Greater Dalton Metropolitan Planning Organization

Meeting Minutes

November 6, 2014

I. Call to order

Ty Ross – PC Chairman called to order the regular meeting of the Greater Dalton Metropolitan Planning Organization at 10:00 A.M. on November 6, 2014 at Administrative Building #1.

II. Introductions

Dave Cox, of GDOT, introduced the consultants, from HNTB, who would present Greater Dalton Traffic Demand Model.

Policy Committee:

1) **PC Chairman – Ty Ross**
   Administrator, City of Dalton

2) **Brittany Pittman**
   Sole Commissioner, Murray County

3) **Mark Gibson**
   Administrator, Whitfield County

4) **Mike Brown**
   Administrator, City of Varnell

5) **Mike Babb**
   Chairman – Whitfield County Board of Commissioners

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Technical Coordinating Committee:

1) **TCC Chairman – Kent Benson P.E.**
   County Engineer, Whitfield County

2) **Benny Dunn**
   Director Public Works, City of Dalton

3) **Dave Cox**
   GDOT, West Georgia Planning

4) **Cherie Marsh**
   Planning/Scheduling Engineer, GDOT – District 6

5) **Megan Weiss**
   GDOT Transportation Planner

6) **Dewayne Hunt**
   Whitfield County Public Works Director

Advisory Committee:

1) **Barnett Chitwood**
   Assistant Director of Planning, Northwest Georgia Regional Commission

2) **Jean Garland**
   Planning and Zoning, Whitfield County Board of Commissioners

Guest:

1) **Chandra Khare**
   Senior Modeler, HNTB

2) **Andrew Parker**
   City of Dalton, Assistant Public Works Director

3) **Karla Poshedly**
   Senior Transportation Engineer, MAAI

4) **Jennifer Zhan**
   Project Manager, HNTB

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5) Yohaira Aguilar

Administrative Assistant

III. Approval of minutes from last meeting

Chairman Ross asked for a vote to approve the previous meeting minutes. Brittany Pittman provided the motion, and Dave Cox, on behalf of Radney Simpson, seconded the motion. The minutes were approved as recorded.

IV. Open issues

a) **GDOT Status Report on Open Projects** – Cherie Marsh provided the status report for open projects.

1) ***State Route 52 Project*** – The project is finishing, with only punch list items remaining.

2) ***Carbondale Roundabout Project*** – GDOT is scheduled to let the project in 2015. It is projected to be in April. Mike Babb requested a projected start date for the project, and if the project is let on schedule, the project should start within one month. Cherie Marsh reiterated the point the project must be let in April for the construction to begin on time. Right-of-way has been secured for the project.

3) ***Rocky Face*** – The project is in Phase I and is on schedule.

4) ***PI 10865*** – Ty Ross requested information regarding the project and was told the let day was scheduled for February of 2015.

b) **Travel Demand Model Update** – Consulting firm HNTB provided the Travel Demand Model Update to the Committee. Attachment A is the outline of the update.

c) **Approval/Disapproval of the Travel Demand Model** – Dave Cox stated GDOT had validated the work completed by HNTB on the Demand Model. Mike Babb made a motion to approve the Model, and Dave Cox, on behalf of Radney Simpson, seconded the motion. The Travel Demand Model was approved as presented.

d) **Long Range Transportation Update** – Karla Poshedly provided an update for the LRTP. Socio-economic data had been collected for the Travel Demand Model, and populations were projected, using this data, for the 2040 casting of the Travel Demand Model. The 2040 data was allocated and distributed to the traffic zones. In cooperation with the MPO and GDOT, a project list was

developed and was included in the eight road networks. MAAI will begin reviewing the Travel Demand Model for any additional roadway deficiencies to be added to the networks. The information will be delivered to GDOT upon completion. The schedule for the LRTP has been updated, and MAAI will begin the public involvement process.

e) **Approval/Disapproval of the Public Participation Plan** – Jacob Bearden provided information regarding the Public Participation Plan. The Participation Plan outlines the MPO's public outreach methods. Mike Babb mad a motion to approve the Public Participation Plan, and Brittany Pittman seconded the motion. The Public Participation Plan was approved with no further comment.

Approval/Disapproval of the Draft Title VI Plan – Jacob Bearden provided an explanation of the Draft Title VI Plan: Title VI of the Civil Rights Act of 1964 states, "No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefit of, or be subjected to discrimination under any program or activity receiving federal financial assistance." 42 U.S.C. 200d – GDMPO receives federal funds through GDOT, therefore, GDMPO must comply with Title VI. In October 2012, FTA issued revised Title VI requirements. These revisions included new reporting requirements. Brittany Pittman made a motion to approve the Plan and Mike Babb seconded the motion. The Draft Title VI Plan was approved without further discussion.

V. New business

Public Discussion – Benny Dunn discussed the College Drive improvements. He stated that, along with Kent Benson, he had a meeting with the new traffic engineer from Cartersville. The new engineer provided the minimum distance between traffic signals 1000 feet, rather than 300 feet. Benny Dunn was told GDOT would not consider the relocation of College Drive, nor the additional traffic signal. It was discussed as to how improvements could be made at this intersection. The Roundabout project is under design, by GDOT, and there is no projected start date. Mike Babb requested an update on Carbondale Business Park and Kent Benson provided: The letting of construction was awaiting environmental assessment. The Draft Environmental Assessment had moved from GDOT and the process was progressing. The grant was available upon completion of the environmental assessment.

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No further business was required and no public comment was given.

VI. Adjournment

Ty Ross – PC Chairman adjourned the meeting at 10:52 A.M.

Minutes submitted by: Jacob Bearden – GDMPO Coordinator

Minutes approved by:

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J. Tyson Ross, Policy Committee Chairman

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Mike Babb, Policy Committee Vice-Chair

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Kent Benson, Technical Coordinating Committee Chair

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Attachment A

Greater Dalton Regional Travel Demand Model 2014 Update

Joint Policy Committee (PC) and
Technical Coordinating Committee (TCC) Meeting
November 6, 2014

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BACKGROUND

- Federal legislation requires Long-Range Transportation Plan (LRTP) updates every five years
- The LRTP covers a minimum 20-year planning horizon with fiscal constraint
- The next LRTP must be adopted by June 14, 2015

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Background (cont.)

- MAP-21 - Moving Ahead for Progress in the 21st Century
  - LRTP requirements are similar to SAFETEA-LU
  - More focused on performance-based approach

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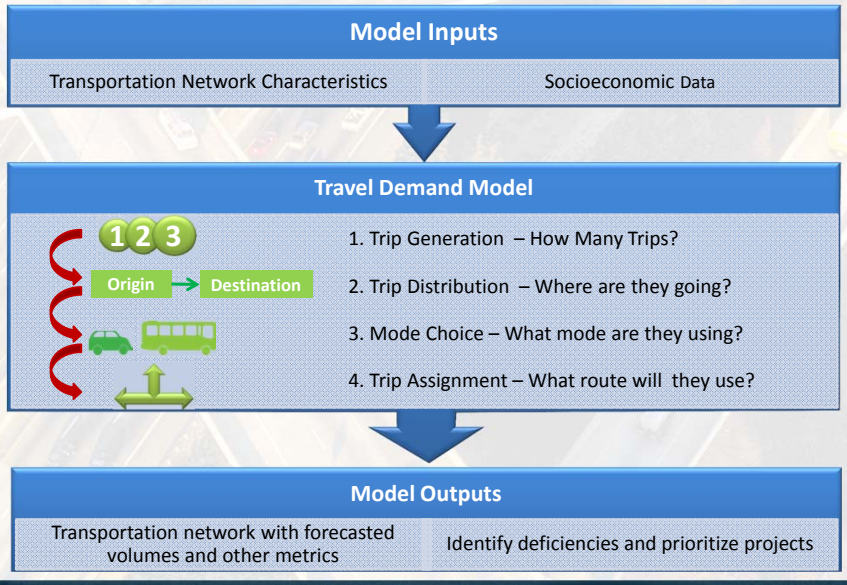
What is a Travel Demand Model and its Purpose?

State-of-the-art analysis tool used in the transportation planning process



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Travel Demand Model (TDM) Application

- Future traffic will be mainly driven by the future socioeconomic data provided by MPO
- TDM will provide general guidance on where the volume is exceeding the capacity and help to identify roadway deficiencies
- Not be sufficient to determine/confirm the logical termini, which requires additional information like traffic counts, sub-area validation and assessment of environmental impacts.

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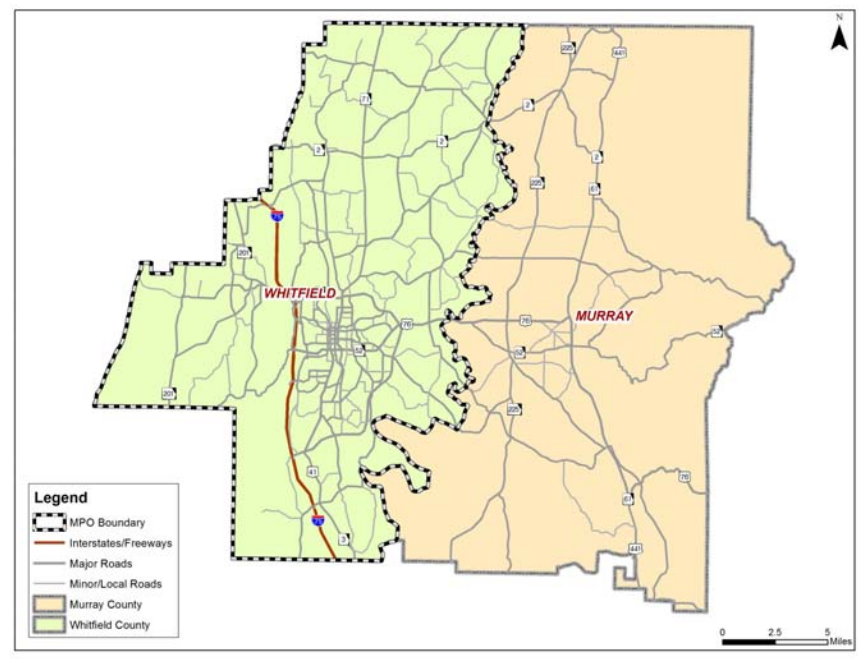
Dalton Modeling and MPO Area



Updates on Major Activities

- **Preparation of socioeconomic data (MPO)**
- **Expansion of travel demand model**
- Update and validation of model base year to 2010
- Development of 2040 Do-Nothing Scenario (Projects provided by MPO)
- System performance evaluation

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2010 Model Inputs

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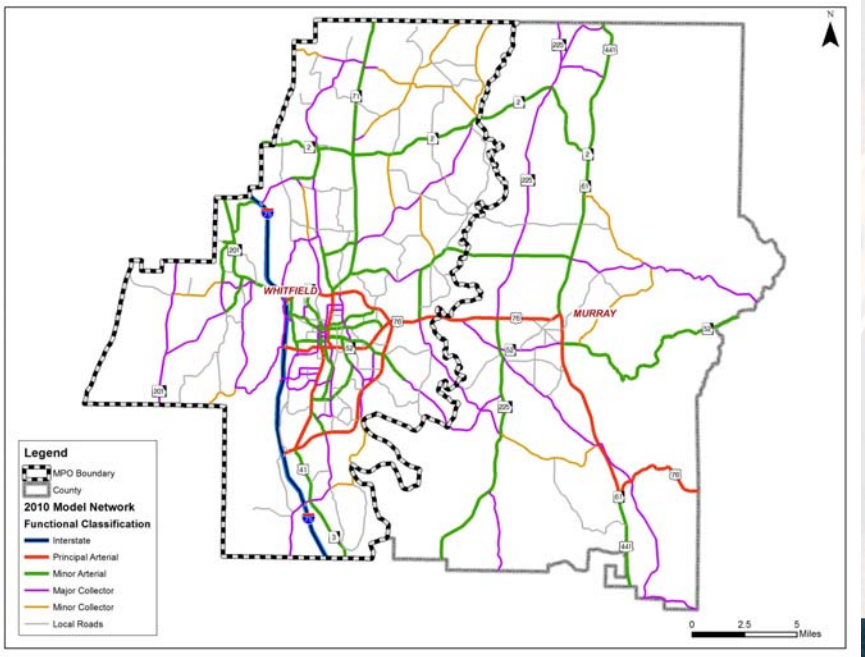
2010 Highway Network



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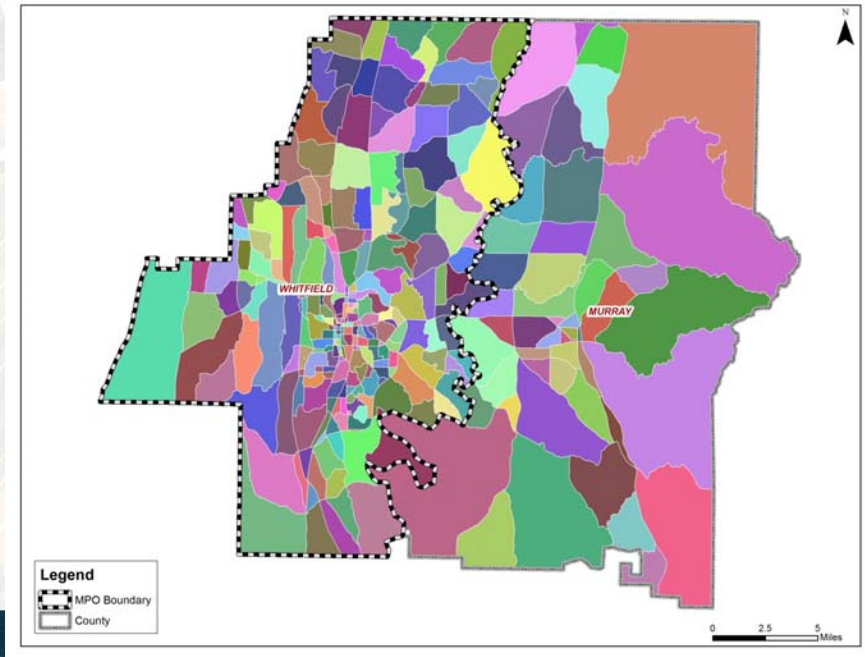
2010 Traffic Analysis Zones (TAZs)



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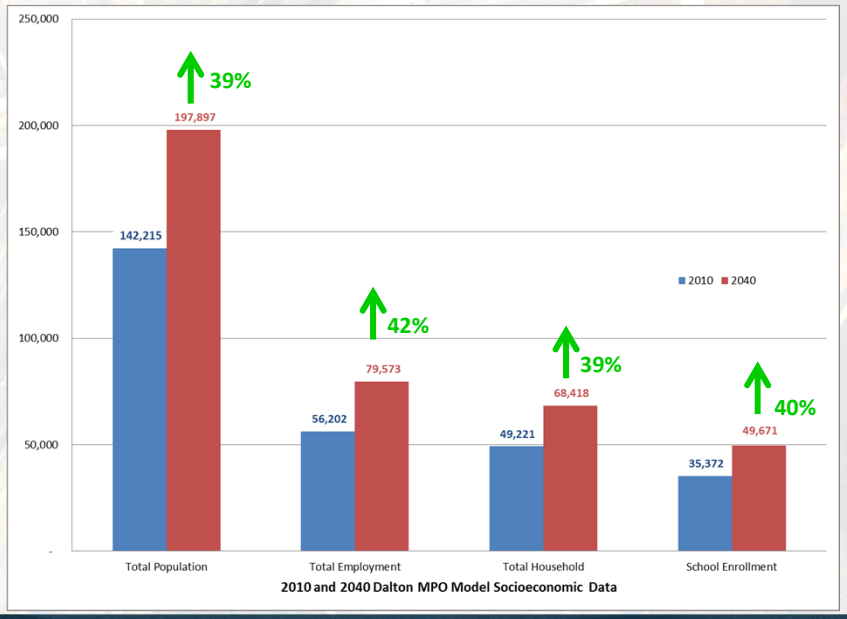
Socioeconomic Data Provided by MPO Staff



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Base Year Model Validation

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Trip Generation – Model Validation

Calibration Measure	Target Range / Value (1)		Model Results
	Min	Max	
Socioeconomic Data			
Persons / Household	2	4	**2.9**
Workers / Household	1	3	**1.1**
School / Population	0.2	0.2	**0.25**
Trip Generation			
Person Trips Per Household	8.5	9.2	**9.1**
Person Trips Per Person	3	4	**3.2**
HBW Trips / Employee	0	2	**1.5**
Shopping Trips / Retail Employment			**3.2**
P/A Ratio Before Balancing (HBW)	0.9	1.1	**1.0**
P/A Ratio Before Balancing (HBO)	0.9	1.1	**1.0**
P/A Ratio Before Balancing (HBShop)	0.9	1.1	**1.0**
P/A Ratio Before Balancing (NHB)	0.9	1.1	**1.0**

(1) GDOT General Summary of Recommended Travel Demand Model Development Procedures for Consultants, MPOs and Modelers, May 2013

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Trip Distribution – Model Validation
Trip Length (Minutes)

Trip Purpose	I-I Home-Based Work (HBW)	I-I Home-Based Other (HBO)	I-I Home-Based Shopping (HBS)	I-I Non-Home Based (NHB)	Truck	I-E Passenger Car (PC)	I-E TRUCK
Target	20.2	17.9	16.9	14.9	14.9	22.0	22.0
Model	16.9	16.3	14.2	13.2	13.7	20.2	19.0
Model/ Target Ratio	83.6%	91.2%	84.1%	88.5%	91.9%	91.9%	86.5%

** **I-I:** I-I represents Internal-Internal trips; trips that both begin and end inside the model study area.*
*** **I-E:** I-E represents Internal-External trips; trips that have only one end inside the model study area.*

Source:
(1) CTPP 2010 Journey to Work data
(2) NCHRP Report 365 & 716, Calibration and Adjustment of System Planning Models
(3) GDOT General Summary of Recommended Travel Demand Model Development Procedures for Consultants, MPOs and Modelers, May 2013

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2010 Model Validation

Model Highway Mileage & Vehicle Miles Travelled (VMT) by Facility Type

Functional Classification	Mileage (miles)		VMT (000,miles)		VMT Distribution		VMT Comparison (Model vs. Observed)	
	Observed (1)	Model	Observed (1)	Model	Observed (1)	Model	Difference (000,miles)	%
Interstate/Freeway	19	19	1,332	1,210	38.5%	35.0%	-122	-9%
Principal Arterial	51	52	760	787	22.0%	22.7%	27	4%
Minor Arterial	143	143	840	899	24.3%	26.0%	59	7%
Collectors	219	217	526	564	15.2%	16.3%	38	7%
Total	**432**	**431**	**3,458**	**3,460**	**100%**	**100%**	**2**	**0%**

(1) 2010 GDOT VMT – GDOT Mileage by Route and Road System Report 445.
http://dot.ga.gov/informationcenter/statistics/RoadData/Documents/445/DPP445_2010.pdf

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2010 Model Validation

Root Mean Squared Error (RMSE) (Modeled Volume vs. Counts)

AADT Volume Group	Model RMSE	Target Range (1)
0 - 5,000	38%	< 100%
5,000 - 10,000	23%	< 75%
10,000 - 15,000	20%	< 50%
15,000 - 20,000	20%	< 30%
20,000 - 30,000	16%	< 30%
>30,000	6%	< 30%
Total	**21%**	< 35%

(1) Target Range Data Sources:

- *Model Validation and Reasonableness Checking Manual, TMIP, FHWA*
- *Travel Model Validation and Reasonability Checking Manual Second Edition, Travel Model Improvement Program (TMIP), Federal Highway Administration (FHWA)*
- *Calibration and Adjustment of System Planning Models, USDOT, FHWA*

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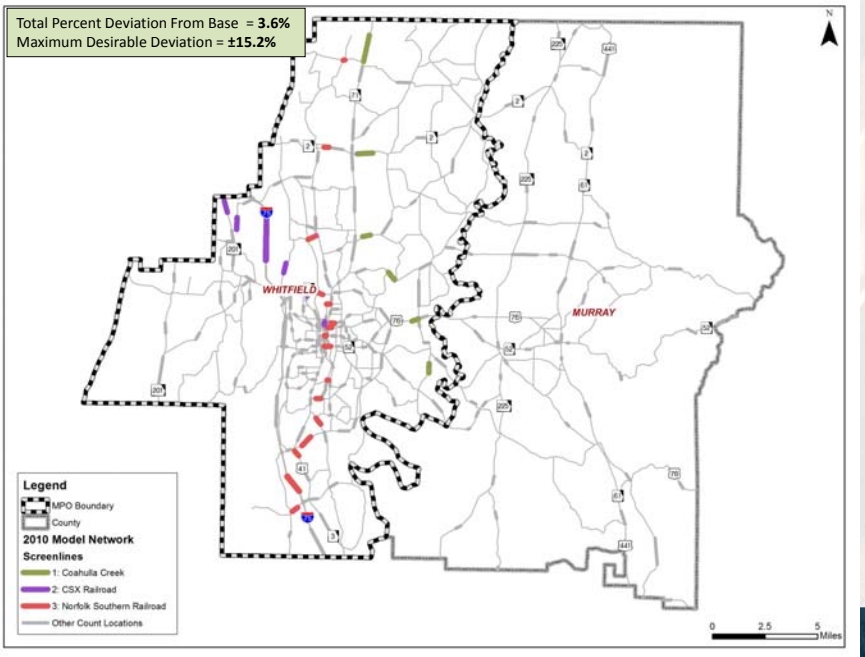
2010 Model Validation

Model Screenlines



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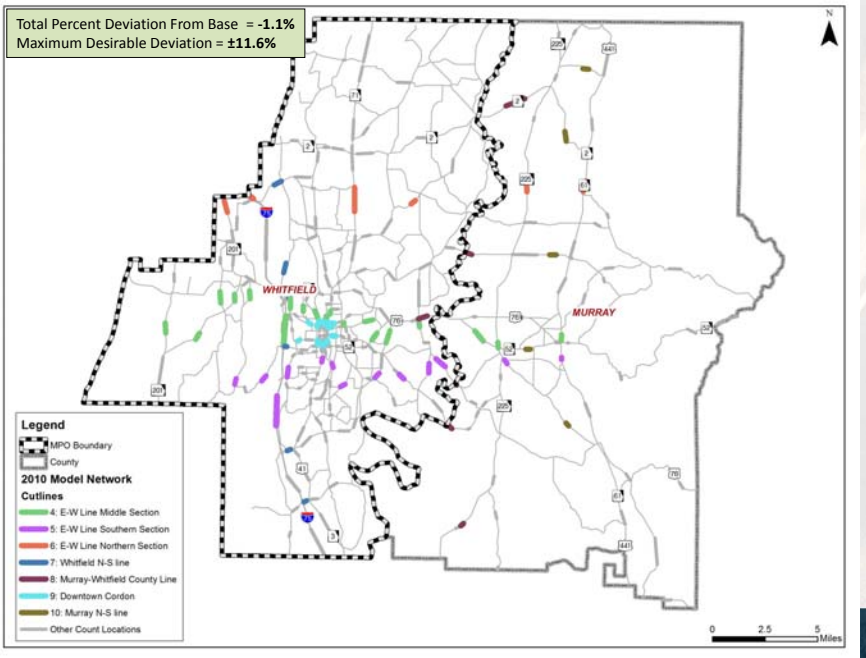
2010 Model Validation

Model Cutlines



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2010 Model Validation

Model Screenline/Cutline Analysis Results

ID	Screenline	Total Volume	Total Count	Percent Deviation From Base	Maximum Desirable Deviation
1	Coahulla Creek	60,371	51,690	16.8%	31.9%
2	CSX Railroad	120,924	123,540	-2.1%	22.9%
3	Norfolk Southern Railroad	196,675	189,600	3.7%	19.4%
	Total	**377,970**	**364,830**	**3.6%**	**15.2%**

ID	Cutline	Total Volume	Total Count	Percent Deviation From Base	Maximum Desirable Deviation
4	E-W Line Middle Section	200,892	206,450	-2.7%	18.8%
5	E-W Line Southern Section	142,500	135,840	4.9%	22.1%
6	E-W Line Northern Section	93,240	93,220	0.0%	25.5%
7	Whitfield N-S line	109,081	106,620	2.3%	24.2%
8	Murray-Whitfield County Line	44,418	38,700	14.8%	35.6%
9	Downtown Cordon	100,619	116,830	-13.9%	23.4%
10	Murray N-S line	33,473	34,300	-2.4%	37.3%
	Total	**724,222**	**731,960**	**-1.1%**	**11.6%**

(1) Source: ***NCHRP Report 255, 365, 716 and GDOT MPO Travel Demand Model Guidelines***

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Base Year Model Outputs

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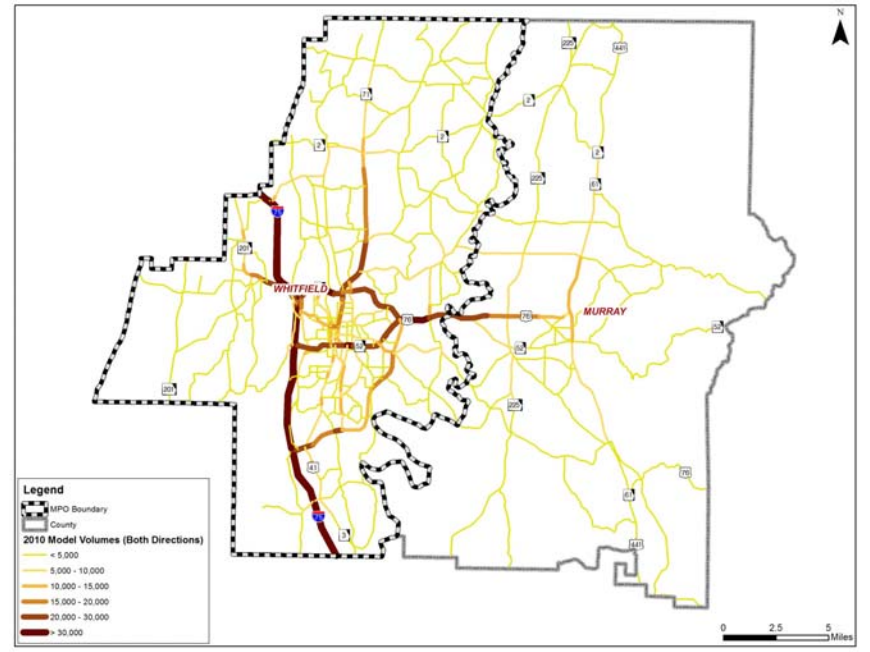
Total 2010 Daily Traffic Volumes



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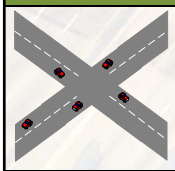
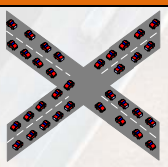
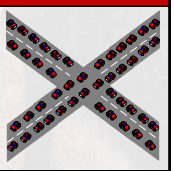
Level of Service (LOS)

- Based on Highway Capacity Manual (*HCM) 2010* methodology
- LOS was derived using the Travel Demand Model
- LOS compares volumes along the roadway to the capacity of that roadway

LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
					

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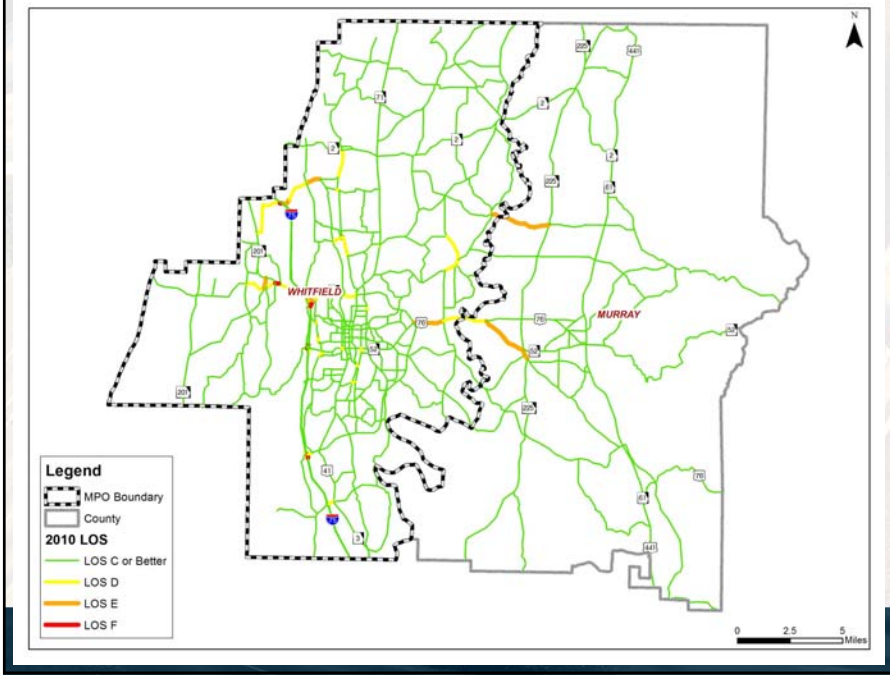
2010 Daily Level of Service (LOS) Based on Modeled Volume



- *LOS = Modeled Daily Traffic / Daily Capacity*
- *Daily Capacity is estimated using peak-hour factor (K-factor) and directional split factor (D-factor)*
- *K-factor and D-factor are based on HCM 2010*

Future Year 2040 Model Results

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2040 LRTP Scenarios

- *2nd network: Do-Nothing (completed)*
- 3rd network: Existing + Committed (E+C)
- 4th network: Completion of STIP/TIP system projects
- 5th network: STIP/TIP + remainder of system projects prior to long range
- 6th network: Long Range Transportation Plan system projects
- 7th network: Financially Constrained Plan

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2040 Do-Nothing Project List

Projects that are included:

Project ID	Primary County	Description	Primary Work Type	Existing Lane	Proposed Lane	Length Prop (Miles)	CST Proposed Program Year
0000931	Whitfield	I-75 @ SR 3/US41/Rocky Face Exit - Interchange Reconstruction Phase II	Interchange	4	6	0.72	2013
3.12 SPLOST	Whitfield	Brooker Rd Connector - From SR 3 Bypass at Cross Plains Trl to Dawnville Rd at Pleasant Grove Dr - Under Construction	New Alignment	0	2	1.29	2013

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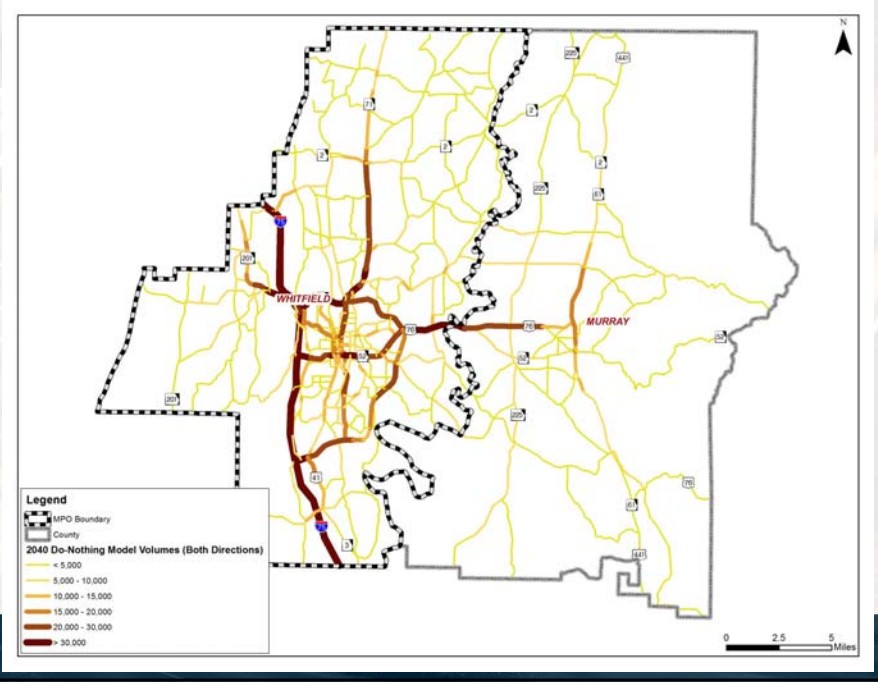
TOTAL 2040 DAILY TRAFFIC VOLUMES



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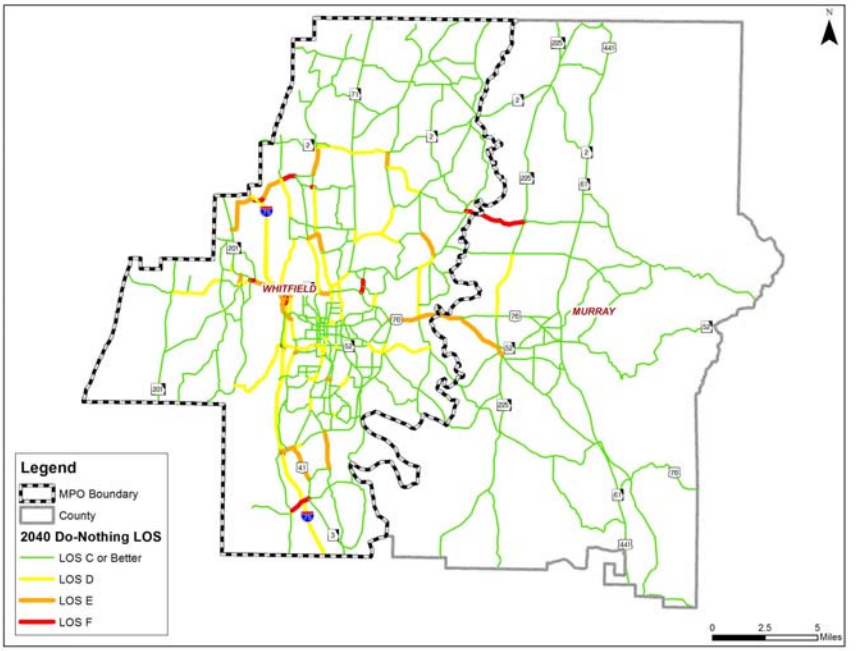
2040 DO-NOTHING DAILY LEVEL OF SERVICE



- *LOS = Modeled Daily Traffic / Daily Capacity*
- *Daily Capacity is estimated using peak-hour factor (K-factor) and directional split factor (D-factor)*
- *K-factor and D-factor are based on HCM 2010*

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Daily Vehicle Miles of Travel (VMT) by Facility Type

Functional Classification	2010 MPO Area VMT (Vehicle Miles)	2040 Do-Nothing MPO Area VMT (Vehicle Miles)	Percent Change
Freeway	1,209,764	1,505,232	+ 24%
Principal Arterial	785,889	945,679	+ 20%
Minor Arterial	899,714	1,186,032	+ 32%
Collectors	564,236	841,940	+ 49%
Total	**3,459,603**	**4,478,883**	**+ 29%**

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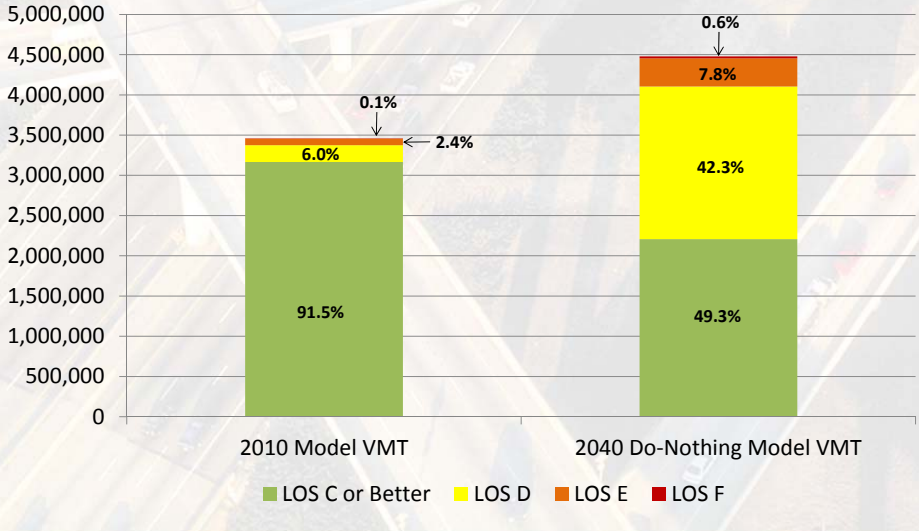
Daily Vehicle Miles of Travel (VMT) by Level of Service



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Daily Vehicle Hours of Travel (VHT) by Facility Type

Functional Classification	2010 MPO Area VHT (Vehicle Hours)	2040 Do-Nothing MPO Area VHT (Vehicle Hours)	Percent Change
Freeway	23,223	39,989	+ 72%
Principal Arterial	26,944	38,842	+ 44%
Minor Arterial	27,179	44,267	+ 63%
Collectors	17,807	32,059	+ 80%
Total	**95,153**	**155,157**	**+ 63%**

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Next Steps

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Next Steps

- MPO
  - Provide project lists for future year LRTP Scenarios
- GDOT
  - Evaluate remaining future year LRTP Scenarios upon receiving project lists
  - Provide level of service (LOS) maps to MPO planners to prioritize projects

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2040 LRTP Scenarios
- Required to Meet Adoption Deadline

LRTP Networks	Provided by MPO no later than	LOS map provided to MPO by
3rd network: Existing + Committed (E+C)	**11/17/2014**	**11/26/2014**
4th network: Completion of STIP/TIP system projects	**11/27/2014**	**12/8/2014**
5th network: STIP/TIP + remainder of system projects prior to long range	**12/9/2014**	**12/18/2014**
6th network: Long Range Transportation Plan system projects	**12/19/2014**	**12/30/2014**
7th network: Financially Constrained Plan	**1/26/2015**	**2/4/2015**

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