



# TRANSIT ORIENTED DEVELOPMENT GUIDELINES







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Akard Station

## 1.1 A Resource for TOD in North Texas

Since completion of the region's first major Transit Oriented Development (TOD) projects—South Side at Lamar, Galatyn Park, and East Side Village Phases I and II in Downtown Plano—DART and the North Texas development community have embraced TOD as a way to leverage improved mobility, attract quality investment, and build more sustainable, livable, and competitive communities.

Expanding on the early success of TOD in the region, these Guidelines are designed to build greater understanding of TOD's benefits to North Texas communities, promote collaborative planning, and provide guidance to elevate the quality and performance of future projects. As a resource for area stakeholders, customers, developers, service area cities, and the general public, the Guidelines will help shape decision making about private development strategy, local land use and development policy, place making, and capital investment programming.

From early visioning and analysis through project design and implementation, the Guidelines serve as a tool to support collaboration among DART, its 13 service area cities, property owners and developers, and regional advocates for smart growth, equitable economic development, and improved livability.

## 1.2 Guidelines Organization

The Guidelines are organized in three major sections as follows:

- **Understanding Transit Oriented Development.** Defines TOD, describes the qualities of successful TODs, and reports the broad benefits of building transit supportive neighborhoods and districts.
- **Delivering TOD In North Texas.** Outlines DART's TOD Policy & Program, describes collaboration with service area cities, and identifies Station Area Contexts & Opportunities.
- **TOD Types & Design.** Defines TOD Typologies and provides guidance for the planning, design, and development of TOD places and projects.

## RELATED RESOURCES

DART maintains a library of transit system and TOD-related information available for access. A sample listing of relevant DART reports, studies, and system information follows:

### Transit Oriented Development Policy

[www.dart.org/about/todpolicy.asp](http://www.dart.org/about/todpolicy.asp)

### Transit Oriented Development and Planning

[www.dart.org/about/tod.asp](http://www.dart.org/about/tod.asp)

### The Economic and Fiscal Impacts of Development near DART Stations

[www.dart.org/about/economicimpact.asp](http://www.dart.org/about/economicimpact.asp)

### DART TOD Property Inventory

[www.dart.org/economicdevelopment/2019TODPropertyInventory.pdf](http://www.dart.org/economicdevelopment/2019TODPropertyInventory.pdf)

### NCTCOG Parking Study

[www.nctcog.org/nctcog/media/Transportation/DocsMaps/Plan/Landuse/TOD/DART\\_RedBlue\\_FinalReport.pdf](http://www.nctcog.org/nctcog/media/Transportation/DocsMaps/Plan/Landuse/TOD/DART_RedBlue_FinalReport.pdf)



Downtown Dallas



A photograph of Mockingbird Station at dusk. People are walking up and down a wide set of concrete stairs. A woman in a bright red jumpsuit and a child in a dark jacket are in the foreground on the left. Two other people are further up the stairs on the right. In the background, a building with a large 'ANGELIKA' sign is visible. A blue banner with a white number '2' is overlaid on the left side of the image.

# 2

## UNDERSTANDING TRANSIT ORIENTED DEVELOPMENT

Mockingbird Station

### 2.1 TOD Defined

TOD, an abbreviation of the phrase Transit Oriented Development, is used to describe a type of community or district designed to capitalize on transit accessibility. Planned as compact, walkable, mixed use places, TODs offer people greater transportation choices, reduce dependence on automobiles, support more sustainable and equitable development, and build demand for enhanced transit services.

Typically, TODs are medium- to high-density mixed use developments centered on a rail station or rapid transit stop. As all transit trips begin and end with a walking trip, pedestrian-friendliness is a key factor in TOD planning and design. Successful TODs are designed with walkable streets and public spaces, buildings with active ground floor uses and pedestrian-oriented entries and facades, and convenient connections to transit. With robust transit service and the right mix of uses, TODs have proven successful in expanding mobility options; reducing parking demand, auto dependence, and transportation costs; and increasing transit ridership.

Excellent local TOD examples include Mockingbird Station, Downtown Plano, and more recently, CityLine in Richardson. Though very different in scale and character, each of these projects are nationally recognized as TOD success stories.

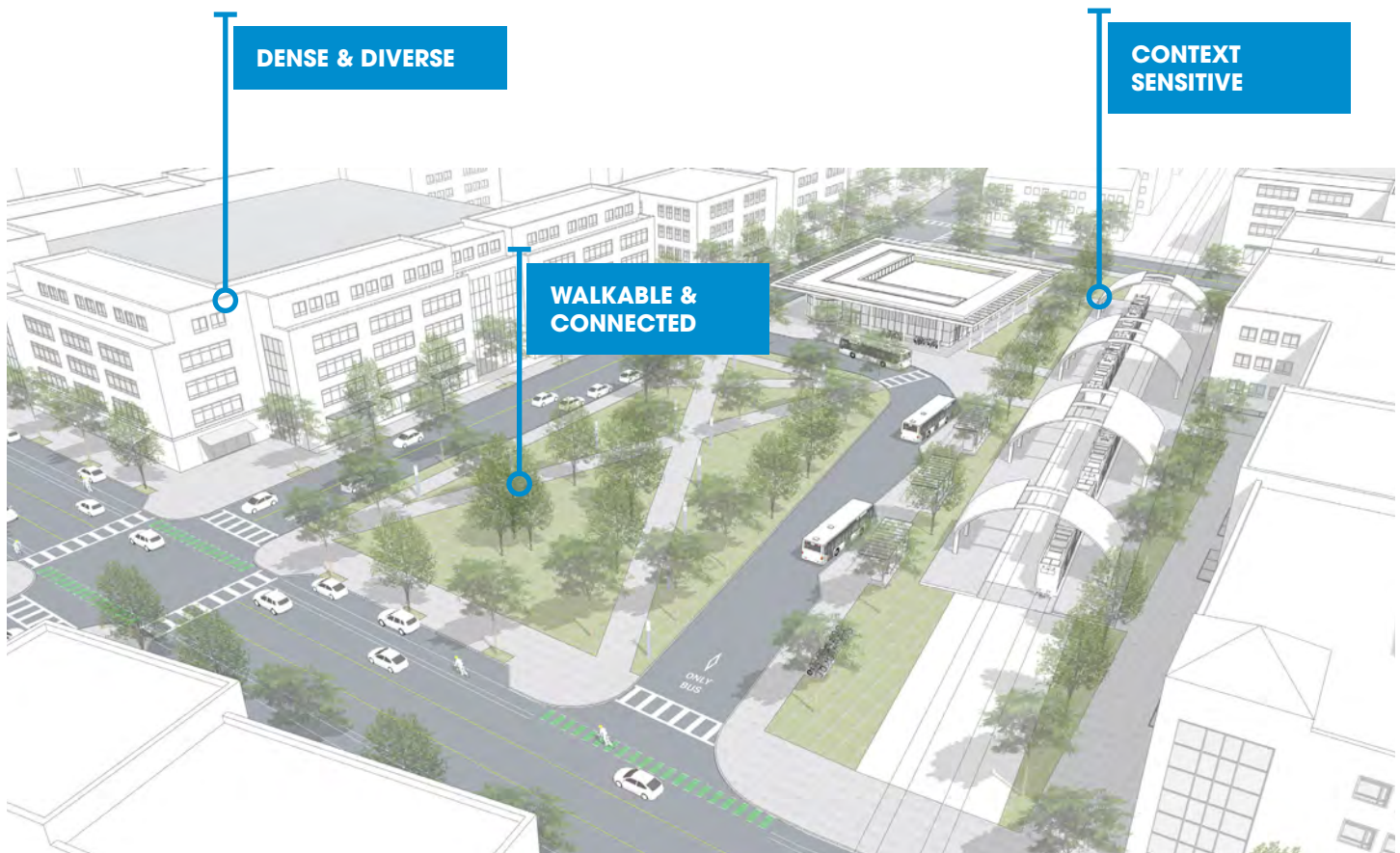
Successful TOD projects and places share a number of qualities setting them apart from more conventional forms of development. As highlighted below, successful TODs are walkable and connected, dense and diverse, and context-sensitive:

- **Walkable & Connected.** Access and mobility are key features of successful TODs. First and foremost, TODs are places that encourage walking—a critical factor shaping connectivity to transit. Successful TODs provide pedestrian-friendly streetscapes and public spaces, building frontages oriented to sidewalks, and high-quality urban design contributing to a distinct sense of place and community. TODs are also multi-modal places, providing accommodations for a variety of travel options, from local and regional transit, private cars and delivery vehicles, to last mile mobility options like bike share, car share, and emerging forms of micro-mobility. TODs typically provide less vehicular parking than comparable developments not located near transit. Parking is provided at a reduced rate and located in a manner that maintains walkability, aesthetic cohesiveness, and reserves valuable real estate for higher uses.

- **Dense & Diverse.** Successful TODs include a dense mix of complementary uses, including housing, retail and services, employment, entertainment, and civic uses. Diverse uses and demographics in a TOD help increase market resiliency, reduce auto dependence, and leverage public investment in transportation and transit infrastructure. Diverse housing choices—including options for lower income residents who rely on public transit—can accommodate households of various sizes, lifestyles, and income levels, help build market demand for a variety of goods and services, and deliver lower combined housing and transportation costs for TOD residents. Residential or employment density in a TOD should be commensurate with the transit infrastructure investment to generate ridership. The “right” density varies by context, but as a general rule minimum residential densities can range from seven units per acre for bus-based TOD to 30 units per acre or more for rail-based TOD.
- **Context Sensitive.** Transit oriented projects are not “one size fits all”—the scale, character, intensity, and use mix of projects can vary greatly depending on their location in the region and the needs of surrounding communities. TOD projects and places are designed to fit the scale of surrounding neighborhoods, offer uses to serve community needs, and advance local objectives for place-making, community building, economic development, and neighborhood improvement.

People within a half-mile radius are 5 times as likely to walk to a major transit stop than others.

—TRANSIT-ORIENTED DEVELOPMENT: FACTORS AND ELEMENTS OF SUCCESS, CENTER FOR TRANSIT ORIENTED DEVELOPMENT



## 2.2 TOD Benefits North Texas

TOD projects and places improve the livability, competitiveness, and resilience of North Texas communities. As highlighted below, TODs provide a range of benefits to DART and North Texas communities. People living and working in TODs rely less on car travel to meet their daily needs, have access to a wider range of housing and shopping options, and are better connected to jobs, services, and other destinations across the region.

Studies completed by researchers at the University of North Texas (UNT) Economics Research Group show the powerful economic and fiscal benefits sparked by the region's investments in high capacity transit. Studies of impacts on property values consistently found positive effects for properties located near light rail stations. The latest UNT study, published in 2020, identified a cumulative property value of more than \$16 billion for development projects within a quarter mile of DART stations developed from 1999 to 2018.

The latest study also found rental properties within a half mile of a DART station generate substantially more rental income than properties located further away. Multifamily residential properties rent for 17.9% more than comparable properties, commercial properties have a 23% premium, and office properties enjoy 5.8% higher rents.

The UNT study further found that from 2016 to 2018 development projects within a quarter mile of DART stations had a direct economic impact (money spent by developers, builders, and construction companies for the completion of a project) of \$5.138 billion. The total economic impact was \$10.27 billion, including indirect effects (money spent by suppliers to the companies driving the development to purchase services or supplies) and induced effects (money spent by employees of those companies). Additionally, development projects near the DART Streetcar route generated another \$200 million in direct economic impact, or a total economic impact of nearly \$455 million. The projects near DART stations generated over \$286 million in state and local tax revenue, with over \$12 million added by projects near the streetcar route.



Downtown Rowlett

For service area cities, transit investment has had a powerful impact on the competitive position of traditional downtowns and new town centers. Through the introduction of high capacity transit service and completion of locally-sponsored station area planning initiatives, the historic hearts of Plano, Carrollton, Farmers Branch, Garland, and Rowlett are being reborn and transformed into popular community destinations. Other communities have leveraged DART's investment in transit service to create new centers of activity. The town center projects at Addison, Las Colinas, and CityLine are perfect examples of how suburban locations can be transformed around high capacity transit stations.

TOD projects and places benefit North Texas communities in the following additional important ways.

- **Build Ridership.** TOD improves DART's ability to provide high quality transit service to North Texas communities. DART has the largest light rail system in the country, measured by system length, but many station areas have not yet been fully developed to tap into their TOD potential. DART can play a role in advocacy and technical assistance to service area cities through these TOD Guidelines. Research conducted over the last 30 years shows that TOD development has an important and positive influence on transit use within a half mile. As TOD concentrates destinations and activity close to stations, ridership levels increase. As reported in a recent publication of the Urban Land Institute and American Planning Association, "... every shred of available evidence points to the significance of density in promoting walking and transit use. Higher densities mean more residents and employers within walking distance of transit stops and stations."
- **Serve Emerging Markets.** TOD projects and places expand the range of housing and lifestyle options available to meet changing market demands. Both millennials and empty nesters are prime target markets for TOD projects. According to recent research by the Urban Land Institute, 60 percent of millennials want to live and work in areas where they can use their cars less, and empty nesters exhibit similar desires. These demands are well understood by major corporations positioning to compete for talented workers.
- **Promote "Location Efficiency".** With the right mix and intensity of uses clustered in walkable districts along transit corridors, people can take care of daily needs without having to drive from place to place. Lower auto dependence leads to reductions in automobile travel distances and lower demand for parking at both trip origins and destinations. With a wider range of housing choices and price points, TOD projects can help lower combined housing and transportation costs and expand alternatives for affordable living.
- **Create Walkable Destinations.** Pedestrian friendliness is a key characteristic of successful TODs. TODs with pedestrian-friendly design features—generously-scaled and continuous sidewalks, buffers between sidewalks and traffic, well-marked street crossings, and active storefronts and prominent entries—generate high levels of pedestrian activity, and improve public health.
- **Deliver Higher Values and Fiscal Benefits.** Studies locally and from across the country demonstrate the economic benefits of TODs. As cited above, various UNT studies found significant economic and fiscal impacts of development projects within a quarter mile of DART stations. TODs are shown to have higher commercial and residential property values than similar properties in auto-oriented locations, and they tend to generate higher local tax revenues on a per-square-foot basis—UNT studies show new development within a quarter mile of DART stations result in significantly higher property values and property tax contributions compared to control properties. TOD projects also place lesser demand on local infrastructure, build local tax base, and ease local government financial burdens.
- **Increase Safety for Pedestrians and Bicyclists.** Enhanced walkability and better bicycle infrastructure results in direct safety benefits for bicyclists and pedestrians. Improved traffic control and safety enhancements reduce the number and severity of collisions with automobiles. Pedestrian and cyclist safety increases as these modes of travel become more visible and well-established. In addition, increased pedestrian and bicycle activity produces more "eyes on the street" to enhance security.
- **Improve Air Quality and Reduce Energy Consumption.** Automobile use is one of the primary sources of air pollution, energy consumption, and greenhouse gas emissions in the United States. On a passenger-miles-traveled basis, pedestrian, bicycle, and transit trips result in lower levels of energy use and greenhouse gas emissions. As a result, TODs can help improve local and regional air quality and reduce energy consumption by facilitating transit use, pedestrian activity, and bicycling.



Downtown Plano





# 3

## DELIVERING TOD IN NORTH TEXAS

Farmers Branch

### 3.1 DART's Policy & Program

DART has a strong track record supporting TOD projects and investments in the region. From the drafting of its first TOD Policy in 1989 through the latest update in 2020, DART has worked with service area cities and private partners to promote transit supportive investment and build stakeholder and community support for TOD projects. As highlighted in the aforementioned UNT studies, DART's transit investments are a central driver of the North Texas economy.

DART's current policy, revised in March 2020 and summarized below—the entire policy is included as Appendix A—offers broad guidance for efforts related to promoting TOD projects and collaborating with developer and local government partners.

#### Purpose

As a steward of significant public investment DART seeks to:

- Leverage the viability of the transit system and add to its value to the community;
- Work in close partnership with its service area cities to identify and implement TOD opportunities.
- Create direct and indirect revenue for DART, and environmentally sustainable livable communities that are focused on transit accessibility

#### Definitions

- TOD is walkable by design and characterized by the integration of transit facilities throughout the development of intensive, high quality uses oriented towards DART facilities;
- Livable Communities are places where transportation, housing and commercial development investments have been coordinated so that people have access to adequate, affordable and environmentally sustainable transit and housing options;
- Shared parking serves multiple destinations within walking distance and accommodates various uses that have high demand during different periods of the day.

- Parking structures designed for alternative future uses are designed with horizontal floors, comfortable floor to ceiling heights and loading capacity to accommodate another structural use such as housing, office, or retail.

## Goals

DART recognizes that TOD can be a means to accomplish the following goals:

- Enhance the quality of life at transit stops and stations;
- Increase transit ridership;
- Enhance the value of DART real property;
- Contribute to the on-going economic vitality of service area cities.

## Strategies

- Strategic acquisition of property and/or use of underutilized parking spaces to capture potential TOD opportunities;
- Platform and infrastructure placement and orientation, in anticipation of reallocating surface parking spaces to incorporate eventual transit oriented uses;
- Encourage direct connections, including pedestrian and alternative modes, to transit stops and stations;
- Use the appropriate method for the transfer of DART real property for TOD projects.



Downtown Dallas



Downtown Carrollton



Downtown Garland

## 3.2 A Collaborative Effort

Supporting and encouraging TOD in North Texas has taken intensive levels of collaboration and commitment. DART, service area cities, the development community, and regional planning advocates have all played important roles in creating opportunities for living and working near transit stations and transfer centers.

### 3.2.1 DART

DART promotes TOD primarily through the delivery of high quality, high capacity transit service throughout the region. DART's stations and transfer centers add significant value to surrounding properties, creating unique locational advantages and improved accessibility to employment, educational, commercial, and cultural destinations across North Texas. DART also directly promotes TOD investment through the identification and solicitation of development opportunities for underutilized DART-owned properties. In addition, DART works in partnership with service area city elected officials, planners, and economic development professionals to set the stage for TOD investment on privately-owned sites in station areas.

## ROLES IN DELIVERING TOD



In addition to promoting TOD on DART-owned properties, DART has an interest in its facilities as catalysts for TOD on nearby properties owned by others. DART works with developers and service area cities to protect transit operations and enhance integration of DART facilities into a transit-oriented environment. DART actively solicits service area cities and the private development community in pursuing TOD at station locations, which create competitive transactions that tend to foster more innovative ideas and result in better value for DART and the public. However, the DART Board may also consider unsolicited development proposals for joint development if the developer can uniquely leverage the development of a TOD meeting DART's vision and goals.

### 3.2.2 Service Area City Partners

TOD opportunities in North Texas are guided by the efforts of the 13 municipalities served by DART stations and transfer centers. For many of these communities, TOD has become a special focus of their planning, economic development, and capital investment programs. These communities have crafted detailed policy and regulatory programs to guide private investment, structured incentive programs, designed and built TOD supportive infrastructure, and worked with community partners to ensure understanding and acceptance of projects.

Planning for TOD at the local level starts with community visioning and long range planning followed by more detailed project and station area planning and design. Ultimately, communities influence TOD through the application of comprehensive land use plans, land use and development regulations, economic development and redevelopment programs, and capital projects.

Beyond planning, service area cities can access a number of tools not available to DART to influence the feasibility and attractiveness of TOD investment. For example, service area cities may offer incentives such as financing infrastructure through Tax Increment Financing (TIF) revenue, discounting sale of publicly owned properties, or completing or supporting site remediation to create shovel-ready development opportunities. Aligning these local tools to support TOD has proven successful in cities across the region, and provide excellent local models to build upon.

### 3.2.3 Property Owners & Developers

Station area property owners and developers collaborate with DART and service area cities to identify and assess investment opportunities, draft project plans, attract private capital, and deliver individual TOD projects. Collectively, they play a critical role in helping ensure local plans and policies are sensitive to station area market conditions.

### 3.2.4 Planning & Advocacy Organizations

Organizations beyond DART and municipal governments, like the North Central Texas Council of Governments (NCTCOG), North Texas Chamber of Commerce, ULI North Texas, American Public Transportation Association, Federal Transit Administration, and others, can serve important educational, strategic, and advocacy roles. These organizations provide educational resources, advocacy, and assistance on a wide range of TOD and TOD-related projects, including development feasibility, housing affordability and equity, parking strategy, urban design, and more. Through grants and technical support, they can also bring additional resources to the table to strengthen TOD initiatives and programs.

NCTCOG's recent report *Transportation and Gentrification: A Toolbox for Positive Neighborhood Change*, is an excellent source of information for local planning officials. The report, addressing the causes and concerns related to community change and gentrification, offers strategies focused on housing market affordability and includes suggestions about how equitable public engagement can lead to inclusive revitalization.

## DART Example Rail System & Expansion Plans

DART is a national leader in the advancement of TOD with more than \$16 billion invested in existing, planned or projected live-work-play communities at current and future station sites according to the most recent study by the University of North Texas Economics Research Group in 2020.

### Total Value of Private & Public Completed, Under Construction, and Planned Development

| PROJECTS                    | ESTIMATED VALUE   |
|-----------------------------|-------------------|
| 1999-2015: Private & Public | \$10.800 billion  |
| 2016-2018: Private & Public | \$5.138 billion   |
| 2016-2018: Streetcar        | \$200.7 million   |
| TOTAL PROPERTY VALUE        | \$16.1387 billion |

Source: UNT Economics Research Group

## 3.3 Station Area Context & Opportunities

### 3.3.1 DART Facilities & Property

At the heart of transit station areas are DART-owned transit stations, transfer centers, and transit-supportive facilities including bus and shuttle stops, kiss-and-ride locations, and parking areas. In combination, these core facilities are designed to deliver unparalleled access to destinations across the DART transit network.

DART's high frequency transit service provides convenient, reliable connections across the region, from Downtown Dallas and North Texas' most intensive employment centers to cultural and entertainment destinations, traditional town centers and neighborhoods, and new urban mixed use districts. This high level of connectivity offers distinct competitive advantages and has a direct and considerable influence on property values close to stations. Although modest differences in property value benefits may exist based on service frequency and transfer activity, station area property owners enjoy unique competitive advantages.

### 3.3.2 Station Area Conditions

Several factors influence the potential for TOD investment on DART-owned sites and other properties within a one-half mile walking distance of transit stations and transfer centers. Conditions within these "walk sheds" varies widely. Understanding how factors like land use, access, parcel configuration, ownership, and the presence of environmental and other constraints impact development potential is a critical early step in planning for TOD. DART periodically inventories its property and assesses the market for TOD for each of the sites (a link to the most recent property inventory is provided on page 2 under Related Resources).

Development context is an important driver of opportunity. Urban locations and traditional downtowns, with street grids, block structures, supportive local transit, and the potential for shared parking or district-level parking management, naturally lend themselves to TOD investment. In locations without these conditions, including auto-oriented commercial areas and older industrial districts, attracting TOD may require service area cities to employ more targeted, location-specific strategies and actions.



“Investing in DART has expanded transportation options and attracted corporate, residential, retail and cultural facilities to our city,” said Richardson City Manager Dan Johnson.

—INMOTION, DART JUNE 2014

Ownership patterns and parcel configurations also impact TOD potential and timing. Prime areas for TOD are often locations with larger parcel sizes, large blocks in common ownership, underutilized sites and buildings, and motivated owners interested in capitalizing on transit accessibility and market opportunities. But not all station areas are equally primed for investment. Many stations are in areas with small lot sizes, disjointed uses, and fragmented patterns of ownership. In these more challenged locations, service area cities may focus on encouraging transit-oriented infill development and incremental change. Identifying catalyst sites and pilot projects, including underused parking, can lay the groundwork for longer term, station area wide changes.

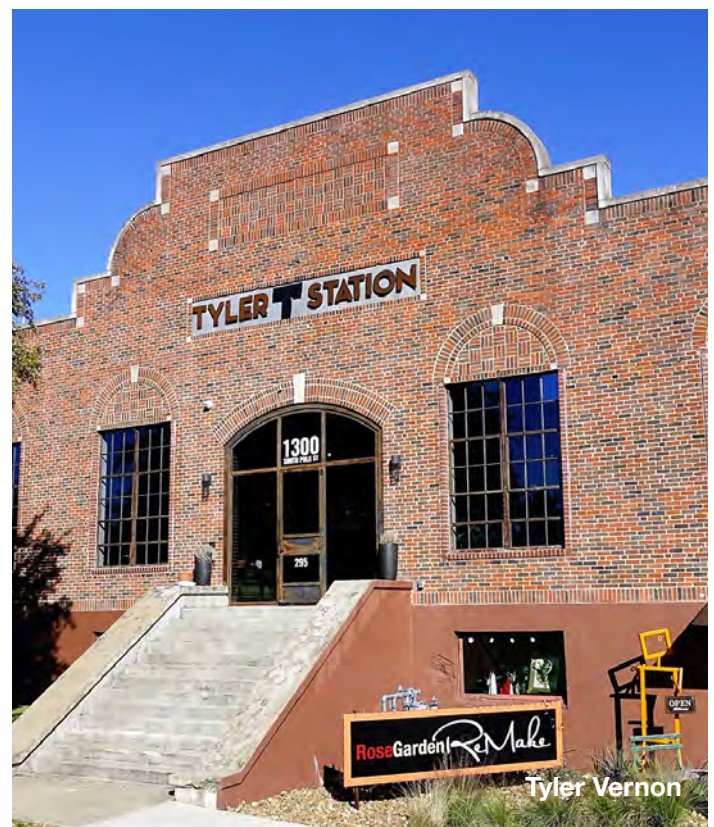
### 3.3.3 Development Opportunities

Real estate market conditions are among the most powerful drivers of TOD projects. Although access to frequent, high capacity transit is proven to influence a project's potential, a range of other factors drives investor decision making. Regional and local market conditions, locational and access advantages, competitive supply, capital availability, and regulatory entitlements certainly all play important roles in moving projects from early vision to implementation.

DART's recent efforts to assess the market potential and market readiness of station sites sets the stage for initiatives designed to leverage competitive advantage of more attractive locations as well as improve the position of more challenged areas. In 2019, Cushman & Wakefield prepared a *TOD Property Market Assessment* that evaluated 47 DART-owned properties and shortlisted the 15 most marketable properties. The assessment considered a variety of criteria, including site attributes, development readiness, and market support for TOD.

### 3.3.4 First Mile/Last Mile Mobility

Planning for first mile/last mile access and connectivity in and around station areas is increasingly important as new technologies place new demands on roadways, streetscapes, and public spaces. New mobility options greatly improve station area mobility and extend the benefits of transit access well beyond a short walking distance. Transportation network companies like Uber and Lyft, bikeshare and e-scooter services, car sharing services like Zip Car, and private shuttles and circulators all extend the range of benefits associated with proximity to transit. To fully utilize these first mile/last mile mobility services curbside access, parking strategy, and public space allocation are critical issues to address in station design and station area planning.



### 3.3.5 Expanded Housing Options

Communities across the region are struggling to find ways to meet the housing needs of North Texas families. Affordable housing shortages, a dwindling supply of homes for first-time buyers, and rising prices at all levels have sparked concerns among regional leaders. In a recently completed study, the City of Dallas estimates it has a shortage of 20,000 housing units and six of ten families in the City are paying more for housing each month than they can afford. Research also shows housing affordability challenges are shared across the region, from very low income households to those with limited assets and lower wage jobs. Teachers, first responders, and other essential workers in a range of industries struggle to find affordable places to live and are increasingly impacted by neighborhood change, gentrification, and displacement. The threat of being priced out of the market is a harsh reality for low-income residents in transitioning neighborhoods.

Workforce housing and low income housing are terms used to describe housing offered for sale or rent at prices affordable to moderate and lower income households. Communities typically define workforce housing as being affordable to households with incomes between 80% and 120% of the Area Median Income (AMI) and low income housing as being affordable to households with incomes less than 80% of AMI. (According to U.S. Department of Housing and Urban Development, the 2018 AMI for a four person household in the Dallas Metro Area was \$77,200.) Households in moderate and lower income categories face significant challenges finding affordable housing, especially options offering high levels of transit service and regional accessibility.

Recent research shows that almost one in two renters in the Dallas region pays 30 percent or more of their income on rent, and one in five pays 50 percent or more. As the region's economy has expanded, an increasing number of households

have fallen into these cost burdened categories, thus increasing the urgency to find solutions to meet the growing demand for affordable options.

Transit Station Areas and TOD projects are great locations for workforce and affordable housing units. Low-income households are less likely to own a car and more likely to rely entirely on public transit to access a wide range of destinations—from work and shopping to daycare, education, and social services. By providing more affordable housing opportunities near transit, households who would otherwise be priced out of the market can live close to transit and have ready access to opportunities across the region.

The inclusion of workforce and low income housing in TODs can help address the region's significant and intensifying housing affordability challenge. TODs that include diverse forms of workforce and low income housing can help accomplish the following:

- Increase economic self-sufficiency by providing accessible and reliable access to employment, education, healthcare, and support service destinations across the North Texas region;
- Increase access to jobs and educational opportunities for transit reliant residents, and lessens travel costs for those with lower and moderate incomes;
- Relieve economic stress on high cost burdened households;
- Build system-wide ridership by improving transit access for those most reliant on public transportation services;
- Provide for a wider range of housing choices and price points than may be found in auto-oriented communities.



### 3.3.6 Parking

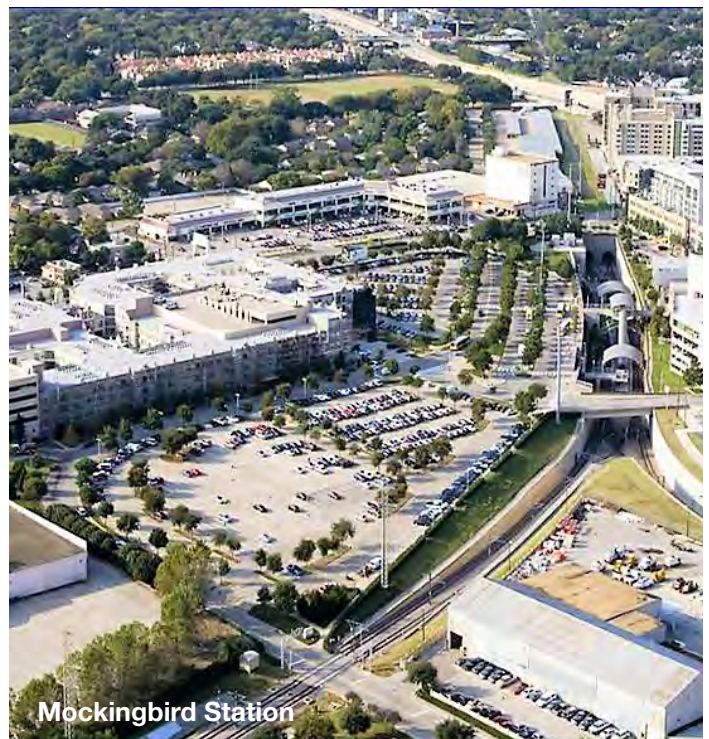
Parking facilities consume valuable land and are expensive to build. As a result, they impact project affordability, especially housing affordability, and are associated with detrimental effects on the environment. It is therefore in DART's and the public's interest to right-size parking to provide the spaces needed but minimize the adverse impacts of excess parking.

DART has been monitoring utilization of DART owned parking facilities over an extended period of time and found that most facilities are underutilized, in many cases significantly. The Parking Utilization map (see next page) categorizes DART owned parking facilities by utilization.

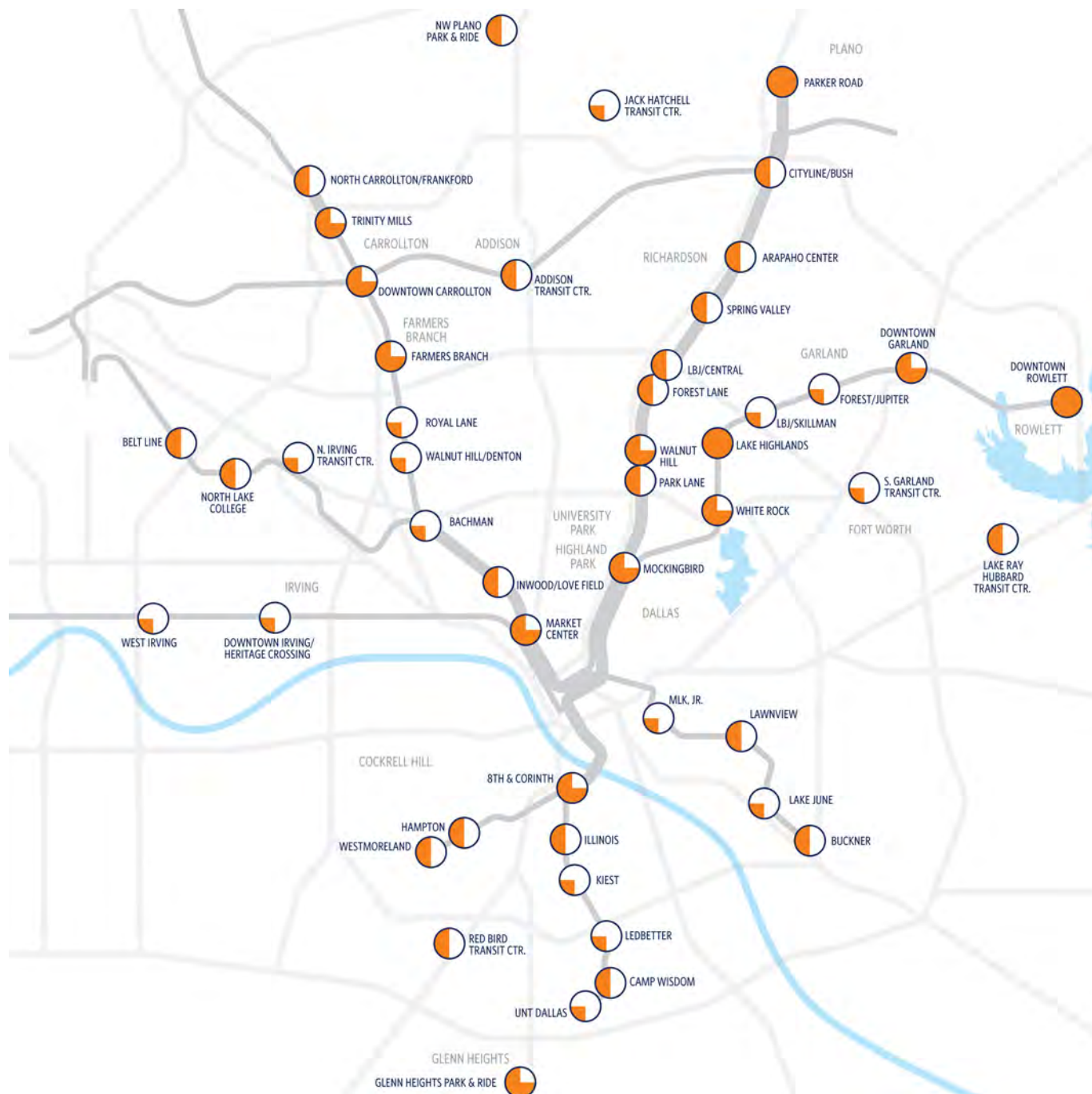
TOD projects require significantly fewer parking spaces than conventional development for a variety of reasons. Transit access reduces reliance on automobile trips and leads to a lower rate of auto ownership by TOD residents. In addition, the overall walkability of TOD projects reduces reliance on automobiles to access destinations such as retail, services, civic institutions, and places of employment, thus reducing parking demand. Micro mobility services provide for alternative modes to access transit and project destinations from beyond the walk shed, and may further reduce the necessity for personal auto trips and parking. Lastly, mixed use TODs are "park-once" destinations and provide opportunities for shared parking, which utilizes parking spaces for multiple uses with complementary peak periods and reduces the overall need for parking.

NCTCOG, in partnership with DART and the cities of Dallas, Richardson, Plano, and Garland studied parking use at TODs along the DART Red & Blue lines. The 2018 study evaluated conditions at 16 privately owned sites with structured and surface parking near 11 stations spread over the four service area cities. The study found that 13 of 16 sites never peaked above 80% utilization, suggesting that required parking ratios resulted in excess spaces. Affordable housing TODs in the study used less parking (peak use 40-50%). Higher end market rate projects had higher peak use (90%+), cost burdening affordable units with excess parking. Furthermore, 10 of 16 sites provided more parking spaces than required by code, suggesting that lenders can have strong influence on amount of parking developers build.

The study suggests a range of potential strategies to address excess parking at and around DART stations. DART could adopt parking policies supporting the right-sizing of parking and implementation of districtwide parking management programs for TOD projects and DART Station Areas. DART could also explore the potential to reduce the size of or repurpose underutilized DART owned parking facilities. Service area cities have a host of possible strategies at their disposal. The study suggests service area cities could: right size parking requirements in TOD areas based on observed local utilization data and development context; unbundle cost of parking from cost of housing; incentivize shared parking, where multiple land uses with complementary peak times utilize the same parking facilities more efficiently, rather than providing individual parking lots that frequently remain underutilized (shared parking is often managed district-wide as a "park once" district, with facilities that are consolidated to maximize efficiency and include on-street parking in the supply calculation to further reduce the need for off-street parking); encourage the use of programs and technologies, e.g. district-wide parking pricing and management initiatives and use of automated space availability monitoring and guidance apps, to maximize the use of available spaces; and consider long term potential of conversion of parking facilities to other land-uses as increased non-automobile mode split and autonomous vehicles reduce demand for individual, on-site parking spaces—best achieved by designing parking lots as city blocks sized for future development and parking structures with minimal ramps, ceiling heights, and building depths that allow for future adaptive remodel as occupied space.



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 **Low: 0-25%**

 **Medium low: 25-50%**

● High: 75-100%

 **Medium high: 50-75%**





# 4

## TOD TYPES & DESIGN

Downtown Plano

### 4.1 TOD Typologies

A TOD typology is an analytical tool that groups station areas into several “types” based on context and predominant mode of access. The typologies provide broad parameters for the scale and intensity of development, use mix, access, and market potential. As a starting point for collaboration between DART, service area cities, and key stakeholders, the typologies serve as a foundation for station area planning, design, and development initiatives.

The TOD typologies described below provide starting points for collaboration between DART, service area cities, TOD developers, and other stakeholders. Typologies may change as areas are transformed with improved access, connectivity, and private investment.

Next-generation projects will orient to infill, urbanizing suburbs, and transit-oriented development... People will seek greater convenience and want to reduce expenses.

—EMERGING TRENDS IN REAL ESTATE, URBAN LAND INSTITUTE

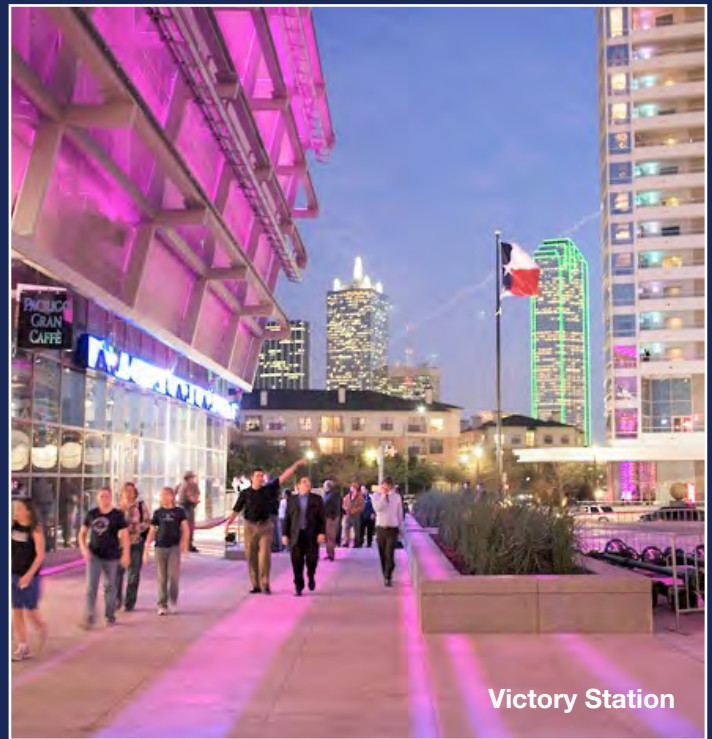
# TYPOLGY SYSTEM MAP



## TPOLOGY CHARACTERISTICS



West End Station



Victory Station

### Urban Core

Urban Core station areas are highly urban environments with mixed use buildings with ground-level storefronts and primary building entries along pedestrian priority streets. Buildings generally line block perimeters along public streetscapes with little to no building setbacks. These locations provide high levels of activity and façade transparency along ground floor facades, and a mix of uses on upper building floors with an emphasis on employment intensive and transit-supportive uses, including office, commercial, educational, lodging, and multi-family residential. Streetscapes and public spaces support pedestrian mobility, and parking is accommodated on-street and in midblock structured parking. The combination of transit access, use mix, and development intensity supports the potential for reduced parking requirements as well as shared parking and district-level parking management. Walking is the predominant mode of transit access.

### Urban Districts

Urban Districts are transit-served neighborhoods adjacent to Downtown Dallas developed around traditional patterns of urban streets and blocks. These districts tend to have a mix of moderate density residential and retail uses and offer a variety of destinations catering to the daily needs of residents, including civic buildings, urban groceries and markets, clinics, and child care centers. As with Central Dallas station areas, the patterns and scale of development in Urban Districts supports the potential for reduced parking requirements as well as shared parking and district-level parking management, but the overall scale of development is less dense and TOD investments are likely to be moderate infill and redevelopment projects. Fitting projects in the context of surrounding urban neighborhoods is a key consideration in planning for TOD investment. Walking and bicycling are the predominant modes of transit access.

## TPOLOGY CHARACTERISTICS



### ● Downtowns & Town Centers

The region's traditional Downtowns and newly-developed Town Centers serve as hubs of activity and local identity across North Texas. With a mix of low and mid-rise buildings lining pedestrian friendly streets and public spaces, these districts serve as retail and entertainment destinations and tend to include a mix of moderate density residential, office, retail, and entertainment uses catering to the daily needs of residents and workers in surrounding suburban communities. As with other more intensive station areas, the patterns and scale of development tends to support the potential for reduced parking requirements as well as shared parking and district-level parking management. Walking and bicycling are the predominant modes of transit access.

### ● Community Centers

Community Centers are local activity centers in a suburban context with a mix of commercial and multifamily residential uses near a transit station. Smaller in scale than Downtowns or Town Centers, Community Centers transition quickly to abutting lower density residential or commercial areas. As a result, walkability beyond the core of Community Centers may be limited, and kiss and ride and/or park and ride amenities are often accommodated to facilitate car access to transit in addition to walking and bike access. Walking, bicycling, and personal vehicle are the predominant modes of transit access.



DFW Airport Station



Royal Lane Station

## ○ Destination Districts

Destination Districts are areas with an exclusive or predominant use, such as medical, employment, cultural, sporting or entertainment. Destination Districts typically include large structures (such as stadiums, hospitals, institutional buildings), often arranged in a campus setting, and require more flexibility on block size. Complementary secondary uses support transit users and may include retail, personal services, restaurants, and lodging, ideally located between the transit station and the primary use to facilitate walking access. Walking is the predominant mode of transit access, though often transit is a secondary mode of access to the district's destinations. Proper district planning that includes direct and interesting walking routes between the DART station and the destinations could make transit access more competitive.

## ● Other

The “other” typology includes areas that do not currently exhibit TOD characteristics, including industrial districts and areas with auto-oriented uses and building types. Further planning and evaluation are required to determine the TOD potential of these areas and their applicable typology. Redevelopment of those areas – including DART-owned properties as well as the surrounding properties – following the guidance provided by these Guidelines could initiate the transformation of single use and/or auto-oriented districts to TOD. Driving and park and ride are the predominant modes of transit access, however, walking and bicycling may become feasible modes as the areas transform.

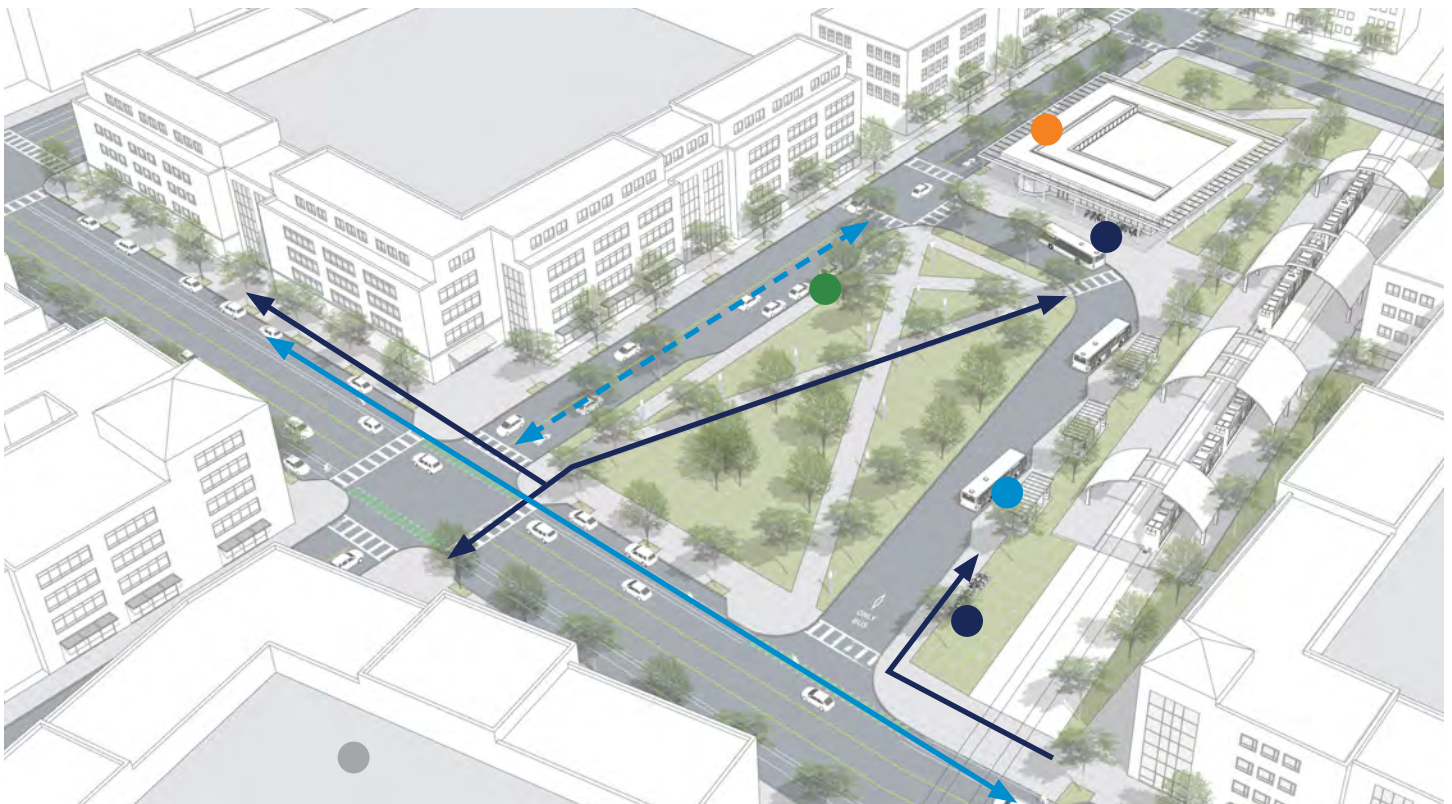
## 4.2 TOD Design

This section of the guidelines defines the preferred design character, form, and quality of development for successful TOD projects and places. The guidance below offers a reference for service area cities as they develop and refine local TOD plans and development regulations, and a reference for use by developers and property owners responding to TOD RFPs and planning for TOD projects.

### 4.2.1 Development Pattern

#### Street & Pathway Network

- TOD projects should include an interconnected, fine-grained grid of pedestrian- and bicycle-friendly streets and pathways that form development blocks and accommodate local circulation. Walking and bicycling should get preferential treatment over vehicular traffic.
- Street networks should serve as an extension of the existing street network in the surrounding area. TOD projects should provide street and pathway connections to the surrounding context wherever feasible. Street or pathway stub outs or set aside rights-of-way should be located strategically to accommodate future connections to undeveloped neighboring sites or developments that currently do not allow connections.
- Cul-de-sacs should be avoided except where topography or existing natural features prevent a feasible roadway connection, or as a temporary facility to provide future connections to an abutting site.
- TOD projects should contribute to a hierarchical bike network that provides uninterrupted access to the transit station with context-sensitive bike facilities. These may range from shared roadways on low traffic neighborhood streets to physically separated and protected bike lanes or cycle tracks on major thoroughfares.

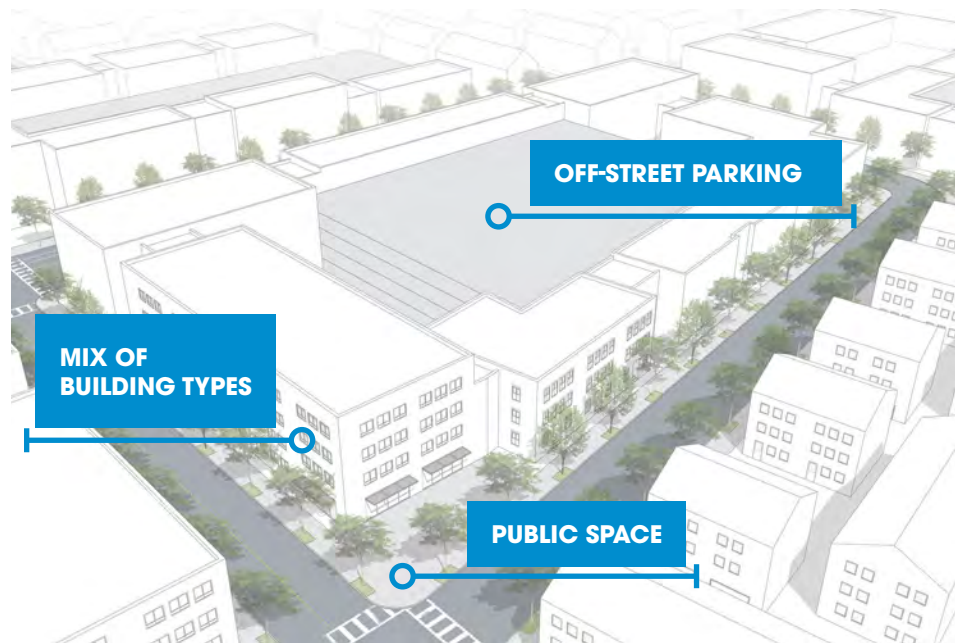


### Block Size & Configuration

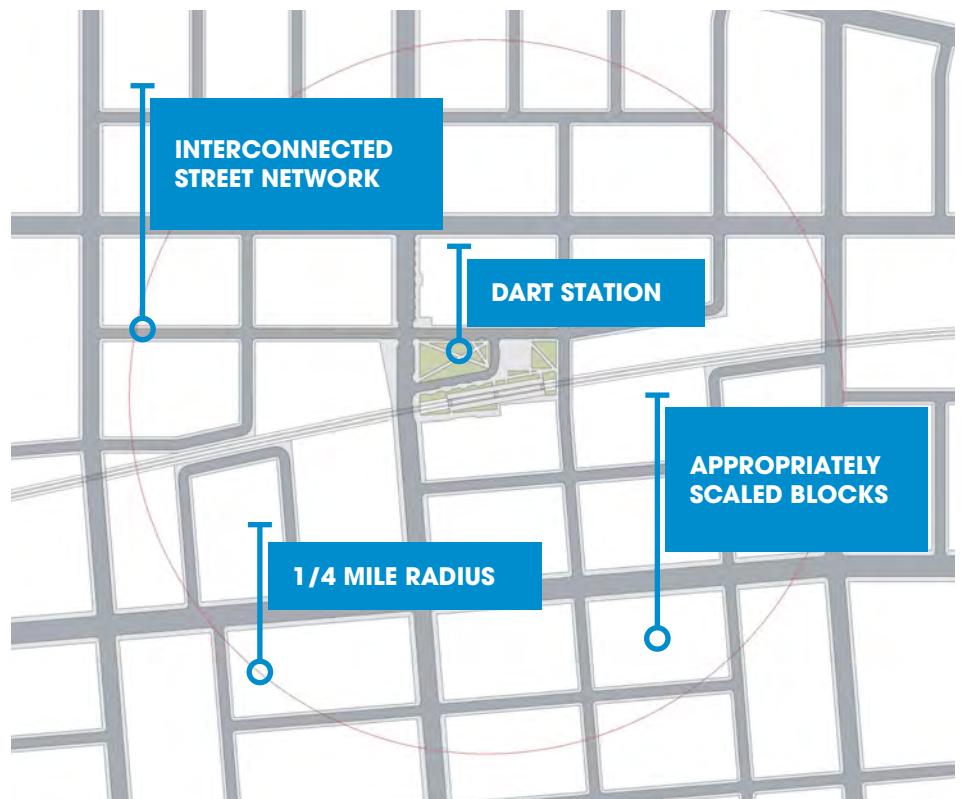
- TOD projects should consist of development blocks scaled to accommodate a mix of appropriate building types, public spaces, as well as required off-street parking and service areas.
- Overly large block sizes should be avoided to maintain a walkable scale.

### Potential for Long Term Transformation

- Streets and blocks should be configured in a fashion that allows future intensification and transformation with minimal disruption to the network. For instance, parking lots should be laid out to accommodate footprints of anticipated future buildings or parking structures in their place.



- Bike Parking
- Bike Share/  
E-Scooter Hub
- Transit Transfer
- Ride Share Drop  
Off/Pick Up
- Park & Ride
- ↔ Key Walking  
Route
- ↔ Bike Lane
- ↔ Shared Bike  
Route (Sharrow)



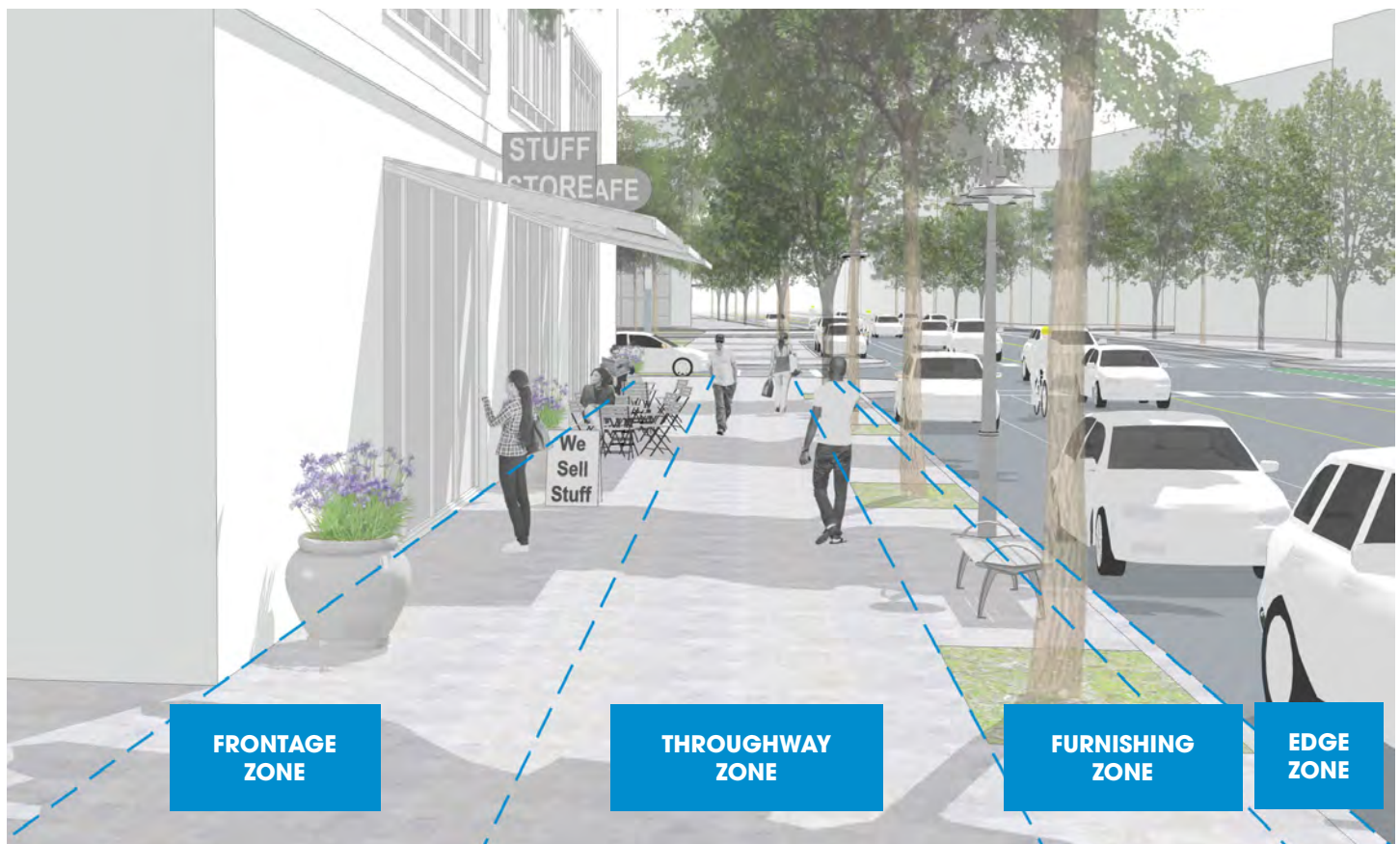
## 4.2.2 Streets & Public Spaces

### Street Types

- Streets in TOD projects should be designed to encourage low speed vehicular traffic and the safe movement of pedestrians and bicyclists. Street widths should be minimal, with narrow travel lanes, to reduce crossing distances for pedestrians. Multi-lane roadways within TOD projects should be discouraged.
- Primary walking and cycling routes should accommodate those modes through adequate facilities, which may include protected bike lanes, cycle tracks, multi-use paths, and off-street walkways.
- Streets in TOD projects should be designed to accommodate emerging micro-mobility modes, including bike share programs and e-scooters.
- Streets in TOD projects should be reflective of their context and include a roadside design that invites walking. The roadside – the portion of the street between the curb and the right-of-way or building facade – consists of four zones:
  - » Edge Zone: Includes the curb and required clearances.
  - » Furnishing Zone: Provides a buffer between pedestrians and vehicles and may range in width to include a variety of elements, depending on context, such as street trees and other landscape features, pedestrian-scaled lighting, street furnishings, street signage, and utility elements.
  - » Throughway Zone: The walking zone free of obstacles, which may range in width subject to the context.
  - » Frontage Zone: The area between the building façade and the throughway zone, typical in urban context without private front yards. The frontage zone provides room for building entrances and allows for the placement of café seating and other private street furnishings, business signage, and merchandise display. The width of the frontage zone may vary depending on context and use and may be minimal in purely residential contexts.

### Streetscape Design

- To create safe and attractive pedestrian environments, buildings should be placed along and oriented to public streets.
- Streets providing pedestrian connections between transit stations and major walking destinations should be lined with buildings designed to allow active ground floor uses.



## Public Spaces

- TOD projects should include public gathering spaces connected by pedestrian-friendly streets and pathways. Public spaces—such as parks, greens, squares and plazas—should be well defined and programmed appropriate to their location and context. Public spaces should include elements such as seating, shade trees, shade structures, play equipment, lighting, and other amenities to support their intended active and/or passive uses.
- Transit stations should be integrated into a well-designed and well-connected public space that serves both transit riders and the general population of the TOD.
- Public space design should consider accommodations for private bicycle parking, bicycle-share stations, e-scooter hubs, and other emerging micro mobility technologies.
- Bicycle parking should be provided near transit stations with easy access to and from bicycle routes. Bicycle parking should provide adequate amenities for secure storage of bicycles and may include open shelters, individual lockers, or fully enclosed and locked shelters.
- Micromobility stations and hubs, including bike share and e-scooters, should be accommodated near station locations to provide easy access. Facilities should be designed to minimize conflicts with pedestrian routes and provide for the orderly parking of bikes and scooters.



## On-Street Parking & Curb-Side Uses

- On-street parking should be provided on all streets in TOD projects to provide a buffer between pedestrians and moving traffic, deliver high-turnover spots to support storefront retail uses, and to reduce the need for off-street parking.
- To avoid the use of street parking as informal park and ride parking, non-resident street parking should be short-term only through the use of parking time limits or pricing.
- Pick-up/drop-off zones for ride share services and kiss & ride should be provided in a manner that avoids conflicts with transit vehicles, pedestrians or bicyclists. Pick-up/drop-off zones should be located to reduce out of direction travel for vehicles and discourage risky maneuvers. To give priority to non-motorized modes pick-up/drop-off zones should be located at some distance from the transit station.
- Paratransit access should be provided near station locations to adequately serve transit riders with limited mobility.



With compact development, people drive 20-40 percent less, at minimal or reduced costs, while reaping other fiscal and health benefits.

—GROWING COOLER, URBAN LAND INSTITUTE

## 4.2.3 Density/Intensity

### Use Mix

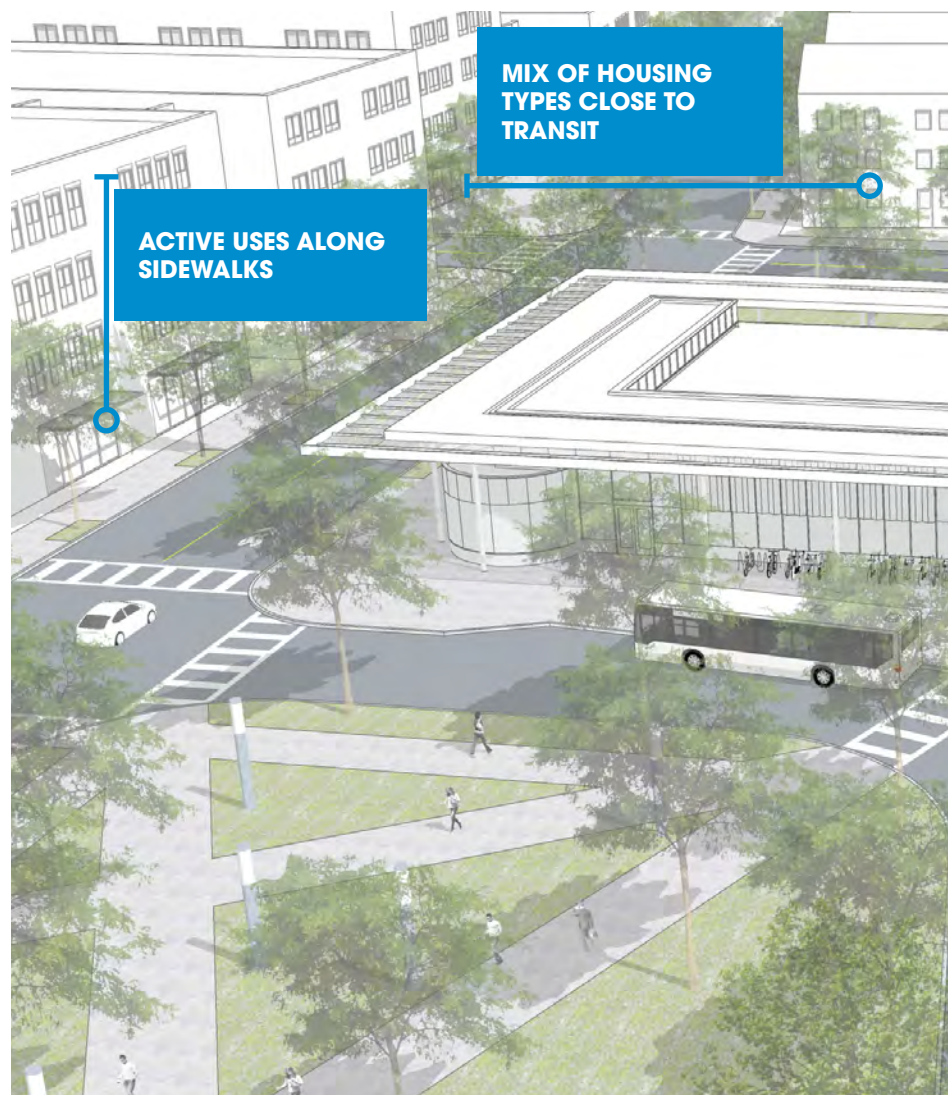
- TOD projects should be designed to include primary transit-trip generators plus supportive uses to serve for daily needs to reduce car dependency for non-commute trips. Primary trip generators may be high-density residential uses with complementary retail and service uses, or may be employment uses with supporting residential, retail and service uses.
- A mix of uses is critical at the core of a TOD project, surrounding the transit station, and should include high activity uses such as retail. Beyond the core area the use mix is less critical and predominantly residential or employment uses may be acceptable.
- Single-use developments are generally incompatible with TOD. The exception may be destination districts such as large sports or entertainment venues, or educational or medical campuses.

### Development Intensity

- TOD projects should provide an average development density and intensity sufficient to generate the ridership that supports the existing or desired transit service.
- The allocation of density/intensity in a TOD project may vary, depending on the location or context. A larger area with consistent density/intensity may be appropriate in urban locations, whereas a more confined core of high density/intensity development that transitions to lower density/intensity away from the station may be appropriate in a lower density context.

### Equitable Housing

- TOD projects should provide a range of housing types for households of varying ages, demographics, and income levels. Housing options for people relying on transit should be provided near stations.
- Inclusion of affordable housing is preferred, and should be incorporated in projects. DART encourages service areas cities to adopt targeted policy, regulatory, and incentive programs to promote workforce and affordable housing options. Localities should explore the following as methods to promote equity and affordability in TOD projects:

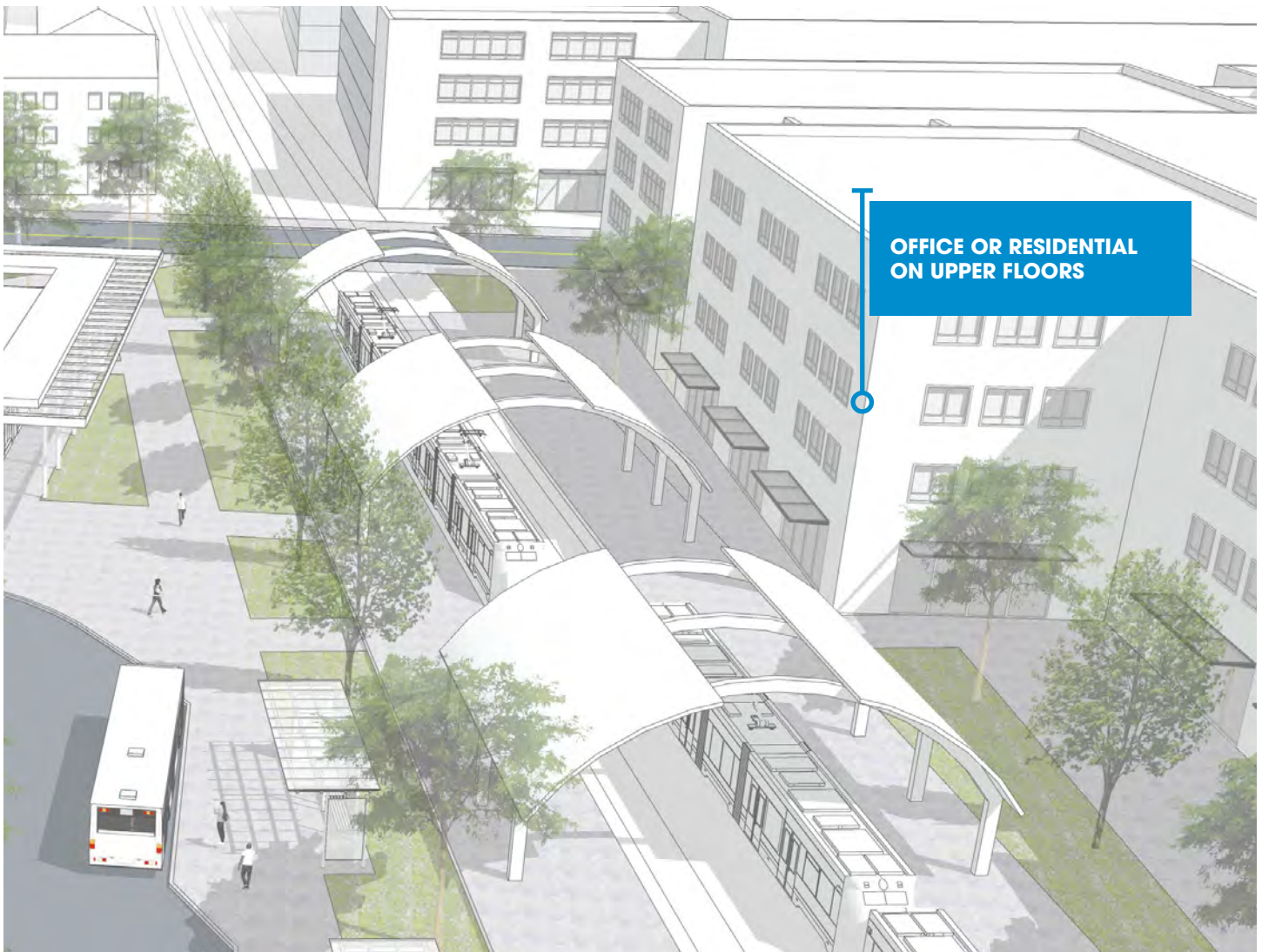


- » Adoption of equitable TOD policies by service area cities to support the creation and promotion of mixed-income and mixed-use communities around transit;
- » Development of policy, regulatory, and financial incentives to include workforce and affordable housing in projects on DART-owned sites.
- » Reduction or removal of project requirements with the potential to increase the cost of individual housing units, including parking minimums, impact fees, permit fees, etc.

- » Implementation of programs and initiatives at the local level designed to create or maintain affordability, limit project and per unit costs, and provide long term maintenance of cost restrictions, including low interest loans and grants for rehabilitation, reconstructed, and long term rent restrictions; incremental or wholesale densification of station areas through regulatory change or bonus provisions; inclusionary policies or requirements; regulatory, project review, and fee relief; and parking reductions and parking cost unbundling.

### Limits on Incompatible Uses

- Primarily auto-oriented uses (such as strip commercial or office park uses) or uses generating little to no pedestrian activity (such as warehousing or mini storage) are not compatible with TOD projects.
- Drive-thru restaurants or banks should not be permitted in TOD projects. If they are present, such uses should be located in the rear of buildings and designed to minimize their visibility from public streets and spaces.



## 4.2.4 Site & Building Design

### Building Scale

- Building heights within TOD projects should be the tallest near transit stations. A transition of building heights may be appropriate where a TOD project abuts a lower density/intensity development.

### Building Frontages

- Buildings should be placed along and oriented to public streets and public spaces. To maintain building continuity a significant percentage of the lot width should be occupied by a building located at the setback or build-to line.

- Primary building entries should be located along the street frontage with direct access from a public street or public space.
- Active ground floor uses such as retail and service establishments are encouraged, particularly on primary walking and cycling routes. To allow flexibility, ground floor ceiling heights that allow for commercial use should be encouraged irrespective of initial use.

### Facades

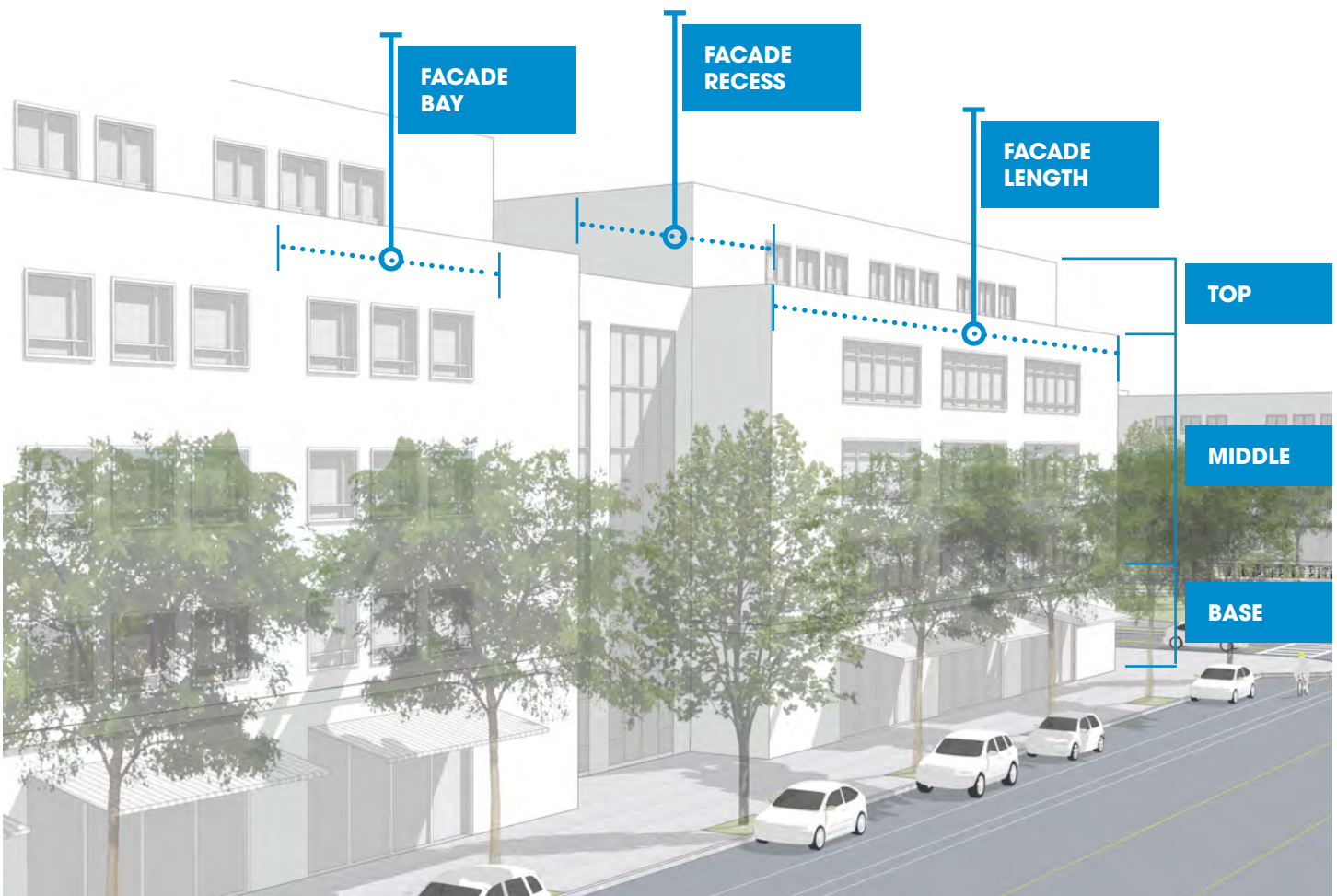
- Building facades should generally be designed with a distinct base, middle, and top. Long building facades should be composed of façade bays and intermittent recesses.
- Building facades along streets and public spaces should be designed with attractive ground floor facades, well-defined building entries, and quality building materials.
- Ground floor facades of buildings with ground floor retail, restaurant, office, professional service, and personal service uses should be designed with a high percentage on transparent windows and doors.



- Ground floor facades of buildings with residential uses should provide vertical separation and enhance privacy by slightly elevating the finished floor elevation of ground floor residential space along pedestrian walkways.
- Blank façade walls should be discouraged and limited in size to maintain an interesting streetscape.

### Off-Street Parking

- Off-street parking should be placed behind buildings and out of sight from public spaces.
- Transit park and ride lots or structures should be located with sufficient distance from transit stations to encourage pedestrian flow along streets lined with businesses.
- TOD projects should provide a limited supply of parking to encourage the use of transit, walking and bicycling. A reduction of required parking should be considered. Shared parking strategies should be considered to reduce the overall parking supply and increase the efficiency of use of available land.
- Long-term parking intended for park-and-ride service and kiss-and-rides (drop-off locations) and rideshare pickup areas are located some distance from the stop (approximately 1/8 of a mile) to encourage transit users to frequent local businesses and services along the way.





## APPENDIX A

### Transit Oriented Development Policy

**DATE ISSUED:** October 24, 1989  
**Resolution No.** 890135  
**Amended by Resolution:** 080131, 150106, 200033  
**Policy No.** IV.03 (Planning)

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#### Section 1. Purpose

DART is the steward of a significant public investment which includes important real property assets. These real property assets can also be used to leverage the viability of the transit system and to add to its value to the community. Continuing expansion and maturation of the transit system along with federal, regional and local initiatives that direct and concentrate transit oriented development and urban infill around transit facilities enhance the value of these assets. DART seeks to work in close partnership with its service area cities to identify and implement Transit Oriented Development (TOD) opportunities which reflect service area cities land use, housing, parking, and other related goals and policies. Promoting quality transit oriented development on or near the DART transit system can elevate the quality of life, attract riders and generate new opportunities to create direct and indirect revenue for DART, and environmentally sustainable livable communities that are focused on transit accessibility.

#### Section 2. Definitions

2.1 Transit Oriented Development (TOD) is walkable by design and characterized by the integration of transit facilities or elements, either bus or rail, throughout the development of intensive, high quality uses oriented towards DART facilities by others and/or development which is located adjacent to a transit facility. Transit Oriented Development shares a functional or financial relationship to the transit system.

2.2 Joint development is a subset of TOD and is development in which DART has a formalized relationship with a developer or service area city for land use, infrastructure improvements, and shared facilities.

2.3 Livable Communities are places where transportation, housing and commercial development investments have been coordinated so that people have access to adequate, affordable and environmentally sustainable transit and housing options.

2.4 Walkable by design is to create linked clear and continuous pedestrian circulation with buildings, transit, and open space oriented to the sidewalks and with parking located behind or under the building.

2.5 Shared parking is parking that serves multiple destinations within walking distance and accommodates various uses that have high demand during different periods of the day.

2.6 Parking structures designed for alternative future uses are parking structures designed with horizontal floors, comfortable floor to ceiling heights and loading capacity to accommodate another structural use such as housing, office, or retail.

2.7 Sustainable Development meets the needs of the present without compromising the ability of future generations to meet their own needs.

## Transit Oriented Development Policy

### Section 3. Goals

DART recognizes that Transit Oriented Development can be a means to accomplish the following goals:

- 3.1 Enhance the quality of life through the coordinated development of accessible pedestrian and non-motorized environments at transit stops and stations.
- 3.2 Increase transit ridership through the coordinated planning of land use and quality development projects on and around DART station properties and along DART transit routes and corridors.
- 3.3 Enhance the value of DART real property and other assets by designing transit facility access, and circulation to accommodate future TOD while maintaining accessibility and visibility to transit.
- 3.4 Contribute to the on-going economic vitality of service area cities while expanding opportunities for a broad range of housing and employment options serving increasingly diversified populations.

### Section 4. TOD Strategies

- 4.1 DART seeks to foster cooperative relationships with other governmental entities, local communities, and the private sector for the development of comprehensive development plans, station area plans, innovative approaches to parking, property acquisition and disposition, and development of financial strategies and tools such as assessment districts, tax increment finance districts, or improvement districts, any of which may be located on and off DART property.
- 4.2 DART seeks to coordinate the development of livable communities at or around DART transit facilities through planning efforts with

other governmental entities and communities in the DART service area early on in the development process to enhance multi-modal access to and from DART stops and stations and ensure appropriate transit supportive uses.

- 4.3 DART seeks to enhance the future value of planned DART facilities for TOD through one or more of the following:
  - a. strategic acquisition of property and/or use of underutilized parking spaces to capture potential TOD opportunities;
  - b. early design of transit facility elements such as, parking, circulation, and access;
  - c. platform and infrastructure placement and orientation, in anticipation of reallocating surface parking spaces to incorporate eventual transit oriented uses. When feasible, these spaces should be integrated into TOD through the use of shared parking structures designed for alternative future uses.
- 4.4 DART seeks to encourage direct connections, including pedestrian and alternative modes, to transit stops and stations from surrounding development. Projects shall be consistent with City/Community TOD policies and plans.
- 4.5 DART seeks to use the appropriate method of disposing of DART real property for Transit Oriented Development projects to achieve specific development objectives, incorporate service area cities' housing goals, and demonstrate a financial benefit to DART.

## **Transit Oriented Development Policy**

### **Section 5. Implementation Process**

The President/Executive Director or his designee shall develop written procedures necessary to fully implement this Policy.