

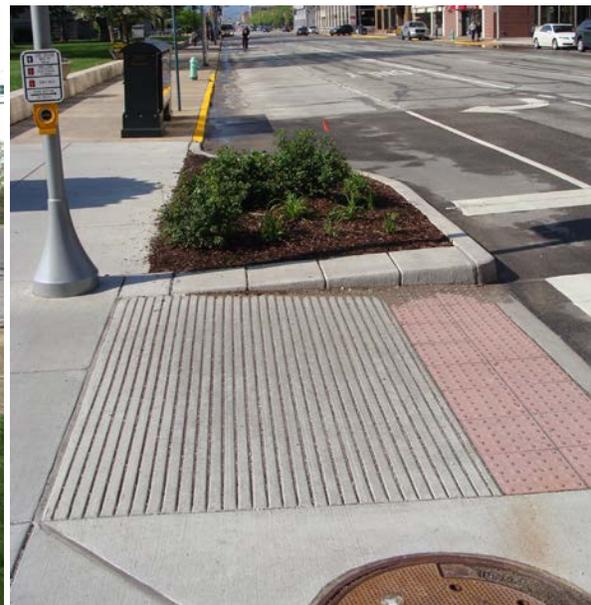
SCENARIOS DETAILS: IMPROVE ACCESS TO TRANSIT

ACCESS TO TRANSIT

Every transit trip starts and ends with a trip by another mode, and for this reason, providing safe, convenient, and comfortable access to transit stops and stations is fundamental to serving existing transit customers and attracting new riders. Today, the conditions in parts of Nashville and the Middle Tennessee region make access to transit a challenge for many people. In particular, non-existent or disconnected sidewalks and wide roadways with no pedestrian crossings can make it difficult for people to reach transit. There are also examples of high-quality connections throughout the region—areas such as downtown Nashville and close-in neighborhoods typically have better conditions than outer areas.

By working with municipal partners to improve connections and access to transit for people of all ages and abilities traveling by all modes of transportation, Nashville MTA and RTA can help to increase transit ridership and make transit an attractive choice for more people.

FIGURE 1 | BUS STOP WITH DEAD-END SIDEWALK (NASHVILLE) FIGURE 2 | CURB EXTENSION AND RAMP (INDIANAPOLIS)



WHAT'S IMPORTANT ABOUT CONNECTIONS?

Regardless of the mode of transportation that a person is using to access a transit stop or station, the connection must be convenient, legible, and safe.

- **Convenient:** People must find their multimodal connections to transit convenient, otherwise they are unlikely to use transit if other options are available. For example, if a person has to walk five blocks out of their way to reach a signal in order to cross the street to the transit station, they are less likely to walk to the transit station.
- **Legible:** When multiple modes come together, it is important that everyone can easily find the areas they need to use and access. Wayfinding is important for improving pedestrian and bicycle access to transit stops and stations, but good signage at the stop is equally important.

- **Safe:** Safe connections are those that do not put users (people on foot or on bike) in danger of collision with a motor vehicle. This means providing the right facilities, both along the roadway and across it. Safe connections are also those that make people feel secure, with good lighting both at transit stops and along the way to the stop. This can also mean providing secure bicycle parking at stops and stations so that passengers aren't worried about their bicycle getting stolen while they are on their transit trip.

TYPES OF ACCESS

There are three types of access that are particularly important, and these include:

- **Pedestrian access:** More passengers get to and from transit than by any other means. Where pedestrian environments are good, more people will use transit; where they are poor, far more people will not. At present, pedestrian conditions are poor throughout much of Middle Tennessee, and particularly along major pikes where the underlying demand is greatest.

FIGURE 3 | NASHVILLE PEDESTRIAN CONDITIONS



- **Other transit routes:** At all large transit systems, a large proportion of riders transfer between services. To be most effective, transfer locations must be convenient, comfortable, and safe.
- **Park and Ride:** In the case of commuter services, most passengers drive to stations and park and ride lots or are dropped off and picked up. As present, most park and ride lots are inconveniently located.

In addition, other modes are becoming increasingly important:

- **Bicycle:** Increasing numbers of passengers are using bicycles to get to and from transit at one or both ends of their trips. For those using bicycles at one end, this includes the use of personal bicycles and bike share. For those who use bicycles at both ends, transit vehicles must be able to accommodate bicycles either within or outside of vehicles.
- **First Mile/Last Mile Connections:** There are also a large number of other ways that people get to and from transit that together are referred to as “first mile/last mile connections.” These include private and public shuttles, partnerships with Transportation Network Companies (TNCs) such as Uber, Lyft, and Car2Go, guaranteed ride home programs, and others.

Additional information on each of these subjects is provided in the Transit Strategies series of documents:

- **Access to Transit:** nMotion2015.com/wp-content/uploads/2015/10/nMotion-Access-to-Transit-151013_FINAL.pdf



- First and Last Mile Connections: nmotion2015.com/wp-content/uploads/2015/09/nMotion-First-Mile-Last-Mile-150920_FINAL.pdf
- Better Facilities and Amenities: nmotion2015.com/wp-content/uploads/2015/11/nMotion-Better-Facilities-and-Amenities_151101_FINAL.pdf
- Complete Streets: nmotion2015.com/wp-content/uploads/2015/11/nMotion-Complete-Streets-151116_FINAL.pdf

OVERVIEW OF SCENARIO IMPROVEMENTS

All scenarios include improvements to pedestrian access, transit connections, park and ride and kiss and ride access, bicycle access, and new first and last mile connections. The array of improvement in each is similar, but with the following differences:

- Degree of involvement and amount of investment by MTA and RTA
- Level of emphasis relative to other improvements

SCENARIO 1: COMPREHENSIVE REGIONAL SYSTEM

Scenario 1 would include a very wide range of improvements to make it easier for people to get to and from transit:

PEDESTRIAN ACCESS

In Scenario 1, MTA and RTA would place a very high emphasis on working with communities to improve pedestrian conditions. Improvements would include:

- The development of comprehensive pedestrian infrastructure along the length of light rail, Bus Rapid Transit (BRT), and Rapid Bus lines (as shown in Figure 4). These improvements would include sidewalks, lighting, and intersection and crossing improvements.
- The development of targeted improvements in the vicinity of transit centers and other important transit facilities (as shown Figure 4 and Figure 5).

In addition, MTA and RTA would prioritize transit improvements in areas where communities improve pedestrian conditions. In total, these improvements are intended to ensure that most people will be able to conveniently and comfortably walk to and from transit.

TRANSIT CONNECTIONS

As part of Scenario 1, MTA and RTA would develop a network of transit centers at places major locations where passengers would transfer between services (as shown Figure 4 and Figure 5). The two agencies would also develop comfortable facilities at lower volume but still significant transfer locations. MTA and RTA would develop these facilities as comfortable places to wait, and also make improvements at existing facilities such as Music City Central and other transfer points. As described in the Passenger Experience Scenario Details document, MTA and RTA would develop a hierarchy of stops, define the types of facilities and amenities that should be provided, and implement improvements on that basis.

FIGURE 4 | SCENARIO 1 DAVIDSON COUNTY LIGHT RAIL, BRT, AND RAPID BUS LINES, TRANSIT CENTERS AND PARK AND RIDE LOTS WITH ACCESS IMPROVEMENTS

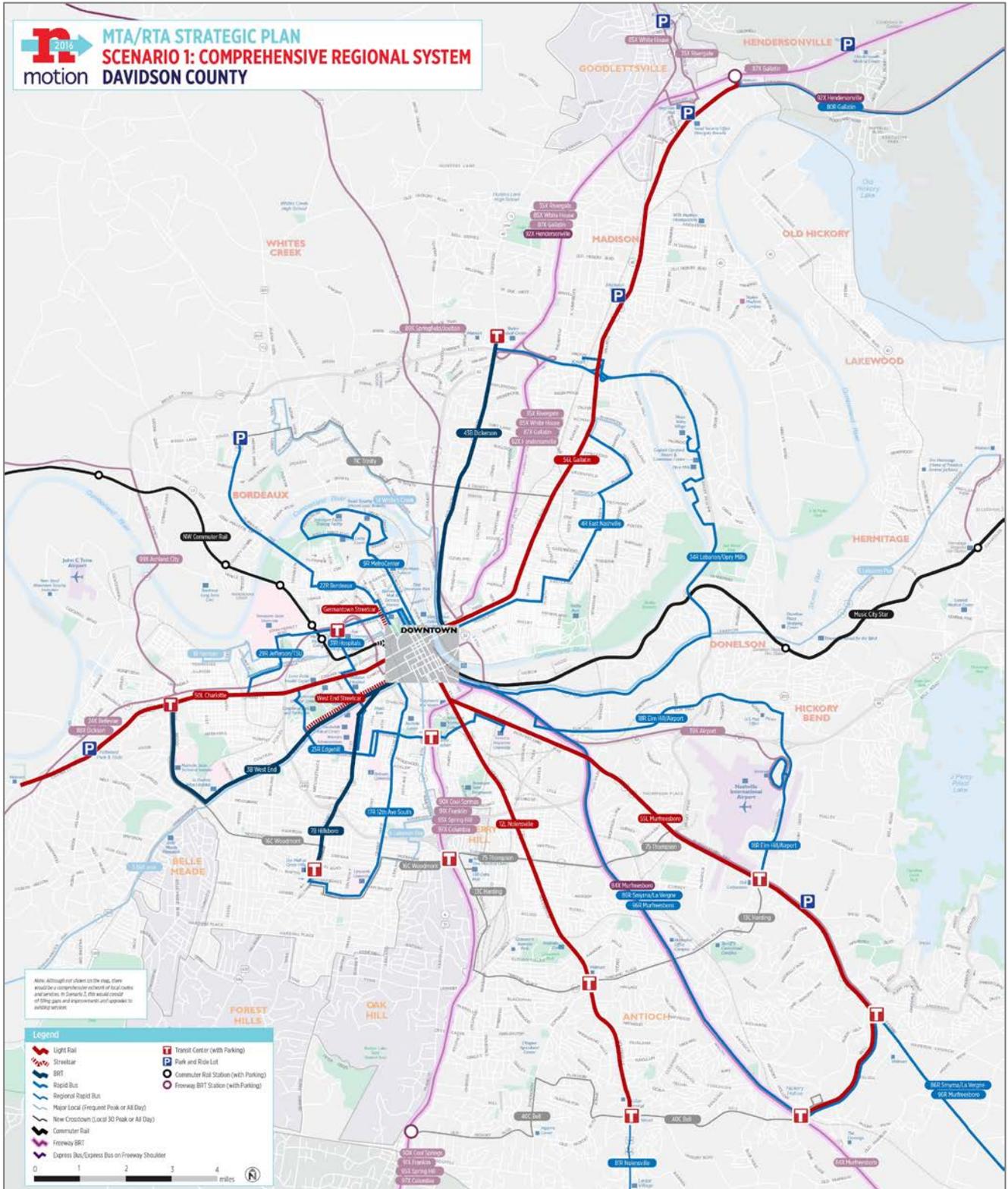
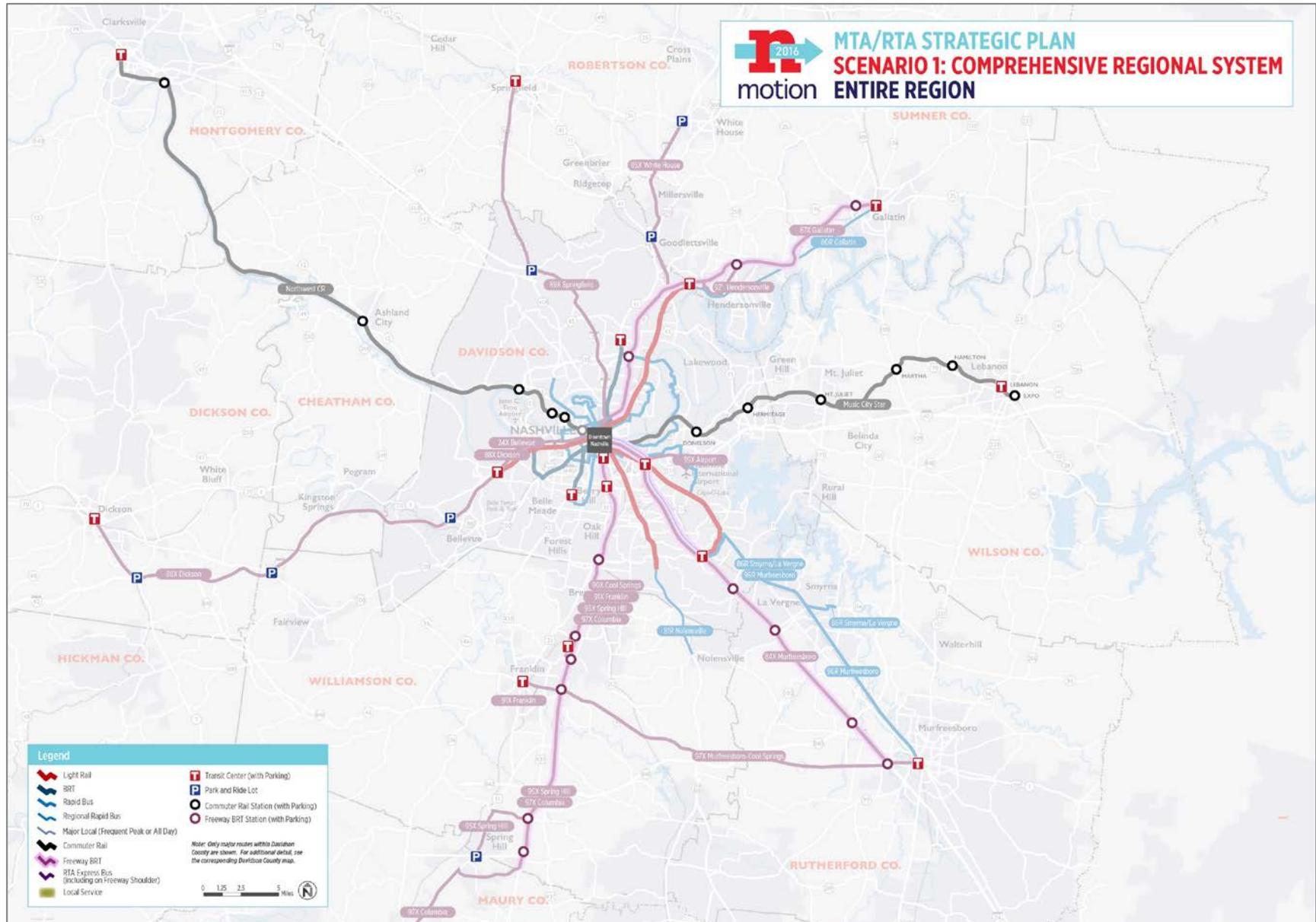




FIGURE 5 | SCENARIO 1 OUTER COUNTY ACCESS IMPROVEMENTS: TRANSIT CENTERS, STATIONS, AND PARK AND RIDE LOTS



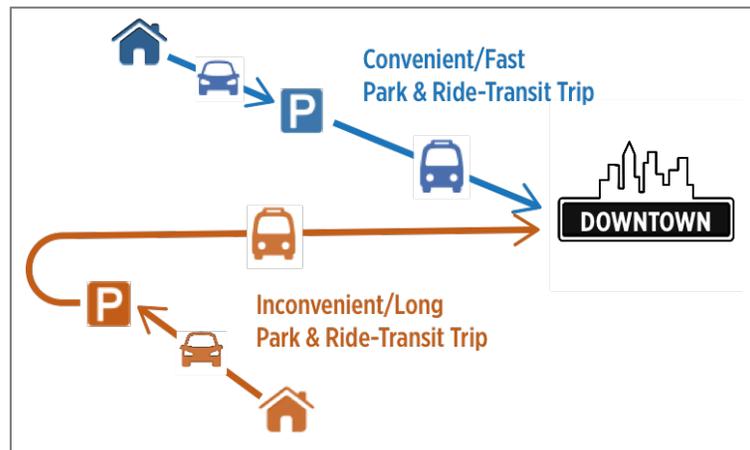
PARK AND RIDE AND KISS AND RIDE

At present, most MTA and RTA park and ride lots are shared with another use—such as a church or shopping center—and are often located in areas that are difficult for transit to access (and sometimes hard to find). The development of park-and-ride lots in this manner has reduced development costs, but has also meant that lots are located in places that are inconvenient.

In Scenario 1, MTA and RTA would shift to the development of purpose-built lots in convenient locations. Parking would also be provided at outer area transit centers and commuter rail and

Freeway BRT stations (as shown in Figure 5). All stations and park and ride lots would also be well-signed, and passenger waiting facilities and real-time information would be provided.

FIGURE 6 | CONVENIENT AND INCONVENIENT EXPRESS BUS TRIPS



BICYCLE ACCESS

MTA and RTA would improve bicycle accommodation in a number of ways:

- Work with local communities to improve access to major transit services and facilities.
- Provide secure bicycle parking/storage at stations and major stops.
- Accommodate bicycles within commuter rail, light rail, and BRT vehicles and make other necessary improvements to accommodate additional bicycles on regular buses as demand increases.
- Work with Nashville B-cycle and other organizations to install bikeshare stations at stations and major stops.

FIRST MILE/LAST MILE CONNECTIONS

MTA and RTA would work with local communities and businesses to develop new options to connect with transit services. In all scenarios, the primary responsibility for providing the services would be with others (for example, local transit agencies; businesses such as taxis, Lyft, and Uber, TMAs, local communities, etc.). However, in Scenario 1, MTA and RTA would also finance some services in cases where alternative providers could provide either more attractive service or more cost-effective service than MTA and RTA could provide on its own.

SCENARIO 2: BUS-FOCUSED EXPANSION

Scenario 2 includes a similar range of improvements as Scenario 1, but scaled down to the overall scope of Scenario 2:

PEDESTRIAN ACCESS

As in Scenario 1, MTA and RTA would place a very high emphasis on working with communities to improve pedestrian conditions. Improvements would include:

- The development of comprehensive pedestrian infrastructure along the length of BRT and Rapid Bus lines (as shown in Figure 7). These improvements would include sidewalks, lighting, and intersection and crossing improvements. (Compared to Scenario 1, this would be along a smaller number of lines).
- The development of targeted improvements in the vicinity of transit centers and other important transit facilities (as shown in Figure 7 and Figure 8).

In addition, and again as in Scenario 1, MTA and RTA would prioritize transit improvements in areas where communities improve pedestrian conditions.

TRANSIT CONNECTIONS

Scenario 2 improvements would be very similar to Scenario 1. MTA and RTA would develop a network of transit centers and transfer facilities at places major locations where passengers would transfer between services (with transit center locations as shown in Figure 7 and Figure 8). MTA and RTA would develop these facilities as comfortable place to wait, and would also make improvements at existing facilities such as Music City Central and other transfer points.

PARK AND RIDE AND KISS AND RIDE

As in Scenario 1, MTA and RTA would shift to the development of purpose-built lots in convenient locations. Parking would also be provided at outer area transit centers and commuter rail and Freeway BRT stations (as shown in Figure 8). All stations and park and ride lots would also be well-signed, and passenger waiting facilities and real-time information would be provided.

BICYCLE ACCESS

MTA and RTA would improve bicycle accommodation in the same ways as Scenario 1, but with efforts scaled back proportionately based on the smaller size of Scenario 2:

- Work with local communities to improve access to major transit services and facilities.
- Provide secure bicycle parking/storage facilities at stations and major stops.
- Accommodate bicycles within commuter rail and BRT vehicles and make other necessary improvements to accommodate additional bicycles on regular buses as demand increases.
- Work with Nashville B-cycle and other organizations to install bikeshare stations at stations and major stops.

FIRST MILE/LAST MILE CONNECTIONS

MTA and RTA would work with local communities and businesses to develop new options to connect with transit services. As in Scenario 1, the primary responsibility for providing the services would be with others. In addition, and as in Scenario 1, MTA and RTA would finance some of these services in cases where alternative providers could provide either more attractive service or more cost-effective service than MTA or RTA could.

FIGURE 7 | SCENARIO 2 DAVIDSON COUNTY LIGHT RAIL, BRT, AND RAPID BUS LINES, TRANSIT CENTERS AND PARK AND RIDE LOTS WITH ACCESS IMPROVEMENTS

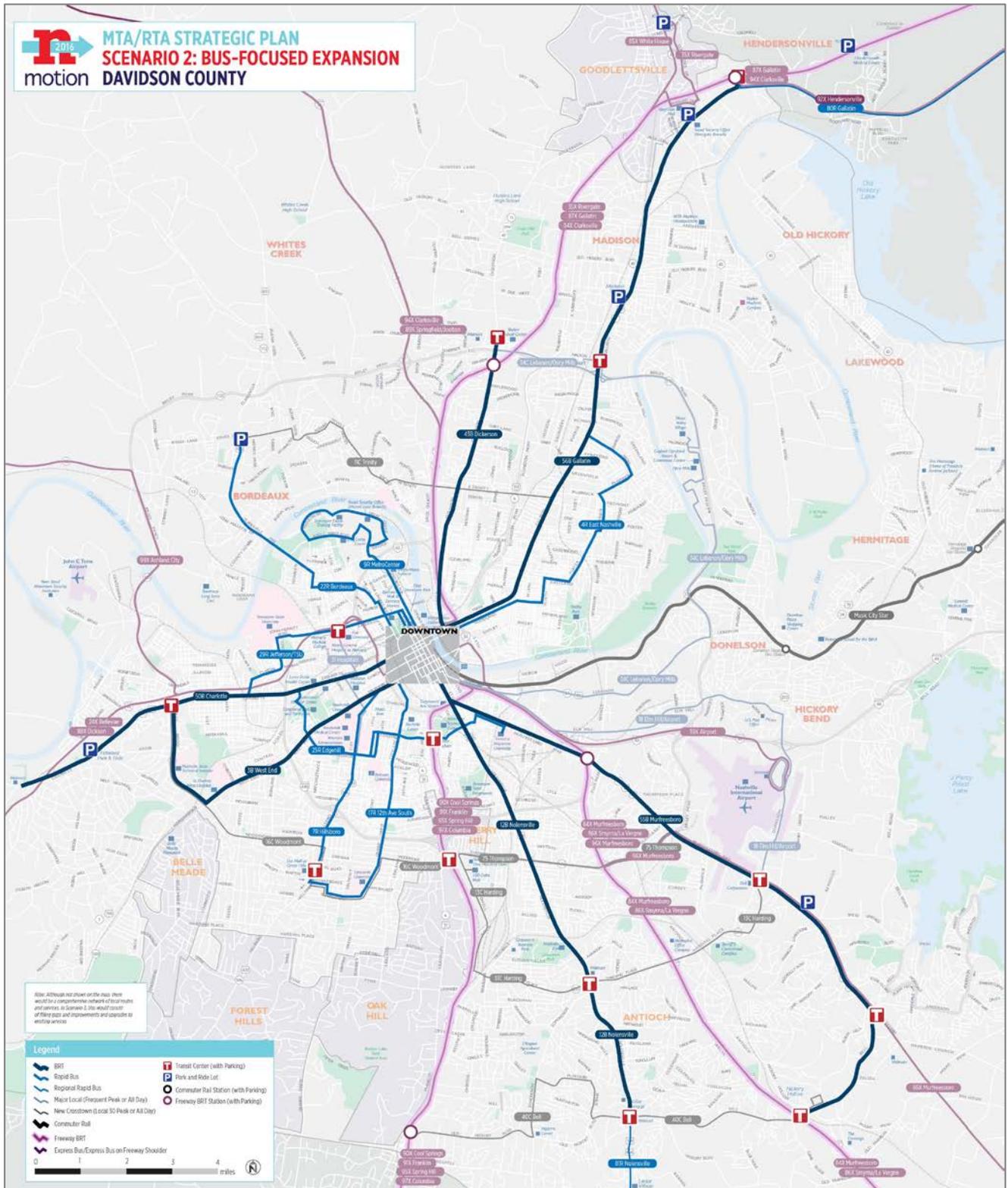
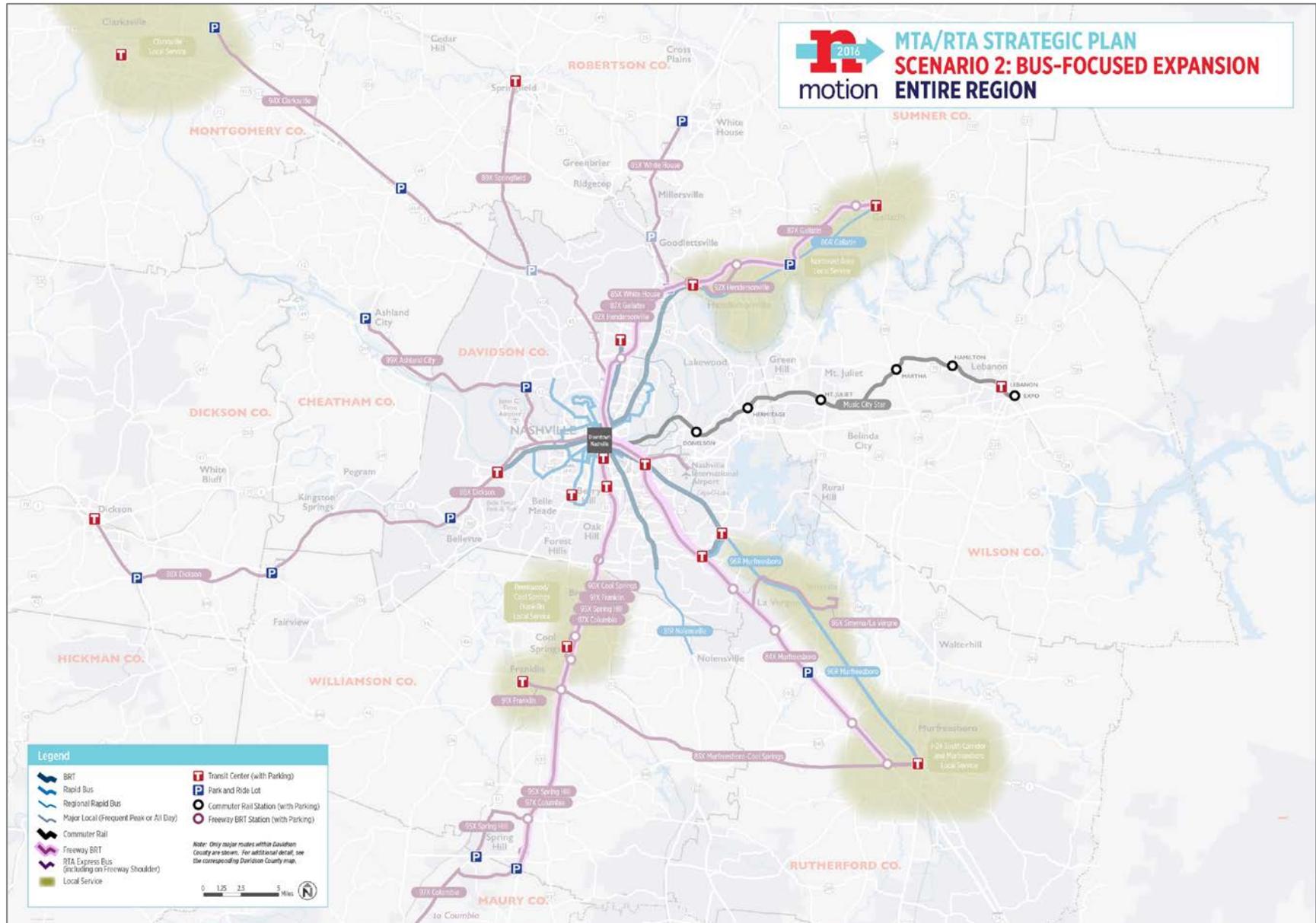




FIGURE 8 | SCENARIO 2 OUTER COUNTY ACCESS IMPROVEMENTS: TRANSIT CENTERS, STATIONS, AND PARK AND RIDE LOTS



SCENARIO 3: MODEST IMPROVEMENTS

In Scenario 3, MTA and RTA would generally continue to rely on local communities and others to improve access to transit:

PEDESTRIAN ACCESS

As in Scenarios 1 and 2, MTA and RTA would place a very high emphasis on working with communities to improve pedestrian conditions. In Scenario 3, they would also rely on local communities and businesses to develop those improvements. MTA and RTA led improvements would be limited to targeted improvements in the vicinity of transit centers and other important transit facilities. To an even greater extent than in Scenarios 1 and 2, MTA and RTA would prioritize transit improvements in areas where communities improve pedestrian conditions.

TRANSIT CONNECTIONS

As in Scenarios 1 and 2, MTA and RTA would develop a network of transit centers at places major locations where passengers would transfer between services (as shown Figure 10). However, in Scenario 3, there would be fewer of these facilities, and they would be more modest facilities

PARK AND RIDE AND KISS AND RIDE

In Scenario 3, MTA and RTA would shift to a combination of purpose-built lots in more convenient locations and continued use of joint facilities. Parking would also be provided at outer area transit centers and commuter rail stations (as shown Figure 9). All stations and park and ride lots would also be well-signed, and passenger waiting facilities would be provided.

BICYCLE ACCESS

In Scenario 3, MTA and RTA would improve bicycle accommodation at major stations and stops and on-board vehicles in the following ways:

- Provide secure bicycle parking/storage facilities at stations and major stops.
- Accommodate bicycles on-board Music City Star trains
- Accommodate additional bicycles on buses as demand increases.
- Work with Nashville B-cycle and other organizations to install bikeshare stations at stations and major stops.

FIRST MILE/LAST MILE CONNECTIONS

MTA and RTA would work with local communities and businesses to develop new options to connect with transit services. As in Scenarios 1 and 2, the primary responsibility for providing the services would be with others. In Scenario 3, MTA and RTA would finance some of these services in cases where alternative providers could provide either more attractive service or more cost-effective service, but only in very limited circumstances.

FIGURE 9 | SCENARIO 3 OUTER COUNTY ACCESS IMPROVEMENTS: TRANSIT CENTERS, STATIONS, AND PARK AND RIDE LOTS

