

Transit Oriented Development (TOD)

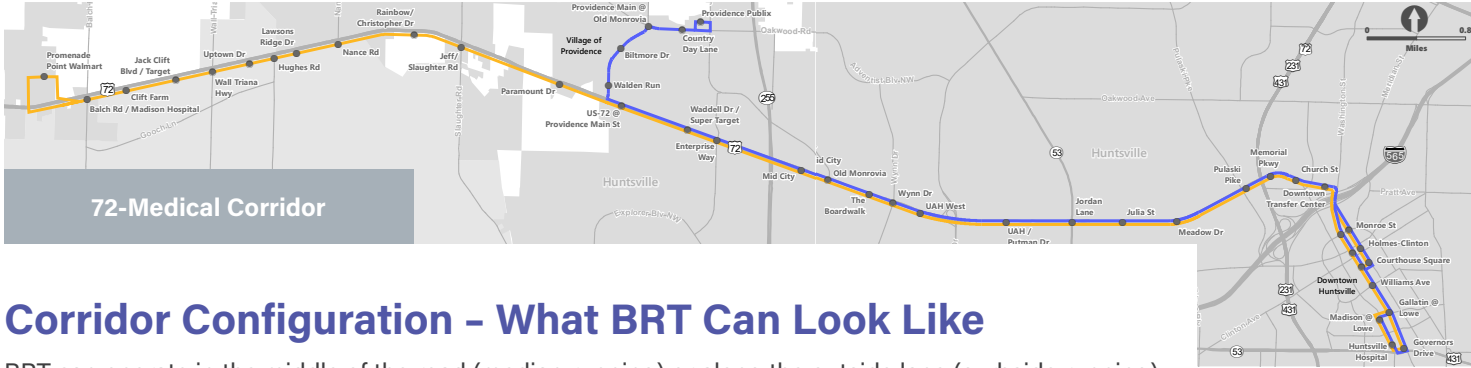
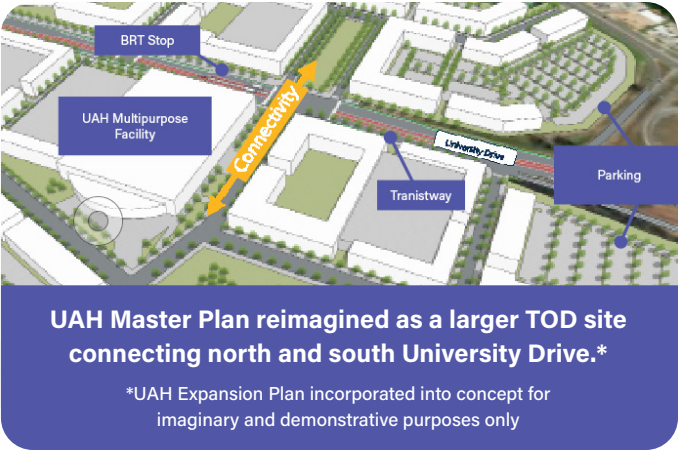
TOD is a phrase used to describe a type of community or district designed to capitalize on high capacity transit services. Planned as compact, walkable, mixed use places, TODs offer people greater transportation choices and reduce dependence on automobiles. The core principles of TOD are:

- Walkable & Connected**

Pedestrian-friendly streetscapes, building frontages close to street, public spaces available
- Dense & Diverse**

mix of complementary uses including housing, retail & services, employment, entertainment, and civic uses
- Context Sensitive**

Scale, character, intensity, and mix of projects fit the surrounding neighborhoods



Corridor Configuration - What BRT Can Look Like

BRT can operate in the middle of the road (median running) or along the outside lane (curbside running). There are benefits and limitations to both.

Median Running Configurations

Median running configurations require dedicated transit lanes as well as special left-boarding vehicles but offer faster travel times, more reliability, reduce pedestrian crossing distance, and can accommodate single station platforms by utilizing dual side boarding.

Curbside Running Configurations

Curbside running configurations can be either dedicated or mixed-traffic operations. While curbside with dedicated transit lanes experience many of the same benefits as median running configurations, mixed-traffic curbside does not have as great time travel savings, impacted reliability due to sharing lanes with regular vehicle traffic, and two stations are required, one on both side of the road. Mixed-traffic configurations can be implemented much more quickly and flexibly because there is no exclusive guideway required.

Capital & Costs

BRT can be constructed at 5 to 10 percent of the cost of light rail. Because of this, defaulting to BRT in these corridors makes much more sense economically. The 72-Medical BRT corridor will include level boarding stations, improved station amenities, better pedestrian access, transit priority treatments, off-board fare payment, enhanced safety and security, and increased service frequencies. Based on these assumptions, the total project cost is estimated at \$55-65 million, or approximately \$5 million per mile. If awarded funds through the competitive Federal Transit Administration (FTA) Capital Investment Grant (CIG) Program, the City of Huntsville could be expected to contribute 25-50% of the total cost.

IMPLEMENTATION TIMELINE

- The following are the general steps to bring the 72-Medical corridor to reality.
- Q4 2023** Submit request for entry into Project Development
 - Q1 2024** Submit request to use project justification warrants approach
 - Q2 2024** Submit final environmental documentation (NEPA) to FTA
 - Q2 2024** Submit request for project justification rating
 - Q4 2024** Request Small Starts design and construction funding
 - Q2 2025** Notice of Small Starts design and construction approval and funding award
 - Q3 2025** Request to execute Small Starts Grant Agreement
 - Q3 2025** Small Starts Grant Agreement executed
 - Q3 2026** Complete design
 - Q4 2026** Construction start date
 - Q4 2028** Operationally complete/begin revenue service

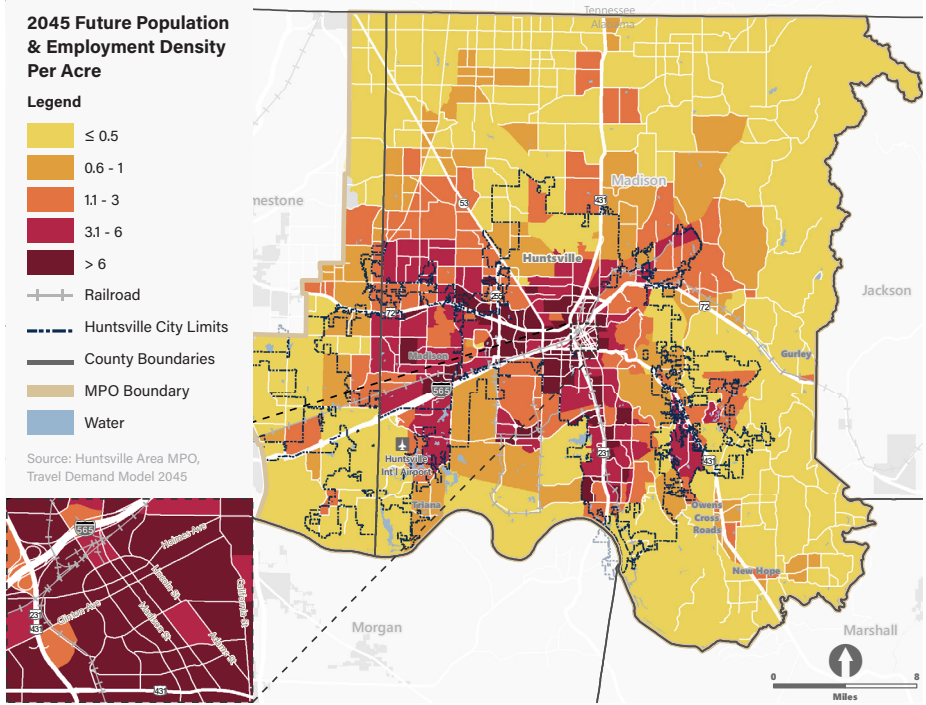


Huntsville MPO High Capacity Transit Concepts and Corridors Plan

The Huntsville MPO High Capacity Transit (HCT) Concepts & Corridors Plan examined existing and future population, employment, and land use in the Huntsville region to identify corridors with potential for high capacity transit. This study included an assessment of several corridors to understand the region's travel patterns and identify the appropriate technology, operating scenarios, and capital costs required to implement an efficient and equitable transit service. The effort also reimagines the corridors with higher density land use and transit supportive designs and looks to enhance connections to existing and emerging regional activity centers. The results of this study outline a regional vision and establish the next steps in advancing refined premium transit lines, funding options, and implementation timelines.

Anticipated Growth

Up to 10% activity growth is expected throughout parts of the MPO area over the next 25 years. By 2045, the highest activity density areas are expected along US 72 West between Downtown Huntsville and the City of Madison, north of I-565, west of Highway 53, south along US 231, and in and around Downtown Huntsville. This aligns with investments occurring in the area such as the MidCity District, the Huntsville Hospital Campus, and at the University of Alabama Huntsville (UAH), depicted in the images above the map. To accommodate the growth, transportation alternatives are needed to create a more equitable and sustainable transportation system, as well as to avoid gridlock.



Why Cities Build Transit



Support economic vitality by connecting major districts, destinations, and activity centers



Increase transit accessibility, equity, and provide enhanced mobility choices for the entire region



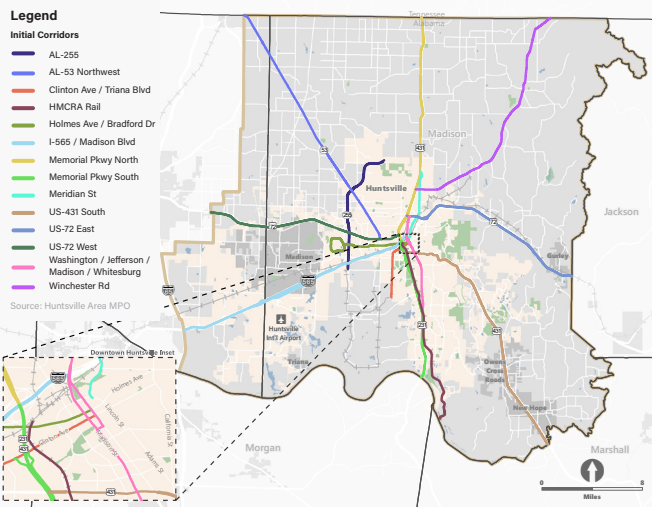
Improve resiliency and reliability of the transportation system

Potential Transit Corridors

Initial Corridor Identification

Initial corridors were identified based on the likelihood of a person to use transit, commuter patterns, activity density, regional connections, and major destinations (employment, higher education institutions, and activity centers). Once the initial set of potential corridors were established, the corridors were screened against the goals for the HCT corridor. The criteria to advance any of the initial corridors included:

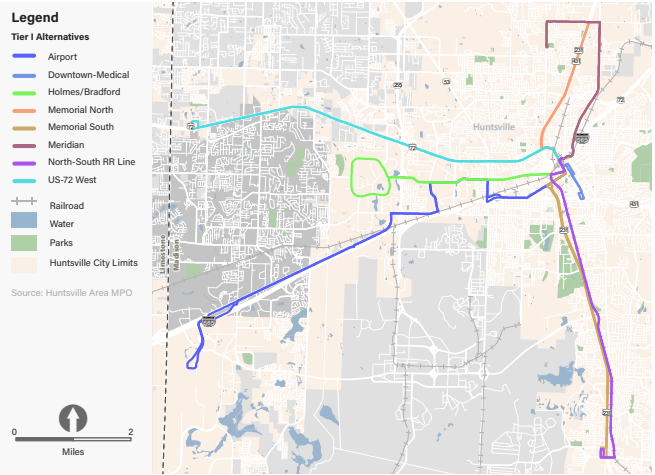
- ✓ Radial in Nature
- ✓ Existing Higher Development Intensity



Tier I Evaluation

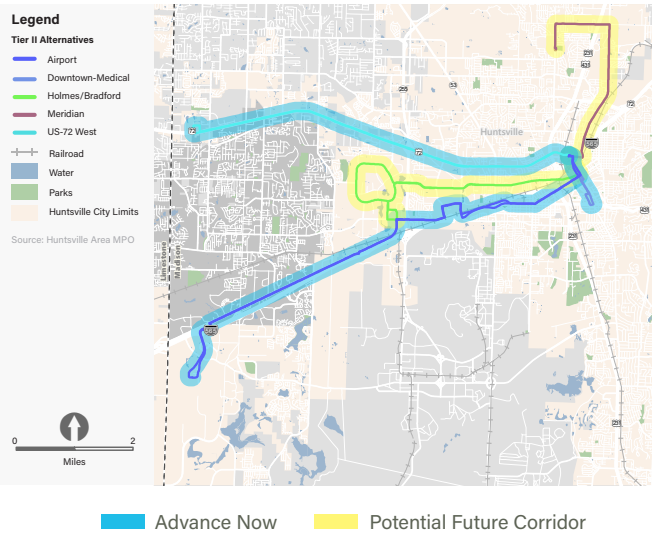
Based on the initial corridor evaluation, Memorial Parkway North and Memorial Parkway South were not advanced because a HCT service would only be able to stop at interchanges and crossing conditions between these interchanges would be perilous for riders accessing or egressing the vehicle. The HMCRA North-South Railroad Line was also eliminated from further evaluation because of engineering constraints and an expected lengthy implementation timeline stemming from the need to coordinate with HMCRA. The remaining corridors including Airport-Madison, US 72 West, and Downtown-Medical were then evaluated using the following criteria:

- ✓ Support Multimodal Activity
- ✓ Serve Diverse Travel Market Needs
- ✓ Sustain Economic Competitiveness and Development
- ✓ Provide Speedy Service



Tier II Evaluation

The top three performing alternatives are Airport-Madison Blvd, US 72 West, and Downtown-Medical. US 72 West and Downtown-Medical were combined into the 72-Medical corridor due to their similarities in making connections between regional destinations and providing an equitable transportation solution. The 72-Medical corridor is also primed to implement a HCT project quickly given existing ridership in the corridor. The Airport-Madison Blvd alternative provides an important connection for residents and visitors between the Huntsville International Airport, the Bridge Street development, UAH, the Von Braun Center, and Downtown Huntsville. The Holmes-Bradford and Meridian Corridors are not identified for HCT at this time because existing population and employment densities do not support HCT. As the region continues to grow, these corridors should be monitored for future transit investment opportunities.



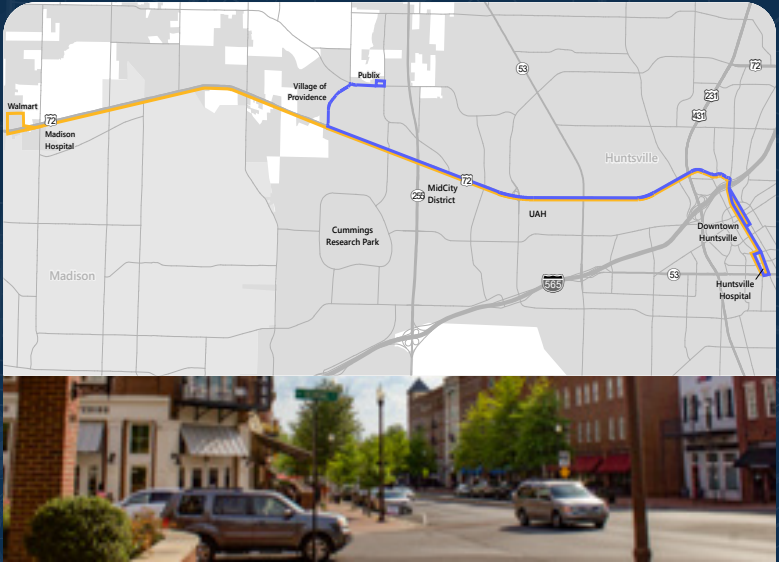
Advance Now Potential Future Corridor

Identified Corridors for Further Evaluation



AIRPORT CONNECTOR

Connects: Downtown Huntsville, new downtown transfer center, University of Alabama in Huntsville (UAH), Bridge Street Town Centre, airport

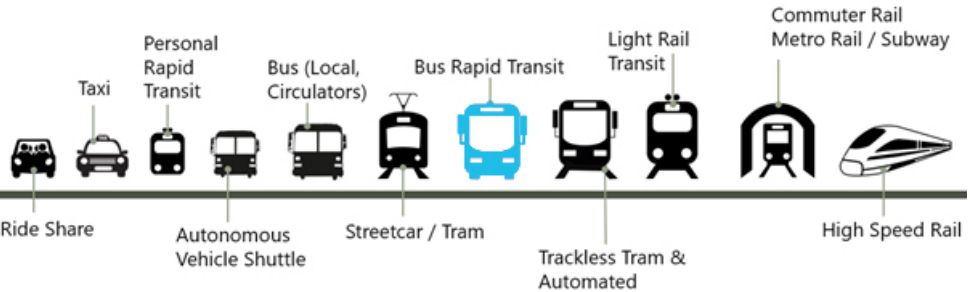


72-MEDICAL

Connects: new Transfer Station at Pratt and Church, Downtown Huntsville, Huntsville Hospital (several locations), Mid City District, Clift Farms, Village of Providence, UAH northwest expansion, and City of Madison.

Transit Mode Identification

Within transit, there is a spectrum of technologies designed to meet different trip needs and serve different transit markets. As the Huntsville metropolitan area is in the early stages of building a strong transit market, bus transit technologies have been identified as the most appropriate modes for both the 72-Medical and Airport corridors. In particular, bus rapid transit (BRT) is a flexible technology and can be designed and implemented in such a way to act as a precursor to rail investments should the transit market demand a higher capacity mode. However, the current focus is to identify corridors suitable for transit today, and which are low-cost and easy to implement. To that end, an express bus service has been identified for the Airport corridor as it could be implemented quickly and would support transit market growth in the corridor.



Building convenient and efficient alternatives to personal automobiles are needed to shift the region's travel patterns in a proactive way: BRT can help Huntsville get there.