Plano City of Excellence | Memorandum & Study

DATE: February 21, 2022

TO: Applicants with Items before the Planning & Zoning Commission

FROM: David Downs, Chair, Planning & Zoning Commission

SUBJECT: Results of Planning & Zoning Commission Meeting of February 21, 2022

AGENDA ITEM NO. 9 – DISCUSSION & DIRECTION
SILVER LINE MARKET ASSESSMENT & ECONOMIC DEVELOPMENT STRATEGY
APPLICANT: CITY OF PLANO

Review, discuss, and provide direction on the findings of the Silver Line Market Assessment & Economic Development Strategy.

RESULTS:

The Commission agreed unanimously to accept the results of the Silver Line Market Assessment & Economic Development Strategy and directed staff to pursue the future actions recommended by staff as follows:

- A review of zoning in the area for potential alignment with the market study consistent with the Transit-Oriented Development Policy in the Comprehensive Plan, and

- Preparation of an area plan within half-mile of Silver Line rail stations to guide development patterns and address redevelopment consistent with Action TOD2 in the Comprehensive Plan.

To view the hearing, please click on the provided link: https://planotx.swagit.com/play/02222022-653/12/

DB/kob

cc: Eric Hill, Senior Planning Manager
Michael Bell, Comprehensive Planning Manager

CITY OF PLANO

PLANNING & ZONING COMMISSION

February 21, 2022

Agenda Item No. 9

Discussion & Direction: Silver Line Market Assessment & Economic Development Strategy

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DESCRIPTION:

Review, discuss, and provide direction on the findings of the Silver Line Market Assessment & Economic Development Strategy.

REMARKS:

As demonstrated by the successful efforts to revitalize Downtown Plano following the arrival of DART's Red/Orange Line light rail in the early 1990s, Plano's connection to the region's public transit system has provided economic benefits to the city and opportunities for private investment by surrounding property owners. With the construction of DART's new Silver Line rail underway, Plano continues to see significant public investment in rail transit infrastructure, including new commuter rail stations at Shiloh Road and 12th Street and a new Red/Orange Line light rail transit platform connecting the two rail corridors. Plans also include a Hike-and-Bike trail that parallels the Silver Line corridor and further connects Plano to the Regional Veloweb trail network. This substantial public investment is projected to be an economic development catalyst for southeast Plano and the greater Downtown area, driving significant private investment interest to the transit station areas and associated corridors.

In preparation for these anticipated changes, the City of Plano contracted with AECOM in fall 2020 to conduct an economic and market analysis and help identify future market-supported development opportunities in Plano's Silver Line transit corridor. More specifically, the study addresses many questions regarding the development potential of the study area, including:

- What are the real estate market trends within Plano's Silver Line corridor?

- What are the market-supported development typologies that will create a transit-oriented environment and be an economic driver for the further growth of Downtown Plano?

- What business sectors are growing or contracting regionally, and how does that affect the development potential around Plano's transit stations?

- What does the market demand in terms of types of new housing, and what are the housing stock deficiencies in Plano's transit corridors?

- What are the barriers to investment within the station areas?

Study Parameters

The Silver Line Corridor Market Assessment & Economic Development Strategy study area included one-half mile around each station, with a focus on properties immediately surrounding the stations. The study considered the Silver Line station areas and their economic relationship to surrounding economic development efforts in Downtown Plano, the Collin Creek Mall redevelopment, and nearby transit-oriented development areas. Analysis completed for this report includes:

- Demographic & economic assessments to compare the station area with city-wide and regional trends, factoring in the impact of COVID-19.

- Trend analysis to explain demand drivers, growth in land values, and remaining inventories of vacant land.

- Redevelopment potential analysis and likely development typologies to quantify Plano's potential fiscal uplift, should high potential sites redevelop.

- Stakeholder interviews to frame strengths and challenges near station areas.

As part of this agenda item, representatives from AECOM will present the major outcomes of the study and be available for questions by the Commission.

Next Steps

The Silver Line Market Assessment & Economic Development Strategy is provided to inform future decisions in the study area. P&Z's acceptance of the study's findings and the underlying economic potential of these areas does not establish a new policy. However, the study may be used to inform the review of future development proposals in these areas, as well as City-initiated planning activities that meet the city's Comprehensive Plan objectives within the transit corridors, including:

- **Transit-Oriented Development Policy (TOD)** – Plano will proactively encourage development within walking distance of existing and planned transit stations to create an integrated mix of uses, including residential, employment, retail, and civic spaces.

- **TOD2** – Prioritize and prepare area plans within half-mile of identified light rail stations and future commuter rail corridors to guide development patterns, address redevelopment of retail and residential sites, and encourage new development. Plans should include an evaluation of market potential resulting from existing and projected transit ridership.

- **TOD3** – Proactively work with property owners to align zoning with adopted area plans for identified light rail stations and future commuter rail corridors.

- **Land Use Policy (LU6)** – Develop locations for special area plans to focus development and redevelopment efforts in conformity with the Comprehensive Plan.

- **Regional Transportation Policy (RT1)** – Create criteria to evaluate regional transportation projects to determine the impacts upon the city and develop solutions to mitigate negative effects.

RESULTING ACTION:

If the Commission accepts the results of the Silver Line Market Assessment & Economic Development Strategy, the Commission may wish to direct the following related actions:

- A review of zoning in the area for potential alignment with the market study consistent with the Transit-Oriented Development Policy in the Comprehensive Plan, and/or

- Preparation of an area plan within half-mile of Silver Line rail stations to guide development patterns and address redevelopment consistent with Action TOD2 in the Comprehensive Plan.

RECOMMENDATION:

Recommend that the Commission accept the results of the Silver Line Market Assessment & Economic Development Strategy and consider future actions.

Chris Brewer
Economic Development Lead

Education
MS, Resource Economics, University of New Hampshire, 1993
BS International Relations and Economic Development, Drake University, 1991

Years of experience
25

Professional history

Mr. Brewer has 25 years of experience evaluating economic real estate and land use issues across Texas and the Gulf Coast Region. Recent project experience has focused on:

- Analysis of demographic trends, economic indicators, and real estate market data for industrial, retail, office, mixed use, housing and transit-oriented projects, with downtown / corridor redevelopment implications.
- Financial analysis of real estate development projects, covering revenues, expenses, development costs, and return on investment calculations on public and private investment.
- Economic development strategies for communities and regions impacted by closing military installations or loss of key employers.

Selected Experience

- ONE Central TOD Opportunity Assessment, Chicago, IL
- Aviation District Sub Area Plan and Revitalization Strategy Universal City, TX
- Pasadena Livable Centers Plan, Pasadena, TX
- Cooper Street Corridor Analysis, Arlington, TX
- East Side Revitalization Strategy, San Antonio, Texas
- National Western Center Economic Development Strategy, Denver Colorado
- Viva Dona Ana Economic Development Strategy, El Paso, Texas and Santa Teresa, New Mexico
- RSR Smelter Land Reuse Master Plan, Dallas, Texas
- Brooks AFB City Base Realignment Analysis & Strategy, San Antonio, TX
- Downtown Dallas Farmers Market Master Plan, Dallas, TX
- Metro North-New Haven Line Parking Analysis, Stamford, CT
- Regional Transit Authority TOD Readiness Assessment, Detroit, MI
- Silver Line BRT TOD Masterplan, Grand Rapids, MI
- South Bend NICTD Station Alternatives Analysis, South Bend, IN
- St. Charles Rock Road Corridor TOD Plan, Welston / Pagedale, MO
- Red Line / Health Line Extension Major Transportation Improvement Analysis, Cleveland, OH
- CTA Parking Garage Privatization Assessment, Chicago, IL

SUMMARY OF KEY FINDINGS
& RECOMMENDATIONS

Silver Line Corridor

Market Assessment & Economic Development Strategy

City of Plano, Texas

Date:
January 2022

Background:
AECOM was hired by the City of Plano to conduct a market assessment of economic development strategies for three new DART rail stations:

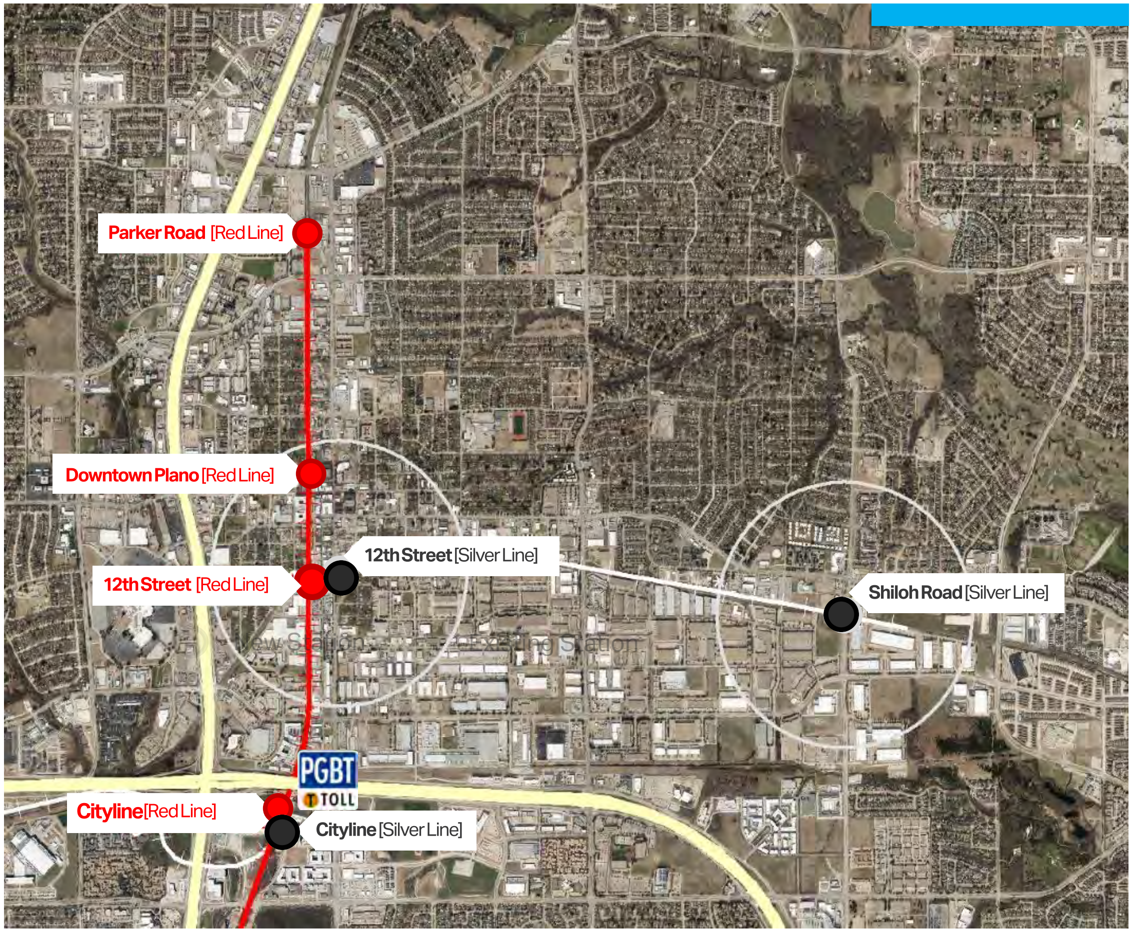
- *12th Street (Silver Line)*
- *Shiloh Road (Silver Line)*
- *12th Street (Red Line)*

Introduction

AECOM was hired by the City of Plano to conduct a market assessment of **economic development strategies** for three new DART rail stations:

Shiloh Road	12th Street
Silver Line	Silver Line Red Line

The potential of these new stations was first documented within the **City of Plano 2011 Comprehensive Plan Update,** which identified the 12th Street station as a prime location for connecting bus and shuttle service to surrounding employment centers, residential areas, and affordable housing. These analyses are used to guide positioning of real estate assets within the station areas.



Scope of Work

The AECOM scope of services included:

Stakeholder interviews, to frame strengths and challenges across the defined station areas

Demographic and economic assessments to place station area fundamentals in context with city wide and regional trends

Residential and commercial real estate trends, to understand changes in land and building values and rents

Why Transit-Oriented **Development?**

Introduction:

While the concept of Transit Oriented Development (TOD) has been emerging for more than 20 years, regional transit agencies including MARTA in Atlanta, DART in Dallas, and MBTA in Boston have become clear standard bearers of best practice for TOD implementation and joint development.

At its core, TOD intends to encourage land use patterns which more explicitly connect real estate development with transit, both tactically at a station-area level, but also strategically at corridor and regional levels.

Local governments and transit agencies are better positioned to actively encourage and implement joint real estate development around transit. Local government can play a critical role in joint development (and in TOD generally) through four distinct functions: land use planning and regulation; public land ownership; incentive and gap financing programs for affordable housing and economic development; and outreach to community stakeholders.

Who does TOD attract on average?

Source: Costar 2020, Comparable TOD developments in the region

$70-90k
median **income**

$1,300-2,300 /month
average **monthly** housing price

$350-550k /month
median **for sale** housing price

Benefits of Investment in TOD:

- Increase ridership and farebox revenue
- Support joint development and value capture (i.e. new taxes on property and sales)from mixed use development.
- Reduce vehicle trips, congestion on city streets, and parking demand
- Support improved air quality and reduced carbon emissions
- Drive support for federal grant funding of transit infrastructure
- Multifamily properties within a ½-mile radius of a DART station supported rent premiums of almost 18% above comparable properties

Elements of Successful TOD:

- Compact development, density, and a mix of uses
- Intentional walkability, linked to a supportive public realm and mobility options
- Equitable development, including reduced transportation costs and improved mobility options, as well as enhanced housing affordability
- Intentional approaches to parking which preserve valuable land for higher value real estate development
- Context sensitive building form, relative to the scale of adjacent development

Employment **Trends**

City of Plano

212,000

total jobs as of 2021

+5%

annual growth rate post-recession, supported by an increase in white collar jobs from corporate relocations to the area

4.5%

unemployment rates, compared to 5.3% in the DFW metroplex

Station Areas

The station areas hold a significant portion of **city-wide industrial jobs** including:

1. transportation & warehousing
2. construction
3. manufacturing
4. wholesale trade

Station Areas

$137k/yr

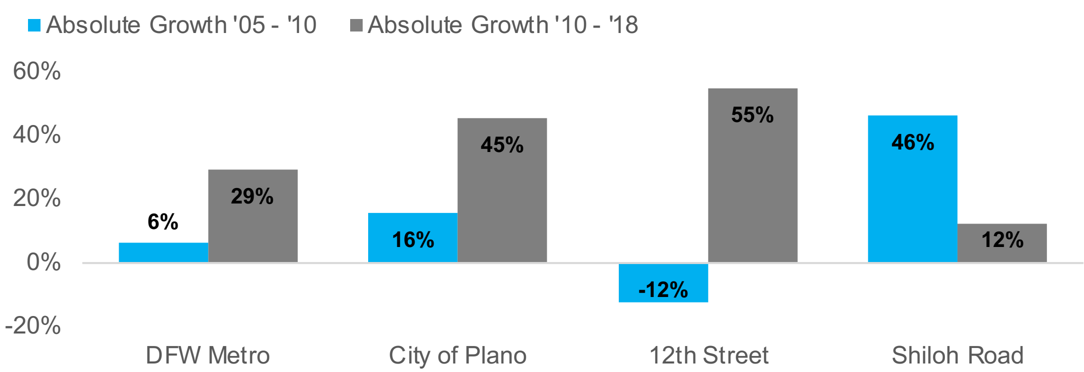
Collin County

$74k/yr

The **average wage** of the industrial workers is almost 2x that of Collin County's median average wage.

Source: US Census on the Map, ESRI Community Survey 2020, Bureau of Labor Statistics

Absolute Job Growth Pre- vs Post-Recession



Source: US Census on the Map

Plano experienced rapid job growth after the Great Recession, with the total number of jobs growing by almost 5% annually to more than 212,000 jobs today (US Census). Job growth was supported by substantial increases in the number of white-collar jobs associated with corporate relocations to areas like Legacy West.

Economic recovery from the 2021 Covid-induced recession for Plano is notable. July, 2021 unemployment rates in Plano (4.5%) are lower than DFW regional averages (5.3%), with net growth in labor force and employment above pre-Covid thresholds.

The proposed Silver Line station areas hold a significant portion of city-wide industrial jobs in trades like transportation and warehousing, construction, manufacturing, and wholesale trade. Average wage of $137,000 is almost 2x that of Collin County's average wage of $74,000.

Demographic **Trends**

Metroplex Area

6.8%

of the DFW Metroplex's growth (from 1980-2000)

3.3%

of the DFW Metroplex's growth (in 2020)

City of Plano

60%

of new residents are foreign born, changing the demographic makeup of the city

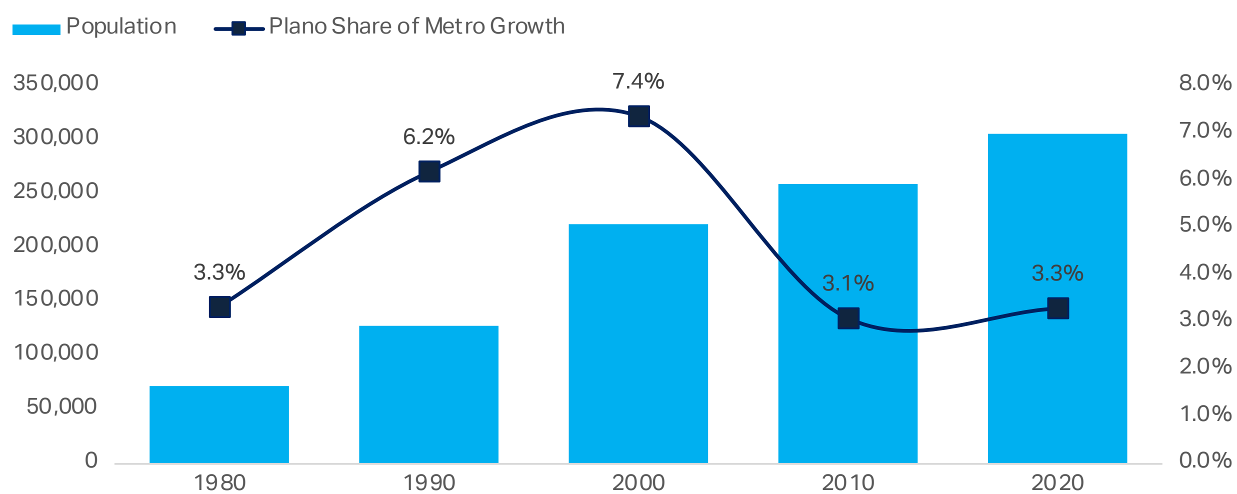
Smaller units are increasing in demand and occupied by renters earning $80k on average per year

Station Areas

Station areas have older housing stock & lower incomes on average than city-wide

Source: US Census on the Map, ESRI Community Survey 2020, Bureau of Labor Statistics

Plano's Population by Decade



While Plano captured 6.8% of metropolitan population growth between 1980 & 2000, growth rates have slowed since 2008, as larger tracts of vacant land have become scarce.

In context with slower growth, the analysis also points to a shift in the character of recent residents, with an estimate that roughly six in ten new residents since 2010 were foreign born.

Changing demographics align with an apparent shift in demand shift toward smaller units (750-850 ft^2) occupied by renters earning an average of $80k per year – many of which rely on transit.

Reflective of older housing stock within the two station areas, resident household incomes are lower than citywide averages.

Real Estate **Context**

Efforts to encourage infill revitalization began in Downtown Plano in the early 2000's with the two-phased Eastside Village project, where the City of Plano ground leased one parcel at a rent of $0.60 per square foot and deeded the second site to the developer while also contributing $800,000 for infrastructure; these projects coincided with opening of DART's Red Line according to the Downtown Plano: Vision & Strategy Update report released in 2019.

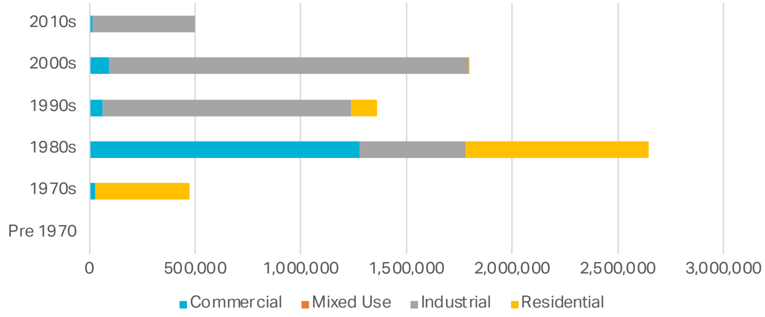
In 2014, the City of Plano offered developers a one-year option to purchase the final one acre needed to complete 30 condominium units and 21 townhomes at 15th Street. At this time, the city sold the land for $11/ft^2. In 2015, the city bought the former Plano Marine site for $8/ft^2. The city had also granted 3.1 acres to a developer to deliver the 280-unit Junction 15 around the same time. Comparable sales around this time suggest that land prices in 2015 were hovering around $15/ft^2.

More recent development transactions suggest that land values around downtown Plano / 12th Street have accelerated to $25 - $30/ft^2, linked with recently-built apartment projects which are now supporting higher rents and lower vacancies relative to city-wide averages.

Shiloh Road

- 3.8 million ft^2 of industrial built, most of which came after the 1980s.
- Much of the residential development occurred in the 1970s and 1980s.
- With little vacant land, there are few opportunities for redevelopment in the near-term.

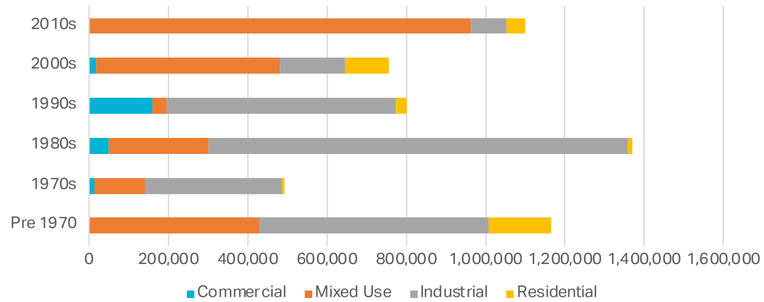
New Development in Plano by Decade



12th Street

- 1.1 Million ft^2 was built before 1970, much of which was industrial
- Since 2000, 1.4 million ft^2 has been redeveloped largely into mixed use and apartment projects
- Still, the area has underutilized land which could be redeveloped.

New Development in Plano by Decade



Housing **Context**

Historically, detached single-family housing was the predominant housing product being built across Collin County and within Plano. Since 2000, however, the pace of new single-family detached housing development within Plano has slowed relative to county-wide trends, linked to increasing scarcity of larger vacant parcels and increasing land values, which are having an impact on development patterns. While the median size of a single-family parcel built before 1990 was 0.20 acres, newer homes have been built on smaller parcels (median size of 0.15 acres).

Older single-family homes in Plano support current assessed values at a modest 5% to 8% premium over county-wide averages; however, this premium has grown to between 40% and 50% for new homes, with a median price per square foot of occupied land above $18, equating to home values of roughly $450,000. An increasingly limited supply of larger development parcels (>2 acres) will encourage land values to appreciate and motivate developers to focus on higher-density infill projects such as townhomes, slot homes or 4- or 5-story multifamily apartments based on available parcel sizes.

Since 2012, multifamily construction trends in Plano have also been reflective of a broader surge in multifamily construction across the DFW metro, where an estimated 155,000 market-rate multifamily apartment units were added to supply. Importantly, Plano captured a modest 5% share of regional supply growth (7,100 units) at rents above regional averages over that period.

Currently in Downtown Plano

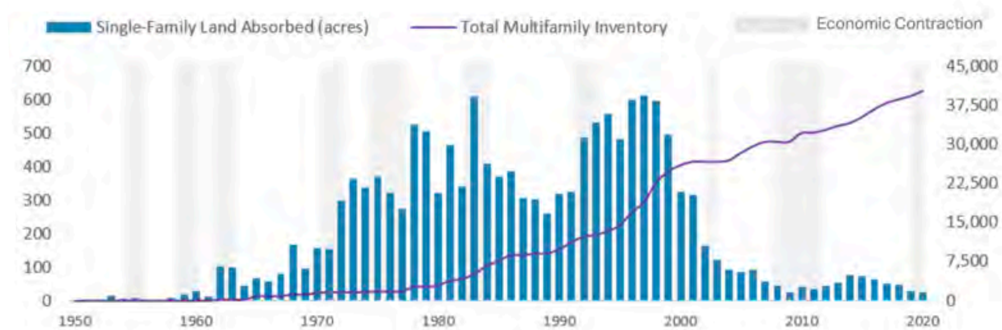
1,100 housing units

2.7mm sq ft of commercial space

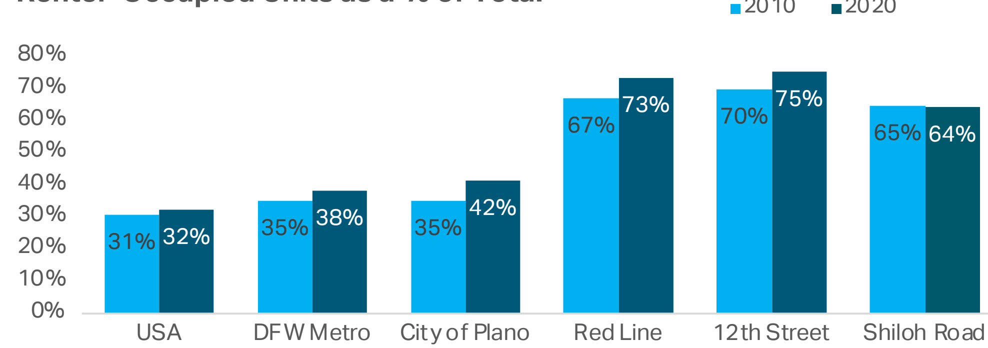
+ a large appetite for walkable development

Estimated Demand for Housing in Plano through 2031

Single-Family Detached Land Absorbed (acres), and Multifamily Inventory by Year: Plano



Renter-Occupied Units as a % of Total



Source: ESRI Business Analyst, US Census

Housing **Forecasts**

Single Family **Trends:**

- Since 2000, the pace of new single-family detached housing development within Plano has slowed relative to county-wide trends, linked to increasing scarcity of larger vacant parcels and increasing land values.
- The Millennial generation is now making a consequential pivot from renting into home ownership, which will increase demand for owner-occupied and single-family dwellings over the next growth cycle.
- Expanded working from home will also dictate changes in housing design (larger homes / more connectivity).
- Given significant premiums for new housing construction in Plano, older housing stock in the study area will see pressure for renovation / replacement.

Multifamily **Trends:**

- Continued regional growth through 2019, combined with broader transitions within the Millennial and Boomer generations led to accelerated demand for multifamily housing.
- Looking beyond 2022, regional demand for higher-density, market rate housing (both renter and owner occupied) is expected to continue. However, increasing land costs and limited remaining greenfield sites are a key constraints, offset by strategies to leverage Transit Oriented Development (TOD).
- Overall, site scarcity and higher land values have reduced Plano's share of new detached single-family construction, developers are adjusting with a twin focus on multifamily, which includes three to five-story multifamily apartment buildings (more than two acres) and townhomes, slot home, and rowhouses (less than 1 acre).

Takeaways

Growth in land value is outpacing growth of multifamily rents by

3 to **1**

When larger parcels are more difficult to find,

townhome,
slot home,
& live-work

are favorable options for new construction.

According to AECOM's analysis, parcels sized at

0.1-0.5
acres

are typically scored with **'highest redevelopment' potential**

See pages **7-10**
in the technical report.

Recommended **Typologies:**

See pages **34-44**
in the technical report.

Townhomes:
18 to 23 units per acre

Slot homes:
21 to 28 units per acre

Live-work:
18 to 25 units per acre

3-5 Story Multifamily:
55 to 70 units per acre

Commercial & Industrial **Forecasts**

Workplace **Trends:**

- COVID-19 has impacted the market for commercial office space, otherwise **accelerating** pre-Covid trends which favored "work from home".
- Near-term concerns relate to a clear mismatch between top line office occupancy (80%) and bottom-line office utilization data (<40%).   Though newer Class A office buildings are expected to recover, pre-1980 buildings with older ventilation systems are expected to struggle.
- Regional real estate markets are reacting to steady growth in demand for warehouse sites to support e-commerce/same-day delivery.
- Growing e-commerce demand is impacting traditional brick and mortar retailers, department stores and apparel stores in particular. Notably, as traditional retailers step back, new purely online chains are starting to lease space; Wayfair is one of several examples.

E-Commerce Demand:

2.4 to **1**

AECOM analysis suggested that for every $1,000 in retail sales which shift from brick and mortar to e-commerce, an additional **2.4 square feet of warehouse space** is occupied at the expense of retail space.

5-10 acre

E-commerce activity has concentrated near where residents live in support of same day delivery. This is generally occuring on smaller, 5-10 acre sites (roughly 50,000+ sqft offices).

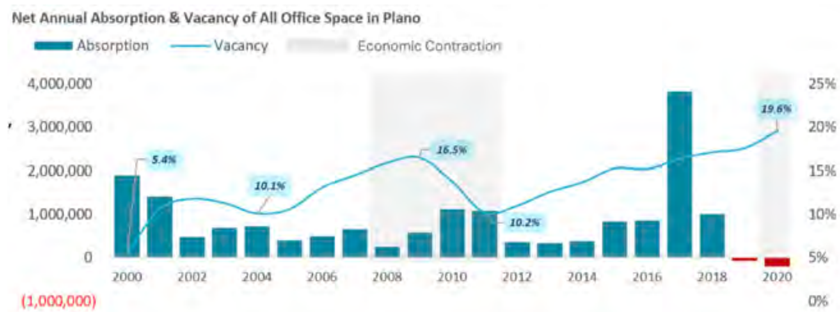
10-25 acre

Additionaly, larger-scale development has been concentrating at the South Dallas Inland Port and at Alliance, due to the availability of larger 10–25-acre (roughly 500,000+ sqft) sites with proximity to local intermodal yards.

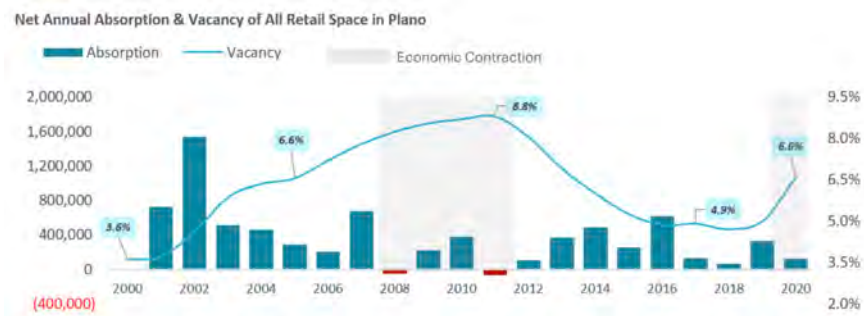
See pages **13-16**
in the technical report.

Net Absorption & Vacancy: **Industrial/Flex**

Net Absorption & Vacancy: **Office**



Net Absorption & Vacancy: **Retail**



Stakeholder **Insights**

12th Street

Strengths:

- Capital improvements are already underway, including added sewer capacity, intersection improvements, and sidewalk improvements.
- The station's proximity to Plano's Historic Downtown.

Opportunities:

- Redevelopment of property along J Avenue.
- Larger parcels south of the station may offer opportunities for larger format commercial activities.
- Create a more consistent right of way / sidewalk / public realm plan that connects the catchment area.

Challenges:

- Property owners within the automotive / industrial area south of Downtown have clear expectations regarding redevelopment and property value.
- Concern over existing setback requirements within BG zoning districts may hinder redevelopment.
- The Douglass and Vendome neighborhoods will likely feel redevelopment pressures as adjacent real estate continues to turnover.
- Interviews suggested that the Douglass Community is organized and worked closely with the City to preserve their historic character.
- Impact of train operations on downtown traffic flow.
- Concern about brownfield conditions for several sites (i.e. 10th Street Property).

Shiloh Road

Strengths:

- Continued investment and new development occurring within the RT district is bringing manufacturing / production jobs to the area.
- Planned widening of Shiloh Road from 14th Street to Parker Boulevard, a hike / bike trail on Shiloh Road, and future connections to the Shiloh Road station.

Opportunities:

- Encourage current and future RT projects to leverage station access to expand employment opportunities, with emphasis on enhanced walkability.
- Vacant / underdeveloped sites remain north of the proposed station along 14th Street.

Challenges:

- Properties immediately surrounding the Shiloh Road catchment area are mostly developed (particularly to the south).
- Residential development is the predominate land use north of the Shiloh Road station.
- Oncor is planning an expansion of its substation at Shiloh Road and coordinating with DART and this property will be “undevelopable” as a result.

Themes + **Takeaways**

Lay the infrastructure for a pedestrian friendly community through the delivery of public gathering areas, greenways, and transit, among others. City may leverage properties that are land banked.

Preserve and grow the existing job base – especially high-paying jobs within the Research & Technology District while allowing for non-industrial uses to backfill functionally obsolete properties within the Light Industrial 1 and Light Commercial zoning districts.

Allow for and support the incubation and growth of small area businesses through affordable rents – commonly accomplished through the adaptive reuse of functionally obsolete property - and through an environment that promotes pedestrian activity and walkability.

Encourage a diverse range of housing that includes 'for-sale' and 'for-rent' products like townhomes, slot homes, live-work, and multi-story multifamily housing where appropriate and possible. 'For sale' product will likely be priced between $500k and $700k while rental housing will likely range in price from $1,300 to $2,800 depending on number of bedrooms. Constrained land availability will limit opportunities near downtown for larger apartment complexes.

Recommendations

Preserve Naturally Affordable Housing

Example: Waterford on the Meadow

Shiloh Road | 12th Street

Naturally affordable housing is a unique asset to the Shiloh Road station and areas near 12th Street station. Longer term planning should consider the potential renovation or recapitalization of existing housing which may be supported in a similar manner to the Great Update Rebate.

Challenges

1. Increasing pressure, through land valuation and redevelopment may be felt by existing homeowners / renters should no new inventory be delivered within the market to satisfy demand.
2. Development pressure could drive higher value higher density housing that may be possible by right within the existing zoning.

Opportunities

3. There is opportunity for the market to deliver a range of housing options so that the existing stock may be left in place and new residents have a place to live without displacing the existing residents.

Partners

City of Plano, Local Landowners, Private Development Community

Support Incremental Development & Adaptive Resuse of Obsolete Property

Example: Honeywell

Shiloh Road | 12th Street

Preserve existing Research & Technology District but consider how to allow for higher density and higher value developments in the long-term by leveraging the Silver Line and its connection to Dallas Fort-Worth International Airport.

Challenges

1. Already productive, and expensive land within the RT subdistrict will make any redevelopment capital intensive.
2. An existing street grid that is not pedestrian friendly may disincentivize area workers to use transit and discourage higher density Research & Technology concepts.

Opportunities

3. There is opportunity for further greenfield development within the RT subdistrict, one of the few areas where this type of development is still possible.
4. There is opportunity to create a more comprehensive, and pedestrian friendly environment that encourages TOD / walkability and increases the RT district density over time..

Partners

City of Plano, Local Landowners, Private Development Community

Encourage Transit-Oriented Real Estate Development

Example: the Ferro Apartments are an appropriate housing typology in proximity to transit.

Shiloh Road **12th Street**

While Downtown Business / Government (BG) zoning is the most flexible in terms of land use, other areas have significant zoning restrictions. Allowing for commercial uses to backfill obsolete industrial property and supporting multifamily in its most appropriate locations will allow for a walkable environment and one that leverages transit.

Challenges

1. Existing zoning is prohibitive in certain areas, limiting uses supported by transit.
2. Land assembly may be challenging due to fractured ownership, small parcels, and increasing prices in the areas south of downtown and around the 12th Street Station.
3. Increasing competition for housing among other North Dallas Suburbs may be a challenge, especially if Plano does not offer the range of housing found elsewhere in the metro.

Opportunities

4. There is opportunity to create a walkable environment that draws in those living across the metro to patronize local businesses, while also leveraging transit.
5. There is opportunity for certain areas to be rezoned so that a range of transit-supportive uses may be developed.
6. There is opportunity to incubate, and support the development of new businesses, growing and diversifying Plano's job base.
7. There is opportunity to attract a diverse range of households through the introduction of housing options.

Partners

City of Plano, Local Landowners, Department of Planning & Zoning, Private Development Community

Balance the Demand for Multifamily Housing

Example: Bel Air K Station

Shiloh Road **12th Street**

This analysis provides support for higher density and diverse housing options within Plano. This demand can add the necessary density to support Transit Oriented development in Plano's downtown and within the two new Silver Line Station areas.

Challenges

1. Land Assembly may be challenging due to fractured ownership, small parcels, and increasing prices; in the areas south of downtown and around the 12th Street Station.
2. Established, and productive land use patterns around the Shiloh Road Station may be a challenge for new construction or adaptive redevelopment of new/additional multifamily housing.
3. Increasing competition for housing among other North Dallas Suburbs may be a challenge, especially if Plano does not offer the range of housing found elsewhere in the metro.

Opportunities

4. There is opportunity for the city to capture additional tax revenues from more productive land use.
5. To preserve, and enhance, the naturally affordable housing that already exists in proximity to the Shiloh Road Station.
6. There is opportunity to attract a broader range of households through the introduction of more diverse housing types including slot homes, town homes, and row houses.

Partners

City of Plano, Local Landowners, Private Development Community

Encourage Transit-Oriented Real Estate Development

Example: Leon's (Charleston, SC)

Shiloh Road **12th Street**

While 4-5 story multifamily is likely to drive the market for land, encouraging adaptive reuse of existing buildings can allow for more diverse and creative infill development. Based on our review, Plano has a range of existing and past programs that can adapt to this goal.

Challenges

1. The remediation of former industrial sites may bring added costs in both time and money to adaptive reuse projects...for example the conversion of a former autobody shop into a food & beverage destination.
2. The barrier to enter business for small businesses is high, especially as new companies move through the planning and zoning process.
3. Increasing land prices, driven by the prospect of multi-family development, may further prohibit small businesses from buying land or renting space within the study area.

Opportunities

1. To preserve some flexible commercial areas without residential development pressure to incubate, and support the development of new businesses, growing and diversifying Plano's job base.
2. To encourage redevelopment and repurposing of obsolete industrial space to broader commercial, recreational, and office uses.

Partners

City of Plano, Local Landowners, Local Champions / Philanthropists, Private Development Community,

City is Proactive in Development Process


Example: City-Owned Parking

12th Street

South of downtown Plano exists complex landownership that will likely create challenges the for redevelopment of higher density multifamily or commercial concepts. A proactive approach, which the city has successfully taken in the past will allow for more public input and control over the redevelopments while also allowing for higher value and higher density uses.

Challenges

1. Public perception and the subsequent opposition to land assembly from community members may be a challenge for the city.
2. Steadily increasing land prices, fragmented ownership, and legacy tenants may present challenges.

Opportunities

3. For the city to partner with the development community and deliver streamlined projects and capture value for the community through public amenities or additional services.
4. To create new organizations – like a Community Development Corporation – to actively monitor, position and acquire property and relationships within the community.
5. For the city to use its land-banked properties for interim uses, like a weekend farmer's market, shared parking to support lower parking requirements on adjacent projects, or other pop-up event.

Partners

City of Plano, Local Landowners, Newly Formed Community Organizations

Redevelopment Opportunities
+ Fiscal Benefits

Site **Selection:**

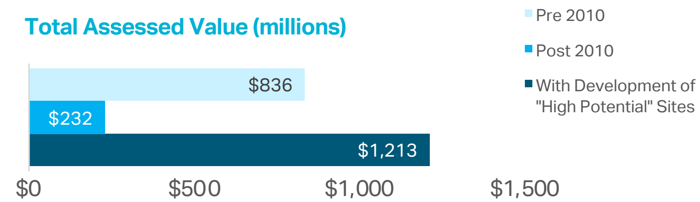
To guide redevelopment priorities, the analysis detailed the inventory of parcels that may ‘**be of high redevelopment potential.**’ These sites were chosen by assessing a number of conditions present on the parcel today, which can be seen on the column to the right.

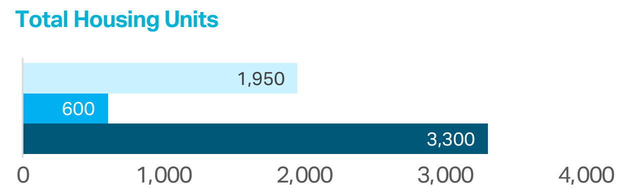
1. Is the parcel currently vacant?
2. How old is the primary structure on the parcel?
3. What is the ratio of assessed improvement value to land value?
4. What percentage of the parcel is covered by an existing structure – or overall lot coverage?

Redevelopment **Opportunities:**

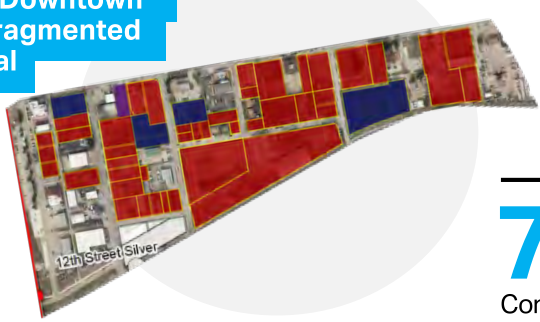
Redeveloping the **“high redevelopment”** potential parcels creates $1.2 billion in increased assessed values and 3,300 new housing units within walking distance to the two transit lines and the Downtown Plano’s core.

These redevelopment opportunities support new residents without any displacement in existing neighborhoods and preserves the vast majority of the existing employment centers near each station.





12th St: Downtown South Fragmented Industrial



72%

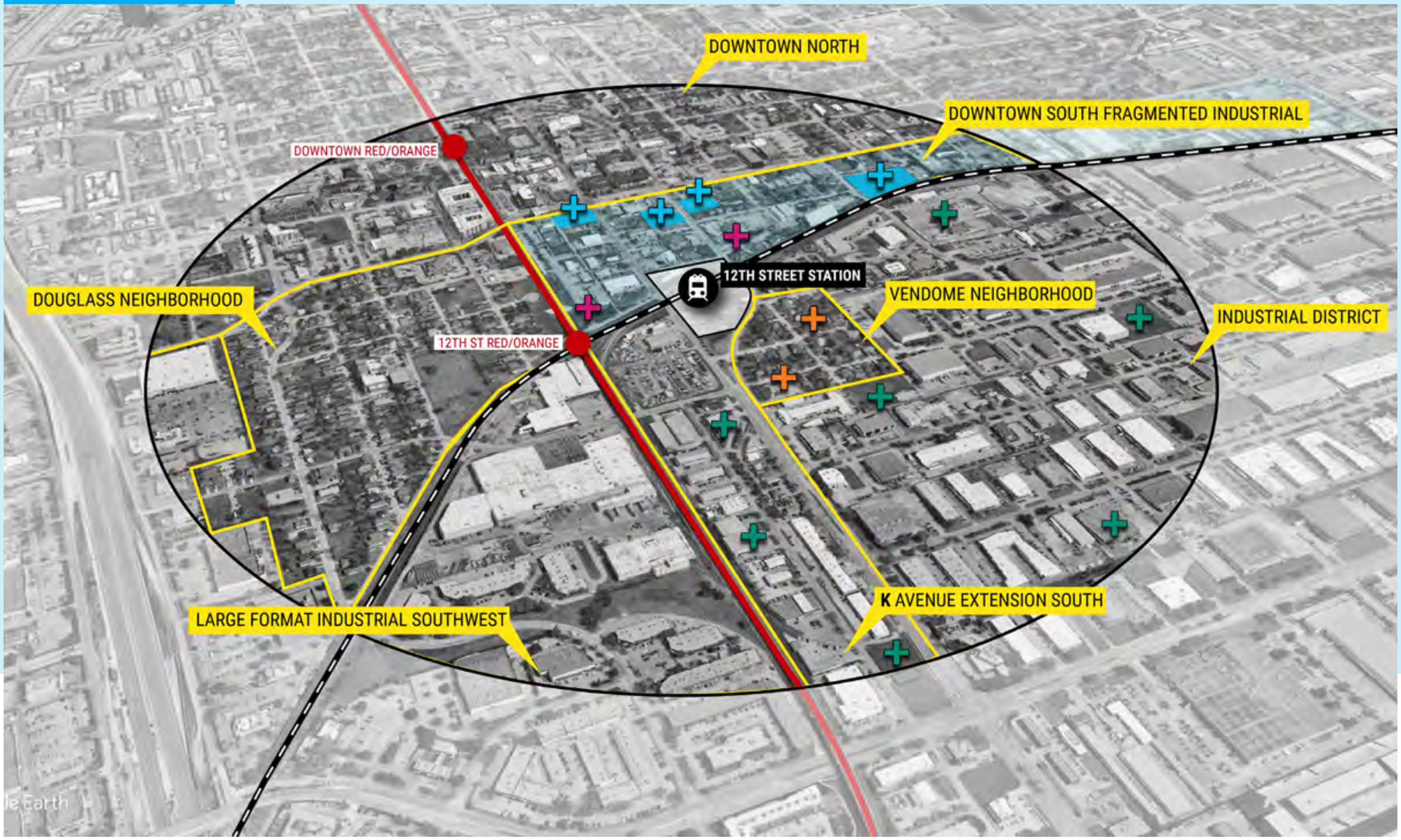
Considered **"High Redevelopment"** potential parcels

12th St: Vendome Neighborhood

66%

Considered **"High Redevelopment"** potential parcels

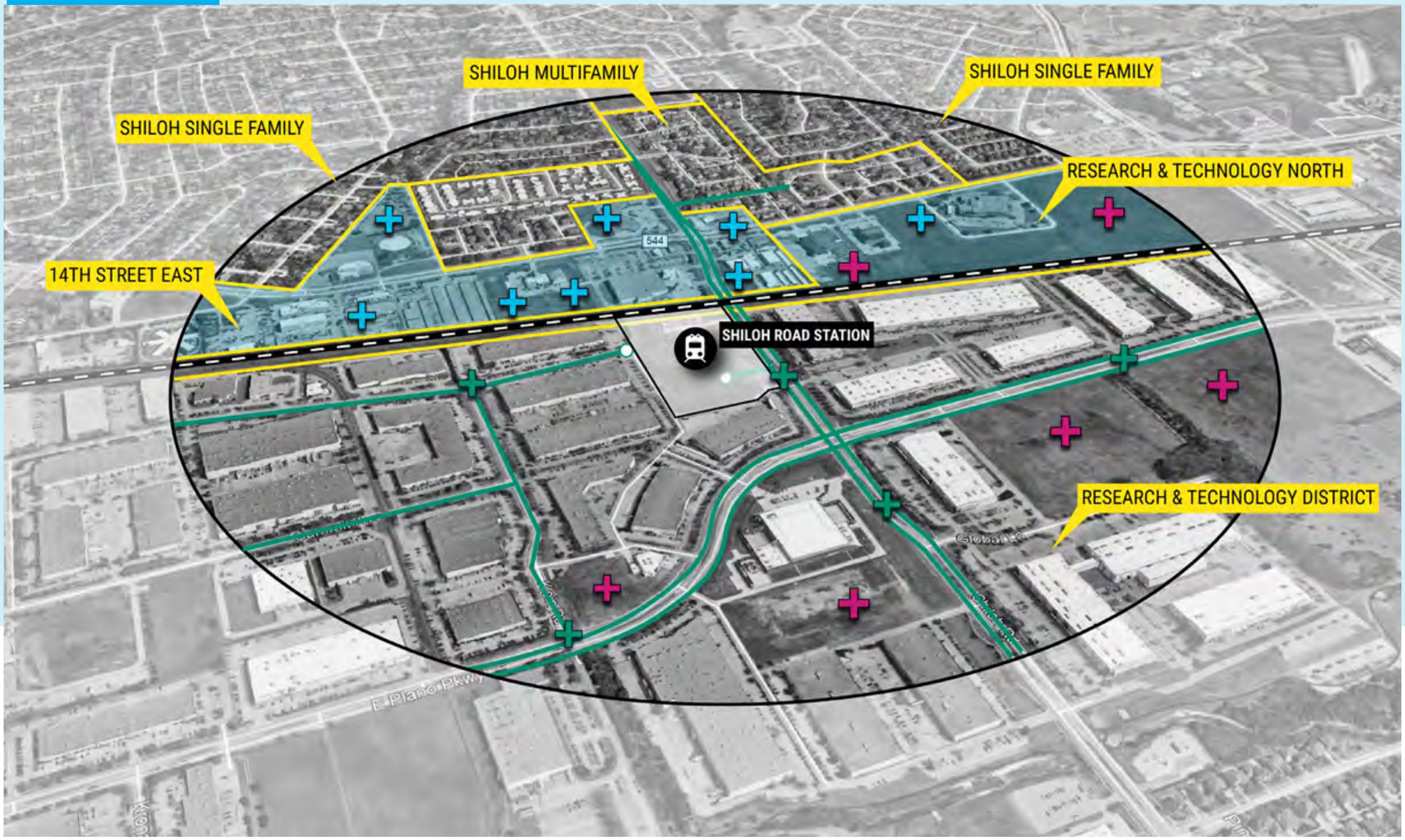
12th Street



Legend

- Redevelop city-owned land
- Infill housing and mixed-use development
- Transition from industrial to commercial, entertainment, and other non-residential uses
- Incorporate zoning that allows for uses beyond single-family residential - like commercial ADU

Shiloh Road



Legend

- Reconsider to meet “highest & best” uses
- Prepare R&T sub district for increased demand
- Improve walkability and connectivity

AECOM Imagine it. Delivered.

TECHNICAL REPORT

SILVER LINE CORRIDOR

Market Assessment & Economic Development Strategy

PLANO, TX

January 2022

Table of **Contents**

Introduction

Introduction

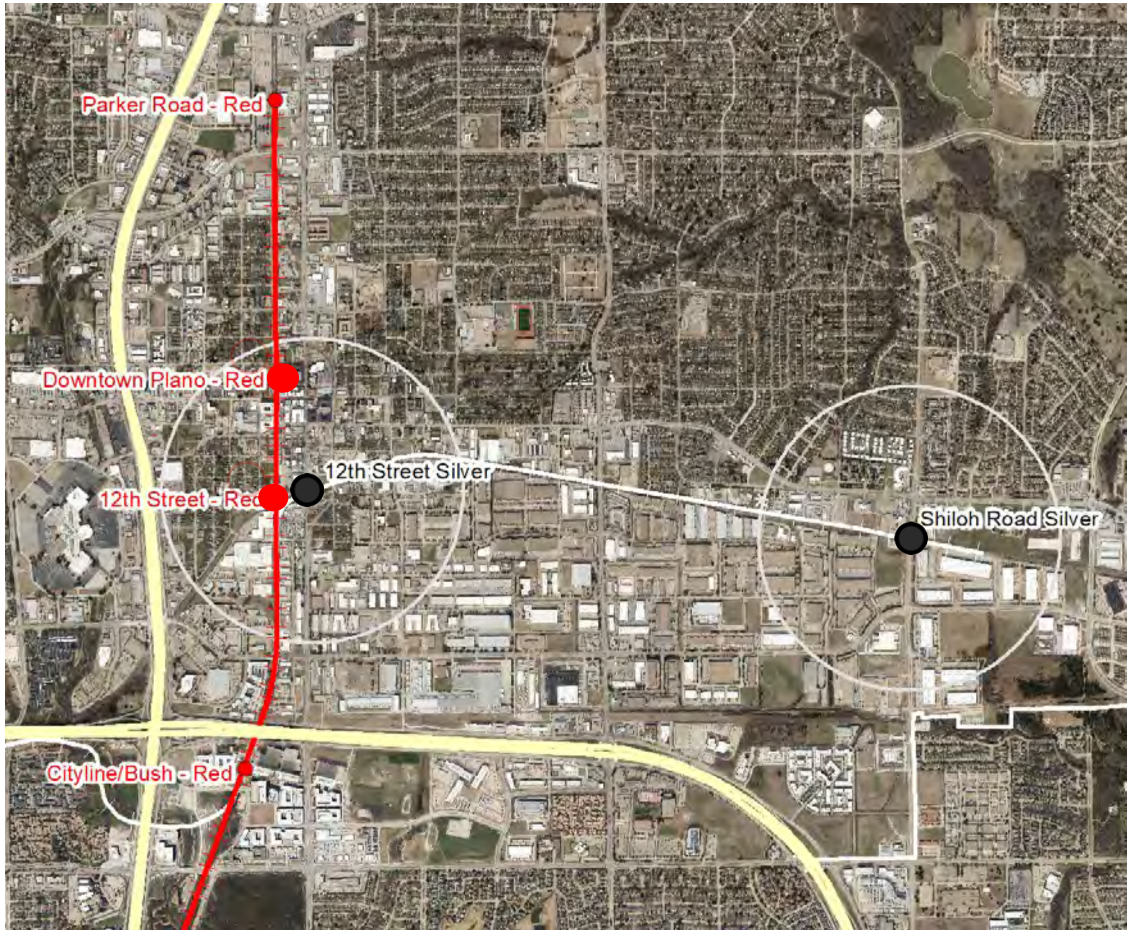
AECOM was hired by the City of Plano to conduct a market assessment of **economic development strategies** for three new DART rail stations:

12th Street (Silver)

Shiloh Road (Silver)

12th Street (Red)

The potential of these new stations was first documented within the City of Plano 2011 Comprehensive Plan Update, which identified the 12th Street station as a prime location for connecting bus and shuttle service to surrounding employment centers, residential areas, and affordable housing.



Scope of Work

The AECOM scope of services included:

- Reviews of pre-Covid studies, including 2011 Comprehensive Plan Update and the 2019 Downtown Plano Vision & Strategy Update.
- GIS database development to delineate study area boundaries and evaluate real estate trends in context with broader market / demographic, and economic forces at regional, neighborhood / submarket, and parcel levels.
- Analysis of residential market trends, to clarify demand drivers, growth in land values, and remaining inventories of vacant land.
- As the project has unfolded in the midst of a Covid-linked recession, extra effort was taken to document changes in economic activity relevant to the study area.
- Financial and economic impact assessments, to place redevelopment opportunities in context.

These analyses are used to provide independent perspective and clarity regarding current and near-term positioning of real estate within the station areas.

For context and perspective, this analysis incorporates broader economic, demographic, and real estate trends applicable to the DFW Region. We also summarize real estate conditions present within defined Metro Transit Oriented Development (TOD) Corridors such that best practices can be applied to the areas surrounding Plano’s new transit stations at 12th Street and Shiloh Road.

Stakeholder interviews to frame strengths and challenges near station areas

Demographic & economic assessments to compare the station area with city wide and regional trends, factoring in the impact of Covid.

Trend analysis to understand changes in commercial and residential land and building values and rents

Regional Housing Conditions

AECOM Imagine it. Delivered.

Demand Context

Single-Family Housing Discussion

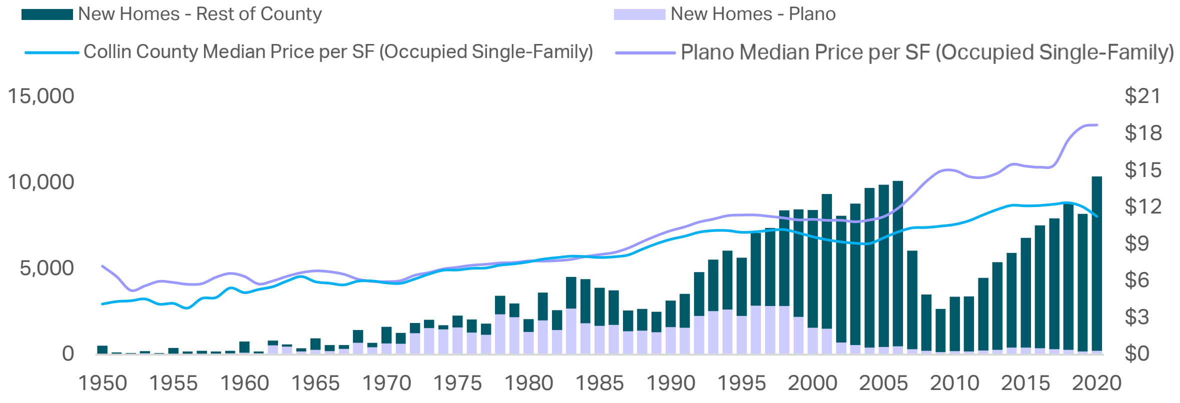
Historically, detached single-family housing was the predominant housing product being built across Collin County and within Plano. Since 1970, the county absorbed approximately 1,550 acres of single-family homes per year, with Plano contributing significantly to county-wide growth, absorbing more than 500 acres of land annually for detached single-family home development; 30% of county-wide growth over the decade. Since 2000, however, the pace of new single-family detached housing development within Plano has slowed relative to county-wide trends, linked to increasing scarcity of larger vacant parcels and increasing land values.

Increasing land costs are having an impact. While the median size of a single-family parcel built before 1990 was 0.20 acres, newer homes have been built on smaller parcels (median size of 0.15 acres) with the newest homes built on smaller 0.12-acre parcels. In terms of pricing, while older single-family homes in Plano support current assessed values at a modest 5% to 8% premium over county-wide averages; however, this premium has grown to between 40% and 50% for new homes, with a median price per square foot of occupied land above $18, equating to a home value of roughly $450,000.

With the regional economy accelerating out of the current Covid-linked recession, market expectations are pointing to several trends which will influence local real estate markets:

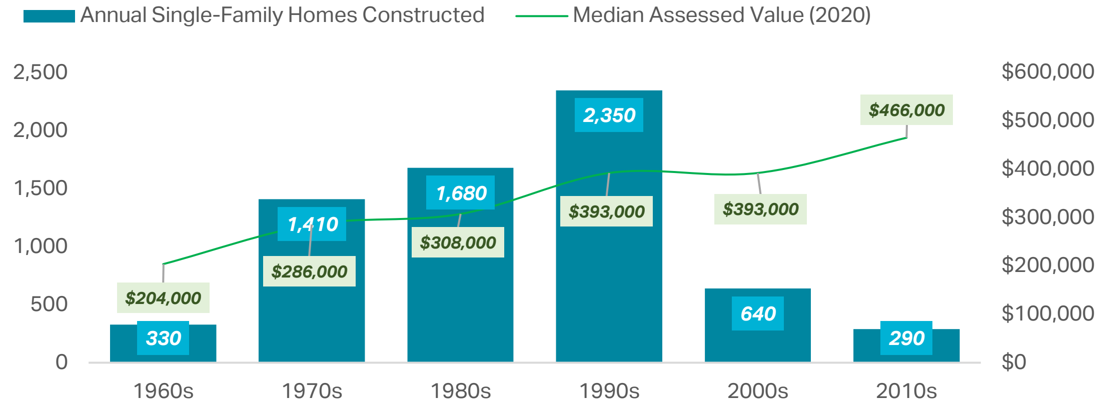
- While demand for renter housing dominated US housing markets from 2010-2019, the Millennial generation is now making a consequential pivot from renting into home ownership, which will likely increase demand for owner-occupied and single-family dwellings over the next growth cycle.
- Expanded working from home will dictate changes in housing design (larger homes / more connectivity). Given significant premiums for new housing construction in Plano, older housing stock in the study area will see pressure for renovation / replacement.

Single-Family Homes Built by Year, and Location & Median Price per Square Foot (Occupied Land)



While Plano comprised 30% of county-wide growth in single-family detached homes throughout the 1990s, its market share has since dwindled due to limited greenfield development opportunities and increasing prices for infill development or redevelopment.

Annual Delivery of Single-Family Homes & Median Value: Plano



Single-family homes constructed within Plano throughout the 2000s have a median value of more than $460,000 which is a 40% to 50% premium over comparable homes built within the county over the same period.

Source: Collin County Parcels

Demand Context
Multifamily Housing Discussion

Since 2010, the DFW metro added almost 1.3 million residents, with Plano capturing only 2.5% of regional population growth (31,100 residents), due to growing land constraints and increasing land values. For Plano, the analysis shows that a majority (76%) of new housing units built since 2010 were renter-occupied, against a region where 45% of new housing units have been renter-occupied.

Continued regional growth through 2019, combined with broader transitions within the Millennial and Boomer generations have led to accelerated demand for multifamily housing. In total, the DFW metro added an estimated 155,000 market-rate multifamily apartment units to supply since 2012. Importantly, Plano captured a modest 5% share of regional supply growth (7,100 units) at rents above regional averages over that period.

Looking beyond 2022, regional demand for higher-density, market rate housing (both renter and owner occupied) is expected to continue. However, increasing land costs and limited remaining greenfield sites are key constraints, offset by strategies to leverage Transit Oriented Development (TOD). Analysis shows that about 7% of new apartment supply added within the DFW metro since 2010 has been built within proximity of DART's northern Red, Green, and Blue line corridors.

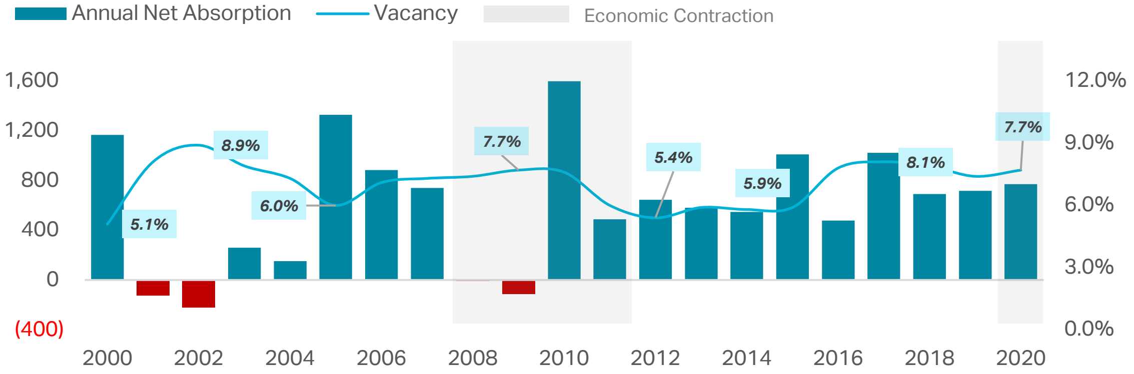
Transit adjacent housing developments are traditionally marketed to young professionals with a unit mix skewed toward studio, one-, and two-bedrooms, with average rents between $1,200 and $1,400 per unit per month. TOD building typologies tend to bias toward greater density, with 3-5 story construction on 1-3-acre parcels. When larger parcels are more difficult to find, new construction may also skew towards townhomes, slot homes, or live-work properties which, unlike most multifamily housing, are available for owner or renter occupancy.

Overall, site scarcity and higher land values have reduced Plano's share of new detached single-family construction, and developers are adjusting:

– Three to five-story (or taller) multifamily apartment buildings on parcels generally larger than 2 acres.

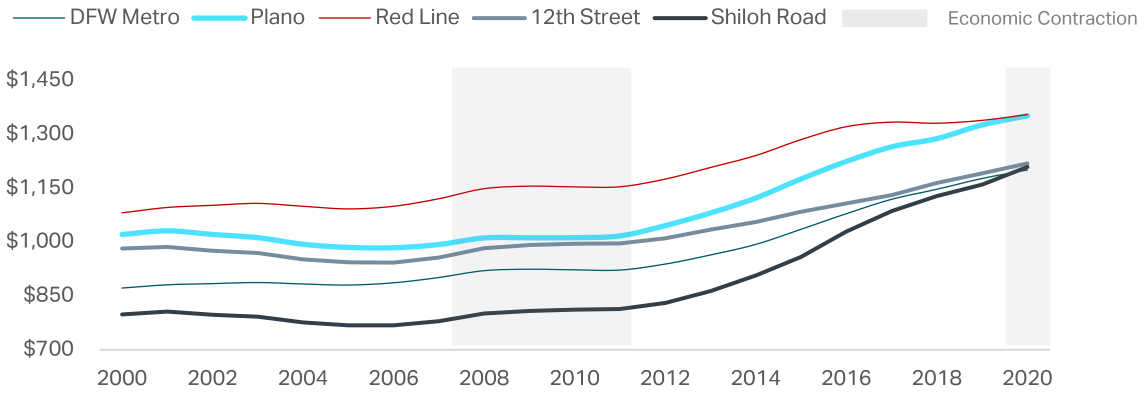
– Townhome, slot home, and rowhouse (zero lot line construction) homes on parcels generally smaller than 1 acre.

Net Annual Absorption & Vacancy of Market Rate Multifamily Apartments in Plano



Since the end of the Great Recession, Plano has absorbed new market-rate multifamily housing units at a slower rate than the market has delivered new units; however, vacancy has remained stable at ~8% since 2016, consistent with trends observed pre-recession.

Effective Rents per Unit of Market Rate Multifamily Apartments (3-year average)



Effective rents per unit across the two Silver Line catchment areas are consistent with metro averages and below city-wide and transit-adjacent benchmarks. Additionally, the average unit size at Shiloh Road is much larger than average unit size at 12th Street (1,000 vs 830 sf), leading to comparable rents per unit.

Source: Costar

Demand Context

Underlying Land Values

Current Median Assessed Value per SF of Land	Median Price per SF of Land after development	Median Parcel AC	Units / Acre	Property Description
Multifamily High-Rise (Legacy West)	$35.00	2.3	114	High-Rise Multifamily Rental Housing, > 15 stories, ~115 units per acre, 1,150sf average unit size, rent ~$3.10 per sf
Multifamily Mid-Rise (Legacy West)	$26.00	5.6	49	Mid-Rise Multifamily Rental Housing, < 6 stories, ~50 units per acre, 920sf average unit size, rent ~$2.05 per sf
Multifamily Mid-Rise (12th Street)	$25.00	1.5	104	Mid-Rise Multifamily Rental Housing, < 6 stories, ~120 units per acre, 830sf average unit size, rent ~$1.80 per sf
Multifamily Mid-Rise (South Plano)	$17.00	5.9	44	Suburban Village Mid-Rise Multifamily Rental Housing, ~5 stories, ~45 units per acre, 930sf average unit size, rent ~$2.10 per sf
Multifamily Garden-Style (Shiloh Road)	$14.00	18.1	17	Garden-Style Multifamily Rental Housing, many 2-story buildings, ~17 units per acre, 925sf average unit size, $1.50 per sf
Slothomes (Metro-Wide)	$40.50	0.48	29	Modestly Dense Owner-Occupied Multifamily Housing, 0.48 acres median lot size, ~30 units per acre, median improvement value $400,000
Townhomes (All Plano)	$44.80	0.56	24	Modestly Dense Owner-Occupied Multifamily Housing, 0.56 acres median lot size, ~25 units per acre, median improvement value $250,000
Rice Field Neighborhood	$33.20	0.06	16	Dense Single-Family; Detached Housing, 0.06 acres median lot size, 16 units per acre, median improvement value $291,000
Hudson Heights Neighborhood	$14.70	0.16	6	Single-Family Housing, 0.16 acres median lot size, 6 units per acre, median improvement value $342,000
Vendome Neighborhood	$6.30	0.21	5	Single-Family Housing, 0.21 acres median lot size, 5 units per acre, median improvement value $87,000
Douglass Neighborhood	$5.90	0.13	8	Single-Family Housing, 0.13 acres median lot size, 8 units per acre, median improvement value $44,000

Sources: Plano Parcel Map, Collin County Parcel File, Dallas Parcel File, Fort Worth Parcel File

Underlying land values, parcel size, and allowable density by right play an important role in determining eventual development typologies.

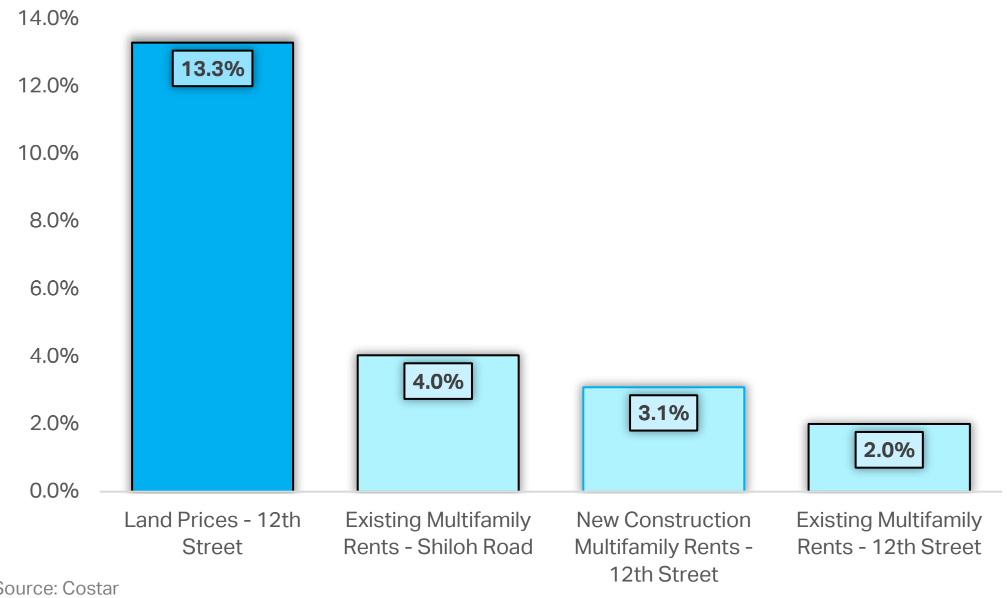
The table to the left provides a summary of current assessed land values by typology. On a square-foot basis, the underlying price of townhomes and slot homes is the most expensive; however, these parcels are often the smallest among multifamily housing typologies at 0.50 acres.

Currently, land prices within proximity to the 12th Street Station are trading at between $25 and $30 per square foot according to Costar transaction data – a price that makes any low-density development not financially feasible – forcing the market to pivot to more dense development. Since 2010, the price of land within proximity of 12th Street has grown by more than 13% annually – or from ~$7 a square foot to ~$28 a square foot. Trends, such as accelerating land prices and decreasing greenfield inventory is forcing developers to deliver product at higher densities than before.

Demand Context

Accelerating Land Prices & Limited Inventory

Annual Growth in the Price of Land Compared to Multifamily Apartment Rents between 2010 & 2020



Source: Costar

The price to rent multifamily apartments across all geographies grew at the same rate, or outpaced inflation over the same period; however, the price to purchase undeveloped land within proximity to 12th Street grew by more than 13% annually, or from ~$7 per square foot in 2010 to ~$28 per square foot today.

High Potential Redevelopment Sites by Size (AC)

12th Street Silver Line Station Area

Low (AC)	High (AC)	Count	%
0.00	0.10	37	11%
0.10	0.25	166	50%
0.25	0.50	71	21%
0.50	0.75	19	6%
0.75	1.00	8	2%
> 1 Acre		32	10%
		333	**100%**

High Potential Redevelopment Sites by Size (AC)

Shiloh Road Silver Line Station Area

Low (AC)	High (AC)	Count	%
0.00	0.10	0	0%
0.10	0.25	1	6%
0.25	0.50	0	0%
0.50	0.75	0	0%
0.75	1.00	1	6%
> 1 Acre		16	89%
		18	**100%**

In addition to accelerating land prices, the inventory of "high potential" redevelopment sites is concentrated in those sized between 0.1 and 0.5 acres. As such, certain development typologies like mid- and high-rise multifamily, Class A commercial office and other large format commercial uses will be infeasible to develop. Instead, the market will likely move to deliver housing in the form of townhomes and slot homes due to their increased density.

*Please reference page 18 for a map of "High Potential Redevelopment" sites

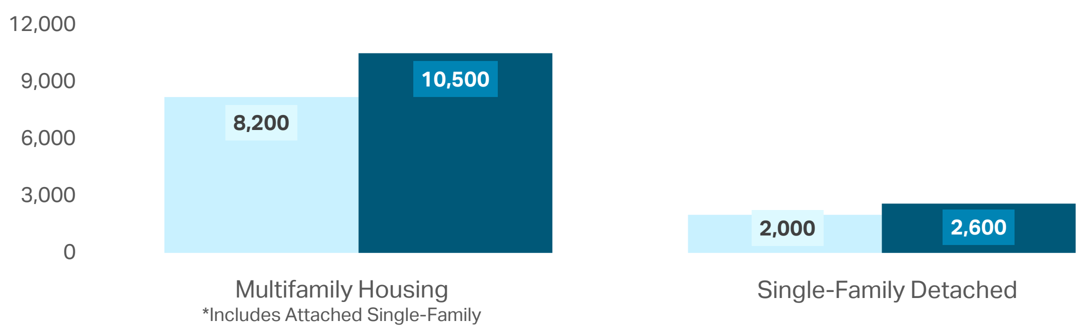
Demand Context

Expected Housing Demand & COVID-19 Impact

AECOM expectations for future growth in housing demand are framed by the following elements:

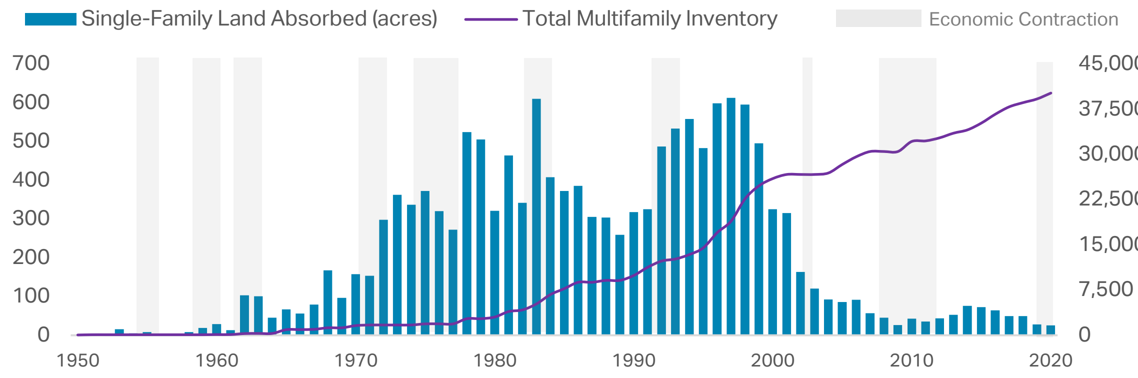
- The DFW Region, like the country, still contends with long-term ripple effects of the last recession, after which the regional pace of new housing construction slowed. According to the National Association of Home Builders, "The 2010s was by far the lowest decade of single-family production in the last 60 years. During this 10-year period, single-family home construction totaled just 6.8 million units. By comparison, single-family starts ranged from 9.3 million units in the 1960s to 12.3 million in the 2000s."
- A reduced pace of new housing construction through 2014 has increased pressure on the existing housing stock, with a specific need to reinvest in older (pre-1960) homes, which represent 28% of US inventory, and replace lost inventory; the US Census estimates that about 350,000 housing units annually need to be built just to replace lost units.
- The clear shift in construction since 2010 in favor of rental housing was a function of changing demand, with both Millennial and Boomer households exhibiting a clear preference for renting rather than owning. It was also a reflection of market need to re-absorb a consequential glut of foreclosed properties from 2010 to 2014; one net result was a dramatic increase in the number of investor-owned single-family homes available for rent.
- The COVID-19 Pandemic has ushered in a new cycle anchored by a Millennial generation finally making a clear pivot toward home ownership in a current market context defined by an absolute shortage of housing.
- Current market conditions within Plano point to sustained demand for housing, offset by limited opportunity for additional greenfield development of detached single-family subdivisions as the city is approaching buildout.
- Constrained supply of developable land will encourage land values to appreciate and motivate developers to focus on higher-density infill projects such as townhomes, slot homes and 4- or 5-story multifamily apartments based on available parcel sizes.

Estimated Demand for Housing in Plano through 2031



Using historical trends and regional population forecasts from the North Texas Council of Governments, this analysis forecasts expected housing demand in Plano over the next 10-years. There may be demand for 8,200 new multifamily units in Plano over the next 10-years in a conservative scenario and 10,500 in a more aggressive scenario. The balance of new housing demand may be met through the delivery of single-family detached housing units: 2,000 in a conservative and 2,600 in a more aggressive scenario over the next 10-years.

Single-Family; Detached Land Absorbed (acres), and Multifamily Inventory by Year: Plano



While the volume of new homes being built within Plano has decreased, the inventory of multifamily housing accelerated with a notable inflection point in the late 1990's.

Source: Costar

Regional Commercial Conditions

Demand Context
Commercial Office Discussion

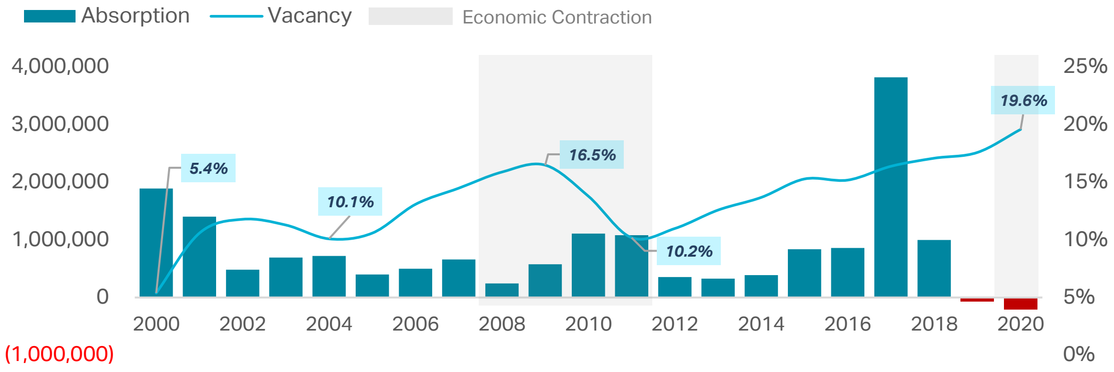
The DFW metro has added more than 41 million square feet of net new office inventory since the end of the Great Recession, or almost 5.2 million square feet per year since 2012. Regional demand for office space has also been strong but has lagged marginally behind supply increases. To this point, annual demand for office space has been 87% of net new supply since 2012 and has gradually driven metro vacancy to 17% in 2020 from 10% in 2011.

Additionally, new office product delivered within the metro is in line with national best practices as over 85% of net new inventory since 2012 has been Class A product which offers larger floor plates, higher ceilings, and the amenities desired by a modern workforce, pre-COVID-19. Commercial office amenity packages and design best practices may also change to include things like further spacing between desks, outdoor space, and more stringent air filtering requirements.

Plano has greatly benefited as a result of metro growth in office, capturing 29% of metro growth in total office space since 2012. Over the same period, annual demand for office space has been 67% of net new supply since 2012. Similar to trends observed across the metro, the market is consistently adding new supply at a greater rate than it is absorbing space, resulting in an overall vacancy increase from 10% in 2011 to almost 20% today. In addition, Class A space in Plano rents at a significant premium compared to Class A space across the metro due to its modern character, with notable concentrations in areas like Legacy West.

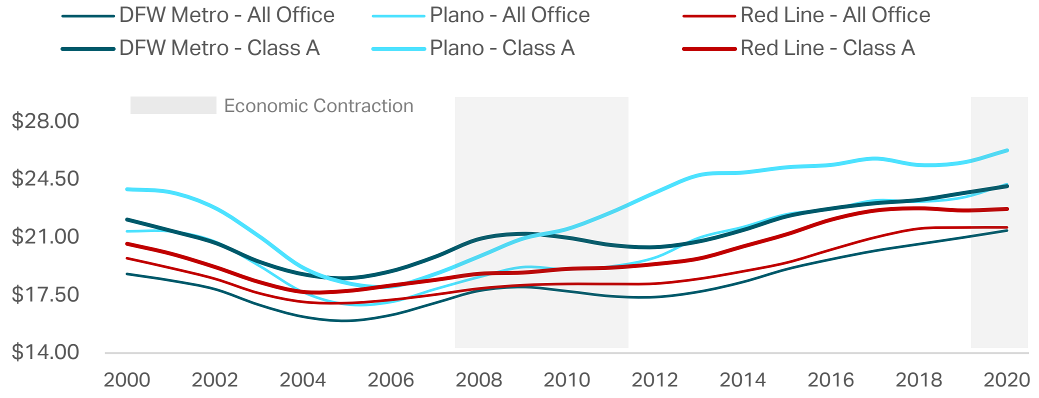
COVID-19 has impacted the market for commercial office space, otherwise accelerating pre-Covid trends which favored "work from home". As a result, net absorption across all office property types and all geographies was negative in 2020 with the metro losing 3.6 million square feet of space and Plano losing 200,000 square-feet. As capacity restrictions lift and more of the population becomes vaccinated, commercial office markets will recover. Concerns in the short-term relate to a clear mismatch between top line office occupancy (80%) and bottom-line office utilization data (<40%). While newer Class A buildings are expected to recover, pre-1980 buildings with older ventilation systems are expected to struggle.

Net Annual Absorption & Vacancy of All Office Space in Plano



Similar to trends observed across the metro, the market is consistently adding new supply at a greater rate than it is absorbing space, resulting in an overall vacancy increase from 10% in 2011 to almost 20% today

Historical Office Rent Summary (3 year average)



Class A office rents within the metro are 13% greater than the general average for all space, or $24 vs $21 per square foot. Overall, rents have increased at the rate of inflation since the end of the Great Recession, or by ~3% annually, to $21 per square foot in 2020.

Source: Costar

Demand Context
Retail Space Discussion

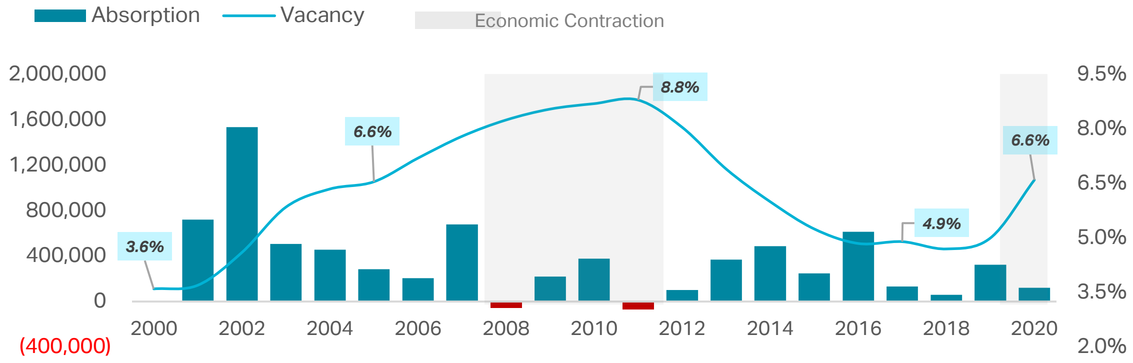
The DFW metro added almost 130 million square feet of retail space since 2000; however, 70% of regional growth occurred between 2000 and 2010 while only 30% of regional growth occurred since the end of the Great Recession (90 vs. 40 million square-feet). The trend is a microcosm of reduced national demand for brick-and-mortar retail seen at the end of the Great Recession, stemming from growth of Amazon, E-Commerce, and omni-channel retail. The path forward for retail is complex:

- Companies such as Nike are using DTC (direct to consumer) sales models to avoid wholesalers and Amazon, leveraging technology to respond to changes in consumer sentiment.
- Demand for "Ghost Kitchens" has expanded to support meal delivery, but it remains unclear whether food delivery services can become reliably profitable.
- Moving into the fall of 2021, companies such as Williams Sonoma have announced plans to pivot a majority of their square footage into warehouse space in support of expanded e-commerce.

Retail conditions within Plano are consistent with regional trends, where net new space was added 2x faster before the Great Recession versus after. In addition, a majority of retail space within Plano was delivered in the General-Purpose shopping center category between 1980 and 2009 (18 million square feet) and is a space that has maintained occupancy at between 88% and 95% since 2000. The pandemic has resulted in a 3% vacancy uptick within this retail segment between 2020 and 2021.

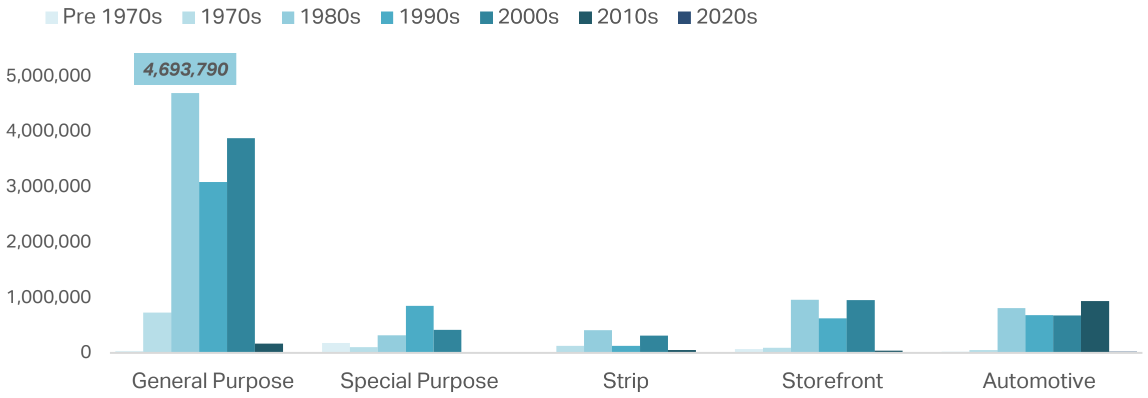
Special Purpose retail, which includes contemporary lifestyle centers developed throughout the 1990s and 2000s, was the hardest hit retail segment as a result of COVID-19, as vacancy within Plano increased from 3% to 18% between early 2020 and 2021. Today, this style of shopping center maintains rents between $17 and $20 per square foot. Storefront retail, like those found along East 15th Street in Downtown Plano rents at a modest premium relative total retail within the city.

Net Annual Absorption & Vacancy of All Retail Space in Plano



While retail vacancy decreased from a period high of almost 9% in 2011 to 5% in 2018, the COVID-19 pandemic has since pushed retail vacancy to almost 7%.

Plano Retail Inventory Added by Type and Decade of Construction



A majority of Plano's retail space was delivered prior to 2010, with the most significant new inventory delivered in the 1970s.

Source: Costar

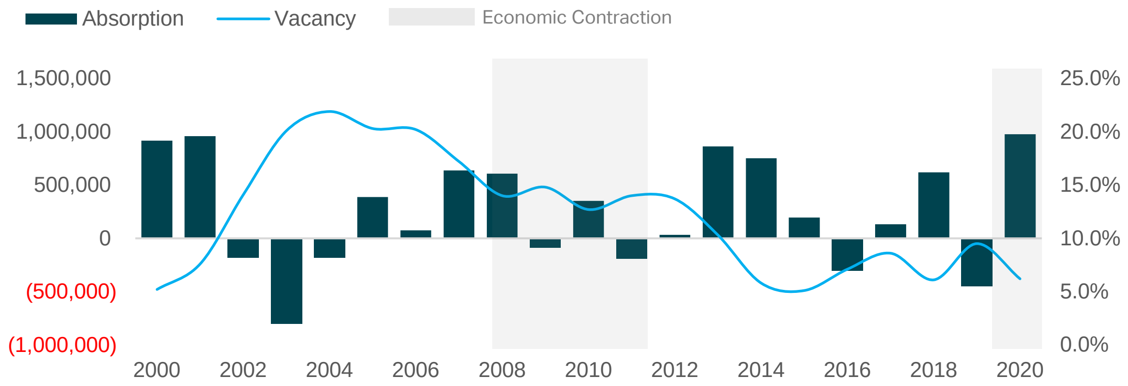
Demand Context
Modern Industrial / Flex Space Discussion

Plano supports an inventory of roughly 17.1 million square feet of industrial and flex space, with about 30% of inventory located within proximity of the future Silver Line stations at 12th Street and Shiloh Road. Industrial warehouse and distribution space delivered in the last 20 years within proximity of Shiloh Road has been within structures ranging in size from 50,000 to 100,000 square-feet with ceilings between 24 and 30 feet. Vacancy within these districts continues to be modest, reinforcing market interest in continued light industrial and service use.

Looking forward into 2022 and beyond, demand drivers for industrial markets are expected to focus on the following elements:

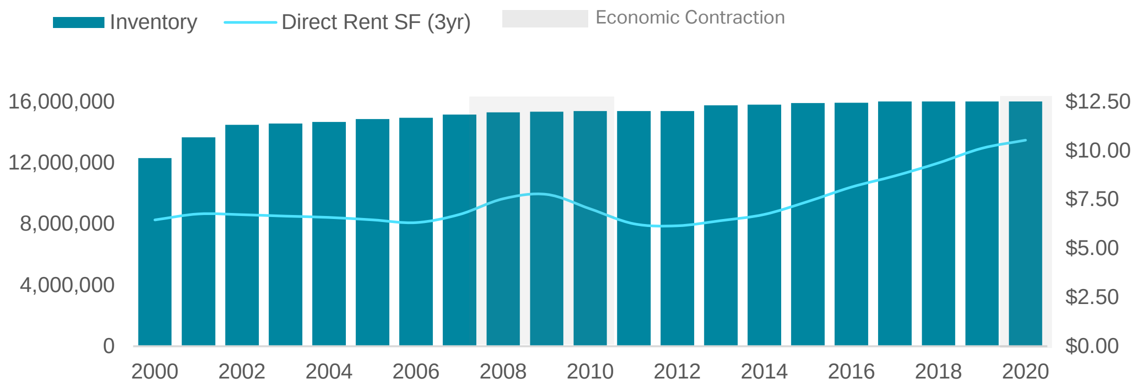
- E-Commerce demand. AECOM analysis suggested that for every $1,000 in retail sales which shift from brick and mortar to e-commerce, an additional 2.4 square feet of warehouse space is occupied at the expense of retail space. These shifts will gradually impact local property taxes and transit services as traditional malls fail and a larger share of retail jobs shift into warehouse districts. Regionally, these activities have been concentrating at the South Dallas Inland Port and at Alliance, due in large measure to the availability of larger 10–25-acre sites with proximity to local intermodal yards.
- Advanced manufacturing. With post-Covid trends favoring shorter supply chains and greater domestic manufacturing capacity, there are realistic expectations for growth in a range of jobs across software development, production, machining, and related elements across advanced manufacturing sectors.
- Rehabilitated and repurposed industrial space. In areas like Deep Ellum, older industrial buildings are being renovated and converted into showrooms, breweries, boutique retail, and food & beverage establishments. As these areas mature, supplemental infill residential and more traditional office space emerges, resulting in more diverse mixed-use districts.

Net Annual Absorption & Vacancy of All Industrial/Flex Space in Plano



While net absorption of industrial space has fluctuated from year to year, it is of note that net absorption in 2020 was consistent with period highs indicating strong demand for industrial space even in the COVID-19 climate.

Plano All Industrial/Flex Inventory & Rent/SF



While marginal industrial/flex inventory has been added within Plano, direct industrial/flex rents have accelerated since the end of the Great Recession.

Source: Costar

Demand Context

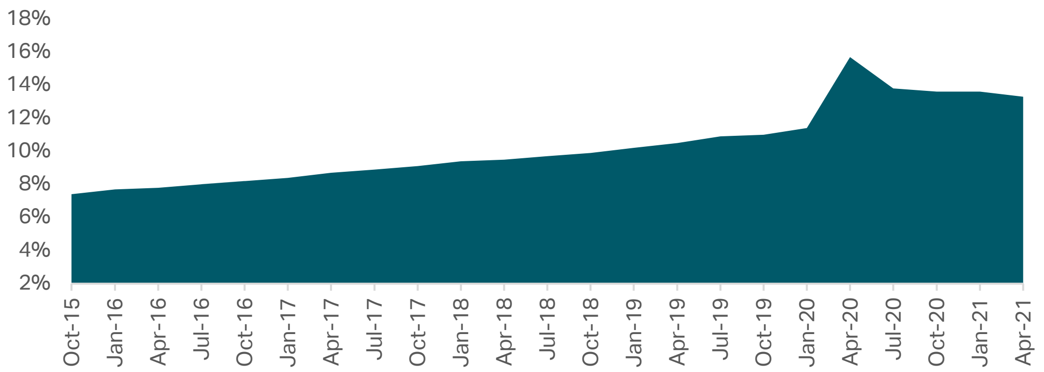
Expected Commercial Demand & COVID-19 Impacts

Historically, retail located within the study area has performed well, with storefronts along Downtown Plano's historic 15th Street corridor having seen rents accelerate out of the Great Recession from $18 to $21 per square foot coupled with relatively low vacancy over the same period (< 8 percent). Retailers located within the new mixed-use multifamily properties like Junction 15 have struggled due to higher rents within new space. The underlying market conditions would suggest that there is continued demand for affordable, legacy retail space – like the storefronts along 15th Street where rents are affordable and retailers can incubate new businesses. In addition, there will likely be further demand for a more walkable, urban environment with the introduction of thousands of housing units on the Collin Creek Mall site, Cityline, and around the 12th Street Station. This may be accomplished through the rehabilitation and repurposing of existing industrial and automotive structures just south of Downtown.

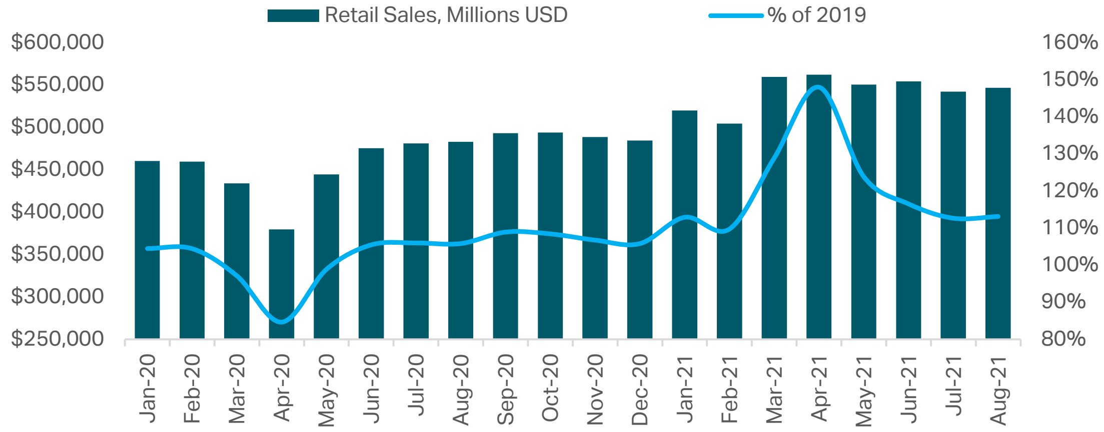
The study area does not hold any traditional Class A office space; instead, it includes legacy B and C office space in smaller buildings. In Plano, and within the Greater DFW market, Class A office space has been observed to cluster in locations like Legacy West and Cityline. As such, it is not expected that the market will deliver Class A high-rise office in the study area.

The study area also holds a significant portion of Plano's entire industrial inventory which has proved to be a strong and productive land use – especially from a sales and property tax standpoint. Industrial rents have accelerated since the end of the Great Recession indicating strong demand for space.

E-commerce % of Retail Sales; FRED



Retail Sales, Millions of USD, Percent of 2019; FRED



COVID-19 led to significant increases in retail spending, and the share of e-commerce sales quickly accelerated past 15% by the spring of 2020. The pandemic only accelerated the downward spiral of department stores. While e-commerce sales have slowed into 2021, total retail sales have only increased since June of 2020 at monthly rates that are nearly 2x monthly growth in retail sales between 2015 and 2019.

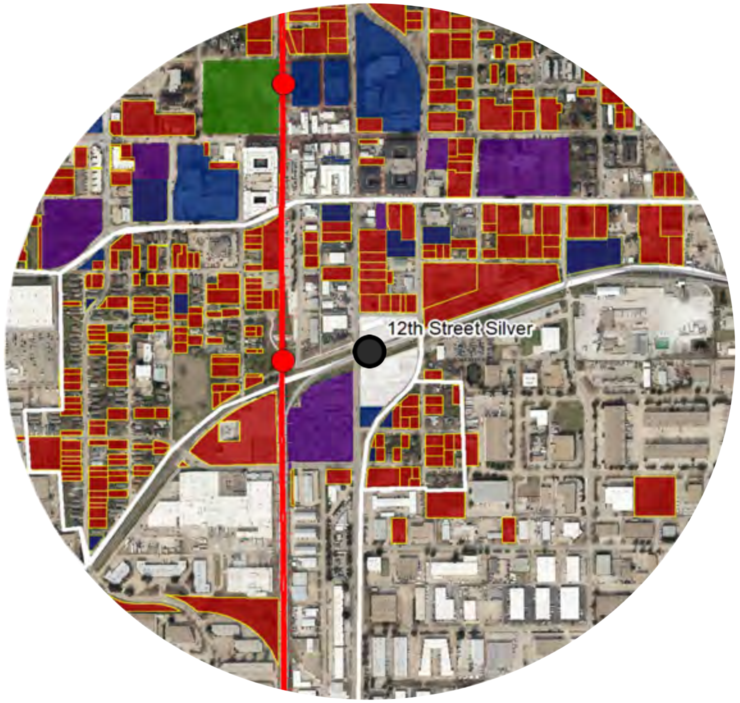
Source: FRED

Existing Station Area Conditions

Station Area Sub Districts

The analysis presented in this report provides an overview of Plano's two new Silver Line station areas at 12th Street and Shiloh Road. The two station area markets are defined by 0.5-mile buffers around the respective Silver Line Stations. In addition, each station area consists of "sub districts" that were established through an analysis of current zoning ordinances and through the input of project stakeholders. Lastly, "high" redevelopment parcels were identified within each station area by weighing the four conditions outlined on this page. "High" redevelopment parcels, which include those that scored the lowest, were then assigned a ***future TOD typology*** based on demand trends within the market to quantify Plano's potential fiscal uplift should these sites be redeveloped.

12th Street



Shiloh Road

Redevelopment Potential Scoring Factors

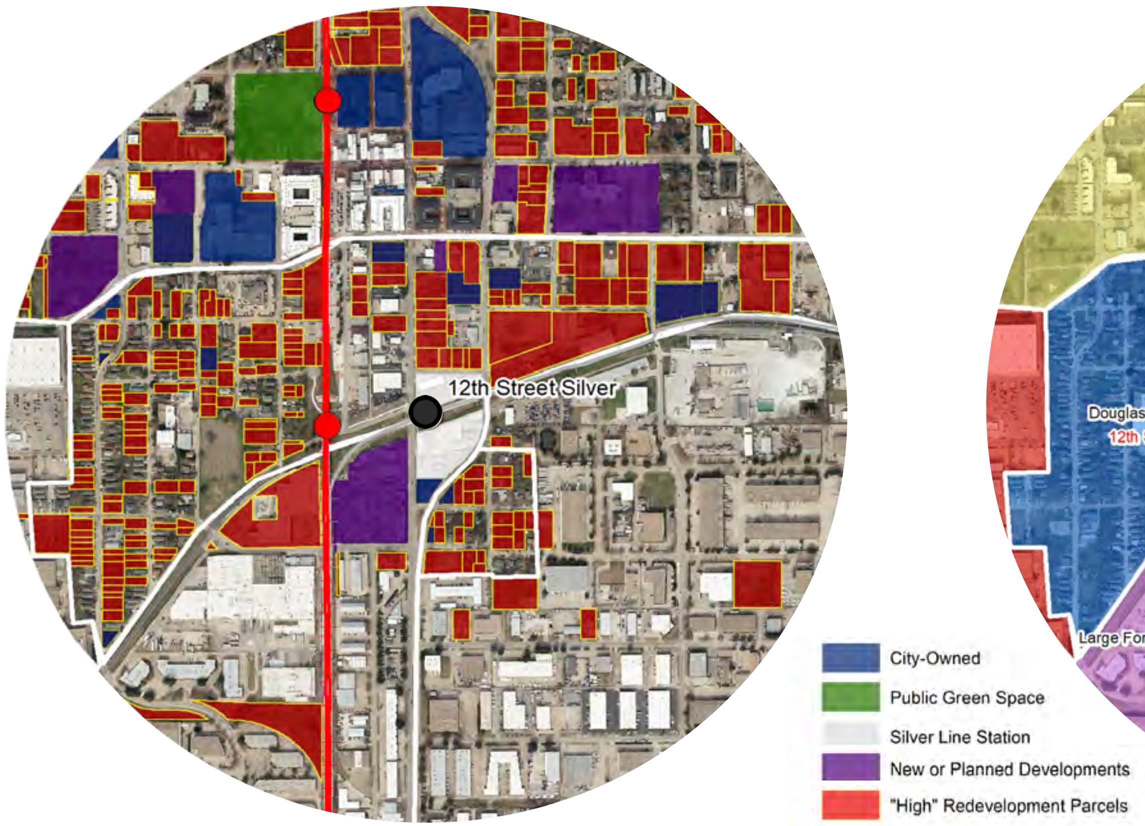
1. Is the parcel currently vacant?
2. How old is the primary structure on the parcel?
3. What is the ratio of assessed improvement value to land value?
4. What percentage of the parcel is covered by an existing structure – or overall lot coverage?

Key Sites Legend

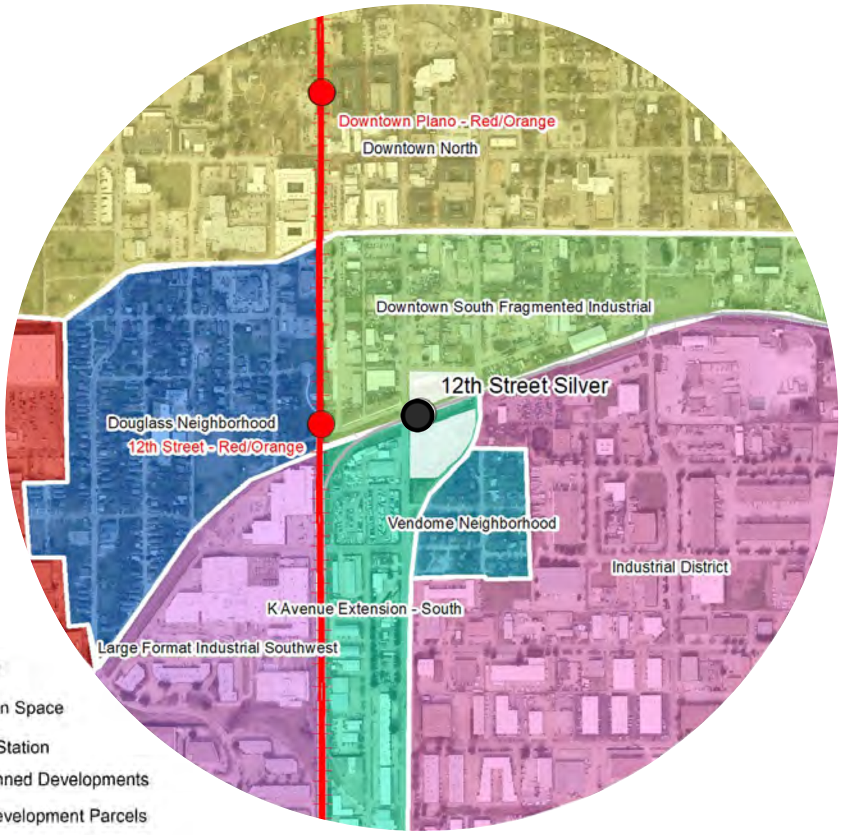
- City-Owned
- Public Green Space
- Silver Line Station
- New or Planned Developments
- "High" Redevelopment Parcels

**more information on high potential redevelopment sites can be found in the Appendix*

Overview: 12th Street "High" Potential Redevelopment Sites & Sub Districts



High Redevelopment & Special Condition Parcels: 12th Street Station Area



12th Street Station Area Sub Districts

High Potential Redevelopment Sites by Size (AC)

12th Street Silver Line Station Area

Low (AC)	High (AC)	Count	%
0.00	0.10	37	11%
0.10	0.25	166	50%
0.25	0.50	71	21%
0.50	0.75	19	6%
0.75	1.00	8	2%
> 1 Acre		32	10%
		333	**100%**

A majority, or 95 percent of "high potential" redevelopment sites across both the Silver Line station areas are within proximity of 12th Street.

In addition, 50 percent of the "high potential" sites within proximity of the 12th Street station are between 0.1 and 0.25 acres. As such, potential redevelopment typologies are limited by relatively small parcels to developments such as townhomes, slot homes and other industrial conversions of existing structures as traditional multifamily apartment housing and other larger format commercial development must be developed on a lot that is at minimum, one acre in size. In addition, rising land prices within proximity of the 12th Street Station will also force the private development community to make certain decisions.

Downtown North
Sub District Summary

Considerations: The Downtown North sub district has seen the addition of multifamily apartment inventory in the form of 3- to 5-story structures since the arrival of DART's Red Line in the late 1990s. The city helped to facilitate early housing development by leasing the land that later became Bel Air K Station Apartments. Newer multifamily product features ground floor commercial where tenants have struggled as a result of relatively high rents and marginal foot traffic. The 15th Street Village townhomes, a new townhome product added since 2000, have an average value above $275,000 each.

East of 15th Street Village is a 49-unit townhome project, with some live-work units, that is soon expected to break ground and include "for-sale" units. Further east, the former First Baptist Church site is under construction and will include 50 townhomes, 270 apartments, flex space, and other commercial space. Similar development to what is and has been delivered since 2010 is expected to continue; however, a depleted inventory of land and increasing land prices may make lower density projects not financially feasible without public assistance in this sub-district.

Downtown North

1. Patriot Park – 139 rental housing units for working families including those in the military, police officers and fire fighters.
2. 15th Street Townhomes – 49 "for sale" units designed in a "live-above" style.
3. 15th Street Apartments – 4-story multifamily, 52 units.
4. First Baptist Church Redevelopment – 270 rental housing units, 50 "for sale" townhomes, commercial, and flex space across 10 acres.

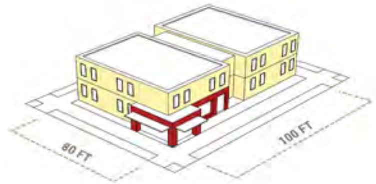
12th Street Catchment Area

Likely Redevelopment Typologies:

4- or 5-Over 1
(230' x 210' block)

Slot Home / Townhome
(120' x 110' block)

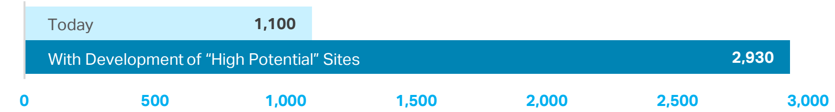
Live - Work
(100' x 80' block)



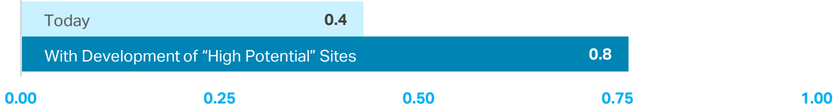
Key Metrics:

Total Assessed Value ($ millions)

Total Housing Units



Floor Area Ratio



Downtown South Fragmented Industrial
Sub District Summary

Considerations: The Downtown South Fragmented Industrial sub district has the highest share of land identified as "high" redevelopment potential (74 percent) and includes a number of city-owned properties. Among the city-owned properties are a handful of surface parking lots as well as vacant land at the intersection of 13th Street and N Avenue.

At time of this report, the Downtown South Fragmented Industrial sub district is home to legacy automotive and industrial outdoor storage facilities among newer food and beverage retail on the south side of 14th Street indicating that the natural path of redevelopment is pushing south with downtown as the "epicenter." The district's position between Plano's downtown core and the new Red and Silver Line stations at 12th Street presents opportunity – but development will likely occur at a lower density than found in Downtown North due to constrained parcels and fractured ownership as land assembly will be complicated and time consuming. However, repurposing existing structures is more cost effective than building new, making the repurposing of legacy automotive buildings into restaurants and bars a potential opportunity under the right conditions.

Downtown South Fragmented Industrial

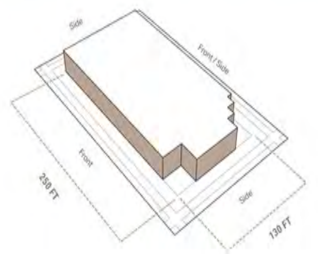
1. Mixed-Use – 4-story structure includes restaurant, office, fitness and 3 multifamily units.
2. 12th Street Silver Line Station

☆ Potential Catalyst Site

12th Street Catchment Area

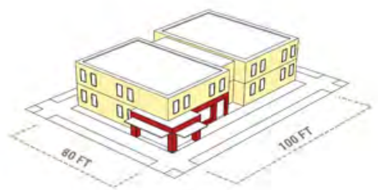
Likely Redevelopment Typologies:

Repurposed Industrial
(250' x 130' block)



Slot Home / Townhome
(120' x 110' block)

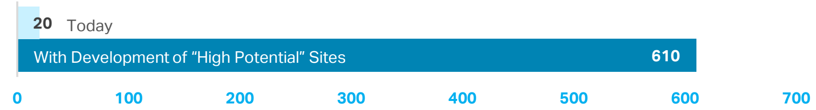
Live - Work
(100' x 80' block)



Key Metrics:

Total Assessed Value ($ millions)

Total Housing Units



Floor Area Ratio

Douglass Neighborhood
Sub District Summary

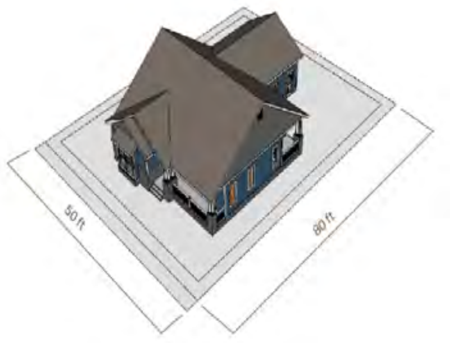
Considerations: The Douglass Neighborhood sub district is located on the western side of DART's elevated Red Line. While the neighborhood has seen modest investment throughout the 2010s, there are also a handful of vacant lots and aging single-family structures. As this area starts to experience redevelopment pressure with new development in adjacent sub districts, public policies like the Great Update Rebate may help to offset costs associated with renovation or new construction for homeowners. A certain portion of these investments, should they meet criteria outlined by the city, may be reimbursed for up to $5,000. The utilization or expansion of this program may help to not only preserve the sub district's residents, but also its character. Preservation of affordable single-family housing should be a priority in this area and added housing density, through the introduction of townhomes or slot homes is not expected due to the existing character of the neighborhood.

Douglass Neighborhood

1. Old City Cemetery & LA Davis Cemetery

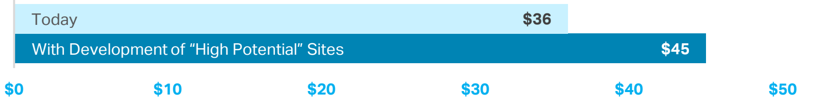
Likely Redevelopment Typologies:

Single-Family Home
(90' x 90' block)

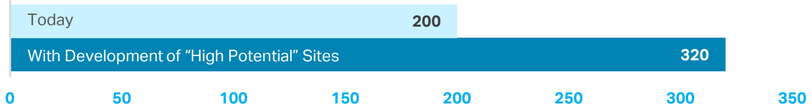


Key Metrics:

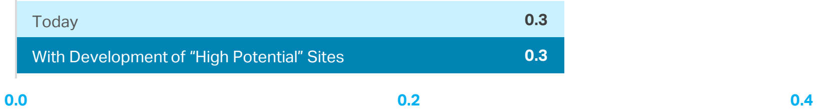
Total Assessed Value ($ millions)



Total Housing Units



Floor Area Ratio



Large Format Industrial Southwest
Sub District Summary

Considerations: The Large Format Industrial Southwest sub district is home to a few large and productive parcels – many of which have multiple structures. The primary land use found within this sub district is industrial warehouse built in the 1960s and 1970s and flex industrial / office space built in the 1980s. While the parcels within the Large Format Industrial Southwest sub district are large and therefore attractive for redevelopment, there are environmental constraints on the parcel currently occupied by 10th Street Industries as well as the presence of an electrical substation. Additionally, relocating existing businesses from within this location to other industrial areas in Plano may be challenging, as much of it is zoned Research/Technology Center (RT), which prohibits large-format warehouse.

Large Format Industrial Southwest

☆ 10th Street Industries & Potential Catalyst Site

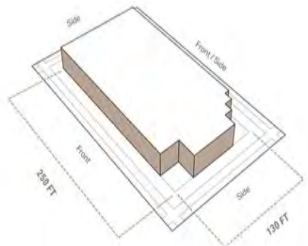
12th Street Catchment Area

City-Owned
Public Green Space
Silver Line Station
New or Planned Developments
"High" Redevelopment Parcels

Likely Redevelopment Typologies:

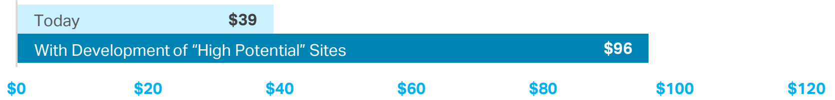
3- to 5-Story Multifamily
(320' x 200' block)

Repurposed Industrial
(250' x 130' block)



Key Metrics:

Total Assessed Value ($ millions)



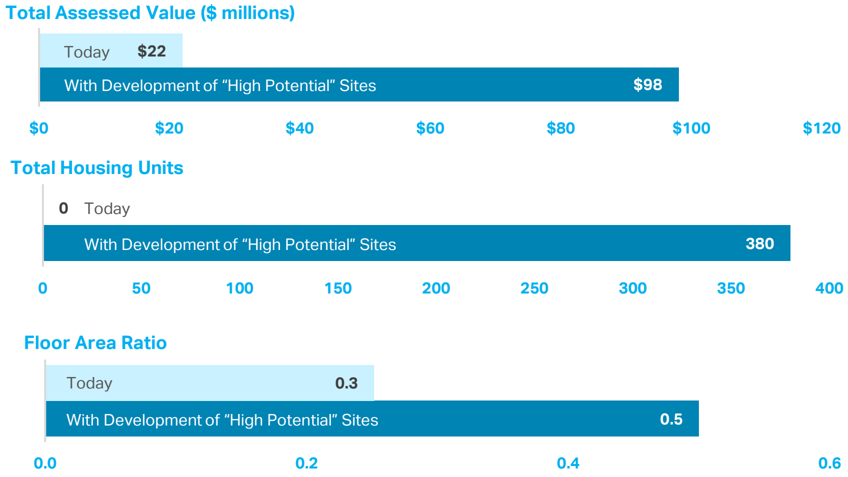
Total Housing Units

Floor Area Ratio

K Avenue Extension – South
Sub District Summary

Considerations: The K Avenue Extension – South sub district is home to a handful of auto dealerships, storage facilities, and other light industrial and commercial uses and is an important sub district due to its direct adjacency to the 12th Street Silver Line station. The K Avenue Extension – South sub district has already started to see development as a result. Specifically, Toll Brothers Apartment Living and JD Capital USA are constructing a 4-story, multi-building, luxury apartment complex, Ferro Apartments, on the former Plano Marine site. When complete in mid-2022, the development will include 379 multifamily units, 476 parking spaces, a pool, maker space, and other Class A amenities. While the sites most primed for redevelopment are already under construction (Ferro & Silver Line Station), this sub district has potential to further support development along K Avenue, extending Plano's downtown character further south.

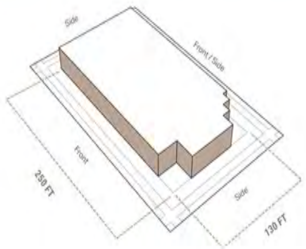
Key Metrics:



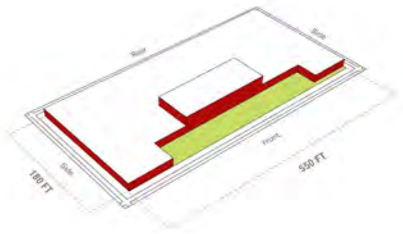
Likely Redevelopment Typologies:

3- to 5-Story Multifamily
(320' x 200' block)

Repurposed Industrial
(250' x 130' block)



Stand Alone Retail
(100' x 80' block)



K Avenue Extension – South

1. Ferro Apartments – 379 rental units
2. 12th Street Silver Line Station area & parking

12th Street
Catchment Area

Vendome Neighborhood
Sub District Summary

Considerations: The Vendome Neighborhood sub district, located directly to the east of the new 12th Street Silver Line station and on the southern side of the rail, is a residential enclave amongst proximate industrial and commercial development. While single-family detached homes in this area are valued well below the median single-family home within the city, underlying land values have grown. Additionally, there are a handful of vacant lots which present a path of least resistance for future infill development with properties of modest density like slot homes / townhomes. Denser housing is expected in this area due to its immediate adjacency to the 12th Street Silver Line station. While not currently allowed by right, a number of single-family homes in this area double as commercial businesses through accessory dwelling units (ADUs) and future zoning considerations should allow for this type of use going forward, providing the framework for a live-work environment.

Vendome Neighborhood

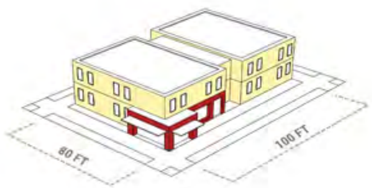
12th Street Catchment Area

- City-Owned
- Public Green Space
- Silver Line Station
- New or Planned Developments
- "High" Redevelopment Parcels

Likely Redevelopment Typologies:

Slot Home / Townhome
(120' x 110' block)

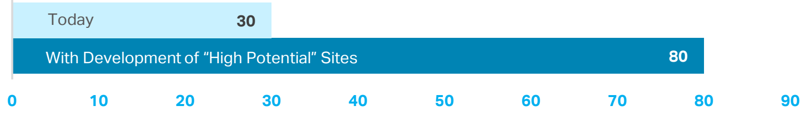
Live - Work
(100' x 80' block)



Key Metrics:

Total Assessed Value ($ millions)

Total Housing Units



Floor Area Ratio

Industrial District
Sub District Summary

Considerations: The Industrial sub district is home to an abundance of industrial and flex users. The properties on the southern side of 10th Street are primarily flex industrial / office or showroom properties developed throughout the 1970s and the 1980s. While these properties are productive, the buildings are slowly becoming obsolete as modern tenants desire higher ceilings, larger format buildings, and modern amenities. The properties on the north side of 10th Street are more modern, developed throughout the 2000s, and include high ceiling industrial distribution, and warehouse facilities. Current zoning is restrictive of retail uses within this area; however, as structures transition uses there will likely be pressure to accommodate retailers due to more affordable rents.

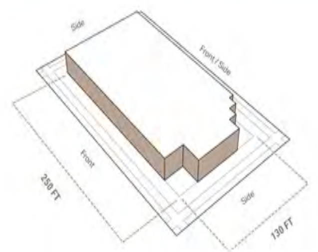
Industrial District

12th Street Catchment Area

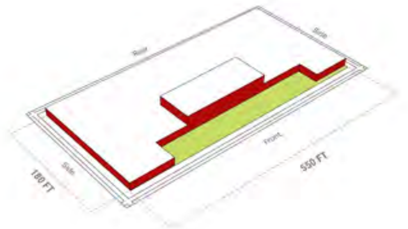
- City-Owned
- Public Green Space
- Silver Line Station
- New or Planned Developments
- "High" Redevelopment Parcels

Likely Redevelopment Typologies:

Repurposed Industrial
(250' x 130' block)



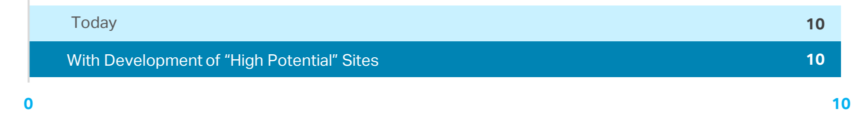
Stand Alone Retail
(100' x 80' block)



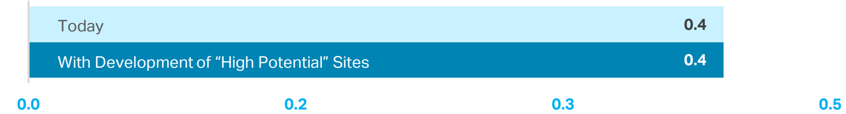
Key Metrics:

Total Assessed Value ($ millions)

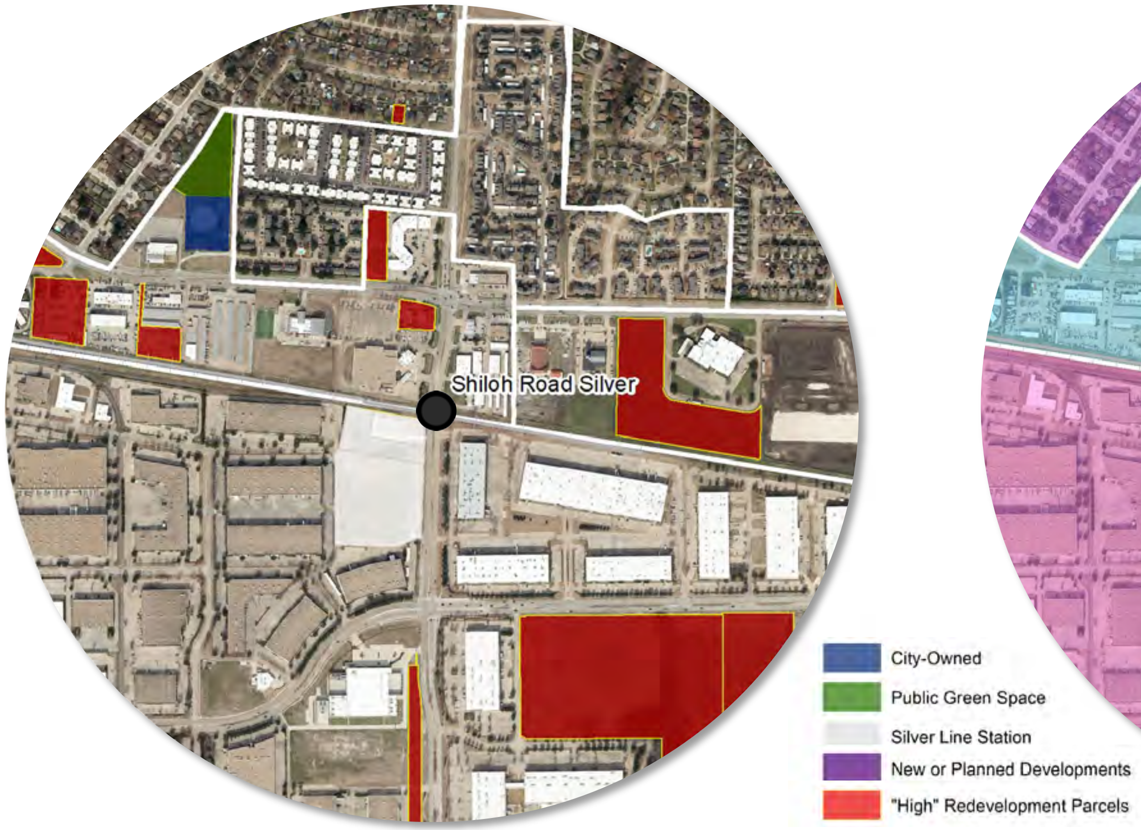
Total Housing Units



Floor Area Ratio



Overview: Shiloh Road "High" Potential Redevelopment Sites



High Redevelopment & Special Condition Parcels: Shiloh Road Station Area

Shiloh Road Station Area Sub Districts

High Potential Redevelopment Sites by Size (AC)

Shiloh Road Silver Line Station Area

Low (AC)	High (AC)	Count	%
0.00	0.10	0	0%
0.10	0.25	1	6%
0.25	0.50	0	0%
0.50	0.75	0	0%
0.75	1.00	1	6%
> 1 Acre		16	89%
		18	**100%**

Only 5 percent of the total "high potential" redevelopment sites are located within proximity to the Shiloh Road Station Area. In addition, a majority of the "high potential" sites are larger than 1 acre in size with most of the developable land southeast of the station on multiple vacant greenfield sites.

Shiloh Single-Family
Sub District Summary

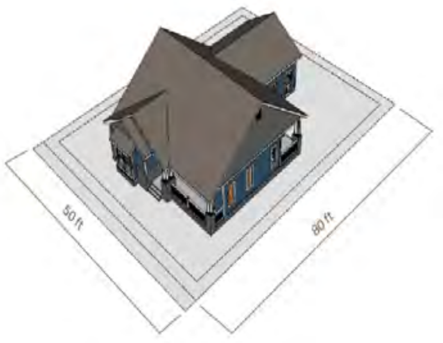
Considerations: The Shiloh Road Single-Family sub district includes only single-family properties and is situated on the northern edge of the Shiloh Road catchment area. In general, homes located to the west of Shiloh Road were built in the 1970s while homes located to the east were built more recently (1980s and even in the 2000s). The median lot size for this area is 0.18 acres and the majority ranch-style homes are appraised at $175,000 to $275,000 meaning that most all qualify for the Great Update Rebate – an incentive program offered by the city for homeowners to reinvest into their homes, and a certain portion of that investment, should it meet criteria outlined by the city, may be reimbursed for up to $5,000.

Shiloh Single-Family

Shiloh Road Catchment Area

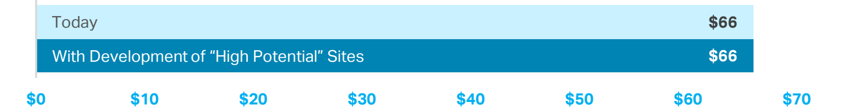
Likely Redevelopment Typologies:

Single-Family Home
(90' x 90' block)

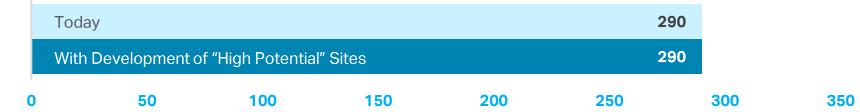


Key Metrics:

Total Assessed Value ($millions)



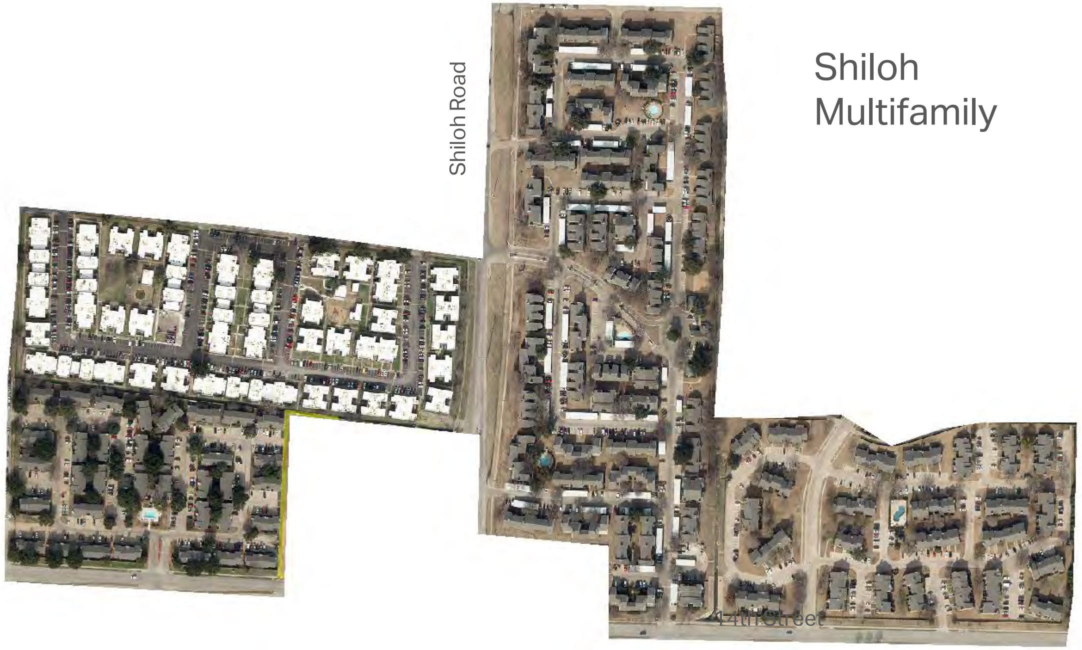
Total Housing Units



Floor Area Ratio

Shiloh Multifamily
Sub District Summary

Considerations: The Shiloh Multifamily sub district is home to four multifamily properties, Windsor Place Townhomes, Waterford on the Meadow, Vista Del Sol and Pheasant Landing, all built in the 1970s and 1980s. While sub-district apartment rents are lower in context with new construction in downtown Plano or in Legacy West, rent growth since 2015 has been impressive (5.6% annually), speaking to apparent market demand. Housing unit sizes within this sub district also tend to be smaller than downtown Plano; buildings are walk-up, townhome or garden-style and surface parked, with FAR's in the 0.3-0.4 range.



Shiloh Multifamily

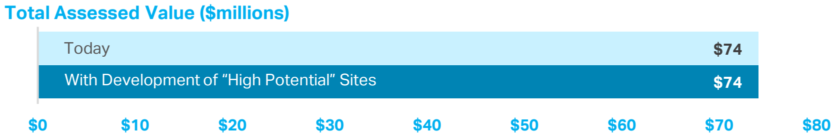
Shiloh Road Catchment Area

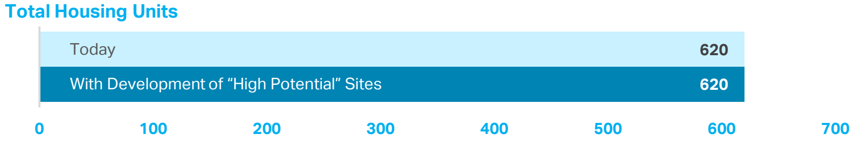
- City-Owned
- Public Green Space
- Silver Line Station
- New or Planned Developments
- "High" Redevelopment Parcels

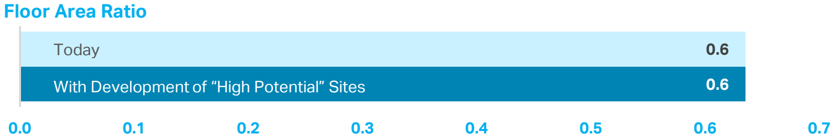
Likely Redevelopment Typologies:

N/A

Key Metrics:





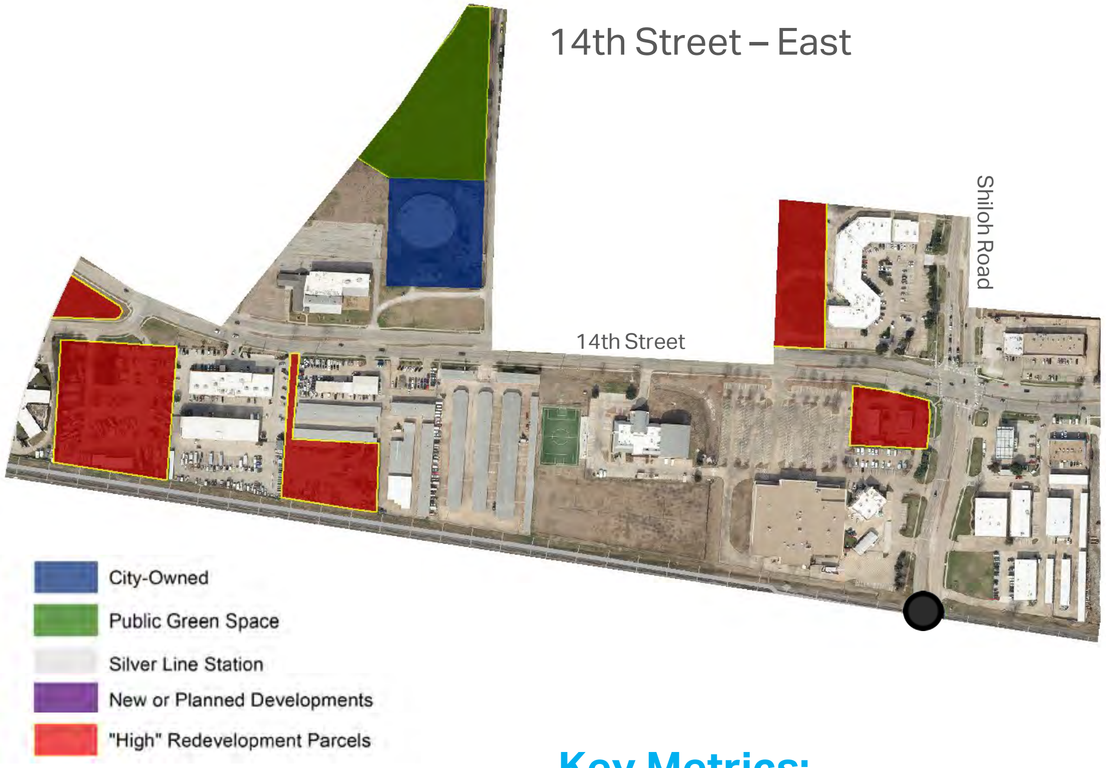


Near-term redevelopment is not expected, as these properties appear to be performing well. While growth in underlying land values and enhanced transit access will serve as motivating forces for mid to long-term owner interest in renovating or adding density, two of the multifamily projects appear to have more fragmented condominium ownership.

Sub District Summary
14th Street – East

Considerations: The 14th Street – East sub district supports a diversity of land uses including public parks, automotive uses, self-storage, and cultural / religious assets. Neighborhood-oriented retail is focused at the northwest & northeast corners of Shiloh Road and 14th Street.

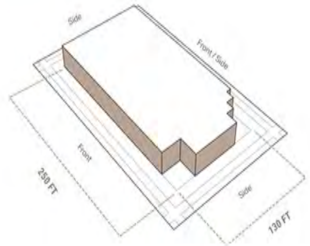
This sub district offers a commercial buffer between housing to the north and the existing rail line, and as such, provides a future redevelopment opportunity. There is also opportunity for future development on the currently vacant parcel of land directly west of the neighborhood center.



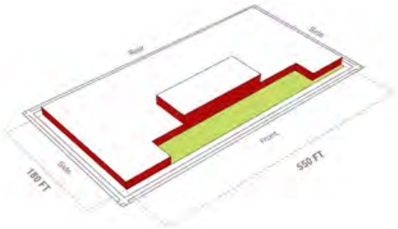
Shiloh Road
Catchment Area

Likely Redevelopment Typologies:

Repurposed Industrial
(250' x 130' block)



Stand Alone Retail
(100' x 80' block)



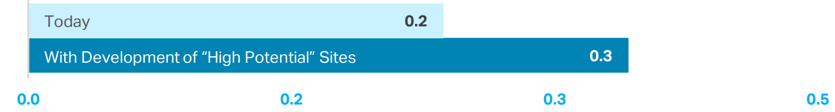
Slot Home / Townhome
(120' x 110' block)

Key Metrics:

Total Assessed Value ($millions)

Total Housing Units

Floor Area Ratio



Research & Technology – North
Sub District Summary

Considerations: The Research & Technology – North sub district is home to only a handful of properties – all of which are a size consistent with those in the overall Research & Technology zoning district, generally located south of the rail line. At time of this report, one parcel currently sits vacant, and two are currently occupied by religious organizations with buildings constructed since 2000. Another parcel contains a legacy office structure built in the 1980s, and the parcel to the furthest east is occupied by Shutterfly.

Research & Technology – North

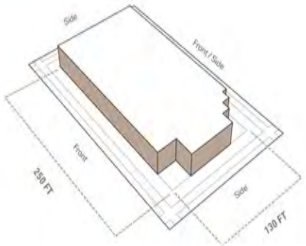
14th Street

Shiloh Road Catchment Area

City-Owned
Public Green Space
Silver Line Station
New or Planned Developments
"High" Redevelopment Parcels

Likely Redevelopment Typologies:

Industrial
(250' x 130' block)



Key Metrics:

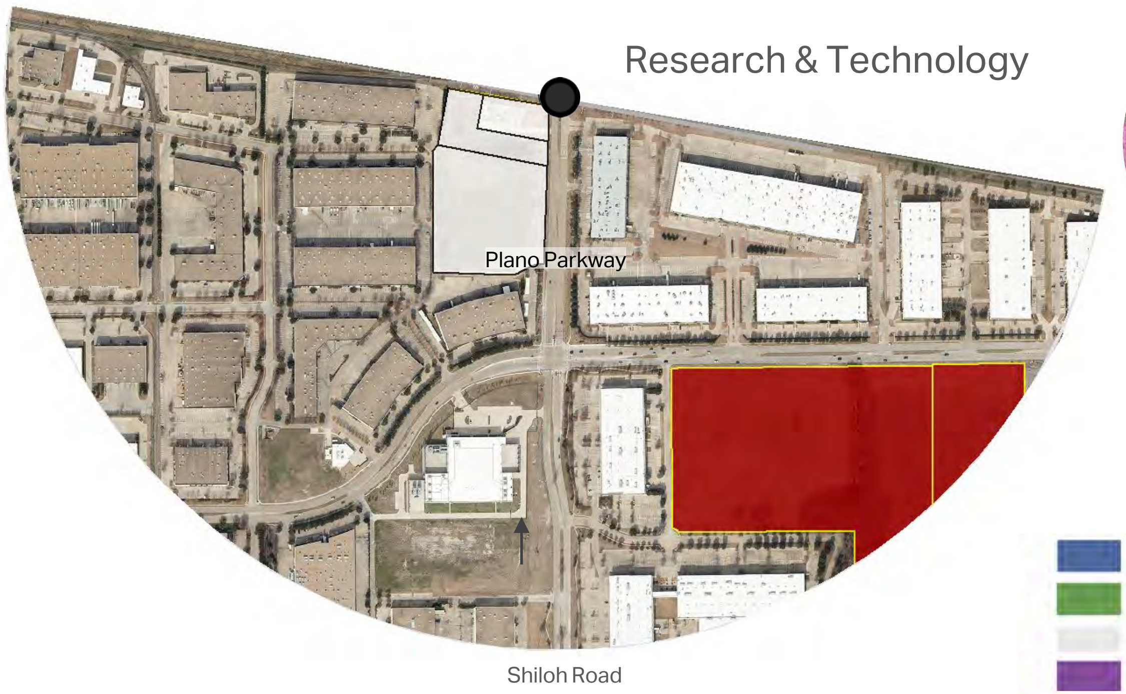
Total Assessed Value ($millions)

Total Housing Units

Floor Area Ratio

Research & Technology
Sub District Summary

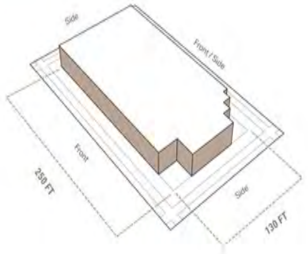
Considerations: The Research & Technology sub district includes the future terminus station for the Silver Line's east end at Shiloh Road. This sub district contains structures built throughout the 1990s and 2000, which at time of this report, held thousands of jobs within the manufacturing, wholesale trade, and professional, scientific, and technical services sectors. Since this area is home to productive land use and an abundance of jobs, the current assessed value is higher within the Research & Technology sub district than it is within the Downtown North sub district.



Shiloh Road
Catchment Area

Likely Redevelopment Typologies:

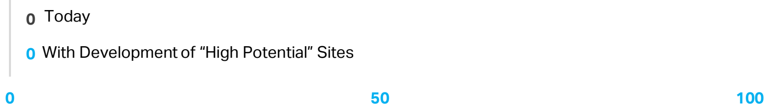
Industrial
(250' x 130' block)



Key Metrics:

Total Assessed Value ($millions)

Total Housing Units



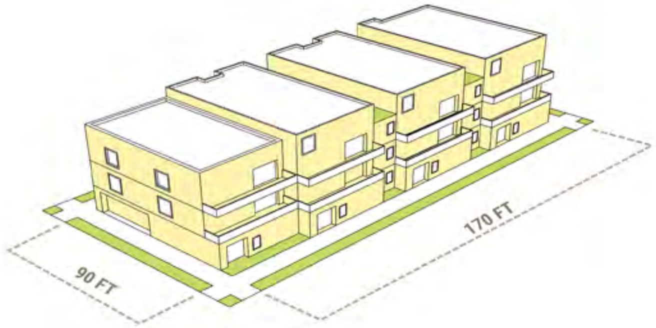
Floor Area Ratio

Typology Summary: Residential

AECOM Imagine it. Delivered.

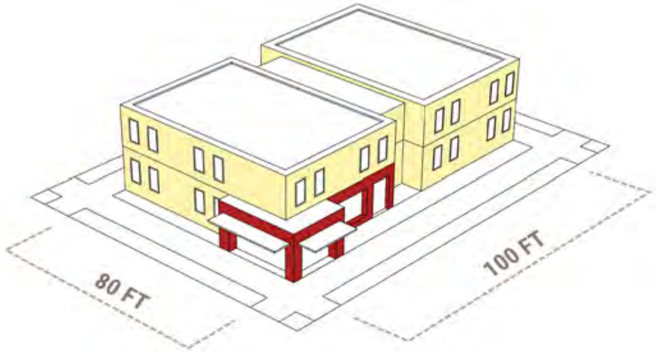
Demand Context: Introduction to Multifamily Residential TOD Typologies

Likely Redevelopment Typology
Unlikely Redevelopment Typology



Townhomes
18 to 23 units per acre

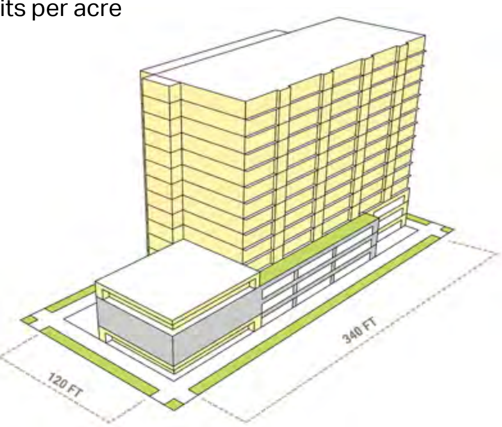
Slot Homes
21 to 28 units per acre



Live-Work
18 to 25 units per acre

3- to 5-Story Multifamily Residential
55 to 70 units per acre

4- or 5-Over 1 Multifamily Residential
80 to 100 units per acre



Residential High Rise
140 to 165 units per acre

Typology Types

Overview of Regional Housing Typologies

Townhomes are often considered to be a "missing middle" housing typology, or housing that is "in the middle of" single-family homes and multifamily apartments in terms of density. To this point, townhomes are more dense than single-family homes and less dense than multi-story apartment development. Generally, townhomes are built at between 15 and 40 units per acre and sites vary in size depending on the number of desired units. Ownership of townhomes is often split between "for sale" and rentals. Comparatively, single-family homes are most often "for sale" while multi-story multifamily is almost always rental.

A single townhome unit requires a site that is between 1,800 and 2,500 square feet – or between 0.04 and 0.06 acres. Example developments in and around Plano's downtown range in size from 12 to 100 units. The unit mix found in townhome developments is often skewed toward three- and four-bedroom units – making it a popular fringe residential development buffering more dense urban housing product from less dense single-family homes. This housing typology is often desired by young families as the "for sale" price per unit is generally below that of proximate single-family homes.

A primary constraint to townhome development is often the high price of land, forcing developers to consider more dense development of a given site through the construction of slot homes, live-work, or multifamily products.

Example Townhome Projects:

15th Street Village
Plano, TX
Built in 2004
13 Units
26 units / AC
$6.4MM Value per AC
Average Lot Size: 1,800 sf
$265,000 - $320,000 per unit

Lexington Park
Plano, TX
Built in 2007
14 units
26 units / AC
$8.1MM Value per AC
Average Lot Size: 1,300 sf
$290,000 - $375,000 per unit

Parkway Heights III
Plano, TX
Built in 2014
82 Units
10 units / AC
$2.9MM Value per AC
Average Lot Size: 2,100 sf
$280,000 - $350,000 per unit

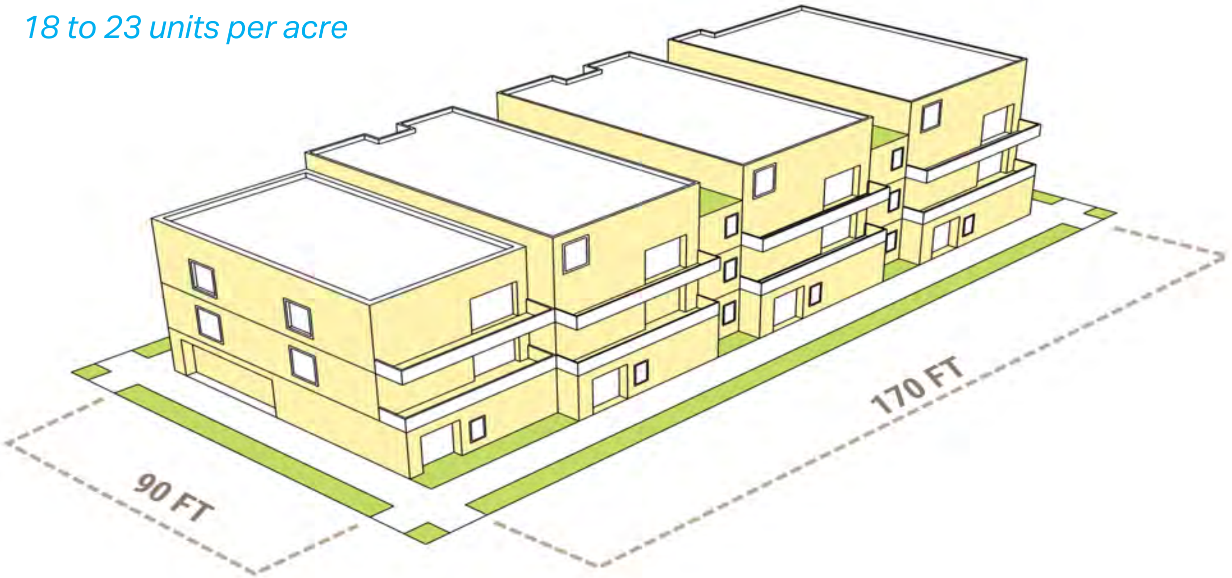
Source: Costar, Plano Parcel & Zoning Map

Typology Types

Overview of Regional Housing Typologies

Townhome projects are a form of multifamily housing, but in the current City of Plano Zoning Ordinance they are recognized as single–family attached housing that often allows for owner-occupancy. The existing inventory of townhomes around the 12th Street Station are priced between $300,000 and $400,000 per unit. Current land prices around the 12th Street Station suggest that new townhomes would need to be priced above $400,000 per unit in order for a developer to break even and pushing the current market toward more expensive inventory.

18 to 23 units per acre



Sample Project Pro Forma:

on a hypothetical 1 acre lot & land priced at $25 per square foot

Development Type	Residential Townhomes
NPV	**$349,000**
Land Area SF	43,560 sf
Land Area Acres	1 acre
FAR	0.9
Building Area	38,333 sf
Loss Factor	5%
Rentable Area	36,416 sf
Unit Size	1,700 sf
Units	21 units
	Annual
Rent / Sale Revenue	$9,104,000
Vacancy	($455,000)
Bad Debt	($86,500)
Effective Revenue	$8,563,000
Operating Expense	$0
Net Operating Income	$8,563,000
Reversion Value	$8,563,000
Land Price	**$25**
Building Cost Per Gross Sf	$180
Land Cost	$1,089,000
Building Cost	$6,900,000
Total Cost	**$7,989,000**
Construction & Stabilize	3 years
Time Value of Money / Discount Rate	18%
Reversion	$8,563,000
Cost	$7,989,000
Profit	$574,000

Typology Types

Overview of Regional Housing Typologies

Slot Homes or Turned Townhomes are like townhomes and also considered to be a "missing middle" housing typology. Slot homes are generally developed on single-family lots where more dense residential development is allowed by right. Slot home development throughout the metro is marginally denser than townhome development and differs in that the structure is oriented around a central courtyard or driveway, or "the slot." The traditional points of entry for most slot homes are not located on the street but are instead located within the slot or on the side of the structure, thus creating a "hard street edge." This design has sometimes led to criticism because the hard street edge often does not allow for neighborhood character through the built environment. However, the best designed slot homes add entrances on the front units so that the street is engaged. Ownership of slot homes is most often "for sale."

Like townhomes, slot home development has been an attractive way for developers to introduce more density on smaller sites. The orientation of the building(s) around the slot allows for more units to be developed per acre without the need for rear alley access. Across the metro, slot home density ranges from 25 to 55 units per acre with individual units ranging from 1,800 to 2,300 square feet. Generally, slot homes are three floors meaning that the footprint of a slot home may range from 600 to 800 square feet, smaller than townhomes.

While slot homes are attractive to developers, such developments are also valuable for cities, as more dense development increases the taxable value per acre, increasing the productivity of smaller parcels.

Example Slot Home / Turned Townhome Projects:

The Merrimac
Linwood Neighborhood – Fort Worth
Built in 2019
12 Units in 3 Buildings
24 units / AC
N/A Value per AC
Average Unit Size: 1,800 sf
$400,000 - $450,000 per unit

Camdale Court
East Village / Uptown East – Dallas
Built in 2018
12 units in 3 Buildings
29 units / AC
$14.2MM Value per AC
Average Unit Size: 2,250 sf
$550,000 - $610,000 per unit

Enclave at Live Oaks
East Village / Uptown East – Dallas
Built in 2017
26 units in 5 Buildings
54 units / AC
$30.2MM Value per AC
Average Unit Size: 2,000 sf
$550,000 - $680,000 per unit

Source: Costar, Plano Parcel & Zoning Map, Dallas County, Tarrant County

Typology Types

Overview of Regional Housing Typologies

Slot Home projects are a form of multifamily housing that is usually owner-occupied. Slot homes are designed more efficiently which allows for a developer to "squeeze" additional units onto a given site, therefore making the project more profitable. Slot home development has become commonplace in more urban areas north of Downtown Dallas, and properties here have a median value of $550,000 per unit.

21 to 28 units per acre

Sample Project Pro Forma:

on a hypothetical 1 acre lot & land priced at $25 per square foot

Development Type	Residential Slot Homes
NPV	$875,000
Land Area SF	43,560 sf
Land Area Acres	1 acre
FAR	1.3
Building Area	56,628 sf
Loss Factor	5%
Rentable Area	53,797 sf
Unit Size	1,980 sf
Units	27 units
	Annual
Rent / Sale Revenue	$14,730,000
Vacancy	($737,000)
Bad Debt	($139,900)
Effective Revenue	$13,853,000
Operating Expense	$0
Net Operating Income	$13,853,000
Reversion Value	$13,853,000
Land Price	$25
Building Cost Per Gross Sf	$200
Land Cost	$1,089,000
Building Cost	$11,326,000
Total Cost	**$12,415,000**
Construction & Stabilize	3 years
Time Value of Money / Discount Rate	18%
Reversion	$13,853,000
Cost	$12,415,000
Profit	$1,438,000

Typology Types

Overview of Regional Housing Typologies

Live-Work is a form of development which allows for a structure to be utilized for residential and/or commercial purposes. Generally, live-work units offer a more competitive price point and are smaller, and therefore more affordable than traditional residential or commercial spaces. Live-work units generally attract artists, artisans, craft, fabrication, or other similar trades and allows for the incubation of businesses and housing of residents that might not be able to afford traditional market rents. Live-work units may take many forms including:

1. The "live within" model where the line between the residence and the commercial component is blurred. This type of unit is often popular among artists and other incubating business ideas and is often the most affordable type of live-work unit.
2. The "live above" model where there is a clear demarcation between the residence and commercial component and the residence is above. The separation may allow for both units to be rented out individually.
3. The "live behind" model where there is a clear demarcation between the residence and commercial component and the residence is behind. The separation may allow for both units to be rented out individually.
4. The "live in front" model where there is a clear demarcation between the residence and commercial component and the residence is in front of the commercial component. The residential unit is generally a single-family home and the commercial component thus is generally used by the residential occupant. Examples may include a photographer or architect using the commercial component as a studio.

The site requirements for live-work units vary from those that are just over 0.1 acres to those over 1 acre like the 15th Street development in Plano. However, live-work structures are generally fewer than three stories for cost purposes.

Example Live-Work Projects:

15th Street Townhomes
Plano, TX
"Live Above" Style
Under Construction
1.6 AC Lot
N/A Value per AC
49 'fee simple' condominium units

1125 S Jennings Avenue
Fort Worth, TX
"Live Above" Style
Built in2015
0.12 AC Lot
$7.9MM Value per AC
4 residential & 2 commercial "for rent" units

413 W Rosedale Street
Fort Worth, TX
"Live Above" Style
Built in 2009
0.14 AC lot
$4.9MM Value per AC
2 residential & 1 commercial "for rent" units

Source: Costar, Plano Parcel & Zoning Map, Collin County, Tarrant County

Typology Types

Overview of Regional Housing Typologies

3- to 5-Story Multifamily development is a style of dense housing that occurs within urban areas, often as a single structure, but may also occur in more suburban areas in the form of multiple structures – or a small neighborhood. In its urban form, 3- to 5-story multifamily is most often situated on sites between 4 and 7 acres and at a density of 30 to 80 units per acre. Urban 3- to 5-story multifamily housing most often includes structured parking that is part of the development footprint. In a more suburban format, 3- to 5-story multifamily may occur on sites that are between 8 and 15 acres, but at a lower density of 30 to 50 units per acre. Suburban 3- to 5-story multifamily does not generally include structured parking and is most often parked using surface spaces.

The unit mix for 3- to 5-story multifamily developed within Plano since 2010 has skewed toward 1- and 2-bedroom units with urban product also offering studio units and suburban product offering 3-bedroom units. In general, multifamily units are purely rentals with no fee simple ownership of units.

Summary of 3- to 5-Story Multifamily Delivered in Plano since 2010

	Studio	1-Bedroom	2-Bedroom	3+ Bedroom
Average Size	600 sf	800 sf	1,200 sf	1,700 sf
Monthly Rent Unit	$1,200	$1,400	$2,000	$2,400
Monthly Rent SF	$2.20	$1.80	$1.70	$1.50

Source: Costar

Example 3- to 5-Story Projects:

Ferro Apartments
Plano, TX
Under Construction
397 Units
80 units / AC

Jada Legacy Central
Plano, TX
Built in 2019
385 Units
6% current vacancy
85 units / AC
$12.9MM Value per AC
Rent per unit $1,350 to $2,400
66% 1BR / 30% 2BR / 4% 3BR

Aura One90
Plano, TX
Built in 2016
386 Units
1% current vacancy
33 units / AC
$5.2MM Value per AC
Rent per unit $1,200 to $1,700
66% 1BR / 34% 2BR

* Vacancies reported as of August 2021

Source: Costar, Plano Parcel & Zoning Map, Collin County,

Typology Types

Overview of Regional Housing Typologies

4- or 5-over 1 Multifamily is a denser and primarily urban version of a 3- to 5-story multifamily structure. However, 4- to 5-over 1 developments are mixed-use buildings that include ground floor retail serving as the base of the building. The retail is often marketed to national and accredited retail tenants which fetch retail premiums. This type of development is sought after in urban cores that promote a live-work-play lifestyle, using the ground floor retail to activate the street and the residential units to add density and households.

The 4- to 5-over 1 style of multifamily housing is generally developed at 80 to 110 units per acre and requires a site that is between 1.5 and 5 acres. This property type is desired by developers due to its profitability, and by municipalities because it catalyzes other development with the rapid introduction of new residents. The unit mix found in 4- to 5-over 1 developments is often skewed toward studio, one-, and two-bedroom units – making it a popular development around transit nodes and for younger residents. This style of construction became popular with revisions to the International Building Code in 2009 as the changes made the typology easy to scale from a developer's perspective.

Summary of 4- to 5-over 1 Delivered in the MSA since 2010

	Studio	1-Bedroom	2-Bedroom	3+ Bedroom
Average Size	500 sf	700 sf	1,200 sf	1,600 sf
Monthly Rent Unit	$1,100	$1,400	$2,000	$3,000
Monthly Rent SF	$2.10	$1.90	$1.70	$1.80

Source: Costar

Example 4- to 5-over 1 Projects:

Morada Plano
Plano, TX
Built in 2019
183 Units
22% current vacancy
113 units / AC
$24.2MM Value per AC
Rent per unit $1,500 to $2,300
74% 1BR / 26% 2BR

Junction 15
Plano, TX
Built in 2014
278 Units
7% current vacancy
95 units / AC
$16.4MM Value per AC
Rent per unit $1,000 to $1,800
14% Studio / 60% 1BR / 26% 2BR

LTD West Commerce
Dallas, TX
Built in 2017
308 Units
2% current vacancy
72 units / AC
$11.9MM Value per AC
Rent per unit $1,300 to $1,900
83% 1BR / 17% 2BR

* Vacancies reported as of August 2021

Source: Costar, Plano Parcel & Zoning Map, Collin County, Tarrant County

Typology Types

Overview of Regional Housing Typologies

Mid-Rise Multifamily projects are a form of multifamily housing that is almost always renter-occupied. Comparable properties within Plano have a median rent of $1,650 per unit and a median size of 870 square feet per unit. A hypothetical mid rise multifamily project on a 1-acre lot is profitable for a developer with underlying land value of $25 per square foot – or the on the ground reality surrounding the 12th Street Station. Added FAR (or density) allows for a more profitable project.

55 to 100 units per acre

Sample Project Pro Forma:

on a hypothetical 1 acre lot & land priced at $25 per square foot

Development Type	Residential Mid-Rise
NPV	$733,000
Land Area SF	43,560 sf
Land Area Acres	1 acre
FAR	2.0
Building Area	87,120 sf
Loss Factor	18%
Rentable Area	71,438 sf
Unit Size	870 sf
Units	82 units
	Annual
Rent / Sale Revenue	$1,629,000
Vacancy	($81,000)
Bad Debt	($15,500)
Effective Revenue	$1,533,000
Operating Expense	($460,000)
Net Operating Income	$1,073,000
Reversion Value	$21,460,000
Land Price	$25
Building Cost Per Gross Sf	$220
Land Cost	$1,089,000
Building Cost	$19,166,000
Total Cost	**$20,255,000**
Construction & Stabilize	3 years
Time Value of Money / Discount Rate	18%
Reversion	$21,460,000
Cost	$20,255,000
Profit	$1,205,000

Typology Types

Overview of Regional Housing Typologies

High-Rise Multifamily is the densest type of housing found within the metro and has recently been developed at 80 to 200 units per acre. High-rise multifamily product is found in the densest environments, like downtown Dallas, downtown Fort Worth, Legacy West, downtown Frisco, and proximate to major DART stations. New high-rise development across the metro has averaged 23 stories and 290 units on a site that is just over 2 acres. However, some of the densest projects have been built on sites that are between 1 and 2 acres.

Unlike other multifamily product that is 6 stories or less, high-rise development is more expensive to construct as building materials switch from stick to reinforced concrete, and/or steel. The higher cost to construct and the marginally larger units with unobstructed views rent at a premium to comparable units in buildings under six stories. In some cases, high-rise development may include for-sale condominium product.

Summary of Mid- to High-Rise Multifamily in the MSA since 2010

	Studio	1-Bedroom	2-Bedroom	3+ Bedroom
Average Size	600 sf	800 sf	1,400 sf	2,200 sf
Monthly Rent Unit	$1,600	$2,400	$4,200	$7,000
Monthly Rent SF	$2.70	$2.90	$3.00	$3.10

Source: Costar

Example High-Rise Projects:

LVL 29
Plano, TX
Built in 2020
328 Units
43% current vacancy
156 units / AC
$48.6MM Value per AC
Rent per unit $2,500 to $3,800
61% 1BR / 39% 2BR

The Kincaid at Legacy
Plano, TX
Built in 2018
300 Units
12% current vacancy
118 units / AC
$37.6MM Value per AC
Rent per unit $1,800 to $8,800
41% 1BR / 55% 2BR / 4% 3BR

Twelve
Frisco, TX
Built in 2020
158 Units
21% current vacancy
81 units / AC
$35.9MM Value per AC
Rent per unit $3,200 to $5,700
58% 1BR / 42% 2BR

* Vacancies reported as of August 202 and high as projects are still in initial lease up

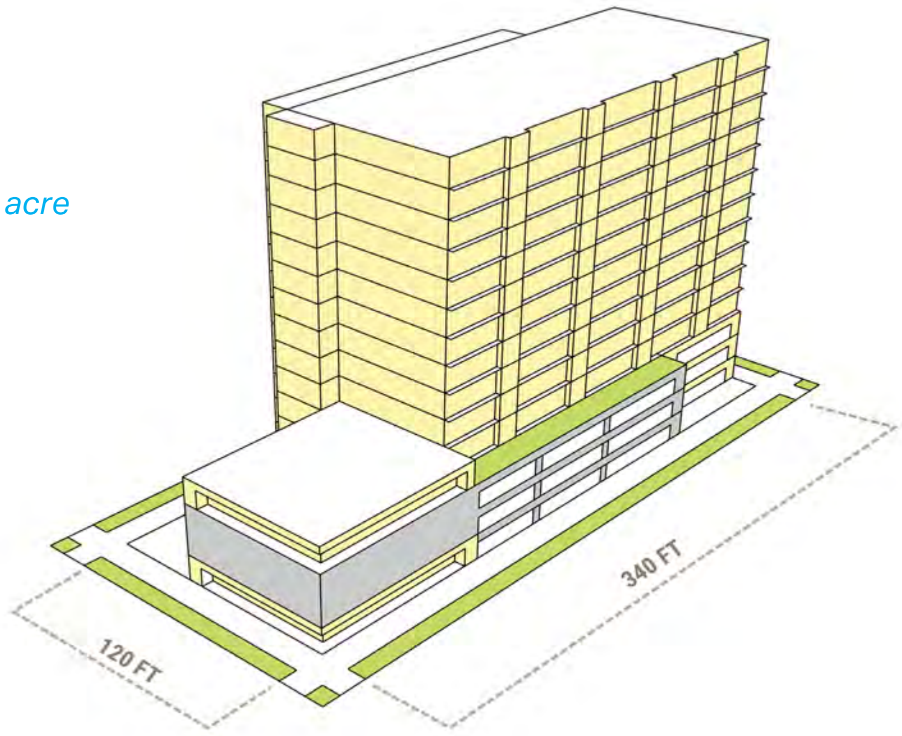
Source: Costar, Plano Parcel & Zoning Map, Collin County, Tarrant County

Typology Types

Overview of Regional Housing Typologies

High-Rise Multifamily projects are a form of multifamily housing that is almost always renter-occupied. Comparable properties within Plano's Legacy West have an average rent of $3,500 per unit, a significant premium over mid-rise properties. In addition, comparable properties also have a large median unit size of 1,100 square feet. As land prices start to push past $30 a square foot, high-rise multifamily housing is one of the few properties that is financially feasible.

140 to 165 units per acre



Sample Project Pro Forma:

on a hypothetical 1 acre lot & land priced at $25 per square foot

Development Type	**Residential High-Rise**
NPV	**$1,212,000**
Land Area SF	43,560 sf
Land Area Acres	1 acre
FAR	4.7
Building Area	202,554 sf
Loss Factor	22%
Rentable Area	157,992 sf
Unit Size	1,050 sf
Units	150 units
	Annual
Rent / Sale Revenue	$5,747,000
Vacancy	($287,000)
Bad Debt	($54,600)
Effective Revenue	$5,405,000
Operating Expense	($2,162,000)
Net Operating Income	$3,243,000
Reversion Value	$64,860,000
Land Price	**$25**
Building Cost Per Gross Sf	$305
Land Cost	$1,089,000
Building Cost	$61,779,000
Total Cost	**$62,868,000**
Construction & Stabilize	3 years
Time Value of Money / Discount Rate	18%
Reversion	$64,860,000
Cost	$62,868,000
Profit	$1,992,000

Expected TOD Typologies by Sub District: Housing

Sub District	Single-Family; Detached	Townhome	Slot Home / Turned Townhome	Live-Work	3- to 5-Story Multifamily	4- or 5-Over 1 Multifamily	High Rise Residential
Downtown North	✗	✓	✓	✓	✓	✓	✗
Downtown South Fragmented Industrial	✗	✓	✓	✓	✓	✓	✗
Douglass Neighborhood	✓	✗	✗	✗	✗	✗	✗
Large Format Industrial Southwest	✗	✗	✗	✗	✓	✗	✗
K Avenue Extension – South	✗	✓	✓	✓	✓	✓	✗
Vendome Neighborhood	✓	✓	✓	✓	✗	✗	✗
Industrial District	✗	✗	✗	✗	✗	✗	✗
Shiloh Single-Family	✓	✗	✗	✗	✗	✗	✗
Shiloh Multifamily	✗	✗	✗	✗	✓	✗	✗
14th Street East	✗	✗	✗	✗	✗	✗	✗
RT North	✗	✗	✗	✗	✗	✗	✗
Research & Technology	✗	✗	✗	✗	✗	✗	✗

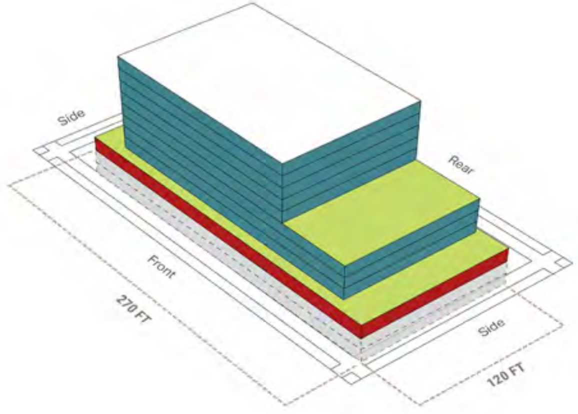
Typology Summary: Commercial

AECOM Imagine it. Delivered.

Demand Context: Introduction to Non-Residential TOD Typologies

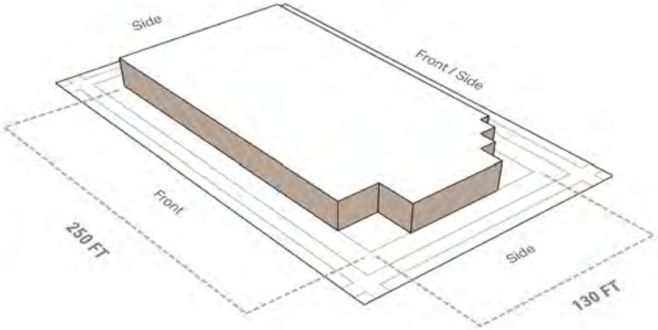
Likely Redevelopment Typology

Unlikely Redevelopment Typology



Class A Office

Typical users include white collar workers and corporations

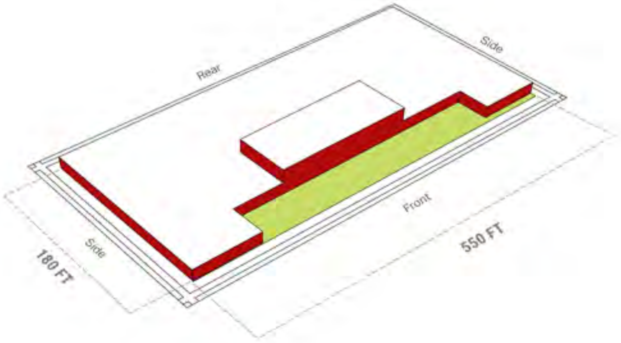


Repurposed Industrial

Typical users include food & beverage, boutique retailers or showrooms

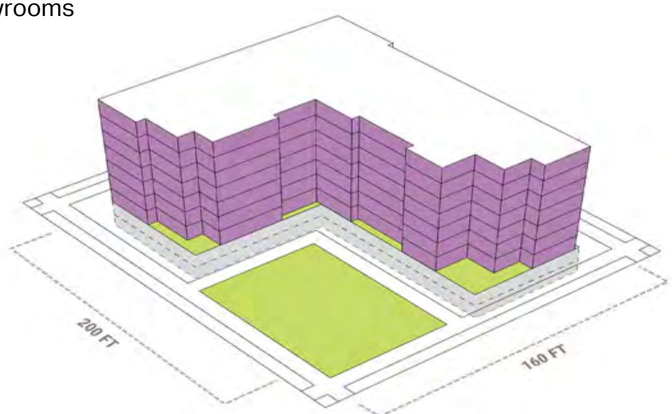
5-Over-1 Commercial

Typical users include convenience retail and accredited retailers



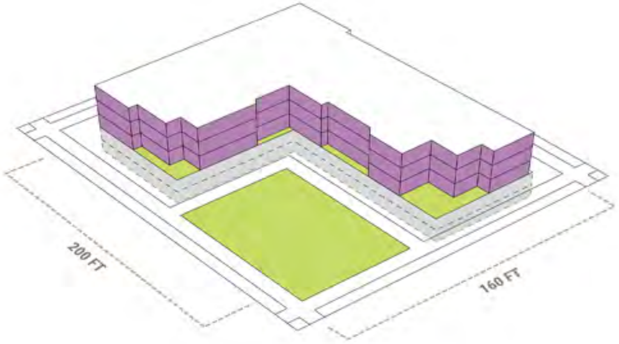
General Purpose Retail / Stand Alone Retail

Typical users vary in size from boutiques, dining and grocery



Full-Service Hotel

Typical users include those traveling for short periods of time



Boutique Hotel

Typical users include travelers seeking a more unique experience

Typology Types

Overview of Regional Commercial Typologies

Class A Office is the most desired office space among companies employing white collar workers, including corporate headquarters or a company offering consulting services, accounting, management, and other similar professional services. Consistent with national trends, new Class A office space within the metro, and Plano, has an average floor plate of 31,000 square feet and ceiling heights of at least 12 feet. An abundance of new Class A office space was delivered within the metro since the end of the Great Recession, with Plano capturing more than 30% of inventory growth in the space – much of which is concentrated in northwest Plano at Legacy West. However, the commercial office sector has been one of the hardest hit as a result of COVID-19 with Class A vacancy approaching 25% at the end of 2020.

New Class A office within the metro, and specifically in Legacy West, has been built on sites between 3 and 12 acres and at an average floor area ratio (FAR) of 1.1. Rents within new Class A space have averaged between $27 and $31 per square foot, triple net lease. Additionally, new Class A office construction within the metro often includes structured parking due to the suburban nature of the market. As such, new construction has averaged a ratio of 4 parking spaces per 1,000 square feet of rentable office space.

Example Class A Office Projects Include:

Legacy Tower
Plano, TX
Built in 2015
375,000 sf RBA / 26,300 sf floor plate
7% current vacancy
NNN Rents between $27 & $32 per sf
$38.4MM Value Per AC
1,200 Parking Spaces

Granite Park Five
Plano, TX
Built in 2015
305,000 sf RBA / 25,500 sf floor plate
40% current vacancy
NNN Rents between $26 & $34 per sf
$26.7MM Value Per AC
920 Parking Spaces

3400 Cityline
Richardson, TX
Built in 2017
313,000 sf RBA / 62,000 sf floor plate
80% current vacancy
NNN Rents between $20 & $25 per sf
$10.9MM Value Per AC
1,560 Parking Spaces

* Vacancies reported as of August 2021

Source: Costar, Plano Parcel & Zoning Map, Collin County,

Typology Types

Overview of Regional Commercial Typologies

Repurposed Industrial space is becoming a more popular format to house alternative businesses due to changing structural requirements by modern industrial users and more affordable rents for the eventual non-industrial tenant. Aging industrial structures have been passed over in the most recent demand surge for industrial space. Instead of utilizing existing space, developers are delivering larger, taller, and more secure warehouse and distribution centers to tenants moving toward efficiency of their supply chain and more rapid last-mile delivery. This has led owners of traditional industrial space to transition their structures into showrooms, boutique offices, and other commercial uses at attractive price points.

In addition to older industrial space, former automotive uses have started to transition as the national vehicle fleet slowly moves toward electric and hybrid vehicles. One of the most popular conversions from former auto uses are restaurants, as the existing structure allows for an open layout, external, covered seating, and a dedicated kitchen area. However, there is often upfront capital costs associated with this conversion as the land needs to be remediated and the necessary equipment (e.g., oven, stove, fryer and grease traps) needs to be brought in.

Example Repurposed Industrial Projects Include:

428 W Davis St
Dallas, TX
Built in 1951
Renovated 2003
Showroom
8,750 sf, 3 spaces
NNN Rents $36
$5.6MM Value Per AC

1201 S Akard St
Dallas, TX
Built in 1950
Renovated 2004
Office
6,960 sf, 1 space
NNN Rents $14
$2.1MM Value Per AC

2639 Main St
Dallas, TX
Built in 1973
Renovated 2018
7,800 sf, 1 space (restaurant)
$11.3MM Value Per AC

* Vacancies reported as of August 2021

Source: Costar, Plano Parcel & Zoning Map, Collin County, Dallas County

Typology Types

Overview of Regional Commercial Typologies

4- or 5-over 1 Commercial space is found on the ground floor of multi-purpose residential structures located within more urban areas, like downtowns. The commercial component to a 4- or 5-over 1 structure often rents at a significant premium to legacy commercial space within the same market due to more modern finishes, higher ceilings, and "built-in" demand from the residences above. However, ground floor retail is sometimes hard to lease due to the expected premium in rent for space, especially in areas with limited foot traffic.

In the metro, the commercial component of 4- or 5-over 1 structures is only 3% of the gross building area on average, or ~9,000 square feet of space per building. While commercial tenants will likely vary depending on the market, common tenants include restaurants, national accredited retailers, convenience stores, and other boutique retailers capable of making "above market" rent payments. However, developers are often successful at leasing the space when they discount the rent so that it is occupied with a productive use such as a local business or craft food and beverage establishment.

Example 4- or 5-over 1 Commercial Projects Include:

Junction 15 (Commercial)
Plano, TX
7,700 square feet commercial

Morada Plano (Commercial)
Plano, TX
12,700 square feet commercial

Lux on Main (Commercial)
Carrollton, TX
4,000 square feet commercial
- Restaurant

Source: Costar, Plano Parcel & Zoning Map, Collin County,

Typology Types

Overview of Regional Commercial Typologies

General Retail properties may come in a number of forms including stand alone, "sometimes called pad retail," where a store stands on its own like fast-casual food and beverage shops. Retail may also be "clustered," where properties are grouped together and accompanied by parking. Clustered retail may take the form of a retail strip center, community center, neighborhood center, regional center, or super-regional retail center. Larger retail clusters are traditionally anchored by a tenant that is in space greater than 20,000 square feet such as a grocery store or "big box" retailer like Walmart, Home Depot, Lowes, or movie theatre; among many other anchors.

Similar to Class A commercial office space, the COVID-19 pandemic has accelerated structural changes within retail. It is widely accepted that brick-and-mortar retail had been overbuilt throughout the last handful of development cycles and changing consumer habits toward omni-channel retail and next day delivery has continued to shrink the demand for brick-and-mortar space. However, it is expected that some retail, like food and beverage establishments and other experiential retail will rebound but will have to accommodate changing consumer tendencies like outdoor seating, among others. Specifically, experiential retail refers to more than just entertainment based, but is an attempt by retailers to make their brick and mortar remain relevant.

Example General Retail Projects Include:

1212 14th Street
Plano, TX
Stand Alone / Freestanding / Pad Retail
Gross Building Area: 6,500 sf
Food & Beverage Tenant
Single Tenant
Estimated Rent: $17 to $20 per sf
$1.5MM Value Per AC

3200 E 14th St - Azar Plaza
Plano, TX
Strip Commercial Center
Gross Building Area: 18,500 sf
Food & Beverage, Eyecare, Pharmacy and other General Service Tenants
Multiple Tenants
Executed Rent: $15 per sf Full Service
$1.6MM Value Per AC

3300 Central Expressway Parker Central Plaza
Plano, TX
Neighborhood Center
Gross Building Area: 180,000 sf
Big Box Retailers & General Service
Multiple Tenants
Estimated Rent: $18 to $22 per sf
$1.1MM Value Per AC

Source: Costar, Plano Parcel & Zoning Map, Collin County,

Typology Types

Overview of Regional Commercial Typologies

Hotel properties may take on several different shapes, sizes, and forms, but generally fall under the following categories as defined by Smith Travel Research (STR):

1. Boutique properties are those that cater to a guest's "atypical" needs/wants through a unique amenity package and/or room configuration. Boutique properties generally have less than 200 rooms, attract leisure travelers, and offer some type of authentic cultural or historic experience such as the inclusion of art exhibition space within its lobby or the offering of unique or local cuisine.
2. Full-Service hotel properties generally include an abundance of amenities such as full-service restaurants, meeting and exercise space, business centers, and pools. These properties are often upscale, upper upscale, or luxury products.
3. Limited-Service properties are a "more affordable" version of full-service hotel properties as they generally do not include a full-service restaurant, nor do they include the on-property amenities found in a full-service property. Limited-service properties are generally economy, midscale, or upper-midscale properties.
4. Extended-Stay properties cater to business travelers, like consultants or contractors, that are expected to be "on site" of a job for extended periods of time. As opposed to being quoted a "daily rate," extended stay properties see rates quoted by the week.

Example General Retail Projects Include:

Kimpton Pittman Hotel
Dallas, TX
Boutique Hotel
Upper Upscale Property
Opened in 2020 in Deep Ellum
165 Rooms
$29MM Value Per AC

Residence Inn Dallas Plano/ Richardson
Plano, TX
Full-Service Hotel
Upscale Property
Opened in 2017 in Plano
127 Rooms
$3.8MM Value Per AC

Holiday Inn Express & Suites Plano East
Plano, TX
Limited-Service Hotel
Upper Midscale Property
Opened in 2019 in Plano
122 Rooms
$1.8M Value Per AC

Source: Costar, Smith Travel Research

Expected TOD Typologies by Sub District : Commercial

Sub District	Class A Office	Rehabilitated Industrial	4- or 5-Over 1 Commercial	Stand Alone Retail	Strip or Retail Center	Full-Service Hotel	Boutique Hotel
Downtown North	✗	✗	✓	✓	✗	✗	✓
Downtown South Fragmented Industrial	✗	✓	✗	✓	✗	✗	✗
Historic Douglass Neighborhood	✗	✗	✗	✗	✗	✗	✗
Large Format Industrial Southwest	✗	✓	✗	✗	✗	✗	✗
K Avenue Extension – South	✗	✓	✓	✓	✗	✗	✗
Vendome Neighborhood	✗	✗	✗	✗	✗	✗	✗
Industrial District	✗	✓	✗	✗	✗	✗	✗
Shiloh Single-Family	✗	✗	✗	✗	✗	✗	✗
Shiloh Multifamily	✗	✗	✗	✗	✗	✗	✗
14th Street East	✗	✓	✗	✓	✗	✗	✗
RT North	✗	✗	✗	✗	✗	✗	✗
Research & Technology	✗	✗	✗	✗	✗	✗	✗

Appendix

To facilitate the gradual and organic transition from industrial, automotive and flex uses toward a more pedestrian friendly built environment within the areas south of Downtown Plano, this Appendix includes examples of districts across the country to experience similar transitions such as:

1. Deep Ellum (Dallas)

&

2. Wynwood (Miami)

Success will allow for the incubation of small businesses (including mom n' pop, craft and artisan retailers), and the introduction of more residents.

Typology Types

Overview of National Commercial Infill Strategies

Wynwood – Miami, FL *(TODAY)*

Inflection Point

1917 1926 1928 1930 1940 1946 1950 1970 1981 1990 2002 2003 2005

Wynwood is purchased as an agriculture estate.

Coca Cola factory opens

American Bakeries Company factory opens

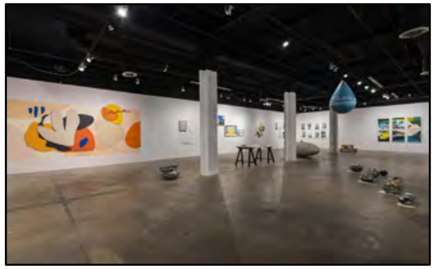
1920s: Wynwood becomes home to factories, and factory workers.

Wynwood flourishes throughout the 1920s and 30s and becomes a nationally renowned garment district that started with warehouse development and later infilled with retailers that wanted to be located proximate to the warehouses.

Post WWII population exodus to the suburbs and subsequent influx of immigrants of Central American, South American and Caribbean descent.

The neighborhood transitions from middle class, to lower-middle class. Unemployment surpasses 50% and drugs are rampant.

The South Florida Arts Center occupies the vacated American Bakeries Company warehouse creating the largest artist space in the state with 50 studio spaces for 100 artists. Catalyzing district.



Art exhibition spaces open throughout district.

Art Basel holds inaugural Miami-Beach based event

Wynwood Arts District Association is founded

Piggybacking off the success of the district, champion Tony Goldman purchases 25 derelict warehouses that would eventually become Wynwood Walls (opened in 2009) – the districts "crown jewel" and central public gathering place which features rotating artist exhibits on building facades.

Typology Types

Overview of National Commercial Infill Strategies

Wynwood – Miami, FL *(TODAY)*

Today, Wynwood is home to some of Miami's most landmark restaurants, bars, boutiques, galleries, and exhibition spaces including its open-air street art museum. In March 2019, Wynwood was reported to have 410,000 monthly visitors.

Typology Types
Overview of National Commercial Infill Strategies

Deep Ellum – Dallas, TX *(TODAY)*

Inflection Point

1873 1888 1914 1916 1920 1950 1956 1969 1980 1983 1990 1992 2000 2010

1873 – Deep Ellum District established as a residential & commercial neighborhood.

1888 – Continental Gin Company opens and will become the largest manufacturer of cotton producing equipment in America.

1914 – Henry Ford opens assembly line for Model T.

1916 – The culturally significant Union Bankers Trust Building opens and houses Dallas's earliest black professional offices

1920–1950 – Deep Ellum is a landing spot for blacks and European immigrants, becoming the city's first desegregated neighborhood. Culture of neighborhood fosters a music culture allowing for it to become a hot bed for jazz and blues.

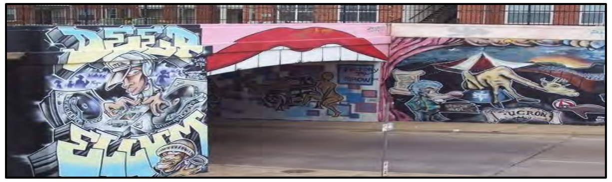
1956 – The Houston & Central Railroad tracks are removed as automobiles become more prevalent – this results in a population exodus to suburbs.

1969 – **Elevated Central Expressway cuts through neighborhood, cutting it off from downtown Dallas. Interstate development obliterates 2400 block, considered by many to be the heart of the neighborhood.**

1983 – The Deep Ellum Plan is revealed and suggests "downsizing" of district to keep it "artsy." Height restrictions imposed and no street widening projects to keep population down.

Music scene is revived with clubs like "Trees" and "Club Dada" opening throughout the 1980s and 1990s.

1992 – The Deep Ellum Community Association is founded and invites artists to paint bare walls and the Good-Latimer Tunnel.

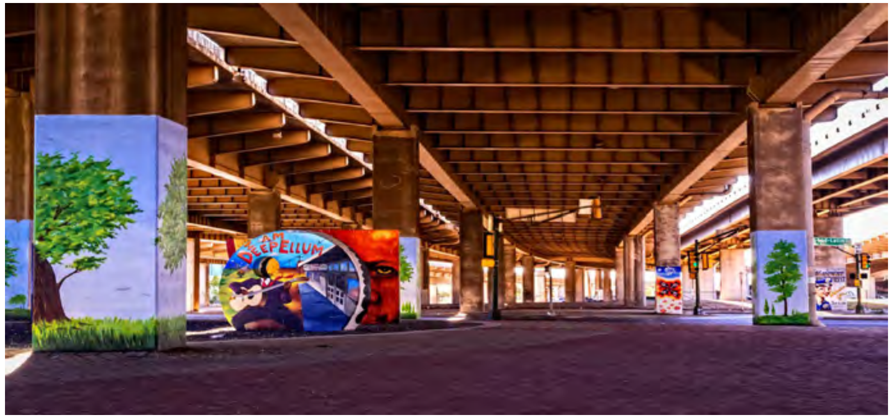


2000 – With high crime, and retailers struggling with high rent and zoning restrictions, city advocates for residential land use.

Typology Types

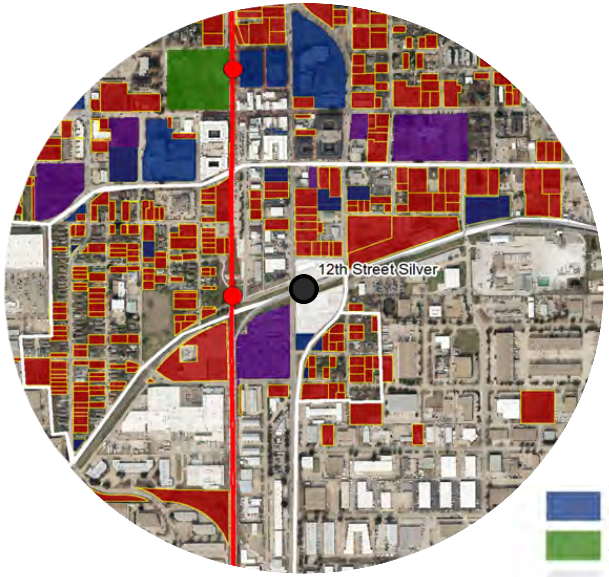
Overview of National Commercial Infill Strategies

Deep Ellum – Dallas, TX *(TODAY)*



Today, Deep Ellum is home to more than 20 historically recognized buildings and more than 30 live music venues. The neighborhood is also home to countless art murals and the Deep Ellum Arts Festival. Retail tenants include photographers, tattoo artists, gallery owners, recording studios, graphic designers, and an abundance of dining options – many of which are in former automotive structures.

12th Street



Shiloh Road

Redevelopment Potential Scoring Factors

1. Is the parcel currently vacant?
   Vacant=10, Occupied=0
2. How old is the primary structure on the parcel?
   Pre 1970=10, 1970's=8, 1980's=5, 1990's=3, 2000's=1, Post 2010=0
3. What is the ratio of assessed improvement value to land value?
   0.5x=10, 0.5x - 1.0z=8, 1x – 2x=5,, >2x=0
4. What percentage of the parcel is covered by an existing structure – or overall lot coverage?
   <25%=6, 25% - 50% =3, 50% - 100%=2, >100%=0

The top quartile of highest-scoring parcels are considered to be High Potential Redevelopment Sites.

12th Street

High Potential Redevelopment Sites by Size (AC)

12th Street Silver Line Station Area

Low (AC)	High (AC)	Count	%
0.00	0.10	37	11%
0.10	0.25	166	50%
0.25	0.50	71	21%
0.50	0.75	19	6%
0.75	1.00	8	2%
> 1 Acre		32	10%
		333	**100%**

A majority, or 95 percent of "high potential" redevelopment sites across both the Silver Line station areas are within proximity of 12th Street.

In addition, 50 percent of the "high potential" sites within proximity of the 12th Street station are between 0.1 and 0.25 acres. As such, the potential redevelopment typologies are limited by the relatively small parcels to developments such as townhomes, slot homes and other industrial conversions of existing structures as traditional multifamily apartment housing and other larger format commercial development must be developed on a lot that is at minimum, one acre in size. In addition, rising land prices within proximity of the 12th Street Station will also force the private development community to make certain decisions.

Shiloh Road

High Potential Redevelopment Sites by Size (AC)

Shiloh Road Silver Line Station Area

Low (AC)	High (AC)	Count	%
0.00	0.10	0	0%
0.10	0.25	1	6%
0.25	0.50	0	0%
0.50	0.75	0	0%
0.75	1.00	1	6%
> 1 Acre		16	89%
		18	**100%**

Only 5 percent of the total "high potential" redevelopment sites are located within proximity to the Shiloh Road Station Area. In addition, a majority of the "high potential" sites are larger than 1 acre in size with most of the developable land southeast of the station on multiple vacant greenfield sites.

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