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DEFINITION

Transit-oriented development, or TOD, is a type of community development that includes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood and located within a half-mile of quality public transportation.

PHYSICAL CHARACTERISTICS THAT DEFINE TOD

COMPACT AND DENSE

Compact planning and urban design means they are dense and walkable.

MIX OF USES

Both a horizontal and vertical mix of uses allows a TOD to provide everything residents need within a walkable distance:

a. Housing
b. Commercial office
c. Commercial retail
d. Parks, squares, and other public amenities

MIX OF HOUSING OPTIONS

Allows for a diversity of residents from every stage of life. This means a range of ages, cultures and socioeconomic backgrounds.
**MULTIMODAL**
A connected system of transport that offers a diversity of modes and prioritizes public transit, bicycling and walking while accommodating automobile traffic.

**PEDESTRIAN ORIENTED**
The plan should put people first and design the urban environment with the ergonomics and the senses of the human body in mind while accommodating cars and other modes of traffic.

**PUBLIC TRANSIT FACILITIES**
At the heart of a TOD is an accessible transit facility that is well linked to the overall system and connects to the region.

A public transit facility that does not have the aforementioned characteristics surrounding it will not be a successful TOD.
THE BENEFITS OF TRANSIT ORIENTED DEVELOPMENT

VIBRANCY
The essence of a city is found in density and the resultant exchange of ideas and services, the social connections and interactions made, and the mix of people types that are the ultimate outcome of density.

LIVABILITY
The mix of uses found in dense neighborhoods by its nature provides a livable community where nearly all of people’s daily needs can be met without the necessity of leaving the neighborhood.

SUSTAINABILITY
Dense communities with a mix of uses are by their very nature, sustainable.

Environmental Sustainability:
The promotion of walking and public transit as options reduces the overall emission of carbon and other particulates. Density reduces the amount of resources each individual consumes as a smaller footprint of infrastructure serves a greater number of people.

In addition, dense development aids in the preservation of farmland and greenspace in the hinterlands of the metropolitan area and reduces overall stormwater runoff.

Fiscal Sustainability:
The smaller footprint of TOD requires less upfront infrastructure costs and that cost is spread over a greater number of taxpayers. Dense, mixed-use development also increases the taxable revenue from property per acre when compared to single use development. The increase in property tax per acre a city can collect varies depending on the types of development compared. However, in all cases dense, mixed-use development increases the taxable revenue significantly by between 20%-800%. Mixed-use neighborhoods also reduce the cost of city services over time averaging a 10% savings.

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**EQUITY**

TOD creates an environment with options for people from all walks of life and thus levels the playing field. People who cannot afford a car or cannot drive due to age or disability, have viable options for transportation and do not have to leave their neighborhood often due to the mix of amenities located nearby.

**HEALTH**

“One of the strongest health/land use correlations is between obesity and the automobile.” #1 TODs provide healthier transportation alternatives in the form of walking, biking and public transit. Successful TODs are designed in a way that supports physical activity:

- Transit options
- Wide sidewalks
- Safe bike lanes
- Attractive stairways
- Accessible recreation areas

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**SAFETY**

Walkable neighborhoods and good urban development with buildings set on the street and designed to speak to the street increases the safety of a place. Eyes on the street are one of the biggest deterrents to criminal activity. The social networks dense walkable neighborhoods foster as people have more occasion to passively interact, serve as an additional deterrent. A finely meshed street grid with homes more closely set together also increases response times for fire and police.
The Rational for TOD in Circle North, Glenville
ERA OF DEVELOPMENT

Glenville developed primarily from 1900 to 1930 prior to mainstream adoption of the automobile.

MODE OF DEVELOPMENT

It was developed around street-car lines run by Cleveland Electric and then the Cleveland Railway Company and a car barn existed for many years at the intersection of East 105th Street and Superior Avenue.

EXISTING FRAMEWORK

This means that overall framework of the neighborhood lends itself naturally to TOD.

- existing street grid
- parcel size and layout
- existing building siting
- predominant land uses

Figure 1: The Cleveland Railway Company Lines 1913 (left) and East 105th and Superior Avenue Intersection in 1912 (right).
PHYSICAL FEATURES

A city is characterized by 4 major physical features, land uses, building structures, parcel patterns and streets; street networks are the most enduring physical feature.

BEST DESIGN OPTION

The existing street network lends itself to TOD and leveraging it for new development is the most efficient and best design option.
EXISTING

The current demographic make-up of Glenville lends itself to TOD due to a high level of low income residents, seniors, young people not yet of driving age and lifestyle choices among many new residents that prefer alternate modes of transportation.¹

POVERTY

43% of residents live below the poverty line. Public transit is essential for many residents to get to work, and to shopping options that do not currently exist in the neighborhood.

HOUSING

40.4% of owner-occupied households and 65.7% of renter-occupied households live in unaffordable housing as defined by housing costs exceeding 30% of household income.

TOD allows low income households to save on the costs of car ownership which averages $8,558 per year.²


NEW

The new demographic moving into the city that Circle North can attract due to its proximity to University Circle also lends itself to TOD.

MILLENNIALS

Cleveland ranks in the top ten cities nationally for growth in Millennial age workers. Millennials, born between 1982 and 2000, are the largest generation in the United States and the youngest of them are still in high school which means the boom in urban living they are driving has many more years left in it.

Their preference for urban living has in-turn, driven residential development Downtown, in University Circle and other core Cleveland neighborhoods. These new urban residents are choosing to live in accessible communities where work and social amenities are within walking distance or a short trip via public transit.1

BABY BOOMERS

Baby Boomers, now the second largest generation in the United States, are also the second largest demographic making a move back to the city. While Millennials most likely were born and raised in the suburbs, many Baby Boomers are moving back to where many started life, the city. Boomers make up approximately 12% of newcomers to growing city neighborhoods and are more likely to buy than rent.

GREATER DEPENDENCE ON PUBLIC TRANSIT

Existing modes of commuting to work show greater dependence on public transit and other means of transport. Regionally about 3% of workers use public transit to access a job. In Cuyahoga County this number increases to 5%, and when looking solely at Cleveland residents this number doubles to near 10%. This number nearly doubles again for the 44108 zip code which makes up most of Glenville to 18%.

When taking into account other forms of transit like walking and biking, the percentage of Glenville residents that access a job by means other than a car the number rises to between 22% to 35%. This is a pattern that can be reinforced and leveraged through TOD.¹

COMMUTING TO WORK DATA¹
(Workers 16 yrs+)

<table>
<thead>
<tr>
<th>Zip code of residents</th>
<th>44106</th>
<th>44108</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car, truck, or van - (drove alone)</td>
<td>52.2%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Car, truck, or van - (carpoled)</td>
<td>9.2%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Public transportation (excluding taxi/ridesharing)</td>
<td>8.0%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Walked</td>
<td>22.4%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Other means</td>
<td>2.6%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Worked at home</td>
<td>5.6%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>


Figure 2: Zip codes in Circle North

**ACCESS TO THE REGION + JOBS**

**ACCESS IS BECOMING MORE DIFFICULT**
Access to jobs in Greater Cleveland is becoming more difficult as the location of employment opportunities sprawl across the region. Longer commute times negatively impact the economic mobility of low-income households the most and carry through from one generation to the next. Cleveland had the greatest increase in the distance of workers to their jobs from 2000 to 2012 of the largest 96 metropolitan statistical areas. This is compounded by the fact that concentrations of jobs that employ those in the service, manufacturing and other low skilled industries are increasingly on the fringes of our region and have the longest commute by public transit.¹

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**JOB CLASSIFICATIONS FOR GLENVILLE RESIDENTS¹**
(civilian employed population 16 yrs +)

<table>
<thead>
<tr>
<th>Zip code of residents</th>
<th>44106</th>
<th>44108</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management, business, science and arts occupations</td>
<td>50.9%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Service occupations</td>
<td>21.0%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Sales and office occupations</td>
<td>18.4%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Natural resources, construction, and maintenance occupations</td>
<td>2.1%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Production, transportation, and material moving occupations</td>
<td>7.5%</td>
<td>13.1%</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry, fishing and hunting, mining</td>
<td>0.2%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Construction</td>
<td>1.5%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5.3%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>0.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>7.9%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Transportation and warehousing, and utilities</td>
<td>1.0%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Information</td>
<td>1.6%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Finance and insurance, and real estate and rental and leasing</td>
<td>5.3%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Professional, scientific, and management, and administrative and waste</td>
<td>11.8%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Educational services, and health care and social assistance</td>
<td>46.8%</td>
<td>36.1%</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation, and accommodation and food</td>
<td>11.6%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Other services, except public administration</td>
<td>3.1%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Public administration</td>
<td>3.0%</td>
<td>4.3%</td>
</tr>
</tbody>
</table>


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ACCESS IS THE MOST COMPELLING CASE FOR TOD IN CIRCLE NORTH, GLENVILLE

1. TOD creates greater access for residents to job centers elsewhere in the region.

2. TOD creates the opportunity for job creation in and around Glenville, bringing jobs back to easily accessible places.

3. TOD makes Glenville more livable and attractive to current residents who often move to inner ring suburbs after gaining employment, even if that employment opportunity is in University Circle.

Figure 3: Occupation and Industry locations throughout Cleveland-Akron-Canton CSA
OUTSIDE OF PRIMARY SPINES OF TRAFFIC FLOW IN THE REGION

an analysis of existing transit

SUMMARY

The Glenville neighborhood, and more specifically the Circle North community focused around East 105th Street and Superior Avenue sits within an island surrounded by heavily trafficked streets, freeways, public transit rail and bus rapid transit (BRT) lines that form the main spines of transport for the city and connect to the region’s multiple job centers. Neither Superior Avenue or East 105th act as primary traffic spines. Martin Luther King Jr. Boulevard is a major connector from the I-90 to University Circle and acts as a bypass to the heart of Glenville.

EAST WEST VS NORTH SOUTH

Auto and transit traffic flow in Cleveland is primarily east-west with north-south flows being secondary to east-west movement. Increasing the strength and flow of transit along East 105th street, and offering it as a primary travel path is an opportunity to improve access dramatically for east side residents.

DESTINATIONS OUTSIDE DOWNTOWN AND UNIVERSITY CIRCLE

Direct access is available to University Circle and Downtown by the 10 and 3 bus lines, but commuters seeking to access any other point in the metropolitan area must transfer to other lines or modes of transport to complete their journey. Many transit riders take transit part of the way and connect to a waiting ride due to the length of time a commute may take by transit alone.
Figure 5: Primary East Side Transit Spine in Cleveland Image: Aerial Aspect Photography

Figure 6: The Healthline Bus Rapid Transit on Euclid Avenue Image: Gus Chan/The Plain Dealer, 2013
Figure 7: Greater Cleveland Regional Transit Authority System Maps
Source: GCRTA
THE 10 + THE 3 BUS LINES: CIRCLE NORTH’S LIFELINES

The 10 and 3 bus lines connect Glenville directly to the region’s two largest employment centers, Downtown Cleveland and University Circle, and link to other bus and rail lines that connect elsewhere in the region. Moving passengers quickly and efficiently to destinations along the 10 and 3, and providing easy and rapid transfers to other lines increases access to jobs and economic stability for residents.

It should be noted that regionally, public transit is handled by multiple separate systems that do provide transfers points between systems. Intercountry travel times differ by county and GCRTA in Cuyahoga County covers 85% of residents and is the most robust of all systems, handling roughly half of all the transit rides statewide within its system. Other systems schedules and times may be much more restrictive. Each county has its own transit system and though there are transfer points, intercounty travel can take between 2-4 hours for a one-way trip and stop times may be limited. Most trips are not realistic options for workers and their employers, and there are no connections available between Cuyahoga County and Lorain or Geauga Counties.

NORTH OF CIRCLE NORTH

To the north is where direct access to the eastern shore communities in Cuyahoga and Lake Counties can be made via connections to the 1, 39 and 39F bus lines and I-90.

1.1 miles to the 1 BUS LINE
1.6 miles to I-90 and the 39 and 39F BUS LINES

Transit: The 39 and 39F bus lines run along the northeast corridor made up by Interstate 90 and Lakeshore Boulevard. Together, they connect Downtown Cleveland to the east shore communities of St Clair Superior, the northern portions of Glenville, North and South Collinwood, Bratenhal and Euclid. The 1 bus line connects commuters to points in South Collinwood and Euclid terminating at Euclid Square Mall.

Intercounty Transit: Laketran (Lake County) can be accessed at the Shoregate Shopping Center in Euclid.

Streets + Highways: Interstate 90, which according to the Northeast Ohio Areawide Coordinating Agency (NOACA), handles over 133,500 vehicles daily based on the last traffic count in 2013. I-90 serves as the primary automobile corridor for east west traffic between downtown and the eastern lakeshore communities.

SOUTH OF CIRCLE NORTH

To the south is where direct access to the eastern and southeastern communities in Cuyahoga, Summit and Portage Counties can be made via multiple bus and rail lines.

.5 miles to the Louis Stokes Veterans Administration Medical Center
1 mile to the Healthline BUS RAPID TRANSIT, the 9, 7, 32, 48 and 48A BUS LINES
1 mile to the Healthline BUS RAPID TRANSIT, the 9, 7, 32, 48 and 48A BUS LINES
1.9 miles to the E. 105th-Quincy Rapid Station REDLINE
2.8 miles to the Buckeye Ave. - Woodland Rd Rapid Station BLUENAME + GREENLINE

Transit: The Healthline is another connector between Downtown and University Circle and East Cleveland and this transit line is not as critical to Glenville residents who can use the 10 or 3 bus lines to access these locations. The 9, 7, 32, 48 and 48A Bus lines are more important connections as they give residents access to jobs and shopping in the suburbs directly east and southeast of the city. The Blue and Green Rapid Lines which connect further south are also important connections to destinations further east and are faster commuting routes than bus routes.

Intercounty Transit: PARTA (Portage County) can be accessed at the Southgate Transit Center in Maple Heights twice a day on weekdays. PARTA also makes a stop at the VA Medical Center via downtown Cleveland twice a day on weekdays.

Streets + Highways: Superior Avenue is one of the city’s primary east-west corridors, but handles only near 12,000 vehicles a day through Glenville due to development patterns over the past half century. The combined total of Chester, Euclid and Carnegie Avenues and their connections to Cedar Glen Parkway, Martin Luther King Jr. Boulevard, Stokes Boulevard and Mayfield Road; which together make up the major spine of east-west traffic through the city from the near east suburbs to downtown; handles over 100,000 vehicles daily. This traffic includes car, truck and bus traffic.
EAST OF CIRCLE NORTH

To the east is where connections can be made to the redline (primarily to points west from the Superior Avenue Rapid Station), and to bus lines that run along primary north-south corridors in the inner ring suburbs directly east of Glenville, and that ultimately lead to the southeast suburbs. Sometimes additional connections must be made to reach the furthest edges of the county in places like Solon where many service retail and manufacturing jobs are located. To reach destinations in Portage County, commuters can transfer to the 100 Cleveland Express PARTA line at the Southgate Transit Center.

1.2 miles to the Superior Avenue Rapid Station REDLINE

Transit: The Redline is an option for commuters to travel via University Circle, to Downtown but duplicates the primary destinations of the 10 and 3. Connections to the 28, 28A, and especially the 41 and 41F bus lines are more important and provide access to inner ring eastern suburbs, Solon and additional connections at the Southgate Transit Center.

Intercounty Transit: PARTA (Portage County) can be accessed at the Southgate Transit Center in Maple Heights twice a day on weekdays. PARTA also makes a stop at the VA Medical Center via downtown Cleveland twice a day on weekdays.

Streets + Highways: The 41 and 41F cross nearly all of the primary east-west streets on the east side and offer connections to points along I-480.

WEST OF CIRCLE NORTH

The GCRTA transit system is designed as a spoke and hub system with Downtown Cleveland at its focus. Travel to Downtown via the 3 bus line offers commuters the best options to transfer to other points in the region outside of travel to University Circle and the suburbs directly east of Glenville and University Circle. These areas are more quickly accessed without the need to travel downtown. Connections to rail and bus lines serving the west side, as well as connections to METRO (Summit County), LAKETRAN (Lake County), and (PARTA) are most easily accessed from here.

3.9 - 4.3 miles to various stops in Downtown Cleveland via St Clair Superior and Hough MOST BUS LINES AND ALL RAIL LINES

Transit: Nearly all transit lines can be accessed downtown. All rail lines terminate at Tower City Center and all bus lines terminate at or near Tower City as well.

Intercounty Transit: METRO (Summit County), and PARTA (Portage County) lines are available downtown, but are designed primarily to get commuters from those counties to Downtown Cleveland during the morning rush and back home during the evening rush. Their schedules are designed around a 9-5 workday in Downtown Cleveland.

Streets + Highways: All of the northern portions of the region’s highways lead to Downtown Cleveland with the exception of the outerbelt freeways. Almost all of the city’s major streets and avenues lead to or near Downtown Cleveland.