



# Metropolitan Transportation Plan

DCHC MPO  
Technical Committee

December 20, 2017

[www.dchcmpo.org](http://www.dchcmpo.org)

# Updated Schedule

- ▶ Dec. 13 – MPO Board approves 2045 MTP (including SE Data, project tables and maps, and financial plan)
- ▶ Jan. 10, 2018 – MPO releases full 2045 MTP report, final Goals Objectives and Performance Measures and Targets for public comment
- ▶ Feb 14 – MPO Board adopt, by resolution, the 2045 MTP and report

# Highway Project Changes

## Durham/Durham County

- ▶ Moved US 70 freeway (Pleasant Dr to Miami Blvd) and US 70/Miami Blvd interchange to 2035 decade. This was a document error. The project status has not changed.
- ▶ Deleted a redundant NC 54 to I-40 slip lane.

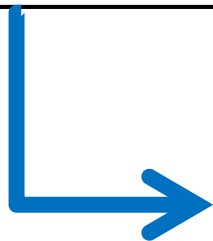
# Transit Project Change

- ▶ Chapel Hill Board representative asked staff to check to see if the D-O LRT extension and BRT competed against one another along Columbia St.

# Financial Plan Changes

- ▶ Highway project changes do not have significant financial impacts.
- ▶ Continue focus on total balance by decade, but do not break out by funding tier (statewide, regional and division)

<b>BALANCE</b>	<u>2025</u>	<u>2035</u>	<u>2045</u>	<u>Total</u>
Statewide	32	15	(139)	(92)
Regional	(7)	65	190	248
Division	61	41	4	106
<b>Total Balance</b>	<b>86</b>	<b>121</b>	<b>55</b>	<b>263</b>
Total Balance as Percent of Total Revenue	3%	3%	1%	2%



<b>BALANCE</b>	<u>2025</u>	<u>2035</u>	<u>2045</u>	<u>Total</u>
<b>Total Balance</b>	<b>136</b>	<b>41</b>	<b>0</b>	<b>177</b>
Total Balance as Percent of Total Revenue	4%	1%	0%	1%

# Public Comments

- ▶ Prioritize biking, walking and transit, not cars.
- ▶ Provide direct rail access between airport and Durham and towns.
- ▶ TARPO:
  - ▶ NC 54 west of Carrboro should not be 3-lane
  - ▶ NC 751 in Chatham County should be 4-lane
- ▶ Advance projects:
  - ▶ US 15-501 bypass widening
  - ▶ NC 147 improvements in downtown Durham
  - ▶ I-85 widening in Orange County
  - ▶ CRT extension

# Land Use

## SE Data Guide Totals

Population					2013-2045
County	2013	2045 (old)	2045 (new)	2013-45	% change
Chatham*	41,543	72,110	84,066	42,523	102%
Durham	286,210	475,091	446,074	159,864	56%
Orange	139,289	194,867	187,059	47,770	34%
<i>Total</i>	467,042	742,068	717,199	250,157	54%

Update population projection based on latest NC OSMB data.

Employment				
County	2013	2045	2013-45	% change
Chatham*	9,339	17,718	8,379	90%
Durham	192,877	342,910	150,033	78%
Orange	64,212	107,791	43,579	68%
<i>Total</i>	266,428	468,419	201,991	76%

Employment projection does not change.

\* Only includes portion of Chatham County in the modeling area.

**\*\* The resolution (February 2018) will officially adopt this SE Data.\*\***



# TRM Version 6

## -- Key Improvements

- ▶ CommunityViz Data converter (new) – adds demographic (e.g., income) data to forecasts
- ▶ Population Synthesizer (new) – converts zonal data to household level (e.g., household composition)
- ▶ Commercial Vehicle Model – improved truck model
- ▶ University Student Model (new) – improved modeling related to student travel behavior



# TRM Version 6

## -- Performance

- ▶ R Squared – model volumes vs. traffic count

R Squared	Target	Modeled
Region wide	( $\geq$ ) 0.88	0.90
DCHC MPO	( $\geq$ ) 0.88	0.91

- ▶ Model estimated volumes compared to traffic counts by Federal Functional Class

Functional Class	Observed (thou.)	Modeled (thous.)	Modeled % Deviation	Target % Deviation
Freeway	10,329	10,379	0.5%	5%
Principal Arterial	12,222	11,422	-7%	8%
Minor Arterial	10,826	10,384	-4.1%	10%
Collector	4,361	4,218	-3.3%	15%
Local	2,844	2,820	-0.8%	15%
Total	40,582	39,225	-3%	5%

- ▶ Percent Root Mean Square Error (%RMSE) –model estimated daily volumes vs. traffic count

%RMSE	Target	Modeled
Region wide	( $\leq$ ) 0.35	0.33
DCHC MPO	( $\leq$ ) 0.35	0.30

- ▶ Total transit ridership comparison

Transit Ridership	Observed	Modeled	%Deviation
Region Wide	107,203	110,816	3.37%
GoDurham, Duke & Chapel-hill Transit	61,639	62,692	1.71%

**\*\* The resolution (February 2018) will officially adopt TRM version 6.\*\***