

# DALLAS AREA RAPID TRANSIT RED & BLUE LINE CORRIDORS TRANSIT-ORIENTED DEVELOPMENT STUDY

FEDERAL TRANSIT ADMINISTRATION  
TOD PLANNING PILOT GRANT SUMMARY  
AND CORRIDOR STRATEGY

JUNE 2021

*Image source: Authors*



North Central Texas  
Council of Governments

## What is NCTCOG?

The **North Central Texas Council of Governments** (NCTCOG) is a voluntary association of, by, and for **local governments** within the 16-county North Central Texas Region. The agency was established by state enabling legislation in 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development. Its purpose is to strengthen both the individual and collective power of local governments, and to help them recognize regional opportunities, resolve regional problems, eliminate unnecessary duplication, and make joint regional decisions – as well as to develop the means to implement those decisions.

North Central Texas is a 16-county **metropolitan region** centered around Dallas and Fort Worth. The region has a population of more than 7 million (which is larger than 38 states), and an area of approximately 12,800 square miles (which is larger than nine states). NCTCOG has 229 member governments, including all 16 counties, 169 cities, 19 independent school districts, and 25 special districts.

NCTCOG's **structure** is relatively simple. An elected or appointed public official from each member government makes up the **General Assembly** which annually elects NCTCOG's **Executive Board**. The Executive Board is composed of 17 locally elected officials and one ex-officio non-voting member of the legislature. The Executive Board is the policy-making body for all activities undertaken by NCTCOG, including program activities and decisions, regional plans, and fiscal and budgetary policies. The Board is supported by policy development, technical advisory and study **committees** – and a professional staff led by **R. Michael Eastland**, Executive Director.



NCTCOG's offices are located in Arlington in the Centerpoint Two Building at 616 Six Flags Drive (approximately one-half mile south of the main entrance to Six Flags Over Texas).

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### **NCTCOG's Department of Transportation**

Since 1974 NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

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Prepared in cooperation with the U.S. Department of Transportation (Federal Highway Administration and Federal Transit Administration) and the Texas Department of Transportation. *The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do not necessarily reflect the views or policies of the Federal Highway Administration, the Federal Transit Administration, or the Texas Department of Transportation.*

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# ACKNOWLEDGEMENTS

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Special thanks to our project partners for their support of and coordination on this study:

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# INTRODUCTION

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The Dallas Area Rapid Transit (DART) Red and Blue Line Corridors Transit-Oriented Development (TOD) Planning Study examines existing development character, performance, and function to identify opportunities for advancing further TOD and increased transit ridership. This Corridors summary report combines three targeted efforts: pedestrian and bicycle access, parking, and a resident/business survey, to synthesize overall TOD improvement strategies for the Red and Blue Lines.

TOD has been an important planning solution to the Dallas-Fort Worth region's continued rapid growth and subsequent increased travel demand. The Red and Blue Lines opened stations between 1996 and 2004 and provides a unique opportunity to study North Texas TOD as the origin of DART's light rail system. Since that time, many transit-oriented developments including the notable Mockingbird Station have been built near Red and Blue Lines stations. DART rail stations have created a billion-dollar property value stimulus resulting increasingly valuable high-density development.<sup>1</sup> As the Red and Blue Lines pass 20 plus years of supporting transit-oriented development it is important to reflect on what created TOD success but also understand ongoing challenges related to transit ridership.

A regional partnership of the North Central Texas Council of Governments (NCTCOG); DART; and the Cities of Dallas, Garland, Plano, and Richardson launched a strategic planning study for the 28 DART Red and Blue Lines stations included in the Core Capacity Platform Extension Project funded by Federal Transit Administration's (FTA) Capital Investment Grant program. The plan addresses substantial barriers to TOD in the Corridors and will further enable mixed-use development, increase last-mile pedestrian and bicycle connectivity, and address infrastructure needs to advance economic development and increase ridership. By studying existing corridors, data and insights generated in this pilot study can be applied to TOD policy at all stations in the DART system as well as all cities and transit agencies in the North Texas region.

## TOD DEFINITION

Transit-Oriented Development (TOD) is a style of planning and development that encourages pedestrian activity with a mix of higher density employment, housing, and commercial land uses within a half-mile walking distance of a passenger rail station. TOD encourages the choice to bike or walk, in combination with transit use through a well-designed, accessible built environment and connected network of bike and pedestrian facilities that reduces automobile dependence.

The COVID-19 pandemic has significantly reduced transit ridership in North Texas and may present ongoing challenges to TOD. Much of the information and data presented in this document was collected prior to the pandemic and may not be able to incorporate unpredicted shifts in travel behavior as a result. However, TOD is still important to addressing congestion, limited infrastructure funding, safety and other goals that will be prevalent even after the COVID-19 pandemic concludes.

<sup>1</sup> Dallas Area Rapid Transit. (2017). The Economic and Fiscal Impacts of Development near DART Stations. Retrieved on April 14, 2021 from <https://www.dart.org/about/economicimpact.asp>.

## FTA TOD PLANNING PILOT GRANT BACKGROUND

In 2016, the FTA awarded a transit-oriented development planning grant to NCTCOG to “help the region enhance accessibility and development around 28 Dallas Area Rapid Transit (DART) stations along the system’s Blue and Red Lines” (Figure 1.1). The objectives of the FTA TOD grant are:

- Address substantial barriers to TOD in the Corridors to increase rail ridership
- Identify infrastructure needs to increase pedestrian and bicycle connectivity to rail stations
- Further enable dense mixed-use development and advance economic development of the station areas.

The FTA program is aimed at integrating land use planning with a new fixed guideway or core capacity transit capital investments to support ridership on those systems. The DART Red and Blue Line Platform Extension capital project includes extending platforms and/or raising portions of the platform to permit level boarding at 28 stations constructed prior to 2004. The modifications will enable the platforms to accommodate three-car light rail trains (up from the current two-car capacity, increasing system-wide carrying capacity), and enhancing the network core capacity. The 28 DART Red and Blue Lines stations’ inclusion in the FTA’s Capital Investment Grant program for platform extensions made them eligible for FTA TOD planning pilot grant funds in 2016. This funding opportunity is being leveraged by the region to advance the ongoing TOD efforts of the DART Red and Blue Lines even further.

## CORRIDOR TOD HISTORY AND IDENTIFIED BARRIERS

The DART Red Line’s initial 11 miles of light rail opened in June of 1996 as the first corridor of modern rail transit in the North Texas region. By 2002 DART had completed construction of the first 44 miles of Red and Blue Lines light rail and 34 stations. Even as the rail system was being planned and constructed, TOD planning and initial concepts were discussed and anticipated in the region. What may be considered one of the first TOD examples in the region, outside of the Dallas or Fort Worth central business districts, the Mockingbird Station mixed-use development was complete by 2002. Since that time, an estimated 138 TOD projects have been built along the Red and Blue Lines. This reflects a growing market for walkable urban development in the region and the proactive public/private partnership in the Cities

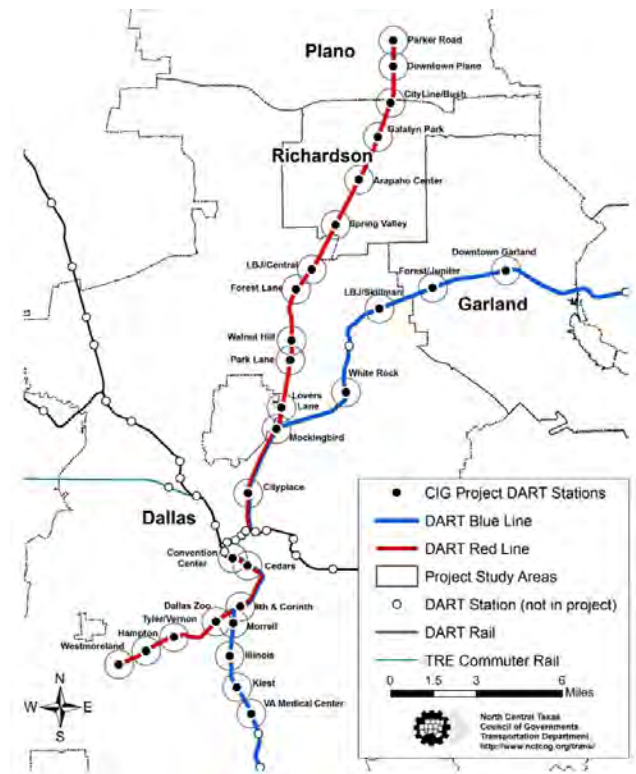


Figure 1.1: DART Red and Blue Line Stations in grant

of Dallas, Plano, Richardson, and Garland, using NCTCOG’s Sustainable Development Call for Projects to launch TOD catalyst projects to revitalize their historic downtowns and key stations.

Most TOD projects on these rail lines have required careful planning and design as a result of the rail line being created out of former Southern Pacific and Union Pacific freight rail corridors running through areas of land use and built environment design not originally ideal for TOD, such as industrial or low-density uses.

NCTCOG’s Sustainable Development Program was initiated in 2001 and has continued to support TOD in the region through a combination of implementation assistance, data collection, and training events. NCTCOG established a TOD Task Force in partnership with three local transit agencies and staff members from local governments currently served by rail transit. (This group has now been consolidated into a larger Coordinated Land Use and Transportation Planning Task Force). The NCTCOG Sustainable Development Call for Projects has also awarded approximately \$124 million to support TOD infrastructure and planning projects throughout the region from 2001 through 2010.

Through NCTCOG's coordination on TOD with cities and transit agencies in the region, the need had been identified to better understand unique challenges to TOD in our generally automobile oriented region. Based on that understanding NCTCOG designed the scope of this TOD study's three major strategic tasks:

1. Pedestrian and Bicycle Last-Mile Infrastructure Study, which is an assessment of priority last mile routes to rail stations where pedestrian and bicycle infrastructure improvements will increase access and connectivity for the greatest number/density of residents and workers.
2. Parking Utilization and Management Study that collected data of automobile parking utilization at existing TOD projects. The study focuses regulatory changes supporting transit-appropriate parking ratios and management for higher density mixed-use developments.
3. TOD Residential and Employment Survey that examined who occupies the developments around the stations. How do they travel and perceive transit when making choices on living or working there? This data can result in strategies and recommendations to address barriers expressed by the stated preferences and opinions of those near the station who may or may not use transit currently.

## **RED AND BLUE LINE CORRIDORS SUMMARY DOCUMENT**

This document reviews the existing TOD context of the Red and Blue Lines stations and the findings from the three focused studies to create recommendations for advancing further TOD leading to increased transit ridership in the Corridors. To fully understand the findings of our three study tasks for the FTA TOD planning pilot for the DART Red and Blue Lines they should be viewed with a measure of how TOD is performing and the context of land use and transportation around it. The performance and context are measured through data such as ridership, demographics, density, zoning, economic programs, and inventory of development projects. Following a summary of these measures, key findings of the three studies will be covered briefly (full independent documents available online at [www.NCTCOG.org/TOD](http://www.NCTCOG.org/TOD)). Finally, policy and implementation recommendations for the Corridors are provided using the combined insight from all elements.



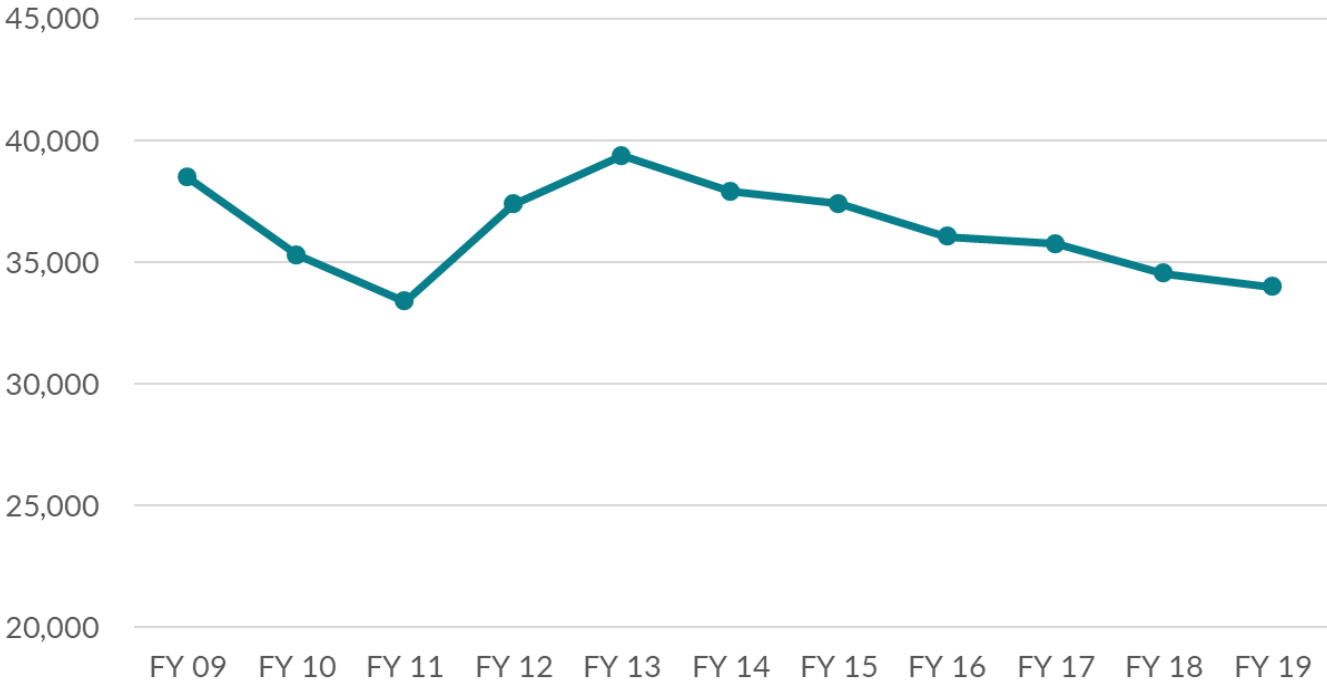
# TOD PERFORMANCE

For the purposes of this planning effort, two dimensions are used to evaluate the Corridors' TOD implementation performance: station average annual weekday ridership and the presence of TODs as noted through the TOD Inventory. Ridership was selected based on the goal of the FTA TOD Planning pilot grant to increase transit ridership. The TOD Inventory is used to show the outcome of land use policy. This is not a comprehensive evaluation of all performance dimensions but serves as a useful benchmark in this planning effort to evaluate TOD progress and inform the findings of the three studies.



Increasing transit ridership is often stated as a primary goal of TOD. To measure ridership trends in these corridors, annual ridership by station was collected from DART Reference Book publications. Average annual weekday ridership counts from Fiscal Years 2009 to 2019 for the 28 pilot light rail stations fluctuated from 2009 to 2013 but has since flattened out. Overall, the DART Red and Blue Line Corridors experienced 12 percent lower ridership in 2019 than in 2009, as shown in **Figure 2.1**.

*Figure 2.1: Changes in DART Average Weekday Ridership from Fiscal Year 2009-2019.*



DART’s annual reference book notes data collection methods changed in 2011 from physical head count samples to Automated Passenger Count (APC) samples. APC samples were shown to provide a higher average and total passenger trip count than physical counts. Additionally, DART added the Orange Line in 2010 that may have increased ridership along the north end of the Red Line Corridor. While the Red and Blue Lines decreased in ridership across a 10-year period, overall DART light rail transit (LRT) ridership increased by 43.5 percent between 2009 and 2019. This is likely due to the addition of the Orange and Green Lines to the DART LRT network. However, both the overall DART LRT system and the Red and Blue Lines have experienced a diminishing rate of change in ridership from 2015 to 2019, resulting in a flatter trend curve across the last four years. Ridership changes for all 28 stations are included in **Figure 2.2**

2 Dallas Area Rapid Transit. (2020). Dallas Area Rapid Transit Reference Book. Retrieved on February 11, 2021 from <https://www.dart.org/about/DARTReferenceBookMar20.pdf>.

Stations showing the greatest **increase** in ridership across a 10-year period are:

1. LBJ/Skillman +58%
2. LBJ/Central +25%
3. Cityline/Bush +11%
4. Forest Lane +10%
5. Morrell +6%

Stations showing the greatest **decrease** in ridership across a 10-year period are as follows:

1. Tyler/Vernon -45%
2. Downtown Garland -39%
3. White Rock -38%
4. Hampton -33%
5. Forest/Jupiter -31%

Figure 2.2: DART Average Weekday Ridership from Fiscal Years 2009 and 2019 by Station

STATION	FY 2009	FY 2019	PERCENT CHANGE
8th and Corinth Station	2,090	1,514	-28%
Arapaho Center Station	1,300	990	-24%
Cedars Station	1,150	844	-27%
Cityline/Bush Station	1,220	1,352	11%
Cityplace Station	2,060	2,092	2%
Convention Center Station	840	663	-21%
Dallas Zoo Station	520	491	-6%
Downtown Garland Station	2,320	1,413	-39%
Downtown Plano Station	680	660	-3%
Forest Lane Station	1,620	1,786	10%
Forest/Jupiter Station	1,140	791	-31%
Galatyn Park Station	480	386	-20%
Hampton Station	1,230	822	-33%
Illinois Station	1,120	1,165	4%
Kiest Station	1,300	1,008	-22%
LBJ/Central Station	930	1,164	25%
LBJ/Skillman Station	720	1,139	58%
Lovers Lane Station	1,200	1,143	-5%
Mockingbird Station	3,450	2,906	-16%
Morrell Station	500	531	6%
Park Lane Station	2,050	2,070	1%
Parker Road Station	3,200	3,325	4%
Spring Valley Station	1,200	1,227	2%
Tyler/Vernon Station	490	270	-45%
VA Medical Center Station	910	712	-22%
Walnut Hill Station	1,250	944	-24%
Westmoreland Station	2,550	1,997	-22%
White Rock Station	950	589	-38%
<b>Overall</b>	<b>21,920</b>	<b>19,423</b>	<b>-12%</b>

Changes in ridership is one station-level TOD performance measure. The overall DART Red and Blue Line Corridors have decreased in ridership across the 10-year period, but some individual stations have experienced ridership increases. While TOD factors like zoning and station real estate market will be discussed in this report, ridership can be influenced by several factors outside of local control such as the broader economy, commuter perceptions, and historic automobile-oriented design and public investment. These larger external elements indicate that local governments do not have direct control on increasing ridership in the Corridors, but this report will focus on, and inform, the significant influences local government can have on the built environment context.





Identifying and inventorying TODs in the Red and Blue Line Corridors is important to evaluating and improving local TOD policy. Providing examples of what a TOD looks like in North Texas can also help different stakeholders understand possible development outcomes in real world settings. Creating an inventory requires a definition of TOD to be applied to identify developments. The definition used has been adjusted to fit local context which may differ in specific areas from national and international TOD definitions. This inventory accounts for that by including a review of common TOD design criteria for each project. The result is a TOD inventory that serves as one metric of many to evaluate progress towards better transit-orientation.

Potential TODs were identified through staff observation and consideration of TOD characteristics including developments located within a half-mile of the 28 pilot stations and those built any time after station construction completion, or five years prior.

Development identification was further refined based on the form and density of the building(s) – those which had an urban form with limited street setbacks. Additionally, older buildings of significant scale that had been recently redeveloped to increase their transit-orientation were identified. Recent developments that may not meet TOD form and density requirements but were planned with TOD intent are also included in the inventory.

In addition to identification, developments were evaluated by standard TOD design criteria. It is recognized that some TODs in this inventory may be more or less “transit-oriented” than the ideal definition of TOD. These “ideal” TOD criteria were developed from a summary of national transit-oriented and pedestrian-oriented design guidelines, including Pedestrian and Transit-Oriented Design and The ITDP TOD Design Standard. The detailed list of TOD design criteria used to review North Texas transit-orientation patterns is described in **Figure 2.3**.

Figure 2.3: Standard TOD Design Criteria Derived from National Literature

DESIGN CRITERIA	DESCRIPTION
<b>Facade Articulation and Fenestration</b>	Building articulation and texture of physical elements match the size and proportions of humans (human-scale). Lower-level walls, windows, and entrances have a level of transparency to allow the perception of activity inside the building from the street.
<b>Quality of Pedestrian Streetscape</b>	Buildings create a sense of enclosure and comfort for pedestrians and complexity of space through the presence of “street walls”, sidewalk furniture, landscaping, awnings, and fences. Sidewalk is buffered by trees/landscaping in context to roadway. Buildings engage with sidewalk, limit driveway interruptions and blank/barrier walls, have significant frontage with limited setback.
<b>Placement and Quality of Entrances</b>	Entrances are oriented to the station or pedestrian paths, create multiple points of access to the building and have visible paths of entry, creating a sense of arrival.
<b>Building Setback</b>	Buildings have minimal setbacks (parking is not located between the entrance and the street), are oriented towards the street rather than a parking lot, with the lower level adding to sense of enclosure in the pedestrian streetscape.
<b>Development Parking Design</b>	Parking is limited to on-street parking, surface lots located to the rear of the development, or in garages. Ideally, shared parking facilities or lower parking ratios are used.
<b>Site Pedestrian Connectivity and Sidewalks</b>	Sidewalks are continuous around the development and connects to the existing adjacent pedestrian network, free from barriers. Developments include safe crossing infrastructure for pedestrians, where possible.

Developments were evaluated and assigned scores of 1, 2, or 3 in each standard TOD design criterion depending on how closely their design met national standards. A score of 3 is for a development that meets all noted elements of a design criterion. A score of 2 is for when only some of the elements are met and 1 is for a development that barely meets or does not meet the design criterion standard.

Retrofit of older or historic developments around stations were not included in the overall corridor's score as they were not originally designed with transit in mind. However, they are included in the inventory as they still provide valuable insight into the market for transit-oriented developments and highlight public incentives for TODs.

## FINDINGS

Within a half-mile of the 28 pilot stations, 138 sites, were determined to meet the density, form, and building age requirements – qualifying them as TODs. Through staff assessment, 15 of the 138 qualifying TODs met all standard national TOD design criteria. These “ideal” TODs are included in **Figure 2.4**. An example of a development that generally met all standard TOD design criteria is Anthem Cityline, shown in **Figure 2.5a**. Additional identified TOD projects are shown in **Figures 2.5b-d**. **Figure 2.6** displays the 28 pilot stations and the location of project sites.

Figure 2.4: North Texas TODs that met all Standard National TOD Design Criteria

DEVELOPMENT NAME	ADDRESS	CITY	STATION
South Side Flats by Jefferson	1210 S Lamar St	Dallas	Cedars Station
Canopy by Hilton Dallas Uptown	2950 Cityplace W Blvd	Dallas	Cityplace Station
Flats at the Sawyer	3636 McKinney Ave	Dallas	Cityplace Station
Lennox West Village	3700 Cole Ave	Dallas	Cityplace Station
Mockingbird Station Retail (Angelika)	5321 E Mockingbird Ln	Dallas	Mockingbird Station
CityLine Park	1130 CityLine Dr	Richardson	CityLine/Bush Station
Windsor CityLine	1250 Hunt St	Richardson	CityLine/Bush Station
Anthem CityLine	1250 State St	Richardson	CityLine/Bush Station
Aloft Hotel	1160 State St	Richardson	CityLine/Bush Station
Alexan Crossing	120 W CityLine Dr	Richardson	CityLine/Bush Station
Axis 110	110 W CityLine Dr	Richardson	CityLine/Bush Station
Bel Air K Station	1013 15th Pl	Plano	Downtown Plano Station
Oaks 5th Street Crossing at City Center	351 N 5th St	Garland	Downtown Garland Station



FIGURE 2.5A ANTHEM CITYLINE  
(CITYLINE/BUSH STATION)

Image Source: Authors



FIGURE 2.5B THE BEAT LOFTS  
(CEDARS STATION)

Image Source: Authors



FIGURE 2.5C FLATS AT THE SAWYER  
(CITYPLACE/UPTOWN STATION)

Image Source: Authors



FIGURE 2.5D MOCKINGBIRD STATION  
RETAIL (SMU/MOCKINGBIRD STATION)

Image Source: Authors



Figure 2.6: DART Red and Blue Line Identified TOD Projects by Station

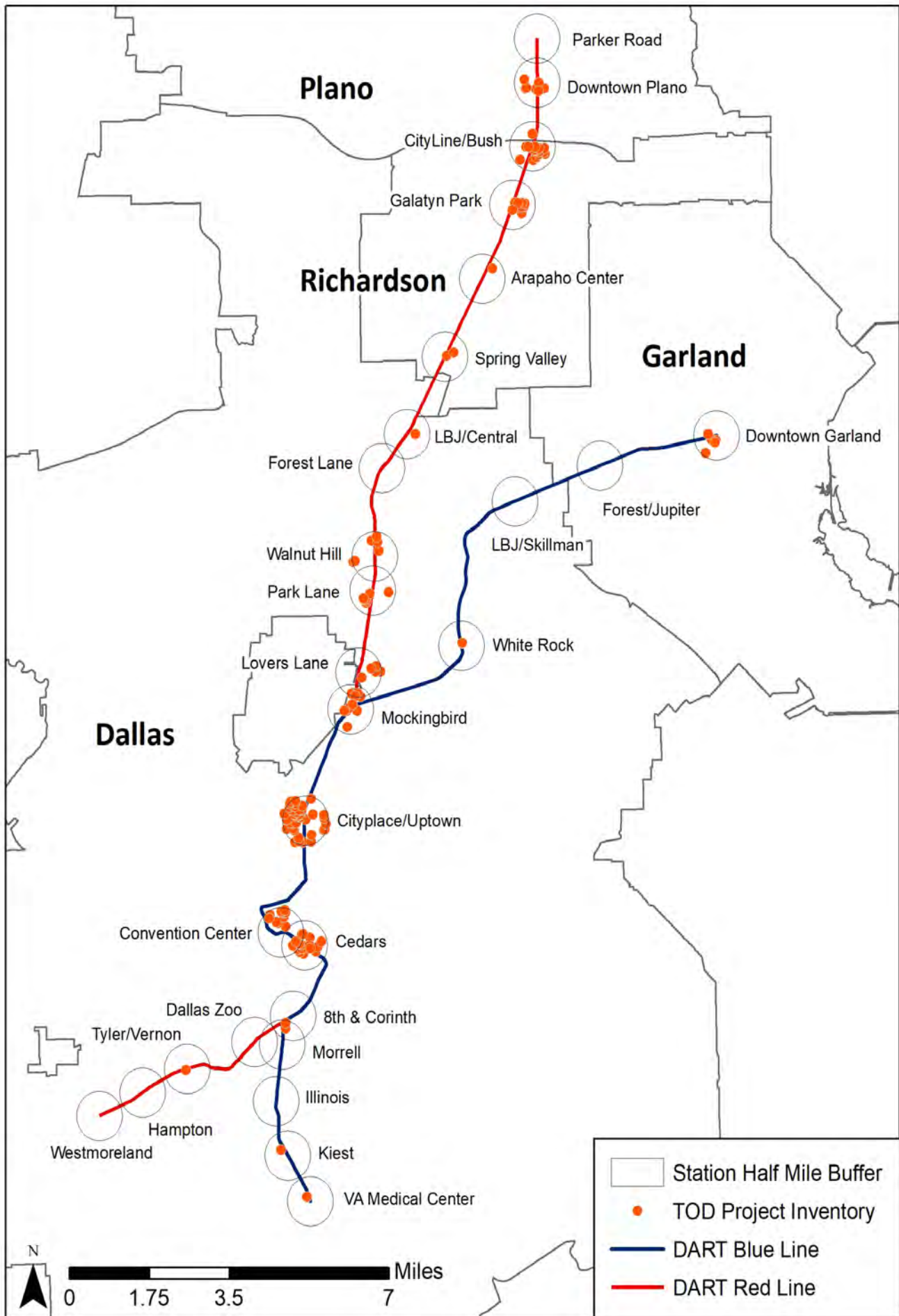
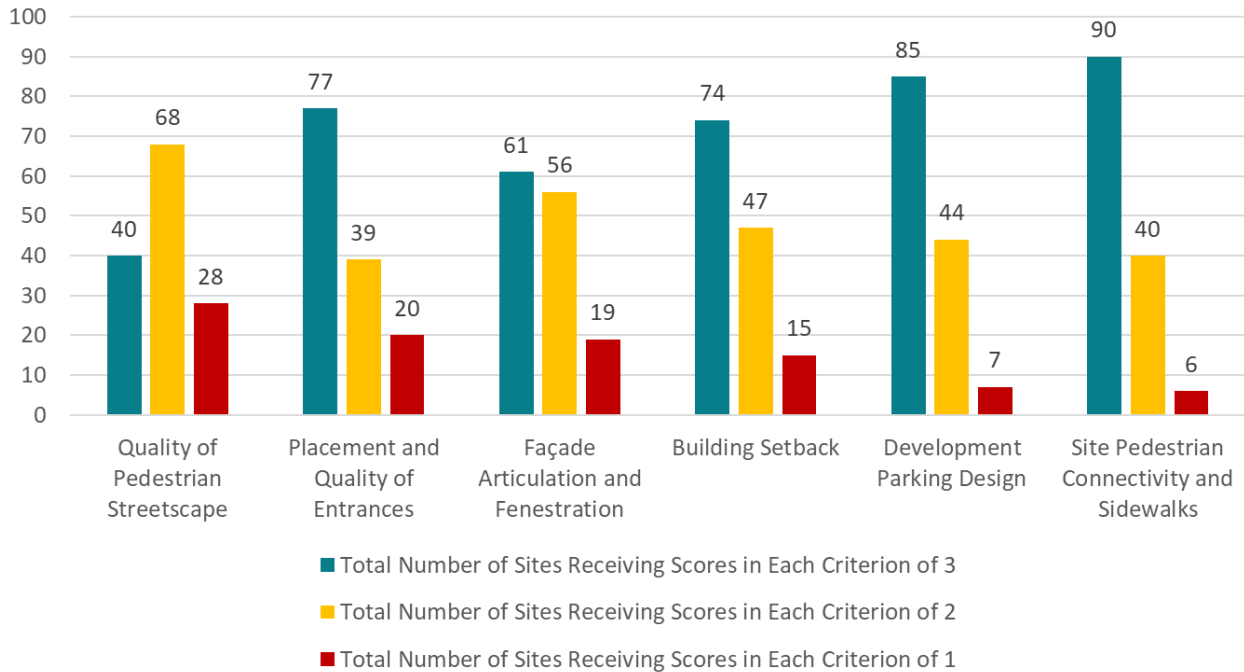


Figure 2.7 illustrates the number of developments that received a given score for each design criterion. The three design criteria that were not met for the greatest number of developments are:

- Quality of Pedestrian Streetscape
- Placement and Quality of Entrances
- Façade Articulation and Fenestration\*

Figure 2.7: Total Number of Sites Receiving Scores for Each Criterion



A list of the 138 identified TODs and resulting design criterion scores are included in **Appendix A**.

This inventory of TODs along the DART Red and Blue Lines pilot stations reveals that there are some good examples of development supporting an active, safe, and convenient public realm -- yet there are many implementation practices in need of improvement. This inventory also indicates that transit corridors could benefit from improving design specifically in façade articulation and fenestration, quality of pedestrian streetscapes, and entrance placement.

The DART Red and Blue Lines pilot stations TOD inventory includes many TOD project examples along the Corridors which can be used to inform TOD policy. Combined with design criteria evaluation, the TOD Inventory allows flexibility when defining local TODs without ignoring our region's need for improvement in implementation. The inventory indicates additional station areas could benefit from increased TOD policy and is a useful metric to evaluate barriers to TOD implementation when combined with other measures like ridership, zoning, and real estate markets.

\*Fenestration is defined as the arrangement of windows and doors on the elevations of a building. In the context of Transit-Oriented Developments, fenestration refers to windows or entrances that are human scale and placed in a manner that is welcoming to a pedestrian (e.g. at a street corner). It also creates a sense of activity on both sides of the opening (e.g. plate glass windows on the first floor).



# LOCAL POLICY CONTEXT

TOD on the DART Red and Blue Line Corridors cannot happen without the appropriate development policies. Understanding how we advance more TOD and related ridership means evaluating how zoning and economic development policy have impacted the land around DART stations. This section will summarize the previous planning efforts, existing zoning, and general trends of economic incentives to contextualize the past and ongoing support and enablement of TOD from local government.





DART Red and Blue Line Corridors TOD Planning Pilot Study offers the opportunity to study the progress of TOD in the Dallas – Fort Worth region’s oldest modern rail transit corridors. The numerous station area plans pre-dating this study can be used to understand general goals and previous efforts to support TOD. Detailed descriptions and weblinks to the plans in **Figure 3.1** are included in **Appendix B**.

Station area plans provide an opportunity to coordinate different public agency efforts to advance TOD as well as embrace local community input. Only 13 of the 28 stations have area plans that either explicitly reference TODs, or a DART station. Two of the included plans are not specifically TOD focused but support related concepts. Three of the plans are over a decade old and would likely benefit if updated. Most of the plans deal with concepts of catalytic redevelopment to build higher density in coordination with pedestrian improvements and rezoning as needed.

Figure 3.1: Existing DART Red and Blue Lines Station Area Plans

PLAN	AGENCY	YEAR	STATION(S)	RECOMMENDATIONS/ NOTES
TOD Policy	DART	2020	All	Resolution formalizing DART’s TOD goals and strategies. Also authorizes implementation procedures of these policies.
TOD Guidelines	DART	2020	All	Outline of recommended TOD design, TOD typology, DART’s role in TOD, and opportunities for DART property.
Dallas Zoo Area Land Use Study	City of Dallas	2001	Dallas Zoo	Encourages DART transit connections, improve bicycle and sidewalk connections, does not reference TOD concept.
Vickery Meadow Station Area Plan	City of Dallas	2013	Park Lane and Walnut Hill	Aims to stimulate TOD development, redevelopment, and infrastructure improvements around two stations.
The 360 Plan	City of Dallas	2017	Convention Center and Cedars	Outlines multi-modal connectivity improvements and identifies increasing the number of TODs as a priority.
LBJ /Skillman Urban Planning Initiative Study	NCTCOG	2014	LBJ/ Skillman	Collaborative study to identify ideas for future catalytic redevelopment and TOD development of currently undeveloped properties.
Lancaster Corridor Station Area Plan	City of Dallas	2013	Kiest and VA Medical Center	Outlines a catalyst development plan, adaptive re-use action plan, and implementation guidelines for TOD.
Downtown Garland Urban Design Guidelines	City of Garland	2010	Downtown Garland	Lays out guidelines for streetscape design to achieve a more active pedestrian-friendly area, does not reference TOD concept.
Forest-Jupiter Transit-Oriented Redevelopment Plan	NCTCOG	2013	Forest/ Jupiter	Study of three Targeted Investment Areas identified as prime locations for public/private redevelopment projects, one of which is intended for a TOD area.
Downtown Plano Vision and Strategy Update	City of Plano	2019	Downtown Plano	Update to the 1999 Downtown Plano Transit Village Plan, expanding initial vision to include TOD south to the planned 12th Street DART Cotton Belt Station.
Spring Valley and Main Street Station Area Plans	City of Richardson	2003	Spring Valley	Proposed higher-density TOD development, mixed-use development, and pedestrian-centric infrastructure near stations.
Collins/Arapaho TOD and Innovation District Study	City of Richardson	2019	Arapaho Center	Identifies strategies to redevelop key areas in the study area, resulted in a TOD-supportive planned unit development (also known as planned development) zone for a form-based code.



Zoning that permits TOD style projects to be built is essential to their existence. Zoning is the land use control in the DART Red and Blue Line Corridors and can either advance or eliminate the presence of TOD through permitted uses, requirements, and design standards. Evaluating zoning codes along DART’s Red and Blue Line Corridors for likely TOD-supportive requirements is important to understand the existing development framework that shapes regional TOD projects, as well as offer insight into best practices. **Figure 3.2** shows a conceptual project exhibiting transit and pedestrian friendly development style, ideally allowed, or encouraged, by TOD supportive zoning.

## METHODOLOGY

Base zoning districts located within a half mile radius of each pilot station from the cities of Dallas, Garland, Plano, and Richardson were assessed for likely TOD supportive elements. The first screening of base zoning districts looked at requirements for development intensity and scale. NCTCOG’s Sustainable Development Zoning Guidebook<sup>3</sup> outlines metrics by which to evaluate development scale and intensity, including:

- Higher Density: The zoning district’s density standards, if present, encourage higher density (i.e.,  $\geq 15$  dwelling units per acre, FAR  $\geq 1$ ).
- High Lot Coverage: Permissible lot coverages are high to foster compact growth (i.e.,  $\geq 60$  percent).
- Greater Building Height: The minimum allowable height standards encourage transit-supportive densities (i.e.,  $\geq$  three stories minimum).
- Minimal Setbacks: Minimal setback requirements or built-to-lines enable buildings to be close to the street (e.g., zero feet minimum setback from sidewalk).

While these are distinguishing characteristics of TODs, development intensity and scale alone may not lead to successful TOD projects. Even if a project meets density and scale elements of a TOD, parking design and placement can significantly impact a project’s transit-orientation

Figure 3.2: Pedestrian Friendly Urban Development

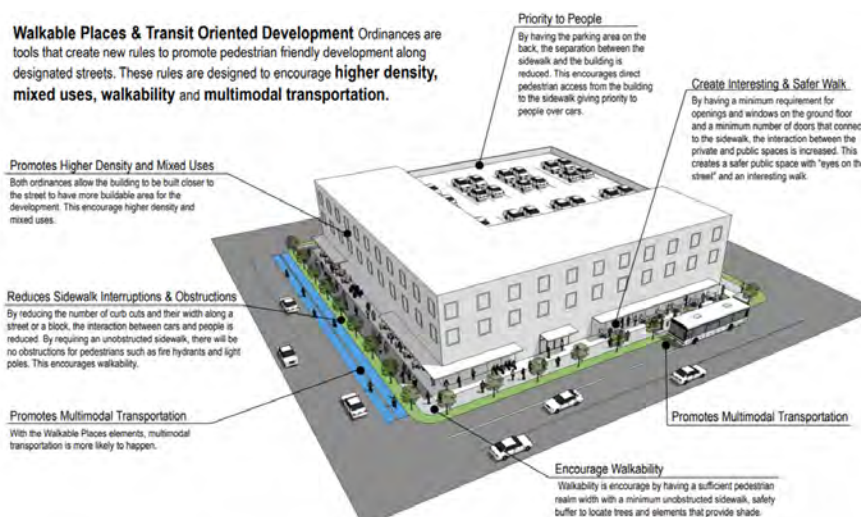


Image Source: City of Houston Walkable Places Committee

<sup>3</sup>North Central Texas Council of Governments. (2016). North Texas Sustainable Zoning Guidebook. Retrieved on March 23, 2021 from [https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/Dev/Guidebook\\_FINAL\\_121316.pdf](https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/Dev/Guidebook_FINAL_121316.pdf).

<sup>4</sup>City of Houston Walkable Places Committee. (2019). Pedestrian Friendly Urban Development. Retrieved March 23, 2021 from [http://www.houstontx.gov/planning/Commissions/docs\\_pdfs/WP&TOD\\_Exhibits\\_2.pdf](http://www.houstontx.gov/planning/Commissions/docs_pdfs/WP&TOD_Exhibits_2.pdf).

depending on whether priority is given to the automobile. As such, zoning was additionally screened for parking design requirement/guidance -- including parking placement. Design/parking strategies are listed and defined in **Appendix C.1**.

Classification of a base zoning district as Likely TOD-Supportive does not necessarily mean TOD will exist there. This analysis looks only at where zoning would likely allow, but may not require, development consistent with general TOD design. In this analysis, designations of “non-supportive” and “supportive” are estimates of the likelihood of TOD style projects being permitted by right. Detailed rules that exist in various parts of city code outside the base zoning district that may influence development may not be reflected here. Land area of each zoning district was calculated in ArcGIS using only the portion of each city’s provided zoning district layer that fell within the half-mile station buffer. The table listing all reviewed base zoning districts and Likely TOD-supportive or Non-TOD supportive classification is included in **Appendix C.2**.

Planned unit developments (PUDs) also known as planned developments (PDs) zoning may generally be favored by cities in the Corridors because it is flexible and allow variation as needed. However, this also makes them difficult to classify as that high variability means they may or may not support TOD according to unique entitlement agreements. Reviewing every unique site PUD ordinance and associated development plan on the Corridors requires more time and resources than available in this study. As such, most PUDs were not evaluated as part of this analysis. Isolated, single development, “spot” zoning PUDs in the Corridors were not reviewed and have not been classified below as either supportive or non-supportive. It is acknowledged several district level PUDs exist on the corridors and are typically more TOD-supportive, however identifying them comprehensively across the corridors was not included as part of this study.

## FINDINGS

For the overall DART Red and Blue Line corridors, approximately 58 percent of all station area land is likely non-TOD supportive base zoning, while 11 percent is likely TOD – supportive, and approximately 31 percent are PUDs that are not classified, see **Figure 3.3**.

This spread indicates that the DART Red and Blue Corridor largely consists of likely non-TOD-supportive base zoning. Planned unit development zoning appears to be more prevalent in the corridor than base zoning that is likely TOD supportive, however PUDs were not fully evaluated so their support for TOD design is undetermined.

Summary tables of each station’s half-mile buffer area with zoning classifications are included in **Appendix C.3**. Each city’s total percentage of a station’s half-mile buffer area zoned likely TOD Supportive is shown in **Figure 3.4**.

Figure 3.3: Both Corridors' Percentage of Zoning

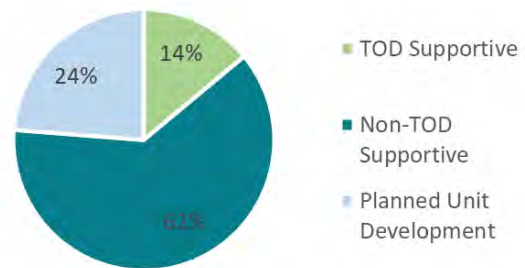


Figure 3.4: Percentage of TOD Supportive Zoning for Each City

CITY	PERCENT TOD SUPPORTIVE BASE ZONING*	PERCENT NON-TOD SUPPORTIVE BASE ZONING	PERCENT PLANNED UNIT DEVELOPMENTS	TOTAL ACREAGE OF ZONED PARCELS
Dallas (20 stations)	15%*	63%	22%	9,708
Garland (2 stations)	29%	55%	16%	1,009
Plano (2 stations)	14%	86%	0%	1,189
Richardson (4 stations)	0%*	44%	56%	1,612

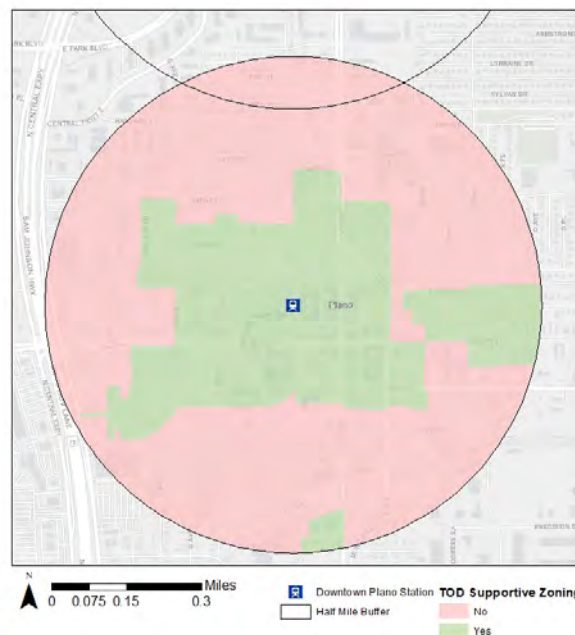
\*Significant district level PUDs supporting TOD exist but are not Base Zoning meaning actual supportive land area may be higher.



An example of likely TOD-supportive base zoning can be seen at Downtown Plano's station area in **Figure 3.5** through the Downtown Business/Government (BG) zoning district that takes up a third of the station area. The city's code describes the intent of this district is to "serve as a pedestrian-oriented center" for a mix of uses. Maximum allowed heights (four stories) are relatively high for suburban context, maximum floor area ratio is 4:1, and there is no maximum lot coverage. For all uses, minimum front yard setback varies from three to 20 feet, depending on street frontage type.

Detached single family zoning districts constitute a significant amount of likely non-TOD supportive base zoning in the corridor. Approximately 31% of all station area land is zoned for non-TOD supportive detached single-family uses - just under half of all likely non-TOD zoning for the corridor. **Figure 3.6**. Shows the top stations areas by percent area of detached single-family zoning and complete data for all station areas is included in **Appendix C.4**.

In general, TOD supportive base zoning permits the right elements to allow and possibly stimulate TOD projects, but these projects cannot happen without the real estate market and/or public incentives supporting that level of development. More on zoning related to other elements will be presented in the discussion section of this document.



**Figure 3.5: Downtown Plano Station Zoning Classification within a Half Mile Buffer**

**Figure 3.6: Stations with the Highest Percentage of Area Zoned for Detached Single Family Uses**

STATION NAME	CITY	PERCENT NON-TOD SUPPORTIVE ZONING	PERCENT SINGLE FAMILY ZONING
Tyler/Vernon	Dallas	97	93%
Hampton	Dallas	96%	88%
White Rock	Dallas	93%	85%
VA Medical Center	Dallas	95%	83%
Illinois	Dallas	97%	75%
Kiest	Dallas	97%	65%
Morrell	Dallas	89%	59%

In general, TOD-supportive base zoning permits the right elements to allow and possibly stimulate TOD projects, but these projects cannot happen without the real estate market and/or public incentives supporting that level of development. More on zoning related to other elements will be presented in the discussion section of this document.



Achieving TOD in the Red and Blue Line Corridors often needs financial incentives from the public sector when the real estate market will not support such development. Commonly applied economic districts in the Corridors include Tax Increment Reinvestment Zones (TIRZs) (also known as Tax Increment Financing (TIF) districts), Public Improvement Districts, Opportunity Zones, City of Dallas Public-Private Partnership Program Target Areas (P3 Target Areas), and New Market Tax Credit (NMTCs) qualified Census tracts. Frequently, a combination of multiple districts or several of the same district types are used. Descriptions of all listed economic districts, including Historically Underutilized Business (HUB) Zones, and Neighborhood Empowerment Zones are defined in **Appendix D**.

Of the 28 transit station areas, 26 have at least one kind of special economic district. The most common district types are TIRZs and New Market Tax Credit tracts. In total, there are 45 TIRZs touching 19 station areas and there are 44 NMTCs touching 19 station areas. **Figure 3.7** describes the presence of each special economic district by station area. Cities in the Corridors have used other strategies/partnerships to induce TOD as well. This can be seen through practices such as leveraging city-owned land, tax abatements, and/or development agreements authorized under Texas Local government codes Chapter 380 and 381.

## CORRIDOR ECONOMIC DEVELOPMENT AND INCENTIVES EXAMPLES

For example, the City of Plano encouraged TOD by utilizing adjacent city-owned land parcels and development agreements to create Morada Plano, pictured in **Figure 3.8** in the city's downtown. The project consists of two five-story structures with a three-level underground parking garage (288 total spaces; 120 public spaces). In addition to parking, these structures include 184 apartments, 12,700 square feet for restaurant and retail at ground level, and

400 square feet of lease space for storage. The City's contribution included \$1.25 million infrastructure reimbursement, the land valued at \$1.7 million, \$200,000 for demolition and abatement, \$150,000 in fee waivers, and \$700,000 for 50 public parking spaces in garage.<sup>5</sup>

Dallas' Cedars station area TIF district contributed to eleven projects, including just over \$1.6 million to the Belleview TOD project. The development is a Low-Income Housing Tax Credit project and contains 164 apartments and 5,000 square feet of retail/flex space.<sup>6</sup>

The City of Richardson entered into an infrastructure grant and development agreement with BC Station Partners, L.P. in March 2015 to develop a multi-development TOD project located west of DART's Cityline/Bush station. The agreement provides for the reimbursement of infrastructure projects with a TIF project plan estimated value of \$49.16 million. The project includes a 310,000 square foot office building, two urban-style apartment projects next to the station with a combined 705 units, a 229-room hotel with a parking garage, and an attached 6,500 square foot conference facility.<sup>7</sup>

Lancaster Urban Village is a mixed-used TOD adjacent to VA Medical Center Station in Dallas that used significant public funding and incentives. Phase I of the project contains 14,000 square feet of retail space, 365 parking spaces, and 193 mixed-income residential units. Public funding and financing included \$3.9 million of P3 Target Area funds used for land assemblage and preconstruction, \$20.9 million HUD funding, and \$12 million in NMTCs.<sup>8</sup> The city also dedicated over \$8.4 million in TIF revenues to support the project.<sup>9</sup>

<sup>5</sup> Braster, P. (2018). Downtown Plano's Latest TOD: MORADA PLAN. Retrieved on March 10, 2021 from [https://www.nctcog.org/nctcog/media/Transportation/DocsMaps/Plan/Landuse/TOD/051018\\_TODTF\\_-MtgNotes.pdf](https://www.nctcog.org/nctcog/media/Transportation/DocsMaps/Plan/Landuse/TOD/051018_TODTF_-MtgNotes.pdf).

<sup>6</sup> City of Dallas Office of Economic Development. (2019). Cedars TIF District FY 2018-2019 Annual Report. Retrieved March 10, 2021 from <https://www.dallasecodev.org/DocumentCenter/View/2463/Cedars-TIF-District-Annual-Report-FY-2018-2019-PDF>.

<sup>7</sup> City of Richardson Finance Department. (2019). TIF District Three Annual Report 2018-2019.

<sup>8</sup> City of Dallas Office of Economic Development. (2011). Economic Development Committee Lancaster Urban Corridor Briefing Material. Retrieved March 12, 2021 from [http://www3.dallascityhall.com/committee\\_briefings/briefings1211/ECO\\_LancasterUrbanVillage\\_120511.pdf](http://www3.dallascityhall.com/committee_briefings/briefings1211/ECO_LancasterUrbanVillage_120511.pdf).

<sup>9</sup> City of Dallas Office of Economic Development. (2019). TOD TIF District FY 2018-2019 Annual Report. Retrieved on March 29, 2021 from <https://www.dallasecodev.org/DocumentCenter/View/2470/TOD-TIF-District-Annual-Report-FY-2018-2019-PDF>.

Figure 3.7: Development Incentive Programs Present by Station Area

STATION	CITY	FEDERAL			LOCAL			
		OPPORTUNITY ZONE	NMTC TRACT	HUB ZONE	NEZ	P3 TARGET AREA	# OF TIRZ(S)	# OF PID(S)
8th and Corinth	Dallas	Y	Y	N	N	Y	1	0
Arapaho Center	Richardson	N	N	N	N	N	1	0
Cedars	Dallas	Y	Y	N	N	N	2	3
CityLine/Bush	Richardson/ Plano	N	N	Y	N	N	2	0
Cityplace/Uptown	Dallas	N	Y	N	N	Y	1	1
Convention Center	Dallas	Y	Y	N	N	N	4	3
Dallas Zoo	Dallas	Y	Y	N	N	N	1	0
Downtown Garland	Garland	N	N	N	N	N	1	0
Downtown Plano	Plano	N	N	Y	Y	N	2	1
Forest Lane	Dallas	N	Y	N	N	N	0	0
Forest/Jupiter	Garland	N	N	N	N	N	1	0
Galatyn Park	Richardson	N	N	N	N	N	0	0
Hampton	Dallas	N	Y	N	N	Y	0	0
Illinois	Dallas	Y	Y	N	N	Y	1	0
Kiest	Dallas	Y	Y	N	N	Y	1	0
LBJ/Central	Dallas	N	Y	N	N	Y	0	0
LBJ/Skillman	Dallas	Y	Y	N	N	Y	1	2
Lovers Lane	Dallas	N	Y	N	N	Y	1	1
Morrell	Dallas	Y	Y	N	N	Y	0	0
Park Lane	Dallas	N	Y	N	N	Y	1	1
Parker Road	Plano	Y	N	Y	Y	N	1	0
SMU/Mockingbird	Dallas	N	Y	N	N	Y	1	1
Spring Valley	Richardson	N	N	N	N	N	1	0
Tyler/Vernon	Dallas	N	Y	N	N	Y	0	0
VA Medical Center	Dallas	Y	Y	N	N	Y	1	0
Walnut Hill	Dallas	N	Y	N	N	Y	0	1
Westmoreland	Dallas	N	Y	N	Y	Y	0	0
White Rock	Dallas	N	N	N	N	N	0	0
<b>Total Present</b>		<b>10</b>	<b>19</b>	<b>3</b>	<b>3</b>	<b>15</b>	<b>19</b>	<b>9</b>
<b>Total Not Present</b>		<b>18</b>	<b>9</b>	<b>25</b>	<b>25</b>	<b>13</b>	<b>9</b>	<b>19</b>





FIGURE 3.8 MORADA PLANO

Image Source: Authors



FIGURE 3.9 THE BELLEVUE

Image Source: Authors




FIGURE 3.10 MULTI-DEVELOPMENT TOD PROJECTS AT CITYLINE

Image Source: Authors



FIGURE 3.11 LANCASTER URBAN VILLAGE

Image Source: : City of Dallas Department of Economic Development



# TRANSPORTATION & LAND USE CONTEXT

In addition to the transportation and land use data from the three study tasks of the FTA TOD planning pilot grant, other data are needed to evaluate TOD recommendations for the Corridors. Demographic and land use trends set the capacity for populations to use transit and influence their decisions. The general travel mode split, and extent of the sidewalk network complete a picture of transportation options for the station areas. Finally, and importantly, the real estate market of station areas helps to explain a significant driving force behind TOD. These interrelated elements of transportation and land use are summarized in this chapter.



Demographic, housing, and employment data provide valuable context to the presence of TOD projects and success of TOD policy. A longitudinal analysis of Census decennial data and American Community Survey 5-year estimates at the block group level was performed for the DART Red and Blue Line Corridors for the years 2000, 2010, and 2019. Changes in the number of jobs within a half-mile of the 28 pilot stations were calculated across a ten-year period (2008-2018) from Census OnTheMap Longitudinal-Employer Household Dynamics (LEHD) Program datapoints. Full demographic, housing, and employment tables are included in **Appendix E**.

The DART Red and Blue Line Corridors have increased in population by 70 percent from 2000 to 2019. The greatest observed population increase occurred between 2000 and 2010 at 50 percent. **Figure 4.1** shows percent change in population by station area for the 28 pilot stations. Density has also steadily increased from 2,433 people per square mile to 4,134 people per square mile over the 19-year period measured at the block group level (see **Figure 4.2**).

Figure 4.1: Percent Change in Population between 2000 and 2010 by Station Area

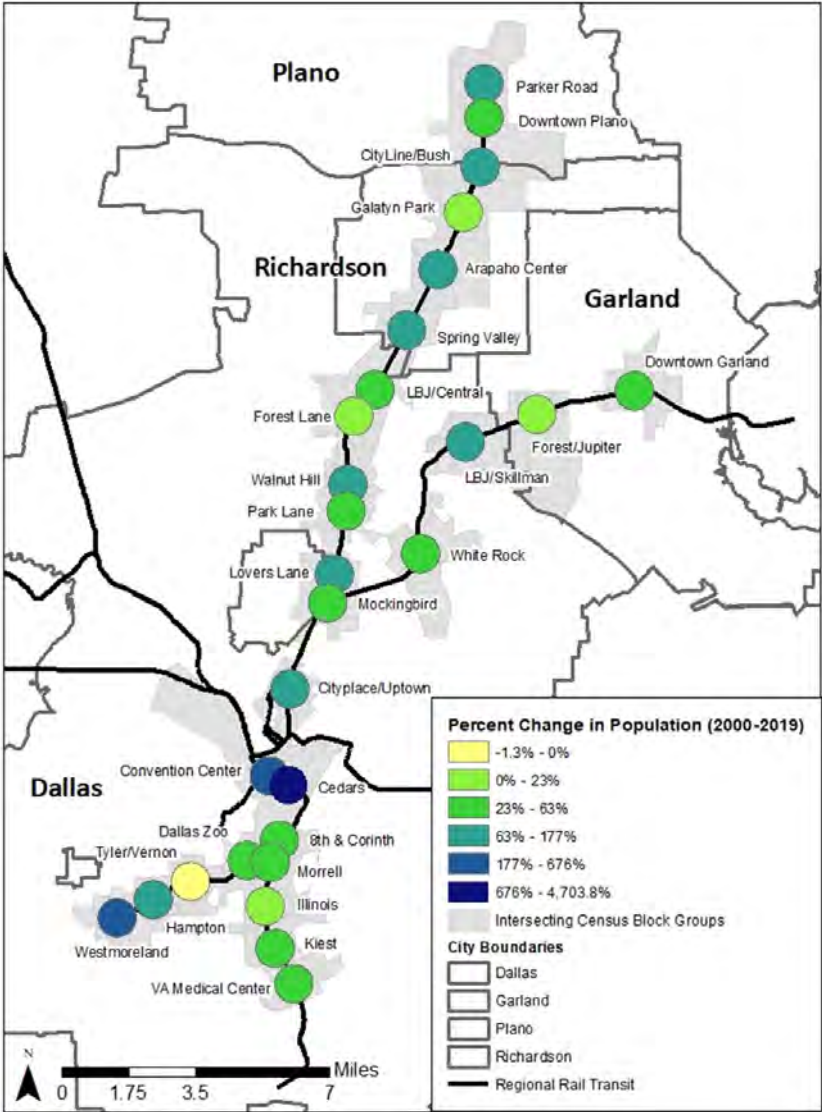




Figure 4.2: Total Population and Density by Year

CORRIDOR AREA (SQ. MI.)	2000		2010		2019		% CHANGE 2000 TO 2010	% CHANGE 2010 TO 2019
	TOTAL	DENSITY	TOTAL	DENSITY	TOTAL	DENSITY		
66.91	162,825	2,433	244,178	3,649	276,680	4,135	49.96%	13.31%

The Red and Blue Line Corridors' population growth is much higher than the 18.8 percent increase in population for Dallas County from 2000 to 2019 – indicating that the Red and Blue Line Corridors may have a significant draw over other parts of Dallas County. In addition, Dallas County's population density for 2010 was 2,718 people per square mile, 25.5 percent less than the Red and Blue Line Corridors for the same year.

The Corridors' housing supply increased by about 63,000 units across the 10-year period however, total housing occupancy rates have been decreasing from 93.9 percent in 2000 to 88.4 percent in 2019. Additionally, the share of renter-occupied units has gone up from 51.2 percent in 2000 to 66.5 percent in 2019, while the share of owner-occupied units has dropped.

Households are becoming wealthier along the Corridors as median household income grew by 19.27 percent from approximately \$50k in 2000 to \$60k in 2019. The change in income along the Corridors has a greater magnitude than Dallas County's change in median household income of -5 percent from about \$65,000 in 2000 to about \$62,000 in 2019. Note: all dollar values reported have been adjusted for inflation.

Populations along the Corridors are also becoming older as median age has increased by eleven years from approximately 24 years of age to 35 from 2000 to 2019. The greatest increase in age occurred when population also rose significantly between 2000 and 2010. This is a more significant change than Dallas County, which increased in median age from about 31 years of age in 2000, to about 34 years of age in 2019.

The population along the DART Red and Blue Line Corridors is also becoming more educated. Figure 4.3 illustrates select educational attainment levels for both the DART Red and Blue Lines as well as Dallas County. Education attainment levels show a 41 percent increase in the number of people with master's degrees and a 28 percent increase in bachelor's degrees across the 19-year period. This is similar to overall educational attainment proportions for Dallas County.

Figure 4.3: Educational Attainment Levels

EDUCATION ATTAINMENT LEVEL	DART RED AND BLUE CORRIDOR			DALLAS COUNTY		
	PERCENT OF TOTAL 2000	PERCENT OF TOTAL 2019	CHANGE FROM 2000 TO 2019	PERCENT OF TOTAL 2000	PERCENT OF TOTAL 2019	CHANGE FROM 2000 TO 2019
High School	19.2%	19.4%	1.2%	21.7%	23.6%	36.1%
Some College, No Degree	12.8%	13.9%	8.2%	21.3%	19.1%	12.1%
Bachelors	18.8%	24.1%	28.0%	18.0%	20.2%	40.0%
Masters	7.1%	10.1%	41.1%	9.0%	12.2%	70%

<sup>1</sup>2010 Census data was not available at the block group level; 2013 American Community Survey (ACS) Estimates were substituted.

Populations who live along the Corridors are becoming more diverse as the share of population from a minority group has increased from approximately 60 percent in 2000 to approximately 67 percent in 2019. This is slightly under Dallas County which reported a minority population of about 71 percent in 2019. According to the North Central Texas Council of Governments' Mobility 2045 plan, a minority is "any person who identifies his or her race as Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, two or more races, or some other race; or who defines his or her ethnicity as Hispanic or Latino."<sup>10</sup>

Transportation mode for commuters from 2000 to 2019 is shown in **Figure 4.3**. Most commuters who live in the corridor commute alone by van, car, or truck. This majority has held firm from 87% in 2000 to 90% in 2019. While 5% of commuters continue to ride public transit across the 19-year period, the share of public transit commuters who use rail has increased from approximately 7% in 2000 to 29% in 2019.

Figure 4.4: Transportation Mode to Work

MEANS TO WORK	2000	2013 <sup>11</sup>	2019
<b>Car, Truck, or Van</b>	87%	90%	90%
Drove Alone	81%	89%	89%
Carpooled	19%	11%	11%
<b>Public Transportation</b>	5%	5%	5%
Bus or Trolley Bus	88%	57%	57%
Streetcar, Trolley Car, Subway, or Elevated Rail	7%	20%	29%
Railroad or Ferry Boat	5%	23%	15%
Walked	4%	3%	4%
Taxicab, Motorcycle, Bicycle, or Other Means	4%	2%	1%

The number of jobs along the study corridors increased overall by 23.5 percent.

Overall, the Corridors have experienced major employment and population growth of older, wealthier, and highly educated people between 2000 and 2019. Additionally, a greater share of those who use public transit reported taking rail transit to work. Demographics trends can provide valuable insight and context to the presence of TOD projects along the DART Red and Blue Line Corridors. These demographic trends will be compared to ridership and city development policies later in the discussion section of this document.

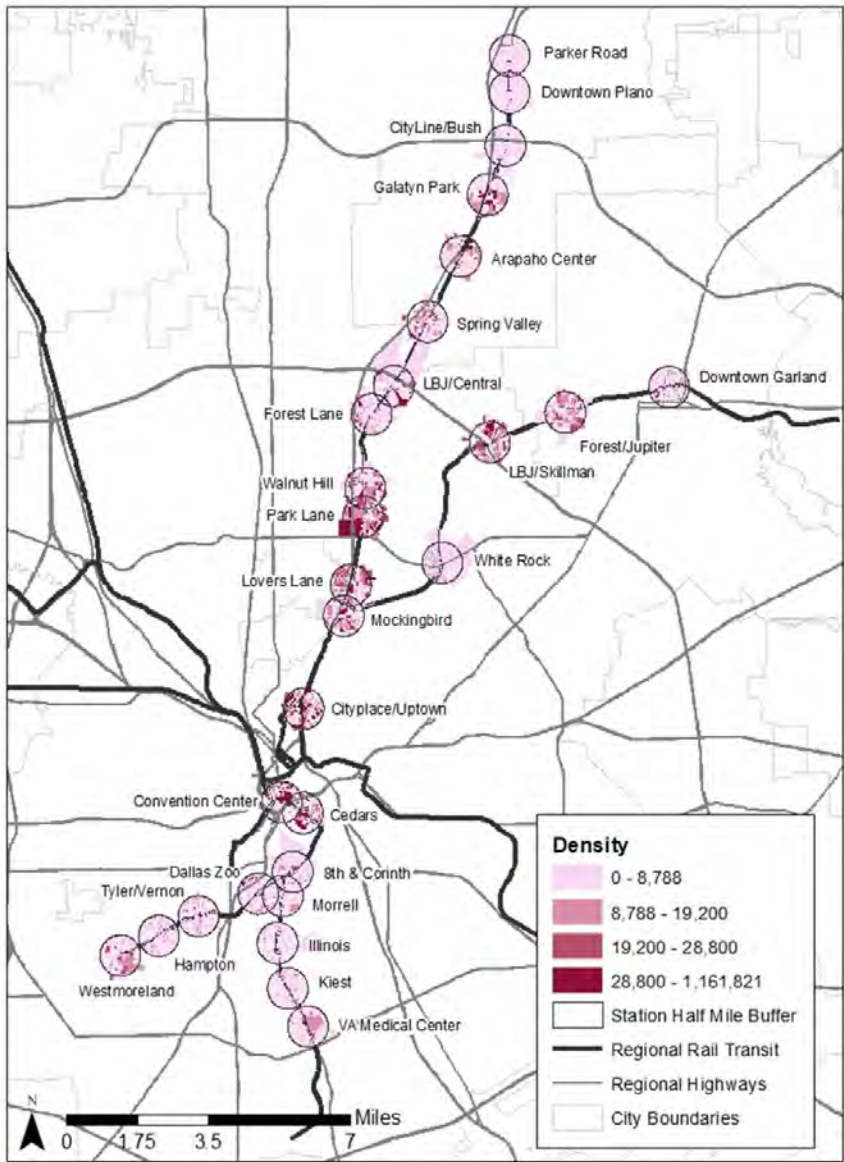
<sup>10</sup>North Central Texas Council of Governments. (2018). Mobility 2045: The Metropolitan Transportation Plan for North Central Texas. Retrieved on March 30, 2021 from <https://www.nctcog.org/trans/plan/mtp/2045#plandocument>.



Land use and density data was analyzed in DART Red and Blue Line Corridors Last Mile Connects Project as part of the FTA DART Red and Blue Lines TOD pilot planning in 2017. Full methods are described in the consultant’s report discussed in the First/Last Mile Bike/Pedestrian Infrastructure Study section.

Average density along the Red and Blue Line Corridors is 8,788 people per square mile. The parcel with the highest observed potential density is in Convention Center station’s half-mile buffer area at 1,161,822 people per square mile. **Figure 4.5** illustrates density along the Corridors by parcel.

Figure 4.5: Density of people per square mile by Parcel for 28 Pilot Stations

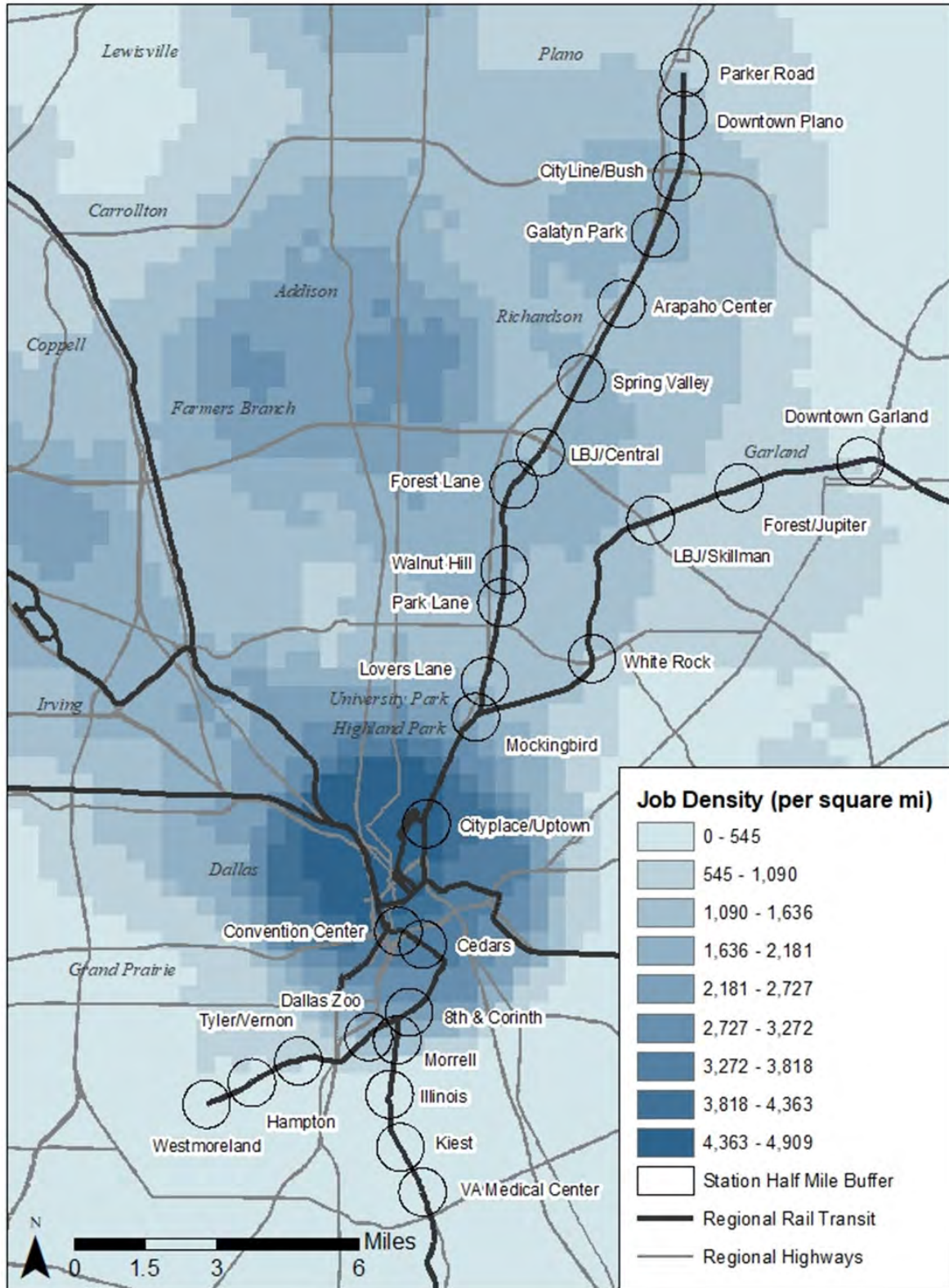




National research studies indicate average light-rail systems need approximately 19,200 and 28,800 people per square mile around stations to be considered cost-effective.<sup>12</sup> While there are some higher density parcels in downtown and north Dallas, it can be concluded from the data in Figure 4.5 that the DART Red and Blue Line corridors is generally low density. This is especially true for many station areas south of Dallas.

Job density in Figure 4.6 is concentrated near Downtown Dallas and North Dallas.

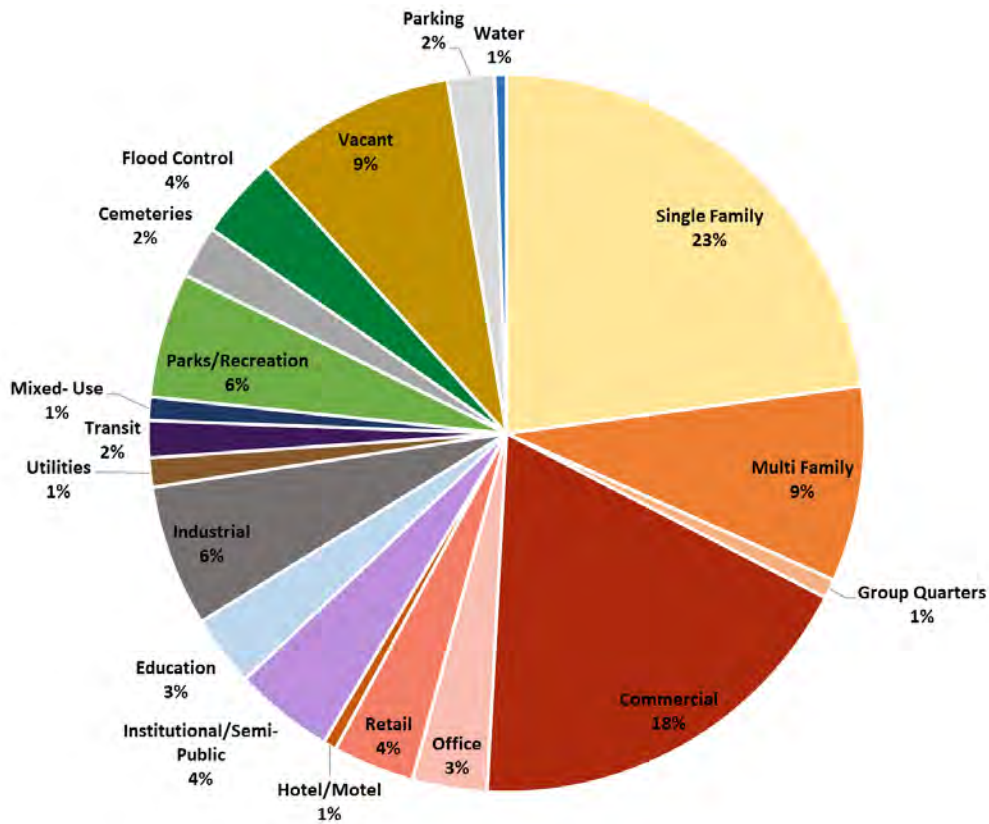
Figure 4.6: Number of Jobs Per Square Mile Near 28 Pilot Stations (2018, Census LEHD "OnTheMap")



<sup>12</sup>Cervero, R. and Guerra, E. (2011). Urban Densities and Transit: A Multi-dimensional Perspective. Retrieved on March 5, 2021 from <http://www.reconnectingamerica.org/assets/Uploads/201109DensityUCBITSVWP.pdf>.

Evaluating land uses associated with each parcel provides further context to density patterns. A breakdown of the corridor by land use is shown in Figure 4.7.

Figure 4.7: DART Red and Blue Line Corridor by Land Use



As single-family residences, vacant land, and parks are generally considered low-density uses, making up a total of 38% of station areas partly explains the trend of lower density development along the corridor. Land use classifications are inherently subjective in categorization and evolving over time. More information on how NCTCOG defines these land uses can be found here:

[https://data-nctcogis.opendata.arcgis.com/datasets/2015-land-use.](https://data-nctcogis.opendata.arcgis.com/datasets/2015-land-use)

Figure 4.8: Single-family land use adjacent to DART station





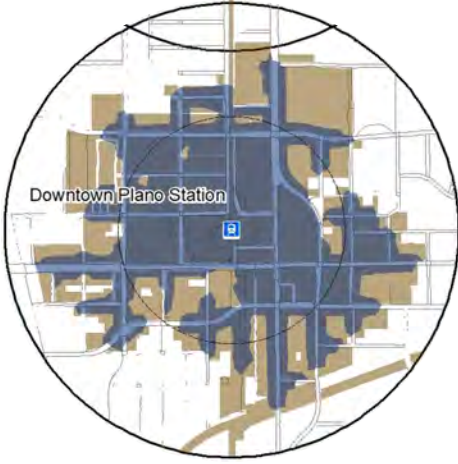


Sidewalk infrastructure is significant to the advancement of larger-scale TOD districts by linking potential riders to transit through first and last mile connections. In addition to the DART Red and Blue Line Corridors Last Mile Connects Project (summarized in the First/Last Mile Bike/Pedestrian Infrastructure Study section), a half-mile walkshed (distance you can walk on existing sidewalk infrastructure) was created in ArcGIS for each station area to understand current sidewalk network conditions. Partner city sidewalk network data from 2018 was updated and edited by NCTCOG staff. Sidewalk network coverage for all station areas is included in **Appendix F**.

Eleven of the 28 stations have a sidewalk network coverage of 8-15 percent of the stations' total half-mile area. An example of these limited walksheds, as shown in **Figure 4.9** may be primarily due to automobile-oriented land use and street design with insufficient existing sidewalk infrastructure. Seven of the 28 stations had a better pedestrian street network, like Downtown Plano Station shown in **Figure 4.10**, with coverage of around 25-30 percent of the stations' total half-mile area. These station areas exhibit gridded street geometry with more existing sidewalk connections. The other 10 stations' sidewalk networks fell somewhere between the two examples shown in **Figures 4.9** and **4.10**.

Figure 4.9: Westmoreland Station with 8.46% Area Coverage

Figure 4.10: Downtown Plano Station with 34.55%



- Half-Mile Walkshed
- Intersecting Land Parcels
- Existing Sidewalk Network

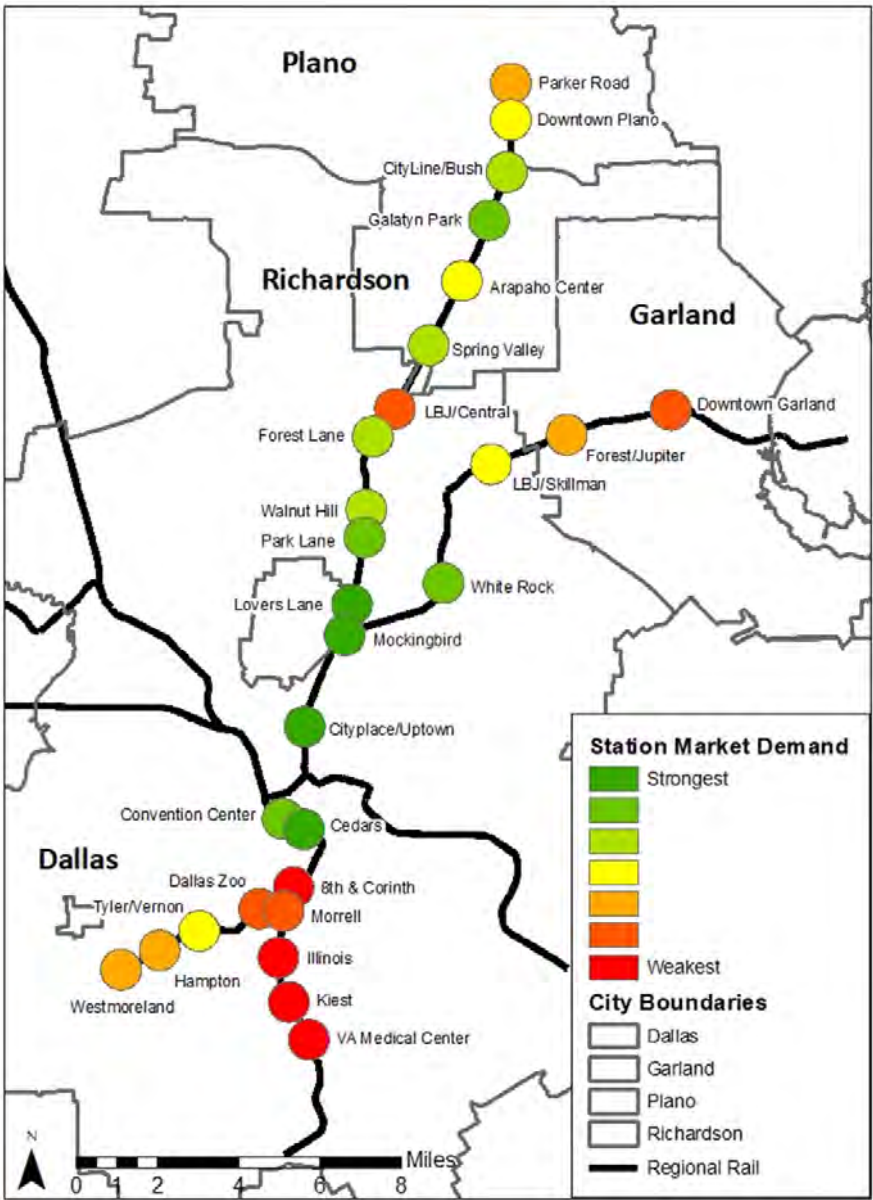
- Half-Mile Walkshed
- Intersecting Land Parcels
- Existing Sidewalk Network

Looking at the existing sidewalk networks for both corridors, it is apparent that many stations' surrounding sidewalk networks need improvement. Sixty-seven percent of the of the half-mile planning radius around these stations is inaccessible to pedestrians walking to or from a station. The DART Red and Blue Line Corridors Last Mile Connects Project examined implementing the needed bicycle and pedestrian improvements that will most complete the pedestrian accessible network by filling gaps and overcoming barriers. The results of the first and last mile study carried out at each of the 28 stations is discussed in the First/Last Mile Bike/Pedestrian Infrastructure Study section



Strength of the development market surrounding a transit station is an indicator of development potential for TODs. The 28 pilot stations were ranked by each station area’s aggregated rent/value potential (see **Appendix G**). The resulting station ranking for market demand is shown in **Figure 4.11**. In addition, the 28 stations were ranked by each station area’s aggregated number of employees to measure employment density.

Figure 4.11: Ranking of 28 Pilot Stations by Market Demand



Besides a few outlier stations, station rankings by market demand and employment density are primarily ranked high along the north and central Red Line stations. The stations to the north, and all other green and yellow-colored stations in **Figure 4.11** have a stronger development market. Comparatively, market demand is ranked low along the south Red and Blue Lines, excluding the outlier Tyler/Vernon station.

Additional study is needed to understand market dynamics for various station area neighborhoods and how additional factors like zoning and approval processes may impact the market for specific developments. In general, the market for housing reflects the overall market rents along the Corridors. More projects in the TOD Project Inventory that meet the TOD definition, discussed in the TOD Project Inventory section of this report, are also found in station areas with stronger markets. Examples include Cityplace with 38 identified TODs and Cedars with 17 identified TODs. Market context will be critical to determining phased TOD implementation strategy.

# STUDIES ADDRESSING THREE SIGNIFICANT TOD BARRIERS

The primary effort of the FTA TOD Planning Pilot Grant for the DART Red and Blue Line Corridors was to study the three critical barriers to TOD identified by regional stakeholders in 2016: significant gaps in the bike and pedestrian first/last mile, lack of understanding of appropriate parking policy, and need for understanding TOD populations' use and perceptions of transit. Presented in this document are brief summaries of the three study efforts. The three tasks all represent significant undertakings on their own and have full report documents available on [www.NCTCOG.org/TOD](http://www.NCTCOG.org/TOD).





The first task of the Federal Transit Administration's Transit-Oriented Development Planning Pilot Project is the DART Red and Blue Line Corridors Last-Mile Connects Project. Objectives of the project included conducting a field investigation of the existing pedestrian and bicycle infrastructure within a one-half-mile of each of the 28 stations and documenting recommended pedestrian and bicycle improvements that would advance access and connectivity to the stations for the greatest number of residents and commuters. Deliverables for the project included opinions of probable cost for all recommended station improvements and 15 percent engineering design schematics for selected corridors at four stations, selected to receive special attention during the field surveys as priorities for construction. Figure 5.1 illustrates the prioritized sidewalk improvements for Downtown Garland Station's half-mile area as well as construction cost estimates as an example of study deliverables.

In addition to filling missing sidewalk gaps, commonly identified infrastructure improvements included pedestrian lighting, crosswalk improvements, improving and adding to bicycle parking, relocating ADA parking closer to accessible sidewalk routes, landscaping improvements, adding placemaking elements such as public art, and pedestrian and bicycle wayfinding.

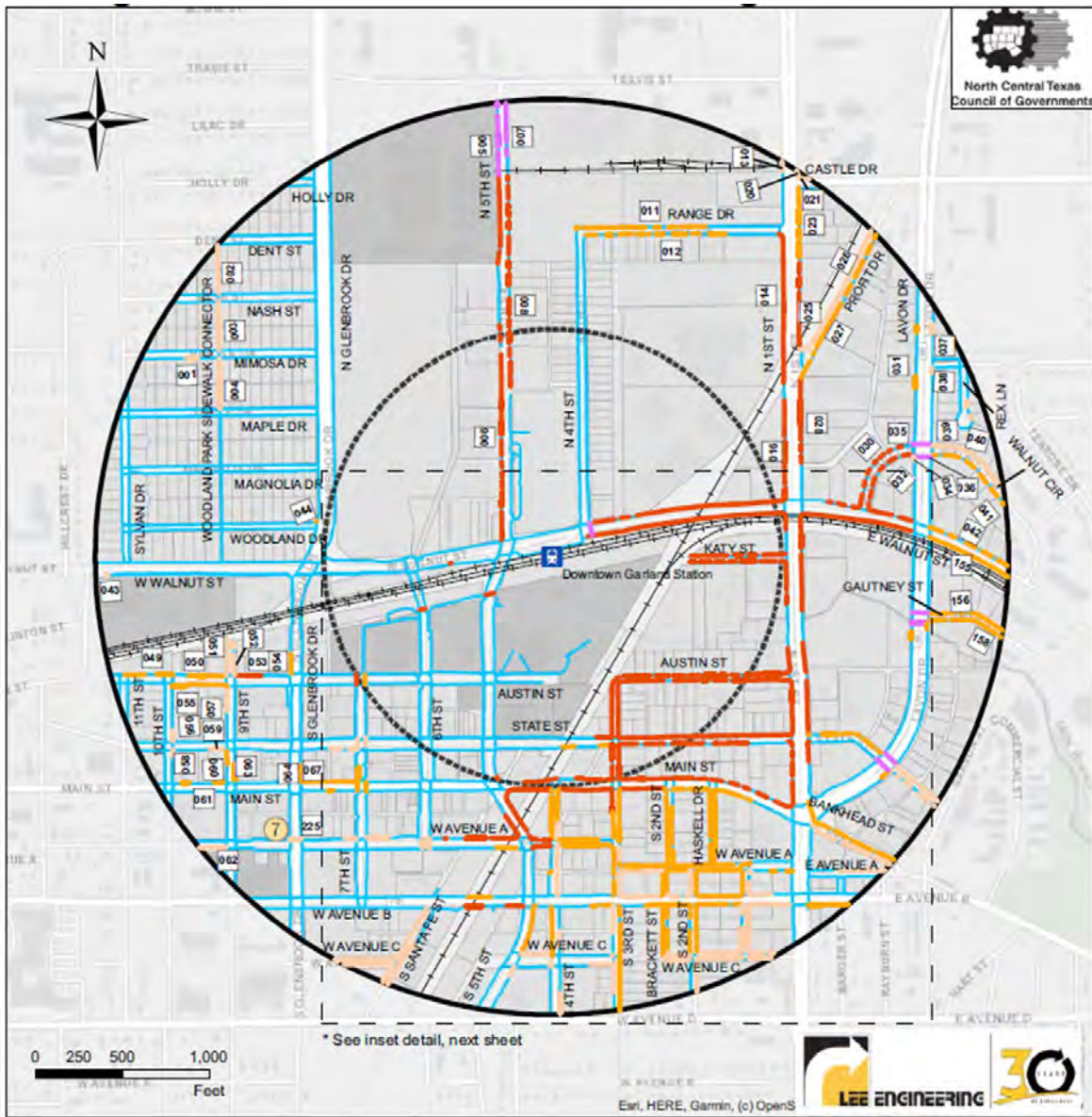
Opinions of probable construction costs (OPCC) were developed for recommended improvements on DART station property, as well within public right-of-way in one-half-mile radius area surrounding the station. The total OPCC for all improvements (high, medium, and low) at all stations equals \$152,906,650 (2020 estimate). Of the total identified cost for improvements, \$2,957,500 is for improvements solely within DART station properties. The remaining estimated \$150 million improvements are recommended for sidewalk connections in the half-mile radius area of all stations. According to five year projected costs for each station and station half mile area, the cost of implementing the recommended infrastructure improvements will increase over time.

The last-mile study also identified common pedestrian barriers and challenges to implementing sidewalk improvements, including existing fencing, obtaining right-of-way easements, relocating existing utilities, and other physical obstructions.

The consultant's *DART Red and Blue Line Corridors Last Mile Connects Project* report is available in **Appendix H**.



Figure 5.1: Sidewalk Improvement Prioritization and Construction Cost Estimates for Downtown Garland Station.



### Legend

- DART Rail Station
- Railroad Track

### Sidewalk

- Existing Sidewalk/Crosswalk

Proposed Sidewalk/Crosswalk by Priority	Construction Cost Estimate
High	\$7,134,400
Medium	\$4,732,400
Low	\$4,017,400
<b>Total</b>	<b>\$15,884,200 (2020 \$)</b>

- Built by Others
- Gap to Remain

### Buffers

- 0.5 Mile Buffer
- 0.25 Mile Buffer

### Possible Pedestrian Safety Countermeasures

#### Unsignalized Crosswalk Improvements

Hi	Md	Lo	Oth	Description
				Crosswalk Signs, Markings & Lighting
				Raised Crosswalk
				Advance "Yield Here" Sign
				In-Street Pedestrian Crossing
				Curb Extension
				Pedestrian Refuge Island
				Rectangular Rapid Flashing Beacon
				Road Diet
				Pedestrian Hybrid Beacon

#### Signalized Crosswalk Improvements

- Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
- Traffic Signal

### Existing Residential and Employment Population (Number of People)

Ppl

	0 - 234
	235 - 1049
	1050 - 2586
	2587 - 5364
	5365 - 10339

### Improvement Code Legend (See Matrix)

3A-DG-SW-01

- 3A ← Station Number
- DG ← Station Abbreviation
- SW ← Sidewalk (or CW for Crosswalk)
- 01 ← Improvement Number (Matches on Map)



The goal of the FTA TOD Parking Study was to inform policy on parking provided at North Texas TODs by collecting localized supply and occupancy data from pilot station TODs and developing a list of innovative parking strategies. While there are recent national studies outlining parking demand, demand metrics vary by region and benefit from data generated based on local conditions. Examining TOD parking can help to determine more appropriate parking supply for future TODs and a basis for better management of existing parking supply.

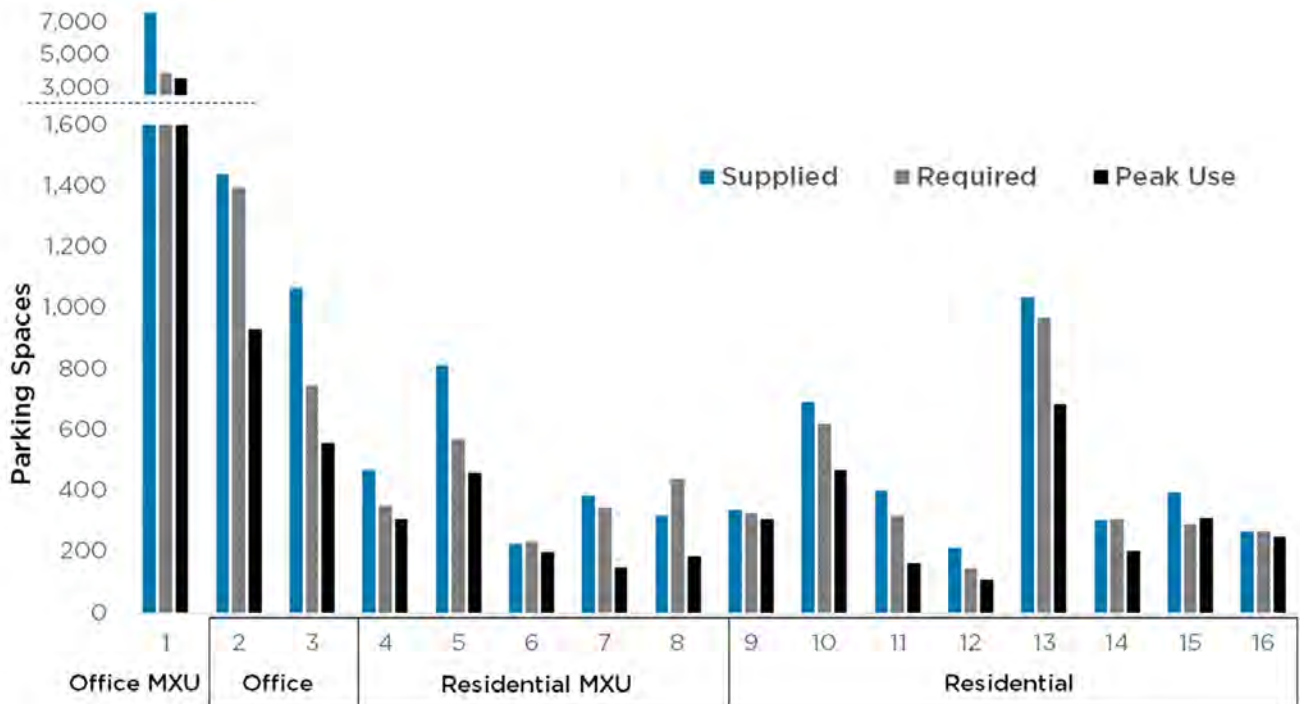
Permission was secured to study 16 TOD sites located within 1,000 feet of the 28 pilot stations. Staff interviewed property representatives, performed site surveys of parking inventory, and used remote and in-person counting techniques to measure parking occupancy. The on-site parking measures were then compared to each site's documented parking inventory, minimum parking requirement based on city codes, and projected parking demand for each land use.

## FINDINGS

Most TODs were found to be significantly overparked with 13 of the 16 sites never reaching beyond 80 percent utilization of lot capacity during peak periods. This excess parking at the 13 sites totaled to around 4,529 spaces. At an estimated median construction price of \$17,464 per above-ground garage parking space, these surplus spaces pose a significant cost to developers and public planning goals.

Nearly all TODs provided more parking than was required with parking supply at 10 of the 16 sites exceeding the city's code requirement by at least 10 percent. See all TOD sites in **Figure 5.2**. From these findings, it is expected that merely removing parking minimum requirements may not be enough to curb excessive parking supply.

Figure 5.2: Parking Observations for All Evaluated TOD Sites



Examining observed parking demand by land use, the three TODs with predominantly office uses were found to be oversupplied with parking capacity never reaching beyond 65 percent. Two affordable housing TODs peaked at 50 percent parking occupancy or less while market rate residential TODs exhibited parking occupancy around 90 percent. Observed occupancy showed that shared parking worked at mixed-use developments with over 250 publicly available spaces. See **Figure 5.3** for a breakdown of peak occupancy by land use. Additionally, a consultant developed shared-parking model outputs, which most consistently predicted supply needs for 10 of the 16 sites. However, of the 16 sites examined, none of the developments had pursued shared parking agreements with adjacent properties.

Figure 5.3: Peak Occupancy by Land Use

Land Use Category	# Sites	Avg. Weekday Peak Occupancy	Observed Peak Parking Demand
Office-Dominant	2	59%	1.93 per 1K SF
Office-Mixed	1	56%	3.13 per 1K SF
<b>All Office</b>	<b>3</b>	<b>57%</b>	<b>2.86 per 1K SF</b>
Residential-Dominant	8	70%	1.03 per Dwelling Unit
Residential-Mixed	5	61%	1.25 per Dwelling Unit
<b>All Residential</b>	<b>13</b>	<b>66%</b>	<b>1.1 per Dwelling Unit</b>

## NEW TOOLS

Compared to DART’s 2018, \$96 monthly transit pass, the majority of parking provided at the 16 study TODs was found to be free of charge, which may incentivize driving cars over other alternative transportation modes.

Pairing its findings with national best practices, the TOD Parking Study generated a [TOD Parking Toolbox](#) to serve as a North Texas community guide to innovative parking strategies in future and existing TOD districts. This toolbox outlines each parking tool with tradeoffs and implementation considerations, including those found in **Figure 5.4**. A link to the full TOD Parking Study report is available in **Appendix H**.

Figure 5.4: Parking Toolbox

Tools	Strategic Category			Level of Implementation Challenge			TOD Parking Objectives Supported				
	Zoning Code	Parking Management	Growth/TOD Stimulus	Difficulty	Cost	Impact	Reduce Demand	Increase Efficiency	Shared Parking	Improved Mobility	Future-Ready Parking
Eliminate/Reduce Parking Requirements	■		■	●●	\$	●●●	✓	✓			✓
Parking Maximums	■			●●●	\$	●●	✓	✓			✓
Monetizing Excess Capacity		■	■	●●	\$	●●		✓	✓		✓
Shared Parking Agreements		■	■	●●●	\$\$-\$	●		✓	✓		✓
Code Incentives for Public Parking	■		■	●●	\$	●●●		✓	✓		✓
Parking Management Districts		■	■	●●●	\$\$\$\$	●●●		✓	✓		✓
Crediting Off-Site Parking	■		■	●	\$	●		✓	✓		✓
Parking Availability Platforms		■	■	●●	\$\$	●●		✓	✓		✓
Curb Space Management	■	■	■	●●	\$	●●		✓		✓	✓
Future-Re-Use Parking			■	●●	\$\$\$\$	●●		✓	✓		✓
Public-Private Development			■	●●●	\$	●●		✓	✓		✓
Density-Bonus Incentives	■		■	●●	\$\$	●●●	✓	✓		✓	
Fee-in-Lieu of Parking Options	■		■	●	\$	●●		✓	✓	✓	
Unbundled Parking Costs	■	■	■	●	\$	●●●	✓	✓			✓
Improve Mobility to Reduce Parking Demand	■	■		●●	\$\$\$	●●●	✓			✓	✓





# TOD RESIDENT, BUSINESS, & EMPLOYEE SURVEY

Image source: Authors

Figure 5.5: Relationship Between Distance and Transit Usage

From August 2019 to February 2020, a survey was conducted to better understand the transportation-related behavior and opinions of the businesses who operate and the people who live and work in the one-mile radii of 28 DART stations along the Red and Blue Lines. Responses totaled 1,540 residents, 1,039 businesses, and 550 employees. A summary of survey results is presented in this document with a link to full report provided in **Appendix H**.

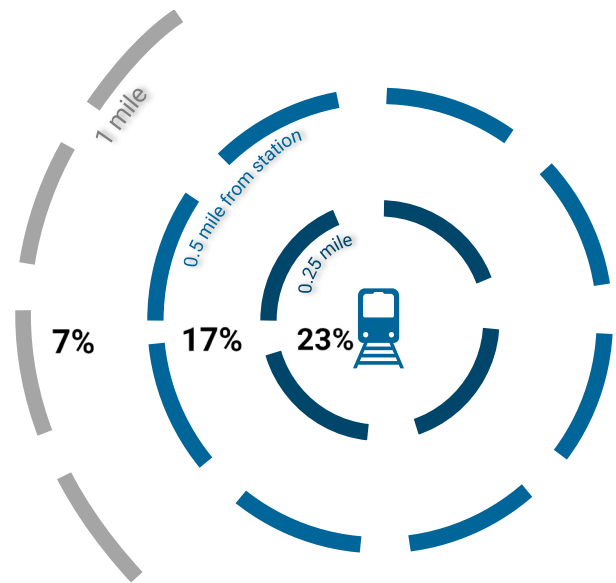
## RESIDENT SURVEY

Residents of the study area are more likely to utilize transit or active transportation for their commute if they live closer to a transit station. **Figure 5.5** illustrates the relationship between distance and transit usage. For commuter trips, 81 percent of residents reported driving alone while 13 percent of the one-mile residents commute by transit.

Residents with household income less than \$20,000 were more likely to report transit commutes to work. High-density station areas were also more likely to produce higher rates of walk/bike commuters (around three times more likely than lower density levels), however that relationship was not seen with the transit commute.

It was found that utilizing transit or active transportation facilities was more common for several types of non-commuting trips than for commuting trips. This is especially true for visits related to entertainment such as going to restaurants, coffee shops, or bars where only 56 percent of residents reported driving alone for these activities. Residents also reported lower rates of driving alone for visits downtown (62 percent) and personal errand trips (69 percent). Residents were also asked if they had their choice, how would they prefer to get there. Frequently, residents preferred to drive for more personal errands such as banking, grocery shopping, or medical appointments but were more likely to prefer walk, bike, or use transit for activities such as going to restaurants, parks, or theaters.

Like commuting trips, it was generally found that residents classified as low-income were more likely to utilize transit than higher income levels for non-commuter trips. When considering density, it was



found that residents living in higher density station areas typically drove less for non-commuting trips and utilized transit, walked, or biked more often. It was also found that younger residents and residents without children were more likely to walk, bike, or use DART than older residents or those with children. When asked why they did not use DART for commuting, most residents (62 percent) cited a need for their personal vehicles before, after, or during work; a trend that did not differ by city or station area type. Many residents (40 percent) also indicated that DART stations/stops are too far from their workplace or home. Only 38 percent of respondents also indicated that physical barriers prevented them from using DART for non-commuting trips.

When asked for the “essential” factors in choosing current home location, respondents frequently cited items like cost of housing and crime rate as the most essential factors (82 and 78 percent respectively). For transportation related factors, top results include sidewalks throughout the neighborhood (57 percent), easy access to the freeway, and close to grocery stores (both at 46 percent), and close to work (44 percent). Slightly less essential are restaurants, coffee shops, bars, etc. within walking distance (39 percent) and easy access to DART services (39 percent). The last factor was more frequent with residents that lived closer to a station and lower

income residents. Another factor, good bicycle routes beyond the neighborhood, was more commonly cited by those farther away from a transit station.

## EMPLOYER SURVEY

It was found employer provision of a transportation demand management (TDM) strategy programs and options increased as employer size increased. When asked if they would consider various TDM strategies, 24 percent of employers indicated that they would consider free/subsidized DART transit passes making it the most considered (under 14 percent for all others) non-schedule based TDM strategy.

Employers located within a half-mile of a DART station were more likely to report that foot traffic from rail stations, employees from nearby businesses, and customers from nearby businesses was an important factor that was considered when they chose their location. However, the frequency of these responses was still low (24-34 percent), indicating a continued focus on auto-centric facilities in these areas. It was also often found that the presence of DART stations was an important factor for about a quarter of employers in choosing their current location due to the greater access to a larger workforce.

## EMPLOYEE SURVEY

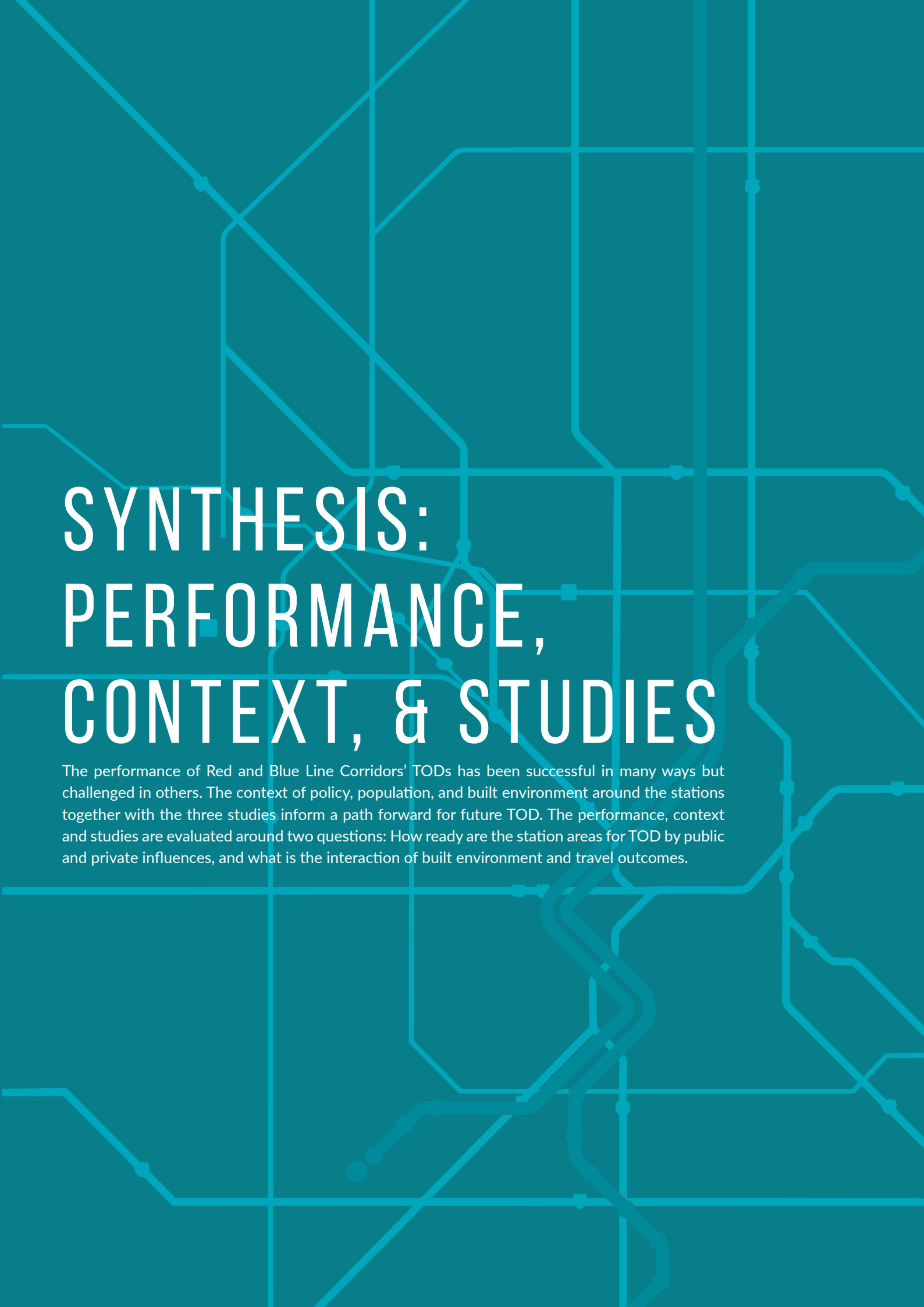
The employee survey received a small sample of 550 responses and found that employees in the study area generally do not use DART. Common reasons that were cited in the survey include a need for a car before, after or during work hours (75 percent), bus stops or rail stations too far away from home or work (60 percent), and too infrequent service (46 percent). Employees whose workplace had less than 25 workers were more likely to utilize transit or walk/bike to work, but this was only between four to nine percent. The employee survey, like the resident survey, indicates higher rates of transit (13 percent) and active transportation (13 percent) commutes by lower income employees (those making less than \$10 per hour) and lower rates (one percent for both transit and active transportation) of such commutes by higher income employees (those making more than \$20 per hour). The higher income employees were also much less likely to switch to DART for the commute (59 percent) compared to the employees making between \$10 and \$20 per hour (39 percent) and employees making less than \$10 per hour (33 percent).

## DISCUSSION

The three surveys identified associations between land use, demographic, and perception factors and likelihood of utilizing non-driving modes of transportation for those living and working within a mile of a DART Red or Blue Line station. Key factors highlighted for residents in this summary include distance from station, income, density, trip destination/reason, age, and children in the household.

Employers also have some interest in transit, walk, and bike use and TDM strategy programs with greater proximity to stations. However, most employers and employees in this survey exhibit strong orientation to reliance on the car, regardless of transit opportunities. While this survey indicates much can be done to improve TOD outcomes for transit on the DART Red and Blue Lines, it provides a data driven starting point for conversation on future policies.





# SYNTHESIS: PERFORMANCE, CONTEXT, & STUDIES

The performance of Red and Blue Line Corridors' TODs has been successful in many ways but challenged in others. The context of policy, population, and built environment around the stations together with the three studies inform a path forward for future TOD. The performance, context and studies are evaluated around two questions: How ready are the station areas for TOD by public and private influences, and what is the interaction of built environment and travel outcomes.



Construction of rail stations in the Corridors alone have not led to TOD. The station area is made ready by supportive zoning and a supportive real estate development market often combined with public development incentives. Tying these together is the ability of local governments to plan for station area redevelopment and target land use and developments towards TOD.

## MARKETS AND PUBLIC INCENTIVES

The TOD Project Inventory on discussed in the TOD Project Inventory section of this report indicates there are a significant number of TOD projects along the DART Red and Blue Line Corridor in an estimated comparison to other corridors in the region. This is primarily due to strong market readiness for TOD projects at some stations. The station areas with the most projects meeting the definition of a TOD are those with the largest number of jobs and strongest real estate markets. Examples include Cityplace Station with 38 identified TODs, and Cedars with 16 identified TODs. Both stations are located near downtown Dallas, where job density is the highest and market conditions are strongest.

Cities can leverage financial incentives to encourage TODs in areas of low market strength, such as the use of Public/Private partnership funds and tax increment financing (TIF) revenues in the example of the VA Medical Center Station mixed-use Lancaster Urban Village development. They are important to supporting the development of affordable housing, as in the case of The Belleview development near Cedars Station. Cities can also strategically use public land such as the City of Plano used in development agreements to encourage the infill development projects near Downtown Plano station. It is possible many of these sites would not have developed with the level of transit-orientation they have today but for the support of public funds.

## LAND USE CONTROL: ZONING

Zoning allowing TOD form and design is essential to TOD existence. Zoning may further act as a powerful planning tool to encourage TOD by supporting or requiring developments include things such as transit-supportive building and parking design. However, reviewing

design through the TOD Inventory indicates that TODs in the 28 pilot station areas could improve their zoning enforcement of transit-orientated design principals.

Zoning is also the policy mechanism behind parking requirements as reviewed in the TOD Parking Study. The TOD parking study found 13 of the 16 sites were significantly overparked, never reaching beyond 80 percent utilization of lot capacity during peak periods. Nearly all TODs provided more parking than was required with parking supply at 10 of the 16 sites exceeding the city's code requirement by at least 10 percent. These surplus spaces pose a significant cost to developers and offset TOD planning goals.

The results of the zoning inventory indicate there are two major trends present in the DART Red and Blue Line Corridors: the dominance of likely unsupportive zoning and the emergence of special districts, or planned unit developments (PUDs), to achieve TOD goals. In addition to commercial zoning districts that were likely non-TOD supportive, detached single family zoning was shown to constitute a significant fraction of the likely non-TOD supportive zoning for the Corridors. The TOD Zoning District Inventory also concurs with the density analysis (completed in the Land Use and Density section) that the Corridors have overall low density. Land use analysis also shows the Corridors are dominated by low-density uses such as single-family residences, vacant land, and park uses.

*While there are some zoning districts in the DART Red and Blue Line Corridors that allow and have the potential to support TODs, the Corridors generally do not have abundant zoning that would likely be considered transit supportive.*

Planned unit developments are more prevalent (around 31 percent of all station areas) than likely TOD supportive base zoning (approximately 11 percent) in the Corridors. This could mean that cities are more likely to continue using the PUD zoning mechanism in favor of new or revised base zoning districts. While the zoning inventory did not evaluate every unique site-specific PUD, this may

present an opportunity for cities to flex PUD requirements in favor of TOD. The cities of Dallas and Richardson feature examples of likely TOD-supportive district-wide or neighborhood PUDs centered around transit stations. Richardson's Cityline/Bush station area is a PUD with a form-based code that supports mixed-use projects with requirements on building height, façade treatments, and the relationship of the building to the street to encourage a pedestrian-friendly environment in support of TOD. However, by-right base zoning districts that are TOD supportive such as Plano's Downtown Business/Government district and Dallas' Central Areas district should continue to be used and expanded.

In summary, while there are some zoning districts in the DART Red and Blue Line Corridors that allow and have the potential to support TODs, the Corridors generally do not have abundant zoning that would likely be considered transit supportive. TODs along the Corridors spurred by strong market readiness rely on smaller areas of TOD supportive zoning and specially written PUDs. Current conditions indicate additional city policies that support TOD readiness through planning, zoning, and incentives are still needed to encourage the further development of TOD projects, especially in areas of low market strength.



As noted throughout this report it is important to evaluate TOD performance with the many transportation and land use factors influencing it. Across a 10-year period, there was a 13.3 percent increase in population and 23.5 percent increase in jobs for the DART Red and Blue Line Corridors. However, observed station ridership in the Corridors dropped by 12 percent over the same period. The inverse relationship between population, job growth, and ridership indicates there are missing linkages between residents, employees, and rail transit which various data sources reviewed in this TOD planning pilot partially explain.

## SURVEYS AND DEMOGRAPHIC DATA

The goal of the TOD Resident, Business, and Employee Survey was to better understand the transportation-related behavior and opinions of people who live and work in the one-mile radius of the 28 DART stations along the Red and Blue Line Corridors. Results show that while residents close to the station use transit more than typical North Texans, most of those who live or work within one mile of the 28 pilot stations are not likely to take transit for errands or commuting. When asked why they did not use DART for commuting, most residents (62 percent) cited a need for their personal vehicles before, after, or during work; a trend that did not differ by city or station area type. Many residents (40 percent) indicated that DART stations/stops are too far from their workplace or home. Decennial census data confirms that most commuters who live on the Corridors commute alone by van, car, or truck. This could potentially mean transit coverage is too limited in a spread-out region largely dominated by automobile use to make the Corridors work for many of their daily trips.

NCTCOG's 2014 North Central Texas Regional Transit Travel Survey (prior to the FTA TOD planning pilot for these corridors) indicated transit commuters were shown to differ from all other commuters by predominately being part of a minority population group, having an annual household income under \$50,000, typically being part of larger households, and largely having access to only one car. The Red and Blue Lines TOD Resident, Business, and Employee Survey and the prior 2014 survey both indicate that low-income

households are more likely to take transit for a larger variety of trips. However, according to American Community Survey (ACS) 5-year estimates for the Corridors (2019), median household income is \$60,000 a year. This indicates that a significant population most likely to use transit currently may not be able to afford housing within the 28 pilot station areas. It may be important to transit ridership to make it easier for that population to live and work in the Corridors.

## INFRASTRUCTURE NEEDS

Looking at existing sidewalk networks for the 28 pilot stations, many need new sidewalk and safe crossings constructed to create better pedestrian access to TOD. When asked why they did not use DART for commuting in the TOD Resident, Business, and Employee Survey, 38 percent of residents indicated that physical barriers prevented them from using DART for non-commuting trips. DART Red and Blue Line Corridors Last Mile Connects Project of the FTA pilot study estimated \$152 million in needed pedestrian and bicycle connection improvements on public streets and transit property in the one-half-mile radius area surrounding the station. Analysis in the Existing Sidewalk Inventory section revealed 67 percent of the parcels located in the half-mile radius around the 28 pilot stations are inaccessible from the station by sidewalk. The approximately seven stations that had an acceptable street network, similar to Downtown Plano Station, had network coverage of around 25-30 percent of the stations' total half-mile area. Highly walkable station areas have street geometry more likely using a grid pattern, allowing more existing sidewalk connections while low sidewalk connectivity stations may be more likely to have automobile-oriented street geometry with large blocks and fewer street connections.

While there has been population, job, and TOD project growth along the Corridors, data indicate these factors are not translating to ridership increases. This may be due to factors out of a city or transit agency's control, but many policies, programs, and infrastructure improvements could be implemented to encourage residents and employees already living along the Corridors to use transit. Additionally, TOD policies could create more opportunities for those who most benefit from transit proximity to be nearer to it.

<sup>13</sup>North Central Texas Council of Governments. (2014). 2014 North Central Texas Regional On-Board Transit Survey Report. Retrieved on March 18, 2021 from [https://www.nctcog.org/nctcg/media/Transportation/Docs/Maps/Data/Manage/Surveys/2014NCTCOG\\_OnBoardSurvey\\_Report\\_Sept12015\\_Final.pdf](https://www.nctcog.org/nctcg/media/Transportation/Docs/Maps/Data/Manage/Surveys/2014NCTCOG_OnBoardSurvey_Report_Sept12015_Final.pdf).

# RECOMMENDATIONS

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How TOD advances on the DART Red and Blue Lines will be a function of how well it overcomes the barriers to further ridership and development. The dominance of non-TOD supportive zoning, pedestrian infrastructure gaps, excessive parking supply, a lack of affordable housing, and limited transit reach and service require policy and implementation interventions. Together the local governments of the Corridors could overcome these barriers through the following public policy recommendations.

## INCREASE SUPPLY OF TOD AFFORDABLE HOUSING

The TOD Resident, Business, and Employee Survey along with demographic data show the workforce and moderate-income households of the Corridors are more likely to use transit. More housing opportunities could lead to further ridership.

- i. Reduce parking requirements for affordable housing  
The TOD Parking study showed two affordable housing TODs to have lower peaked parking occupancy than most market rate residential TODs. Reducing the amount of land taken up by parking opens more land for homes, ultimately leading to less costly development. Management strategies are likely needed in addition to reduced city code requirements.
- ii. Increase bike and pedestrian connections to affordable housing  
Improving sidewalk networks between rail stations and surrounding housing creates an affordable, alternative transportation network and more opportunities for connected residential properties.
- iii. Financially incentivize affordable housing  
Leverage financial incentives, such as TIF districts and Low-Income Housing Tax Credits, and development incentives, such as density bonuses, expedited processes, and waived fees, to increase the supply of affordable housing. Public land such as underused transit park and rides could be leveraged for this goal as well.
- iv. Plan to mitigate displacement  
Proactively consider new development in the context of the overall community by empowering disadvantaged communities. Tools include frequently updated small area planning efforts and maintaining a supply of affordable housing by revitalizing existing affordable housing. See NCTCOG Gentrification Toolbox for more strategies.<sup>14</sup>

Implementation Examples: The City of Plano recently approved zoning changes for a 226-unit mixed-income housing project, K Avenue Lofts, south of Parker Road Station. The project was initiated by the Plano Housing Authority.<sup>15</sup>

The City of Dallas' Comprehensive Housing Policy supports the goal of adding increased affordable housing and outlines strategies encouraging city financial support along with mitigating displacement.<sup>16</sup> The City of Dallas has been providing funding through their TIF for affordable housing developments such as The Belleview.

<sup>14</sup>North Central Texas Council of Governments. (2019). Transportation and Gentrification: A Toolbox for Positive Neighborhood Change. Retrieved on March 22, 2021 from <https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/GentrificationStudy.pdf>.

<sup>15</sup>Powers, L. (2021). Zoning change by Plano City Council makes way for affordable housing community. Retrieved on March 23, 2021 from <https://communityimpact.com/dallas-fort-worth/plano/government/2021/02/23/zoning-change-by-plano-city-council-makes-way-for-affordable-housing-community/>

<sup>16</sup>City of Dallas Department of Housing and Neighborhood Revitalization. (2020). Comprehensive Housing Policy. Retrieved on March 23, 2021 from [https://dallascityhall.com/departments/housing-neighborhood-revitalization/Documents/Dallas%20Comprehensive%20Housing%20Policy\\_082620.pdf](https://dallascityhall.com/departments/housing-neighborhood-revitalization/Documents/Dallas%20Comprehensive%20Housing%20Policy_082620.pdf).



## IMPROVE PEDESTRIAN CONNECTIONS TO STATIONS

The Corridors' existing network of sidewalks connecting the station platform to the neighborhood is limited and fundamentally impacts access and convenience of transit orientation. Improving sidewalk networks between rail stations and surrounding land uses creates more opportunities for connected residential and commercial properties.

- i. Implement the recommended improvements in the DART Red and Blue Line Corridors Last Mile Connects Project  
Review and evaluate the recommended infrastructure improvements including crosswalks, lighting, signage, and ADA compliance identified in the NCTCOG study of public streets and DART station property in **Appendix H**.
- ii. Code revisions for the purpose of improving pedestrian walking conditions  
Development codes should encourage or require prioritizing pedestrian access and improving public space by building wide sidewalks with enhanced streetscapes (street trees, bike racks, pedestrian scale streetlights, buffer space between sidewalk and roads, etc.)
- iii. Identify Additional Needs and Funding  
Continue analysis of additional station areas in the DART system and others to understand the true costs of last mile connections. Encourage local governments to plan in future Capital Improvement Programs and/or future bond programs to implement priority/high category of need improvements.

Implementation Examples: A list of suggested station area improvements are outlined in the DART Red and Blue Line Corridors Last Mile Connects Project that is linked in **Appendix H**. City partners and DART are actively working with NCTCOG to implement sidewalk and bike connections to rail stations. The Regional Transportation Council awarded \$8 million in funding at their November 2020 meeting as a first wave of investment to the Dallas Zoo Station and the Forest/Jupiter Station, both of which received 15 percent initial engineering.

## REDUCE PARKING FOR TODS

A sample of TODs in this project demonstrated many may be over supplied with parking spaces that often sit empty. Oversupplied free parking is the opposite of transit orientation.

- i. Encourage more efficient parking supply  
Re-evaluate parking requirements in zoning around stations to create more flexibility to allow new and retrofitted developments to best reflect the existing, multi-modal transportation needs of a neighborhood or station area, while discouraging an oversupply of parking. Consider incentives that promote reduced parking allowance.
- ii. Apply parking management tools  
Prioritize more efficient management of existing parking supply and verify perceived need for additional parking through data collection. Make station areas priority for parking management programs.

Implementation Examples: Additional guidance to reduce parking for TODs are available in NCTCOG's Parking Toolbox.<sup>17</sup>

The City of Dallas is currently undergoing a parking code update based on research, best practices, and comparable cities' parking codes. This update is presently considering several of the above recommended policies.<sup>18</sup>

<sup>17</sup>North Central Texas Council of Governments. (2020). Parking Solutions for Walkable Places in North Texas. Retrieved on March 23, 2021 from <https://www.parkingtoolboxntx.org/>

<sup>18</sup>City of Dallas Department of Sustainable Development and Construction. (2021). Parking Code Amendment (DCA190-002). Retrieved on March 23, 2021 from <https://dallascityhall.com/departments/sustainabledevelopment/planning/Pages/parking-code-amendment.aspx>.

## PERMIT AND GUIDE TOD DESIGN THROUGH ZONING

Review of zoning reveals it is unlikely for TOD to be permitted by-right along most of the Corridors without a rezoning or variance. Zoning needs to increase guides and requirements for TOD form and design.

- i. Expand the allowable land area supporting TOD  
Increase the area around a station zoned by-right for TOD. Examine strategies for re-zoning neighborhoods to be more transit oriented.
- ii. Implement a form-based code (FBC), overlay or zone with design requirements  
Incorporate TOD design principles into FBC, or other code with design requirements that ensures adherence to these principles for new construction.
- iii. Incorporate flexibility code provisions for retrofitting existing developments  
Existing developments within the DART Red and Blue Line Corridors should have code provisions with some flexibility towards incorporating TOD design when re-developed.
- iv. Increase allowable density and encourage density through bonuses  
Increasing density is intrinsic to the TOD goal of more people living and working near rail. Allowing and/or incentivizing elements like reduced lot setbacks, greater height, higher intensity of use, and accessory dwelling units will support more possible riders in walking distance.

Implementation Example: The City of Richardson's Collins/Arapaho Transit-Oriented Development and Innovation District includes a form-based code for the purpose of "allowing flexibility while encouraging ... a built environment consistent with the community's vision" of a dense, well-connected, urban environment.<sup>19</sup>

Additional transit-oriented and pedestrian-oriented design guidelines are included in NCTCOG's Sustainable Zoning Guidebook<sup>20</sup> and DART's TOD Guidelines.<sup>21</sup>

## PRIORITIZE DEVELOPMENT INCENTIVES FOR TOD PROJECTS

The history of the Red and Blue Lines show public-private development has been substantial to catalyzing TOD and should continue by targeting weaker station area markets.

- i. Prioritize city grant and economic incentives for station areas  
Prioritize city financial incentives such as TIF districts, grants, and other public funds for TOD projects around station areas, especially those with weaker markets for TODs.
- ii. Public-Private Partnerships  
Cities should partner with private developers to have greater say in the type of development to be constructed and achieve greater density
- iii. Development Incentives  
Expedited processes, waved fees, density bonuses to incentivize TOD projects by making it easier for projects that qualify as TODs get approved.

Implementation Example: The City of Dallas's TIF-funded Lancaster Urban Village TOD is a mixed-use, mixed-income housing development located in a weak TOD market surrounding VA Medical Center Station. Public investment from various sources was essential to this project's successful development in line with city goals.<sup>22</sup>

<sup>19</sup>City of Richardson Department of Development Services. (2019). PD Planned Development Collins/Arapaho TOD and Innovation District Form Based Code. Retrieved on March 23, 2021 from <https://www.cor.net/home/showpublisheddocument?id=27627>.

<sup>20</sup>North Central Texas Council of Governments. (2016). North Texas Sustainable Zoning Guidebook. Retrieved on March 23, 2021 from [https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/Dev/Guidebook\\_FINAL\\_121316.pdf](https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/Dev/Guidebook_FINAL_121316.pdf).

<sup>21</sup>Dallas Area Rapid Transit. (2020). Transit Oriented Development Guidelines. Retrieved on March 23, 2021 from <https://www.dart.org/economicdevelopment/DARTTODGuidelines2020.pdf>.

<sup>22</sup>City of Dallas Office of Economic Development. (2011). Economic Development Committee Lancaster Urban Corridor Briefing Material. Retrieved March 12, 2021 from [http://www3.dallascityhall.com/committee\\_briefings/briefings1211/ECO\\_LancasterUrbanVillage\\_120511.pdf](http://www3.dallascityhall.com/committee_briefings/briefings1211/ECO_LancasterUrbanVillage_120511.pdf).

## EXPAND AND UPDATE STATION AREA PLANS

Implementing increased TOD at individual stations on the corridor will take a neighborhood level planning and attention to the details of each station area.

- i. Expand Station area plans to more stations on the Corridors  
Prioritize station areas with TOD potential that lack an updated area plan addressing the TOD concept especially pedestrian access, zoning, and options for increasing density
- ii. Update existing plans as needed to address evolving need and context  
Use the planning process to prepare a station area for implementation and update older plans to address changes to station area development context.

Implementation Example: The City of Richardson Collins/ Arapaho TOD and Innovation District Study identifies strategies to redevelop key areas mostly industrial district and lays out various implementation strategies including redeveloping parking, improving streetscapes, and re-zoning to a TOD-supportive form-based code.<sup>23</sup>

Recommendations listed above are largely geared to near-term local government policies in the built environment of the station area. They are geared to what is achievable with local government's existing authority and resources. Elements of this plan, especially the TOD Resident, Business, and Employee Survey, indicate there are larger challenges to TOD beyond local government control. Larger conditions of the economy, historical non-TOD development patterns, and challenges of enhancing transit services also likely need to be addressed to fully address ridership increases. Ongoing study and consideration of improvements to transit service frequency and quality will be important to this.

<sup>23</sup>City of Richardson Collins/Arapaho TOD and Innovation District Study (2019) <https://www.cor.net/departments/development-services/comprehensive-planning/enhancement-redevelopment/collins-arapaho-transit-oriented-development-and-innovation-district>

# ACTIONS/ IMPLEMENTATION MATRIX

ACTIONS	CATEGORY	TIMEFRAME	RESPONSIBLE PARTIES
<b>INCREASE SUPPLY OF TOD AFFORDABLE HOUSING</b>			
Reduce parking requirements for affordable housing	Planning	Ongoing	Cities' Planning Department
Increase bike and pedestrian connections to affordable housing	Infrastructure	Short-term (0-5 years)	Cities' Public Works Department DART
Financially incentivize affordable housing	Service/ Program	Ongoing	Cities' Housing and Economic Development Departments DART
Plan to mitigate displacement	Planning	Short-term (0-5 years)	Cities' Departments of Housing and Planning, Non-profits, and Community Groups
<b>IMPROVE PEDESTRIAN CONNECTIONS TO STATIONS</b>			
Implement DART Red and Blue Line Corridors Last Mile Connects Project recommended infrastructure improvements	Infrastructure	Short-term (0-5 years)	Cities' Public Works Department DART
Continue analysis of additional station areas in the DART system and others to understand the true costs of last mile connections.	Planning	Ongoing	Cities' Planning and Public Works Departments DART
Encourage local governments to plan in future Capital Improvement Programs (CIPs) and/or future bond programs to implement priority/high category of need improvements.	Planning	Ongoing	Cities' Planning Department DART
Code revisions for the purpose of improving pedestrian walking conditions	Regulatory	Short-term (0-5 years)	Cities' Planning and Public Works Departments
<b>PERMIT AND GUIDE TOD DESIGN THROUGH ZONING</b>			
Expand the allowable land area supporting TOD	Regulatory	Short-term (0-5 years)	Cities' Planning and Public Works
Implement a form-based code (FBC), overlay or zone with design requirements	Regulatory	Long-term (5+ years)	
Incorporate flexibility code provisions for retrofitting existing developments	Regulatory	Short-term (0-5 years)	
Increase allowable density and encourage density through bonuses	Regulatory	Short-term (0-5 years)	
<b>REDUCE PARKING FOR TODS</b>			
Encourage more efficient parking supply	Planning	Short-term (0-5 years)	Cities' Planning Department DART
Apply parking management tools	Service/ Program	Ongoing	Cities' Economic Development and Planning Departments, and local business associations
<b>PRIORITIZE DEVELOPMENT INCENTIVES FOR TOD PROJECTS</b>			
Prioritize city grant and economic incentives for station areas	Service/ Program	Ongoing	Cities' Economic Development Departments
Public-Private Partnerships	Service/ Program	Short-term (0-5 years)	Cities' Development Services Departments
Development Incentives	Service/ Program	Short-term (0-5 years)	
<b>EXPAND AND UPDATE STATION AREA PLANS AND UPDATE STATION AREA PLANS</b>			
Expand Station area plans to more stations on the corridor	Planning	Short-term (0-5 years)	Cities' Planning Department DART
Update existing plans as needed to address evolving need and context	Planning	Ongoing	

## REGIONAL NEXT STEPS

The Regional Transportation Council of the North Central Texas Council of Governments has supported TOD in the DART Red and Blue Line Corridors through funding for planning and bicycle/pedestrian facilities construction. To continue advancing TOD and overcome the TOD barriers identified in this report, the following recommendations should be considered:

- Continue to fund TOD-supportive complete street, bicycle, and pedestrian projects, especially projects identified in the first/last mile bike/pedestrian infrastructure study
- Coordinate with stakeholders to develop station area plans for those rail stations without recent TOD plans in coordination with cities
- Enhance the Metropolitan Transportation Plan Policy Bundle Incentive Program with updated policies that reward cities with TOD supportive land use policies and programs
- Explore ways to support cities and DART with public support for mixed-use and mixed-income TOD
- Continue research and additional TOD parking studies ,data collection, and parking management pilots

The recommendations in this report provide an impactful guide to shifting the local station area context further in favor of TOD. The DART Red and Blue Line corridors presents many opportunities for TOD and ridership that NCTCOG together with DART and the Cities of Dallas, Plano, Garland and Richardson can work on implementing.



# APPENDIX

## A. IDENTIFIED TOD PROJECTS WITH DESIGN CRITERIA SCORES

Potential TODs were identified through staff observation and consideration of TOD characteristics including developments located within a half-mile of the 28 pilot stations and those built any time after station construction completion, or five years prior. Developments were evaluated and assigned scores of 1, 2, or 3 in each standard TOD design criterion depending on how closely their design met national standards. A score of 3 is for a development that meets all noted elements of a design criterion. A score of 2 is for when only some of the elements are met and 1 is for a development that does not meet the design criterion standard (see Chapter 2, TOD Project Inventory).

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
Fiji Senior Villas	201 Fran Way	Dallas	8th and Corinth Station	2	1	2	1	1	1	
Sphinx at Fiji	1548 Ave B	Dallas	8th and Corinth Station	3	2	3	1	2	2	
GreenVue	1350 N Greenville Ave	Richardson	Arapaho Center Station	2	2	2	1	1	3	
Browder Park Place	1815 Browder St	Dallas	Cedars Station	1	1	2	3	3	2	
Dallas Police Headquarters	1400 S Lamar St	Dallas	Cedars Station	3	2	1	1	2	3	
DCCCD Office Bldg.	1601 S Lamar St	Dallas	Cedars Station	3	2	3	3	2	3	Yes
Digit 1919	1919 S Akard St	Dallas	Cedars Station	2	2	2	3	2	3	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETSCAPE	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
McKee Street Townhomes	1203 Silver Mill Dr	Dallas	Cedars Station	1	1	1	2	2	1	
Miller's Ferry Row	1823 S Ervay St	Dallas	Cedars Station	3	1	3	2	3	2	
Nylo Hotel Dallas South Side	1325 S Lamar St	Dallas	Cedars Station	2	2	3	3	2	3	Yes
South Side on Lamar	1409 S Lamar St	Dallas	Cedars Station	2	3	3	2	2	3	Yes
The Beat	1001 Belleview St	Dallas	Cedars Station	2	3	3	3	3	3	
The Belleview	1400 Belleview St	Dallas	Cedars Station	3	3	3	3	3	2	
Urban Lofts	1203 Urban Lofts Dr	Dallas	Cedars Station	1	1	1	2	2	1	
3400 at CityLine	3400 N Central Expy	Richardson	CityLine/ Bush Station	3	1	2	2	3	2	
Axis 110	110 W CityLine Dr	Richardson	CityLine/ Bush Station	3	3	3	3	3	3	
Alexan Crossing	120 W CityLine Dr	Richardson	CityLine/ Bush Station	3	3	3	3	3	3	
Aloft Hotel	1160 State St	Richardson	CityLine/ Bush Station	3	3	3	3	3	3	
Anthem CityLine	1250 State St	Richardson	CityLine/ Bush Station	3	3	3	3	3	3	
Aura One90	680 Executive Dr	Plano	CityLine/ Bush Station	2	2	1	2	3	3	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETSCAPE	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
CityLine Park	1130 CityLine Dr	Richardson	CityLine/ Bush Station	3	3	3	3	3	3	
Four Cityline	1415 State St	Richardson	CityLine/ Bush Station	3	3	3	3	2	3	
One Cityline	1150 State St	Richardson	CityLine/ Bush Station	3	3	3	3	2	3	
The Lyla	3521 Wilshire Way	Richardson	CityLine/ Bush Station	2	2	2	2	3	3	
The Riley	3551 Wilshire Way	Richardson	CityLine/ Bush Station	2	3	2	2	3	3	
The Standard at Cityline	1125 E Renner Rd	Richardson	CityLine/ Bush Station	2	2	2	2	3	3	
Three Cityline	1251 State St	Richardson	CityLine/ Bush Station	3	3	3	3	2	3	
Two Cityline	1201 State St	Richardson	CityLine/ Bush Station	3	3	3	3	2	3	
Windsor CityLine	1250 Hunt St	Richardson	CityLine/ Bush Station	3	3	3	3	3	3	
2660 at Cityplace	2660 N Haskell Ave	Dallas	Cityplace Station	2	2	2	2	2	2	
3700M	3700 McKinney Ave	Dallas	Cityplace Station	3	2	3	3	3	3	
Alara Uptown	2990 Blackburn St	Dallas	Cityplace Station	2	2	3	3	3	3	
Ardan	2975 Blackburn St	Dallas	Cityplace Station	3	2	1	3	3	3	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
Canopy by Hilton Dallas Uptown	2950 Cityplace W Blvd	Dallas	Cityplace Station	3	3	3	3	3	3	
Cityplace Heights	4030 N Central Expy	Dallas	Cityplace Station	2	2	2	3	3	2	
Cityplace II	2711 N Haskell Ave	Dallas	Cityplace Station	1	1	3	2	3	3	
Deere Park	2315 N Carroll Ave	Dallas	Cityplace Station	2	2	2	2	2	3	
Delano Place	4115 Delano Pl	Dallas	Cityplace Station	1	1	1	2	2	1	
Dwellings at Ashby	4402 Deere St	Dallas	Cityplace Station	1	1	3	2	2	3	
Flats at the Sawyer	3636 McKinney Ave	Dallas	Cityplace Station	3	3	3	3	3	3	
Gables Turtle Creek Cityplace	3711 Cole Ave	Dallas	Cityplace Station	1	2	2	2	2	2	
Hall/Howell	3463 Howell St	Dallas	Cityplace Station	3	1	3	2	3	2	
L2 Uptown	2828 Lemmon Ave E	Dallas	Cityplace Station	1	2	2	2	2	3	
Lennox West Village	3700 Cole Ave	Dallas	Cityplace Station	3	3	3	3	3	3	
Loft + Row	2110 N Peak St	Dallas	Cityplace Station	1	1	2	1	2	2	
Lofts at the Sawyer	3839 McKinney Ave	Dallas	Cityplace Station	3	2	3	3	3	3	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
Manchester State Thomas	3108 State St	Dallas	Cityplace Station	2	3	3	3	3	3	
McKinney Uptown	3324 McKinney Ave	Dallas	Cityplace Station	2	2	2	3	3	3	
M-Line Tower	3200 McKinney Ave	Dallas	Cityplace Station	3	2	3	2	3	3	
Moderata Howell	3400 Howell St	Dallas	Cityplace Station	3	2	3	3	3	3	
Oakwood Dallas Uptown	2901 Cityplace W Blvd	Dallas	Cityplace Station	2	3	3	3	3	3	
One Oak Grove	3411 Oak Grove Ave	Dallas	Cityplace Station	2	2	2	2	3	3	
Portobello by the Creek	3312 Blackburn St	Dallas	Cityplace Station	3	2	3	2	3	3	
Post Coles Corner	3096 N Hall St	Dallas	Cityplace Station	2	3	3	3	3	3	
Post Heights	3015 State St	Dallas	Cityplace Station	2	2	3	3	3	3	
Post Katy Trail	3223 Lemmon Ave	Dallas	Cityplace Station	3	3	2	3	3	3	
Roseland	1949 N Washington Ave	Dallas	Cityplace Station	2	1	3	2	3	2	
Roseland Gardens	2255 N Washington Ave	Dallas	Cityplace Station	2	1	1	1	2	3	
The Grand at Turtle Creek	3303 Blackburn St	Dallas	Cityplace Station	2	1	1	1	3	1	



DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
The Mondrian Cityplace	3000 Blackburn St	Dallas	Cityplace Station	3	2	3	3	3	3	
The Monterey by Windsor	3930 McKinney Ave	Dallas	Cityplace Station	2	2	3	2	3	3	
The Nox	4211 Delano Pl	Dallas	Cityplace Station	1	1	2	2	2	2	
The Richards Group	2801 N Central Expy	Dallas	Cityplace Station	2	3	3	3	2	3	
Thomas Ave	3200 Thomas	Dallas	Cityplace Station	2	3	3	3	3	3	
Travis Terrace	3900 Travis St	Dallas	Cityplace Station	2	2	2	1	1	2	
Valencia at West Village	3815 Haskell Dr	Dallas	Cityplace Station	3	2	3	2	3	3	
West Side at State Thomas	2411 N Hall St	Dallas	Cityplace Station	3	3	3	3	3	2	
Allen, George L Courts	600 Commerce St	Dallas	Convention Center Station	2	2	3	2	3	3	
Aloft Dallas Downtown	1033 Young St	Dallas	Convention Center Station	3	2	2	3	1	2	Yes
Buzz	1111 S Akard St	Dallas	Convention Center Station	2	2	1	2	2	2	
Cedars Corners	1114 S Akard St	Dallas	Convention Center Station	1	1	3	3	2	3	Yes
Earle Cabell Federal Building	1100 Commerce St	Dallas	Convention Center Station	1	2	1	3	3	3	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
Kay Bailey Hutchison Convention Center	650 S Griffin St	Dallas	Convention Center Station	2	2	2	1	2	2	
Manor House	1222 Commerce St	Dallas	Convention Center Station	3	2	3	3	3	2	
Omni Hotel Restaurant Building	665 S Lamar St	Dallas	Convention Center Station	3	3	2	1	3	2	
Residence at Jackson Street	1300 Jackson St	Dallas	Convention Center Station	3	1	3	3	3	3	Yes
SoCo Urban Lofts	1122 Jackson St	Dallas	Convention Center Station	2	1	2	3	3	2	Yes
South Side Flats by Jefferson	1210 S Lamar St	Dallas	Convention Center Station	3	3	3	3	3	3	
Southside Ballroom	1135 S Lamar St	Dallas	Convention Center Station	1	2	2	3	2	2	Yes
Southside Place	918 Powhattan St	Dallas	Convention Center Station	1	2	2	2	3	3	
City Square Lofts	705 W Ave B	Garland	Downtown Garland Station	3	2	3	3	2	2	Yes
DCCCD Richland College Garland Campus	675 W Walnut St	Garland	Downtown Garland Station	2	2	2	2	2	2	
Granville Arts Center	300 N 5th St	Garland	Downtown Garland Station	3	2	1	1	1	3	Yes
Oaks 5th Street Crossing	351 N 5th St	Garland	Downtown Garland Station	3	3	3	3	3	3	
Oaks 5th Street Crossing at City Center	351 N 5th St	Garland	Downtown Garland Station	3	3	3	3	3	3	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
15th St Village	1440 Clarinet Ln	Plano	Downtown Plano Station	2	2	3	2	3	3	
15th St Village	800 E 15th St	Plano	Downtown Plano Station	1	2	1	3	2	3	
Bel Air K Station	1013 15th Pl	Plano	Downtown Plano Station	3	3	3	3	3	3	
Junction 15	930 E 15th St	Plano	Downtown Plano Station	3	2	3	3	3	3	
Bel Air Downtown	1404 Vontress St	Plano	Downtown Plano Station	3	2	3	3	3	3	
Lexington Park at Rice Field	1608 Carpenter Dr	Plano	Downtown Plano Station	2	1	3	3	3	3	
Morada Plano	1009 14th St	Plano	Downtown Plano Station	3	2	2	3	3	3	
Urban Rio	1000 14th St #100	Plano	Downtown Plano Station	3	2	3	3	2	2	
AMLI Galatyn Station	2301 Performance Dr	Richardson	Galatyn Park Station	2	2	3	3	3	3	
Cue Galatyn Station Apartments	2305 Plaza Blvd	Richardson	Galatyn Park Station	3	2	3	3	3	3	
Eisemann Center	2351 Performance Dr	Richardson	Galatyn Park Station	1	2	1	2	3	3	
Galatyn Commons Building A	2375 N Glenville Dr	Richardson	Galatyn Park Station	2	2	2	2	2	3	
Galatyn Commons Building B	2375 N Glenville Dr	Richardson	Galatyn Park Station	1	2	1	2	2	3	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
Galatyn Commons Building C	2380 Performance Dr	Richardson	Galatyn Park Station	2	2	3	3	3	2	
Galatyn Commons Building D	1011 Galatyn Pkwy	Richardson	Galatyn Park Station	2	2	3	3	3	2	
Jefferson Galatyn Park	1050 Galatyn Pkwy	Richardson	Galatyn Park Station	2	2	2	2	3	3	
Renaissance Hotel	900 E Lookout Dr	Richardson	Galatyn Park Station	2	3	2	2	3	3	
Serenity Place	3124 S Denley Dr	Dallas	Kiest Station	2	1	1	1	2	2	
LBJ Station	8997 Vantage Point Dr	Dallas	LBJ/Central Station	2	1	1	2	1	2	
Commercial Development	6200 N Central Expy	Dallas	Lovers Lane Station	1	1	2	2	2	3	
Energy Square	4925 Greenville Ave	Dallas	Lovers Lane Station							Yes
Landmark on Lovers Apartments	5201 Amesbury Dr	Dallas	Lovers Lane Station	2	1	2	2	3	3	
Shelby	5609 SMU Blvd	Dallas	Lovers Lane Station	2	2	3	3	3	3	
The Atwood	6010 Milton St	Dallas	Lovers Lane Station	3	1	3	2	3	3	
The Ellison	5065 Amesbury Dr	Dallas	Lovers Lane Station	3	1	3	2	3	3	
The Tradition	5850 E Lovers Lane	Dallas	Lovers Lane Station	2	1	1	1	2	1	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
5 Mockingbird	5555 E Mockingbird Ln	Dallas	Mockingbird Station	3	2	3	3	3	2	
Crest at Glencoe	3736 Glencoe St	Dallas	Mockingbird Station	2	2	2	2	2	2	
Eastline Dallas	6050 N Central Expy	Dallas	Mockingbird Station	3	3	3	3	3	3	
Lofts at Mockingbird Station	5331 E Mockingbird Ln	Dallas	Mockingbird Station	3	3	3	2	2	3	Yes
Mockingbird Flats	5600 SMU Blvd	Dallas	Mockingbird Station	2	2	3	3	2	3	
Mockingbird Station Retail (Angelika)	5321 E Mockingbird Ln	Dallas	Mockingbird Station	3	3	3	3	3	3	
Offices at Mockingbird Station (The)	5307 E Mockingbird Ln	Dallas	Mockingbird Station	3	2	3	3	3	3	Yes
Robson and Lindley Aquatic Center	5550 SMU Blvd	Dallas	Mockingbird Station	1	2	2	2	2	3	
Galleries at Park Lane	8110 Park Ln	Dallas	Park Lane Station	2	2	2	2	3	3	
Park Lane Development	8020 Park Ln	Dallas	Park Lane Station	3	2	3	3	3	3	
Park Ln Office	8170 Park Ln	Dallas	Park Lane Station	3	3	3	3	3	2	
Sam Tasby Middle	7001 Fair Oaks Ave	Dallas	Park Lane Station	2	2	2	2	1	2	
The Heights at Park Lane	8066 Park Ln	Dallas	Park Lane Station	3	3	3	3	3	2	



DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
The Shops at Park Ln	8080 Park Ln	Dallas	Park Lane Station	3	3	3	3	3	2	
Brick Row	744 Brick Row	Richardson	Spring Valley Station	2	3	3	3	3	2	
Tyler Station	1300 S Polk St	Dallas	Tyler/ Vernon Station							Yes
Lancaster Urban Village	4417 S Lancaster Rd	Dallas	VA Medical Center Station	3	2	3	2	3	2	
Adora Midtown Park	8130 Meadow Rd	Dallas	Walnut Hill Station	2	2	1	2	2	2	
Hanover Midtown Park	8250 Meadow Rd	Dallas	Walnut Hill Station	2	2	3	3	2	3	
Modena	8275 Walnut Hill Ln	Dallas	Walnut Hill Station	2	1	1	2	2	2	
Preston Hollow Village (Office)	Walnut Hill Ln and North Central Expy	Dallas	Walnut Hill Station	3	3	3	3	2	3	
Preston Hollow Village (Retail)	Walnut Hill Ln and North Central Expy	Dallas	Walnut Hill Station	3	3	3	3	2	3	
The Nash	8213 Meadow Rd	Dallas	Walnut Hill Station	3	2	3	3	3	3	
The Parc at White Rock	7545 E Northwest Hwy	Dallas	White Rock Station	2	1	1	1	3	2	

DEVELOPMENT NAME	ADDRESS	CITY	STATION	SCORE						RETROFIT
				FAÇADE ARTICULATION AND FENESTRATION	QUALITY OF PEDESTRIAN STREETScape	PLACEMENT AND QUALITY OF ENTRANCES	BUILDING SETBACK	DEVELOPMENT PARKING DESIGN	SITE PEDESTRIAN CONNECTIVITY AND SIDEWALKS	
Courtyard Marriott Dallas Downtown	310 S Houston St	Dallas		2	2	2	3	3	3	
Omni Dallas Convention Hotel	555 S Lamar St	Dallas		2	2	2	1	3	3	
Omni Dallas Convention Hotel	555 S Lamar St	Dallas		2	2	2	1	3	3	

# B. PREVIOUS PLANNING EFFORTS

## DALLAS AREA RAPID TRANSIT (DART)

**DART TOD Guidelines (2020)** - <https://www.dart.org/economicdevelopment/DARTTODGuidelines2020.pdf>

Dallas Area Rapid Transit (DART) has supported transit-oriented development (TOD) projects through policy guidelines and transit investments since 1989. The most recent update of these guidelines is designed to build greater understanding of TOD's benefits, promote collaborative planning, and provide guidance to elevate the quality and performance of future projects. This guide provides a clear outline of qualities that set TODs apart from more conventional forms of development through a TOD typology and TOD design guidelines. The guide also breaks down DART's role in promoting TODs through delivery of transit service, transit infrastructure, station/transfer center improvements, development opportunities for DART property (including underutilized parking), and project selection and oversight.

**DART TOD Policy (2020)** - <https://www.dart.org/about/todpolicy.asp>

DART seeks to continue developing the DART service system and attract riders by promoting the development of TODs. As such, DART passed a resolution formalizing DART's goals and strategies to identify and implement TOD projects. The TOD Policy also authorizes DART to determine implementation procedures.

## DALLAS

**Dallas Zoo Area Land Use Study (2001) [Dallas Zoo Station]**- <https://dallascityhall.com/departments/pnv/Pages/Dallas-Zoo-Area-Land-Use-Study-Landing-Page.aspx>

A comprehensive area planning study focused on revitalizing the neighborhood around the Dallas Zoo and a large part of the Dallas Zoo DART Station half-mile radius area. While the DART rail station was referenced in the plan the concept of TOD is not used and zoning and economic development recommendations are not focused on supporting transit. Recommendations do include however encouraging connections to the DART bus and rail service including improvements to bicycle and sidewalk connections.

**Vickery Meadow Station Area Plan (2013) [Park Lane and Walnut Hill Stations]** - <https://dallascityhall.com/departments/pnv/Pages/TOD-Vickery-Meadow-station-area-landing-page.aspx>

The City of Dallas was awarded a Housing and Urban Development Community Challenge Planning Grant to enhance transit-oriented development through focused planning aimed at developing workforce, mixed income, and mixed-use housing at multiple DART light rail stations. One of the focus areas for TOD is Vickery Meadow, a relatively dense and socioeconomically diverse area including the DART Park Lane and Walnut Hill Station areas. The plan outlines a development action plan, adaptive re-use action plan and guidelines. Area-wide strategies are designed to stimulate development and redevelopment activity across the broader Vickery Meadow area. Key strategies related to financing, education, zoning, and transportation will help advance the strategic opportunities outlined in this plan.

**The 360 Plan (2017) [Convention Center and Cedars Stations]** - <https://dallascityhall.com/departments/pnv/Pages/The-360-Plan---landing-page.aspx>

A 2017 update to the 2011 Downtown Dallas 360 plan focuses on emerging needs of a growing residential population, commercial sector, and visitor base in downtown Dallas. In addition to strategies to advance urban mobility, build complete neighborhoods, and promote great placemaking, the 360 Plan contains a transformative strategy for the catalytic development area of the future high speed rail station. This strategy includes calls for city investment and incentives to support transit-oriented developments. The plan outlines multi-modal connectivity improvements and increasing the number of TODs as priority actions around Convention Center and Cedars station.

**LBJ /Skillman Urban Planning Initiative Study (2014) [LBJ/Skillman Station]** - <https://dallascityhall.com/departments/pnv/Pages/LBJSkillman-UPI-Landing-page.aspx>

A collaborative study to identify redevelopment and new transit-oriented development opportunities in partnership with the Lake Highlands Area Improvement Association, City of Dallas, and NCTCOG's Sustainable Development Program. The plan highlights the competitive market advantage of the presence of DART's LBJ/Skillman light rail station for TODs as well as a wider variety of retail and housing options. In addition, land use recommendations suggest ideas for future catalytic development of currently undeveloped properties to the North of the LBJ/Skillman DART station.

**Lancaster Corridor Station Area Plan (2013) [Kiest and VA Medical Center Stations]** - <https://dallascityhall.com/departments/prnv/Pages/Lancaster-Area-Plan-landing-page.aspx>

The City of Dallas was awarded a Housing and Urban Development Community Challenge Planning Grant to enhance transit-oriented development through focused planning aimed at developing workforce, mixed-income, and mixed-use housing at multiple DART light rail stations. One of the focus areas for TOD is Lancaster Corridor, a concentrated area of commercial, office, and institutional uses bounded by the DART Kiest and VA Medical Center station areas. The plan outlines a catalyst development plan, adaptive re-use action plan, and implementation guidelines. Area-wide strategies are designed to stimulate development and redevelopment activity along the Lancaster Corridor. Key strategies related to financing, education, zoning, and transportation will help advance the strategic opportunities outlined in the plan.

## GARLAND

**Downtown Garland Urban Design Guidelines (2010) [Downtown Garland Station]** - <https://www.garlandtx.gov/DocumentCenter/View/818/Downtown-Urban-Design-Standards-PDF>

This document lays out standard and specific guidelines for streetscape design in Downtown Garland. This includes lighting, tree, bench, sidewalk, sign/wayfinding, intersection, and other streetscape components. It is the goal of this guide to help transform Downtown Garland into a more pedestrian-friendly area in which the pedestrian zone is less passive and more active through the strategic placement of the components listed previously. While TOD is not explicitly referenced, a DART station exists on the northern edge of the subject area and the pedestrian-scale focus of the guide lends itself to high quality TOD style.

**Forest-Jupiter Transit-Oriented Redevelopment Plan (2013) [Forest/Jupiter Station]** - <https://www.garlandtx.gov/DocumentCenter/View/819/Forest-Jupiter-Transit-Oriented-Redevelopment-Plan-PDF>

This plan is part of Garland's Economic Development Strategy and was collaboration between City of Garland and the NCTCOG Sustainable development program to produce a detailed study covering three Targeted Investment Areas (TIAs) in Garland that were identified as prime locations for public/private redevelopment projects. Of the three TIAs, only one touches a rail transit station. This TIA is intended to become a high-density TOD area while the other two are envisioned as a neighborhood retail center area and a medical district. The plan utilizes a variety of quantitative and qualitative analysis methods and provides a series of detailed action steps and financing tools for the TIAs.

## PLANO

**Downtown Plano Vision and Strategy Update (2019) [Downtown Plano Station]** - <https://www.plano.gov/1298/Downtown-Plano-Resources>

An update to the initial 1999 Downtown Plano Transit Village Plan which recommended the city provide a wide range of economic incentives and a favorable regulatory environment to stimulate redevelopment, infill, restoration, and adaptive-reuse projects in the half-mile station area of Downtown Plano station. The 2019 plan expands the vision for TOD through a southern expansion of the downtown district to include the planned 12th Street DART Cotton Belt station. Recommendations and design guidelines suggest strategies for neighborhood preservation, a more pedestrian friendly district, a greater variety of uses, and public art.

## RICHARDSON

**Spring Valley and Main Street Station Area Plans (2003) [Spring Valley Station]**- <https://www.cor.net/departments/development-services/comprehensive-planning/transit-oriented-development/tod-plans>

This plan details the public involvement process and the resulting proposed improvements to the Spring Valley and Main Street station areas in Richardson. Both concept plans split the station areas into three subareas. The Spring Valley station area is divided into a TOD area, a Mixed-Use Pedestrian Corridor, and an Urban Residential Neighborhood. The Main Street station area is divided into a TOD area, a Downtown Infill area, and the Terrace Shopping Center/International Center. Generally, higher density development, mixed-use development, and pedestrian-centric infrastructure is proposed nearest the stations and along major transportation corridors while lower density, single-use development, and auto-centric infrastructure is proposed further from the station. Both plans also emphasize extensive streetscaping and provides cross-sections, site plans, and example renderings to illustrate the proposals.

**Collins/Arapaho TOD and Innovation District Study (2019) [Arapaho Center Station]** - <https://www.cor.net/departments/development-services/comprehensive-planning/enhancement-redevelopment/collins-arapaho-transit-oriented-development-and-innovation-district>

This plan covers a roughly 1,200-acre, mostly industrial, study area primarily located east of the DART station. The approximately 1,000 businesses in the District employ about 19,000 people and is now known as the Richardson Innovation Quarter. The goal of this plan is

to develop strategies for redevelop of key areas in the District into non-industrial/office uses that would enhance and stimulate further growth. Ideas include redeveloping the DART station area into a highly mixed-use area, redeveloping underutilized parking/loading land, encouraging placemaking activities, marketing/branding, streetscaping, new open spaces, and establishing public-private partnerships. In addition to the station area redevelopment, two other sites are identified for high density, mixed-use development. In 2019, the City began implementation of this study by rezoning the 1,200-acre district and developing a form-based code for the station area that encourages high density, walkability, and transit-oriented uses. In 2020, the City developed a station area plan with DART for the Arapaho Center Station which evaluated parking needs, land use scenarios, street network options, and the relocation or reconfiguration of the Arapaho Center Station Bus Facility.



# C.1 ZONING - PARKING DESIGN STRATEGIES

## Off-Site Parking

The following parking design requirement/ guidance are one component used to evaluate a zoning district for TOD-supportive policies (see Chapter 3, TOD Zoning District Inventory).

## Park Behind Building/ Pedestrian Orientation in Lot Design

Contains parking setbacks or other rules that limits parking spaces to the rear or side of a building, effectively preventing spaces between the sidewalk and building.

## Screening

Fencing, walls, or landscaping required to conceal off-street parking adjacent to the right-of-way intended to facilitate pedestrian comfort and reduce visual impact of surface parking.

## Garage Design

Parking structures should be wrapped with non-parking uses at the ground floor level or have architectural detail to conceal the garage.

## Automatic Reduction

A reduction in minimum required off-street parking spaces granted by-right in the zone or when specific criteria are met (e.g., reduction of 25 percent if within 1,000 feet from train station; no off-street parking required in this specific zone).

## Max Spaces/ Lot Size

A maximum limit is placed on surface parking spaces a development may provide (e.g., 125 percent of the minimum requirement; no more than 50 surface spaces per lot).

## Shared Parking Allowances

Parking spaces are shared by the occupants of more than one building or use at different times of the day resulting in a reduction of overall parking for those developments combined.

## On-Street Counts

Developments may provide shared on-street spaces or use existing adjacent on-street spaces to count towards the minimum requirement.

## Cash-in-Lieu

Instead of building required parking, payment is made to a fund to cover the value of the spaces not developed.

# C.2 ZONING DISTRICTS BY CITY

The following tables described all reviewed base zoning districts within a half mile of the 28 pilot study stations. Selected zoning districts are reviewed as likely “TOD-supportive” or “Non-TOD supportive” (see Chapter 3, TOD Zoning District Inventory).

## CITY OF DALLAS ZONING DISTRICTS (2020)

[https://codelibrary.amlegal.com/codes/dallas/latest/dallas\\_tx/0-0-0-26643](https://codelibrary.amlegal.com/codes/dallas/latest/dallas_tx/0-0-0-26643)

ZONING DISTRICT	DESCRIPTION/ INTENT	TOD SUPPORTIVE
CA-1(A), Central Area	No minimum front yard setback, no height maximums, no maximum dwelling units per acre (DUA), maximum floor area ratio (FAR) of 20:1, maximum of 100% lot coverage.	Yes
CR, Community Retail	Provides for the development of community-serving retail, personal service, and office uses at a scale and intensity compatible with residential communities. Minimum front yard setback of 15 ft, maximum height of 54 ft or 3 stories, no maximum dua, floor area ratio (FAR) of 0.5:1 for office uses and 0.75 for all other uses, maximum lot coverage of 60%.	No
CS, Commercial Service and Industrial Districts	District is not intended to be located in areas of low and medium density residential development. Minimum front yard setback is 15 ft when adjacent to an expressway or a thoroughfare. Maximum height of 45 ft or 3 stories. Maximum FAR of 0.5:1 for any office, lodging, retail, and personal services. 0.75:1 FAR for all uses combined. Maximum lot coverage of 80%. No parking design requirements mentioned that are TOD supportive.	No
D(A), Duplex District	Minimum front yard setback is 25 ft and maximum height is 36 ft. No maximum dua, no maximum FAR, and 60% lot coverage.	No
GO(A), General Office	Intended to serve city-wide needs and should be located near higher density zoning districts, especially where the potential trip generation allowed by this group will have a minimal effect on low density communities. Minimum front yard setback 15 ft, maximum height is 270 ft or 20 stories. There is no maximum dua, FAR is 4:1, lot coverage maximum is 80%. Off-street loading spaces may be located in the front yard behind the setback line if they are screened from the street. All off-street surface parking lots, excluding driveways used for ingress or egress, must be screened from the street.	Yes
IM, Industrial Manufacturing District	Provides for heavy industrial manufacturing uses with accompanying open storage and supporting commercial uses. This district is not intended to be located in or near areas of residential development. Minimum front yard setback is 15 ft when adjacent to an expressway or a thoroughfare. Maximum height of 110 ft or 3 stories. Maximum FAR of 0.5:1 for retail and personal service uses. Maximum FAR of 0.75:1 for any office, lodging, retail, and personal services. 2:1 FAR for all uses combined. Maximum lot coverage of 80%.	No
IR, Industrial Research District	Minimum front yard setback 15 ft, maximum height is 200 ft or 15 stories. There is no maximum dua. Maximum FAR of 0.5:1 for retail and personal service uses. Maximum FAR of 0.75:1 for any office, lodging, retail, and personal services. 2:1 FAR for all uses combined. Maximum lot coverage of 80%.	No
LI, Light Industrial District	Minimum front yard setback 15 ft, maximum height is 70 ft or 5 stories. There is no maximum dua. Maximum FAR of 0.5:1 for retail and personal service uses. Maximum FAR of 0.75:1 for any office, lodging, retail, and personal services. 1:1 FAR for all uses combined. Maximum lot coverage of 80%.	No

<p><b>LO-1, Limited Office</b></p>	<p>Minimum front yard setback is 15 ft and maximum height is 70 ft or 5 stories. No maximum dua, maximum FAR is 1:1, and maximum 80% lot coverage. Off-street loading spaces may be located in the front yard behind the setback line if they are screened from the street. All off-street surface parking lots, excluding driveways used for ingress or egress, must be screened from the street. No parking design requirements mentioned that are TOD supportive.</p>	<p>Yes</p>
<p><b>LO-2, Limited Office</b></p>	<p>Minimum front yard setback is 15 ft and maximum height is 95 ft or 7 stories. No maximum dua, maximum FAR is 1.5:1, and maximum 80% lot coverage. Off-street loading spaces may be located in the front yard behind the setback line if they are screened from the street. All off-street surface parking lots, excluding driveways used for ingress or egress, must be screened from the street. No parking design requirements mentioned that are TOD supportive.</p>	<p>Yes</p>
<p><b>MC-1-4, Multiple Commercial</b></p>	<p>Single or multiple uses may be developed on one site in a multiple commercial district as in any other district; however, in order to encourage a mixture of uses, density bonuses are awarded to developments that qualify as "multiple commercial projects (MCP)." If an MCP is proposed, a project plan must be submitted to and approved by the building official. Minimum front yard setback is 15 ft. Maximum FAR varies based on use type from 0.5:1-1.5:1. Maximum height is 90 ft and maximum lot coverage is 80%. No parking design requirements mentioned that are TOD supportive.</p>	<p>Yes</p>
<p><b>MF-1(A), Multifamily District</b></p>	<p>Designed to protect the residential character and to prevent the overcrowding of the land. Minimum front yard setback is 15 ft, maximum height is 36 ft, but no maximum number of stories. Maximum dua of 15, maximum lot coverage of 60% for residential structures and 25% for nonresidential structures. Design/parking placement not present in base zoning.</p>	<p>No</p>
<p><b>MF-2(A), MF-2(A)(SAH), Multifamily</b></p>	<p>Designed to protect the residential character and to prevent the overcrowding of the land. Minimum front yard setback is 15 ft, maximum height is 36 ft, but no maximum number of stories. Maximum dua of 20 but density bonuses for affordable housing. Maximum lot coverage of 60% for residential structures and 50% for nonresidential structures. Design/parking placement not present in base zoning.</p>	<p>No</p>
<p><b>MF-3(A), Multifamily</b></p>	<p>Provides for the development and protection of midrise, medium density multifamily residential dwellings built on one lot. This district is not intended to be located in areas of low-density residential development. Minimum front yard setback is 15 ft, maximum height is 90 ft, but no maximum number of stories. Maximum dua is 90, maximum lot coverage is 60%, maximum FAR is 2:1. In an MF-3(A) or MF-4(A) district, any off-street parking for residential uses may extend to the front property line.</p>	<p>Yes</p>
<p><b>MF-4(A), Multifamily</b></p>	<p>Provides for the development and protection of high-rise, high density multifamily residential dwellings built on one lot. This district is not intended to be located in areas of low and medium density residential development. Minimum front yard setback is 15 ft, maximum height is 240 ft, but no maximum number of stories. Maximum dua is 160, maximum lot coverage is 80%, maximum FAR is 4:1. In an MF-3(A) or MF-4(A) district, any off-street parking for residential uses may extend to the front property line.</p>	<p>Yes</p>
<p><b>MO-1, Mid-Range Office</b></p>	<p>Minimum front yard setback is 15 ft and maximum height is 135 ft or 10 stories. No maximum dua, maximum FAR is 2:1, and maximum 80% lot coverage. Any off-street parking may extend to the front property line. All off-street surface parking lots, excluding driveways used for ingress or egress, must be screened from the street.</p>	<p>Yes</p>

<b>MU-1, Mixed Use</b>	Provides for the development of moderate density retail, office, and/or multifamily residential uses in combination on single or contiguous building sites; to encourage innovative and energy conscious design, efficient circulation systems, the conservation of land, and the minimization of vehicular travel. Minimum front yard setback is 15 ft and maximum 80% lot coverage. Height varies by use from 90 ft to 120 ft. FAR varies by use and degree of multiple uses, from 0.8:1 to 1:1. Maximum dwelling units per acre varies by degree of mixed uses from 15 to 25 du. For developments with transit proximity, an additional bonus of 15 dwelling units is allowed and the maximum lot coverage is 85 percent.	Yes
<b>MU-3, Mixed Use</b>	Provides for the development of high-density retail, office, hotel, and/or multifamily residential uses in combination on single or contiguous building sites; to encourage innovative and energy conscious design, efficient circulation systems, the conservation of land, and the minimization of vehicular travel. Minimum front yard setback is 15 feet and maximum 80% lot coverage. Maximum height is 270 ft or 20 stories. FAR varies by use and degree of multiple uses, from 2:1 to 4:1.	Yes
<b>NO(A), Neighborhood Office</b>	Minimum front yard setback is 15 ft and maximum height is 35 ft or 2 stories. There is no maximum du, maximum lot coverage is 50%, maximum FAR is 0.5:1.	No
<b>NS(A), Neighborhood Service</b>	Minimum front yard setback is 15 ft and maximum height is 35 ft or 2 stories. There is no maximum du, maximum lot coverage is 40%, maximum FAR is 0.5:1.	No
<b>P(A), Parking</b>	Minimum front yard setback of 10 ft. Application required for zoning change, must show screening. Design/parking placement not present in base zoning.	No
<b>R-1/2ac(A), Single Family ½ Acres</b>	Minimum front yard setback is 40 ft and maximum height is 30 ft or 2 stories. There is no maximum du or FAR. Maximum lot coverage is 40% for residential structures and 25% for nonresidential structures.	No
<b>R-10(A), Single Family 10,000 sq ft</b>	Minimum front yard setback is 30 ft and maximum height is 30 ft or 2 stories. There is no maximum du or FAR. Maximum lot coverage is 45% for residential structures and 25% for nonresidential structures.	No
<b>R-16(A), Single Family 16,000 sq ft</b>	Minimum front yard setback is 35 ft and maximum height is 30 ft or 2 stories. There is no maximum du or FAR. Maximum lot coverage is 40% for residential structures and 25% for nonresidential structures.	No
<b>R-1ac(A), Single Family 1 Acres</b>	Minimum front yard setback is 40 ft and maximum height is 36 ft or 2 stories. There is no maximum du or FAR. Maximum lot coverage is 40% for residential structures and 25% for nonresidential structures.	No
<b>R-5(A), Single Family 5,000 sq ft</b>	Minimum front yard setback is 20 ft and maximum height is 30 ft or 2 stories. There is no maximum du or FAR. Maximum lot coverage is 45% for residential structures and 25% for nonresidential structures.	No
<b>R-7.5(A), Single Family 7,500 sq ft</b>	Minimum front yard setback is 25 ft and maximum height is 30 ft or 2 stories. There is no maximum du or FAR. Maximum lot coverage is 45% for residential structures and 25% for nonresidential structures.	No
<b>RR, Regional Retail</b>	Provides for the development of regional-serving retail, personal service, and office uses. This district is not intended to be located in areas of low-density residential development. Minimum front yard setback is 15 ft and maximum height is 70 ft or 5 stories. No maximum du, FAR is 0.5:1 for office uses and 1.5:1 for all uses combined. Maximum lot coverage is 80%. Design/parking placement not present in base zoning.	No
<b>TH-3(A), Townhouse</b>	Established in an effort to provide a more dense single family residential character. No minimum front yard setback, maximum height is 36 ft, and no maximum FAR. Maximum of 12 du. Maximum lot coverage is 60% for residential structures and 25% nonresidential structures. Design/parking placement not present in base zoning.	No

<p><b>WMU-5, Walkable Urban Mixed Use, Low</b></p>	<p>Intended to accommodate a mix of compatible uses in close proximity to one another in a pedestrian-friendly environment. Maximum height is 80 ft, or 5 stories. No portion of a building or structure over 26 ft in height may be located above the residential proximity slope. Development form is dependent on use type. In general, front yard setback is a minimum of 5 ft and maximum of 15 ft. Additional design criteria are included for parking placement and reductions in parking requirements. In addition, additional requirements are mentioned for building form and façade.</p>	<p>Yes</p>
<p><b>WMU-8, Walkable Urban Mixed Use, Medium</b></p>	<p>Intended to accommodate a mix of compatible uses in close proximity to one another in a pedestrian-friendly environment. Maximum height is 125 ft, or 8 stories. No portion of a building or structure over 26 ft in height may be located above the residential proximity slope. Additional design criteria are included for parking placement and reductions in parking requirements. In addition, additional requirements are mentioned for building form and façade.</p>	<p>Yes</p>
<p><b>WR-5 , Walkable Residential District</b></p>	<p>Intended to create residential neighborhoods with mixed housing options in a pedestrian-friendly environment. Maximum height is 80 ft, or 5 stories. No portion of a building or structure over 26 ft in height may be located above the residential proximity slope. Development form is dependent on use type. In general, front yard setback is a minimum of 5 ft and maximum of 15 ft. Additional design criteria are included for parking placement and reductions in parking requirements. In addition, additional requirements are mentioned for building form and façade.</p>	<p>Yes</p>



**CITY OF GARLAND ZONING DISTRICTS (2015)**

<https://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=garlandgdcset>

ZONING DISTRICT	DESCRIPTION/ INTENT	TOD SUPPORTIVE
C-1 (LC), Light Commercial district	Intended to provide locations for commercial and service-related establishments. Minimum front yard setback is 30 ft and maximum height is 35 ft or 2 stories. No maximum FAR, maximum lot coverage is 50%. Allows for shared or off-site parking.	No
C-2 (HC), Heavy Commercial district	Intended to provide locations for commercial and service-related establishments. Minimum front yard setback is 30 ft and maximum height is 35 ft or 2 stories. No maximum FAR, maximum lot coverage is 50%.	No
CA-1, 2 (DT), Downtown district (form-based code)	Intention is to establish a pedestrian-oriented district with an infrastructure of streets and buildings that are flexible in terms of use, and that will attract ongoing reinvestment. Parking design standards encourage parking to the rear	Yes
GB, SC (CR), Community Office District	Intended to accommodate a variety of retail, service, and business establishments that may or may not be designed in a shopping center configuration. Minimum front yard setback is 30 ft and maximum height is 35 ft or 2 stories. No maximum FAR, maximum lot coverage is 40%.	No
I-1, 2 (IN), Industrial District	Intended to provide for a wide range of industrial uses that are generally not compatible adjacent to residential neighborhoods. Minimum front yard setback varies by building height, with a minimum of 30 ft for 2 stories and under. There is no maximum height. No maximum FAR, maximum lot coverage is 60%.	No
MF-18, Multifamily	Intended for attached-occupancy residential development in livable, sustainable, and compact residential communities. Minimum front yard setback is 20 ft and maximum height is 40 ft or 2 stories. Maximum of 18 du/a and maximum lot coverage of 45%. All parking spaces located adjacent to the right-of-way of any other public thoroughfare or single-family district must be screened from view.	No
SF/7/G/3, Single Family	Intended for low-density detached, single-family residences. Minimum front yard setback is 20 ft and maximum height is 35 ft or 2 stories. There is no maximum du/a or FAR. Maximum lot coverage is 45%.	No
LI, Light Industrial District	Minimum front yard setback 15-feet, maximum height is 70 feet or 5 stories. There is no maximum du/a. Maximum FAR of 0.5:1 for retail and personal service uses. Maximum FAR of 0.75:1 for any office, lodging, retail, and personal services. 1:1 FAR for all uses combined. Maximum lot coverage of 80%.	No

**CITY OF PLANO ZONING DISTRICTS (2020)**

<https://tx-plano4.civicplus.pro/1277/Zoning-Ordinance>

ZONING DISTRICT	DESCRIPTION/ INTENT	TOD SUPPORTIVE
<b>SF-6, Single-Family Residential</b>	Intended to provide for small-lot, urban, single-family development protected from excessive noise, illumination, odors, visual clutter, and other objectionable influences to family living. Maximum height of 35 feet or 2-stories. Minimum 25-ft front yard setback and maximum lot coverage of 45%.	No
<b>SF-7, Single-Family Residential</b>	Intended to provide for areas of urban single-family development on moderate size lots, protected from excessive noise, illumination, odors, visual clutter, and other objectionable influences to family living. Maximum height of 35 feet or 2-stories. Minimum 30-ft front yard setback and maximum lot coverage of 45%.	No
<b>GR, General Residential</b>	Intended to provide for infill residential development that is consistent with the unique character of the Douglass Community near downtown Plano. Maximum height of 1-story for residential uses and 2-stories for nonresidential. Minimum 20-ft front yard setback and maximum lot coverage of 50%.	No
<b>UR, Urban Residential</b>	Intended to provide for single-family detached development, particularly infill development, in an urban, pedestrian-oriented environment. Maximum height of 35 feet or 2-stories. Minimum 10-ft front yard setback and maximum lot coverage of 60%. Allows for studio living units and requires 2 parking spaces per residence.	Yes
<b>MF-1, Multi-Family Residence</b>	Intended to accommodate condominiums and apartments in a park-like setting with extensive areas of usable open space and landscaping. Maximum 12 units per acre and 3-stories in height. Minimum 25-ft front yard setback and maximum lot coverage of 35%. Minimum parking requirements of 2 spaces per dwelling unit, which shall be located within 100 feet of the dwelling unit served by such spaces.	No
<b>MF-2, Multi-Family Residence</b>	Intended to accommodate condominiums and apartments at a density of 18 residential units per acre providing sufficient areas for usable open space and landscaping. Maximum 18 units per acre and 2 stories in height. Minimum 25-foot front yard setback and maximum lot coverage of 35%. Minimum parking requirements of 2 spaces per dwelling unit, which shall be located within 100 feet of the dwelling unit served by such spaces.	No
<b>MF-3, Multi-Family Residence</b>	Intended to provide for relatively dense condominium and apartment developments at 21.5 residential units per acre. Minimum front yard setback of 25 feet, maximum height of 3-stories, and maximum lot coverage of 35%. Minimum parking requirements of 2 spaces per dwelling unit, which shall be located within 100 feet of the dwelling unit served by such spaces. Design/parking placement not present in base zoning.	No
<b>CC, Corridor Commercial</b>	Intended to provide for retail, service, office, and limited manufacturing uses within major regional transportation corridors. Maximum height of 20-stories, maximum FAR of 1:1, minimum front yard setback of 50 feet, maximum lot coverage of 50% or 70%, when structured parking is included. Design/parking placement not present in base zoning.	No
<b>BG, Downtown Business/Government</b>	Serves as a pedestrian-oriented center for retail, office, governmental, cultural, entertainment, and residential uses. Commercial and Multi-Family: Maximum height of 4-stories, maximum FAR of 4:1 and no maximum lot coverage. Front yard setback varies from 3 to 20 feet, depending on the type of street frontage. Single-Family Attached: Maximum 3-stories in height and maximum lot coverage of 100%. Front yard setback varies from 3 to 20 feet, depending on the type of street frontage.	Yes
<b>R, Retail</b>	Intended to provide areas for neighborhood, local, and regional shopping facilities. Maximum height of 2-stories, maximum FAR of 0.6:1, minimum front yard setback of 50 feet, maximum lot coverage of 30%.	No
<b>O-1, Neighborhood Office</b>	Intended to provide for low-rise, garden-type office development providing professional, medical, and other office services to residents in adjacent neighborhoods. Maximum height of 2-stories, maximum FAR of 0.6:1, minimum front yard setback of 50 feet, maximum lot coverage of 30%.	No
<b>O-2, General Office</b>	Intended to allow for a variety of low-, mid-, and high-rise office developments. No maximum height, maximum FAR of 1:1, minimum front yard setback of 50 feet, maximum lot coverage of 50%. No parking design requirements mentioned that are TOD supportive.	No

<b>LC, Light Commercial</b>	Intended to provide for a wide array of retail, office, and service uses to meet the needs of local residents and businesses including some vehicle-related uses and limited assembly. Maximum height of 2-stories, maximum FAR of 0.8:1, minimum front yard setback of 50 feet, maximum lot coverage of 40%.	No
<b>LI-1, Light Industrial</b>	Intended to provide areas for light manufacturing firms engaged in processing, assembling, warehousing, research and development, and incidental services. Maximum FAR of 1:1, minimum front yard setback of 50 feet, maximum lot coverage of 50%. No height maximums.	No
<b>PD-393, R/O-2, Planned Development for Retail and General Office Uses</b>	ZC 85-59/87-1-56. Maximum height of 25-stories, maximum FAR of 1.84:1, minimum front yard setback of 50 feet, maximum lot coverage of 50%. PD includes parking screening	No

**CITY OF RICHARDSON ZONING DISTRICTS (2020)**

<https://www.cor.net/home/showpublisheddocument?id=301>

<b>ZONING DISTRICT</b>	<b>TYPE</b>	<b>DESCRIPTION/ INTENT</b>	<b>TOD SUPPORTIVE</b>
R-850-F	Single Family	Single-family detached residential dwellings of maximum 30% lot coverage and 2-stories in height. Front yard setback is 30-feet. Parking must be in a garage accessible from a driveway.	No
R-850-M	Single Family	Single-family detached residential dwellings of maximum 30% lot coverage and 2-stories in height. Front yard setback is 30-feet. Parking must be in a garage accessible from a driveway.	No
R-950-M	Single Family	Single-family detached residential dwellings of maximum 30% lot coverage and 2-stories in height. Front yard setback is 30-feet. Parking must be in a garage accessible from a driveway.	No
R-1100-M	Single Family	Single-family detached residential dwellings of maximum 30% lot coverage and 2-stories in height. Front yard setback is 30-feet. Parking must be in a garage accessible from a driveway.	No
R-1250-M	Single Family	Single-family detached residential dwellings of maximum 32% lot coverage and 2-stories in height. Front yard setback is 30-feet. Parking must be in a garage accessible from a driveway.	No
R-1500-M	Single Family	Single-family detached residential dwellings of maximum 40% lot coverage and 2-stories in height. Front yard setback is 30-feet. Parking must be in a garage accessible from a driveway.	No
R-1800-M	Single Family	Single-family detached residential dwellings of maximum 45% lot coverage and 2-stories in height. Front yard setback is 30-feet. Parking must be in a garage accessible from a driveway.	No
D-1400-M	Attached Housing	Single Family attached (duplex) residential dwellings of maximum 35% lot coverage and two stories in height. Front yard setback is 30 feet. Parking must be in a garage accessible from a driveway.	No
RA-1100-M	Attached Housing	Single-family attached (townhome) residential dwellings of maximum 75% lot coverage and 3-stories in height. Front yard setback is 10-feet. All garages shall be rear entry and be accessed from an alley.	Yes
A-950-M	Multi-Family	Single-family attached and detached, and apartment uses. Maximum 18 units per acre and 2-stories in height. 30-ft front yard setback and maximum lot coverage of 30%. Each apartment complex shall be enclosed by a perimeter fence.	No
LR-M(2)	Local Retail	Allows for most commercial retail, restaurant, and service uses. Maximum height of 8-stories, maximum FAR of 0.5:1 minimum front setback of 40 feet but no side or rear setback.	No
C-M	Commercial	Allows for most commercial uses, plus auto related uses (most with Special Permit requirements). Maximum height of 8-stories, maximum FAR of 0.6:1, minimum front yard setback of 40 feet but no side or rear yard setback. Design/parking placement not present in base zoning.	No
O-M	Office	Allows for most office uses. Maximum height of 8-stories, maximum FAR of 0.75:1 minimum front setback of 30 feet. No TOD-supportive parking design noted.	No
TO-M	Office	Allows for most commercial and office uses. Maximum height of 8-stories, maximum FAR of 0.5:1 minimum front setback of 40 feet but no side or rear setback.	No
I-FP(1)	Industrial	Allows for most commercial and industrial uses. Maximum height varies depending on proximity to residential uses, varying from 2 to 4-stories. Minimum front yard setback of 40-ft and maximum FAR of 0.75:1. No TOD-supportive parking design noted.	No
I-M(1)	Industrial	Allows for most commercial and industrial uses. Maximum height varies depending on proximity to residential uses, varying from 2 to 4-stories. Minimum front yard setback of 40-ft and maximum FAR of 0.75:1. No TOD-supportive parking design noted.	No

# C.3 ZONING CLASSIFICATION BY STATION

The following tables lists the percent of likely “TOD-supportive” or “Non-TOD supportive” base zoning districts within a half mile of the 28 pilot study stations (see Chapter 3, TOD Zoning District Inventory).

STATION NAME	PERCENT TOD SUPPORTIVE	PERCENT NON-TOD SUPPORTIVE	PERCENT PLANNED DEVELOPMENT
8th and Corinth	1.0%	84.0%	15.0%
Arapaho Center	0.7%	43.4%	56.6%
Cedars	10.4%	0.0%	89.6%
Cityline/Bush	0.1%	52.2%	47.8%
Cityplace	3.5%	23.7%	72.8%
Convention Center	62.2%	0.0%	37.8%
Dallas Zoo	4.6%	78.1%	17.3%
Downtown Garland	58.3%	33.5%	8.2%
Downtown Plano	33.1%	66.9%	0.0%
Forest Lane	19.6%	54.2%	26.3%
Forest/Jupiter	0.0%	75.8%	24.2%
Galatyn Park	0.0%	74.0%	26.0%
Hampton	0.1%	95.8%	4.1%
Illinois	0.2%	96.8%	3.1%
Kiest	0.0%	97.2%	2.8%
LBJ/Central	37.3%	57.6%	5.2%
LBJ/Skillman	23.3%	65.8%	10.9%
Lovers Lane	40.2%	36.6%	23.1%
Mockingbird	41.5%	38.2%	20.3%
Morrell	0.0%	89.4%	10.6%
Park Lane	37.2%	36.2%	26.6%
Parker Road	0.0%	100%	0.0%
Spring Valley	0.0%	27.5%	72.5%
Tyler/Vernon	1.0%	97.2%	1.8%
VA Medical Center	0.0%	95.1%	4.9%
Walnut Hill	29.3%	19.9%	50.8%
Westmoreland	0.0%	90.2%	9.8%
White Rock	0.0%	92.6%	7.4%

Note: significant district level PUDs supporting TOD exist but are not Base Zoning meaning actual supportive land area may be higher.



# C.4 PERCENT SINGLE FAMILY ZONING BY STATION

The following tables lists the percent of detached-single family zoning districts within a half mile of the 28 pilot study stations (see Chapter 3, TOD Zoning District Inventory).

STATION NAME	CITY	PERCENT DETACHED SINGLE FAMILY ZONING
8th and Corinth	Dallas	27.8%
Arapaho Center	Richardson	15.1%
Cedars	Dallas	0%
Cityline/Bush	Richardson	8.1%
Cityline/Bush	Plano	0%
Cityplace	Dallas	0.6%
Convention Center	Dallas	0%
Dallas Zoo	Dallas	40.5%
Downtown Garland	Garland	11.0%
Downtown Plano	Plano	15.8%
Forest Lane	Dallas	40.4%
Forest/Jupiter	Garland	7.15
Galatyn Park	Richardson	13.3%
Hampton	Dallas	88.3%
Illinois	Dallas	75.1%
Kiest	Dallas	65.45
LBJ/Central	Dallas	20.1%
LBJ/Skillman	Dallas	10.3%
Lovers Lane	Dallas	12.5%
Mockingbird	Dallas	8.9%
Morrell	Dallas	58.8%
Park Lane	Dallas	2.8%
Parker Road	Plano	16.9%
Spring Valley	Richardson	28.5%
Tyler/Vernon	Dallas	93.2%
VA Medical Center	Dallas	82.5%
Walnut Hill	Dallas	2.3%
Westmoreland	Dallas	37.2%
White Rock	Dallas	84.8%
<b>Both Corridors</b>		<b>31.6%</b>

# D. ECONOMIC DISTRICT DESCRIPTIONS

Commonly applied economic districts in the Corridors are defined below (see Chapter 3, Economic Development and Incentives).

## **TAX INCREMENT FINANCING TIFS**

Tax Increment Financing (TIF) is a tool that allows local taxing units to dedicate a percentage of tax revenue that is attributable to increased property values to a tax increment fund, which is then used to finance infrastructure improvements in the Tax Increment Reinvestment Zone (TIRZ). The primary goal of using TIF is to increase the viability of current and future businesses within the TIRZ.

## **PUBLIC IMPROVEMENT DISTRICTS PIDS**

Public Improvement Districts (PIDs) are zones utilized by local entities to improve public infrastructure and facilities such as sidewalks, libraries, off-street parking facilities, and wastewater systems. This is done through levying and collecting special assessments on properties within the PID.

## **NEIGHBORHOOD EMPOWERMENT ZONES NEZS**

Neighborhood Empowerment Zones (NEZs) are districts in which municipal governments can implement special powers to further the economic viability of the district. This includes waiving building fees, municipal sales tax refunds, property tax abatements, and implementing baseline environmental goals

## **OPPORTUNITY ZONES**

Opportunity Zones (OZs) are an economic development tool created through 2017 Federal law that allows investors to receive tax deferral on invested eligible gains for investment creating economic growth and jobs in specially designated economically distressed areas. These zones have a life span and eligible timeline for investment that becomes less valuable as time progresses past 2020..

## **PUBLIC-PRIVATE PARTNERSHIP PROGRAM TARGET AREAS**

The Public-Private Partnership Program (P/PP Program) was created by the City of Dallas to assist for-profit companies offset development costs with various economic development tools (tax abatement, grants, loans, etc.). All developments located in Dallas by for-profit companies are eligible, however, developments in the target areas have lower minimum project requirements.

## **HISTORICALLY UNDERUTILIZED BUSINESS ZONE**

Historically Underutilized Business Zones (HUB Zones) is a program, administered by the Small Business Administration (SBA), that provide federal contracting opportunities for small businesses who meet the eligibility criterion. Small businesses must 1) be located within HUB Zone, 2) majority owned by US Citizens, 3) 35 percent of employees must reside within the HUB Zone. These zones are established in economically distressed areas with the goal of increasing employment and capital investment.

## **NEW MARKET TAX CREDIT ZONES (NMTC)**

The New Market Tax Credit (NMTC) program is an initiative created by the US Treasury and implemented by communities through eligibility zones. This program allows for private entities to offset federal income taxes by purchasing tax credits from community development entities (CDEs). This tax benefit is meant to incentivize private corporations to invest in low-income areas.

## **CHAPTER 380/381 ECONOMIC DEVELOPMENT AGREEMENTS**

Chapter 380/381 Economic Development Agreements is a chapter of Texas Code that allows municipalities to provide loan or grants to the private sector for economic development activities. This money can come from current City funds, but Chapter 380 does not allow for Cities to finance an agreement through bonding or other debt issuing.

# E. DEMOGRAPHIC TABLES

## TOTAL POPULATION – BOTH CORRIDORS

CORRIDOR AREA (SQ MI)	2000		2010		2019		PERCENT CHANGE 2000 2010	PERCENT CHANGE 2010 - 2019
	TOTAL	DENSITY	TOTAL	DENSITY	TOTAL	DENSITY		
66.91	162,825	2,433	244,178	3,649	276,680	4,134.87	49.96%	13.31%

## MEDIAN AGE – BOTH CORRIDORS

2000	2010	2019	PERCENT CHANGE 2000 TO 2010	PERCENT CHANGE 2010 TO 2019
24.37	34.00	35.38	39.5%	4.05%

## HOUSING DATA – BOTH CORRIDORS

	HOUSING UNITS	HOUSEHOLDS	OWNER OCCUPIED	RENTER OCCUPIED	PERCENT OCCUPIED	PERCENT OWNER OCCUPIED	PERCENT RENTER OCCUPIED
2000	64,167	60,257	29,381	30,876	93.9%	48.8%	51.2%
2010	107,454	95,146	37,409	57,737	88.5%	39.3%	60.7%
2019	127,123	112,377	37,610	74,767	88.4%	33.5%	66.5%

## MINORITY POPULATION – BOTH CORRIDORS

2000	2000 PERCENT OF POP	2010	2010 PERCENT OF POP	2019	2019 PERCENT OF POP
74,231	45.59%	110,179	45.12%	178,627	64.56%

**EDUCATIONAL ATTAINMENT – BOTH CORRIDORS**

EDUCATION LEVEL	2000		2010	
	NUMBER	PERCENT	NUMBER	PERCENT
No Schooling Completed	3,550	3.49%	4,117	2.21%
Nursery to 4th grade	1,932	1.90%	3,234	1.74%
5th and 6th grade	5,610	5.52%	8,151	4.38%
7th and 8th grade	3,954	3.89%	4,898	2.63%
9th grade	3,584	3.52%	5,008	2.69%
10th grade	2,895	2.85%	3,622	1.95%
11th grade	2,806	2.76%	4,142	2.23%
12th grade, no diploma	4,564	4.49%	2,615	1.41%
High school graduate (includes equivalency)	19,470	19.15%	36,040	19.38%
Some college, less than 1 year	5,880	5.78%	7,366	3.96%
Some college, 1 or more years, no degree	13,051	12.83%	25,829	13.89%
Associate degree	4,425	4.35%	9,201	4.95%
Bachelor's degree	19,163	18.84%	44,849	24.12%
Master's degree	7,263	7.14%	18,737	10.08%
Professional school degree	2,684	2.64%	5,820	3.13%
Doctorate degree	865	0.85%	2,311	1.24%
<b>Total</b>	<b>101,696</b>	<b>100.00%</b>	<b>185,940</b>	<b>100.00%</b>

COMMUTING MODE – BOTH CORRIDORS

MEANS TO WORK	2000	2013 <sup>23</sup>	2019
<b>Car, Truck, or Van</b>	87%	90%	90%
Drove Alone	81%	89%	89%
Carpooled	19%	11%	11%
<b>Public Transportation</b>	5%	5%	5%
Bus or Trolley Bus	88%	57%	57%
Streetcar, Trolley Car, Subway, or Elevated Rail	7%	20%	29%
Railroad or Ferry Boat	5%	23%	15%
<b>Walked</b>	4%	3%	4%
<b>Taxicab, Motorcycle, Bicycle, or Other Means</b>	4%	2%	1%

JOBS BY STATION AREA

STATION	2008	2018	CHANGE
8th and Corinth Station	165	229	38.8%
Arapaho Center Station	6,305	9,340	48.1%
Cedars Station	1,903	3,037	59.6%
Cityline/Bush Turnpike Station	2,143	8,612	301.9%
Cityplace Station	7,972	9,915	24.4%
Convention Center Station	7,717	13,612	76.4%
Dallas Zoo Station	811	1,164	43.5%
Downtown Garland Station	4,078	2,853	-30.0%
Downtown Plano Station	5,194	5,147	-0.9%
Forest Lane Station	1,341	1,640	22.3%
Forest/Jupiter Station	1,988	1,287	-35.3%
Galatyn Park Station	9,387	13,746	46.4%
Hampton Station	619	735	18.7%
Illinois Station	96	233	142.7%
Kiest Station	628	653	4.0%
LBJ/Central Station	2,768	1,888	-31.8%
LBJ/Skillman Station	5,499	5,154	-6.3%
Lovers Lane Station	10,122	11,097	9.6%
Mockingbird Station	9,297	6,793	-26.9%
Morrell Station	199	607	205.0%
Park Lane Station	11,903	16,977	42.6%
Parker Road Station	5,137	5,299	3.2%
Spring Valley Station	11,515	11,123	-3.4%
Tyler/Vernon Station	87	79	-9.2%
VA Medical Center Station	348	5,299	1,422.7%
Walnut Hill Station	17,544	16,063	-8.4%
Westmoreland Station	1,653	1,836	11.1%
White Rock Station	441	448	1.6%
<b>Total</b>	<b>123,145</b>	<b>152,141</b>	<b>23.5%</b>

<sup>23</sup> 2010 Census data was not available at the block group level; 2013 American Community Survey (ACS) Estimates were substituted.



# F. SIDEWALK NETWORK COVERAGE BY STATION

A half-mile walkshed (distance you can walk on existing sidewalk infrastructure) was created in ArcGIS for each station area to understand current sidewalk network conditions. Partner city sidewalk network data from 2018 was updated and edited by NCTCOG staff (see Chapter 4, Existing Sidewalk Inventory). Sidewalk network coverage for all station areas is included in the table below.

STATION	WALKSHED AREA (PERCENTAGE OF TOTAL HALF MILE RADIUS AREA)	PARCEL AREA (PERCENTAGE OF TOTAL HALF MILE AREA)
8th and Corinth	20.14%	26.61%
Arapaho Center	12.33%	20.71%
Cedars	27.97%	42.45%
Cityline/Bush	20.56%	35.61%
Cityplace/Uptown	33.40%	44.98%
Convention Center	32.89%	48.39%
Dallas Zoo	9.15%	21.15%
Downtown Garland	18.41%	24.27%
Downtown Plano	34.55%	45.10%
Forest Lane	18.84%	53.82%
Forest/ Jupiter	8.60%	21.21%
Galatyn Park	15.93%	36.14%
Hampton	8.92%	11.71%
Illinois	14.73%	18.48%
Kiest	23.26%	31.66%
LBJ/Central	14.41%	59.22%
LBJ/ Skillman	11.54%	25.06%
Lovers Lane	26.40%	31.13%
Mockingbird	29.83%	47.79%
Morrell	27.13%	35.05%
Park Lane	18.35%	44.83%
Parker Road	13.99%	32.08%
Spring Valley	24.03%	39.62%
Tyler/ Vernon	17.48%	20.74%
VA Medical Center	12.48%	29.83%
Walnut Hill	17.70%	48.62%
Westmoreland	8.46%	18.34%
White Rock	9.96%	45.50%
<b>All Stations</b>	<b>18.98%</b>	<b>33.07%</b>

# G. AGGREGATED RENT/VALUE POTENTIAL

The 12 stations were ranked by each station area's aggregated rent/value potential. Average Median Home Value is generally consistent with price per square foot rent values used to indicate market demand (see Chapter 4, Development Market).

## STATION RANKING: AVERAGE MEDIAN HOME VALUE BY BLOCK GROUP (ACS 2017 - 5 YR ESTIMATE)

	STATION	AVERAGE MEDIAN HOME VALUE
1	Lovers Lane	\$689,936
2	Mockingbird	\$559,663
3	Cityplace	\$398,782
4	Cedars	\$361,633
5	Galatyn Park	\$340,225
6	Convention Center	\$300,500
7	White Rock	\$285,771
8	Park Lane	\$239,325
9	CityLine/ Bush	\$233,867
10	Walnut Hill	\$231,786
11	Forest Lane	\$192,867
12	Spring Valley	\$175,380
13	LBJ/Skillman	\$174,717
14	Arapaho Center	\$170,071
15	Downtown Plano	\$147,067
16	Tyler/Vernon	\$137,000
17	Forest/ Jupiter	\$109,267
18	Parker Road	\$106,443
19	Hampton	\$96,000
20	Westmoreland	\$90,813
21	Downtown Garland	\$89,838
22	LBJ Central	\$79,200
23	Dallas Zoo	\$77,250
24	Morrell	\$70,760
25	8th and Corinth	\$62,633
26	Kiest	\$60,480
27	Illinois	\$58,893
28	VA Medical Center	\$57,238

# H. STUDIES ADDRESSING THREE SIGNIFICANT TOD BARRIERS

Links to the full reports from studies of three significant TOD barriers (see Chapter 5).

## **DART RED AND BLUE LINE CORRIDORS LAST MILE CONNECTS PROJECT**

Full report by consultant:

[https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/TOD/DART\\_RedBlue\\_FinalReport\\_1.pdf](https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/TOD/DART_RedBlue_FinalReport_1.pdf)

## **TOD PARKING STUDY**

Full report by consultant: [https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/TOD/DART\\_RedBlue\\_Report\\_FINAL.pdf](https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/TOD/DART_RedBlue_Report_FINAL.pdf)

## **SURVEY OF TOD RESIDENTS, BUSINESSES AND EMPLOYEES**

Full report by consultant: [https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/TOD/NCTCOG\\_TOD\\_Survey.pdf](https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/Landuse/TOD/NCTCOG_TOD_Survey.pdf)

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