



Nashville State of Downtown Mobility

October 2022



CONNECT DOWNTOWN

Project Partners:





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THE 12/30 CLUB

PRIME STEAK

STAGE

TOMMY'S

COLE RED

STAGES

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AMBULANCE





1 Why It Matters

The Nashville Department of Transportation and Multimodal Infrastructure (NDOT)—in partnership with WeGo Public Transit, the Tennessee Department of Transportation (TDOT), and the Nashville Downtown Partnership—has embarked on a critical project to improve mobility and address traffic congestion in the downtown core.

Downtown Nashville has a rich transportation and mobility history, and the heart of our city continues to grow and evolve. Connect Downtown is a critical step in reshaping our transportation networks. It will support our current and future residents, workers, and visitors, building on our strengths and focusing on the new realities and trends that will shape Downtown in the coming years.

This chapter introduces Connect Downtown. It sets the context for this planning process, looking at Downtown Nashville's past, present, and future; exploring who lives, works, and plays downtown; and identifying the vision and goals that will guide this effort.

Introducing Connect Downtown

What is Connect Downtown?

Connect Downtown will shape Downtown Nashville's mobility system with an eye toward resiliency, sustainability, equity, and flexibility. Now, more than ever, our community needs innovative mobility options that support social, economic, and environmental goals.

Through Connect Downtown, we will examine all the needs that Downtown's street network must serve and figure out the best way to fit the many pieces together. Our work will analyze options to address how Downtown's increasing congestion can be better managed through improvements in traffic operations, curbside access, transit connectivity, and pedestrian and bicyclist safety while also supporting the needs of our businesses and residents.



Why is Connect Downtown needed?

Our efforts are set to unfold during a time unlike any we have faced in recent history. We are emerging from a global pandemic, and Nashville is growing very rapidly, bringing more residents and workers Downtown and even more visitors. The total population in the downtown area increased by 57% between 2013 and 2019—Downtown is now home to nearly 14,000 people.

We must be bold and take this opportunity to reshape Downtown Nashville’s mobility networks. This means thinking about different transportation modes, policies, infrastructure, and behaviors as an integrated system. Doing so provides benefits to residents, workers, and visitors alike—from affordability, resilience, choice, and access to opportunity, to physical activity, safety, and reduced carbon emissions.

What will Connect Downtown do?

Connect Downtown will develop an ambitious yet realistic plan to fund and implement projects and programs that serve all of Downtown’s—and our city’s and region’s—mobility needs. It will bring all our transportation modes and functions into a cohesive system, including new and emerging technology.

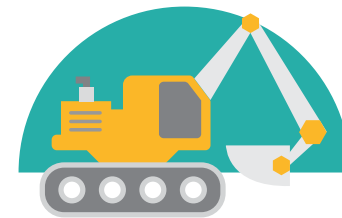
With analysis and your input, we’ll create a new vision for how people move to, through, and around Downtown Nashville. We’ll consider

every mode of transportation and the diverse uses of our streets and sidewalks. We will improve transportation safety, increase mobility options, create a more sustainable and resilient network, and enhance the overall experience of getting around—whether you call Downtown Nashville home, commute to a job, or are here for a visit.

IN 2022, THERE WERE:



14,000
Downtown residents



1.5M
sq ft of office space under construction



5M+
people at Downtown events



DATA COLLECTION AND COVID-19

COVID-19 has forced us to rethink how we live, work, and play. The pandemic changed the ways people travel, and we don't yet know what the "new normal" will look like. COVID also disrupted data collection for the 2020 Census and the 2020 American Community Survey, which are two of the nation's most comprehensive sources of population and housing data. The pandemic's impact on travel patterns also affected traffic counts, transit ridership, and other forms of transportation data.

Because of the rapid and unanticipated changes brought about by the pandemic, Connect Downtown relies heavily on 2019 data. Although it might feel like 2019 was a long time ago, the data from 2019 is the most comprehensive we have available. It also provides a good picture of Downtown Nashville, especially related to transportation. We have used more current data—including data gathered by the Connect Downtown project team in early 2022—whenever possible to complement what we know about Downtown before the pandemic.

How are we building on past work?

The needs and uses in Downtown are as diverse as the opinions about which are most important, and current demands on the right-of-way will only continue to increase. The Metro Nashville Transportation Plan, completed in 2020, introduces initiatives that create a foundation for expanding transportation options in Downtown Nashville:

- A dramatic increase in frequency and span of service for the **bus system**, with most of those services operating to, from, and through downtown
- New **bus rapid transit (BRT) and Rapid Bus** lines that will operate to and from downtown
- Expanded **WeGo Star** service
- A SoBro **transit hub** that will connect services from the south and west and accommodate new downtown transit circulation options
- At least one **transit priority corridor** through Downtown Nashville between WeGo Central and the new SoBro hub, with the opportunity for additional corridors and potential future light rail service
- Better **curb space management**, smart parking, and transit priority

- **Better sidewalks and crosswalks**, a Traffic Operations Center and **signal synchronization**, and **bikeways and safety fixes** to aggressively reduce traffic injuries and fatalities

This is not the first time these improvements have been proposed—in many cases they were envisioned in major initiatives undertaken in the last 10 years. These included Nashville Next, nMotion, Let's Move Nashville, and WalknBike. As the Metro Nashville Transportation Plan points out, Nashville has "a spotty history when it comes to implementation of infrastructure efforts and to supporting expanded public transportation." The city is good at identifying priorities but has been challenged to advance bold solutions.

One key difference between Connect Downtown and most previous efforts is that this project is much more targeted in scope. A second is that this effort is designed to balance the needs of different modes and uses while each of the previous major studies and initiatives had a very clear modal focus.

Connect Downtown's integrated approach will help to weigh tradeoffs and prepare NDOT, WeGo, TDOT, and the Nashville Downtown Partnership for implementation.

Nashville Yesterday, Today, and Tomorrow

Downtown Nashville is ready for an integrated, safe, and better connected transportation system, shaped by our shared vision and goals. To move toward this vision, we must be grounded in our past, think clearly about our present, and be ready to adapt to future changes.



Nashville Yesterday

Although so much of Nashville is new, Downtown Nashville has a much longer history. In the 1600s, French traders established a trading post in an abandoned Shawnee village along the western bank of the Cumberland River. The area now known as Nashville was settled by James Robertson, John Donelson, and a party of Wataugans in 1779, and was originally called Fort Nashborough, after the American Revolutionary War General Francis Nash.

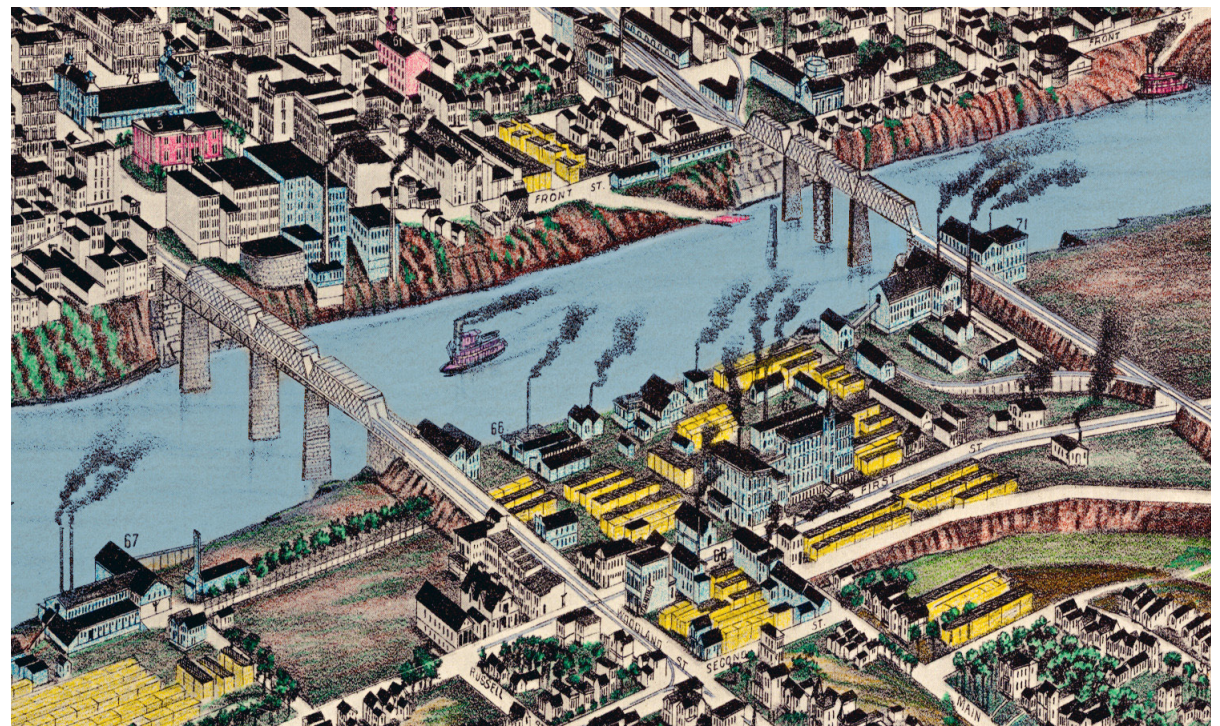
Nashville grew quickly because of its prime location, accessibility as a river port, and its later status as a major railroad center. In 1806, Nashville was incorporated as a city and became the county seat of Davidson County. In 1843, the city was named the Tennessee state capital.

Primarily developed as a river trade depot and manufacturing site, most travel in Nashville was by horse-drawn means. From its beginnings, Nashville grew rapidly, and by the end of the 1800s, our downtown and its street network were well established. By the early 1900s, transportation had shifted to electric trolleys and automobiles. But as dramatic as those changes were, they were just the beginning. It's probably safe to assume that

in 1900 no one foresaw a future that included pedal taverns, people flocking from around the United States to live here, or planes bringing loads of tourists to party on Lower Broadway.

It was the advent of the Grand Ole Opry in 1925, combined with an already thriving publishing industry, that positioned Nashville to become "Music City USA." In 1963, Nashville became the first major city in the United

States to form a metropolitan government when it consolidated its government with Davidson County. Since the 1970s, the city has experienced continued growth and made urban development a priority via the construction or renovation of landmarks including the Country Music Hall of Fame, the Nashville Public Library, Bridgestone Arena, and Nissan Stadium.



Source: Knowol.com

Nashville Today

Nashville’s growth has brought tremendous change to the city.

Over the past 10 years, Nashville’s population has grown by more than 10%. Many of those new residents are moving into Downtown, creating a booming neighborhood with nearly 14,000 residents. Vacant lots are being developed, older buildings are being replaced by newer towers, and the skyline keeps growing taller.

New corporate headquarters are bringing an influx of workers, some of whom will sit in the nearly 1.5 million square feet of office space currently under construction in Downtown Nashville. In 2019, over five million people attended downtown events each year, rivaling the crowds in many of the nation’s biggest tourist districts. The one constant in Downtown Nashville has been our street network.

Today, the city’s 19th-century street system must move people and goods via private vehicle, truck, transit, taxi and rideshare,

walking and rolling, bike, and scooter—and even a few horses. It needs to serve downtown businesses and residents by providing space for pick-ups and drop-offs, deliveries, valet parking, and on-street parking. Many streets and sidewalks are also being used for outdoor dining and other commercial activities.

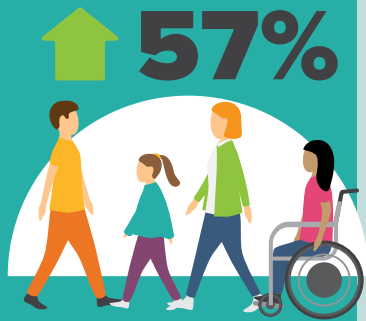
In narrow rights-of-way constrained by the Cumberland River, the Interstate Loop, and historic neighborhoods, downtown streets also accommodate the city’s tourism and events sector. From everyday attractions such as Lower Broadway and pedal taverns to major events like the Music City Grand Prix and Titans games, there are more than 200 street closures each year in downtown. These disruptions to bus routes and ever-increasing numbers of auto detours create a transportation system that is unreliable and frustrating to many Nashvillians.

“While the transportation network has stayed largely the same, the demands on Nashville’s streets and sidewalks have both grown and expanded.”

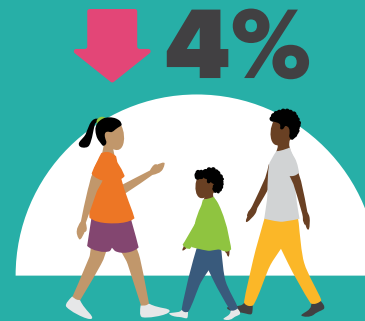


LIVING IN DOWNTOWN NASHVILLE

Mobility is about people. Understanding who lives downtown is essential to building an integrated transportation system that best fits our shared priorities. So, who calls Downtown Nashville home?



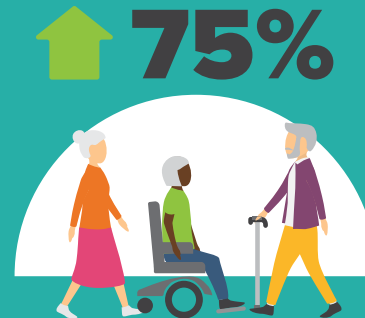
The **total population in the downtown area** was **14,373** as of 2019, a 57% increase from 2013.



The population of **people of color** in Downtown decreased by 4% between 2013 and 2019.



The number of **30-somethings** in the downtown area nearly doubled (90% increase) between 2013 and 2019, compared to a 17% increase in Davidson County.



The number of residents aged **65 and over** Downtown grew by 75% between 2013 and 2019, compared to a 22% increase in Davidson County.

WORKING IN DOWNTOWN NASHVILLE

Downtown is the economic center of Nashville and Davidson County with 85,100 jobs, which is a 106% increase from 2013. More than half (55%) of those jobs are filled by people who live outside of Downtown. Making connections to jobs seamless and reliable is critical as Downtown Nashville continues to grow.

Six industries make up more than two-thirds of the jobs in Downtown Nashville:

Educational services, healthcare, and social assistance



22.4%

Professional, scientific, and management and administrative services



11.8%

Retail trade



11.3%

Arts, entertainment, recreation and accommodation, and food service



10.6%

Manufacturing



10.1%

Public administration



3.9%

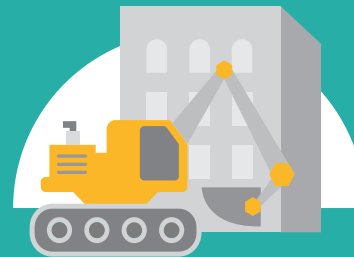


VISITING DOWNTOWN NASHVILLE

In 2019, over 16 million people visited Nashville, a 33% increase since 2013. And nearly 5 million of those visitors attended events in Downtown Nashville! This is both a challenge and an opportunity for mobility in Downtown. To harness the benefits of tourism, we need to provide clear and comfortable multimodal connections between key destinations.



Tourism generated **\$7.36 billion** in economic activity in 2021.



Downtown has over **1,400 hotel rooms in development** and 3,175 more rooms planned.

Visitor Profile:



Average party size:
2.5 people



Average length of stay:
3.6 nights



Average spending per person per day:
\$286

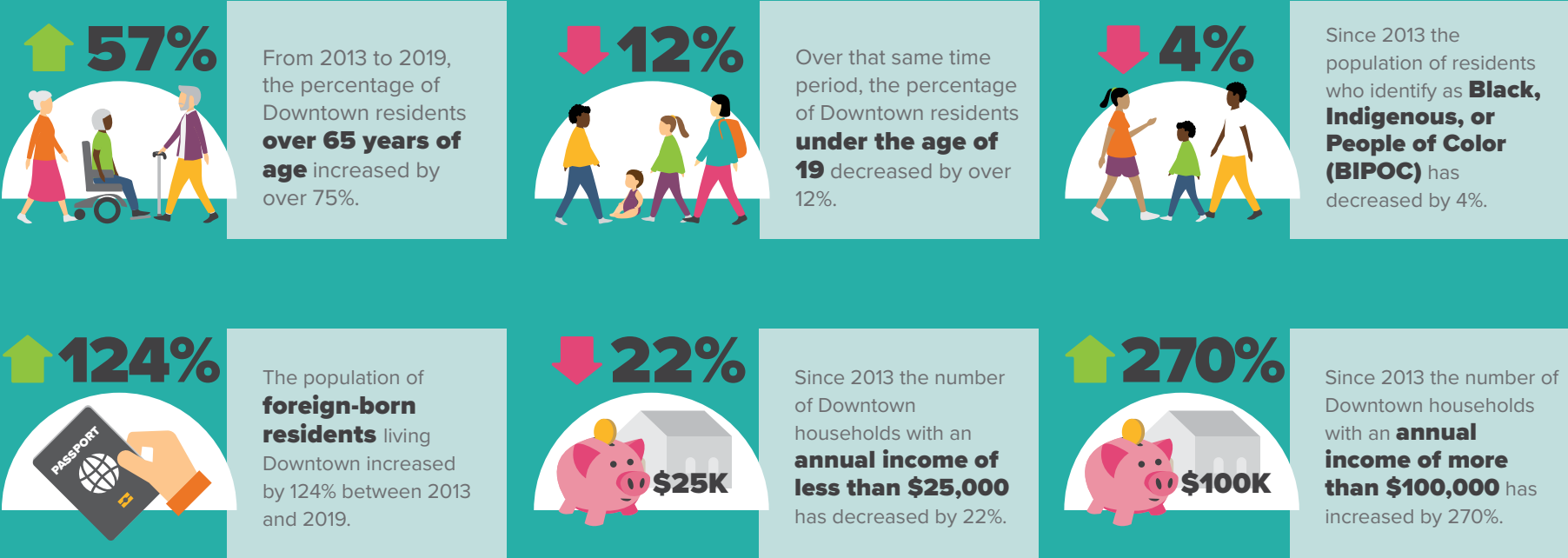


91% are likely to return to Nashville

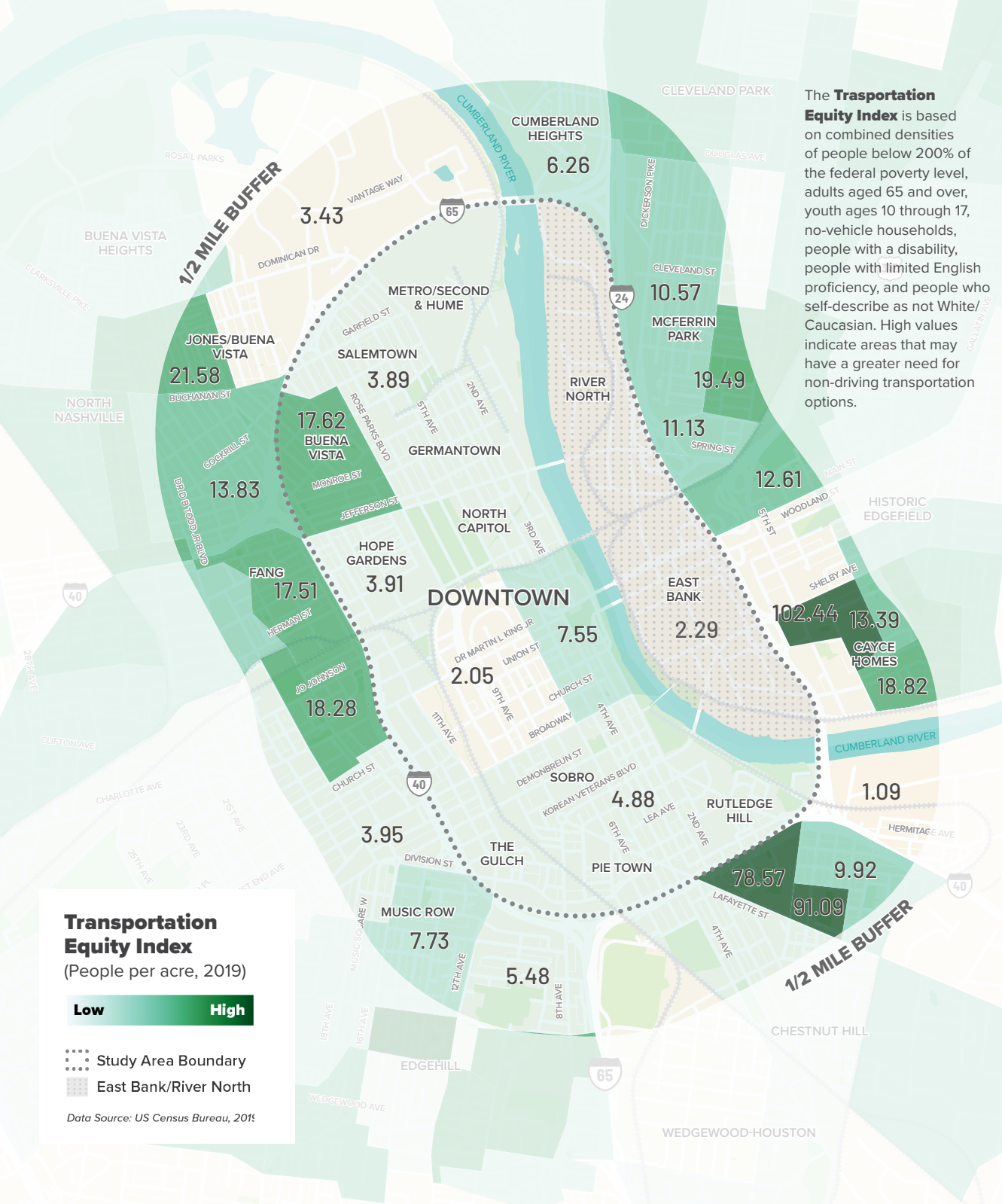


EQUITY IN DOWNTOWN NASHVILLE

Downtown Nashville continues to grow and change, and with that comes new opportunities and challenges for the people that live and work here and the ways they get around. All residents should have access to affordable transportation choices that connect them to home, school, work, and the other places they need to go.



The decline in the number of low-income households is consistent with patterns across Nashville and Davidson County. However, growth in higher-income households outside of Downtown has been slower, with increases of approximately 70% (compared to 270% Downtown). These trends suggest growing income inequality and potential displacement of lower-income Downtown residents.



The **Trasportation Equity Index** is based on combined densities of people below 200% of the federal poverty level, adults aged 65 and over, youth ages 10 through 17, no-vehicle households, people with a disability, people with limited English proficiency, and people who self-describe as not White/Caucasian. High values indicate areas that may have a greater need for non-driving transportation options.



Nashville Tomorrow

We are at a pivotal moment in time—resurgence from a global pandemic, new and expanding technologies, and the growing influence of the private sector in our public realm are shaping Downtown daily.

This is a period of unprecedented change in mobility, presenting incredible opportunities and potential challenges for Downtown and our residents, workers, and visitors. The ways we move and the ways mobility is provided will be different tomorrow than they are today.

These changes have the potential to increase accessibility, but also to increase inequities.

Our transportation system is shaped by our land uses. We must continue to tie land use and transportation to create complete communities and to ensure that people can make sustainable choices for most trips. We must concentrate on moving people and our responsibility to manage the continued growth in Downtown and beyond.

And most importantly, we must act quickly and decisively to achieve our goals, building on the strong foundation of yesterday and today. While we have dedicated significant resources to planning our future, there are technological, environmental, and market forces outside of Metro Nashville’s control that will have a hand in further defining how we live, work, and move.



Source: New South Wales Future Transport 2056



Source: US Army Corps of Engineers

Resiliency

In the face of climate change and aging assets, Downtown's future must be a resilient one. Metro Nashville is committed to an 80% reduction in greenhouse gas emissions (GHG) by 2050 and a shift to 30% renewable energy by 2030. Our mobility system plays a significant role in meeting these goals, but we need to protect our infrastructure to provide sustainable travel options.

The impacts of climate change and an increase in extreme weather events will mean greater disruptions to the transportation systems on which we rely. Data from both the *Washington Post* and *Risk Factor* show that Nashville faces major heat risks, both now and in the future. A "hot day" is one with temperatures that feel hotter than 106° F. Nashville is expected to experience seven hot days in 2023 and is predicted to experience 20 hot days in 30 years.



Private Sector Role

The private sector is increasingly shaping and reshaping our built environment and mobility options, and this is unlikely to change in the coming years. Private developments are creating new housing, new office space, and new commercial and retail opportunities. They are also reshaping our streets and sidewalks, adding new facilities but placing increasing demands on curb space. Metro must build partnerships, but we must also use our regulatory tools to ensure that these private developments are contributing to the Downtown Nashville transportation system our growing city most needs.



Technology and Disruptors

Mobility is changing daily. Smartphones and open data platforms have reshaped the way we understand our transportation options and how we request services. Shared bikes (including e-bikes), scooters, cars, and rides make it increasingly possible to live a car-free or car-lite lifestyle, and these options will continue to grow, with more devices appearing every day.

Connect Downtown Vision and Goals

As we consider the current state of mobility in Downtown Nashville, we must also begin to think about what we hope that state will be when Connect Downtown is complete and the recommendations have been implemented. This section outlines the vision, goals, and desired outcomes that are guiding our work.

We developed the vision, goals, and desired outcomes for Connect Downtown based on these sources:



Review of past and current Metro Nashville plans and policies

including the recently completed Metro Nashville Transportation Plan



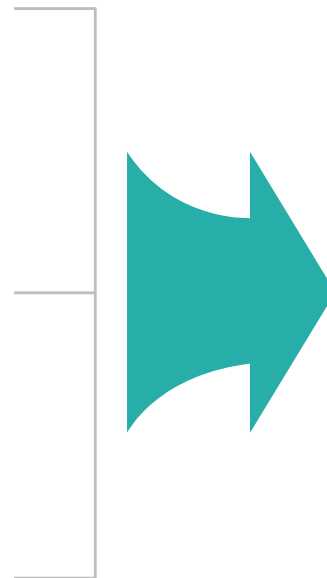
Workshops

with the Connect Downtown Stakeholder Task Force and Technical Advisory Committee in May 2022



Community feedback

on transportation priorities via an online survey and pop-up activities between April and June 2022



Vision Statement

A vision statement is future-based and is meant to inspire and give direction. It describes the anticipated long-term results of Connect Downtown and conveys the purpose of this planning effort.

The vision statement for Connect Downtown is:

“*Connect Downtown will establish a transportation system that **improves safety and accessibility for everyone, balances the needs of all travelers and modes, and reduces congestion.** With a focus on moving more people via complete and connected networks that enhance Downtown’s character and support the region’s growth, Connect Downtown will articulate a pathway to implementation.*”



Goals and Desired Outcomes

Goals articulate what Downtown Nashville wants to achieve. Goals are lofty and ambitious and may take years to reach. Desired outcomes are statements that make goals more concrete. They describe the specific changes we hope to see in service of achieving the goals.

The goals and desired outcomes for Connect Downtown include the following:



SAFE AND COMFORTABLE

Create transportation networks that enhance the quality of life for all Nashvillians, especially the city's most vulnerable travelers.

- Eliminate traffic-related fatalities and serious injuries
- Improve safety and comfort for people walking and biking
- Improve the experience of taking transit
- Enhance people's sense of personal safety downtown



CONNECTED AND CONVENIENT

Develop an integrated mobility system that seamlessly and efficiently connects Downtown Nashville with easy-to-use and reliable travel options.

- Expand access to all modes of travel
- Eliminate gaps in the street, trail/greenway, and sidewalk networks
- Improve access to high-quality and high-frequency transit service
- Organize and prioritize curb space for efficient pick-up and drop-off, loading and unloading, and service activities
- Address barriers to key destinations and to neighborhoods adjacent to downtown



EQUITABLE AND ACCESSIBLE

Ensure equal access to mobility options that meet the needs of everyone traveling to, through, and around Downtown Nashville.

- Contribute to equitable opportunities and outcomes for all people
- Increase affordability of transportation options in Downtown Nashville
- Increase the percentage of the transportation network that is fully accessible
- Engage with vulnerable populations and invest in areas that have been adversely impacted by transportation decisions



SUSTAINABLE AND RESILIENT

Address the climate crisis to create a more resilient Downtown Nashville.

- Improve climate resilience and adaptability of transportation infrastructure
- Reduce transportation-related greenhouse gas emissions
- Reduce drive-alone trips
- Increase the number of trips, especially those less than 3 miles, made by sustainable modes



VIBRANT AND INVITING

Create and maintain a more prosperous Downtown Nashville by providing a transportation system that makes it easier to do business and encourages people to spend time downtown.

- Improve access to homes, businesses, and commercial areas
- Enhance community gathering places with high-quality transportation infrastructure and amenities
- Improve access to Downtown jobs for Nashvillians and residents of Davidson County and adjacent counties
- Provide better travel options and more space for families and people of all ages
- Increase the number of Nashville residents frequenting downtown businesses



BALANCED AND RELIABLE

Expand and enhance mobility choices to manage traffic and curb congestion and create a more predictable transportation system in Downtown Nashville.

- Balance the mobility and street use needs of residents, employees, and visitors
- Improve travel-time reliability and reduce delays
- Improve system resilience to an incident or event
- Integrate cost-effective, implementable projects with high-impact projects





2 Mobility Today

In this section, we take stock of Downtown Nashville’s existing transportation systems and set the stage for emerging opportunities.

Systems include relationships between networks, such as transit routes and hubs, and patterns, such as the decision to take the bus to work. Individual elements of these systems help to form complete streets, or streets that provide safe mobility, access, and connections no matter how a person is traveling.

Nashville’s policies and practices can have an impact on each element of the Downtown mobility network. In this chapter, we explore Downtown’s transportation systems within the following areas:

- Walking and rolling
- Biking
- Scooters
- Transit
- Transpotainment
- Driving and ridesharing
- Transportation safety
- Freight and goods delivery
- Parking and curb management
- Connecting modes

Before diving into the individual systems, let’s start with some context: who is responsible for what, how transportation modes and networks are connected, and big-picture trends in Downtown Nashville travel patterns.

Managing Mobility

Metro Nashville, through the Nashville Department of Transportation and Multimodal Infrastructure (NDOT), plays a lead role in managing our mobility network. However, there are many other agencies and entities who have a hand in how we get around. These include the Tennessee Department of Transportation (TDOT), WeGo Public Transit (WeGo), our neighboring municipalities, and a host of private actors.

To keep Downtown Nashville moving today and in the future will require coordination and collaboration. Transportation networks and the connections people need to make don't end at Downtown's edges. We must think beyond Downtown's borders to continue managing the infrastructure we have today and planning for a more connected future.

The Metro Nashville Transportation Plan, completed in 2020, serves as a guiding document for managing mobility within Nashville and Davidson County. The plan prioritizes mobility investments that were included in NashvilleNext and provides a framework of policies and planned investments. Public listening sessions helped to prioritize among the scores of new investments recommended in adopted studies and plans and set the stage for Connect Downtown.



Roles and Responsibilities

This table describes the different roles and responsibilities associated with Downtown Nashville’s mobility systems and illustrates why collaboration is critical.



	NDOT	WeGo Public Transit	TN TDOT Department of Transportation	Metropolitan Planning Commission A Great City Department	Metro Parks Nashville
Street Network	✓		✓	✓	
Pedestrian Network	✓	✓	✓	✓	✓
Bicycle Network	✓		✓	✓	✓
Transit Network	✓	✓	✓	✓	
Goods & Services Delivery	✓		✓		
On-Demand & Shared Mobility Services	✓	✓	✓		
Parking & Curb Management	✓	✓	✓	✓	
Land Use	✓			✓	

✓ Primary Role ✓ Supporting Role

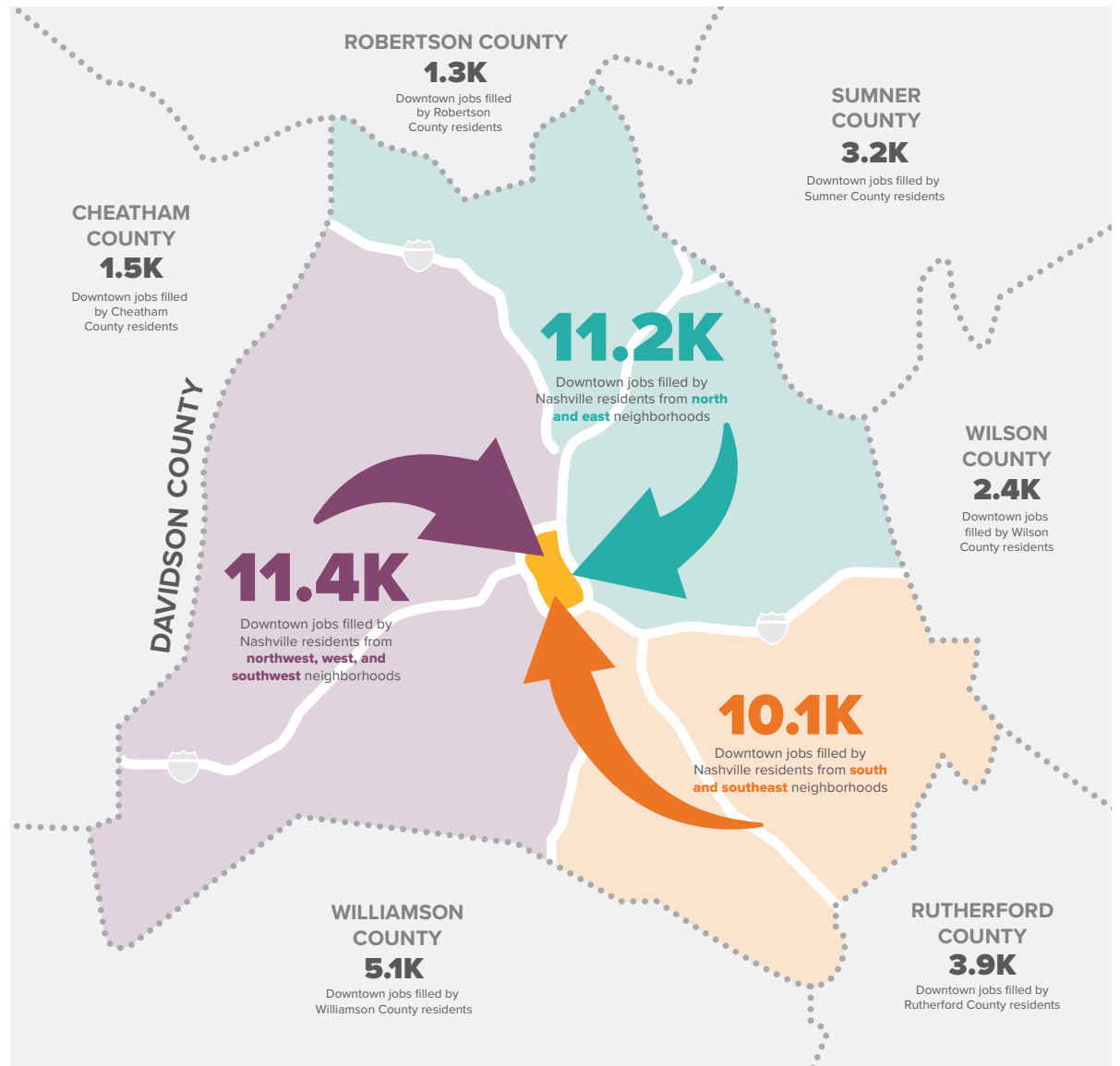
Where and How We Move Today

Connect Downtown will improve mobility for people traveling into, around, and out of Downtown Nashville. People come downtown for many reasons: to work, to play, to attend a show, to shop, to eat, to see friends, to go to school, and more. And some people simply pass through Downtown Nashville on their way to another part of the city. This is especially true for people who take the bus, as most routes connect through WeGo Central.

By looking at commute patterns and mode share, we can understand how people are traveling to, from, and around Downtown Nashville today. We can also begin to highlight opportunities to improve our current mobility systems and to change the ways people travel in the future.

Commutes Into and Out of Downtown

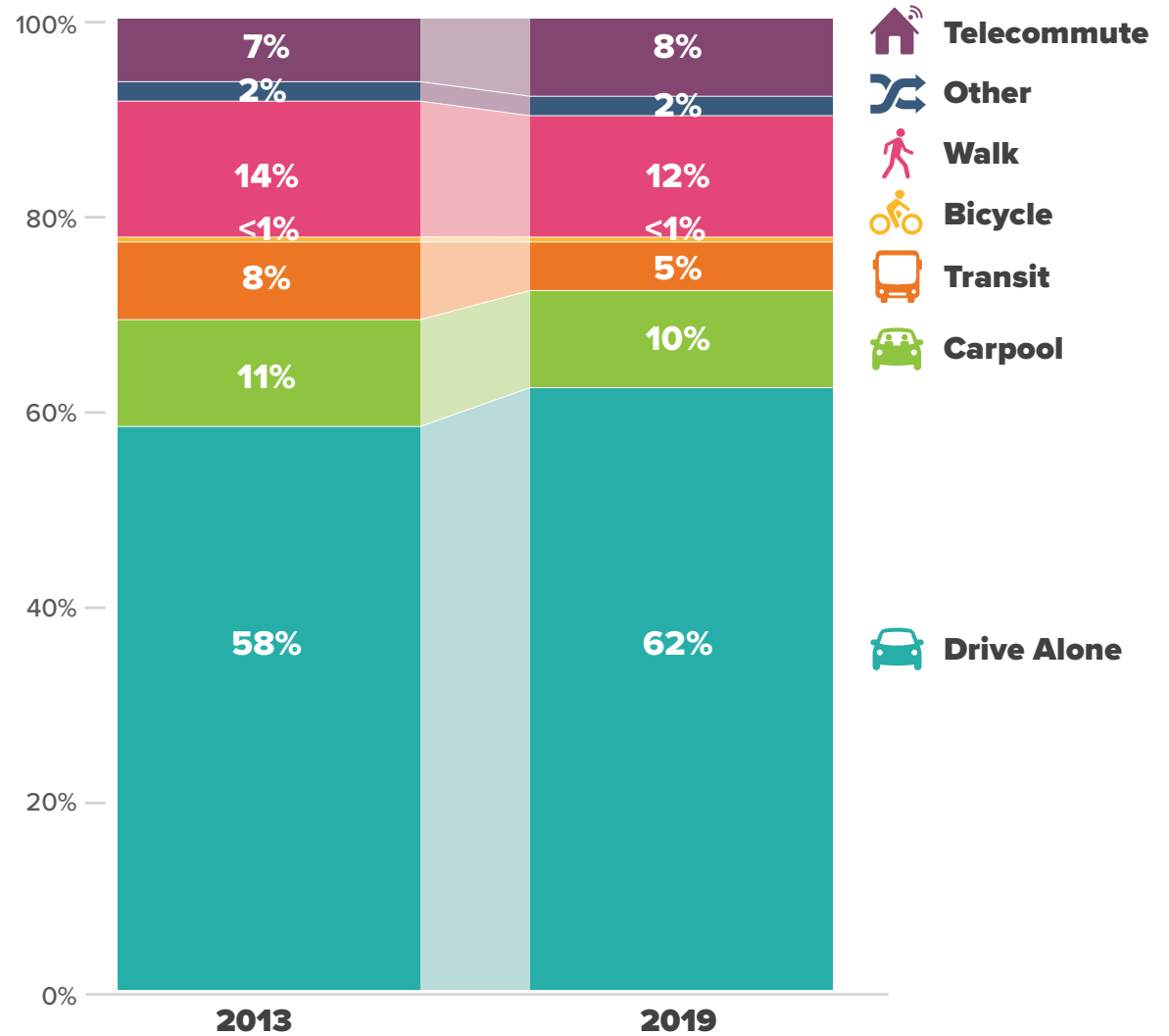
Downtown is the heart of Nashville and welcomes 63,000 commuting workers every day. Most commuters come from within Davidson County, but Downtown Nashville is an employment draw for all of Middle Tennessee. Beyond those who commute into downtown, approximately 6,700 Downtown residents commute to work outside of Downtown each day.



Mode Share

The way we travel has changed over time. Between 2013 and 2019, Downtown travelers have made small shifts in their modes of transportation. Walking, bicycling, and transit have decreased to about 17% of all trips (from 23% in 2013). Conversely, people commuting into Downtown are making more trips by car: driving alone and carpooling accounted for 72% of trips in 2019, compared to 69% of trips in 2013.

The following sections explore each of these travel modes and their mobility networks in detail, highlighting challenges and opportunities for Connect Downtown to consider.



Walking and Rolling in Downtown Nashville

Each day, people walk, roll, or use mobility devices like wheelchairs to move around Downtown Nashville. Whether getting to the bus stop, to their parked car, or moving between Downtown's neighborhoods, people should feel safe and comfortable. When we think about walking or using a mobility device, it's important to consider both moving along a roadway and getting across a roadway.

Good pedestrian environments have a combination of sidewalks and multi-use trails, safe road crossings, and destinations within a 5- to 10-minute walk. Much of Downtown Nashville fits this bill, and walking is one of the easiest and fastest ways to move around Downtown. In fact, 13% of Downtown Nashville residents walk to work, which is a much higher percentage than in Nashville as a whole or in other neighborhoods.



SIDEWALKS TODAY

- There are **94 miles of sidewalk** in the Connect Downtown study area.
- There are **10 miles of streets** Downtown that **lack sidewalks** on one or both sides.
- NDOT has **four sidewalk projects** in the current Capital Improvement Program, including two new sidewalks.



SIDEWALK MAINTENANCE

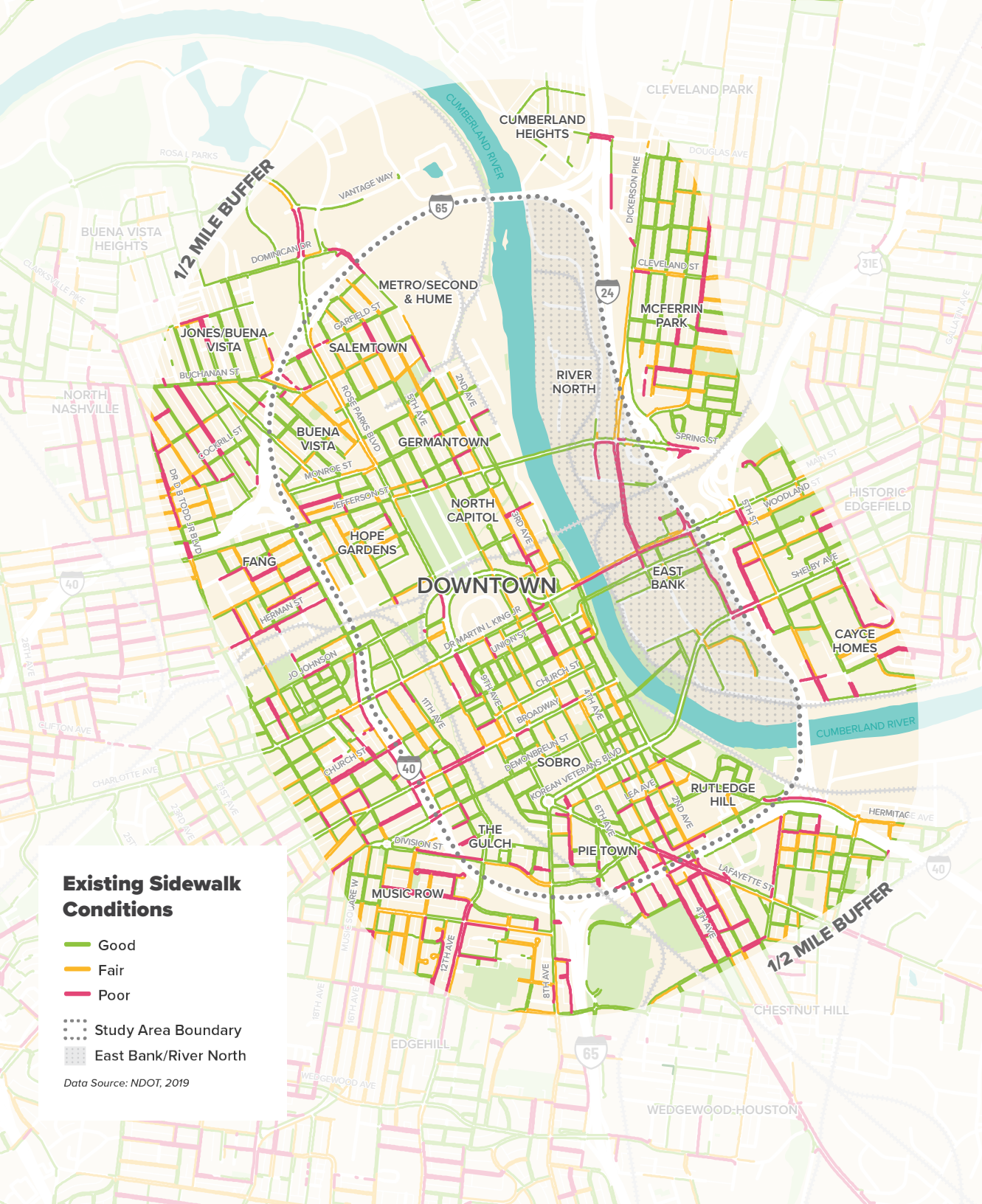
- Having a complete network of sidewalks is important, but those sidewalks also have to be maintained and in good condition. For people who use a mobility device or push kids in a stroller, the **condition of a sidewalk or path** is as important as whether one exists.
- Today, **10 miles of Downtown's sidewalks** are in **“poor” condition**.



PEDESTRIAN CROSSINGS

- Safe crossings are a critical piece of the pedestrian environment. **High-visibility crosswalks**, along with traffic signs and signals, help to connect people to their destinations.
- Most Downtown intersections have **traffic signals and pedestrian crossing signs** and markings.
- Intersections on Lower Broadway between Rep. John Lewis Way and 2nd Avenue use **all-way crossings**, which are helpful for moving large volumes of pedestrians at one time.





Planning Context

These plans are guiding NDOT's investments in Downtown Nashville's walking and rolling network:

- Metro Nashville Transportation Plan (2020)
- Vision Zero Action Plan (2021)
- Vision Zero Implementation Plan (2022)
- WalknBike (2022)

Biking in Downtown Nashville

Since 2003, Metro Nashville has worked to expand bike facilities and infrastructure through policies, programs, and capital projects. NDOT's Bikeway Program builds four types of bikeways: protected bike lanes, buffered bike lanes, bike lanes, and signed shared routes. Most facilities in Downtown Nashville are unprotected bike lanes, although there is a two-way pilot protected bike lane (PBL) on Commerce Street, and there are one-way PBLs on Martin Luther King Jr Way between George L Davis and Rosa L Parks Boulevards. PBLs are also coming to Demonbreun between the Musica roundabout/ Buddy Killen Circle and 14th Avenue South in 2023, and a quick-build protected bike lane is a possibility for 3rd Avenue in the future.

The 2022 WalknBike Plan serves as a blueprint for making Nashville more bikeable (and walkable) over the next three years. The plan focuses on connecting facilities and creating an all-ages-and-abilities network that is safe and inviting. These priorities are particularly important for Downtown Nashville, as there is currently very little connectivity between existing facilities and many lack separation from motor vehicle traffic.



BIKEWAYS TODAY

- There are **13 miles of bikeways** in the Connect Downtown study area.
- Downtown has **2.9 miles of newly constructed bikeways**.
- The WalknBike 2022-2024 Work Plan for Bikeways includes **27 projects** in Downtown Nashville.



BIKESHARE IN NASHVILLE

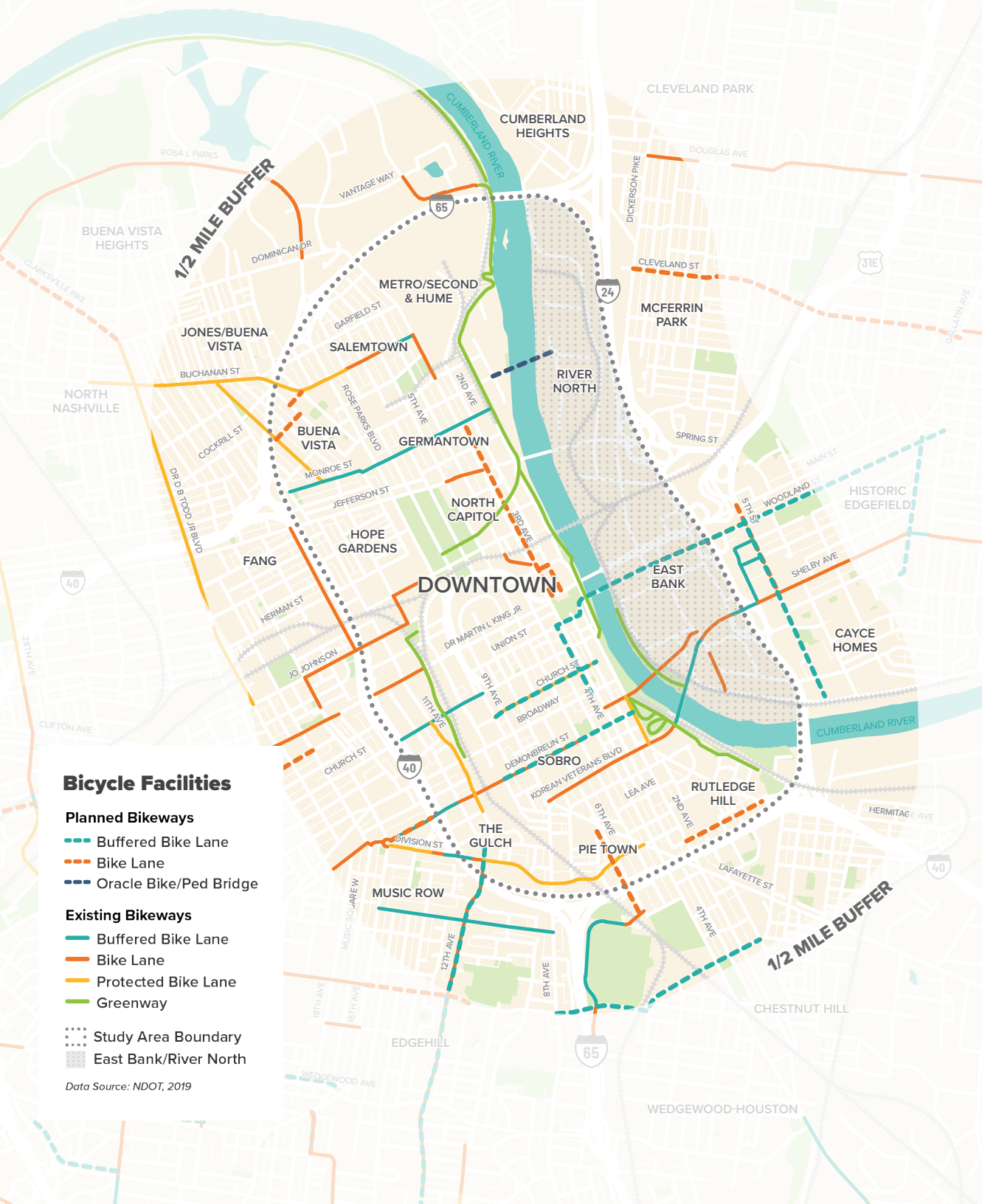
- Nashville BCycle has **34 stations and 300 shared e-bikes** around Metro Nashville, giving residents, employees, and visitors the ability to check out a bike and return it to any station.
- In 2019, BCycle riders made approximately **50,000 trips, riding more than 290,000 miles**. Over 20,000 rides covering almost 125,000 miles began in the Connect Downtown study area.



GREENWAYS

- Greenways are **linear parks** that provide safe and accessible recreational opportunities and important transportation connections.
- There are **three greenways** in Downtown Nashville: the Cumberland River Greenway, the Gulch Greenway, and the Rolling Mill Hill Greenway.
- They are all part of the planned **23-mile City Central Greenway System** that will circle Nashville's core and connect transit stops, bikeways, neighborhoods, business districts, schools, and parks.





Planning Context

These plans are guiding NDOT's investments in Downtown Nashville's biking network:

- Metro Nashville Transportation Plan (2020)
- Vision Zero Action Plan (2021)
- Vision Zero Implementation Plan (2022)
- WalknBike (2022)

Scooters in Downtown Nashville

Shared scooters are a form of “micromobility,” which is a collective term for fleets of small, low-speed, battery-powered vehicles for personal transportation. These are most often used for short trips, including as a first/last mile option that is faster than walking. Mayor Cooper’s Sustainability Advisory Committee Report includes a strategy to expand access to shared urban mobility devices, recognizing the important role that micromobility plays in a sustainable transportation network.

The leading micromobility companies in Nashville are Bird, Lime, and Spin. These three permitted companies have approximately 1,700 scooters, most of which are located in the Connect Downtown study area.

While scooters are very popular—especially with visitors to Downtown Nashville—NDOT receives numerous parking-related scooter complaints each month. Nashville’s scooters are dockless, and riders often park them in ways that block or clutter sidewalks. NDOT has installed scooter parking corrals to provide designated parking areas and has used geofences in designated “no park/no ride” areas.

2.8M

Between August 2019 and August 2022, people took **2.8 million scooter rides** in Nashville.



145K

In August 2022, scooter riders took **145,000 trips**, which is more than **5,000 trips a day**.



10%

Micromobility daily trip patterns **peak during the late afternoon**, and close to 10% of daily trips are made during the **3:00 p.m.** hour.



1 mile

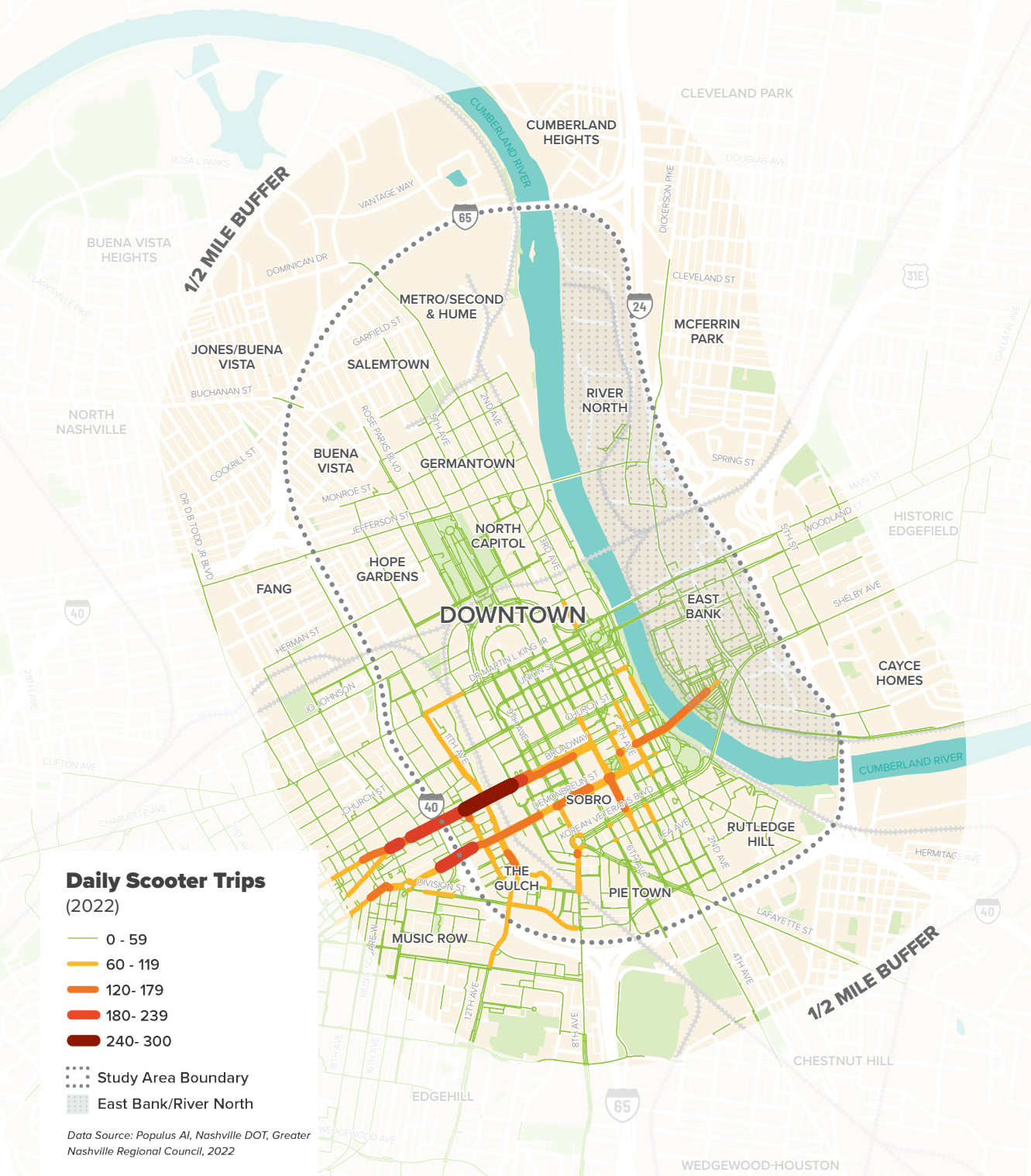
Average trips are a **little over 1 mile** and last **less than 15 minutes**.



300 trips

Lower Broad sees the most trips per day, with approximately **300 trips**. Demonbreun Street has approximately 200 trips per day and has the second highest daily trip totals.







EVALUATING NASHVILLE'S CURRENT MICROMOBILITY PROGRAMS

Nashville currently has both bikeshare and scootershare options, including the BCycle partnership, Nashville's e-scooter program, and WeGo and Bird's equity partnership.

BIKESHARE

Provided by BCycle LLC in partnership with Metro and the Nashville Downtown Partnership, Nashville's e-bikes are a popular micromobility option. BCycle is a successful program, but its smaller system provides limited functionality compared to larger bikeshare programs. For example, most stations and bikes are used for recreation, and few riders use BCycle to commute into Downtown. NDOT is launching a free-floating bikeshare pilot program on November 14, 2022, with a requirement that bikes be docked at identified bike corrals or racks. The geography for the pilot excludes the Connect Downtown study area for the time being.

Nashville's current contract with BCycle expires in 2022, and the department will issue a Request for Proposals for a system operator in fall or winter. Moving forward, Nashville hopes to expand bikeshare to provide people with more non-driving options and reduce drive-alone rates. Doing so will require a more robust bikeshare system and more high-quality bike infrastructure, which people cite as a limiting factor in their desire to bike or use bikeshare, especially Downtown.



SCOOTERSHARE

Nashville has a successful e-scooter program, but it lacks strong regulations around parking and riding on sidewalks or greenways. When scooters arrived in Nashville, there were nine operators and 4,500 scooters. The city's e-scooter permit program responded to that context—through a procurement process, NDOT selected Spin, Bird, and Lime as operators permitted to have 500 scooters each in the Downtown/Midtown area. Ridership is extremely high, with 145,000 trips in August 2022 alone. Nashville residents have raised concerns about scooter parking and adequate space for scooter riders to operate, especially on crowded Downtown sidewalks. NDOT began designating scooter parking corrals in 2019, but they are not mapped or effectively regulated. Nashville currently has no penalties for non-compliance with scooter regulations, which makes it challenging to ensure that scooter riders are operating the devices safely. Moving forward, NDOT should update scootershare permit regulations and advance infrastructure to provide an on-street network for scooter riders.

WEGO EQUITY PARTNERSHIP

NDOT and WeGo have launched a pilot program that allows operators to deploy an additional 125 scooters as a first/last mile option at WeGo stops outside of Downtown. Spin and Lime have typically deployed 25-50 additional scooters, and Bird has consistently deployed the additional 125 allowed. Although this program is described as an equity pilot, it lacks features of similar pilots in other cities, including reduced fares and a focus in high-need areas. Cities such as Arlington, VA; Providence, RI; Seattle, WA; and Washington, DC have required scooter operators to identify equity areas and deploy scooters, often with pricing to support low-income riders. Nashville's equity partnership would benefit from an updated program design that focuses explicitly on vulnerable populations.



Transit in Downtown Nashville

WeGo Public Transit provides bus and commuter rail services throughout Davidson County and the Middle Tennessee region. Downtown Nashville is the center of the network, as nearly all routes travel to and from WeGo Central. Transit is one of the most efficient and effective ways to move large numbers of people, and growing cities like Nashville need high-quality public transit networks.

Planning Context

These plans are guiding NDOT's and WeGo's investments in Downtown Nashville's transit network:

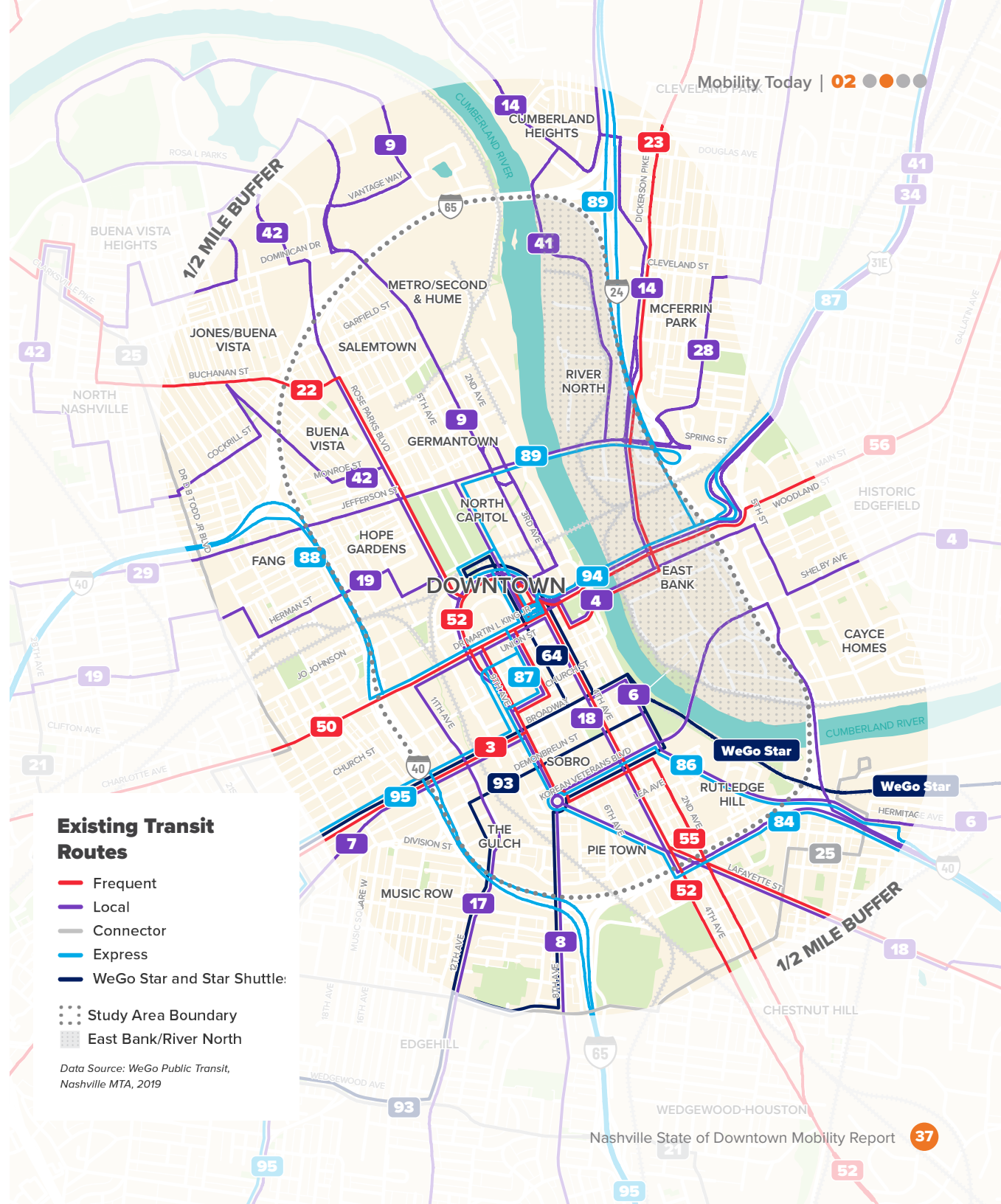
- **Metro Nashville Transportation Plan (2020)**
- **WeGo Better Bus Plan (2020)**
- **nMotion Transit Plan (2016)**
- **Vision Zero Action Plan (2021)**
- **Vision Zero Implementation Plan (2022)**



Current Transit Network

WeGo operates a network of local bus, express bus, commuter rail, microtransit, and complementary paratransit service in Davidson County and surrounding counties. Its network is heavily focused on Downtown Nashville, and 24 of its 28 local bus routes operate to, from, through, or within Downtown. The WeGo Star, Nashville's commuter rail line, operates to and from Downtown, and all of WeGo's express routes operate to and from Downtown.

- **Frequent bus routes** operate every 10 to 15 minutes during peak periods, every 10 to 30 minutes during the midday, and every 15 to 60 minutes in the evening. The first trips begin at 4:24 AM and the last trips go out of service at 12:37 AM.
- **Local bus routes** operate every 15 to 60 minutes during peak periods, every 20 to 60 minutes during the midday, and every 30 to 60 minutes in the evening. However, not all local routes provide midday and evening service. Routes begin operating between 4:38 AM and 7:00 AM and go out of service between 5:17 PM and 12:58 AM.



Current Transit Ridership Downtown

In 2019, WeGo’s ridership by stop was highest in the southern and western parts of Downtown. The highest ridership location was WeGo Central, with approximately 11,500 boardings and alightings per weekday, followed by Convention Center Station with 280 boardings and 70 alightings per weekday and 4th Avenue at Church Street with 140 boardings and 25 alightings per weekday.

- In 2019, WeGo transported **8.8 million passengers to, from, and within Downtown.**
- Total WeGo **ridership declined by 45% during the depths of the pandemic** but has **since increased to 79%** of pre-pandemic levels.
- **Murfreesboro (Route 55)** is now exceeding pre-pandemic ridership levels.
- WeGo has **194 bus stops** in the Downtown Connect study area.



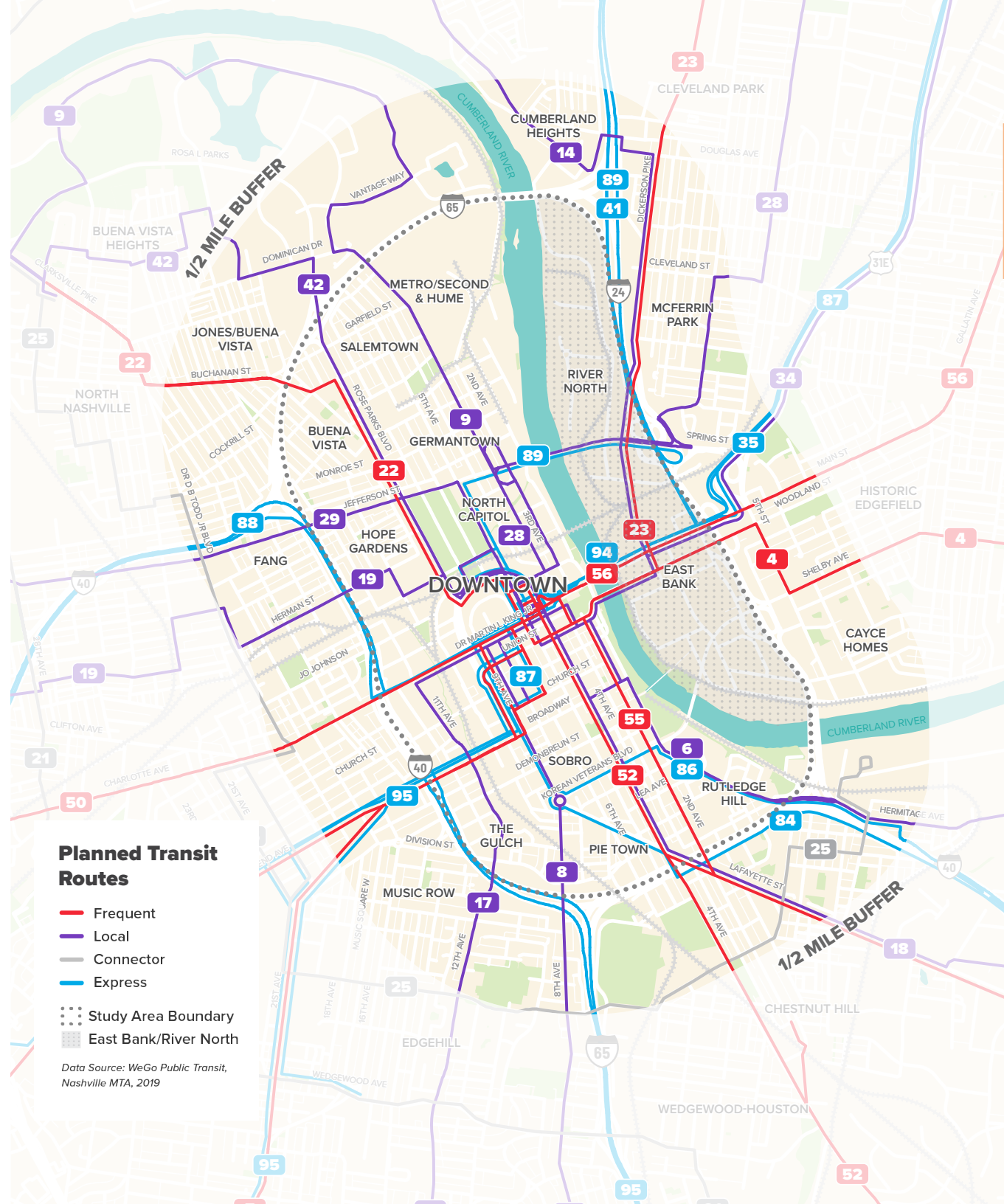


Planned Transit Improvements

WeGo's Better Bus Project is the agency's plan for improving its services throughout Davidson County. The plan focuses on:

- **Longer hours of service**
- **More frequent service**
- **New connections**
- **New transit centers and upgraded bus stops**
- **Access improvements**

Additionally, the East Bank Vision identifies a possible East Bank transit center and the development of a Transit Priority Corridor on a new East Bank Boulevard. These improvements and many others included in the Better Bus Project provide the opportunity to make transit service significantly better in Downtown Nashville.



Planned Transit Routes

- Frequent
- Local
- Connector
- Express
- ⋯ Study Area Boundary
- East Bank/River North

Data Source: WeGo Public Transit, Nashville MTA, 2019



REDESIGNING DOWNTOWN TRANSIT

Most of Downtown's new growth is occurring away from WeGo's Central transit hub. Two types of improvements can help extend transit to these newly developing areas: new transit centers and Transit Priority Corridors.

A **transit center** is often a terminal location for bus routes and is a place where many routes come together, making it easy for riders to transfer between services. Transit centers also provide high-quality passenger amenities and may offer seamless connections to other transportation services. WeGo and Metro are discussing the development of a SoBro Transit Center near the intersection of 4th Avenue and Lafayette Street. A second potential location is on the East Bank. With either or both of these transit centers, existing routes could be extended beyond WeGo Central.

Transit Priority Corridors, which would incorporate transit priority treatments and service and infrastructure improvements into one or more Downtown streets, would make transit faster and more reliable. Potential Transit Priority Corridors include 8th Avenue, 4th Avenue and 3rd Avenue, and James Robertson Parkway.



Transpotainment in Downtown Nashville

Entertainment Transportation Vehicles, or “transpotainment” vehicles, began operating in Downtown Nashville in late 2013 with a few vehicles carrying revelers. The industry has quickly expanded, both in number and in the types of vehicles on Downtown Nashville’s streets and waterways. As of summer 2022, NDOT staff estimate there are nearly 200 vehicles operating downtown.

Nashville is exploring a new approach to managing transpotainment vehicles and has adopted an ordinance that limits the routes and times at which they can operate. The Transportation and Licensing Commission closed permit applications on April 15, 2022, and was evaluating vendors in June 2022. Approximately 30 companies with 150 vehicles have applied for permits to operate Downtown.

Transpotainment vehicles in Nashville include:

- Horse Carriage
- Party Bike
- Party Boat
- Party Bus
- Party Trailer
- Party Truck
- Pub Crawl



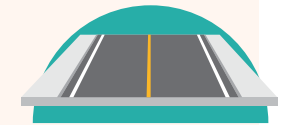
Driving and Ridesharing in Downtown Nashville

Each day, Downtown Nashville’s streets carry thousands of vehicles, with Korean Veteran’s Boulevard, James Robertson Parkway, Rosa Parks Boulevard, Broadway, and Lafayette Street leading the way. Downtown Nashville has a traditional street grid system, which provides good connectivity. However, the interstate loop, the Cumberland River, and railroad crossings on the south and north sides of Downtown create access challenges.

Most streets in Downtown are relatively narrow, especially compared to other sunbelt cities. Many blocks are long and others—especially leading to the State Capitol—are quite steep. These features are an important part of Downtown’s character, but the tight geometry and topography present challenges when right-of-way priorities compete.

In addition to private vehicles, Downtown Nashville has seen an influx of ridesharing and on-demand service vehicles in the past five years. Both taxis and transportation network companies (such as Uber and Lyft) operate Downtown, with a significant amount of activity near Lower Broad, Music City Center, and Bridgestone Arena.

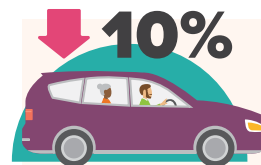
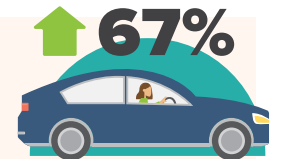
Downtown Nashville has **6,328 streets and alleys that cover 405 miles**. The majority of these streets are classified as Major Roads or Minor Roads.



Interstates 40, 65, and 24 encircle Downtown Nashville and provide regional and local access. The **672 ramps** across the Nashville region are also congestion generators.

Drivers change lanes and weave to get around the **routine ramp back-ups** in the afternoon peak. The back-ups and the resulting behavior create unsafe conditions and impact other Downtown streets and modes of travel.

The **drive-alone** mode share for people who live Downtown and commute to work in Downtown has increased from 63% to 67% since 2013.



The **carpool** mode share for people who live Downtown and commute to a Downtown job has decreased slightly, falling from 11% in 2013 to 10% in 2019.

Besides rideshare companies Uber and Lyft, **eco-friendly Earth Rides and Drover Rideshare** both operate in Downtown Nashville. Nashville has **nine licensed taxi companies** with approximately 300 vehicles (down from 1,200 in 2003).

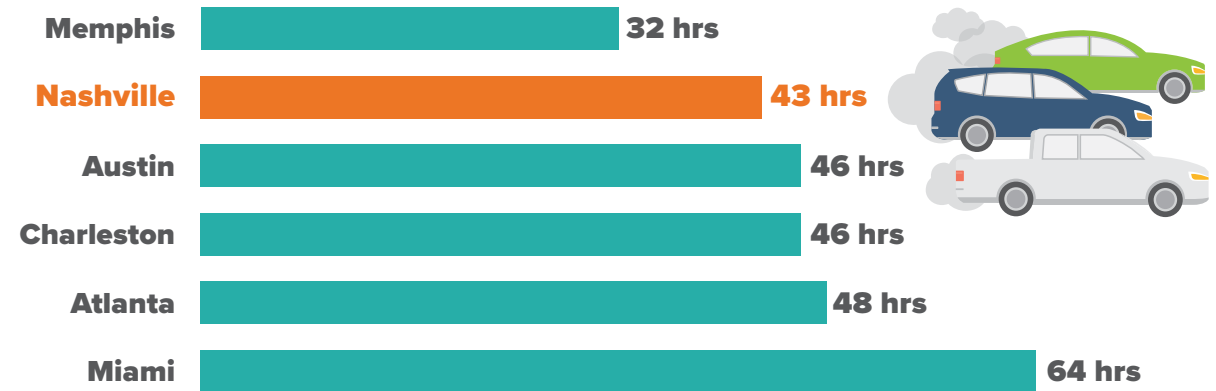


Congestion and Commute Times in Downtown Nashville

Driving continues to be the way most Nashville residents get around, and it is the most common way people travel into Downtown. While driving is often the fastest way to travel long distances in Nashville and Davidson County, it is not necessarily the fastest way to move around Downtown.

The many destinations in Downtown Nashville—coupled with more residents, workers, and visitors and an ever-increasing number of event and construction detours—has worsened congestion, slowed travel times, and made driving in Downtown unpredictable at best. All of this means that shorter trips within Downtown are often better made by walking, rolling, biking, or taking the bus.

In 2021, Nashvillians spent an average of **43 hours per year** in congestion.

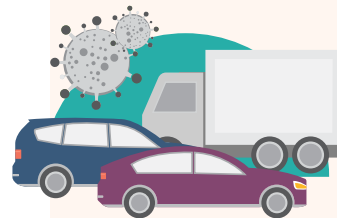
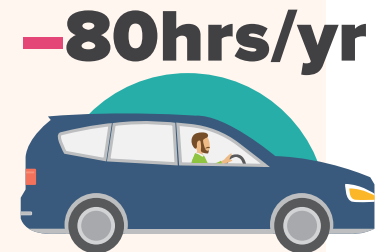


Planning Context

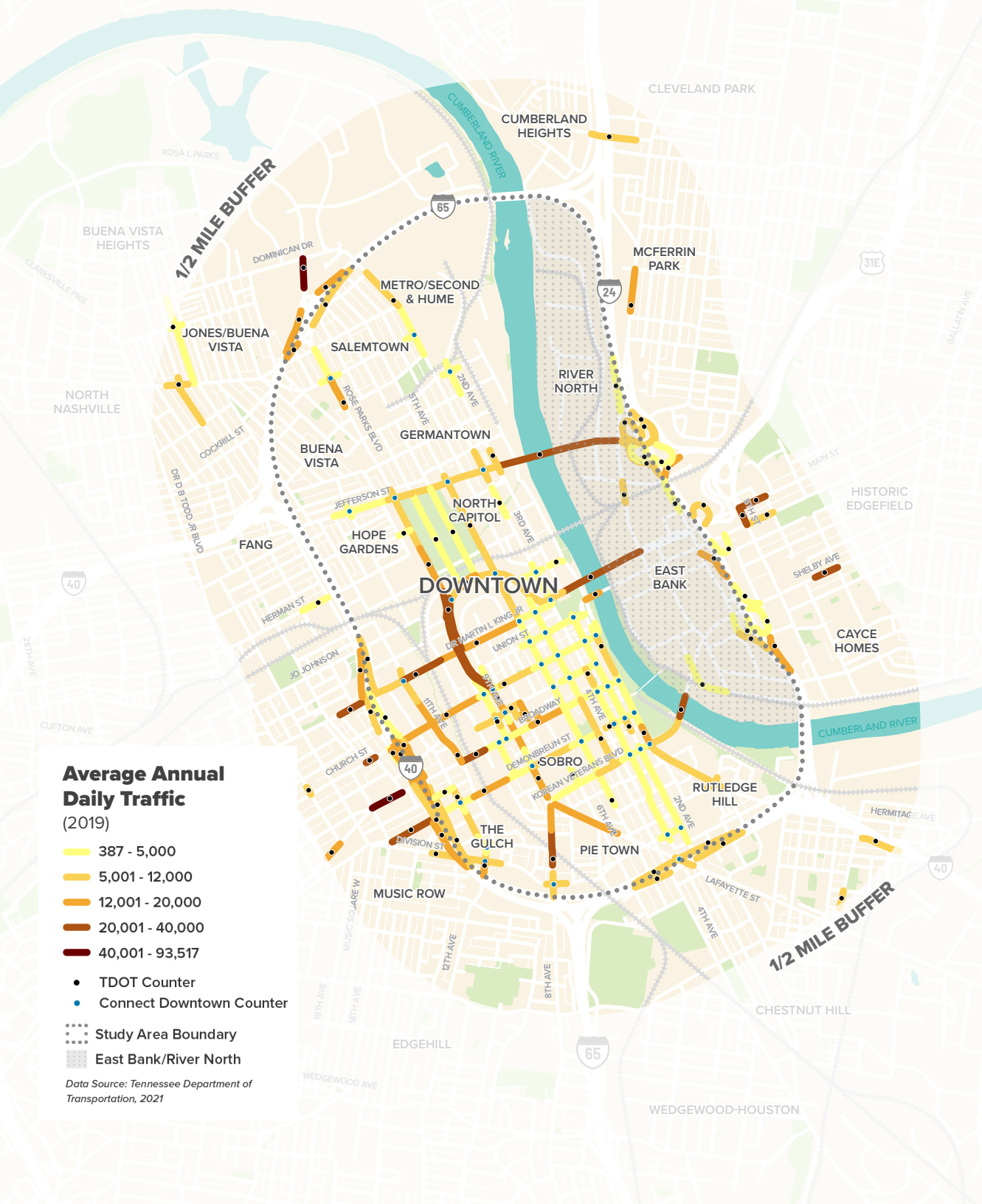
These plans are guiding NDOT's and TDOT's investments in Downtown Nashville's roadway network:

- Metro Nashville Transportation Plan (2020)
- Middle Tennessee Connected Regional Transportation Plan (2021)
- Vision Zero Action Plan (2021)
- Vision Zero Implementation Plan (2022)
- Nashville Inner Loop Study (2022)

In 2021, drivers in the Nashville region **lost 7 minutes per 30-minute trip** during the AM rush hour and **12 minutes per 30-minute trip** during the PM rush hour. That's about 80 lost hours a year for someone driving during both the morning and afternoon rush.



Before the pandemic and a shift to more hybrid work schedules, the time lost was even higher at **14 minutes per 30-minute** AM peak trip and **19 minutes per 30-minute** PM peak trip.



HIGH-VOLUME ROADS

The roads in Downtown Nashville that carry the most cars per day include:

- 8th Ave / Rosa Parks Blvd
- Martin Luther King Jr Blvd
- Jefferson St
- Broadway
- Demonbreun St
- Korean Veterans Blvd



ROADWAY RECOMMENDATIONS

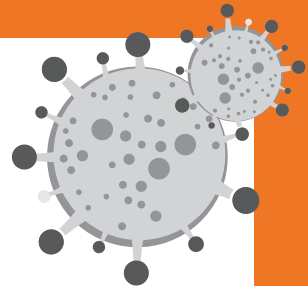
- **The Metro Nashville Transportation Plan** recommends conducting a thorough and comprehensive needs assessment, including a full inventory, to identify roadway deficiencies and deferred maintenance priorities.
- **The Nashville Vision Zero Action Plan** includes strategies to reduce pedestrian fatalities from car collisions, including improving intersections and roadways that have high numbers of crashes.
- **The Nashville Vision Zero Implementation Plan** includes engineering actions, programmatic actions, Metro roles and responsibilities, and a funding overview for Vision Zero implementation from 2023 to 2027.
- **TDOT's Inner Loop Study** identifies options to address the recurrent and non-recurrent congestion within the Inner Loop and on the interstates leading to and from the Inner Loop.



PANDEMIC EFFECTS ON COMMUTE PATTERNS

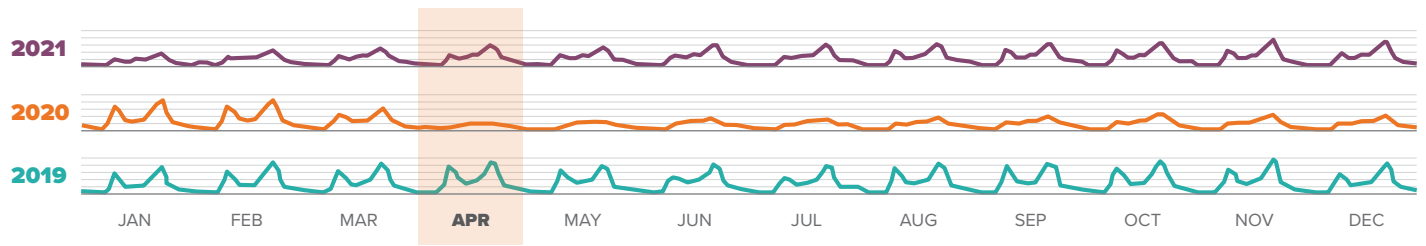
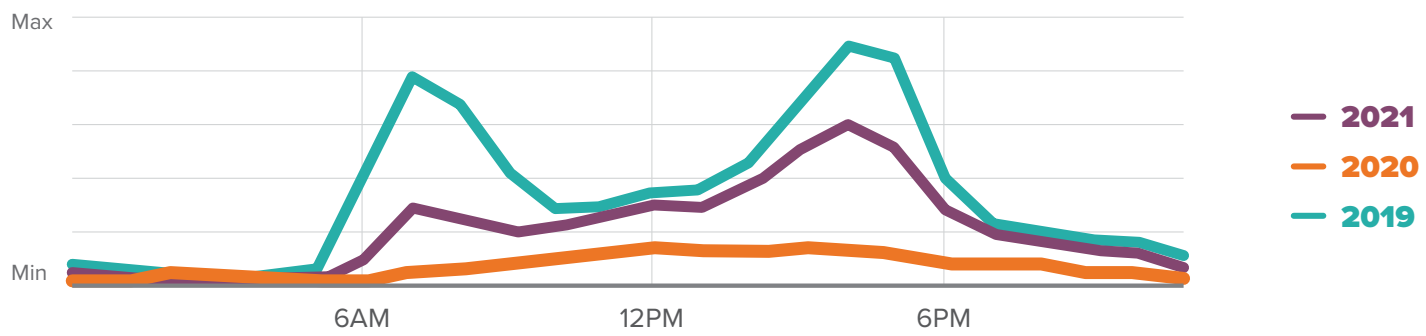
In April 2019, the average monthly congestion level in Nashville was 29% (meaning that, on average, travel times were 29% longer than during non-congested conditions). In 2020, the average monthly congestion in April was 6%, and in April 2021 it had risen to 20%.

What did the traffic on an average working day look like each month across the years?



WORKING DAY TRAVEL PATTERNS IN 2019-2021

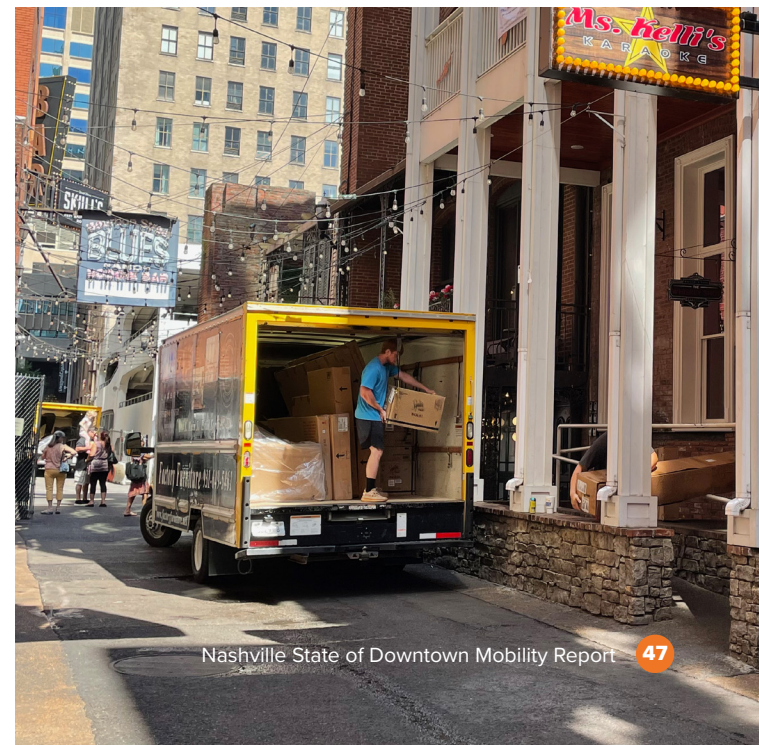
APRIL



Source: TomTom



Source: Michal Anderson



Transportation Safety in Downtown Nashville

Since 2014, 468 people have lost their lives to fatal traffic collisions on state and local roads in Nashville; 27 of those were in Downtown. The principle of Vision Zero—with a goal of eliminating serious and fatal crashes by 2050—is guiding Nashville’s traffic safety efforts.

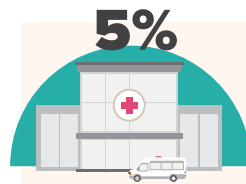
Evaluating where crashes are occurring, why they are happening, and who is most impacted sets the stage for Nashville to take a proactive approach to safety, effectively preventing crashes rather than responding after they’ve happened. Metro is prioritizing infrastructure and behavior change that will reduce crashes and fatalities, starting with Nashville’s most dangerous places for walking, bicycling, and driving.

Planning Context

These plans are guiding NDOT’s actions to improve traffic safety in Downtown Nashville:

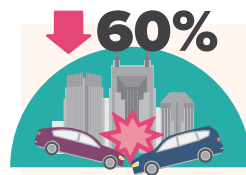
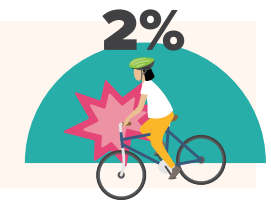
- **Metro Nashville Transportation Plan (2020)**
- **Vision Zero Action Plan (2021)**
- **Vision Zero Implementation Plan (2022)**
- **WalknBike (2022)**

Nationally, Nashville ranks **24th in traffic fatalities** per 100,000 people.



In 2021, 5% of collisions in Downtown—that’s 200 collisions—were **severe injuries or fatalities**.

Only 1% of Downtown Nashville residents commute to work on bikes, but **bicyclists make up 2% of serious and fatal injuries** in Nashville.

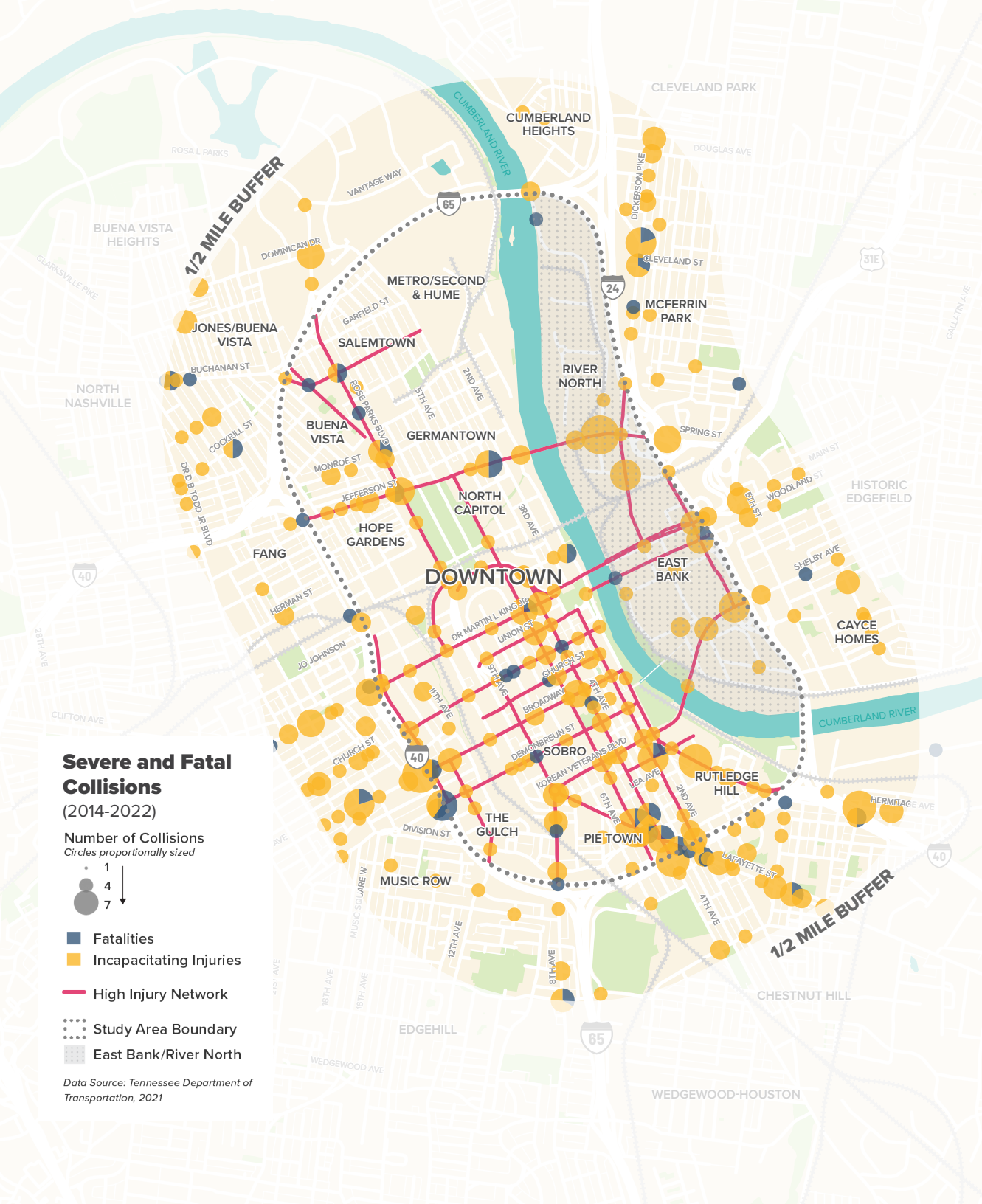


The total number of collisions in Downtown **decreased nearly 60%** between 2019 (580 collisions) and 2021 (233 collisions). That **number is on the rise in 2022**.



TDOT’S PEDESTRIAN ROAD SAFETY INITIATIVE

TDOT’s Pedestrian Roadway Safety Initiative is part of Tennessee’s Strategic Highway Safety Plan. The goal of the initiative is to create safer roadways for pedestrians. TDOT has 12 active projects, with two in Downtown Nashville.



Severe and Fatal Collisions

(2014-2022)

Number of Collisions
Circles proportionally sized



- Fatalities
- Incapacitating Injuries
- High Injury Network

- Study Area Boundary
- East Bank/River North

Data Source: Tennessee Department of Transportation, 2021

HIGH INJURY NETWORK

- Across the city, **6% of streets account for 59% of fatal and serious injuries for all modes.** These streets form Nashville’s High Injury Network.
- There are **47 High Injury Network corridors** that are at least partially within the Connect Downtown study area.

DOWNTOWN HOT SPOTS

- Nine Downtown corridors had more than 10 fatal or serious-injury collisions between 2014 and 2021:
 - **Lafayette Street (27)**
 - **Broadway (16)**
 - **Charlotte Avenue (14)**
 - **Church Street (13)**
 - **8th Avenue S (13)**
 - **2nd Avenue S (12)**
 - **Rosa Parks Boulevard (12)**
 - **Shelby Avenue (11)**
 - **Rep John Lewis Way (11)**
- Since 2014, there have been **22 crashes** involving **people walking or biking on Broadway** between 3rd Avenue and 6th Avenue.
- **Lafayette Street and Rep John Lewis Way** is one of the most dangerous intersections in Nashville for pedestrians.

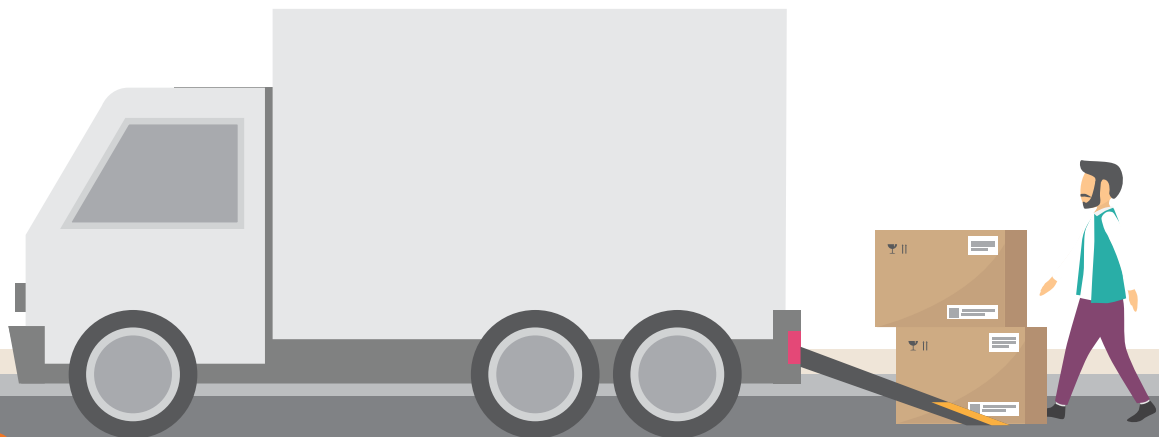
Freight and Goods Delivery in Downtown Nashville

Managing how goods move around Downtown Nashville is essential to the overall mobility network and to the livability of Downtown. This includes the truck network for freight, commercial loading zones for package, food, and other deliveries, space for service vehicles, and the management of construction equipment and activity.

Downtown Nashville has a very high demand for goods and services to support its residents, businesses, and vibrant music and events scene. From FedEx and UPS deliveries to personal and commercial food and beer deliveries to musicians and bands loading and unloading equipment to heating and air

conditioning repair vehicles, the demands on Downtown Nashville's roadway network and curbspaces are significant.

And unlike a more traditional residential neighborhood or business district, the loading and unloading needs of Downtown span most of the day, beginning with goods deliveries in the early morning and ending with late-night equipment loading. The freight network into Downtown Nashville is critical, but the ways smaller delivery vehicles circulate and use the curb has the greatest impact on traffic congestion and our local businesses in Downtown Nashville.

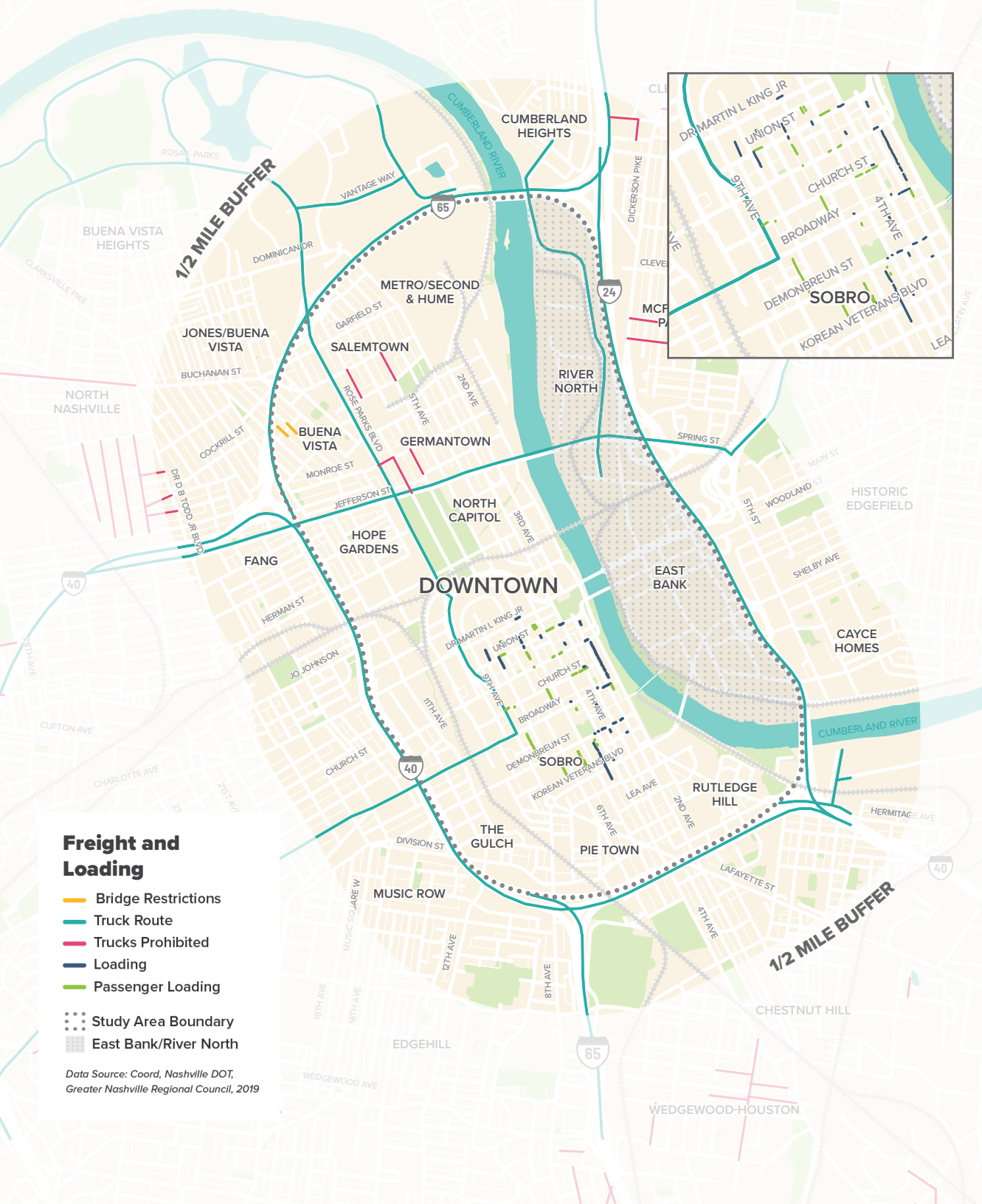


COORD CURB USE PILOT PROJECT

The Coord app and Smart Zones pilot provided dedicated loading zones between 1st Avenue and 4th Avenue and Broadway and Union Street. The pilot allowed delivery drivers to see the availability of spaces in real time and book a delivery window in advance. The data gathered through the pilot has helped NDOT better understand how Downtown curbspace is used.



Source: News Channel 5 Nashville



FREIGHT MOVEMENT DOWNTOWN

- Truck routes in Downtown Nashville are limited and include portions of Broadway, 9th Avenue, Jefferson Street, Spring Street, and Interstates 40, 65, and 24.
- Trucks over 5,000 lbs are prohibited on routes in the Buena Vista, Salemtown, Germantown, and North Nashville neighborhoods.
- Five bridges in Downtown Nashville have truck restrictions.

Planning Context

These plans are guiding NDOT's and TDOT's actions to improve freight and goods delivery in Downtown Nashville:

- **Metro Nashville Transportation Plan (2020)**
- **Middle Tennessee Regional Freight and Goods Movement Study (2016)**
- **Tennessee Statewide Multimodal Freight Plan (2022)**
- **Vision Zero Action Plan (2021)**
- **Vision Zero Implementation Plan (2022)**

Freight and Loading

- Bridge Restrictions
- Truck Route
- Trucks Prohibited
- Loading
- Passenger Loading
- ⋯ Study Area Boundary
- ▨ East Bank/River North

Data Source: Coord, Nashville DOT, Greater Nashville Regional Council, 2019

Parking and Curb Management in Downtown Nashville

The ways people and goods move in cities, including in Downtown Nashville, have changed, resulting in increased competition for limited curb space. Traditionally, curb space has been used for on-street parking and vehicle travel lanes. However, cities are increasingly choosing to prioritize space for walking, biking, and transit over single-occupancy vehicles.

At the same time, the growth of ridesharing and the increase in freight, e-commerce, and on-demand deliveries have led to an unprecedented demand for curb space. While having access to the curb is important for loading and unloading, vehicle storage (including medium- or long-term parking) may be better supported by off-street spaces.

Parking and curb management are key pieces of Downtown Nashville’s mobility system. Our curb space is a public amenity that must move people, goods, and services and support other public space uses. The activity from land uses along a street—whether retail, restaurants, transit stops, office space, or green space—places demands on the curb that require effective curb management strategies.



PARKING AND LOADING DOWNTOWN

- Downtown has approximately **45,000 off-street parking spaces** in 138 surface lots and 50 garages.
- The average **monthly cost of Downtown parking was \$175** in 2018. Rates have been increasing an average of 5% per year.
- There are **2,000 on-street parking meters in Downtown Nashville**, which are concentrated between James Robertson Parkway and Peabody Street.
- **Loading zones** are concentrated between Union Street and Korean Veterans Boulevard.



MANAGING THE CURB

- **NDOT** manages on-street parking and the curb in Downtown Nashville.
- Management includes **setting regulations for the types of uses allowed** (such as loading, short-term parking, or no standing), time limits and restrictions (including length of use and no-parking hours), and prices.
- NDOT is currently negotiating with a vendor, LAZ Parking, who will **install new types of parking management infrastructure** and take responsibility for curb and on-street parking management.
- LAZ Parking’s proposed contract would replace Nashville’s current coin-based, on-street parking meters with **digital parking meters, smartphone payment apps, and credit card payment** options.





Parking and Curb Uses

- Parking
- Time Limited Parking
- Parking Meters
- Parking Lots and Garages
- ⋯ Study Area Boundary
- East Bank/River North

Data Source: Coord, Nashville DOT, Greater Nashville Regional Council, 2019



TRANSPORTATION DEMAND MANAGEMENT (TDM)

The availability and cost of parking has a dramatic impact on our transportation choices and behaviors. WalknBike recommended establishing a more robust TDM program, building on Nashville Connector, to reduce single-occupancy vehicle trips. The Greater Nashville Regional Council and Metro Nashville have implemented that recommendation, launching Nashville Connector in 2018. The program is funded through Congestion Mitigation and Air Quality (CMAQ) funds from TDOT.

Nashville Connector helps reduce mobile source emissions and improve air quality through strategic partnerships and employer services and education, as well as a complete trips campaign. The program encourages Nashvillians, Davidson County residents, and people throughout the Middle Tennessee region to understand and use a range of existing travel options and reduce their drive-alone trips.

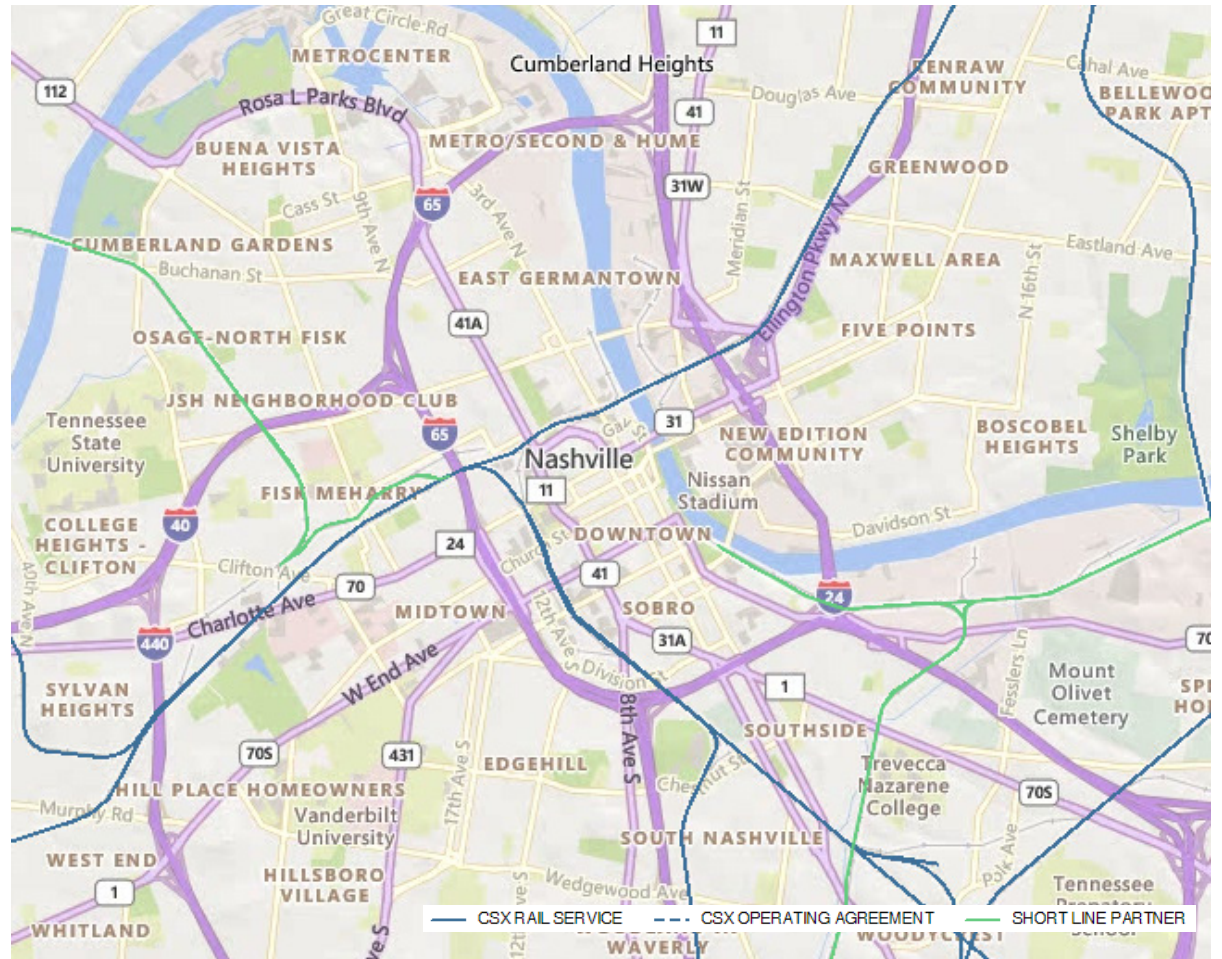
Connecting Modes

Nashville has always been a place of connections, and it remains an important hub for rail and water transportation. Although railroads and rivers can create connectivity barriers, they also shape networks that are especially important for the movement of goods and freight into and out of Nashville and Middle Tennessee.

Rail Transportation

Rail transportation has a long history in Nashville, beginning in 1859, when the Louisville and Nashville Railroad expanded to Nashville. Today, two private companies operate freight rail in Nashville, and WeGo operates passenger rail.

The R.J. Corman Railroad Group operates two short-line freight railroads that end in Nashville: the Nashville and Eastern Line and the Nashville and Western Line. The Nashville and Eastern Line has 145 miles of track and serves destinations between Nashville and Lebanon. The Nashville and Western Line has 20 miles of track from Nashville to Ashland City. It terminates at 12th Avenue North, just outside of Downtown. CSX also operates in Downtown Nashville, with a major rail yard, an intermodal terminal, a TRANSFLO terminal, a distribution center, and its division headquarters in Nashville.



Source: CSX Corporation



WeGo operates the WeGo Star, a commuter rail service that runs from Lebanon to Riverfront Station in Downtown, where passengers can transfer to WeGo buses. The Star runs during weekday peak periods only and for special events, such as Titans games. It is currently the only passenger rail system in Nashville, although Amtrak has proposed a Nashville-Chattanooga-Atlanta route.

The rail lines that connect into and through Downtown Nashville are important for the movement of both people and goods. However, the rail tracks present challenges for other modes of transportation. People heading south out of Downtown often find themselves waiting at an at-grade crossing for a train to pass. These delays are particularly impactful to WeGo buses and require additional time in the schedule for some routes.



Water and River Transportation

The Cumberland River has played an important role in shaping Downtown’s transportation systems, both as a connector for freight and goods and as a barrier between the core of Downtown Nashville and the East Bank. In 1832, Congress allocated funding to improve navigability of the Cumberland River, enabling year-round barge traffic along the Nashville riverfront. Today, barges travel up and down the Cumberland River, moving freight across the region via 22 commercial river terminals.

Water transportation in Nashville is limited to goods movement, as there are currently no passenger ferries or water taxis that connect Downtown and the East Bank. However, as Downtown Nashville has grown, demand for recreational activities like kayak tours, boat cruises, and paddleboarding has increased. River-centered events—such as the annual Dragon Boat Race, the Music City Head Race, and Music City Triathlon—draw hundreds of people each year.

Today, there are five bridges that cross the Cumberland River into Downtown Nashville, including the Seigenthaler Pedestrian Bridge. The East Bank Vision Plan includes a new River North Bike-Ped Bridge from the Oracle campus to Downtown, which will be funded by Oracle. The plan also contemplates a new multimodal river crossing south of Downtown further in the future.



Source: Randy Wetmore



Source: The Tennessean



CONNECT DOWNTOWN

What is the study area?

How can you
be involved?

YOUR INPUT!

Input through:

M A I S I S T R I A N S I T Y





3 Key Findings and Opportunities

Downtown Nashville’s transportation network is robust, and the demands on our mobility systems are increasing daily. To meet the needs of a growing and vibrant city, Downtown’s streets and sidewalks must do double and triple duty to move as many people as possible in limited space.

Our initial research and analysis for Connect Downtown points to opportunities we will explore throughout the planning process. However, this is only our first step. We need to continue to hear from you to grow our understanding about what is working well and what can be improved. We’re curious to explore what’s most important to you and work together to translate those priorities into projects, programs, and policies that support the needs of all Nashvillians.

This chapter summarizes information you shared with us through our first public survey and early pop-up events. It also outlines our key findings and introduces some ideas we’ll use to shape recommendations for Connect Downtown.



CONNECT DOWNTOWN SURVEY

The first Connect Downtown public survey gathered Nashvillians' thoughts and opinions regarding Downtown transportation and mobility. The survey was open from April 22 to June 30, 2022, and 2,128 people responded. The Connect Downtown engagement team distributed the survey through social media, the networks of the Stakeholder Task Force and Technical Advisory Committee members, community events and festivals, the project website, and flyers posted throughout Downtown. More information about who responded to the survey and the full results are available at: ConnectDowntown.Nashville.gov



Public Outreach Findings

Our first Connect Downtown public survey gathered input about Downtown transportation from more than 2,000 Nashvillians. You told us about your mobility challenges, priorities, and opinions, helping to focus our efforts on the greatest needs you see.

Transportation Challenges

We heard a lot about the challenges of driving in and around Downtown, as well as the needs of people walking, rolling, and biking. Survey respondents marked 4,700 challenging spots on our interactive map; the numbers in the map to the right show how many markers are in each cluster, and the colors reflect the density of markers (from pink at the high end to blue at the low end).



Drivers identified traffic congestion as their biggest challenge, followed by dealing with transpotainment vehicles, delivery trucks, and passenger loading and unloading.



People **delivering goods and picking up and dropping off passengers** face similar challenges, including finding a loading and unloading space and moving around other vehicles that block travel lanes or parking areas.



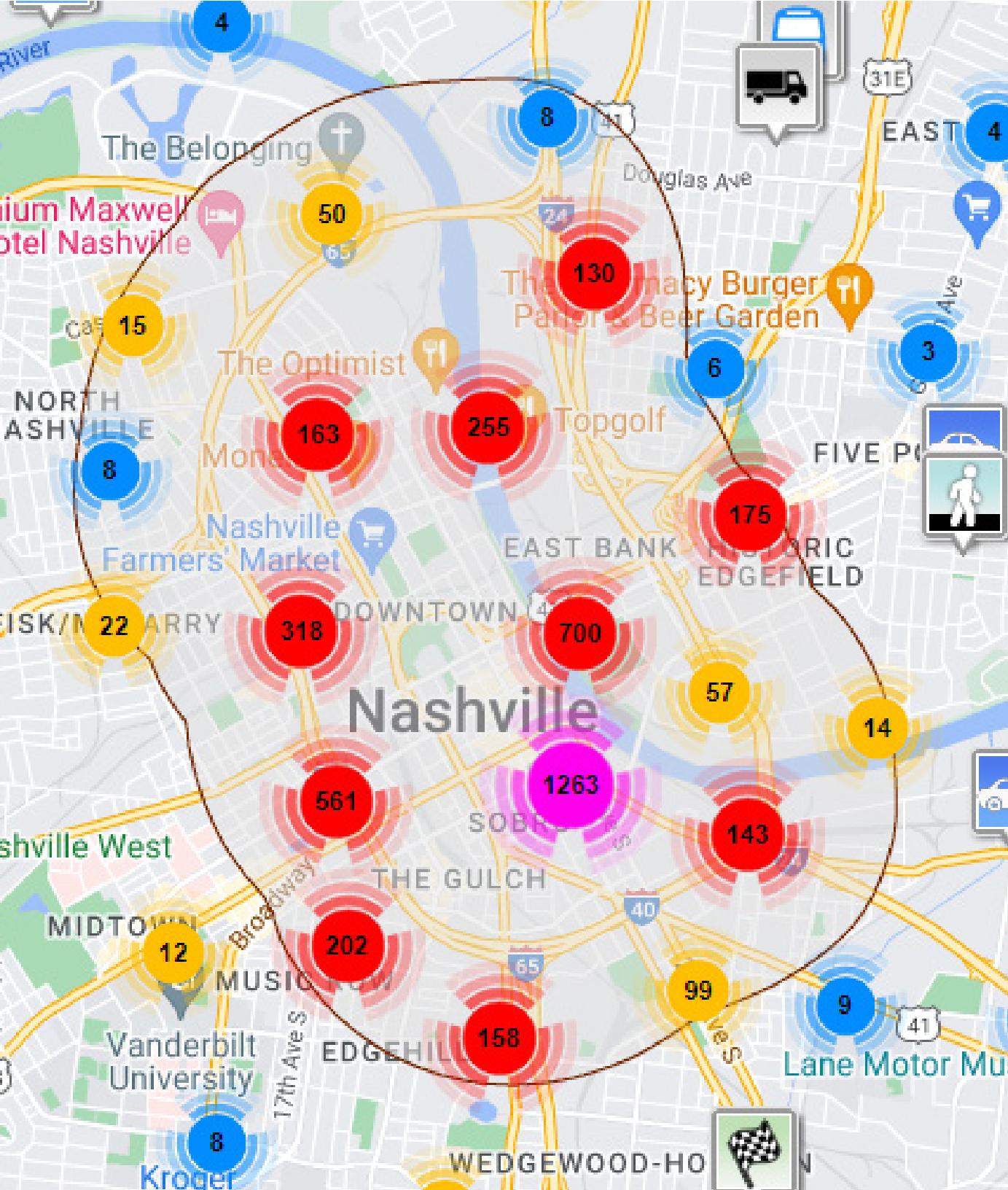
People who **walk or use a mobility device** shared concerns about the awareness of people driving. They also identified a lack of separation from traffic and missing sidewalks as big challenges for walking and rolling Downtown.



Bicyclists noted that a lack of infrastructure is their biggest challenge Downtown, calling out streets without bike lanes and bike lanes that are not separated from traffic as their top concerns.



People who **ride the bus** were less concerned with infrastructure and more focused on the challenges with long waits for the bus and slow trips once they're on board. Confusion about routes and schedules is also a challenge for bus riders.



Transportation Opinions

We asked you to tell us how much you agree or disagree with a series of statements about transportation in Downtown Nashville. The statements reflected what we found in the initial data analysis, and your feedback helped us shape the focus areas described in the next section.

Here's what we learned:



Survey respondents generally agreed that it is **easier to get into and out of Downtown** than to move around Downtown.



Most respondents said they would go Downtown more often **if traffic wasn't so bad**.



The majority of respondents **would rather not drive** if they had another option for getting around Downtown.



People feel that **Downtown lacks space for delivery vehicles**, with the majority of respondents noting this as a commonly held opinion.



Almost 2/3 of survey respondents said they **strongly disagree with this statement: "I feel safe biking Downtown."**



People feel that there are **adequate sidewalks** Downtown, but they noted an opportunity to **better time pedestrian crossing signals**.



Nearly half of the respondents noted an opportunity to **improve the reliability and frequency of bus service** in Downtown.

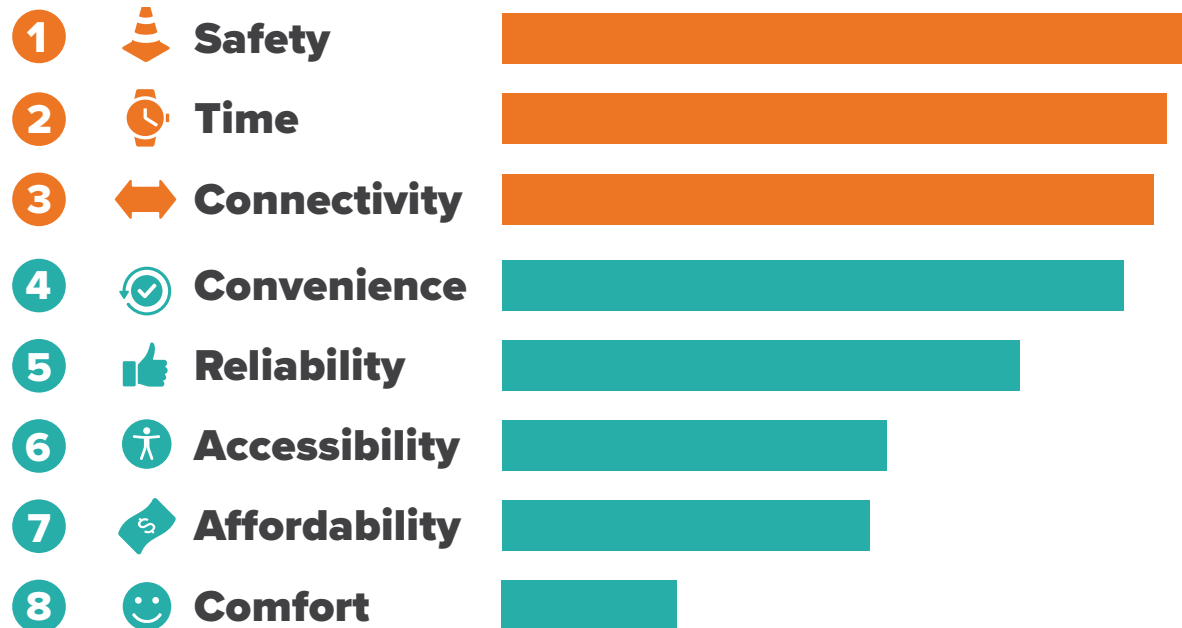


The majority of survey respondents expressed a desire for **more regulation of electric scooters** Downtown.

Transportation Priorities

We asked you to rank eight priorities for improving transportation and mobility in Downtown Nashville. Safety topped the charts for our survey respondents!

The average ranking of each priority was:





Key Areas of Focus

Based on our analysis and exploration of Downtown Nashville's transportation systems, the information you've shared, and other work done to date, we see eight areas of focus for Connect Downtown:

- 1 Establish a Modal Hierarchy**
- 2 Expand the Active Mobility Networks**
- 3 Prioritize Transit**
- 4 Integrate Micromobility**
- 5 Manage the Curb**
- 6 Incentivize Mode Shift**
- 7 Coordinate Construction Closures**
- 8 Enhance Visitor and Event Management**

Each of these is described in more detail on the pages that follow, including our understanding of the challenge at hand and the specific opportunities we'll be exploring. These areas of focus will guide our development of projects, programs, and policies that will help to advance the vision for Connect Downtown.

1 Establish a Modal Hierarchy

In 2016 Metro Government reaffirmed and expanded its complete streets strategy to extend Nashville’s commitment to a safe, reliable, efficient, and connected transportation system that balances the needs of all modes. The distribution, concentration, and mix of land uses in Downtown Nashville sets a foundation for prioritizing space for transit, walking, and biking within our limited rights-of-way.

CHALLENGE

While Nashville has had some success advancing complete streets improvements and increasing multimodal safety and access in Downtown, the competing needs of residents, business owners, and visitors have made implementation challenging. Downtown’s rights-of-way are quite narrow, especially compared to other sunbelt cities. The interstate loop, the Cumberland River, railroad crossings, and bridges all put pressure on our transportation networks. Reallocating street space to provide dedicated facilities for people walking, rolling, biking, and taking the bus is critical to create a more balanced, affordable, and reliable transportation system in Downtown Nashville.

OPPORTUNITY

To create a Downtown transportation system that works for everyone, individual streets within the network must prioritize different modes. Decisions about which mode should have priority on which street depend on the context and purpose of adjacent land uses and the role of the street in the broader network. Conventionally, right-of-way has been allocated from the inside out, starting with the needs of motor vehicles, then dividing the remaining space among all other modes. A modal hierarchy for Downtown can take a more holistic approach to design that balances the needs of all uses and activities and allocates space accordingly.

BEST PRACTICE: MINNEAPOLIS

Like many cities, Minneapolis’ 20th-century transportation investments leaned toward providing more space for vehicles than for other modes. To change the public conversation about roadway space, the City established a modal priority framework that prioritizes people as they walk, roll, bicycle, and take transit over trips made by driving, delivery activities, and parking. The City’s modal hierarchy also includes special accommodations for emergency service providers in street design and an understanding of the movement of commercial goods and services.



Source: City of Minneapolis

2 Expand the Active Mobility Networks

Walking, rolling, and biking are the most sustainable, accessible, and affordable transportation options available today and play an important role in creating a healthy and welcoming Downtown. Downtown Nashville’s scale and land use patterns—with increasing numbers of residents—make walking, rolling, and biking real options for many trips.

CHALLENGE

Despite past investments and Nashville’s commitment to safety, traffic crashes Downtown continue to increase. People walking and biking—particularly younger and older people—are our most vulnerable travelers. Downtown Nashville’s active transportation network has gaps that must be filled and infrastructure that requires an upgrade, whether that is adding curb ramps and widening sidewalks or moving from a painted bike lane to an all-ages-and-abilities cycle track or greenway. In many cases, this will require using our rights-of-way differently and de-prioritizing vehicle travel to make our streets safer for all.

OPPORTUNITY

The 2022 WalknBike Plan provides a guide to make Nashville more walkable and bikeable. The plan highlights expedited delivery of projects that are both needed and constructible over the next three years. Importantly, the plan also identifies sidewalks and bikeways that could be implemented through the development review process. By quickly advancing a safe and connected active transportation network that supports people of all ages and abilities, NDOT can move toward its Vision Zero goal of eliminating deaths and serious injuries due to traffic crashes. There is also an opportunity to review and revise the Recommended Bikeway Network as part of Connect Downtown.

BEST PRACTICE: ATLANTA’S LITE INDIVIDUAL TRANSPORTATION (LIT) LANES

Due to an increase in collisions involving people riding scooters, Atlanta committed to connecting and protecting lanes for people on bikes and scooters. The City investigated different ways of identifying and allocating space for scooters and ultimately settled on a simple rebranding of bicycle lanes. Now called Lite Individual Transportation (LIT) lanes, Atlanta’s bike lanes are also open to scooters. As new LIT lanes are designed and built, Atlanta is focused on creating safe corridors that work for multiple modes of sustainable transportation.



Source: Midtown Alliance

3 Prioritize Transit

Buses and trains have the ability to move more people more quickly and in less space than any other motorized form of transportation. To advance Connect Downtown’s goals, WeGo and NDOT must develop a coordinated approach to quickly implement Transit Priority Corridors.

CHALLENGE

WeGo operates a network of services that are heavily focused on Downtown Nashville—24 of its 28 local bus routes operate to, from, through, or within Downtown. Due to traffic congestion and a lack of transit-priority infrastructure, transit service in downtown Nashville is currently very slow and unreliable. This impacts ridership and makes it difficult for people to use transit for many trips.

OPPORTUNITY

Transit Priority Corridors emphasize improved service, reliability, and passenger comfort. Combining a variety of strategies—including infrastructure such as bus lanes and high-quality bus stops, as well as service improvements like more frequent service—Transit Priority Corridors make bus service faster, more reliable, and more convenient. There are at least three opportunities for Transit Priority Corridors in Downtown Nashville:

- 3rd Avenue and 4th Avenue between WeGo Central and a new SoBro transit center
- 8th Avenue/Rosa Parks Boulevard between WeGo Central and a new SoBro transit center
- A north-south option along East Bank Boulevard (new!) between a new East Bank transit center and WeGo Central

BEST PRACTICE: PROVIDENCE’S DOWNTOWN TRANSIT CONNECTOR

The Rhode Island Public Transit Authority recently opened its “Downtown Transit Connector” Transit Priority Corridor. It runs 1.4 miles between downtown Providence and Rhode Island Hospital and includes curbside bus lanes, transit signal priority, high quality stations, pedestrian improvements, and a unique look and branding. Providence implemented the Downtown Transit Connector in an area where space is constrained and there are competing demands on the right-of-way.



Source: RIPTA

4 Integrate Micromobility

As cities encourage more sustainable modes of transportation, shared and micromobility options are becoming increasingly important. These services provide people with options other than driving or taking public transit for short trips (typically less than two miles), reducing reliance on personal cars or ride-hailing vehicles that contribute to congestion. Short shared micromobility trips can also complement transit services, enhancing first/last mile connections and expanding the number of people who can easily reach a transit stop or station.

CHALLENGE

Nashville is currently home to both shared mobility and micromobility services. The Nashville BCycle bike share program has 34 stations and more than 300 bikes around Metro Nashville. Nashville is also home to Bird, Lime, and Spin scooters, and people are taking approximately 145,000 scooter trips per month. Most complaints NDOT staff receive about scooters are related to parking—Nashville’s scooters are dockless, and riders often park them in ways that block or clutter sidewalks.

OPPORTUNITY

There is more that could be done to improve the deployment and expand the use of shared mobility in Downtown. Opportunities include improved permitting regulations, expanded micromobility parking infrastructure and geofencing technology, exploration of an equity-focused pilot program, and stronger partnerships with providers to better connect micromobility services to the WeGo system and to neighborhoods outside of Downtown. Nashville also has the opportunity to expand protected bikeways and shared-use paths for bikes and scooters.

BEST PRACTICE: **AUSTIN'S SHARED MOBILITY SERVICES PROGRAM**

The City of Austin was an early adopter of shared mobility, aiming to harness its potential to address congestion and move people more efficiently through a busy city. Today, Austin has an extensive Shared Mobility Services program, with four micromobility providers and two shared mobility providers. These providers partner with the City to respond to major events and to offer alternative transportation options for tourists. For example, during the 2022 South by Southwest festival, providers deployed over 11,000 scooters and bikes and City officials encouraged both residents and tourists to use micromobility during the festival.



Source: Nick Statt / The Verge

5 Manage the Curb

The curb is not just a delineator between the sidewalk and the roadway. It is also an important interface between vehicle traffic, pedestrian space on the sidewalk, and the businesses and buildings that line a street. How a curb is regulated, how a curb lane is used, and what gets placed adjacent to a curb all impact how an area functions. The activity from land uses along a street—whether retail, restaurants, transit stops, office space, or green space—places demands on the curb that require effective curb management strategies.

CHALLENGE

Downtown Nashville is an entertainment and nightlife hub, as well as a thriving and growing business and residential center. The intense amount of activity puts unique around-the-clock demands on the curb. Everyone needs the curb: from pick-up and drop-off space, to short- and longer-term parking, to WeGo stops and BCycle or scooter parking, to business deliveries, to space for outdoor dining, and to safe spaces to walk, bike, and roll, curb space is at the heart of Downtown activity.

OPPORTUNITY

NDOT is already taking a more active role in managing parking, is carefully considering locations for valet and loading zones, and has piloted smart zones on select blocks. But there is much more to do. To balance the many demands on the curb—and provide time and space for everyone—Nashville must implement active curb management strategies.

Curbside management provides an opportunity to generate revenue through improved parking and loading policies, creates a more efficient right-of-way, and prioritizes non-driving modes. For a busy city center like Downtown Nashville, prioritizing non-driving modes is important for residents, workers, and visitors alike. Curbside management can encourage mode shift, support sustainability, increase safety, and advance a more equitable transportation system.

BEST PRACTICE: SAN FRANCISCO'S CURB MANAGEMENT STRATEGY

The San Francisco Municipal Transportation Agency (SFMTA) manages the city's transportation network and much of its curb space. SFMTA's Curb Management Strategy is a roadmap for how the agency will allocate and manage curb space to both respond to current demands and anticipate future curb access needs. The roadmap defines five curb functions—access for people, access for goods, public space and service, storage for vehicles, and movement—and prioritizes those functions based on the land uses surrounding the curb. Based on those priorities, SFMTA recommends tools, policies, legislative changes, design standards, and process improvements to improve curb access and use throughout the city.



Source: SFMTA

6 Incentivize Mode Shift

Nashville’s growth has led to considerable, and unsustainable, traffic congestion in Downtown Nashville. Managing this demand on our streets will require a broad paradigm shift, with a focused and sustained effort to meet new travel demand through modes other than driving alone. This includes shifting vehicle travel to more space-efficient modes such as transit, bicycling, and walking; shifting vehicle trips to non-peak hours of the day; or eliminating some vehicle trips all together.

CHALLENGE

Today, 80% of Nashville-area commuters drive alone. Single-occupancy vehicles use more roadway space per person than transit, walking, and biking; contribute more significantly to traffic congestion; and often emit more greenhouse gas emissions than other modes of transportation.

After a significant decline in 2020, congestion in Downtown Nashville is again approaching pre-pandemic levels. The PM peak continues to be more concentrated and more congested than the AM peak, which may be due, in part, to the number of evening events that bring people Downtown as the typical workday ends. To meet Connect Downtown’s goals, Nashville must take action to incentivize people to use non-drive-alone modes for more trips.

OPPORTUNITY

The Nashville Connector program implements transportation demand management (TDM) strategies to reduce the number of trips made by people driving alone. TDM strategies have traditionally focused on tackling traffic congestion, particularly trying to reduce driving at peak commuting hours. However, TDM is most effective when looked at holistically. For Downtown Nashville, TDM strategies should:

- Support new development
- Manage current congestion
- Reduce transportation costs
- Improve public health

BEST PRACTICE: SANTA MONICA'S TDM PROGRAM

Santa Monica’s Transportation Demand Management (TDM) Program proactively manages congestion, reduces automobile dependence, and enhances transportation choices for all types of trips. Developments larger than 7,500 sq. ft. must incorporate physical and programmatic TDM elements, including an on-site TDM coordinator, commuter benefits, transit information screens, and financial incentives for non-driving trips. Employers with more than 50 employees must have a TDM plan. Developers and employers pay TDM program fees for an initial and annual plan review, and these fees support TDM staff positions.



Source: City of Santa Monica

7 Coordinate Construction Closures

Nashville is one of the fastest growing big cities in America, and there are 25 construction projects currently underway in Downtown. These construction activities, while permitted, disrupt mobility by closing sidewalks, travel lanes, and bus stops. NDOT currently reviews permit applications one-by-one, considering individual closures rather than impacts at a Downtown or district level.

CHALLENGE

While growth and new construction bring housing and businesses, improved infrastructure, and amenities, construction projects can have a negative impact on the right-of-way, including forcing detours and creating access barriers for people traveling by all modes of transportation. Construction affects people and organizations differently, and areas with significant numbers of projects in close proximity can have:

- More conflicts between people using the right-of-way and construction activities
- More traffic in certain areas due to closures and detours
- Less flexibility in scheduling for contractors
- Less patience for residents, business owners, and travelers

OPPORTUNITY

Downtown Nashville could benefit from a comprehensive construction management strategy, with requirements for enhanced coordination, high-quality multimodal access, and increased fees for use of the right-of-way. Coordinated management of construction impacts—including detours and temporary facilities to support people driving, taking the bus, and walking and rolling—can help to create a safer and more accessible downtown.

BEST PRACTICE: ACCESS SEATTLE CONSTRUCTION HUBS

Seattle's Department of Transportation (SDOT) developed the Access Seattle program to address pedestrian mobility around construction work zones. Through the program, SDOT designated areas of dense construction activity as "Construction Hubs," and established special requirements and resources to ensure mobility and access through these zones. Contractors planning to work in Construction Hubs must discuss their desired use of the right-of-way with SDOT construction coordinators and ensure that at least one sidewalk per block in a Construction Hub remains open.



Source: SDOT

8 Enhance Visitor and Event Management

Nashville is a hub of music, sports, entertainment, and culture, with over 16 million visitors in 2019, including almost 5 million at Downtown events. Recently, the World Travel and Tourism Council named Nashville one of two “safe travels” destinations in the U.S., and in June 2022, National Geographic called Nashville the best destination to travel. This publicity is likely to attract even more visitors to Music City.

CHALLENGE

While Nashville’s tourist appeal and cultural attractions generate tremendous economic benefit for the city and the region, the regular and special events that attract large numbers of visitors routinely disrupt Downtown Nashville’s transportation systems. Transit routes in Nashville must operate on detours almost as often as they operate on their regular streets, and people walking, biking, and driving must continuously adapt to localized street and sidewalk closures, as well as large volumes of people in concentrated areas.

OPPORTUNITY

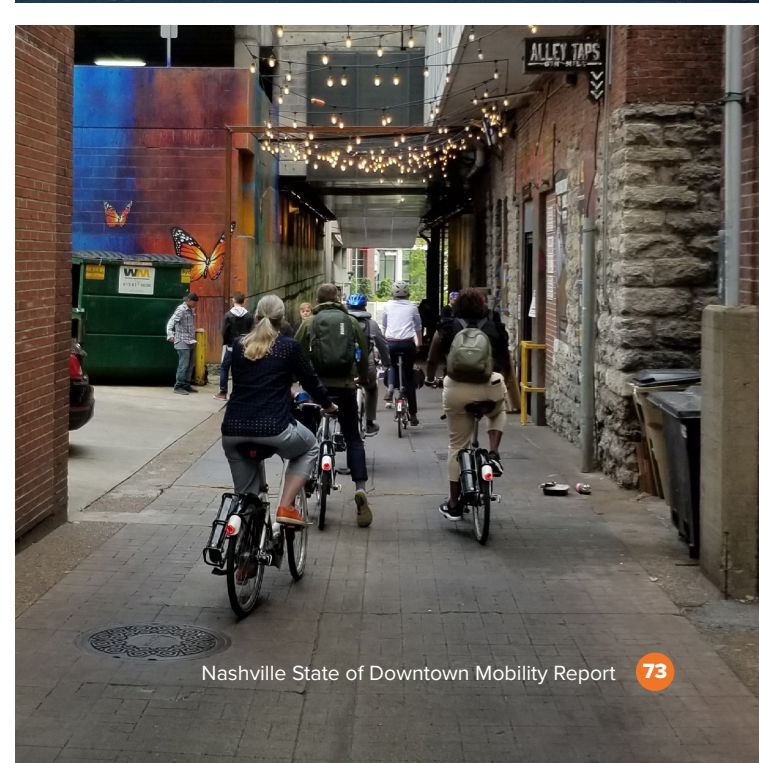
To manage special events and large numbers of visitors, cities are increasingly developing comprehensive visitor management strategies focused on maintaining traffic flows, orienting pedestrians, and providing reliable transit service. Both Nashville residents and visitors should be able to reach their destinations efficiently, and detours must be clear and intuitive, supporting easy navigation. Special events can be less disruptive when managed holistically with a focus on providing transportation options and encouraging people to travel via transit, walking, or biking.

BEST PRACTICE: LOS ANGELES’ TOURISM MASTER PLAN

Los Angeles’ 2020 Tourism Master Plan strives to ensure that the tourism industry delivers strong benefits to the community. The Master Plan includes a goal to reframe LA as a destination that visitors can explore without a car. Associated mobility management strategies focus on education, communication, and innovative programming to shift visitors away from the region’s already-burdened freeway infrastructure.



Source: City of Los Angeles







4 Next Steps

The analysis, survey results, and focus areas included in the State of Downtown Mobility are just the beginning.

This document reflects what we've learned so far and what you've told us is important. To plan and fund the transportation system Downtown Nashville needs—both today and in the years ahead—requires commitment and action. We'll use your priorities and the Connect Downtown goals to identify projects and programs, and we'll work together to determine what needs to be done first.

Over the coming months, we'll invite you to share your ideas, to talk with our team, and to help shape the Connect Downtown recommendations. We will partner with Nashville residents and Downtown stakeholders to take our next steps.



CHECK OUT THE PROJECT WEBSITE OR FOLLOW US ON SOCIAL MEDIA TO STAY UP TO DATE ON OUR PROGRESS AND TO SHARE YOUR FEEDBACK.



ConnectDowntown.Nashville.gov



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