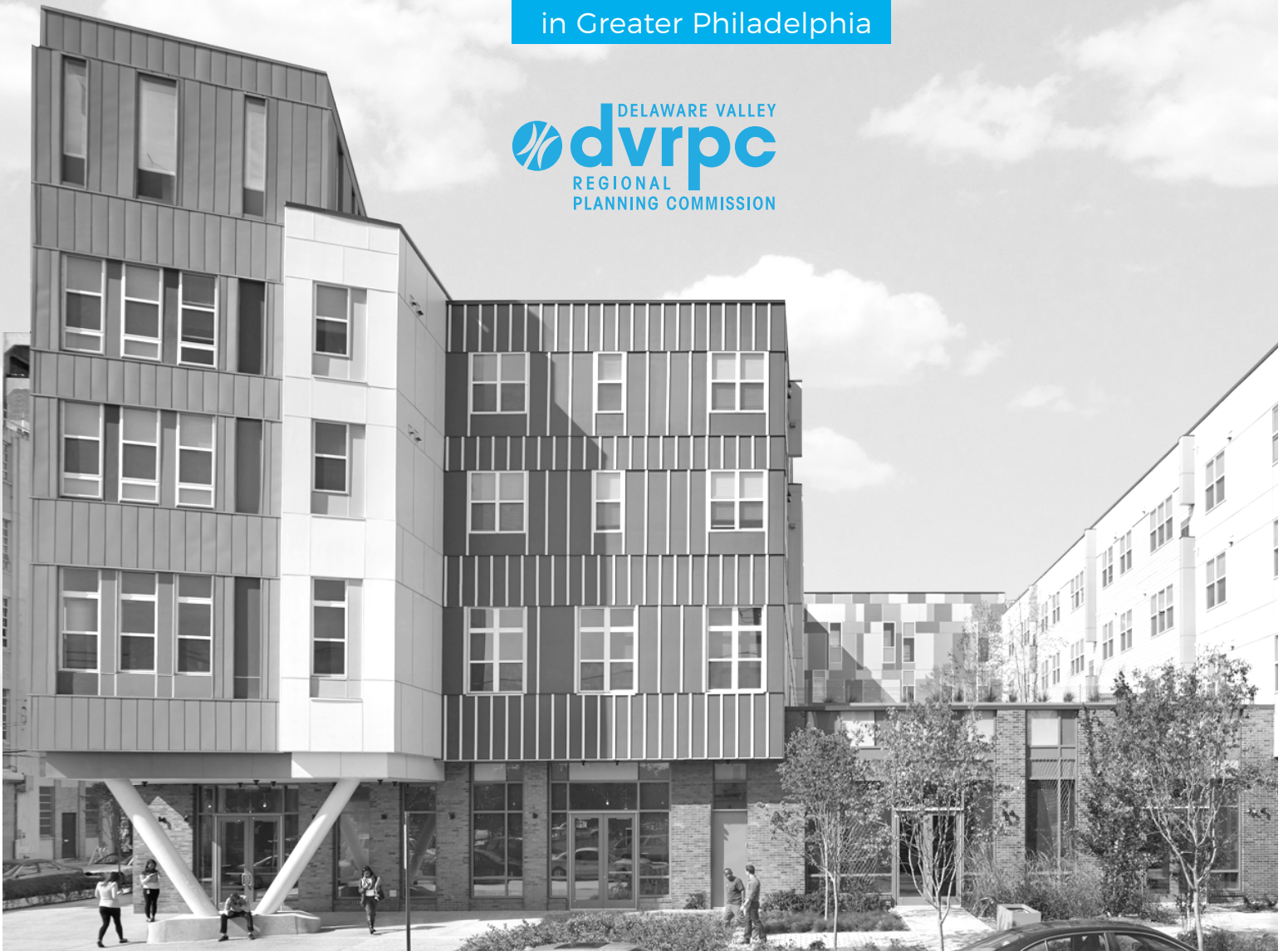MARCH 2017

BUILDING ON OUR STRENGTHS

Evaluating Transit-Oriented

Development **(TOD)** Opportunities

in Greater Philadelphia

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.

The symbol in our logo is adapted from the official DVRPC seal and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

BUILDING ON OUR STRENGTHS

Evaluating Transit-Oriented Development **(TOD)** Opportunities in Greater Philadelphia

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FIGURES

THE **BIG PICTURE**

Building successful TOD requires thinking beyond the individual station and understanding the role each neighborhood and station area plays in the regional network of transit-oriented places. It also requires an understanding of the real estate market, major employment centers, and travel patterns in the region. Regional planning for successful TOD projects is really about the coordination of existing plans for growth, transit, housing, and jobs, as well as programs and policies at all levels of government.

"TOD 204: Planning for TOD at the Regional Scale," The Center for Transit-Oriented Development (CTOD)

BUILDING ON OUR STRENGTHS

Evaluating Transit-Oriented Development **(TOD)** Opportunities in Greater Philadelphia

Transit-oriented development (TOD) is an approach to planning and building neighborhoods around transit stations that emphasizes walkability and provides multiple transportation options for local residents and employees. When thoughtfully designed, TOD can enhance access to jobs, promote healthy and active lifestyles, and create dynamic communities.

TOD has been essential to the growth and development of the Greater Philadelphia region ever since the first railroad opened here in 1832. In fact, many of the region's most well-known walkable neighborhoods are holdovers that capitalize on infrastructure and design from previous eras. Today, however, communities around the country are exploring how TOD can help them respond to a number of demographic trends and achieve a variety of civic objectives. Reinvesting in and around its extensive network of rail infrastructure remains one of the best ways that our region can attract the next generation of residents and businesses and remain competitive with the fastest–growing and most successful regions in the country.

While the region's extensive transit network is a great asset, the large number of stations and diversity of transit modes can make planning for TOD a daunting task. This study is the Delaware Valley Regional Planning Commission's (DVRPC's) latest attempt to provide a systematic approach to identifying TOD opportunities throughout Greater Philadelphia. It is designed to provide a framework to guide public and private investment at rail stations. To achieve this goal, DVRPC inventoried and analyzed 12 demographic, physical, and market conditions that can influence an individual station area's readiness for transit supportive investment. DVRPC then developed a rating system that evaluates these factors and identifies the relative strengths and weaknesses of over 150 station areas throughout the region.

The station areas that receive the highest ratings are those that exhibit a combination of the existing demographic, transit, and built environment characteristics that support transit ridership and the market and political conditions that could support higher–density development in the future. According to this analysis, many of the greatest opportunities for TOD in our region can be found along the Market-Frankford and Broad Street lines in Philadelphia and along Regional Rail and other transit lines that serve the region's Core Cities and close-in suburbs. The full results of this analysis can be viewed on a companion website and interactive map created for this study: www.dvrpc.org/webmaps/tod (a partial summary is provided in the Appendix).

In addition to assessing the TOD readiness of station areas, the data and ratings gathered and generated for this study can be used to help develop transit-supportive strategies based on the individual strengths and weaknesses of a station area.

INTRODUCTION

Greater Philadelphia has one of the most extensive and varied rail infrastructure systems in the country, dating back to the first railroad that opened here in 1832.

These early rail investments, along with the subways, streetcars, and commuter rail lines that would follow, inspired the distinctive settlement patterns that still largely define the physical form of Philadelphia and the region to this day. Without knowing it at the time, these communities helped to establish the template for what would later be called Transit-oriented development (TOD).

Simply put, TOD is compact, mixed-use development within easy walk of a transit station. This style of development occurred naturally when transportation options were primarily limited to public transit and walking. However, as driving became the dominant form of transportation in the second half of the 20th century, new development patterns built around the automobile became commonplace. The period of suburbanization after World War II came to be defined by low-density development, the separation of land uses, and reliance on personal vehicles.

Learning from the past

Decades of development focused on large homes on large lots, separated from shopping and offices, has contributed to longer commutes, strained municipal budgets, growing levels of congestion, and the loss of open space. In recent years, cities and regions around the country have once again realized that traditional development patterns, including TOD, can help them address these issues and achieve several important goals related to growth management, congestion mitigation, air quality, and cost of living.

TOD is a way of building neighborhoods around transit stations that is defined by design features that enable residents and workers to drive their cars less while walking, biking, and taking mass transit more often. These neighborhoods consist of a mix of uses that allow residents to meet more of their daily needs without traveling a great distance and without relying on a car. Today, however, TOD is increasingly being employed as a strategy

to build strong town centers that include the mix of housing, employment, and services in demand by today's market. It is time for cities and towns throughout the region to take another look at how their transit assets can drive the next wave of investment and attract a new generation of residents and businesses.

STUDY BACKGROUND

DVRPC has a long history of advocating for TOD in the region. In addition to citing TOD as a central part of its overall vision for how the region should grow in the *Connections 2040 Plan for Greater Philadelphia*, DVRPC has produced station-specific TOD plans for communities throughout the region and funded many others through its Transportation and Community Development Initiative (TCDI) grant program.

In 2003, DVRPC identified 45 TOD opportunity locations in the *Regional Inventory of TOD Sites* (Publication #03027). In 2007, DVRPC published *On Track: Progress Toward TOD in the Delaware Valley* (Publication #07030), which highlighted TOD activity at over 100 rail stations. DVRPC has also held TOD marketplaces that have brought developers together with municipalities that have development sites near transit.

This report, *Building on Our Strengths: Evaluating Transit-Oriented Development Opportunities in Greater Philadelphia*, is DVRPC's latest effort to provide a systematic approach to assessing TOD investment opportunities in the region. It is designed to provide a framework to guide public and private investment at rail stations. To achieve this goal, DVRPC inventoried a number of demographic, physical, and market conditions that can influence an individual station area's readiness for transit-oriented investment.

DVRPC then developed a rating system that evaluates these factors and identifies the relative strengths and weaknesses of station areas throughout the region. It is our hope that elected officials, planners, transit providers, developers, and citizens use this tool to direct growth and investment to rail stations where it can be leveraged for maximum impact.

DOCUMENT OVERVIEW

This document summarizes the process used to assess the TOD potential of station areas and reviews high-level findings revealed by this evaluation.

The remainder of this chapter is dedicated to a discussion of why TOD is a particularly important strategy for growth and development in the Delaware Valley at this point in time. Chapter 2 describes the methodology that was created and the data sources that were used to develop the TOD Opportunity rating system. Chapter 3 highlights findings from this evaluation and provides some guidance on how this information can be used. The full results of this analysis can be viewed in an interactive website: www.dvrpc.org/webmaps/tod.

WHY TOD IS RIGHT FOR OUR REGION

One of Greater Philadelphia's greatest assets is its robust transit network. Many of the historic communities that were built around transit are among the most desirable places to live and do business in our region. Despite this legacy, TOD in the Delaware Valley has lagged behind many of our peer regions for reasons that include relatively slower population growth in recent decades and the challenges inherent in developing around a mature transit network.

Nonetheless, developing around transit is Greater Philadelphia's best strategy to remain competitive with the fastest–growing and most successful regions in the country. Many of these regions are making major investments in an attempt to replicate levels of transit service that our region already enjoys. Greater Philadelphia can leverage its head start by investing in and around its transit network in a way that broadens transportation choices, helps to create vibrant walkable communities, provides more affordable housing options, diversifies the tax base of municipalities, and meets the demands of changing demographics.

Here are some reasons why those goals are more important than ever:

TOD PRINCIPLES

TOD is a an approach to planning and building communities around transit stations. When designed properly, TOD can enhance access to jobs, promote healthy and active lifestyles, and create vibrant communities with multiple mobility options.

While no two transit stations are identical, organizations like Reconnecting America and the Center for TOD have identified several best practices for creating successful TOD.[1]

1. Get the land uses right
Encourage a mix of uses that will together generate activity in both the peak and off-peak hours. Transit supportive uses include medium–to high–density residential, offices, and civic and educational institutions, along with appropriate retail, restaurant, and personal services.

2. Create compact development patterns
An interconnected network of streets with smaller block sizes helps to keep walking distances short and provide sites for clustered development.

3. Promote density
Locating your densest development close to a transit station can help support higher–frequency service and foster lively, walkable communities. The intensity of development can taper off away from the station to create appropriate transitions to the surrounding neighborhoods.

4. Make walking easy
Ensure that pedestrian routes between the station and key destinations are short, continuous, and direct.

5. Design for the pedestrian
TOD requires an interesting, human-scale public realm that is comprised of pedestrian-friendly streets and architectural variety.

6. Manage parking
Compact development helps to reduce the need for parking. By strategically locating parking lots and drop-off zones, station areas can accommodate automobiles without detracting from the pedestrian environment.

7. Create distinctive places
Capitalize on landmark buildings, attractive public spaces, and effective signage to create memorable destinations.

Our region continues to grow

Beginning in 2006, Philadelphia reversed a decades–long trend of population loss. As the population of our central city continues to inch upward, our region is forecasted to welcome over 600,000 new residents (10.8 percent growth) and over 300,000 new jobs (11.3 percent) by the year 2040.

Where and how this growth is accommodated will have a significant impact on the future character of our region. TOD is a central component of *Connections 2040's* centers-based growth strategy. The plan calls for focused growth in and around urban, town, and suburban centers that offer a distinctive sense of place, existing infrastructure, and opportunities for economic development and revitalization.

Transit ridership is increasing

In our region, transit ridership has been on an upswing since 2000. In 2012, the region's transit ridership was 401 million unlinked trips (a count of each passenger boarding, regardless of fare paid). This continues a steady increase that began in 2000, following a decade of declining ridership.[2]

Nationally, Americans made 10.6 billion trips by public transit in 2015, the third–highest total since 1990 (the two highest numbers of trips were made in 2013 and 2014).[3]

The increase in transit use has been accompanied by corresponding decreases in automobile usage. In eight out of the last 10 years, nationwide vehicle miles traveled (VMT) per capita have declined. Similarly, the overall percentage of automobile commuters has declined from 87.9 percent in 2000

TRACKING **DEVELOPMENT NEAR TRANSIT** IN GREATER PHILADELPHIA

Transit infrastructure plays an important role in real estate development throughout the region. DVRPC tracks noteworthy development activity near transit stations through an online application entitled the Smart Growth Project Database (SGPD).

Along with traditional neighborhood developments and conservation subdivisions, this application maps proposed, in progress, and recently completed developments near transit in our region. This database is intended to serve as a quick and convenient reference tool for planners, local officials, and citizens who are interested in Smart Growth. Not all of the developments featured here exemplify all of the principles of TOD; however, they do reflect the current state of real estate development near our transit infrastructure.

Development near transit takes a number of forms as evidenced by the images of completed and proposed projects included here. To learn more about these projects and many others, please visit: www.dvrpc.org/webmaps/SGPD/.

1. Schuylkill Yards, Philadelphia, PA *(proposed)*
2. Fashion Outlets of Philadelphia, Philadelphia, PA
3. Eastside Flats, Malvern, PA
4. Riverwalk at Millennium, Conshohocken, PA
5. Silk Factory Lofts, Lansdale, PA
6. LumberYard, Collingswood, NJ
7. Station at Bucks, Warminster, PA
8. Piazza at Schmidt's, Philadelphia, PA

Images
1. Brandywine Realty Trust
2. PREIT
3. Lincoln Property Company
4-8. DVRPC

to 85.7 percent in 2014.[4] In our region, DVRPC's Household Travel Survey recorded a 2.4 percent decrease in automobile trips (for all purposes) between 2000 and 2013.[5]

Growing demand for less car-dependent lifestyles

Millennials and baby boomers, the two largest living generations, are driving demand for walkable urban places with easy access to regional employment. Philadelphia's share of the millennial population (young adults, age 18 to 34) has increased at one of the fastest rates of any of the largest cities in the country. Between 2005 and 2014, the number of Philadelphia residents between the ages of 18 and 34 grew by 130,000, an increase of 41 percent. Today, this age group represents nearly 30 percent of the city's population and just over 23 percent of the overall region's population.

Nationally, young adults represent the largest source of new demand for rental housing and first-time home purchases. While significant numbers of millennials have been attracted to urban centers due to the amenities they offer, even those that settle in the suburbs will seek places that offer some of the benefits of city life. According to the *2015 Community and Transportation Preference Survey*, 50 percent of millennials prefer living where there are lots of places to walk nearby, such as shops, cafes, and restaurants.[6] Furthermore, millennials reported using public transportation more than any other generation (40 percent did compared to 28 percent for generation X and 19 percent for baby boomers.)

The Urban Land Institute's (ULI's) *America in 2013* suggests that even baby boomers (generally those now in their 50s and 60s) are expressing interest in environments that mix urban and suburban characteristics. According to the survey results, 72 percent would opt for a shorter commute and a smaller home over a longer commute and a larger home, while nearly half would like to live near developments that offer a mix of shopping, dining, and offices.

Over 50 percent indicated that access to public transportation is important.[7]

Recent research suggests that areas outside of Center City Philadelphia may not be well equipped to handle the growing demand for vibrant mixed-use, walkable communities. *Foot Traffic Ahead* is a recurring study conducted by the George Washington University School of Business and Smart Growth America which attempts to rank walkable urbanism in America's 30 largest metropolitan areas.

In both 2014 and 2016, the Philadelphia Metropolitan Area was found to have 17 regionally significant "Walk-Ups," areas that contain a series of characteristics related to economic performance, urban form, and social equity. This number places the region in the second tier of metro areas (alongside places like Denver, Pittsburgh, Cleveland, and Baltimore; and behind cities like Washington DC, New York, Boston, and Chicago). Furthermore, their research indicates that only 16 percent of the region's Walk-Up office and retail space is located outside of Philadelphia. Cultivating TOD in suburban transit communities represents a great opportunity to create the types of communities that will increasingly be in demand.

Compact, walkable development is good for the bottom line

At a time when municipal budgets are stretched, TOD can create a built environment that can help revitalize a downtown, support a good business climate, and lead to larger municipal tax yields.

Analysis conducted by New Jersey Future reflects national findings regarding the economic benefits of mixed-use development due to increased property tax revenue. According to their assessment of real estate projects in New Brunswick and Morristown, New Jersey, commercial properties of three to five stories generated, on average, 15 times the property taxes per acre of their one- to two-story counterparts.

Among purely residential developments, mid-rise multifamily buildings paid more than nine times the average per-acre property taxes paid for by detached single-family homes in the area.[8]

Living in a community in which walking, biking, and public transportation can serve as viable transportation options can also provide savings for households throughout the region. Areas that can support zero- or one-car lifestyles can have lower transportation costs, thereby making transit neighborhoods more affordable to live in even if houses are more expensive. According to the March 2016 *Transit Savings Report*, the American Public Transportation Association estimates that a two-person household can save an average of $9,234 per year by taking public transportation and living with one fewer car.[9]

BUILDING A TOD OPPORTUNITY RATING SYSTEM

What conditions are required for TOD to be successful? How can we ensure that new development near transit will enhance transportation options and support vibrant commercial districts?

Building successful TOD can be challenging. It requires intense collaboration across a variety of subject matters: urban design, zoning, community development, and infrastructure investment. However, implementing TOD can become easier when we focus our efforts in the right places.

The potential readiness of a transit station area for TOD can be partially predicted by evaluating a range of existing built environment, social, and transit attributes. This study was undertaken to assess a variety of conditions that together constitute the essential building blocks for successful TOD. DVRPC has constructed a TOD Opportunity rating system that considers a variety of factors across two broad categories:

- TOD Orientation; and
- TOD Potential.

These categories, and the specific factors included in them, are described in more detail later in this chapter. They were chosen because they reflect commonly accepted principles of TOD projects and build on criteria established in DVRPC's 2007

Study, *On Track: Progress Toward TOD in the Delaware Valley*. The evaluation factors were also influenced by recent planning efforts conducted by peer agencies to assess the TOD potential of their own transit infrastructure, as well as input from our regional planning partners. This rating system was designed to identify individual strengths and weaknesses within a station area (generally one-half mile) while also allowing for comparisons between station areas in different parts of the region.

SELECTING STATION AREAS

With over 300 rail transit stations throughout our region, identifying and prioritizing stations for TOD investments is a daunting task. DVRPC narrowed the scope of this analysis in two ways to make the results more targeted.

First, rail transit stations within the Philadelphia portion of the Metropolitan Center as defined in *Connections 2040* were removed from this TOD analysis. This area, bounded by Girard Avenue on the north, Washington Avenue on the south, the Delaware River to the east, and 42nd Street

to the west, largely corresponds to Greater Center City. It includes several stations along the Market-Frankford and Broad Street lines, as well three major multimodal transportation centers: 30th Street Station, Suburban Station, and Jefferson Station. The area is also home to PATCO's four Philadelphia stations.

This relatively small part of the region plays an outsized role as the economic, institutional, and cultural center of Greater Philadelphia. Greater Center City has seen tremendous population growth in recent years, and developers have kept pace by adding 5,600 new housing units in the last three years alone.[1] Due to Center City's network of small streets, dense mix of uses, and robust transit network, much of the existing and new development functions as TOD. While there is certainly room for additional transit-supportive development in this district, this potential is already well established.

Second, DVRPC conducted a preliminary screening of rail transit stations in order to reduce the overall number of stations to be included in our full analysis. A total of 226 rail transit stations were screened. This number includes stations owned and operated by the region's three primary rail transit providers:

- SEPTA: Regional Rail, Market-Frankford Line, Broad Street Line, Norristown High Speed Line, Trolleys;
- NJ Transit: Northeast Corridor, River Line; and
- Delaware River Port Authority (DRPA): PATCO High Speed Line.

The number of stations that were screened accounts for the excluded Center City stations as well as the consolidation of stations where multiple transit services are provided. For example, the 69th Street Transportation Center in Upper Darby, Pennsylvania is considered as a single station although it serves the Norristown High Speed Line, the Market-Frankford Line, and several trolley routes.

These 226 stations areas were screened for three basic factors related to transit orientation:

Transit Service Quality: the total number of transit trips available at a given station on a typical weekday. Greater transit frequency makes transit more valuable to nearby residents and employees.

Population and Employment Intensity: the total number of residents and employees located within one-half mile of the station. Higher residential and employment densities generally support greater transit ridership and encourage greater retail offerings.

Walkability: Walk Score rankings were gathered for each station to indicate the relative walkability of a station area. Walk Score® is an independently developed assessment that analyzes both the number of amenities nearby and attributes such as block length and intersection density, which can influence pedestrian orientation. Higher scores indicate areas with greater walkability.

Each station area was ranked according to a composite score that incorporated these three measures. The 150 stations that received the highest scores were selected for further study. To this list, county stakeholders nominated a number of stations to be included despite ranking outside of the top 150 stations. These nominations included select stations along SEPTA Trolley Routes 11, 13, 101, and 102. The transit lines considered in this study are illustrated in Figure 1. The full list of stations covered in this analysis is contained in the Appendix. In total, this study assessed the TOD readiness of 162 station areas.

EVALUATION CRITERIA

After researching a multitude of scoring attributes that can be used to evaluate the TOD readiness of a given station area, DVRPC selected 12 factors for this analysis. In addition to their relationship to TOD, priority was given to attributes that were easy to calculate, readily available from existing data sources, and applicable to the variety of environments found throughout our region. While most attributes are purely quantitative, others were more qualitative and relied on broad interpretations of aerial photos, as well as input from our planning partners.

Figure 1: Regional Transit Network
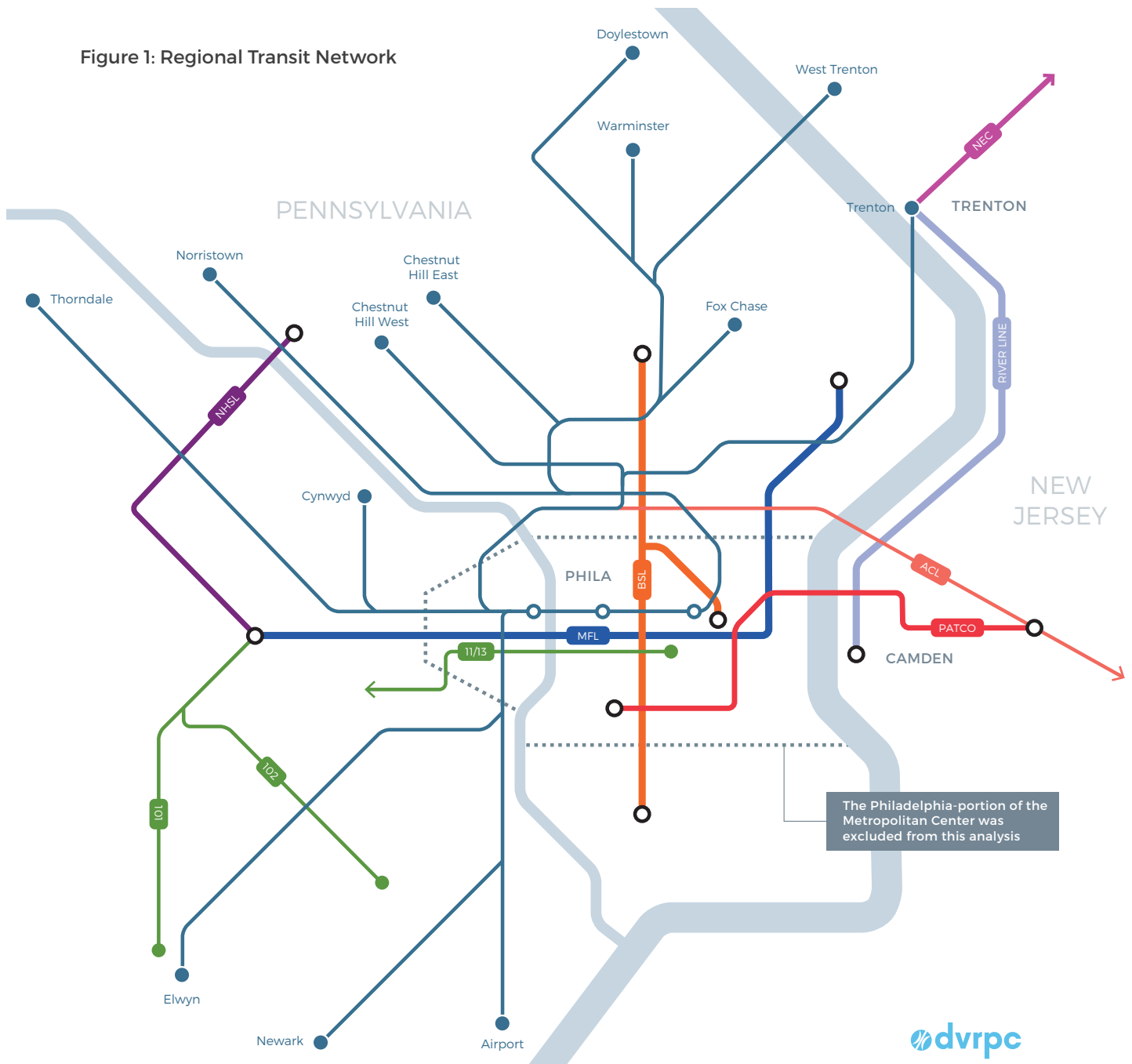
Number of stations evaluated by transit line

▬▬	DRPA PATCO (6)
▬▬	NJ Transit Northeast Corridor (2)
▬▬	NJ Transit River Line (9)
▬▬	SEPTA Broad Street Line (14)
▬▬	SEPTA Market-Frankford Line (17)
▬▬	SEPTA Norristown High Speed Line (16)
▬▬	SEPTA Trolley (8)
▬▬	SEPTA Regional Rail (83)

The study also includes seven transit centers that are served by more than one transit line.

Number of stations evaluated by county

County	Stations
Philadelphia	66
Delaware	38
Montgomery	28
Camden	12
Bucks	5
Chester	5
Mercer	5
Burlington	3

The Philadelphia-portion of the Metropolitan Center was excluded from this analysis

To create an easily understood rating system, each factor was rated on a scale of 1 to 4. In some cases, this ranking was based on a quartile distribution of that factor across all station areas. The stations that scored in the lowest quartile for a given factor were awarded one point; those in the highest quartile received four points.

In other cases, the TOD ratings were based on predetermined scoring ranges that help to differentiate station areas. Details on specific evaluation criteria and their scoring are discussed below (station area attributes were ranked according to a quartile distribution unless otherwise noted).

The 12 individual attributes employed by this study were grouped into two complementary categories, TOD Orientation and TOD Potential. By describing separate yet related aspects of each station area, these categories paint a comprehensive assessment of TOD readiness. Composite scores for each category were generated by averaging the scores of the individual attributes within each category. In this way, each station area is assigned a pair of scores that together can be used to evaluate its overall TOD readiness (see *Measuring TOD Readiness* on page 13 for more information).

CATEGORY 1: TOD ORIENTATION

The seven attributes contained in this category provide an overview of the existing transit, demographic, and physical context of a station area. Together, these attributes describe how supportive the existing conditions within a station area currently are of the land use and travel patterns that are frequently associated with TOD. This category includes considerations such as:

- Frequent, fast transit service that is connected to useful destinations can reduce dependence on automobiles and attract mixed-use development.
- The number and characteristics of residents and workers in a station area often correlates with transit use and travel behavior.

- Smaller block sizes and integrated land uses can reduce the distance that needs to be traveled to accomplish daily tasks and promote walking.

1. Transit Service Quality

The Transit Connectivity Index (TCI), developed by the Center for Neighborhood Technology (CNT), is a 100-point scale that measures how connected the average household in a Census Block Group is to the availability of a transit ride. The TCI score reflects the number of transit trips that are accessible by walking in a specific location each week. This measure examines the frequency and proximity of all transit routes, and so this score also reflects other modes of transit, like buses, that may be available in a specific station area. TCI scores for stations areas are based on Census Block Group scores available through CNT's interactive Housing and Transportation Affordability Index (H+T® Index).

2. Job Access

The number of jobs accessible by transit directly influences how desirable a station area is to potential residents and businesses. This attribute identifies the number of jobs accessible via a 30-minute transit ride from a given station area. This data was aggregated by CNT as part of their H+T Index and is based on 2014 Longitudinal Employer-Household Dynamics.

3. Travel Time

A ratio of transit to automobile travel time was calculated for each station. This ratio compares travel times, derived from Google Maps, to Suburban Station based on a 9:00 AM arrival on a Tuesday morning. Suburban Station was chosen as a central location within the region's largest employment center. For transit trips, transfers and walking times are included in the analysis. For select stations in Mercer County, travel times were calculated to both Suburban Station and Penn Station in New York City.

Travel time ratios of 1.0 or more reflect trips that are quicker by transit during this time period.

MEASURING **TOD READINESS**

This study uses 12 factors to evaluate the TOD readiness of transit station areas. The rating system is predicated on the idea that the more supportive characteristics a station area possesses, the higher its chances for successful TOD are.

Building on a methodology established by the Center for TOD (CTOD), these factors were organized into two complementary categories designed to provide a comprehensive assessment of each station area: **TOD Orientation** and **TOD Potential.** The specific measures and data sources for each factor are listed in the table below.

1 TOD ORIENTATION
1. Transit Service Quality
2. Job Access
3. Travel Time
4. Intensity
5. Car Ownership
6. Non-Car Commuters
7. Walkability

2 TOD POTENTIAL
1. Development Activity
2. Commercial Market
3. Residential Market
4. Available Land
5. Planning Context

	FACTOR	MEASURE	DATA SOURCE
1. TOD ORIENTATION	Transit Service Quality	Transit Connectivity Index (TCI)	CNT, H+T Index
	Job Access	Number of transit-accessible jobs	CNT, H+T Index
	Travel Time	Ratio of transit/auto travel time	Google Maps transit and travel time estimates
	Intensity	Residents + employees	CTOD TOD Database, NETS Database
	Car Ownership	Percentage of households with 0 or 1 car	CTOD TOD Database
	Non-Car Commuters	Percentage of non-car commute mode	CTOD TOD Database
	Walkability	Walk Score®	Walk Score®

	FACTOR	MEASURE	DATA SOURCE
2. TOD POTENTIAL	Development Activity	Number of recently built, under-construction, and proposed multifamily units	CoStar Commercial Real Estate Database
	Commercial Market	Five year average rent per square foot for office space	CoStar Commercial Real Estate Database
	Residential Market	Average asking rent per square foot for multifamily units	CoStar Commercial Real Estate Database
	Available Land	Presence of underutilized land	DVRPC land use layers, aerial photos
	Planning Context	Planning initiatives, supportive regulations, recent or planned capital improvements, or economic development incentives	County and municipal planning efforts, agency capital improvement plans, DVRPC resources

dvrpc

Stations receiving this score were ranked highest for this attribute. The remaining stations were divided among the following ranges: 0.75–0.99, 0.50–0.74, and 0.49 and below.

4. Intensity

This attribute represents the total number of residents and employees located within one-half mile of the station. This factor combines population figures aggregated by the CTOD's TOD Database and employment figures from the National Establishment Time-Series (NETS) employment database maintained by Walls & Associates.

5. Car Ownership

This attribute reflects the percentage of occupied housing units within a station area with zero or one vehicle. These households may represent existing or potential transit users. This data was gathered in CTOD's TOD Database and is based on data from the U.S. Census Bureau's American Community Survey.

6. Non-Car Commuters

This attribute captures the percentage of station area residents who commute to work by public transportation, bicycle, or walking. Station areas with higher proportions of non-car commuters likely contain some of the physical attributes that support successful TOD. This data was gathered in CTOD's TOD Database and is based on data from the U.S. Census Bureau's American Community Survey.

7. Walkability

A station area's Walk Score® reflects the number of commercial amenities that can be reached on foot. This 100-point scale can also be used to help identify station areas with the physical characteristics that enable walking.

Station areas with Walk Scores above 90 received our highest ranking. The remaining stations were divided among the following ranges: 70–89, 50–69, and 49 and below.

CATEGORY 2: TOD POTENTIAL

The five attributes in this category capture a blend of real estate market conditions and political context that are suggestive of future development opportunities. The vitality of the real estate market in a given station area is a significant determinant of the types of development that are likely to occur. Areas with stronger market dynamics are more likely to attract developer interest and require less public sector intervention. Similarly, a supportive local political climate can help facilitate the collaborative planning efforts needed to promote TOD.

1. Development Activity

This attribute measures the number of residential multifamily units proposed, under construction, or built within a station area over the last 10 years according to the CoStar Commercial Real Estate Database. Areas with recent development activity typically reflect stronger market conditions.

2. Commercial Market

Station areas were assessed based on average rent per square foot for office space over the last five years according to the CoStar Commercial Real Estate Database.

3. Residential Market

This attribute is based on the current average asking rent per square foot for multifamily units according to the CoStar Commercial Real Estate Database.

4. Available Land

This measure mixes quantitative and qualitative data to identify the presence of vacant and underutilized land that may provide opportunities for TOD within one-quarter mile of stations.

Our assessment was based on land identified as vacant according to DVRPC's 2010 Land Use GIS layer and the Philadelphia City Planning Commission's 2016 Land Use GIS layer. A station area's rating was influenced by the number, size, and arrangement of vacant parcels, as well as their proximity to the station. Although this

DEFINING STATION TYPES

Transit stations can be found in a variety of urban and suburban environments throughout our region. In an effort to organize the findings of this analysis and guide future station area planning, each station area in this study has been classified as one of seven types. These types were assigned based on a combination of quantifiable and qualitative characteristics, including land use mix, residential density, building placement, and block dimension.

A station area's street network is instrumental in defining its character. Illustrative street network diagrams for six of the station types are shown here. Generally, urban areas are defined by a rectilinear grid of streets with smaller blocks and lots that make walking more convenient. In suburban environments, block and lot size typically increase, which can increase the distances between destinations and limit the number of routes available to a traveler. Several station areas that did not fit into these categories were designated as Special Districts (not shown) based on their unique contexts.

URBAN

SUBURBAN

URBAN CENTER

URBAN NEIGHBORHOOD

TOWN CENTER

TOWN NEIGHBORHOOD

SUBURBAN CENTER

SUBURBAN NEIGHBORHOOD

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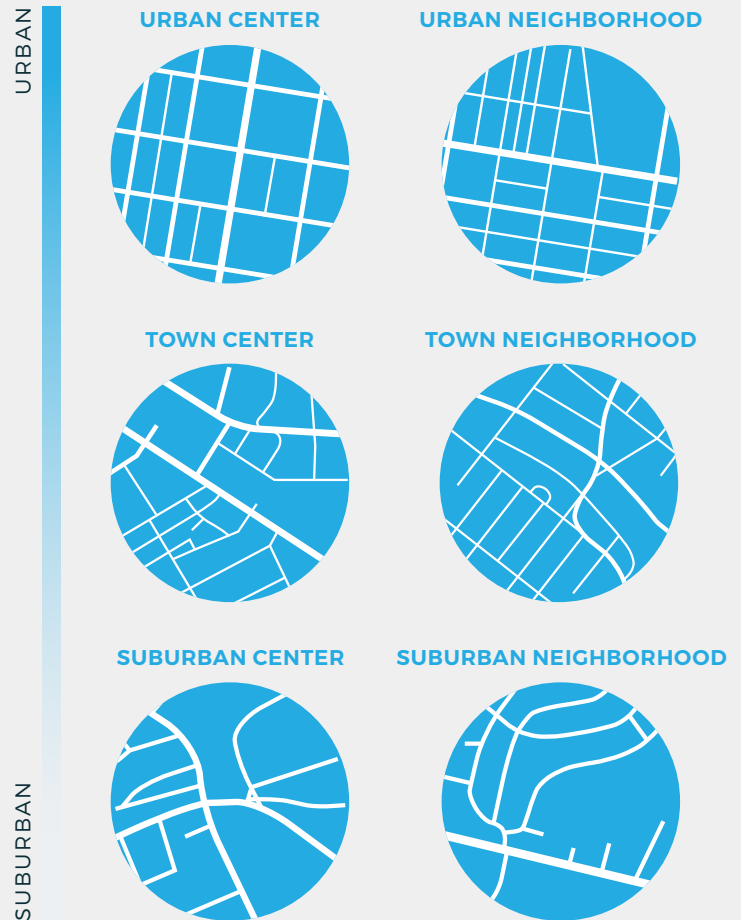
assessment was primarily based on the presence of vacant parcels, industrial properties and large areas of surface parking were also factored into this analysis. These lower-intensity land uses may offer future redevelopment opportunities as the demand for mixed-use development grows.

Station areas with seemingly larger concentrations of vacant and underutilized land in close proximity to a station received our highest ranking in this category. The attribute does not include various factors that affect the potential development of a site, such as land ownership and assembly issues, current zoning, and environmental contamination.

5. Planning Context

This attribute attempts to measure the degree to which TOD and other transit-supportive measures have been identified as appropriate strategies for a given station area. The rating incorporates

transit-supportive municipal and county planning initiatives and regulations, as well as recent and planned capital improvements sponsored by a transit provider.

The station areas that scored the highest in this category combined recent planning efforts, such as a station area redevelopment plan, with TOD-supportive ordinances and planned or recently completed station facility improvements.

COMPARING STATION AREA TYPES

As mentioned, the sheer size of the region's transit network presents challenges when attempting to make broad classifications related to TOD readiness. Rail transit stations are distributed throughout the region and can be found in a variety of planning contexts that are established in *Connections 2040*. These contexts include Core Cities,

Developed Communities, Growing Suburbs, and Rural Areas. Some station areas will have a strong commercial core near the station, while others will be primarily residential or employment based. The degree to which transit drives, influences, or supports developments in these station areas will vary significantly based on the surrounding land use context and physical form.

For the purposes of this study, each station area has been classified as one of seven types. These types are based on the land use contexts that were originally developed as part of the *Smart Transportation Guidebook*. This guidebook was jointly developed by the New Jersey and Pennsylvania departments of transportation in 2008 to guide planning efforts in communities throughout those states.

The following descriptions provide broad generalizations about the planning context of each station area. They enable another layer of analysis by allowing station areas to be compared not only across the entire region, but also to other stations with similar land use contexts. Many station areas do not fit neatly into one category. In these cases, station areas were classified according to their dominant land use condition.

Urban Center: Downtown areas consisting of blocks of higher-density, mixed-use buildings. These urban areas are located in the region's Core Cities and often include taller buildings and a network of compact blocks.

Urban Neighborhood: Dense, primarily residential areas of the region's Core Cities that are often well connected to Urban Centers. Housing is often mixed with local-serving retail.

Town Center: Mixed-use, higher-density areas with buildings that are typically two to four stories tall that include commercial operations on the ground floor and offices or residences above. These districts often have parallel parking and are typically surrounded by denser residential neighborhoods. Town Centers are primarily located within the region's Developed Communities.

Town Neighborhood: Primarily residential neighborhoods that sometimes include retail, restaurants, and offices. Block sizes are regular and often smaller than those found in conventional Suburban Neighborhoods. Town Neighborhoods can be found throughout the region's Developed Communities and in less urban portions of Philadelphia.

Suburban Center: Often a mixed-use, cohesive collection of land uses that may include residential, office, and retail uses. These areas are typically designed to be accessible by cars and are typically less accommodating to pedestrians than Town Centers. The majority of Suburban Centers are located in Developed Communities, but a few are located in Growing Suburbs.

Suburban Neighborhood: Predominantly low-density residential communities built after World War II. House lots tend to be larger than those in Town Neighborhoods, and the street networks are often more curvilinear and less connected to surrounding streets than those in more urbanized areas.

Special District: A few stations did not fit into any of the categories described above. These stations have been classified as Special Districts with a specialized context based on their location within a university environment, business park, or stadium district.

USING THE TOD OPPORTUNITY RATING SYSTEM

The rating system developed for this study is a powerful tool for decision makers that compares individual station areas across a variety of factors that establish the foundation for TOD.

The TOD Opportunity rating system was not designed to judge the feasibility of a specific TOD project or the appropriateness of development on a specific parcel; however, the ratings do have important implications for our planning partners throughout the region. The assessments made for this study can provide municipalities, transit providers, planners, community development organizations, and private developers with information that can help them determine if TOD is an effective strategy for developing sites around a transit station.

As described in Chapter 2, a station area's overall readiness for TOD is represented by a pair of scores corresponding to its performance across two categories of TOD-related indicators: TOD Orientation and TOD Potential. The full results of this analysis can be viewed on a companion website created for this study: www.dvrpc.org/webmaps/tod (a partial summary is provided in the Appendix to this document). This chapter highlights high-level findings based on the results

of our analysis and presents a variety of potential applications of the rating system.

KEY FINDINGS

Comparing station areas across the two categories allows us to highlight the relative strengths and weaknesses of individual station areas, transit corridors, and transit modes. The first category, TOD Orientation, measures a variety of transit, demographic, and built environment characteristics that collectively describe how supportive the existing conditions of a station area are of the land use and travel patterns that are frequently associated with TOD.

The 40 station areas receiving the highest ratings in the TOD Orientation category are mapped in Figure 2. These 40 stations roughly represent the stations areas ranked in the top quartile for this category. The vast majority of these station areas (87.5 percent) are located in the City of Philadelphia. Furthermore, over 70 percent of these

Figure 2: Highest–Rated Station Areas: TOD Orientation
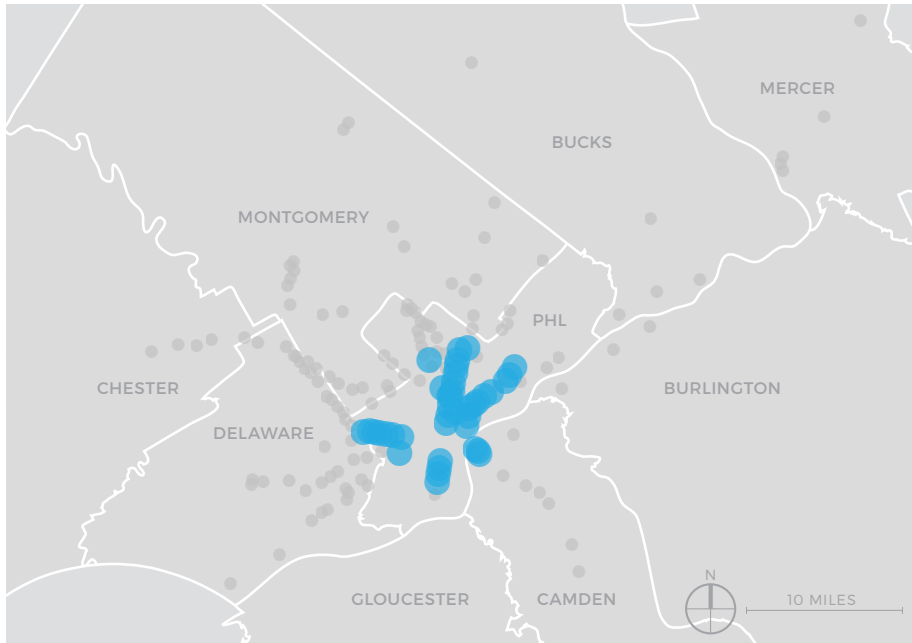
● Station area scoring highest in the **Existing Transit Orientation** category

● Other station areas included in this study

HIGHEST–RATED STATION AREAS BY COUNTY

County	Percentage	[Overall]
PHILADELPHIA	87.5%	[41%]
CAMDEN	7.5%	[7%]
DELAWARE	5%	[23%]

HIGHEST–RATED STATION AREAS BY TRANSIT LINE

Transit Line	Percentage	[Overall]
MARKET-FRANKFORD	40%	[10%]
BROAD STREET	32.5%	[9%]
REGIONAL RAIL	17.5%	[51%]
MULTIPLE RAIL LINES	5%	[4%]
PATCO	2.5%	[4%]
RIVER LINE	2.5%	[6%]

The numbers in brackets reflect the overall percentage of station areas included in this study in each of these categories.

Figure 3: Highest–Rated Station Areas: TOD Potential
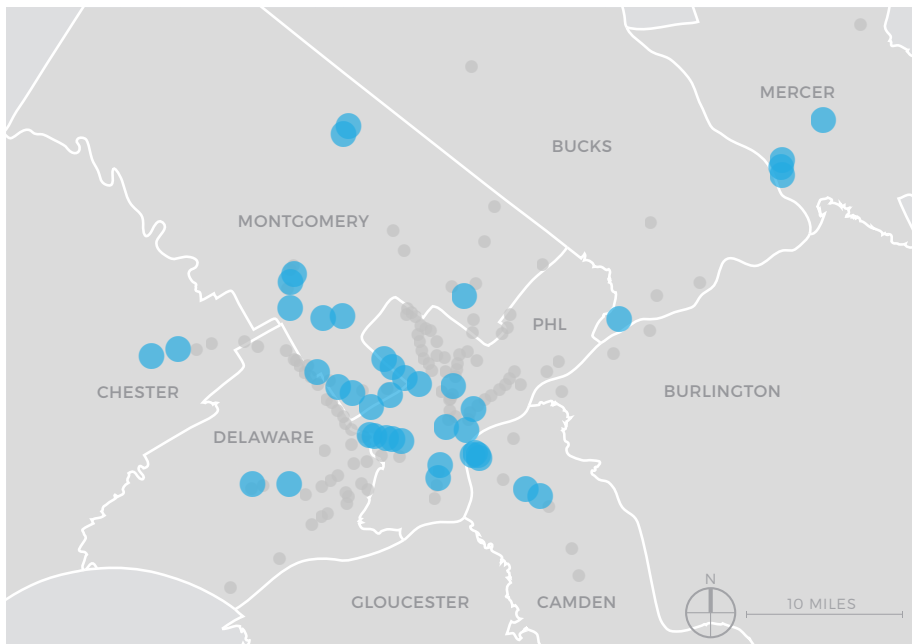
● Station area scoring highest in the **Future TOD Potential** category

● Other station areas included in this study

HIGHEST–RATED STATION AREAS BY COUNTY

County	Percentage	[Overall]
PHILADELPHIA	34.9%	[41%]
MONTGOMERY	27.9%	[17%]
CAMDEN	13.9%	[7%]
MERCER	9.3%	[3%]
DELAWARE	7%	[23%]
CHESTER	4.7%	[3%]
BUCKS	2.3%	[3%]

HIGHEST–RATED STATION AREAS BY TRANSIT LINE

Transit Line	Percentage	[Overall]
REGIONAL RAIL	39.5%	[51%]
MARKET-FRANKFORD	16.2%	[10%]
BROAD STREET	9.3%	[9%]
RIVER LINE	9.3%	(6%)
MULTIPLE RAIL LINES	7%	[4%]
PATCO	7%	[4%]
NHSL	4.7%	[10%]
TROLLEY	4.7%	[5%]
NEC	2.3%	[1%]

The numbers in brackets reflect the overall percentage of station areas included in this study in each of these categories.

station areas are served by the Market-Frankford or Broad Street lines. These Philadelphia-based rapid transit stations are overrepresented in this category because, when compared to other station areas in our region, they generally possess higher levels of transit service, larger residential and employee populations, and many of the physical characteristics that promote walkability and transit use.

The station areas receiving the highest ratings in the TOD Potential category are mapped in Figure 3. The indicators in the category help to identify real estate market conditions and planning efforts that are supportive of denser, mixed-use development. Again, the 43 stations shown here roughly approximate the station areas ranked in the top quartile for this category. Unlike the station areas that performed best in the TOD Orientation category, these station areas are more evenly distributed throughout the region and across various transit lines.

While nearly 35 percent of these station areas are located in Philadelphia, six other counties are represented among the highest rated. When using the TOD Potential metrics, Montgomery, Camden, and Mercer counties rate particularly

well: each county is overrepresented in the highest quartile when compared to the proportion of stations included in the study from those counties. These highly rated station areas also represent a greater diversity of transit types. Regional rail stations account for nearly 40 percent of the highest-rated station areas. Overall, nine transit lines (including station areas with multiple lines) are represented in the top quartile.

While illustrating the strengths and weaknesses of station areas across each data category is helpful, many of the greatest opportunities for TOD in our region can likely be found in station areas that score the highest in both ratings categories. Figure 4 is a TOD Opportunity Quadrant that can be constructed by plotting each station area's pair of scores onto a coordinate system. The axes themselves represent the median score in each category. Quadrant 1 (upper right) represents station areas that score above the median in both TOD Orientation (X axis) and TOD Potential (Y axis) categories. These stations are mapped and listed in Figure 5. Quadrants 2 and 4 include station areas that score above the median in one category, while the station areas found in Quadrant 3 fall below the median in both category scores.

Figure 4: TOD Opportunity Quadrants
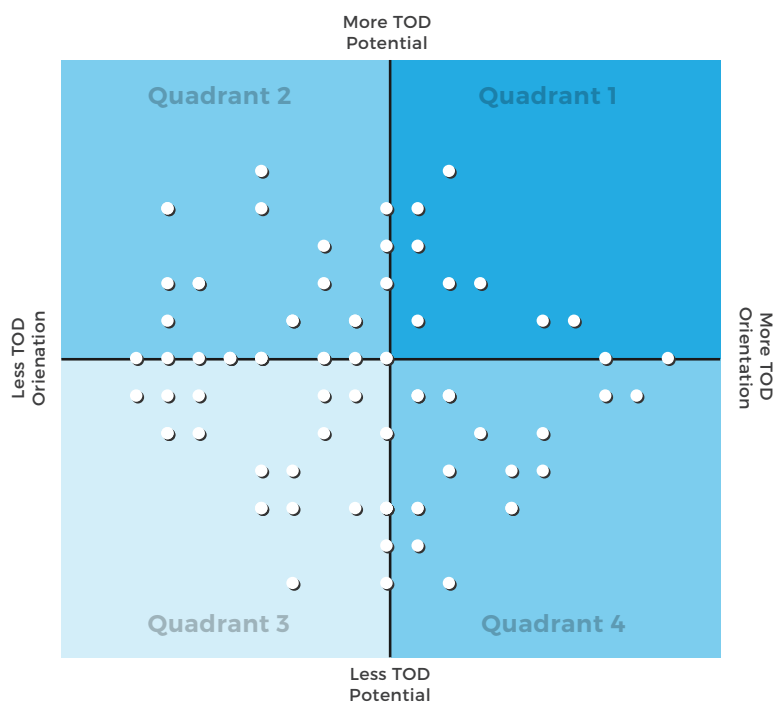
All stations being assessed in this study can be plotted onto one of four quadrants of a coordinate system based on the rating they received in each data category. In this case, TOD Orientation scores are shown on the X axis and TOD Potential scores are shown on the Y axis. The axes themselves represent the median scores in each category.

Station areas that fall in Quadrant 1 (listed on page 20) scored above the median in each category. Station areas in Quadrant 2 demonstrate greater TOD Potential but exhibit less TOD Orientation. Quadrant 3 includes stations that scored below the median in both categories. Finally, station areas in Quadrant 4 scored above the median in TOD Orientation but below the median in TOD Potential. See the Appendix for details on how individual station areas performed.

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Figure 5: Highest–Rated Station Areas: Overall
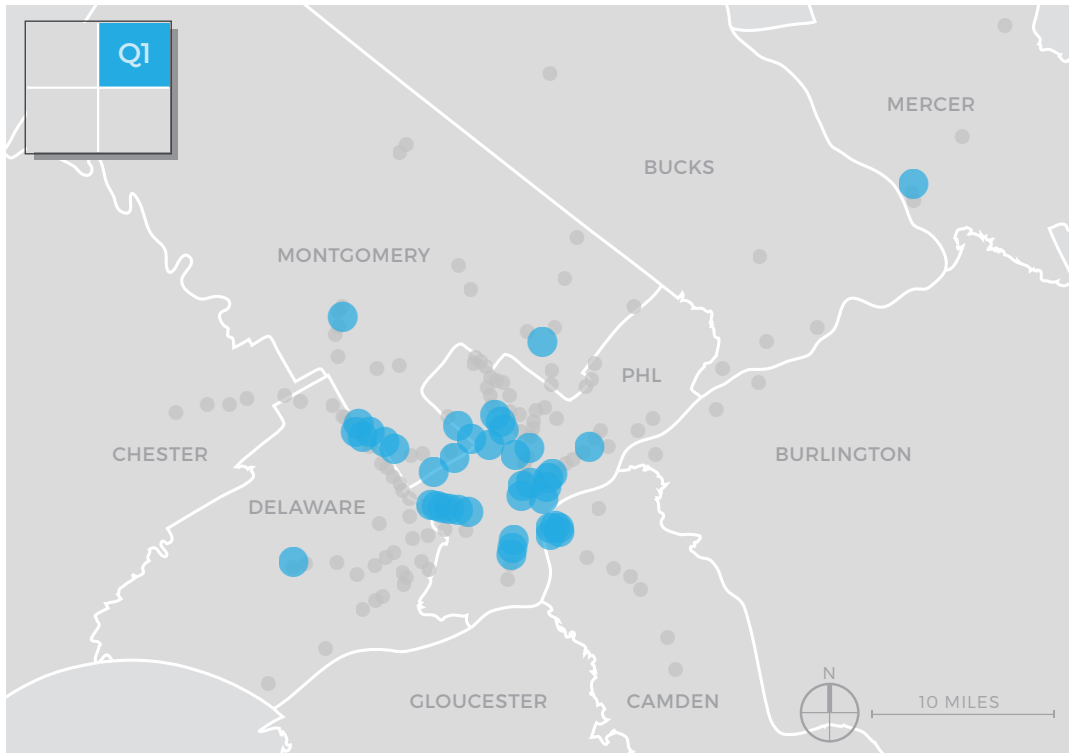
- 🔵 Station area exceeding the median score in both data categories
- ⚪ Other station areas included in this study

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Mapping Quadrant 1 Stations

The station areas that received the highest ratings in both the TOD Orientation and TOD Potential categories likely represent some of the greatest opportunities for TOD in our region.

The 42 station areas shown on this map (and listed below) are the stations that exceeded the median score in each ratings category. Selected attributes of the highest–rated station areas are listed below.

Broad Street Line

- Cecil B Moore
- Ellsworth-Federal
- Erie
- Girard
- Snyder
- Tasker-Morris

Market-Frankford Line

- 46th Street
- 52nd Street
- 56th Street
- 60th Street
- 63rd Street
- Berks
- Church
- Girard
- Huntingdon
- Millbourne
- York-Dauphin

Norristown High Speed Line

- Bryn Mawr
- Roberts Road

PATCO

- City Hall

River Line

- Aquarium
- Cooper Street/Rutgers Univ.
- Entertainment Center

Regional Rail

- Allegheny
- Ardmore
- Bala
- Bryn Mawr
- Chelten Avenue
- East Falls
- Haverford
- Jenkintown-Wyncote
- Manayunk
- Overbrook
- Queen Lane
- Rosemont
- Temple University
- Tulpehocken
- Wissahickon

Transit Centers

- Walter Rand Transportation Center/ Broadway
- Norristown Transportation Center
- Trenton Transportation Center

Trolley

- Orange Street

Average CNT Transit Connectivity Index (TCI) Score: 36.5

Average weekday morning commute time to Center City Philadelphia: 29 minutes

Average number of jobs accessible via a 30-minute transit ride: 492,020

Average residential and employment population: 17,446

Average Walk Score®: 83

Average asking rent per square foot for multifamily units: $1.44

Five-year average rent per square foot for office space: $21.23

Quadrant 1 comprises 42 station areas from five counties. Twenty-five (60 percent) of them are located in Philadelphia. Seventeen (40 percent) station areas are located along the Market-Frankford and Broad Street lines, while another 15 (36 percent) are centered on Regional Rail stations. These station areas have an average residential and employment population of 17,446, an average Walk Score® of 83, and an average of nearly 500,000 jobs accessible within a 30-minute transit ride.

POTENTIAL APPLICATIONS OF THE TOD OPPORTUNITY RATINGS

In general, this study was conducted to help planners address one important question: which station areas in our region are most suitable for TOD? However, the data that was gathered and the ratings that were calculated can be used in several ways to support integrated transportation and land use planning at the system, corridor, and station level. Several potential applications of the data and analysis are listed below.

Access to Transit: Providing safe and convenient bicycle and pedestrian access to transit is a challenge in many locations throughout our region. The TOD Opportunity rating system can be used to help municipalities, counties, and transit providers prioritize nonmotorized access improvements to transit in station areas where larger numbers of current and potential transit riders currently live and work or station areas with more immediate development potential.

Station Area Planning: Proximity to transit should inform local regulations governing land use, site development, and building and public space design. Municipalities and counties can use these ratings to help develop station area plans that maximize the potential of TOD. Oftentimes this will mean establishing zoning and land use controls consistent with the scale and character of the TOD appropriate for their station area. In general, land use controls in station areas should encourage development at higher densities with lower parking ratios and more affordable housing.

Economic Development Planning: Agencies and organizations interested in economic development can use these ratings to direct investments and incentives to station areas with the most substantial capacity and greatest potential to achieve travel patterns supportive of TOD. Using TOD-related screening criteria for future investments can help maximize transit ridership, promote redevelopment in older communities, and leverage our existing transit infrastructure.

Development Review: The station area types and TOD Opportunity ratings used in this study can be used to help establish standards for new developments against which land use and development proposals can be evaluated. Individual projects can be scored against a range of benchmarks for density, mix of uses, and design that are supportive of a community's TOD objectives.

Site Selection: Developers interested in developing real estate products in TOD environments can use the station area data and analysis to compare sites and development opportunities around the region. They can also use the data to identify station areas that have characteristics that are similar to where they are currently working.

Transit Planning: This study helps to identify station areas where new development may be appropriate. Transit providers can use this data to help forecast how transit ridership may be impacted by new development. In addition to informing capacity planning, transit agencies may wish to use these ratings to help prioritize station upgrades and a variety of capital planning projects.

Equitable TOD: For many citizens in our region, living without a car is a lifestyle choice that is made possible by neighborhoods with many transportation options and convenient connections to nearby employment. However, for others, living without a car is a necessity due to economic realities. Thoughtful attention to equity issues is needed to ensure that future development around transit stations does not contribute to the displacement of long-time transit-dependent riders and is not limited to high-end residential

development. These ratings can be used to identify locations for affordable and workforce housing that leverage the access and opportunities created by transit service while minimizing the need for automobile ownership.

CONCLUSION: BUILDING A TOD STRATEGY

The 12 individual factors that were used in this analysis help to illuminate station area characteristics that are supportive of transit use and TOD. It is not essential that all characteristics be in place before a TOD strategy is devised. Furthermore, lower scores should not discourage proactive planning efforts designed to make a station area more vibrant, accessible, or attractive. Conversely, lower scores in one or both of the categories used in this analysis can help guide the efforts of those wishing to encourage TOD in a specific location. Regardless of how they scored in this study, most station areas in our region present distinct and complementary opportunities for positive growth near transit.

Context Matters

TOD is not a one-size-fits-all development pattern. Instead, TOD exists at varying scales and in different forms based on the context in which it is located. Many factors related to station area context will influence both the design and scale of TOD. These include:

- the type and frequency of transit service;
- station location;
- surrounding community character;
- existing and envisioned levels of activity;
- levels of supporting transit service; and
- local political and community attitudes toward development.

TOD projects completed in our region over the last decade have ranged from small townhouse developments to high-rise office towers. In a few select places, transit access has been viewed as one of the catalysts for transformative projects that are creating entirely new districts around transit stations, often emphasizing a reconfigured street grid or entirely new public realms. In the region's most densely developed areas, TOD means building upward in the form of mixed-use office and residential towers. In Urban Neighborhoods and Town Centers, TOD often occurs through the infill of vacant or underutilized properties or the adaptive reuse of existing buildings. In more suburban contexts, growth near transit may take the form of small lot residential development or a stand-alone multifamily residential complex. See the sidebar on page 23 for more discussion of how context can inform the design of TOD.

Universal Strategies

Although each transit station is unique and possesses a distinct set of opportunities and challenges, there are a variety of transit-supportive principles and policies that can help guide station area planning efforts wherever TOD is being pursued. The partial list of principles and policies that follows is applicable to station areas throughout the region.

Land Use and Development
Concentrate the greatest densities and range of uses in the areas closest to the transit station.

- Designate transit-supportive uses, densities, and design characteristics for key opportunity sites.
- Provide uses that attract pedestrian activity and discourage automobile-dependent uses.
- Encourage a mix of housing types.
- Preserve and protect established stable neighborhoods.
- Use lower-density development to help transition between high-intensity uses and existing single-family neighborhoods.
- Integrate affordable housing into new development.

Mobility
Maximize neighborhood and station connectivity by promoting good pedestrian, bicycle, and transit access.

- Design streets to be multimodal with emphasis on pedestrian and bicycle circulation.

CUSTOMIZING A TOD STRATEGY

The great variety of station areas found throughout our region means that TOD can take multiple forms and that no single TOD strategy will be successful everywhere. To promote transit-supportive development around stations, communities must encourage or require the appropriate types of uses and range of densities.

Guidance on what levels of development may be appropriate for a community can come from the level of transit service and the existing character of a station area. The charts on this page show the distribution of station areas analyzed in this study across a TOD Opportunity Quadrant according to transit line and station area type. By fully understanding the value of transit service in their community as well as the context of the built environment, officials can make more informed decisions about parameters for future development, such as land use mix, building height, density, parking ratios, and open space design.

The TOD ratings developed for this study can also help communities develop customized strategies designed to meet their development objectives. For instance, municipalities may wish to focus on sidewalk and bicycle facility enhancements in station areas with strong TOD Potential but weaker TOD Orientation scores. Conversely, municipalities may choose to focus on retail tenant attraction and a catalytic investment in a station area with strong TOD Orientation but weaker TOD Potential. Finally, municipalities with station areas that rated highly in both categories may decide that now is the right time to begin a community outreach and neighborhood visioning process designed to capitalize on their transit station.

TRANSIT LINES

Legend:
- ● DRPA PATCO
- ● NJ Transit Northeast Corridor
- ● NJ Transit River Line
- ● SEPTA BSL/MFL
- ● SEPTA NHSL
- ● SEPTA Trolley
- ● SEPTA Regional Rail
- ○ Transit Center (multiple transit lines)

STATION AREA TYPE

Legend:
- ◇ Special District
- ■ Suburban Center
- ● Suburban Neighborhood
- ■ Town Center
- ● Town Neighborhood
- ■ Urban Center
- ● Urban Neighborhood

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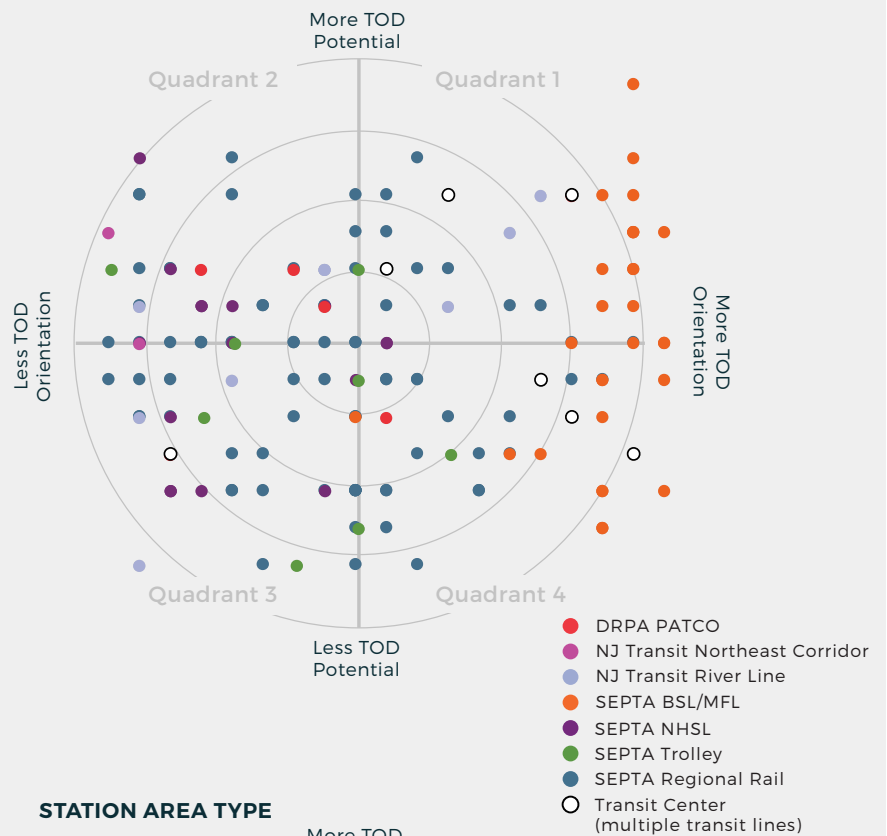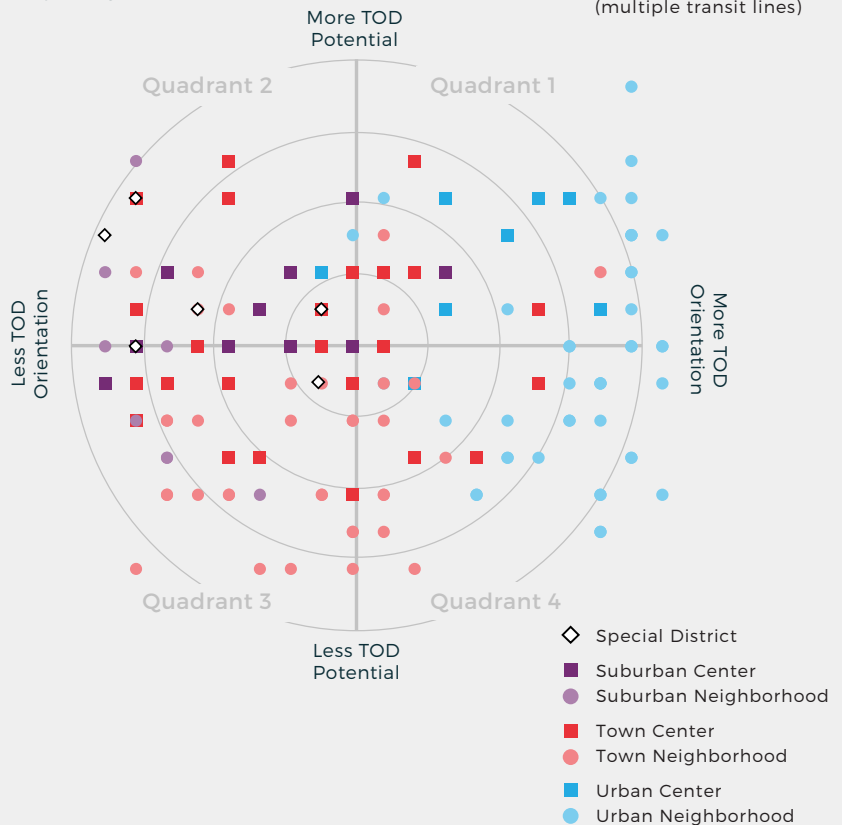
- Provide an interconnected pedestrian network that minimizes walking distances while being accessible, safe, and attractive for all users.
- Manage parking effectively by reducing parking requirements and minimizing large surface parking lots.

Design
Design buildings, streets, and public spaces to enhance the community identity of station areas.

- Ensure buildings include active ground-floor uses that front onto public streets or public spaces.
- Include elements that encourage pedestrian activity, such as street trees, pedestrian-scale lighting, and benches, in streetscape design.
- Locate and design open spaces to be centers of activity.

ENDNOTES

CHAPTER 1

[1] Adapted from *Transit Oriented Development: Best Practices Handbook* (2004) from the City of Calgary, Alberta, www.reconnectingamerica.org/assets/Uploads/bestpractice031.pdf.

[2] Delaware Valley Regional Planning Commission, "Tracking Progress Transportation: Is Transit Ridership Increasing," www.dvrpc.org/trackingprogress/Transportation.

[3] American Public Transportation Association, "Quarterly and Annual Totals by Mode," www.apta.com/resources/statistics/Pages/ridershipreport.aspx.

[4] U.S. Department of Transportation, "Beyond Traffic 2045: Trends and Choices," 2015, www.transportation.gov/BeyondTraffic.

[5] Delaware Valley Regional Planning Commission, "2012-2013 Household Travel Survey for the Delaware Valley Region," 2015, www.dvrpc.org/Products/14033/.

[6] National Association of Realtors and Portland State University, "2015 Community Preference Survey," July 28, 2015, www.nar.realtor/reports/nar-2015-community-preference-survey.

[7] Urban Land Institute, "America in 2013: A ULI Survey of Views on Housing, Transportation, and Community," May 2013, http://uli.org/press-release/america2013/.

[8] New Jersey Future, "Financial Benefits of Density in Two New Jersey Downtowns," July 2011, www.njfuture.org/wp-content/uploads/2011/11/Financial-Benefits-of-Density-in-Two-New-Jersey-Downtowns-7-11-Intern-report.pdf.

[9] American Public Transportation Association, "March 2016 Transit Savings Report," www.apta.com/mediacenter/pressreleases/2016/Pages/160324_Transit-Savings.aspx.

CHAPTER 2

[1] Center City District, "State of Center City 2016," www.centercityphila.org/socc.

APPENDIX: STATION AREA RATINGS

The following table includes TOD Opportunity ratings for the 162 station areas analyzed in this study. Please refer to Chapter Two for more information on how the two data categories, TOD Orientation and TOD Potential, were developed and calculated. Scores that exceed the median in either data category are shown in **bold**.

Station	Line	Municipality	County	Station Type	CATEGORY 1: TOD Orientation	CATEGORY 2: TOD Potential
36th Street	River Line	Pennsauken	Camden	Town Neighborhood	1.57	1.00
46th Street	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**3.60**
49th Street	Media/Elwyn	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	2.00
52nd Street	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**4.00**	**2.80**
56th Street	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**2.60**
60th Street	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**2.40**
63rd Street	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**2.60**
69th Street TC	Multiple	Upper Darby	Delaware	Town Center	**3.43**	2.00
9th Street	Lansdale/Doylestown	Lansdale	Montgomery	Town Neighborhood	1.57	**2.60**
Allegheny	Manayunk/Norristown	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	2.20
Allegheny	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	2.00
Allegheny	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	1.40
Allen Lane	Chestnut Hill West	Philadelphia	Philadelphia	Town Neighborhood	**2.71**	2.00
Ambler	Lansdale/Doylestown	Ambler	Montgomery	Town Center	1.57	**2.40**
Angora	Media/Elwyn	Philadelphia	Philadelphia	Urban Neighborhood	**3.14**	1.40
Aquarium	River Line	Camden	Camden	Urban Center	**3.29**	**2.80**
Ardmore	Paoli/Thorndale	Lower Merion	Montgomery	Town Center	**2.86**	**3.20**
Ardmore Junction	NHSL	Haverford	Delaware	Town Neighborhood	2.00	**2.40**
Aronimink	Route 101 Trolley	Upper Darby	Delaware	Town Neighborhood	1.86	1.80
Arrott TC	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	1.80
Ashland	PATCO	Voorhees	Camden	Suburban Neighborhood	1.71	1.60
AT&T Station	Broad Street	Philadelphia	Philadelphia	Special District: Stadium	2.57	1.80
Bala	Cynwyd	Lower Merion	Montgomery	Suburban Center	**3.00**	**2.60**
Beechwood-Brookline	NHSL	Haverford	Delaware	Town Neighborhood	1.71	1.40
Berks	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	2.20
Berwyn	Paoli/Thorndale	Easttown	Chester	Suburban Center	1.57	2.20
Beverly Boulevard	Route 102 & 102 Trolley	Upper Darby	Delaware	Town Neighborhood	**3.00**	1.60
Bridesburg	Trenton	Philadelphia	Philadelphia	Urban Neighborhood	**3.14**	1.40
Bridgeport	NHSL	Bridgeport	Montgomery	Town Neighborhood	1.71	**2.60**
Bristol	Trenton	Bristol	Bucks	Town Center	1.86	2.20
Broadway/Walter Rand TC	Multiple	Camden	Camden	Urban Center	**3.57**	**3.00**
Bryn Mawr	Paoli/Thorndale	Lower Merion	Montgomery	Town Center	2.57	**2.60**
Bryn Mawr	NHSL	Radnor	Delaware	Town Center	**2.71**	2.20
Burlington Town Centre	River Line	Burlington	Burlington	Town Center	2.00	2.00
Carpenter Lane	Chestnut Hill West	Philadelphia	Philadelphia	Town Neighborhood	**2.86**	2.00
Cass Street	RiverLINE	Trenton	Mercer	Urban Neighborhood	2.43	**2.60**
Cecil B Moore	Broad Street	Philadelphia	Philadelphia	Urban Center	**3.71**	**2.40**
Chelten Avenue	Chestnut Hill West	Philadelphia	Philadelphia	Town Center	**3.43**	**2.40**
Cheltenham	Fox Chase	Philadelphia	Philadelphia	Town Neighborhood	2.57	1.00
Chester TC	Wilmington/Newark	Chester	Delaware	Urban Center	**2.86**	2.00
Chestnut Hill East	Chestnut Hill East	Philadelphia	Philadelphia	Town Neighborhood	2.00	2.20
Chestnut Hill West	Chestnut Hill West	Philadelphia	Philadelphia	Town Neighborhood	2.29	2.20
Church	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.57**	2.20
City Hall	PATCO	Camden	Camden	Urban Center	**3.57**	**3.00**
Clifton-Aldan	Media/Elwyn Line	Aldan	Delaware	Town Neighborhood	2.57	1.40
Collingswood	PATCO	Collingswood	Camden	Town Center	2.29	**2.60**

Station	Line	Municipality	County	Station Type	CATEGORY 1: TOD Orientation	CATEGORY 2: TOD Potential
Conshohocken	Manayunk/Norristown	Conshohocken	Montgomery	Town Center	2.00	**3.20**
Cooper St./Rutgers	River Line	Camden	Camden	Urban Center	**3.43**	**3.00**
Cornwells Heights	Trenton	Bensalem	Bucks	Suburban Neighborhood	1.71	**2.60**
Croydon	Trenton	Croydon	Bucks	Town Neighborhood	1.57	1.80
Cynwyd	Cynwyd	Lower Merion	Montgomery	Town Neighborhood	2.43	2.00
Darby	Wilmington/Newark	Darby	Delaware	Town Neighborhood	2.57	1.20
Darby TC	Trolley 11 & 13	Darby	Delaware	Town Center	2.57	2.00
DeKalb Street	NHSL	Bridgeport	Montgomery	Town Neighborhood	1.71	1.80
Devon	Paoli/Thorndale	Easttown	Chester	Suburban Neighborhood	1.43	2.20
Doylestown	Lansdale/Doylestown	Doylestown	Bucks	Town Center	1.86	2.20
East Falls	Manayunk/Norristown	Philadelphia	Philadelphia	Urban Neighborhood	**3.14**	**3.00**
Elkins Park	Glenside Combined	Cheltenham	Montgomery	Town Neighborhood	2.00	1.40
Ellsworth-Federal	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**3.20**
Elm Street	Manayunk/Norristown	Norristown	Montgomery	Town Center	2.57	1.40
Entertainment Center	River Line	Camden	Camden	Urban Center	**3.00**	**2.40**
Erie	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**2.80**
Erie-Torresdale	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.29**	1.60
Fern Rock TC	Glenside Combined	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	1.60
Fernwood-Yeadon	Media/Elwyn	Upper Darby	Delaware	Town Neighborhood	2.43	1.40
Ferry Avenue	PATCO	Camden	Camden	Town Neighborhood	**2.71**	1.80
Folcroft	Wilmington/Newark	Folcroft	Delaware	Town Neighborhood	2.14	1.00
Fort Washington	Lansdale/Doylestown	Whitemarsh	Montgomery	Suburban Center	1.43	2.00
Fox Chase	Fox Chase	Philadelphia	Philadelphia	Town Neighborhood	2.57	1.80
Frankford TC	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.43**	1.60
Garrett Hill	NHSL	Radnor	Delaware	Town Neighborhood	2.57	2.00
Germantown	Chestnut Hill East	Philadelphia	Philadelphia	Town Center	**3.14**	1.60
Girard	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	**3.00**
Girard	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**3.00**
Glenside Station	Glenside Combined	Abington	Montgomery	Town Center	2.14	1.60
Gravers	Chestnut Hill East	Philadelphia	Philadelphia	Town Neighborhood	2.29	2.00
Haddonfield	PATCO	Haddonfield	Camden	Town Center	2.43	**2.40**
Hamilton	Northeast Corridor	Hamilton	Mercer	SD: Business Park	1.43	**2.80**
Hamilton Avenue	RiverLINE	Trenton City	Mercer	Urban Center	2.43	**2.60**
Hatboro	Warminster	Hatboro	Montgomery	Town Center	1.71	2.00
Haverford	Paoli/Thorndale	Lower Merion	Montgomery	Suburban Center	2.57	2.20
Haverford	NHSL	Haverford	Delaware	Suburban Neighborhood	2.00	2.20
Holmesburg Junction	Trenton	Philadelphia	Philadelphia	Urban Neighborhood	**2.71**	2.00
Hughes Park	NHSL	Upper Merion	Montgomery	Suburban Neighborhood	1.57	**3.20**
Hunting Park	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	1.40
Huntingdon	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**2.80**
Ivy Ridge	Manayunk/Norristown	Philadelphia	Philadelphia	Town Neighborhood	2.29	**2.80**
Jenkintown-Wyncote	Glenside Combined	Jenkintown	Montgomery	Suburban Center	2.57	**3.00**
Langhorne	West Trenton	Langhorne Manor, Penndel	Bucks	Suburban Neighborhood	1.71	2.20
Lansdale	Lansdale/Doylestown	Lansdale	Montgomery	Town Center	2.00	**3.00**
Lansdowne	Media/Elwyn	Lansdowne	Delaware	Town Center	2.57	1.40
Lindenwold	Multiple	Lindenwold	Camden	Suburban Neighborhood	1.71	1.60
Logan	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.57**	1.80
MacDade Blvd	Route 102 Trolley	Collingdale	Delaware	Town Neighborhood	2.29	1.00
Main Street	Manayunk/Norristown	Norristown	Montgomery	Town Center	**2.86**	1.60
Malvern	Paoli/Thorndale	Malvern	Chester	Town Center	1.57	**3.00**
Manayunk	Manayunk/Norristown	Philadelphia	Philadelphia	Town Center	**3.00**	**2.60**
Marcus Hook	Wilmington/Newark	Marcus Hook	Delaware	Town Center	1.57	2.00
Media	Media/Elwyn	Upper Providence	Delaware	Town Center	2.43	2.20
Melrose Park	Glenside Combined	Cheltenham	Montgomery	Suburban Neighborhood	2.14	1.40
Millbourne	Market-Frankford	Millbourne	Delaware	Town Neighborhood	**3.71**	**2.60**
Morton	Media/Elwyn	Morton	Delaware	Town Neighborhood	1.71	1.80
Mount Airy	Chestnut Hill East	Philadelphia	Philadelphia	Town Neighborhood	2.57	1.40
Narberth	Paoli/Thorndale	Narberth	Montgomery	Town Center	2.43	**2.40**

Station	Line	Municipality	County	Station Type	CATEGORY 1: TOD Orientation	CATEGORY 2: TOD Potential
Noble	West Trenton	Jenkintown	Montgomery	Suburban Center	2.29	2.20
Norristown TC	Multiple	Norristown	Montgomery	Town Center	2.71	**2.60**
North Broad/North Philadelphia	Multiple	Philadelphia	Philadelphia	Urban Neighborhood	**3.57**	1.80
North Philadelphia	Chestnut Hill West/Trenton	Philadelphia	Philadelphia	Urban Neighborhood	**3.57**	2.00
Norwood Station	Wilmington/Newark	Norwood	Delaware	Town Neighborhood	1.86	2.20
Olney	Fox Chase	Philadelphia	Philadelphia	Urban Neighborhood	**3.29**	1.60
Olney TC	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**4.00**	1.40
Orange Street	Route 101 Trolley	Media	Delaware	Town Center	2.57	**2.60**
Oregon	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	2.00
Overbrook	Paoli/Thorndale	Philadelphia	Philadelphia	Town Neighborhood	**2.71**	**2.80**
Palmyra	RiverLINE	Palmyra	Burlington	Town Center	1.57	1.80
Paoli	Paoli/Thorndale	Tredyffrin	Chester	Suburban Center	2.29	**2.60**
Parkview	NHSL	Upper Darby	Delaware	Town Neighborhood	2.43	1.40
Penfield	NHSL	Haverford	Delaware	Town Neighborhood	1.71	1.40
Philmont	West Trenton	Huntingdon Valley	Montgomery	Suburban Neighborhood	1.57	1.80
Primos	Media/Elwyn	Aldan	Delaware	Town Neighborhood	2.57	1.80
Princeton Junction	Northeast Corridor	Princeton	Mercer	Suburban Neighborhood	1.57	2.20
Prospect Park	Wilmington/Newark	Prospect Park	Delaware	Town Neighborhood	2.00	1.40
Providence Road	Route 101 Trolley	Media	Delaware	Suburban Neighborhood	2.00	2.20
Queen Lane	Chestnut Hill West	Philadelphia	Philadelphia	Urban Neighborhood	**3.29**	**2.40**
Radnor	NHSL	Radnor	Delaware	SD: Business Park	1.57	2.20
Ridley Park	Wilmington/Newark	Ridley Park	Delaware	Town Center	2.00	1.60
Riverside	RiverLINE	Riverside	Burlington	Town Center	1.57	**2.40**
Roberts Road	NHSL	Radnor	Delaware	Town Neighborhood	**2.71**	2.20
Rosemont	Paoli/Thorndale	Lower Merion	Montgomery	Town Neighborhood	2.57	2.20
Ryers	Fox Chase	Philadelphia	Philadelphia	Town Neighborhood	2.29	1.80
Secane	Media/Elwyn	Upper Darby	Delaware	Town Neighborhood	2.14	**2.40**
Sedgwick	Chestnut Hill East	Philadelphia	Philadelphia	Town Neighborhood	**2.71**	1.40
Sharon Hill	Route 102 Trolley	Sharon Hill	Delaware	Town Neighborhood	2.57	1.20
Snyder	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	**2.80**
Somerset	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**4.00**	2.00
Spring Mill	Manayunk/Norristown	Whitemarsh	Montgomery	SD: Business Park	1.57	**3.00**
Springfield Mall	Route 101 Trolley	Springfield	Delaware	Suburban Neighborhood	1.43	**2.60**
Stadium	NHSL	Radnor	Delaware	SD: University	2.43	**2.40**
Stenton	Chestnut Hill East	Philadelphia	Philadelphia	Town Neighborhood	**2.71**	1.20
Strafford	Paoli/Thorndale	Tredyffrin	Chester	Suburban Center	2.00	2.20
Susquehanna-Dauphin	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	1.60
Tacony	Trenton	Philadelphia	Philadelphia	Urban Neighborhood	2.57	1.40
Tasker-Morris	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**4.00**	2.20
Temple University	SEPTA Main	Philadelphia	Philadelphia	Urban Neighborhood	**3.86**	2.20
Tioga	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	1.20
Township Line Road	NHSL	Haverford	Delaware	Town Neighborhood	1.86	1.40
Trenton TC	Multiple	Trenton	Mercer	Urban Center	**3.00**	**3.00**
Tulpehocken	Chestnut Hill West	Philadelphia	Philadelphia	Town Neighborhood	**2.71**	**2.40**
Upsal Station	Chestnut Hill West	Philadelphia	Philadelphia	Town Neighborhood	**2.71**	1.40
Villanova	Norristown High Speed	Radnor	Delaware	SD: University	1.86	**2.40**
Washington Lane	Chestnut Hill East	Philadelphia	Philadelphia	Town Neighborhood	**2.86**	1.00
Wayne	Paoli/Thorndale	Radnor	Delaware	Town Center	2.00	2.20
Wayne Junction	SEPTA Main	Philadelphia	Philadelphia	Urban Neighborhood	**3.29**	1.80
Westmont	PATCO	Haddon	Camden	Town Neighborhood	1.86	**2.60**
Willow Grove	Warminster	Willow Grove	Montgomery	Suburban Center	2.14	2.40
Wissahickon	Manayunk/Norristown	Philadelphia	Philadelphia	Urban Neighborhood	**2.86**	**2.80**
Wister	Chestnut Hill East	Philadelphia	Philadelphia	Urban Neighborhood	**3.00**	1.80
Wyndmoor	Chestnut Hill East	Philadelphia	Philadelphia	Town Neighborhood	2.43	**2.40**
Wynnewood	Paoli/Thorndale	Lower Merion	Montgomery	Suburban Center	1.71	**2.60**
Wynnewood Road	NHSL	Haverford	Delaware	Town Neighborhood	1.86	**2.40**
Wyoming	Broad Street	Philadelphia	Philadelphia	Urban Neighborhood	**3.71**	1.20
York-Dauphin	Market-Frankford	Philadelphia	Philadelphia	Urban Neighborhood	**4.00**	2.20

BUILDING ON OUR STRENGTHS

Abstract

This report summarizes DVRPC's most recent attempt to identify transit-oriented development (TOD) opportunities throughout the Greater Philadelphia region. Using a variety of demographic, physical, and market conditions, DVRPC has created a rating system that assesses the TOD readiness of over 150 station areas throughout the region. These assessments can help municipalities, transit providers, and developers prioritize transit-supportive investments in the coming years.

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