-unit apartment building</td>
<td>none</td>
<td>possible backoffice space</td>
<td>possible re-tenanting</td>
</tr>
<tr>
<td>Land use history:</td>
<td>vacant lot</td>
<td>tannery</td>
<td>clay mining pit/brickmaking/ naval landfill</td>
<td>n/a</td>
<td>drive-in movie theater</td>
</tr>
</tbody>
</table>

Table 3: Basic Site Information
A number of site-specific characteristics influence redevelopment potentials of abandoned shopping centers, including site size, lot shape, relationship to the street and to abutting parcels, pedestrian environment, and condition of existing structures and paved areas. These characteristics make it easier or more difficult to sustainably redevelop, as opposed to other redevelopment scenarios. For example, a large lot size enables meaningful change to a shopping center’s sprawl-associated and functional character, but it also enables the possible construction of a newer, larger big box, which does not change the site’s environmental or community performance. Many existing site characteristics, such as poor building orientation in relation to the street, make it difficult to redevelop in a pedestrian-oriented manner. These characteristics do not apply to redevelopment scenarios that incorporate building demolition and begin redevelopment with a clean slate. However, demolition adds cost constraints, while retaining existing structures and accessways brings design constraints. I conclude this section with a discussion of the trade-offs between redevelopment that reuses existing structures and redevelopment that begins with demolition.

The Boston sites exhibit great lot size variations, from Parkway Plaza’s 38-acre spread to the 2.5-acre former Stop and Shop site in Norwood. A large site such as the Parkway Plaza or the Quintree Mall in Braintree enables a redevelopment scheme that can radically alter the character of an entire area, eliminating a sprawl-associated blight and replacing it with a development whose characteristics can meaningfully affect an entire area’s environmental performance. A redevelopment of such large sites can incorporate several new city blocks, a wide mixture of uses and a design concept on a scale large enough to change the character of an area by itself. By contrast, the small Norwood site can only begin to change the character of an area; one 100-unit apartment building does not make for a transit-oriented area, while
the addition of several hundred thousand square feet of new development on 30-plus acres potentially can. Sites such as those in Braintree, Chelsea, and Malden are on a large enough scale to meaningfully influence an entire neighborhood’s density, design, and land use mix.

The large scale of many of these developments also presents difficulties toward sustainable redevelopment. For example, as discussed further in the “Ownership, Leasing and Financing” section, a large site will often contain multiple owners, even among a single shopping center or building, whose desires need to be addressed and coordinated. Additionally, a large site provides a prime opportunity for reuse by a big box retailer. While big box construction continues at a great pace at the urban fringes, within more heavily urbanized communities there are few sites that have a large empty parcel, good highway access and visibility, and zoning that allows for large-scale shopping centers by right. Consequently, large abandoned shopping centers represent a prime opportunity for big box retailers to enter urban markets. There are several instructive examples of this occurrence.

The Assembly Square Mall in Somerville, a mostly vacant indoor mall, abuts several other underutilized parcels. This case illustrates the potential conflict that arises from a large, visible site between a low-density, big box reuse proposal and a high-density mixed-use proposal. The mall owners want to redevelop the mall to draw a variety of new big box tenants. The furniture superstore Ikea is seeking to open a 300,000 square foot store on an adjacent lot. A coalition of neighborhood activists has countered with a proposal calling for a much higher density, a mix of residential, office and retail uses, a new transit stop, and a more pedestrian-oriented design, citing potential extra revenue generated from more intense uses and a variety of community benefits. The City of Somerville has wavered as to which scenario it prefers, and the fate of this site is currently unclear.

The Parkway Plaza in Chelsea exhibits many similar characteristics, including a location next to a rare natural asset (Mill Creek), highway visibility yet difficult highway access, and a large amount of environmental contamination. It is in an area with a similar mix of land uses, a dense residential neighborhood with some small-scale industrial uses and neighborhood-scale businesses. Parkway Plaza’s owners and
the City of Chelsea are currently negotiating redevelopment scenarios, using the city’s street-grid, mixed-use, moderate-density proposal, discussed earlier, as a base for negotiations. However, it is not inconceivable that, as with Assembly Square, a big box proposal may become more attractive to the owner. City officials acknowledge preoccupation over this possibility. In sum, a site’s large size is both an asset for sustainable reuse that allows a change to an entire neighborhood, and a potential liability, because its size fits well with prevailing land consumptive and auto-oriented retail formats.

Interfaces with abutting parcels and existing streets are a second site characteristic influencing redevelopment potentials. Most of the five Boston sites currently relate very poorly to their surrounding developments. Connections to nearby residential areas are particularly poor. For example, Parkway Plaza’s buildings are at a right angle to the public street, are accessible only from a private access road, and are hidden from the public through-street behind a row of houses. Quintree Mall’s structures are set downhill from Quincy Avenue, the area’s main thoroughfare. Like Parkway Plaza, the shopping center is partially blocked by other buildings, and its buildings are barely visible from the street. The shopping center’s backside fronts a public street, but is accessible only for delivery vehicles. Blank rear facades face a row of homes. These and other sites have excessive setbacks. In general, there is little relation between buildings and street (See site plans, Chapter 4).

Poor relationships to public streets can in some cases be remedied by demolition of existing structures, or by building new structures on existing parking lots. For example, the Townline Center in Malden contains a long horizontal frontage along a public street. One building, though it is set excessively far back, faces the street. Access is directly to and from Middlesex Avenue, instead of by a private frontage road. It is not difficult to conceive of a redevelopment that either uses existing structures, or demolishes them, that
relates to the street in a way that creates a pedestrian orientation and a fine-grained streetscape. Likewise, the Norwood Stop and Shop site sits on a city corner; the proposed development fronts onto two city streets, promoting an interesting pedestrian environment where previously a three-acre void existed between the train station and the downtown.

Many of these sites also have physical and perceptual barriers between the shopping center and abutting land uses, particularly to residential areas. Public roads abutting the shopping centers are often poorly equipped for pedestrians, creating a barrier to other sites. Claude Morelli found that physical barriers discourage non-motorized travel modes by “increasing the circuity of travel between origin-destination pairs.” (Morelli 1998) For example, the Townline Center in Malden faces a four-story apartment complex across Middlesex Avenue. This street is relatively narrow for a major arterial, but has infrequent intersections, sidewalks, and crosswalks. Perceptually, due to the barrier of the road and the vast setbacks, the shopping center and apartment complex are a world apart. The Quintree Mall presents a similar situation; there are nearby apartment developments, but getting from the shopping center to the apartments is difficult. Dangerously fast roads and inward facing buildings make the pedestrian experience unsafe and uninviting.

The roads fronting many of the shopping centers are older, narrow roads that have taken on a greater arterial role and more traffic than they were likely intended for. They run through dense, low-setback neighborhood centers as well as highway strip environments. Because of their narrowness, and moderately dense surroundings, they have the potential to be retrofitted to cater to the pedestrian. Many pedestrian-oriented characteristics are currently lacking; sidewalks are few and narrow where they do exist. In some cases a narrow planted strip fronts the road. In others there is no buffer at all between the street and
V. Site Characteristics and Redevelopment Issues

the shopping center parking lot. Train tracks run behind the Malden and Dedham sites, creating a barrier to the neighborhood in the other direction and effectively disturbing existing street grids. In order to encourage greater pedestrian use, shopping center redevelopments should take into account and remedy existing deficiencies regarding pedestrian connections to other nearby sites. Current site plans fall short in this regard.

Many of the site difficulties listed above can be remedied with site redesigns. Redevelopers can add pedestrian amenities, sidewalks, and traffic calming measures. New buildings can orient to the street and increase density and a mix of uses on the site. New roads can be cut through the larger sites to connect with existing street grids. Existing buildings in poor conditions can be torn down. However, these factors add to development cost. One report describes the value of derelict shopping centers as land value minus demolition cost. (CNU/PWC 2001) Incorporating pedestrian amenities further increases cost.

Abandoned shopping center redevelopments need to choose between retaining existing buildings or starting from scratch. This decision depends on building condition and new uses developers hope to introduce onto the site. It is also a function of demolition versus retrofit cost, and how well existing buildings orient to streets and surrounding land uses.

In sum, the barriers created by fast roads and disrupted street grids in combination with low-density, large setback site plans effectively isolate the abandoned shopping centers from surrounding land uses. While the infrastructure to encourage pedestrian use (a mix of uses, moderate densities, existing street grids, narrow, building-fronted roads) exists around many of these sites, current site characteristics detract from this potential by necessitating an automobile to get from the shopping center site to even nearby and even directly adjacent land uses.

SURROUNDING AREA CHARACTERISTICS

Big box stores and strip shopping centers conjure up images of low-density sprawl at the urban fringes. The environments we call to mind when asked to imagine a typical big box store often include limited-
V. Site Characteristics and Redevelopment Issues

<table>
<thead>
<tr>
<th>Name</th>
<th>Former Levitz</th>
<th>Former Stop and Shop</th>
<th>Townline Center</th>
<th>Parkway Plaza</th>
<th>Quaintree Mall</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>Dedham</td>
<td>Norwood</td>
<td>Malden</td>
<td>Chelsea</td>
<td>Braintree</td>
</tr>
<tr>
<td>Residential Density to 1/2 Mile from Site</td>
<td>4,000</td>
<td>7,500</td>
<td>19,000</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>Examples of Surrounding Land Uses:</td>
<td>Sears Automotive Center, Stop and Shop, Dedham Mall, Toys 'R' Us</td>
<td>Train Station, Public Housing, City Hall, Cemetary, Duplexes</td>
<td>4-story Apartments, B&amp;I's Wholesale, Single-family Homes</td>
<td>Apartment Buildings, Triple-deckers, Marshland, Auto Repair Shops</td>
<td>Garden Apartment Complexes, Gas Stations, Single-Family Homes</td>
</tr>
<tr>
<td>Street Grid/ Layout (see drawings):</td>
<td>none</td>
<td>On Downtown Grid</td>
<td>Yes, broken by train tracks</td>
<td>Yes, broken by shopping center, parkway</td>
<td>Yes, broken by shopping center</td>
</tr>
<tr>
<td>Typical Area Setback:</td>
<td>over 100 feet</td>
<td>5-10 feet</td>
<td>10-20 feet</td>
<td>5-10 feet</td>
<td>20-30 feet</td>
</tr>
<tr>
<td>Commercial/Residential Interface:</td>
<td>none</td>
<td>on same blocks, all facing street except NHA housing</td>
<td>across busy arterials, surrounded by fences</td>
<td>across busy arterials, surrounded by fences</td>
<td></td>
</tr>
<tr>
<td>Transit Service:</td>
<td>none</td>
<td>Commuter rail</td>
<td>Orange Line tracks, no station</td>
<td>Orange Line tracks, no station</td>
<td></td>
</tr>
<tr>
<td>Distance from city/neighborhood center:</td>
<td>1.5 miles</td>
<td>2 blocks</td>
<td>1/2 mile</td>
<td>1/2 mile</td>
<td>1 mile</td>
</tr>
</tbody>
</table>

TABLE 4: SUMMARY OF NEIGHBORHOOD CHARACTERISTICS

access highways with mazes of on- and off-ramps, extensive parking lots, giant signs and flat, undistinguished architecture. Beaumont writes, “Superstores usually stand apart from a city or town center. They are designed to be inaccessible to pedestrians, and they are too remote from the homes of their shoppers to be within walking distance. Cost-effective public transit is not an option because the market served by such stores is too widely dispersed and spread out.” (Beaumont 1994) This statement holds true for many big box stores, especially those of newer construction built on greenfield sites.

However, the area surrounding the type of shopping center store likely to go vacant often does not share all of these characteristics. The store is likely to be much older than currently successful centers, on a smaller lot, and in a more urban, connected area. What may have been an urban outskirt when these centers were built 40-50 years ago is now an inner ring suburb. CNU reports that “greyfield” malls average 32 years of age, 8-10 years older than the average for the universe of malls as a whole. (CNU/PWC 2001) Of the five sites I explore for this paper, only one, in Dedham, is characterized by a typical superstore sprawl image: limited access off a highway, surrounded by other superstores and vast parking lots, and isolated from residential or other non-retail uses. The other four centers inhabit sites within existing older communities. They are surrounded by a wide mix of land uses containing moderate- to
high-density residential conditions. The shopping centers sit within an existing street grid and are often served by mass transit. Their site plans, as mentioned in the previous section, are not conducive to walking, lacking basic connections to abutting land uses. The single-story building and high site percentage given over to parking is land consumptive. However, the urban surrounding area characteristics, as detailed below, are often very different from the shopping center site itself. Redevelopment can potentially account for these deficiencies without the site becoming the “walkable enclave within regional sprawl,” characterized by Southworth. (1997)

The areas surrounding many of the sites contain a large enough residential density to conceivably support transit service, and to provide a high concentration of uses within walking distance of one another. For example, there are roughly 19,000 people per square mile living within ½ mile of the Parkway Plaza in Chelsea. The Malden and Braintree sites also exhibit densities on the high end of a typical suburban spectrum (2,000 to 4,000 people per square mile), at 7,500 and 4,000, respectively. These numbers are potentially higher for a slightly larger catchment, as the ½ mile radius includes the large shopping center site, which has no residents. For example, the denser neighborhood of East Braintree lies just to the Southeast of the ½ mile radius near the Quintree Mall. It is likely that these numbers do not illustrate outlying cases: as shown in the “Retail Trends” section, failing shopping centers are likely to be located in older, inner-ring suburbs. The New York Times recently reported, “where land and resources are simply not available for growth, former suburbs filled in and reached urban-level densities.” (Firestone 2001)
V. Site Characteristics and Redevelopment Issues

FIGURE 10: DENSITY MAPS FOR SELECTED SHOPPING CENTERS

PARKWAY PLAZA, CHELSEA
Persons/ Square Mile

Suffolk
- 0 - 2000 persons/sq. mi.
- 2001 - 5000
- 5001 - 10000
- 10001 - 20000
- 20001 - 30000
- 30001 - 100000

There are roughly 19,000 people/square mile within a 1/2 mile radius of Parkway Plaza

TOWNLINE CENTER, MALDEN
Persons/ Square Mile

Middlesex
- 0 - 2000
- 2001 - 5000
- 5001 - 10000
- 10001 - 20000
- 20001 - 30000
- 30001 - 50000

There are roughly 7,500 people per square mile within 1/2 mile of the Townline Center

QUINTREE MALL, BRAIN TREE
Persons/ Square Mile

Norfolk
- 0 - 2000
- 2001 - 5000
- 5001 - 10000
- 10001 - 20000
- 20001 - 30000
- 30001 - 50000

There are roughly 4,000 people per square mile within 1/2 mile of the Quintree Mall
These numbers do not prove anything about transit feasibility for the area. As mentioned, many other factors as well determine transit feasibility, such as road networks, existing transit infrastructure, and management of transit systems. Nonetheless, an area with higher density is more likely to support a transit line by increasing the potential ridership base. Nor do high density numbers automatically infer that people will walk between land uses; as mentioned, design plays a big factor to encourage pedestrian use as well. The high densities shown here merely indicate the potential for non-auto travel modes, and illustrate that these shopping centers do not inhabit an extremely low-density, sprawling landscape such as we might associate them with.

Likewise, these sites’ land use characteristics are much more integrated than might be expected for a strip mall environment. They do not possess a typical contemporary segregated suburban layout, with isolated pods of residential tracts, office parks and superstore sprawl. Instead, many of these sites exist in areas where various land uses directly abut each other. As mentioned, the towns these sites are in have long been built up, for many centuries in some cases. Their development for the most part predates segregated zoning, and they have few remaining large undeveloped land parcels. Consequently, many seemingly incongruous land uses by the standards of the segregated land use paradigm have been grandfathered in and coexist in areas now zoned for a much narrower range of uses. Land use categories (residential, industrial, etc.) as well as housing types (multi-family apartments, triple-deckers, etc.) are both mixed in many of these sites (see Figure 11).

In Braintree, for example, the shopping center backs against a single-family residential development, two expansive garden apartment complexes, an industrial port and other highway strip store uses. Parkway Plaza is surrounded by triple-deckers, public housing, small industry and retail businesses, open space and other uses. The former Stop and Shop in downtown Norwood abuts a train station, public housing, small businesses, and civic uses. Only the Dedham case presents the stereotypical suburban low-density, isolated-use environment. Only other superstores are accessible from the former Levitz store.

Transportation characteristics also suggest a different, better-connected picture than might be typically
V. Site Characteristics and Redevelopment Issues

FIGURE 11: LOCATION OF RESIDENTIAL LAND USES AROUND VACANT SHOPPING CENTERS

Quintree Mall, Braintree

Parkway Plaza, Chelsea

Former Levitz, Dedham

Townline Center, Malden

Former Stop and Shop, Norwood

MULTI-FAMILY

SINGLE-FAMILY

FIGURE 12: STREET NETWORKS (WIDTH = 1 MILE)
imagined for a shopping center environment, associated with highway exits at the urban edge and auto-dependence. Dense, connected street grids exist immediately surrounding the Malden, Norwood and Chelsea sites. (see Figure 12) Ann Vernez Moudon and others cite connectivity of street grids as a major factor to encourage pedestrian uses and transportation choices. Street grids create a walking choice, spread auto traffic among many streets, and don’t force pedestrians onto busy arterials that often lack sidewalks. For many of these sites, notably Chelsea and Braintree, the shopping center parcel represents the largest and most notable discontinuity in the street grid, which continues around the shopping center to all sides. Many sites are also already served by transit. The Norwood site is located at a commuter rail stop, and bus lines run along the arterials fronting the Quintree Mall, the Parkway Plaza and the Townline Center. This transit presence is most likely another indicator of these areas’ high concentration of people and variety of uses.

Despite density, land use, and transportation systems characteristics similar to those earlier described as promoting transportation choices, the sites and surrounding areas are currently inhospitable to pedestrian use. Interaction between sites appears to take place primarily by car, and I evidenced few pedestrians at any of the sites. For example, apartment complexes in Malden and Braintree face their entrances inward; they are not accessible from the street. The back of the Quintree Mall forbiddingly fronts a street of single-family homes. Sidewalks and crossing aids are sorely lacking at many of the sites, and pedestrians have to contend with fast traffic on a well-traveled arterial. This analysis applies not only to the interface between the shopping centers and abutting land uses, but also to many of the neighboring parcels’ interactions with each other.

In sum, the sites explored here are not isolated in some far-flung suburb that a person would have no hope of visiting without a car. Rather, they are small low-density suburban style pockets within communities that exhibit many of the non-auto-oriented, land-efficient characteristics described earlier. The towns in
V. Site Characteristics and Redevelopment Issues

which they are located are largely built out, and are now well-connected parts of the Boston region, possessing job centers, residential concentrations, and industrial uses. Although current design characteristics detract from transportation alternatives, these sites have the potential to be retrofit in such a way that capitalizes on the surrounding area’s opportunities.

ENVIRONMENTAL ISSUES

I have discussed the environmental impacts and the environmental associations shopping centers possess, including inefficient land use leading to greenfield destruction, air and water quality concerns, and the image of an auto-centered, consumptive lifestyle. Environmental issues of a different kind plague many of these sites: remnants of contamination from past industrial uses. CNU coined the phrase “greyfields” to characterize blighted shopping centers. Many of these sites are also “brownfields,” sites with environmental contamination making redevelopment expensive, difficult, and uncertain. Each of the five sites I looked at have a record of past or present contamination issues. Parkway Plaza, which formerly housed a claypit mining and brickmaking operation, contains records of methane and metals. The Navy once used this site as a landfill. The Norwood site is a former tannery, an especially noxious industry. It exhibits metals and oil residues. The Quintree Mall, formerly listed as a Federal Superfund site, is downslope of an oil storage farm. A preliminary clean-up occurred in 1996. The Malden and Dedham sites also have records of oil and other hazardous materials. Besides industrial pasts, many of these sites contain underground oil storage tanks (USTs), a common source of contamination to urban parking lots. USTs often leak as they age, leaching oil into the soil and groundwater.

Many of these towns have a long built history; they are not the urban fringes, and in some cases have existed as settlements since the 17th century. Malden, Norwood, Chelsea and East Braintree also have long industrial histories dating back well over a century, though in the last forty years many of the industries have closed or moved away, and these small cities’ roles changed from self-contained urban and industrial towns to residential, retail and office job suburbs in a greater Boston region. Shopping malls date back only fifty years. They require a large assemblage of open, relatively flat land, preferably under
V. Site Characteristics and Redevelopment Issues

<table>
<thead>
<tr>
<th>Name:</th>
<th>Former Levitz</th>
<th>Former Stop and Shop</th>
<th>Townline Center</th>
<th>Parkway Plaza</th>
<th>Quintree Mall</th>
</tr>
</thead>
<tbody>
<tr>
<td>City:</td>
<td>Dedham</td>
<td>Norwood</td>
<td>Malden</td>
<td>Chelsea</td>
<td>Braintree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contamination:</th>
<th>hazardous material</th>
<th>oil and hazardous material</th>
<th>hazardous material</th>
<th>oil and hazardous material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity and Use</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Previous clean-up:</td>
<td>no</td>
<td>partial</td>
<td>partial</td>
<td>no</td>
</tr>
<tr>
<td>Natural Features:</td>
<td>lake across street</td>
<td>none</td>
<td>none</td>
<td>Mill Creek; marshlands</td>
</tr>
</tbody>
</table>

Table 5: Summary of Environmental Characteristics

single ownership. Consequently, declining industrial sites represented prime candidates for placing shopping centers in primarily built-out areas. Shopping centers from the 1950s and 1960s were built in an era before much information, regulation, or clean-up from reuse of industrial sites existed. Shopping centers from this era in urban areas are precisely the type that is likely to become vacant. The issue of contamination at abandoned shopping centers from previous industrial uses is potentially common to all cities where some shopping center growth occurred on previously developed sites, such as cities in the Midwest and Northeast. This issue is not limited to the sites I explore here. Communities with similar characteristics need to be aware of the possible past industrial history of older shopping mall sites, in the expectation of potential issues arising from industrial soil and groundwater contamination.

Environmental contamination has several implications for redevelopment. Most importantly, it can greatly increase development cost, limiting the viability of redevelopment options. Costs translate into physical differences for resulting redevelopment. Extra costs necessitate greater density in order for a development to be profitable. The Chelsea City Manager notes, "The environmental and geo-technical issues may be so substantial that one cannot afford to build on portions or large portions of the property. If, for example, we can get someone who wishes to build residential and office, but the land is so contaminated that the cost is prohibitive, that will have a dramatic impact. Eventually, the housing market, for example, rises to a price where it does become an affordable project, but that could be another decade."

In addition to straight cost issues, contamination raises an element of uncertainty. Clean-up of environ-
mental toxics often far exceeds initial cost estimates. As a result, banks are reluctant to finance redevelop-
ment for contaminated sites, especially when the extent of contamination is not fully known. Tenants
as well may be reluctant to enter into a perceived contaminated center, due to perceptions of health
hazards that could potentially steer customers away. An article about the Quintree Mall reports, “Some
prospective tenants were turned off by oil contamination in the area from the Citgo tank farm across the
street.” (Markoe, 7/15/96). This is gradually starting to change. Experience with environmental clean-
up and knowledge is increasing, government funding programs to deal with site assessment and clean-up
are proliferating, and the number of successful redevelopments of polluted sites is growing. It is not
impossible to redevelop a contaminated site, but toxics issues add an extra cost and uncertainty element.

Another implication of contamination given current Massachusetts and other states’ clean-up and regula-
tory regimes, especially for redevelopment that brings in a mix of uses, is the Activity and Use Limitation
(AUL). The AUL stipulates as part of an agreement with a public environmental regulatory agency, such
as the Massachusetts Department of Environmental Protection (DEP), that the owner of a contaminated
site can clean up to a lesser degree if they limit the uses put on the site. The basic concept is that pollut-
ants travel by different “vectors” to reach people, such as through soil, groundwater, or as vapors into the
air. The amount of potential contact depends on the site use, site users, pollutant type and possible
exposure pathways. For example, people spend a much greater amount of time, and for longer periods, at
home than at a supermarket, and so to reuse a site as a supermarket would require less clean-up. The
conclusion is that different amounts of clean-up are necessary depending upon the site reuse and the
exposure pathways stemming from the proposed site design.

Typically, limited uses include residential, open space, gardens and recreation, and daycare facilities,
where site users would have either prolonged exposure, direct contact with soil, or be more susceptible to
the dangers of toxics, such as children. In Norwood, an environmental report “…requires that future
unrestricted site use, such as residential use, also be evaluated,” citing, “For future foreseeable site uses
by a future… condominium/ apartment resident, Disposal Site conditions do not present a condition of
‘No Significant Risk.’” (Haley and Aldrich 1999) The site, which will house condominiums, has a
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restriction against open space and garden use, because of soil exposure. The Malden site also has an AUL, limiting use to commercial and industrial use or multifamily residential complexes. Homes with yards and other open space uses are restricted.

The AUL presents a dangerous incentive: first, uses with a greater amount of impermeable surfaces are rewarded, because in those cases exposure pathways are diminished. Uses with a great amount of paved area, such as shopping centers, can receive permits by simply capping contamination with an impermeable material without cleaning up the site. Such surfaces themselves lead to non-point run-off, primarily oil residues from automobiles, a great source of waterway pollution. The current hazard is diminished, but future ones may be created, along with an ecologically sterile environment. Second, the AUL favors transient uses, where people do not spend a lot of concentrated time, such as retail uses. Housing is snubbed, as well as unpaved open spaces. As mentioned in the chapter on urban form and mode choice, a mix of land uses including housing, and a connected network of open spaces are important components to encouraging alternatives to auto use. These components are important to create a community-centered, sustainable place, and the AUL selects against them. The sprawl-associated place image also remains the same. Does capping a contaminated site with a thick layer of cement or polymer and rebuilding a shopping center and parking lots on top really present a sustainable alternative?

In sum, environmental concerns present a surprising amount of difficulty for failed shopping centers’ redevelopment. Contamination issues and current Massachusetts regulatory regimes increase redevelopment cost and incentivize ecologically unsound site reuse. Abandoned shopping centers are highly visible examples of an auto-centered, land-consumptive lifestyle. Because of their symbolism, it is especially
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important that their redevelopment reverse this pattern; communities need to beware of the AUL, as a
danger to sustainable site reuse.

**APPLICABLE ZONING REGULATIONS**

Existing zoning regimes often present a barrier for those trying to change the nature of an abandoned
shopping center. Many regulations were developed for auto-centered, isolated-use scenarios that consti-
tuted prevailing wisdom over the last half of the 20th century. Allowable uses often do not include
residential uses. Dimensional requirements, road and other engineering standards, and parking minimums
require scenarios that discourage pedestrian use by creating low-densities, wide, fast roads, and other
pedestrian-unfriendly characteristics. For example, Richard Willson argues, “...zoning codes cause
parking to be oversupplied... These circumstances increase automobile commuting, lower building
density and land value, and create automobile-oriented urban design. Taken together, such site effects
contribute to the automobile-oriented, low density character of suburban areas.” (Willson 1995) Many
features that encourage a pedestrian-oriented neighborhood, such as narrow streets, a mix of uses, high
densities, low setback requirements, and no discontinuities from expansive parking lots are difficult to
achieve under existing regulations.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Former Levitz</th>
<th>Former Stop and Shop</th>
<th>Townline Center</th>
<th>Parkway Plaza</th>
<th>Quintree Mall</th>
</tr>
</thead>
<tbody>
<tr>
<td>City:</td>
<td>Dedham</td>
<td>Norwood</td>
<td>Malden*</td>
<td>Chelsea</td>
<td>Braintree</td>
</tr>
<tr>
<td>Zoning District:</td>
<td>Highway Business</td>
<td>Downtown Apartment Overlay</td>
<td>Highway Business</td>
<td>Shopping Center</td>
<td>Highway Business</td>
</tr>
<tr>
<td>Required front setback:</td>
<td>30 feet</td>
<td>15 feet</td>
<td>n/a</td>
<td>10 feet</td>
<td>50 feet</td>
</tr>
<tr>
<td>Density requirements:</td>
<td>35 maximum FAR; 40% max. lot coverage</td>
<td>40 foot height</td>
<td>n/a</td>
<td>2 FAR</td>
<td>n/a</td>
</tr>
<tr>
<td>Parking Minimum (spaces/1000 square feet):</td>
<td>5</td>
<td>1 space/dwelling unit</td>
<td>n/a</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Allows residential?</td>
<td>no</td>
<td>yes</td>
<td>only multi-family</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Lot Size and Shape Requirements:</td>
<td>1 acre minimum lot, 200 foot minimum frontage</td>
<td>5,000 square feet minimum lot</td>
<td>n/a</td>
<td>no</td>
<td>150 foot minimum frontage</td>
</tr>
<tr>
<td>City has site plan review?</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

* Malden's dimensional requirements apply to specific uses, not to districts

**TABLE 6: APPLICABLE ZONING REGULATIONS**

83
New Urbanist mall redevelopers frequently cite auto-oriented single use zoning and site standards as a major barrier to implementation of their ideas. When designing The Crossings, project designer Matt Taecker notes, the designers had difficulty convincing the Mountain View parks department to allow small pocket parks and the public works department to allow narrower, traffic-calmed streets, both of which are difficult to maintain. This occurred in a town that was actively trying to alter the character of the abandoned mall area to a high-density, transit-oriented type. Other cities are not nearly as receptive to these ideas, and projects of the nature of The Crossings would run into even greater regulatory and standards hurdles.

Four of the five Boston sites are zoned for Highway Business or Shopping Center Districts, whose purpose is to “provide for commercial activities that may require large land areas for retail and service commercial facilities related to highway travel.” (Dedham Zoning By-Law 2000) Currently, the Dedham, Braintree, and Chelsea sites do not allow any sort of residential use by right, even though the Braintree and Chelsea sites are directly abutted by a variety of residential types, from single-family homes to triple-deckers to garden apartments to public housing. (Malden uses a pyramidal zoning scheme, in which housing is allowed in business districts, but the reverse is not true.)

Allowable densities under current zoning regimes also select against land-efficient, alternative transportation redevelopments. Dedham, for example, allows a very small .35 floor area ratio (FAR) within the Highway Business District (HB). By comparison, the current FAR on the Parkway Plaza site is .15, and the impression is of a vast, empty plain. Braintree allows a 75% total maximum lot coverage, which includes the building and all other impermeable surfaces, such as parking, but the building may cover only 25% of the lot. That leaves roughly 50% for parking, which makes sense for a suburban shopping center, but not much else. Additionally, many towns dictate minimum lot sizes. Dedham’s HB minimum lot size, for example, is one acre. This requirement effectively prohibits fine-grain uses, small buildings, and complex streetscapes.
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A third difficulty for creating a pedestrian-friendly neighborhood from an abandoned shopping center are setback and frontage requirements. Current zoning in these HB districts calls for setbacks of 30 feet in Dedham to 50 feet in Braintree. Braintree’s HB minimum lot street frontage is 150 feet. As discussed, large setbacks create pedestrian-unfriendly environments by creating the impression of walking in a vast, unprotected space. Large minimum street frontages create a simple streetscape that is legible at the pace of the automobile, but uninteresting to the pedestrian, as Untermann describes. This requirement disallows varied, fine-grained streetscapes.

Another element of a fine-grain pedestrianscape is a connected pathway system, with frequent directional choices for pedestrians. Ann Vernez Moudon argues, “wide thoroughfares and large blocks deter pedestrian travel.” (Moudon 2000) Large lot sizes disallow this, as do restrictions on the number of access points, common to HB districts. Dedham’s HB, for example, controls access points to service frontage roads. There is no direct access on to the main road, and often several shopping centers share one trunk service road.

Parking and traffic standards are a final regulatory hindrance to sustainable shopping center redevelopment. Richard Willson studied office buildings in suburban Southern California, finding a great parking oversupply. The communities he studied typically mandated a minimum ratio of four parking spaces per 1000 commercial feet of development. This oversupply indicates an inefficient land consumption, especially in areas with a transit presence or a walkable character. It leads to vast parking lots that discourage walking and connections between land uses and creates a poor urban design. Many of the sites I explore here, particularly the Chelsea, Braintree, Malden, and Norwood sites, have the potential to create walkable, transit-friendly sites given their large size, mixed use, medium density neighborhoods and the presence of existing transit systems and connected road networks.

As it stands, however, the parking ratios for these areas are equally high to the towns Willson looked at. Dedham’s retail parking ratio is five spaces per 1000 square feet, while Braintree requires four spaces per 1000 commercial square feet, and two spaces for each dwelling unit, assuming each household will have...
two cars. Norwood’s multi-family residential (A) district calls for three parking spaces for residential units with more than one bedroom. However, the new downtown apartment overlay (DAO) district lowers this requirement to one space, reflecting the presence of two train stations adjacent to downtown Norwood. Braintree also allows flexible parking requirements to reflect transit availability.

As a whole, current regulations make it difficult if not impossible to sustainably redevelop abandoned shopping centers without flexibility on the part of municipalities. However, a development can circumvent these regulations with a zoning change, or with a planned unit development designation. The PUD is a flexible zoning designation that allows for cities and developers to negotiate development features, uses and dimensions away from the rigidity of typical zoning requirements. It is frequently used for large greenfield tracts that a developer plans to subdivide, or for parcels with a special character for which a city’s planning objectives extend beyond the simple use and dimensional requirements of the zoning code. Large, visibly blighted abandoned shopping centers represent just such a parcel.

The Boston cases contain an example of a city that has tried each approach in order to deal with failed shopping center redevelopment. Norwood created an area-wide zoning overlay district (a zoning change), and Chelsea is exploring the creation of a PUD. In Norwood, the area between the CBD and the train station was zoned to restrict many residential types and dimensional requirements to low-density numbers that are more applicable to a suburban strip than to a central business district. For example, maximum lot coverage was 35%, and there was a minimum lot area of 10,000 square feet. When the town wanted to reuse the Stop and Shop site in a more intense, residential manner that capitalizes on the train station, they decided to change the zoning.

Early zoning proposals failed to get the required 2/3 vote necessary to amend the zoning by-law at a Town Meeting. Residents were concerned about creating an overly urban character for downtown Norwood. The developer countered with an affordable housing development, which Norwood would have been legally forced to adopt, because the city falls short of its state-mandated affordable housing requirements. Residents worried about losing control over the type of development that would occur on this specific site.
and in the surrounding area. At this point, they passed a zoning amendment, creating a scaled-down "Downtown Apartment Overlay District," with the purpose of bringing a residential presence of moderate density back into Norwood center. This district allows greater lot coverage and amounts of development, decreases setbacks, and lowers parking requirements. It subjects all developments in this district to site plan review. The changes effectively allow for development that enhances the transportation alternatives already present in downtown Norwood. The current development proposal for the Stop and Shop site, 105 apartments in a street-fronting, four-story building reflects these objectives.

By contrast, Chelsea intends to deal with its ailing shopping center by creating a PUD and negotiating with the landowner and developer over the development form. Chelsea has begun to negotiate different development scenarios and possible city incentives, such as alleviation of property taxes and potential developer provisions. The city set out objectives, including proposed massing, heights and street and park layouts, as a basis for negotiations. As negotiations head toward a common position, they will consider the change to a PUD for the Parkway Plaza site. This flexibility, they hope, will enable them to meet their objectives to substantially change the site's character, while giving the developer enough flexibility regarding added densities and allowable dimensional increases to remain profitable. Since there is currently no construction or even a formal proposal, only tentative negotiation, it is difficult at this point to evaluate the success of this strategy.

The two approaches offer different advantages. The zoning overlay district offers regulatory certainty toward a specific objective that doesn't necessarily depend on good faith negotiations between developers and the city. However, it depends first of all on town approval, which might often get into concerns about increased density, traffic, changes in neighborhood character, and other NIMBY concerns. Carrie Osborne of DoverKohl, the firm that planned Eastgate Mall in Chattanooga, argues that it is easier to apply for zoning variances or district changes in newly developing areas. Where areas are built out, she says, people will battle proposed zoning changes that increase density. It is critical to have community support to get changes passed, she argues.
The PUD offers flexibility. On a large, historically problematic site, such as Parkway Plaza, such regulatory flexibility may be necessary to attract a developer. However, the PUD depends on continued good relations between developer and city, and risks losing stricter city control.

This discussion of the merits of different types of flexible zoning designations only applies to cases where the city intends to change the zoning. In many of the cases here cities took a fairly hands off approach regarding the abandoned shopping center site, did not propose a change in the site’s basic character, and did not come up with any objectives for the site other than re-tenanting and cleaning up its appearance. In these cases, the current zoning, with its low dimensional requirements, high setbacks, etc., allows a developer little room to change the sprawl-associated nature of the shopping center, or to make concessions to a more sustainable and pedestrian-friendly environment.

In sum, the districts in which the abandoned shopping centers are located are most often zoned in a manner that discourages a mix of uses, a pedestrian-friendly environment, and interesting urban design characteristics. For example, parking minimums are unnecessarily high, dimensional requirements lead to buildings with no relation to the street or to each other, and allowable uses often preclude housing. In order to redevelop these sites sustainably, cities must allow for zoning changes that alter these unsustainable dimensional and use requirements, either by creating a new district such as an overlay zone, or by allowing a planned unit development. Prerequisites include community support, often difficult to achieve in proposals calling for greater density, and a good relationship with developers to meet both parties’ objectives. Finally, this discussion assumes a city that is interested to change the nature of the site in the first place. In many cases, this is not so, and redevelopments must abide by current sprawl-inducing, low-density requirements.

**Ownership/Leasing/Financing Issues**

Characteristics of a site’s ownership, lease structure and ability to gain financing can greatly enable or hinder implementation, and should be thoroughly explored by those seeking shopping center redevelopment. Ownership issues represent a common barrier towards achieving successful redevelopment of a
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derelict shopping center. Potential sources of difficulty include long-time owners who are unwilling or financially unable to perform any sort of renovation, contentious owner/municipality relations, and the existence of multiple owners on one site. Leases may also be contentious; vacated tenants may retain leases in order to discourage competition, and owner/tenant contentions and legal complications may present redevelopment problems. Finally, financing of abandoned shopping centers often proves difficult because of lender perceptions that there is a good reason for the development failure. Many non-traditional shopping center redevelopments, such as those that introduce a mix of uses, have found great difficulty obtaining financing from conservative lenders, because of a lack of successful models. The five Boston sites exhibit examples of all these traits, presenting significant challenges to their redevelopment.

Ownership Concerns

The Quintree Mall's previous owners, who controlled the mall through much of its vacancy until recently, were financially unable to undertake any renovations. They did not even perform routine maintenance, although a few tenants remain, to the point that neighbors have complained about its unsightly and even dangerous appearance. Though the previous owners considered various redevelopment schemes and new tenants to rejuvenate the ailing center, none of these came to fruition. Consequently, they built up only marginal income but a huge property tax bill, for which they negotiated the exact amount with the city over several years, and eventually paid over $250,000. In a vicious cycle, the center's costs lead to financial difficulties, and their financially insolvent position was a prime reason the center remained vacant. Recently, they sold the 20-acre site for a meager $300,000, and the new owners are beginning to consider their redevelopment plans.

Other sites also can attribute a portion of their woes to ownership issues. In some cases the sites' owners seem to have a contentious or suspicious relationship with the city, or face redevelopment difficulties arising from the presence of multiple site owners. In Dedham, for example, the multiple Levitz site owners, who have varying redevelopment ideas of their own, are neither coordinating nor even talking to the city about their future plans, and exhibit great suspicion toward Dedham officials. The Dedham
Planning Director characterizes the multi-party ownership as "a real hold-up." Several other of the sites I explored exhibited ownership issues as reasons for redevelopment difficulty. While the nature of this information is anecdotal, and the circumstances unique to each case, it does point to a healthy owner/city relationship as a prerequisite for successful site redevelopment, and represents an aspect that should be fully investigated and understood.

In cases where the city’s objectives and those of the developers diverge, a contentious or fractious relationship creates a barrier to successful site redevelopment. There are many other potential pitfalls for sustainable redevelopment of abandoned shopping center parcels, such as those environmental regulatory and other difficulties discussed earlier. The complicated development process necessitates cooperation from both the private and public sectors. Sites where the two have a contentious relationship impedes the process, especially where the two have differing reuse objectives.

This difficulty holds true in cases where the municipality wants a use change for the site and the developer prefers to reuse the site for a new retail use such as a big box store or a power center, as well as the reverse. The districts housing abandoned shopping centers are usually zoned flexibly. Of course, these districts are also zoned for shopping centers by right. Cities that do not want to see the abandoned shopping center redeveloped as a new, larger big box store or power center, need to take proactive initiatives to change the nature of the zoning districts to disallow such reuses. In contrast, developers who wish to develop with higher-density, mixed-use plans will have difficulty if the city does not share these objectives, and harbors suspicions about urbanizing the town, increasing traffic, and the long-term feasibility of a non-traditional development.

As later discussed, municipalities in dealing with the redevelopment of dead malls need to take great account of connections and integration with all surrounding parcels, and should plan for an entire area, not just the shopping center site. Multiple site and area owners are a reality that require interventions and coordination by the municipality. The shopping center parcel is often the keystone parcel for revitalization of an entire area, and cities should take special care to maintain non-contentious relationships with
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owners of that site.

Lease Arrangements

Leasing and tenancy issues can present another barrier to successful mall redevelopment. One report states, “The most frequent cause of legal problems in connection with the renovation or redevelopment of an existing [shopping] center comes from a failure to be aware of existing tenant leases that could have an impact on the project.” (ICSC 2000) Numerous leasing provisions can effect proposed redevelopments. Tenant relocation may be prohibited, or tenants given the right to terminate if they don’t like a new location. Many leases have provisions that give tenants the right to “quiet enjoyment” of their site, meaning disruptions (such as would be caused by a major renovation) are prohibited. Leases often contain “co-tenancy” provisions, which state that a store only has to operate if a certain percentage of other stores are open. These and other conditions present examples of the legal difficulties that can arise from leasing, and highlight the need for good relations between owners, tenants, and cities.

National retail chains often retain leases in a shopping center they vacate in favor of a nearby store, in order to discourage a competitor from moving in and cutting into sales at the new store. The lessees continue to pay for the lease, and so the shopping center receives their rental income. Despite the continued cash flow to the property owner, however, the void created by the absence of a major anchor causes the rest of the center to decline. Additionally, landlords will frequently take a percentage of sales from tenants on top of a base rent. Obviously, an absent tenant provides no such income. In sum, retained leases from a vacant tenant often cause a shopping center to decline and make redevelopment difficult.

Both the Parkway Plaza and the Quintree Mall face this issue: an anchor tenant (in both cases, Stop and Shop) vacated, but retained the lease. At the same time they closed their stores in these two malls, the chain opened “Super” Stop and Shop stores in Everett and Quincy, adjacent towns to Chelsea and Braintree, and didn’t want their old buildings reused by a competitor. In Chelsea, Stop and Shop opened a discount supermarket run by a subsidiary. As a consequence of the inability to reuse their anchor stores,
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both centers declined to the state they are in now.

Both towns have negotiated to end these arrangements. In Chelsea, the city is negotiating with Stop and Shop, whose lease applies to the parking area as well as the building. They hope to convince Stop and Shop to give up their lease, arguing that the site’s redevelopment will be of a type that precludes the type of space that could support a competitor’s supermarket. In Braintree, residents of the surrounding neighborhood signed a petition to get Stop and Shop to return to the site or allow it to be used by a similar store, feeling that they had lost a valuable neighborhood service. The company subsequently subleased the site to another market, which went out of business in less than a year. Tenant concerns and leasing issues represent frequently significant barriers to abandoned shopping center redevelopment; those seeking to redevelop such centers need to study and account for this possibility.

The five Boston municipalities illustrate different strategies to deal with ownership, tenanting and prospective developer issues. Chelsea, for example, has recently employed a very proactive stance toward Parkway Plaza, negotiating with owners, tenants and other interest groups. Norwood as well developed specific strategies to deal with the vacant Stop and Shop site, zoning it specifically to add a residential component and increase densities. By contrast, Braintree, Dedham and Malden have taken a hands-off stance toward their respective abandoned mall sites, keeping distant and sometimes slightly adversarial relationships with developers and owners. The latter towns accept that what the zoning allows is in the public interest for that site, and have no broader planning objectives regarding the redevelopment of the abandoned shopping center, other than impact mitigation from increased traffic.

Financing Difficulties

Finally, difficulties in obtaining financing for redevelopment of failed shopping centers represent a major obstacle. Even basic renovations will have difficulty, because of lender perception that the mall has failed for some reason, such as a poor location or poor management, that a cosmetic lift cannot by itself overcome. The Braintree Planning Director remarks that financing is the greatest challenge to redevelop-
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ing the Quintree Mall. It will be necessary for prospective developers to obtain leases first. Lenders are attuned to the cost overruns associated with cleaning up environmentally contaminated sites, and are averse to lend to sites with a present but uncertain amount of contamination. As mentioned, many of the Boston sites do have a history of contamination, presenting another hurdle toward obtaining financing for redevelopment. Increased knowledge, experience, and government funding sources have begun to reverse this difficulty, but it remains difficult to secure financing for sites with a known but uncertain toxic presence.

For non-traditional, mixed-use redevelopments in suburban, separately-zoned environments, other cases illustrate that convincing lenders of the worth of such an untried idea can prove difficult. The developer of University Park in San Diego kept commercial (office and retail) uses and residential uses in separate buildings, though they were often adjacent, so as to finance with a straight commercial loan or a straight residential loan. Carrie Osborne of DoverKohl, who planned the redevelopments of two failed malls, notes, “Financing is usually a problem, especially because there are not many models out there. Economic development people often believe that the only thing that works are big boxes.”

**SUMMARY OF FINDINGS:**

**TYPOLOGIZING ABANDONED SHOPPING CENTER SITES**

The sites explored here, as well as several other Boston-area sites I did not explore in detail, fit two basic types: urban and suburban. The Chelsea and Malden sites exemplify the urban type, while the Dedham site exemplifies the suburban type. The Braintree site exhibits characteristics of each. The Norwood site represents a potentially rarer third type, “suburban town center.” As described in “Physical Site Characteristics,” the shopping center site plans do not differ between these different types: they contain one or two undistinguished box buildings (30,000 to 100,000 square feet of space), set far back from surrounding roads and surrounded by vast parking lots. Rather, the characteristics of the surrounding areas vary most from site to site.
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The urban type is characterized by location in an area that contains a mix of uses, a high concentration of residences and jobs, surface streets, and connected, small-blocked street grids. These areas consist of older, inner ring suburbs which over time have taken on more urban characteristics. A recent article in the New York Times mentions, “While some suburban outposts established themselves outside the orbit of big metropolitan areas, many older suburbs neared their physical limits of outward growth and matured into cities.” (Firestone 2001) Most likely, the shopping center parcel itself previously housed on the development, and the community was largely built out before the advent of the shopping center type. Few other big box and other sprawl-associated uses surround the site, and the shopping center parcel represents the greatest discontinuity in the area’s land use and circulation patterns. The roads are heavily traveled but narrow.

The suburban type exemplified by the Dedham site exhibits the highway strip environment most commonly associated with superstores. Shopping center after shopping center line the highway. Access to the sites is limited from the highway to frontage roads at intervals. There is no street grid, and no connection to the land uses immediately behind the stores. There is no residential presence. Many of the parcels were first built upon as shopping centers.

Despite the surrounding area differences, the sites share many of the same redevelopment barriers, including contamination issues, owner/tenant concerns and regulatory obstacles. Due to the widely different area characteristics, however, the two types should use very different redevelopment strategies and have different objectives. The urban failed shopping center type, more prevalent among the cases I explore, can capitalize on the density, mixed-use, connected street grid and transit availability of its surrounding areas to reintegrate the site back into its surrounding neighborhood, in a way that encourages connections between sites, an urban streetscape, minimization of visual and pedestrian discontinuities, and transit-supportive density and land use characteristics.

With the suburban type, it is questionable whether a redevelopment containing the previously listed characteristics would have any success at all toward encouraging a land-efficient, auto-alternative land
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use. Conversely, it may just place a larger population in a low-density, horizontal growth area from which residents or employees still would have to get in their cars to reach job retail or entertainment centers. This has been a major criticism of exurban New Urbanist developments such as Mashpee Commons. Theorist Randall Crane summarizes, “The potentially dominant role of the surrounding regional circulation pattern is a difficult hurdle for proponents of Neo-Traditional Development.” (Crane 1998)

In the conclusion and recommendations, I emphasize the “urban” failed shopping center type, which has fewer regional context hurdles to contend with given existing connected, high-density, transit-supportive conditions. However, this is not to say that there are no solutions for “suburban” type sites, and I present a framework and recommendations for thinking of their reuse as well; rather, I believe that the urban sites should receive more attention and investment as redevelopment opportunities.

Figure 13: Figure/Ground Comparison of Suburban (Dedham) and Urban (Chelsea) Types
VI. CONCLUSION AND RECOMMENDATIONS

UNDERSTANDING THE ROLE OF FAILED SHOPPING CENTERS IN A METROPOLITAN LANDSCAPE

Metropolitan areas typically have been dichotomized into urban and suburban areas. Robert Fishman calls it "a profound city-suburb split." (Fishman 1999) Countless writers have discussed urban core decay and revitalization, and uncontrollable sprawl at the urban fringes. Rapid low-density suburban growth combined with central city decline has spawned Smart Growth, Anti-growth, Metropolitanist, New Urbanist and other development management movements. These initiatives call for, among other ideas, more compact new settlement patterns, growth boundaries at the urban edges, reinvestment in central cities, and coordinated land use and transportation planning to combat rampant suburban sprawl and urban decline. The contemporary reality, however, is more diffuse and difficult to categorize than the diametric language of urban and suburban suggests. For example, edge cities are substantial job generators, cities within themselves. Giant retail agglomerations dot suburban landscapes, drawing ever larger concentrations of people. More subtle metropolitan landscape changes include small but aggregately meaningful concentrations of jobs in suburban town centers and concentrated pockets of multi-family housing along suburban arterials. (Pivo 1995 and Moudon 2000)

An often overlooked but no less important aspect to metropolitan land use patterns is the inner ring suburb. These communities inhabit the zone between central cities and recent suburbs. They were first inhabited in the first half of the 20th century, and reached their population and economic peak following the second World War. Their defining characteristic is that they are primarily bedroom communities, well-connected to the urban core and dependent upon it for jobs and services. This stands in stark contrast to later suburbs that often contained new job, retail, industrial, and entertainment centers, creating a polycentric metropolis. Early suburbs enhance the primacy of the urban core, by building a greater population dependent upon it, while later suburbs have provided alternative centers.
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While planning literature and growth management initiatives have focused primarily on urban core and urban fringe areas, metropolitan regions contain large swaths of communities between the two, which are more difficult to define and make up a settlement type unto themselves. Like outer suburbs and inner cities, these neighborhoods have undergone dramatic changes over the past 50 years, from an initial role as host to early decentralizing urban populations, through decline and recent re-population. Many of these older suburban communities have simultaneously faced disinvestment, as retail, office, and residential growth has concentrated in younger suburban locations or returned to downtowns, and a population influx, as many formerly lower-income urban inhabitants have been forced out of urban cores by the rising cost of housing there. More recently the demographics of these communities have greatly changed; many inner ring suburbs around New York, Boston, Oakland, and other cities have been repopulated by new immigrant communities. Their form has changed as well, taking on many of the urban characteristics that they were once formed to escape, such as density, diversity, and active street life. Bruce Katz notes, “the first ring of suburbs [are] densifying and becoming more compact.” (quoted in Firestone, 2001)

Inner ring suburbs often share many of the characteristics New Urbanists and smart growth advocates call for. Many possess connected street grids, sidewalks and access to mass transit systems. Architecture is at a moderately dense yet human scale, with small setbacks, small building lots, frontage variations, small strips of neighborhood-serving retail, and a fine building grain. Over time, many of these formerly pure bedroom communities have acquired a wide mix of land uses, often with very different uses, lot sizes, and building types directly abutting one another. In contrast with many developed New Urbanist communities, such as Kentlands, Maryland, near Washington, D.C., or Laguna West, California, near Sacramento, however, inner ring suburbs are closer and more connected to the metropolitan region’s central areas. They are also, however, less identifiably cohesive and functionally connected as the ideal New Urbanist community.

Although inner ring suburbs possess many characteristics that are currently perceived as highly desirable, such as the above mentioned, they suffer from an array of problems. They have experienced eroding tax
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bases and property values. Writing about Cleveland’s inner ring suburbs, David Rusk notes, “ Barely two decades ago inner suburbs such as Euclid, Lakewood, and Maple Heights boasted above-average household incomes. Now they have sunk ten to twenty percentage points below the regional average as higher-end households move into new subdivisions farther out.” (Rusk 1999) Additionally, inner suburbs have been largely ignored by city revitalization efforts. Myron Orfield argues that metropolitan governance and tax-base sharing is necessary to help these communities, which lack many of the positive attributes of central cities, such as regional cultural facilities, a strong office tax base, and a historic and distinctive urban design and architecture. Frank Jossi concludes, “where once it was the cities that had to reinvent themselves to appeal again to businesses and home buyers — a strategy working in Minneapolis, Chicago, Milwaukee and elsewhere — now it is the inner-ring suburbs built in the 1950s that will have to refurbish their image.” (Jossi 1999)

Inner suburb revitalization represents a valuable end in itself, a topic that has received neither enough study nor enough attention from urban planning professionals. Additionally, inner suburbs can play an important role in metropolitan land use patterns. Development opportunities at the urban fringe are primarily on greenfield sites, unconnected to transit systems, jobs or services. Even developing compact, pedestrian-friendly communities, thought to encourage alternatives to driving, in such locations, as mentioned earlier, may just place a larger amount of people in a distant, auto-dependent location. Many central cities have a limited amount of meaningful redevelopable sites, and each is likely to be highly politicized. Consequently, smart growth advocates, regional planners, and others should look to inner suburbs for opportunities to direct development away from unsustainable urban fringe locations to better-connected areas of the metropolis. In addition to a compact character and accessible location, such communities often possess land use redevelopment opportunities in the form of declining retail centers.

Abandoned shopping centers represent a prime development opportunity within these locations. Built in the 1950s to 1970s, concurrent with the building out of many older suburbs, vacant centers, such as the Townline Center in Malden, or El Cerrito Plaza north of Oakland, California, are likely to be found in communities which would now be difficult to characterize as either strictly urban or solely suburban.
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Rather, they inhabit the urban/suburban nether zone and exhibit characteristics of both types: density and land use statistics similar to those of the urban core, but design characteristics and iconography reminiscent of suburbia. Retail competition is likely to become more fierce as developers continue to build the latest retail formats in urban fringe locations and consumer spending struggles to keep up. Smaller, older and less accessible shopping centers, likely to occur in older suburban areas, are in many cases vulnerable to failure.

Failed shopping centers often create a large but uncommon discontinuity in street grids and building grains, in areas whose grids are considerably more connected than contemporary suburbs. Their redevelopment presents opportunities to incrementally reknit land use discontinuities, and to complement or complete the land-efficient, somewhat pedestrian-friendly nature of these areas. Robert Dunphy argues, “where growth can be accommodated in such infill locations, it is possible to capitalize on much of the existing infrastructure, not only of transit but also of the rich fabric of nearby community services.” (Dunphy TRR #1552) The sites are of a large enough scale to meaningfully affect the character of an entire area. These sites are still relatively few (although their numbers are growing) in contrast to the amount of new development spreading across urban regions. Their redevelopment cannot solve all the problems associated with urban sprawl. However, they present strategic land use opportunities whose redevelopment in a sustainable manner can begin to reverse prevailing land consumptive, auto-oriented development trends.

I also discussed “suburban” type failed shopping center sites, which do not share the walkable, connected characteristics of inner ring suburbs. While I found most failed shopping centers to be in older suburban neighborhoods, there are some located further out. Moreover, newer suburbs have a much higher number of currently functional shopping centers, and could potentially be the location for many more vacant centers in the future as retail whims change. As mentioned, these sites share many of the unsustainable site plan characteristics as urban sites, but are less regionally connected, more auto-dependent and located in lower-density, isolated use areas. Changing these sites to a mixed-use, high-density nature would have little effect on regional driving patterns or land consumption, except to put a larger auto-dependent
population in an inaccessible area. As these sites are surrounded by other low-density, fragmentary uses, people will arrive at and depart from the site exclusively by car. Instead of conceiving of these sites as potential densification and new neighborhood creation opportunities, municipalities should use their potential to direct growth away from greenfield sites, and regulate their site planning to begin to decrease exclusive auto use and create a more connected area. That is, if superstores are going to locate somewhere, they should locate on previously developed parcels, with improved site planning characteristics.

**Planning and Redevelopment Strategy: Planning at the Area-Scale**

Planning for reuse of abandoned shopping centers should look beyond parcel borders to encourage connections among multiple sites, and envision long-term growth and development patterns for an entire neighborhood. Redevelopment of abandoned shopping centers can be a catalyst to encourage the revitalization of a much wider area. However, their redevelopment in isolation, without any sense of relationship to adjacent parcels or thought to their role within a neighborhood, will not fully capitalize on their redevelopment potential or their environmental performance. Area-wide planning accomplishes two important objectives: establishing nodes of new development, to decrease development pressure on greenfield sites, and maximizing connections between these activity centers, to encourage walkability and access to transit.

Area-wide planning understands land use temporally, and attempts to shape the long-term growth, development, and design of an entire district. This perspective is well-suited to abandoned shopping centers, which often abut multiple other underutilized parcels. Quintree Mall, for example, is located near a declining industrial shipyard. Townline Center is near many aging industrial and warehousing uses abutting the Malden River. Parkway Plaza and the Norwood site are both surrounded by multiple vacant lots. These neighborhoods represent changing areas with transitional uses, temporary installations upon the landscape. Each major underutilized parcel, of which the vacant shopping center is often just one of many, represents a potential node of new development. Area-wide planning establishes use types, intensities, and a development timeline for these nodes, in order to shape the area's long-term form. As they
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change in nature, these underutilized sites represent premier opportunities to direct growth and development away from urban fringe greenfield sites to connected, previously-developed areas of a metro region. Abandoned shopping centers, because of their visible character, indisputably underutilized nature, and large size, can be a first phase of development in these areas, a catalyst or model for a neighborhood-wide long-term change.

However, it is not enough to propose uses and intensities for multiple underutilized sites. Planning initiatives should also focus on connections between multiple sites. For this reason as well, area-scale planning, not site-scale planning, is the right approach to deal with abandoned shopping centers. As mentioned, the areas surrounding vacant shopping centers contain many of the prerequisite characteristics to create pedestrian-, bicycle-, and transit-friendly neighborhoods, including high densities, street grids, a diverse land use mix, and a transit presence. Currently, however, the shopping centers lack any sense of juxtaposition, connection, or orientation to many surrounding land uses, particularly to residential developments. Moreover, many other uses in these areas also do not connect to abutting parcels, either functionally or psychologically. Many uses appear as universes unto themselves, inward-looking compounds, turning their back to public streets. Other uses are disconnected by functional barriers such as dangerously fast arterials, train tracks, or fences, such as those often found between shopping centers and abutting residential properties. Still other uses are visually isolated by vast parking lots and other dead open spaces.

Even a redevelopment that incorporates all of the density and land use characteristics listed earlier as transit- and pedestrian-friendly will have a difficult time encouraging these alternative transportation modes if there are no easy connections to nearby retail, job, or transit centers. Given contemporary metropolitan regions, in which people relish choice among employment, residential, entertainment, retail, and recreational centers spread throughout many disparate locations, there is realistically no such thing as a self-sustaining mini-community. However, a high concentration and a mix of uses in close proximity in a regionally-connected location can influence users of a new development to take fewer, shorter automobile trips. As discussed, connections between neighboring land uses, especially to transit nodes or
Shopping center redevelopment should connect to adjoining lots in order to promote a reduction in auto use. Abutting uses should also promote connectivity with one another and the shopping center parcel, as should public rights-of-way such as streets or open spaces. The only way to create an effective pedestrian neighborhood is to coordinate new developments and redevelopments to connect across parcel boundaries. Many shopping center sites abut major natural and other resources, such as rivers, waterfronts or train stations. Across-parcel planning should encourage connection to these assets as well. In sum, although abandoned shopping centers represent a very large singular development opportunity, adjoining land uses must also be considered in order to change the character of the area to a less auto-dependent, more land-efficient nature, and create a cohesive new neighborhood in the long-term.

The diagrams on the opposite page (Figures 14 and 15), using the Townline Center in Malden as an example, conceptually illustrate elements of a vacant shopping center area vision, toward the objectives of directing future development to previously developed, regionally-connected sites and encouraging connections among different parcels. The first diagram shows the connections that might be envisioned for an entire area, and the planning area’s range, defined in this case by the extent of aging industrial uses surrounding Townline Center. For example, there are connections to the Malden River, and the street grid is extended where previously it was discontinuous. The second diagram illustrates design criteria that might be applied to all parcels within the planning area, and considers how they relate to one another. For example, this diagram shows connections across barriers such as train tracks and dangerously fast roads and buildings oriented to streets with parking behind to encourage pedestrian use.

**Implementation Tools for Long-Term Area Planning**

There are a number of policy and design tools cities should use to achieve the long-term growth visions outlined above. These tools (zoning changes, design criteria, public infrastructure improvements, and site plan standards) should follow the articulation of a detailed vision for the vacant shopping center planning
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**Figure 14:** Sample Elements of an Area-Scale Plan (Townline Center, Malden, Existing and Proposed)

**Figure 15:** Sample Site-Scale Design Criteria for an Area Plan
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Table 7: Summary of Planning Strategies

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<tr>
<th>I. Plan for an entire area based upon a neighborhood catchment</th>
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<td>Objective: Encouraging visible, functional and psychological connection among different parcels to encourage pedestrian use and access to transit points.</td>
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<th>II. Use of following tools in area-wide planning:</th>
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<td>Tool:</td>
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<td>Objective:</td>
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<th>III. Structuring a planning process</th>
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<td>Tools:</td>
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area, and act in service to that plan.

Combining Flexible Zoning Regulations with Design Criteria and Site Plan Review

As discussed in the section on zoning regulations, many abandoned shopping centers are located in “Highway Business” or “Shopping Center” districts which select against high densities, a mix of land uses, and pedestrian-oriented design characteristics. For example, large setbacks, small maximum lot coverages, and high parking minimums encourage the creation of vast parking lots and land consumptive development. Many current zoning regimes were developed with the primary objective of protecting uses, especially noxious industry, from one another. Today, industry is cleaner and there is less need for uses to be segregated, but zoning codes have often not been updated to reflect this new reality. As a first step to encourage sustainable redevelopment, cities should review these dimensional and use restrictions and consider ways to make them more flexible. Norwood’s “Downtown Apartment Overlay” (DAO) District and Chelsea’s proposed PUD represent potential ways to get around current unsustainable zoning restrictions. Specifically, cities should:

1. Reduce parking minimums
2. Decrease Setback Requirements and Incorporate a Maximum Setback
3. Increase allowable densities
4. Allow for a finer grain of development
5. Allow for residential uses

These regulations will enable development intensities in previously developed areas, decreasing development pressures on greenfield sites. These zoning changes are especially applicable to abandoned shopping center sites, because these low-density, isolated centers are frequently anomalies in higher density, mixed use areas that are well-connected to urban cores and the rest of the metropolitan region.

To complement more flexible use and dimension regulations, municipalities should require urban design
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criteria for redevelopments and new developments of sites within the vacant shopping center planning area. Design criteria should promote visual, psychological, and pedestrian connections between multiple parcels, and create design that is palatable to communities worried about higher development intensities. Examples of design criteria include:

1. Buildings should orient to public streets; entrances should face streets.
2. Parking should be behind buildings, in the center of blocks.
3. There should be no frontage roads or dead-end access points that separate new development from public streets.
4. Redevelopments should eliminate barriers such as fences or faceless walls.
5. For large sites, new developments should contain streets or pedestrian easements to allow for circulation choice.
6. New developments should enhance pedestrian orientation by including sidewalks, crosswalks, traffic calming measures, or other pedestrian amenities.

These guidelines should apply to all sites within the shopping center planning area, not just the shopping center itself. For example, apartment complex entrances should also face public streets, not internal networks, and developments should not build a high fence around the entire complex. Finally, municipalities should enact a site plan review requirement, in order to have the oversight to assess the more qualitative aspects of how well a proposed development connects to other sites and the circulation system. Trading off strict zoning use and dimensional requirements for a set of design criteria and site plan review enables greater development densities, cohesion, and connectivity.

Physical Improvements to Public Rights-of-Way

Private developments as currently regulated in many of these areas create numerous pedestrian barriers and disjuncts between parcels. However, private developments are not wholly to blame for the lack of connectivity among uses; public rights-of-way in many cases also create barriers. Public roads lack
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sidewalks and are dangerously fast. Some public rights-of-way are deadeningly wide. Pedestrian and transit stop amenities are sorely lacking. In planning for an area centered by an abandoned shopping center, improvements to public rights-of-way to make them more pedestrian-friendly complements regulation for outwardly-facing private developments.

For example, a municipality might institute traffic calming measures, such as corner sidewalk extensions or more visible crosswalks, on an already narrow but busy arterial. Or they could make improvements to transit shelters, sidewalks, streetscape appearance, or other features that would enhance a pleasant pedestrian experience and an aesthetically pleasing streetscape. For large parcels, cities should continue street grids from adjacent locations, as Chelsea intends to do, to eliminate discontinuities. Where possible, planning for increased development intensities in an area should incorporate transit lines, stations, or amenities. Taken as a whole, such improvements should eliminate barriers created by current public rights-of-ways and enhance a sense of connection across private parcels by functionally and psychologically bringing them closer together. The Malden example above illustrates some of these strategies.

Site Planning Standards for Suburban Locations

Given their less regionally-connected, more auto-dependent character, redevelopment of suburban failed shopping center sites, such as the former Levitz in Dedham, should have different objectives than those for urban sites. There often is no fine-grain, nor a residential presence, nor even surface streets. Replacing a vacant superstore with a dense, mixed-use community may be counter-productive to the end of decreasing auto use and creating a more cohesive metropolitan region. However, there are smaller steps municipalities can take to mitigate the harmful environmental impacts of big box development. Objectives should include:

1. Creating connections and removing barriers to surrounding land uses: Suburban-located shopping centers often front a highway or major arterial, and are surrounded by other shopping centers. Vast parking lots and fast arterials discourage walking between sites, and mean that people must get into
their cars to travel among shopping centers, even when they are across the street from one another. Site planning standards that force sidewalks, sheltered landscaping buffers, and other pedestrian aids enables walking between sites. Pedestrian ways can also connect to neighboring residential areas, which often abut suburban shopping centers but are blocked by a fence or wall.

2. Minimizing ecological impacts from new development: Shopping centers consume land inefficiently and harm water quality by creating vast amounts of impermeable surfaces. Site planning standards should require shopping center redevelopments to minimize these impacts. Further, new superstore developments should be directed to existing, underutilized shopping center parcels, as opposed to being allowed to locate on previously undeveloped land.

These small site planning mechanisms begin to reshape an isolated suburban landscape, giving it walkable, aesthetic, and less ecologically harmful characteristics. However, I do not want to overstate their functional importance. These sites are not located near enough to any job or residential centers for it to be feasible that most people will arrive on site without a car. Better site planning does not account for off-site transportation impacts, nor does it fundamentally alter prevailing low-density, isolated use landscapes, which form the crux of the negative social and environmental impacts of sprawl development. Indeed, it is worth questioning whether better site planning and design merely makes sprawl more palatable by giving it a pretty face.

Suburban failed shopping center sites can utilize ecologically- and community-sensitive site planning, and help decrease pressure on greenfield sites where superstore tenants might otherwise locate. From a metropolitan land use and transportation standpoint, however, urban sites contain a greater potential to reverse unsustainable patterns, because of their regional connectedness and existing infrastructure of density, street grids and land use mix. Consequently, planners should concentrate energy and investment on the urban sites, and development density and activity should be especially encouraged there.
Defining a Planning Area

An area-wide planning initiative begins by defining the range of the planning area. Planners should understand several factors to determine this area. A first step analyzes the location of vacant or underutilized parcels and other development opportunities near the abandoned shopping center. Additionally, planners should identify a planning area based on the location of neighborhood services and current residential and transportation patterns. Much as the distance people will travel to purchase a good and the other locations that sell that type of good defines a "retail catchment" for basic convenience goods, so a vacant shopping center planning area might consist of a "neighborhood catchment." This catchment would encompass the distance people on site would walk to daily services or to transportation, and the distance from which people in surrounding neighborhoods would walk to the former shopping center site (see Figure 16). It is important to plan for pedestrian connections and visual neighborhood cohesion at this scale. Of course, planning ranges necessarily vary greatly site to site; this discussion is not meant to

**Figure 16: Analogy to Define a Planning Range**
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scientifically determine the ideal planning range, and only represents a guide to conceptualize the area on which a planning initiative might focus.

*Engaging Multiple Landowners, Developers and Tenants*

An area-wide planning initiative, as opposed to a site-specific intervention, necessitates the active involvement of several owners, developers and tenants. As previously mentioned, ownership issues can be contentious and difficult in many cases. Developers may be swayed by strong markets for big box development to redevelop their sites with new land-consumptive single uses. Additionally, they may not consider or may not know about non-traditional redevelopment scenarios as a possibility for their site. Cities can plan an educative role, by researching other successful examples and promoting them to area developers. City planners should proactively engage private sector parties to create an area-wide plan that meets private and municipal objectives, and effectively connects sites to one another.

*Engaging Communities in the Formation of Redevelopment Objectives and Plans*

Likewise, cities should include neighboring residential communities in vacant shopping center area planning processes. As with owner/developer relations, this process of engagement may include a process of education or promotion about other successful redevelopment of failed shopping centers. In many cases, communities are likely to be concerned with impacts from new development, such as traffic, noise, and an increasingly urban character. Projects that will significantly change the character of a shopping center site may run into opposition from communities afraid of change. Community members can provide political and legal challenges (especially considering the environmental issues associated with these sites) to proposed developments, and stall developments that need special permits, variances, or other discretionary city approval.

However, communities are often also concerned with the site’s blighted character, and wish to see it returned to productive, aesthetic use. In most cases I studied, opposition stemmed not from development proposals, but rather from a lack of development proposals, leading to the stagnation or deterioration of a
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A blighted site and potential services (such as a supermarket) foregone. This presents an opportunity for positive community engagement. An area-wide planning process can benefit from the abandoned shopping centers’ visibly blighted status, utilizing residents’ negative associations with the abandoned shopping center to encourage positive visions for long-term area growth, instead of negative reactions to potential density and traffic increases brought on by proposed new developments.

Next Research Steps

This investigation represents a primary inquiry into a topic that has been little studied. Rather than proving statistical or generalizable characteristics about abandoned shopping centers, I frame the terms for further investigation, both for general research and for specific sites. There are several directions general research can head, including:

1. Estimating the success of existing shopping center redevelopments: There are a growing number of innovative reuse projects, but little information on their success. An objective look at success could assess both financial success of the redevelopment, to understand the feasibility of different scenarios, and their success from a sustainability indicator point of view that looks at before and after impacts on air quality, water quality, natural resource preservation, etc. This research would be highly useful for cities, landowners, developers and community members to influence each other as to the worth of these ideas.

2. Real estate analysis to determine viable uses on vacant shopping center sites: Real estate analysis could illustrate whether mass retail is generally still viable at vacant sites, and determine what other uses might work there. Studies could look at other redeveloped shopping centers to see their financial success, and determine location and site attributes that select for or against different uses. Such analysis would be greatly helpful to cities planning for the redevelopment of an abandoned shopping center area.
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3. *Searching for other major discontinuities or development opportunities in inner ring suburbs:* The issue of abandoned shopping centers is but one example of various land uses, such as urban waterfronts or obsolete industrial areas, taking place in a cycle of decline and revitalization. As discussed, inner ring suburbs have been little studied or considered by planning professionals; a disproportionate amount of attention has been given to urban fringe development and urban core revitalization. Further research might identify additional underutilized land use types in older suburban areas that could be capitalized upon to complement existing neighborhood structures and metropolitan land use patterns and dovetail with redevelopments of underutilized shopping centers.

**SUMMARY**

The history of shopping centers in the United States has been closely associated with decentralizing urban trends and increased auto dependence, both of which have severe effects on the environment. An opportunity now exists to reuse and re-image some of these unsustainable sites in a way that reverses these environmentally harmful trends. Vacant shopping centers represent an expanding phenomenon that has been little studied. If current retail trends continue, their numbers will grow as older, smaller centers and sub-national retailers fail. Many of these centers are located in older suburban areas, that have also suffered other declines in recent years, and have been little studied or worked on. These neighborhoods often have a compact character and are well-connected by street grids and transit systems to central cities and other neighborhoods. However, many of their uses are disconnected from one another because of barriers or inward orientations. Additionally, vacant shopping centers are often surrounded by many other underutilized parcels. The vacant shopping center sites within these neighborhoods represent prime opportunities to direct investment and development away from auto-dependent greenfield sites to connected, accessible locations within a metropolitan region.

The shopping centers often represent a rare but substantial discontinuity in existing street grids and fine-grained, small-lot building patterns. They have low density site plans, and are serviced almost entirely by the automobile. There are few concessions to pedestrian or transit amenity. The sites feel highly isolated.
VI. Conclusion and Recommendations

from surrounding uses, as islands on a plain, and are of a much coarser grain. Planning for these sites needs to account for these urban design and pedestrian connectivity deficiencies by encouraging connections among different sites and to circulation systems. As underutilized sites in regionally-connected areas, these areas should be intensely developed to take development pressure off isolated, urban fringe greenfield locations. To this end, municipalities should plan for an entire area surrounding the shopping center sites, using the tools of design guidelines, site plan review and flexible zoning regimes. Additionally, municipalities will need to engage and coordinate private and community sectors to promote cohesion among many sites. Such coordination will enhance these areas’ already dense, mixed-use character with the urban design characteristics that encourage land-efficient pedestrian-friendly use and head toward a more sustainable metropolitan land use pattern.
SELECTED BIBLIOGRAPHY

GENERAL


Moudon, Anne Vernez. “Effects of Site Design on Pedestrian Travel in Mixed-Use, Medium-Density Environments.” Transportation Research Record #1578.


**SITE SPECIFIC**


SELECTED INTERVIEWS

Ash, Jay. City Manager, City of Chelsea. Written Communication.


LaPolla, Peter. Planning Director, Town of Braintree, MA. February 15, 2001.


Watson, Greg. Planning Director, City of Malden, MA. February 27, 2001.
