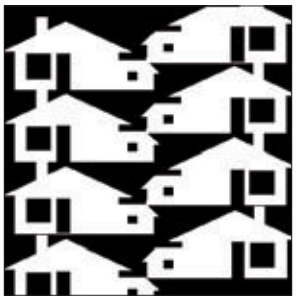
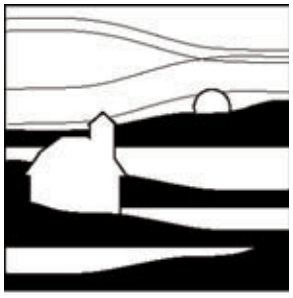
5. Transit Oriented Development

Fact Sheet





This smart growth tool can be used in urban, suburban, and rural communities.

What is Transit Oriented Development?

Transit Oriented Development (TOD) is a planning approach that calls for high-density, mixed-use business/neighborhood centers to be clustered around transit stations and corridors. TOD is considered a "smart growth" strategy, because it both tackles the issue of where growth should occur from a regional "sustainability" perspective; and it coordinates land use and transportation, such that both land and infrastructure are used efficiently.

Transit serves pedestrians. If the areas around the transit station have higher-density, mixed-use, pedestrian-friendly development, then those pedestrians have the opportunity to walk between the transit station and their destinations. In this way, TOD can:

- Provide real alternatives to driving and thus reduce auto-dependency;
- Create higher-density living environments in proximity to city amenities (often sought out by young professionals, students, downtown workers, and senior citizens).
- Generate pedestrian activity that can support retail stores; and
- Create opportunities for infill development and redevelopment in underutilized areas.
- Generate more market support for higher-density housing, in part by reducing auto-dependency for commuting.

Can TOD be Used Along a Busway?

Much of the research to date on TOD has focused on rail systems. However, many of the principles of rail-oriented planning also apply to bus routes and stops. The main difference between rail and bus is that rail-oriented planning can only be focused at rail stations, whereas bus-oriented planning can be applied along entire corridors. A busway — with a dedicated right-of-way and fixed stops — would function in the same way as a rail transit system, and therefore, busway-oriented planning could be approached in the same way as TOD along a rail line. The planned New Britain/Hartford busway provides a great opportunity for TOD in the Hartford region.

What Are the Chances of Success?

Cities throughout the country have made remarkable progress in TOD in recent years. Starting in the 1970s, Portland, Oregon embarked upon a strategy to counter the forces of suburban sprawl by investing heavily in the transit system and focusing high-density development in the downtown area and around light-rail stations and bus routes. As a result, Portland has become one of the most transit-friendly cities in the country. The downtown is a vibrant commercial center, and the city is becoming a popular tourist destination.

Toolbox

Mixed Use. One of the key principles of TOD is to have a mix of uses around the transit station. Mixed use development — combined with higher densities — is conducive to walking and is therefore compatible with transit service, which also serves pedestrians. The primary uses in a station area would typically be residential or office, with supporting uses such as retail, restaurants, entertainment, parks, and cultural, governmental, social, and educational institutions. A great deal of attention should be given to these supporting uses because they shape the character and quality of life of a neighborhood, even though they are not necessarily the most common uses.

Higher Density. Generally, the greater the intensity of residential and office development, the greater the levels of transit ridership. The absolute minimum residential density required to support any form of regular, on-street bus service is about 6 to 8 units per acre, on average, for a transit corridor. For express bus service with exclusively pedestrian access (i.e., no park-and-ride facilities) minimum average densities for the corridor should be about 15 units per acre. However, ridership levels at such minimum densities tend to be relatively low and heavily concentrated during commute hours. As densities are increased, ridership increases. Notably, researchers have found that there are sharp increases (a tripling) in ridership as average residential densities approach 30 units per acre. In the downtown area, a minimum density of about 50 employees per acre is necessary to support regular transit service, and people do not switch from driving to transit until employment densities reach about 50 to 75 employees per acre.

Downtown Bellevue, Washington
TOD Planning and Zoning

Bellevue's TOD efforts started with a major overhaul of the downtown plan in 1981. The intent of the plan was to transform downtown Bellevue from an auto-oriented suburban crossroads into a vibrant, pedestrian-oriented node with a strong sense of community. The 1981 Downtown Plan created a series of pedestrian spines that were well-connected to transit lines and lined with ground-floor shops and civic spaces. N.W. 6th Street became the main spine, linking Bellevue Square (a major shopping destination) with high-rise office buildings to the east.

New zoning provisions emanating from the downtown plan required that buildings along these pedestrian spines provide ground-floor retail and that the building and retail uses be oriented to the sidewalk. The immediate area around the downtown transit center (a major hub and transfer point for the regional bus system) was zoned for office development, while the surrounding areas were zoned for a mix of residential and office uses. The zoning ordinance provides density bonuses in exchange for public plazas, public artwork, childcare facilities, and affordable housing.

In the late 1980's, the City passed innovative parking provisions as well. Office space was limited to a maximum of 2.7 spaces per 1,000 square feet, and shared parking provisions allowed up to a 20 percent reduction in required parking for mixed-use development. An incentive for underground parking garages was provided by allowing developers to add one additional square foot of office space, for every two square feet of parking provided below ground.

Pedestrian-Friendly Design. Sidewalk-oriented buildings, strong pedestrian linkages, and attractive streetscapes can enhance the area around transit stations and help link the transit station to the neighborhood. Pedestrian-oriented signage, landscaping, benches, and lighting can create a comfortable and safe environment for walking. Keeping auto-oriented uses (like drive-through uses, gas stations, and auto repair shops) out of transit-intensive areas can also help preserve the transit-friendly environment and discourage car use near the transit station.

Mixture of Housing Types. In most parts of the State, detached single-family housing is the dominant housing type. While these are well-suited to many households, they are not ideal for all, because they may be larger than necessary, too costly to maintain on the household's budget, too far from community services and facilities, or may not provide enough opportunities for social interaction with neighbors. Through higher-density development, TOD provides the opportunity for a wider range of housing types — from small-lot single-family and two-family homes, to townhouses, to low-rise and high-rise apartments — that appeal to a larger range of demographic groups.

Quarter-Mile Radius. Higher-density, mixed-use, pedestrian-oriented development should be concentrated within a quarter-mile to half-mile radius of the transit station. A quarter-mile radius represents the distance and time (about a ten-minute walk) that most people would be willing to walk to a transit station. Destinations do not need to all be clustered right around the station, however. Spreading out destinations within the quarter-mile radius may actually encourage more foot traffic, from which local shops and restaurants can draw customers. Beyond the quarter-mile radius, pedestrian connections (sidewalks and crosswalks) should continue to be provided, but the basic pattern of development in the next quarter mile can start transitioning to lower densities and separate uses.

Keys to Success

Develop a community-based vision and plan for the station area. The first step toward TOD is to undertake a station

area planning effort that involves key stakeholders (residents, business leaders, property owners, transit riders, transit officials, and so on). The intent of the effort is to develop an entirely new vision for the station area, based on the transit-oriented model, leading to a station-area plan, and finally to incorporate the plan into the municipality's comprehensive plan. Because a station-area plan is site specific, stakeholders can become involved in the design process through charettes, in which participants work in groups to brainstorm and test out design scenarios for the station area.

Ensure that TOD plans are compatible with the surrounding areas. When planned for infill sites in urban and suburban areas, new development in the station area should be compatible with and build off the unique character of surrounding areas. Existing neighborhoods may already follow a TOD pattern, in that they may have moderate-to-high density development, mixed-use, and pedestrian-oriented shopping districts. TOD should provide a seamless connection between such areas and the station.

Provide small-scale convenience shopping near the station. Many people do incidental shopping while walking between a transit stop and their primary destination (i.e., their home or office). By concentrating stores near a transit stations, riders can go to the grocery or drug store, buy a carton of milk, or pick up dinner on the way home; or they can buy a cup of coffee or drop off their dry cleaning on the way to work.

Restrict parking in the station area. If new development projects in station areas were to provide large parking lots or garages, there could be two potential problems: (1) there would be pressure upon developers and owners to dedicate portions of those lots for use by commuters; and (2) the people living or working in the TOD zone, with plenty of parking to take advantage of, would have no built-in incentive to ride the bus. By limiting parking, transit becomes the preferred mode of transportation for residents and workers in the station area. Moreover, because parking takes up so much space, providing large parking lots would take up room that could otherwise be used for compact office or residential development.

Restrict parking in downtown. Studies have shown that the availability or lack of parking in a destination is one of the major

determining factors of whether people in urban areas are willing to drive. If parking is not readily available in the destination area, there will be an incentive to use transit instead.

f there is commuter parking, provide small, dispersed lots on the outer edges of the station area. A large commuter parking lot should not surround the transit station, as it would act as a physical barrier between the station and the surrounding neighborhood. Instead, commuter lots – if provided – should be placed on the outskirts of the station area, so that commuters walk through the neighborhood streets and have the opportunity to patronize local businesses. Preferably, rather than one large parking lot, smaller, dispersed parking lots should be used, such that large expanses of asphalt are avoided. Such smaller dispersed lots could more easily be shared by local businesses and residents, as they could be interspersed with residential and commercial uses.

Provide public parks. Plans for TOD should include new or expanded parks. Parks serve as a counter-balance to the higher-density pattern of development, as people living in a higher-density setting have less private yard space. Also, parks add to the character, popularity, and marketability of station areas. Parks could be added either inside or outside the quarter-mile station radius, but any park additions within the radius should be balanced with the need for higher density development in that area.

Create special public spaces that define the character of the neighborhood. Public plazas, pedestrian malls, decorative gardens, or other public spaces can allow for public congregation. Because such spaces are designed for pedestrians, they should be physically connected to the transit station and nearby shopping areas, which also serve pedestrians. Public places shape the character of a neighborhood, helping to attract investors, residents, workers, and customers.

Invest public money in the station area. Brownfield clean-up efforts can assist in converting former industrial buildings into residential or office uses that are more compatible with a station area. State and federal funding may be available for brownfield clean-up. In addition, in economically disadvantaged areas, development in station areas may be eligible for federal Community Development Block Grant (CDBG) fund-

Hayward, California
BART Station Area Plan

A notable station-area planning effort was undertaken in the City of Hayward, which is located in the San Francisco Bay Area. In 1992, the City commissioned the Core Area Plan for the area around the Hayward BART Station. The plan called for a mix of new townhouses, retail shops, and a series of public spaces and parks linking the station to the municipal complex and Hayward's historic downtown, which had been suffering from disinvestment for many years. The plan also included detailed redevelopment plans for portions of the station area and a phasing strategy for new development.

The 1992 plan provided a framework for the rapid growth that ended up occurring in the mid- to late-1990's, when Silicon Valley's explosive economic growth created a regional development boom and housing shortage. The several hundred housing units built in the station area in the mid-1990's sold quickly and have been in high demand ever since.

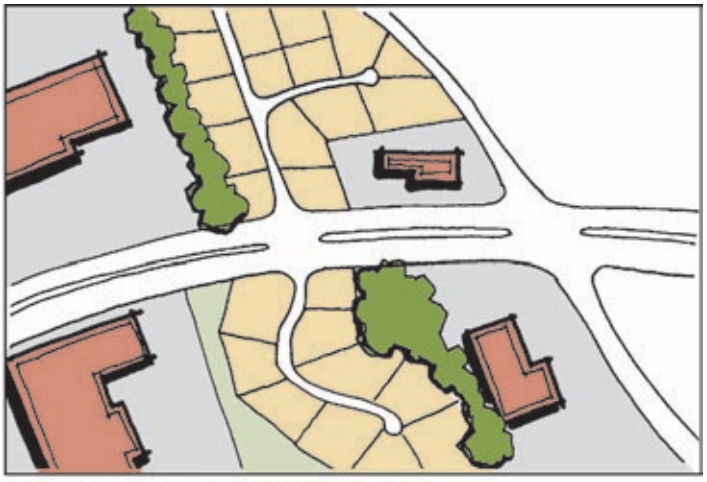
ing. Public agencies elsewhere have helped promote station area development by building office space or other facilities in those locations. One of the best examples was the federal government's construction of the offices of National Oceanic and Atmospheric Administration near the D.C. Metro's Silver Spring station.

Implement roadways and streetscape improvements. Public investments in the form of roadway or streetscape improvements can help make the station area more attractive and comfortable for pedestrians. Basic pedestrian amenities like sidewalks, lighting, and crosswalks should be installed when the transit station is built, and additional improvements — such as pedestrian-scaled lighting, benches, street trees, landscaping, awnings, and other sidewalk details — should be provided as new development occurs.

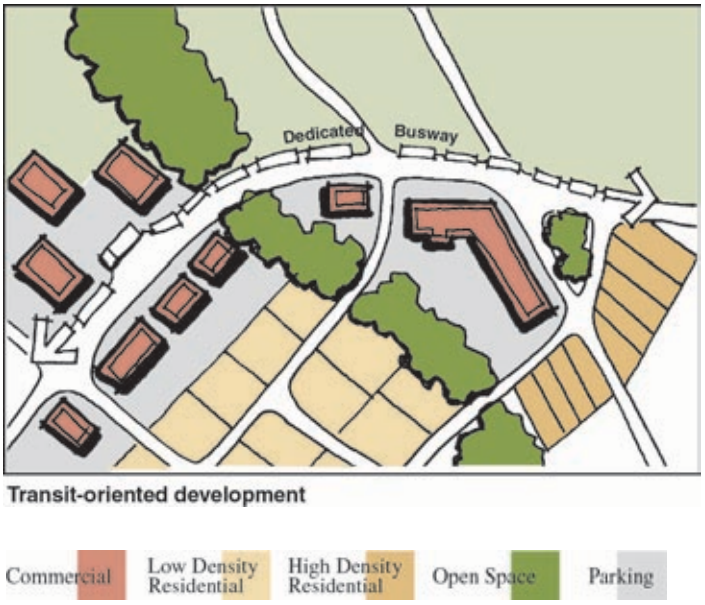
Don't over-invest in streetscape improvements and amenities in anticipation of new development. There is often the misperception that streetscape improvements alone will be enough to attract pedestrians and business into a station area. In reality, such pedestrian amenities, no matter how aesthetically attractive, may simply increase expectations and municipal expenditures without actually building up the long-term economic viability of the station area. Instead, the station area plan should establish a long-term framework for private development and public improvements, based on TOD principles and a realistic assessment of the real estate market.

Provide bicycle amenities. Bike lanes throughout the station area can encourage and support biking as a means of local circulation. Biking provides a good alternative to walking, particularly for those who live or work beyond the quarter-mile radius. Bike lockers and racks at the station, public institutions, parks, and shopping districts can further encourage bicycle use.

Educate the public about TOD. One potential impediment to TOD is resistance from residents, political leaders, or developers who may be skeptical of its benefits or effectiveness.



Typical auto-oriented development pattern



Transit-oriented development

Transit Oriented Development calls for mixed-use, higher-density, pedestrian-oriented development in the vicinity of a transit station. TOD provides an alternative to low-density sprawl (above), creating compact communities of character with a mix of commercial and residential uses (below). Compared to typical sprawl development, TOD provides greater opportunities for biking and walking and can reduce auto-dependency. (Source: APPS, Inc.)

Residents living near a station area may be fearful of potential traffic, crime, or other perceived impacts of higher density development. The success of a TOD program relies partly upon an effective outreach program that allays fears and illustrates the social and economic benefits. The visioning and planning process mentioned above provides an opportunity to engage in outreach.

How Can the State Help?

Coordinate decision-making for transportation investments. As the designated regional Metropolitan Planning Organization (MPO), CRCOG (through its Transportation Committee and Policy Board) makes overall transportation policy decisions for the Hartford region and decides how federal transportation funds are used. Meanwhile, the State Department of Transportation, (ConnDOT) has decision-making authority over the expenditure of State transportation funding. Better coordination between the funding decisions of these two agencies could help promote additional transit improvements and create more opportunities for TOD.

Allow ConnDOT to engage in joint development projects. Joint development (that is, a "joint" public-private partnership) can be effective in encouraging TOD. As the entity building the New Britain/Hartford busway, ConnDOT should have the ability to undertake joint development with municipalities and/or private developers along the busway route. Joint development authority includes the ability to sell air rights; develop property along the busway through partnerships with private developers; provide adjacent properties with direct access into the stations; and conduct market studies in order to determine development feasibility in station areas.

Require local plans to be consistent with the State Plan. The State's Plan of Conservation and Development supports TOD. Currently, local plans are only required to "take into account" the State plan and "note any inconsistencies" it may have with the State plan. (Conn. Gen. Stat. § 8-23). A consistency requirement would call upon cities and towns to explore, plan for, and promote TOD through their long-range planning policies. This would require cities and towns throughout the

State to consider opportunities for TOD at the local level.

- **Require local plans to be consistent with CRCOG's Regional Plan.** Because CRCOG is operated by the elected officials of its member organizations, the Regional Plan reflects the negotiated needs and wants of those communities. Whereas the State plan is a reflection of the statewide goals, this regional plan more closely reflects the challenges faced by towns in the Hartford region.
- **Require local zoning ordinances to be consistent with the local plan.** Many states throughout the country require consistency between the local plan and the local zoning ordinance, and the planning profession considers plan/code consistency to be good practice. Consistency ensures that the development and conservation policies adopted by a local government are actually being implemented through zoning, a local government's primary land regulation tool. Assuming that a city or town makes TOD a goal in the local plan, the zoning ordinance would have to be updated to reflect that policy direction.
- **Ensure that redevelopment efforts are sensitive to the surrounding physical context.** Redevelopment plans in station areas should follow the principals of TOD and help integrate new and existing development. The State should require that the plans prepared by Redevelopment Agencies, Neighborhood Revitalization Zones, and Urban Rehabilitation Agencies be sensitive to the uses, densities, and character of the surrounding areas. In addition, redevelopment plans in station areas should be required to make use of TOD techniques for mixed use, high-density, and pedestrian-oriented development.

For More Information

1. Center of Excellence for Sustainable Development, U.S. Department of Energy, Boston, MA. Phone: (617) 565-9700, <www.sustainable.doe.gov>.
2. Congress for the New Urbanism, San Francisco, CA. Phone: (415) 495-2255, <www.cnu.org>.
3. Project for Public Spaces, New York, NY. Phone: (212) 620-5660, <www.pps.org>.
4. Local Government Commission, Sacramento, CA. Phone: (916) 448-1198, <www.lgc.org>.
5. Smart Growth Network, Washington, D.C. Phone: (202) 289-4262, <www.smartgrowth.org>.

See also, Detailed Technical Analysis on Transit Oriented Development, available through CRCOG.

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