



Transit-Oriented Development Guidelines

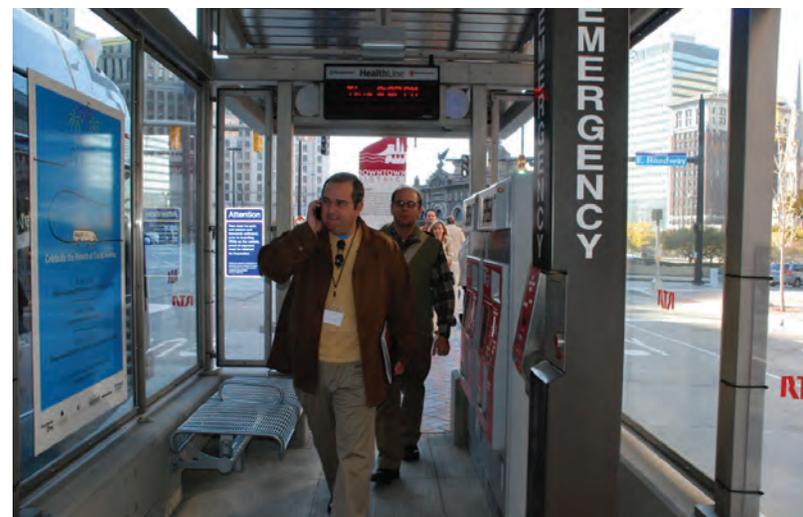






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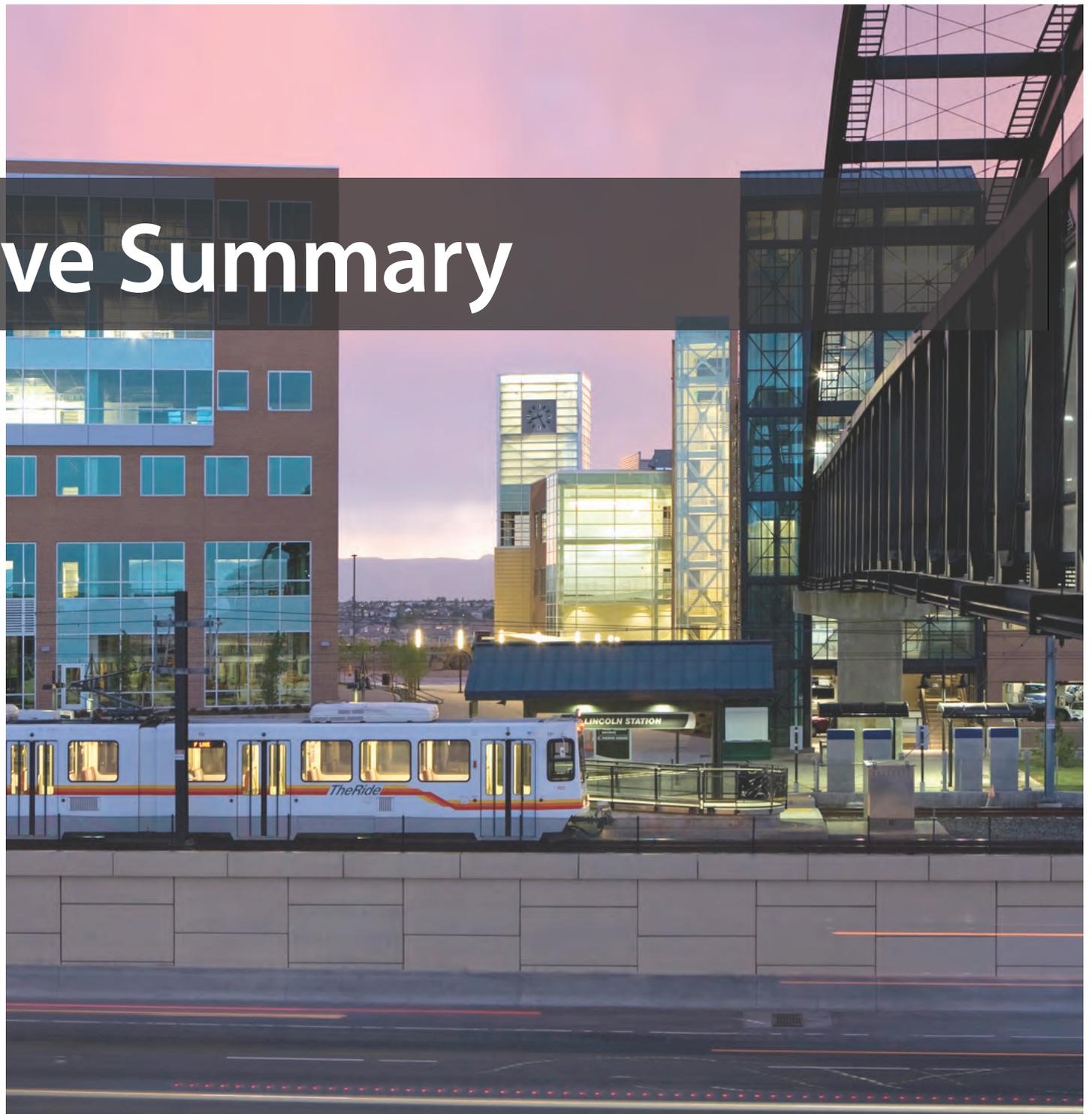
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TRANSIT-ORIENTED DEVELOPMENT GUIDELINES

Executive Summary



EXECUTIVE SUMMARY

What This Book Is About

This document presents a set of *Transit-Oriented Development Guidelines* which have been adopted by the Metropolitan Atlanta Rapid Transit Authority. Transit-oriented development, or “TOD”, means development that is vibrant, pedestrian-friendly, and genuinely integrated with transit.

These Guidelines are built around four foundational principles of TOD:

1. Station-area development that is compact and dense relative to its surroundings. This does not mean that all TOD is uniformly big—far from it. There are varying degrees of density and compactness. Downtown Atlanta looks very different from historic Decatur or the many local neighborhoods served by transit. But compared to its surroundings, TOD seeks greater density for a simple reason—so that more people can live, work, shop, or go to school within walking distance of the station. In so doing, they not only generate revenue for MARTA and other transit providers; they also drive less, use less gasoline, and save money.

2. A rich mix of land uses. TOD is often referred to as “place-making” or the creation of “transit villages”—livable places where the clustering of uses allows people to do what they need and want to do—live, work, shop, obtain services, go to school, use the library, have fun—more conveniently. The full menu of activities need not be found at every station. But a lively mix of uses strengthens the link between transit and development, as station areas become “24/7” places where people use transit at night and on weekends. Mixed-use stations and corridors also allow transit to function more cost-effectively. Combining transit origins like housing with transit destinations like jobs and schools allows the system to carry rush-hour commuters in both directions, serving more riders with the same fleet.

3. A great public realm. Transit-oriented development is pedestrian-oriented development, especially within the quarter-mile radius that most people will walk as part of a daily commute. In a TOD environment, a grid of small, navigable blocks has sidewalks throughout, with attractive amenities, lighting, and way-finding. The streets, sidewalks, plazas, and stations are safe, active, and accessible. There are no blank walls, and at street level there are shops, restaurants, and other active uses that bring the public realm indoors.

4. A new approach to parking. TOD does not mean “no cars”. Even with high transit utilization, many people will come and go by automobile and need a place to park. But a defining characteristic of TOD is that it requires less parking than similar development in non-transit locations. Parking is shared as much as possible, taking advantage of dove-tailing uses and reducing further the actual number of spaces provided. And that

parking which is required is designed so as not to dominate the visual or pedestrian environment.

MARTA’s interest in TOD reflects three over-arching strategic goals:

- To generate greater transit ridership—a natural consequence of clustering mixed-use development around stations and along corridors.
- To promote a sustainable, affordable, and growing future for the people of Metro Atlanta.
- To generate a return on MARTA’s transit investment—through enhanced passenger revenues, greater federal support, and, where applicable, development on MARTA property.

These *TOD Guidelines* are meant to provide the entire community of TOD stakeholders—transit agencies, local governments, regional planners, community groups, developers, and others—with a common vocabulary and frame of reference. For MARTA itself, these *Guidelines* help us play three important roles in the coming years:

- as a *TOD sponsor* for “joint development”—that is, for projects built on MARTA property or connected physically or functionally to MARTA stations;
- as a *TOD stakeholder*, for any development that occurs within the “zone of influence” of our current or future stations—roughly a half-mile around metro or commuter rail stations and a quarter-mile around local streetcar and bus stops;
- as a *TOD advocate*, for sustainable land use decisions along all of Metro Atlanta’s transit corridors, whether undertaken by MARTA or by others, as our regional transit network expands into the future.

In preparing these *Guidelines*, MARTA drew extensively on the significant TOD initiatives already undertaken in Metro Atlanta. These include, among many others, the Atlanta Regional Commission’s (ARC) Livable Centers Initiative and Regional Development Plan; the City of Atlanta’s Special Public Interest Overlay Districts, Atlanta BeltLine, and Quality of Life zoning programs; DeKalb County’s Brookhaven-Peachtree Overlay District; and MARTA’s own past TOD efforts, from the Transit Station Area Development Studies undertaken with the City of Atlanta three decades ago to recent joint development projects like Lindbergh City Center and the Chalfont on Peachtree lofts at Chamblee Station.

We also drew extensively on the TOD experiences and best practices of other metropolitan areas in the United States and Canada. These examples are cited throughout this document and are summarized in Appendix A.

Finally, these *Guidelines* reflect emerging state and federal policies. Here in Georgia, the state’s “IT3” plan—Investing in Tomorrow’s Transportation Today—is designed to focus transportation investments on promoting economic growth, ensuring public safety, maximizing the value of the state’s assets, and protecting the environment. And at the federal level, an organizing principle for both the Administration and the Congress is

their emerging focus on sustainability—the nexus of transportation planning, land use planning, and climate change policy. It is expected that as multi-year transportation and climate programs are enacted, TOD will become a stronger and more explicit factor in determining which transit projects receive federal support.

How These Guidelines Are Organized

This document is organized in five chapters. Chapter 1 provides a policy discussion of why transit-oriented development is important to Metro Atlanta in the years ahead; how MARTA, its county and municipal partners, and the ARC have worked together to promote TOD to this point; how other metropolitan communities in the United States and Canada have approached TOD policies and guidelines; and how MARTA hopes these *TOD Guidelines* will be used.

Chapters 2 through 4 address the TOD foundational principles outlined above. Each of these chapters provides a discussion, with graphic illustrations, of TOD policy concepts that are being used successfully in other transit systems or here in Metro Atlanta, as well as a set of flexible but specific standards for making these TOD concepts a reality. The standards presented in each of these chapters are those that MARTA will support in its roles as a TOD stakeholder and advocate—for example, in discussing proposed local zoning changes, or in commenting on Developments of Regional Impact. These are also the standards which MARTA intends to apply, with appropriate flexibility, to joint development on its own property. The particular focus of these core chapters is as follows:

Chapter 2: Density and Mixed Uses

Chapter 3: A Great Public Realm

Chapter 4: A New Approach to Parking

Chapter 5 provides a TOD Model Zoning Overlay based on the standards described in the three core chapters.

What These Guidelines Say

Chapter 1

The title of this chapter speaks for itself: “Time for TOD”. Transit-oriented development provides a central, organizing framework for Smart Growth—sustainable development based on livable, walkable, mixed-use communities that minimize greenhouse gas emissions and preserve open space. The Smart Growth movement is gaining momentum in the country as a whole and here in Metro Atlanta. Smart Growth and TOD are critical to our ability to nurture healthy communities and lifestyles and to curb the one-third of greenhouse gas emissions that arise from surface transportation. No less important is the value of Smart Growth and TOD to the economic competitiveness of Metro Atlanta, where traffic congestion is a primary barrier to attracting people, capital, and jobs.

These *TOD Guidelines* were prepared in 2009 and 2010, at the depths of an economic recession. But the initiative is timely—when recovery comes, it is in the vital interest of Metro Atlanta that investment begins flowing into transit-oriented development opportunities throughout our transit system.

The other timely reason for creating these TOD Guidelines is that our regional transit network is poised to expand dramatically. The Atlanta BeltLine is a national model of Smart Growth and TOD; yet it is just one piece of the dramatic network expansion plan known as Concept 3. Adopted by the Transit Planning Board in 2008, Concept 3 includes new streetcar lines, commuter rail, light rail, and bus rapid transit throughout the region. The opportunity for TOD is unprecedented—and it is increasingly clear that future federal funding for transit expansion projects will reflect their TOD potential.

Chapter 2

Chapter 2 addresses the foundational TOD principles of density and mixed uses. It sets forth a station typology—a set of seven categories or “types” that describe different combinations of density, location, land use, and transit functions. This Typology is a key tool in understanding how the stations that exist today can evolve into more TOD-friendly places, and how the metro rail, commuter rail, bus, and streetcar stations in the future network of Concept 3 can be planned with TOD in mind from Day One.

The station typology has seven categories: urban core, town centers, commuter town centers, neighborhood stations, arterial corridors, special regional destinations, and collectors. Each of the station types is illustrated with a pair of case studies, one from Metro Atlanta and the other from another transit system in the United States or Canada. Guided by the Station Typology, the Chapter recommends specific standards for applying the principles of density and mixed-use development to transit stations in Metro Atlanta.

- **Density.** The appropriate scale of development at a given station will vary with its location, transit function, and community context. A range of appropriate densities is presented for each of the station types. The greatest density is encouraged in the core of the district, immediately surrounding the station, transitioning downward toward the edges of the district, where it meets the surrounding neighborhoods. Density bonuses would be granted for vertical mixed uses, affordable housing, sustainable design, and exceptional public amenities.
- **Mixed Uses.** Within the potential TOD district around a station, the recommended standards exclude low-density, automobile-oriented uses such as industrial and distribution activities, strip commercial development, and low-density housing. Mixed-use development and its ingredients—retail, offices, multi-family housing at different income levels, civic facilities, and entertainment—are strongly encouraged.

Chapter 3

Chapter 3 addresses the TOD foundational principle of a first-class public realm that connects the transit station to its surrounding district. The public realm is a network of collective spaces—sidewalks, parks, plazas, streets, and even the outdoor and storefront areas of private businesses—that are enjoyed by transit riders, visitors, shoppers, residents, and workers. These elements physically frame the community and generate the vibrancy, visual interest, and ease of access that make TOD work.

The Chapter begins with the transit elements and their immediate environs, since these inter-related functions and facilities set the “template” of the station area. The station itself should act as the strong centerpiece of the site; supporting systems of way-finding and multi-modal access should make movement comfortable and easy. Pedestrian routes should be safe, well-lighted, and universally accessible for people arriving on foot, by bicycle, by stroller or by wheelchair.

The Chapter then turns to the relationships that organize the broader station area. The arrangement of land uses, streets, and public spaces varies across the station typology. A series of typology concept diagrams illustrates how the building blocks of transit and TOD fit together in each of the seven station categories. These diagrams focus on the environment immediately surrounding the station, where the transit elements and the broader TOD district come most fully in contact.

TOD requires open spaces of various sizes and programming types, but a lively public realm also includes shared space, which blurs the distinction between automobile and pedestrian zones. Similarly, the TOD streetfront experience softens the line between public and private areas, encouraging activity to come outdoors and people to come indoors. A connective grid—pedestrian and vehicular—enhances physical access in and around the TOD and blends the transit elements, the station area, and their surroundings. The right mixture of these features varies with the community setting and station type. Chapter 3 concludes by translating these principles into a set of specific *public realm design standards*. These provide descriptions and optimal dimensions for street grids, sidewalks, pedestrian zones, building facades, and the building-streetfront interface

Chapter 4

Chapter 4 addresses the last of the four foundational principles of TOD: a new approach to parking. This approach consists of reducing the supply of parking to reflect the transit location; sharing parking so that the supply that is required can be provided in fewer actual spaces; and designing parking so that it never visually dominates a TOD environment.

Park-and-ride is important because its location and design—which are controlled by the transit agency—substantially affect the ability of a station to accommodate TOD. Drawing on the experience of similar rail transit systems, MARTA outlines its policies for locating park-and-ride and for determining how much park-and-ride to retain when surface lots

are redeveloped.

With respect to development, the Guidelines recommend a set of standards designed to implement all three aspects of the TOD parking approach:

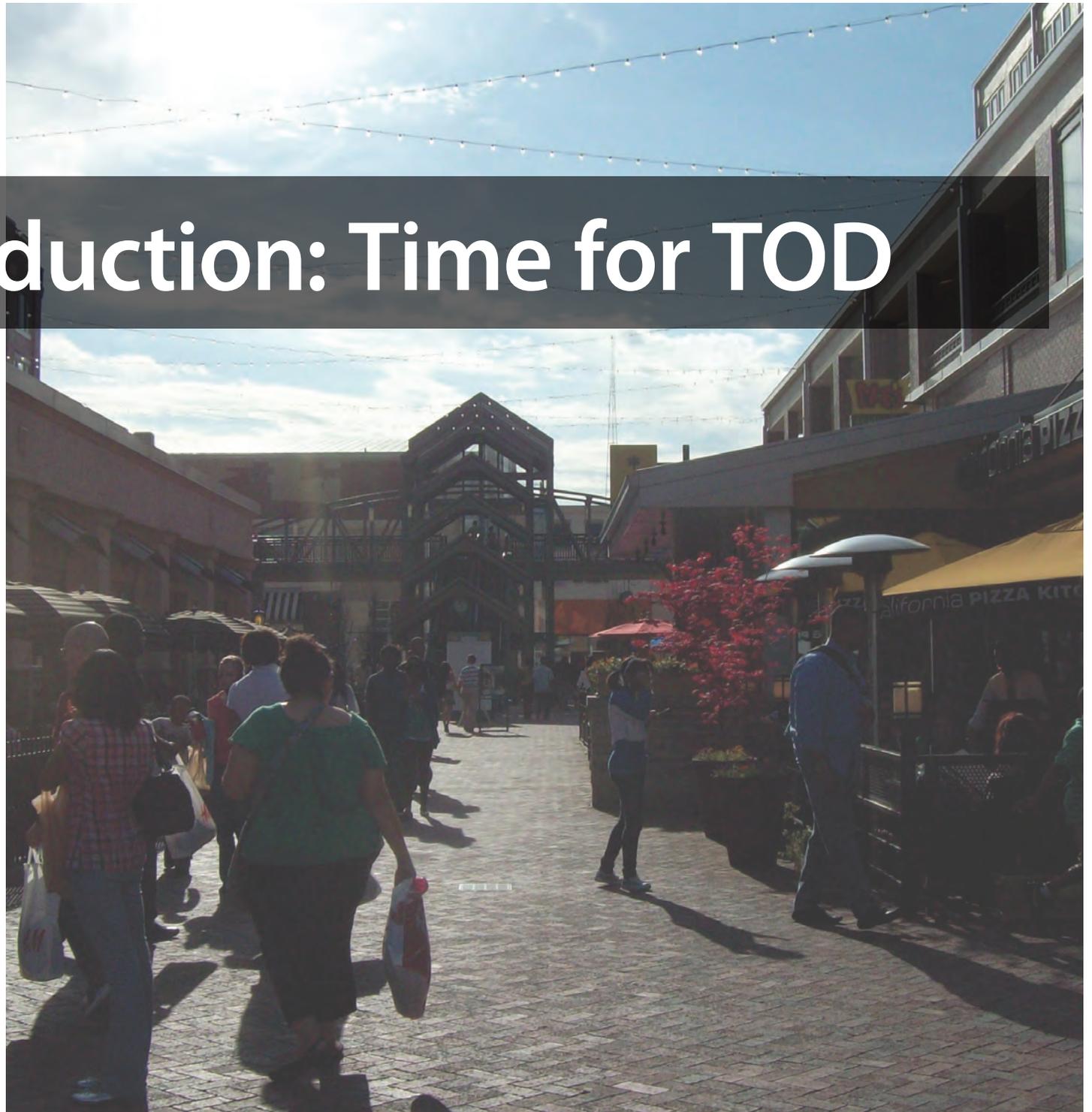
- **Amount of parking.** A table of model parking requirements presents minimum and maximum ratios for residential, office, and retail development. The standards also include mandatory parking for bicycles in all commercial and multi-family residential projects.
- **Shared parking.** Shared parking takes advantage of TOD’s mixed-use character. It is strongly encouraged, both on- and off-site, as a way of reducing the physical supply of parking as well as its cost.
- **Design and location.** The Chapter concludes with a set of specific design and location standards for parking in a TOD environment. The key concepts include placing parking behind buildings rather than between their front façades and the street; locating parking so as to “feed” rather than bypass station-area retail; replacing surface lots with garages as growing land values support greater development; avoiding blank-wall garages by providing retail at street level and “wrapping” the structure with development; providing priority spaces for bicycles and for cars that promote sustainability, such as electric and car-sharing vehicles; and ensuring pedestrian safety.

Chapter 5

Finally, Chapter 5 assembles the recommended standards for density, mixed uses, the public realm, and parking into a Model TOD Zoning Overlay. Its provisions reflect, in part, innovative zoning work already undertaken by the City of Atlanta, DeKalb County, Fulton County, and other Metro Atlanta zoning authorities. The model overlay is offered as a resource for local and county jurisdictions that have not yet adopted TOD zoning, or who wish to add or update particular TOD provisions in their zoning ordinances or other land use regulations.

Transit stations are not simply mobility access points, but highly valuable regional assets. TOD is everyone’s business. MARTA hopes that these *TOD Guidelines* will help MARTA and all of our public, private, and community partners work together to achieve it.

1. Introduction: Time for TOD



Introduction: Time for TOD

This document presents a set of *Transit-Oriented Development Guidelines* which have been adopted by the Metropolitan Atlanta Rapid Transit Authority. Transit-oriented development, or “TOD”, means development around transit stations that is compact, vibrant, pedestrian-friendly, and genuinely integrated with transit.

MARTA’s interest in TOD reflects three over-arching strategic goals:

- To generate greater transit ridership—a natural consequence of clustering mixed-use development around stations and along corridors.
- To promote a sustainable, affordable, and growing future for the people of Metro Atlanta.
- To generate a return on MARTA’s transit investment—through enhanced passenger revenues, greater federal support, and, where applicable, development on MARTA property.

TOD is everyone’s business, and MARTA hopes that these *Guidelines* will help the entire community of TOD stakeholders—transit agencies, local governments, regional planners, community groups, developers, and others—to achieve it.

Our *Guidelines* are built around four foundational principles of transit-oriented development. These principles are drawn from the policies, the experience, or the explicit credo of every successful TOD program in North America, including the ten metropolitan areas we studied in preparing this document. (In San Juan, Puerto Rico—a rail and bus city with land use issues resembling those of Metro Atlanta—these principles were actually spelled out in the legislation establishing TOD as the common policy of the transit system, its host municipalities, and the state-level planning authority.) These principles are also self-evident in the TOD planning work already undertaken here in Metro Atlanta.¹

1. **Station-area development that is compact and dense relative to its surroundings.**

This does not mean that all TOD is uniformly big—far from it. There are varying degrees of density and compactness. Downtown Atlanta looks very different from historic Decatur or the many local neighborhoods served by transit. But compared to its surroundings, TOD seeks greater density for a simple reason—so that more people can live, work, shop, or go to school within walking distance of a station. In so doing, they not only generate revenue for MARTA and other transit providers; they also drive less, use less gasoline, and save money.

Density in support of transit is qualitative as well as quantitative. TOD is often incompatible with automobile-oriented uses like strip malls, car dealerships, or “big box” retail centers, at least when developed in their traditional pattern of low-rise buildings, low-density, and extensive surface parking. Industrial and distribution activities—vital as they are to the regional economy—may benefit from proximity to

1. In *Transit Villages*, the landmark 1997 study of TOD, authors Michael Bernick and Robert Cervero summed up the ingredients of success as the “three D’s”—density, diversity (mixed uses), and design (the public realm and the location of parking), while also identifying parking reduction of as a cardinal feature of TOD.

transit (if workers can commute to these facilities, or if goods can be shipped on the same rail lines), but if these uses are right next to a transit station, they may limit the potential for TOD.

2. **A rich mix of land uses.** TOD is often referred to as “place-making” or the creation of “transit villages”—livable places where people reside, work, shop, obtain services, go to school, use the library, and have fun. The full menu of activities need not be found at every station. But a lively mix of uses strengthens the link between transit and development, as station areas become “24/7” places with “eyes on the street”, where people easily use transit at night and on weekends. Mixed-use stations and corridors also promote cost-effectiveness. For MARTA and its partner transit agencies, combining origins (housing) with destinations (jobs and schools) allows the system to carry rush-hour commuters in both directions, providing a bigger bang for the buck.

Two aspects of mixed-use development are especially important for successful TOD. One is that housing near transit should reflect a mix of income and affordability levels, so that citizens who rely on transit for daily mobility have the opportunity to live in attractive, walkable communities. The other is that uses can be mixed vertically as well as horizontally. Small shops, grocery stores, or even movie theaters can be powerful place-making ingredients if they are part of a multi-use, multi-level building rather than stand-alone structures.

3. **A great public realm.** Transit-oriented development is pedestrian-oriented development, especially within the quarter-to half-mile radius that most people will walk as part of a daily commute. In a TOD environment, a grid of small, navigable blocks has sidewalks throughout, with attractive amenities, lighting, and way-finding. The streets, sidewalks, plazas, and stations are safe, active, and accessible. There are no blank walls, and at street level there are shops, restaurants, and other active uses that bring the public realm indoors.

The public realm connects the transit station to the surrounding land uses, and by connecting those uses to each other, it helps achieve the unique synergy of mixed-use TOD—some people choose to live near transit because they can walk from home to work or to school or to the store without using their car or transit. The public realm can be a powerful place-making tool for local government, as up-front investments in streets, sidewalks, and plazas set the stage for private investment in TOD.

4. **A new approach to parking.** TOD does not mean “no cars”. Even with high transit utilization, many people will come and go by automobile and need a place to park. But a defining characteristic of TOD is that it requires less parking than similar development in non-transit locations — a boost not only for the environment, but for the developer, whose cost of parking is reduced. Parking can also be shared, taking advantage of dove-tailing uses and multi-purpose trips to reduce further the actual number of spaces provided. And the parking that is required is designed and located so as not to dominate the visual or pedestrian environment.

A TOD parking policy involves not only commercial and residential development, but park-and-ride for transit commuters. In deciding where to put park-and-ride, how much of it to provide, how to design it, and how much of it to retain when surface lots are finally developed, transit agencies should make sure that their park-and-ride program supports rather than limits their TOD program.

MARTA does not control zoning, or local land use planning, or investments in streets, sidewalks, and parks. But as a principal land-owner at many of our own stations, MARTA is a TOD *sponsor* for joint development projects built on or near those properties, which in turn can set the stage for high-quality TOD on other nearby sites. As a transit provider, MARTA is also a TOD *stakeholder* in any development that occurs within the “zone of influence” around its stations. And MARTA can and should serve as a TOD *advocate* throughout our region, as the transit network grows in reach and importance. It is in the spirit of partnership, and with all three of those roles in mind—sponsor, stakeholder, and advocate—that MARTA presents these *TOD Guidelines*.

Why do we need TOD Guidelines?

Transit-oriented development is where public transportation and community building meet. It has never been more important, for one simple reason: in metro areas like ours that have high-capacity mass transit, TOD is the key that unlocks Smart Growth. Smart Growth means sustainable development based on livable, walkable, mixed-use communities that minimize greenhouse gas emissions and preserve open space. With Smart Growth come economic development, less air and water pollution, less costly infrastructure, reduced congestion, greater workforce mobility, higher station area land values, better housing choices, and revitalized neighborhoods and town centers.

The challenge and opportunity of growth in Metro Atlanta are evident to anyone who lives, works, and drives here. From 1980 to 2000, the population of the 20-county region grew from 2.0 million to 4.2 million. It is now about 5.1 million, and in two decades—2030—it is projected at 7.0 million. Since 2000, the 20-county population has grown 24%—fastest among the nation’s ten largest metro areas.² No less important is the trend in the City of Atlanta, which like many central cities lost population in the 1980s and 1990s, dipping below 400,000. Having long since reversed that trend, Atlanta’s population is back near one half-million, having added over 60,000 people just since 2000.

In 2008, David Allman, the Chair of Metro Atlanta’s Livable Communities Coalition, wrote that a good bumper sticker for our region would be GROWTH HAPPENS. “We can spend transportation dollars,” he said, “cleaning up after the growth that happens to us, or we can spend them to support growth that is happening as a result of demographic changes, market demand and \$4-a-gallon gas.”³

2. Not only is Georgia one of the nation’s five fastest-growing states, but according to the Brookings Institution, it is one of 12 “new sunbelt” states that will account for virtually all US population growth in the coming decades (Brookings Institution, Center on Urban and Metropolitan Policy, 2004).

3. David Allman, Atlanta Journal Constitution, July 21, 2008. The Livable Communities Coalition, formed in 2005 as a result of the Metro Atlanta Chamber’s “Quality Growth Task Force”, unites many

Throughout North America, communities, developers, and citizens are coming to recognize Smart Growth as the path to more sustainable development and a better, healthier quality of life. The trend of people and jobs moving to downtowns, established neighborhoods, and new communities served by transit began long before the shock of spiking gasoline prices in 2007 and 2008. According to the landmark study *Hidden in Plain Sight*, a number of nation-wide demographic trends are fueling this shift: seniors are making up more of the total population and want to live near transit; household sizes are shrinking, as empty-nesters and singles become more numerous; traditional nuclear families represented 40% of all households in 1970 but only 24% in 2000. That same study identifies Metro Atlanta as a significant new market for TOD housing.⁴

Smart Growth is also a key factor in regional economic competitiveness, as metro areas recognize that their national and global peers are investing in Smart Growth and marketing themselves that way to increasingly mobile people and capital. The Transit Planning Board, in its 2008 final report, stated unequivocally that “congestion is the greatest threat to Atlanta’s continued economic growth”—citing a relocation expert who told the Metro Atlanta Chamber of Commerce that “Atlanta’s incredible strengths—the world’s busiest airport, a rich talent pool, research universities that are the envy of the nation and good weather all year...are being overshadowed by one big weakness—traffic.”⁵

But perhaps the most important reason to care about Smart Growth and TOD is what the Urban Land Institute (ULI) described in its landmark 2008 study, *Growing Cooler*. With nearly one-third of greenhouse gas emissions arising from surface transportation, our most effective counter-strategy as a society is to shape future development and land use in a way that lets us do everything we need to do with fewer car trips, fewer vehicle miles traveled, and less fuel consumption.

Why Do We Need Them Now?

After decades of collaboration among MARTA, the ARC, the City of Atlanta, DeKalb County, the City of Decatur, and other jurisdictions, TOD has gained a foothold in our region, both as a policy framework for some communities and as a feasible business model for some developers. Yet it must be said, as one looks across the region, that TOD has yet to establish itself as a common, sustainable outcome. As a Sunbelt region accustomed to automobile commuting, low-density development, and free or inexpensive parking, Metro Atlanta faces no small set of hurdles in embracing TOD.

Without a common set of standards, or consistent policy and implementation across jurisdictions, many station areas have seen uncoordinated development, some of it flatly antithetical to the principles of TOD. And because TOD is still the exception, both

of the region’s business, environmental, planning, real estate, and community groups behind the Smart Growth agenda.

4. Reconnecting America’s Center for TOD, *Hidden in Plain Sight: Capturing the Demand for Housing Near Transit*, 2004.

5. Transit Planning Board, *Creating and Realizing the Regional Transit Vision (Final Report on Concept 3)*, 2008, p. 13.

conventional market wisdom and the experience base of developers and lenders have weighed against it, making it relatively difficult to execute—even in good economic times, and even when local government wants it to happen.

These *TOD Guidelines* were prepared in 2009 and 2010, in the depths of an economic recession. But the effort is timely—when recovery comes, it is in the vital interest of Metro Atlanta that investment begins flowing into transit-oriented development opportunities throughout our regional transit network. With appropriate policies in place, TOD could help steer economic recovery to regional development targets like Fort McPherson or the vacant Doraville automobile plant, and to neighborhoods that badly need development to overcome decades of prior disinvestment.

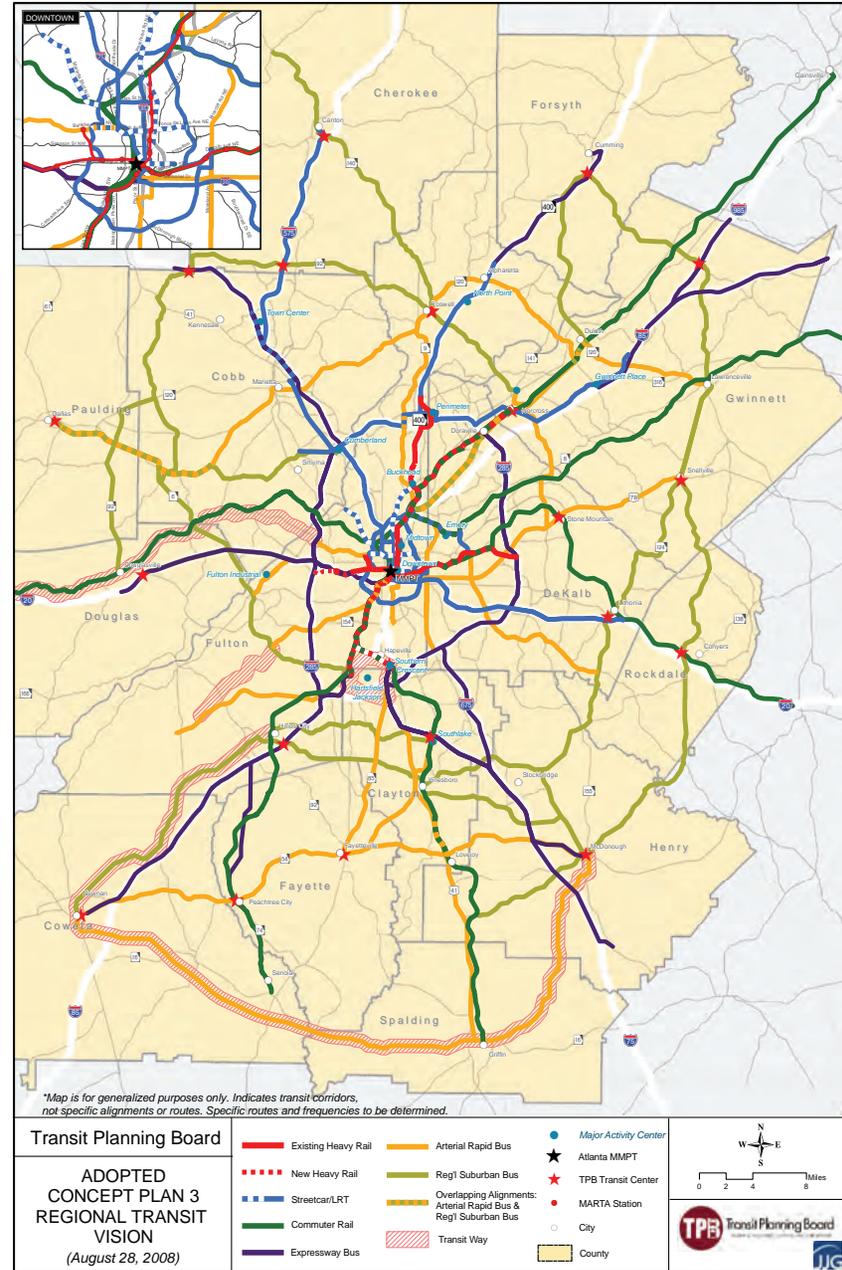
Another timely reason for creating *TOD Guidelines* in 2010 is that the regional transit network is poised to expand dramatically. This expansion will have a two-fold effect—creating many new transit stations where TOD could occur, and linking every transit station, whether existing or new, to more of the regional population and more of its employment and civic destinations. In short, system expansion will mean that the nexus of transit and land use in Metro Atlanta can grow to scale over the next quarter-century.

The Atlanta BeltLine is a signature project for Smart Growth built around transit. A joint effort of Atlanta BeltLine, Inc. (an affiliate of the City of Atlanta), MARTA, and other partners, the BeltLine will combine light rail transit, open space, mixed-use development, affordable housing, bicycle and pedestrian trails, and traditional neighborhood design concepts to create a national model of livable, walkable community-building in the heart of our region.

Yet the BeltLine is just one piece of the planned network expansion. In 2008, the Transit Planning Board—a partnership of MARTA, the State of Georgia, the ARC, the Georgia Regional Transportation Authority (GRTA), the City of Atlanta, and the metro area counties—adopted Concept 3, the region’s long-term blueprint for transit growth. Map 1 shows the Adopted Concept 3 plan. In addition to the BeltLine, it includes:

- new streetcar lines in central Atlanta
- extension of MARTA’s Northeast, South, and West heavy rail lines
- six high capacity rail corridors—both radial and circumferential—which could be implemented with light rail technology
- four freeway bus rapid transit (BRT) corridors
- six commuter rail lines
- 17 arterial BRT corridors
- a robust suburban bus system.

Much of the proposed new service, particularly the radial lines, will be built in the region’s “mega-corridors”, where high-capacity transit will not only relieve congested freeways and arterial roads, but allow transit-oriented activity centers to take the place of unchecked



Map 1: Adopted Concept Plan 3

sprawl. A prime example is the Georgia 400 Corridor, where Concept 3 proposes high-capacity rail service extending northward from Perimeter Center and the North Springs MARTA station. In 2006, MARTA completed its North Line TOD Study, which shows how TOD can emerge as the most likely land use scenario if carefully integrated with high-capacity transit. The study identified a 350-acre TOD opportunity at North Point Parkway; the Concept 3 Report predicts that in the expanded transit scenario the number of workers commuting to North Point by transit would increase ten-fold.

This perspective is critical, because federal funding criteria for new transit projects place increasing emphasis on TOD. Coordination of transportation planning, land use planning, and climate change policy has emerged as an organizing principle for both the Obama Administration and the Congress. As multi-year transportation and climate programs are enacted, it is expected that the “New Starts” capital grants program and other federal transit initiatives will strongly favor projects that are synergistic with land use and energy consumption—not only because these are priorities in their own right, but because they are strongly related to actual ridership performance.⁶ The Concept 3 Report also points to public-private partnerships as one way to bring additional investment to the transit program. If private investment is to be attracted to transit projects in America, it is far more likely to happen where development and transit go hand-in-hand.

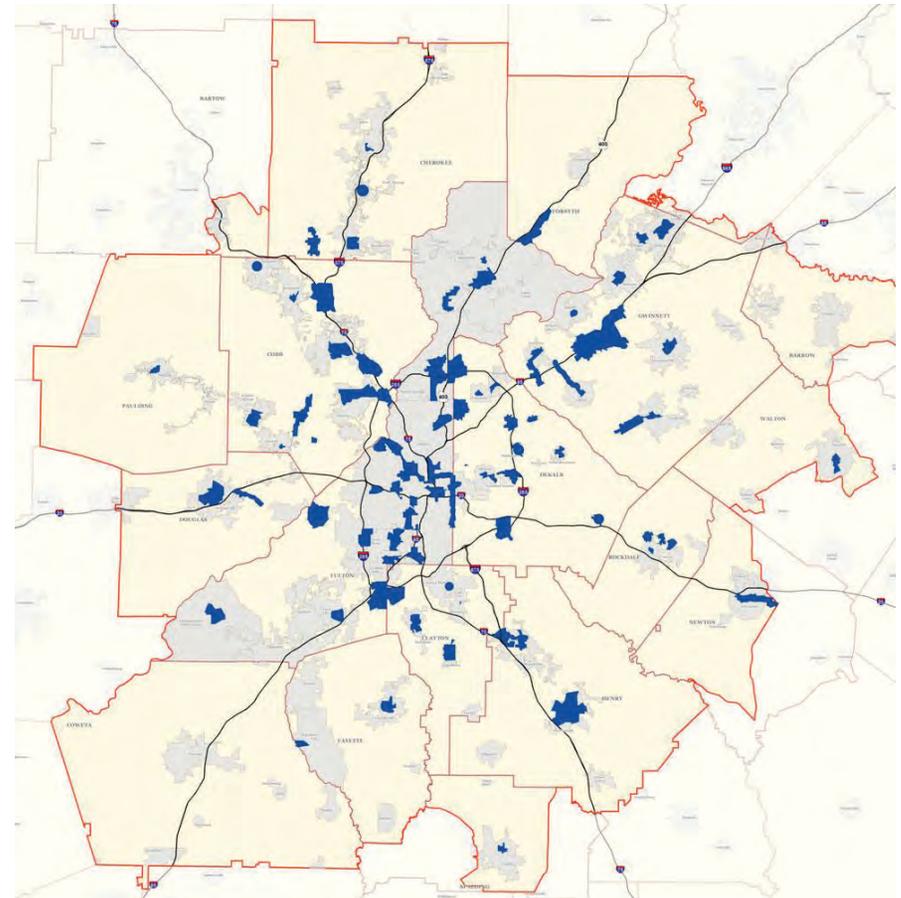
TOD Planning in Metro Atlanta: A Collaborative History

These *TOD Guidelines* rest on a firm foundation of prior work by and with our regional partners. From the earliest days of system planning, MARTA, the ARC, the City of Atlanta, DeKalb County, Fulton County, and other local jurisdictions have invested in station-area planning.

- In the 1970s, MARTA contracted with the ARC and the City of Atlanta to produce the Transit Station Area Development Studies, or “TSADS”. These studies were a breakthrough in transit planning, looking comprehensively at each station’s geographic and land use setting, its capacity for growth, its relationship to existing and planned infrastructure, and its ability to be connected to the surrounding community. The planning, zoning, and development activities now underway at MARTA stations throughout Atlanta—including our flagship joint development at Lindbergh City Center—grew from this first generation of studies.
- The ARC has made transit-oriented development an organizing theme of its work. This is especially true of the ARC’s signature planning programs of recent years—the Livable Centers Initiative (LCI), the 2006 Regional Development Plan, and Fifty Forward, ARC’s future visioning initiative underway as these *Guidelines* are written.

Since 1999, the LCI program has helped local governments create integrated,

⁶ A 2007 report by the Federal Transit Administration (*Predicted and Actual Impacts of New Starts Projects: Capital Cost, Operating Cost and Ridership Data*) compared 19 New Starts corridors and found MARTA’s North Line to be one of the three lowest performers in terms of actual versus predicted ridership. As FTA’s evaluation criteria turn more toward land-use, Metro Atlanta’s chances for new project funding will depend on how fully we integrate our transit corridors—both existing and proposed—with high-ridership TOD.



Map 2: Metro Atlanta LCI Studies (ARC)

forward-looking plans for 86 existing or future centers, with more to come. Shown in Map 2, the LCI centers are located throughout the metro area, in communities large and small; they reflect the guiding TOD principles of compact, mixed-use, pedestrian-friendly development with sustainable transportation at its core. Unlike similar programs around the country, Atlanta’s LCI program includes hundreds of millions of dollars in funding for specific transportation improvements tied to land use. In 2008, the LCI program won the Environmental Protection Agency’s National Award for Smart Growth, followed in 2009 by the American Planning Association’s National Planning Excellence Award for Implementation.

Seventeen LCI studies involve MARTA rail stations. These LCI plans, along with the earlier TSADS in Atlanta, form the foundation of subsequent planning and implementation by MARTA and the host communities.⁷

In 2006, the ARC adopted its new Regional Development Plan (RDP), based on Envision6—an in-depth, “what-if” planning process that integrated land use, transportation, and water resource policies to look ahead over the next quarter-century. During that time, the ARC anticipates that the population of metro Atlanta will grow by some two million people.

To channel that growth in a sustainable direction, the Regional Development Plan features a Unified Growth Policy Map (UGPM) and a Matrix of Regional Places. Together, these tools illustrate where the region wants—and needs—to channel future growth. The direction is clear. Dense, mixed-use development is desired in the central city, town centers, regional centers, station communities, and “mega-corridors”, where future transit expansion will be focused. The Regional Development Plan’s Land Use Policies convey a similar message: increase opportunities for transit-oriented development, mixed-use development, and infill.

- Based in large part on the TSADS and LCI plans, the City of Atlanta has begun to change its zoning to favor transit-oriented development. Atlanta’s 22 Special Public Interest (SPI) Districts provide customized zoning rules for specific areas of the city. Several SPI Districts cover densely developed station areas, including downtown, Buckhead-Lenox, Midtown, and Lindbergh, as well as Vine City and Ashby. The 2001 rezoning of Midtown (SPI-16), where development is organized around four MARTA stations, reflects especially well the TOD fundamentals of density, mixed uses, pedestrian connections, and sharply reduced parking requirements.

More recently, Atlanta has created an innovative set of “Quality of Life” zoning codes, with regulations for Multi-Family Residential and Mixed Residential Commercial Districts. Over time, these new district regulations are being applied to specific areas of the city. The Quality of Life codes promote neighborhood-appropriate density, enhanced pedestrian and bicycle travel, high-quality urban design, and reduced parking near MARTA stations.

For the Atlanta BeltLine, the City has created a unique overlay district covering the entire circular corridor. The BeltLine Overlay controls changes in underlying zoning, limits demolition of older structures, and features a connective street grid, a rich streetscape of sidewalks, amenities, and buildings, and parking that is limited, shared, and well designed.

Zoning is but one element of the City’s land use planning process. Atlanta’s new 25-year Comprehensive Plan is known as the Atlanta Strategic Action Plan (ASAP). The land use and transportation policies articulated in ASAP are those of an aspiring world-class transit city: develop transit station areas; promote residential density

near available infrastructure; discourage strip development; minimize urban sprawl; promote neighborhood conservation; enhance the pedestrian system; reduce parking requirements near transit. Closely related to ASAP is Connect Atlanta, the City’s first comprehensive transportation plan. Connect Atlanta supports TOD at the macro level, through investment in transit infrastructure, and at the micro level, through “complete streets” with connectivity, ample sidewalks, universal accessibility, and bicycle lanes.

- DeKalb County’s Comprehensive Plan is organized around the principle that growth can be channeled into regional centers, town centers, and neighborhood centers supported by well-planned transportation infrastructure. This nodal development pattern promotes transit, increases the range of affordable housing opportunities, and protects established residential neighborhoods and open space from incompatible development. Most DeKalb County MARTA stations are located within planned regional or town centers, where the County places particular emphasis on improved pedestrian facilities and a grid of Complete Streets.

DeKalb County has created a model TOD opportunity at Brookhaven Station, where a large, under-utilized park-and-ride lot can become a new, transit-oriented Town Center. In 2005, the County finished its LCI plan, and in 2007 it adopted a Brookhaven-Peachtree Zoning Overlay District that ensures the creation of a vibrant, walkable, mixed-use community hub. As owner of the parking lots, MARTA is planning a first-class joint development opportunity in harmony with local and regional planning.

It is no coincidence that the Transit Planning Board—whose members included the ARC, the GRTA, and MARTA—produced a plan for regional transit expansion strongly tied to land use in general and transit-oriented development in particular. The Concept 3 Plan brings 71 LCI centers into the transit network, and two of its five foundational Policy Goals are a focus on activity centers and an enhanced synergy between transit and land use.

Concept 3 also reflects the emerging transportation policy of the State of Georgia, particularly the state’s new “IT3” plan—Investing in Tomorrow’s Transportation Today. Completed in 2008, IT3 is designed to focus transportation investments on promoting economic growth, ensuring public safety, maximizing the value of the state’s assets, and protecting the environment. TOD supports all four of those goals. For example, IT3 estimates that in Metro Atlanta, by coordinating infrastructure investments, demand management, and development patterns, Georgia could generate 230,000 extra jobs and \$39 billion in congestion reduction benefits over the next 30 years.⁸

What Have Other Transit Metropolises Done?

Before starting to work on its own *TOD Guidelines*, MARTA looked at ten other metropolitan areas in North America that have adopted similar policies. We were looking for cutting-edge ideas and practices, not only in the details of zoning or urban design, but in the way transit authorities can become effective TOD partners with their host cities, regional planners, neighborhood groups, and developers. We tried to choose metro areas which,

8. State of Georgia, IT3 Scenario Results, November 2008.

7. The ARC’s Community Choices Toolkit includes a TOD Implementation Tool, providing practical guidance on making TOD a reality.

like Atlanta, have built their systems in recent decades and are still expanding them. We refer to these areas as “transit metropolises”, to convey that the common frame of reference is not the transit agency, the central city, a county or regional jurisdiction, or the physical transit network, but an entire metropolitan community in which transit expansion and transit-oriented land use planning are shared regional goals.⁹

Because our *TOD Guidelines* envision the future transit network of Concept 3, we chose systems reflecting the full variety of transit modes and technologies. Washington, DC and San Juan, Puerto Rico have heavy rail and bus systems like Atlanta’s. Portland, Calgary, Pittsburgh, Sacramento, and our sister city of Charlotte have light rail and bus systems. York Region, Ontario, is building a new regional bus rapid transit (BRT) network. The San Francisco Bay Area has extensive heavy rail, light rail, bus, and commuter rail systems. Denver’s FasTracks program, like Concept 3, seeks to create a new multi-modal system, with light rail, commuter rail, and regional bus lines. As different as these systems are, they are North American leaders in creating TOD policies and, more important, successful TOD results.

The heavy rail systems in Washington, San Francisco, and San Juan, and the light rail system in Sacramento, conduct ambitious joint development programs, guided by thoughtful TOD guidelines and policies. The authorities in San Francisco (BART) and Washington (WMATA) are specifically known for converting surface park-and-ride lots into mixed-use development as their rail corridors mature and station-area land gains value. These two authorities have developed specific policies for deciding how to balance park-and-ride with TOD as the development process unfolds, and we believe a similar concept can be applied to MARTA stations. BART and WMATA also place an instructive emphasis on the way people get to the train—on foot, by bicycle, by feeder bus, or by car—and go out of their way to create pedestrian environments that work well for transit access and TOD alike.

Three of the transit metropolises we studied have created regional land use policies that direct future growth into transit-oriented centers and corridors and away from undeveloped areas. The names speak for themselves: Metro Portland’s *Urban Growth Boundary*; Greater Pittsburgh’s new comprehensive plan, *Allegheny Places*; and York Region, Ontario’s *Centres and Corridors*. These regional plans have much in common with the ARC’s Unified Growth Policy Map and Matrix of Regional Places, and like those planning documents, were created not by the transit agency but by its regional planning partner. In each case, the regional transit agency has committed itself to promoting TOD in the centers and corridors identified by the plan. Puerto Rico is in the process of adopting a regional land use and zoning map that strongly favors development in the Tren Urbano corridor.

Denver, Charlotte, Portland, and Pittsburgh have developed the concept of *station typologies* to help the entire stakeholder community understand the type of transit function

9. The term “transit metropolis” was popularized by Professor Robert Cervero in *The Transit Metropolis: A Global Inquiry*, Island Press, 1998.

each station serves and the density and mix of development it can best accommodate. Is a station located in the downtown, a village or town center, a neighborhood, a major regional destination, or a highway node? Is it suitable for park-and-ride, for TOD, or for both? In a region as large and diverse as Metro Atlanta, we think the typology idea is a valuable one.

These and other best practices in the ten metro areas we studied are cited throughout these *TOD Guidelines*. The full review of *TOD guidelines*, plans, and policies in these ten transit metropolises is provided in Appendix A.

In addition, several of the metropolitan areas we studied are located in states that have enacted comprehensive TOD legislation. Three such laws are of particular interest because of the degree to which they seek to make TOD an explicit part of state policy and align other state and local initiatives around that principle:

- California’s Transit Village Development Planning Act, originally enacted in 1994 and amended in 2004, allows any city or county to prepare a transit village plan encompassing the land within one quarter-mile of a station. Once in place, the transit village plan entitles the district to expedited state permitting and priority access to state transportation funds. Any subsequent zoning affecting the district must be consistent with the plan; also, the traffic impacts of the transit village itself may be excluded from congestion management planning. A city or county that creates a transit village district is allowed to create a parallel Infrastructure Finance District in which tax increment financing can be used to fund necessary public improvements. In 2008, California went even further by enacting Senate Bill 375, which directs the state’s Air Resources Board to set regional greenhouse gas reduction targets tied directly to transportation and land use planning. The new law requires each Metropolitan Planning Organization to include a “Sustainable Communities Strategy” in the regional transportation plan that demonstrates how the region will meet the greenhouse gas emission targets. The law requires that MPO transportation funding be consistent with this strategy, and provides both transportation projects and housing projects that advance the strategy with a streamlined state environmental review process.
- Pennsylvania’s Transit Revitalization Investment District (TRID) Act of 2004 allows any locality, combination of localities, or county to propose a TRID, encompassing an area ranging from one eighth to one half-mile mile around the affected transit station or stop. The TRID planning study, supported by state funds, must be prepared in consultation with the affected transit agency. The TRID plan encompasses not only the proposed transit improvements, but all other forms of public infrastructure needed to realize the transit village. Once the TRID is created, the Act provides for expedited state permitting and priority access to state transportation funds. TRIDs are automatically eligible for local designation as TRID Value Capture Areas, an enhancement of Pennsylvania’s general TIF enabling law. The Act also expands the powers of transit agencies and other public entities to undertake transit-oriented joint development.

- Puerto Rico’s Law 207 of 25 August 2000 was a comprehensive amendment to the enabling act of the Highways and Transportation Authority. The Act declares that TOD is the public policy of the Government and an explicit public purpose of the Authority, and seeks to implement this declaration in three ways. The legal powers of the Authority are expanded to include all of the capacities required to undertake joint development. All development permitting within the “zone of influence” of any station was subjected to the Authority’s review and endorsement, which is to be based on the TOD principles enumerated in the law. The Authority, the state-level Planning Board, and the municipalities affected by San Juan’s new transit system were directed to collaborate on a corridor-wide TOD planning and zoning initiative.

Using These Guidelines

As noted earlier, MARTA has adopted these *TOD Guidelines* in its roles as a TOD sponsor, stakeholder, and advocate. To those ends, we hope that these *Guidelines* will be used—by MARTA and by our fellow stakeholders—in the following contexts.

- MARTA acts as a *TOD sponsor* through its joint development program, in which development is undertaken on MARTA property or provides a direct connection to a MARTA station. As the land owner, we can control the development and set the bar for high-quality TOD that creates an attractive, human-scale place and boosts transit ridership. Joint development can range from retail concessions within a station to large-scale mixed-use development on MARTA land or air rights in the station vicinity. In addition to Lindbergh City Center, MARTA has undertaken joint development projects over the years at Lenox, Arts Center, Lakewood-Fort McPherson, Chamblee, and Medical Center.

The results of MARTA’s joint development program to date have been mixed. To some degree, this is a function of the learning curve, as our collective understanding of TOD (in other cities as well as Atlanta) has matured. The pedestrian environment at Lindbergh City Center, especially in its later phases, is far more connective than the inward-looking environment at Resurgens Plaza. Retail businesses at North Avenue Station are inside, with little or no street presence, and thus have to depend on MARTA passengers and AT&T Tower workers for patronage, rather than Midtown foot traffic. The Chalfont on Peachtree townhomes at Chamblee Station blend right into the community and are widely viewed as a success.

The larger picture, however, is that, notwithstanding individual successes, joint development has yet to take off. Aside from economic cycles and the challenges of implementing a still-new business model, the reasons surely include the absence of clear standards and expectations up-front, when developers decide whether or not to compete for a joint development project. Among the issues that may be left unresolved at the formative stage: What are MARTA’s over-arching goals for TOD? What does MARTA specifically expect with respect to density, urban form, public amenities, and parking? Is an affordable housing component required or expected? If the existing zoning does not support what MARTA and the developer want to do, is

there a realistic prospect that it will be amended? If the joint development site is an existing park-and-ride lot, will MARTA accept less than 100% replacement, and who will pay the true cost of building and operating a replacement garage?

A set of TOD guidelines understood and accepted by all stakeholders—the developer, the local community, and MARTA—cannot solve every economic or entitlement issue confronting a complex project, but it can go a long way.

As the economy recovers, an expanded joint development program is very much on MARTA’s agenda. Developers will be selected through an open, competitive proposal process using Requests for Qualifications, Requests for Proposals, or both. The first step in that process will be to consult with local government partners, other community stakeholders, and the development community, and with their input translate these *TOD Guidelines* into project guidelines that reflect the best combination of uses, density, urban design, and parking for a particular site. Development proposals will be evaluated based not only on the developers’ financial capacity, but on their adherence to the project guidelines.



Denver, Colorado Light Rail

- MARTA is a **TOD stakeholder** for any and all development that may be proposed in the “zone of influence” surrounding our stations. Although the extent of the “zone of influence” varies from place to place, it generally represents a radius of one half-mile around a metro rail or commuter rail station, and one quarter-mile around light rail and local bus stations. Being near transit does not automatically make a development transit-oriented—that depends on whether it has the density, vibrancy, walkability, and actual reliance on transit that define true TOD. To the degree that growth occurs near transit and is genuinely transit-oriented, MARTA gains more riders and the region gains more sustainability. MARTA wants to see communities and developers join forces to create high-quality TOD projects.

To that end, we will continue to work hand-in-hand with local zoning authorities to encourage provisions that promote TOD, and to support TOD-friendly zoning codes that have already been adopted. Chapter 5 of these Guidelines presents a Model Zoning Overlay reflecting best practices from Metro Atlanta and other transit metropolises.

Within the City of Atlanta, MARTA works with the 25 Neighborhood Planning Units (NPU) to discuss transit issues as well as development projects near our stops and stations. Our **TOD Guidelines** can provide a shared set of ideas and expectations for these important partnerships.

MARTA will also use these **TOD Guidelines** to shape its participation in the Development of Regional Impact (DRI) process. Major projects that are likely to have impacts beyond the borders of their host community are reviewed by the Georgia Regional Transportation Authority (GRTA) and the ARC to ensure their compatibility with regional land use, housing, environmental, and transportation policies.

To date, MARTA has played a limited role in the DRI process, commenting on transit service issues when applicable. We intend to participate more actively, using our role as an “affected party” to comment on the TOD aspects of the project and asking our partners at GRTA and ARC to include key TOD-related features among their conditions for project approval. MARTA’s comments on future DRI’s will address the project’s consistency with these TOD Guidelines, particularly the standards contained in Chapters 2, 3, and 4.

- MARTA will act as a **TOD advocate** wherever transit and development converge. Based on these Guidelines, we will encourage public agencies and community groups to use all available “tools” to promote sustainability, Smart Growth, and livable communities in our region. In addition to the recommendations for land use, density, public realm design, and parking presented in this volume, the “TOD toolbox” available to the State of Georgia, the ARC, cities, counties, and other jurisdictions includes:
 - station area improvements like streets, sidewalks, parks, trails, bicycle facilities, lighting, and universal accessibility improvements;

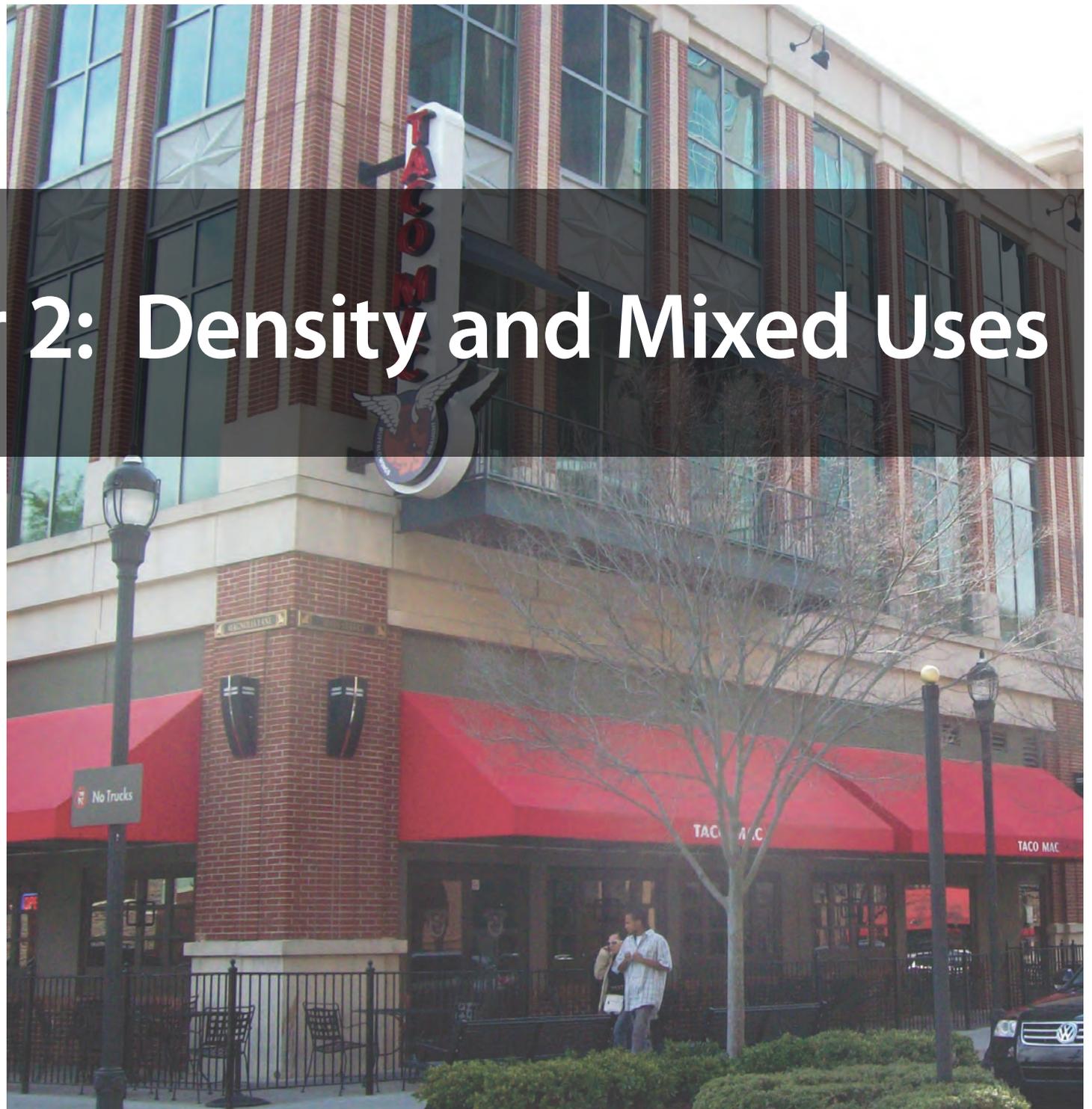
- the location of public buildings like schools, libraries, or agency offices next to transit stations, to make them more accessible to the community while targeting public investment to transit centers;
- the creation of Tax Allocation Districts, so that TOD can help pay for itself through the property taxes it generates (the City of Atlanta has already created a Tax Allocation District for the BeltLine);
- targeted use of existing finance programs for mixed-income, elderly, and workforce housing.

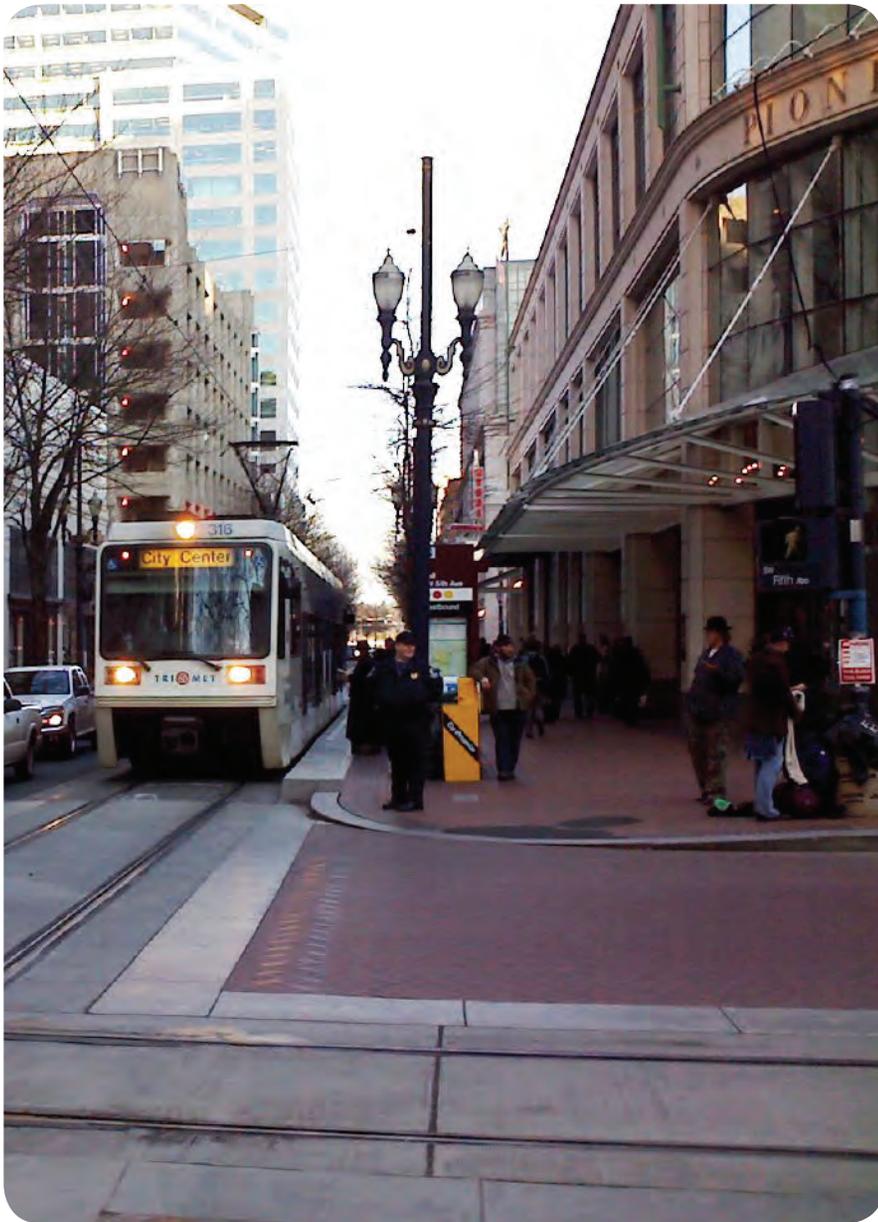
If these tools are applied in a coordinated strategy, Metro Atlanta can create TOD places of unsurpassed quality.

Finally, MARTA’s TOD advocacy will extend to the planning and design of future transit investments. Going forward, TOD should be central to transit planning, as it already is for the BeltLine. As the other Concept 3 transit investments proceed to detailed planning and design, MARTA’s TOD Guidelines are intended to help ensure that alignments, station locations, park-and-ride facilities, and intermodal connections are planned with TOD in mind from Day One.



Chapter 2: Density and Mixed Uses





Transit integrates well into the fabric of the town or city.

CHAPTER SUMMARY

This chapter addresses the closely linked principles of density and mixed uses. Following an introductory discussion of why density and mixed uses are fundamental to transit-oriented development, the chapter sets forth a station typology—a set of seven categories or “types” that describe different combinations of density, location, land use, and transit functions. This typology is a key tool in understanding how the stations that exist today can evolve into more TOD-supportive places, and how the metro rail, commuter rail, light rail, streetcar, bus rapid transit, and local streetcar and bus stations in the future Concept 3 network can be planned with TOD in mind from Day One.

The station typology has seven categories: urban core, town center, commuter town center, neighborhood, arterial corridor, special regional destination, and collector. Each of the station types is illustrated with a pair of case studies, one from Metro Atlanta and the other from another transit system in the United States or Canada. A map of MARTA’s 38 existing rail stations shows how they fit into the typology.

Following the station typology, the chapter recommends specific standards for applying the principles of density and mixed-use development to transit stations in Metro Atlanta. These standards reflect best practices and real-world experience here in Metro Atlanta and in the other transit systems we have studied.

Density

The appropriate scale of development at a given station will vary with its location, transit function, and community context. A range of appropriate densities is presented for each of the station types, using three common measures: floor area ratio, dwelling units per acre, and height. To achieve an appropriate TOD density for a given station area, we suggest a combination of density baselines and density bonuses. The density baseline would allow the greatest density in the core of the district, immediately surrounding the station, and would transition downward toward the edges of the district, where it meets the surrounding neighborhoods or countryside. Density bonuses could be used to reward vertical mixed uses, affordable housing, sustainable design, and public amenities that exceed basic requirements.

Mixed Uses

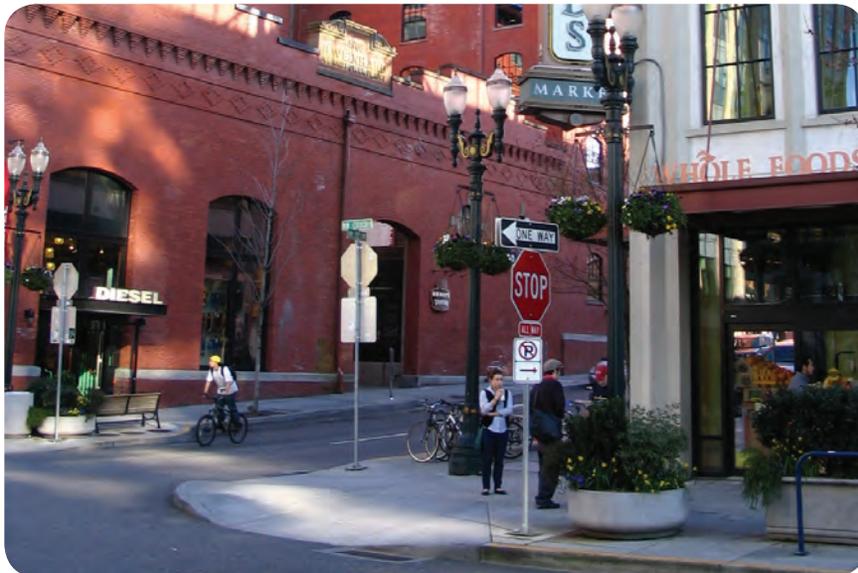
Within the potential TOD district around a station, the recommended standards largely exclude low-density, stand-alone, automobile-oriented uses such as industrial, warehousing, and distribution activities, as well as strip commercial development and low-density housing. Mixed-use development and its usual ingredients—retail, offices, multi-family housing, civic facilities, and entertainment—are strongly encouraged. The standards call specifically for “vertical mixed uses”—street-level retail and upper-level offices or housing in the same buildings, and for at least 20% of residential units, on average, to be affordable for workforce households, seniors, or persons with disabilities.



Townhomes respect a neighborhood scale while offering a higher density than typical single family homes.



Reuse and adaptation of existing structures adds a unique character to TOD development



A sufficient density is able to support local businesses and community amenities



The integration of transit with residential and retail uses provides convenient access for residents and transit users.

DENSITY AND MIXED USES

Fusing Transit and Development

Of the four foundational principles of transit-oriented development, two—density and mixed use—go hand-in-hand. Density is at the heart of the linkage between Smart Growth and transit ridership—a linkage that involves not only the volume of development, but its compactness of form at *both ends of the trip*. The more people can live and work, or live and go to school, or live and shop or dine or go to ball games within a short walk of a station, the greater the potential to convert that proximity into smarter, more sustainable growth.

This does not mean that TOD is uniformly big. Downtowns, historic town centers, neighborhoods, and villages all have their own appropriate levels of massing, height, and density. But TOD does mean that *compared to the surrounding areas*, a transit station and its immediate vicinity are developed at greater scale and are more compact.

Along with density, a mix of land uses is critical for two reasons. One is in the very nature of “place-making”—interesting, thriving places are not abandoned at 6:00 p.m. A full menu of activities need not and will not be found at every station; but communities with “24/7” ingredients make the most of the link between transit and development. When uses are clustered within close walking distance, workers or visitors can more easily use transit, knowing they can get lunch or do errands or go out after work without a car. And people looking for a place to live can more readily choose a transit community—not only because they can take transit to work, but because local activities can be done on foot.

The other reason mixed-use development is so integral to TOD is that it balances the peak ridership flow on the transit system. By combining transit *origins* (primarily housing) with transit *destinations* (like jobs, stores, and schools), mixed-use development allows the transit system to carry rush-hour commuters in both directions, serving more riders with the same trains and buses.

The principles of density and mixed uses combine in a number of ways:

- TOD is generally incompatible with stand-alone automobile-oriented uses like strip malls, car dealerships, or “big box” retail centers, at least when developed in their traditional pattern of low density, low-rise construction, and extensive surface parking. The introduction of TOD often means the replacement of such uses. Industrial and distribution activities—vital as they are to the regional economy—may benefit from proximity to transit, but if they are right next to a transit station, they limit the potential for TOD.
- Uses can be mixed vertically as well as horizontally. Large-format retail, supermarkets, or even movie theaters can be powerful TOD ingredients if they are part of multi-use, multi-level buildings rather than stand-alone, one-story islands. While vertical mixed use does not make sense for every building, it represents the re-emergence of an older, transit- and pedestrian-friendly form that preceded the commercial strip era.

- Mixed-use development should include a diversity of incomes as well as uses. Housing near transit should reflect a mix of affordability levels, so that citizens who rely on transit for daily mobility have the opportunity to live in attractive, walkable communities. Residential density, at levels appropriate for a given community setting, contributes to affordability by allowing higher-end market units to support more affordable ones.
- The interplay of density and mixed uses can be translated into how standards are set for station-area development—by local zoning authorities, and by MARTA in the case of joint development on its own properties. Developers usually want more density, and while some should be allowed by right in any TOD setting, additional density can be permitted in exchange for compactness, mixed uses, or affordability.

In planning for dense, mixed-use transit communities, two critical market factors must be kept in mind. First, the pace at which “intensification” occurs in a given location will be grounded in regional economic conditions. No matter how sound a TOD plan, regional business cycles will ultimately determine the pace at which development can be absorbed and, therefore, financed. Second, no matter how strongly the regional community embraces the concept of mixed-use development, market preferences will dictate that some station areas be more residential and others more commercial or employment-based. And even if mixed-use appears feasible over time, the implementation plan for almost any mixed-use development must anticipate periods when one of the components will surge ahead of the others. An effective TOD strategy is one that recognizes market forces and tries to anticipate and influence them.

A Station Typology

In a region with the size and geographic diversity of ours, it would be a mistake to imagine that “one size fits all” when it comes to TOD. Stations, and the districts they serve, are so different that a station typology is helpful in understanding and shaping real-world TOD opportunities. Several other transit metropolises, including Denver, Charlotte, Portland, and Pittsburgh, use station typologies as part of their TOD policies. These examples are shown in Appendix A, our Best Practices Review of ten other transit systems.

Typologies have been used before in Metro Atlanta planning and are being used now. The original TSADS studies produced a typology of four station categories that helped shape planning for the MARTA rail stations in Atlanta. DeKalb County’s comprehensive plan, which affects several current and future transit stations, uses a three-category typology. And the ARC’s 2006 Regional Development Plan uses a 15-category typology that encompasses all the land in the region as a tool to explain and implement an overall Smart Growth vision. These typologies, which provided valuable input to our *TOD Guidelines*, are summarized in the table on page 24.

However, none of these typologies was specifically designed to differentiate among TOD opportunities in the current and future transit network of Metro Atlanta. As part of these *TOD Guidelines*, MARTA has therefore developed a new station typology. It has seven

categories: *urban core, town center, commuter town center, neighborhood, arterial corridor, special regional destination, and collector*. These categories are composites, meant to illustrate thematic similarities and differences, rather than pure types meant to describe any one station in literal detail. Some stations inevitably share characteristics of two or more types.

We have designed this station typology with several key objectives in mind. First, the typology reflects not only location, land use, and density, but *transit operations* as well. Downtown rail stations, peripheral rail stations, neighborhood bus and streetcar stops, and rapid bus stations plainly differ—in the type of service they provide, the passenger volumes they handle, and the ways people get there. Of particular importance is the degree to which a station is a “capture point” for commuter park-and-ride, which may compete with TOD for space, local street capacity, and resources. (See Chapter 4 for a full discussion of the park-and-ride/TOD dynamic.)

Second, the typology is forward-looking rather than static. MARTA’s existing stations will evolve as TOD takes root in the coming decades; indeed, every LCI Study involving an existing MARTA station is predicated on change. No less important, dozens of new stations will be created in the expanded network of Concept 3—the MARTA rail extensions, the BeltLine, the other light rail and streetcar corridors, the commuter rail lines, the freeway and arterial rapid bus corridors, and high-speed rail. This ambitious plan makes a common regional vocabulary of station types an especially valuable planning tool.

Finally, the typology takes into account the *exceptions*—those stations that perform important regional transportation functions which prevent them from fitting the classic TOD mold. In addition to stations that function as major park-and-ride collectors, others serve single-use destinations that generate so much traffic the transit network simply must serve them. For these exceptional station types, the challenge is to identify and implement those aspects of TOD that are consistent with the station’s primary function.

TOD STATION TYPOLOGY

Urban Core

Town Center

Commuter Town Center

Neighborhood

Arterial Corridor

Special Regional Destination

Collector



Compact development at a Charlotte light rail station.

Previous Land Use and Station Typologies in Metro Atlanta

TSADS Typology (Transit Station Area Development Studies; MARTA and City of Atlanta, as reflected in the City's 1973 Urban Framework Plan):	DeKalb County 2005 Comprehensive Plan, Future Development Concept	Atlanta Regional Commission, 2006 Regional Development Plan, Matrix of Regional Places and Unified Growth Policy Map. Regional land is divided into 15 categories.	
- Central Business District	- Regional Centers	- Central City	- Urban Redevelopment Corridors
- Regional Development Node	- Town Centers	- Regional Centers	- Regional Strategic Facilities
- Community Center	- Neighborhood Centers	- Town Centers	- Urban Neighborhoods
- Neighborhood		- Station Communities	- Mega Corridors
		- Interchange Nodes	- Suburban Neighborhoods
		- Interstates & Limited Access Facilities	- Rural Areas
		- Freight Corridors	- Regional Environmental Protection Areas
			- Regional Parks

Our station typology is presented in the following pages.

- First, each station type is described and illustrated with a side-by-side pair of case studies—one from the MARTA system and one from a transit metropolis elsewhere in the United States or Canada.
- The categories are then summarized in the matrix on pages 40-41.
- The maps on page 42 show how MARTA's existing rail stations, as well as those proposed for the Atlanta BeltLine, fit into the typology.



Neighborhood stations serve as a connective tissue for some communities.



Portland's TriMet system has become a model for local and regional transit.

URBAN CORE

Urban core stations are located in the most intensely developed nodes of the regional transit network—Downtown, Midtown, Buckhead, and their immediate surroundings. Atlanta’s ten urban core stations are surrounded by (and sometimes built right into) a mix of urban uses. High-rise construction is common and appropriate, although mid-rise buildings are common as well, and mixed uses are combined vertically as well as horizontally. While today many urban core station areas are dominated by office, institutional, hotel, and civic uses, they are evolving toward a greater presence of residential and retail activity, creating more of a “24/7” environment. As residential investment flows toward the urban core, it is important that affordable opportunities be provided within easy walking distance of the station, just as they are in traditional transit neighborhoods.

Urban core stations are metropolitan-level destinations, at or near the center of the transportation system, where peak-hour congestion is most challenging and where the region’s highest transit and pedestrian mode shares are achievable. While some urban core stations (such as Five Points) provide critical intermodal or inter-line transfer functions, these station are neither appropriate nor logical locations for park-and-ride.

Pedestrian connections are paramount near urban core stations, and the transit line is often grade-separated in order to minimize disruptions to the urban fabric and increase connectivity at street level. Urban core stations also tend to be closely spaced, so that people can choose whether to walk or take transit between nearby activities. This pattern is evident in the close proximity of the Downtown and Midtown area stations along Peachtree and West Peachtree, and of Buckhead and Lenox Stations in the Buckhead core.

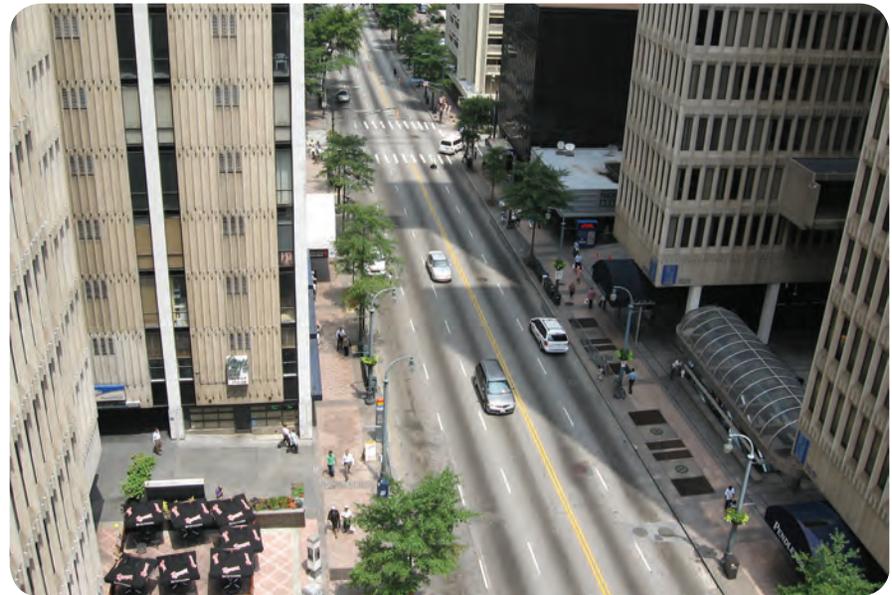
Urban core stations have a built-in TOD advantage in that they are at or near the center of the system and process a high volume of people. The keys to successful development:

- Public and private leaders must make a concerted effort to attract a 24/7 mix of uses to the downtown and other urban core areas.
- The urban core must achieve both the perception and the reality of a safe, active pedestrian environment, especially at nights and on weekends.

The urban core station type is illustrated on the opposite page by Atlanta’s Peachtree Center Station and by the South Boston Waterfront, on Boston’s Silver Line subway. Peachtree Center is a successful example of a high-volume, grade-separated urban core station built into its TOD environment. The South Boston Waterfront is a new, planned TOD district, organized around high-capacity, grade-separated transit.



Urban core station areas offer an active pedestrian environment



MARTA’s Peachtree Center Station is located beneath Peachtree Street and connected to The Mall at Peachtree Center, an underground retail and restaurant destination.

PEACHTREE CENTER STATION

Atlanta, Georgia

Urban Core

Peachtree Center Station, located beneath Peachtree Street one stop north of the Five Points central transfer station, includes dense, mixed-use development in a series of high rises whose scale is typical of downtown Atlanta. Peachtree Center itself is a planned, mixed-use development whose origins pre-date the MARTA system. Development in the area is commercially oriented, and includes a number of office towers, the underground “Mall at Peachtree Center”, and numerous hotels, with the entire complex connected through a series of skywalks. Other amenities offered include a small design museum and a health club. Beyond the Peachtree Center complex, this station is used by both out-of-town and local visitors to access major downtown destinations like the Georgia Aquarium, the World of Coca-Cola, and the Downtown Library.



Pedestrian Streetscape near Peachtree Center MARTA Station

Because it had to be built underneath existing development, Peachtree Center Station is noted for its steep and lengthy escalators. The station platform includes a number of wayfinding signs to direct visitors to the correct street-level exit for the area’s hotels and other commercial and tourist destinations. As is typical for an urban core station, there is no park-and-ride, and bus connections occur at street level without any special provisions such as bus pull-outs.



SOUTH BOSTON WATERFRONT

Boston, Massachusetts

Urban Core

The South Boston Waterfront is one of the nation’s most ambitious recently planned TOD districts. Consisting of roughly 300 acres, it is located across the Fort Point Channel waterway from the downtown financial district and historic South Station. In the 1990s, the district was jointly planned by the City of Boston, the Massachusetts Port Authority (the largest single land-owner), and the Massachusetts Bay Transportation Authority. The latter built the Silver Line—a high-capacity bus rapid transit subway linking the South Boston Waterfront district to South Station (New England’s busiest transit rail hub) and to Logan International Airport. Every developable site is within a quarter-mile walk of a station; the stations themselves are spaced closely enough to that they are within easy walking distance of each other. The land has been divided into a TOD-friendly grid of small city blocks, with an amenity-rich pedestrian environment linking stations, open spaces, and active street-level facades.



In 1991, as part of Boston’s Clean Air Act compliance, local, state, and federal officials agreed to a district-wide parking cap. As a result, the district thus far has some 14 million square feet of high-density mixed-use development built or permitted, but barely 10,000 parking spaces --less than one space per 1,000 square feet across the whole mix of uses. Development to date includes Boston’s World Trade Center, the Federal Court House, the Convention Center, and the Institute for Contemporary Art; hundreds of residential units; three major hotels; three office buildings; and numerous restaurants. Additional anticipated development will bring the total to over 20 million square feet.



TOWN CENTER

Town center stations are set in nodes of dense, active, mixed-use development. These station areas differ from those in the urban core in that development is of a comparatively lesser scale, with mid-rise construction the norm rather than high-rise; but they are similar in that the station areas enjoy TOD-friendly street networks, a rich pedestrian environment, and identifiable civic landmarks. Town centers tend to have a more balanced mix of uses than the urban core, with housing a significant ingredient from the start rather than an evolving goal.

Town center stations are found in two very different kinds of settings. Some are in historic downtowns like those of Decatur or East Point, where transit creates the opportunity to in-fill, intensify, animate, or expand the town center without excessive traffic congestion.

Other stations are focal points for new town centers—TOD nodes planned and built from the ground up in response to the twenty-first century transit opportunity. Several of Metro Atlanta’s future town centers will replace earlier, pre-TOD patterns of land use—from expansive park-and-ride lots at Brookhaven, to historic Fort McPherson, to industrial Chamblee. Most of these transformational place-making efforts are rooted in Livable Centers Initiative plans supported by the Atlanta Regional Commission, and several will involve joint development on MARTA property. In categorizing these stations as town centers, MARTA is looking not to their current patterns of land use, but to their planned future.

Pedestrian connections are critical for town centers, as are local bus service and automobile access. Many town centers use local circulators and shuttles to connect the transit station to other town center destinations and the surrounding neighborhoods. Town center stations may provide some park-and-ride, but it should be of secondary importance and must be appropriately located and designed. Over time, large surface parking lots, whether originally used for park-and-ride or for station area development, are incompatible with the town center pattern of land use and should be replaced by well-designed parking structures.

The keys to successful town center TOD:

- Planners and developers must secure market buy-in for residential and commercial parking ratios well below traditional zoning and market expectations.
- The organization of spatial relationships and pedestrian connectivity is critical in any TOD setting, but especially in seeking to achieve a town center mix of synergistic uses.

The town center station type is illustrated on the opposite page by Decatur Station and by Rockville Town Square, on the Metro Red Line in Rockville, Maryland, near our nation’s capital. Decatur exemplifies how TOD can work in an established town center, while Rockville is a successful example of a new town center.



Downtown Decatur’s historic fabric offers street front retail, cafe seating and an appropriately scaled building presence.

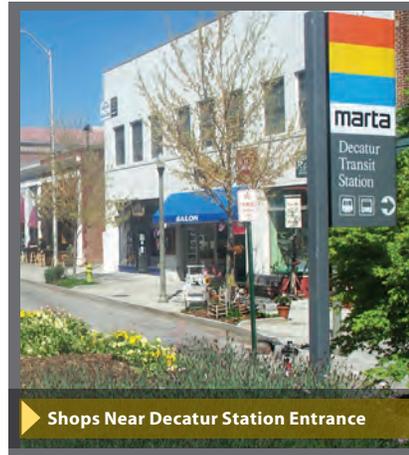
DECATUR STATION

Decatur, Georgia

Town Center

Patrons of MARTA's Decatur Station find themselves in the heart of the City of Decatur when they emerge from the station. A retail and restaurant district centered on the station also extends along nearby Ponce De Leon Avenue. The DeKalb County Courthouse is located right at the station, and other major government buildings are located within a few blocks. In recent years, mixed-use, multi-family development has begun to fill in vacant and underdeveloped lots near the station. The station area includes a pleasant mixture of older one- and two-story buildings and newer multi-story infill development, so the city's historic development pattern is preserved even while new transit-oriented development advances. A recently renovated plaza sits on top of the station and serves as a gathering place for major City events.

While Decatur Station has no park-and-ride facilities, it includes an important bus transfer facility. To minimize the impact on the town center's pedestrian fabric, Decatur Station is underground and has two main exits: a western exit connecting directly to the bus transfer area, and an eastern exit connecting to the street. The bus transfer area occupies a relatively small footprint and includes a covered waiting area and rider information kiosks. Pedestrian connections across the plaza allow pedestrians to take the shortcuts to connect with nearby Ponce De Leon or McDonough Boulevard.



Shops Near Decatur Station Entrance

ROCKVILLE TOWN SQUARE

Rockville, Maryland

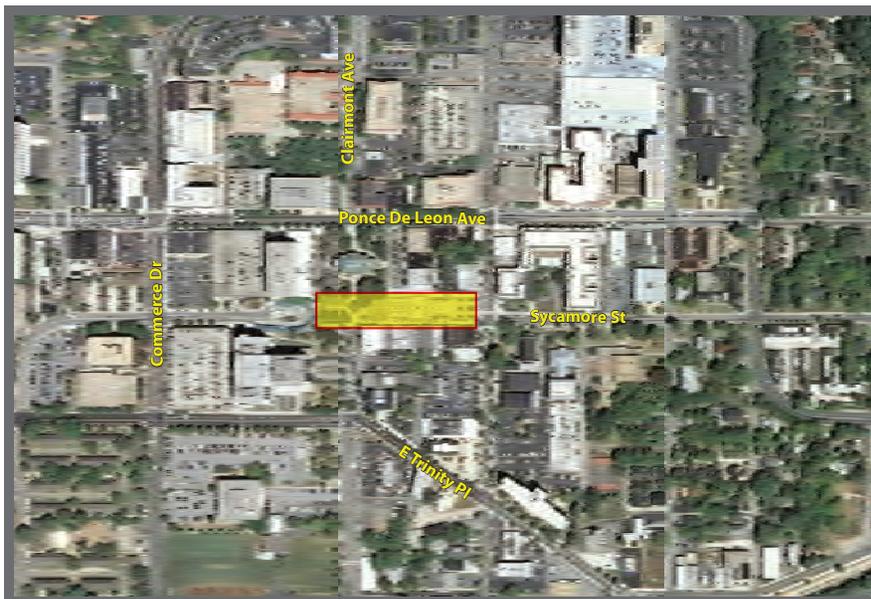
Town Center

The mixed-use, transit-oriented Rockville Town Square is the result of a public-private joint development initiative completed during 2004-2007. The 12.5-acre Town Square development is just the first phase of the 60-acre Rockville Town Center Master Plan. The development program is a balanced mix of residential, office, retail space, and restaurants. The central Town Square is anchored by Rockville's new public library. Parking is mostly located in structures, which are wrapped with liner buildings so that the garages are not visible from the street.

Rockville Town Center is located adjacent to the Rockville Metro Station. This station also serves as a secondary park-and-ride location, with just over 500 spaces. These facilities are located away from the town center area, on the other side of the station.



Rockville Town Center Streetscape



COMMUTER TOWN CENTER

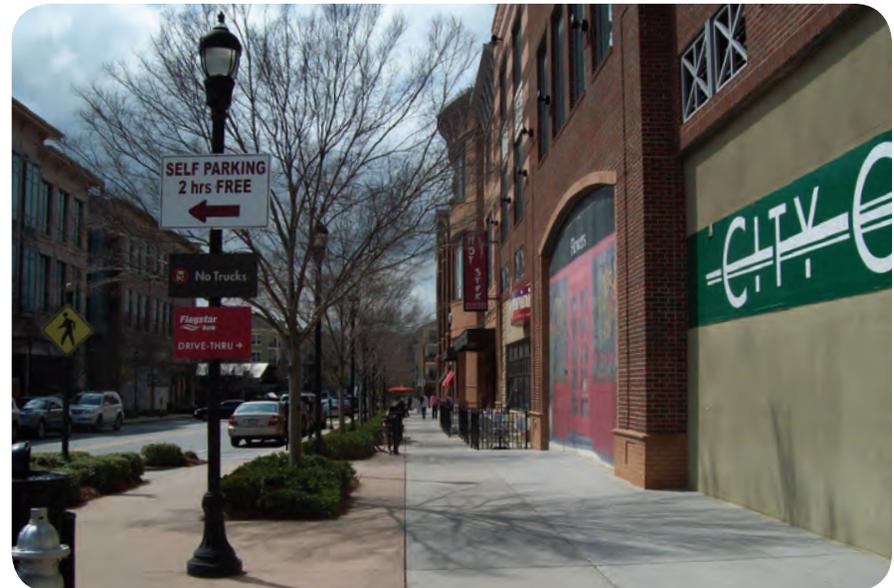
Commuter town centers have all of the characteristics of town center stations, but are also primary “capture points” for commuters transferring to the rapid transit system. This means they must be designed to provide large capacities of park-and-ride—1,000 spaces or more—and, in many cases, accommodate large volumes of passengers arriving on local and regional buses. Because these stations are dual-purpose, mixed-use nodes, they must be planned to accommodate high volumes of rush-hour commuters traveling in opposite directions: traditional commuters bound for the urban core or other employment centers, and “reverse commuters” coming to work at the commuter town center itself.

Town center stations may be historic or new and can be found on local and arterial roadways. Commuter town centers, on the other hand, are almost by definition new places, located at strategic points on the interstate highway system. In Metro Atlanta, most of the planned commuter town centers, like Doraville or Kensington, are near I-285; the only one closer to the regional core is Lindbergh Center, at the pivotal confluence of I-85 and Highway 400.

The definitional challenge in planning a commuter town center station lies in balancing its two functions. The keys to success:

- The park-and-ride facility must be designed and managed so as to minimize its impact on how the town center functions. High-tech signage directing drivers to the transit garage and letting them know when it has filled up can be critical.
- The pedestrian network must guide commuters from their cars or buses to the station, without putting the park-and-ride garage or the bus transfer point in locations that compromise the visual and pedestrian qualities of a town center.

The commuter town center station type is illustrated on the opposite page by Atlanta’s Lindbergh City Center and by the Pleasant Hill Transit Village on the Bay Area Rapid Transit system. Lindbergh, while still a work in progress, is a nationally recognized example of dense, mixed-use TOD. The Pleasant Hill Transit Village is largely in the future. Interestingly, each example includes one of the largest park-and-ride facilities in its respective system .



Lindbergh City Center has served as a model TOD for Metro Atlanta.

LINDBERGH CITY CENTER

Atlanta, Georgia

Commuter
Town Center

Lindbergh City Center, MARTA's first master-planned transit-oriented development, includes many hallmarks of TOD. Land uses are dense and mixed, including two 14-story office towers, ground floor retail, and substantial multi-family residential, all sited within a relatively compact footprint and connected with high-quality pedestrian streetscapes. The principal office users include AT&T, which consolidated scattered office locations into one transit-accessible location, and MARTA itself, whose headquarters are steps from the station.



Lindbergh City Center interfaces with pedestrian friendly streets

The Lindbergh Station itself is located below grade but is open to the air. A planned "Main Street," which serves as the center of TOD activity, runs over the station dividing it into two halves. This design serves to keep the block sizes relatively small and increases pedestrian access. A bus loop to serve multiple bus connections is sited so as not to impinge upon the intense development nearby.

Alongside its town center function, Lindbergh City Center's location at the convergence of I-85 and GA 400 make it a primary park-and-ride site. In fact, with over 1,200 MARTA spaces plus shared use of the private City Center garage, Lindbergh is one of the principal park-and-ride locations in the MARTA system. Parking for both transit users and office workers is provided in a series of parking decks. Those in the most prominent locations are lined with retail or office space to hide the parking and activate the street.



PLEASANT HILL TRANSIT VILLAGE

Pleasant Hill, California

Commuter
Town Center

Located in suburban Contra Costa County, Pleasant Hill is a classic example of the dual-purpose commuter town center station. Thanks to its location at a key I-680 interchange, Pleasant Hill, with over 3,000 spaces, is the largest park-and-ride station in the BART system. On the other hand, the station is at the center of a 140-acre area that has become densely built out with corporate offices and multi-family housing. Between park-and-ride users and local residents who chose to live near Pleasant Hill for its BART access, daily in-bound ridership is over 6,000.



Pleasant Hill Transit Village

County and BART officials have long envisioned a centerpiece "transit village" on the 7.5-acre park-and-ride site surrounding the station. The final joint development plan for the site consists of 522 housing units, 36,000 square feet of retail, 270,000 square feet of offices; and a conference center, co-developed by Millennium Partners and Avalon Bay Communities. In the words of the Contra Costa Redevelopment Authority, "All of these activities would occur a few steps from the BART fare gates. Contra Costa Centre will have its heart."

To make room for the development, a 1,547-space addition was built to the BART garage, replacing all of the surface spaces on the development site. In 2008, the new garage was finished and the joint development broke ground.



NEIGHBORHOOD

Neighborhood stations are located in primarily residential districts, and their principal transportation function is to help the people who live nearby get to work, school, shopping, entertainment, medical services, and other destinations accessible through the transit network. The immediate station area is appropriate for higher-density housing or neighborhood-scale mixed-use development, taking advantage of the daily flow of pedestrians around the station to support retail, public space, and professional offices. Beyond the immediate station area, land use transitions to traditional neighborhood patterns of lower-density housing.

Neighborhood stations can be found on either rail or bus lines; both technologies can support more transit-oriented patterns of development. As shown in the station typology map on page 42, several existing MARTA heavy rail stations fit this category, such as Ashby, West Lake, and Inman Park-Reynoldstown. Most of the future streetcar stops on the Atlanta BeltLine will fit the category of neighborhood stations as well.

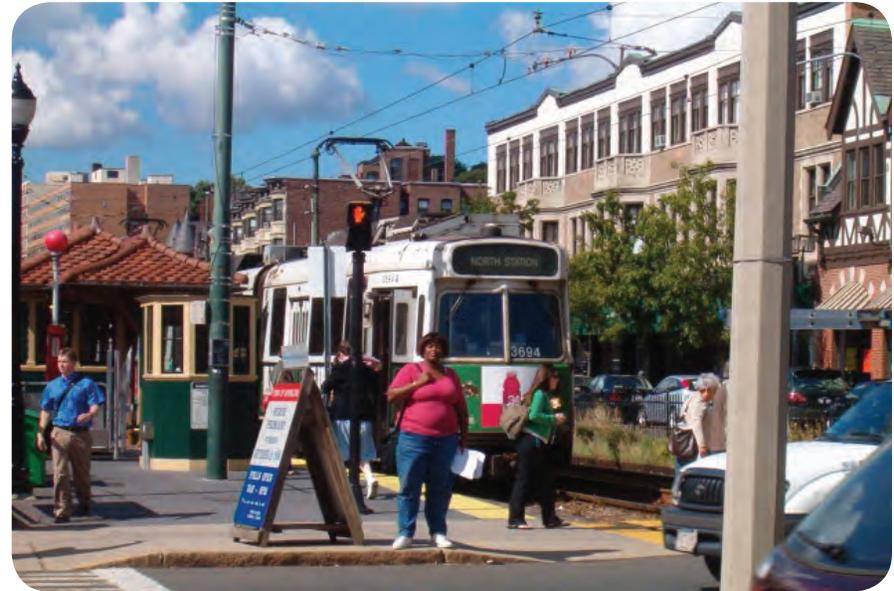
No less important, many MARTA neighborhood bus corridors and their stations fit into this category. This is especially true along avenues like Ponce de Leon, where investment in housing and neighborhood businesses goes hand-in-hand with the quality of bus service and the degree to which it is integrated into the fabric of the corridor.

Neighborhood stations are “line stops”—local stations where most people arrive on foot. Neighborhood rail stations attract passengers from a large residential “walk shed” and are fed by bus routes operating on nearby streets. They should have little or no park-and-ride. Neighborhood streetcar or bus stops are more closely spaced along a linear corridor and draw their passengers from a closer radius.

The keys to successful TOD:

- The pedestrian environment connecting street to station must be interconnected, seamless, and safe.
- Neighborhood bus and streetcar stops are an integral part of the streetscape and must be designed (or improved) with that in mind.

The neighborhood station type is illustrated on the next page by Atlanta’s Ponce de Leon corridor, where the transformation to bus-based TOD is planned, and by the Washington Street Silver Line in Boston, where it has occurred.



Neighborhood stations connect residents to work and school.

PONCE DE LEON CORRIDOR

Atlanta, Georgia

Neighborhood Station

Ponce De Leon Avenue is an example of how streetcar or bus service can provide the basis for TOD along a neighborhood corridor. Ponce is served by MARTA's #2 bus, which runs from North Avenue Station in Midtown to Avondale Station in Decatur at rush hour frequencies of 20 minutes. It encompasses a wide range of densities and land uses, from single-story retail to multistory buildings like City Hall East. Much of the existing development is transit-oriented in form, shaped a century ago when Ponce De Leon was a traditional streetcar corridor in the pre-World War II era.



▶ Ponce de Leon Ave at Durant St.

East of Moreland, the character of Ponce changes substantially, with more single-family homes, townhomes, and institutional land uses. While buildings are generally oriented towards the street and there are sidewalks along most of the corridor, the combination of spotty pedestrian facilities and high-volume, high-speed traffic creates a hostile environment for pedestrians. There are also many gaps or "dead zones" in the development fabric. In short, Ponce is not a fully functioning TOD corridor in its current state.

The 2005 LCI plan for Ponce De Leon and Moreland Avenues recommends improved pedestrian facilities and transit service, with mixed use development in the 5-7 story range along most of Ponce between Peachtree and Moreland. In the long range, bus service could be replaced by streetcar or trolley service.



WASHINGTON STREET SILVER LINE

Boston, MA

Neighborhood Station

The Washington Street Silver Line opened in 2002, and carries some 15,000 daily passengers along one of Boston's busiest neighborhood corridors. The route is designed as in-street bus rapid transit, with the buses running in semi-dedicated right-hand lanes in either direction. The Silver Line project included the complete redesign of the roadway and sidewalks, with high-end bus stations installed as an integral feature of the streetscape. The Silver Line's low-floor, high-capacity buses make 11 stops along a 2.25-mile corridor between Dudley Square, its neighborhood terminal, and downtown.



▶ Silver Line Corridor Stop

While the MBTA was planning and building the Silver Line, the City of Boston was launching the Washington gateways Main Streets Program, which covers most of the route, and a separate effort to revitalize the historic Dudley Square area. Since 2000, when construction of the Silver Line was approaching completion, three dozen buildings have been built or renovated along the corridor, creating over 2,000 new housing units and 65 businesses.



ARTERIAL CORRIDOR

An important component of the region's emerging transit network is a series of arterial rapid bus corridors. These projects will provide frequent transit service with limited stops, enhanced passenger amenities, and improved travel times, including bus-only lanes where feasible. Concept 3 lists 16 regional highways where this type of bus rapid transit could be implemented, most of them radial corridors (like Memorial Drive and Buford Highway) but some of them cross-regional (like Jonesboro and McDonough Roads and SR-120).

The intent of these new arterial transit routes is not merely to improve mobility. It is to transform the pattern of land use along these corridors, which contain long stretches of automobile-oriented commercial development and frequent "dead zones". Unlike the closely spaced, walk-in stations typical of neighborhood bus or streetcar lines, arterial rapid bus stations will be farther apart, lending themselves to more nodal development patterns.

Some stations will be primarily residential or commercial, while those at major arterial intersections should attract mixed uses. Some might achieve the scale and character of town centers, but arterial stations are likely to remain more suburban in scale and design. Arterial stations may provide park-and-ride, but not at the scale of commuter town center or collector stations.

The transformative role of arterial rapid bus corridors will depend on two keys to success:

- Station areas require extensive pedestrian improvements, creating TOD-friendly streets and sidewalks where they may not exist at all today.
- Communities and developers must be convinced that successful TOD can be organized around bus rapid transit. While arterial corridors—especially those with exclusive bus lanes—may be designed to allow future conversion to light rail, the importance of using bus rapid transit to attract more compact, sustainable, and pedestrian-friendly development patterns along arterial highways cannot be overstated.

The arterial corridor station type is illustrated on the next page by Atlanta's Memorial Drive bus rapid transit corridor, currently in construction, and by the VIVA bus rapid transit system in York Region, Ontario, which was undertaken specifically to transform land use along two key arterial corridors.



Arterial corridor before (Buford Highway)

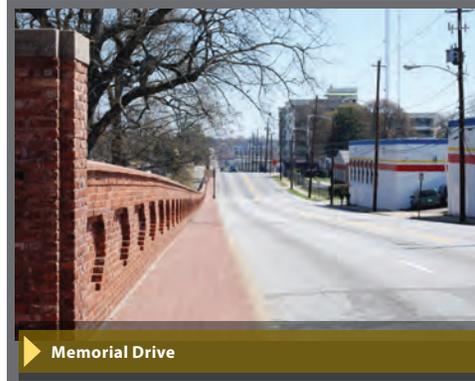


Arterial corridor after (Buford Highway)

MEMORIAL DRIVE BRT

Atlanta, Georgia

Memorial Drive east of Kensington Station is an east-west corridor and major arterial in DeKalb County that connects the eastern end of MARTA's heavy rail line to the City of Stone Mountain. The Memorial Drive corridor is currently served by four MARTA bus routes but suffers from significant traffic congestion despite a six-lane arterial corridor for much of its length. Memorial Drive is typical of major corridors in the Atlanta region in that it has developed in a land use pattern dominated by strip commercial developments that have incidentally created a pedestrian-hostile environment and a lack of a sense of place. A number of studies have been conducted to improve the Memorial Drive corridor, including a series of MARTA studies to develop bus rapid transit along the corridor, and a strategic action plan for the corridor to promote redevelopment and increased economic activity along Memorial Drive. In addition, Transit Planning Board's Concept 3 calls for Memorial Drive to be served with Arterial Rapid Bus transit.



The current vision for the corridor, which is echoed in the DeKalb County Comprehensive Plan, is to create a series of pedestrian-oriented mixed use activity centers at designated locations along Memorial Drive, supported by transit investments and economic development incentives. The ultimate goal of these plans is to create a series of sustainable activity centers along the corridor that foster long term value and enhance the local sense of place.



Arterial Corridor

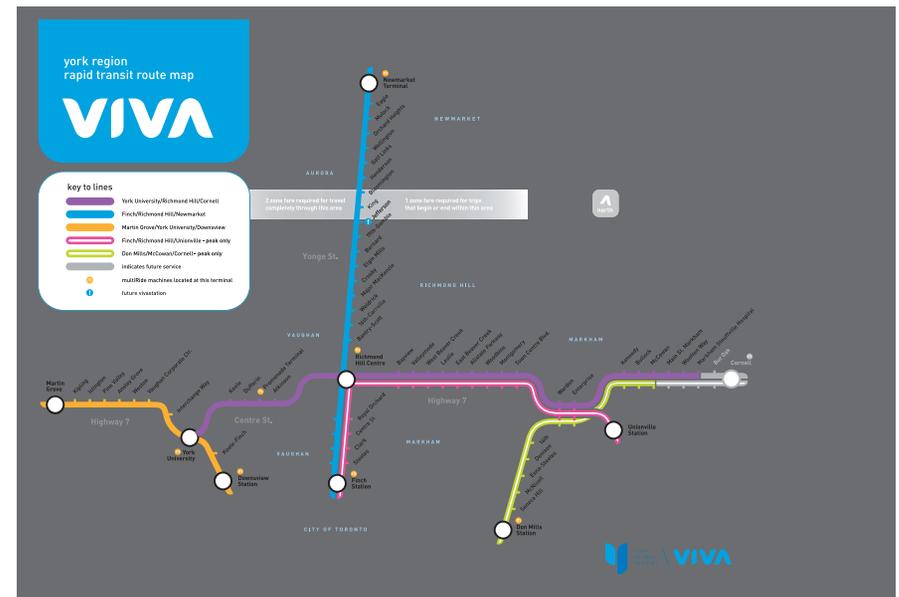
VIVA BUS RAPID TRANSIT

York Region, Ontario

The Regional Municipality of York, which borders the City of Toronto along its entire northern boundary, is one of Canada's fastest-growing jurisdictions and, until recently, a prime example of low-density sprawl, single-use development, and rush-hour traffic congestion. In 2002, the Region began the process of planning and building "VIVA", a 55-mile system of arterial bus rapid transit corridors with three connections to the Toronto subway system. VIVA was undertaken for the same reason Metro Atlanta's future transit network includes Arterial Rapid Bus—to transform land use along regional highways that have become sprawling, inefficient corridors.



York Region's land use master plan—Centres and Corridors—is specifically organized around the VIVA network. Four designated Regional Centres, which resemble "town centers" in MARTA's Station Typology, are being planned as principal mixed-use hubs served by BRT, commuter rail, and (in two cases) subway service. About 50 VIVA stations, however, will be what we would categorize as arterial corridor stations—secondary nodes of higher residential or mixed-use density. Supported by new TOD zoning, this nodal pattern has begun to emerge, replacing the earlier pattern of low-density strip development



SPECIAL REGIONAL DESTINATION

Special regional destinations are defined by a single use or cluster of uses. They include sports and entertainment venues; educational or medical campuses; airports; and large, stand-alone industrial or commercial complexes. Land uses may be controlled by a single or a few major owners and tend, by definition, not to be mixed (other than occasional retail associated with the primary use). In short, special regional destinations are in many ways atypical of TOD, but because they are such important destinations and trip generators, transit alignments are often designed specifically to include them and to serve as many of their users as possible. Over time, development in immediate proximity to the station may intensify and diversify.

The keys to making transit attractive at these sites include:

- It is critical to conveniently distribute passengers to, from, and within the focal destination. In addition to high-quality way-finding, the pedestrian environment may include tunnels, foot bridges, or moving sidewalks. If the key destination is some distance from the station, or is spread out rather than compact, local circulators or shuttles may be essential.
- To a degree feasible, ancillary development can help create a more integrated and welcoming environment.

Special regional destinations may be located near the urban core, like the Dome / World Congress Center / Phillips Arena complex; or in peripheral areas like the Medical Center or the Airport. Since most special regional destinations involve traditionally automobile-oriented uses, they tend to have a great deal of parking capacity. However, they tend not to be park-and-ride stations. Those near the urban core are inappropriate for park-and-ride as a matter of policy, and those on the periphery, depending on their pattern of peak use, may not be practical for park-and-ride.

Over time, single-use destinations may evolve into mixed-use activity centers more typical of high-density TOD. The Perimeter Center, for example, contains Dunwoody and Sandy Springs Stations, which today are best described as special regional destinations. However, based on the Perimeter Focus LCI Plan and the policies of DeKalb County and the City of Sandy Springs, our typology categorizes them as town centers.

The special regional destination station type is illustrated on the next page by Atlanta's Georgia Dome / CNN Station and by Denver's major league football and arena facilities, which are served by adjacent light rail stations.



Turner Field is served by MARTA bus routes departing from the Five Points station

THE DOME STATION

Atlanta, Georgia

Special Regional Destination

Located on the western edge of downtown Atlanta, the Georgia Dome / Georgia World Congress Center / Philips Arena / CNN Center Station serves not one but four special destinations, as the lengthy station name implies. The Georgia Dome and Phillips Arena are host to professional sports teams as well as special events, and usually attract large peak volumes of patrons on weekends or evenings. The Georgia World Congress Center is one of the nation's largest convention centers and a frequent destination for out-of-town business visitors. CNN Center is an unusual mixed-use development, serving as a tourist attraction, an indoor mall, and professional office and television studio space. Other destinations in the area include Centennial Olympic Park and a variety of hotels, restaurants, and downtown office buildings.



MARTA Entrance outside Phillips Arena

The Dome Station is located underground and provides a number of complex connections to the destination venues through tunnels, bridges, walkways, and escalators, both below ground and at street level. An extensive way-finding system helps visitors who may be unfamiliar with the system find their desired destination. Given its location in the region's urban core, this station has no park-and-ride facilities.



PEPSI/ELITCH AND INVESCO STATIONS

Denver, Colorado

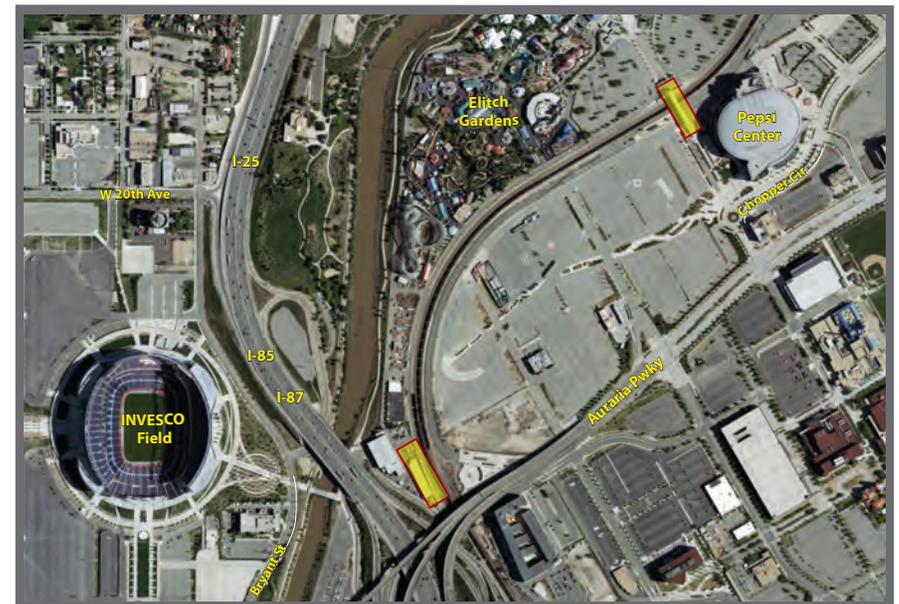
Special Regional Destination

Denver's light rail system includes a pair of stations serving INVESCO Field (home of the NFL's Denver Broncos), the Pepsi Center (home of the NBA's Nuggets and NHL's Avalanche), and Elitch Gardens, a riverfront amusement and theme park. The Southeast and Southwest light rail lines serve these stations directly, and passengers arriving at the future Union Station intermodal hub will be able to transfer to light rail for a one- or two-stop ride to these destinations. The pedestrian routes from these stations include a footbridge over the tracks at the Pepsi Center / Elitch Gardens Station, and a landscaped pedestrian route crossing the South Platte River to INVESCO Field.



INVESCO Field Light Rail Station

While located just off the edge of downtown, these special regional destinations are high-volume, stand-alone special uses which, without transit, would depend entirely on automobile access. While all three attractions have extensive parking capacity, their location near the downtown core makes them inappropriate for park-and-ride. Over time, the surface lots closest to the stations could attract some additional development compatible with the venues.



COLLECTOR

Like commuter town centers, collectors are primary capture points for inbound passengers transferring to the rapid transit system from their own cars. They are located at strategic points in the regional highway system, almost always at peripheral sites. Unlike commuter town centers, however, they are not associated with large-scale, mixed-use TOD. The station area may be physically constrained with little room for development of any kind; or the surrounding lands may be dedicated to regionally important, low-density uses like warehousing and distribution; or TOD may be relegated by design to a secondary position to maximize the site's parking and transfer capacity.

The keys to successful collector stations:

- The intermodal transfers for park-and-ride, feeder bus, taxi, suburban shuttle, and bicycle passengers must be as seamless, convenient and safe as possible.
- Collector stations must conveniently accommodate transit users who live or work nearby, with attractive pedestrian connections between the station and their homes or places of work. Where possible, development at transit-supportive densities should be encouraged, as at North Springs Station. But the 360-degree street and sidewalk network associated with full-fledged TOD is not required. Surface park-and-ride lots can remain in place until capacity expansions dictate the construction of garages.

Among MARTA's existing rail stations, perhaps only Indian Creek fully fits the collector category. The category is important, however, in planning the future. As the transit network is extended to and beyond the I-285 perimeter, new collector stations will emerge on heavy rail, freeway express bus, and commuter rail lines. The nation's established commuter rail and express bus systems all include stations whose principal long-term function is that of park-and-ride collector. Over time, the introduction of new peripheral collector stations in Metro Atlanta should push the park-and-ride function further away from the region's core, allowing the park-and-ride operations currently found at some neighborhood and town center stations to be reduced or phased out entirely.

The collector station type is illustrated on the next page by MARTA's Indian Creek Station and by the Fallowfield Station on Ottawa's high-capacity bus rapid transit system.



IndianCreekcommuterlot.

INDIAN CREEK STATION

Atlanta, Georgia

Collector

As the terminal station on the East-West MARTA Line, Indian Creek serves as a natural collector for commuters coming in from the east. Indian Creek's collector status is reinforced by exit ramps from I-285 that lead directly into the station area. The station does not currently lend itself to transit-oriented development as the surrounding area is mostly low-density single family development in a cul-de-sac street pattern.

Indian Creek Station offers the standard collection and distribution system for a collector station, including 2,350 parking spaces located in large surface lots, connecting bus routes, taxi stands, and kiss-and-ride transfer stations.



Indian Creek Station Entrance Area

FALLOWFIELD PARK-AND-RIDE

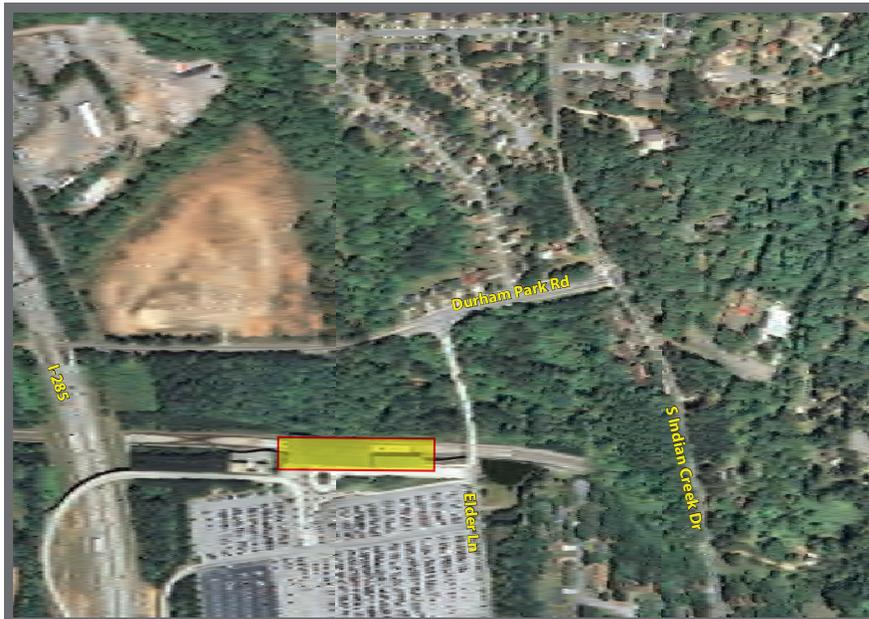
STATION
Ottawa, Ontario

Collector

The spine of Ottawa's regional network is an extensive bus rapid transit system known as the Transitway. The Transitway runs primarily in dedicated busways, with grade separation similar to that of metro rail systems. Fallowfield Park-and-Ride is a collector for Ottawa commuters living south of the Transitway service area. With 1002 surface parking spaces, it is the largest park-and-ride in the system. Fallowfield Station is surrounded mostly by agricultural land within the City's Greenbelt. A tract of single-family homes, with a small strip mall, is located directly across Fallowfield Road. While these residents are conveniently served by the station, Fallowfield primarily functions as a park-and-ride collector station.



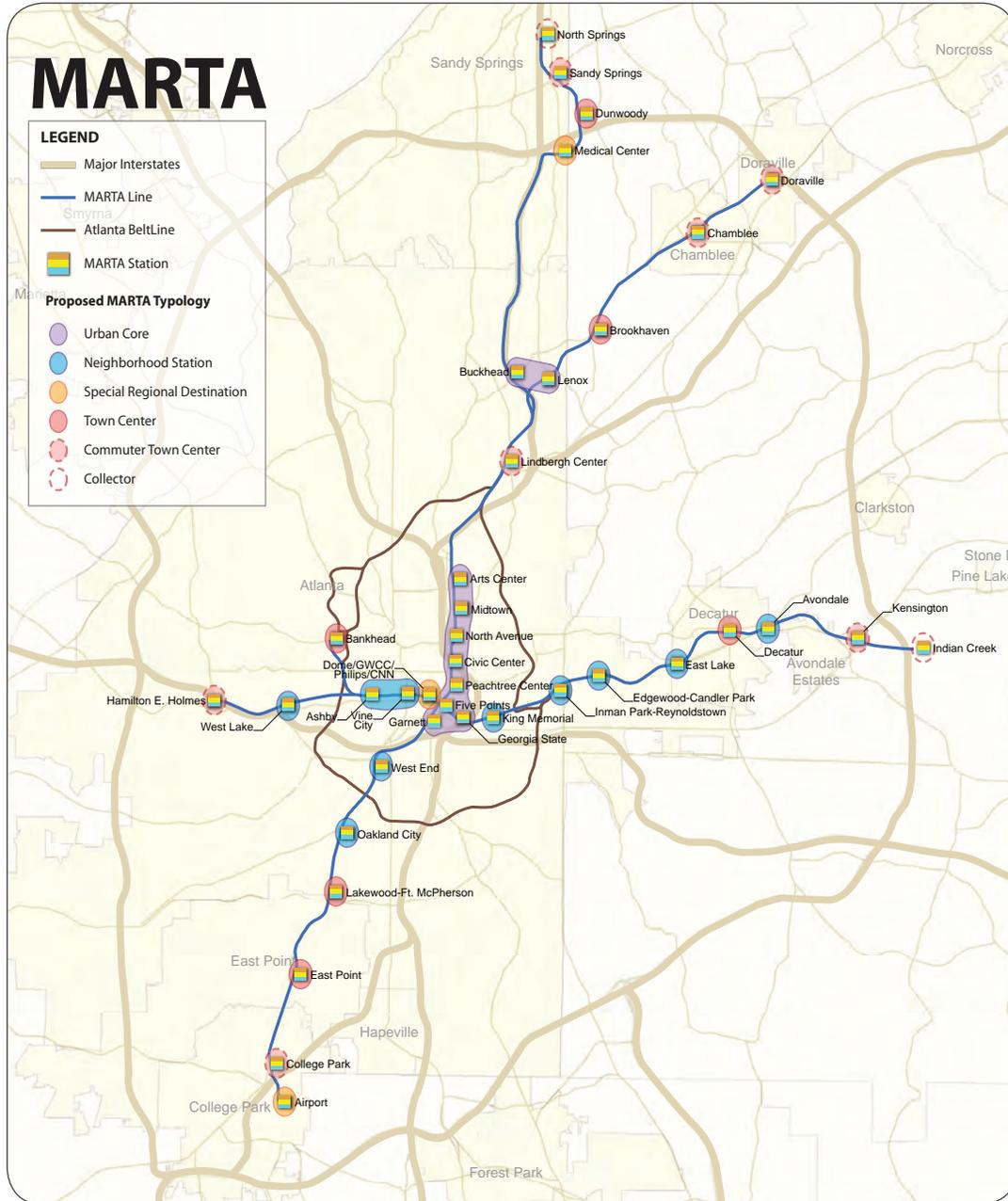
Fallowfield Station and Park-and-Ride Lot



Station Typology Matrix						
Station Type	Ideal Land Use Mix and Scale of Development	Transit Mode and Function	Public Realm	Keys to Success	Local Examples	National Examples
Urban Core	<ul style="list-style-type: none"> - Downtown-scale mix of employment (office), institutional, hotel and civic uses. Return of multi-family residential is a growing trend. - Retail and restaurant sector gaining. - High-rise towers common; new buildings at least mid-rise. 	<ul style="list-style-type: none"> - Heavy rail/ multi-modal. - High-volume transfers between corridors; modes - No park-and-ride. - A regional transit destination at or near system core. 	<ul style="list-style-type: none"> - Stations usually grade-separated and closely spaced for walking. - Station is part of the core pedestrian network. - Buses stop at sidewalk. 	<ul style="list-style-type: none"> - Attract a 24/7 mix (i.e., more residential, retail, dining, cultural). - Ensure station-area safety during non-9-5 hours. 	<ul style="list-style-type: none"> - Downtown (Five Points, Peachtree, Civic Center, Garnett) - Midtown (North Avenue, Midtown, Arts Center) 	<ul style="list-style-type: none"> - South Boston Waterfront (Boston, MA) - Market Street, San Francisco
Town Center	<ul style="list-style-type: none"> - Balanced mix of multi-family residential development with office, retail, entertainment, and civic uses. Vertical mixed-use is common. - May be pre-existing or new town center. Transition to lower-density outside the quarter-mile radius. - Mid-rise buildings dominate; some high- and low-rise. 	<ul style="list-style-type: none"> - Multi-modal rail or BRT station with regional and local bus service. - Park-and-ride, if any, is secondary. - A transit origin <i>and</i> destination. 	<ul style="list-style-type: none"> - Stations grade-separated (heavy rail) or at-grade. - Traditional town center pedestrian network with station at focal point. - Curb-side parking desirable; no off-street parking in front of buildings; garages wrapped. 	<ul style="list-style-type: none"> - Get market to accept reduced residential and commercial parking. - Optimize street level relationships among transit, public realm, development. 	<ul style="list-style-type: none"> - Decatur (e.g. of historic town center) - Brookhaven (e.g. of new town center based on LCI study) 	<ul style="list-style-type: none"> - Rockville Town Center (Rockville, MD) - Mockingbird Station (Dallas, TX)
Commuter Town Center	<ul style="list-style-type: none"> - Balanced mix of multi-family residential development with office, retail, entertainment, and civic uses. Vertical mixed-use is common. - Likely to be a new town center at or near a regional highway exit. Transition to lower-density outside the quarter-mile radius. - Mid-rise buildings dominate; some high- and low-rise. 	<ul style="list-style-type: none"> - Multi-modal rail or BRT station with regional and local bus service. - A primary park-and-ride capture point with at least 1,000 spaces. - A transit origin and destination environment. 	<ul style="list-style-type: none"> - See town center description above. - Park-and-ride is in structure and ideally feeds retail environment. 	<ul style="list-style-type: none"> - Town Center attributes , plus: - Optimize park-and-ride count, operation, and management. - Locate park-and-ride to minimize conflict with TOD. 	<ul style="list-style-type: none"> - Lindbergh City Center (existing) - Doraville (future) 	<ul style="list-style-type: none"> - Pleasant Hill (Contra Costa, CA) - White Flint (Bethesda, MD)
Neighborhood	<ul style="list-style-type: none"> - Multi-family residential and/or neighborhood-scale mixed-use with retail, restaurant, and service-oriented offices. Transition to lower-density single- or multi-family away from the "main street". - Low to mid-rise buildings. 	<ul style="list-style-type: none"> - Can be a rail, streetcar, or local bus stop. - A transit origin and walk-in line station. - Park-and-ride avoided or minimized. 	<ul style="list-style-type: none"> - Heavy rail stations grade-separated; light rail stations off-street; bus or streetcar stops on-street. - Pedestrian network leading to (or encompassing) station is critical. 	<ul style="list-style-type: none"> - Design bus or streetcar stops as integral part of high-quality streetscape. - Attract feasible, mixed-use, mixed-income development. 	<ul style="list-style-type: none"> - Ashby and Vine City (rail) - Future BeltLine stations (streetcar) - Ponce de Leon Corridor (bus) 	<ul style="list-style-type: none"> - Bland Street Station (Charlotte, NC, rail) - Washington Street Silver Line (Boston, on-street rapid bus)

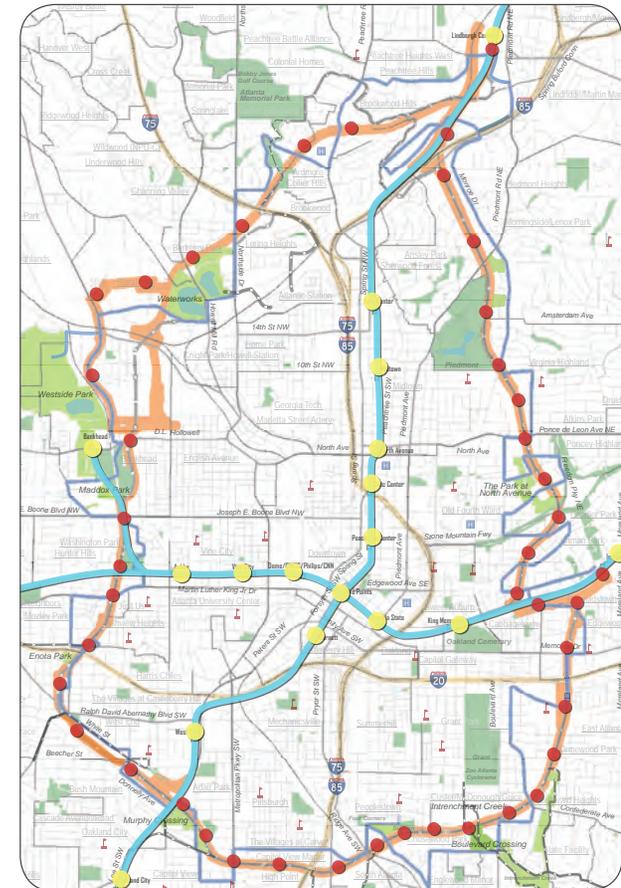
Station Typology Matrix (continued)

Station Type	Ideal Land Use Mix and Scale of Development	Transit Mode and Function	Public Realm	Keys to Success	Local Examples	National Examples
Arterial Corridor	<ul style="list-style-type: none"> - Multi-family residential and/or mixed-use, replacing auto-oriented, commercial strip pattern on a major arterial. Transition to lower-density development between stations. - Scale varies; mixed-rise typical, but some high- and low-rise. 	<ul style="list-style-type: none"> - Arterial BRT or light rail, on a corridor that may be radial or cross-regional. - May be a transit origin and destination. - Stations may have park-and-ride. 	<ul style="list-style-type: none"> - Enhanced stations are at-grade, either on sidewalk or in dedicated median. - Pedestrian environment is critical. 	<ul style="list-style-type: none"> - Create a transformative pedestrian environment from scratch. - Market the TOD/BRT concept. 	<ul style="list-style-type: none"> - Memorial Drive - Buford Highway 	<ul style="list-style-type: none"> - VIVA BRT System (York, Ontario) - South Corridor BRT (Grand Rapids, MI)
Special Regional Destination	<ul style="list-style-type: none"> - A regionally-significant public venue (sports or entertainment), campus (educational or medical), commercial or industrial complex, or airport. Usually <i>not</i> a mixed-use setting. - Scale varies with type of use; generally less dense and compact than typical TOD settings. 	<ul style="list-style-type: none"> - Usually heavy rail plus bus routes. - A region-level transit destination; may have pulse pattern. - Usually no park-and-ride, but use pattern may allow it. 	<ul style="list-style-type: none"> - Large surface parking lots typical. - Safe, well-defined connections are key, but area-wide TOD streetscape may not be applicable. 	<ul style="list-style-type: none"> - Distribute passengers to venues; may need shuttles, foot bridges. - Encourage ancillary uses (e.g. retail, offices related to main use). 	<ul style="list-style-type: none"> - Georgia Dome/GWCC/Arena - Medical Center 	<ul style="list-style-type: none"> - Pepsi Center and INVESCO Stations (Denver, CO) - Centro Médico (San Juan, PR)
Collector	<ul style="list-style-type: none"> - Park-and-ride is the primary use. Nearby development should be as accessible to transit station as possible, but may be more automobile-oriented than normal TOD. - Building scale, if any, depends on type of nearby use. 	<ul style="list-style-type: none"> - Commuter rail, heavy rail, free way bus; light rail in some settings. - A transit origin; a primary park-and-ride capture point with at least 1,000 spaces. 	<ul style="list-style-type: none"> - Primarily serves park-and-ride, which may be at-grade. - High-quality links to nearby buildings, important, but no area-wide TOD streetscape. 	<ul style="list-style-type: none"> - Optimize intermodal transfers from feeder modes. - Provide nearby uses with good pedestrian connections. 	<ul style="list-style-type: none"> - Indian Creek - North Springs (substantial residential use nearby) 	<ul style="list-style-type: none"> - Fallowfield Station (Ottawa, ON) - Anderson Center (Woburn, MA)



Map 3: Station Typology: MARTA's Existing rail Stations

Map 3 and the table to the right show how MARTA's 38 rail stations fit into the station typology. The table indicates whether the typology categories reflect existing conditions or future plans, and whether land use changes are needed to achieve the station type. Bear in mind also that the station typology, like these TOD Guidelines in general, is applicable not only to existing stations, but to all future stations created through expansion of the regional transit network, including heavy rail, light rail, commuter rail, bus rapid transit, and local bus and streetcar routes. As map 4 indicates, the Atlanta BeltLine's new stations will generally fall into the neighborhood station category.



Map 4: The BeltLine: A Series of Neighborhood Stations

Courtesy of www.BeltLine.org

Typology Categories Of Existing MARTA Rail Stations

Line and Station	Typology Category	LCI Study	Consistency of Typology with Existing Conditions
Center:			
Five Points	Urban Core	City Center LCI, 2001	Generally Consistent
West:			
Dome-GWCC	Sp Reg Destination	City Center LCI, 2001	Generally Consistent
Vine City	Neighborhood	Vine City/ Washington Park LCI, underway	Generally Consistent
Ashby	Neighborhood	Vine City/ Washington Park LCI, underway	Generally Consistent
West Lake	Neighborhood	West Lake MARTA LCI, 2006	Generally Consistent
H.E. Holmes	Commuter TC	H.E. Holmes LCI, 2002	Typology assumes new zoning and land use pattern
Bankhead (NW)	Town Center	Bankhead LCI, 2006	Typology assumes new zoning and land use pattern
East:			
Georgia State	Urban Core	Memorial Drive MLK LCI, 2004	Generally Consistent
King Memorial	Neighborhood	Memorial Drive MLK LCI, 2004	Generally Consistent
Inman Park-Reynoldstown	Neighborhood		Generally Consistent
Edgewood/Candler	Neighborhood		Generally Consistent
East Lake	Neighborhood		Generally Consistent
Decatur	Town Center	Decatur Town Center LCI 5 Year Update (2006)	Generally Consistent
Avondale	Neighborhood	Avondale LCI Plan (2002)	Typology assumes new zoning and land use pattern
Kensington	Commuter TC	Kensington MARTA LCI (2003)	Typology assumes new zoning and land use pattern
Indian Creek	Collector		Generally Consistent
South:			
Garnett	Urban Core		Evolving
West End	Neighborhood	West End LCI, 2001	Evolving

Typology Categories Of Existing MARTA Rail Stations

Line and Station	Typology Category	LCI Study	Consistency of Typology with Existing Conditions
Oakland City	Neighborhood	Oakland City Lakewood LCI, 2004	Evolving
Lakewood-Ft. McPherson	Town Center	Oakland City Lakewood LCI, 2004	Typology assumes new zoning and land use pattern
East Point	Town Center	East Point LCI (2005)	Generally Consistent
College Park	Commuter TC	College Park Activity Center LCI Plan (2008)	Generally Consistent
Airport	Sp Reg Destination		Generally Consistent
North:			
Peachtree Center	Urban Core		Generally Consistent
Civic Center	Urban Core	JSC McGill LCI, 2003	Generally Consistent
North Avenue	Urban Core		Generally Consistent
Midtown	Urban Core		Generally Consistent
Arts Center	Urban Core		Generally Consistent
Lindbergh Center	Commuter TC		Generally Consistent
Buckhead	Urban Core	Buckhead LCI, 2001	Generally Consistent
Medical Center	Sp Reg Destination	Perimeter Focus LCI and Update, 2002 and 2005	Generally Consistent
Dunwoody	Town Center	Perimeter Focus LCI and Update, 2002 and 2005	Typology assumes new zoning and land use pattern
Sandy Springs	Commuter TC	Perimeter Focus LCI and Update, 2002/2005	Typology assumes new zoning and land use pattern
North Springs	Collector		Generally Consistent
Northeast:			
Lenox	Urban Core		Evolving
Brookhaven	Town Center	Brookhaven Peachtree LCI (2006)	Evolving
Chamblee	Commuter TC	The City of Chamblee LCI Plan (2008)	Evolving
Doraville	Commuter TC	City of Doraville LCI Plan (2006)	Typology assumes new zoning and land use pattern

STANDARDS FOR DENSITY AND USE

This section provides a set of specific standards by which the density and mixed use principles of TOD can be applied to transit stations in Metro Atlanta. These standards are drawn from best practices in other transit metropolises, as well as from LCI plans and TOD-friendly zoning provisions in our own region. Land use regulation and zoning, of course, are a municipal and county prerogative. As a TOD stakeholder and advocate, MARTA will encourage the adoption of standards like these throughout the region. These are also the standards that MARTA intends to apply to joint development projects on its own property. In cases where current zoning would prevent these or similar standards from being applied to MARTA property, we will work in partnership with local zoning authorities to seek changes.

The density and use standards outlined here would be applied within a “TOD district” reflecting each station’s *zone of influence*—the pedestrian, visual, and economic orbit within which TOD is broadly encouraged. While the appropriate boundaries will vary from place to place, a typical TOD district might extend up to one half-mile from a metro rail, commuter rail, or regional bus rapid transit station and one quarter-mile from a neighborhood bus or streetcar stop.

At the center of a TOD district, a “core area” may be delineated, defined either by a radius or by the designation of specific parcels. The core area is the “TOD bull’s eye”—the streets, sidewalks, and buildings closest to the station, where it is appropriate to apply TOD standards more aggressively. A TOD core area will generally extend a quarter-mile or less from the station or stop.

Density

A basic premise of these *TOD Guidelines* is that while the appropriate level of density for a given station will vary with its location, community setting, and function, development should be relatively dense and compact in the immediate station area, compared to its surroundings.

Density can be measured in a number of ways:

- Floor area ratio (“FAR”) is the ratio of the total built space on a site to its land area, and is a widely used measure of density. For example, if a site with a land area of 10,000 square feet has a 30,000 square-foot building on it, its FAR is 3.0. FAR is an especially useful measure because it can be used to compare densities across different uses.
- For residential development, TOD planners often measure density in terms of dwelling units per acre. For example, a suburban subdivision with single-family homes on quarter-acre lots would provide four units per acre, while apartment blocks in urban neighborhoods can easily contain 75 units per acre or more, even when mixed with other uses.

- For many people, the most recognizable measure of density and scale is height. Height and density are not a perfect match—a taller building with more open space at ground level, and a shorter building with less open space, could have identical FARs, and buildings may feel more or less tall depending on how they relate to the street.

Recommended densities for the various station types are outlined in the table below. For ease of reference, all three density measures are presented—FAR, dwelling units per acre, and height, although for zoning purposes most jurisdictions use FAR as the governing metric. These densities are stated in wide ranges, because even among stations of the same

Appropriate Density Ranges by Station Type

Station Type	Floor Area Ratio (FAR)	Residential Units (per Acre)	Height (in Floors)
Urban Core	8.0-30.0	75+	8-40
Town Center or Commuter Town Center	3.0-10.0	25-75	4-15
Neighborhood	1.5-5.0	15-50	2-8
Arterial Corridor	1.0-6.0	15-50	2-10

general type, different community settings will call for different scales of development. (Suggested densities are not provided for special regional destinations, since these are unique uses to which no one density standard applies, or for collectors, which have park-and-ride as their principal use.)

To achieve an effective TOD density for a particular TOD district, MARTA supports a combination of baseline densities and density bonuses.

The baseline should reflect a scale of development generally appropriate for its community context but clearly denser than the surrounding areas. The baseline should not be uniform throughout the TOD district. Instead, it should step down, with the highest density in the “bulls-eye” immediately surrounding the station and lower density along the outer edge of the TOD district, as it blends into the surrounding neighborhoods. This can be achieved by applying two simple tools, as illustrated in Figure 1 on the right:

- In the “core area” the baseline density can be increased by a factor of 25% or more.
- To ensure that new buildings near the outer edge of the district are not out of scale with their residential neighbors or nearby open spaces, a transitional height plane should be applied. This is typically a 45-degree angle extending upward from the edge of the zone.

Density bonuses are a mechanism by which a development project is allowed additional density over and above the baseline, in exchange for providing certain beneficial features that are especially desirable in a transit-oriented development setting. MARTA suggests using density bonuses for four such features, if provided in excess of minimum requirements: vertical mixed uses, affordable housing, sustainable design features, or public realm enhancements. Further detail is provided in the discussion of mixed-use standards below, and in the model zoning provisions of Chapter 5.

Mixed Use Development

To promote the TOD ideal of lively mixed-use development, a number of use standards are proposed for designated TOD districts.

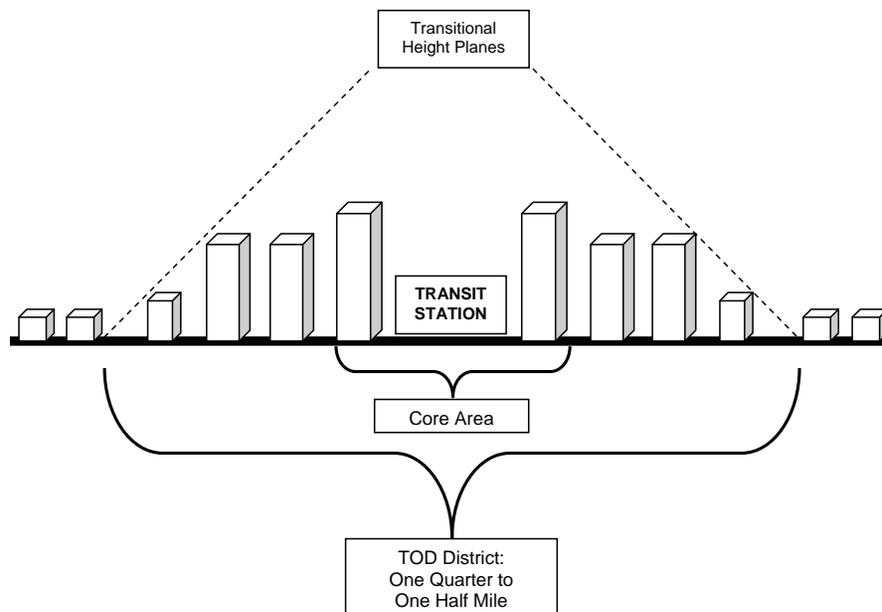


Figure 1: Transitional height plane

First, it is important to sharply limit low-density, automobile-oriented uses. For all station types except special regional destinations and collectors, the following uses should generally be prohibited in the TOD district or allowed by Special Permit only, as indicated:

Prohibited Throughout a TOD District

- Automotive sales, rental, washing, or storage
- Equipment sale, rental, or repair
- Industrial, warehousing, or distribution activities
- Construction, salvage, or junk yards
- Strip commercial development (retail in excess of 50,000 square feet in detached one- or two-story structures with surface parking in front)
- Commercial parking facilities (surface lots)
- Self- or mini-storage
- Low-density housing (under 15 units per acre)

Prohibited in the Core Area, by Special Permit Elsewhere in a TOD District

- New single-family homes (in developments of at least 15 units per acre)
- Gas stations
- Drive-through facilities
- Commercial parking facilities (garages)

By Special Permit Throughout a TOD District

- Retail uses in excess of 20,000 square feet per tenancy
- Retail of any area as a single use in a detached one- or two-story structure
- Cinemas as a single use in a detached one- or two-story structure
- Hotels of more than 250 rooms or suites
- Hospitals
- Laboratories or research facilities

This list of prohibited or conditional uses is intended not merely to exclude industrial or other uses that are normally separated from residential or commercial districts, but to minimize residential and commercial uses that are inconsistent with the TOD foundational principles of density and mixed uses. Thus, both low-density housing and strip commercial development should generally be prohibited.

By contrast, the following uses would be allowed by right throughout a TOD district:

Allowed Uses in a TOD District

- Mixed uses, whether horizontal (adjoining uses in a single project) or vertical (different uses within the same building)
- Retail and restaurant uses of less than 20,000 square feet per tenancy in a mixed-use development or as part of an attached retail block
- Banks
- Offices
- Child care centers
- Multi-family and attached residential
- Live-work units
- Theaters, entertainment and cultural uses
- Schools and libraries
- Civic and community meeting facilities
- Cinemas in a mixed-use development
- Bed and breakfast facilities and hotels of under 250 rooms or suites
- Public open space and private open space to which the public is generally admitted.

Not only should mixed-use development be allowed by right, but retail and restaurant uses should be allowed by right only in mixed-use developments or traditional storefront blocks. Large-format retail outlets, as well as any stand-alone retail buildings, should be allowed by Special Permit only. These standards are designed to encourage traditional town center and “main street” patterns without excluding larger stores. Recent trends in the retail business have shown that supermarkets, office supply stores, electronics stores, and movie theaters need not be “big boxes”; they can be designed in a form appropriate for urban core, town center, or neighborhood development and combined with other uses.

Vertical Mixed Use

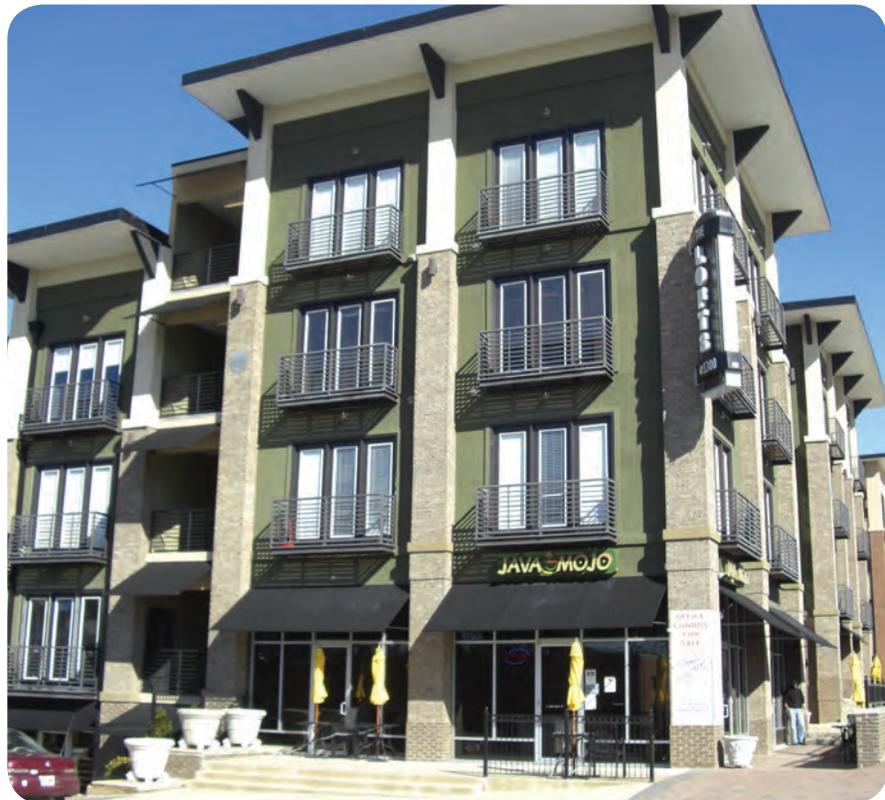
A common feature of successful TOD in Metro Atlanta and elsewhere is the activation of the street through retail and other uses that attract the public, extend the public realm into buildings (and vice versa), and remain active after working hours. Since many stores,



Tech Square, the product of private/public investment, has served as a model in-fill development in Midtown Atlanta.

restaurants, and entertainment venues do their peak business during evenings and weekends, they are able to share parking with “9-5” offices, further reinforcing the TOD pattern. On the other hand, retail can be difficult to establish in new TOD locations, and a blanket requirement that the entire ground floor of every building consist of retail uses can be unrealistic.

MARTA’s suggested approach is to require that in the core area of a TOD district (the area closest to the station), every building on a major street, plaza, or pedestrian path devote at least 50% of its ground frontage to retail, restaurant, civic, or entertainment activities. Such a requirement could also be satisfied, at least in part, with professional or government offices that directly serve the public and consequently generate daily foot traffic. This requirement would not apply to townhomes, or to residential buildings in



Vertical mixed use development: lofts over retail.

neighborhood TOD districts.

As an incentive to exceed the minimum requirement, or to provide street-level retail in buildings where it is not required, a density bonus is proposed. This would allow the development to exceed the applicable baseline density in exchange for providing additional civic, retail, or service-oriented office space on the first or second level.

Affordable Housing

TOD is for everyone who wants or needs it. If a TOD district includes new or rehabilitated housing, as most of them will, a meaningful portion of the units should be affordable to a range of household types and incomes. This is an important public policy goal for several reasons.

First of all, TOD occurs as a result of public investment—the original investment in transit, and follow-on investments in streets, sidewalks, parks, and schools. It is only fair that all segments of the community share in the benefits, especially as energy prices and changing tastes make TOD more desirable in the market. It is particularly important that families who live in communities where TOD occurs not find themselves unable to afford to stay.

Second, many residents of the region are transit-dependent; by definition, they need affordable housing within walking distance of transit. Some are low-income families, whose incomes cannot sustain both the cost of housing and the cost of automobile commuting. Others are elderly, a segment of the population that is already growing and will soon grow faster as Baby Boomers begin reaching 65. As senior citizens stop driving, their need for mobility (and for their families to conveniently visit them) will turn many into transit consumers. The location of libraries, senior centers, family and elder services, and other destinations in walkable TOD communities is an added convenience.

Third, Atlanta, like most US metropolitan regions, has begun to recognize the central role that workforce housing will play in the current decades. In 2008, the Urban Land Institute (ULI) sponsored a study of workforce housing in Metro Atlanta. Defining workforce households as those making between 60% and 120% of the region’s median household income, the study found that in the four core counties (Fulton, DeKalb, Cobb, and Gwinnett), 30% of all households fall in the workforce category, and that both the number of workforce households and their share of the total population are growing.¹

In 2006, working households in Atlanta spent an average of 29% of their disposable income on housing and 32% on transportation—a finding that preceded the spike in gasoline prices. Similarly, in the 28 largest metropolitan areas across the country, working families spent 28% of their disposable income on housing and 29% on transportation.

But according to the Center for Transit-Oriented Development, which has developed an “affordability index” of housing plus transportation costs, living near transit makes

1. Urban Land Institute and its Terwilliger Center for Workforce Housing, *Defining the Need for Workforce Housing in Atlanta*, 2008. As its income benchmark, this study used the Census Bureau’s 10-county median household income, which in 2006 was \$62,100.

an enormous difference in the budget of workforce households. Households living in transit-rich neighborhoods spend only 9% of their income on transportation, while those in automobile-dependent neighborhoods spend 25%.² If a family can avoid the cost of a second (or first) car, the monthly savings is about \$300—for some, the margin that enables them to sustain a mortgage that meets their family’s needs.

In short, not only are TOD and workforce housing important priorities for the future of Metro Atlanta, but they are integrally related. The ULI study was guided by a broadly-based Atlanta Steering Committee that included developers, community activists, the Georgia Affordable Housing Coalition, Atlanta BeltLine, Inc., the ARC, the Livable Communities Coalition, and others. One of their key conclusions was that the region should target its scarce housing finance resources to employment and transit-rich locations.

To that end, MARTA believes that on average at least 20% of the units in residential or mixed-use TOD projects should be affordable to workforce households, seniors with low, moderate, or fixed incomes, and persons with disabilities. This will be MARTA’s goal with respect to its own joint development projects, and MARTA will support a similar goal for station-area development in general. We favor zoning and other local development policies consistent with affordable housing production, including the use of density bonuses as a market incentive, particularly with respect to workforce housing.

The reduction of parking requirements - an important TOD principle in its own right - can also serve as a powerful cost-reduction incentive for affordable housing.

Delivering affordable housing as part of TOD will require a collaborative effort among multiple stakeholders - the municipal and county zoning jurisdictions in the MARTA service area, their housing authorities, the state of Georgia, the Department of Housing and Urban Development, for-profit and non-profit developers, lenders, community groups, and MARTA itself. Together, these stakeholders must be prepared to apply a diverse affordable housing “toolbox,” including site availability, zoning, housing finance subsidy programs, and infrastructure improvements. MARTA intends to be an active participant in this process.



Vertical mixed use development: offices over retail.

2. Center for Transit-Oriented Development and Center for Neighborhood Technology, The Affordability Index: A New Tool for Measuring the True Affordability of a Housing Choice. Brookings Institution, Urban Markets Initiative, Market Innovation Brief: January 2006.

DESIRABLE USES

Retail



Mixed use developments that incorporate uses such as restaurants and theaters increase nighttime activity

Residential



Vertical mixed use buildings often feature ground floor retail with residential above

Office



Office buildings with plazas contribute additional open space to the community



Everyday services like grocery stores provide an important amenity for residents and workers



Multi-family buildings increase convenient housing options



Live-work units accommodate office space in a neighborhood setting

DESIRABLE USES

Hotel



Hotels near transit offer easy access for visitors

Civic



Civic spaces animate the site

Institutional



Institutional buildings anchor the TOD both architecturally and by generating activity



Hotels can be designed to fit within a mixed use environment

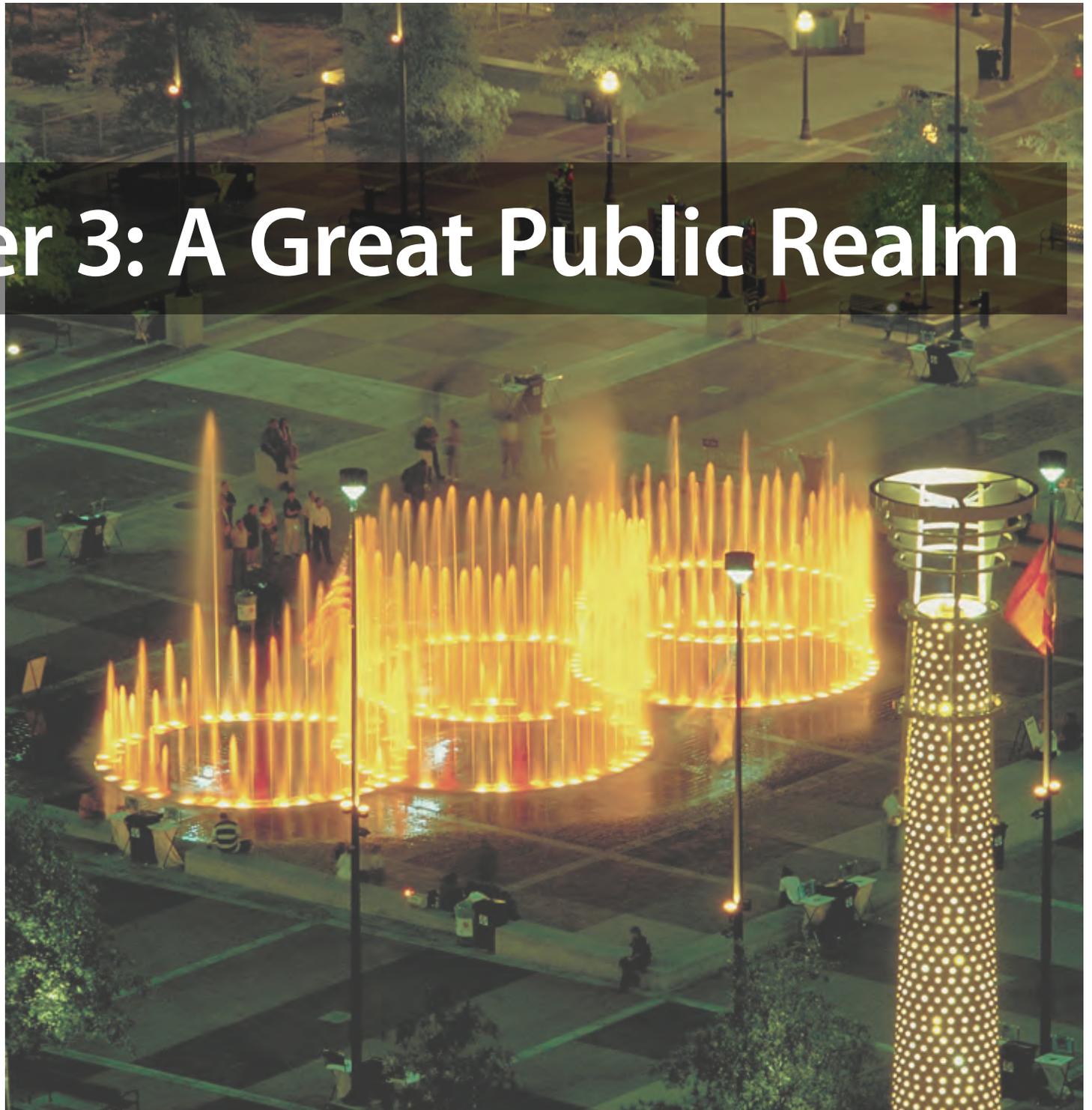


Libraries and museums serve as major destinations



Academic buildings draw a natural set of transit users like students to the TOD

Chapter 3: A Great Public Realm



CHAPTER SUMMARY

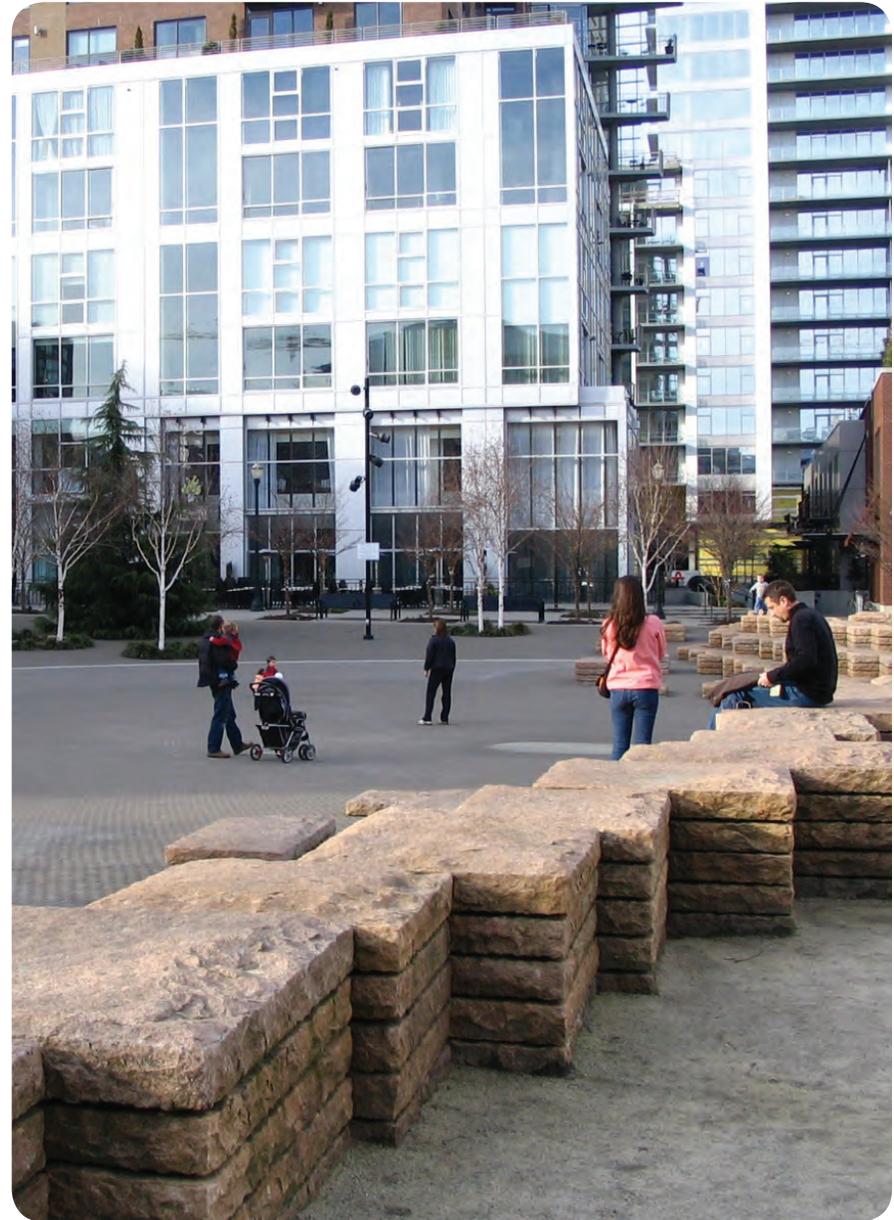
This chapter addresses the design and site planning standards that create a great public realm, one of the four foundational principles of quality TOD. The public realm connects transit to nearby uses and gets people to and from activities. These are the collective spaces—sidewalks, parks, plazas, streets, and even the outdoor and storefront areas of private businesses—that are enjoyed by transit riders, visitors, shoppers, residents, and workers. They are also the elements that physically frame the community and generate the vibrancy, the visual interest, and the ease of access that make TOD work. Good public realm design is also essential in mixing uses within a compact built environment, and in realizing the sustainability, reduced energy use, and green building design that are increasingly recognized as a benefit of TOD.

This chapter illustrates specific standards for applying the principles of quality public realm design and planning to transit stations in Metro Atlanta. These standards reflect best practices and real-world experiences in Metro Atlanta and other transit systems, as well as the place-making strategies recommended by industry-leading organizations like the Congress for the New Urbanism.

The chapter begins with the transit elements and their immediate environs and links, since these inter-related functions and facilities set the “template” of the station area. The station itself should act as the strong centerpiece of the site and the supporting systems of wayfinding and multi-modal access should make movement comfortable and easy for people on foot, wheelchair or bike.

The next section of the chapter explores the broader physical relationships that organize the station area—the TOD “walking district” that is centered on the transit elements and extends out one-quarter to one-half mile. The mix, scale, and density of land uses and spaces differ by station type. But what successful station areas share, especially in urban core, town center, commuter town center, and neighborhood settings, is design focused primarily around the pedestrian. TOD should feature quality open spaces of various sizes and programming types, as well as public art that invite people to gather and socialize. But enjoyable public spaces are not limited to parks and plazas. Walking down a street and interacting with people, bikes, and even cars can be part of the vibrancy and appeal of a transit-oriented downtown, town center, or neighborhood.

The chapter discusses the concept of shared space, which purposefully blurs the usually sharp distinction between automobile and pedestrian zones. The presence of people in the public realm naturally slows cars and enhances safety. Similarly, the TOD streetfront experience softens the line between public and private areas, encouraging activity to come outdoors and directly engaging people on the street. The chapter also highlights the importance of connectivity both as a means of improving physical access in and around the TOD and of blending the station area with its surroundings. Since the arrangement of land uses, streets, and spaces also varies by station type, the chapter



uses typology concept diagrams to illustrate how the individual components of TOD fit together within each of the seven categories. The concepts are not intended to represent specific station areas in the MARTA system, but to show idealized examples of overall TOD layout and design.

Lastly, the chapter establishes a series of specific public realm design standards for sidewalks and pedestrian zones, building facades, and the building/streetfront interface. The design standards illustrated in this chapter can become part of a zoning overlay to produce transit-supportive land uses in Metro Atlanta communities as described in Chapter 5 or can guide public-private development efforts on transit station sites. While good TOD draws from a common set of design elements, transit-oriented areas should always look for context-sensitive solutions, like architecture, public art, landscaping, and signs that make them distinct places and complementary neighbors.



TRANSIT ELEMENTS

Good transit-oriented development begins with the design and planning of the transit elements of the site. One of the most critical functions of the TOD is to easily connect as many people as possible to as many activities, services, and places as possible. The carrying capacity of the transit system is ultimately finite as is the capacity of a station and its immediate surroundings to process people at rush hour. The “station access hierarchy” graphic below shows that within MARTA’s *TOD Guidelines*—all other things being equal—passengers who arrive on foot receive the highest planning priority, followed by those who arrive by bicycle or by feeder bus.

Walk-in arrivals cost MARTA virtually nothing to accommodate and take up no land or curb space. Moreover, pedestrian customers may well have made a choice to live near transit, thus contributing to TOD around the station; if they happen to live in a joint development transit-oriented project on MARTA land, they are also contributing to the system financially. A walk-in trip to the station uses no fuel and causes no traffic congestion. MARTA explicitly means to promote sustainable, transit-oriented development, and people walking to and from stations is its defining characteristic.



Feeder buses also bring people to the train more efficiently and sustainably than private automobiles. And as mixed-use TOD takes root, more passengers will be using the “feeder” bus not to get to the train, but to get to their school or job, which happens to be near the train station.

Several foundational planning and design principles facilitate the flow of people, particularly pedestrians and cyclists, in and around the TOD. First, the station or stop should establish a strong physical presence that organizes its immediate surroundings. It should feature an iconic element, such as station architecture or a wayfinding item that reinforces a sense of place and include gathering places for riders and visitors. The station or stop should also be easy to access by multiple modes of alternative transportation, whether it is on foot, bike, bus, connecting rail or even electric car. Some people will of course also continue to drive their personal vehicles to the TOD, but as discussed in Chapter 4 on Parking, the traditional infrastructure of automobile use, like surface lots, parking decks and driveways should be designed so as not to diminish the pedestrian experience.

The concept of multi-modal access planning in a compact setting poses an inherent trade-off between the optimal ease of transfer (such as placing a feeder mode right next to the dominant mode) and the optimal design for a TOD (such as having retail or housing in close proximity to the station). The goal of these *TOD Guidelines* is to balance convenience in transit use with access to a mix of services and activities. The balance between transit and development access also varies across the typology with the urban core, town center, and some neighborhood areas placing more emphasis on land use connectivity; and commuter- or arterial oriented areas making ease of transfer a higher priority. No matter how transit and nearby land uses are organized, the use of signs, wayfinding elements, gateways and architectural features should make getting from one mode to another or from transit to a nearby destination both simple, time efficient, and pleasant.



Open space is an essential amenity and social catalyst for TOD.



Streetcars moving through plazas integrate pedestrians and rail.

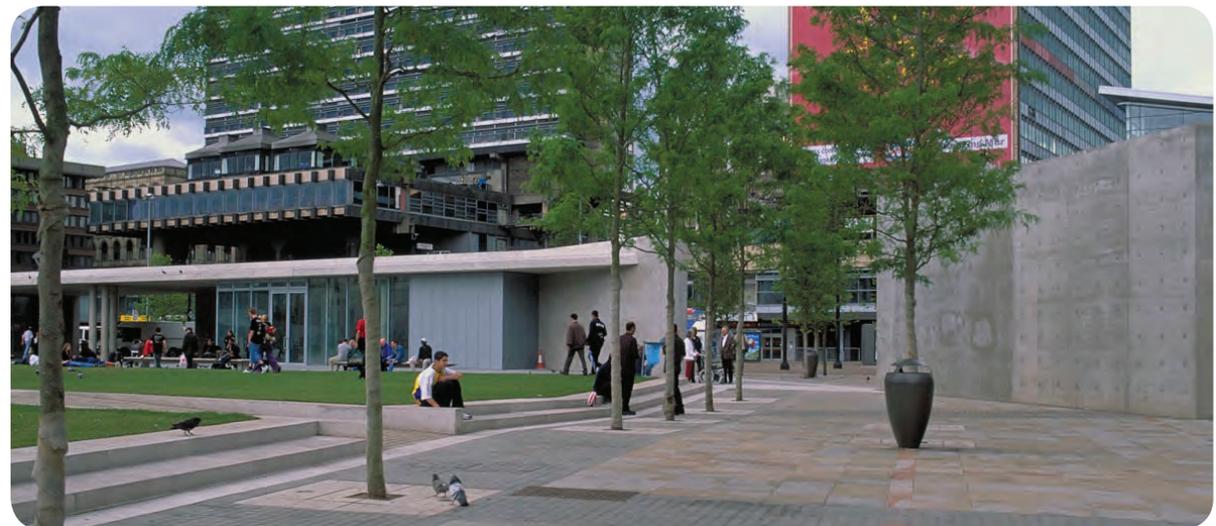
Station as Centerpiece

Make the station or stop an iconic element and a gathering place

- Key streets should visually terminate at the station or the station entry, where possible, to enhance visibility.
- Station entries should connect to plazas that reinforce transit as a focal point.
- Immediate station areas should incorporate nearby pocket parks, outdoor seating and other common spaces, as well as shelters to create a variety of comfortable gathering spots for riders and visitors.
- Gathering spaces around transit should include seating and generous staging areas for transferring transit users, pedestrians and other visitors to the area.
- Stations and adjacent buildings should embrace distinct architectural elements that build strong civic character.
- The station area plan should incorporate civic buildings like libraries, galleries and museums, public open spaces and other community amenities and site these elements to maximize visibility and access for nearby residents.



Streets that terminate at the station create a dramatic view of the station (Denver, Colorado)



Plazas in front of station entrances enhance its civic character and make transit a focal point. (Manchester, England)

Provide ample opportunities to incorporate public art

- The many individual structural elements of the station, such as signs, lights, bike racks, walls and shelters, can themselves become works of public art that express the unique character of the area and create a sense of place.
- Station areas, particularly at entrances or intersections or in plazas and parks, are excellent sites for free-standing public art objects. Art installations should be inspired, invite interaction, and show sensitivity to the surrounding context.



Public art can be tactile and interactive



Public art can reflect the area or context in which it sits

Multimodal and Universal Access

The design of intermodal stations must provide universal access for a variety of arrival modes. Except at collector stations, this should be achieved in a way that consistently encourages TOD. Given the access hierarchy described on page 54, MARTA will design its own stations in a way that gives priority access to pedestrians, persons with disabilities, bicyclists, and feeder bus passengers. Park-and-ride and kiss-and-ride access is important as well, but should not be designed so as to unduly limit a station's TOD potential.

- Pedestrian-oriented streets are especially important in a station's inner "core area", where the transit elements and the closest development are adjacent to one another.
- The layout of streets, paths, sidewalks, and plazas should establish short, direct, clearly-marked, and barrier-free pedestrian and bicycle links to the station and nearby destinations.
- The TOD should provide for pedestrian and bicycle crossings from one side of the station site to the other. This should be at grade where possible, but where the transit line is grade-separated, the crossing may take the form of a pedestrian overpass or underpass. These must be designed with safety and visibility as foremost considerations.
- The station area should incorporate amenities for pedestrians and cyclists on streets leading to the station, including seating and bicycle parking.
- The station site should include conveniently located lockers and parking for bicycles and scooters.
- The street network should provide appropriate and convenient access for feeder bus routes serving intermodal stations. The access pattern should avoid excessive use of nearby residential streets.

- At intermodal stations, bus routes and other connecting transit modes should have boarding and alighting points no more than a 400-foot walk from the rail fare gate. Except at collector stations, however, this does not necessarily mean that buses should enter the station or have dedicated curb lanes next to the fare gates, since that arrangement may conflict with TOD.

The right solution for a particular station depends on its setting, function, and design. At MARTA's Lindbergh Station, or Los Angeles Union Station, or neighborhood hubs like Boston's Forest Hills, buses operate in the station core without inhibiting TOD. At Denver Union Station, the bus platform is in the heart of the transit complex—but is below-ground, to avoid taking up too much street frontage. At typical urban core subway stations, buses use traditional curbside stops a short distance from the entrance. At town center, commuter town center, and neighborhood stations, feeder bus connections should be designed to optimize the tradeoff between the shortest walk and the best TOD plan; this may mean placing the berths a short distance away, so that transferring passengers walk along a retail street front. At congested stations, layover berths can be separated from loading berths, to minimize the loss of curb space.

- Kiss-and-ride access is difficult to control, since drivers seek the closest, most convenient spot. In all but the least congested settings, kiss-and-ride should be accommodated at multiple curbside areas (providing access from every direction), rather than in a dedicated lot that drivers have to get to. The higher the volume of kiss-and-ride activity, the more desirable it is to avoid the curbs closest to the station, where conflict with pedestrian movement and bus traffic is most acute. Kiss-and-ride facilities should be located within 400 feet of the station fare gate.



Integrate well marked bus stops and platforms at the station



Plan for inter-modal transfer conditions



Provide bike lanes that lead to transit stations.

- Park-and-ride facilities, whether surface lots or garages, should be connected to the station through safe, clearly marked pedestrian links.
- The location of park-and-ride lots involves considerations similar to those described above for intermodal bus connections. Given the access hierarchy, park-and-ride facilities, except at collector stations, generally should *not* occupy land closest to the station or otherwise separate the station from sites suitable for TOD. The pedestrian entrance to a park-and-ride facility may be up to 800 feet from the station fare gate.
- Preferred parking within the park-and-ride lots should be given to van pools, carpools, bicycles, and electric vehicles.
- Where park-and-ride coexists with TOD, the driving routes to the park-and-ride facility must be designed so as to minimize any adverse impact on peak-hour access to the TOD. This is a definitional issue at commuter town center stations, but must also be addressed at those town center and neighborhood stations where park-and-ride is a secondary use.
- The station site should provide preferred parking for car sharing services, such as ZipCar®, which can play an essential role in closing the “last-mile gap” between the station and destinations just outside the station area. For the same reason, long-term provision should be made for bicycle-sharing services. Paris’ Velib® system is a generation ahead of Atlanta and most other American cities, but the lessons are applicable: the network of bike stations includes Metro stops, and bicycle use is priced to



Commuters traveling a short distance from the station can use shared bicycles as an option.



Electric vehicle charging stations could be placed adjacent to the transit station



Car sharing services should be placed next to the station and given preferred parking.



Bicycle parking should be accommodated inside the station or outside the station under a covered canopy.

Type of Station Access	Maximum Distance from Station Fare Gate
Bicycle	as close as possible
Feeder bus (farthest berth)	400'
Kiss-and-Ride	400'
Park-and-ride	800'
Disabled Access	as close as possible

encourage commuting as the first priority.

Navigation Tools

Make the environment around the station easy to navigate

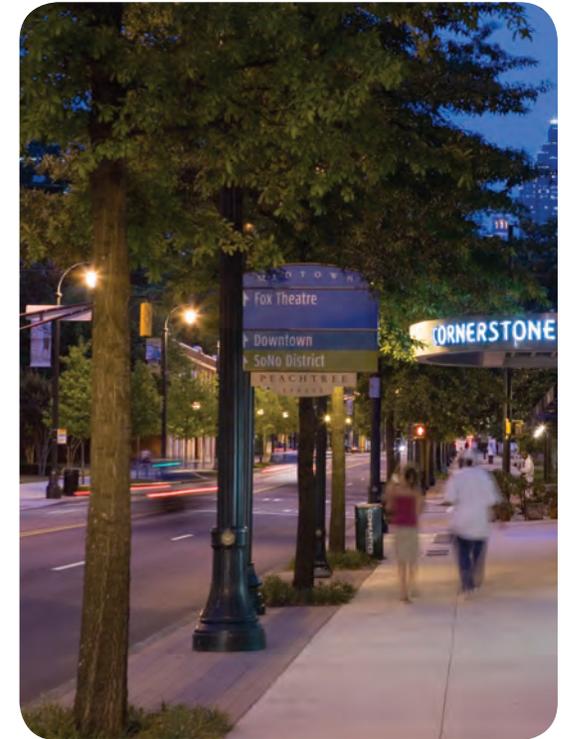
- Gateways, signs and other wayfinding elements should guide visitors throughout the station area.
- Station entries should incorporate distinctive architectural design to assist as an effective wayfinding device.
- Bicycle and pedestrian paths should be marked with signs, distinct paving materials, and colors for easy identification.
- Signs should be of a consistent style and size and conform to sign standards established by MARTA.
- Wayfinding signs should address station parking and vehicular access, pedestrian access, bike parking and storage, station entrance, train lines and train platforms.
- Access and connections between light rail, heavy rail and bus should be clearly marked by directional signage and well-lite.

Ensure a safe and secure environment within the station area for all transit riders, visitors and residents.

- Institute safety measures through urban design and material standards, such as lighting, sidewalks, cross walks, intersection improvements, etc.
- Provide adequate lighting inside transit stations and along streets, paths, and public spaces to ensure pedestrian safety through fixtures that minimize non-directional glare.
- Implement traffic-calming measures at appropriate intersections and streets in order to reduce speed and prevent pedestrian casualties.
- Provide bike lanes along roads that provide adequate right-of-way.



Clearly mark routes, direction and station location upon entry.



Wayfinding along sidewalks easily directs pedestrians towards destinations



Unique design creates an attractive environment for transit users.



Station signage should be direct and clearly marked for transit users.



Vendors sell basic morning necessities (coffee, newspaper, doughnuts).



Allow cafe seating in the station space permitting.



Some stations could accommodate sit-down cafes or restaurants



Kiosks on the train platform allow for last minute purchases.

Retail Concessions

In many transit systems, stations include retail concessions selling food, flowers, newspapers, dry-cleaning services, or other conveniences. When concessions are sited and designed effectively, they can function as an integral feature of the public realm, animating the station and encouraging a seamless flow of pedestrians between the transit elements and the sidewalks and buildings immediately nearby. In 2009, the Georgia legislature passed SB89, which enables MARTA and other transit systems to allow food and beverages on transit property. With a full range of concessions now available, MARTA will integrate retail activities into its station properties, using the following guidelines:

- Concessions may be located in the station's "free zone" or "paid zone", or in the street frontage of a park-and-ride garage. Restaurants or shops that are meant to attract walk-in business from non-passengers will be located in the free zone and, wherever possible, in visible locations facing the street.
- Food concessions can range from simple coffee and donut stands to sit-down restaurants, depending on a station's location, passenger volume, and design. The type and location of food and beverage sales will be determined with cleanliness and comfort foremost in mind. No alcoholic beverages will be sold on MARTA property.

STATION AREA

The station area consists of the transit elements combined with land uses and spaces that are within a comfortable walk for most pedestrians. Transit systems and advocates of pedestrian-oriented development typically define this distance as at least a one-quarter mile radius (or five-minute walk), and in some settings as much as a half-mile. This is the area in which it is critical to maintain as much consistency as possible with the four foundational principles of TOD: compact and dense development; a rich mix of land uses; a great public realm; and a non-traditional approach to parking.

The station area should be the most vibrant, interesting, and busiest part of any transit-oriented town or neighborhood. It also should be designed carefully, particularly in urban core and town center areas, to accommodate the flow of people and connecting modes of transportation. The public realm is the organizing framework that lets people mix with cars, bikes, and even buses and rail in an environment that is safe, attractive, and appealing. They are all of the spaces outside of buildings—from formal town greens to pockets parks, plazas, outdoor eating areas, and streetfronts—that invite social interaction, link people to activities and services, and join individual buildings, amenities, and streets into a coherent place. The design standards in this chapter address how these components of TOD interact and how they shape the public realm experience.



Medians and clearly marked crossings increase safety and direct pedestrian flow.

Open Spaces

Open space plays a critical role in TOD. It hosts social interaction from outdoor lunches and informal gatherings to concerts and farmers' markets. Well-designed spaces naturally attract people, making surrounding areas and streets feel safer and more comfortable. Animated public spaces and streets in turn generate more economic activity for nearby businesses. Gathering spots provide an important recreational opportunity for residents and workers of the TOD, offsetting the compact layout of buildings. Collective spaces also help to reinforce a sense of place within the TOD and serve as amenities for the broader community.

The appropriate scale and type of open space varies widely based on station type. Urban core areas can feature plazas, pedestrian-only zones, and shared spaces. Town centers often organize around formal greens and include recreational open spaces, such as trails and paths. Neighborhood parks fit naturally within neighborhood TODs. Regional open spaces, such as very large parks, concert venues, and zoological and botanical gardens can actually act as the anchor destination around which a TOD is built. Care should be taken when planning for transit around regional amenities. The large open spaces associated with regional-scale parks can conflict with the TOD principles of density and compactness unless other land uses, such as housing and retail are introduced into the station area. While the appropriate scale differs, good TOD planning should always embrace spaces that are designed primarily for pedestrians and offer a mix of structured and flexible elements. The following table and images define the range of possible open space elements.



Promenades cater to multiple activities occurring in the public realm

OPEN SPACE TYPOLOGY

Regional Open Space

- Regional open space should have a scale and diversity of programming sufficient to draw from surrounding areas.
- The scale of the open space should relate to the broader service population, in addition to its immediate surroundings.
- Components should include multi-use systems, including recreational components, paths and flexible open space.

Town Green

- The town green should serve the entire development, functioning as the civic focus and gathering space for the community.
- The size and location of the town green should reflect the scale of the development and the surrounding density. The green should also be strategically placed to serve as the heart of the community.
- The town green should be adaptable to different uses and events, such as concerts, farmer's markets, civic gatherings and ceremonies.
- The town green should not be so flexible as to lose its everyday function as the place for social dialogue and interaction. Its spatial organization should help facilitate its purpose as the community heart.

Neighborhood Park

- The dimensions and program of a neighborhood park should relate to the nearby population that will use it.
- Neighborhood parks should reflect the surrounding context, both aesthetically and culturally.
- Neighborhood parks may include uses such as small playgrounds, gathering spaces, community gardens, formal gardens or recreational facilities.
- Neighborhood parks will vary in scale based on the proposed programs and uses for the park.
- The design of neighborhood parks should promote a sense of security by placing spaces in proximity to development and increasing "eyes on the street."

Recreational Open Space

- Within the site area, recreational open space may be part of a larger area-wide or regional open space system. Components of this system may include running, biking and walking paths.
- Recreational open space could also include recreational fields and facilities for youth and community sports organizations.

Plazas

- Plazas should generally be in areas of the development which cater to a higher density and more "urban" character.
- Plazas should remain flexible in their programming, accommodating uses such as concerts, farmers' markets, street performances, ceremonies, etc.
- Plazas should include active and passive spaces. Active spaces largely consist of pedestrian clear zones, play areas, space for informal gatherings and temporary activities. Passive spaces include cafe seating, benches, and reading rooms.

Shared Spaces

- Shared space embraces the idea of a minimal division between local vehicular and pedestrian traffic and a safe, visually consistent urban environment.
- Design should encourage the concept of shared space with traffic calming that safely reduces the contrast between pedestrian space and vehicular space.
- Vehicular access should be marked by different paving patterns or the inclusion of bollards.
- Designs such as curbless streets should also decrease the separation between streets and sidewalks.

Micro-Parks

- Micro parks can be located in small portions of underutilized space in the public realm, whether along rights of way or in existing parks or plazas.
- They should reflect the unique characteristics of a place and/or group of people, building upon existing features and blending into the urban landscape.
- Micro parks are an affordable option for public spaces – price tags can be as low as a few thousand dollars.

Regional Open Space



Town Green



Neighborhood Park



Recreational Open Space



Plazas and Pedestrian Only Zones



Shared Space



Programmed and Flexible Public Space

Programmed public space, such as gardens and playgrounds, tend to have less flexibility in use, but their structure serves a specific purpose and enables important activities.

Flexible public space, in contrast, allows users to organize a variety of activities within the space itself. Open plazas, for example, can be transformed from concert venues to outdoor farmers' markets. The flexibility of the space not only accommodates multiple uses, but a social environment in which groups define the level and type of interaction, rather than allowing the structure of the space to determine function.

- The design of public spaces should allow for some moveable seating to permit a certain flexibility of use, such as outdoor reading rooms.
- Spaces should combine flexible and programmed elements in a single setting where appropriate.



Street markets can transform flexible space and create a temporary public use.



 ProgrammedSpace  Flexible Space



Programmed open space designed purely for seating and walking.



Moveable furniture permits improvisation in a flexible space.

Active and Passive Pedestrian Zones

One of the primary purposes of open space in a TOD is to allow for easy and safe pedestrian circulation between transit and surrounding land uses, such as housing, restaurants, stores, and offices. These active pedestrian zones should be sufficiently wide and clear to accommodate the movement of people, particularly in urban core and town center station areas. An equally important function of pedestrian space is to allow for relaxed gatherings and informal social interaction, whether it is sitting on a bench or people watching from an outdoor café. These passive pedestrian zones help to define the outdoor rooms that make TOD dynamic.

- Passive conditions, such as cafe seating are complementary to active sidewalks. They should not intrude into the pedestrian zone, but instead occupy a separate physical footprint.
- Sidewalks should provide ample room for pedestrian clear zones.
- Cafe seating should occur along the building edge or along the edge of the sidewalk between tree plantings, so long as a pedestrian clear zone remains unobstructed.
- The design of public spaces should encourage moveable seating to allow a certain flexibility of use in a planned, structured setting.
- Public space, in an urban environment, should integrate the surrounding buildings. Activity generated by buildings contributes to the success of the public realm.
- Provide adequate lighting along pedestrian paths and public spaces to ensure pedestrian safety.
- For public realm street standards/dimensions see Design Standards table on page 85.



ActiveZone
 Passive Zones
 ProgrammedSpace



Cafe zones allow users to watch the human theatre around them.



A wide pedestrian clear zone is necessary in an active urban area.

Shared Space

A shared space is “a relatively new name for a concept emerging across Europe. It encapsulates a new philosophy and set of principles for the design, management and maintenance of streets and public spaces, based on the integration of traffic with other forms of human activity. The most recognizable characteristic of shared space is the absence of conventional traffic signals, signs, road markings, humps and barriers - all the clutter essential to the highway. The driver in shared space becomes an integral part of the social and cultural context, and behavior (such as speed) is controlled by everyday norms of behavior.”¹

- Development design should encourage the concept of shared space as a form of traffic calming and minimizing the contrast between pedestrian space and vehicular space.
- Vehicular access should be identified by different paving patterns or the inclusion of bollards
- The layout of streets should consider implementing “streets for living” in which pedestrians, bicyclists, and low-speed motor vehicles share space.

1. www.sharedspace.org



 Shared Space



The presence of pedestrians slows vehicular traffic.



Paving patterns and bollards distinguish between vehicular and pedestrian space.



Shared space creates a more seamless public realm.

STREET FRONT EXPERIENCE

Design the streetfront around the pedestrian

An enjoyable streetfront experience for pedestrians is a hallmark feature of TOD. While streets in most conventional communities function mainly to move vehicles, the streets in transit-oriented towns and neighborhoods are designed primarily to organize social and economic activity. TOD streets certainly allow for automobile circulation, but they are also as much a part of the open space system as parks and plazas. The zones between building fronts and streets are often the most dynamic of all collective spaces in the TOD. They purposely blur the line between public and private areas, encouraging shopping and eating to come outdoors and directly engaging people as they walk by. Creating a visually interesting, functional, and comfortable streetfront experience requires several inter-related elements, including high quality pedestrian zones between the building front and street, pedestrian-oriented uses, and pedestrian-scaled architecture.



 Active Street Front



Generous fenestration gives the interior a feeling of being part of the street activity.



Consistent facade treatment at the ground level provides a continuous street front experience.

Pedestrian Zone

- Sidewalks should be wide and include amenities, such as street furniture, pedestrian-scaled lighting, trees, and landscaping.
- Streetscape design should reduce visual clutter by combining signs and elements, such as traffic signs and lighting.
- The design of parking lots or service areas should minimize gaps in development and curb-cuts that create pedestrian and vehicular conflicts and disrupt continuous street-level activity.
- All sidewalks should be accessible with ramps and other safety features.
- Streetscape design should incorporate sustainable practices, such as bioswales in the planting areas and porous paving materials for stormwater filtration.
- Planting areas and trees should be a primary consideration when planning the streetscape.
- For public realm street standards/dimensions see Design Standards table on page 85.



Planting zone, pedestrian clear zone and supplemental zone.



Pedestrian-Oriented Streetfront

- A** Activate street edge with retail.
- B** Awnings can provide shade and visually activate the street.
- C** Furniture zones and planting areas can double as stormwater filtration
- D** Use durable and easily maintained porous, paving materials
- E** Lighting should be designed at a pedestrian scale to maximize lighting of vertical surfaces at street level and minimize light projected above into residential units.

Pedestrian Oriented Uses

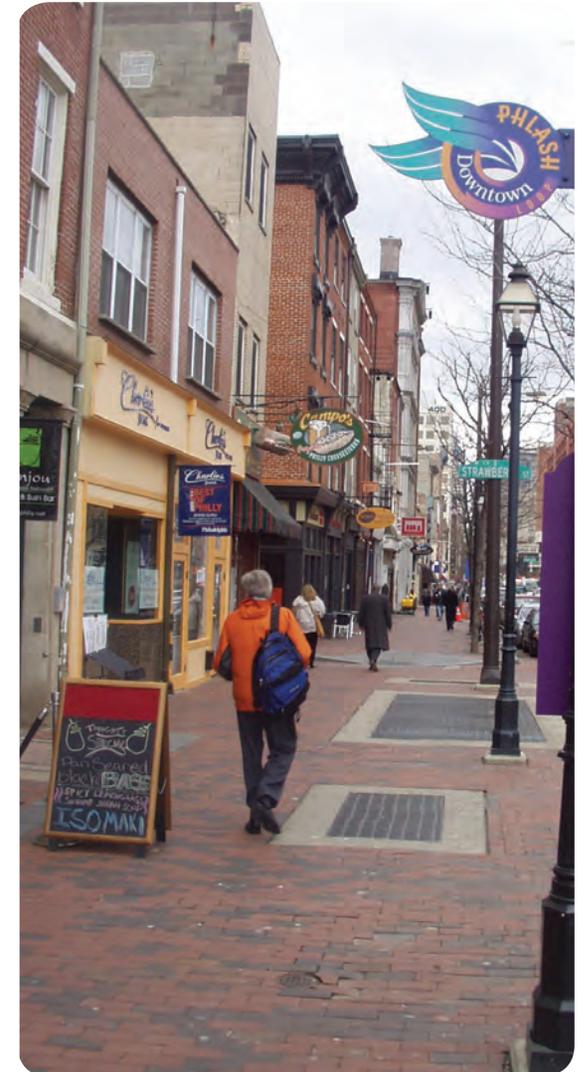
- Development should promote street-front retail and services along the sidewalks and pedestrian areas.
- Large-format retail categories like electronics, books, office supplies, or small appliances can contribute to the viability of a TOD district. The same is true of grocery stores. However, in most TOD settings these outlets should be required to forego their traditional “big box” built form. This can be achieved through smaller building footprints, site planning techniques that promote integration with the street front, and, where possible, inclusion in a mixed-use building.
- Uses should encourage visual interest with store front displays, signage, awnings and outdoor seating.
- The street front interface should be relatively uniform in its placement and organization, but should offer an aesthetic variety for passing pedestrians.
- Development, particularly along main streets, should limit curb cuts for parking and service.
- Parking decks and service entrances should be screened from the street.
- Development should place entrances for parking and service along side streets.
- Development should bury utilities when possible to avoid a visually cluttered streetscape
- TOD areas should discourage drive-through uses. However, a limited number of drive-through establishments, such as banks or convenience retail, can be accommodated outside the core area around the station and should be designed to use alleyways or other secondary access drives to minimize conflicts between vehicular traffic and pedestrians.



Large national retailers can fit well into an urban core development and offer a community-wide amenity.



Neighborhood serving retail at the ground floor and professional office above are often found in town center environments.

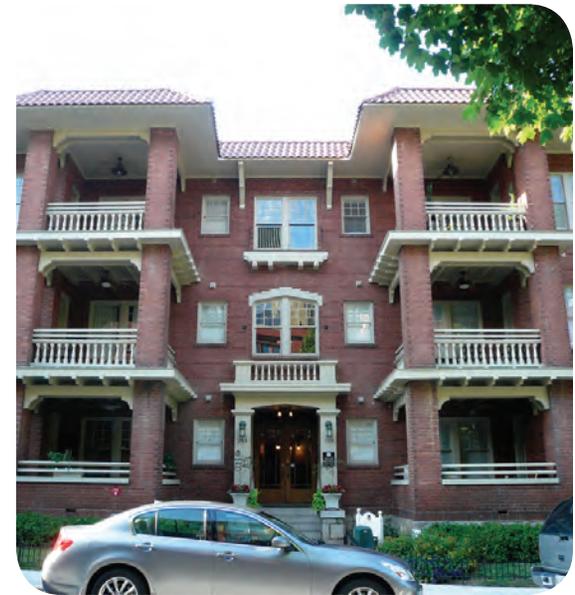


A variety of signs, graphics, awnings and window treatments create a visually engaging sidewalk experience.

Pedestrian Scaled Architecture

- Buildings should be placed directly adjacent to the pedestrian zone to minimize setbacks and create a continuous streetfront.
- Building entries and doors should orient to the street.
- Primary entrances to buildings should denote a sense of arrival and significance, particularly on street corner entrances.
- Building design should encourage a high level of visibility along the street through the use of shop front windows and large areas of transparent glass on the first floor.
- Development should avoid long stretches of blank wall along the streetfront. Parking structures should at a minimum be wrapped with an architectural façade or preferably wrapped by active streetfront uses.
- Design should incorporate architectural elements, such as windows and façade treatments to sustain visual variety and incorporate weather protection elements, such as awnings.

- The architectural transition from the ground level to the upper stories of each building should establish a zone that clearly distinguishes the lower elevation facing the public realm from the private uses above. Visual distinctions can be achieved through: a change in materials, varying elevation depths, arcades, loggias, balconies or any combination of these elements.
- Architectural massing should respond to the density of the surrounding community where appropriate and maintain an aesthetic reflective of the existing built environment.
- Building massing should remain pedestrian in scale, which can be accomplished by limiting building podium height.
- Buildings should step back at higher floors to minimize shadow impacts and reduce a canyon effect.



Medium density residential retains a neighborhood scale



Architectural massing avoids overwhelming the pedestrian realm by stepping back as the building height increases.



Development maintains an active street front presence avoiding blank walls along the building facade.



Lower scale development is appropriate for neighborhood stations.

CHARACTER

Desirable



Street fronts and sidewalks are more engaging with small scale retail.



Mixed use residential buildings with ground floor create an active street



Destination retail fits into a mixed-use environment.



Deliberate massing ensures that the scale of an office building does not become overwhelming.

Undesirable



Street edge gives priority to the automobile thereby creating a harsh pedestrian environment.



Large ROW and out-parcels create a scale that is unsafe and unappealing for pedestrians.

Sustainability and Green Building

TOD and the broader concept of sustainable design go hand-in-hand. Recognizing this link, MARTA has adopted a policy statement on sustainable practices that promotes efforts to foster environmental awareness, reduce energy consumption, and decrease air pollution and road congestion. The policy recognizes the essential role of TOD in achieving these goals by combining green building design with pedestrian-friendly, walkable, mixed-use building location. The public realm as we define it in these **TOD Guidelines** includes this relationship.

Developers can partner with MARTA to achieve sustainability through participation in the LEED certification program. Established by the US Green Building Council (USGBC), the Leadership in Energy and Environmental Design (LEED®) Rating Systems set guidelines for measuring the environmental impact of projects, such as new construction, building renovations, and neighborhood plans.

To become LEED-certified, a development project must accumulate a minimum number of 'points' earned for environmentally-friendly best practices. LEED certification is a tiered system of performance levels (Platinum, Gold, and Silver), with Platinum level certification ranking the highest, and therefore having the least impact on the environment. The *LEED 101* call-out box on the following page provides a brief overview of the scoring categories and examples of practices that contribute to a LEED score.

LEED certification has become the industry standard for energy efficient "green buildings". Recent studies have shown that LEED certified buildings command higher rents and higher occupancy rates relative to similar conventionally designed buildings. A development's site can greatly impact a project's score, and MARTA's TOD properties allow developers to accumulate up to 11 LEED points in the Sustainable Sites category simply by being adjacent to transit and other locational attributes.



The Atlanta Botanical Gardens' Visitor Center at has a roof garden with locally appropriate plantings (above). This building (below left) generates renewable power on site; and the parking spaces (below right) are permeable.



LEED 101

LEED is a voluntary program that can be applied to any building type. It rewards performance in key areas:

Sustainable Sites

This category encourages infill; rewards smart transportation choices; encourages native landscaping; controls stormwater runoff; and reduces light pollution and heat island effect.

Water Efficiency

The goal of this credit category is to encourage smarter use of water.

Energy & Atmosphere

This category encourages a variety of strategies such as energy use monitoring; efficient design; use of low energy consumption appliances and systems; and the use of renewable and clean energy.

Materials & Resources

This credit category encourages the selection of sustainable materials. It promotes the reduction of waste as well as reuse and recycling.

Indoor Environmental Quality

This category promotes strategies that can improve indoor air as well as providing access to natural daylight and improving acoustics.

Locations & Linkages

This category encourages infill development and rewards sites that are built near already-existing infrastructure, community resources and transit.

Awareness & Education

This category encourage builders to provide tenants and building managers with the tools they need to understand what makes their space 'green' and how to make the most of those features.

Innovation in Design

This category provides bonus points for projects that use new and innovative technologies to improve a building's performance beyond what is required by LEED credits.

Potential Green Building Site and Design Elements

- Incorporate alternative transportation strategies such as public transit, bicycle, and carpools.
- Design stormwater treatment features as green space amenities.
- Reduce light pollution with the use of full cut-off light fixtures. Provide solar-powered light fixtures.
- Design "walkable streets" to encourage pedestrian activity and promote public health.
- Provide public spaces for passive or active use to encourage public health.
- Renovate or reuse existing buildings.
- Orient buildings to maximize passive solar design.
- Incorporate on-site renewable energy sources such as solar panels or micro wind turbines.
- Provide highly reflective or light-colored roof materials and pavement materials.
- Provide porous pavers in lieu of asphalt in parking areas and along walking trails.
- Provide shaded walkways to encourage walking and where social gatherings are likely to occur.
- Provide tree islands in parking areas to provide shade and reduce heat gain of pavement.
- Provide rain gardens or other bioretention swales within parking areas and along streets.
- Providing a vegetated roof for flat roof applications.
- Providing rain barrels or cisterns to harvest and distribute greywater for flushing toilets or irrigation.



This cistern (above left) collects rainwater and stores for irrigation. The planting strip along this street is a 'rain garden' (above right) that filters stormwater runoff and recharges the water table, reducing the treatment costs for the City.

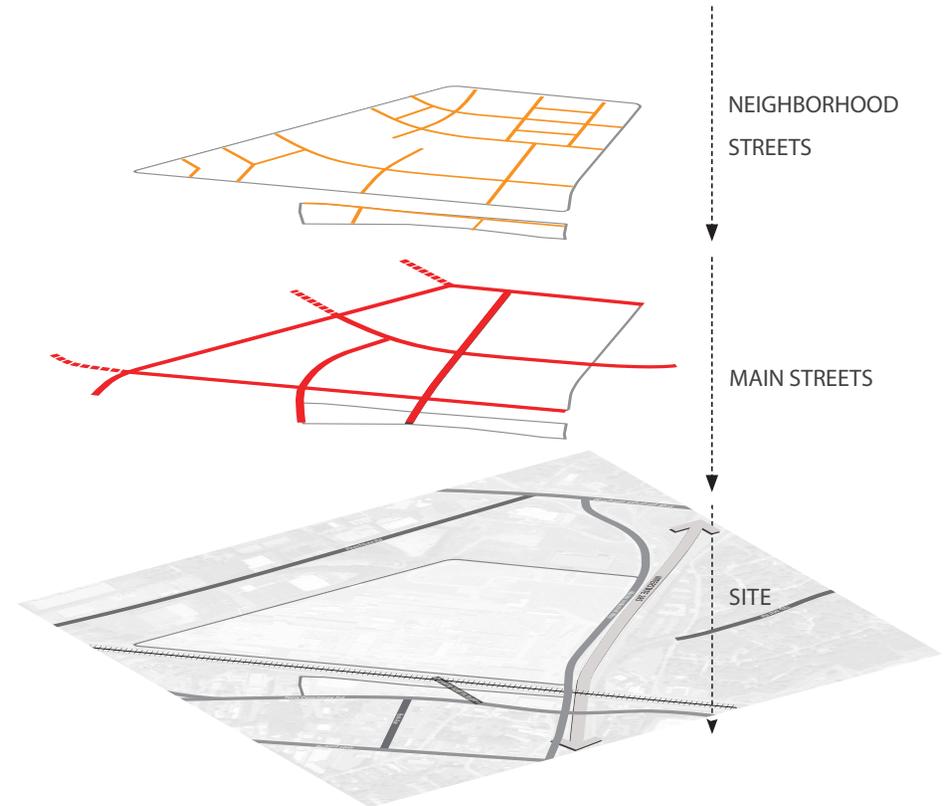
CONNECTIVITY

Blend seamlessly with the surrounding community

Though TOD, particularly town centers, can function almost self-sufficiently with a diverse mix of housing, jobs, and services, these are not intended to be physically isolated, stand-alone places. TOD should instead embrace its existing context, serving as a highly accessible amenity for nearby residents and workers. This reciprocal relationship is essential to the viability of TOD. Adjacent neighborhoods and employment centers rely on the TOD for mobility and goods, while the development depends on the community's commercial support. TOD should connect with adjacent areas in two critical ways. First, a refined grid of streets and pedestrian links to surrounding areas should facilitate easy access to the TOD for people on foot or bike. The ability to arrive quickly and safely at a TOD through alternative modes of transportation expands the potential base of transit riders. Inside the TOD, this tight network of streets and sidewalks frames development and promotes convenient movement among activities. Outside of the TOD, street connectivity can generate additional development opportunities. Street grids also disperse traffic and alleviate vehicular congestion. Along with physical access, TOD should consider how it relates in terms of scale and design to the surrounding context, particularly when set within an established residential area. The development should plan for appropriate transitions of scale and draw, when possible, from the architecture and place-making elements of the broader community to create a setting that fully complements its neighbors.

Street Connectivity

- Pedestrian and vehicular connections to the larger community are essential.
- New streets should connect to the existing network and restore any historic grid patterns interrupted by the introduction of transit.
- A continuous streetscape from the development outward should be encouraged to create a more seamless transition between the neighborhood and the station site.
- The street hierarchy should direct new traffic away from neighborhood streets.
- New streets in the TOD that connect with existing peripheral roads can also spur development outside the boundaries of the TOD. In the event that the adjacent land is developable, streets should be configured to support future development.
- Where applicable, the new streetscape, such as bike lanes, sidewalk improvements and directional signage, should extend into existing neighborhoods.
- Cul-de-sac streets should be prohibited in the TOD. When unavoidable, cul-de-sac streets should be required to include pedestrian and multi-use crossings.



MODEL STREETS



Traffic calming measures, such as bump-outs, act to slow vehicular traffic and increase pedestrian safety.



Medians can offer a sense of formality to street design, as well as additional landscape elements.



Large sidewalks and a formal, uniform streetscape reinforce the significance of a street.



The neighborhood street and adjacent buildings create a comfortable scale for pedestrians.



A boulevard design reduces the impact of a wide vehicular right-of-way on adjacent development.



A consistent tree canopy along the street edge softens character and scale.

Scale and Design Compatibility

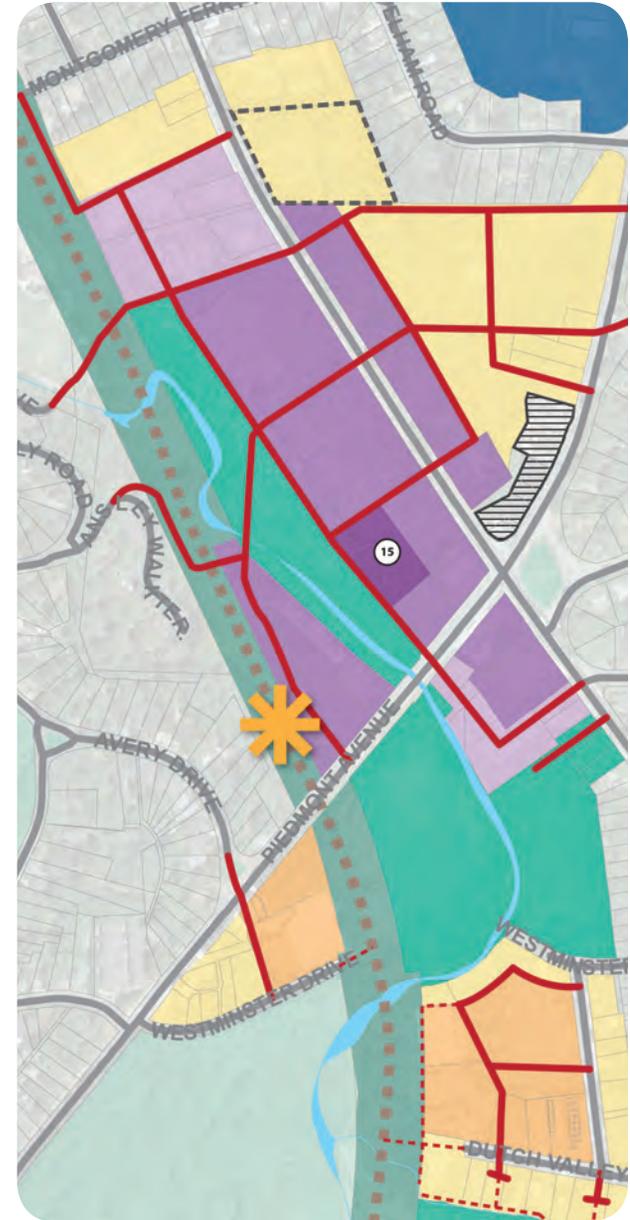
- Where applicable, the development should reflect the aesthetic character of the community and be planned at a scale that respects the surrounding area.
- More intense land uses should be placed in the center of the development near the station.
- Buildings should step down in scale and intensity at the interface with adjacent neighborhoods.
- Streets, public spaces, gateways and landscaped buffers should be designed to create identifiable edges between new transit-oriented development and existing neighborhoods.
- The pedestrian environment along the periphery of the development should build on the existing system of neighborhood sidewalks or establish a new standard for future streetscape improvements in the adjacent neighborhoods.



More intense uses, such as grocery stores, should be placed at the center of the development.



Buildings along the periphery of the site should respect the scale of existing neighborhoods where applicable.



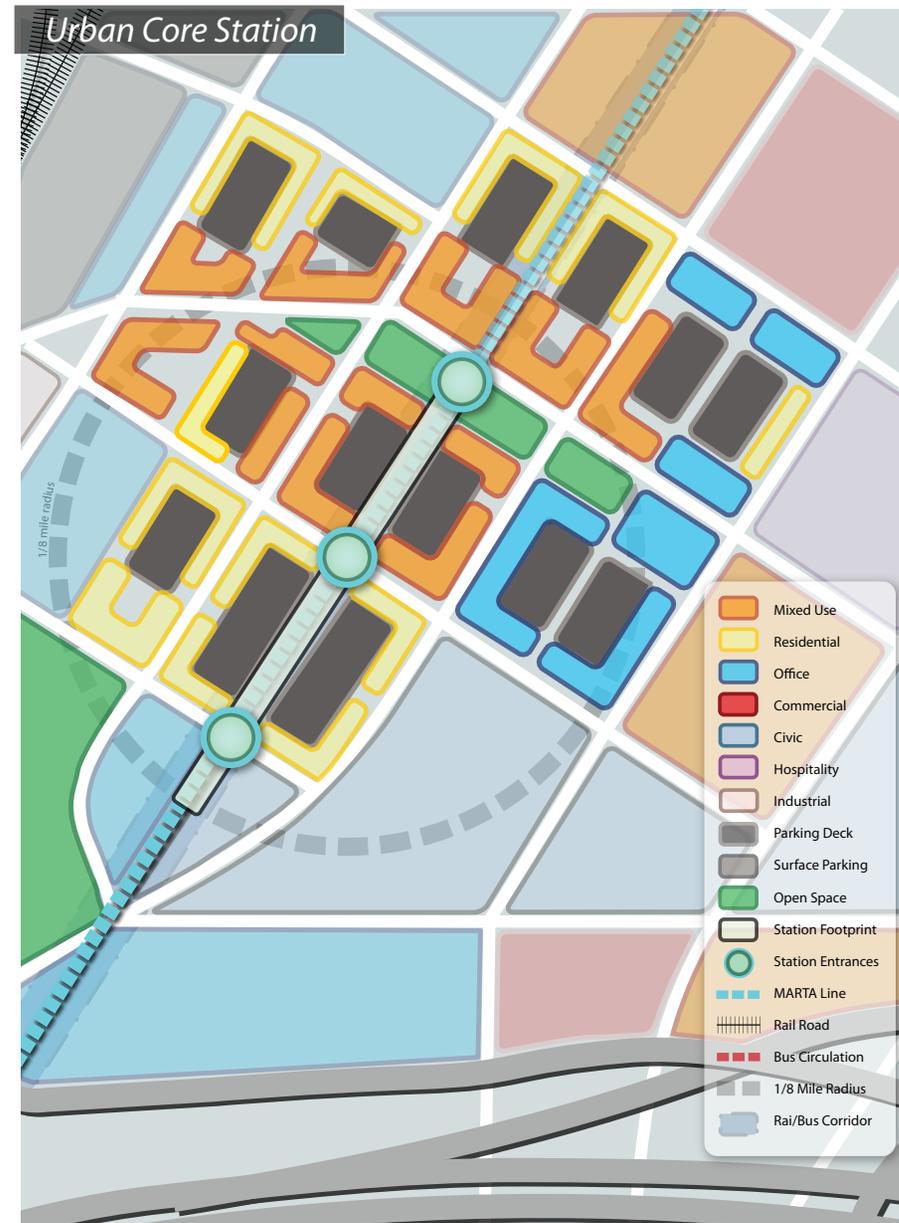
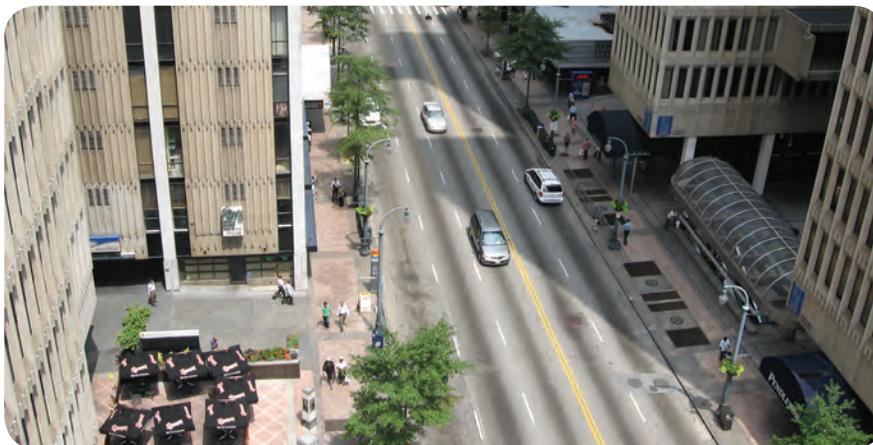
The diagram above illustrates how density and scale transitions as it moves towards established single-family neighborhoods.

OVERALL ORGANIZATION

Transit elements, buildings, open spaces, sidewalks, and streets are all physical building blocks of good TOD. But these individual components combine in many different ways depending on the station type. The following typology concept diagrams explore the physical relationships among these pieces for each of the seven station categories and show how they join to create templates for successful TOD. The diagrams focus on the close-in pedestrian zone around the station entrances (one-eighth of a mile), but also include broader context to show how transit and TOD fit with surrounding land uses. The diagrams are not intended to represent specific station areas in the MARTA system, but to show idealized examples of overall TOD layout and design. Real-world developments will of course arrive at individualized planning and design solutions to reflect existing site conditions and the surrounding context.

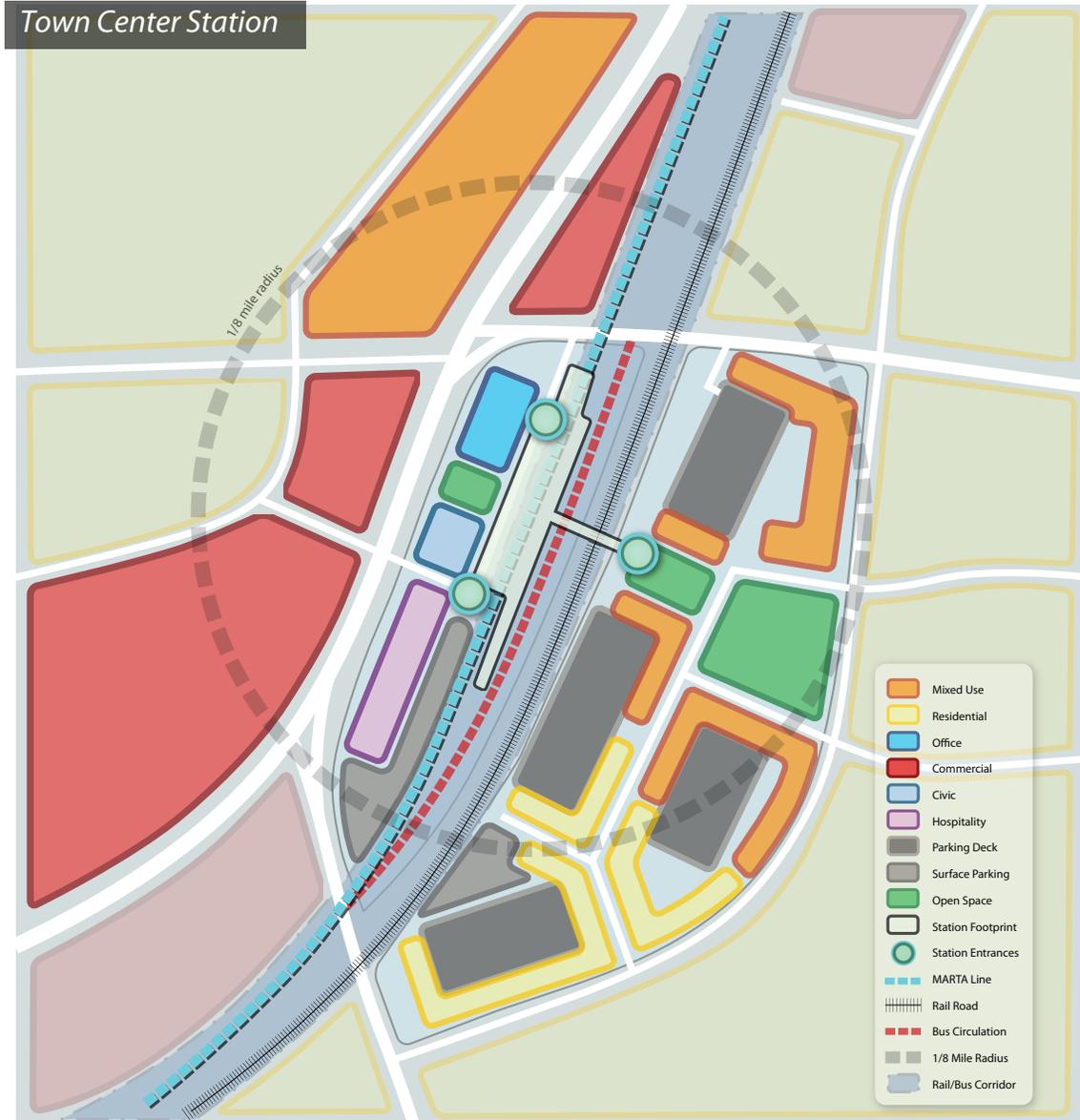
Urban Core

Urban core stations are set in the densest, most intensely developed nodes of the regional transit system. Pedestrian connections are essential near urban core stations, with the transit line typically grade-separated in order to minimize disruptions to the urban fabric and increase connectivity at the street level. These station areas also often feature adjoining outdoor spaces such as plazas and generous staging areas to process the flow of riders. Movable seating, outdoor concessions and active retail are appropriate for areas immediately adjacent to the station. The station area is typically surrounded by high-to-mid-rise buildings including office, institutional, hotel, and civic uses, and increasingly residential and retail activity. Parking is fairly limited and set aside in structured, off-site locations.



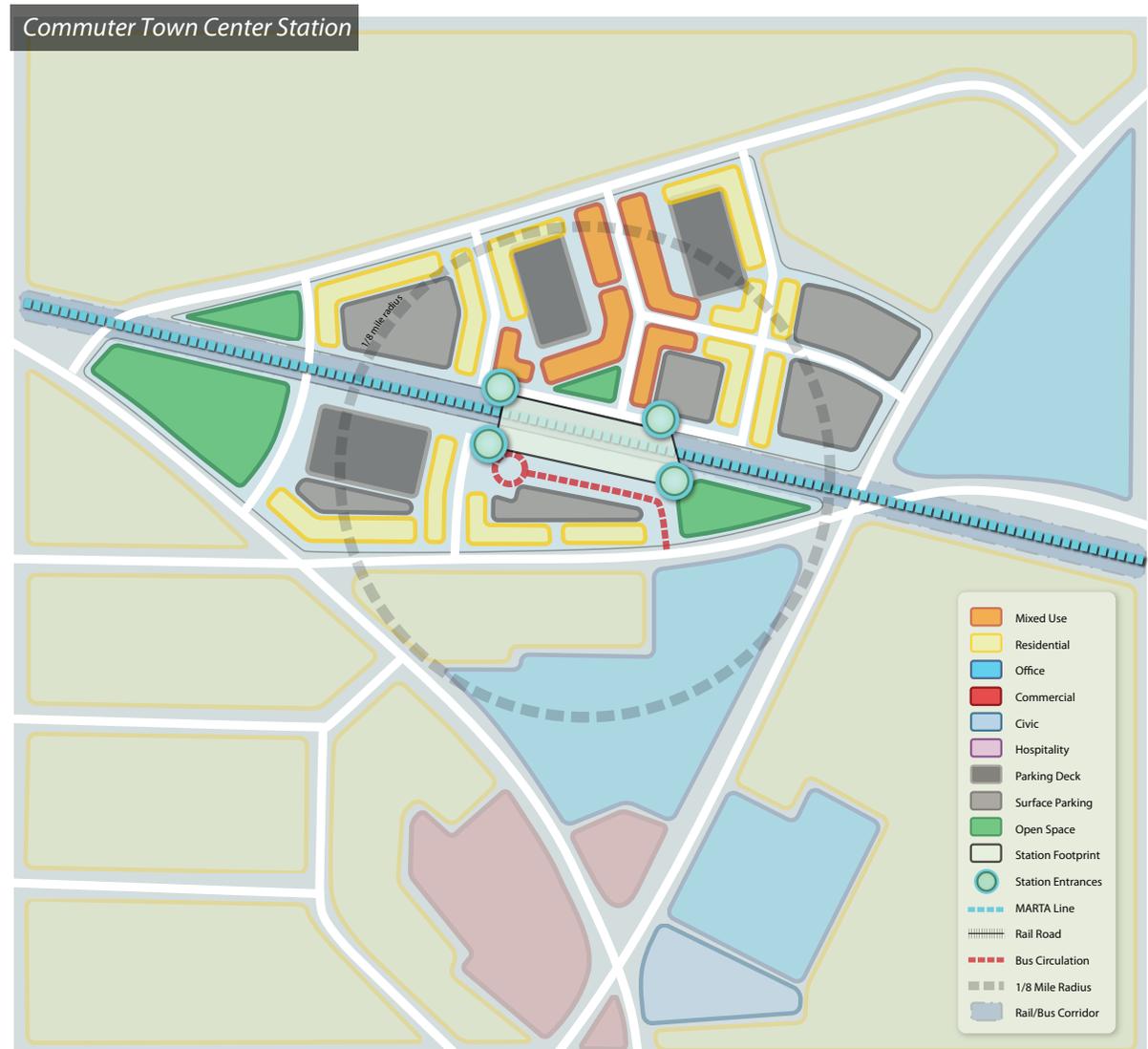
Town Center

Town center stations are set in nodes of dense, active, mixed-use development. These station areas have a wide array of land uses from housing and civic amenities to retail and office spaces. Development is of a comparatively lesser scale than the urban core, with mid-rise construction more common than high-rise buildings. Institutional or signature commercial buildings physically address adjacent major thoroughfares and intersections. The site often has an internal “main street” that organizes activity. The interior streets tend to be more pedestrian oriented with street-facing mixed use and residential buildings. Land use intensity and building height transition downward near adjoining residential areas. Town centers often incorporate a formal open space, such as a green or park framed by buildings and active uses. Overall, the site is compact and has a very refined network of pedestrian links, streets, and short blocks to promote circulation among multiple uses and connections to surrounding areas. Some limited surface parking is available, but most parking occurs in decks wrapped by ground-level uses to reduce visual impact on the built environment.



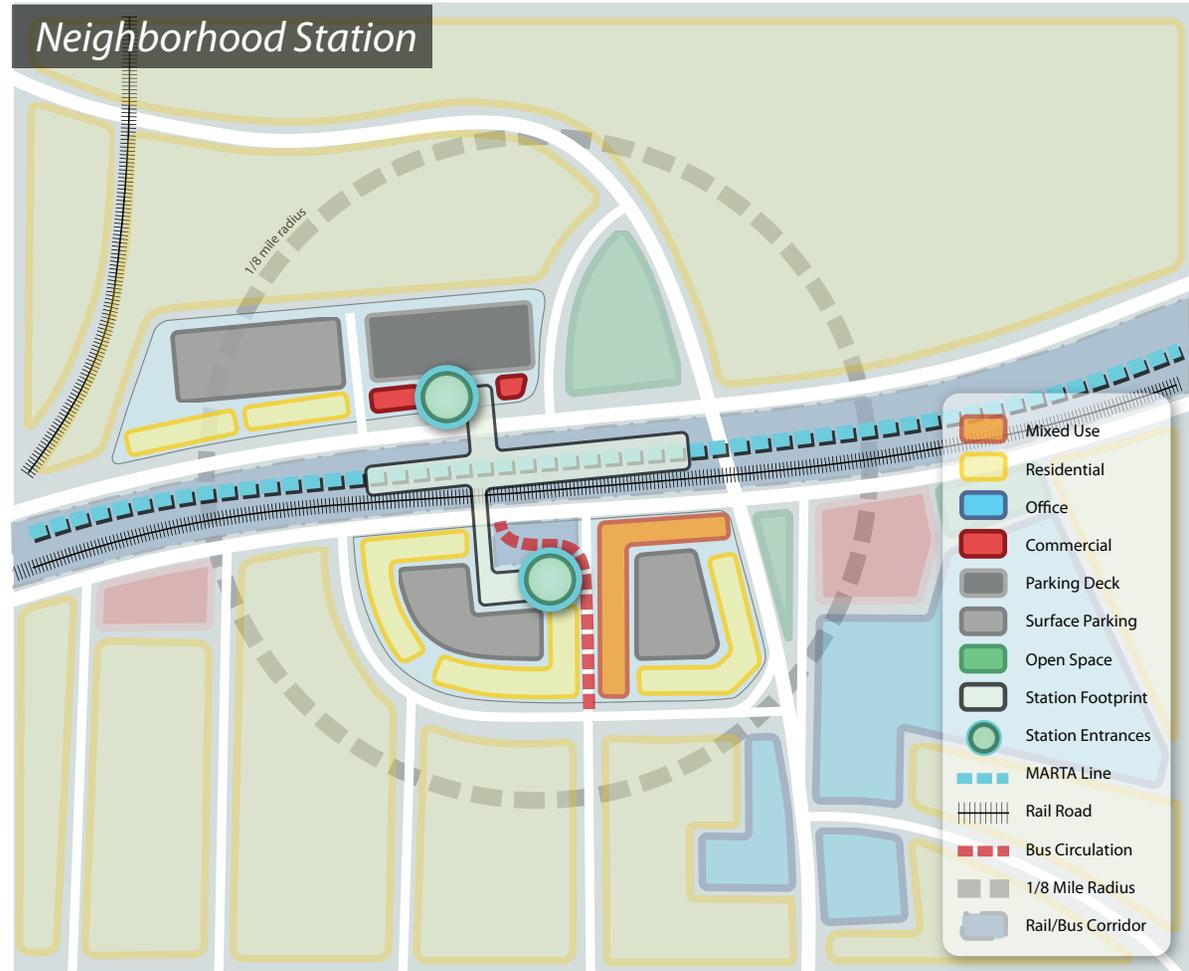
Commuter Town Center

Commuter town centers have all of the characteristics of town center stations, but also function as primary “capture points” for commuters transferring to the rapid transit system. These areas have large park-and-ride decks combined with on-site housing, retail, and office activity and common spaces. The placement of parking and connecting transit modes is critical to the success of the commuter town center layout. Parking and bus routes should be configured to provide easy access to the rail but avoid disrupting streetfront mixed use areas and central gathering spaces.



Neighborhood Stations

Neighborhood stations are located in primarily residential districts, and their main transportation function is to help nearby residents get to destinations accessible through the transit network. Land uses in the station area typically include some mixed use and housing in low-to-mid-rise buildings. The area may also include a neighborhood park or green space. Transit elements may include small park-and-ride areas and a bus turn-around, though these facilities should be sited so as not to physically disrupt the core of the station area. The site should also connect with surrounding neighborhoods through numerous street and pedestrian connections.

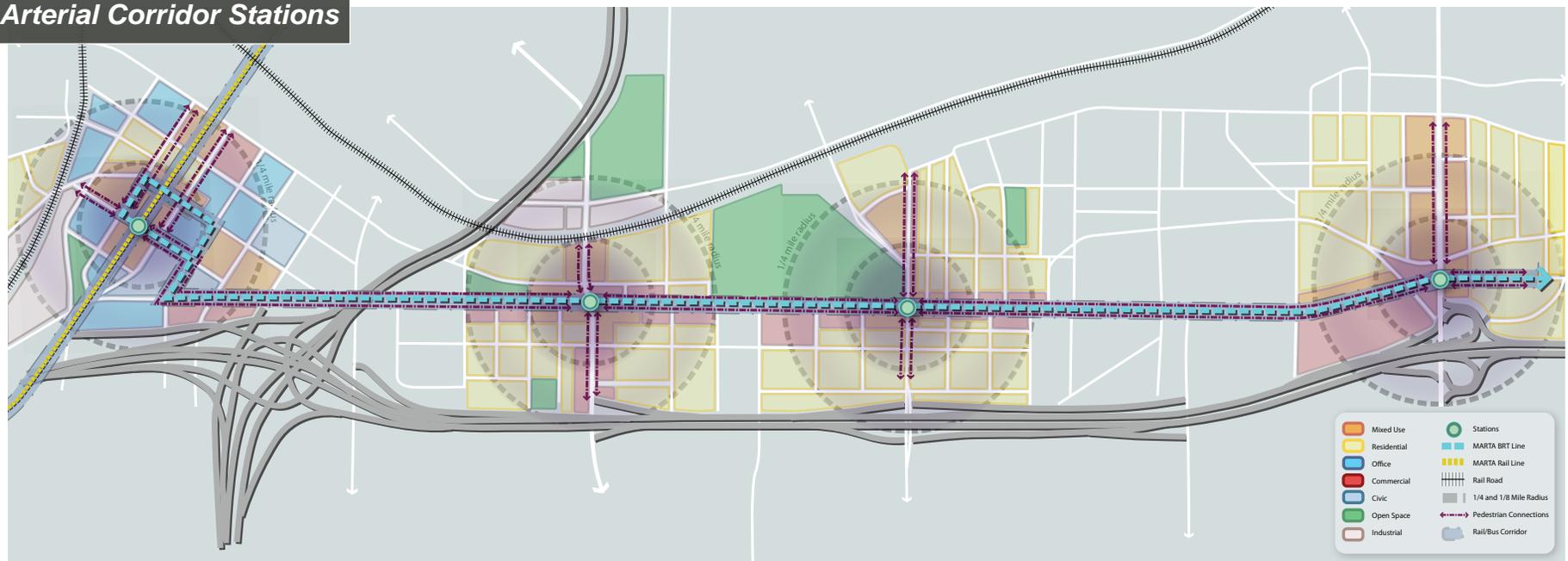


Arterial Corridor Stations

The intent of arterial rapid bus or light rail corridors is two-fold: to improve mobility for commuters, but also to transform automobile-dependent land use patterns along stretches of the corridor into node-based activity. Stations areas are primarily residential or commercial, but may attract mixed uses at major arterial intersections. Typically, these station areas are more suburban in scale and design than town centers or neighborhood stations. Some parking is available at the site, but the station requires strong pedestrian and street links with surrounding areas to draw riders to the transit.



Arterial Corridor Stations



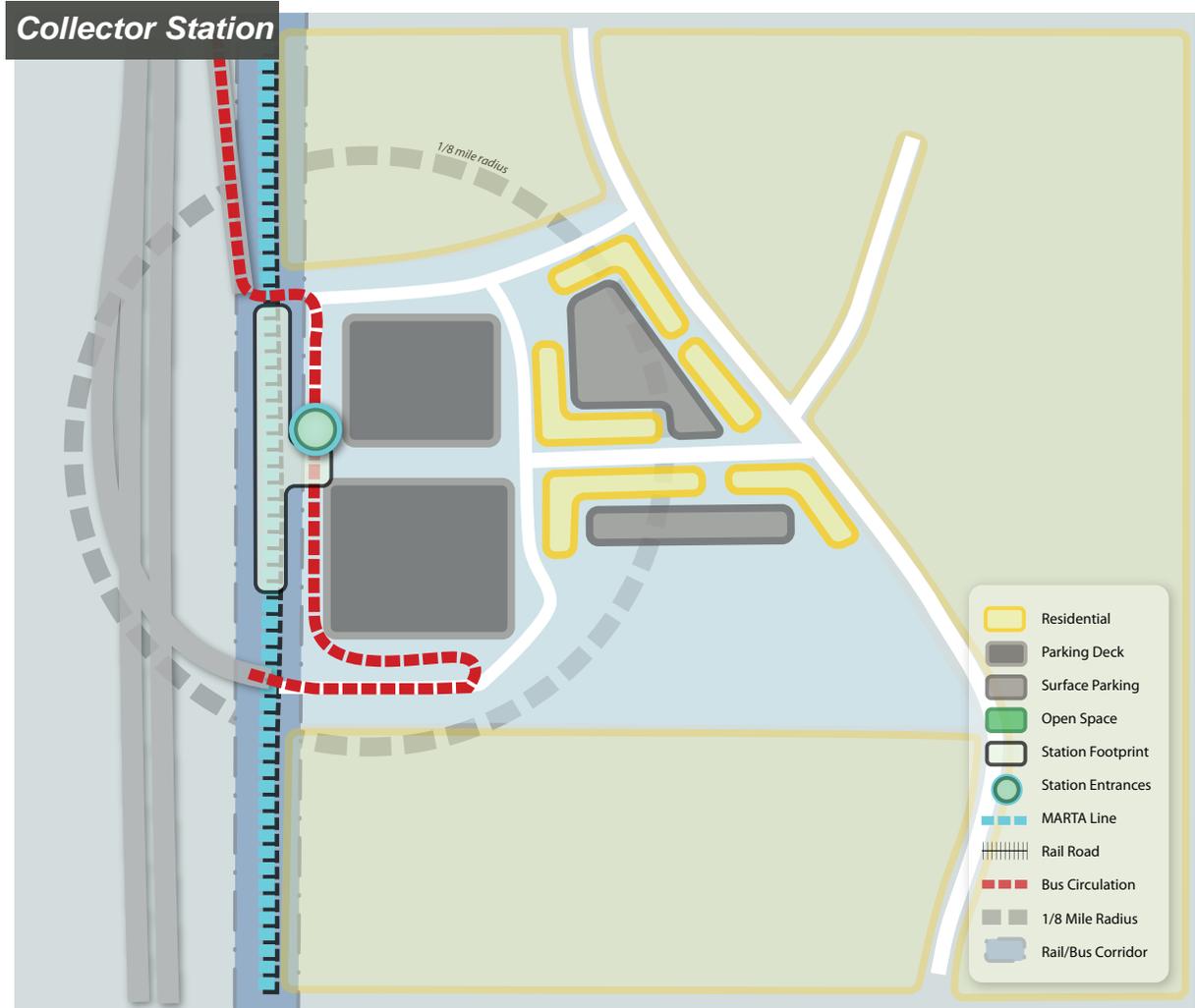
Special Regional Destination

Special regional destinations are defined by a single use or cluster of uses, including sports and entertainment venues; educational or medical campuses; airports; and large, stand-alone industrial or commercial complexes. The primary function of these sites is to distribute passengers to, from, and within the focal destination. These station areas thus require high-quality way-finding, a strong pedestrian environment that may include tunnels, foot bridges, or moving sidewalks and possibly local circulators or shuttles.



Collectors

Like commuter town centers, collectors are primary capture points for inbound passengers transferring to the rapid transit system from personal vehicles. They are located at strategic points in the regional highway system, almost always at peripheral sites. Unlike commuter town centers, however, they are not associated with large-scale, mixed-use TOD. These sites include large park-and-ride functions, which may be in the form of surface lots. Strong pedestrian links between the park-and-ride facilities and transit are a primary consideration in the layout of collectors. Surrounding areas are often developed at a lower-density pattern like single family housing or low-rise retail.



PUBLIC REALM DESIGN STANDARDS

While it varies in its place-making characteristics and uses, the main components of TOD—pedestrian zones, the street grid, streetscape, building facades, and the building/streetfront interface—follow basic design principles that support a safe, highly walkable and vibrant experience for users. The table on the following page recommends a series of specific standards for key elements of the public realm. Where appropriate, dimensions are expressed in a range to permit some flexibility in design. The graphics show how these principles can be used along the main streets, mixed use streets, and residential streets of a TOD. Chapter 5 describes how these standards can be incorporated into a zoning overlay to shape transit-supportive design outcomes in local communities.

Pedestrian Zones

- The public right-of-way for pedestrians consists of three zones: the supplemental zone, the pedestrian clear zone and the planting/furniture zone
- To accommodate significant activity, the pedestrian clear zone should consist of a continuous, unobstructed zone that is a minimum of 8 to 12 feet in width depending on street type and function.
- The supplemental zone may include porches, stoops, landscaping, signs, and seating associated with streetfront development. Wide supplemental zones (such as for outdoor dining areas or plazas) often require specific agreements as to the location of the public property line and the degree to which the supplemental zone activities occupy the public right of way. In any case, the supplemental zone should not physically encroach on or obstruct the required pedestrian clear zone.
- Street trees should be planted a maximum of 30 feet on center and decorative pedestrian street lights should be placed a maximum of 60 feet on center and spaced at equal distances within the furniture and planting zone.

Relationship of Buildings to Public Street

- The minimum front setback should be zero. In the station area, at least 75% of the principal frontage of a building should be built with a zero setback from the supplemental zone.
- To maintain an appropriate scale relative to pedestrians, ground floor uses should be a maximum of 16 to 20 feet in height.
- The first three stories of the buildings facing public streets should be delineated through the use of windows, belt courses, cornice lines or similar architectural elements.
- For ground floor retail uses, a minimum of 50 to 60% of the building façade facing a public street should consist of transparent surfaces, such as windows or doorways, to promote visual interest. For residential uses a minimum of 30 to 35% of the building façade facing a public street should consist of transparent surfaces.
- Primary pedestrian entrances should be oriented to the street and clearly visible.

Streets and Blocks

- The maximum travel lane for vehicles should be 11 to 12 feet in width depending on street type and function.
- Streets should accommodate bicycle access with a dedicated bike lane that is 5 feet in width or 6 feet in width if adjacent to parallel parking.
- To promote connectivity and walkability, new blocks should ideally be 400 feet in width and 400 feet in length.
- When site conditions do not permit an ideal block configuration, the maximum block length should not exceed 600 feet.

Parking

- The on-street parking zone should be 7 to 8 feet in width.
- Off-street parking should be screened from public streets using buildings and/or landscaping. Parking decks adjacent to public streets should be wrapped with active ground-floor space to avoid disruption of the continuous streetfront experience.



DESIGN STANDARDS FOR PUBLIC REALM

Pedestrian Zones

Minimum pedestrian clear zone on main streets	10 to 12 feet
Minimum pedestrian clear zone on mixed use or residential streets	8 to 10 feet
Minimum planting/furniture zone	6 feet

Building/Street Front Relationship

Minimum front building set back	0 feet
Height limit for ground floor uses	16 to 20 feet
Minimum percentage of transparent surface on streetfront retail facade	50 to 60%
Minimum percentage of transparent surface on streetfront residential facade	30 to 35%

Streets

Maximum on-street parking zone	7 to 8 feet
Minimum bike lane	5 feet
Maximum travel lane on main streets	11 feet
Maximum travel lane on mixed use or residential streets	12 feet
Maximum new block size	400 by 400 feet



Street Standards

The following diagrams illustrate the suggested right of way standards for streets and sidewalks within TOD districts. They promote an environment that gives priority to the pedestrian while adequately accommodating vehicles and transit.

MAIN STREET



- A** Wide sidewalks encourage pedestrian activity
- B** Furniture zone protects pedestrian and provides key amenities
- C** On street parking calms traffic and supports retailers
- D** Include bicycle lanes on all major roadways leading to the station



Supplemental zone acts as outdoor seating for restaurants.



On-street parking acts as a buffer between the sidewalk and vehicular traffic.

MIXED USE STREET



A Wide sidewalks encourage pedestrian activity

C Supplemental zone allows room for outdoor cafes.

B Residential above ground floor retail



Residential above ground floor retail



Bike lanes should be included on all major roadways leading to the station.

RESIDENTIAL STREET



- A** Planting strips provide buffer between sidewalk and street. Can also be used for biofiltration
- B** Supplemental zone allows room for stoops or planting areas



Trees and planting buffers, in addition to stoops, create a residential sidewalk character.



Residential sidewalks are protected from street traffic by planting buffers and on-street parking.

Chapter 4: A New Approach to Parking



CHAPTER SUMMARY

This chapter outlines a new approach to parking, one of the four foundational principles of transit-oriented development. This new, TOD-based approach consists of reducing the supply of parking to reflect the transit location; sharing parking so that the supply that is required can be provided in fewer actual spaces; and designing parking so that it never visually dominates a TOD environment.

The first portion of the chapter provides a policy and analytical discussion of TOD parking issues, including park-and-ride for transit users as well as parking for development. Park-and-ride policy is important because its location and design—controlled by the transit agency—can substantially affect the ability of a station to accommodate TOD. Using instructive case studies from other transit systems, MARTA outlines its policies for locating park-and-ride and for determining how much park-and-ride to retain when surface lots are redeveloped.

With respect to development, the discussion notes that while parking concepts in traditional zoning are often hostile to TOD, localities and counties in Metro Atlanta have adopted a number of provisions for reduced parking and shared parking. Shared parking is strongly encouraged, both on- and off-site, as a way of reducing the physical supply of parking as well as its cost. Shared parking takes advantage of TOD's mixed-use character. The discussion expands the concept to managing and sharing the overall supply of parking in a station area through Transportation Demand Management and parking districts.

The chapter then presents a set of recommended standards for implementing TOD parking principles in Metro Atlanta:

- Amount of parking. A table of model parking requirements presents minimum and maximum ratios for residential, office, and retail development. The standards also include mandatory parking for bicycles in all commercial and multi-family residential projects.
- Design and location. The chapter concludes with a set of design and location standards. The key concepts include locating parking behind buildings rather than between their front façades and the street; locating parking so as to “feed” rather than bypass station-area retail; avoiding blank-walled garages by providing retail at street level and “wrapping” above.

A NEW APPROACH TO PARKING

A foundational principle of TOD is a new approach to parking—one that reflects the replacement of some car trips by transit trips, as well as the greater reliance on walking and bicycling that results from the synergy of compact, mixed-use development. This chapter spells out an approach to parking with four basic ingredients:

- Transit-oriented development needs—and should allow—less parking than development in non-transit settings.
- Park-and-ride for transit commuters should be located and managed in a way that is supportive of TOD.
- Parking can and should be shared to the greatest degree practicable, so that the parking capacity that is legitimately needed can be provided in fewer physical spaces.
- Parking should be located and designed so as to reinforce the transit-, pedestrian-, and bicycle-friendly nature of TOD, and to encourage the use of electric and car-sharing vehicles.

The cost of excessive parking, and the extra driving it supports, is not only environmental. It is economic as well. Parking, whether for transit or development, is costly. Surface lots do not cost much to build, but they use a lot of land—about an acre for every 120 spaces. As land becomes more valuable, surface parking becomes more expensive just by being there and preempting development. Garages require much less land, but cost a great deal to build—in Metro Atlanta, anywhere from \$20,000 to \$30,000 per space. Parking facilities have significant operating, maintenance, and security expenses too.

Someone has to pay for parking. When it is MARTA, it adds to the bottom-line cost of providing transit services. When it is a developer, it reduces the net value of the project. And when it is the driver, it adds to the burden of high gasoline prices. Simply put, if TOD can deliver more development and transit ridership with less parking, it is a better deal for everyone.



A variety of materials and distinct layers

PARK-AND-RIDE

Park-and-ride—in which transit commuters drive to a conveniently located and secure surface lot or garage to board their bus or train—is an essential ingredient in attracting and keeping riders, especially in a service area as spread out and historically automobile-oriented as Metro Atlanta. Today, MARTA alone provides some 25,000 commuter parking spaces at 24 stations; if these are occupied at an average rate of 80%, they serve about 15% of MARTA’s weekly rail passengers. The region’s commuter bus providers offer park-and-ride of their own; in 2008, over 80% of daily passengers on the GRTA Xpress, Cobb County, and Gwinnett County services used park-and-ride lots to access their commute.¹

But important as it is, park-and-ride is not the only way for passengers to access their daily transit ride. If not located and designed wisely, park-and-ride can squeeze out not only TOD, but other modes of station access as well. As explained in Chapter 3, MARTA’s *TOD Guidelines* include a station access hierarchy in which—all other things being equal—passengers who arrive at the station on foot receive the highest planning priority, followed by those who arrive by bicycle or by feeder bus.

Make no mistake: today’s park-and-ride user is a valued customer, and as the transit network’s commuter corridors reach further out into the suburbs, there will always be passengers for whom park-and-ride is the only practical method of accessing the system. The point of the access hierarchy is that not every station is equally appropriate for park-and-ride. Some stations should avoid or de-emphasize park-and-ride from Day One, while others that provide park-and-ride at the outset can evolve over time toward feeder bus, bicycle, and walk-in access—serving as many or more passengers while making room for TOD in the choicest locations. Where park-and-ride and TOD are to coexist in the long term, the location and design of the parking facilities should be guided by TOD principles.

Where Should Park-and-Ride Go?

The station typology presented in Chapter 2 sorts MARTA’s 38 existing rail transit stations into seven categories. The purpose is not to prescribe in detail what can or should be done at each type of station, but to understand that the existing and future transit network serves different kinds of places, where we would expect the general principles of transit-oriented development to be applied differently. One of the principal dimensions underlying the station typology is the appropriate location of park-and-ride.

In MARTA’s own experience, as well as that of other transit systems with extensive park-and-ride facilities, three planning themes emerge; these are illustrated on the next page by case study examples from Washington, Portland, Denver, and San Juan.

1. GRTA 2008 Ridership Survey

- Some stations are ideally suited for park-and-ride and compatible automobile-oriented uses, at least for the foreseeable future. These tend to be located at or near the end of the line and enjoy strong regional highway access. They may also be dominated by freeway interchanges, freight yards, industrial facilities, or other features that are incompatible with pedestrian-scale, mixed-use TOD.
- On the other hand, park-and-ride is unsuitable for urban core stations, and should be minimized in other transit destinations which have (or could have) high density, high land values, congested traffic, a bustling pedestrian environment, and high transit use. These may be existing city or town centers; existing transit neighborhoods whose character should be protected from regional commuter traffic; or planned “transit villages” where the available roadway and parking capacity is needed to support TOD.
- Other stations can accommodate both park-and-ride and TOD. They have highway access conducive to both, and in the long term, they have room for both. But making these dual-function stations work well requires good transportation planning, good urban design, a creative approach to structured parking, and a TOD philosophy that supports the combination.



Parking can be screened by architectural elements and glass.

Locating Park-and-Ride: Four Case Studies

Northern Virginia

The most rapidly urbanizing quadrant of metropolitan Washington is Northern Virginia. In the 1960s, a five-station segment of the Orange Line was placed in subway along a declining commercial arterial, Wilson Boulevard—with no park-and-ride at all. Instead, Arlington County created an elaborate, high-density TOD plan around each station. In 35 years, the five stations have generated 70,000 jobs, 15 million square feet of office space, and 20,000 housing units, with a 40% transit mode split. The Orange Line does have significant park-and-ride demand, but WMATA satisfied it at its more distant Fairfax County stations, which were built in the I-66 median. The terminal station, Vienna, has grown to nearly 6,000 spaces. WMATA is now finalizing plans for extending the Orange Line to Dulles Airport. The “Dulles Corridor” will be built primarily in the median of the Dulles Toll Road, where five regional park-and-ride stations will provide nearly 14,000 spaces. But where the Dulles Corridor diverges from the highway to serve Tyson’s Corner, Northern Virginia’s emerging “edge city”, there will be four closely-spaced TOD stations with no park-and-ride.

Portland WestMAX

Portland’s regional transit agency, Tri-Met, works hand-in-hand with Metro, the elected regional planning agency, to create a strong connection between transit and land use. The WestMAX light rail line, planned and built in the 1990s, is a landmark example of a transit investment driven by TOD. Of the 14 suburban stations, five were deliberately left without park-and-ride—most notably, the town centers of Hillsboro and Beaverton, where pedestrian-scale “transit villages were developed instead. On the other hand, the well-known Orenco Station TOD includes park-and-ride, as do the stations serving Intel and Nike headquarters, regional destinations with significant transit ridership connected to the stations by local shuttles. In short, West MAX planners determined that park-and-ride could coexist successfully with high-value TOD at some stations, while keeping park-and-ride out of more congested, pedestrian-oriented town centres.

Denver FasTracks Program

Denver’s Regional Transit District is undertaking one of the nation’s largest transit expansions, the FasTracks program. Five light rail lines, four corridor commuter rail lines, a radial BRT corridor, and the regional bus system will converge at Denver Union Station, the new anchor of Lower Downtown. The City has adopted an elaborate TOD strategy of its own, to guide station area planning for FasTracks stations within its boundaries. Denver commissioned Reconnecting America, Inc., and its Center for TOD to create a station area typology covering all 42 existing and future rail stations in Denver, dividing them into seven categories. One of the principal differentiators among the categories is the role of park-and-ride, which ranges from non-existent at “downtown” and “main street” stations, and minimal at “urban neighborhood” stations, to predominant at “commuter town center” and “campus / special event” stations.

Tren Urbano (San Juan, Puerto Rico)

Tren Urbano is a new, heavy rail transit corridor, extending 12 miles from the western suburbs of San Juan, through the island’s main hospital complex and University campus, to the central financial and entertainment district. The Tren Urbano alignment reflects a Smart Growth, TOD agenda, reinforcing traditional development centers and shaping new development along the southern edge of the city into a more transit-oriented, urban form. Of the 16 stations, only seven have park-and-ride facilities. The core, high-volume destinations were explicitly off-limits to park-and-ride: the medical complex, the University of Puerto Rico, the historic Río Piedras town center, and the five-station segment in San Juan’s financial district. By contrast, five other stations are located at key “catchment” points with excellent access to the regional highway system, and each of these has several hundred park-and-ride spaces, with room for expansion when surface lots are converted to garages. These same four stations are considered prime TOD locations, and the Puerto Rico Highways and Transportation Authority is planning to integrate joint development with park-and-ride.

These planning principles will shape MARTA's stewardship of its existing stations, as the demand for TOD grows and surface park-and-ride lots become highly desirable development sites. MARTA will meet the demand for commuter parking in a way that steers park-and-ride to stations with regional highway access and minimizes its conflict with transit-oriented development. These same principles will shape the balance between park-and-ride and TOD in MARTA's future stations, which range from the neighborhoods along the BeltLine to major highway nodes along or outside I-285. These principles are equally available to the region's other transit providers as they address similar issues. Our Station Typology translates these planning principles into the following results:

- Collector stations (whether for rail or bus rapid transit) are, by definition, prime locations for park-and-ride, and surface parking is an acceptable land use.
- Commuter town center stations are also suitable for park-and-ride, but in a TOD environment surface lots are not appropriate.
- Arterial corridor stations may provide park-and-ride along with TOD.
- Town center and neighborhood stations are, at most, minor or secondary locations for park-and-ride. TOD is the priority, and over time, park-and-ride functions should be phased out wherever possible.
- Urban core stations should have no park-and-ride at all.

Park-and-Ride and Joint Development

At many MARTA stations, the most attractive transit-oriented development sites are existing park-and-ride lots. These have become, in effect, a "land bank", in which low-cost surface parking helps nurture strategically located land and protect it from speculation while its development value, supported by the transit investment, emerges in the market. Such sites are prime opportunities for joint development—TOD that is undertaken on transit agency property or through some other joint real estate relationship. Developing these lots means that sooner or later surface parking must be shifted to other locations or consolidated into garages, freeing up the land for TOD. For MARTA, this opportunity raises two questions: *when* to convert to structured parking, and *how much* of the surface capacity to replace.

When to Build Structured Parking

In a purely market environment, structured parking is justified when the land it will free up for development is worth more than the cost of building it. In Metro Atlanta, depending on the type of construction, the shape and topography of the site, and the structure of rates and charges once the garage is built, land values have to approach \$2,000,000 an acre for garages to support their own cost, let alone create a positive net return.

For MARTA, however, the land value equation reflects more than the simple price of real estate. The cost of garage construction may be off-set by federal or other public sources

(or by joint development itself if the garage will be shared with commercial activities), reducing the land value needed to support it. Moreover, successful joint development generates new walk-in ridership and revenues, adding to MARTA's dollar return and helping to fulfill its mission of serving more customers.

In determining whether and when to develop an existing park-and-ride lot, MARTA will look at land value from this broader policy perspective. The same logic will be applied to future park-and-ride stations, when deciding whether to build garages at the outset or to begin with surface parking and wait for land values to appreciate over time.

How Much Park-and-Ride to Replace

The other key question in developing surface lots is whether all of their existing spaces should be replaced. Traditionally, transit agencies have required 1:1 replacement. The logic is that if park-and-ride capacity were reduced, a corresponding number of riders might abandon the transit system and return to full-length, single-occupancy commuting.

The economic result of this traditional 1:1 approach is that most if not all of the value the agency receives for its land winds up paying for the replacement garage rather than helping to support other transit needs. The physical result is that joint development projects provide less housing, office, or retail space than they might have, as garage and street capacity that might have supported an extra increment of development is used for park-and-ride instead. Some joint development projects turn out to not be feasible at all, because they simply cannot generate enough density to support the cost of replacement parking.

The metropolitan transit agencies serving San Francisco and Washington, DC, have extensive experience in creating joint development projects on one-time surface parking lots. In recent years, these agencies have both adopted flexible alternatives to 1:1 replacement—Bay Area Rapid Transit (BART) in 2005, and the Washington Metropolitan Area Transit Authority (WMATA) in 2008. Each agency now views park-and-ride in general, and the replacement decision in particular, as an integral part of TOD planning. Replacement can depart significantly from 1:1 if the ridership, financial, and environmental outcomes are equal or superior. In the words of WMATA's 2008 policy, "[if] the same number of transit riders is accommodated, the balance of transit access facilities at a given station can be altered to reflect the transformation of the station and the area around it to a pedestrian friendly, transit-oriented community."

A similar approach makes sense for Metro Atlanta. In choosing between full and partial replacement, MARTA will analyze the trade off between extra park-and-ride and extra development on a "whole cost" basis, addressing the twin bottom lines of passengers served and revenue generated. A passenger who walks into a station from a nearby apartment or office or store is as valuable as one who drives to the station. But the *overall* economic return on MARTA's land—not to mention the intangible return in sustainability and quality of life—may be much greater.

To estimate these outcomes for a given station, our analysis will take into account:

- the amount of passenger revenue (including both farebox revenue and parking fees) associated with maintaining, reducing, or expanding park-and-ride capacity
- in scenarios where parking is reduced, any off-setting recapture of revenue that can be achieved by shifting park-and-riders to other stations with available space; this is especially relevant as the system expands outward
- new passenger revenues from different levels of joint development on the site, reflecting transit mode splits appropriate for the particular type of project in the Metro Atlanta market
- the effect on MARTA's net sale or lease proceeds from the joint development transaction if it is burdened by 1:1 replacement versus an alternative.

This approach may not always result in partial replacement. In some cases, the demand for park-and-ride may be so strong, and the location so appropriate, that it even makes sense to expand the supply. But in evaluating joint development opportunities at its park-and-ride stations, MARTA will look at the whole picture of ridership, land use, and revenue, rather than simply assuming that the "one size" of 1:1 replacement fits all.

MARTA will also encourage its joint development partners to build shared parking, so that garage spaces used by park-and-ride commuters during work hours can be available for commercial patrons during evenings and weekends. This concept works well with retail projects, and especially well with destination restaurants, cinema complexes, and other uses that attract most of their business during non-work hours. With creative design of entrances, signage, and payment systems, joint development garages can include park-and-ride spaces at far less than their stand-alone cost.



Bioswales and porous paving should be incorporated into surface parking lots.

A Case Study: Park-and-Ride and Joint Development in the Bay Area

Bay Area Rapid Transit (BART), which serves the San Francisco-Oakland area, has much in common with MARTA. A heavy metro rail system that began operating in the 1970s, it serves a rich variety of downtown, neighborhood, and suburban settings. BART is committed to both park-and-ride and TOD, and in 2005 adopted a new policy for joint development projects. Departing from a uniform 1:1 requirement, BART took a broader view, treating park-and-ride as one ingredient in a *land use policy* aimed at maximizing the value of station-area property and a *station access policy* aimed at maximizing ridership and revenue. Parking is to be allocated by best planning, urban design, and real estate practices, and the evaluation of how much park-and-ride is needed is a performance-based outcome reflecting all modes of access to the entire corridor or segment, rather than park-and-ride access to a single station.

Under BART's new Replacement Parking Assessment Methodology, different scenario combinations of park-and-ride replacement and joint development can be compared on a whole cost/whole benefit basis. The replacement percentage may depart significantly from 100%, as long as the outcome best supports BART's ridership, TOD, and financial objectives.² Four diverse projects illustrate the evolution of BART's replacement policy:

Fruitvale

Fruitvale Station in East Oakland is an early and widely-cited example of a planned transit village. A mixed-use town centre of community services, retail, and housing, it was developed on surface park-and-ride lots through a partnership of BART, the City, and a Community Development Corporation. Planning began with controversy in 1991, when BART announced that it intended to build a park-and-ride replacement garage that would separate existing businesses from the station. BART eventually agreed to locate its 500-car garage to support the emerging transit village plan. The result is a stand-alone garage, for which the three planning partners collaborated to secure public funding. BART's replacement policy was still a uniform 1:1.

MacArthur

MacArthur is a major hub station just north of downtown Oakland. BART's park-and-ride lot is to be developed by a local housing corporation teamed with a large Bay Area developer. The transit village includes 675 mixed-income housing units and 40,000

2. The formal methodology was prepared by Professor Richard Willson, Ph.D. AICP for the BART Departments of Planning and Real Estate, and is presented in *Parking for Joint Development: An Access Policy Methodology*, April, 2005.

square feet of retail. Using its new Replacement Parking Assessment Methodology, BART compared several scenario combinations of development density, park-and-ride replacement, park-and-ride pricing, and shared parking strategies. Under BART's new, more flexible policy, only 300 of the existing 618 park-and-ride spaces are to be replaced, allowing BART to realize greater net proceeds on its land. The developer will build the replacement garage at the far end of the site—only a 500-foot walk to the station but leaving the best location for the retail and housing.

South Hayward

This station is located in suburban Hayward, where the City has rezoned a 240-acre district at TOD densities of up to 100 units per acre and is prepared to reduce parking requirements for residential and commercial uses. At the heart of the district is BART's 15-acre, 1,200-space park-and-ride lot. This station plan reflects BART's post-2005 replacement policy. Since this lot does not fill up on workdays, replacement is likely to be at less than 1:1, allowing the site to support more joint development and increasing its value. BART and the City are preparing a Request for Development Proposals. The replacement spaces would be built by the developer in phases, with cost-efficient, shared-use garages "wrapped" by development.

Pleasant Hill

Located in suburban Contra Costa County, Pleasant Hill is a classic dual-use opportunity. Thanks to its location at a key I-680 interchange, Pleasant Hill, with over 3,000 spaces, is the largest park-and-ride station in the BART system. On the other hand, County and BART officials have long envisioned a major transit village. The joint development plan consists of 522 housing units, 36,000 square feet of retail, and 270,000 square feet of offices; the developers are Millennium Partners and Avalon Bay Communities. To make room for the development, a 1,547-space garage was built, replacing all of the spaces on the development site and adding 70 extra spaces.

PARKING FOR DEVELOPMENT

Single-use off-street parking for residents, employees, and customers is a dominant feature of automobile-oriented land use, not only in Metro Atlanta but everywhere in America. A defining advantage of transit-oriented development is that it allows the same amount of development to be built with less parking, not only because the location allows many people to arrive by transit instead of by car, but because the mix of uses allows some parking to be shared and prevents some motorized trips from being taken in the first place. If people can walk from home to work, or from home to school, they do not even have to choose between transit and driving.

In many parts of the United States, traditional planning and zoning still work against this principle. Land uses are separated into distinct districts, each with its own minimum parking requirements. Even where mixed-use development is allowed, traditional parking requirements often ignore it, discouraging shared parking between neighboring uses or projects no matter how divergent their peak parking periods may be. To prevent spill-over parking onto neighborhood streets, or extra traffic congestion caused by drivers looking for a space, the minimum parking standards for each type of land use, as reflected in the Institute for Transportation Engineers Trip and Parking Generation Manuals, are conservatively high, and they generally fail to distinguish between sites with transit and those without.

Over time, market expectations on the part of realtors, commercial tenants, and lenders have followed these traditional regulatory standards, or even exceeded them. For developers and communities that want to try TOD, excessively high single-use parking requirements can be a formidable hurdle.

But this is not true everywhere. Here in Metro Atlanta, parking standards have begun to evolve toward a more TOD-friendly philosophy. :

- In the City of Atlanta, parking for multi-family housing is calculated by density, with requirements ranging from as low as .42 spaces per dwelling unit to as high as 2.2 spaces. Projects of moderate to high density often require less than one space per unit—a city-wide standard that compares favorably to special TOD zoning in many cities.
- Atlanta’s zoning ordinance includes a number of Special Public Interest (SPI) Districts, intended to protect or encourage a particular pattern of land use and development. Several SPI’s are organized around MARTA stations, with parking provisions highly favorable to transit-oriented development. For example:
- High-density, mixed-use SPI Districts—Lindbergh, Midtown, Downtown, Buckhead-Lenox—have no minimum parking requirements for some or all of the principal land uses. Instead there are maximum limits that are lower, in many cases, than typical zoning minimums. Where minimum requirements do apply, they can be reduced through shared parking.

- In the Buckhead-Lenox SPI District, every project of more than 100,000 square feet must have an approved Transportation Management Plan that will achieve a 25% non-automobile mode split within five years; parking for mixed-use projects is assumed to be shared on a case-by-case basis.
- In the Vine City and Ashby SPI District, retail space and restaurants have a minimum requirement of 3.3 spaces per 1,000 square feet, but small restaurants within 500 feet of a MARTA station are exempt, and all non-residential parking can be shared.
- The Brookhaven-Peachtree Overlay District in DeKalb County was adopted to help implement the Livable Centers Initiative plan for the Brookhaven station area. It provides a minimum requirement of one space, and a maximum of two, per residential unit; a uniform minimum and maximum of 2.5 spaces per 1,000 square feet of office space; and a uniform minimum and maximum of 3.3 spaces per 1,000 square feet of retail. Shared parking is strongly encouraged.
- Fulton County’s zoning ordinance includes a traditional set of minimum parking requirements by use, but allows these to be reduced two-fold: through a shared-parking formula available anywhere, and for projects within 1500 feet of a MARTA station, through a straight reduction formula based on distance.
- Sandy Springs, when it became an incorporated city, adopted the Fulton County ordinance, but added a Main Street Overlay with low minimum requirements and modest maximum limits, with a requirement that parking be shared wherever possible.

Perceptive developers understand that it helps the bottom line when they are allowed to build less parking and make the decision to do so. Increasingly, perceptive buyers and tenants are making the same choice. MARTA encourages developers to charge for parking and to separate the cost of parking from the price of the housing or commercial space involved. This is known as “unbundling”, and it helps reduce demand by letting individual tenants or buyers decide if they want to pay for extra parking in a transit location. If one condominium buyer wants to pay for two parking spaces, a second wants only one, and a third does not want any, each can make their own decision and pay the extra cost or enjoy the extra savings.

Sharing and Management of Parking

One of the chief benefits of compact, mixed-use development is that parking can be shared, reducing its dollar cost and land use impact. These **TOD Guidelines** strongly encourage shared parking, especially where zoning provides minimum parking ratios for each use. Sharing should be allowed not only on-site (within an individual mixed-use project) but off-site as well, within a reasonable walking distance. This is especially important for small commercial projects and those that involve adaptive reuse of historic buildings, where on-site parking may be economically or physically unfeasible.

Not all pairs of uses can share parking. Offices and commuter parking, for example, have the same use patterns, as do housing and retail. But shared parking is an ideal option when “9-5” uses like offices or park-and-ride are side-by-side with “24/7” uses like destination retail, grocery stores, movie theaters, and restaurants. Office and commuter spaces that traditionally would have sat vacant evenings and weekends instead serve multiple users. Fewer spaces have to be built, two or three different activities can share their cost, and one space can generate revenues from multiple users. The same land area and zoning envelope support more—and more lively—development. Everyone wins.

As shared parking has gained currency, the physical and operational design of garages has become more innovative and accommodating. Entrances that are restricted to transit pass-holders or office employees with key cards in the daytime become available to retail or entertainment customers during their peak hours.

Many communities have found that the TOD goals of parking reduction, shared parking, and good design are more easily achieved when business and local government team up to manage parking as a resource. Local partnerships can:

- Create, manage, and market a supply of high-quality “park-once” public spaces, both on-street and off-street.
- Broker carpools, vanpools, transit shuttles, shared parking, and other day-to-day demand reduction agreements.
- Solve the traditional issues of neighborhood spill-over and seasonal peaks by managing them, rather than by requiring artificially high parking ratios in the zoning code.

MARTA encourages creative parking management solutions. Arlington County, Virginia, home to the landmark Rosslyn-Ballston TOD corridor, uses an elaborate program of Transportation Demand Management, or “TDM”. Arlington County Commuter Services arranges specific solutions—carpools, vanpools, lot-sharing, dedicated car-sharing spaces—that reduce demand for individual all-day parking spaces. Meanwhile, an ample supply of on-street metered spaces helps solve the daily need for retail, office, and delivery parking. The meters are color-coded to indicate maximum stay; they use parking “smart cards” as well as coins; and pricing is 50 to 75 cents per hour—enough to cover the real cost of the spaces and maintain a steady vacancy of about 15%. Together, these simple measures help meet demand and minimize “cruising” for open meters.

One of the most creative TDM programs in the country is right here in Atlanta. Atlantic Station, the award-winning, 138-acre mixed-use complex on the edge of Midtown, has its own zip code and its own TDM program, called the Atlantic Station Access and Mobility Program or “ASAP+”. Even with its huge, underground 7,300-space garage, Atlantic Station has been planned with far less parking than its eventual 15 million square feet of development would require in a non-TOD setting. Atlantic Station offers its workforce a variety of alternatives to single-occupancy commuting: a free shuttle to MARTA’s nearby

Arts Center Station; a carpool and vanpool brokerage; a guaranteed ride home in case you have to stay late at work; a fleet of shared subscription cars and bicycles; and an incentive bonus for switching from single-occupancy driving. The garage itself is managed and shared among office retail, restaurant, and cinema users; employee parking is limited to one section and is allocated by need. The street grid within Atlantic Station is lined with metered curb-side parking spaces.

Parking Benefit Districts can also be used in town centers to manage the supply of curbside metered spaces, off-street surface lots, and public garages. Boulder, Colorado (through its Downtown Management Commission) and Pasadena, California (in the historic Old Pasadena district) are among the first communities to embrace this strategy. Parking revenues are used for operations, maintenance, and marketing, and in Boulder, parking revenues are used to provide a free transit pass to those who park in the public lots and garages, making them true “park-once” locations.



Development wrapping a parking deck is an effective way to engage parking with the building and hide it from the street.

In Markham, Ontario, where a new transit-oriented downtown is being built around a three-station segment of the VIVA bus rapid transit system, local zoning not only imposes maximum parking ratios, but requires that at full build-out, two-thirds of each project's parking supply be provided in garages. A local Parking Authority will provide at least half the long-term supply at favorable rates, strongly encouraging developers to lease portions of these shared-use garages, charge their tenants for parking, and capitalize on their pedestrian-rich transit environment as a principal marketing attraction.

STANDARDS FOR PARKING

This section provides a set of specific standards by which the parking principles of TOD can be applied to transit stations in Metro Atlanta. These standards are drawn from best practices in other transit metropolises, as well as from LCI plans and TOD-friendly zoning provisions in our own region. Land use regulation and zoning, of course, are a municipal and county prerogative. As a TOD stakeholder and advocate, MARTA will encourage the adoption of standards like these throughout the region. These are also the standards that MARTA intends to apply to joint development projects on its own property. In cases where current zoning would prevent these or similar standards from being applied to MARTA property, we will work in partnership with local zoning authorities to seek changes.

Proposed Parking Requirements		
Use	Minimum Required	Maximum Allowed
Residential		
<i>General</i>	1.0 space per unit	1.5 spaces per unit for 0-2BR; 2.0 spaces per unit for 3BR+
<i>Multi-family or attached within 600' of a transit station</i>	.75 space per unit	1.25 spaces per unit
Office	1.5 spaces per 1000 sf	2.5 spaces per 1000 sf
Retail and Restaurant		
<i>General</i>	1.75 spaces per 1000 sf	3.3 spaces per 1000 sf
<i>Establishments of 1000 sf or less within 600' of a station</i>	no minimum	3.3 spaces per 1000 sf

Parking Ratios

MARTA supports a set of easily understood minimum and maximum parking requirements. These ratios would apply within a "TOD district" that would typically cover a radius of one quarter to one half-mile around a MARTA rail station. Depending on local conditions, a smaller district could be applied to neighborhood bus and streetcar stops. On the other hand, the ASAP+ program at Atlantic Station suggests that with an efficient shuttle connection (itself a form of neighborhood bus service), TOD parking standards can be extended well beyond walking distance from rail transit. The proposed standards are shown in the table to the left.

In addition to minimum and maximum ratios, MARTA supports several other standards relating to the amount of parking required in a TOD district:

- Larger, multi-phased developments may be allowed to exceed the maximum ratio in their initial phase, particularly if located in a market area new to TOD. This can be achieved by building a larger supply of structured parking and "growing into it" in the subsequent phases, or, more typically, by supplementing the early phase of structured parking with additional surface parking on a portion of the site not yet ready for development. The zoning approvals for such projects must clearly provide for the project achieving compliance with the overall maximum at a defined point in its phased development.
- When above-ground structured parking is provided, 25% of its floor area should be counted in the Floor Area Ratio (FAR) of the project. This provision would allow the developer, in effect, to grant itself a density bonus by limiting the amount of parking to what is truly needed. At an average of 330 square feet per space, every three parking spaces not built would leave room for an additional 1,000 square feet of commercial or residential space.
- New on-street parking created by a development project and located in immediate proximity to it should count toward its minimum parking requirement.
- Any development that provides automobile parking should also provide bicycle parking, either within the project's parking facility or in the landscape zone of the adjoining sidewalk. Non-residential developments should provide bicycle parking at a ratio of one bicycle space for every twenty automobile spaces. Multi-family residential developments should provide a minimum of one bicycle space for every five multi-family units, up to a practical limit such as 50.

Shared Parking

Shared parking should be allowed by right, either on- or off-site, as long as the users in question and all affected property owners provide documentation of a formal shared-parking agreement and evidence that the uses in question generate parking demands at different times. As a guide to evaluating such agreements, a formula could be used similar to that in Fulton County's zoning ordinance. The Fulton formula assigns to each principal

use a percentage of its minimum requirement that is actually needed during given blocks of time (working hours, evenings, weekends, and overnight). The highest total becomes the shared requirement.

Shared parking can be used to modify both the minimum and maximum requirements. A project might satisfy some or all of its minimum requirement through an off-site shared agreement. On the other hand, a project's maximum ratio should not be exceeded unless the extra capacity is demonstrably needed and can be achieved through shared parking rather than by building additional physical spaces.

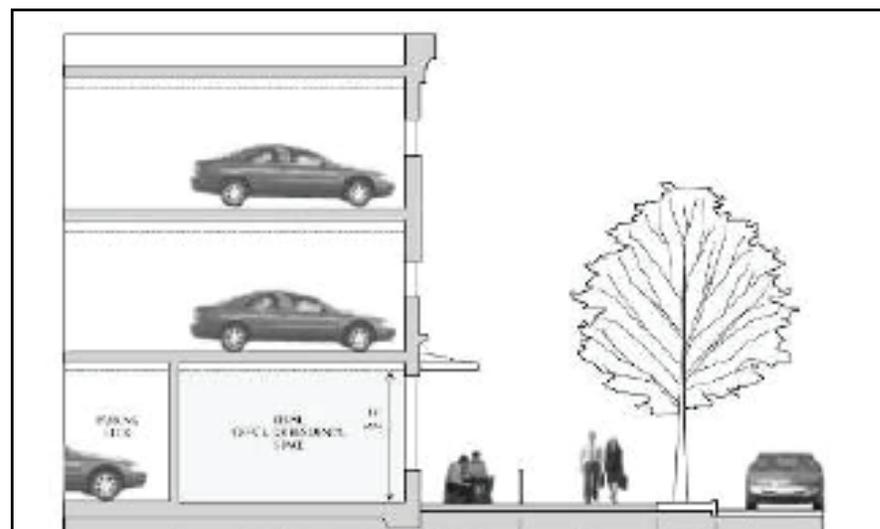
Location and Design

A sound TOD parking policy must address not only numbers, but location and design. Parking should never visually dominate a TOD environment. Except at collector stations, parking, whether for park-and-ride, private development, or both, should recede into the visual and pedestrian environment. The design of station area parking should be guided by several principles:

- On-street curbside parking in front of buildings is appropriate for TOD. However, off-street parking—whether surface or structured—should not be located between a public street and a building's front façade. This standard, while applicable throughout the TOD district, is particularly important in the core area immediately surrounding the station.
- Surface lots alongside buildings should be buffered from the adjoining public street (except at pedestrian entrances) by a landscape strip at least six feet wide or a low wall no more than three feet tall.
- Over time, large surface parking lots close to the station, whether publicly owned or developer-owned, should be phased out, allowing more development to occur in the best locations.
- Where possible, parking facilities should be located in a way that “feeds” pedestrians into active use areas and retail zones.
- Above-ground structured parking with frontage on public streets should not present a blank garage wall. At minimum, the street floor should provide retail or other active uses along the sidewalk, with retail built to a minimum depth of 30 feet into the building. This will ensure that the street frontage provides sufficient depth for viable retail operations.
- Where possible, garages should be screened behind multi-story buildings on their street-facing sides by the developments they serve—the design concept known as “wrapping”. This achieves a much more desirable public environment, while typically reducing the cost of the garage by eliminating the need for aesthetic exterior design.
- Where upper stories of a garage are visible from a public street, they should be clad with architectural finishes or vegetative “green walls”.
- Within a surface lot or garage, carpool, vanpool, shared car, and bicycle spaces, as well as charging stations for electric vehicles, should be provided in priority locations.
- Parking driveways should be provided from side streets and alleys wherever possible, and should avoid crossing main pedestrian routes to and from the transit station.



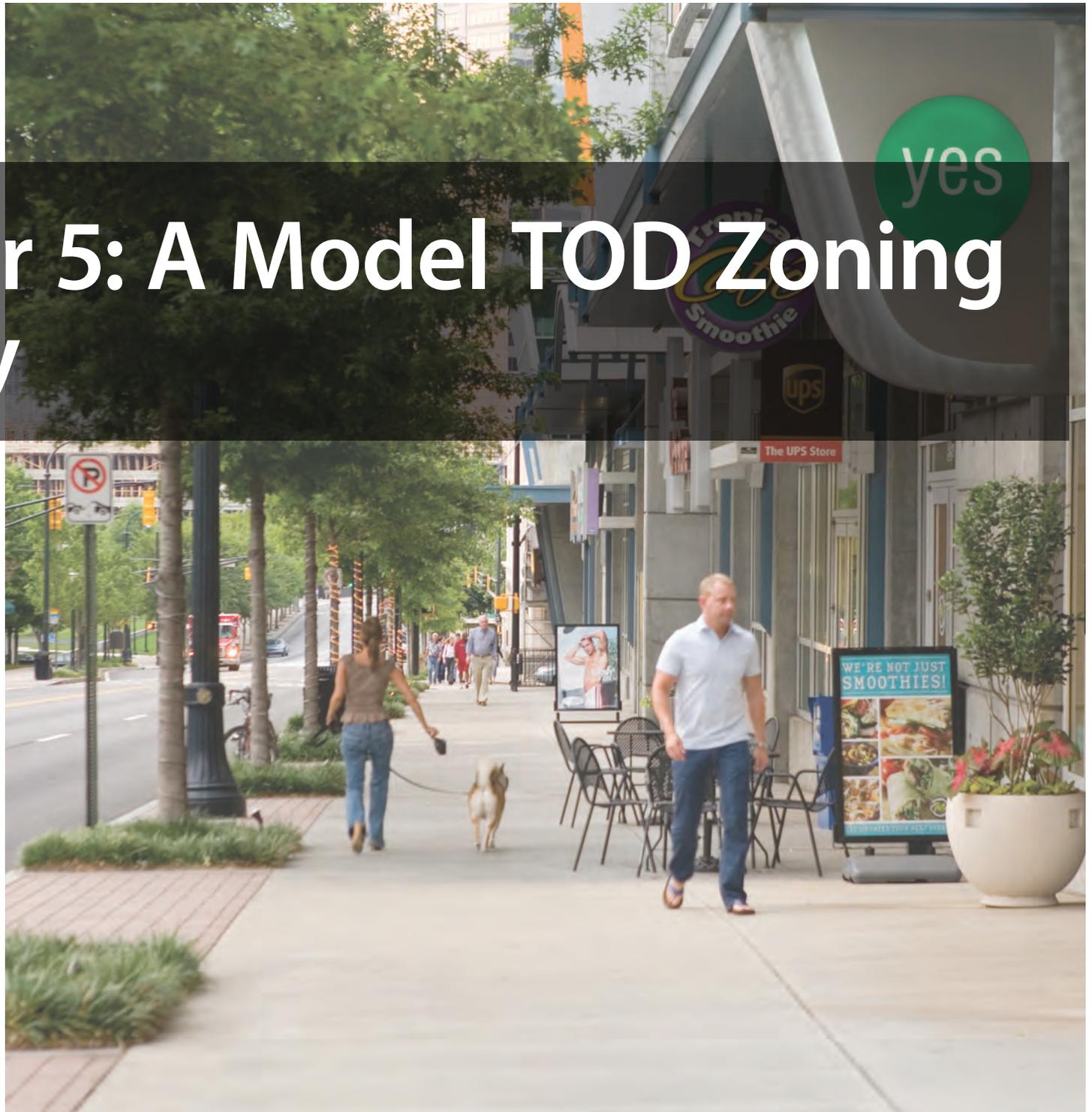
Building is significantly disengaged from the street thereby eliminating any consideration for a pedestrian oriented environment



Caleb Racicot, New Examples of Form-Based Codes Around Transit, Rail~volution, 2008



Chapter 5: A Model TOD Zoning Overlay



INTRODUCTION

This chapter uses the standards developed in Chapters 2, 3, and 4 to create a Model TOD Zoning Overlay District. As noted throughout this document, MARTA understands that as a transit agency, it has no control over land use regulation and zoning. Those are the province of the county and municipal jurisdictions in which our stations are located. Similarly, MARTA is a stakeholder, but not a controlling party, in the review of Developments of Regional Impact. The only development whose use, scale, and transportation patterns MARTA does control is that which occurs as joint development on its own property, and that development is itself subject to local or county zoning.

That said, MARTA—in its roles as joint development sponsor, TOD stakeholder, and TOD advocate—has examined best regulatory and zoning practices in transit metropolises across the United States and Canada. We have also done so here in Metro Atlanta, where although there is no single consistent set of standards and practices, some jurisdictions have begun moving to innovative, TOD-supportive zoning.

In particular, the City of Atlanta’s Mixed Residential Commercial (MRC) District, some of its Special Public Interest (SPI) districts, and DeKalb County’s Brookhaven-Peachtree Overlay District contain important TOD provisions that are reflected in MARTA’s *TOD Guidelines* and this Model TOD Overlay.

This Model Overlay is offered as a resource to county or local zoning jurisdictions that have yet to adopt TOD zoning, or have yet to extend it to a particular station, or wish to modify or update earlier efforts. The Model Overlay offers zoning provisions in four key areas, corresponding to the four foundational principles of TOD on which our *Guidelines* are based: land use, density, public realm design, and parking. Jurisdictions that are comfortable with their existing zoning in some areas but wish to update others may of course consider these provisions selectively.

In the same spirit, these zoning standards, although specific, are nonetheless framed as suggestions, which can and should be tailored to local conditions. Throughout the Model Overlay text, we have inserted a series of “discussion boxes” explaining the intent of certain provisions and the ways in which they could be varied to fit different stations and communities. These boxes are set in a gray background, to distinguish them from the Model Overlay text.

As explained in Chapter 1, a principal reason for undertaking TOD guidelines at this time is the planned expansion of the regional transit network through Concept 3. The Model TOD Overlay may be an especially helpful tool to jurisdictions where new transit facilities are being planned, creating a proactive opportunity to write new comprehensive plans, regulatory land use plans, and zoning around them. Depending on how many stations a jurisdiction has within its borders, it might adopt a TOD Overlay applicable to all of its stations, or it might create one or more individual, station-specific districts.

With respect to MARTA’s station typology (presented in Chapter 2 of this volume), the Model TOD Overlay concepts are applicable, with appropriate tailoring, to five of the seven categories: urban core, town center, commuter town center, neighborhood, and arterial corridor. The Overlay will find much more limited applicability to the two remaining station categories: collector stations, where commuter park-and-ride is the principal use, and special regional destinations, which are dominated by large, single-use destinations with heavy parking requirements.

MODEL TOD OVERLAY DISTRICT

Section 1.0: Authority, Application, Purpose

The Transit-Oriented Development (TOD) Overlay District set forth in this chapter is adopted as part of the [zoning ordinance or bylaw]. Except as specifically altered by the provisions of this Overlay District, the provisions of the underlying zoning remain in effect.

As a convention, we have assumed that jurisdictions adopting some or all of these suggested provisions would do so as a zoning overlay rather than as an outright replacement of the underlying zoning. Jurisdictions could choose the latter method instead.

The purpose of the TOD Overlay District is to:

- promote the development of a dynamic, mixed-use district of appropriate scale and magnitude surrounding the [applicable transit station(s)];
- ensure that future development is consistent with the vision and recommendations of the [applicable LCI or local plan];
- provide for a variety of housing types and promote mixed-income residential opportunities;
- create an active, interesting, and interconnected pedestrian environment that facilitates access between the [applicable transit station(s)] and nearby residential, commercial, civic, recreational, and institutional uses;
- provide for connectivity of streets in the vicinity of [applicable transit station(s)];
- design and arrange structures, buildings, streets and open spaces to create an inviting, walkable, human-scale environment;
- reduce the dependence on automobile use by increasing the use of transit, providing opportunities for alternative modes of travel, and encouraging pedestrian and bicycle commuting;
- minimize the dedication of land to automobile parking by reducing the amount of required parking, encouraging the use of shared parking, and ensuring that parking is located and designed so as to avoid unduly dominating the district.

Section 2.0: Definitions

In this chapter, the following terms shall have the meanings set forth below. Unless otherwise indicated, all other terms shall retain the meanings they have in the Zoning Ordinance or, if not defined in the Zoning Ordinance, in common usage.

2.1 Community Meeting Facility

A meeting or function room available for community meetings, easily accessible to the public and with access to public restrooms and a service kitchen to support catered events and convenience food service.

2.2 Commercial Parking Facilities

Parking facilities open to the general public and created as a sole or primary use for the purpose of generating income from paid parking, but not including park-and-ride facilities as defined herein.

2.3 Core Area

A defined subarea within the TOD Overlay District that includes the transit station and the streets, sidewalks, public areas, and buildings in closest proximity to it.

2.4 Drive-Through Facility

Facilities that allow for transactions of goods or services without leaving a motor vehicle.

2.5 General Offices

Office uses which do not involve a significant degree of walk-in business and whose day-to-day clientele is not the general public.

2.6 Live-Work Unit

A residential unit that also includes an integrated work space, such that the occupant can conduct an occupation or business within the premises.

2.7 Low-Density Housing

Residential development of at least one acre containing a density of less than 15 dwelling units per acre.

2.8 Mixed-Use Development

Development contained on a single project that includes different, complementary uses (both residential and non-residential) and which provide for a variety of activities throughout the day. Mixed-use development may be horizontal (adjoining uses in a separate buildings within a single project) or vertical (different uses within the same building).

2.9 Overlay District

A zoning district that encompasses one or more underlying zoning districts, and imposes additional or alternative requirements or provisions to those required by the underlying zoning.

2.10 Park and Ride Facility

A parking structure or surface lot, or a portion of such structure or lot, owned, controlled, or licensed by a transit agency and intended for use by persons riding transit or carpooling.

2.11 Pedestrian-Friendly Design

The design of communities, neighborhoods, streetscapes, buildings and other uses that promotes pedestrian comfort, safety, access and visual interest.

2.12 Public Seating Area

Any outside seating area designated for use by the public, including outdoor seating owned and operated by eating and drinking establishments.

2.13 Retail

Commercial establishments whose principal business is the sale of goods to the general public. For purposes of this chapter, the definition of retail requires that a significant portion of sales normally and customarily occur on the premises. Unless otherwise indicated, the definition of retail is broadly assumed to include banks; restaurants and other dining establishments open to the public, including those located in hotels; coin-operated laundries; dry-cleaning pickup stations; photographic studios; and similar activities.

2.14 Service-Oriented Offices

Office uses with a substantial degree of walk-in business, or whose day-to-day clientele is the general public. Examples include medical, dental, and veterinary offices; accountants and tax preparers; community service agencies; and government agencies which deal directly with the public.

2.15 Shared Parking

Parking that is utilized by two or more different uses that generate different peak period parking demand.

2.16 Strip Commercial Development

Development in excess of 50,000 square feet consisting entirely or almost entirely of retail as defined herein and offices, arranged in detached one- or two-story structures with surface parking between the street and the front entrance to the businesses.

2.17 Townhome

A group of at least four single family residences typically of two to three stories attached to one another by common sidewalls.

2.18 Transit-Oriented Development

A development pattern created around a transit station or station that is characterized by higher density, mixed uses, a safe and attractive pedestrian environment, reduced parking, and direct and convenient access to the transit facility.

2.19 Transit-Oriented Development Overlay District (TOD Overlay District)

The Zoning Overlay District provided for in this chapter of the Zoning Ordinance.

2.20 Transit Station

A facility where transit passengers board transit vehicles and alight from them, including, to the degree applicable, the areas where passengers purchase tickets, acquire information about the transit service, and wait to board their vehicles. Transit stations include facilities for rail, bus, and streetcar services of all types. In this chapter, distances from a transit station are measured from the nearest fare gate; in the case of stations that consist only of open platforms (such as bus or streetcar stations along a street), distances are measured from the center of the platform.

2.21 Transportation Management Association (TMA)

An association of employers, residents, developers, property managers, transportation providers, local officials, and other stakeholders in a geographic district that creates joint programs to measure and reduce the demand for single-occupancy automobile commuting into and out of the district. The methods used to create such reductions are those described in the definition of Transportation Management Plan below.

2.23 Transportation Management Plan (TMP)

A plan, which may be created by a Transportation Management Association or by an individual developer, to measure and reduce the demand for single-occupancy automobile commuting into and out of the district. A TMP shall be based on an annual commute mode survey of a continuous five-day workweek for all estimated employees arriving at the work site and, in the case of mixed-use projects, for all residents leaving the residential site between 6:00 AM and 10:00 AM, Monday through Friday. Based on the survey information, the developer shall develop a TMP with transportation demand management strategies including, but not limited to: creating and brokering carpool and vanpool arrangements; providing transit passes to employees and residents; providing shared “zip” cars with dedicated parking spaces; providing shuttle service to nearby high-capacity transit stations; use of shared parking; promotion of pedestrian and bicycle commuting; and use of alternative work hours.

2.24 USGBC or LEED Standard

The design, construction, and (where applicable) operating standards promulgated by the United States Green Building Council (USGBC) for the measurement and certification of sustainable development practices. The standards are commonly known as “LEED Standards” (Leadership in Energy and Environmental Design), and with respect to new construction are gradated in four levels: Certified, Silver, Gold, and Platinum (ascending order). For purposes of this TOD Overlay District, USGBC or LEED standards shall mean the USGBC standards applicable at the time of project design to the development in question (New Construction, Existing Buildings, Neighborhood Development, etc.).

2.25 Workforce Housing

For-sale housing that is affordable to households earning up to [percent] of the Atlanta Metropolitan Statistical Area median income, or rental housing that is affordable to households earning up to [percent] of the Atlanta Metropolitan Statistical Area median income, as determined by the US Department of Housing and Urban Development and applicable to the year in which the housing is first occupied.

The concept of workforce housing is intended to encourage the inclusion of units affordable to working households in the moderate income range. A 2008 Urban Land Institute Study on the need for workforce housing in Metro Atlanta defined workforce households at those earning between 60% and 120% of median household income (a measure defined by the US Census; it is about 10% below the HUD median income, which is based on families). For purposes of workforce housing requirements or incentives, the qualifying limit is typically set at between 80% and 100% of median income.

Section 3.0: Boundaries of the Overlay District and its Core Area

3.1 The TOD Overlay District consists of the areas so designated in the TOD Overlay District Map.

3.2 Within the TOD Overlay District, the core area consists of those areas so designated in the TOD Overlay District Map.

The Overlay District Map, like other zoning maps, will delineate a specific area bounded by streets and property lines. The delineation is typically based on a radius around the transit station that reflects a reasonable walking distance. The notional “TOD walking distance” is a quarter-mile (1,320 feet).

However, the District size may be varied to accommodate local pedestrian conditions (such as weather or topography) as well as different types of transit settings. For metro rail and commuter rail stations, a radius of a half-mile is generally appropriate, especially if the

station is connected to the surrounding development by an efficient, frequent shuttle. For neighborhood bus or streetcar stations, a smaller radius may be appropriate.

The model language provides the option of designating a “core area” within the Overlay, consisting of the streets and properties closest to the station. This core area would receive special treatment with respect to certain use, density, and parking standards. In general, the larger the TOD Overlay District, the more appropriate it is to designate a core area within it.

Section 4.0: Allowed, Prohibited, and Conditional Uses

The types of uses allowed, prohibited, or permitted conditionally by Special Permit may differ based on the character of the area in which the TOD is located. The goals of a TOD Overlay District are to encourage pedestrian oriented uses and discourage auto-dependent or auto-oriented uses, and to encourage uses that can be easily served by transit, that have high levels of visitor activity, and that have high employment to floor area ratios. Thus, office, retail and entertainment establishments are encouraged, while industrial and warehouse uses (which generally have fewer visitors and two or fewer employees per 1,000 square feet) are prohibited. The proposed listing of allowed, conditional, and prohibited uses represents a composite of TOD zoning practices in Metro Atlanta and other transit systems. Individual jurisdictions may customize the list to reflect local conditions and preferences.

An important feature of these proposed Use Regulations is the flexibility to tailor the treatment of a particular use category to different circumstances. In the case of retail, for example, stores and restaurants of 20,000 square feet or less that are part of a mixed-use development or a traditional “main street” block are allowed as of right (and strongly encouraged), while larger stores, or those that would be built as stand-alones, are conditional. This allows local authorities to decide, on a case-by-case basis, whether the retail in question would advance the purposes of the Overlay (and to require modifications if appropriate). Strip retail would be prohibited outright. Similarly, low-density housing in a small portion of the District could be a conditional use, while larger tracts of such housing would be prohibited outright. Gas stations and drive-through services should be prohibited in the core area closest to the transit station, but local authorities may wish to consider them, on a case-by-case basis, further away.

4.1 Allowed Uses

The following uses are allowed in the TOD Overlay District as of right:

- a. Mixed-use development, whether horizontal or vertical, as defined herein
- b. Retail uses, as defined herein, of less than 20,000 square feet per tenancy which are part of a mixed-use development or an attached retail block

- c. Service-oriented offices
- d. General offices
- e. Child care centers
- f. Multi-family development, including townhomes
- g. Live-work units
- h. Community meeting facilities
- i. Theaters, entertainment, and cultural uses
- j. Cinemas, if part of a mixed-use development
- k. Schools and libraries
- l. Bed and breakfast facilities or hotels of 250 or fewer rooms or suites
- m. Public open space and private open space to which the public is generally admitted.

4.2 Conditional Uses

The following uses are allowed in the TOD Overlay District by Special Permit only, upon a finding by the [applicable local board] that the development in question is consistent with the purpose of this chapter.

- a. Retail uses, as defined herein, in excess of 20,000 square feet per tenancy
- b. Retail uses of any floor area as a single use in a detached one- or two-story structure
- c. Cinemas as a single use in a detached one- or two-story structure
- d. Hotels of more than 250 rooms or suites
- e. Hospitals
- f. Laboratories or research facilities

4.3 Prohibited Uses

The following uses are prohibited throughout the TOD Overlay District:

- a. Automotive sales, rental, or storage (including trucks and recreational vehicles, but excluding the rental and storage of shared subscription vehicles)
- b. The sale, rental, or repair of industrial, gardening, or heavy equipment
- c. Industrial, warehousing, or distribution activities
- d. Car washes and similar facilities
- e. Strip commercial development as defined herein
- f. Construction, salvage, or junk yard
- g. Commercial parking facilities (surface lots)

- h. Self- or mini-storage
- i. Low-density housing as defined herein

4.4 Semi-Prohibited Uses

The following uses are prohibited within the core area and are allowed by Special Permit elsewhere in the TOD Overlay District, subject to the conditions stated in 4.2 above:

- a. Detached single-family homes (if a minor or ancillary part of a mixed-use development, or a residential development whose overall residential density is at least 15 units per acre)
- b. Gas stations
- c. Drive-through facilities
- d. New commercial parking facilities (structures).

4.5 Vertical Mixed Use

Within the core area of the TOD Overlay District, any building fronting on [designated streets, plazas, and pedestrian paths] shall devote at least 50% of such street-level frontage to retail (as defined herein), entertainment uses, community meeting facilities, or service-oriented offices. In the case of buildings that front on two [designated streets, plazas, and pedestrian paths], this requirement shall apply to each of the affected frontages. The requirements of this subsection shall not apply to townhomes.

The intent is to require a substantial presence of retail, restaurants, walk-in offices, and other public-attracting uses at street level, in residential or general office buildings that would otherwise not have lively street fronts. In larger Overlay Districts, this requirement might be applied only in the core area, and might be further tailored to specific streets, plazas, and pedestrian routes that are especially important in defining how the station area will function. A companion provision in Subsection 5.4 below would provide a density bonus for vertical mixed use in excess of the base requirement, including buildings within the Overlay but outside the core area.

4.6 Affordable Housing

Within the TOD Overlay District, any residential project, or mixed-use project that includes residential units shall endeavor to provide at least 20% of its units at rental or sale prices that qualify as affordable housing for the elderly or persons with disabilities, or as workforce housing, all as defined herein. The affordable housing density bonus described in Subsection 5.4 hereof shall be available as an incentive for the provision of such units. This requirement shall apply to projects containing at least 10 residential units. No occupancy permit for a designated affordable housing unit shall be issued until the [locally adopted affordable housing procedures] have been satisfied.

The intent is to encourage a threshold percentage of affordable housing in general, and workforce housing in particular, as part of a larger policy of encouraging a mix of income levels and housing types in each station area. Local jurisdictions that wish to include affordable housing requirements may vary the definition in response to local conditions. A companion provision in Subsection 5.4 below provides a sliding-scale density bonus, with a higher incentive for workforce units. Jurisdictions that adopt affordable housing provisions typically adopt a set of procedures to ensure that the units are priced properly, are sold or rented to income-eligible households, are maintained as affordable over time, and cannot be used as speculative investments.

Section 5.0: Density

Density Ranges by Station Type	
Station Type	Floor Area Ratio (FAR)
Urban Core	8.0-30.0
Town Center or Commuter Town Center	3.0-10.0
Neighborhood	1.5-5.0
Arterial Corridor	1.0-6.0

While density is a fundamental premise of transit-oriented development, it must respond appropriately to its community context and the transit function served by the particular station. The objective is to create Overlay densities that clearly exceed those of the surrounding areas. In general, densities should be greatest in the core area immediately surrounding the station, stepping down near the edges of the Overlay to meet the lower scale of nearby neighborhoods.

In Chapter 2 of its TOD Guidelines, MARTA has developed a Station Typology representing different combinations of location, land use, transit function, and density. Appropriate scales of development are presented on page 44 for five principal station types, expressed in Floor Area Ratio, residential units per acre, and height. For zoning purposes, the key metric is FAR, within the suggested ranges on the table “Density Ranges by Station Type”.

These ranges are deliberately broad, reflecting the wide variation in local conditions. To achieve an appropriate density, local zoning authorities should select an appropriate baseline FAR limit. This baseline limit can then be modified by increasing it in the core area (Subsection 5.2) and by applying any applicable density bonuses (5.4). Density bonus mechanisms, particularly when multiple goals are involved, can be complex; like other provisions of this Model Overlay, the example provided Subsection 5.4 should be understood as illustrative only.

Density Bonus Provisions		
Bonus Category	Calculating the Bonus	Maximum Bonus
Vertical Mixed Use	Retail and community space: one square foot of upper floor area (residential or commercial) for every square foot of first- or second-floor retail, entertainment, or community meeting facilities in excess of the requirement in Subsection 4.5.	10% above baseline
	Service-oriented office space: one square foot of upper floor area (residential or commercial) for every two square feet of first- or second-floor service-oriented offices in excess of the requirement in Subsection 4.5.	
Workforce Housing	A bonus of 1.0% FAR for each percentage point of affordable housing units in the development, or 1.5% FAR for each percentage point of workforce housing.	30% above baseline
USGBC LEED Standards	An FAR bonus for projects that are LEEDS-certified above the minimum level: for Silver, an FAR bonus of 3%; for Gold 7%; for Platinum 10%.	10% above baseline
Public Amenities	At the discretion of [local zoning authority] and subject to design review, an FAR bonus of up to 10% for public amenities that quantitatively and qualitatively exceed applicable requirements.	5% above baseline
Maximum Total Bonus		[fixed percentage] above baseline

5.1 Baseline Floor Area Ratio (FAR)

Except in the core area, the maximum Floor Area Ratio within the TOD Overlay District shall be [the selected baseline FAR].

5.2 Core Area FAR

Within the core area, the maximum Floor Area Ratio shall be [the selected baseline FAR times 1.25].

5.3 Transitional Height Plane

Where The TOD Overlay District adjoins [lower-scale residential district], height within the TOD Overlay District shall be limited as follows: No portion of any structure shall protrude

through a height-limiting plane beginning at point [x] [feet] above the ground at the boundary with the adjoining district and extending inward over the TOD Overlay District at an angle of 45 degrees.

5.4. Density Bonus Provisions

In order to advance the purposes of the TOD Overlay District, a proposed development may increase the applicable baseline Floor Area Ratio specified in subsection 5.1 or 5.2 by earning one or more density bonuses. The bonuses may be earned by meeting the following performance criteria:

- Providing retail, entertainment, or community meeting space on the first or second level of a project whose upper levels consist principally of residential or office use. The density bonus shall be applied to space in excess of that required in Subsection 4.5.
- Providing affordable housing units.
- Achieving USGBC sustainable design certification in excess of the LEED Certified level.
- Providing public open space, sidewalk amenities, or other public benefits in excess of those required in Section 6.0 of this chapter. Any density bonus awarded under this clause shall be at the discretion of [local zoning authority].

The density bonuses shall be calculated as provided in the table to the left. The bonus provisions may be combined, up to [a maximum aggregate bonus stated in Overlay].

Section 6.0: Public Realm Design

A principal intent of the TOD Overlay District is to create a setting that is walkable, visually interesting, and safe, and which serves to connect the transit station and its key elements to the surrounding spaces and buildings. These recommended standards address basic dimensional issues that set the template for a TOD district: the width and function of public sidewalks; the relationship of buildings to the street; and the creation of an appropriate street grid. The specific dimensions proposed here may be modified in response to local conditions. Local authorities may also wish to apply these standards to a subset of the TOD Overlay District, or to designated streets and plazas within the District, rather than to the Overlay District or core area in its entirety.

As overlay provisions, these standards would leave the underlying zoning intact with respect to other dimensional and design provisions. Individual jurisdictions may choose to include tailored provisions regulating building materials, colors, architectural styles, sign size and type, an acceptable palette of lights, plants, and outdoor furniture, and the use of environmentally-friendly design practices. Alternatively, a jurisdiction may choose to replace the underlying zoning with a form-based code for buildings, landscaping, signs or even environmental features. Fine-tuning design standards allows the TOD Overlay District to blend with a surrounding area that already has a strong design character, or to establish a new and distinct sense of place.

6.1 Public Sidewalks and Pedestrian Zones

Except as indicated, the following provisions shall apply to all public streets, or streets which shall be accepted as public, within [the TOD Overlay District, the core area, or designated streets]:

- Sidewalks shall provide a pedestrian clear zone consisting of a continuous, unobstructed right of way at least 8 feet in width, depending on street type and function. The minimum pedestrian clear zone may vary from 8 feet on neighborhood residential streets to 12 feet on principal streets in high-volume, mixed-use locations.
- Within the core area, the pedestrian clear zone shall be set between a supplemental zone adjacent to buildings and a planting/furniture zone next to the street curb, so as to provide a sense of enclosure and safety for pedestrians. The planting/furniture zone shall be a minimum of 6 feet in width.
- The supplemental zone may include porches, stoops, outdoor seating or dining areas, or outdoor merchandising, which shall not physically encroach on or obstruct the required the pedestrian clear zone.
- Street trees shall be planted a maximum of 30 feet on center and decorative pedestrian street lights shall be placed a maximum of 60 feet on center and spaced at equal distances within the planting/furniture zone.

6.2 Relationship of Buildings to Streets and Plazas

The following provisions shall define the placement of buildings along public sidewalks and plazas, as applicable:

- The minimum front setback shall be zero, such that buildings are situated directly adjacent to the supplemental zone. In the core area, at least 75% of the principal frontage of a building shall be built with a zero setback from the supplemental zone.
- To maintain an appropriate scale relative to pedestrians, ground-floor uses shall be a maximum of 16 to 20 feet in height above the sidewalk.
- The first three stories of a building fronting on a public street or plaza shall be delineated through the use of windows, belt courses, cornice lines, or similar architectural elements.
- Where retail or service-oriented offices front on a public street or plaza, a minimum of 75% of the affected building façade shall consist of transparent surfaces, such as windows or doorways, to promote visual interest. Where residential or general office uses front on a public street, a minimum of 50% of the affected building façade should consist of transparent surfaces.
- Primary pedestrian entrances shall be oriented to the street or plaza shall be and clearly visible.

6.3 Streets, Blocks, and Connectivity

The following provisions shall apply to public streets, or streets which shall be accepted as public, throughout the TOD Overlay District:

- The maximum travel lane for motor vehicles shall be 11 to 12 feet in width, depending on the street type and function designated by [applicable local authority].
- Streets shall accommodate bicycle access by means of a dedicated bicycle lane that is at least 5 feet in width, or 6 feet in width if adjacent to parallel curbside parking.
- New blocks shall be a maximum of 400 feet in width and 400 feet in length. When site conditions do not permit an ideal block configuration, the maximum block length should not exceed 600 feet.

The intent of this provision is to create a street grid supportive of TOD, featuring walkable distances, visibility for the station and other key buildings and uses, easy connectivity for pedestrians and bicycles, and ample opportunity for curbside parking. While 400 feet is a typical small-block dimension, this standard may be increased or decreased to reflect the details of a particular station area.

Section 7.0: Parking

7.1 Minimum and Maximum Parking Requirements

Within the TOD Overlay District, the minimum and maximum parking requirements on page 109 shall apply.

TOD requires less parking than equivalent development programs in non-transit settings. For the principal use categories, the model TOD Overlay includes parking requirements in the form of minimum requirements and maximum allowances. Detailed standards for other uses, such as schools or hospitals, can be added in TOD Overlays where applicable. The inclusion of maximums is the emerging best practice in TOD zoning. The model standards proposed below reflect numerous examples around the United States and Canada, including the Brookhaven-Peachtree Overlay District in DeKalb County and several of Atlanta's SPI and MRC codes. Parking standards can be varied to suit local conditions; for example, the minimum requirements could be reduced further (or perhaps eliminated entirely) in the core areas of urban stations, while the maximum requirements might be relaxed somewhat in the outer portions of TOD Overlay districts that extend a half-mile from their stations.

7.2 Additional numerical standards for parking

- a. When above-ground structured parking is provided, 25% of its floor area shall be counted in the Floor Area Ratio of the project.

This provision provides an incentive for the developer to increase program density by limiting the amount of parking to what is truly needed. At an average of 330 square feet per space, every three parking spaces not built would leave room for an additional 1,000 square feet of commercial or residential space.

Proposed Parking Requirements		
Use	Minimum Required	Maximum Allowed
Residential		
<i>General</i>	1.0 space per unit	1.5 spaces per unit for 0-2BR; 2.0 spaces per unit for 3BR+
<i>Multi-family or attached within 600' of a transit station</i>	.75 space per unit	1.25 spaces per unit
Office	1.5 spaces per 1000 sf	2.5 spaces per 1000 sf
Retail and Restaurant		
<i>General</i>	1.75 spaces per 1000 sf	3.3 spaces per 1000 sf
<i>Establishments of 1000 sf or less within 600' of a station</i>	no minimum	3.3 spaces per 1000 sf

- b. New on-street parking created by a development project and located along its front or side façade may be counted toward its minimum parking requirement.
- c. Any development that provides automobile parking shall also provide bicycle parking, either within the project's parking facility or in the landscape zone of the adjoining sidewalk. Non-residential developments shall provide bicycle parking at a ratio of one bicycle space for every fifteen vehicular spaces. Multi-family residential developments shall provide a minimum of one bicycle space for every five multi-family units, to a limit of 50 bicycle spaces.

7.3 Shared Parking

- a. Shared parking shall be allowed by right, either within the project site or on another site within the TOD Overlay District, provided that the applicant submits credible evidence to the satisfaction of [local zoning authority] that the peak parking demands do not coincide, and that the accumulated parking demand shall not, under normal circumstances, exceed the total capacity of the facility. Such evidence must take into account the parking demand of residents, employees, customers, visitors, and any other users. It must also take into account parking demand on both weekends and weekdays, and both during the daytime and overnight. The shared parking supply shall be at least equal to the highest aggregate parking demand that occurs during any such period.
- b. A project may satisfy some or all of its minimum parking requirement through a shared parking agreement on another site within the TOD Overlay District.

- c. A variance allowing a project to exceed its applicable maximum parking allowance shall not be granted unless the additional capacity is demonstrably needed and can be achieved through shared parking rather than by providing additional physical spaces.

7.4 Transportation Management Plan

Any development in the TOD Overlay District that has non-residential component greater than 100,000 square feet of total gross leasable floor area shall become a member of an existing transportation management association (TMA) which provides service to the area, or if no such TMA exists, shall provide a transportation management plan (TMP), as those terms are defined herein. No occupancy permit for such project shall be issued for until the developer has submitted a TMP or written confirmation of TMA membership. The TMP, or the programs undertaken by the applicable TMA, shall include specific strategies to reduce single occupancy vehicle trips generated by the project.

7.5 Parking Location and Design

These location and design standards are intended to prevent parking from visually dominating a TOD environment, interfering with convenient pedestrian connections, or taking up an undue share of land in the TOD Overlay District.

Over time, large surface parking lots close to the station, whether publicly owned or developer-owned, should be phased out, allowing more development to occur in the best locations. This can be achieved through comprehensive planning rather than zoning.

- a. Off-street parking, whether surface or structured, shall not be located between a public street and a building's front façade.
- b. Surface parking alongside a building, while allowed, shall be buffered from the adjoining public street by a landscape strip at least 6 feet wide (except at pedestrian entrances).
- c. Where possible, parking facilities for non-residential uses shall be located in a way that encourages pedestrians walking from the parking facility to their destinations to pass by street-level retail and other active use areas.
- d. Where above-ground parking structures have frontage on public streets, all street frontages shall include retail, entertainment, or service-oriented offices in the same manner as required in Subsection 4.5. Retail shall be built to a minimum depth of 30 feet into the building, to ensure that the space provides sufficient depth for viable retail operations.
- e. Where the upper floors of above-ground parking structures are visible from a public street, such surfaces shall, at minimum, be provided with architectural or vegetative finishes that are approved by [local zoning authority]. Where practicable, such upper floors may be located behind multi-story residential or commercial elements of the project.

- f. Within a surface parking lot or garage, the bicycle spaces required by this Section, as well as any carpool, vanpool, shared car, or electric vehicle charging spaces required by any Transportation Management Plan, shall be placed in preferred locations relative to the street, the building entrances, and the primary pedestrian routes within and around the project site.
- g. Vehicular access to parking lots or garages shall, to the greatest extent feasible, be provided by side streets or alleys, and shall avoid crossing primary pedestrian routes to and from the transit station.