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Is Transit-Oriented Development Affordable for Low and Moderate Income Households?

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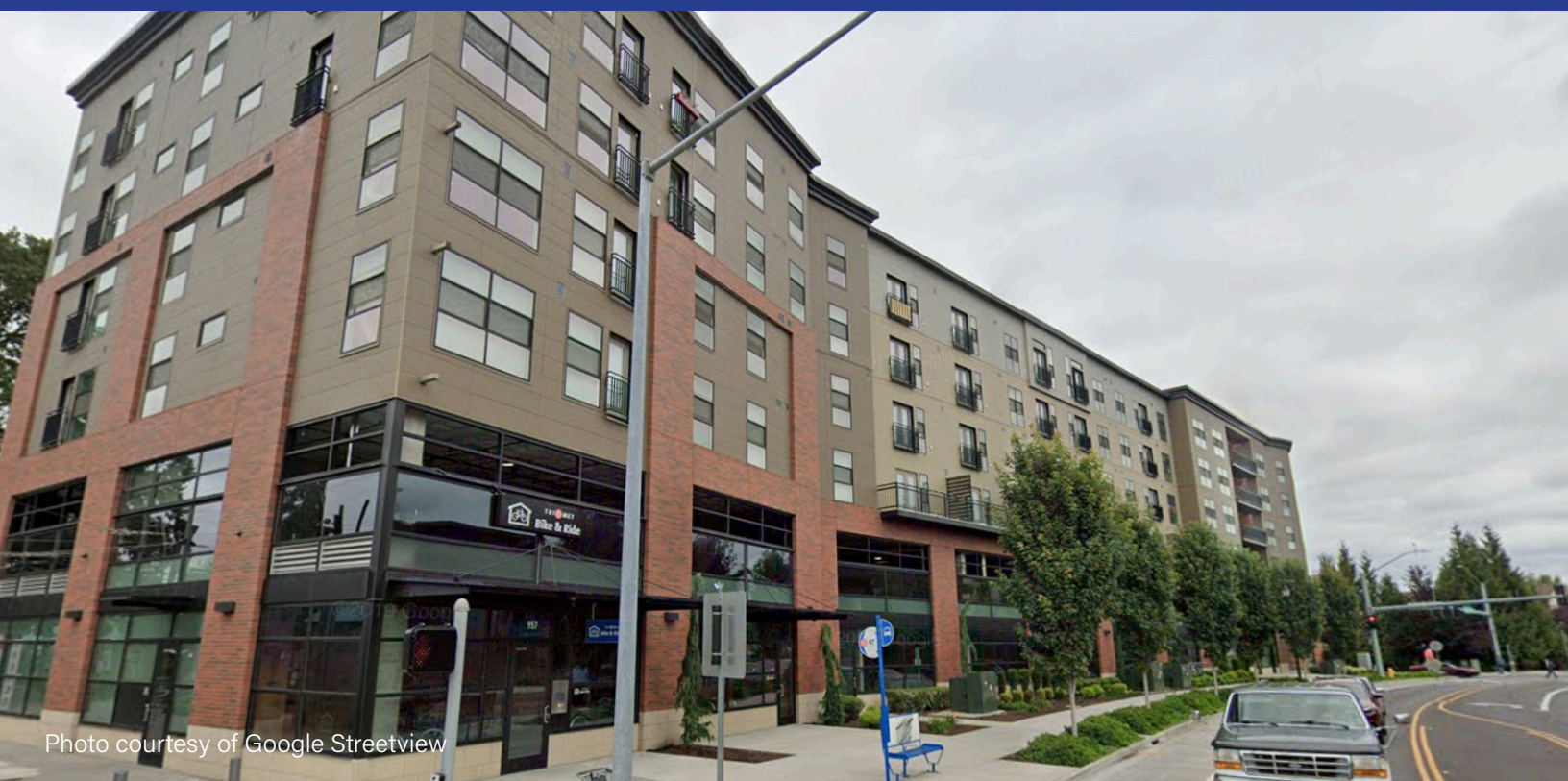


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Final Report

NITC-RR-1328

by

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16. Abstract The transportation and land use planning paradigm is shifting away from segregated uses connected by highways and roads to more compact, mixed-use developments connected by high-quality transit. This new paradigm has brought transit-oriented development (TOD) to the fore, and researchers continue to highlight advantages of this style of well-integrated land use and transportation planning. When it comes to affordability, what counts isn't housing costs alone but the combination of housing plus transportation costs (H+T). If TODs do, in fact, command higher rents due to increased transit accessibility, this creates an issue of social equity, especially if higher housing costs are not offset by transportation-related cost savings. Promoting a development style that limits access for transit-dependent populations by pricing those residents out of the market could potentially be counterproductive. This study (Phase I) assesses rent premiums associated with living in TODs and answers the question of whether TOD-style development is affordable for low- and moderate-income households by first, compiling a complete 100% inventory of free-standing TODs in the U.S. It also identifies measures taken by decision-makers (mainly jurisdictions and transit operators) and TOD developers to make housing affordable for low- and moderate-income households. Our complete inventory has 183 potential TODs within 26 rail-served regions. Among them, 85 TODs within 23 regions meet our TOD criteria. Our analysis reveals that there is a significant level of variability across regions, TODs and individual housing projects within TODs in terms of numbers and shares of designated and naturally occurring affordable units. Overall, one-third of the TODs have units that are naturally affordable to families of two people who earn less than 80% of the area median income, one-fourth of the TODs have such units for families of four people, and only 15% of them offer the same to families of three people. Interestingly, 15% of the projects within TODs are 100% affordable, while 60% of the projects offer either less than 10% or none of their units as affordable. Finally, there are only a few measures designed to specifically promote/ incentivize/ regulate the production of affordable housing in TODs.			
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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION.....	3
1.1 PROBLEM ADDRESSED AND RESEARCH QUESTIONS	4
2.0 LITERATURE REVIEW	6
2.1 TRANSIT-ORIENTED DEVELOPMENT AND THE CONCEPT OF H+T.....	6
2.2 AFFORDABLE HOUSING STRATEGIES	7
3.0 INVENTORY OF FREE-STANDING TODS ADJACENT TO RAIL STATIONS	12
3.1 TOD DEFINITION + CRITERIA	12
3.2 IDENTIFYING REGIONS WITH RAIL SYSTEM	13
4.0 ASSESSING HOUSING COSTS FOR LOW- AND MODERATE-INCOME HOUSEHOLDS	17
5.0 AFFORDABLE HOUSING UNITS AND MECHANISMS USED IN TODS	21
5.1 NUMBER OF AFFORDABLE HOUSING UNITS - SUMMARY OF FINDINGS ..	21
5.1.1 Description of Counties and Cities	21
5.1.2 Number of TODs and Individual Projects within TODs.....	22
5.1.3 Designated Affordable Housing	22
5.1.4 Naturally Occurring Affordable Housing	25
5.1.5 Naturally Occurring Affordability for Different Family Sizes.....	25
5.1.6 Overall Numbers and Shares of Affordable Units	26
5.2 MECHANISMS AND INTERVENTIONS	26
6.0 CONCLUSIONS.....	35
7.0 REFERENCES.....	37
APPENDIX A LIST OF POTENTIAL TODS IN RAIL-SERVED REGIONS.....	A-1
APPENDIX B LIST OF TODS THAT MEET THE EIGHT CRITERIA	B-1
APPENDIX C MINIMUM PRICE OF APARTMENTS WITHIN TODS.....	C-1
APPENDIX D MARKET-RATE HOUSING AFFORDABILITY.....	D-1
APPENDIX E EXAMPLES OF MEASURES WITHIN EACH CATEGORY	E-1

LIST OF TABLES

Table 2.1 A summary of affordable housing strategies and tools.....	8
Table 3.1 Number of potential TODs in each region ($n_{\text{region}} = 26$)	14
Table 3.2 Number of potential TODs in each region ($n_{\text{region}} = 23$)	16
Table 4.1 Affordability of market-rate units to two-, three-, and four-person households	18
Table 5.1 Summary of findings (aggregate level).....	21
Table 5.2 Description of residential projects within TODs by region	23
Table 5.3 Key affordability numbers by region	24
Table 5.4 Number of projects by share of affordable units	26
Table 5.5 State/county/-city level regulatory and policy measures by region	27
Table 5.6 Regulatory measures – year when implemented and impact on shares of income-restricted units.....	31
Table 5.7 Categories/ types of mechanisms used to stimulate the production of income- restricted housing	32

LIST OF FIGURES

None

EXECUTIVE SUMMARY

The transportation and land use planning paradigm is shifting away from segregated uses connected by highways and streets to more compact, mixed-use developments connected by high-quality transit. This new paradigm has brought transit-oriented development (TOD) to the fore, and researchers continue to highlight advantages of this style of well-integrated land use and transportation planning. When it comes to affordability, what counts isn't housing costs alone but the combination of housing plus transportation costs (H+T). If TODs do, in fact, command higher rents due to increased transit accessibility, this creates an issue of social equity, especially if higher housing costs are not offset by transportation-related cost savings.

Promoting a development style that limits access for transit-dependent populations by pricing those residents out of the market could potentially be counterproductive. This study assesses rent premiums associated with living in TODs and answers the question of whether TOD-style development is affordable for low- and moderate-income households, defined respectively as 50% and 80% of the AMI. It also identifies measures taken by decision-makers (mainly jurisdictions and transit operators) and TOD developers to make housing affordable for low- and moderate-income households. TODs in this study are characterized by (a) being along commuter, heavy, or light rail lines; (b) being in a region with more than one rail line; and (c) meeting certain other criteria. The development must be master planned and hence with a whole greater than the sum of the parts. We are interested in transit-oriented developments, not isolated transit-oriented buildings. This creates the potential for shared parking, internal trips, 24 hour vitality, and other urbanization agglomeration economies. The other criteria are: adjacent or nearly adjacent to rail stations (maximum one block away); dense and multistory; mixed use with residential and commercial (potentially including office uses); pedestrian-friendly with public space; built after rail opened; largely built out; having their own parking facilities (i.e., self-contained parking).

The first two characteristics (a and b) were examined by the authors using the National TOD Database. For the eight criteria, we contacted metropolitan planning organizations, transit operators, and major cities to get a list of potential TODs since they are the most knowledgeable agencies regarding any developments within their region. Our conversation with these agencies has led to a complete inventory of 183 potential TODs within 26 rail-served regions. Among them, 85 TODs within 23 regions meet our eight criteria and our analysis of housing affordability is based on these 85 cases.

Our analysis reveals that there is a significant level of variability across regions, TODs and individual housing projects within TODs in terms of numbers and shares of designated and naturally occurring affordable units. Approximately half of the TODs and individual projects do not offer designated or naturally occurring affordable units (NOAH). In most cases, if a TOD does not have a pool of designated low-income units,

it does offer NOAH units. Only three out of 23 regions offer neither – Cleveland, OH; Pittsburgh, PA; and St. Louis, MO.

In general, NOAH units are approximately half as common as designated affordable housing units in TODs; however, there are regions where NOAH units account for the majority of affordable housing (e.g., Dallas, TX). One-third of the TODs have units that are naturally affordable for families of two people who earn less than 80% of the area median income, one-fourth of the TODs have such units for families of four people, and only 15% of them offer the same to families of three people.

Interestingly, 15% of the projects within TODs are 100% affordable, while 60% of the projects offer either less than 10% or none of their units as affordable. Besides, both voluntary and regulatory measures adopted at city, county, and state levels have only limited impact on numbers/ shares of affordable housing, resulting, on average, in 5-15% of affordable units and rarely exceeding 20%. Overall, there are only a few measures designed to specifically promote/ incentivize/ regulate the production of affordable housing in TODs.

In the second phase of this project, we will compare the rent premiums with estimates of transportation cost savings for TOD dwellers, and check to see whether the combination of H+T exceeds affordability standards for different income groups.

1.0 INTRODUCTION

The growing wealth gap in the U.S. makes it essential that decision-makers focus on policies that will limit the effects of cost-of-living increases on the already constrained budgets of lower-income households. The “drive ‘til you qualify” paradigm of home buying suggests that, as one moves further away from economic centers, housing costs fall. However, transportation costs also rise correspondingly. American Automobile Association (2020) estimates that it costs more than \$9,561 per year to own and operate an automobile in the United States. Greater reliance on transit can decrease this figure by limiting the number of miles driven, which in turn cuts fuel costs and depreciation of the vehicle’s value and reduces the number of vehicles needed per household. Litman (2006) actually found that for working families in 28 U.S. urban areas, transportation costs exceed housing costs.

The transportation and land use planning paradigm is shifting away from segregated uses connected by highways and streets to more compact, mixed-use developments connected by high-quality transit. This new paradigm has brought transit-oriented development (TOD) to the fore, and researchers continue to highlight the advantages of this style of well-integrated land use and transportation planning. As noted by Cervero (2004), TOD has gained huge currency in the U.S. as a “means of promoting smart growth, injecting vitality into declining inner-city settings, and expanding lifestyle choices.” TOD is promoted, in part, as a way to overcome “drive ‘til you qualify” by offering multifamily housing that reduces housing plus transportation (H+T) costs (Hamidi and Ewing, 2015).

Housing costs are reduced through high-density land uses that amortize land costs over more units and uses. Transportation costs are reduced by providing alternatives to private vehicle ownership and use through complementary land uses proximate to transit. These savings accrue, in part, from the availability of high-quality transit and walking opportunities within mixed-use TODs and surrounding neighborhoods. Yet, ironically, all these good effects could be negated if these same accessibility advantages drive up rents to the point where they are no longer affordable for lower-income households. One need only think of TODs in Arlington, VA, or San Francisco, CA, with their clientele of young professionals, to see the potential downside of gentrification.

Based on examples from Salt Lake City, UT, Ewing (2017) argues that transit-oriented development need not displace lower-income residents if it occurs on previous parking lots or defunct commercial properties, which is the case along Salt Lake City’s West Side LRT line. He also argues that the addition of moderate- and middle-income residents to gentrifying areas may result in improved public services, increased employment opportunities, and reduced crime, thereby benefiting existing residents. While Ewing (2017) reported on studies showing lower displacement rates in gentrifying areas than non-gentrifying areas, as existing residents sought to remain in these ever-improving neighborhoods, he did not address (for lack of data) the impact of rising rents on existing residents of gentrifying neighborhoods.

While TOD can reduce transportation costs for residents with greater access to transit, are these costs then offset by higher rent prices? As we will later elaborate, when it comes to affordability, what counts isn't housing costs alone but the combination of housing plus transportation costs (H+T). If TODs do, in fact, command higher rents due to increased transit accessibility, this creates an issue of social equity, especially if higher housing costs are not offset by transportation-related cost savings. Promoting a development style that limits access for transit-dependent populations by pricing those residents out of the market could potentially be counterproductive.

1.1 PROBLEM ADDRESSED AND RESEARCH QUESTIONS

As mentioned, cities, regions, and the federal government have made sizable investments in supporting the development of TOD over the last three decades. TOD has proven potential to reduce transportation costs by providing transit access and a mix of uses that facilitate internal walking trips. But these benefits may help drive up costs and price out lower-income residents who might benefit the most from the accessibility benefits of TOD. In this study, we will answer first whether TOD-style development capitalizes on increased accessibility by demanding higher rents than what low- and moderate-income households can afford. More importantly, we then compare the rent premiums with estimates of transportation cost savings (in Phase II of the project) for TOD dwellers to see whether the combination of H+T exceeds affordability standards for different income levels. More specifically, this study seeks to answer these questions:

- How do rent premiums associated with access to transit for TOD households directly adjacent to rail stations compare to transportation cost savings associated with TOD transit and walking options?
- How do housing plus transportation costs at TODs directly adjacent of rail stations compare to standards of affordability for low- and moderate-income households in the region?
- What proportion of TODs in the U.S. provides affordable housing units, and what are the relative shares of designated versus naturally occurring affordable units?
- What proportion of the housing units in TODs is affordable? Is the level of affordability the same for families of different sizes?
- What are the mechanisms used by TOD developers or jurisdictions to provide affordable housing? For this question, we identify measures taken by exemplary TOD developers and jurisdictions to make housing affordable for low- and moderate-income households.
- Do all the mechanisms result in a similar level of affordability?
- What proportion of jurisdictions has compulsory/regulatory vs. voluntary measures?

The findings of this study demonstrate the extent to which TOD housing can help fill the affordable housing gap. The shortage of affordable housing for very low-, low-, and moderate-income households is often described as a crisis in our nation. In the Salt Lake City region alone, we lack tens of thousands of affordable units and have multiple TODs under development, with hundreds of apartments coming online. If these are affordable for lower-income households, this could make a sizable dent in the problem.

The remainder of this report is organized as follows: Chapter 2 contains a review of studies on affordability of TODs, as well as affordable housing tools and strategies available to developers. Chapter 3 shows our inventory of free-standing TODs adjacent to rail stations, and Chapter 4 assesses housing costs in these developments for low- and moderate-income households. Chapter 5 examines TODs that have affordable housing units and the mechanisms used to provide them. And, finally, Chapter 6 provides our conclusions. Complete lists of TODs are provided in the appendices.

2.0 LITERATURE REVIEW

2.1 TRANSIT-ORIENTED DEVELOPMENT AND THE CONCEPT OF H+T

In this study, we will explore the role of transit-oriented development in producing affordable housing. TOD has gained huge attention and ongoing popularity with the rapid expansion of rail transit systems in the U.S. in the past few decades (Dong, 2017). Understanding the relationship between TOD and housing affordability requires taking into account two dimensions of affordability that often operate in tension with one another: the potential cost savings of living in a transit-accessible, mixed-use, and walkable location and the willingness of people to pay a premium for that benefit. This trade-off has led to a push to consider both the cost of housing and transportation (H+T) in determining housing affordability (Haas et al., 2008).

Existing research shows that if TOD dwellers take advantage of the transit, walking, and biking options available in TODs, they can economize on transportation costs. This modern development style has been shown to decrease automobile trip generation, lower parking demand, and induce shifts in mode share away from personal vehicles. This finding is supported by the work of Hamidi and Ewing (2015), in which they proposed that higher housing costs in urban cores were more than offset by reciprocal decreases in household transportation spending.

At the same time, using the Panel Study of Income Dynamics, Smart and Klein (2018) found that the location affordability literature “may significantly overstate the promise of cost savings in transit-rich neighborhoods,” including TODs. Also, accessibility provided by TOD helps drive up rents, increasing the H in H+T (Boarnet et al., 2017; Sandoval, 2016). TOD typically incorporates high-density, mixed-use development with pedestrian-oriented design features, high-quality public spaces, and physical orientation to transit stations, all of which increase real estate prices (Ewing et al., 2017; Bartholomew & Ewing, 2011). Cervero (1996) found that residents of rail-based projects (TODs) were self-selecting these areas based on accessibility to downtown jobs and were willing to pay higher rents. Overall, a vast body of literature has shown that TODs can promote economic development and increase nearby property values by improving transportation accessibility and offering more livable environments (Ahlfeldt and Wendland, 2009; Duncan, 2011). In fact, in TODs, increase in the property values and tax revenues has helped cities and regions to justify the high cost of building transit infrastructure (Smith and Gihring, 2006; Addison et al., 2012). For a comprehensive list of studies that have shown TODs increase property values, see Ibraeva et al. (2020).

Standard conceptions of housing affordability are related to housing expense as a ratio to household income (Belsky et al., 2005; Bogdon and Can, 1997; Robinson and Hallinan, 2006). The Housing and Urban Development’s (HUD) housing affordability standard assumes that housing is “affordable” for a household at a given income level if the cost is less than 30% of household income (Dacquist and Rodda, 2006). However, recent studies revealed that this housing cost-oriented affordability concept has a

limitation: It fails to capture the trade-off that households make between the cost of housing and the cost of transportation (Hamidi and Ewing, 2015; Litman, 2006).

According to the Bureau of Labor Statistics (2019), housing and transportation are the largest and second-largest expense categories for American families, followed by food. Researchers have proposed new standards, which have been operationalized in tools such as the Housing + Transportation (H+T) affordability index and the Location Affordability Index (LAI). Other researchers have proposed that a combined H+T cost of less than 45% of income (15% for transportation) should be considered affordable (Hamidi et al., 2016).

While the existing studies offer some insight into the nuanced relationship between housing and transportation costs, no study, to our knowledge, has quantified the effect of transit-oriented developments on location affordability using the housing + transportation framework. The closest work that we were able to find was done by Renne et al. (2016). By analyzing 4,399 fixed-route transit station areas across the U.S., the authors found that while TODs are more expensive places to buy and rent housing, they are more affordable than hybrids and transit-adjacent developments (TADs) because the lower cost of transportation offsets housing costs. However, their definition of TOD is based on only two factors: Walk Score of 70+ and a gross housing density of 8+ units per acre. Hybrid stations/developments only meet one of these two criteria.

Further, only a few studies have examined housing prices for residential TODs while controlling for transit-proximity effects (e.g., Duncan, 2011; Mathur and Ferrell, 2013). No one has sorted out these two countervailing effects in the context of TOD to determine (1) which effect is dominant and (2) whether the two together meet standards of affordability for H (30% of household income), T (15% of income), and H+T together (45% of income).

The 30% standard of affordability for housing is generally accepted. The 15% standard of affordability has been used by ourselves and others, including the Center for Neighborhood Technology (CNT). CNT's Housing + Transportation (H+T) Affordability Index has become popular over the past few years. It estimates the average H+T costs for a variety of typical households for every census block group in the U.S. However, this index (and similar ones) have been recently criticized as having some major shortcomings such as aggregation bias and issues with the reliability of the methods (e.g., see Ganning, 2017; Smart and Klein, 2018).

2.2 AFFORDABLE HOUSING STRATEGIES

Table 2.1, adapted from an earlier work of the Metropolitan Research Center at the University of Utah (see Kiani et al., 2020), provides a summary of affordable housing strategies and tools employed nationally and by 10 of Utah's largest cities. It is essential for the readers of this report to know these tools since, as we will show later, a large number of TODs use at least one of these tools to address housing affordability.

Table 2.1 A summary of affordable housing strategies and tools (adapted from Kiani et al., 2020)

T y p e	Tool	Description
Federal Program	Federal Housing Tax Credits	The Low-Income Housing Tax Credit and the Historic Tax Credit are the most commonly used programs for the creation of affordable housing units by the federal government. LIHTC supports the majority (approximately 90%) of all affordable rental housing in the U.S. (NYT, 2012). Aside from the federal program, some states also have their own version of a low-income housing tax credit. LIHTC is typically used for the production or the rehabilitation of multifamily housing developments. The sale of tax credits leads to the reduction of the property's mortgage, which consequently lets the property owner offer affordable housing at a lower rent level.
	Housing Choice Voucher Program (Section 8)	The Housing Choice Voucher Program (HCVP), often known as Section 8, is a rental assistance program by the federal government which was created in the 1970s for increasing affordable, decent, safe and sanitary housing for low-income people. Since its creation, it has been one of the main ways that low-income families with children, the elderly, and people with disabilities can obtain housing stability. This program helps families or individuals afford privately owned rental housing of their choice. Vouchers are either tenant-based, meaning they are given to families or individuals, or project-based, meaning they are tied to a unit or housing complex. For tenant-based vouchers, program participants have to find units that accept vouchers and meet the program's health, safety and other physical condition requirements within 60 days of receiving the voucher. The unit owner also must agree to rent under the program's guidelines. Usually, 30% of the rent is paid by the tenant and the rest is paid by the local public housing agency that manages the household's voucher.
	Community Development Block Grants (CDBG)	Community Development Block Grants (CDBG) were enacted in 1974 with the goal of providing funds to cities and counties to tackle the unique challenges they face in their regions. The funds are provided by HUD to meet challenges of affordable housing, infrastructure programs, job and business creation, and other community development activities. There are different forms of CDBG programs. The CDBG Entitlement Program allocates federal funds directly to cities and counties based on population estimates, poverty rates, housing overcrowding, age of housing and other measures. The program aims to offer housing opportunities to low- and moderate-income earning individuals.
	USDA Housing Assistance	The U.S. Department of Agriculture (USDA) provides housing support in rural areas in the form of funding and technical assistance. USDA has different programs for individuals and families living in rural communities. Since it targets rural areas, we will not explain it further.
	Public Housing	Public Housing is one of the oldest affordable housing strategies in the United States aimed at providing decent and safe rental housing for low-income households. This subsidized assistance is available for eligible households at rents below the market rate, where the tenant pays 30% of income for housing and utilities. Local housing authorities administer and manage public housing in respective regions with funding from HUD.
Local:	Waiving/Reducing Impact Fees	To reduce overall costs of new housing, some cities waive or reduce impact fees associated with affordable housing developments. Some cities employ a sliding scale for fees depending on how affordable the new units are. Units geared toward those earning 30% of AMI might have lower impact fees than units targeting those earning 80% of AMI. Impact fees may also vary based on housing location. Urban infill developments may command a lower fee than developments built in the suburbs or areas where infrastructure may not exist. In Utah, state law

	provides guidelines for when cities can waive impact fees. Specifically, a local political subdivision may include a provision in an impact fee ordinance that provides an impact fee exemption for low-income housing.
Tax Abatement	Tax abatement is a tool usually employed to promote economic development, however sometimes it is also used to stimulate affordable housing development. It is tax elimination or reduction granted by governments to target growth in certain targeted communities.
Tax Increment Financing Reimbursements	Tax increment financing (TIF) is a popular mechanism for addressing housing needs, revitalizing blighted neighborhoods, improving infrastructure and utilities, boosting economic development, commercial activity and job creation. Usually, an area is designated as eligible for TIF funds when there is little chance of development without government intervention in that area. The area can be a blighted neighborhood or an underdeveloped one.
Local Rent Supplement/ Assistance Program	While federal subsidies are responsible for the majority of rental assistance programs and are administered through local housing authorities, some local governments also provide their own form of rental assistance to low-income families. Short-term programs are most common, vary in duration, and can be used for emergency housing. They provide critical assistance during periods of unemployment or other unexpected hardships.
Home Purchase Assistance Program	Home ownership is the greatest wealth growth asset most people will have in their lifetimes. Home purchase assistance programs are designed to make home ownership a reality for lower-income people. These programs provide interest-free or low-interest loans available to qualified low- and moderate-income homebuyers. To qualify, homebuyers often need to be a first-time homeowner, have low to moderate income levels based on the local AMI, and intend to use the home as a primary residence for a certain number of years. These loans can be used for down payments or closing costs. Some programs even make the loan forgivable if the property remains the primary residence over a number of years. These programs can be location-specific, for example, available only to those near transit stations.
Housing Trust Funds	Among the most powerful tools for affordable housing are housing trust funds (HTFs). HTFs can be operated at the city, county, or state level. They secure ongoing dedicated public funds for critical housing needs. While there were only a handful in the late 1970s, the number grew significantly in the 1990s when federal funds for affordable housing began to shrink. The number doubled in the seven years between 2000 and 2007, and almost tripled by December 2011, reaching to 719. At the national level, a HTF was created by Congress in 2008 to complement existing federal, state, and local efforts to preserve and produce affordable housing.
Community Land Trust (CLT)	One of the most common ways of creating permanent affordable housing is a Community Land Trust (CLT). Founders of the Institute for Community Economics developed the CLT model in the 1960s. The first CLT in the United States, New Communities, Inc., was established in 1968 in Georgia. Funding in the trust is used to acquire and retain land that is to be set aside for affordable housing. Land bought by the trust is kept affordable and sheltered from rising land prices in the market. Qualified low-income homeowners own title to the house, but typically have a renewable long-term ground lease.
Preservation of Long-Term Affordable Housing/Housing Rehabilitation Programs	Preserving or rehabilitating existing affordable housing is equally as important as producing new affordable units, and often less expensive since the housing has already been built. Since most subsidized affordable housing projects are implemented for a limited period, an expiration of those affordability restrictions results in rent increases to market levels. Unsubsidized units are also at risk of no longer being affordable for many reasons, such as a faster increase in housing prices than incomes for low-income households and neglected housing maintenance on low-rent units. Housing rehabilitation programs are often operated

		by cities in the form of loans to homeowners who may not be able to pay for repairs, maintenance, and upkeep of their homes otherwise. These loans can fund everything from plumbing repair to correcting health and safety issues to increasing energy efficiency.
Local: / Regulatory	Update Zoning Code	The most common way cities allow for the development of affordable housing is through their primary policy tool: zoning. Cities update zoning in a variety of ways. Upzoning—reducing required lot sizes or allowing higher housing densities (more dwelling units per acre)—is a common tactic that incentivizes the development of affordable housing because it amortizes the costs of land over more dwelling units. If lots are smaller for single-family housing, or single-family housing is rezoned for multifamily housing, land costs associated with each unit will be lower, making the overall price more affordable. Also, upzoning may result in reduced parking requirements, which in turn results in lower housing costs. However, just because units are at higher density does not always make them affordable unless there are also deed restrictions or aggressive city interventions.
	Density Bonus	Density bonuses are incentives for developers to increase the maximum development area or the number of units allowed on a property in exchange for the provision of affordable housing. While this tool can be utilized to achieve other public policy goals, such as protection of open space and landscaping, density incentives are also often used to increase affordable housing supply. A precondition that developers must meet is to agree to lower the rent or sale price of a portion of the developed units for low-income households. Communities or cities can also grant developers a density bonus to promote infill on underutilized land while improving housing affordability.
	Form-Based Code	A form-based code differs from traditional zoning in that it focuses on the form of development over the use of the land. The form is decided in the context of the overall look and feel of a community. These codes stipulate strict standards for design elements including, but not limited to facades, the relationship of buildings to one another, and the scale of buildings and blocks. Beyond defining form, these coding updates can be used to create zoning regulations that offer by-right advantages to developers to reduce the risk and uncertainty incurred by undertaking affordable housing development projects. Because affordable housing units are less lucrative for developers to build, the form-based code advantage is an indirect incentive to affordable and market-rate housing development.
	Inclusionary Zoning	Inclusionary zoning (IZ) has been applied nationally in the U.S. and established affordable housing amounting to approximately 150,000 units. Ideally, inclusionary zoning requires developers to build a certain percentage of affordable housing units in their market-rate projects. Yet, this can only be achieved in strong markets. In weaker markets, affordable housing with incentivized opportunities may be a more suitable approach. In strong markets, with high demand and a well-assessed policy, inclusionary zoning can help create more affordable housing, which might have not been possible and only could be achieved through projects executed by public or non-profit actors.
	Reduced Parking Requirements	Local zoning codes nearly always require developers of new housing units to provide a specified minimum number of parking spaces for area residents and for workers and customers of area businesses. These parking spaces can increase the amount of land required, reduce the number of units that can be built on a given parcel, and/or increase the costs of construction, which are often passed on to the homebuyer or renter in the form of higher home purchase prices or rents. At the same time, as public transit use increases, communities tend to need fewer parking spaces than they needed in previous decades. By reducing parking requirements for developments that include affordable housing, localities can decrease production costs (permitting, construction, etc.), allowing the developments to provide more affordable housing. This may be particularly useful

Social / Other		in dense, high-cost cities where land prices are very high and structured parking costs \$25,000 or more per space.
	Preserve Existing Deed-Restricted Affordable Housing	Deed restrictions can have terms and conditions related to selling, buying or renting property. They refer to a legal agreement that imposes restrictions on real estate. When an owner of a property wants to transfer property, he or she can do so according to the terms and conditions that are indicated in a deed restriction. Deed-restricted affordable housing refers to deeds that can only be transferred to individuals earning certain percentages of area median income. In other words, the property buyer must meet the set income requirements and must be able to purchase it at an affordable price.
	Accessory Dwelling Units (ADUs)	One of the simplest and oldest approaches to creating affordable housing is allowing ADUs, also known as granny flats or mother-in-law-units, near single-family dwellings. ADUs affectively double the density of development, and being smaller than the single-family units to which they relate, may have rents that affordable for lower-income households.
	Expedited Permitting	Expedited permitting is an incentive program for affordable housing developments that accelerates, simplifies, or automates the plan review and permit process. Any delay occurring in the development process brings additional costs and uncertainties in the effort to increase affordable housing, whereas expedited permitting allows developers to offset the project cost associated with the development process.
	Transfer of Development Rights (TDR)	Local governments can use TDR, a market-based land use mechanism, for redirecting growth from a location desired to be preserved (known as 'sending areas') to a location desired to be developed with higher density (known as 'receiving areas'). These transactions can be strictly between private parties, or the local government can act as an intermediary or TDR bank. Typically, TDR sending areas are located in rural and resource lands. However, a TDR program can be structured to allow urban affordable housing preservation projects to qualify as a sending site (e.g., mobile home parks, high-rise low-income apartments). Affordable housing projects may also be eligible as "receiving sites." Residential bonus units may be offered as an incentive for affordable housing.
	Employer-Assisted Housing (EAH)	EAH is an employer-provided benefit with the intention of assisting employees become homeowners. The growing spatial mismatch between where job growth is taking place and where people can afford to live creates costs for employers as the local labor pool contracts and employee turnover rises. Employers have a stake in extending housing affordability and creating housing opportunity while increasing the competitiveness of their businesses and the areas in which they are located. EAH programs reflect recognition that employers cannot fully externalize the costs of their location or operation in a tight market onto their employees or the public or nonprofit sectors.
	Public-Private Partnerships	Partnerships between cities and developers can stimulate targeted development to address the inadequate supply of affordable workforce housing.

3.0 INVENTORY OF FREE-STANDING TODS ADJACENT TO RAIL STATIONS

To answer the research questions outlined in Chapter 1, we need to first identify and compile a complete (100%) inventory of free-standing TODs adjacent to rail stations in the United States. In fact, this is the first such compilation since Cervero and coauthors produced their Transit Cooperative Research Program (TCRP) 102 report back in 2004. This chapter explains our approach and protocol to compile the inventory, as well as the inventory itself. We will show that, unlike the TCRP 102 report where the authors claimed that more than 100 TODs of various shapes and sizes existed across the country at the time, by applying some strict criteria we were able to locate less than 100 TODs in the country as of today (with many more under construction).

3.1 TOD DEFINITION + CRITERIA

TODs are widely defined as compact, mixed-use developments with high-quality walking environments near transit facilities (Cervero 2004, pp. 5-7). For this study, we limited our sample of TODs to sites developed by a single developer under a master development plan. TODs may also include a clustering of development projects near transit facilities developed by one or more developers pursuant to a master development plan.

The first three criteria used to select TODs for this study are consistent with the definition above. TODs must be:

- (1) Relatively dense (with multi-story development) to generate transit riders,
- (2) Mixed use (with residential, retail, entertainment, and sometime office uses in the same development) to create the potential for shared parking, internal trips, 24 hour vitality, and other urbanization agglomeration economies, and
- (3) Pedestrian-friendly (with streets built for pedestrians as well as autos and transit and with public spaces for social interaction).

We have added four additional criteria to maximize the utility of the sample and data. TODs must be:

- (4) Adjacent or nearly adjacent (within a block) to transit so there is no impedance associated with access to transit,
- (5) Built after a high-quality transit line was constructed or proposed (and hence with a design and parking supply that reflects the availability of high quality transit),
- (6) Fully developed or nearly so to realize TOD's full potential, and
- (7) With self-contained parking.

By self-contained parking, we mean having dedicated parking, in one or more parking garages or lots, for the buildings that comprise the TOD. This criterion is dictated by our need to measure parking demand for the combination of different land uses that comprise the TOD. The criterion precludes TODs in a typical downtown that share public parking with non-TOD uses. This obviously constitutes a limitation on our study's external validity, but one that is self-imposed. In a typical downtown with public parking, it is impossible to tell which parked cars are associated with which land uses. Thus, our findings will be most applicable to the many proposed and self-contained TODs in less urban or more suburban locations.

TODs may also include a clustering of development projects near transit facilities developed by one or more developers pursuant to a master development plan. As one can tell based on these criteria, we seek to identify proposed and "self-contained" TODs, as opposed to a typical downtown where all sorts of dense and mixed-use developments are happening, with some being closer to the rail stations. Note that these criteria come from our earlier work titled "Trip and Parking Generation at TODs" and funded by the National Institute for Transportation and Communities. The requirement that studied TODs have self-contained parking is due to our need for parking generation rates in order to assess transportation (T) affordability.

3.2 IDENTIFYING REGIONS WITH RAIL SYSTEM

As shown in the previous subsection, we only consider development as a TOD if it is adjacent to the rail station (i.e., commuter rail, heavy rail, and light rail stations). The reasons for considering only these three types of transit systems (and hence, excluding other forms of transit such as bus rapid transit, streetcar, and regular bus) are their ability to provide greater accessibility (to jobs and locations), have higher capacity and greater reliability, especially when they are compared with a regular bus. Another exclusion criterion is the number of rail lines that a region has. We exclude regions that have only one rail line because a single line does not represent a high-quality transit network. Our criteria guarantee that our results represent the best case for TOD in the U.S. Adjacency to a rail station, in particular, means that there is virtually no cost/impedance in accessing transit from these developments.

We then used the National TOD Database (www.toddata.cnt.org), which is a project of the Center for Transit-Oriented Development (CTOD), to identify regions that meet the two rail criteria. Overall, 26 regions in the U.S. meet our criteria and are included in this study. For these regions, we contacted metropolitan planning organizations (MPOs), transit operators, and major cities to get a list of potential TODs based on the eight criteria explained in the previous subsection.

We believe these three agencies/organizations in each region have the best knowledge about the region itself and all the TODs that have been built (or are planned to be built). For each agency, the research team sought to contact the person(s) who are involved or have the best knowledge regarding TODs in the region. Planners in most of these

agencies responded to our requests, allowing the researchers to engage in informal conversations via email, telephone, and online platforms (i.e., Zoom).

Unfortunately, when the research team started to contact these agencies, the COVID-19 pandemic hit the U.S. and we experienced a huge delay in receiving responses from these agencies. For some regions, we did not hear back from one or two of the three agencies, although we contacted them multiple times via email and telephone. Having said that, the pandemic has become a windfall for video conferencing platforms such as Zoom, and this actually helped us greatly in identifying TODs. By scheduling a meeting over Zoom and the ability to share screens, planners at these agencies were able to show us the locations of TODs on Google Maps, the story behind the developments, and how and where different phases of development were constructed.

We found that transit operators, MPOs and, in some cases, major cities have one or more persons responsible for TOD projects in the region. Our results, however, show that transit operators have the best knowledge regarding these projects within their regions. For instance, New Jersey Transit has a program called NJ TOD (www.njtod.org) with a dedicated staff with the aim of advancing “the conversation about the potential for development and redevelopment around transit facilities in the state of New Jersey” (see the website). Nevertheless, only a handful of transit operators provide contact information for their staff and divisions. So, in many cases, it was much harder for the research team to find the right person and contact him/her in these agencies. Since there was some level of subjectivity associated with our eight criteria and one or two criteria needed clarifications for some of the planners, we received different lists of TODs from these three agencies in each region. Their lists overlapped greatly but, in general, the most comprehensive lists came from the transit operators. In many cases, our conversations with these agencies resulted in multiple rounds of revisions to our list since we wanted to make sure that (a) we are not omitting any potential TODs, and (b) the suggested TODs clearly meet our eight (or at least the first seven) criteria. In our interview, we also asked questions about any available affordable housing units, which we will discuss in the following chapters. Overall, our complete 100% (or close to 100% since we did not hear back from some of the agencies) inventory of free-standing TODs in the U.S. consists of 183 potential developments. Table 3.1 provides the number of potential TODs in each of the 26 regions. See Appendix A for the complete list of individual developments with their locations.

Table 3.1 Number of potential TODs in each region (n_{region} = 26)

Region	MPO	Transit Operator	# of Potential TODs
Albuquerque, NM	Mid-Region COG	ABQ Ride	3
Atlanta, GA	Atlanta Regional Commission	Metropolitan Atlanta Rapid Transit Authority	1
Austin, TX	Capital Area MPO	Capital Metro Transportation Authority	3
Baltimore, MD	Baltimore Metropolitan Council	Maryland Transit Administration	11

Boston, MA	Boston Region MPO	Massachusetts Bay Transportation Authority	12
Chicago, IL	Chicago Metropolitan Agency for Planning	Chicago Transit Authority	2
Cleveland, OH	Cleveland Urban Area MPO	Greater Cleveland Regional Transit Authority	4
Dallas, TX	North Central Texas COG	Dallas Area Rapid Transit	20
Denver, CO	Denver Regional Council of Governments (COG)	Denver Regional Transportation District	4
Houston, TX	Houston-Galveston MPO	Houston METRO	5
Los Angeles, CA	Southern California Association of Governments (AOG)	Los Angeles County Metropolitan Transportation	12
Miami, FL	The Miami-Dade Transportation Planning Organization (TPO) ¹	Miami-Dade County	7
Minneapolis-St Paul, MN	Metropolitan Council	Metro Transit	3
New Jersey, NJ	North Jersey Transportation Planning Authority (TPA)	NJ Transit	21
New York, NY	NY Metropolitan Transportation Council	New York City Transit Authority	10
Orlando, FL	MetroPlan Orlando	SunRail	4
Philadelphia, PA	Delaware Valley Regional Planning Commission	Southeast Pennsylvania Transportation Authority	10
Pittsburgh, PA	Southwestern Pennsylvania Commission	Port Authority of Allegheny County	3
Portland, OR	Metro Regional Government	TriMet	5
Sacramento, CA	Sacramento Area COG	Sacramento Regional Transit District	7
Salt Lake City, UT	Wasatch Front Regional Council	Utah Transit Authority	6
San Diego, CA	San Diego AOG (aka SANDAG)	San Diego Metropolitan Transit System	5
San Francisco Bay Area, CA	Metropolitan Transportation Commission (MTC)	Bay Area Rapid Transit	4
Seattle, WA	Puget Sound Regional Council	King County Metro Transit Department/ Sound Transit	3
St. Louis, MO	East-West Gateway COG	Metro Transit (St. Louis)	6
Washington DC	National Capital Region Transportation Planning Board	Washington Metropolitan Area Transit Authority	12
Total	-	-	183

¹ We also contacted South Florida Regional Transportation Authority (also known as Tri-Rail). In fact, in the Miami region, we only heard back from planners at Tri-Rail.

Next, to verify our initial list of potential TOD projects, we reviewed candidate projects to see if they meet the criteria using Google Satellite Imagery and Google Street View. The research team also made site visits to some of these potential TODs (especially in our home region – Wasatch Front) to verify that the criteria are met on the ground. Overall, among 183 potential developments we identified 85 TODs across the country

that clearly meet our criteria. More than half of the developments in our list were excluded as being either under construction or at the planning phase. Table 3.2 shows TODs in each region. See Appendix B for the complete list of 85 TODs with their locations. Note that we lost three regions (i.e., Albuquerque, Chicago, and Orlando) since none of the projects (potential TODs) in these regions meet our eight criteria at the time we are writing this report.

Table 3.2 Number of potential TODs in each region (n_{region} = 23)

Region	# of TODs	Region	# of TODs
Atlanta, GA	1	New York, NY	2
Austin, TX	2	Philadelphia, PA	5
Baltimore, MD	2	Pittsburgh, PA	1
Boston, MA	7	Portland, OR	3
Cleveland, OH	1	Sacramento, CA	3
Dallas, TX	12	Salt Lake City, UT	3
Denver, CO	2	San Diego, CA	3
Houston, TX	2	San Francisco Bay Area, CA	3
Los Angeles, CA	9	Seattle, WA	1
Miami, FL	2	St. Louis, MO	1
Minneapolis-St Paul, MN	3	Washington DC	10
New Jersey, NJ	7	Total	85

In the next chapter, we investigate the rent levels at each of the developments and assess whether apartments are affordable for low- and moderate-income households. In the end, it is important to reiterate that this inventory (183 potential TODs) is compiled based on the information provided directly by MPOs, transit operators, and major cities in 26 regions. We acknowledge the fact that there might be other developments that can be considered as “potential” TODs and are not currently on our list. But we tend to stick with the information that we have received from these agencies.

4.0 ASSESSING HOUSING COSTS FOR LOW- AND MODERATE-INCOME HOUSEHOLDS

Once having a complete inventory of free-standing TODs, we identified all apartment projects by name within these TODs and compared rent levels for market-rate and affordable housing to affordability standards. Using interviews with property managers, we established rent levels for market-rate and affordable housing (if any) for all apartments within the projects. Market-rate apartment rents are often posted online, but our interest was also in affordable units.

In this step, we identified all apartment projects by name, checked websites for rent levels, interviewed property managers, and established rent levels for market-rate and below-market-rate affordable housing (if available) for all apartments within these TODs. For each development, we asked for the lowest prices of studio, one-bedroom, two-bedroom, and three-bedroom apartments (if available); the total number of units; and the number of affordable housing units with their rent levels. Table 4.1 shows the affordability of market-rate units within the 85 TODs in 23 regions for two-, three-, and four-person households. The first two columns dedicated to each household size show the lowest available market-rate rents in each region based on the number of bedrooms. The next two columns show the affordability of the lowest priced units to households of two-, three- and four-persons, respectively. The prices are shown as ranges, with a minimum and a maximum price, as different TODs in a given region, and individual projects within any TOD have different lowest-price levels for various apartment sizes. Table 4.1, instead of showing just one lowest price for a region, shows ranges of lowest rents across all TODs within a region. In Appendix C, we have provided a complete list of rent levels per development. It required massive resources to compile such a complete inventory.

Table 4.1 shows that individual projects within TODs across regions have been built over the past 30 years (1992-2020). However, the majority of them were built over the past decade. In the next chapter, we will explain that the TODs that were built earlier have fewer affordable units. Note that many of these TODs consist of only one apartment building (e.g., Riverfront at Cranford Station in New Jersey), while others have several, often developed and managed by the same entity (e.g., Orenco Station in Portland). In fact, 66 TODs consist of just one project (with either a single or multiple buildings).

For the analysis shown in Table 4.1, an assumption was made that two-person families can occupy studios or one-bedroom apartments; four-person families are eligible for two-bedroom apartments; and three-person families can occupy either one- or two-bedroom apartments. Generally, the rule “two per bedroom plus one” is used, which means that three people can legally live in a one-bedroom apartment, and two people can live in a studio.

Table 4.1 Affordability of market-rate units to two-, three-, and four-person households as of July 2021

			Two-person households ¹				Three-person households				Four-person households			
Regions		Years TODs Built	Ranges for lowest rents across TODs for studios and 1-bedroom apartments		Rents as share of 30% of moderate- income (80%) limit per month		Ranges for lowest rents across TODs for 1- and 2- bedroom apartments		Rents as share of 30% of moderate- income (80%) limit per month		Ranges for lowest rents across TODs for 2- bedroom apartments		Rents as share of 30% of moderate- income (80%) limit per month	
			min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
1	Atlanta, GA	2007	\$1,020	\$1,070	74%	78%	\$1,070	\$1,480	69%	95%	\$1,480		86%	
2	Austin, TX	2015, 2019	\$1,545		98%		\$1,545	\$2,285	87%	128%	\$2,285		116%	
3	Baltimore, MD	2004, 2020	\$1750		109%		\$1,750	\$2,065	97%	115%	\$1,890	\$2,065	95%	103%
4	Boston, MA	2004 - 2013	\$2,300	3,685	144%	182%	\$2,338	\$4,780	130%	210%	\$3,045	\$4,780	152%	189%
5	Cleveland, OH	2018	\$1,560		124%		\$1,560	\$2,475	110%	175%	\$2,475		157%	
6	Dallas, TX	1998 - 2020	\$750	\$2,142	53%	150%	\$850	\$3,382	53%	211%	\$1,100	\$3,382	62%	190%
7	Denver, CO	2001, 2013	\$1,541		96%		\$1,541	\$1,905	86%	106%	\$1,905		95%	
8	Houston, TX	2016, 2018	\$1,216	\$1,819	96%	144%	\$1,395	\$2,499	98%	175%	\$1,718	\$2,499	108%	158%
9	Los Angeles, CA	2000 - 2018	\$1,707	\$3,995	90%	211%	\$2,032	\$4,153	95%	195%	\$2,420	\$4,153	102%	176%
10	Miami, FL	2011, 2019	\$1,802	\$2,356	125%	163%	\$2,356	\$3,207	145%	197%	\$3,207		177%	
11	Minneapolis St Paul, MN	2011, 2013	\$1,138	\$1,472	71%	92%	\$1,405	\$1,759	78%	98%	\$1,689	\$1,759	85%	88%
12	New Jersey, NJ	2005 - 2017	\$1,595	\$2,700	105%	169%	\$1,650	\$3,215	92%	175%	\$1,875	\$3,215	94%	157%
13	New York, NY	2003 - 2019	\$1,759	\$2,548	97%	141%	\$1,759	\$3,062	86%	150%	\$2,315	\$3,062	102%	135%
14	Philadelphia, PA	2013 - 2018	\$1,275	\$1,866	84%	123%	\$1,275	\$2,675	75%	157%	\$1,542	\$2,675	82%	142%
15	Pittsburgh, PA	2019	\$2,248		166%		\$2,248	\$3,439	147%	225%	\$3,439		203%	
16	Portland, OR	2004 - 2019	\$920	\$1,754	59%	113%	\$1,190	\$2,753	68%	158%	\$1,325	\$2,753	69%	142%
17	Sacramento, CA	2005 - 2017	\$1,550	\$1,750	107%	121%	\$1,750	\$2,500	107%	153%	\$2,500		138%	
18	Salt Lake City, UT	2011 - 2020	\$1,219	\$1,667	83%	113%	\$1,219	\$2,186	73%	132%	\$1,370	\$2,186	74%	119%
19	San Diego, CA	1997 - 2007	\$1,992	\$2,700	103%	139%	\$1,992	\$2,800	91%	128%	\$2,053	\$2,800	85%	115%
20	San Francisco Bay Area, CA	2004 - 2020	\$2,050	\$2,517	94%	115%	\$2,200	\$3,452	89%	140%	\$3,010	\$3,452	110%	126%
21	Seattle, WA	2011 - 2018	\$1,356	\$1,790	75%	99%	\$1,679	\$2,880	82%	141%	\$2,465	\$2,880	109%	127%
22	St. Louis ²	2007	n/a		n/a		n/a		n/a		n/a		n/a	
23	Washington, DC	1992 - 2019	\$1310	2,375	80%	144%	\$1,310	\$3,612	71%	195%	\$1,810	\$3,612	88%	176%

¹ Colorized cells indicate that market-rate units are affordable, at least in some TODs of that region.

² In St. Louis, we only have one TOD. Unlike other TODs, this TOD only has a condominium, and hence, it is not possible to provide any minimum price.

Table 4.1 shows market-rate rent ranges for each of the 23 regions and affordability for families of various sizes earning no more than 80% of the area median income (AMI). AMI data is published annually by the Department of Housing and Urban Development (HUD) for every county and metropolitan area in the U.S. In this project, we found the corresponding county of each of the TODs and used HUD's website (see <https://www.huduser.gov/portal/datasets/>) to record the most recent AMI (also known as median family income).

According to HUD, housing that costs no more than 30% (sometimes also referred to as one-third) of a household's income is considered to be "affordable" for that household. This benchmark has become so popular that online real estate marketplace companies like Zillow and Trulia provide minimum income suggested for each of the properties posted online for rent. Note that housing costs differ for owners and renters. For renters, the focus of this research, costs include rent and tenant-paid utilities (except telephone and cable).

One limitation of this research lies in its inability to account for the cost of utilities. In most places, a great portion (if not all) of utilities (e.g., water, sewerage, gas, and electricity) are paid by tenants. A typical U.S. family spends \$2,060, on average, per year (or \$172 per month) for utility bills (Bailey, 2016). This value can certainly be higher in some regions and states and lower in others. It also varies greatly with households' preferences and lifestyles. Hence, since it is not possible for the research team to acquire such data, our analysis of housing costs relies solely on rent levels.

Households are also divided based on their gross income and size. Moderate-income households mean households who earn at least 80% of the AMI (maximum 120%). On the other hand, low-income households earn (at least) 50% of the AMI (maximum 80%), and very/extremely low-income households are the ones who earn less than 50% of the AMI. The AMI values vary greatly with household size. For instance, a moderate-income household with four members should have a gross income of \$73,750 or higher in Salt Lake County, while this value for a two-person household is \$59,000.

Table 4.1 shows availability only for moderate-income families. Note that none of the 85 TODs offer market-rate units available to families earning less than 50% of the AMI (i.e., very low-income). What can be easily seen is the significant variability of the lowest rent levels, which can be as low as 53% of the low-income HUD limit (Dallas, TX) and as high as 225% of that limit (Pittsburgh, PA). More importantly, within a single region the lowest rents can vary from as low as 53% of HUD's low-income limits to 211% of the limit. Fourteen of 23 regions have at least some market-rate units available to households of two persons who earn no more than 80% of AMI, while 11 regions have them available for moderate-income families of four persons. Almost all regions have some market-rate units available to three-person, moderate-income households, but this is true only for one-bedroom units. Only a handful of regions (i.e., eight) have two-bedroom units affordable for these families.

As expected, in some regions like Boston, Los Angeles, or San Francisco, apartment units are priced much higher than in other regions, which makes sense since all of them are among the most expensive cities [and regions] in the U.S. (Goetz, 2021). However, apart from being highly priced in absolute terms, apartments in these cities are also significantly more expensive when compared to local area median incomes and the HUD-established income limits. In Boston, the lowest-priced apartment across all categories is 30% more expensive than HUD-allowed limits for low-income households. Note that three-bedroom units are mostly in luxury apartments and their rent levels in some regions are extremely high (e.g., see Linea Apartments in Los Angeles). Overall, three-bedroom apartment units are quite rare and hence, we will not focus on them in this study.

If we run the analysis based on the average of rent levels within each region, one can conclude that, on average, market-rate housing is not very affordable for low- and moderate-income households. We will not show the results here since rent levels vary greatly from one development to another and from one region to another. Hence, findings of this aggregate level of analysis might be inaccurate and misleading. In the next chapter, we explain (in much greater detail) that at the individual TOD level, a considerable number of individual properties are affordable for low- and moderate-income households.

Interestingly, more than half of the TODs in these 23 regions provide at least a small portion of affordable housing units. This is a very promising finding. In the next chapter, we will describe the total number of residential units; the total number of affordable units and their share; and mechanisms used by the developer, city, and/or region to provide affordable housing units.

In the end, it should be noted that our analysis in the first phase of the project is merely based on housing costs. As we described in the literature review, affordability should be measured with respect to H (housing) + T (transportation) costs. In the second phase of this project, we will assess the transportation costs of households living within TODs. We might find that households' T costs are much lower than the 15% standard and can offset the housing premium associated with TODs. This means that these households can spend more than 30% of their gross income on housing up to a certain amount that the sum of H+T costs is still under the 45% ceiling.

5.0 AFFORDABLE HOUSING UNITS AND MECHANISMS USED IN TODS

5.1 NUMBER OF AFFORDABLE HOUSING UNITS - SUMMARY OF FINDINGS

As described in the previous chapter, in this project we focus on 85 TODs in 23 regions and try to answer how many of them offer affordable housing (low-income housing, income-restricted housing, or workforce housing). Furthermore, our objective is also to understand the driving mechanisms behind the provision of affordable units.

These 85 TODs are located in 42 counties and further in 51 cities – the significance of this fact will be explained in greater detail in the following subsections. The 85 TODs are home to 117 individual projects. As shown in Table 5.1, in total the analyzed TODs offer 35,614 housing units, of which 4,641 (13%) are designated as affordable, low-income, or restricted-income units. In addition, approximately 2,600 units (7%) are NOAH (Naturally Occurring Affordable Housing) at the low- or moderate-income level. Overall, about 20% of units can be considered affordable based on HUD-established income limits for the year 2021 (income limits that determine eligibility for an assisted housing program).

We have found that roughly half of the TODs (51%) and less than half of the 117 individual projects (44%) have some number of designated affordable housing units. Similarly, NOAH units were found in 40% of TODs and 36% of individual projects.

Table 5.1 Summary of findings (aggregate level)

Regions	23	# of designated Affordable Housing¹ units	4,641	% of TODs with designated AH units	51%
# of TODs	85	% of designated Affordable Housing units	13%	% of projects with designated AH units	44%
# of counties	42	# of Naturally Occurring Affordable Housing	2,630	% of TODs with NOAH units	40%
# of cities/ municipalities	51	% of Naturally Occurring Affordable Housing	7%	% of projects with NOAH units	36%
# of projects	117	Total # of Affordable Housing units	7,271		
Total # of units	35,614	% of Affordable Housing	20%		

¹Also called low-income housing, restricted-income housing, or workforce housing

5.1.1 Description of Counties and Cities

As mentioned above, studied TODs are located in 42 counties and in 51 cities, which is important to establish due to the fact that most regulatory and legislative mechanisms are designed at the city level, and only a few at the county and state levels. Thus, within one region, different TODs might be subject to different requirements regulating the

production of affordable housing, as in fact is the case in Denver (CO), Bay Area (CA), New York (NY), Boston (MA), Portland (OR), Washington (D.C.), Dallas (TX), Philadelphia (PA) and Minneapolis-St. Paul (MN). This illustrates how highly fragmented the regulatory efforts designed to stimulate the production of affordable housing are.

5.1.2 Number of TODs and Individual Projects within TODs

The number of TODs in each region, as well as individual projects/developments within each TOD, vary greatly. As shown in Table 5.2, and as of July 2021, five regions (22%) have only one TOD; six regions (26%) have two TODs; six regions (26%) have three TODs; and the remaining six regions have four to 15 TODs. Furthermore, an overwhelming number of 66 (78%) TODs consist of one project. However, there are also as many as seven separate projects within one TOD (for example, at Orenco Station in the Portland metro region).

It needs to be noted that one project does not necessarily mean one single building. For the purpose of this study, we define a project as a separate, self-contained building complex with a separate name and a unique legal and marketing identity. Different individual projects are usually (but not necessarily) built by different developers in different years, and thus are subject to different affordable housing requirements. Some may have been built by nonprofit developers or community development corporations (CDCs), and others on city-owned land, which greatly affects their propensity to offer both designated and naturally occurring affordable units. In short, some projects within a given TOD may offer low-income units while others don't.

It must also be noted that for the purpose of this study, we strongly adhered to our predefined criteria and counted only those projects located in closest proximity to transit - a light rail/ metro station - thus often departing from local authorities' definitions of TODs. This means that the number of projects quoted for each of the TODs in many cases are lower than those reported by local governments and transit operators.

5.1.3 Designated Affordable Housing

Designated affordable housing units, also referred to as low-income housing, income-restricted housing or workforce housing, result from either regulatory requirements imposed by city/county/state authority or voluntary participation in city/county-run programs and policies. They may also be produced as a result of joint projects conducted by a commercial or nonprofit developer and any number of local government agencies such as, but not limited to, parking authorities, economic development authorities, city/county departments of transportation, housing bureaus, and public universities. In such instances, the projects receive some amount of public funding.

As collected data indicates (Table 5.2 and Table 5.3), 43 out of 85 TODs offer designated affordable units. The overall share of such units amounts to 13% of the total stock. This means that 42 TODs (49%) do not have any designated low-income units. When it comes to regions, six (26%) of them do not have any designated income-restricted units; further, five regions (22%) have less than 10% of their stock designated

Table 5.2 Description of residential projects within TODs by region

Regions		# of TODs	# of counties	# of cities/ municipalities	# of projects	Total # of units	# of designated Affordable Housing units	% of designated Affordable Housing units	# of Naturally Occurring Affordable Housing	% of Naturally Occurring Affordable Housing ¹	Total # of Affordable Housing units	% of Affordable Housing units
1	Atlanta, GA	1	1	1	1	364	0	0%	55	15%	55	15%
2	Austin, TX	2	1	1	2	1091	141	13%	20	2%	161	15%
3	Baltimore, MD	2	2	2	2	368	0	0%	12	3%	12	3%
4	Boston, MA	7	2	2	8	2208	177	8%	0	0%	177	8%
5	Cleveland, OH	1	1	1	1	272	0	0%	0	0%	0	0%
6	Dallas, TX	12	5	8	19	6026	100	2%	1550	26%	1650	27%
7	Denver, CO	2	1	2	2	789	351	44%	31	4%	382	48%
8	Houston, TX	2	1	1	2	672	0	0%	18	3%	18	3%
9	Los Angeles, CA	9	1	2	12	4640	583	13%	14	0.3%	597	13%
10	Miami, FL	2	1	1	2	760	466	61%	0	0%	466	61%
11	Minneapolis St Paul, MN	3	2	2	3	466	108	23%	143	31%	251	54%
12	New Jersey, NJ	8	6	8	10	2722	126	5%	7	0.3%	133	5%
13	New York, NY	2	2	2	3	1168	241	21%	28	2%	269	23%
14	Philadelphia, PA	4	2	2	4	1149	53	5%	84	7%	137	12%
15	Pittsburgh, PA	1	1	1	1	319	0	0%	0	0%	0	0%
16	Portland, OR	3	2	2	13	2984	512	17%	163	5%	675	23%
17	Sacramento, CA	3	1	1	3	231	81	35%	0	0%	81	35%
18	Salt Lake City, UT	3	1	2	5	1221	333	27%	180	15%	513	42%
19	San Diego, CA	3	1	1	3	605	43	7%	19	3%	62	10%
20	San Francisco Bay Area, CA	3	2	2	5	1617	515	32%	20	1%	535	33%
21	Seattle, WA	1	1	1	3	818	251	31%	36	4%	287	35%
22	St. Louis	1	1	1	1	70	0	0%	0	0%	0	0%
23	Washington, DC	10	4	5	12	5054	560	11%	250	5%	810	16%
Total		85	42	51	117	35,614	4,641	13%	2,630	7%	7,271	20%

¹ Numbers of NOAH are approximations only as prices change dynamically and the analysis was performed based on units available for rental in July, 2021

Table 5.3 Key affordability numbers by region

Regions		# of TODs	# of projects	# of TODs with designated AH units	# of projects with designated AH units	# of TODs with NOAH	# of projects with NOAH	# of TODs with NOAH units affordable to various family sizes			# of projects with NOAH units affordable to various family sizes		
								2-person	3-person	4-person	2-person	3-person	4-person
1	Atlanta, GA	1	1	0	0	1	1	1	1	1	1	1	1
2	Austin, TX	2	2	1	1	1	1	1	0	0	1	0	0
3	Baltimore, MD	2	2	0	0	1	1	0	0	1	0	0	1
4	Boston, MA	7	8	6	6	0	0	0	0	0	0	0	0
5	Cleveland, OH	1	1	0	0	0	0	0	0	0	0	0	0
6	Dallas, TX	12	19	1	1	11	14	11	4	9	13	4	10
7	Denver, CO	2	2	1	1	1	1	1	0	1	1	0	1
8	Houston, TX	2	2	0	0	1	1	1	0	0	1	0	0
9	Los Angeles, CA	9	12	7	7	1	1	1	0	0	1	0	0
10	Miami, FL	2	2	1	1	0	0	0	0	0	0	0	0
11	Minneapolis St Paul, MN	3	3	1	1	2	2	2	2	2	2	2	2
12	New Jersey, NJ	8	10	5	5	1	1	0	0	1	0	0	1
13	New York, NY	2	3	1	1	1	1	1	0	0	1	0	0
14	Philadelphia, PA	4	4	1	1	2	2	2	1	1	2	1	1
15	Pittsburgh, PA	1	1	0	0	0	0	0	0	0	0	0	0
16	Portland, OR	3	13	3	4	3	4	3	2	2	4	2	2
17	Sacramento, CA	3	3	1	1	0	0	0	0	0	0	0	0
18	Salt Lake City, UT	3	5	1	2	2	3	2	1	1	3	1	2
19	San Diego, CA	3	3	2	2	1	1	0	1	1	0	1	1
20	San Francisco Bay Area, CA	3	5	3	5	1	1	1	0	0	1	0	0
21	Seattle, WA	1	3	1	3	1	2	1	0	0	2	0	0
22	St. Louis	1	1	0	0	0	0	0	0	0	0	0	0
23	Washington, DC	10	12	7	9	3	5	3	1	1	5	1	1
	Total	85	117	43	51	34	42	31	13	21	38	13	23
				51%	44%	40%	36%	36%	15%	25%	32%	11%	20%

as affordable, four regions (17%) fall between 10% and 20%, and the remaining eight regions have between 20% and 61% of their units assigned as affordable. The two regions with by far the highest share of designated affordable units in their TODs (44% and 66%) are Denver, CO, and Miami, FL (Table 5.2).

5.1.4 Naturally Occurring Affordable Housing

Naturally Occurring Affordable Housing (NOAH) refers to residential rental properties that maintain low rents without federal subsidy, and have not been built in response to city/county/state regulations or policies or as a result of some development agreement that included such a requirement. As noted above, approximately 7% of all housing units within studied TODs can be categorized as NOAH. However, this number has been approximated based on the availability of units at certain rent levels as of July 2021 and cannot be treated as permanent.

As the actual number of NOAH units may vary greatly from time to time depending on a large number of external circumstances, the number and share of individual projects offering them are more relevant and worth noting. As depicted in Table 5.2 and Table 5.3, in July 2021 40% of the TODs and 36% of the individual projects had NOAH units in their stock, and the total number of NOAH units accounted for 7% of the overall stock. This means that 60% of the TODs did not have any NOAH units as of July of 2021. Yet, as was the case with designated affordable units, there is significant variability across regions. Six regions (26%) do not have any NOAH units, 13 regions (57%) have less than 10% of their stock naturally affordable, and in the remaining four regions, between 15% and 31% of the units can be characterized as NOAH. The region with by far the highest number of NOAH units (approximately 1,550 units) is Dallas, TX (Table 5.2).

In general, NOAH units are approximately half as common as designated affordable housing units in TODs. However, there are few regions where NOAH units account for a majority of affordable housing (e.g., in Dallas, TX).

5.1.5 Naturally Occurring Affordability for Different Family Sizes

We have compared the affordability of NOAH units for two-, three-, and four-person families across regions, TODs and individual projects. As shown in Table 5.3, most of the available NOAH units across all TODs and projects are affordable for two-person families, and the smallest share of them is affordable for three-person families. To be more precise, 38 individual projects within 31 TODs in 14 regions offer NOAH to families with two people. At the same time, only 13 projects within 13 TODs in eight regions offer NOAH to families of three people. NOAH affordability for four-person families lies between the two extremes. This means that three-person households find it significantly more difficult to find an affordable unit in TODs than families of two or four persons.

In conclusion, about one-third of the TODs have units that are naturally affordable for families with two people that earn no more than 80% of the area median income (AMI), while one-fourth of the TODs are affordable for families with four people and only 15% of them offer naturally affordable two-bedroom units for families with three people.

5.1.6 Overall Numbers and Shares of Affordable Units

As aggregate numbers show (Table 5.2), combined numbers of designated and naturally occurring affordable units sum up to 20% of the total number of units available within studied TODs and projects. However, this number cannot be attributed equally to all TODs, as significant disparities in the allocation of affordable housing (both designated and naturally occurring) occur across regions, TODs, and individual projects. Across regions, shares of affordable units in studied TODs vary from 0% (e.g., St. Louis, MO, and Cleveland, OH) to as high as 54% (i.e., Minneapolis-St. Paul, MN) and 61% (i.e., Miami, FL).

In most instances, the difference between high and low percentages of affordable units lies with single projects that are designated 100% affordable. As an example, in St. Paul, MN, Hamline Station East & West project offers all of its 108 units as affordable and was developed by a nonprofit developer called Project for Pride in Living, in cooperation with the HOME Investment Partnerships Program and using Low-Income Housing Tax Credit (LIHTC) funding. In Miami, FL, on the other hand, it is a widely known and lauded case of Brownsville Transit Village in which all of the 466 units are designated as affordable. The project was brought to life by a public-private partnership between Carlisle Development Group (affordable housing developer) and Miami-Dade Transit Authority. It was built on an underutilized, city-owned, eight-acre parking lot and financed with LIHTC. As shown in Table 5.4, only 14% of the projects are 100% affordable, while 60% of the projects offer either less than 10% or none of their units as affordable.

Table 5.4 Number of projects by share of affordable units

% of affordable units	# of projects	% of projects
100%	16	14%
21-99%	15	13%
10-20%	28	24%
<10%	21	18%
0%	37	32%
Total	117	-

5.2 MECHANISMS AND INTERVENTIONS

In order to gain a deeper understanding of mechanisms driving production of affordable housing, we have reviewed a large number of municipal, county and state websites, zoning codes, policy guidelines, websites of various transit operators as well as guidelines and reports prepared by them. We have used LIHTC databases as well as other programs' databases that monitor affordable units. We have looked at transit-oriented development and housing affordability status reports prepared by various governing bodies, as well as tax credit allocation memos written by city and state officials. We have examined various types of mechanisms and interventions – both regulatory and voluntary, bottom-up and top-down approaches – that lead to/stimulate/necessitate the production of affordable units. Our findings suggest that:

1. **There is a very large range of interventions (both regulatory and incentive-based) utilized at city and county levels, and very few at state and national levels.**

Most policies and regulations are initiated at the city level, with few operating at the county or state level (see Table 5.5). As a result of missing overarching strategies and guidelines, the efforts to regulate affordable housing production are highly fragmented and depend mostly on the bottom-up, both public and private initiatives. These interventions can be further categorized into regulatory and voluntary, bottom-up and top-down, as well as public and private which we will illustrate later in Table 5.7. In addition, there are only a few single measures designed specifically to promote/incentivize/regulate the production of affordable housing in TODs.

Table 5.5 State/county/city level regulatory and policy measures by region

Regions		State level AH measures ¹	County level AH measures ¹	City level AH measures ¹
1	Atlanta, GA			√
2	Austin, TX			√
3	Baltimore, MD			√
4	Boston, MA			√
5	Cleveland, OH			
6	Dallas, TX			√
7	Denver, CO	√		√
8	Houston, TX			
9	Los Angeles, CA			√
10	Miami, FL			√
11	Minneapolis St Paul, MN			√
12	New Jersey, NJ	√		
13	New York, NY		√	√
14	Philadelphia, PA			√
15	Pittsburgh, PA			√
16	Portland, OR			√
17	Sacramento, CA		√	√
18	Salt Lake City, UT			
19	San Diego, CA			√
20	San Francisco Bay Area, CA			√
21	Seattle, WA			√
22	St. Louis			
23	Washington, DC			√

¹ Both voluntary and regulatory measures: regulations, ordinances, policies, programs, requirements, etc.

2. **Generally, there is a large number of different regulations, policies, and approaches that are highly localized, context-dependent, and fragmented.**

The highly localized and voluntary approach to promoting and supporting the creation of affordable housing leads to a patchy implementation, with some cities and counties offering multiple solutions and policies and others having none. On

the other hand, it seems that regulatory measures being adopted by an increasing number of cities and/or counties might have a very limited impact on the numbers of affordable units in TODs (more on this subject below).

3. **There has been increased public involvement through city- and statewide policy/regulatory measures. Over the past few years, a significant number of cities and states have adopted both voluntary and regulatory measures to ensure sufficient production of affordable units. However, most of them were adopted after a significant share of TODs and developments studied in this project had already been completed.**

Table 5.6 shows that a significant majority of projects examined in this study (marked in green) had been built before local governments adopted ordinances and policies that require new multifamily projects above a certain threshold of the total number of units to set aside a certain share of their units as income-restricted. Only 32 of 117 projects (27%) were subject to any affordable housing requirement put in place by the city/county/state when they were planned and built. Furthermore, even now 23 out of 51 cities (45%) where the projects are located do not have any regulatory requirements regarding the production of income-restricted units.

It is important to reiterate that we have a total of 183 potential TODs in the country (see Chapter 3). As of now, only 85 of them meet our eight criteria (most are either being constructed or at the planning phase). Hence, these voluntary and regulatory measures will be or can be adopted in these *emerging* TODs. A natural extension of this research can be an evaluation of these new TODs that are being constructed.

4. **Regulatory measures seem to have a very limited impact on the number of affordable units offered in TODs and are less effective than bottom-up voluntary and targeted programs, policies and actions.**

As shown in Table 5.6, so far there has been little correlation between regulatory requirements and the actual production of affordable housing. In regions with the highest shares of designated affordable housing – Denver, CO (44%), Miami, FL (61%), Sacramento, CA (35%), and Bay Area, CA (32%) – projects that provide affordable units did not do so in adherence to city/county level regulatory requirements but rather used other bottom-up measures. More specifically:

Brownsville Transit Village in Miami, FL (466 units in total) was a product of a public-private partnership between Carlisle Development Group (an affordable housing developer) and Miami-Dade Transit Authority. It was financed with Low-Income Housing Tax Credit (LIHTC) equity and partially built on an underutilized, eight-acre, city-owned parking lot.

Mariposa Apartments in Denver, CO (351 units in total) were built by the Denver Housing Authority using public funding (HOPE VI).

La Valentina Apartments in Sacramento, CA (81 units in total) were built by a developer specializing in affordable housing (Domus Development), using Low-Income Housing Tax Credit (LIHTC) equity, a loan from the city through the -

Table 5.6 Regulatory measures – year when implemented and impact on shares of income-restricted units

Regions		# of TODs	# of projects	# of cities/ municipal ities	Year each project completed					Year city/county/ state requirements ¹ adopted	# of projects that were subject to city/county/state requirements ¹ when built	# of cities that were subject to city/county/state requirements ¹ in July 2021	% of designated Affordable Housing units
1	Atlanta, GA	1	1	1	2007					2018	0	1	0%
2	Austin, TX	2	2	1	2015	2019				n/a	0	0	13%
3	Baltimore, MD	2	2	2	2004	2020				n/a	0	0	0%
4	Boston, MA	7	8	2	2004	2006	2008	2009	2013	2019	0	1	8%
5	Cleveland, OH	1	1	1	2018					n/a	0	0	0%
6	Dallas, TX	12	19 ²	8	1998	2001	2003	2005	2008	n/a	0	0	2%
					2009	2012	2014	2015	2016				
					2017	2018	2019	2020					
7	Denver, CO	2	2	2	2001	2013				2013	0	1	44%
8	Houston, TX	2	2	1	2016	2018				n/a	0	0	0%
9	Los Angeles, CA	9	12 ³	2	2000	2003	2006	2007	2009	2001, 2020	1	2	13%
					2010	2012	2014	2017	2018				
10	Miami, FL	2	2	1	2011	2019				2018 ⁴	0	0	61%
11	Minneapolis St Paul, MN	3	3 ²	2	2011	2013				2020	0	1	23%
12	New Jersey, NJ	8	10	8	2005	2009	2011	2012	2013	1999	10	8	5%
					2015	2016	2017						
13	New York, NY	2	3 ²	2	2003	2008	2015	2019		2013, 2014	2	2	21%
14	Philadelphia, PA	4	4 ²	2	2013	2014	2018			n/a	0	0	5%
15	Pittsburgh, PA	1	1	1	2019					2019 ⁵	0	1	0%
16	Portland, OR	3	13	2	2004	2008	2009	2014	2015	2017	3	1	17%
					2016	2018	2019						
17	Sacramento, CA	3	3 ²	1	2005	2012	2017			2014	1	1	35%
18	Salt Lake City, UT	3	5	2	2011	2013	2017	2018	2020	n/a	0	0	27%
19	San Diego, CA	3	3	1	1997	2005	2007			2019	0	1	7%
20	San Francisco Bay Area, CA	3	5 ⁶	2	2004	2010	2016	2018	2019	2014, 2016	3	2	32%
					2020								
21	Seattle, WA	1	3	1	2011	2017	2018			2019	0	1	31%
22	St. Louis	1	1	1	2007					n/a	0	0	0%
23	Washington, DC	10	12 ²	5	1992	1997	2005	2008	2010	1974, 2009	12	5	11%
					2013	2016	2018	2019					
		85	117	51							32	28	13%

¹ Top-down regulatory policies, ordinances, programs, requirements established by cities/ counties/ states

² Some projects built the same year

³ Some projects built the same year; Pasadena passed an Inclusionary Housing Ordinance in 2001

⁴ The Inclusionary Zoning (IZ) Ordinance applies only to the Omni Community Redevelopment Agency (CRA) district

⁵ Inclusionary Zoning Program applies only to Lawrenceville section of Pittsburgh

⁶ Different Phases of individual projects completed in different years

HOME Investment Partnerships Program, tax increment financing, and a SMUD (Sacramento Municipal Utility District) grant.

Fruitvale Village (Phase 1, 2 and 3) in Bay Area, CA (285 units in total) was developed by The Unity Council (nonprofit Social Equity Development Corporation, CDC), EBALDC (East Bay Asian Local Development Corporation), and BRIDGE Housing (nonprofit developer) on Bay Area Rapid Transit or BART's (the transit operator in Bay Area) parking lots using Tax Increment Financing and other forms of public funding. The public funds came from the City of Oakland, Alameda County, the State of California, the Oakland Housing Authority, Federal Home Loan Bank of San Francisco, California Municipal Finance Authority, MUFG Union Bank, Citi, and U.S. Bank. The project received \$6,350,000 through the procurement contract with the Alameda County Community Development Agency that utilized Measure A1 Bond funds; the Unity Council and BRIDGE Housing were also awarded \$30M from the AHSC (Affordable Housing and Sustainable Communities) grant program, a competitive grant from the State of California Strategic Growth Council, awarded to projects that help create holistic communities with affordable housing and transportation options near jobs and other vital destinations.

Avalon Walnut Creek in Bay Area, CA (84 units in total) was built using Low-Income Housing Tax Credit (LIHTC) equity and funding from the Contra Costa County Redevelopment Agency;

Mural at MacArthur in Bay Area, CA (90 units in total) was built by BRIDGE Housing (a nonprofit developer); BRIDGE Housing was selected to develop a former surface parking lot at the MacArthur BART station into an affordable apartment building. Right from the beginning, the MacArthur transit village project envisioned creation of 146 units of affordable housing (20% of the total number of units), which was in line with BART's Transit-Oriented Development Policy adopted in June 2016 and later amended in April 2020. This project received \$37 million in California State (Proposition C1) funds.

In addition, each and every one of the inclusionary zoning/housing ordinances/programs offers a "payment in lieu option," which allows developers to pay a fee into an Affordable Housing Fund instead of providing actual on-site units. Based on the data collected, one may conclude that in many cases, developers opt for this alternative. Developers also have a choice of partially fulfilling an affordable housing requirement by providing some affordable units and contributing a fee for the rest of the required units. For instance, at Flats at Wheaton Station located in Wheaton, MD, the developer was required to provide 30 Moderately Priced Dwelling Units (MPDUs) at the Flats and an additional 10 for-sale MPDUs in another project. The developer, however, chose to provide only 15 MPDUs at the Flats and paid \$574,000 instead of providing the 10 for-sale MPDUs and 15 additional rental units. It needs to be noted, however, that this study was not intended nor designed to analyze the efficacy of various measures designed to promote production of income-restricted housing.

5. All of the TOD projects that are 100% affordable (100% of the units are affordable to households earning no more than 80% of AMI) rely on multiple measures and often receive public funding as well as utilize various zoning relief, fee waivers, and tax exemptions.

In principle, fully affordable projects are not a built-in response to city/county/state regulations but rather are a product of private-public cooperation involving a varied number of participants, and usually utilize a wide range of both private and public funding sources. In general, they are complex endeavors requiring a high level of commitment and involvement.

Out of 16 projects that are 100% affordable (Table 5.4), of which four are described in the previous section (Mariposa Apartments in Denver, CO; Brownsville Transit Village in Miami, FL; La Valentina Apartments in Sacramento, CA; Mural at MacArthur in Bay Area, CA):

- Nine were built using Low Income Housing Tax Credit (LIHTC) equity;
- Ten were built by CDCs (community development corporations) and nonprofit developers, and one was built by the Denver Housing Authority;
- At least 12 projects utilized a wide range of public funding sources;
- Four were built on city-owned property;
- Fourteen were built after the year 2010; and
- Three consisted only of NOAH.

6. Over the past few years, there has been a growing number of policies adopted by transit agencies that support and incentivize the production of affordable housing near transit stations.

Massachusetts Bay Transportation Authority (MBTA), LA Metro, and BART, just to name a few, all have adopted policies and guidelines that address the issue of affordable housing near transit stations on property owned by transit operators. Even though most of the policies are vague and do not commit to specific numbers, some indeed set specific targets. BART's Transit-Oriented Development Policy sets a target for all projects built on BART-owned property of 35% of all units to be affordable, with a priority to very low (<50% AMI), low (51-80% AMI) and/or transit-dependent populations (BART, n.d.). New Jersey's Transit Village Initiative, established by NJ Transit and the New Jersey Department of Transportation (NJDOT), requires all new residential buildings constructed within transit villages to set aside at least 20% of the units for low- and moderate-income families. This requirement is waived for municipalities that have met the state's fair share requirements for affordable housing (HUD, 2010).

7. Generally, newer projects have a larger share of affordable units.

When projects built 10-15 years ago are compared to the ones built recently or are currently under construction, generally a relatively higher share of projects offer affordable units, and the share of affordable units within a given development is higher.

Table 5.7 Categories/types of mechanisms used to stimulate the production of income-restricted housing

HOUSING AFFORDABILITY MEASURES					
	Voluntary		Regulatory		
Top-down	1	<u>City level policies:</u>	1	<u>Inclusionary Zoning/ Housing Ordinances (City level)</u>	
Examples		Boston (MA) - Inclusionary Development Policy (2000)		Denver (CO) - Inclusionary Housing Ordinance (2013)	
		Los Angeles (CA) - TOC (Transit Oriented Communities) Affordable Housing Incentive Program (2017)		Oakland (CA) - Affordable Housing Impact Fees Ordinance (2016)	
		Los Angeles (CA) - Density Bonus Ordinance (2006)		Seattle (WA) - Mandatory Housing Affordability Policy (2019)	
		Washington (DC) - Affordable Dwelling Unit (ADU) Program		Walnut Creek (CA) - Inclusionary Housing Ordinance (2014)	
		Austin (TX) - 'Affordability Unlocked' Development Bonus Program (2018)		Sacramento (CA) - Mixed Income Housing Ordinance (2015)	
		Dallas (TX) - Mixed-Income Development Bonus (2019 Ordinance)		Los Angeles (CA) - Inclusionary Housing Ordinance (2020)	
		Fort Worth (TX) - Neighborhood Empowerment Zones (NEZ)		Miami (FL) - Inclusionary Zoning (IZ) Ordinance	
		Philadelphia (PA) - Mixed-income housing bonus (2018)		Yonkers (NY) - Affordable Housing Ordinance (2013)	
				Medford (MA) - Inclusionary Zoning Ordinance (2019)	
				Portland (OR) - Inclusionary Housing Policy (2017)	
				Washington (DC) - Inclusionary Zoning (IZ) Program (2009)	
				Baltimore (MD) - Inclusionary Housing Requirements (2007)	
				Atlanta (GA) - Inclusionary Zoning (IZ) Program (2018)	
				San Diego (CA) - Inclusionary Housing Ordinance (2019)	
				Minneapolis (MN) - Inclusionary Zoning Requirements (2020)	
		2	<u>State laws</u>		
			Colorado - Bill HB21-1117 (2021)		
			California - State Density Bonus Law		
			Virginia - Affordable Dwelling Unit Ordinance (1990; Virginia Law)		
				2	<u>County and state level programs/ regulations:</u>
					New Jersey: Affordable Housing Obligations / Housing Element And Fair Share Plan
					Suffolk County, NY - Code Section 424-45(C); Core Development Zone (CDZ) (2014)
					Montgomery County, MD - Moderately Priced Dwelling Units (MPDUs) Program; Workforce Housing Program
Bottom-up	1	<u>Tax credit policies and programs:</u>	1	<u>Public Housing; HOPE VI funding</u>	
Examples		Seattle (WA) - Multifamily Property Tax Exemption (MFTE) Program (1998)		Denver Housing Authority - Denver, CO (Mariposa Apartments)	
		Tax Increment Financing - Sacramento, CA (La Valentina); Murray, UT (Murray Depot, Metro at Fireclay, Avida Apartments); Dallas, TX (Lancaster Urban Village)		Prosper Portland (Portland Development Commission) - Portland, OR, (Lents Commons Apartments)	
		Low-Income Housing Tax Credit (LIHTC) - Sacramento, CA (La Valentina); Washington, DC (Wheaton Station); Austin, TX (Plaza Saltillo); Dallas, TX (Lancaster	2	<u>Private-public partnerships:</u>	
				Long Island Housing Partnership - New York, NY (Wyandanch Village)	
				The District of Columbia real estate project under the Office of	

	Urban Village); Philadelphia, PA (Paseo Verde South Apartments)		the Deputy Mayor for Planning and Economic Development -
			Washington, DC (Highland Park, Park Place at Petworth Metro)
2	Transit Operators Policies:		
	BART's (Bay Area Rapid Transit) Transit-Oriented Development Policy	3	Public Funding:
	MBTA's (Massachusetts Bay Transportation Authority) Transportation Oriented Development Initiative		HOME funds from the Washington County Office of Community Development - Portland, OR (Orchards at Orenco)
			Grants from OHCS (Oregon Housing and Community Services) - Portland, OR (Orchards at Orenco)
3	Discretionary fees abatement/ waivers:		Grants from The City of Seattle Office of Housing - Seattle, WA (Mercy Othello Plaza)
	Real Estate Tax Abatement - Washington, DC (Highland Park, Park Place at Petworth Metro)		Grants/ funding from Contra Costa County Redevelopment Agency - Bay Area (CA) (Avalon Walnut Creek)
			Redevelopment Agency (CRA) Programs - Los Angeles, CA (1600 Vine)
4	Private non-profit developers and CDCs (Community Development Corporations):		City of San Diego Redevelopment Agency Subsidy - San Diego, CA (The Village at Morena Vista)
	Mercy Housing - Seattle, WA (Mercy Othello Plaza)		
	The Unity Council (Social Equity Development Corporation, CDC)		
	Oakland, CA (Fruitvale Village Phase 1, 2 and 3)		
	EBALDC (East Bay Asian Local Development Corporation) - Oakland, CA (Fruitvale Village Phase 2)		
	BRIDGE Housing (non-profit developer) - Bay Area, CA (Fruitvale Village Phase 3; Mural at MacArthur Station)		
	DEVCO (New Brunswick Development Corporation) - New Jersey, NJ (Gateway Transit Village)		
	Carlisle Development Group (affordable housing developer) - Miami, FL (Brownsville Transit Village)		
	CDC of Long Island, WDCDC (Wyandanch) - New York, NY (Wyandanch Village)		
	REACH Community Development - Portland, OR (Orchards at Orenco)		
	City Wide Community Development Corporation - Dallas, TX (Lancaster Urban Village)		
	Catalyst Urban Development, LLC - Dallas, TX (Lancaster Urban Village)		
	Asociación Puertorriqueños en Marcha (APM) - Philadelphia, PA (Paseo Verde South Apartments)		
5	Preferential land sale/ lease:		
	Buildings located on BART's parking lots - Bay Area (CA)		

		<i>(Fruitvale Village Mural at MacArthur)</i>		
		99-year ground lease from Portland Housing Bureau - Portland,		
		<i>OR (The Vera Riverplace at South Waterfront)</i>		
		Preferential long-term land lease from Capital Metro - Austin, TX		
		<i>(Plaza Saltillo)</i>		
		<i>Buildings located on city (Dallas) owned property - Dallas, TX</i>		
		<i>(Lancaster Urban Village)</i>		

Examples of measures within each category (e.g., top-down measures) are provided in Appendix E.

6.0 CONCLUSIONS

Housing affordability has been one of the most persistent national concerns in the United States, mainly because housing costs are the biggest item in most household budgets. Urban sprawl has been proved by some studies to be a driver of housing affordability. Previous studies, however, were structurally flawed because they considered only costs directly related to housing and ignored the transportation costs associated with a remote location.

In this study, we focus on the affordability of TODs in the U.S., first by compiling a complete 100% inventory of free-standing TODs. Overall, we found 183 potential TODs, while less than half of them (85) meet our eight criteria described in Chapter 3. Among the remaining ones (98), most of them are either under construction or in the planning phase. This clearly shows that the TOD style of development is gaining popularity among decision-makers and developers.

In this phase of the project, we assessed housing costs in these 85 TODs, and in the second phase, we will examine H+T together. To sum, our results show that:

1. There is a significant level of variability across regions, TODs and individual projects in terms of numbers and shares of designated and naturally occurring affordable units.
2. Approximately half of the TODs and individual projects do not offer designated or naturally occurring affordable units. In most cases, if a TOD does not have a pool of designated low-income units, it does offer NOAH units. Only three out of 23 regions offer neither – Cleveland (OH), Pittsburgh (PA), and St. Louis (MO).
3. In general, NOAH units are approximately half as common as designated affordable housing units in TODs; however, there are regions where NOAH units account for the majority of affordable housing (Dallas, TX).
4. One-third of the TODs have units that are naturally affordable to families of two persons who earn less than 80% of the area median income, one-fourth of the TODs have such units for families of four people, and only 15% of them offer the same to families of three people.
5. Only 15% of the projects/developments are 100% affordable, while 60% of the projects offer either less than 10% or none of their units as affordable housing.
6. Both voluntary and regulatory measures adopted at city, county, and state levels have only limited impact on numbers/shares of affordable housing, resulting, on average, in 5-15% of affordable units and rarely exceeding 20%.
7. Top-down regulatory measures seem to have a very limited impact on the number of affordable units offered in TODs and are less effective than bottom-up voluntary and targeted programs, policies and actions.

8. Only 32 out 117 projects (27%) were subject to any affordable housing requirement put in place by the city/county/state when they were planned and built. Furthermore, even now, 23 out of 51 cities (45%) do not have any regulatory requirements regarding the production of income-restricted units.
9. Of all 117 examined projects/developments, only 16 were 100% affordable, meaning that all the units were affordable to households earning up to 80% of AMI. Most of these 16 projects were built by nonprofit developers or community development corporations, utilized public and/or LIHTC funding, and were built after 2010.
10. There are only a few measures designed to specifically promote/incentivize/regulate the production of affordable housing in TODs.

In this project, we focus mostly on analyzing the data and drawing conclusions, and hence, we do not propose any recommendations. In fact, it would be very difficult to recommend any specific housing affordability measures described in the previous chapter since we have not looked at their effectiveness. Assessing the effectiveness of these measures can be a natural follow-up study.

Nevertheless, we have noticed that there are only a few measures in a few regions specifically designed to promote/incentivize/regulate the production of affordable housing in TODs: (1) BART's Transit-Oriented Development Policy (other transit operators' policies are too vague) and (2) (indirectly) Bay Area's Assembly Bill (AB) 2923. Generally, transit operators can play a huge role in enforcing the production of affordable housing because, in many cases, they own the land. So, it seems a natural first step to make sure that all the lands owned by transit operators are developed as joint projects and that all transit operators adopt affordable housing policies which regulate, among other things, the creation of affordable housing by such joint projects. In addition, decision-makers should make sure that all developments and projects located on public property or the usage of public funding are required to provide a certain number/share of affordable housing, like LIHTC, which is the single-most important measure for the creation of affordable housing.

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APPENDIX A

LIST OF POTENTIAL TODS IN RAIL-SERVED REGIONS

The following table shows the complete list of potential TODs in rail-served regions that meet our two rail criteria: (1) Should be adjacent to commuter, heavy, or light rail and (2) should be in a region with more than a single rail transit line. Readers can click on “Link” in the last column to see the location of either the station or TOD on Google Map.

Region	TOD or Station Name	Note and Links (provided either by planners we interviewed or by online search)	Location
Albuquerque	One Central		Link
	Santa Fe Railyard	Originally a rail stop built in the late 1800s, This TOD served as a gathering place for residents and an important community asset. over 6,000 members of the community contributing to a community-based master plan.	Link
	Capital Flat Apartment	It's more than a mixed-use district, rather than a mixed-use and TOD dev.	Link
Atlanta	Lindbergh Center	Located at the juncture of MARTA's Red (North Springs) and Gold (Doraville) lines.	Link
Austin	MLK	388 total units	Link
	Kramer (The Addison Apartments)	This development is about 14 acres with 388 total units with shops and restaurants on the ground level.	Link
	Plaza Satillo TOD districts	Approximately 130 acres TOD district including high-density, mixed-use development (two stories, 45 units per acre), active edges corridor mixed-use development (ranged from 17 to 45 units per acre), live/work uses, low-density residential (9 to 16 units per acre).	Link
	Owings Mills Metro Station	Two five-story buildings house 232 apartments, ground-floor retail and restaurant space. The development creates a new “main street” along Grand Central Avenue next to the Owings Mills Metro Station and the new library and community college building.	Link
Baltimore	Annapolis Junction - Savage MARC Station		Link
	Symphony Center Light Rail Station	Symphony Center is a Class A transit-oriented development with office space, retail space and residential apartments, strategically located in the heart of Baltimore's cultural district on the lightrail stop directly across from Meyerhoff Symphony Hall.	Link
	Odenton MARC Station	Multiphase development within a 1,600-acre site with multiple developers participating in construction. Several significant projects have been completed, including Odenton Gateway in East Odenton, The Village at Odenton Station and Town Center Commons by the MARC Station, Seven Oaks Office Building in North Odenton, and now under construction the Flats 170 at Academy Yard.	Link
	Dorsey MARC Station	The Dorsey site is 20.93 acres and is zoned TOD which includes office, commercial, and residential space. The site is comprised of three parcels: 1) 9.21 acres estimated as developable, Parcel 600 owned by MDOT SHA; 2) 5.42 acres, Parcel 634, Lot F owned by the MDOT MTA; and 3) 6.30 acres, Parcel 634, Lot G owned by the MDOT MTA. https://mdot.maryland.gov/OPCP/Dorsey_MARC_Station_RFEI_Final.pdf	Link
	New Carrollton MARC Station	The New Carrollton TOD site is a 39-acre site served by the WMATA Metrorail (Orange Line), MARC Train (Penn Line) and AMTRAK (Northeast Regional Service) located in Prince George's County. The development rights to the project were awarded by the Washington Metropolitan Area Transit Authority and the State of Maryland to a joint venture of Forest City and Urban Atlantic. The 2.7-square-foot, mixed-use development will contain residential units, a hotel, retail and office space, as well as structured parking. The project is currently in the planning phase.	Link

		https://mdotrealestate.maryland.gov/Pages/PropertyDetails.aspx?MC=13-8011	
	White Flint Metro Station (WMATA)	This was a best practice for public outreach https://planning.maryland.gov/Pages/OurWork/tod/bpoutreach.aspx	Link
	Naylor Road Metro Station (WMATA)		Link
	Aberdeen MARC Station	The Aberdeen TOD Master Plan was created in 2012. A Form Based Code for development was developed and adopted, unique business opportunities were attracted and incorporated.	Link
	Greenbelt		Link
	State Center Metro/Light Rail Station		Link
Bay Area	Pleasant Hill/Contra Costa Centre	Blocks A and B complete; Block C to receive its certificate of occupancy this month; Block D, the office phase, seeking an anchor tenant to commence development.	Link
	Fruitvale Village	Phase I complete; Phase II partially complete, the final phase just received its final tranche of funding and should break ground early 2021. The ground floor of Fruitvale Village is home to locally owned retail spaces. The second floor offers office spaces for important community resources and organizations. Finally, 47 one- and two-bedroom apartments offer housing on the third floor. Of the 47 units, 10 are designated as affordable units for residents earning between 35-80% of the Area Median Income. https://unitycouncil.org/property/fruitvale-village/	Link
	MacArthur	All except Block B – the high rise – are complete. Block B aims e to receive certificate of occupancy this summer. Ground-floor retail yet to be leased.	Link
	Richmond Station	Richmond may count but the second phase (much larger than the first phase) is yet to be built; the first phase is townhomes only.	Link
	Ashmont		Link
Boston	The Boston Garden_North Station	210,000 SF multi-level retail/restaurant space • New entrance to TD Garden and North Station• 175,000 SF of office space• 440 apartment units• 260-room hotel.	Link
	Station Landing	• Over 30 retail stores and restaurants, a 12-story luxury condominium complex, spacious contemporary apartments, a 50,000 SF fitness facility, and office space • Over 1 million SF of retail, commercial, office, and residential space• Development provided MBTA with 700 space commuter parking garage.	Link
	24-26 Hichborn Street		Link
	W. Ave at 530 Western Avenue		Link
	Boston Landing_Lantera		Link
	212-214 Market St		Link
	Avenir MBTA Parcel 1A (by Trinity) (formerly Canal Place)	• 241 residential units, including 17 affordable units • 30,000 +/- SF of retail space.	Link
	The Victor	• 286 apartment units • 17,000 SF of retail space, restaurants and entertainment venues.	Link
	Avalon North Station		Link
	226 Causeway Street		Link
	The Beverly - Parcel 1B (in construction)		Link
	The Glen	The Village of Glenview served as its own master developer of this site, the former Glenview Naval Air Station. While The Glen has transit service, it is not “transit-oriented.” It is very suburban, and is dominated by a golf course. The community consensus at the time the plan was developed, in the 1990s, did not favor dense development.	Link

Chicago	Prairie Crossing	This is primarily a conservation development. It also has good Metra commuter rail access with two new Metra stations. However, like The Glen, Prairie Crossing really lacks the development density to be considered truly transit-oriented. The stations are a minimum 1/4-mile walk from any residences, and are across a railroad track and highway from the development. An adjacent landfill is a barrier to the market for the property immediately adjacent to the station, as is community skepticism about greater development densities.	Link
	Little Italy Station on the Red Line	High-density (200+ units) residential with street-level retail and office space included. Additional development project in planning.	Link
Cleveland	Eco-Village Station (W65th) on the Red Line	New Aspen Place, LIHTC-financed, 50-unit apartment building immediately adjacent to the station. Small retail component as well.	Link
	Van Aken District Station redevelopment on the Blue Line	Large-scale retail and residential project with initial phase completed in 2019. 200+ units of residential and 300,000+ sq ft of retail. Additional phases contemplated.	Link
	Columbus Rd. TOD at the West 25th St Station on Red Line	Under construction - 200+/- units of residential and 200,000 sq ft of retail/office.	Link
	CityLine/Bush	Dev. Name: State Farm Campus: large corporate office tower, ground-floor restaurants. Dev. Name: Axis 110 Apartments. Dev. Name: Anthem Cityline Apartments: Faces the main plaza of the larger mixed-use development.	Link
Dallas	Downtown Plano	Dev. Name: Bel Air K Station and Junction 15 Apartments: Very good building integration with platform. A couple blocks away, Bel Air Downtown is different building with same owner.	Link
	Baylor University Medical Center	Dev. Name: Broadstone Ambrose Apartments: Part of the Deep Ellum district of Dallas.	Link
	Farmers Branch	Dev. Name: Mustang Station Apartments: new downtown retail district being built next door.	Link
	Galatyn Park	Dev. Name: Galatyn Station Apartments	Link
	Las Colinas Urban Center	Dev. Name: Crest at Las Colinas Station: small amount of retail space, next door to office building. Dev. Name: Gable Water Street : very mixed use, couple blocks away from station. Dev. Name: The Carolyn Apartments: small amount of retail space, next door to office building.	Link
	Downtown Carrollton	Dev. Name: Union at Carrollton Square: Part of historic walkable downtown. Dev. Name: Lux on Main Apartments: Part of historic walkable downtown	Link
	SMU/Mockingbird	Dev. Name: Mockingbird Station	Link
	Spring Valley	Dev. Name: Brick Row	Link
	Downtown Garland	Dev. Name: Oaks 5th Street Crossing - City Station: Second phase by same owner is Oaks 5th Street Crossing City Center, two blocks further from station, shares parking with Garland City Hall.	Link
	Cedars	Dev. Name: The Beat Lofts. Dev. Name: South Side Flats by Jefferson Dev. Name: The Belleview: LIHTC Affordable housing	Link
	Cityplace/Uptown	Dev. Name: West Village : Very mixed use, more accessible by trolley than light rail, Dev. Name: The Sawyer Apartments, Dev. Name: Arden Apartments .	Link
	Inwood/Love Field	Dev. Name: Inwood Station Apartments	Link
	Lancaster Urban Village	Dev. Name: Lancaster Urban Village: LIHTC Affordable housing	Link
	White Rock	Dev. Name: Parc at White Rock	Link
	Parker House Apartments	Dev. Name: Parker House Apartments	Link
	Resort at 925 Apartments: Grapevine/Main Street station	Dev. Name: Resort at 925 Apartments: new public plaza, food hall, and hotel being built next door.	Link
	Texas & Pacific	Dev. Name: Texas & Pacific Lofts: historic building renovated and new condo building on lot, Dev. Name: Parker House Apartments.	Link

	Downtown Rowlett	Dev. Name: Village of Rowlett Apartments	Link
	Inwood Station Apartments	The Inwood Station apartments opened in 2018 on Inwood Road at Denton Drive near Dallas Love Field.	Link
	Benedict Park Place, 25th St Station	Denver Housing Authority	Link
Denver	Mariposa, 10th & Osage Station	Denver Housing Authority	Link
	One City Block, 20th St Station	It's not abutting the station. "Private developer, and not really what I would call intentional TOD, as it's a bit far from a train station but still less than a half-mile/10-minute walk."	Link
	Englewood	Maybe it's not a TOD that meets our criteria anymore, it's being re-invested.	Link
	Hardy yards	Under construction - 50 acres. Website: https://www.jonescarter.com/projects/hardy-yards/	Link
Houston	Camden McGowen Station Apartments (McGowen)		Link
	Midtown Main (Ensemble HCC) - Mid Main Lofts		Link
	Lofts at the Ballpark (Eado/ Stadium)	Does not have much commercial, but is several buildings and meets many of the other requirements.	Link
	4450 Harrisburg (Lockwood/Eastwood)	Houses Baker Ripley and other non-profits with a parking structure, but it is unclear when or if residential will occur.	Link
	Linea	Adjacent to Expo/Sepulveda Station	Link
Los Angeles	The Vermont	Across the street from Wilshire/Vermont Station	Link
	Wilshire/Western	Completed in 2009, Metro has built a 195-unit condominium tower with 49,500 square feet of retail space above the current terminus of the Purple Line station.	Link
	Hollywood/Vine	Includes the W Hotel and the housing project at 1600 Vine. Completed in 2009, the Hollywood & Vine Red Line station apartment project is a mixed-use development featuring 375 apartments, and 28,000 square feet of ground-floor retail.	Link
	Hollywood/Western		Link
	Hollywood/Highland		Link
	Wilshire/Vermont	This development is 3.24 acres of Metro-owned property. The apartment complex includes 449 apartments and 35,000 square feet of ground-floor retail surrounding the subway portal. A new middle school (Young Oak Kim Academy) was built on an adjacent 2.4 acre-site and a bus layover facility is planned for the site of the existing UFCW Local 770 building. Across Wilshire is The Vermont, a much less modest, transit-adjacent development by J.H. Snyder with twin towers of 22 and 28 stories containing 464 apartments and 40,000 square feet of retail.	Link
	Westlake/MacArthur Park	Proposed mixed-use development with affordable housing above a Metro subway station. https://urbanize.city/la/tags/westlakemacarthur-park-metro-tod	Link
	Del Mar Station	Property sold to developer by Gold Line Construction Authority	Link
	Sierra Madre Villa	Multiple phases	Link
	One Santa Fe	438 apartments - 88 affordable, 79,000 square feet of ground-floor retail and live/work space.	Link
	Taylor Yard	87 affordable apartments (lot 1), 68 affordable apartments (lot 3)	Link
	Gables Station	Gables Station is a mixed-use project. It's an oasis of residences, public space, and commercial space in a prime location connecting Coral Gables to Downtown Miami through the transit corridors of US1 and the Metrorail. Use this link: https://www.gablesstationmiami.com/#qol	Link
Miami	Coconut Grove	Mixed-use, transit-oriented development with 190,000 square feet of combined office, retail, 180-key hotel and 250 rental apartments, parking garage and \$5 million for station upgrades and improvements. The proposed development will significantly enhance accessibility, visibility, convenience and the station's look. Link	Link

		(https://www.miamidade.gov/global/transportation/transit-oriented-development.page)	
	Douglas Road TOD project	This project is scheduled to break ground the first quarter of 2019. Link (https://www.connect.media/600m-tod-underway-at-miamis-douglas-road-metrorail-station/)	Link
	7th Avenue Transit Village	The Brownsville Transit Village located at 5200 NW 27 Avenue is a 5.8-acre, joint-development project built at the Brownsville Metrorail station. The project features 490 affordable housing units, with five midrise apartment buildings, townhomes and a parking garage, as well as ground-floor commercial space and Metrorail station improvements, such as an additional passenger drop-off lane and attractive landscaping. With Phase V to be built, the project was completed in four phases, each geared toward providing housing for low-income families, the elderly and the entire Brownsville community. Brownsville Transit Village residents are now benefiting from immediate access to rapid transit and amenities such as a community center, a computer lab and an exercise room. In addition, onsite community programs offer literacy training, health and nutrition classes, and first-time homebuyer seminars. The project was initiated by an unsolicited bid from not-for-profit agency. (https://www.miamidade.gov/global/transportation/transit-oriented-development.page)	Link
	Freedom Tower Metromover Station	This is a joint project being completed by the Department of Transportation and Public Works (DTPW) and the developers of the Miami Worldcenter building complex, which will consist of residential, retail, and commercial properties. This TOD will not only enhance the appearance and functionality of the Freedom Tower Metromover station, but it will help to encourage more riders to use transit. link: https://www.miamidade.gov/global/transportation/transit-oriented-development.page	Link
	Northside Metrorail Station	Northside Transit Village is a TOD with four phases. The project includes a total of 438 affordable housing units (219 units of elderly housing and 219 of family housing), 20,000 square feet of ground-floor retail, and 250z dedicated ground-floor Metrorail parking spaces in multilevel parking garage. Construction of 119 affordable housing units is under construction and scheduled to be completed by December 2019.	Link
	Motion at Dadeland	This project is located next the Dadeland North Metrorail Station (8400 S. Dixie Hwy., Miami, FL.) The project was completed in the spring 2019. 294 market-rate rental studio 1/2/3-bedroom apartments, 25 stories with garage. 7,500 square feet of ground-floor retail. Project cost was \$86 million. This project helped to create 210 new jobs.	Link
	Oaks Station Place at the Blue Line LRT 46th St. Station	104 apartments, first-floor retail, surface parking onsite, built 2013, line opened in 2004.	Link
Minneapolis-St	Hamline Station East & West	Built by Project for Pride in Living (PPL). 108 units, all affordable, 13,000 square feet of ground-floor retail, East is family housing, West is workforce for people in their first employed position, Across the street from the Green Line LRT station. Opened in 2015/106, two parts opened separately.	Link
	The Penfield, luxury place in Downtown Saint Paul	Built 2013, charges for parking separately. Good grocery store onsite. 1.5 blocks from 10th St. Station Green Line LRT.	Link
	Harrison -- The Element (near PATH)	This is the only TOD that clearly meet our eight criteria in this region.	Link
New Jersey	Bound Brook -- Meridian Main	The \$30 million Meridia Main Station retirement community project, completed in 2014. By late 2014, the Meridia had filled nearly all 240 units, with rents ranging from \$1,200 to \$1,800 per month. The building is less than a five-minute walk from the Bound Brook train station.	Link
	Cranford -- Cranford Crossing; Riverfront at Cranford Station	Sits a block west of the station. Completed in 2006, Cranford Crossing added 50 luxury rental apartments as well as 22,000 square feet of ground-floor retail in two buildings—one three-story and one four-story—on either side of South Union Avenue. In 2005, New Jersey Future awarded Cranford Township and the developer, Westminster Communities, a Smart Growth	Link

	Award for the project, citing the development's respect for Cranford's historic, walkable downtown.	
Fanwood -- Fanwood Crossing	http://www.njtod.org/fanwood-18-years-tod/	Link
Garfield -- Transit Crossing	Built in 2018, Transit Crossing is a luxury multifamily property consisting of 21 one-bedroom and 54 two-bedroom apartments.. Link: https://www.globest.com/2019/11/01/garfields-transit-crossing-development-changes-hands/?slreturn=20200920161652	Link
Garwood -- Lofts at Garwood	In 2009 the Borough revised and adopted a new Master Plan that calls for TOD zoning near the station—"the new zoning code should include a mixture of residential and commercial uses that would benefit from the proximity to the railroad station." The Master Plan identified a new of properties near the station suitable for redevelopment, including 5.8 acres of industrial lots located between the railroad right-of-way and South Avenue.	Link
Bloomfield -- Avalon at Bloomfield Station	http://www.njtod.org/booming-bloomfield-growing-right-ways/	Link
Metuchen -- Woodmont Metro	http://www.njtod.org/whats-new-in-metuchen/	Link
Montclair -- Montclair Residences at Bay Street Station	http://www.njtod.org/new-montclair-tod-in-the-home-stretch/	Link
Morristown -- Highlands	Morristown is home to nearly 20,000 residents, and the workplace of nearly 13,000 downtown office personnel. The town's densely developed center, with buildings three to six stories on average, provides residents and workers an established retail environment and a lively restaurant .	Link
New Brunswick -- Gateway	Gateway Transit Village rises 23 stories on the block adjacent to the New Brunswick Train Station, bringing renewed life to an underutilized site in the city's core with active sidewalks, new luxury residences, and a focus on diverse activities at the entrance to Rutgers campus. The project serves as a gateway to both downtown New Brunswick and the Rutgers Main Campus. Link: http://devco.org/page/18/gateway-transit-village	Link
Orange -- Linc 52 at Orange Station	http://www.ci.orange.nj.us/Orange_Township_Master_Plan_2018_(FINAL).r.pdf	Link
Rahway -- Park Square; Skyview	Rahway is strategically located on the high-speed Northeast Corridor Line of NJ TRANSIT, which provides frequent "one-seat-ride" access to New York Penn Station, Trenton, and Newark Penn Station. Rahway's transportation advantage has made it attractive to industries and businesses—foremost being the pharmaceutical giant, Merck, which employs 4,500 individuals. Within the half-mile "transit village" area surrounding the station, no less than 15 major projects have been constructed or are in the planning and development phases. Several of the more noteworthy projects are: the 136-luxury apartment River Place development, the Park Square project which includes 159 apartments and townhouses plus retail space, the construction of three major hotels, and the redevelopment of a mixed-use building containing a movie theater and artist live/work spaces.	Link
South Orange -- Third & Valley	South Orange Station in 2001, and, in 2002, Gaslight Commons, a 200-unit rental complex on West Third Street. In 2006, the South Orange Performing Arts Center (SOPAC) opened. The 34,840 square feet performance facility and the station share parking. In 2008 the New Market renovation project on South Orange Avenue adapted a former ShopRite property in order to house a gourmet market and restaurant. Around the corner from the New Market project on Vose Avenue is The Avenue at South Orange, a three-story, mixed-use structure completed in 2010 that houses 79 condominiums and 4,200 square feet of ground-floor retail.	Link
Westfield -- 333 Central Ave	The mixed-use residential project is located less than one-tenth of a mile from the NJ TRANSIT station. Also complete is an inclusionary site at 333 Central Avenue (completed in 2017). The site contains a total of 70 units, with nine allocated for very low-, low-, and moderate-income households.	Link
Wood-Ridge -- Wesmont Station	It's a redevelopment of a 144-acre old industrial site. When completed, Wesmont Station – name to both the project and the new NJ TRANSIT commuter rail station – will encompass residential, commercial, and	Link

		recreational uses as well as provide a new transit connection to New York City. The first residential buildings of the project have been completed and groundbreaking for the station was held in March 2014. Link: http://www.njtod.org/wesmont-station-moves-forward/	
	Hoboken - Bergen County, Meadowlands, Montclair-Boonton...	The redevelopment area includes several structures utilized by New Jersey Transit and the Port Authority of New York and New Jersey.	Link
	Rutherford Bergen County line		Link
	Summit - Gladston Branch line + Morristown line		Link
	Asbury Park - North Jersey Coast line		Link
	Somerville - Raritan Valley line	Somerville landfill transit village expected to be completed in 2023.	Link
New York	Yonkers in the Hudson Valley		Link
	Bronx Metro-North Station Area Study		multiple stations
	Wyandanch Village on Long Island	To date, two mixed-income, affordable and market-rate buildings with 177 residential units have been constructed with a third, 124-unit building currently under construction and three new mixed-income and mixed-use.	Link
	East New York Neighborhood Plan	http://morr.maps.arcgis.com/apps/MapSeries/index.html?appid=e53a9d13cad442829c5db6c7bc1b16d8	Link
	Harrison's Halstead - Avalon Bay	https://www.harrison-ny.gov/home/files/tod-presentation	Link
	Ronkonkoma Hub	https://lirpc.org/economic-development/ronkonkoma-hub-to-create-economic-benefits-housing-options/	Link
	The Poughkeepsie Train Station		Link
	White Plains	http://www.realestateindepth.com/news/white-plains-releases-long-awaited-rfp-for-redevelopment-of-transit-district/	Link
	Tarrytown		Link
	Mount Vernon West		Link
Orlando	Longwood Station	Weston Park offers the first multifamily residential housing directly adjacent to the City of Longwood's SunRail Station. This 208-unit apartment home community encourages residents to adopt a more car-independent lifestyle.	Link
	Maitland		Link
	Poinciana Station	it's at the early stages of planning right now.	Link
	Tupperware Station	it's at the early stages of planning right now.	Link
	Temple University Station, Paseo Verde, 1950 N. 9th St.	Paseo Verde is a model transit-oriented development, located directly adjacent to the SEPTA Regional Rail Temple University Train Station. The station is the fourth busiest stop in the City, providing a five-minute ride to Center City and connections to Philadelphia's regional stations. Paseo Verde consists of 67 one- and two-bedroom apartments with a range of amenities such as off-street parking, fitness center, business center, community room, landscaped terraces, community garden, and ground-floor retail. There are also 53 apartments available for residents earning an annual income below \$68,000 (based on family size).	Link
Philadelphia	2nd Street Station, The National, 121 N. 2nd St.	The National, a new mixed-use residential and retail project in Philadelphia's historic Old City neighborhood. The six-story building features 4,000 square feet of retail space, and 192 residential units equipped with best-in-class amenities, contemporary design elements and high-end finishes. An attached garage with parking for up to 60 cars will also be available for resident use. With The National's premier location, residents will enjoy the dynamic neighborhood that is Old City and take advantage of the property's	Link

	proximity to Philadelphia's public transportation system, major roadways, and Center City employment hubs.	
Race/Vine Street Station, Hanover North Broad, 322-344 N. Broad St.	Hanover North Broad will transform two surface parking lots in Center City, Philadelphia, into a vibrant mixed-use development consisting of two buildings and featuring approximately 340 residential units, 18,000 square feet of retail and parking for 380 cars.	Link
Lombard/South Street Station, Southstar Lofts, 521 S. Broad St.	A new multifamily mixed-use property located on Philadelphia's main transit artery, South Broad Street. Located on the corner of Broad and South Streets, Southstar Lofts will consist of 85 luxury loft-style apartments, along with 10,045 square feet of street-level commercial space. Has underground parking with electric car charging station.	Link
11th Street Station, The Ludlow, 1101 Ludlow St.	The Ludlow will eventually encompass 4.3 acres in Center City, stretching three full blocks from 11th to 12th streets and Market to Chestnut streets. The mixed-use project, packed with a roster of impressive tenants and local firms, introduces residential life to this portion of Market Street for the first time in recent memory. The residential portion of the building contains 322 units — studios, one- and two-bedroom apartments. Tenants at the property — a major draw for visitors and pedestrians — include Iron Hill Brewery & Restaurant, Wawa, City Fitness, Little Baby's Ice Cream, District Taco and Mom's Organic Market. The lower levels of The Ludlow also contain office space for architecture firm Bohlin Cywinski Jackson and Design Center Philadelphia. In terms of transportation, the following transit lines have routes that pass near 923 Ludlow Street: Train (Fox Chase Line, Anayunk/Norristown line, Paoli/Thorndale line, Patco); Subway (BSL, MFL). Parking Details: Other. On-site parking available with electric car charging stations. Please contact leasing office for complete details. Valet Parking: \$200/month, Self Parking Underground Garage: \$350/month.	Link
Ellsworth/Federal Station, Lincoln Square, 1000 S. Broad St.	It is a \$100 million, nine-story, mixed-use development with 322 apartments, 50,000 square feet of amenity space, and a four-story parking garage. Down below, 100,000 square feet of retail will activate the long-dead stretch of Washington Avenue with chains like Target and Pet Smart. The second floor has 50,000 square feet of amenity space, including a fitness center, lounge, and golf simulator room. The following transit lines have routes that pass near Lincoln Square: Train (Airport line, Manayunk/Norristown Line, Paoli/Thorndale Line, Patco, Warminster Line); Subway (BSL).	Link
Ardmore Station, One Ardmore Place, 24 Cricket Avenue	The residences at One Ardmore Place set a new standard for apartment living on the Main Line. This superbly designed mixed-use building — conveniently located on Cricket Avenue — brings new energy and excitement to the neighborhood. Offering 110 high-quality one-, two- and three-bedroom rental apartments; 8,450 square feet of ground-floor retail; and both covered public and private parking. In addition, residents enjoy state-of-the-art amenities, elegantly furnished communal spaces, a landscaped terrace, recreation area, and the ultimate walkable location near many restaurants, shops and transit.	Link
Spring Mill Station, Courts at Spring Mill Station, 1101 E. Hector Street	The Courts at Spring Mill Station will include two buildings totaling 385 high-end apartment homes within the Colonial School District and close to the SEPTA Spring Mill Station and Schuylkill River Trail, with easy access to Center City Philadelphia and the Greater Philadelphia area. The units include a combination of studio, one-bedroom and two-bedroom floorplans with dens and lofts. "We are also pleased to be able to offer residents at The Courts at Spring Mill Station greener lifestyle choices including the option to go totally car-free with SEPTA outside their front door. Easy access to public transportation combined with the many environmentally friendly building practices Home Properties is incorporating, makes a greener lifestyle attainable," said Kerri Haltom, Home Properties' regional vice president for the Philadelphia region. The property has one podium garage and one precast garage over a 7.8-acre lot.	Link
Lansdale Station, Madison Lansdale Station, 325 Madison Avenue	Now opened! New urban destination retail adjacent to Lansdale Train Station! Project will feature 182 luxury apartments and 14,300 square feet of retail. Convenient access to Septa's Lansdale Station and parking garage with over 1,300 commuters per day. Unique opportunity for a restaurant with	Link

		outdoor seating, entertainment, and fitness tenants! Join Lansdale borough's vibrant mix of restaurant and retail.	
	Westmont Station, Haddon Towne Center, 225 Haddon Avenue	Welcome to Haddon Towne Center, an extraordinary mixed-use apartment/retail community where resort-style living blends with a mix of retail shops in a premier location in close proximity to the PATCO Westmont Transit Station. Imagine living in a luxurious one-, two- or three-bedroom apartment with spectacular amenities in a downtown setting. The sophisticated and stunningly crafted contemporary apartment residences will have secure access from a formal elevator-served lobby. Many of the residences will have access to private and secure parking garages from the lower level of the buildings. As a resident, you will be able to enjoy amenities consisting of a resident-only clubhouse with fitness center, gathering room with fireplace, HDTV's, WiFi & coffee bar all overlooking the outdoor pool, fire pit and barbecue area. We encourage you to come experience the elegance and maintenance free lifestyle Haddon Towne Center has to offer.	Link
	Glasshouse	320 market-rate residential units located across the street from Station Square Station and adjacent to Great Allegheny Passage bike trail. 335 parking spaces. Website: https://www.glasshouseapts.com/	Link
Pittsburgh	The Flats at Summit Station & Summit Station Townhomes	180 units of rental multifamily housing, 80 single-family detached units , and 127 single-family attached units. 60,000 square free of commercial space, including office. Also a three-story assisted living facility (90,000 square feet total) on site. Short walk to the Library T Station and adjacent to Montour Trail Trailhead, a 63-mile-long, multiuse rail trail. Website: https://www.flatsatsummitstation-trprop.com/custompage.aspx?sectionid=16397586	Link
	Eastside Bond - East Liberty Station	Adjacent to East Liberty Bus Station	Link
	Orenco		Link
Portland	Lents town center		Link
	Gresham Civic	To be opened in 2021	Link
	Rockwood Rising	To be opened in 2021	Link
	South Waterfront	Aa high-rise district under construction on former brownfield industrial land in the neighborhood south of downtown Portland, OR. It is one of the largest urban redevelopment projects in the United States.	Link
	La Valentina (429 12th St) - no built-in public space	18 townhomes, 63 apartments, 6,000 square feet of ground-floor commercial space.	Link
Sacramento	Globe Mills (1131 C St) - one block from LRT	Mixed use with 143 units and 96,000 square feet of retail space.	Link
	The Ridgeway (912-914 12th Street) - no built-in public space	22 units, retail	Link
	The Hardin (700 block of K St) with roof top space (historic façade, building torn down and rebuilt)	Mixed-use project, 72,000 square feet of retail space, 137 mixed-income apartments ranging from affordable studios to penthouses.	Link
	Ice Blocks (1812 17th Street) - 75% built out	145 residential units, 64,000 square feet retail, 55,000 square feet office.	Link
	F65 (University/65th St Station) - no built-in public space	Eight lofts, 32.5,000 square feet retail, adjacent to Upper Eastside Lofts 435-bed student apartment complex.	Link
	Gio (3675 T Street) - with rooftop space, 75% built out	216 units, 6,000 square feet retail; adjacent townhomes still to be built.	Link
S	The Gateway		Link

	City Creek Center		Link
	Fireclay village	One of the largest developments ever to be built in Murray City has broken ground. The 26-acre, \$80 million transit-oriented development is a joint venture between Strategic Capital Group and Miller Development Co. Located at 4400 South and 100 West, the mixed-use Fireclay Village will include 400 apartments, 268 income-restricted units and retail, restaurant and office space. The project will be built in three phases over the next five years and will ultimately bring 1 million square feet of apartments and 94,000 square feet of retail and office space to Murray City.	Link
	Sandy East Village	Built with the Sandy Civic Center TRAX station as its hub, the project will incorporate urban living with elements of walkability and public transit that includes commercial and retail components spread over 32 acres.	Link
	Fairbourne	Fairbourne Station is a \$500 million 40-acre transit-oriented commercial development that was planned specifically in conjunction with the construction of the West Valley Intermodal Hub. Website: https://www.fairbournestation.com/master-plan	Link
	Novi	Novi (Jordan Valley Station) is a 40-acre master planned transit-oriented development located less than 20 minutes from downtown Salt Lake in the City of West Jordan, UT. Located on the mid Jordan TRAX light rail stop. The development is entitled for 1,396 residential units and ancillary retail, restaurant, medical and professional office uses.	Link
San Diego	Grossmont Transit Center	A joint venture between TruAmerica Multifamily and Intercontinental Real Estate Corp. has acquired the leasehold interest in Alterra & Pravada at Grossmont Station, a 527-unit transit-oriented development in La Mesa, CA, from Fairfield Grossmont Trolley LLC in partnership with the Metropolitan Transit Authority. https://www.multihousingnews.com/post/jv-acquires-massive-san-diego-area-tod/	Link
	Rio Vista Station		Link
	Hazard Center Station	Initial development in 1989, trolley stop in 1997	Link
	City College Station		Link
	Morena/Linda Vista Station		Link
Seattle	Othello Park Station	Mercy Othello Plaza and Othello North at Othello Link Station in Seattle's Rainier Valley. There is no transit park and ride parking here.	Link
	Thornton Place project in the Northgate neighborhood	It is located directly east of King County Metro's Northgate Transit Center, which is currently served by Metro and S.T. buses, and is one block away from the Northgate Link Light Rail Station, which is currently under construction and set to open for service in 2021. The project includes a mix of residential units, medical offices, retail and restaurant uses surrounding a small plaza and a cinema; all located above an underground parking facility that includes a limited supply of exclusive residential parking, and a shared supply of parking that is open to transit riders, residents, retail/restaurant patrons and visitors.	Link
	Redmond TOD	Bus-only now	Link
St. Louis	Cortex, 4319 Duncan Ave, St. Louis, MO 63108, near Cortex Station	Cortex itself is a large redevelopment district (~300 acres), the address provided is the first residential building planned for the area.	Link
	The Expo at Forest Park, 5721 De Giverville Ave, St. Louis, MO 63112	To be constructed on an existing park-and-ride lot	Link
	Ballpark Village, 501 Clark Ave, St. Louis, MO 63101	Entertainment district near Busch Stadium; apartments are high end luxury units only.	Link
	Emerson Park, 1001 N 15th St, East St. Louis, IL 62205	100% affordable housing; small multistory apartment complex with smaller multifamily homes behind it; LIHTC and/or public housing	Link

	Metro Landing of Swansea, 228 Metro Way, Swansea, IL, 62226	Affordable housing development for seniors	Link
	Centene Campus, 155 Carondelet Plaza, Clayton, MO 63105	Centene Corporation redevelopment campus, which includes Centene H.Q., housing, dining, shopping, etc.; existing housing on site included The Crescent (condos), and other housing directly adjacent to the site.	Link
Washington DC	New Carlton Station	Amtrak	Link
	NoMa neighborhood (redline) - near ATF HQ	infill development	Link
	Meridian at Ballston Commons, (Ballston-MU)		Link
	Monroe Street Market, (Brookland-CUA)		Link
	Highland Park, (Columbia Heights)	Highland Park development, a 144-unit apartment building + existing 229-unit features a mix of unit types and has a 20% affordable component. Highland Park development also sports about 18,000 square feet of ground-floor retail.	Link
	Park Place at Petworth, (Georgia Ave-Petworth)	Park Place is a 200,000-square-foot, mixed-use project that is strategically built above the Georgia Avenue-Petworth Metro Station in Washington D.C. The project is comprised of 17,000 square feet of ground-floor commercial space and five levels of residential above, with 20% of those units being affordable. There are 187 below-grade parking spaces and 161 total units. The project was designed by Torti Gallas, the developer was Donatelli & Klein, Inc. and the cost was an estimated \$60 million.	Link
	McCollough Paradise Garden, (Mount Vernon Square)		Link
	The Witmer, (Pentagon City)		Link
	Lenox Park, (Silver Spring)		Link
	Virginia Square / Latitude Apartments, (Virginia Square-GMU)		Link
	MetroPointe / The Exchange, (Wheaton)	MetroPointe, is a 173-unit residential building (53 affordable units) with 3,200 square feet of retail.	Link
	Reston Station, (Wiehle–Reston East)	Reston Station is more than 546 feet from the station entrance.	Link

APPENDIX B

LIST OF TODS THAT MEET THE EIGHT CRITERIA

The following table shows the complete list of TODs that meet these eight criteria (or at least the first seven):

1. Adjacent or nearly adjacent (maximum one block away) to rail stations
2. Dense and multistory
3. Mixed-use with residential and commercial (potentially including office uses)
4. Pedestrian-friendly with public space
5. Built after rail opened
6. Largely built out
7. Have their own parking facilities (i.e., self-contained parking)
8. Master-planned (not a single building)

Region	TOD or Station Name	Location of Either Station or TOD	Region	TOD or Station Name	Location of Either Station or TOD
Atlanta	Lindbergh Center	Link	Minneapolis -St Paul	Oaks Station Place at the Blue Line LRT 46th St. Station	Link
Austin	Kramer	Link		Hamline Station East & West	Link
	Plaza Satillo TOD districts	Link		The Penfield, luxury place in Downtown Saint Paul	Link
Baltimore	Owings Mills Metro Station	Link	New Jersey	Harrison -- The Element (near PATH)	Link
	Symphony Center Light Rail Station	Link		Cranford -- Cranford Crossing; Riverfront at Cranford Station	Link
Bay Area	Fruitvale	Link		Bloomfield -- Avalon at Bloomfield Station	Link
	Pleasant Hill/Contra Costa Centre	Link		Metuchen -- Woodmont Metro	Link
	MacArthur	Link		Morristown -- Highlands	Link
Boston	Ashmont	Link		New Brunswick -- Gateway	Link
	North Station	Link		Rahway -- Park Square; Skyview	Link
	Station Landing	Link	New York	Wyandanch Rising	Link
	Boston Landing_Lantera	Link		Yonkers in the Hudson Valley	Link
	The Victor	Link	Philadelphia	Temple University Station, Paseo Verde, 1950 N. 9th St.	Link
	Avalon North Station	Link		11th Street Station, The Ludlow, 1101 Ludlow St.	Link
	226 Causeway Street-226 Causeway Street	Link		Ellsworth/Federal Station, Lincoln Square, 1000 S. Broad St.	Link
Cleveland	Little Italy Station on the Red Line	Link		Spring Mill Station, Courts at Spring Mill Station, 1101 E. Hector Street	Link
Dallas	CityLine/Bush	Link		Westmont Station, Haddon Towne Center, 225 Haddon Avenue	Link
	Downtown Plano	Link	Pittsburgh	Glasshouse	Link
	Galatyn Park	Link	Portland	Orenco	Link
	Las Colinas Urban Center	Link		Lents town center	Link
	Downtown Carrollton	Link	Sacramento	South Waterfront (Ardea Apt)	Link
	SMU/Mockingbird	Link		La Valentina (429 12th St) - no built-in public space	Link

	Spring Valley	Link		Ice Blocks (1812 17th Street) - 75% built out	Link
	Downtown Garland	Link		F65 (University/65th St Station) - no built-in public space	Link
	Cityplace/Uptown	Link	Salt Lake	City Creek Center	Link
	Lancaster Urban Village	Link		The Gateway	Link
	Parker House Apartments	Link		Fireclay village	Link
	Resort at 925 Apartments: Grapevine/Main Street station	Link	San Diego	Hazard Center Station	Link
Denver	Mariposa, 10th & Osage Station	Link		City College Station	Link
	Englewood	Link		Morena/Linda Vista Station	Link
Houston	Camden McGowen Station Apartments (McGowen)	Link	Seattle	Othello Park Station	Link
	Midtown Main (Ensemble HCC) - Mid Main Lofts	Link	St. Louis	Centene Campus, 155 Carondelet Plaza, Clayton, MO 63105	Link
Los Angeles	Linea	Link	Washington DC	NoMa neighborhood (redline) - near ATF HQ	Link
	The Vermont	Link		Meridian at Ballston Commons, Metro Station = Ballston-MU	Link
	Wilshire/Western;	Link		Monroe Street Market, Metro Station = Brookland-CUA	Link
	Hollywood/Vine	Link		Highland Park, Metro Station = Columbia Heights	Link
	Hollywood/Western	Link		Park Place at Petworth, Metro Station = Georgia Ave-Petworth	Link
	Hollywood/Highland	Link		The Witmer, Metro Station = Pentagon City	Link
	Wilshire/Vermont	Link		Lenox Park, Metro Station = Silver Spring	Link
	Westlake/MacArthur Park	Link		Virginia Square / Latitude Apartments, Metro Station = Virginia Square-GMU	Link
	Del Mar Station	Link		MetroPointe / The Exchange, Metro Station = Wheaton	Link
Miami	The Brownsville Transit Village/ 7th Avenue Transit Village	Link		Reston Station, Metro Station = Wiehle-Reston East	Link
	Motion at Dadeland	Link			

APPENDIX C

MINIMUM PRICE OF APARTMENTS WITHIN TODS

The following table shows the minimum price of apartments within 85 TODs. The number in the first column represents the TOD's number (i.e., 1 – 85), while the second column shows the number of residential buildings (i.e., 1 – 117).

TODs: region, name, buildings (if different developers)	Transit Station	City/Region/State	# of units (total)	Year built	Developer	Market priced apartments (lowest available price) - pricing by type as of July, 2021				
						Studio	1-bedroom	2-bedroom	3-bedroom	
Colorado (Denver, Englewood)			789							
1 Mariposa at Osage Station										
1	Mariposa Apartments (Phase 1, 2, 3 and 4)	Osage Station	Denver, CO	351	2013	Denver Housing Authority	n/a	n/a	n/a	n/a
2 Englewood Station										
2	Art Walk at City Center	Englewood Station	Englewood, CO	438	2001	Oak Coast Properties (current owner)	n/a	\$1,541	\$1,905	\$2,806
Washington (Seattle)			818							
3 Othello Station										
3	The Station at Othello Park	Othello Station	Seattle, WA	351	2011	Woodbridge NW Communities	\$1,356	\$1,790	\$2,465	n/a
4	Assembly118 Apartments	Othello Station	Seattle, WA	359	2018	Woodbridge NW Communities	n/a	\$1,679	\$2,880	n/a
5	Mercy Othello Plaza	Othello Station	Seattle, WA	108	2017	Mercy Housing (nonprofit developer)	n/a	n/a	n/a	n/a
California (Bay Area)			1617							
4 Fruitvale Village										
6	Fruitvale Village (Phase 1, Phase 2 and Phase 3)	Fruitvale Station (BART)	Oakland, CA	322	2004, 2019, present	The Unity Council, EBALDC (East Bay Asian Local Development Corporation), BRIDGE Housing (non-profit)	n/a	n/a	n/a	n/a
5 Pleasant Hill/ Contra Costa										
7	Avalon Walnut Creek	Contra Costa Center (BART) Station	Walnut Creek, CA	418	2010	PHVP I LP	\$2,194	\$2,400	\$3,242	\$3,964
6 MacArthur Station										
8	The Skylyne at Temescal	MacArthur Station (BART)	Oakland, CA	402	2020	Boston Properties	\$2,462	\$2,517	\$3,452	\$4,778
9	MacArthur Commons	MacArthur Station (BART)	Oakland, CA	385	2018	Hines	\$2,050	\$2,200	\$3,010	n/a

10	Mural at MacArthur	MacArthur Station (BART)	Oakland, CA	90	2016	BRIDGE Housing (non-profit)	n/a	n/a	n/a	n/a
California (Sacramento)				231						
71	La Valentina									
11	La Valentina Apartments and La Valentina North	La Valentina Station	Sacramento, CA	81	2012	Domus Development (developer of affordable housing)	n/a	n/a	n/a	n/a
81	Ice Blocks									
12	Ice House Midtown Apartments	16th Street Station	Sacramento, CA	142	2017	Heller Pacific	\$1,550	\$1,750	\$2,500	n/a
91	University/65th Street Station									
13	F/65 Lofts	University/65th Street Station	Sacramento, CA	8	2005	Fulcrum Property	no availability			
California (Los Angeles area)				4640						
10	Expo/Sepulveda Station									
14	Linea Apartments	Expo/Sepulveda Station	Los Angeles, CA	595	2017	Carmel Partners	\$2,461	\$3,016	\$4,153	\$15,161
11	Wilshire Vermont									
15	Wilshire Vermont Luxury Apartments	Wilshire/Vermont Station	Los Angeles, CA	449	2007	Klein Financial Corporation (specializing in tax-exempt bond multifamily development)	\$1,707	\$2,108	\$2,816	n/a
12	The Vermont									
16	The Vermont Apartments	Wilshire/Vermont Station	Los Angeles, CA	464	2014	Snyder Co.	n/a	\$2,230	\$3,409	n/a
13	Wilshire/ Western									
17	Solair Wilshire Apartments	Wilshire/Western Station	Los Angeles, CA	175	2009	KOAR Development Group	n/a	\$2,032	\$2,420	\$3,220
14	Hollywood/ Vine									
18	1600 Vine	Hollywood / Vine	Los Angeles, CA	375	2010	Klein Financial Corporation (specializing in tax-exempt bond multifamily development)	\$2,574	\$2,816	\$3,758	n/a
19	Eastown Apartments	Hollywood / Vine	Los Angeles, CA	1042	2014, 2017	DLJ Real Estate Capital Partners	\$1,915	\$2,525	\$3,185	n/a
20	El Centro Apartments & Bungalows	Hollywood / Vine	Los Angeles, CA	507	2018	Clarett West Development	\$2,350	\$2,550	\$3,735	n/a

1 5	2 1	Argyle House	Hollywood / Vine	Los Angeles, CA	114	2018	Related Cos.	n/a	\$3,995	n/a	n/a
	Hollywood/ Western										
1 6	2 2	Hollywood/ Western (Phase 1 and Phase 2)	Hollywood / Western	Los Angeles, CA	130	2000, 2003	McCormack Baron	n/a	n/a	n/a	n/a
	MacArthur Park										
1 7	2 3	MacArthur Park	Westlake/ MacArthur Park	Los Angeles, CA	172	2012	McCormack Baron	n/a	n/a	n/a	n/a
	Hollywood/ Highland										
1 8	2 4	1724 Highland Apartments	Hollywood / Highland	Los Angeles, CA	270	2010	Redwood Partners Inc. (current owner)	n/a	\$2,320	\$2,675	n/a
	Del Mar Station										
	2 5	Avalon/ Del Mar Station Apartments	Del Mar Station	Pasadena, CA	347	2006	AvalonBay Communities, Inc.	\$2,094	\$2,266	\$3,138	n/a
New Jersey					2722						
1 9	Metuchen Station										
	2 6	Woodmont Metro Apartments	Metuchen Station	Metuchen, NJ	273	2016	Woodmont Properties	n/a	\$2,360	\$3,215	n/a
2 0	Harrison Station										
	2 7	Harrison Station 300	Harrison Station	Harrison, NJ	275	2011	Ironstate Development	\$1,595	\$1,930	\$2,635	n/a
	2 8	330 Harrison Station	Harrison Station	Harrison, NJ	329	2015	Ironstate Development	\$1,635	\$2,035	\$2,910	n/a
	2 9	Harrison Urby Apartments	Harrison Station	Harrison, NJ	679	2017	Ironstate Development	\$1,921	\$2,012	\$3,170	n/a
2 1	Cranford Station										
	3 0	Riverfront at Cranford Station	Cranford Station	Cranford, NJ	106	2013	Garden Homes	n/a	\$2,700	\$3,210	n/a
2 2	Bloomfield Station										
	3 1	Avalon Bloomfield Station	Bloomfield Station	Bloomfield, NJ	224	2015	AvalonBay Communities Inc	\$1,770	\$2,020	\$2,631	n/a
2 3	Morristown Station										
	3 2	Sofi/ The Highlands at Morristown Station	Morristow n Station	Morristown, NJ	214	2009	Woodmont Properties	n/a	\$2,062	\$3,011	n/a
2 4	Gateway Transit Village										
	3 3	Gateway Transit Village/ The Vue Apartments	New Brunswick Station	New Brunswick, NJ	192	2012	New Brunswick Development Corporation (DEVCO) and Pennrose Properties; in	n/a	\$1,824	\$2,237	n/a

						cooperation with the New Brunswick Parking Authority, Rutgers University, AJD Construction and the New Jersey Economic Development Authority				
2	Rahway Station									
5										
3	Skyview Luxury	Rahway Station	Rahway, NJ	207	2005	Silcon Inc./ The Kislak Company, Inc.	n/a	\$1,650	\$1,875	n/a
4										
2	Westmont Station									
6										
3	Haddon Towne Center	Westmont Station	Haddon Township, NJ	223	2017	Fieldstone Associates	n/a	\$1,800	\$1,950	\$2,825
5										
Florida (Miami)				760						
2	Brownsville Transit Village									
7										
3	Brownsville Transit Village (Phases 1,2,3,4, and 5)	Brownsville Metrorail station	Miami, FL	466	2011	Public-private partnership between Carlisle Development Group (affordable housing developer) and Miami-Dade Transit	n/a	n/a	n/a	n/a
6										
2	Dadeland Station									
8										
3	Motion at Dadeland	Dadeland North Metrorail Station	Miami, FL	294	2019	Adler Development; a joint venture with Miami-Dade County Department of Transportation and Public Works	\$1,802	\$2,356	\$3,207	n/a
7										
New York				1168						
2	Wyandanch Village									
9										
3	Wyandanch Village (4 buildings)	Wyandanch LIRR station	Babylon, NY	395	2015	The Albanese Organization, Long Island Housing Partnership, CDC-Long Island, the Wyandanch CDC	n/a	\$2,100	\$2,700	n/a
8										
3	Yonkers Station									
0										
3	Hudson Park North&South	Yonkers Station	Yonkers, NY	560	2003, 2008	Collins Enterprises	n/a	\$1,759	\$2,315	n/a
9										
4	River Club at Hudson Park	Yonkers Station	Yonkers, NY	213	2019	Strategic Capital	\$2,187	\$2,548	\$3,062	n/a
0										
Massachusetts, Boston				2208						
3	Ashmont Station									
1										
4	The Carruth	Ashmont Station	Boston, MA	116	2008	Trinity Financial	n/a			
1										

3 2	The Victor at North Station										
4 2	The Victor by Windsor	North Station	Boston, MA	286	2013	Simpson Housing	\$2,905	\$3,230	\$4,485	n/a	
3 3	Avalon North Station										
4 3	Avalon North Station	North Station	Boston, MA	503	2016	AvalonBay Communities Inc.	\$2,770	\$3,685	\$4,315	\$8,760	
3 4	The Causeway										
4 4	Causeway at 226 Causeway Street (234 Strada)	North Station	Boston, MA	108	1906, 2004	Intercontinental Developer	\$2,475	\$2,966	\$3,799	n/a	
3 5	Garden at North Station										
4 5	Boston Garden Development/ Hub50House	North Station	Boston, MA	440	2019	Joint venture between Boston Properties, Inc. and Delaware North Companies, Inc.	n/a	\$3,390	\$4,780	\$9,320	
3 6	Boston Lading										
4 6	Lanterra	Boston Lading	Boston, MA	295	2018	NB Development Group	\$2,480	\$3,151	\$3,248	\$5,243	
3 7	Wellington Station										
4 7	75SL at Station Landing	Wellington Station	Medford, MA	168	2009	National Development	\$2,698	\$2,606	\$3,613	n/a	
4 8	Station Landing Apartments	Wellington Station	Medford, MA	292	2006	National Development	\$2,300	\$2,338	\$3,045	\$4,056	
Oregon, Portland				2984							
3 8	Orenco Station										
4 9	Orchards at Orenco (3 buildings)	Orenco Station	Hillsboro, OR	167	2015	REACH Community Development	n/a	n/a	n/a	n/a	
5 0	Rowlock	Orenco Station	Hillsboro, OR	255	2015	Holland Development Partners	\$1,618	\$1,602	n/a	n/a	
5 1	Nexus	Orenco Station	Hillsboro, OR	422	2008	Simpson Housing, LP	n/a	\$1,754	\$2,195	\$2,545	
5 2	Tessera	Orenco Station	Hillsboro, OR	304	2014	Security Properties	n/a	\$1,725	\$2,165	\$2,805	
5 3	Hub9	Orenco Station	Hillsboro, OR	124	2015	Holland Development Partners	\$1,593	\$1,575	n/a	n/a	
5 4	Vector	Orenco Station	Hillsboro, OR	230	2016	Holland Development Partners	\$1,567	\$1,641	\$2,379	n/a	
5 5	Orenco Gardens Apartments	Orenco Station	Hillsboro, OR	264	2004	Managed by GB&A	n/a	\$1,420	\$1,505	\$2,015	
3 9	Lents Town Center										
5 6	Lents Commons Apartments	Lents Town Center	Portland, OR	54	2018	Prosper Portland (CDC)	\$920	\$1,190	\$1,325	\$1,595	

40	57	Oliver Station	Lents Town Center	Portland, OR	145	2018	Prosper Portland (CDC)	n/a			
	South Waterfront										
		South Waterfront (The Vera Riverplace)	SW River Pkwy & Moody	Portland, OR	203	2019	BRIDGE Housing	n/a	n/a	n/a	n/a
	58	The Ardea Apartments	SW Moody & Gains	Portland, OR	323	2009	Gerding Edlen Development	\$1,258	\$1,500	\$2,002	n/a
	59	Griffis South Waterfront	SW Moody & Gains	Portland, OR	294	2009	Griffis Residential	\$1,322	\$1,584	\$2,753	n/a
	60	Ella Apartments	SW Moody & Gains	Portland, OR	199	2016	Alamo Manhattan	n/a	\$1,626	\$2,544	n/a
Washington, DC					5054						
41	Columbia Heights										
	61	Highland Park (2 buildings)	Columbia Heights Metro	Washington, DC	373	2008	Donatelli Development	\$1,570	\$1,900	\$2,840	n/a
42	Petworth Station										
	62	Park Place at Petworth Metro	Georgia Avenue-Petworth Metro Station	Washington, DC	161	2010	Donatelli Development	n/a	\$1,908	\$2,795	n/a
43	Flats 130 at Constitution Square										
	63	Flats 130 at Constitution Square	NoMa - Gallaudet U Metro Station	Washington, DC	643	2013	Stonebridge	\$1,881	\$2,304	\$3,159	n/a
44	Monroe Street Market										
	64	Monroe Street Market (625 Monroe Street; Phase 1)	Brookland-Cua Metrorail Station	Washington, DC	562	2013	Abdo Development, The Bozzuto Group	\$1,686	\$1,983	\$2,502	\$4,672
45	Reston Station										
	65	BLVD at Reston Station	Wiehle-Reston East Metro Station	Reston, VA	448	2016	Comstock	\$1,750	\$1,810	\$2,575	n/a

6 6	Aperture	Wiehle-Reston East Metro Station	Reston, VA	421	2018	Joint partnership by Reston-based developer Chuck Veatch and Bozzuto Group	n/a	\$1,991	\$2,549	n/a	
4 6	Ballston Commons										
6 7	Meridian at Ballston Commons	Ballston-MU Metro Station	Arlington, VA	433	1997	Paradigm	\$1,975	\$2,085	\$2,885	n/a	
4 7	Pentagon City										
6 8	The Witmer Pentagon City	Pentagon City Metro Station	Arlington, VA	440	2019	The Bozzuto Group	n/a	\$2,258	\$3,612	\$5,702	
4 8	Virginia Square										
6 9	Latitude Apartments	Virginia Square GMU Metrorail Station	Arlington, VA	265	2016	The Penrose Group	\$2,155	\$2,375	\$3,316	n/a	
4 9	Wheaton Station			0.2							
7 0	MetroPointe	Wheaton Subway Station	Wheaton, MD	173	2008	The Bozzuto Group, the Housing Opportunities Commission (HOC) of Montgomery County	n/a	\$1,592	\$2,080	n/a	
7 1	The Exchange at Wheaton Station	Wheaton Subway Station	Wheaton, MD	486	2013		Foulger-Pratt	\$1,455	\$1,580	\$2,147	n/a
7 2	The Flats at Wheaton Station	Wheaton Subway Station	Wheaton, MD	243	2005		The Bozzuto Group	n/a	\$1,520	n/a	n/a
5 0	Silver Spring Station										
7 3	Lenox Park Apartments	Silver Spring Train Station	Silver Spring, MD	406	1992	Bernstein Management Corporation	n/a	\$1,310	\$1,810	\$3,300	
Texas, Austin				1091							
5 1	Plaza Saltillo										
7 4	Plaza Satillo Development (4 buildings); Residences at Satillo	Plaza Saltillo Station	Austin, TX	703	2019	Endeavor Real Estate Group	n/a	n/a	n/a	n/a	
5 2	Kramer Station										
7 5	The Addison / The Domain Apartments	Kramer Station	Austin, TX	388	2015	Simpson Housing	n/a	\$1,545	\$2,285	\$2,760	

Texas, Dallas			6026								
5 3	CityLine/ Bush Station										
7 6	Alexan Crossings & Axis 110	CityLine/ Bush Station	Richardson, TX	705	2017, 2018	TrammellCrowResidential	\$1,329	\$1,339	\$1,795	\$2,460	
7 7	Anthem Cityline	CityLine/ Bush Station	Richardson, TX	233	2015	JLB Partners	n/a	\$1,257	\$1,743	\$2,558	
5 4	Galatyn Park Station										
7 8	Galatyn Station Apartments	Galatyn Station	Richardson, TX	284	2008	Managed by ZRS Management	n/a	\$1,066	\$1,591	\$1,870	
7 9	Cue Galatyn Station Apartments	Galatyn Station	Richardson, TX	373	2020	Davis Development	n/a	\$1,293	\$2,002	n/a	
5 5	Downtown Plano Station										
8 0	BelAir K Station Apartments	Downtown Plano Station	Plano, TX	245	2003	American Communities	\$895	\$1,085	\$1,295	n/a	
8 1	Junction 15 Apartments	Downtown Plano Station	Plano, TX	279	2014	Lincoln Property Company	\$1,055	\$1,225	\$1,750	\$3,150	
5 6	Las Colinas			0.5							
8 2	The Carolyn	Las Colinas Urban Center Station	Irving, TX	319	2019	Lincoln Property Company (property management)	\$1,470	\$1,420	\$1,895	\$2,995	
8 3	Crest at Las Colinas Station	Las Colinas Urban Center Station	Irving, TX	374	2016	Lennar Multifamily Communities	\$1,286	\$1,291	\$1,766	n/a	
5 7	Downtown Carrollton Station										
8 4	Union at Carrollton Square (Phase 1 and 2)	Downtown Carrollton Station	Carrollton, TX	311	2012, 2014	Trammell Crow Company	n/a	\$1,281	\$1,612	n/a	
8 5	Lux on Main	Downtown Carrollton Station	Carrollton, TX	352	2018	Olympus Property	n/a	\$1,560	\$2,191	n/a	
5 8	Mockingbird Station										
8 6	The Lofts at Mockingbird Station	SMU/ Mockingbird Station	Dallas, TX	211	2001	Lincoln Property Company (property management)	n/a	\$1,462	\$2,303	n/a	

87	5 Mockingbird	SMU/ Mockingbird Station	Dallas, TX	449	1998	Crow Holdings	\$1,265	\$1,470	\$1,725	\$2,690
59	Cityplace/Uptown									
88	The Sawyer Apartments	CityPlace/ Uptown Station	Dallas, TX	103	2005	Pollack Shores	n/a	\$1,321	\$2,108	n/a
89	Ardan	CityPlace/ Uptown Station	Dallas, TX	389	2019	Millcreek Residential	n/a	\$2,142	\$3,382	n/a
60	Lancaster Urban Village									
90	Lancaster Urban Village	VA Medical Center Station	Dallas, TX	193	2014	City Wide Community Development Corporation in partnership with Catalyst Urban Development, LLC and the Urban League	\$750	\$850	\$1,100	\$1,319
61	Spring Valley Station									
91	Brick Row Apartments	Spring Valley Station	Richardson, TX	577	2009	Winston Capital Corp. in partnership with the Michigan State Public Employees Retirement System	n/a	\$1,245	\$1,870	n/a
62	Downtown Garland Station									
92	Oaks 5th Street Crossing (Phase 1 and 2)	Downtown Garland Station	Garland, TX	341	2008, 2015	Oaks Properties (property management)	\$1,050	\$1,155	\$1,526	n/a
63	Parker House									
93	Parker House Apartments	T&P Station	Fort Worth, TX	130	2016	South Oxford Management (property management)	n/a	\$1,285	\$1,548	n/a
64	Grapevine/Main Street Station									
94	Resort at 925	Grapevine /Main Street Station	Grapevine, TX	251	2008	Paramount Investments (property management)	n/a	\$1,380	\$1,999	n/a
Pennsylvania, Philadelphia				1149						
65	Temple University Station									
95	Paseo Verde South Apartments	Temple University Station	Philadelphia, PA	120	2013	Jonathan Rose Companies and Asociación Puertorriqueños en Marcha (APM)	n/a	\$1,275	\$1,542	n/a
66	11th Street Station									

6 7	9 6	The Ludlow Apartments	11th Street Station	Philadelphia, PA	322	2018	NREA Development	\$1,698	\$1,866	\$2,658	n/a
	Ellsworth/Federal Station										
6 8	9 7	Lincoln Square	Ellsworth/Federal Station	Philadelphia, PA	322	2018	Alterra Property Group	\$1,365	\$1,825	\$2,675	\$3,365
	Spring Mill Station										
	9 8	The Courts at Spring Mill Station	Spring Mill Station	Conshohocken, PA	385	2014	Home Properties Whitmarsh LLC	n/a	\$1,743	\$2,558	n/a
	Maryland, Baltimore				368						
6 9	Owings Mills Station										
	9 9	The Apartments at Metro Centre	Owings Mills Metro Station	Owings Mills, MD	232	2020	David S. Brown Enterprises, Ltd.	n/a	\$1,750	\$1,890	n/a
7 0	Symphony Center										
	1 0 0	Symphony Center Apartments	Cultural Center Station	Baltimore, MD	136	2004	David S. Brown Enterprises, Ltd.	n/a	n/a	\$2,065	n/a
Georgia, Atlanta				364							
7 1	Lindbergh Center Station										
	1 0 1	Avana on Main	Lindbergh Center Transit Station	Atlanta, GA	364	2007	Greystar	\$1,020	\$1,070	\$1,480	\$1,835
Ohio, Cleveland				272							
7 2	Little Italy University Circle Station										
	1 0 2	Centric	Little Italy University Circle Station	Cleveland, OH	272	2018	Midwest Development Partners	n/a	\$1,560	\$2,475	n/a
California, San Diego				605							
7 3	Hazard Center Station										
	1 0 3	2-story high condominium buildings south of the station)	Hazard Center Station	San Diego, CA	120 (3 per building)	1997	n/a	n/a	n/a	\$2,600	n/a
7 4	Smart Corned at City Collage Station										

104	Smart Corner Condominiums	City Collage Station	San Diego, CA	301	2007	Lankford & Associates, Inc.	\$2,100	\$2,700	\$2,800	n/a
75	The Village at Morena Vista									
105	The Village at Morena Vista	Morena/Linda Vista Station	San Diego, CA	184	2005	City Link Investment Corporation in collaboration with Morena Vista LLC, Metropolitan Transit System (MTS), UBS Global Asset Management Real Estate, the City of San Diego Redevelopment Agency, the San Diego Housing Commission	n/a	\$1,992	\$2,053	\$2,642
Minnesota, Minneapolis-St Paul				466						
76	Oaks Station Place									
106	Oaks Station Place	46th Street Station	Minneapolis, MN	104	2013	Oaks Properties	\$1,138	\$1,405	\$1,759	n/a
77	Hamline Station									
107	Hamline Station East & Hamline Station West (2 buildings)	Hamline Avenue Station	St Paul, MN	108	2011	Project for Pride in Living (residential) and Excelsior Bay Partners (commercial)	n/a	n/a	n/a	n/a
78	The Penfield									
108	The Penfield Apartments	10th Street Station	St Paul, MN	254	2013	In 2010 the City stepped in as the equity investor and developer; in 2016 sold to LaSalle Investment Management, a subsidiary of Chicago-based real estate company, JLL.	\$1,162	\$1,472	\$1,689	\$2,462
Pennsylvania, Pittsburgh				319						
79	Glasshouse									
109	Glasshouse	Station Square Subway Station	Pittsburgh, PA	319	2019	Trammell Crow Co. Subsidiary High Street Residential	n/a	\$2,248	\$3,439	n/a
Texas, Houston				672						
80	McGowen Station									
110	Camden McGowen Station Apartments	McGowen Station	Houston, TX	315	2018	Camden Property Trust	\$1,749	\$1,819	\$2,499	n/a

8 1	Midtown Main									
1 1 1	Mid Main Lofts	Ensemble/ HCC Station	Houston, TX	357	2016	Greystar (property management)	\$1,216	\$1,395	\$1,718	n/a
Utah, Salt Lake City				1221						
8 2	City Creek									
1 1 2	City Creek Landing	City Center Station	Salt Lake City, UT	111	2011	City Creek Reserve Inc., a for- profit firm owned by the Church of Jesus Christ of Latter-day Saints	n/a	n/a	n/a	n/a
8 3	Gateway			0.2						
1 1 3	Gateway 505/ Alta Gateway Station	Old Greektown Station	Salt Lake City, UT	277	2017	Wood Partners	\$1,418	\$1,667	\$2,186	\$2,281
8 4	Fireclay village									
1 1 4 1 1 5 1 1 6	Avida Apartments	Murray North Station Murray	Murray, UT	400	2013	Fireclay Investment Partners; in 2019 sold to SREIT AVIDA, LLC	n/a	\$1,267	\$1,370	\$1,772
	Murray Depot	Murray North Station Murray	Murray, UT	93	2020	Horizon Development	n/a	n/a	n/a	n/a
	Metro at Fireclay	Murray North Station	Murray, UT	340	2018	Alliance Residential Company	n/a	\$1,219	\$1,697	n/a
Missouri, St Louis				70						
8 5	Forsyth Station									
1 1 7	The Crescent Condos	Forsyth Station	Clayton, MO	70	2007	Visionary Capital	n/a (condomi nium)	n/a (condomi um)	n/a (condomini um)	n/a (condomini um)

APPENDIX D

MARKET-RATE HOUSING AFFORDABILITY

The following tables show market-rate housing affordability for low- and moderate-income households in each TOD. Data on AMI comes from the HUD website directly. We will start by showing affordability for four-person households, followed by three-person and two-person households. Same as the previous appendix, the first column represents the TOD number while the second column shows the property/building number. Note that the maximum monthly rent that a moderate-income household can pay for housing to be considered affordable (i.e., maximum 30% of income) is shown in blue, while this value for low-income households is shown in red.

Affordability of market-rate two-bedroom (and three-bedroom) housing for low- and moderate-income four-person households based on the AMI

TODs: region, name, buildings (if different developers)	Transit Station	County	Market priced apartments (lowest available price)		AMI	Moderate (80%) Income Limits	30% of Moderat e- Income Limits	MAX monthly rent	Low (50%) Income Limits	30% of Low- Income Limits	MAX monthl y rent	
			2-bed	3-bed								
Colorado (Denver, Englewood)												
1 Mariposa at Osage Station												
1 Mariposa Apartments (Phase 1, 2, 3 and 4)	Osage Station	Arapahoe	n/a	n/a	\$104,800	\$79,900	\$23,970	\$1,998	\$52,400	\$15,720	\$1,310	
2 Englewood Station												
2 Art Walk at City Center	Englewood Station	Arapahoe	\$1,905	\$2,806	\$104,800	\$79,900	\$23,970	\$1,998	\$52,400	\$15,720	\$1,310	
Washington (Seattle)												
3 Othello Station												
3 The Station at Othello Park	Othello Station	King County	\$2,465	n/a	\$115,700	\$90,500	\$27,150	\$2,263	\$57,850	\$17,355	\$1,446	
4 Assembly118 Apartments	Othello Station	King County	\$2,880	n/a	\$115,700	\$90,500	\$27,150	\$2,263	\$57,850	\$17,355	\$1,446	
5 Mercy Othello Plaza	Othello Station	King County	n/a	n/a	\$115,700	\$90,500	\$27,150	\$2,263	\$57,850	\$17,355	\$1,446	
California (Bay Area)												
4 Fruitvale Village												
6 Fruitvale Village (Phase 1, Phase 2 and Phase 3)	Fruitvale Station (BART)	Alameda	n/a	n/a	\$125,600	\$109,600	\$32,880	\$2,740	\$68,500	\$20,550	\$1,713	
5 Pleasant Hill/ Contra Costa												

7	Avalon Walnut Creek	Contra Costa Center (BART) Station	Contra Costa	\$3,242	\$3,964	\$125,600	\$109,600	\$32,880	\$2,740	\$68,500	\$20,550	\$1,713
6	MacArthur Station											
8	The Skylyne at Temescal	MacArthur Station (BART)	Alameda	\$3,452	\$4,778	\$125,600	\$109,600	\$32,880	\$2,740	\$68,500	\$20,550	\$1,713
9	MacArthur Commons	MacArthur Station (BART)	Alameda	\$3,010	n/a	\$125,600	\$109,600	\$32,880	\$2,740	\$68,500	\$20,550	\$1,713
10	Mural at MacArthur	MacArthur Station (BART)	Alameda	n/a	n/a	\$125,600	\$109,600	\$32,880	\$2,740	\$68,500	\$20,550	\$1,713
California (Sacramento)												
7	La Valentina											
11	La Valentina Apartments and La Valentina North	La Valentina Station	Sacramento	n/a	n/a	\$91,100	\$72,500	\$21,750	\$1,813	\$45,300	\$13,590	\$1,133
8	Ice Blocks											
12	Ice House Midtown Apartments	16th Street Station	Sacramento	\$2,500	n/a	\$91,100	\$72,500	\$21,750	\$1,813	\$45,300	\$13,590	\$1,133
9	University/65th Street Station											
13	F/65 Lofts	University/65th Street Station	Sacramento			\$91,100	\$72,500	\$21,750	\$1,813	\$45,300	\$13,590	\$1,133
California (Los Angeles area)												
10	Expo/Sepulveda Station											
14	Linea Apartments	Expo/Sepulveda Station	Los Angeles	\$4,153	\$15,161	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
11	Wilshire Vermont											
15	Wilshire Vermont Luxury Apartments	Wilshire/ Vermont Station	Los Angeles	\$2,816	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
12	The Vermont											
16	The Vermont Apartments	Wilshire/ Vermont Station	Los Angeles	\$3,409	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
13	Wilshire/ Western											
17	Solair Wilshire Apartments	Wilshire/ Western Station	Los Angeles	\$2,420	\$3,220	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
14	Hollywood/ Vine											

1 8	1600 Vine	Hollywood/ Vine	Los Angeles	\$3,758	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
1 9	Eastown Apartments	Hollywood/ Vine	Los Angeles	\$3,185	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
2 0	El Centro Apartments & Bungalows	Hollywood/ Vine	Los Angeles	\$3,735	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
2 1	Argyle House	Hollywood/ Vine	Los Angeles	n/a	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
1 5	Hollywood/ Western											
2 2	Hollywood/ Western (Phase 1 and Phase 2)	Hollywood/ Western	Los Angeles	n/a	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
1 6	MacArthur Park											
2 3	MacArthur Park	Westlake/MacA rthur Park	Los Angeles	n/a	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
1 7	Hollywood/ Highland											
2 4	1724 Highland Apartments	Hollywood/ Highland	Los Angeles	\$2,675	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
1 8	Del Mar Station											
2 5	Avalon/ Del Mar Station Apartments	Del Mar Station	Los Angeles	\$3,138	n/a	\$80,000	\$94,600	\$28,380	\$2,365	\$59,100	\$17,730	\$1,478
New Jersey												
1 9	Metuchen Station											
2 6	Woodmont Metro Apartments	Metuchen Station	Middlesex	\$3,215	n/a	\$123,200	\$81,750	\$24,525	\$2,044	\$61,600	\$18,480	\$1,540
2 0	Harrison Station											
2 7	Harrison Station 300	Harrison Station	Gloucester	\$2,635	n/a	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
2 8	330 Harrison Station	Harrison Station	Gloucester	\$2,910	n/a	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
2 9	Harrison Urby Apartments	Harrison Station	Gloucester	\$3,170	n/a	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
2 1	Cranford Station											
3 0	Riverfront at Cranford Station	Cranford Station	Union	\$3,210	n/a	\$107,400	\$79,900	\$23,970	\$1,998	\$53,700	\$16,110	\$1,343

2	Bloomfield Station												
2	3	Avalon Bloomfield Station	Bloomfield Station	Essex	\$2,631	n/a	\$107,400	\$79,900	\$23,970	\$1,998	\$53,700	\$16,110	\$1,343
2	Morristown Station												
3	3	Sofi/ The Highlands at Morristown Station	Morristown Station	Morris	\$3,011	n/a	\$107,400	\$79,900	\$23,970	\$1,998	\$53,700	\$16,110	\$1,343
2	Gateway Transit Village												
4	3	Gateway Transit Village/ The Vue Apartments	New Brunswick Station	Middlesex	\$2,237	n/a	\$123,200	\$81,750	\$24,525	\$2,044	\$61,600	\$18,480	\$1,540
2	Rahway Station												
5	3	Skyview Luxury	Rahway Station	Union	\$1,875	n/a	\$107,400	\$79,900	\$23,970	\$1,998	\$53,700	\$16,110	\$1,343
2	Westmont Station												
6	3	Haddon Towne Center	Westmont Station	Camden	\$1,950	\$2,825	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
Florida (Miami)													
2	Brownsville Transit Village												
7	3	Brownsville Transit Village (Phases 1,2,3,4, and 5)	Brownsville Metrorail station	Miami-Dade	n/a	n/a	\$61,000	\$72,300	\$21,690	\$1,808	\$45,200	\$13,560	\$1,130
2	Dadeland Station												
8	3	Motion at Dadeland	Dadeland North Metrorail Station	Miami-Dade	\$3,207	n/a	\$61,000	\$72,300	\$21,690	\$1,808	\$45,200	\$13,560	\$1,130
New York													
2	Wyandanch Village												
9	3	Wyandanch Village (4 buildings)	Wyandanch LIRR station	Suffolk	\$2,700	n/a	\$129,900	\$94,900	\$28,470	\$2,373	\$64,950	\$19,485	\$1,624
3	Yonkers Station												
0	3	Hudson Park North&South	Yonkers Station	Westchester	\$2,315	n/a	\$127,500	\$90,550	\$27,165	\$2,264	\$63,750	\$19,125	\$1,594

40	River Club at Hudson Park	Yonkers Station	Westchester	\$3,062	n/a	\$127,500	\$90,550	\$27,165	\$2,264	\$63,750	\$19,125	\$1,594
Massachusetts, Boston												
31	Ashmont Station											
41	The Carruth	Ashmont Station	Suffolk			\$120,800	\$101,050	\$30,315	\$2,526	\$67,100	\$20,130	\$1,678
32	The Victor at North Station											
42	The Victor by Windsor	North Station	Suffolk	\$4,485	n/a	\$120,800	\$101,050	\$30,315	\$2,526	\$67,100	\$20,130	\$1,678
33	Avalon North Station											
43	Avalon North Station	North Station	Suffolk	\$4,315	\$8,760	\$120,800	\$101,050	\$30,315	\$2,526	\$67,100	\$20,130	\$1,678
34	The Causeway											
44	Causeway at 226 Causeway Street (234 Strada)	North Station	Suffolk	\$3,799	n/a	\$120,800	\$101,050	\$30,315	\$2,526	\$67,100	\$20,130	\$1,678
35	Garden at North Station											
45	Boston Garden Development/ Hub50House	North Station	Suffolk	\$4,780	\$9,320	\$120,800	\$101,050	\$30,315	\$2,526	\$67,100	\$20,130	\$1,678
36	Boston Lading											
46	Lantera	Boston Lading	Suffolk	\$3,248	\$5,243	\$120,800	\$101,050	\$30,315	\$2,526	\$67,100	\$20,130	\$1,678
37	Wellington Station											
47	75SL at Station Landing	Wellington Station	Middlesex	\$3,613	n/a	\$112,900	\$79,900	\$23,970	\$1,998	\$56,450	\$16,935	\$1,411
48	Station Landing Apartments	Wellington Station	Middlesex	\$3,045	\$4,056	\$112,900	\$79,900	\$23,970	\$1,998	\$56,450	\$16,935	\$1,411
Oregon, Portland												
38	Orenco Station											
49	Orchards at Orenco (3 buildings)	Orenco Station	Washington	n/a	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209

50	Rowlock	Orenco Station	Washington	n/a	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
51	Nexus	Orenco Station	Washington	\$2,195	\$2,545	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
52	Tesserae	Orenco Station	Washington	\$2,165	\$2,805	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
53	Hub9	Orenco Station	Washington	n/a	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
54	Vector	Orenco Station	Washington	\$2,379	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
55	Orenco Gardens Apartments	Orenco Station	Washington	\$1,505	\$2,015	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
39	Lents Town Center											
56	Lents Commons Apartments	Lents Town Center	Multnomah	\$1,325	\$1,595	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
57	Oliver Station	Lents Town Center	Multnomah			\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
40	South Waterfront											
	South Waterfront (The Vera RiverPlace)	SW River Pkwy & Moody	Multnomah	n/a	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
58	The Ardea Apartments	SW Moody & Gains	Multnomah	\$2,002	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
59	Griffis South Waterfront	SW Moody & Gains	Multnomah	\$2,753	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
60	Ella Apartments	SW Moody & Gains	Multnomah	\$2,544	n/a	\$96,900	\$77,350	\$23,205	\$1,934	\$48,350	\$14,505	\$1,209
Washington, DC												
41	Columbia Heights											
61	Highland Park (2 buildings)	Columbia Heights Metro	District of Columbia	\$2,840	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
42	Petworth Station											
62	Park Place at Petworth Metro	Georgia Avenue-Petworth Metro Station	District of Columbia	\$2,795	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
43	Flats 130 at Constitution Square											

	6 3	Flats 130 at Constitution Square	NoMa - Gallaudet U Metro Station	District of Columbia	\$3,159	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
4 4	Monroe Street Market												
	6 4	Monroe Street Market (625 Monroe Street; Phase 1)	Brookland-Cua Metrorail Station	District of Columbia	\$2,502	\$4,672	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
4 5	Reston Station												
	6 5	BLVD at Reston Station	Wiehle-Reston East Metro Station	Fairfax	\$2,575	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
	6 6	Aperture	Wiehle-Reston East Metro Station	Fairfax	\$2,549	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
4 6	Ballston Commons												
	6 7	Meridian at Ballston Commons	Ballston-MU Metro Station	Arlington	\$2,885	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
4 7	Pentagon City												
	6 8	The Witmer Pentagon City	Pentagon City Metro Station	Arlington	\$3,612	\$5,702	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
4 8	Virginia Square												
	6 9	Latitude Apartments	Virginia Square GMU Metrorail Station	Arlington	\$3,316	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
4 9	Wheaton Station												
	7 0	MetroPointe	Wheaton Subway Station	Montgomer y	\$2,080	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
	7 1	The Exchange at Wheaton Station	Wheaton Subway Station	Montgomer y	\$2,147	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
	7 2	The Flats at Wheaton Station	Wheaton Subway Station	Montgomer y	n/a	n/a	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
5 0	Silver Spring Station												
	7 3	Lenox Park Apartments	Silver Spring Train Station	Montgomer y	\$1,810	\$3,300	\$129,000	\$82,300	\$24,690	\$2,058	\$64,500	\$19,350	\$1,613
Texas, Austin													

5													
1	Plaza Saltillo												
		Plaza Saltillo											
7	Development (4	Plaza Saltillo	Travis	n/a	n/a	\$98,900	\$79,100	\$23,730	\$1,978	\$49,450	\$14,835	\$1,236	
4	buildings); Residences	Station											
	at Saltillo												
5													
2	Kramer Station												
7	The Addison / The	Kramer Station	Travis	\$2,285	\$2,760	\$98,900	\$79,100	\$23,730	\$1,978	\$49,450	\$14,835	\$1,236	
5	Domain Apartments												
Texas, Dallas													
5													
3	CityLine/ Bush Station												
7	Alexan Crossings &	CityLine/ Bush	Dallas, Collin	\$1,795	\$2,460	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
6	Axis 110	Station											
7	Anthem Cityline	CityLine/ Bush	Dallas, Collin	\$1,743	\$2,558	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
7		Station											
5													
4	Galatyn Park Station												
7	Galatyn Station	Galatyn Station	Dallas, Collin	\$1,591	\$1,870	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
8	Apartments												
7	Cue Galatyn Station	Galatyn Station	Dallas, Collin	\$2,002	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
9	Apartments												
5													
5	Downtown Plano Station												
8	BelAir K Station	Downtown	Collin,	\$1,295	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
0	Apartments	Plano Station	Denton										
8	Junction 15	Downtown	Collin,	\$1,750	\$3,150	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
1	Apartments	Plano Station	Denton										
5													
6	Las Colinas												
8	The Carolyn	Las Colinas	Dallas	\$1,895	\$2,995	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
2		Urban Center											
		Station											
8	Crest at Las Colinas	Las Colinas	Dallas	\$1,766	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
3	Station	Urban Center											
		Station											
5													
7	Downtown Carrollton Station												
8	Union at Carrollton	Downtown	Denton,	\$1,612	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113	
4	Square (Phase 1 and 2)	Carrollton	Dallas, Collin										
		Station											

8	Lux on Main	Downtown Carrollton Station	Denton, Dallas, Collin	\$2,191	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
5	Mockingbird Station											
8	The Lofts at Mockingbird Station	SMU/ Mockingbird Station	Dallas	\$2,303	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
8	5 Mockingbird	SMU/ Mockingbird Station	Dallas	\$1,725	\$2,690	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
5	Cityplace/Uptown											
8	The Sawyer Apartments	CityPlace/ Uptown Station	Dallas	\$2,108	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
8	Ardan	CityPlace/ Uptown Station	Dallas	\$3,382	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
6	Lancaster Urban Village											
9	Lancaster Urban Village	VA Medical Center Station	Dallas	\$1,100	\$1,319	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
6	Spring Valley Station											
9	Brick Row Apartments	Spring Valley Station	Dallas, Collin	\$1,870	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
6	Downtown Garland Station											
9	Oaks 5th Street Crossing (Phase 1 and 2)	Downtown Garland Station	Dallas	\$1,526	n/a	\$89,000	\$71,200	\$21,360	\$1,780	\$44,500	\$13,350	\$1,113
6	Parker House											
9	Parker House Apartments	T&P Station	Tarrant	\$1,548	n/a	\$80,800	\$64,650	\$19,395	\$1,616	\$40,400	\$12,120	\$1,010
6	Grapevine/Main Street Station											
9	Resort at 925	Grapevine/Main Street Station	Tarrant	\$1,999	n/a	\$80,800	\$64,650	\$19,395	\$1,616	\$40,400	\$12,120	\$1,010
Pennsylvania, Philadelphia												
6	Temple University Station											

6	9	Paseo Verde South Apartments	Temple University Station	Philadelphia	\$1,542	n/a	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
6	6	11th Street Station											
6	9	The Ludlow Apartments	11th Street Station	Philadelphia	\$2,658	n/a	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
6	7	Ellsworth/Federal Station											
6	9	Lincoln Square	Ellsworth/Federal Station	Philadelphia	\$2,675	\$3,365	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
6	8	Spring Mill Station											
6	9	The Courts at Spring Mill Station	Spring Mill Station	Montgomery	\$2,558	n/a	\$94,500	\$75,600	\$22,680	\$1,890	\$47,250	\$14,175	\$1,181
Maryland, Baltimore													
6	9	Owings Mills Station											
6	9	The Apartments at Metro Centre	Owings Mills Metro Station	Baltimore	\$1,890	n/a	\$105,100	\$79,900	\$23,970	\$1,998	\$52,550	\$15,765	\$1,314
7	0	Symphony Center											
7	1	Symphony Center Apartments	Cultural Center Station	Baltimore city	\$2,065	n/a	\$105,100	\$79,900	\$23,970	\$1,998	\$52,550	\$15,765	\$1,314
Georgia, Atlanta													
7	1	Lindbergh Center Station											
7	1	Avana on Main	Lindbergh Center Transit Station	Fulton	\$1,480	\$1,835	\$86,200	\$68,950	\$20,685	\$1,724	\$43,100	\$12,930	\$1,078
Ohio, Cleveland													
7	2	Little Italy University Circle Station											
7	2	Centric	Little Italy University Circle Station	Cuyahoga	\$2,475	n/a	\$78,600	\$62,900	\$18,870	\$1,573	\$39,300	\$11,790	\$983
California, San Diego													
7	3	Hazard Center Station											

103	2-story high condominium buildings south of the station)	Hazard Center Station	San Diego	\$2,600	n/a	\$95,100	\$97,000	\$29,100	\$2,425	\$60,600	\$18,180	\$1,515
74	Smart Corned at City Collage Station											
104	Smart Corner Condominiums	City Collage Station	San Diego	\$2,800	n/a	\$95,100	\$97,000	\$29,100	\$2,425	\$60,600	\$18,180	\$1,515
75	The Village at Morena Vista											
105	The Village at Morena Vista	Morena/Linda Vista Station	San Diego	\$2,053	\$2,642	\$95,100	\$97,000	\$29,100	\$2,425	\$60,600	\$18,180	\$1,515
Minnesota, Minneapolis-St Paul												
76	Oaks Station Place											
106	Oaks Station Place	46th Street Station	Hennepin	\$1,759	n/a	\$104,900	\$79,900	\$23,970	\$1,998	\$52,450	\$15,735	\$1,311
77	Hamline Station											
107	Hamline Station East & Hamline Station West (2 buildings)	Hamline Avenue Station	Ramsey	n/a	n/a	\$104,900	\$79,900	\$23,970	\$1,998	\$52,450	\$15,735	\$1,311
78	The Penfield											
108	The Penfield Apartments	10th Street Station	Ramsey	\$1,689	\$2,462	\$104,900	\$79,900	\$23,970	\$1,998	\$52,450	\$15,735	\$1,311
Pennsylvania, Pittsburgh												
79	Glasshouse											
109	Glasshouse	Station Square Subway Station	Allegheny	\$3,439	n/a	\$84,800	\$67,850	\$20,355	\$1,696	\$42,400	\$12,720	\$1,060
Texas, Houston												
80	McGowen Station											

1 1 0	Camden McGowen Station Apartments	McGowen Station	Harris	\$2,499	n/a	\$79,200	\$63,350	\$19,005	\$1,584	\$39,600	\$11,880	\$990
8 1	Midtown Main											
1 1 1	Mid Main Lofts	Ensemble/ HCC Station	Harris	\$1,718	n/a	\$79,200	\$63,350	\$19,005	\$1,584	\$39,600	\$11,880	\$990
Utah, Salt Lake City												
8 2	City Creek											
1 1 2	City Creek Landing	City Center Station	Salt Lake	n/a	n/a	\$92,900	\$73,750	\$22,125	\$1,844	\$46,100	\$13,830	\$1,153
8 3	Gateway											
1 1 3	Gateway 505/ Alta Gateway Station	Old Greektown Station	Salt Lake	\$2,186	\$2,281	\$92,900	\$73,750	\$22,125	\$1,844	\$46,100	\$13,830	\$1,153
8 4	Fireclay village											
1 1 4	Avida Apartments	Murray North Station	Salt Lake	\$1,370	\$1,772	\$92,900	\$73,750	\$22,125	\$1,844	\$46,100	\$13,830	\$1,153
1 1 5	Murray Depot	Murray North Station	Salt Lake	n/a	n/a	\$92,900	\$73,750	\$22,125	\$1,844	\$46,100	\$13,830	\$1,153
1 1 6	Metro at Fireclay	Murray North Station	Salt Lake	\$1,697	n/a	\$92,900	\$73,750	\$22,125	\$1,844	\$46,100	\$13,830	\$1,153
Missouri, St Louis												
8 5	Forsyth Station											
1 1 7	The Crescent Condos	Forsyth Station	St. Louis County	n/a	n/a	\$84,900	\$67,900	\$20,370	\$1,698	\$42,450	\$12,735	\$1,061

Affordability of market-rate 1-bedroom and 2-bedroom housing for low- and moderate-income 3-person households

TODs: region, name, buildings (if different developers)	Transit Station	County	Market priced apartments (lowest available price)		Moderate (80%) Income Limits (\$)	30% of Moderate Income Limits	MAX monthly rent	Low (50%) Income Limits (\$)	30% of Low Income Limits	MAX monthly rent	
			1-bed	2-bed							
Colorado (Denver, Englewood)											
1	Mariposa at Osage Station										
1	Mariposa Apartments (Phase 1, 2, 3 and 4)	Osage Station	Arapahoe	n/a	n/a	\$71,950	\$21,585	\$1,799	\$47,200	\$14,160	\$1,180
2	Englewood Station										
2	Art Walk at City Center	Englewood Station	Arapahoe	\$1,541	\$1,905	\$71,950	\$21,585	\$1,799	\$47,200	\$14,160	\$1,180
Washington (Seattle)											
3	Othello Station										
3	The Station at Othello Park	Othello Station	King County	\$1,790	\$2,465	\$81,450	\$24,435	\$2,036	\$52,100	\$15,630	\$1,303
4	Assembly118 Apartments	Othello Station	King County	\$1,679	\$2,880	\$81,450	\$24,435	\$2,036	\$52,100	\$15,630	\$1,303
5	Mercy Othello Plaza	Othello Station	King County	n/a	n/a	\$81,450	\$24,435	\$2,036	\$52,100	\$15,630	\$1,303
California (Bay Area)											
4	Fruitvale Village										
6	Fruitvale Village (Phase 1, Phase 2 and Phase 3)	Fruitvale Station (BART)	Alameda	n/a	n/a	\$98,650	\$29,595	\$2,466	\$61,650	\$18,495	\$1,541
5	Pleasant Hill/ Contra Costa										
7	Avalon Walnut Creek	Contra Costa Center (BART) Station	Contra Costa	\$2,400	\$3,242	\$98,650	\$29,595	\$2,466	\$61,650	\$18,495	\$1,541
6	MacArthur Station										
8	The Skylyne at Temescal	MacArthur Station (BART)	Alameda	\$2,517	\$3,452	\$98,650	\$29,595	\$2,466	\$61,650	\$18,495	\$1,541
9	MacArthur Commons	MacArthur Station (BART)	Alameda	\$2,200	\$3,010	\$98,650	\$29,595	\$2,466	\$61,650	\$18,495	\$1,541

10	Mural at MacArthur	MacArthur Station (BART)	Alameda	n/a	n/a	\$98,650	\$29,595	\$2,466	\$61,650	\$18,495	\$1,541
California (Sacramento)											
7	La Valentina										
11	La Valentina Apartments and La Valentina North	La Valentina Station	Sacramento	n/a	n/a	\$65,250	\$19,575	\$1,631	\$40,800	\$12,240	\$1,020
8	Ice Blocks										
12	Ice House Midtown Apartments	16th Street Station	Sacramento	\$1,750	\$2,500	\$65,250	\$19,575	\$1,631	\$40,800	\$12,240	\$1,020
9	University/65th Street Station										
13	F/65 Lofts	University/65th Street Station	Sacramento		n/a	\$65,250	\$19,575	\$1,631	\$40,800	\$12,240	\$1,020
California (Los Angeles area)											
10	Expo/Sepulveda Station										
14	Linea Apartments	Expo/Sepulveda Station	Los Angeles	\$3,016	\$4,153	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330
11	Wilshire Vermont										
15	Wilshire Vermont Luxury Apartments	Wilshire/ Vermont Station	Los Angeles	\$2,108	\$2,816	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330
12	The Vermont										
16	The Vermont Apartments	Wilshire/ Vermont Station	Los Angeles	\$2,230	\$3,409	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330
13	Wilshire/ Western										
17	Solair Wilshire Apartments	Wilshire/ Western Station	Los Angeles	\$2,032	\$2,420	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330
14	Hollywood/ Vine										
18	1600 Vine	Hollywood/ Vine	Los Angeles	\$2,816	\$3,758	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330
19	Eastown Apartments	Hollywood/ Vine	Los Angeles	\$2,525	\$3,185	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330
20	El Centro Apartments & Bungalows	Hollywood/ Vine	Los Angeles	\$2,550	\$3,735	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330
21	Argyle House	Hollywood/ Vine	Los Angeles	\$3,995	n/a	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330

1 5	Hollywood/ Western											
2 2	Hollywood/ Western (Phase 1 and Phase 2)	Hollywood/ Western	Los Angeles	n/a	n/a	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330	
1 6	MacArthur Park											
2 3	MacArthur Park	Westlake/MacArthur Park	Los Angeles	n/a	n/a	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330	
1 7	Hollywood/ Highland											
2 4	1724 Highland Apartments	Hollywood/ Highland	Los Angeles	\$2,320	\$2,675	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330	
1 8	Del Mar Station											
2 5	Avalon/ Del Mar Station Apartments	Del Mar Station	Los Angeles	\$2,266	\$3,138	\$85,150	\$25,545	\$2,129	\$53,200	\$15,960	\$1,330	
New Jersey												
1 9	Metuchen Station											
2 6	Woodmont Metro Apartments	Metuchen Station	Middlesex	\$2,360	\$3,215	\$73,600	\$22,080	\$1,840	\$55,450	\$16,635	\$1,386	
2 0	Harrison Station											
2 7	Harrison Station 300	Harrison Station	Gloucester	\$1,930	\$2,635	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064	
2 8	330 Harrison Station	Harrison Station	Gloucester	\$2,035	\$2,910	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064	
2 9	Harrison Urby Apartments	Harrison Station	Gloucester	\$2,012	\$3,170	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064	
2 1	Cranford Station											
3 0	Riverfront at Cranford Station	Cranford Station	Union	\$2,700	\$3,210	\$71,950	\$21,585	\$1,799	\$48,350	\$14,505	\$1,209	
2 2	Bloomfield Station											
3 1	Avalon Bloomfield Station	Bloomfield Station	Essex	\$2,020	\$2,631	\$71,950	\$21,585	\$1,799	\$48,350	\$14,505	\$1,209	
2 3	Morristown Station											
3 2	Sofi/ The Highlands at Morristown Station	Morristown Station	Morris	\$2,062	\$3,011	\$71,950	\$21,585	\$1,799	\$48,350	\$14,505	\$1,209	

2 4	Gateway Transit Village										
3 3	Gateway Transit Village/ The Vue Apartments	New Brunswick Station	Middlesex	\$1,824	\$2,237	\$73,600	\$22,080	\$1,840	\$55,450	\$16,635	\$1,386
2 5	Rahway Station										
3 4	Skyview Luxury	Rahway Station	Union	\$1,650	\$1,875	\$71,950	\$21,585	\$1,799	\$48,350	\$14,505	\$1,209
2 6	Westmont Station										
3 5	Haddon Towne Center	Westmont Station	Camden	\$1,800	\$1,950	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064
Florida (Miami)											
2 7	Brownsville Transit Village										
3 6	Brownsville Transit Village (Phases 1,2,3,4, and 5)	Brownsville Metrorail station	Miami-Dade	n/a	n/a	\$65,100	\$19,530	\$1,628	\$40,700	\$12,210	\$1,018
2 8	Dadeland Station										
3 7	Motion at Dadeland	Dadeland North Metrorail Station	Miami-Dade	\$2,356	\$3,207	\$65,100	\$19,530	\$1,628	\$40,700	\$12,210	\$1,018
New York											
2 9	Wyandanch Village										
3 8	Wyandanch Village (4 buildings)	Wyandach LIRR station	Suffolk	\$2,100	\$2,700	\$85,450	\$25,635	\$2,136	\$58,500	\$17,550	\$1,463
3 0	Yonkers Station										
3 9	Hudson Park North&South	Yonkers Station	Westchester	\$1,759	\$2,315	\$81,500	\$24,450	\$2,038	\$57,400	\$17,220	\$1,435
4 0	River Club at Hudson Park	Yonkers Station	Westchester	\$2,548	\$3,062	\$81,500	\$24,450	\$2,038	\$57,400	\$17,220	\$1,435
Massachusetts, Boston											
3 1	Ashmont Station										
4 1	The Carruth	Ashmont Station	Suffolk	n/a	n/a	\$90,950	\$27,285	\$2,274	\$60,400	\$18,120	\$1,510
3 2	The Victor at North Station										

4	The Victor by Windsor	North Station	Suffolk	\$3,230	\$4,485	\$90,950	\$27,285	\$2,274	\$60,400	\$18,120	\$1,510
3	Avalon North Station										
4	Avalon North Station	North Station	Suffolk	\$3,685	\$4,315	\$90,950	\$27,285	\$2,274	\$60,400	\$18,120	\$1,510
3	The Causeway										
4	Causeway at 226 Causeway Street (234 Strada)	North Station	Suffolk	\$2,966	\$3,799	\$90,950	\$27,285	\$2,274	\$60,400	\$18,120	\$1,510
3	Garden at North Station										
4	Boston Garden Development/ Hub50House	North Station	Suffolk	\$3,390	\$4,780	\$90,950	\$27,285	\$2,274	\$60,400	\$18,120	\$1,510
3	Boston Lading										
4	Lantera	Boston Lading	Suffolk	\$3,151	\$3,248	\$90,950	\$27,285	\$2,274	\$60,400	\$18,120	\$1,510
3	Wellington Station										
4	75SL at Station Landing	Wellington Station	Middlesex	\$2,606	\$3,613	\$71,950	\$21,585	\$1,799	\$50,850	\$15,255	\$1,271
4	Station Landing Apartments	Wellington Station	Middlesex	\$2,338	\$3,045	\$71,950	\$21,585	\$1,799	\$50,850	\$15,255	\$1,271
Oregon, Portland											
3	Orenco Station										
4	Orchards at Orenco (3 buildings)	Orenco Station	Washington	n/a	n/a	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
5	Rowlock	Orenco Station	Washington	\$1,602	n/a	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
5	Nexus	Orenco Station	Washington	\$1,754	\$2,195	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
5	Tessera	Orenco Station	Washington	\$1,725	\$2,165	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
5	Hub9	Orenco Station	Washington	\$1,575	n/a	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
5	Vector	Orenco Station	Washington	\$1,641	\$2,379	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089

3 9	5 Orenco Gardens 5 Apartments	Orenco Station	Washington	\$1,420	\$1,505	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
	Lents Town Center										
	5 Lents Commons 6 Apartments	Lents Town Center	Multnomah	\$1,190	\$1,325	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
4 0	5 Oliver Station	Lents Town Center	Multnomah			\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
	South Waterfront										
	South Waterfront (The Vera Riverplace)	SW River Pkwy & Moody	Multnomah	n/a	n/a	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
	5 The Ardea 8 Apartments	SW Moody & Gains	Multnomah	\$1,500	\$2,002	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
	5 Griffis South 9 Waterfront	SW Moody & Gains	Multnomah	\$1,584	\$2,753	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
6 0	Ella Apartments	SW Moody & Gains	Multnomah	\$1,626	\$2,544	\$69,650	\$20,895	\$1,741	\$43,550	\$13,065	\$1,089
Washington, DC											
4 1	Columbia Heights										
4 2	6 Highland Park (2 1 buildings)	Columbia Heights Metro	District of Columbia	\$1,900	\$2,840	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
	Petworth Station										
4 3	6 Park Place at 2 Petworth Metro	Georgia Avenue- Petworth Metro Station	District of Columbia	\$1,908	\$2,795	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
	Flats 130 at Constitution Square										
4 4	6 Flats 130 at 3 Constitution Square	NoMa - Gallaudet U Metro Station	District of Columbia	\$2,304	\$3,159	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
4 5	Monroe Street Market										
	6 Monroe Street 4 Market (625 Monroe Street; Phase 1)	Brookland-Cua Metrorail Station	District of Columbia	\$1,983	\$2,502	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
4 5	Reston Station										
	6 BLVD at Reston 5 Station	Wiehle-Reston East Metro Station	Fairfax	\$1,810	\$2,575	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451

4	6	Aperture	Wiehle-Reston East Metro Station	Fairfax	\$1,991	\$2,549	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
6	Ballston Commons											
4	6	Meridian at Ballston Commons	Ballston-MU Metro Station	Arlington	\$2,085	\$2,885	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
7	Pentagon City											
8	6	The Witmer Pentagon City	Pentagon City Metro Station	Arlington	\$2,258	\$3,612	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
8	Virginia Square											
4	6	Latitude Apartments	Virginia Square GMU Metrorail Station	Arlington	\$2,375	\$3,316	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
9	Wheaton Station											
7	0	MetroPointe	Wheaton Subway Station	Montgomery	\$1,592	\$2,080	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
7	1	The Exchange at Wheaton Station	Wheaton Subway Station	Montgomery	\$1,580	\$2,147	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
7	2	The Flats at Wheaton Station	Wheaton Subway Station	Montgomery	\$1,520	n/a	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
5	0	Silver Spring Station										
3	7	Lenox Park Apartments	Silver Spring Train Station	Montgomery	\$1,310	\$1,810	\$74,100	\$22,230	\$1,853	\$58,050	\$17,415	\$1,451
Texas, Austin												
5	1	Plaza Saltillo										
7	4	Plaza Satillo Development (4 buildings); Residences at Satillo	Plaza Saltillo Station	Travis	n/a	n/a	\$71,200	\$21,360	\$1,780	\$44,550	\$13,365	\$1,114
5	2	Kramer Station										
5	5	The Addison / The Domain Apartments	Kramer Station	Travis	\$1,545	\$2,285	\$71,200	\$21,360	\$1,780	\$44,550	\$13,365	\$1,114
Texas, Dallas												
5	3	CityLine/ Bush Station										

5 4	7 6 7 7	Alexan Crossings & Axis 110 Anthem Cityline	CityLine/ Bush Station CityLine/ Bush Station	Dallas, Collin	\$1,339	\$1,795	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001
	Galatyn Park Station											
	7 8 7 9	Galatyn Station Apartments Cue Galatyn Station Apartments	Galatyn Station	Dallas, Collin	\$1,066	\$1,591	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001
	5 5	Downtown Plano Station										
5 6	8 0 8 1	BelAir K Station Apartments Junction 15 Apartments	Downtown Plano Station Downtown Plano Station	Collin, Denton	\$1,085	\$1,295	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001
	Las Colinas											
	8 2 8 3	The Carolyn Crest at Las Colinas Station	Las Colinas Urban Center Station Las Colinas Urban Center Station	Dallas	\$1,420	\$1,895	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001
	5 7	Downtown Carrollton Station										
5 8	8 4 8 5	Union at Carrollton Square (Phase 1 and 2) Lux on Main	Downtown Carrollton Station Downtown Carrollton Station	Denton, Dallas, Collin	\$1,281	\$1,612	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001
	Mockingbird Station											
	8 6 8 7	The Lofts at Mockingbird Station 5 Mockingbird	SMU/ Mockingbird Station SMU/ Mockingbird Station	Dallas	\$1,462	\$2,303	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001
	5 9	Cityplace/Uptown										
5 9	8 8 8 9	The Sawyer Apartments Ardan	CityPlace/ Uptown Station CityPlace/ Uptown Station	Dallas	\$1,321	\$2,108	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001

60	Lancaster Urban Village											
90	Lancaster Urban Village	VA Medical Center Station	Dallas	\$850	\$1,100	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001	
61	Spring Valley Station											
91	Brick Row Apartments	Spring Valley Station	Dallas, Collin	\$1,245	\$1,870	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001	
62	Downtown Garland Station											
92	Oaks 5th Street Crossing (Phase 1 and 2)	Downtown Garland Station	Dallas	\$1,155	\$1,526	\$64,100	\$19,230	\$1,603	\$40,050	\$12,015	\$1,001	
63	Parker House											
93	Parker House Apartments	T&P Station	Tarrant	\$1,285	\$1,548	\$58,200	\$17,460	\$1,455	\$36,400	\$10,920	\$910	
64	Grapevine/Main Street Station											
94	Resort at 925	Grapevine/Main Street Station	Tarrant	\$1,380	\$1,999	\$58,200	\$17,460	\$1,455	\$36,400	\$10,920	\$910	
Pennsylvania, Philadelphia												
65	Temple University Station											
95	Paseo Verde South Apartments	Temple University Station	Philadelphia	\$1,275	\$1,542	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064	
66	11th Street Station											
96	The Ludlow Apartments	11th Street Station	Philadelphia	\$1,866	\$2,658	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064	
67	Ellsworth/Federal Station											
97	Lincoln Square	Ellsworth/Federal Station	Philadelphia	\$1,825	\$2,675	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064	
68	Spring Mill Station											
98	The Courts at Spring Mill Station	Spring Mill Station	Montgomery	\$1,743	\$2,558	\$68,050	\$20,415	\$1,701	\$42,550	\$12,765	\$1,064	
Maryland, Baltimore												
69	Owings Mills Station											

7 9	9	The Apartments at Metro Centre	Owings Mills Metro Station	Baltimore	\$1,750	\$1,890	\$71,950	\$21,585	\$1,799	\$47,300	\$14,190	\$1,183
0	0	Symphony Center										
1 0 0	1 0 0	Symphony Center Apartments	Cultural Center Station	Baltimore city	n/a	\$2,065	\$71,950	\$21,585	\$1,799	\$47,300	\$14,190	\$1,183
Georgia, Atlanta												
7 1	1	Lindbergh Center Station										
1 0 1	1 0 1	Avana on Main	Lindbergh Center Transit Station	Fulton	\$1,070	\$1,480	\$62,100	\$18,630	\$1,553	\$38,800	\$11,640	\$970
Ohio, Cleveland												
7 2	2	Little Italy University Circle Station										
1 0 2	1 0 2	Centric	Little Italy University Circle Station	Cuyahoga	\$1,560	\$2,475	\$56,650	\$16,995	\$1,416	\$35,400	\$10,620	\$885
California, San Diego												
7 3	3	Hazard Center Station										
1 0 3	1 0 3	2-story high condominium buildings south of the station)	Hazard Center Station	San Diego	n/a	\$2,600	\$87,300	\$26,190	\$2,183	\$54,550	\$16,365	\$1,364
7 4	4	Smart Corned at City Collage Station										
1 0 4	1 0 4	Smart Corner Condominiums	City Collage Station	San Diego	\$2,700	\$2,800	\$87,300	\$26,190	\$2,183	\$54,550	\$16,365	\$1,364
7 5	5	The Village at Morena Vista										
1 0 5	1 0 5	The Village at Morena Vista	Morena/Linda Vista Station	San Diego	\$1,992	\$2,053	\$87,300	\$26,190	\$2,183	\$54,550	\$16,365	\$1,364
Minnesota, Minneapolis-St Paul												
7 6	6	Oaks Station Place										

106	Oaks Station Place	46th Street Station	Hennepin	\$1,405	\$1,759	\$71,950	\$21,585	\$1,799	\$47,250	\$14,175	\$1,181
77	Hamline Station										
107	Hamline Station East & Hamline Station West (2 buildings)	Hamline Avenue Station	Ramsey	n/a	n/a	\$71,950	\$21,585	\$1,799	\$47,250	\$14,175	\$1,181
78	The Penfield										
108	The Penfield Apartments	10th Street Station	Ramsey	\$1,472	\$1,689	\$71,950	\$21,585	\$1,799	\$47,250	\$14,175	\$1,181
Pennsylvania, Pittsburgh											
79	Glasshouse										
109	Glasshouse	Station Square Subway Station	Allegheny	\$2,248	\$3,439	\$61,100	\$18,330	\$1,528	\$38,200	\$11,460	\$955
Texas, Houston											
80	McGowen Station										
110	Camden McGowen Station Apartments	McGowen Station	Harris	\$1,819	\$2,499	\$57,050	\$17,115	\$1,426	\$35,650	\$10,695	\$891
81	Midtown Main										
111	Mid Main Lofts	Ensemble/ HCC Station	Harris	\$1,395	\$1,718	\$57,050	\$17,115	\$1,426	\$35,650	\$10,695	\$891
Utah, Salt Lake City											
82	City Creek										
112	City Creek Landing	City Center Station	Salt Lake	n/a	n/a	\$66,400	\$19,920	\$1,660	\$41,500	\$12,450	\$1,038
83	Gateway										
113	Gateway 505/ Alta Gateway Station	Old Greektown Station	Salt Lake	\$1,667	\$2,186	\$66,400	\$19,920	\$1,660	\$41,500	\$12,450	\$1,038

8											
4	Fireclay village										
1											
1	Avida Apartments	Murray North Station	Salt Lake	\$1,267	\$1,370	\$66,400	\$19,920	\$1,660	\$41,500	\$12,450	\$1,038
4											
1											
1	Murray Depot	Murray North Station	Salt Lake	n/a	n/a	\$66,400	\$19,920	\$1,660	\$41,500	\$12,450	\$1,038
5											
1											
1	Metro at Fireclay	Murray North Station	Salt Lake	\$1,219	\$1,697	\$66,400	\$19,920	\$1,660	\$41,500	\$12,450	\$1,038
6											
Missouri, St Louis											
8											
5	Forsyth Station										
1											
1	The Crescent Condos	Forsyth Station	St. Louis County	n/a	n/a	\$61,150	\$18,345	\$1,529	\$38,250	\$11,475	\$956
7											

Affordability of market-rate studio and 1-bedroom apartments for low- and moderate-income 2-person households

TODs: region, name, buildings (if different developers)	Transit Station	County	Market priced apartments (lowest available price)		Moderate (80%) Income Limits (\$)	30% of Moderate Income Limits	MAX monthly rent	Low (50%) Income Limits (\$)	30% of Low Income Limits	MAX monthly rent
			Studio	1-bed						
Colorado (Denver, Englewood)										
1 Mariposa at Osage Station										
1 Mariposa Apartments (Phase 1, 2, 3 and 4)	Osage Station	Arapahoe	n/a	n/a	\$63,950	\$19,185	\$1,599	\$41,950	\$12,585	\$1,049
2 Englewood Station										
2 Art Walk at City Center	Englewood Station	Arapahoe	n/a	\$1,541	\$63,950	\$19,185	\$1,599	\$41,950	\$12,585	\$1,049
Washington (Seattle)										
3 Othello Station										
3 The Station at Othello Park	Othello Station	King County	\$1,356	\$1,790	\$72,400	\$21,720	\$1,810	\$46,300	\$13,890	\$1,158
4 Assembly118 Apartments	Othello Station	King County	n/a	\$1,679	\$72,400	\$21,720	\$1,810	\$46,300	\$13,890	\$1,158
5 Mercy Othello Plaza	Othello Station	King County	n/a	n/a	\$72,400	\$21,720	\$1,810	\$46,300	\$13,890	\$1,158
California (Bay Area)										
4 Fruitvale Village										
6 Fruitvale Village (Phase 1, Phase 2 and Phase 3)	Fruitvale Station (BART)	Alameda	n/a	n/a	\$87,700	\$26,310	\$2,193	\$54,800	\$16,440	\$1,370
5 Pleasant Hill/ Contra Costa										
7 Avalon Walnut Creek	Contra Costa Center (BART) Station	Contra Costa	\$2,194	\$2,400	\$87,700	\$26,310	\$2,193	\$54,800	\$16,440	\$1,370
6 MacArthur Station										
8 The Skylyne at Temescal	MacArthur Station (BART)	Alameda	\$2,462	\$2,517	\$87,700	\$26,310	\$2,193	\$54,800	\$16,440	\$1,370
9 MacArthur Commons	MacArthur Station (BART)	Alameda	\$2,050	\$2,200	\$87,700	\$26,310	\$2,193	\$54,800	\$16,440	\$1,370
10 Mural at MacArthur	MacArthur Station (BART)	Alameda	n/a	n/a	\$87,700	\$26,310	\$2,193	\$54,800	\$16,440	\$1,370
California (Sacramento)										
7 La Valentina										

1	La Valentina Apartments	La Valentina Station	Sacramento	n/a	n/a	\$58,000	\$17,400	\$1,450	\$36,250	\$10,875	\$906
1	and La Valentina North										
8	Ice Blocks										
1	Ice House Midtown	16th Street Station	Sacramento	\$1,550	\$1,750	\$58,000	\$17,400	\$1,450	\$36,250	\$10,875	\$906
2	Apartments										
9	University/65th Street Station										
1	F/65 Lofts	University/65th Street Station	Sacramento	n/a		\$58,000	\$17,400	\$1,450	\$36,250	\$10,875	\$906
3											
California (Los Angeles area)											
1	Expo/Sepulveda Station										
0											
1	Linea Apartments	Expo/Sepulveda Station	Los Angeles	\$2,461	\$3,016	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
4											
1	Wilshire Vermont										
1	Wilshire Vermont Luxury	Wilshire/ Vermont Station	Los Angeles	\$1,707	\$2,108	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
5	Apartments										
1	The Vermont										
2											
1	The Vermont	Wilshire/ Vermont Station	Los Angeles	n/a	\$2,230	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
6	Apartments										
1	Wilshire/ Western										
3											
1	Solair Wilshire	Wilshire/ Western Station	Los Angeles	n/a	\$2,032	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
7	Apartments										
1	Hollywood/ Vine										
4											
1	1600 Vine	Hollywood/ Vine	Los Angeles	\$2,574	\$2,816	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
8											
1	Eastown Apartments	Hollywood/ Vine	Los Angeles	\$1,915	\$2,525	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
9											
2	El Centro Apartments &	Hollywood/ Vine	Los Angeles	\$2,350	\$2,550	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
0	Bungalows										
2	Argyle House	Hollywood/ Vine	Los Angeles	n/a	\$3,995	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
1											
1	Hollywood/ Western										
5											
2	Hollywood/ Western	Hollywood/ Western	Los Angeles	n/a	n/a	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
2	(Phase 1 and Phase 2)										
1	MacArthur Park										
6											

2	MacArthur Park	Westlake/MacArthur Park	Los Angeles	n/a	n/a	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
1	Hollywood/ Highland										
7	1724 Highland Apartments	Hollywood/ Highland	Los Angeles	n/a	\$2,320	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
1	Del Mar Station										
8	Avalon/ Del Mar Station Apartments	Del Mar Station	Los Angeles	\$2,094	\$2,266	\$75,700	\$22,710	\$1,893	\$47,300	\$14,190	\$1,183
New Jersey											
1	Metuchen Station										
9	Woodmont Metro Apartments	Metuchen Station	Middlesex	n/a	\$2,360	\$65,400	\$19,620	\$1,635	\$49,300	\$14,790	\$1,233
2	Harrison Station										
0	Harrison Station 300	Harrison Station	Gloucester	\$1,595	\$1,930	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
2	330 Harrison Station	Harrison Station	Gloucester	\$1,635	\$2,035	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
8	Harrison Urby Apartments	Harrison Station	Gloucester	\$1,921	\$2,012	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
2	Cranford Station										
1	Riverfront at Cranford Station	Cranford Station	Union	n/a	\$2,700	\$63,950	\$19,185	\$1,599	\$43,000	\$12,900	\$1,075
2	Bloomfield Station										
2	Avalon Bloomfield Station	Bloomfield Station	Essex	\$1,770	\$2,020	\$63,950	\$19,185	\$1,599	\$43,000	\$12,900	\$1,075
3	Morristown Station										
3	Sofi/ The Highlands at Morristown Station	Morristown Station	Morris	n/a	\$2,062	\$63,950	\$19,185	\$1,599	\$43,000	\$12,900	\$1,075
2	Gateway Transit Village										
4	Gateway Transit Village/ The Vue Apartments	New Brunswick Station	Middlesex	n/a	\$1,824	\$65,400	\$19,620	\$1,635	\$49,300	\$14,790	\$1,233
2	Rahway Station										
5											

3 4	Skyview Luxury	Rahway Station	Union	n/a	\$1,650	\$63,950	\$19,185	\$1,599	\$43,000	\$12,900	\$1,075
2 6	Westmont Station										
3 5	Haddon Towne Center	Westmont Station	Camden	n/a	\$1,800	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
Florida (Miami)											
2 7	Brownsville Transit Village										
3 6	Brownsville Transit Village (Phases 1,2,3,4, and 5)	Brownsville Metrorail station	Miami-Dade	n/a	n/a	\$57,850	\$17,355	\$1,446	\$36,200	\$10,860	\$905
2 8	Dadeland Station										
3 7	Motion at Dadeland	Dadeland North Metrorail Station	Miami-Dade	\$1,802	\$2,356	\$57,850	\$17,355	\$1,446	\$36,200	\$10,860	\$905
New York											
2 9	Wyandanch Village										
3 8	Wyandanch Village (4 buildings)	Wyandach LIRR station	Suffolk	n/a	\$2,100	\$75,950	\$22,785	\$1,899	\$52,000	\$15,600	\$1,300
3 0	Yonkers Station										
3 9	Hudson Park North&South	Yonkers Station	Westchester	n/a	\$1,759	\$72,450	\$21,735	\$1,811	\$51,000	\$15,300	\$1,275
4 0	River Club at Hudson Park	Yonkers Station	Westchester	\$2,187	\$2,548	\$72,450	\$21,735	\$1,811	\$51,000	\$15,300	\$1,275
Massachusetts, Boston											
3 1	Ashmont Station										
4 1	The Carruth	Ashmont Station	Suffolk	n/a	n/a	\$80,850	\$24,255	\$2,021	\$53,700	\$16,110	\$1,343
3 2	The Victor at North Station										
4 2	The Victor by Windsor	North Station	Suffolk	\$2,905	\$3,230	\$80,850	\$24,255	\$2,021	\$53,700	\$16,110	\$1,343
3 3	Avalon North Station										
4 3	Avalon North Station	North Station	Suffolk	\$2,770	\$3,685	\$80,850	\$24,255	\$2,021	\$53,700	\$16,110	\$1,343
3 4	The Causeway										

4	Causeway at 226											
4	Causeway Street (234 Strada)	North Station	Suffolk	\$2,475	\$2,966	\$80,850	\$24,255	\$2,021	\$53,700	\$16,110	\$1,343	
3	Garden at North Station											
5												
4	Boston Garden											
5	Development/ Hub50House	North Station	Suffolk	n/a	\$3,390	\$80,850	\$24,255	\$2,021	\$53,700	\$16,110	\$1,343	
3	Boston Lading											
6												
4	Lantera	Boston Lading	Suffolk	\$2,480	\$3,151	\$80,850	\$24,255	\$2,021	\$53,700	\$16,110	\$1,343	
6												
3	Wellington Station											
7												
4	75SL at Station Landing	Wellington Station	Middlesex	\$2,698	\$2,606	\$63,950	\$19,185	\$1,599	\$45,200	\$13,560	\$1,130	
7												
4	Station Landing	Wellington Station	Middlesex	\$2,300	\$2,338	\$63,950	\$19,185	\$1,599	\$45,200	\$13,560	\$1,130	
8	Apartments											
Oregon, Portland												
3	Orenco Station											
8												
4	Orchards at Orenco (3 buildings)	Orenco Station	Washington	n/a	n/a	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
9												
5	Rowlock	Orenco Station	Washington	\$1,618	\$1,602	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
0												
5	Nexus	Orenco Station	Washington	n/a	\$1,754	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
1												
5	Tesserae	Orenco Station	Washington	n/a	\$1,725	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
2												
5	Hub9	Orenco Station	Washington	\$1,593	\$1,575	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
3												
5	Vector	Orenco Station	Washington	\$1,567	\$1,641	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
4												
5	Orenco Gardens	Orenco Station	Washington	n/a	\$1,420	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
5	Apartments											
3	Lents Town Center											
9												
5	Lents Commons	Lents Town Center	Multnomah	\$920	\$1,190	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
6	Apartments											
5	Oliver Station	Lents Town Center	Multnomah	n/a	n/a	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968	
7												

40	South Waterfront										
	South Waterfront (The Vera Riverplace)	SW River Pkwy & Moody	Multnomah	n/a	n/a	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968
58	The Ardea Apartments	SW Moody & Gains	Multnomah	\$1,258	\$1,500	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968
59	Griffis South Waterfront	SW Moody & Gains	Multnomah	\$1,322	\$1,584	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968
60	Ella Apartments	SW Moody & Gains	Multnomah	n/a	\$1,626	\$61,900	\$18,570	\$1,548	\$38,700	\$11,610	\$968
Washington, DC											
41	Columbia Heights										
61	Highland Park (2 buildings)	Columbia Heights Metro	District of Columbia	\$1,570	\$1,900	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290
42	Petworth Station										
62	Park Place at Petworth Metro	Georgia Avenue-Petworth Metro Station	District of Columbia	n/a	\$1,908	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290
43	Flats 130 at Constitution Square										
63	Flats 130 at Constitution Square	NoMa - Gallaudet U Metro Station	District of Columbia	\$1,881	\$2,304	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290
44	Monroe Street Market										
64	Monroe Street Market (625 Monroe Street; Phase 1)	Brookland-Cua Metrorail Station	District of Columbia	\$1,686	\$1,983	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290
45	Reston Station										
65	BLVD at Reston Station	Wiehle-Reston East Metro Station	Fairfax	\$1,750	\$1,810	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290
66	Aperture	Wiehle-Reston East Metro Station	Fairfax	n/a	\$1,991	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290
46	Ballston Commons										
67	Meridian at Ballston Commons	Ballston-MU Metro Station	Arlington	\$1,975	\$2,085	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290
47	Pentagon City										
68	The Witmer Pentagon City	Pentagon City Metro Station	Arlington	n/a	\$2,258	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290

48	Virginia Square											
69	Latitude Apartments	Virginia Square GMU Metrorail Station	Arlington	\$2,155	\$2,375	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290	
49	Wheaton Station											
70	MetroPointe	Wheaton Subway Station	Montgomery	n/a	\$1,592	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290	
71	The Exchange at Wheaton Station	Wheaton Subway Station	Montgomery	\$1,455	\$1,580	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290	
72	The Flats at Wheaton Station	Wheaton Subway Station	Montgomery	n/a	\$1,520	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290	
50	Silver Spring Station											
73	Lenox Park Apartments	Silver Spring Train Station	Montgomery	n/a	\$1,310	\$65,850	\$19,755	\$1,646	\$51,600	\$15,480	\$1,290	
Texas, Austin												
51	Plaza Saltillo											
74	Plaza Satillo Development (4 buildings); Residences at Satillo	Plaza Saltillo Station	Travis	n/a	n/a	\$63,300	\$18,990	\$1,583	\$39,600	\$11,880	\$990	
52	Kramer Station											
75	The Addison / The Domain Apartments	Kramer Station	Travis	n/a	\$1,545	\$63,300	\$18,990	\$1,583	\$39,600	\$11,880	\$990	
Texas, Dallas												
53	CityLine/ Bush Station											
76	Alexan Crossings & Axis 110	CityLine/ Bush Station	Dallas, Collin	\$1,329	\$1,339	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890	
77	Anthem Cityline	CityLine/ Bush Station	Dallas, Collin	n/a	\$1,257	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890	
54	Galatyn Park Station											
78	Galatyn Station Apartments	Galatyn Station	Dallas, Collin	n/a	\$1,066	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890	
79	Cue Galatyn Station Apartments	Galatyn Station	Dallas, Collin	n/a	\$1,293	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890	
55	Downtown Plano Station											

8081	BelAir K Station Apartments	Downtown Plano Station	Collin, Denton	\$895	\$1,085	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
	Junction 15 Apartments	Downtown Plano Station	Collin, Denton	\$1,055	\$1,225	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
56	Las Colinas										
828	The Carolyn	Las Colinas Urban Center Station	Dallas	\$1,470	\$1,420	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
838	Crest at Las Colinas Station	Las Colinas Urban Center Station	Dallas	\$1,286	\$1,291	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
57	Downtown Carrollton Station										
848	Union at Carrollton Square (Phase 1 and 2)	Downtown Carrollton Station	Denton, Dallas, Collin	n/a	\$1,281	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
858	Lux on Main	Downtown Carrollton Station	Denton, Dallas, Collin	n/a	\$1,560	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
58	Mockingbird Station										
868	The Lofts at Mockingbird Station	SMU/ Mockingbird Station	Dallas	n/a	\$1,462	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
878	5 Mockingbird	SMU/ Mockingbird Station	Dallas	\$1,265	\$1,470	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
59	Cityplace/Uptown										
888	The Sawyer Apartments	CityPlace/ Uptown Station	Dallas	n/a	\$1,321	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
898	Ardan	CityPlace/ Uptown Station	Dallas	n/a	\$2,142	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
60	Lancaster Urban Village										
900	Lancaster Urban Village	VA Medical Center Station	Dallas	\$750	\$850	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
61	Spring Valley Station										
911	Brick Row Apartments	Spring Valley Station	Dallas, Collin	n/a	\$1,245	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
62	Downtown Garland Station										
922	Oaks 5th Street Crossing (Phase 1 and 2)	Downtown Garland Station	Dallas	\$1,050	\$1,155	\$57,000	\$17,100	\$1,425	\$35,600	\$10,680	\$890
63	Parker House										

6	9	Parker House Apartments	T&P Station	Tarrant	n/a	\$1,285	\$51,750	\$15,525	\$1,294	\$32,350	\$9,705	\$809
4	3	Grapevine/Main Street Station										
6	9	Resort at 925	Grapevine/Main Street Station	Tarrant	n/a	\$1,380	\$51,750	\$15,525	\$1,294	\$32,350	\$9,705	\$809
4	4	Pennsylvania, Philadelphia										
6	5	Temple University Station										
6	9	Paseo Verde South Apartments	Temple University Station	Philadelphia	n/a	\$1,275	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
6	5	11th Street Station										
6	9	The Ludlow Apartments	11th Street Station	Philadelphia	\$1,698	\$1,866	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
6	6	Ellsworth/Federal Station										
7	9	Lincoln Square	Ellsworth/Federal Station	Philadelphia	\$1,365	\$1,825	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
6	7	Spring Mill Station										
8	9	The Courts at Spring Mill Station	Spring Mill Station	Montgomery	n/a	\$1,743	\$60,500	\$18,150	\$1,513	\$37,800	\$11,340	\$945
8	8	Maryland, Baltimore										
6	9	Owings Mills Station										
7	9	The Apartments at Metro Centre	Owings Mills Metro Station	Baltimore	n/a	\$1,750	\$63,950	\$19,185	\$1,599	\$42,050	\$12,615	\$1,051
0	9	Symphony Center										
1	0	Symphony Center Apartments	Cultural Center Station	Baltimore city	n/a	n/a	\$63,950	\$19,185	\$1,599	\$42,050	\$12,615	\$1,051
0	0	Georgia, Atlanta										
7	1	Lindbergh Center Station										
1	1	Avana on Main	Lindbergh Center Transit Station	Fulton	\$1,020	\$1,070	\$55,200	\$16,560	\$1,380	\$34,500	\$10,350	\$863
0	1	Ohio, Cleveland										

7 2	Little Italy University Circle Station											
1 0 2	Centric	Little Italy University Circle Station	Cuyahoga	n/a	\$1,560	\$50,350	\$15,105	\$1,259	\$31,450	\$9,435	\$786	
California, San Diego												
7 3	Hazard Center Station											
1 0 3	2-story high condominium buildings south of the station)	Hazard Center Station	San Diego	n/a	n/a	\$77,600	\$23,280	\$1,940	\$48,500	\$14,550	\$1,213	
7 4	Smart Corned at City Collage Station											
1 0 4	Smart Corner Condominiums	City Collage Station	San Diego	\$2,100	\$2,700	\$77,600	\$23,280	\$1,940	\$48,500	\$14,550	\$1,213	
7 5	The Village at Morena Vista											
1 0 5	The Village at Morena Vista	Morena/Linda Vista Station	San Diego	n/a	\$1,992	\$77,600	\$23,280	\$1,940	\$48,500	\$14,550	\$1,213	
Minnesota, Minneapolis-St Paul												
7 6	Oaks Station Place											
1 0 6	Oaks Station Place	46th Street Station	Hennepin	\$1,138	\$1,405	\$63,950	\$19,185	\$1,599	\$42,000	\$12,600	\$1,050	
7 7	Hamline Station											
1 0 7	Hamline Station East & Hamline Station West (2 buildings)	Hamline Avenue Station	Ramsey	n/a	n/a	\$63,950	\$19,185	\$1,599	\$42,000	\$12,600	\$1,050	
7 8	The Penfield											
1 0 8	The Penfield Apartments	10th Street Station	Ramsey	\$1,162	\$1,472	\$63,950	\$19,185	\$1,599	\$42,000	\$12,600	\$1,050	
Pennsylvania, Pittsburgh												
7 9	Glasshouse											

1 0 9	Glasshouse	Station Square Subway Station	Allegheny	n/a	\$2,248	\$54,300	\$16,290	\$1,358	\$33,950	\$10,185	\$849
Texas, Houston											
8 0	McGowen Station										
1 1 0	Camden McGowen Station Apartments	McGowen Station	Harris	\$1,749	\$1,819	\$50,700	\$15,210	\$1,268	\$31,700	\$9,510	\$793
8 1	Midtown Main										
1 1 1	Mid Main Lofts	Ensemble/ HCC Station	Harris	\$1,216	\$1,395	\$50,700	\$15,210	\$1,268	\$31,700	\$9,510	\$793
Utah, Salt Lake City											
8 2	City Creek										
1 1 2	City Creek Landing	City Center Station	Salt Lake	n/a	n/a	\$59,000	\$17,700	\$1,475	\$36,900	\$11,070	\$923
8 3	Gateway										
1 1 3	Gateway 505/ Alta Gateway Station	Old Greektown Station	Salt Lake	\$1,418	\$1,667	\$59,000	\$17,700	\$1,475	\$36,900	\$11,070	\$923
8 4	Fireclay village										
1 1 4	Avida Apartments	Murray North Station	Salt Lake	n/a	\$1,267	\$59,000	\$17,700	\$1,475	\$36,900	\$11,070	\$923
1 1 5	Murray Depot	Murray North Station	Salt Lake	n/a	n/a	\$59,000	\$17,700	\$1,475	\$36,900	\$11,070	\$923
1 1 6	Metro at Fireclay	Murray North Station	Salt Lake	n/a	\$1,219	\$59,000	\$17,700	\$1,475	\$36,900	\$11,070	\$923
Missouri, St Louis											
8 5	Forsyth Station										
1 1 7	The Crescent Condos	Forsyth Station	St. Louis County	n/a	n/a	\$54,350	\$16,305	\$1,359	\$34,000	\$10,200	\$850

APPENDIX E

EXAMPLES OF AFFORDABILITY MEASURES WITHIN EACH

CATEGORY

Examples of housing affordability measures within each category are provided below.

Top-Down Mechanisms

Top-down measures can be either regulatory or voluntary, and enacted by a city, county, or state.

City, County, and State Regulatory Measures

Most often, regulatory measures are designed to set requirements for the production of income-restricted units. Table 5.7 presents specific measures that have been adopted by cities/counties and states. Generally, they all have a similar form of an inclusionary zoning/housing ordinance or program that sets requirements for new multifamily projects above a certain threshold of total units to reserve a certain share or number of their units as income-restricted. They also usually provide an alternative of a “payment in lieu option.”

Although the general idea of all regulatory measures is similar, they may differ in geographical scope or focus that is placed on unit production versus actual fee payment. For instance, Housing Impact Fee programs establish fee requirements for all new multifamily projects, while giving an option of fulfilling the affordable housing requirement either through land dedication or incorporating affordable units into the project. In this case, the fee itself is the main requirement, not the provision of affordable units.

Below we present a more detailed description of a few examples:

Portland’s (OR) Inclusionary Housing Policy (City of Portland, n.d.) mandates that all multifamily projects over 20 units initiated after February of 2017 must set aside at least 20% of total units for households earning up to 80% AMI. If located within the Central City and Gateway Plan Districts, 20% of units must be affordable. Developers can elect to make 10% of units affordable at 60% MFI in buildings within the Central City and Gateway Plan Districts, or 8% of units for buildings in all other areas. Developers are also given a choice of either designating affordable units in an existing building or building affordable units off-site in another new development (receiving building), separate from the multifamily development that is subject to the program requirements (sending building). There is also an option of paying a fee in lieu of providing affordable units, which is calculated based on gross residential and residential-related square footage (GSF) of the proposed development at a rate of \$23 to \$27 per GSF, depending on location.

Oakland’s (Bay Area, CA) Affordable Housing Impact Fees Ordinance (2016) (City of Oakland, n.d.) requires that any applicant for a development project for which a complete building permit application is submitted on or after September 1, 2016, must pay the impact fee in effect at the time of building permit submittal. The AHIF applies to all (new) Additional Housing Units. Fees are calculated per housing unit and per square foot based on the Impact Fee Zone and Use Fee Category. Payment of the AHIF applicable to Additional

Housing Units is due in two installments: (1) first installment (50%) is due prior to the issuance of a building permit, and (2) second installment (50%) is due prior to the issuance of a temporary certificate of occupancy or certificate of occupancy, or when the building permit is finalized, whichever occurs first. New projects may reduce or eliminate the AHIF by providing on-site or off-site affordable housing units. Development projects opting to include on-site units are required to provide either 10% of moderate/low-income units or 5% of very low-income units. Along with the production of the affordable housing units, new developments may take advantage of the density bonus and incentive procedure, as described in the Oakland planning code and the State density program.

In 2021 AHIFs in zone 1 (most expensive) amount to: (1) \$22,000 per each additional multifamily unit (up from \$5,500 in 2017); (2) \$20,000 per each additional townhome (up from \$6,500 in 2017); and (3) \$23,000 per each additional single-family home (up from \$6,000 in 2017). The AHIFs have gone up by close to 300% in the last four years. The similar is true for the remaining zones 2 and 3 (respectively, less and least expensive). This study has not examined whether this program has produced the desired outcomes.

New Jersey's unique Affordable Housing Obligations system (State of New Jersey, n.d.) stems from the landmark decision of the New Jersey Supreme Court. The Court, through its rulings in *South Burlington County NAACP v. Mount Laurel*, 67 N.J. 151 (1975) and *South Burlington County NAACP v. Mount Laurel*, 92 N.J. 158 (1983), has determined that every municipality in a growth area has a constitutional obligation to provide through its land use regulations a realistic opportunity for a fair share of its region's present and prospective needs for housing for low- and moderate-income families. The Supreme Court also called for the state legislature to enact legislation that would save municipalities from the burden of having the courts determine their affordable housing needs. As a result, the state legislature adopted the Fair Housing Act in 1985. This action resulted in the creation of the New Jersey Council on Affordable Housing (COAH), the State agency responsible for monitoring the manner in which the State's municipalities addressed their low- and moderate-income housing needs. In general, COAH prepares affordable housing obligations for the municipalities, which on their side are responsible for formulating **Housing Element and Fair Share Plans** (Township of Hanover, n.d.).

City and County Voluntary Measures

This category encompasses an array of policies, programs and ordinances that are designed to promote the production of affordable units on a voluntary basis in return for rezoning, density bonuses, or zoning relief. Below we present a more detailed description of a few examples:

Boston's Inclusionary Development Policy (2020) (Boston Planning & Development Agency, n.d.) requires that market-rate housing developments with 10 or more units and in need of zoning relief support the creation of income-restricted housing through (1) inclusion of income-restricted units within their

building (typically 13% of a development's units); (2) creation of income-restricted units at a location near their building; and/or (3) contributing to the Inclusionary Development Policy Fund.

Austin's (TX) 'Affordability Unlocked' Development Bonus Program (2018) (City of Austin, n.d.) offers extensive waivers and modifications of development regulations in exchange for setting aside at least 50% of a development's total units as affordable for a minimum of 40 years for rental and 99 years for ownership units, in addition to other requirements detailed in this guide. At least 20% of the total number of units must serve households at or below 50% MFI, and the average income level served by all affordable units must be less than or equal to 60% MFI. By participating in the program, developers can access waivers or modifications of height and setback requirements, floor-to-area ratio limits, minimum site area requirements, dwelling unit occupancy limits, and minimum lot size and width regulations.

Bay Area's Assembly Bill (AB) 2923 (State of California, 2018) establishes zoning requirements on existing BART-owned property within a half mile of stations in Alameda, Contra Costa, and San Francisco counties. AB 2923 requires BART to use its 2017 TOD Guidelines as baseline standards for its land at each station. These include an allowable residential density of 75 residences per acre, "no minimum" parking standards and a minimum of one bike parking space per residential unit, while building heights and massing are set separately for three urban zones (Regional Center, Urban Neighborhood/City Center and Neighborhood/Town Center). In addition, AB 2923 offers development streamlining for developers in an exclusive negotiating agreement with BART and for projects that are at least 50% residential and include at least 20% of affordable units for low- or very low-income households. These projects may apply for expedited approval from local cities and counties (BART, n.d.).

Bottom-Up Measures

Bottom-up measures may also be categorized into voluntary and regulatory, though the majority of them are voluntary and include various tax exemption programs as well as policies and programs created by transit operators. The largest number of bottom-up measures, however, do not come from any formalized programs and policies, but are driven by ad-hoc actions (such as discretionary fees abatement/waivers/postponement or preferential land sale/lease), that arise from particular situations and negotiations, and are highly dependent on participation and involvement of nonprofit developers and community development corporations (CDCs). They also depend heavily on various types of public funding, which we have categorized in Table 5.7 as regulatory bottom-up measures. Table 5.7, as well as descriptions of projects that are 100% affordable, also includes a sizeable sample of possible sources of such funding. Below, we present more detailed descriptions of a few examples:

Tax Credit/Exemption Programs

The Low-Income Housing Tax Credit (LIHTC) (1986) program is probably the most important resource for creating affordable housing in the United States and was the single most-used mechanism to provide affordable units by TODs and projects examined in this study. There is a vast amount of literature describing the program so we will not do the same here. However, what is more important for this study is the fact that LIHTC was used to finance 14 projects of the 117 examined in this study, of which 9 were 100% affordable projects. In other words, more than half (9 of 16) of 100% affordable projects were at least partially financed with LIHTC equity.

Seattle's (WA) Multifamily Property Tax Exemption (MFTE) Program (1998) (City of Seattle, n.d.) provides a tax exemption on eligible multifamily housing in exchange for income- and rent-restricted units. Property owners may apply for an eight-year or 12-year property tax exemption for building or rehabilitating multifamily housing. The 12-year exemption requires owners to offer at least 20% of their units as affordable housing. In order to fulfill MFTE requirements, rents for one-bedroom apartments must be affordable to households earning less than 75% of the area median income and those for two-bedroom apartments to households earning less than 85% of the area median income (State of Washington, 2019).

Transit Operators Policies

In 2016, **BART** developed and adopted the **Transit-Oriented Development Policy** (BART, n.d.), which established rules and guidelines for the use and management of BART's vast real estate assets. As part of the policy, the transit operator set a district-wide target of 35% of all units to be affordable, with a priority to very low (<50% AMI), low (51-80% AMI) and/or transit-dependent populations. To aid in achieving this 35% affordability goal, BART provides up to a 60% discount in the ground lease for projects with at least 35% affordable housing (30% for projects with a high rise).

In 2013, the Washington Metropolitan Area Transit Authority (**WMATA**) updated its **Joint Development Policies and Guidelines** (WMATA, 2013) to reiterate objectives that support TOD and incorporate an affordable housing policy. WMATA's TOD policy is based on joint development. Properties either owned or controlled by Metro are marketed to private developers to develop into TOD. All developers proposing residential projects on WMATA-owned property need to comply with the minimum affordable housing requirements of the jurisdiction where the property is located. Developers are encouraged to seek creative sources of financing (low-income housing tax credits, grants, and other federal and local funding programs) to achieve any local jurisdiction affordability requirements. In June 2021, Amazon and Metro announced a joined \$125 million commitment to create 1,000 affordable housing units at Metro stations in the Washington, D.C., Metropolitan Area (State of Maryland, n.d.).