

**The Density Dilemma:
Appeal and Obstacles for Compact
and Transit-Oriented Development**

Anthony Flint
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**Lincoln Institute of Land Policy
Working Paper**

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Lincoln Institute Product Code: WP05AF1

Abstract

Accommodating up to 100 million more people in the US over the next several decades in anything other than suburban sprawl requires functional and well-designed development projects that feature greater density. Compact and particularly transit-oriented development has increased in popularity in recent years in some parts of the country, as consumers seek improvements to quality of life such as shorter commutes. But while there is an emerging marketplace for density, it is limited by a number of factors. The appeal of density appears to be concentrated in certain demographic sectors, such as single professionals without children. Successful developments provide access to transit and amenities within walking distance, but also parking, because few residents are willing to part company with their cars. Compact, transit-oriented development tends to be expensive, requiring affirmative programs to include lower-income residents. And even when some consumers prefer density, established neighborhoods resist such projects, concerned about congestion, property values and strains on municipal finances and services, primarily schools, which could lead to higher taxes. An investigation of compact and transit-oriented development in Texas, California, Oregon, Maryland and Massachusetts reveals evolving attitudes about density and the importance of physical design, functionality, community relations and public perception, all of which suggests serious challenges ahead for density in America.

Research Findings and Highlights

- High-density developments tend to attract only certain demographic segments, often professionals without children, who can pay premium prices
- A sense of community and walking-distance access to mixed-use amenities and transit are major draws, but so is parking, because most keep their cars
- Resistance to density in established neighborhoods centers on concerns about congestion and fiscal impact, in some cases leading to limits on the size, scope and composition of development
- Compact and transit-oriented development projects have been more successful in the South and West compared to urbanized sites in the East

About the Author

Anthony Flint, a visiting scholar at Harvard University's Graduate School of Design, is the author of an upcoming book on development trends in America -- a political and cultural account of the anti-sprawl movement and the backlash against it -- to be published in the spring of 2006 by Johns Hopkins University Press in 2006. A weblog, "Developing Stories," is linked to the book website at www.anthonyflint.net. Anthony Flint has written about planning, development and transportation for The Boston Globe, where he has been a journalist for 16 years, and for Planning magazine, Landscape Architecture magazine, the Boston Sunday Globe magazine, Land Lines and publications by the Rappaport Institute for Greater Boston at Harvard's Kennedy School of Government. His column on urban design and public space, "A Sense of Place," appears in the Globe's City Weekly section. From 2000 to 2001 he was a Loeb Fellow at Harvard, and prior to that he was the Globe's City Hall bureau chief.

Contact information

Anthony Flint
Gund Hall Room 304
Graduate School of Design
Harvard University
48 Quincy Street
Cambridge MA 02138
Telephone: 617.496.5441
Email: aflint@gsd.harvard.edu
Alternate email: aflint@verizon.net

Acknowledgements

The president and board of the Lincoln Institute of Land Policy and Armando Carbonell; Alan A. Altshuler, dean of the Graduate School of Design at Harvard University; the Boston Society of Architects; David Dixon of Goody, Clancy; and Tony Hartzel of the Dallas Morning News, John King of the San Francisco Chronicle and Robert Stacey, president of 1,000 Friends of Oregon, for their guidance.

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The Density Dilemma: Appeal and Obstacles for Compact and Transit-Oriented Development

Introduction

Forty million more people are expected in this country over the next two decades, according to the US Census – a significant increase over the current population of nearly 300 million. But by 2050, according to Census projections, the US can expect to add anywhere from 80 to 100 million more. Now add perhaps 100 million retiring baby boomers and others already in the country who over the next quarter-century will move from one place to another – something that happens an average 11 times in the average American’s lifetime, according to the US Postal Service.

All of these millions will be looking for places to live and work, and the development that exists today won’t come close to accommodating the increase in population. Only one-quarter of those new people will move into existing homes. The rest will move into homes that have been created for them. That means a lot of new development – about half again as what exists now, according to the Brookings Institution.¹

If current trends continue, the new development will take on the character of the predominant low-density, spread-out suburban pattern – large-lot residential subdivisions surrounded by strip malls and office parks. That is indeed where the country is headed. Brookings predicts that the majority of the new building won’t be in the sphere of traditional cities. The US Census projects that more than 80 percent of the burgeoning US population will settle in suburban expanses in the South and West, primarily in California, Texas and Florida.

If that happens, however, the country is in store for a wild ride. It would require doubling Phoenix (500 square miles) approximately 300 times. Land consumption would be equal to the combined areas of Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware and Virginia.² The required expansion of infrastructure would require millions of miles of new roadways, water and sewer pipes, and electrical and telecommunications lines. The 200 million cars on the road today would increase to 300 million; average time spent stuck in traffic could hit four hours per day, and the cost of fuel is sure to increase significantly as worldwide supplies dwindle.

The alternative to this future is more compact development with greater density. But this type of development is rife with cultural and fiscal issues. The density dilemma is this: Some people like it. Most people don’t. And residents in established neighborhoods resist even the relatively small number of developers trying to accommodate density-friendly consumers.

Americans like to be spread out, and not close together. This fundamental preference has vexed anti-sprawl activists who can’t understand why more people don’t want to live in a townhouse and walk to a park instead of having a backyard, and forgo a car and use public transit. As a report in USA Today recently noted, the urban revival of the 1990s appears to be a “blip,” with population gains primarily in suburbs, due in part by high housing costs in cities.³

In America, to choose to live in a dense development is to buck some deeply ingrained cultural and possibly even genetically based trends. The impulse to disperse is seen throughout the country's history, from Thomas Jefferson's vision of an agrarian democracy, westward expansion, the earliest suburbs such as Riverside and Llewellyn Park, the flight from crowded and unhealthy conditions in industrialized cities, and straight through to the enduring post-World War II suburban boom.



8-15 units per acre



15-30 units per acre

Density has a bad reputation. It's associated with big, scary public housing developments that were such disasters they were blown up. Density is all that is cramped and unhealthy and somehow un-American about urbanism. Being free from density is associated with moving up in the world; the appeal of the country is that it isn't the town. Density even sounds like a bad word, to be said with distaste, like "pollution," or "congestion." A common line among planners is, if there's one thing people hate more than sprawl, it's density. And finally, there are broad misconceptions about what actually constitutes dense development; few people realize, for example, that Paris is about four times as dense as Boston, as Boston Globe architecture critic Robert Vampbell points out.

Acceptance of density – of living, working and playing in more compact settings – is a cornerstone of smart growth and New Urbanism. Because smart growth is in retreat on several fronts, having suffered political setbacks in leading growth-management states such as Oregon and Maryland, the success or failure of individual compact development projects as become more important than ever. The anti-sprawl movement hopes to demonstrate that there is a market for density, and that consumers are eager for a broader range of choices, regardless of any government initiatives.

Dense development is more prevalent in the US than in the 1970s and 1980s, but remains modest in proportion. Consider new development projects that fall under the category of New Urbanism – compact, traditional neighborhood design that has a minimal density of 6 units per acre. There are approximately 800 New Urbanist projects nationwide and about 450 of them are either built or under construction, according to Robert Steuteville, editor of New Urban News. But New Urbanist-style development represented only 2 percent of all development, according to industry

estimates. The predominant pattern continues to be low-density suburban subdivisions and associated strip malls and office parks, commonly referred to as sprawl. The reach and ubiquity of sprawl has intensified over the last several years, despite the alarms that have been sounded about the pattern's lack of sustainability.



DART trains pull in at Mockingbird Station, Dallas, Texas Anthony Flint

Demographics and consumer tastes are changing, however. In the coming years the population will become older and childless. The country is moving away from the two-parent, two-children “Ozzie and Harriet” household that drove suburban development since the end of World War II. According to the US Census, that type of family represents only 24 percent of the population today. The biggest category is people who are married or together without children at 35 percent, followed by singles without children at 31 percent. Single parents are 10 percent of the population. The relative simplicity of the mass market has been replaced by a “nation of niches,” says the Urban Land Institute, and for many in these emerging demographic segments, density is a draw.

Fulfilling the needs of some of those niches has been clearly seen in some of the nation's cities, which enjoyed a revival of interest in downtown living in the 1990s. Hardly a major or even medium-sized city in the country today doesn't have at least one rehabilitated warehouse offering trendy urban lofts. Retiring baby boomers are selling large suburban homes and moving back to the city for easy access to culture, entertainment, restaurants and walks through urban neighborhoods and parks. City dwellers are a limited group, it is true, but the potential pool is expanding. The aging boomers are expected to top 78 million by 2030.

For many working professionals, a more compact living style is seen as advantageous because it reduces increasingly long commuting times. A 2004 poll conducted for the National Association of Realtors and Smart Growth America found that a commute time of 45 minutes or less was a top priority in deciding where to live for 79 percent of respondents. Having a large house on more than one acre of land was important to 57 percent, but when asked to choose between a community with a shorter commute and amenities such as shops and restaurants within walking distance and a large-lot subdivision, six in 10 chose the former. Among people planning to buy a home in the next three years, 87 percent said a shorter commute was their top priority.⁴

Short commutes translates to more density. Studies have shown that transit users are willing to walk a half mile from their homes to transit at the most, and ideally the distance should be a quarter mile or less. Accordingly, residential development needs to be clustered around transit stations, and thus more dense. Land costs also tend to be higher around transit nodes in urban areas, spurring more density for better return on investment – but also, significantly, resulting in higher prices. The Oakland-based Center for Transit Oriented Development recently published a study saying that demand for homes near transit centers will double by 2025.

Developers have been quick to respond to these shifting needs in the marketplace, and they have been assisted and encouraged by local and state officials eager for models and alternatives to sprawl. As the availability of transit-oriented development extends the range of choices from urban infill sites to suburban areas, different versions of the American dream are emerging -- beyond the detached single-family house, driveway, garage and yard. It is the details of that dream that make it a viable alternative.

What makes density accepted in some places, while it gets a cooler reception in others? The packaging of density has been a primary focus among planners, architects, developers and policymakers in recent years. Several conferences have been held just on the subject of density, probing why it has a negative connotation, and how that perception might be reversed. Dense development must be seen as clearly more advantageous than the conventional suburban pattern. It must include extensive mixed-use amenities, opportunities to build community and access to transit. Only then can the interested demographic sectors be drawn in to consider density. And they won't likely give up their cars.

Success with dense development depends in large part on the site, the context and existing land uses. In compact developments in suburban or "greenfield" sites, permitting and neighborhood negotiations can be easier, but transit tends to be less well-used, and creating a sense of place and building a critical mass for vibrancy and activity can be challenging. At "infill" sites characterized by established development – the most common location, since transit nodes

generally serve areas that are developed or being developed – existing neighborhoods clash over proposals and remain deeply suspicious of density. Established residents are worried about congestion, strains on city services and property values. In some cases displacement and gentrification are top concerns. All of these issues require community participation and negotiations; the importance of design and the appearance of the development are especially important. Very often, however, negotiations with the neighborhood have the effect of limiting the scope and composition of the proposed compact development or transit village. This in turn can dilute the sense of place and urban vitality.

Density dynamics vary, as well, in different parts of the country. West Coast transit-oriented-development projects seem to have more powerful momentum, from urban revitalization in San Diego to what might be called suburban infill in the Bay Area. In Portland, Ore., the brand-new and still-expanding light rail network has set the stage for development around stations. In Texas, compact and transit-oriented development is seen as something of a novelty but serving a growing niche market. Once one dense project is successful, it is rapidly copied nearby. The Kentlands in Maryland, along with Seaside, Fla. one of the New Urbanism movement's premiere projects, sprouted amid a sea of suburban sprawl in 1991, took about two years to gain solid financial footing, and then became wildly appealing, especially for families.

The Massachusetts experience with density is perhaps the most complex. Like other metropolitan regions in the Northeast, Greater Boston has a history of town-centered villages and transit-oriented development; the area is home to the original “streetcar suburbs.” Governor Mitt Romney wants to encourage compact development in town centers and near transit stations. Yet over the last four years, proposals for transit villages have been rejected by residents in Kingston, Holbrook and Malden. In several cases the size of the projects have had to be reduced significantly. Municipalities are concerned about the fiscal impact of new development, particularly the number of new schoolchildren that such projects are believed to generate – although studies have shown that multifamily housing has an equal and often lesser impact compared to single-family subdivisions.⁵ The result has been limitations; in Salem, the primary transit-oriented development project is made up of luxury apartment rentals for professionals. In Westborough, 65 percent of any development must be one-bedroom units or less, as spelled out in the master plan for a transit village near the commuter rail station there.

Compact and transit-oriented development elsewhere in the country is similar to Massachusetts in one respect. Virtually all residents in these developments still own and operate cars. Accommodating parking remains a No. 1 issue. The actual use of cars varies, depending in large part on the mixed-use amenities available, and the extent of the transit system for trips to work or entertainment. In almost all of the case studies below, transit is used primarily to get to work. For some, transit is used rarely, if at all.

If the future is to include more density along with continuing spread-out suburban development, the emerging models are worthy of close study. They provide some insight into the dynamics of density.

Dallas, Texas: Mockingbird Station and Addison Circle

The area north of Dallas is well known for spread-out suburban development. Dallas ranked 13th out of 83 metropolitan areas in terms of sprawl, in Smart Growth America's landmark 2002 index.⁶ Single-family subdivisions in once-lonely outposts such as Little Elm are being built at a furious pace, with accompanying big-box commercial zones. Plans call for extensive highway building in the area north of Dallas to serve these fast-growing areas as well.

In a striking contrast, however, the Dallas area is also home to compact, urban developments, with mixed-use in both new construction and adaptive re-use. One of the most noteworthy is Mockingbird Station, along the Dallas Area Rapid Transit (DART) Red and Blue lines, about four miles north of downtown. The other is Addison Circle, a high-density development of 1,300 apartments on 80 acres a few miles further north of downtown Dallas. Neither of these projects were the focus of community resistance; Addison Circle is adjacent to office buildings and an airfield, Love Field, and Mockingbird Station is in a mostly commercial area. Both share a similar demographic profile of mostly professional singles, and while both are viewed as something of a novelty, real estate specialists see continued demand for urban living as an alternative to the subdivisions to the north.

Mockingbird Station

Passengers alight from the DART vehicles at an open-air, submerged station and head up escalators to get to Mockingbird Station, a cluster of development on a 10-acre site formerly owned by Western Electric, near Southern Methodist University. The centerpiece is the Lofts at Mockingbird Station, 211 apartments in what began in 1926 as a three-story industrial building where telephones were manufactured, and retrofitted with four extra floors housing high-ceiling lofts with big windows, exposed brick and concrete columns, stainless steel kitchens and granite countertops. Rents range from \$1,115 to \$5,000 a month for a penthouse unit. The residential density is 21 units per acre.

The area is busy at virtually all times of day and night, with the Angelika movie theater and several restaurants – Margarita Ranch, Rockfish, Gelato Paradiso, Spike tapas, Trinity Irish Pub, Chaucer's steakhouse, Rockfish and Reikyu sushi bar; a Starbuck's, Cold Stone ice cream, Café Express, Victoria's Secret, Ann Taylor Loft, Virgin Records megastore, Movida, Bath and Body Works, GAP, three one-of-a-kind boutiques, a jewelry store, stationary store and a bank.

Local developer Ken Hughes teamed up with Denver-based Simpson Housing Group and RTKL to create the complex, which opened in 2001. Tax increment financing was available but not used; the redevelopment was done in close coordination with DART.



A commuter heads to work in the morning at Mockingbird Station, Dallas, Texas Anthony Flint

In an area where the default preference is for detached single-family homes, the idea of loft living caught on surprisingly fast. “This isn’t common for Dallas and that’s a huge plus,” says Trey Corry, 26, who lives in a Mockingbird Station loft with his wife, Marci. It’s true that there is not much room to spread out, but there’s virtually no upkeep, he says, and there are balconies – “I call them concrete yards” and the swimming pool and gathering place on the third floor. Being near social settings and being able to travel conveniently are the tradeoffs for space, Corry says. “When you do apartment living there is a certain sense of being boxed in, but when you give people restaurants and everything literally within reach, they’ll give up the space – at a premium price,” he says. “I know people who go to Rockfish for dinner a couple times a week.”

The demographics at Mockingbird Station are inherently limited – primarily single professionals, some married couples, but very few families. The emphasis is decidedly on single. Mockingbird Station, it turns out, is a great way to meet people. “Our primary tenant is a single male or female, recently divorced or out of a relationship,” says Chesney Wright, manager for the Lofts at Mockingbird Station. The social life, she says, is “not confined to running into people in the hallways.” A thick photo album in the complex office is testament to this: it has page after page of themed parties and gatherings – Thanksgiving, Christmas, Chinese New Year, a wine and cheese tasting – all featuring bright smiling young people and women in halter tops and shorts. An organization called “Cares” organizes the social and community life. The building looks like a cruise ship and functions like one, too.

For transit-oriented development, there is not a big emphasis on use of the light rail system, either. Wright estimates that about 10 percent of the residents use the line to get to jobs downtown every day. A more common scenario is to hop on the train for an evening Dallas Mavericks game, avoiding the hassles of parking. Other residents confess that DART is more of a bonus than something that they rely on, in part because the system is not extensive and often requires a transfer to a bus to get to their destination. Similarly, customers at the movie house, restaurants and shops are as likely or more likely to drive than to take the train. Mockingbird Station is about one quarter-mile from the exit ramps from I-75, also known as the Central Expressway. The site accommodates this reality by providing 1,440 parking spaces; loft residents have their own underground parking garage directly under the building, with private elevator access to all floors.

However the DART station figures into daily schedules, it remains a focal point. Other developments are adding to the sense of transformation in the area. A Dr. Pepper plant was razed for the 449-unit Phoenix Midtown apartment complex just to the east of the tracks, within easy walking distance to the stores and restaurants in Mockingbird Station. On the south side of Mockingbird Lane, the former Hilton Hotel, renamed the Hiltop Inn and then the Santa Fe, is undergoing an \$80 million rehabilitation and will open as a boutique hotel and 10-story tower housing 60 luxury condominiums. The price range is roughly \$400,000 to \$1.5 million.

DART officials consider Mockingbird Station a model and point to other areas where transit-oriented development is being encouraged, including a warehouse district south of downtown Dallas, West Village, as well as mostly suburban areas such as Plano and Richardson.

Addison Circle

A few miles further north on I-75 and then the North Dallas Tollway is Addison Circle, a village-style complex of 1,300 apartments in what appears to be the old section of an old city, but smack in the middle of what Washington Post journalist Joel Garreau would call a classic “edge city”: the town of Addison, primarily open fields and ranchland 25 years ago, and now a conglomeration of stand-alone glass office buildings and strip malls with acres of parking lots, accessible only by limited-access highways and multi-lane arterials. The gross residential density is 54 units per acre.

Addison Circle is an example of a new phenomenon: taking a sprawling suburban setting and stitching a dense urban fabric onto it. The collection of human-scaled buildings and street network is based on the principles of New Urbanism, which calls for neotraditional neighborhood design. The street layout features narrow lanes, 12- to 14-foot wide sidewalks, traffic calming and roundabouts, which state transportation officials needed to be persuaded to accept. All buildings come right up to the street and there are no typical suburban setbacks. Addison Circle will eventually be transit-oriented development: expansion plans call for a crosstown rapid transit station there. Tracks already exist, running alongside the south side of the development, though it is estimated that the expansion of the rail network in Dallas to the area could be as much as 10 years away.

Consequently, one arrives at Addison Circle today primarily by car. Once residents and visitors get there, however, they can leave their vehicles in parking garages or at spaces along the streets, because everything is within walking distance. The concentration of storefronts and sidewalk cafes and tree-lined urban streets is striking – as if Greenwich Village or Beacon Hill had landed on undeveloped fields off a major highway. Once past the bandshell and extensive parks, fountains, gardens and walkways and the somewhat overwrought central sculpture – a towering blue mushroom that claims to show the history of Addison in metal – the streetwall-lined oval park in the middle of the development, bursting with tulips, evokes Paris. In the middle of the day, residents are out power-walking or jogging, or on their way to the fitness club for yoga or kick-boxing. A man on a mountain bike with an ultra-light trailer makes food deliveries. At Pastazio’s Pizza shop, the interior is set up with a New York theme, with photos of



A typical storefront-lined sidewalk at Addison Circle

Anthony Flint

graffiti-strewn New York Times newspaper trucks and maps of the New York subway system. A roster of live music is available for viewing outside the Avanti Euro Bistro restaurant, alongside the \$25 lunch entrees. There is outdoor seating on the sidewalk at virtually every establishment. Property managers dart around in golf carts, and police walk or drive sporty white SUVs with the word Addison! Emblazoned on the side.

“It’s not for me, but I understand why people like it. There’s a lot to do here,” says Kris Riddell, operating an electric razor at Addison Haircutting Co. She finds herself in the odd position of working in a city-like development but commuting about 50 miles from a house on a farm she recently purchased. “Too many people,” she explains. “There’s something about wide-open

spaces. I get out on 783 all alone and it's like, yeah, buddy. I see all the stars and hear the coyotes. When was the last time you saw a hoot owl?"

Clearly, the denizens of Addison Circle have not placed a high priority on such interactions with wildlife. They are interested in the urban experience, and pay \$1,000 a month for a studio, \$2,600 for a three-bedroom apartment, \$4,600 a month for a loft, and \$1,445 for a 1,400 square-foot townhome. The top monthly payments are two and three times the mortgage payments for a \$120,000 single-family home in Little Elm, by comparison.

Although the realities of urban life are miles away, there is a high premium on security, with plenty of locked and codes gates leading to interior courtyards and swimming pools. Like Mockingbird Station, there is also a big emphasis on organized sports and social life – softball, running and walking clubs, tennis clubs, cycling clubs. A “Cares” team is on call to help organize game-watching parties, pool parties, monthly happy hours and holiday celebrations. All residents are encouraged to introduce themselves to the restaurant managers in the development so they can be on a first-name basis.

“Come to our neighborhood,” beckons the promotional literature. “It’s like living in a small European city. From morning to night there is always something to do. Stroll our tree-lined streets. Enjoy our parks. Shop. Relax at the sidewalk cafes. Stay for dinner, drinks and entertainment. Come live, work and play in the Circle.”

Property managers say the typical resident is double-income couples aged 30 to 55, a mix of childless professionals and older empty-nesters. “The main thing is convenience. People work close by and don’t have to leave again when they come home, or there’s entertainment nearby,” says Lindsay Hamilton, marketing director and a resident who moved to Addison Circle in late 2004. “Nobody has to change light bulbs or mow lawns.”

Addison Circle is the brainchild of town planners in Addison, who suggested a dense development of the property in a 1991 comprehensive plan. The landowner, Gaylord Properties, teamed up with Post Properties, an Atlanta-based Real Estate Investment Trust, and Champion Partners and RTKL to get the \$300 million project rolling. The first phase included 460 apartments in three buildings and 20,000 square feet of retail space; the second phase included a 10-story, 295,000-square-foot office building and a six-level, 1,400-space parking garage. The final buildout calls for up to 4,000 residential units, four million square feet of office and retail and potentially 10,000 new jobs in the area, with commercial, residential and recreational areas all marbled together. The developers took advantage of tax-increment financing, promising to build 1,500 homes over five years in return for up-front \$9 million infrastructure investment.



Site plan for Addison Circle, near tollway and office buildings

CNU

As with Mockingbird Station, success is building on itself. CityHomes, a division of the Dallas-based Centex Corp., is building 180 three-story townhouses expected to sell for up to \$280,000 on Quarum Drive in Addison circle. Fairfield Residential of Grand Prairie is building a seven-story, 140-unit condominium building across from the CityHomes project.

San Francisco Bay Area: Pleasant Hill, Mountain View and Fruitvale

Perhaps no area of the country has experimented more with transit villages than the Bay Area. It might be called the cradle of transit-oriented development. Smart growth advocates point to the successes and proclaim that the transit village model is a viable and indeed much sought-after alternative to low-density, segregated-use, car-dependent suburban living.

Transit villages aren't for everyone in the Bay Area. A study done for the Bay Area Rapid Transit Authority (BART) found that residents in transit-oriented developments are more likely to be 35 years old or younger, work in an office or professional occupation and live in a one- to two-person household, and to be less likely to be of Hispanic origin or have a household income below \$30,000.

The study, authored by Hollie Lund and Rick Willson of California State Polytechnic University, Pomona, and transportation researcher Robert Cervero of University of California, Berkeley, also found that people who live in TOD residential developments are more likely to commute via rail transit than people who work in TOD office developments.

William Fulton, president of Solimar Research Group and a senior scholar at the School of Planning, Policy and Development at the University of Southern California, says experience with transit-oriented development thus far suggests that transit use will increase if it is fast and convenient, but that the key moment is when workers walk out of the door of their homes. “If they get in their car, they tend to stay in their car - unless conditions at the destinations are extremely adverse to driving,” Fulton says.⁷

Citing the finding that most people said the “quality and type of housing” was more important than access to housing, Fulton suggests that the attraction to transit villages is this: “Live the no-muss, no-fuss, condo-oriented lifestyle next to a transit station. And, as an added bonus, you can leave your car at home.”

The interest in the private sector in transit-oriented development remains intense. Some 9,000 homes were built near stations in California over the 1990s, according to National Transit Access Center at the University of California at Berkeley.

Transit-oriented development has been finding its way in northern California, will several intense neighborhood struggles over density, congestion and parking to date. Transit villages have the reputation for taking a long time to build, and for being subject to protracted neighborhood negotiations and density-diluting compromises. In addition to neighborhood opposition to density, there are often multiple land owners in any given project. In pioneering neighborhoods, there is both lender reluctance and fears of gentrification.

Some critics have found fault with the transit villages in the Bay Area because they seem forced or contrived in their appearance and composition. The key difference may be that unlike in Dallas, residents and visitors have access to the real thing in San Francisco’s urban neighborhoods, so newer compact developments in more suburban locations pale by comparison. The “if you built it, they will come” approach has also not worked well everywhere in the Bay Area, most notably along the San Jose light rail line, which has come under fire for its expense and low ridership. The development around stations on the San Jose light rail system has proceeded at a slower pace.

Pleasant Hill

The Pleasant Hill transit village at the BART station in Contra Costa County, about 25 miles east of San Francisco and 18 miles east of downtown Oakland, is the Bay Area’s premiere transit-oriented development site. It has been well-studied, and has impressive results after 20 years of lifestyle adjusting to its amenities, says Peter Albert, transit-oriented development specialist at BART. Between 30 and 45 percent of residents ride transit every day – mostly to San Francisco – and significant numbers commute to work in the office buildings clustered there as well. The use of transit is higher than in other suburban areas of northern California, although residents at Pleasant Hill say the housing attributes and affordability were equally or more important in their decision to move there.⁸

The site encompasses 140 acres surrounding the Pleasant Hill station of the BART district, first developed in the early 1970s. The prime location -- at the convergence of the BART line, I-680, a major sub-regional arterial, a regional trail and a future light-rail corridor – prompted the deliberate strategy of locating employment and housing at a regional transportation hub.

Today, at close to full build-out, there are 2,400 homes, two hotels, offices with more than 4,000 employees and an estimated \$40 million in public infrastructure improvements all within walking distance to the station. About 6,400 BART riders travel through the station each day. Pleasant Hill has the highest concentration of multi-family housing within a quarter mile of any suburban transit hub in northern California.⁹ The residential density is 17 units per acre.



Pleasant View, Walnut Creek in Contra Costa County

The BART station was built in 1972, and planning for the area began a few years later. The first plan was adopted by the county in 1983, quickly followed by a redevelopment plan in 1984, establishing that all development should be mixed-use and transit-oriented. The first office building was completed in 1986.



Site plan, Pleasant Hill

In 1995, a developer proposed a major retail and entertainment complex adjacent to the station which was staunchly opposed by neighborhood residents. The plan was withdrawn, and a 1998 update to the plan prohibited large entertainment uses and limited commercial development. Over the last several years the focus has been on the extensive park-and-ride parking lots surrounding and immediately adjacent to the station. The parking lots were meant to be a form of land-banking and were always slated for development, but the spaces became prized. There are nearly 1,500 parking spaces in structure in the station area. Contra Costa leaders adopted a design concept for this area last year after long struggles with neighbors concerned about the loss of parking and congestion. Peter Katz, one of the founding members of the Congress for the New Urbanism, was hired by the county to be a consultant and proposed attractive public spaces and plazas. The emphasis was on the experience of the pedestrian. Lennertz Coyle & Associates led a multi-week charrette to forge community consensus on what kind of mixed-use program should go on the parking lots.

About 55 percent of residents in Pleasant Hill own at least one car, and over 50 percent drive alone to work, according to the California TOD Database. But the average car ownership of 1.3 vehicles is half of that in sprawl conditions, according to the database.

Mountain View

Mountain View, 50 miles south of San Francisco in Santa Clara county, has

been a popular residential choice for single professionals working in the high technology field in Silicon Valley. Mountain View is perhaps best known today as the headquarters for the search-engine firm Google. It is an older railroad suburb that "wandered astray in the mall/office park culture of the 1950s through the 1970s," says Peter Albert, from BART. But it retains vestiges of an old downtown along Castro Street, near the former Southern Pacific commuter rail station. As Albert recalls, it had the closest thing to a real Chinatown of anywhere in the suburbs.

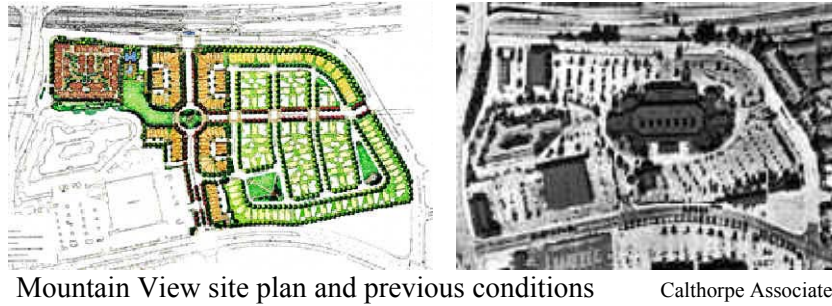
Not far from downtown, the Old Mill shopping center (ca 1970) was built adjacent to the railroad tracks, catering to auto traffic. About 15 years ago the center, which included a cineplex, had become obsolete and threadbare. But the dying strip mall, a parking lot and the abutting Caltrain commuter rail tracks, which connects Silicon Valley and San Francisco with a one-hour ride, became the ingredients for opportunity.

With Palo Alto just one stop to the north, Mountain View did not have far to look to find a walkable, mixed-use prosperous town centered on a train station, and bolstered by Stanford University, for inspiration. City planners made a concerted effort to bring about transit-oriented development near the train station downtown, now home to 200 apartments and office buildings; to the Old Mill shopping center site and its new train station, detailed below; and on 40 acres of industrial land adjacent to the new station for the Santa Clara Valley Transportation Authority (VTA), the light rail system serving San Jose, the location of 500 small-lot single-family homes and rowhouses, by developers The Castle Group, Kaufman & Broad and Ryland Homes. Allowable densities were essentially doubled.

The Old Mill shopping Center redevelopment has attracted the most attention. Mountain View tapped Peter Calthorpe, another leader in the New Urbanism movement, to design a six-block, 18-acre area of housing and small parks that put Mountain View on the transit-oriented development map. The developer is TPG Development Corp. The Crossings at Mountain View (1994-2000) was planned for 359 homes, with a density of 21 units per acre. At full buildout, density will be 30 units per acre.

An interconnected network of tree-lined streets and pedestrian paths knits the neighborhood together, providing connections to an existing Safeway grocery store, where residents can walk without crossing arterial streets. Community parks and open spaces are distributed throughout the site; bandstands and tot lots provide areas for neighborhood gatherings within parks. There are 102 small-lot single-family houses, 30 rowhouses facing the train station, 99 rowhouses (smaller and more compact) fronting on the entry road leading to the station platform, and 128 condominium units. These individual building types range from 11 units per acre to 70 units per acre, all integrated into a single walkable neighborhood with several small parks and playgrounds.¹⁰

The architecture is consistent and pleasant with a suburban feel. Pedestrian connections to the new train station – a key factor in transit use -- are superb. In line with New Urbanist principles, the houses have front porches that face the street, garages are pushed to the rear, the streets are narrow and tree-lined in a grid, and there are a mix of housing types.



Mountain View site plan and previous conditions

Calthorpe Associates

The homes, which ranged in cost from about \$250,000 to \$350,000 in the late 1990s, sold out almost instantly. Homebuyers eagerly traded a front lawn, space between homes and a prominent garage for a pedestrian-friendly setting and communal open space. Median age rose by seven years from 33 to 40 from 1990 to 2000, according to Census figures, household size decreased 40 percent to 1.7 persons per household, and median income jumped 70 percent over the same period.

Calthorpe Associates planned and designed virtually every aspect of The Crossings, including site layout, street improvements, landscape features, and architectural design. In a nod to “green” building principles, the shopping mall which The Crossings replaces was demolished and recycled as foundations for the new homes and parks. The adjacent Caltrain station is called San Antonio, and the developers had to provide 200 spaces for commuter parking. Car use remains common; the car is the commuter mode of choice for over 80 percent of area residents, according to a 2004 study by the Mineta Transportation Institute, which also found that the light rail boardings actually fell slightly over about three years since the VTA station opened.¹¹ Rail officials note that ridership was down on all lines – and freeway traffic lightened as well, notably – during the recent “dot-com” bust and economic softening.

Fruitvale

Of all the Bay Area transit villages, one of the most impressive and celebrated is at Fruitvale in Oakland. The hallmark of this project was grassroots community participation, spurred by a desire for a balancing act of revitalization without sudden gentrification and displacement in the primarily Latino neighborhood.

The \$100 million mixed-used project has been nearly 15 years in the making. It got started in 1991, when community leaders objected to a plan by BART for a multi-level parking garage at the Fruitvale station, which was seen as contributing to blight, noise and congestion, and potentially further isolating the neighborhood from the transit line. At the time, a nearby shopping strip was rife with litter, graffiti and crime. Virtually none of the 7,000 passengers who came through the station ventured into the neighborhood, to the taquerias and shoe shops on International Boulevard. By the end of rush hour the stores were all closed, and commuters had long since returned to their cars in the surface parking lot and gone home.

Although BART fully embraces transit-oriented development today, the idea of creating a transit village at Fruitvale did not begin with the agency but with Arabella Martinez, head of the Unity Council, a nonprofit community advocacy group. Martinez coordinated a planning process

involving BART, Oakland, and the U.S. Department of Transportation, which funded community workshops and economic and engineering studies. A land swap was arranged between BART and the city. The Fruitvale Redevelopment Corporation was formed. When construction began in 1999, there were some 30 different sources of funding, and partnerships with the University of California at Berkeley, the Metropolitan Transportation Commission, the U.S. Department of Housing and Urban Development, Citibank and the U.S. Environmental Protection Agency.¹²



Context for Fruitvale BART station transit-oriented development

The \$60 million new development is a classic transit village right at the transit station, dotted with palm trees, with 47 residential lofts, a large public library branch, a child-care facility, a health clinic, senior center and 18 retailers in 70,000 square feet of retail space. With 200 more residential units coming on line, the residential density is 21 units per acre.

Pedestrian connections are immediate and obvious because the development is right at the station. There is a “bike station” as well – a fully-staffed, enclosed bike storage area offering free parking and on-site bike maintenance services and supplies. The buzz surrounding Fruitvale has revitalized the neighborhood shopping street, International Boulevard, just a block away; an area once known for crime is now home to an annual salsa festival.

The Fruitvale village, on about 15 acres, has already leased 95 percent of its apartments, which range in cost from about \$1,300 to \$2,300. Some units have 17-foot ceilings and granite-countertop kitchens.

In addition to the 40,000 square-foot La Clinica de la Raza facility, a 16,000-square foot child care center for 200 children with yard and playground, and the branch library, retail and restaurant business has snapped to life, and includes Burger One, Coldstone Creamery and Giovanni's Pizza, in addition to a bank, a gym, and a bridal shop. Notable established retail includes the Jaliso Taqueria and a *musica latina* record and CD store. The current vitality belies the reluctance of lenders a decade ago who considered the poor and minority neighborhood, close to the Oakland airport, a high-risk investment.

Portland, Ore: Orenco Station

The Portland area has invested heavily in light rail, as a critical component of a growth management strategy that includes its infamous urban growth boundary and a regional government. The network of light rail and streetcars serves the city of Portland, immediate environs, suburban areas at the edge of the urban growth boundary and the airport. The metropolitan transportation agency, Tri-Met, operates the 44-mile, 68-station MAX light rail network, which averages daily boardings of 300,000. The system has been ambitiously expanded – the \$214 million, 15-mile Eastside MAX Blue Line extension to Gresham, which opened in 1986; the \$196.3 million, 18-mile MAX Blue Line extension to Beaverton and Hillsboro, which opened in 1998; the \$125 million, 5.5-mile MAX Blue Line to the airport, which opened in 2001; and most recently the 5.8-mile, \$300 million MAX Yellow Line from Portland downtown north to the Expo Center, which opened in 2004. A 6.5 million southern extension to Clackamas County along Interstate 205 is currently being designed.

Transit-oriented development has been actively encouraged throughout this network. Several spots along the light rail are designated as “town centers” in the Portland Metro Area 2040 plan. Tri-Met claims there has been \$3 billion in investment in such development within walking distance of MAX stations since the system was established in 1978. Lofts, apartments and townhouses in urban neighborhoods such as the Pearl District are inextricably linked with transit, although Tri-Met analysis shows that car use is common and transit is more likely to be used for shopping than a trip to work. In areas outside of urban neighborhoods, the transit-oriented development has required a more deliberate effort. At the Gateway MAX station, about five miles east of downtown, an area of strip malls, highways, arterials and older subdivisions is envisioned as a 24-hour, mixed-use neighborhood and regional center. But today passengers alight at the station amid an incongruous setting of a multi-lane arterial and low-density, single-story commercial development with big setbacks.

Further afield, suburban transit-oriented development in designated town centers has been well-studied – including analysis by critics of the growth management regime, who focus on the expense of the light rail capital expansion and the popularity and functionality of regulated and subsidized compact development near train stations. The leading example closely watched by both skeptics and proponents of transit-oriented development is Orenco Station in Hillsboro.

Orenco Station

Orenco Station in Hillsboro, Ore. is located about 12 miles west of downtown Portland. The Tualatin Valley was mostly farmland when two Canadian Scots, Archibald McGill and Malcolm McDonald, bought land here in 1896 and founded the Oregon Nursery Company. In 1905, when a fire destroyed part of another facility in Salem, the pair decided to concentrate on the new site and build a planned community or company town, similar to Pullman south of Chicago. They called it Orenco – a consolidation of “Oregon Nursery Company” – and about one square mile was platted for utilities, homes, businesses, a school and a church. Orenco grew to 1,200 acres, where land for the fruit and shade trees and shrubs was tilled by a stable of 50 horses, and the mostly immigrant workers lived in modest housing. With a peak population of 500, the town had its own newspaper. But the nursery business spiraled downward around 1916, following the planting of a million apple trees for an anticipated European market that never materialized because of World War I; McGill and McDonald split up, and the business went bankrupt in 1927. In 1938, the handful of remaining residents voted to dissolve the municipality.

The area remained largely undeveloped through the 1950s and 1960s, despite a proposal to build a suburban subdivision of single-family homes in 1959; the open fields surrounding the old town of Orenco became known mostly for illegal dumping. In the 1980s, the city of Hillsboro tried to jump-start development by courting residential builders and high-tech businesses with tax breaks and the establishment of an urban renewal district. In 1994, the computer giant Intel bought 268 acres for a large office campus to the north of what is now Orenco Station. Tri-Met, meanwhile, had committed to the \$196 million MAX Blue Line extension to Beaverton and Hillsboro, partially along the Oregon Electric Railway line that once served the nursery company. A stop was envisioned at Orenco, and the agency hired Peter Calthorpe to make design suggestions for a transit village there. The Portland-based industrial and retail developer Pacific Realty Associates (PacTrust) teamed up with homebuilders Costa Pacific Homes to develop a 209-acre site originally zoned industrial, with 1,834 homes and retail and office space.



Orenco Station



Courtesy Walker Macy

With technical assistance from the Oregon Transportation and Growth Management program, a master plan was composed calling for pedestrian-friendly streets and sidewalks, parks and open space. Today the evolving Orenco Station development features single-family homes and houses with attached apartments on small lots, apartment buildings, townhouses, condominiums, loft apartments above retail space, and live/work lofts. Home sizes range from 500 to 2,100 square feet; Costa Pacific Homes reports that a minority of buyers have been families with children. The residential density is 15 units per acre.

Prices range from \$130,000 for a loft to \$550,000 for a townhome. Several residents have sold their units for a substantial profit. The total number of homes in the original station-area development is nearly 1,900. Promotional literature is similar to Addison Circle in Texas, touting social activities, recreation, bistros, coffee shops, and nightlife. During a visit on a Sunday morning, the neighborhood is very quiet; a Starbucks awaits customers, as does the New Seasons grocers. But a popular restaurant from Portland recently moved to Orenco Station and reports a brisk business.

The layout is urban and human-scaled, with 25-foot wide residential streets and 17-foot wide sidewalks that can accommodate outdoor cafes. There is garage parking along alleys behind the rows of residential buildings, and surface parking. Since its debut in 2000, Orenco Station proper has been joined by other residential developments, including a more conventional single-family home subdivision along the northern edge of the site, and townhomes being built on the south side close to the light rail station, on land previously owned by the Toshiba Corp, and zoned industrial.

The first thing passengers alighting from the Blue Line station notice, however, is a large, empty parcel immediately adjacent to the station. Pedestrians headed for homes or shops and restaurants in Orenco Station, indeed, must walk directly through this vacant block. The developer, PacTrust, which had previously specialized in big-box retail and light industrial redevelopment, wanted the retail to be closer to the main street providing car access to the area, Cornell Road, and not the train station.

“I’d feel even better if that parcel was developed, but Orenco Station remains an anomaly in a sea of single-use development,” says Robert Stacey, president of 1,000 Friends of Oregon and formerly of Tri-Met, who has observed how Orenco Station has grown in popularity in the last four years. “Washington County is beginning to approach the population of Portland. We’re starting to get urban-scale, urban-density development, but it’s clumpy. You have big residential developments and commercial development on arterials with very little fine-grained block structure that we all want to see around Portland. So Orenco Station stands out.”

Other transit-oriented development is attracting attention in the Portland area, including a development that had stalled for several years called the Round at Beaverton, as well as the South Waterfront area in Portland, where a streetcar line will be extended. Stacey says the typical resident appreciates having transit close by as an option, though they probably still drive cars and want a garaged space for their vehicle as well. The greater density is only possible

because of the transit, because without it, there would be too much car traffic, he says. And the transit only works if there is greater density.

Orenco Station has won several design and livability awards, and was visited by Al Gore, who touted it as an alternative to sprawl. But the development is not viewed as an unqualified success. Dick Loffelmacher of PacTrust has called the project an experiment in the company's "nonprofit wing," and company officials have been plain that they do not plan to try to build another Orenco Station ever again.¹³

A proposal for 200 single-family homes on a golf course about a half-mile from the light rail station, closer to the old town of Orenco, has stirred opposition against further development among longtime residents, who say their fears have been confirmed that density leads to traffic congestion – with or without a transit station nearby. The car is the primary mode of travel for 86 percent of area residents in one study.¹⁴ A 2003 report by the Cascade Policy Institute noted that Intel employees and others from nearby office parks used private shuttles, that light rail ridership is paltry, and that those who do ride mostly drive to Orenco Station and catch the train.

“It is difficult to make the case that taxpayers should continue subsidizing such projects,” the report said. “There is no evidence that TOD near Orenco lessens traffic or improves air quality, and many local residents do not feel that high density development improves their quality of life. Zoning is retarding land development north of the rail station due to high density mandates that are not financially feasible. The experience at [Orenco] suggests that policy makers should lower their expectations of what light rail and TOD can deliver in terms of public benefits.”¹⁵

Voters in nearby Clark County in Washington state want no part of transit-oriented development. They rejected a funding measure in 1995 for extending Portland light rail across the Columbia River.

Gaithersburg, Maryland: The Kentlands

On a steamy early summer afternoon, a half-dozen teens, liberated from school, make their way down a sidewalk, snapping a rolled-up tee shirt at each other, waving at friends in cars and crossing a street to Giuseppe's pizza, in a handsome red brick building on a corner. Trim women in Capri pants walk Scottish terriers past front porches lined with rattan rockers. Young sycamores bend gently in the breeze, planted in perfect lines along generous bone-white sidewalks flanking narrow streets.



Typical street in The Kentlands, Gaithersburg, Md.

Diane Dorney moved to the town called Kentlands in 1993 with her husband, Mark, and three kids. She was a little surprised at how much she loved it. She became editor of the town newspaper. She liked the way her teenage son could walk or bike or skateboard to the basketball court or to the movies. There was no playing chauffeur, and no worries about safety. “It’s pretty much what you would find in Brookline [Massachusetts] or any other traditional neighborhood, old or new,” Dorney says. “It’s difficult to measure why it works – how do you measure feelings, security, long-term relationships. But it beats conventional suburbia any day.”

For Dorney, the houses being close together, and close enough to daily needs that the family car might go unused for days, wasn’t a drawback. It was an advantage. A lot of other people – homebuyers that developers in the area just assumed would want a house and a yard on a big spread-out subdivision -- thought so, too. So many, in fact, that after a slow start, Kentlands sold out with astonishing speed. The place distinguished itself in a suburban Maryland real estate market that was uniformly strong. Time magazine praised it as an ideal community, and the first resale prices on homes originally sold for \$250,000 produced a \$40,000 profit within a few years. After the 10-year anniversary of the groundbreaking, some single-family home prices in Kentlands passed the \$1 million mark.

Kentlands, a village of 1,700 homes on 354 acres, is along with Seaside, Fla. the classic representation of New Urbanism – a traditional street grid instead of a cul-de-sac-and-collector hierarchy, a mix of housing types close together on small blocks, sidewalks as prominent as streets, stores and parks and gardens within walking distance, porches out front and alleys in back. Other similar compact developments in the same category as Kentlands include the redeveloped Stapleton airport in Denver, Harbor Town in Memphis, Laguna West in California

and I'On in South Carolina. The net residential density at Kentlands – factoring out the generous open space -- is approximately 12 units to the acre.

Twenty-five miles northwest of Washington D.C. and a 25-minute bus ride from the Shady Grove Metro station, Kentlands rose up beginning in 1990 surrounded by conventional subdivisions. Equal parts Beacon Hill and Mayberry, Kentlands is a mosaic of single-family homes, townhouses, condominiums and apartments, white picket fences, uniform mailboxes and meticulously trimmed lawns. There's a church, a synagogue, two public schools, offices, live-work space, shops, playgrounds, basketball courts, fields, pools and clubhouses. From virtually anywhere in the complex, residents can walk to a Whole Foods grocery store, to get a cup of coffee or a meal, to drop off dry cleaning or visit the optician.

The popularity of Kentlands has led to criticism about its high cost, suggesting a kind of self-perpetuating homogeneity. Critics have also cited the lack of transit in describing the project as a more efficient use of land internally but in terms of car use essentially another suburban subdivision. Bus service runs along a meandering route from Kentlands to the Shady Grove Metro station.

Greater Boston: TOD and town-centered development

A common perception is that Massachusetts does not have issues with sprawl. As one newspaper editor who relocated from Los Angeles remarked, it is possible to drive west from the city and within minutes see lots of green. In fact, the state is being overrun with low-density suburban development, spread throughout the wooded hills. The Audubon Society estimates that 40 acres a day are consumed by development. In Southeastern Massachusetts, a regional planning group, Vision 2020, found that more land south of Boston had been consumed by development in the last 40 years than in the first 340 years after the Pilgrims landed. Developers chewed through 60 percent of all open space and agricultural land in 46 communities, or close to 100,000 acres, during that time. Worcester County was found to be the 25th most sprawling area in the country by Smart Growth America in its sprawl survey.

The dispersal is being driven by both affluence and a quest for affordability. The wealthy snap up land in the ring of suburbs around Boston, forcing others to “drive to qualify,” or head further out from the urban core to find a single-family house in a subdivision that is within the budget. Unlike the Southwest, for example, Massachusetts is not dealing with large increases in population. Indeed, the state was the only one in the union to lose population in 2004. In the previous several years, land was consumed at a rate five times faster than population growth, according to the Boston Society of Architects.

A new paradigm – or at least a new option for living – is needed to keep housing affordable and to recycle land that already has infrastructure, in the view of Governor Mitt Romney, who campaigned on a platform of smart growth. The new paradigm is density: more compact, multifamily residential development mixed with office and retail, in downtowns, town centers and, critically, near transit stations. With its 66 miles of heavy and light rail – the fourth largest in the country -- the Massachusetts Bay Transportation Authority system provides a network of

transit in Greater Boston that is the envy of metropolitan areas just now building light rail lines and encouraging development at stations. The area has a long tradition of transit-oriented development, from Boston and Cambridge to the streetcar suburbs such as Brookline and Newton. Density clustered at transit stations is no radical experiment here.

Romney has provided \$54 million to assist cities and towns in planning and executing transit-oriented development projects, and also signed a bill giving municipalities up to \$4,000 per new housing unit as incentive to change zoning to allow more dense development, in town centers or at transportation hubs. The TOD program includes technical assistance, facilitating redevelopment on property controlled by the MBTA and other state agencies, grants and awards for model initiatives, and a template for changing zoning to allow dense, mixed-use development, with an emphasis on residential housing, near transit stations. Communities that encourage transit-oriented development also score points on a new rating system used to prioritize the distribution of capital funding for basic infrastructure.

But compared to other parts of the country, Massachusetts has struggled to bring about transit-oriented development at both suburban locations and at more urban sites. The most prevalent objection to density near transit is based in fears of congestion and strains on local services. Established residents resist additional growth and especially dense growth, regardless of its proximity to transit.

New transit-oriented development can be found in Boston, Brookline and Cambridge, but more suburban locations are especially revealing in terms of prevailing attitudes about density. There is no equivalent of Mountain View, Orenco Station or Mockingbird Station in eastern Massachusetts. The transit-oriented development projects that do exist tend not to be mixed-use or based on any kind of comprehensive site plan. They include:

- The Jefferson at Salem Station (JPI), 266 high-end apartments adjacent to the Salem MBTA commuter rail station at Bridge and Washington streets;
- Woodlands at Abington Station (Beacon Companies), 192 rental apartments, 39 of which are affordable, on 17 acres near the Abington MBTA commuter rail station;
- Canton Center, including 29 apartments over retail directly across from the Canton Center MBTA commuter rail platform on Washington Street, and the 39-unit Village at Forge Pond three blocks to the south;
- The Grover Cronin building redevelopment (Archstone), across from the Waltham MBTA commuter rail station, with 281 residential homes and 26,000 square feet of retail space;
- Norwood Crossing (Abbott), 105 one- and two-bedroom apartments across from the Norwood MBTA commuter rail station;
- 10-12 Summer Street in Manchester-by-the-Sea (Affirmative Investments), 39 rehabilitated apartments and new-construction condominiums, across the street from the Manchester-by-the-Sea MBTA commuter rail station.



Apartments over retail at Canton Center

Anthony Flint

Most transit-oriented development in Massachusetts remains in the planning stages; some communities have established transit zoning overlay districts and are awaiting proposals, while other projects are currently under construction, permitted or about to enter permitting. These include:

- Station Landing, Medford (National Development), 650 rental apartments and condominiums, 100,000 square feet of retail, 165,000 square feet of office space, a 190-room hotel and a 1,350-space parking garage, at the Wellington Circle MBTA station on the Orange Line;
- Woodlawn at Newton (National Development), 180 rental apartments on 3.5 acres, currently a 448-space parking lot, with spaces to be accommodated in new 548-space parking structure on site, at Woodlawn stop on the MBTA Green Line D branch;
- Old English Square, Holbrook (The Mullins Co.) 211 condominiums on 79 acres within a quarter-mile to a half-mile of the Randolph-Holbrook MBTA commuter rail station;
- Oak Grove, Malden-Melrose (Pembroke Properties, a subsidiary of Fidelity Investments), 500-575 residential units and 21,000 square feet of retail on a 15-acre site adjacent to the terminus of the Orange Line;
- The Residences at Ballardvale Crossing in Andover (Ballardvale Crossing LLC), 68 luxury condominium units in 10 three-story buildings on 9-acre site within walking distance of MBTA commuter rail;
- The Residences at Lakeville Station in Lakeville (Oxford Development), 192 rental apartments, half of them affordable, near Lakeville MBTA commuter rail station;
- South Weymouth Naval Air Station, (LNR Property Corp.), 2,855 residential units, partially in a transit village adjacent to the South Weymouth MBTA commuter rail station;
- Transit village district plans in Westborough, for a 90-acre site along Smith Parkway near the commuter rail station, with a mixed-use proposal with 238 residential units pending approval for a transfer of development rights;

- Transit village district plans in Ashland, where a 500-unit residential project near the commuter rail station, the Jefferson at Ashland Station, is expected to be resubmitted soon by JPI;
- Wonderland/Revere transit district, paving way for housing and retail on the parking lots adjacent to the terminus of the Blue Line at Wonderland station; complicated by multiple landowners

In many of these cases, the density of the project was reduced in negotiations with the municipalities and surrounding neighborhoods. The Oak Grove project, for example, was the subject of litigation that ended only after Pembroke Properties agreed to reduce the number of residential units and the square footage of retail, and to donate hundreds of thousands of dollars to local educational and community programs in Malden and Melrose. The proposed project is on vacant industrial land primarily in Melrose, between a child care center, auto mechanics garages and Pescione’s Kitchen restaurant in a former IHOP location, and across a canal and access road from the working-class Oak Grove residential neighborhood at the northern edge of Malden. “There was a lot of concern,” said Paul Sturtevant, a barber at 280 Washington Street, across from the concrete Oak Grove MBTA station, although the development would be barely visible from that neighborhood. Residents demanded that there be fewer than 575 residential units, which Pembroke Properties agreed to, although the precise number remains undisclosed.



Oak Grove, Orange Line terminus, Malden

Anthony Flint

At Old English Square in Holbrook, the developer, Joseph Mullins, agreed to reduce the number of residences from 300 to 211, says Robert Buckley, attorney at the Boston firm of Reimer and Braunstein. The design of the project, off Route 138 and within walking distance to the

Holbrook-Randolph commuter rail station, was also modified after Holbrook residents objected to residential units above retail, single-family townhouses nearby and proposed shared parking schemes. The project was rejected outright in 2003 in a town meeting vote after residents voiced concerns about strains on local services and schools, but won the necessary two-thirds majority for a zoning change last year. "Tying to convince a public forum was very difficult," Buckley says. "They thought it was too dense and too much of a mixture. There was some politics being played also. We dropped it by 100 units and allowed the planning board to write the text of bylaw. That was a big issue -- we had taken the initiative to draft the text, and they didn't like that."

In several cases concerns about fiscal impact are anticipated. In the transit village overlay district in Westborough, 65 percent of any residential development must be comprised of studios and one-bedroom units. Three-bedroom units suitable for families with children are limited to 10 percent.

"The impact on the schools and town services has been looked at. That's what the taxpayer asks," says Westborough town planner Jim Robbins. "At town meeting we showed the impact of studios and one-bedrooms versus two- and three-bedrooms. We're not looking at an opportunity for families with lots of kids. We expect mostly young professionals, singles, dual-incomes, and commuters, going to Boston or Framingham. We are mostly large-lot single family homes -- we have plenty of that kind of housing for families. But there are not many opportunities for condominiums, townhouses or apartments."

In addition, the allowable densities were increased only after developers were required to donate parcels elsewhere in the town for open space and recreation, in a transfer of development rights program. A developer who proposed 300 condominiums on 30 acres in the village district was rejected in his bid to exchange a 13-acre parcel for that density; a new proposal to exchange 24 acres is being considered that would allow him to build 238 units on the same 30 acres. Any development must be mixed-use, as well, to provide commercial amenities and create a neighborhood, Robbins said.

For developers, such negotiations are a step up from outright rejection, which has been equally common for transit-oriented development in recent years in Massachusetts. In one notorious example, voters in Kingston rejected a plan for a transit-village district around the commuter rail platform in town that is the terminus for the Old Colony line. The site is currently a sand and gravel pit. In exchange for building more densely, developers would have been required to donate land for open space elsewhere in Kingston in a transfer of development rights arrangement similar to Westborough's. The idea was soundly defeated at town meeting. Several residents said dense development at the train station would be too urban for Kingston, a South Shore suburb off Route 3. Paul Tanous, a resident on nearby Copper Beach Drive who opposed the transit village district, said most people in Kingston preferred single-family home subdivisions with two-acre lots. "Everybody's in favor of that because of the quality of people coming in here - attorneys, doctors, people who have made money in the stock market. They will get involved in town politics and give us a more professional look, similar to Duxbury or Hingham," he said. Clustering development near the train station "would take away the small-town Kingston feeling. It would create a city within a town, and nobody wanted that," he said.¹⁶

To the extent that established residents are concerned about congestion and car use, despite the proximity of dense development to transit, there are few models that emphasize design and pedestrian connections in Massachusetts as yet. The Woodlands at Abington Station is a made up of several buildings on a suburban-style campus with several acres of open space, with ample parking and private garages. It is accessed by a long driveway off of Summer Street in Abington. There is no sidewalk for residents to use to walk to the commuter rail station across the street, and no crosswalk.



Woodlands at Abington Station

Anthony Flint

At the Jefferson at Salem Station, the parking lot is larger than the footprint of the buildings housing the luxury apartments. Residents say that virtually everyone who lives there drives a car, although the Salem commuter rail station is adjacent to the development. For those who do take the train, getting to the station requires walking up a hill and over the tracks and down again; a fence separates the development and the platform and tracks. A frequently used shortcut takes Jefferson residents down a dilapidated set of wooden stairs past a vacant storefront.

Salem deputy planner Denise McClure said the Planning Board requires 1.5 parking spaces per unit in the city and the Jefferson has 1.6. “We asked that they do less parking at the site, because of its proximity to downtown and the train station, but they were unwilling to remove any spaces. They normally construct 2 parking spaces per unit in their other projects,” McClure says.

The Jefferson at Salem Station caters primarily to single or childless professionals working in Boston. The \$28 million, three-story apartment complex includes a clubhouse area, and the cost of the units range from \$900 to \$1,600 per month. The land was previously zoned industrial and stood vacant for many years. The project, on the former Parker Brothers factory site, was a kind of beachhead for transit-oriented development in Salem. Since its completion in 2002 plans have moved ahead for the North River Canal area also adjacent to the train station.



Jefferson at Salem Station

Anthony Flint

Ted Tye of National Development, which recently broke ground on Station Landing at Medford's Wellington Circle MBTA station on the Orange Line, said that good design, a mix of uses and greater density are the keys for successful transit-oriented development in Massachusetts. Station Landing's residential density is 60 units per acre.

"We're trying to create a 24-7 community – to make it a community where people live and play. If you wanted this kind of thing you might live in Boston proper or the Charlestown Navy Yard or Marina Bay. Those are the images we're trying to conjure -- the community, along with the transportation," Tye says. "Density is an important concept. Without it, you can't create community. You need people on the streets and you need density for infrastructure. It breaks the mold. It's an evolving concept in the Northeast. You see a lot of great communities in the rest of the country and not so many here."



Site for Station Landing by Orange Line on Mystic River National Development

Resistance to density is a common theme in the response to the Chapter 40R program, the law passed by the state Legislature last year that rewards communities with up to \$4,000 per housing unit if they change their zoning to allow more density in town centers, downtowns and near transit. The density requirements are eight single-family dwellings per acre, 12 two- or three-family residences per acre, or 20 apartments or condominiums per acre, all on land that is either downtown, near a town center, near transit, or on a vacant industrial site.

The money is intended to offset the fiscal impact on municipal services that new housing brings. In exchange, the commonwealth hopes to convince a variety of cities and especially towns to allow the development of more multifamily housing. Radical changes in zoning to allow more density and mixed-use development are necessary because, ironically, a traditional New England town such as Concord is actually illegal today under current zoning in Massachusetts.

Cities and urban places with existing downtowns – Pittsfield, Northampton, Natick, Newton, Quincy, Somerville, Chelsea, Weymouth and Boston – have all signed up for the program. But suburban towns – even those with transit stations -- have largely taken a pass. Local officials say

the financial incentives aren't big enough to cover the costs on services that are triggered by new housing, particularly school costs. Local officials also bristle at the requirement of a streamlined approval process. Primarily, however, town planners say the density required in the town-centered or transit-oriented development districts is simply too high – that such density would be detrimental to the community's character.

“I wouldn't even waste the time of the Planning Board to discuss it,” says Belmont town planner Timothy Higgins, in a typical response to queries sent to Massachusetts planners. “The density is much too high, local control far too weak and it's doubtful at best that the state would come through with the financial incentives promised.”

The attempt to bring about more density and compact, transit-oriented development may not be successful everywhere. David Begelfer, executive director of the National Association of Industrial and Office Properties of Massachusetts, says 40R would result in more housing production if it was more flexible.

“The regulations do not go nearly far enough in permitting smart growth districts to be located where the marketplace and the local, political process determines they are best located. (The state) has not been flexible in establishing reduced density levels in our smaller communities,” Begelfer says. Dense development may be best suited in a town center or near a train station in many cases but not in all cases, he says. “Not all communities are served by trains or have bus terminals. Not all communities have abandoned mill complexes. Not all workers -- perhaps not even a majority of workers -- can commute to jobs by rail lines or via bus terminals. Not all communities will welcome high-density development in historic, town-center neighborhoods. Some communities might instead prefer to start a new center near a crossroads, or along a highway.”

Douglas Foy, secretary of the Office of Commonwealth Development, says cities and towns don't have to take advantage of the incentives. But, he notes, if they have less than 10 percent affordable housing they will be subject to developer proposals under Chapter 40B, anti-snob zoning law -- at sites that they may like even less. They will also drop lower on the state's new “smart growth index,” which will be used to prioritize state funding distributions for infrastructure and capital projects. Historically, Foy says, New England communities have had a mix of housing types and density and a mix of uses in town centers, and the program is simply an attempt to restore that option.

Conclusions & Table

Developers frequently make the observation that it is much easier to build at undeveloped sites on the suburban fringe than anywhere near existing infrastructure or urbanized areas. The thicket of issues associated with density helps explain that preference.

The success of dense development projects hinges on the local context, existing land use and regional mindset. Clearly, there is greater receptivity to a project like Orenco Station or Mountain View on the West Coast, than in Massachusetts. The proposal for a transit village in

Kingston, Mass. was essentially a slimmed-down version of Mountain View, and residents firmly rejected it. Issues of race and class appear to be more prominent in the Northeast as they relate to development.

Further research could include a more comprehensive catalogue of compact and transit-oriented development, differences in regional attitudes and market demand, existing land use as a determining factor, home prices compared to surrounding areas, and trends in transit and car use at transit-oriented development projects.

A few maxims emerge that cut across regional differences:

- The predominant demographic is single professionals or married without children or retiring baby boomers, who can afford the generally high cost of the housing
- Consumers will trade elbow room for compact development if the environment is lively and urbane, with all amenities within walking distance
- Parking is a required amenity because residents will not give up their cars, but is a contentious issue for negotiations with neighborhoods concerned about congestion
- A design that includes a quarter-mile walk to transit along inviting walkways will encourage residents to use transit more

The different types of compact and transit-oriented development might be categorized in terms of the primary demographic targets: young professionals in their 20s through 40s, single or married but predominantly without children; local residents accommodated through affordable housing programs or other mechanisms in areas where gentrification and housing affordability are concerns; and families for compact developments with more space, access to recreational facilities and retail and entertainment.

In the table below, the types are listed as being predominantly “young professional,” “family,” or “mixed,” with the additional category of “local,” for those projects where affirmative efforts have been made to include seniors or low- and moderate-income residents from the neighborhood. Additionally, the types are designated “TOD” for transit-oriented development and “compact” for developments not currently served by rail transit. The density column refers to residential density.

Coming Together

Characteristics of compact and transit-oriented development in the US

Project	Type	Size	Density	Top price
Mockingbird Station (Dallas)	Young Professional/TOD	211 lofts, 220,000 sq. ft. retail/entertainment	21 units per acre	\$5,000/month rent
Addison Circle (Dallas)	Young Professional/Compact	1,300 apartments, 400,000 sq. ft. office/retail/entertainment	54 units per acre	\$4,600/month rent
Pleasant Hill (Walnut)	Young professional/TOD	2,400 homes, two hotels, 300,000 sq ft office	17 units per acre	\$550,000

Creek, Contra Costa County, Calif.)		space, retail		
The Crossings at Mountain View (Santa Clara County, Calif.)	Young professional/TOD	359 homes, 2,000 sq ft retail	30 units per acre	\$350,000
Fruitvale (Oakland)	Local/TOD	247 apartments, 70,000 sq. ft. retail, plus community center	21 units per acre	\$2,300/month rent
Orengo Station (Hillsboro, Ore.)	Mixed/TOD	1,834 homes, 100,000 sq. ft. office/retail	15 units per acre	\$450,000
Kentlands (Gaithersburg, Md.)	Family/Compact	1,700 homes, 1 million sq ft office/retail	12 units per acre*	\$1 million
Station Landing (Medford, MA)	Young Professional/TOD	650 apartments, 265,000 sq ft office/retail	60 units per acre	\$800,000

* Open space excluded

In the years ahead, dwindling fuel supplies and rising costs may prompt closer scrutiny of America's dispersed and car-dependent landscape. Even as hybrid and fuel-efficient cars become more popular, there is much to be done to make the physical environment more efficiently organized. Without more dense and compact development, it is more likely we'll be stuck in traffic for longer – though perhaps in fuel-efficient cars. Millions will be spent by strapped local and state governments to extend infrastructure; the loss of wildlife habitat and ecosystems and farmland and accessible open space will continue, and socio-economic fragmentation will intensify. To get ready for those potential 100 million new people, and to bring greater choice and more functionality to the landscape, the density dilemma will have to be resolved.

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