

# 2050 Metropolitan Transportation Plan (MTP) Alternative Scenarios

The Metropolitan Planning Organizations (MPOs) in the Triangle region are updating their long-range transportation plans that identify the roadway, transit, rail, bicycle and pedestrian facility improvements and additions for the next thirty years. The Durham-Chapel Hill-Carrboro MPO (DCHC MPO) and Capital Area MPO (CAMPO) have developed three future scenarios with different land use and transportation facilities to meet the MPOs' goals of efficiency, safety, sustainability and equity.

The MPOs are seeking input from the community to help identify the various transportation improvements and additions among the future scenarios that will be part of the updated plan – the 2050 Metropolitan Transportation Plan (MTP). The MPOs' boards will review this public input to guide the decision-making process.

Let us know your thoughts! Visit [www.dchcmpo.org](http://www.dchcmpo.org) (Durham-Chapel Hill-Carrboro) or [www.campo-nc.us](http://www.campo-nc.us) (Capital Area) to view the many public engagement opportunities and participate.

For questions or comments, reach out to:

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# 3 Scenarios

## **Plans & Trends Scenario**

Also known as *business-as-usual*, this scenario distributes 2050 population and employment based on current land use plans and policies, and creates an improved transportation system based on the current long-range transportation plan.

## **Shared Leadership Scenario**

This scenario could be called the *we-can-do-better* scenario. It increases the intensity and mix of land use at major employment hubs and travel corridors, and assumes additional transportation funding for transit facilities, services, and a few roadway improvements.

## **All Together Scenario**

This *balanced-and-equitable* scenario increases the intensity and mix of land uses at major employment hubs and travel corridors, and works to link minority, low-income, and zero-car households to jobs. This scenario focuses on biking and walking facilities, and provides transit services in major commuting corridors, often instead of increased roadway capacity.

# Deficiency & Needs Scenario

## Description

This *no-build* scenario looks at how today's transportation network of roads and public transportation services will perform with the projected 2050 population and employment data. This scenario is not realistic, but it is useful to demonstrate existing and potential problems in the transportation network and serves as a baseline to compare other scenarios.

- Land use – 2050 population and employment, distributed based on the current land use plans and policies of the local jurisdictions and counties.
- Transportation – Current transportation network, plus a few imminent roadway improvements and some additional transit services.

As the icons to the right demonstrate, the Deficiency & Needs scenario is stacked in favor of roadway improvements over other transportation investments, and there is no local or regional passenger rail.



## Highlights

- Commuter Rail Transit, Research Triangle Park (RTP) to Raleigh (not to downtown Durham)
- No Bus Rapid Transit (BRT), which is a high-capacity bus-based transit system that delivers fast and efficient service that may include dedicated bus lanes, traffic signal priority, off-board fare collection, elevated platforms, and enhanced stations
- Improvements to local and regional bus connections
- Includes highway projects to be constructed by 2025, e.g., East End Connector

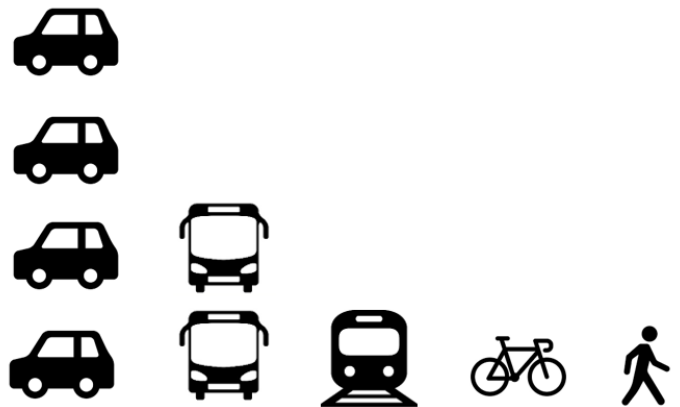
# Plans & Trends Scenario

## Description

This scenario distributes 2050 population and employment based on current land use plans and policies, and creates an improved transportation system based on the current long-range transportation plan.

- Land Use – 2050 population and employment, distributed based on the current land use plans and policies of the local jurisdictions and counties.
- Transportation – Current transportation network, plus any facilities and services in existing long-range transportation plans funded by existing revenue levels and policy rules.

In this scenario, the great majority of state and federal funding is directed to roadway improvements, but local tax revenues fund transit service and infrastructure improvements.



## Highlights

- Commuter Rail Transit, West Durham-Raleigh-Clayton at low service level (8 peak period trains and 2 non-peak period trains)
- North-South Bus Rapid Transit (BRT) in Chapel Hill
- Most of the current long-range transportation plan highway projects (2045 Metropolitan Transportation Plan)

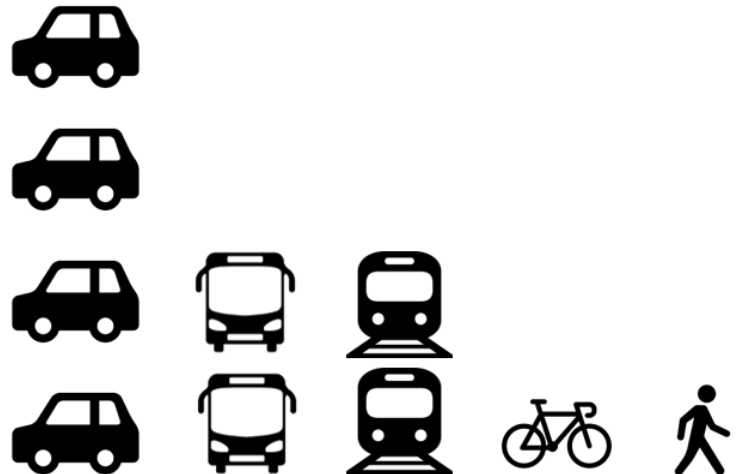
# Shared Leadership Scenario

## Description

This scenario increases the intensity and mix of land uses at major employment hubs and travel corridors, and assumes additional transportation funding for transit facilities and services and similar roadway improvements to the Plans & Trends scenario.

- Land Use – 2050 population and employment, with increased intensity and mix of land use at major employment hubs and multimodal corridors. Focuses transit along future affordable housing corridors and links minority, low-income, and zero-car households to jobs.
- Transportation – Current transportation network and existing long-range transportation plans, plus additional roadway and transit facilities and services that can be funded by additional state revenue.

In this scenario, there is additional state transportation funding, and it is assumed that a larger proportion of the overall state and federal funding is available for BRT and rail transit.



## Highlights

- Commuter Rail Transit at higher service level (12 peak period trains and 8 non-peak period trains)
- Bus Rapid Transit: add US 15-501 (Chapel Hill/ Duke/Durham/NCCU-Durham Tech)
- High frequency bus service in major corridors
- Most of the current long-range transportation plan highway projects (2045 Metropolitan Transportation Plan)

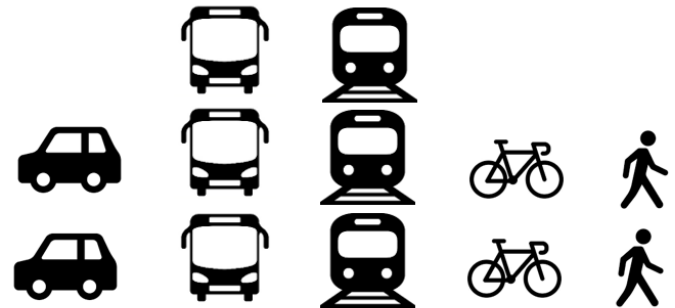
# All Together Scenario

## Description

This scenario increases the intensity and mix of land uses at major employment hubs and travel corridors, and strives to link minority, low-income, and zero-car households to jobs. The transportation system focuses on bicycle and pedestrian facilities, and provides transit services in major commuting corridors, often instead of increased roadway capacity.

- Land Use – 2050 population and employment, with increased intensity and mix of land use at major employment hubs and multimodal corridors, and additional affordable housing. Focuses transit along future affordable housing corridors and links minority, low-income, and zero-car households to jobs.
- Transportation – Current transportation network and some highway projects in existing long-range transportation plans, plus additional transit, bicycle and pedestrian projects that can be funded by additional state revenue and local funding.

A larger proportion of the overall state and federal funding is available for bus transit, BRT, rail transit, and bicycle and pedestrian facilities, and it is assumed that a larger proportion of residential and employment development occurs in the corridors served by those modes.



## Highlights

- Commuter Rail Transit, add low service extension to Mebane
- Bus Rapid Transit (BRT): add NC 147 (Durham/RTP), NC 54 (Chapel Hill/Durham/RTP), and BRT-like extensions to Pittsboro and Hillsborough
- Add high-frequency bus service
- High level of complete streets investments: bus shelters, stop access, and bicycle lanes
- Add connector roads to help create more grid networks and increase bike and pedestrian access
- Bus advantage improvements: Along US 15-501 (bus-only lane) and NC 147 (add managed lane), I-40 (from NC 147 to US 15-501) (add single managed lane)
- Reduce new and widened roadways in areas that increase mobility to suburban and rural land: Northern Durham Pkwy (north of I-85), NC 54 (west of Carrboro), NC 98 (east of Durham), and NC 751 (Chatham County)
- Convert NC 147 to 4-lane boulevard (Briggs Av-Swift Av)
- Convert central Durham one-way pairs to two-way
- Shift more roadway funding to maintenance

# Key Performance Data

Measure	Deficiency & Needs	Plans & Trends	Shared Leadership	All Together
<b>Transit Service Miles</b> (daily) (Triangle Region)	60,015	107,170	116,486	127,248
<b>Total Highway Lane Miles</b>	2,675	2,922	2,942	2,916
<b>Vehicle Miles Traveled</b> (in millions)	22.6	22.9	22.8	22.4
<b>Minutes of Delay</b> (daily, per capita)	18	11	10	11
<b>Transit Ridership</b> (daily) (Triangle Region)	214,908	273,704	282,779	287,908
<b>Avg Commute Time</b> (minutes)	25	22	22	21
<b>% of Commute Trips Driving Alone</b>	79%	79%	79%	78%
<b>Estimated Funding</b> (\$=added state; \$=added local)	\$\$	\$\$\$	\$\$\$\$	\$\$\$\$\$

## Scenario Comparison

- The **Deficiency & Needs** scenario has the **lowest level of transit service** and roadway miles among the scenarios, and therefore results in the highest congestion and commute times.
- The **Plans & Trends** scenario provides a substantial **increase in highway miles** and an **almost two-fold increase in transit service** over the Deficiency & Needs scenario.
- The **Shared Leadership** scenario assumes **increased transit service and roadway miles** over the Plans & Trends scenario, which decreases congestion. This scenario includes additional state and local funding availability.
- The **All Together** scenario includes the **highest density with mixed use land development**, which **increases transit usage to reduce Vehicle Miles Traveled**. However, Vehicle Miles Traveled and Travel Time remain stubbornly high in all scenarios. This scenario has the highest funding level.