



NC Capital Area **Metropolitan Planning Organization**

CAPITAL AREA MPO

Executive Board Meeting

August 16, 2017

4:00 PM

1. Welcome and Introductions

2. Adjustments to the Agenda

3. Ethics Statement:

In accordance with the State Government Ethics Act, it is the duty of every Executive Board member to avoid conflicts of interest.

Does any Executive Board member have any known conflict of interest with respect to matters coming before the Executive Board today? If so, please identify the conflict and refrain from any participation in the particular matter involved.

4. Public Comments

This is an opportunity for comments by those in attendance. Please limit comments to three minutes for each speaker.

5. Minutes

Minutes – June 21, 2017 minutes

Requested Action:

Approve the June 21, 2017 meeting Minutes

6. Public Hearing

6.1 FFY 2019 Locally Administered Projects Program (LAPP)

- FFY 2019 Target Modal Investment Mix with Alternative Option and Recommended Changes to the FFY 2019 LAPP Program for public review and comment from June 16th through August 16th, 2017.
- Public hearing scheduled at the regular Executive Board Meeting on August 16th, 2017 at 4:00pm.
- Based on Executive Board action at that meeting call for Projects is anticipated to open on August 17th, 2017.

Proposed Changes to FFY 2019 LAPP Program

1. Clarification of Pre-Submittal versus Final Application Submittal Requirements
2. Target Modal Investment Mix Percentages For FFY2019

*Proposed changes meant to improve clarity on existing LAPP policies and do not change the content

Clarification of Pre-Submittal versus Final Application Submittal Requirements

- Reformatting submittal requirements in LAPP Handbook to provide clarity on what is required on pre-submittal and final applications

Current Format

All applicants will be required to submit the following items with their application for a project to be considered for LAPP funding:

- ~~Problem Statement for Roadway, Bicycle/Pedestrian and Transit projects (see Appendix V for further guidance on developing an acceptable problem statement for Roadway and Bicycle/Pedestrian. For Transit Projects, the Problem Statement must identify how the problem impacts users and describe how the project improves, enhances or benefits user experience).~~
- ~~Map or photo documentation, as applicable, including all information related to effectiveness scoring, such as transit stop locations, connections, footpaths, etc.~~
- ~~Detailed cost estimates for each phase applied for and planning level estimates for the remaining phases to ultimately complete the project. Roadway and Bicycle/Pedestrian Applicants should consider that NCDOT can charge against these projects for reviews, and that 10% or \$5000 (whichever is greater) should be added to cost estimates to cover this expense. Once an applicant utilizes LAPP (or any other federal funds) on any portion of a project, the applicant is expected to complete the project within ten years or return the federal funding used on any phase of the project.~~
- ~~TEAAS Report for project location (or parallel route for new location facilities, as approved by pre-submittal panel), if applicable. A three-year report is required for roadway projects, and a ten-year report is recommended for bicycle/pedestrian projects. Similar to other roadway projects, ITS applicants must submit TEAAS reports from one 'typical' intersection of the many locations identified in the application. TEAAS Report is not required for Transit, unless the proposed project is a safety enhancement specific to stops or routes within the transit system.~~
- ~~For Projects with Rail Crossings, copies of meeting memorandum and other documentation of coordination with rail companies and agencies must be submitted with the application, including project information, such as ROW concerns, bridge concerns (length and size), and cost impacts.~~
- ~~For Toll Related Projects, applicants must submit NCTA approval for access and/or project partnership information.~~
- ~~For ITS Projects, applicants must submit detailed information, including feasibility studies, system operations manuals and infrastructure specifications.~~
- ~~Copy of all other pertinent project information/justification, including road safety audits, local crash reports, local crash data, etc.~~
- ~~A GIS layer for each project that depicts the project (eg. Extent, location, length, etc.) and meets the following standards:~~
 - § ~~Files should have the following projections;~~
~~NAD_1983_StatePlane_North_Carolina_FIPS_3200_Feet~~
~~Geographic Coordinate System: GCS_North_American_1983~~
~~Datum: D_North_American_1983~~
~~Prime Meridian: Greenwich~~
~~Angular Unit: Degree~~
 - § ~~Shapefiles are preferred, but geodatabases for larger files are also acceptable. Remember when uploading shapefile or geodatabases to include all files (ie, .dbf, .prj, .cnb, .sbx, .shp, etc.).~~
 - § ~~Provide metadata with uploaded files.~~

Proposed Format

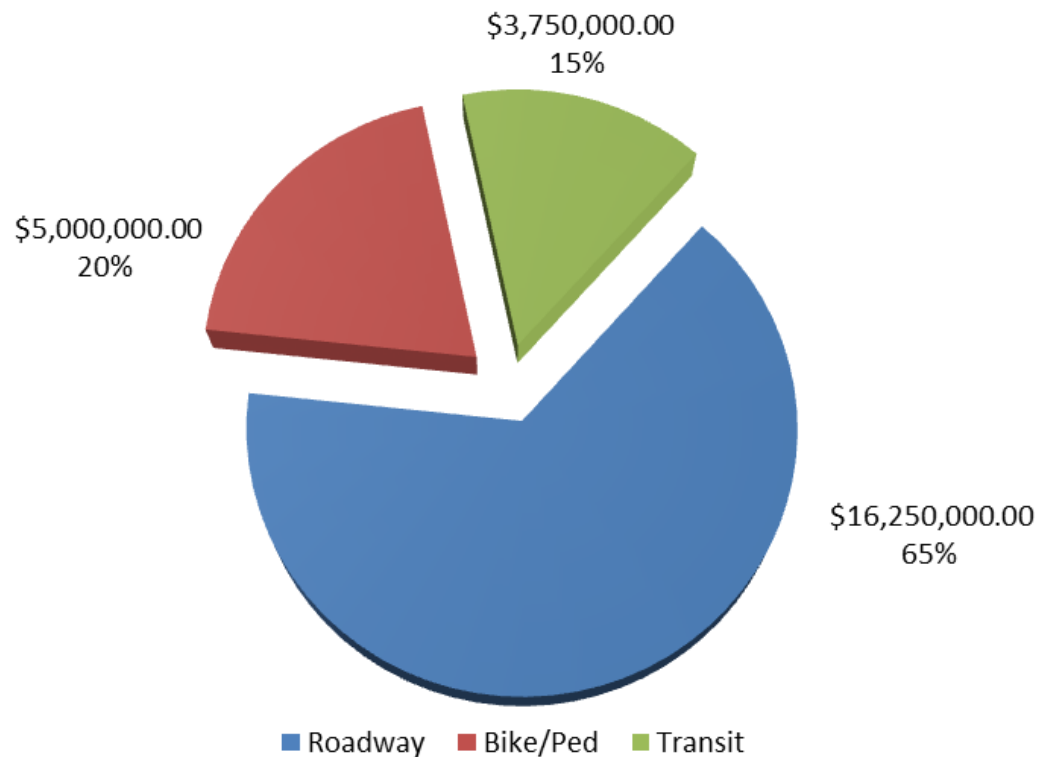
| LAPP Application Submission Documents | |
|---|--|
| Pre-Submittal Requirements | Final Application Requirements |
| <p>Detailed cost estimates for each phase applied for and planning level estimates for the remaining phases to ultimately complete the project. Roadway and Bicycle/Pedestrian Applicants should consider that NCDOT can charge against these projects for reviews, and that 10% or \$5000 (whichever is greater) should be added to cost estimates to cover this expense. Once an applicant utilizes LAPP (or any other federal funds) on any portion of a project, the applicant is expected to complete the project within ten years or return the federal funding used on any phase of the project.</p> | <p>Final versions of all pre-submittal requirements</p> <p>TEAAS Report for project location (or parallel route for new-location facilities, as approved by pre-submittal panel), if applicable. A three-year report is required for roadway projects, and a ten year report is recommended for bicycle/pedestrian projects. Similar to other roadway projects, ITS applicants must submit TEAAS reports from one 'typical' intersection of the many locations identified in the application. TEAAS Report is not required for Transit, unless the proposed project is a safety enhancement specific to stops or routes within the transit system.</p> |
| <p>Problem Statement for Roadway, Bicycle/Pedestrian and Transit projects (see Appendix V for further guidance on developing an acceptable problem statement for Roadway and Bicycle/Pedestrian. For Transit Projects, the Problem Statement must identify how the problem impacts users and describe how the project improves, enhances or benefits user experience).</p> | <p>For Projects with Rail Crossings, copies of meeting memorandum and other documentation of coordination with rail companies and agencies must be submitted with the application, including project information, such as ROW concerns, bridge concerns (length and size), and cost impacts.</p> |
| <p>Map or photo documentation, as applicable, including all information related to effectiveness scoring, such as transit stop locations, connections, footpaths, etc.</p> | <p>NC Turnpike Authority approval for access and/or project partnership information for Toll Related Projects.</p> |
| <p>A GIS layer for each project that depicts the project (eg. Extent, location, length, etc.) and meets the following standards:</p> <ul style="list-style-type: none"> Files should have the following projections; NAD_1983_StatePlane_North_Carolina_FIPS_3200_Feet Geographic Coordinate System: GCS_North_American_1983 Datum: D_North_American_1983 Prime Meridian: Greenwich Angular Unit: Degree Shapefiles are preferred, but geodatabases for larger files are also acceptable. Remember when uploading shapefile or geodatabases to include all files (ie, .dbf, .prj, .cnb, .sbx, .shp, etc.). Provide metadata with uploaded files. Files can be uploaded on the CAMPO LAPP Sharefile site. Each agency has a folder to upload submittal documents. To receive first-time access to the Sharefile site, email CAMPO staff. <p>Files should be saved to a .zip file on the LAPP Sharefile site within the folder created for your agency. The .zip file should be named for the project title; a new .zip file should be created for each project submitted.</p> | <p>For ITS Projects, applicants must submit detailed information, including feasibility studies, system operations manuals and infrastructure specifications.</p> |
| | <p>Copy of all other pertinent project information/justification, including road safety audits, local crash reports, local crash data, etc.</p> |

Maintaining Target Modal Investment Mix Percentages Through FFY2019

- Continue with the determination last year to keep the Target Modal Investment Mix percentages constant through 2019
- Utilize newly-adopted 2045 MTP and progress of Wake Transit Plan to make informed decision in FFY 2020

Staff Recommended FFY 2019 Target Modal Investment Mix

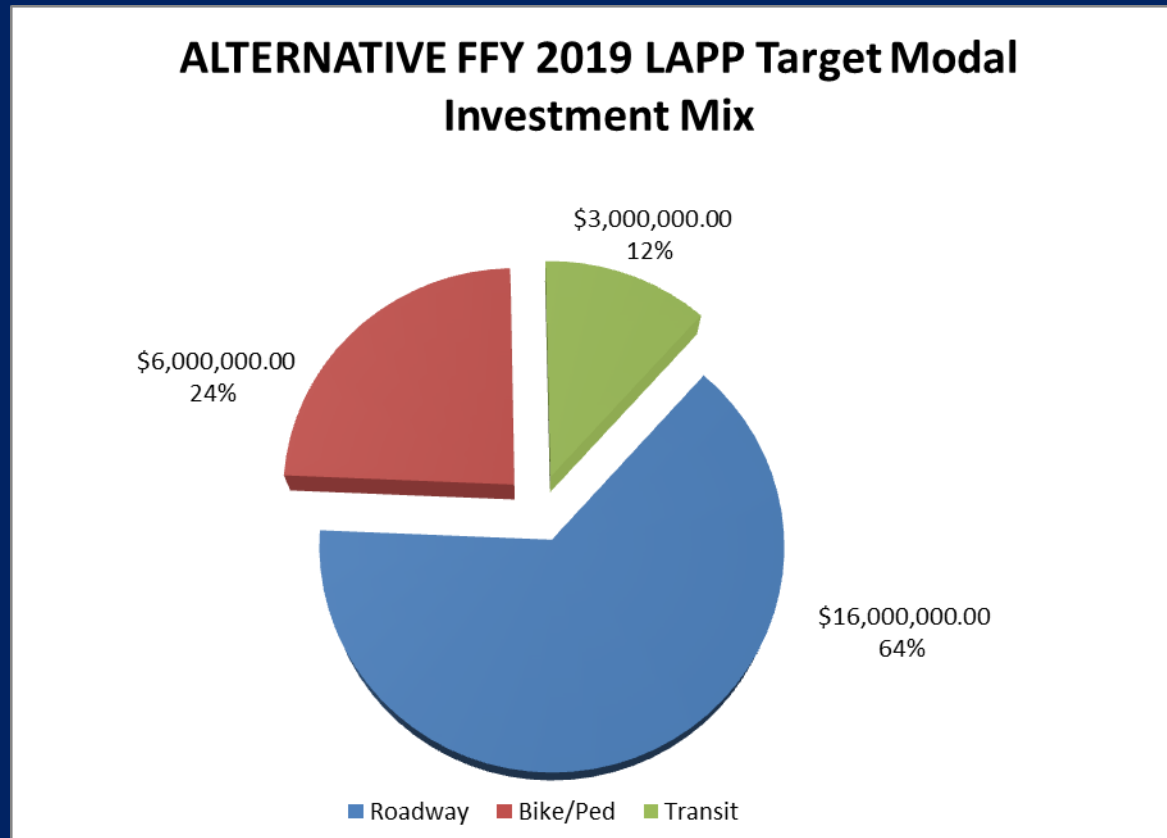
FFY 2019 LAPP Target Modal Investment Mix



Target Modal Investment Mix Alternative

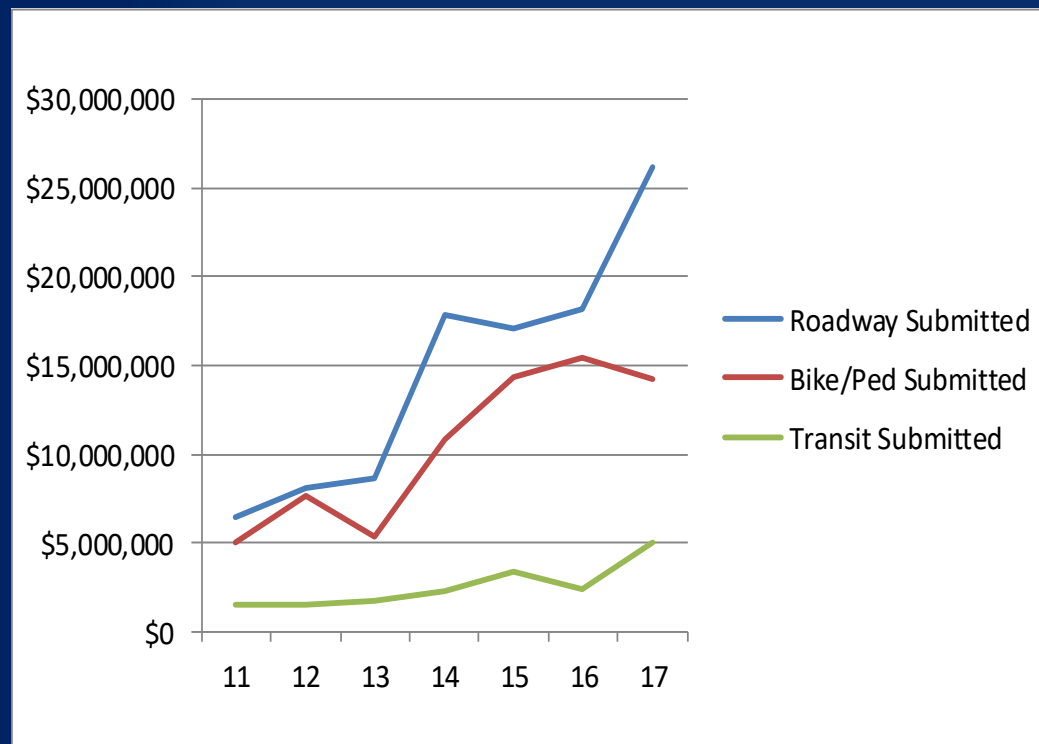
- Second Target Modal Investment Mix created in response to discussion at June 1 TCC meeting
- Increases portion for bicycle and pedestrian projects
- TCC voted unanimously at August 3 meeting to recommend approval of the alternative Target Modal Investment Mix

Target Modal Investment Mix Alternative



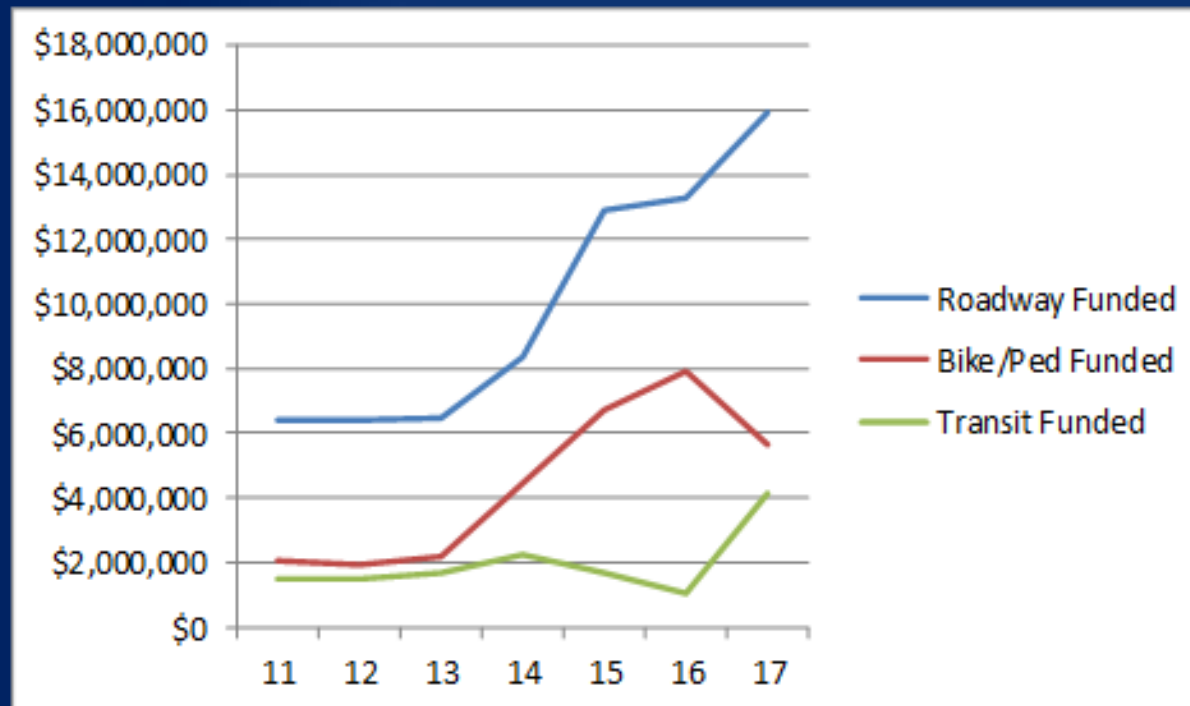
Target Modal Investment Mix Alternative

Total Submitted Project Costs for LAPP Cycles 2011-2017 (Calendar Year)



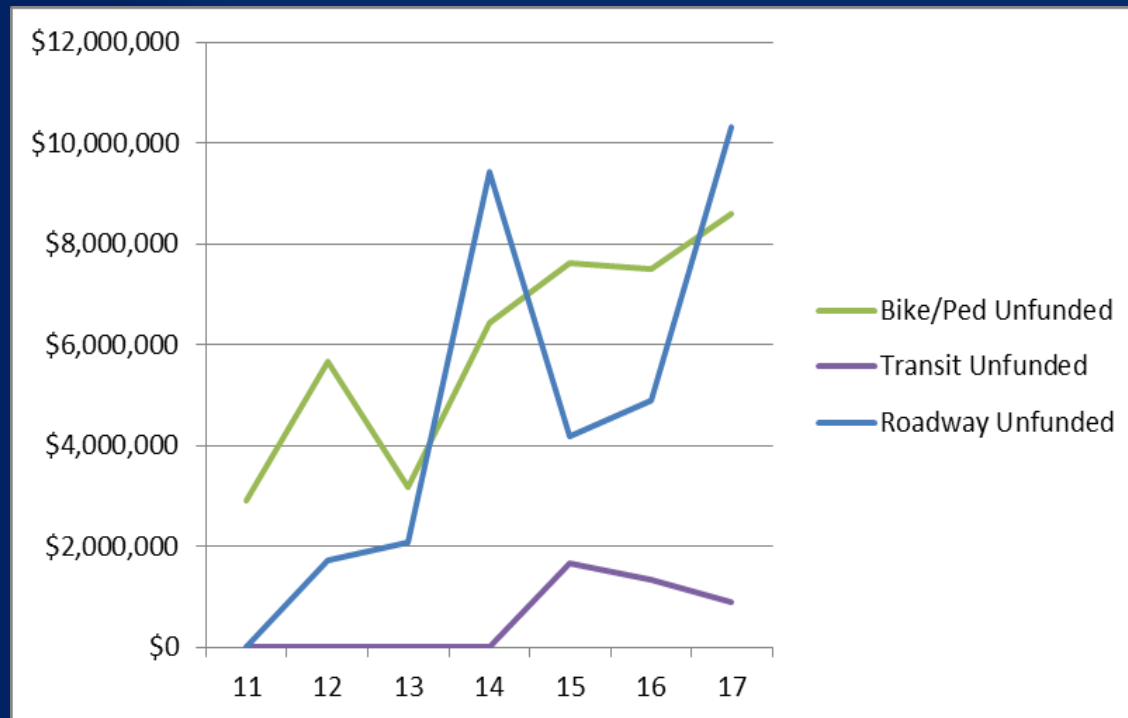
Target Modal Investment Mix Alternative

Total Funded Project Costs for LAPP Cycles 2011-2017 (Calendar Year)



Target Modal Investment Mix Alternative

Total Unfunded Project Costs for LAPP Cycles 2011-2017 (Calendar Year)



6.1 FFY 19 LAPP Updates

Requested Action:

Conduct a Public Hearing. Consider adoption of the FFY2019 Target Modal Investment Mix and Recommended Changes to the FFY2019 LAPP Program. Consider opening the 1-Call for Projects from August 17th Through October 31st, 2017.

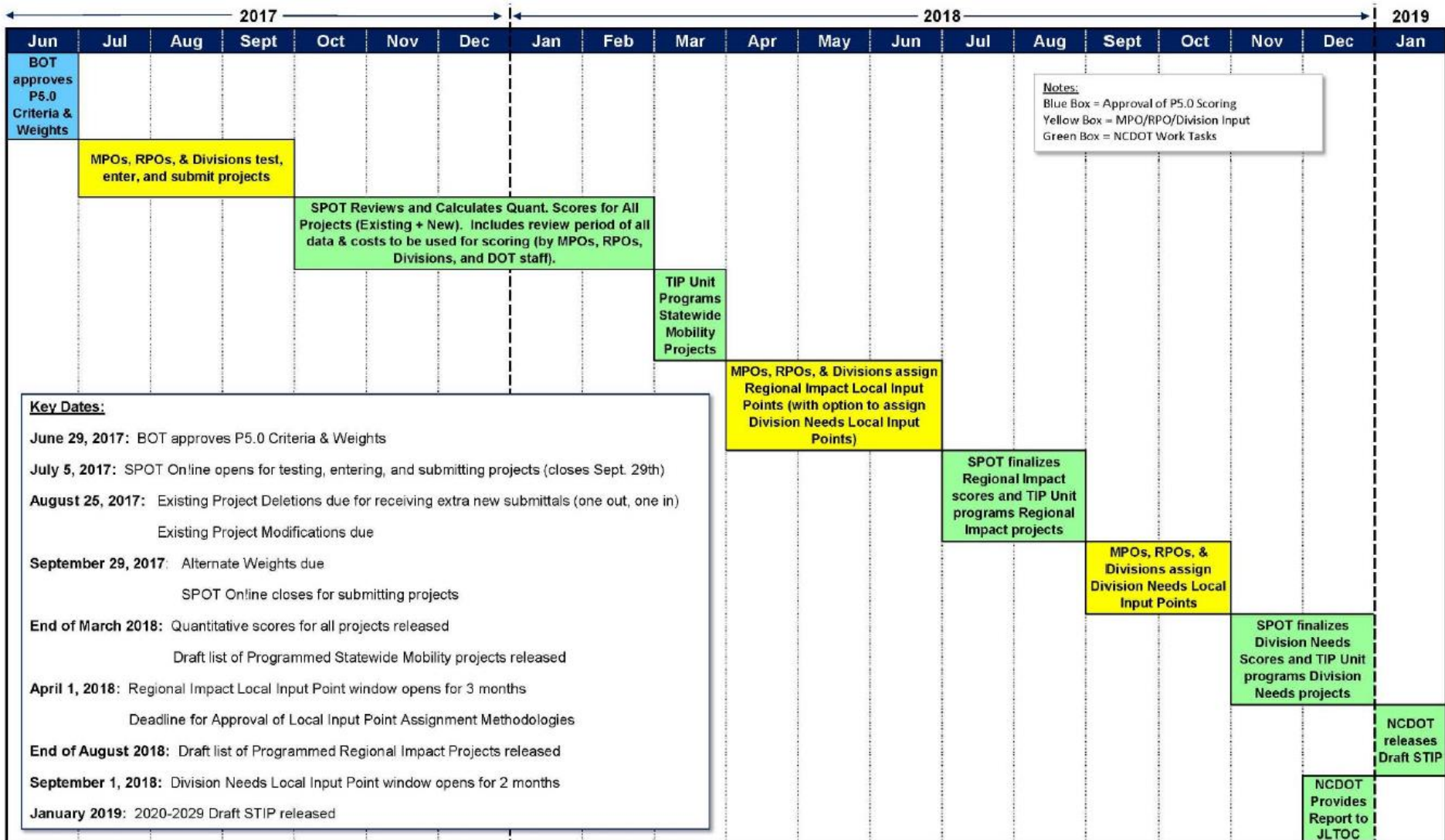
7. Regular Agenda

7.1 Prioritization 5.0 Modal Candidate Project Lists

P5.0 Schedule & Updates

Prioritization 5.0 Schedule

May 23, 2017



DRAFT STIP Update

- NCDOT Authorized Additional Programming
- P4.0 Prioritization Process was Re-Applied
- Upwards Cascading was applied
- 63 CAMPO Projects Programmed
 - 1 Aviation
 - 8 Bicycle & Pedestrian
 - 43 Roadway
 - 27 Statewide Mobility
 - 14 Regional Impact
 - 2 Division Needs
 - 6 Rail
 - 5 Public Transportation

DRAFT STIP 2017-2027 Update: Statewide Mobility

YRS 1-5

2018 -2022

~~\$814,200,000~~

\$1,142,414,000

- I-40 (I-440/US1/64 to Lake Wheeler)
- I-540 (Glenwood to Leesville Rd) eastbound auxiliary lane
- NC 540 (US 401 to I-40) **TOLL**
- US 1 (I-540 to Durant Rd)
- US 64 (Laura Duncan Rd to US 1)
- TW Alexander Interchange (US 70)
- US 70 Freeway Upgrade (TW Alexander to I-540)
- I-40 / I-440/US 1/64 Reconstruct Interchange
- I-40 (Aviation to Harrison Ave) auxiliary lanes
- **I-440/Crabtree Valley Ave. Improvements**
- **I-440, US 1 / Capital Blvd – Interchange Improvements**
- **US 70 (I-540 to Hilburn Dr) 6 lane SuperStreet**
- **Wade Ave (I-40 to I-440) 6 lane widening**

YRS 6-10

2023 – 2027

~~\$454,287,000~~

\$422,595,000

- NC 540 (I-40 to US 64/264) **TOLL**
- **I-40 Managed Lanes (NC 147 to Wade)**
- **US 1 Widening (US 64 to NC 55)**
- **I-540 Managed Shoulders**
- **US 1 / NC 55 DDI**

DRAFT STIP 2017-2027 Update: Regional Impact

YRS 1-5

2018 -2022

~~\$401,786,000~~

~~\$427,728,000~~

- Morrisville Citywide Signal system
- NC 42 (NC 50 to US 70 Bypass)
- NC 42 (US 70 Bypass to US 70 Bus)
- NC 54 / McCrimmon Parkway Grade Separation
- US 1 (Durant Road to Burlington Mills Road)
- NC 50 (I-540 to NC 98)
- US 1 (Burlington Mills Road to NC 98)
- **NC 147 Triangle Parkway Extension**
- **Fuquay-Varina Citywide Signal System**

YRS 6-10

2023 – 2027

~~\$146,782,000~~

~~\$101,102,000~~

- US 401 median (Judd Parkway to NC 55/NC 42)
- Clayton Citywide Signal System
- US 1 (NC 98 to Harris Road)

DRAFT STIP 2017-2027 Update: Regional Impact NonRoadway

YRS 1-5

2018 -2022

~~\$105,993,000~~

\$104,356,400

- Rail Passenger Cars
- Expansion Vehicles CRX Route
- Expansion Vehicles DRX Route
- District Drive Park and Ride Expansion
- Garage Expansion at Nelson Road Facility
- Rail grade separation for Durant Road
- Rail grade separation for New Hope Church Rd
- Rail grade separation for Harrison Ave
- Rail grade separation for NE Maynard Rd
- **GoTriangle Edenton and Salisbury Shelter**

YRS 6-10

2023 – 2027

\$10,547,000

- **Gresham Lake Grade Separation**

DRAFT STIP 2017-2027 Update: Division Needs

YRS 1-5

2018 -2022

~~\$60,179,000~~

\$111,026,600

- Knightdale Citywide Signal System
- Wake Forest Citywide Signal System
- Fuquay-Varina Citywide Signal System
- NC 54 (Hillsborough) / Blue Ridge Grade Separation
- Ten Ten Rd widening fr/ Apex Peakway to Reliance Ave
- **McCrimmon Parkway widening from Davis Dr to Church Street**
- **US 401 Widening Part D**

YRS 6-10

2023 – 2027

~~\$16,570,000~~

\$8,820,000

- NC 42 Modernization from Buffalo Road to County line

DRAFT STIP 2017-2027 Update: Division Needs

NonRoadway

YRS 1-5

2018 -2022

~~\$13,920,000~~

\$17,920,000

- NC 55 Connector Sidewalk
- Airport Blvd Sidewalks
- Triangle North Executive Airport Project
- Morrisville-Carpenter Road Sidewalks
- McCrimmon Parkway Gap Sidewalks
- Church Street Sidewalks
- **Black Creek Greenway**

YRS 6-10

2023 – 2027

~~\$19,408,000~~

\$15,408,000

- Wake Forest Bypass Greenway
- Swift Creek Greenway

Highway Scoring Criteria & Weights (Default)

| Funding Category | <u>QUANTITATIVE</u> | <u>LOCAL INPUT</u> | |
|---------------------|---------------------|--------------------|---------|
| | Data | Division | MPO/RPO |

Statewide Mobility

Congestion = 30%
Benefit-Cost = 25%
Freight = 25%
Safety = 10%
Economic Comp. = 10%

100%

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Regional Impact

Congestion = 20%
Benefit-Cost = 20%
Safety = 10%
Accessibility/Connectivity = 10%
Freight = 10%

70%

15%

15%

Division Needs

Congestion = 15%
Benefit-Cost = 15%
Safety = 10%
Accessibility/Connectivity = 5%
Freight = 5%

50%

25%

25%

Note: Region(s) _____ and Division(s) _____ use Alternate Criteria & Weights

P5.0 Alternate Criteria

- | | Default | Proposed Region A |
|--------------------------------|---------|------------------------|
| • Regional Impact | | |
| – Congestion | 20% | 15% |
| – Benefit Cost | 20% | 20% |
| – Safety | 10% | 10% |
| – Accessibility / Connectivity | 10% | 10% |
| – Freight | 10% | 15% |
| • Division Needs | | Division 4 – no change |
| – Congestion | 15% | |
| – Benefit Cost | 15% | |
| – Safety | 10% | |
| – Accessibility / Connectivity | 5% | |
| – Freight | 5% | |

P5.0 Alternate Criteria

| • Regional Impact | Default | Proposed Region C |
|--------------------------------|---------|-------------------|
| – Congestion | 20% | 20% |
| – Benefit Cost | 20% | 20% |
| – Safety | 10% | 10% |
| – Accessibility / Connectivity | 10% | 5% |
| – Freight | 10% | 15% |

P5.0 Alternate Criteria

| • Division Needs | Default | Division 5 |
|--------------------------------|---------|------------|
| – Congestion | 15% | 15% |
| – Benefit Cost | 15% | 20% |
| – Safety | 10% | 15% |
| – Accessibility / Connectivity | 5% | |
| – Freight | 5% | |
| • Division Needs | | Division 6 |
| – Congestion | 15% | 15% |
| – Benefit Cost | 15% | 15% |
| – Safety | 10% | 15% |
| – Accessibility / Connectivity | 5% | 5% |
| – Freight | 5% | |

Aviation Projects

- Review committed project
- Resubmit P4 Aviation Projects
- Contacted RDU & Triangle North Executive Airport

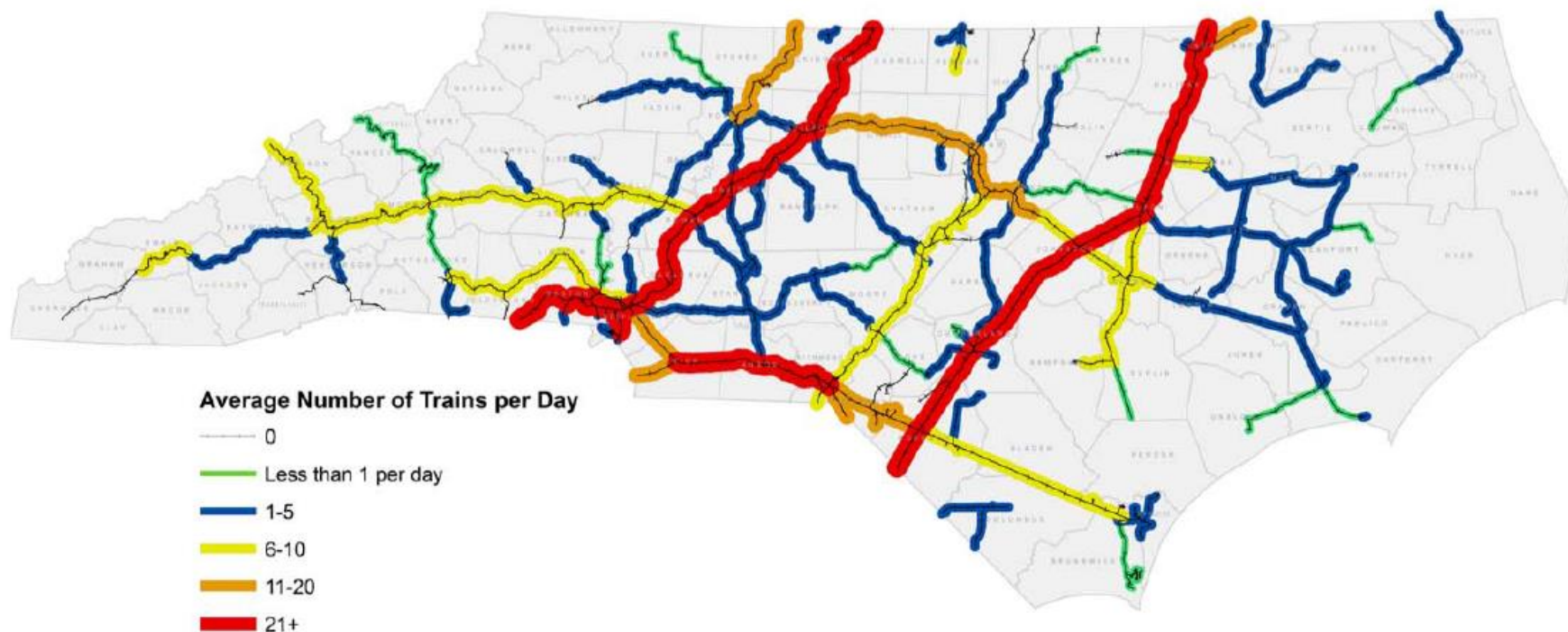
Bicycle/Pedestrian Projects

- Review of committed projects
- Review of carryover projects
- Continue proofing and updating estimated technical scores for new submittals
- Work with Division Engineers to submit as many projects as possible

Rail Projects

- Review committed projects
- Resubmit P4 Rail Projects
- Include additional Grade Separations identified in CAMPO Studies
- Continue working with Divisions and Rail Division on identifying improvements (double tracking, sidings, crossovers)
- Work with Division Engineers to submit as many projects as possible

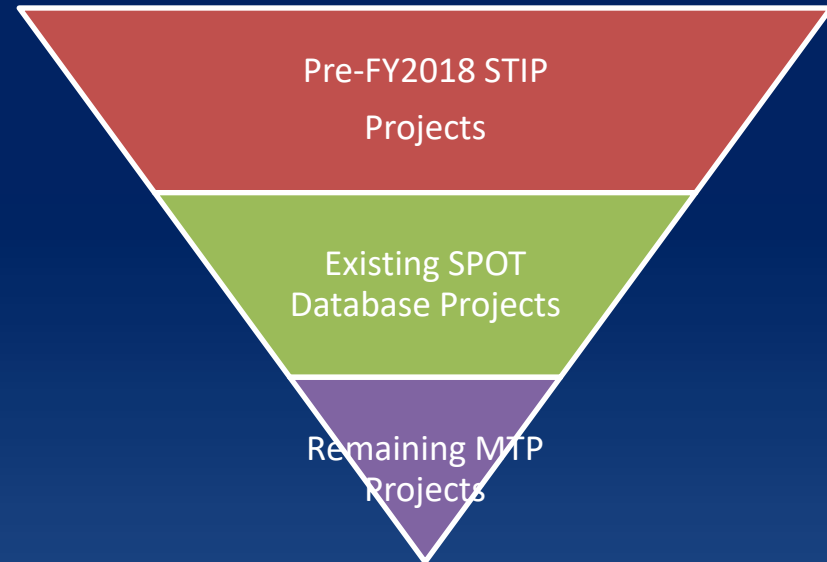
2016 Train Volumes in North Carolina



Roadway Projects

- Review committed projects
- Review carryover projects
- Continue working with Divisions and staff to identify most competitive roadway projects
- Work with Division Engineers to submit as many projects as possible

CAMPO SPOT Review



- CAMPO can submit 43 additional roadway projects

- Initial List Creation:

- STIP-funded projects prior to 2018 and
- Existing SPOT database projects
- MTP projects (SPOT requirement)
 - Delay, Travel Time, Socio-Economic growth trend metrics used as basis for comparing projects
 - A. E+C Delay/Lane Mile
 - B. 1st Decade Delay/Lane Mile
 - C. 2nd Decade Delay/Lane Mile
 - D. Network Connectivity
 - E. Interchanges/Operational Improvements
 - F. ITS Projects

- Results in a list of 43+ recommended submittals

- Staff will coordinate with NCDOT Divisions to ensure maximum submittal of CAMPO projects.

Transit Projects

- Review committed projects
- Contacted Transit Agencies for project requests
- Resubmit P4 Transit Projects
- Work with Transit Agencies and staff to identify most competitive projects
- Work with Division Engineers to submit as many projects as possible

7.1 Prioritization 5.0 Modal Candidate Project Lists

Requested Action:

Open Public Hearing

Hold open until September 20th

7.2 2045 Metropolitan Transportation Plan Update

Long-range guide for major transportation investments for the North Carolina Capital Area Metropolitan Planning Organization

Recommends major transportation projects, systems, policies and strategies designed to maintain our existing systems and serve the region's future mobility needs

The Capital Area MPO MTP is integrated with land use and air quality strategies and goals for the urban area.

Alternatives Analysis

- A series of multimodal investment alternatives have been created and continue to be modeled and analyzed.
- The results from the analysis will be reviewed in both the professional and public realms as the two MPOs develop the “Preferred Alternative” MTP; which is anticipated to be adopted later this calendar year.
- Both the Capital Area MPO and the Durham-Chapel Hill-Carrboro MPO are planning to schedule public meetings during the fall, prior to finalizing the “preferred alternative” for the 2045 Metropolitan Transportation Plan.

Alternatives Analysis

Moderate Network

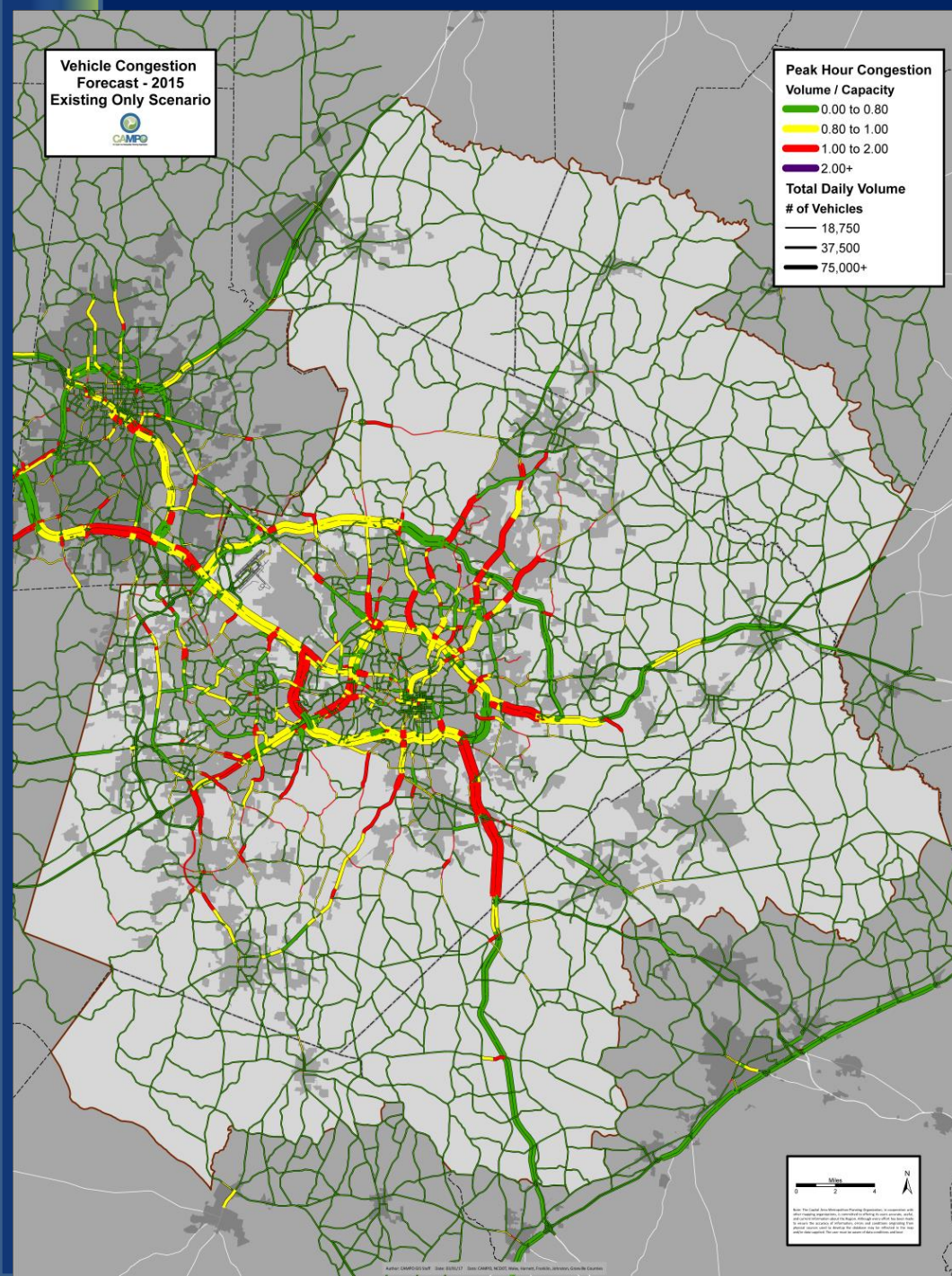
- Major Roadway Investments
 - Completion of the Outer Loop
 - Widening/Improving I-40, I-440, US 401, US 1, US 64, US 70, NC 42, NC 50, NC 54, NC 55, NC 98
 - Additional secondary roadway investments in 3rd decade
- Major Transit Investments (WTP + 20yrs)
 - Commuter Rail from Garner to Durham
 - BRT Infrastructure and Service in Capital, New Bern, Wilmington, and Western/Chatham/NC 54 corridors
 - Continuation of WTP frequent bus network
 - Community Funding Areas

Alternatives Analysis

Aspirational Network

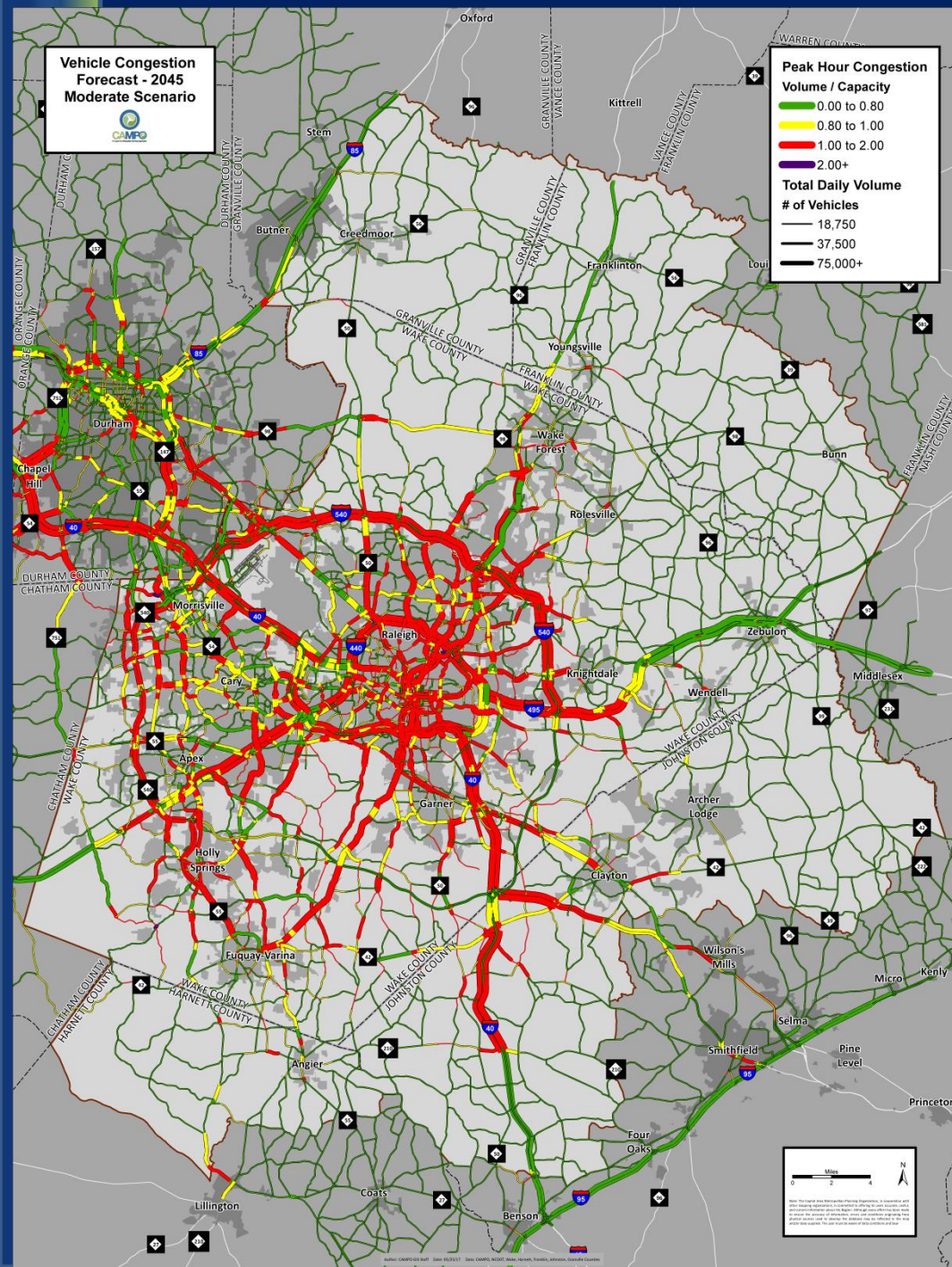
- Major Roadway Investments
 - Completion of the Outer Loop
 - Widening/Improving I-40, I-440, US 401, US 1, US 64, US 70, NC 42, NC 50, NC 54, NC 55, NC 98
 - Additional secondary roadway investments in 2nd and 3rd decades
- Major Transit Investments (WTP + 20yrs)
 - Commuter Rail Service extended to Selma and Mebane
 - Commuter Rail Service from Wake Forest to Apex
 - BRT Infrastructure and Service extended/enhanced in Capital, New Bern, Wilmington, and Western/Chatham/NC 54 corridors
 - BRT Service to midtown Raleigh
 - BRT Service in Harrison/Kildaire Farm corridor
 - Continuation of WTP frequent bus network
 - Continuation of Community Funding Areas

Deficiency Analysis



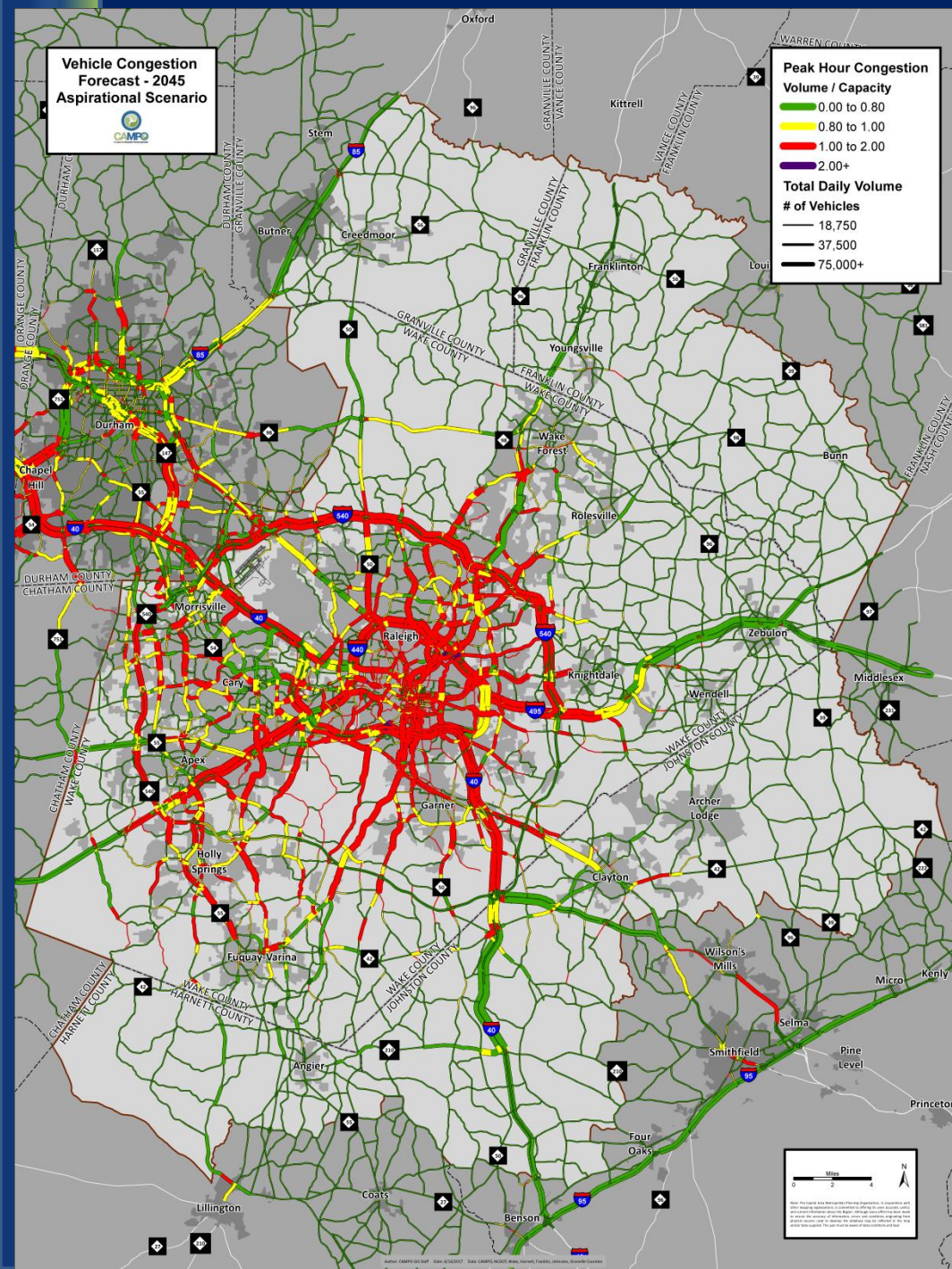
- **Transportation Network:**
 - 2015
- **Socio-Economic Data:**
 - 2015
- **Volume / Capacity**
 - **Red** signifies that a road has met or exceeded it's capacity
- **Peak Hour**
 - Represents the worst travel hour of the day

Alternatives Analysis



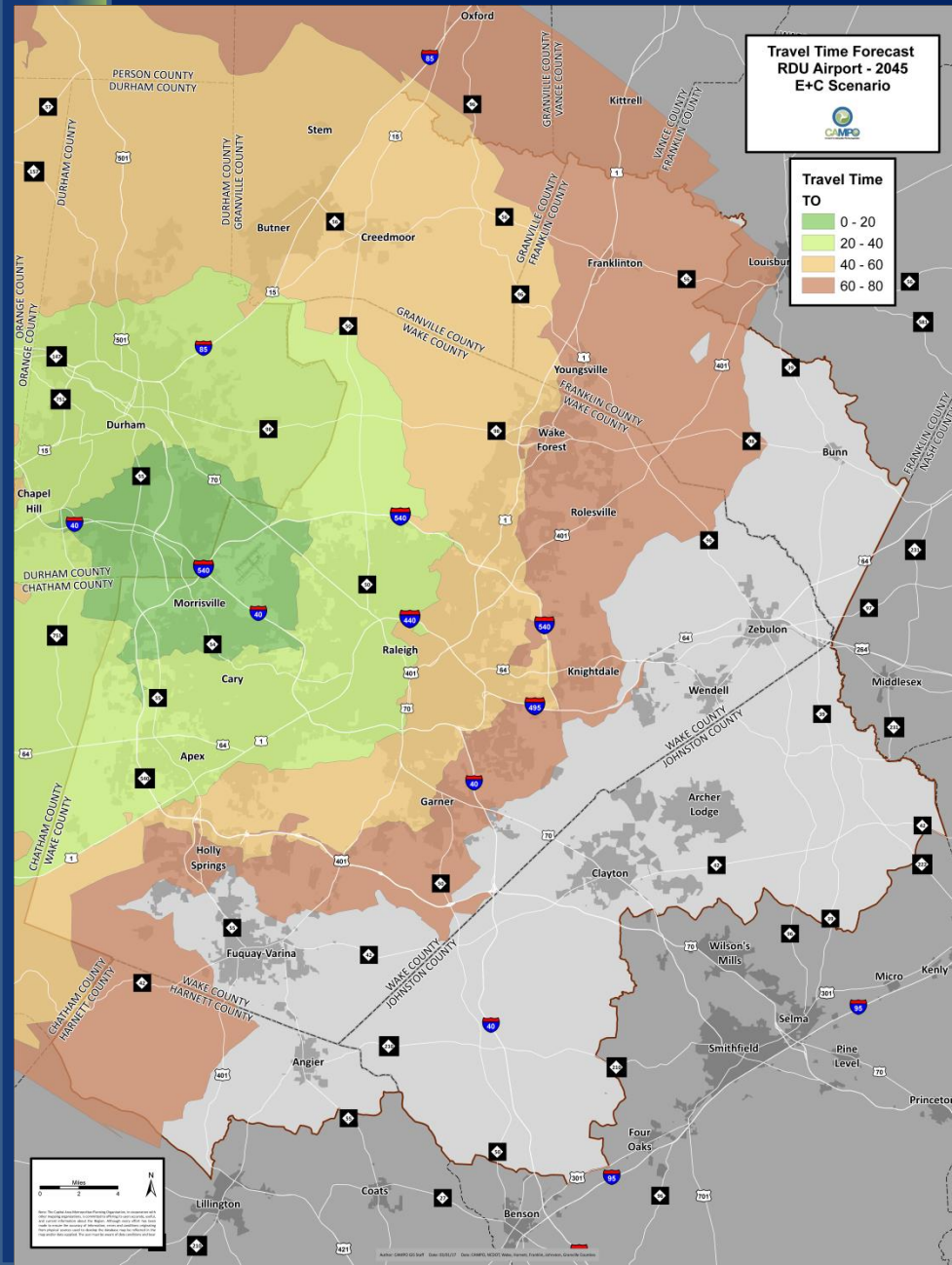
- **Transportation Network:**
 - Moderate
- **Socio-Economic Data:**
 - Community Plans
- **Volume / Capacity**
 - **Red** signifies that a road has met or exceeded it's capacity
- **Peak Hour**
 - Represents the worst travel hour of the day

Alternatives Analysis



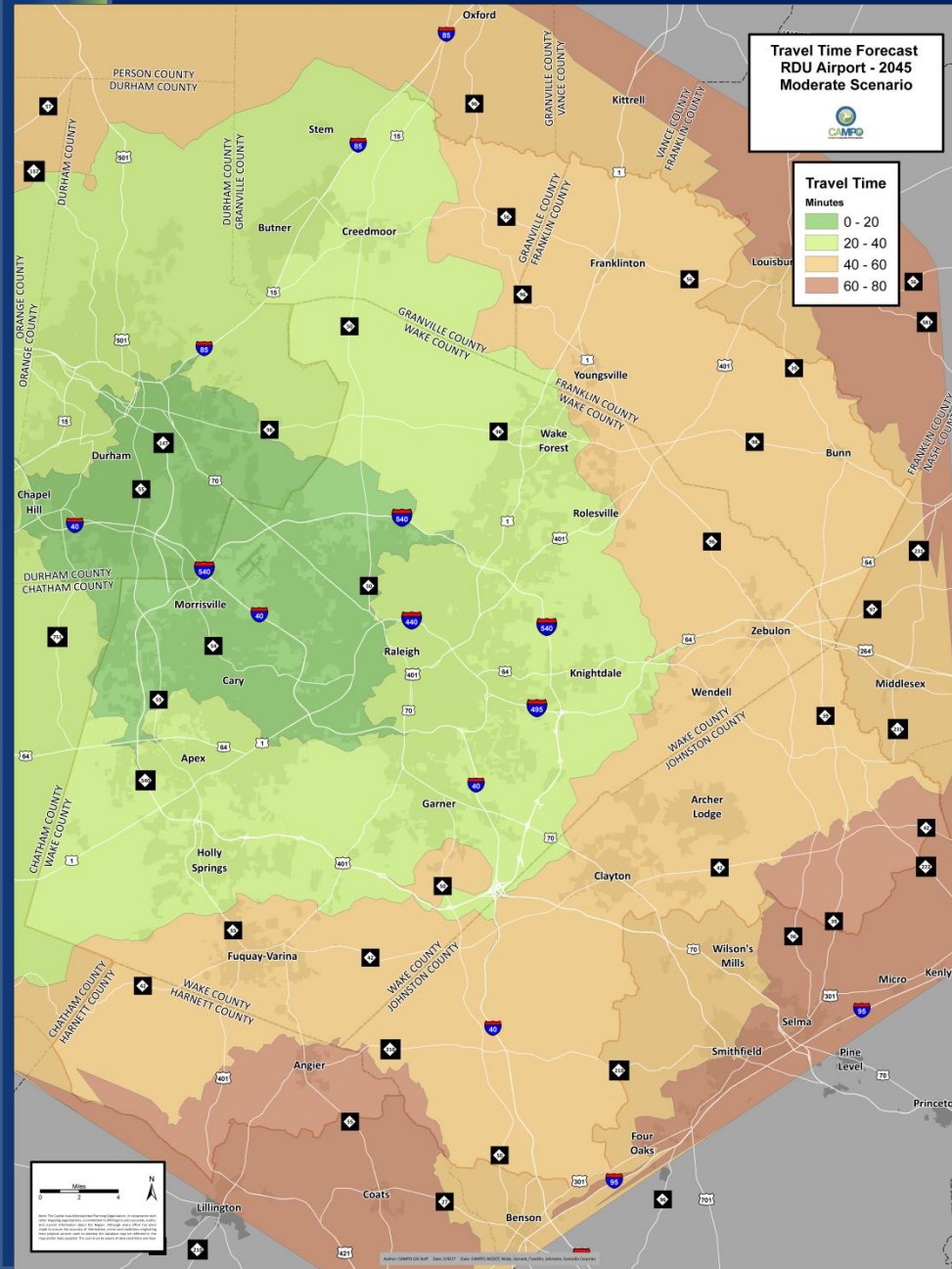
- **Transportation Network:**
 - Aspirational
- **Socio-Economic Data:**
 - AIM High
- **Volume / Capacity**
 - **Red** signifies that a road has met or exceeded it's capacity
- **Peak Hour**
 - Represents the worst travel hour of the day

E + C Scenario & Travel Time (RDU)



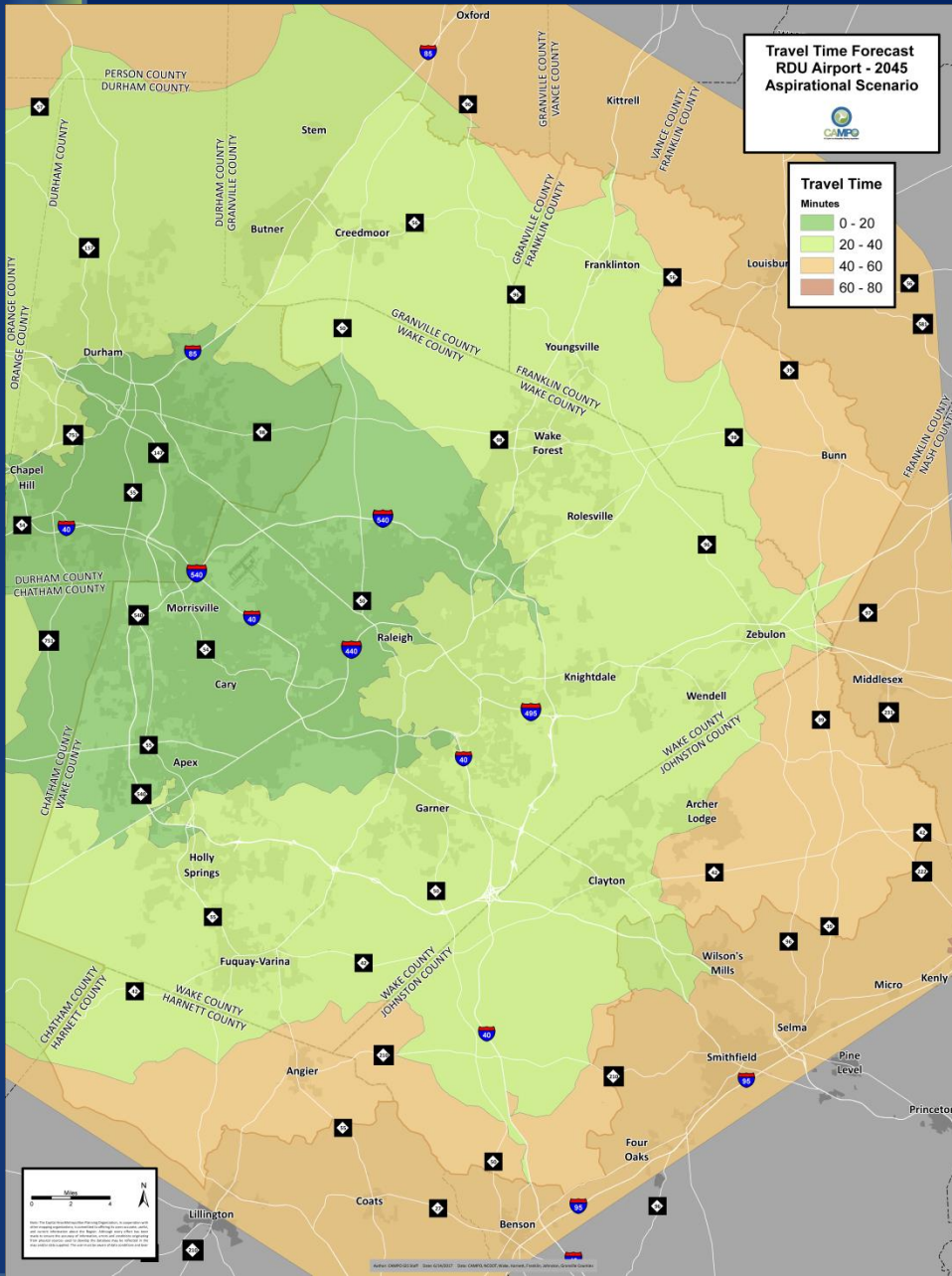
| Destination | Approx. Time |
|------------------------|--------------|
| Downtown Raleigh | 40 min. |
| Downtown Wake Forest | 1 hour |
| Downtown Knightdale | 1 hr 15 min. |
| Downtown Holly Springs | 1 hr 15 min. |

Moderate Scenario Travel Time (RDU)



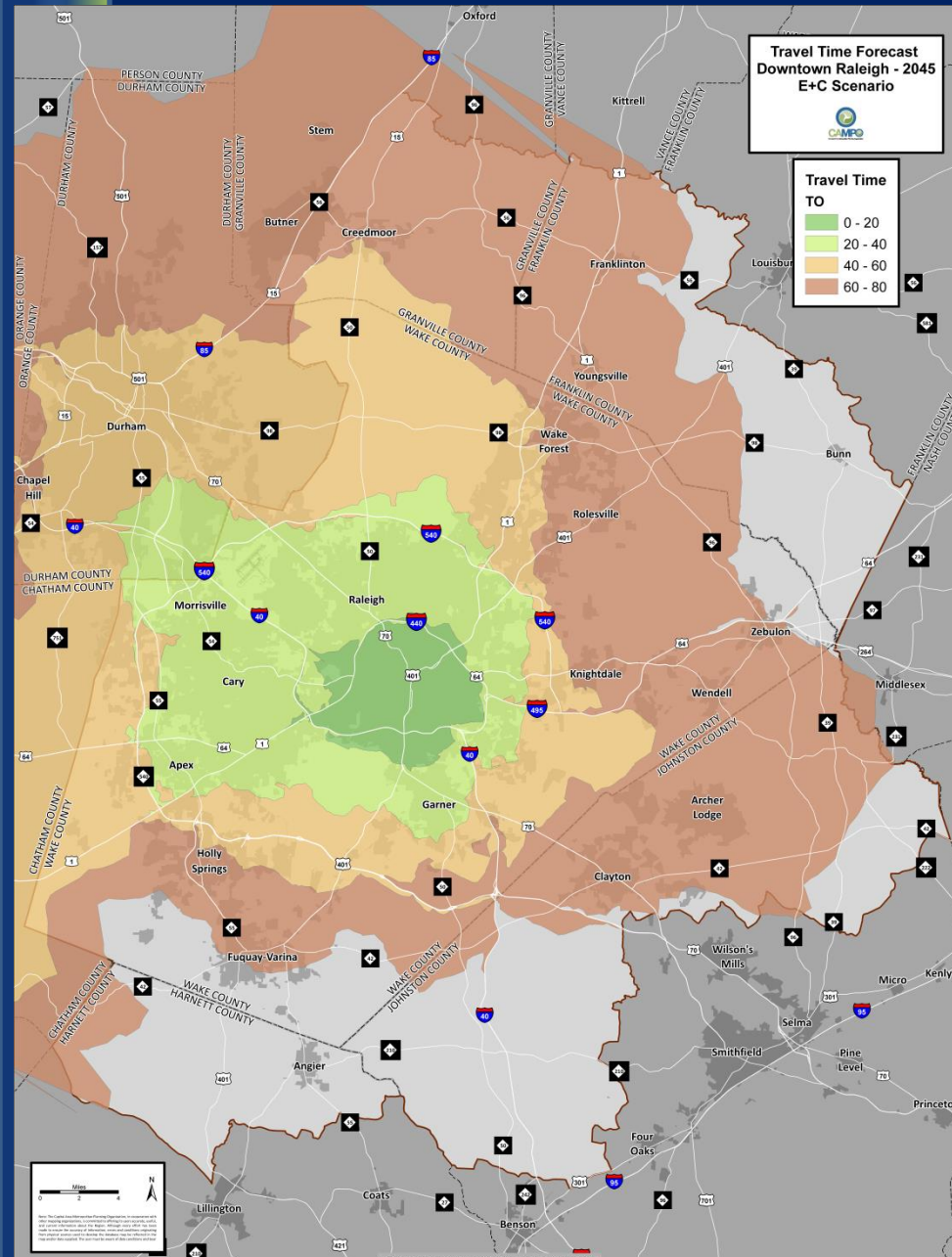
| Destination | Approx. Time |
|------------------------|--------------|
| Downtown Raleigh | 25 min. |
| Downtown Wake Forest | 40 min. |
| Downtown Knightdale | 40 min. |
| Downtown Holly Springs | 35 min. |

Aspirational Scenario Travel Time (RDU)



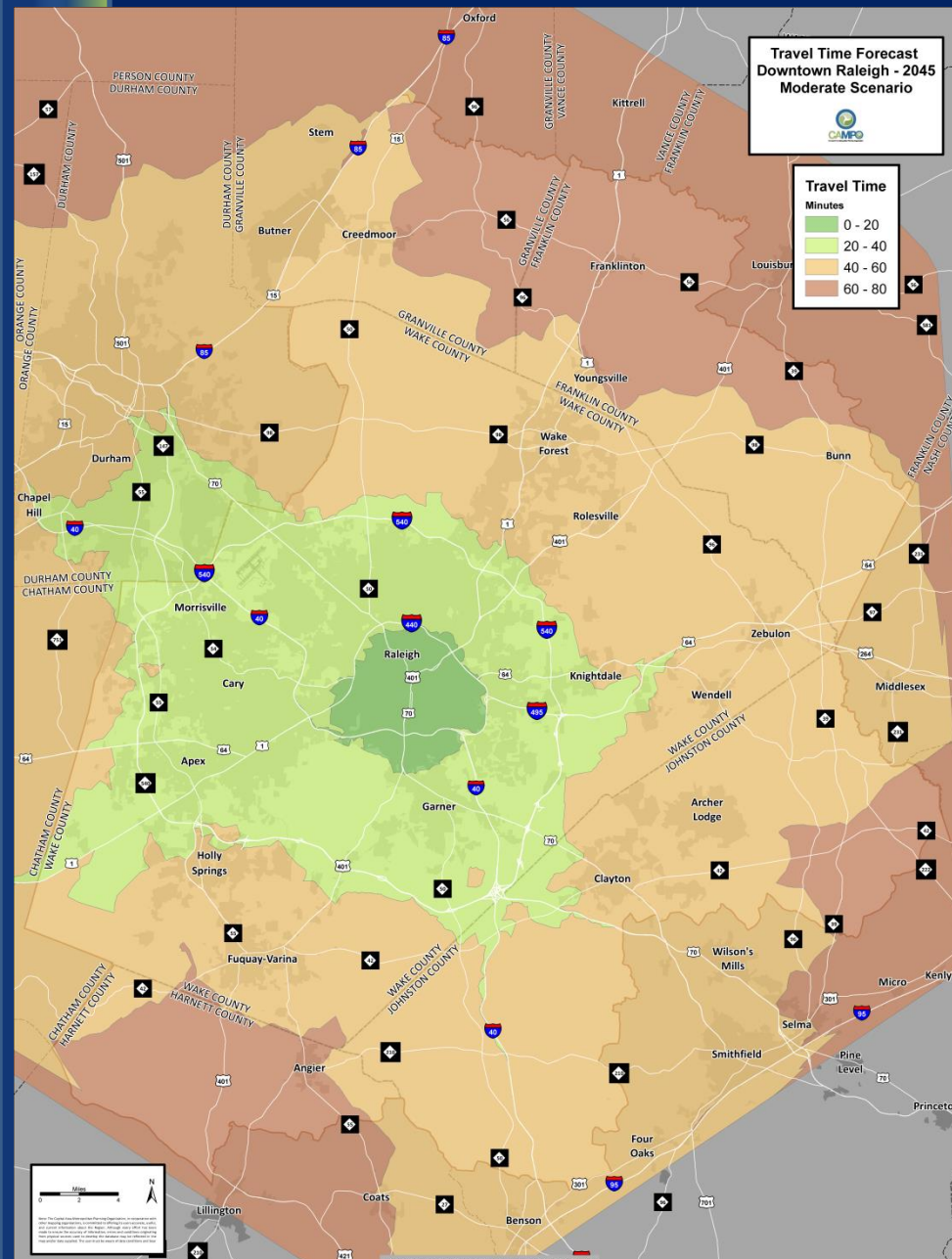
| Destination | Approx. Time |
|------------------------|--------------|
| Downtown Raleigh | 25 min. |
| Downtown Wake Forest | 35 min. |
| Downtown Knightdale | 30 min. |
| Downtown Holly Springs | 25 min. |

E + C Scenario Travel Time (Downtown Raleigh)



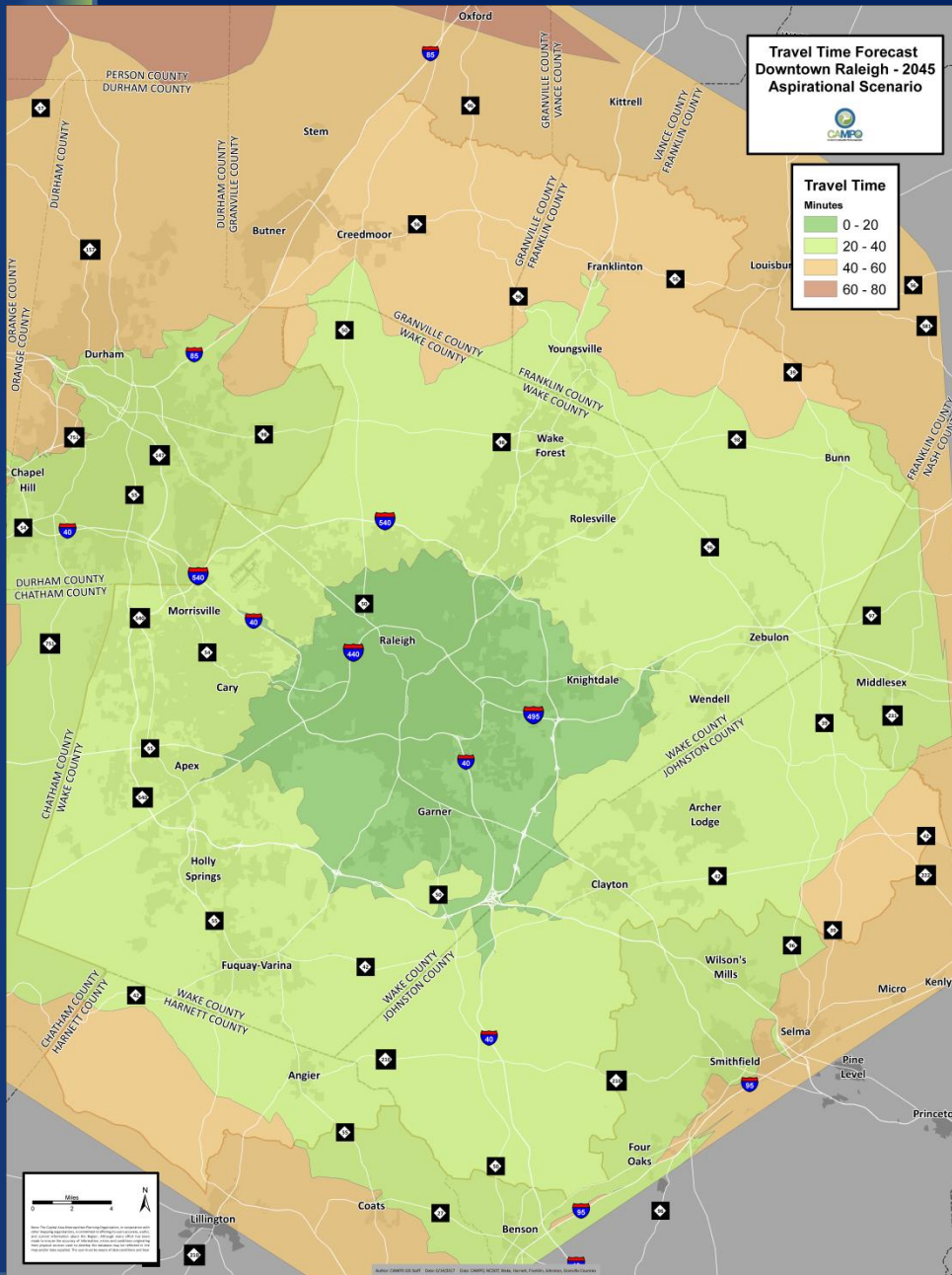
| Destination | Approx. Time |
|---------------------------|--------------|
| RDU | 40 min. |
| Downtown Wake Forest | 1 hr 10 min. |
| Downtown Knightdale | 1 hr. |
| Downtown Holly Springs | 1 hr 15 min. |

Moderate Scenario Travel Time (Downtown Raleigh)



| Destination | Approx. Time |
|------------------------|--------------|
| RDU | 40 min. |
| Downtown Wake Forest | 1 hr. |
| Downtown Knightdale | 40 min. |
| Downtown Holly Springs | 1 hr. |

Aspirational Scenario Travel Time (Downtown Raleigh)

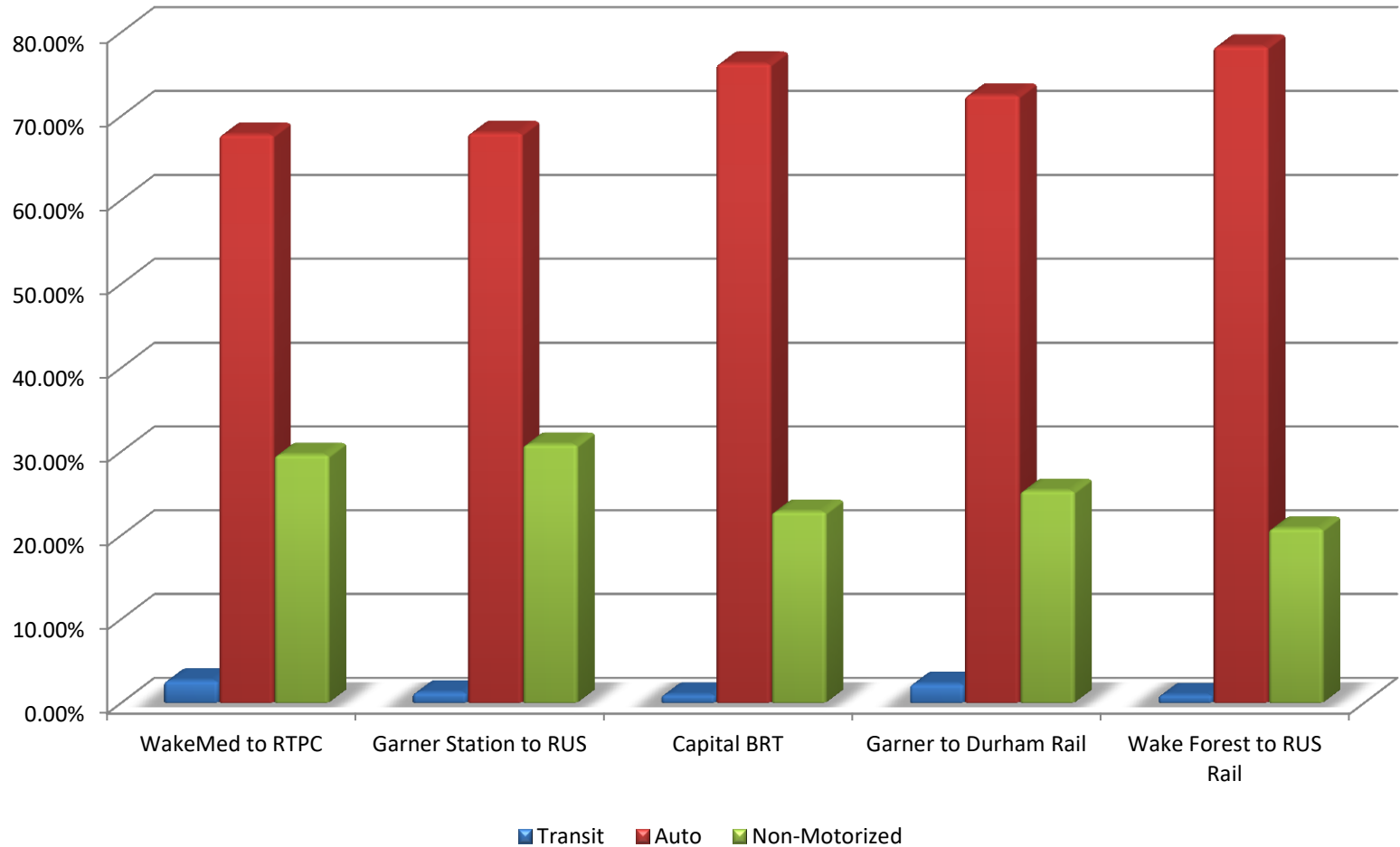


| Destination | Approx. Time |
|------------------------|--------------|
| RDU | 35 min. |
| Downtown Wake Forest | 40 min. |
| Downtown Knightdale | 25 min. |
| Downtown Holly Springs | 30 min. |

Alternatives Analysis

Moderate Scenario

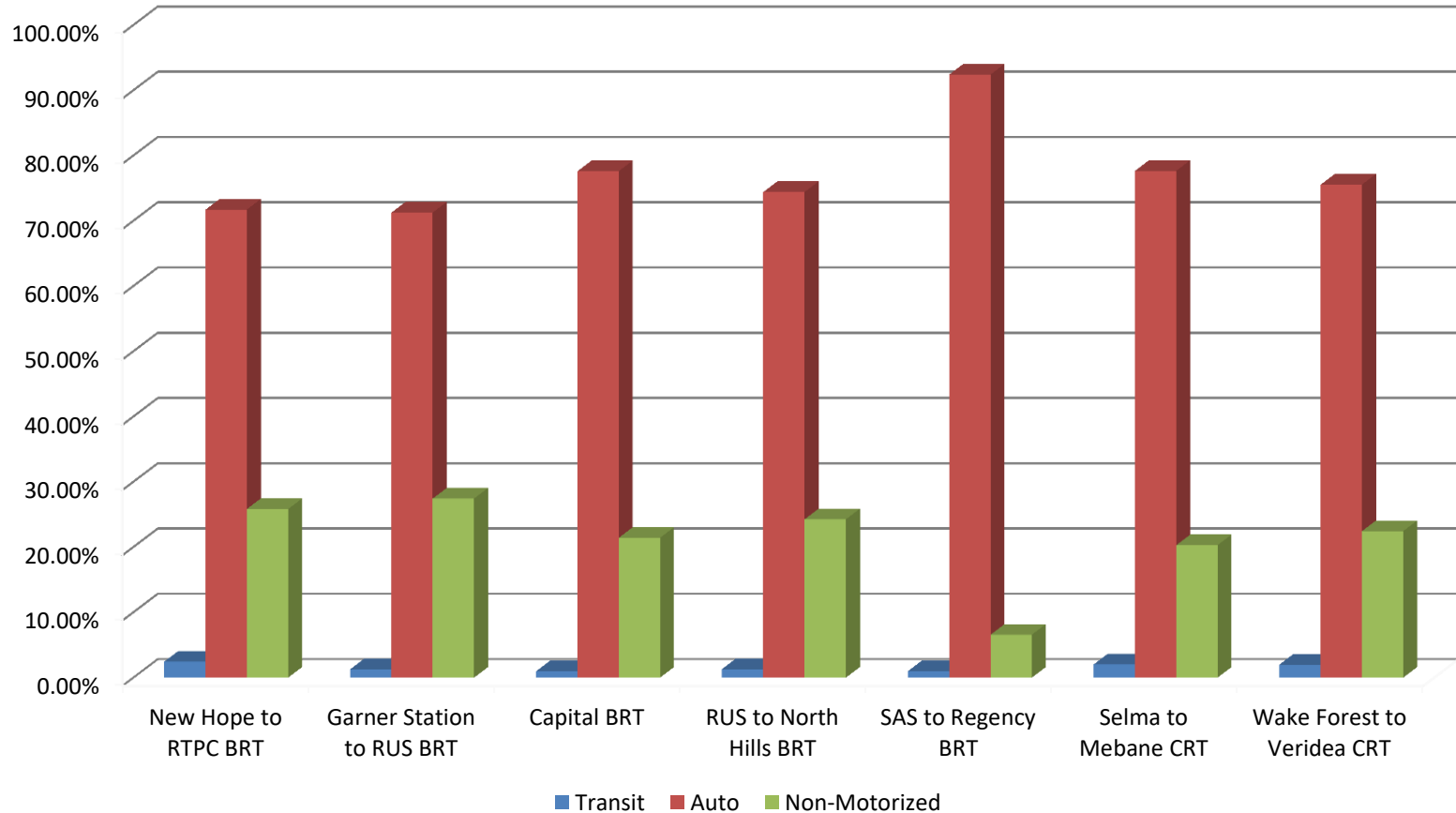
Mode Share by Major Investment Corridor



Alternatives Analysis

Aspirational Scenario

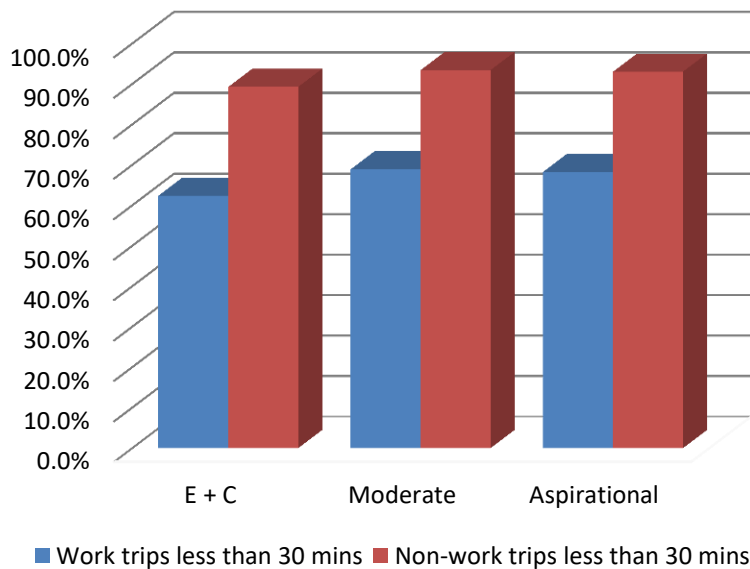
Mode Share by Major Investment Corridor



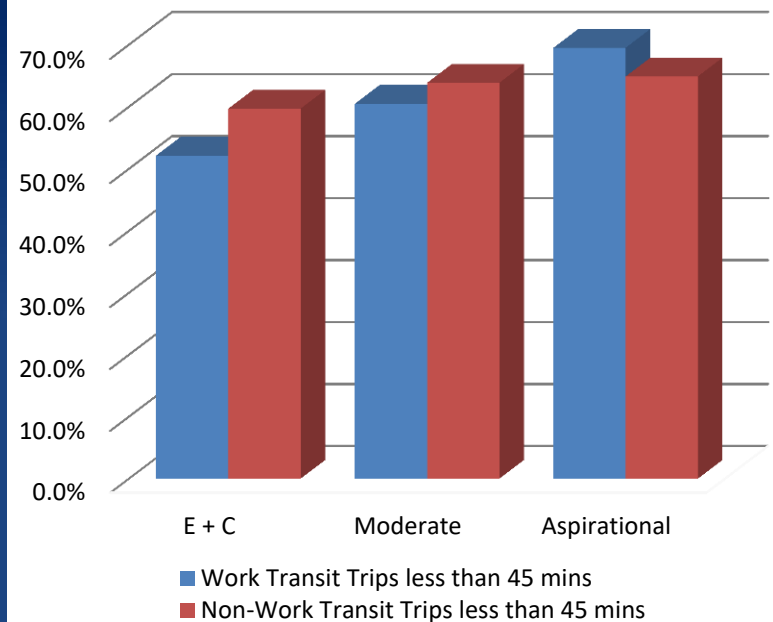
Alternatives Analysis

Comparing Alternatives

Trip Duration by Type



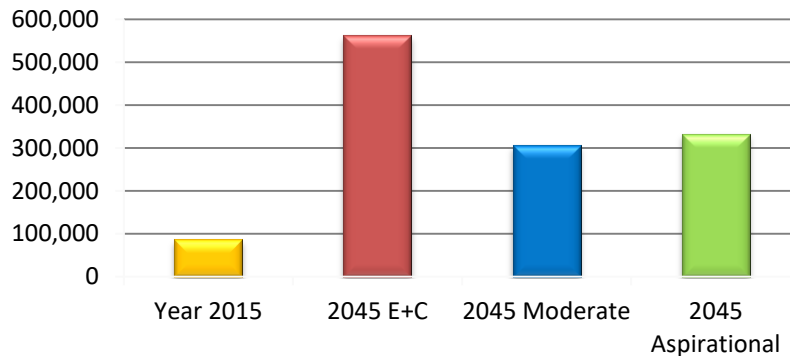
Transit Trip Duration by Type



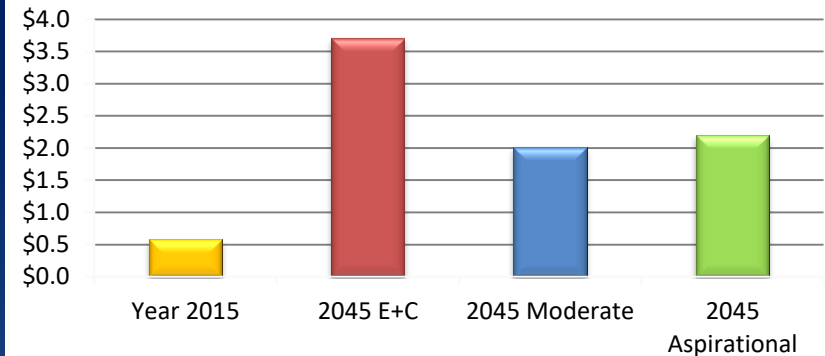
Alternatives Analysis

Comparing Alternatives

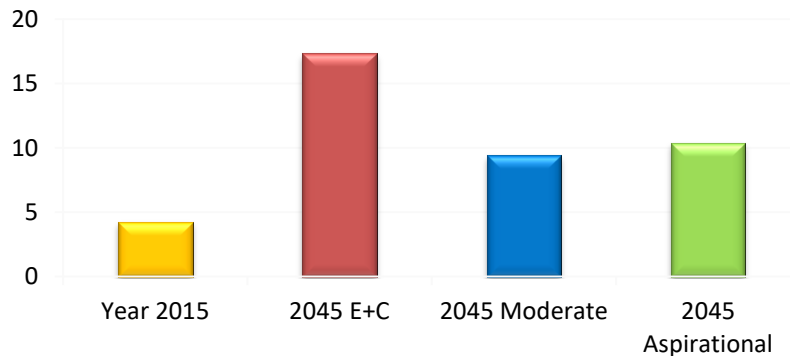
Daily Delay (hours)



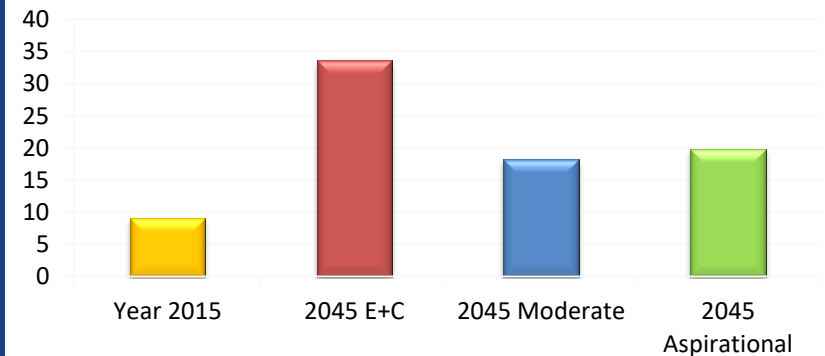
Annual Cost of Delay (\$billions)



Daily Delay per Person (mins)

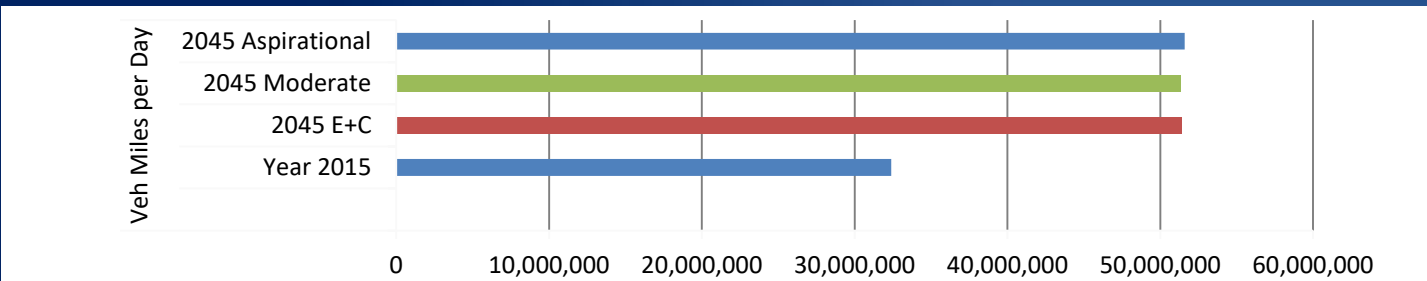
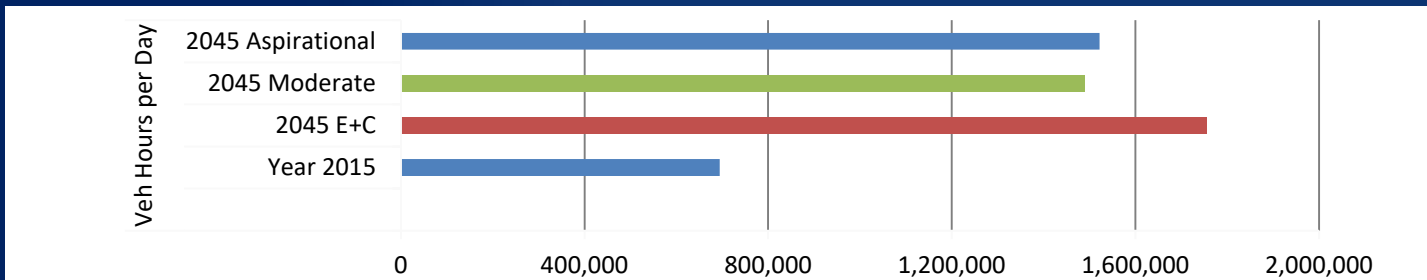
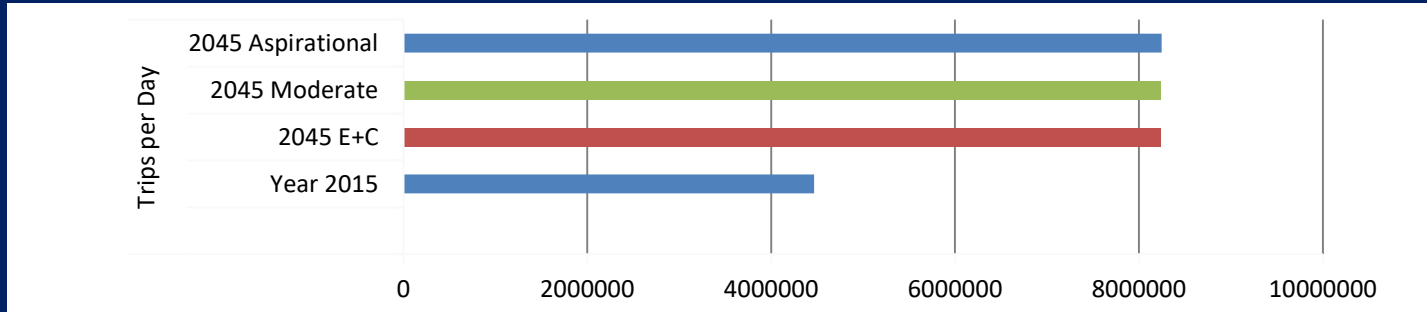


Daily Delay per Employee (mins)



Alternatives Analysis

Comparing Alternatives



Building 2045 MTP Financial Forecast

- Projected Revenues
- Projected Expenditures
- How have we done this in the past?

Previous Revenue Assumptions (2035 LRTP)

Roadway Projects:

- NCDOT revenue model for gas taxes and fees
- 4 percent/yr inflation factor (cost and revenue)
- Toll projects pay for themselves (tolls, bonds, and state gap funding)
- Local and private funding (\$1 Billion)

Bus Transit Projects:

- Computed trend for each transit system for
 - Federal/State/Local funding
 - Capital/Operations & Maintenance
 - Farebox recovery

2040 Revenue Assumptions

Roadway Projects:

- NCDOT revenue model for gas taxes and fees
- Annual inflation factor (cost and revenue)
- Toll projects estimates based on latest NCTA forecast (tolls, bonds, and gap funding if needed)
- Local and private funding

Transit Projects:

- Computed trend for each transit system for
 - Federal/State/Local funding
 - Capital/Operations & Maintenance
 - Farebox recovery

2040 MTP Revenue Forecast

Our Revenue Forecast is derived from:

- 1st Decade:
 - Draft TIP/STIP (10 yr Work Program)
- 2nd & 3rd Decades:
 - “Traditional” Federal & State Funds
 - MPO portion based NCDOT Financial Forecast
- Transit Funds
 - *Wake Transit Plan Forecast (modified)*
- Local Revenue
 - Based on Local CIPs / Development Activity

2045 MTP Revenue Forecast

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 - “Traditional” Federal & State Funds
 - MPO portion based NCDOT Financial Forecast
- Transit Funds
 - *Wake Transit Plan Forecast (modified/extended)*
- Local Revenue
 - Based on Local CIPs / Development Activity
- Potential New Revenue Assumptions

2045 MTP Revenue Forecast

Two Traditional Revenue options were explored beyond the 1st decade:

- Moderate:
 - Federal Revenues grow based on FAST Act growth
 - Regular adjustments for the gas tax rate (CPI based)
- Potential New Revenue Assumptions

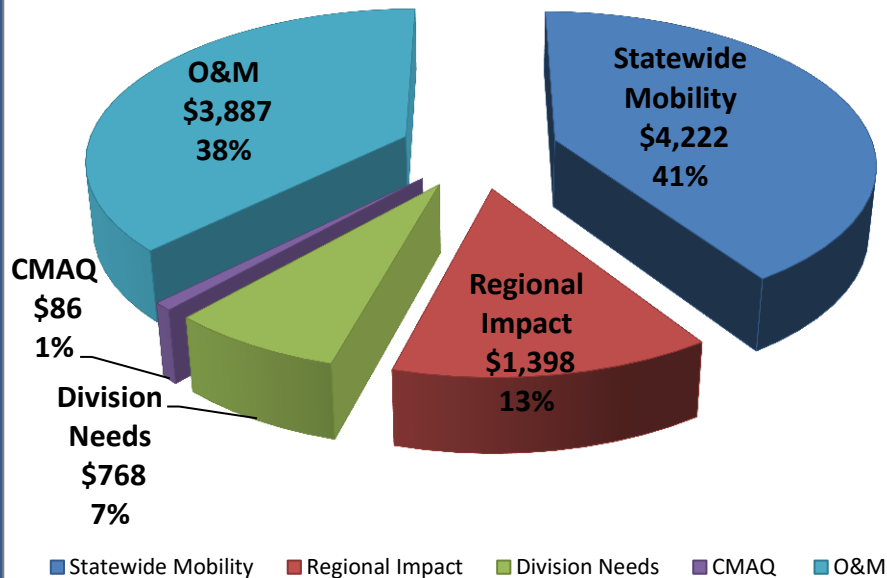
2045 MTP Revenue Forecast

Two Traditional Revenue options were explored beyond the 1st decade:

- Aspirational:
 - Builds off of the Moderate revenue assumptions
 - Future state/federal revenues increase to keep pace/extend final STIP programming levels and maintained through 2045
- Potential New Revenue Assumptions

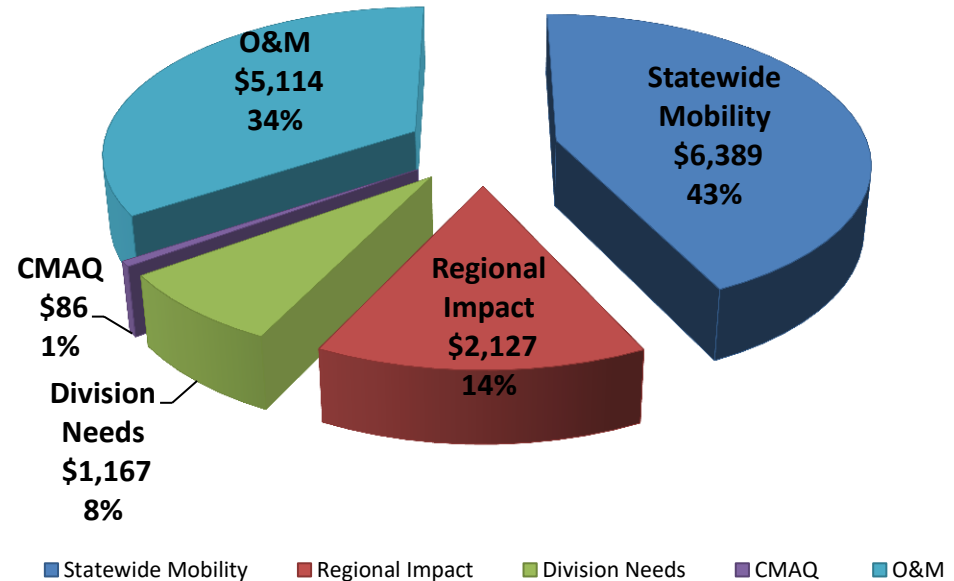
2045 Preliminary Financial Forecast (*Traditional Funding*)

Moderate



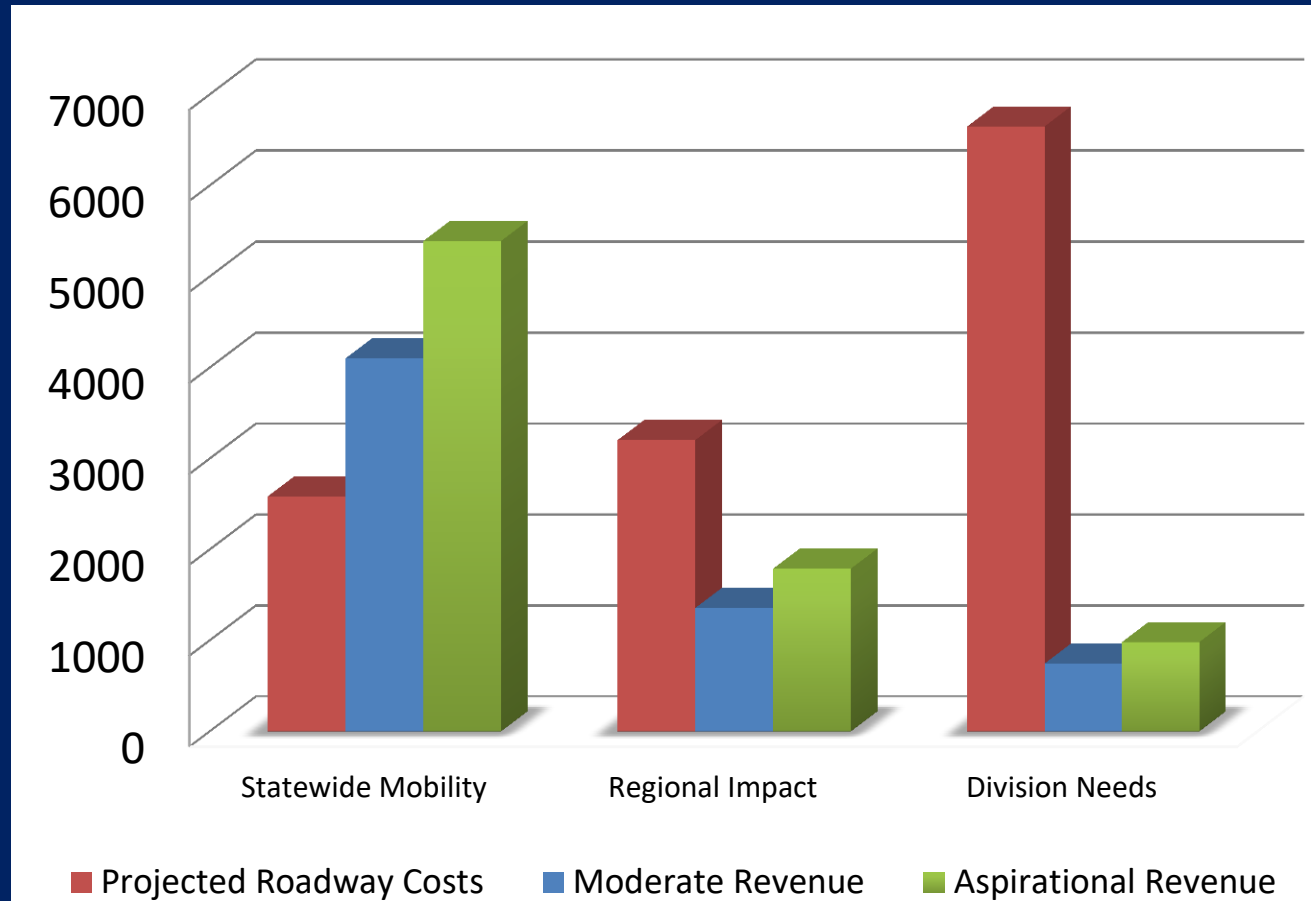
\$10.4 Billion

Aspirational



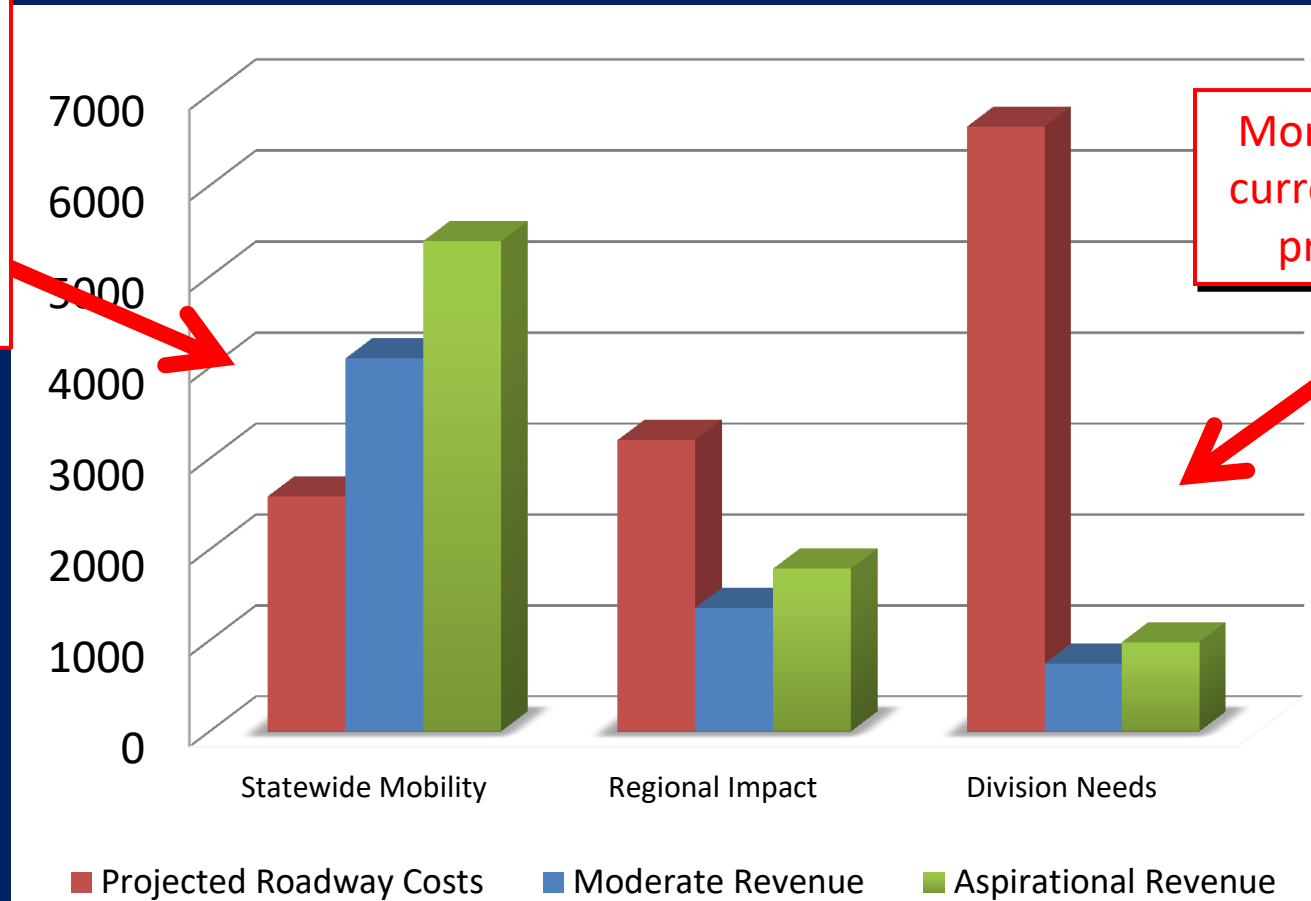
\$14.9 Billion

2045 Preliminary Revenue vs. Project Costs (Roadway)



2045 Preliminary Revenue vs. Project Costs (Roadway)

STI Revenue
is a
statewide
competition
and not
guaranteed



More cost than
current revenue
projections

CONTINUED CHALLENGES

The gap between the region's transportation needs and available funding presents several challenges that we must soon address:

- Short and long term non-traditional funding sources
- Local and regional revenue options
- Advancement of MTP projects to implementation consistent with regional goals and sustainability goals and desired schedule.
- Monitoring regional growth to ensure the Plan stays abreast of the region's needs

CONTINUED CHALLENGES

The gap between the region's transportation needs and available funding presents several challenges that we must soon address:

- Short and long term non-traditional funding sources
- **Local and regional revenue options**
- Advancement of MTP projects to implementation consistent with the air quality conformity project implementation schedule.
- Monitoring regional growth to ensure the Plan stays abreast of the region's needs

2035 LRTP “New” Revenue Sources

| ITEM | ASSUMPTION | ASSUMED NEW REVENUE by 2035 (millions) | STATUS |
|---|--|--|---|
| Sales Tax #1 | Transit ½ cent sales tax beginning in 2011 | \$1,576 | Enabling Legislation passed in 2009 |
| Car Registration Fee | \$10 increase in vehicle registration fee in 2011 - TTA increase \$5 to \$8 - Wake County \$7 new fee | \$185 | Enabling Legislation passed in 2009 |
| Sales Tax #2 | Roadway ½ cent sales tax beginning in 2016 | \$1,140 | No Enabling Legislation |
| Regional/Local/Private Support | Increased Municipal contributions for required match on specific projects | \$1,258 | Currently used for some projects |
| New Federal/State Infrastructure Program(s) | New funding for Strategic Highway Corridors. Average \$53 million/yr beginning in 2016 | \$1,060 | NC Mobility Fund beginning in 2014 (includes “Loop Projects”) |
| Finance for I-40 managed lanes | Included above | Included above | |
| Total Assumed New Revenue by 2035 (millions) | | \$5,804 | No new revenue sources have been implemented |

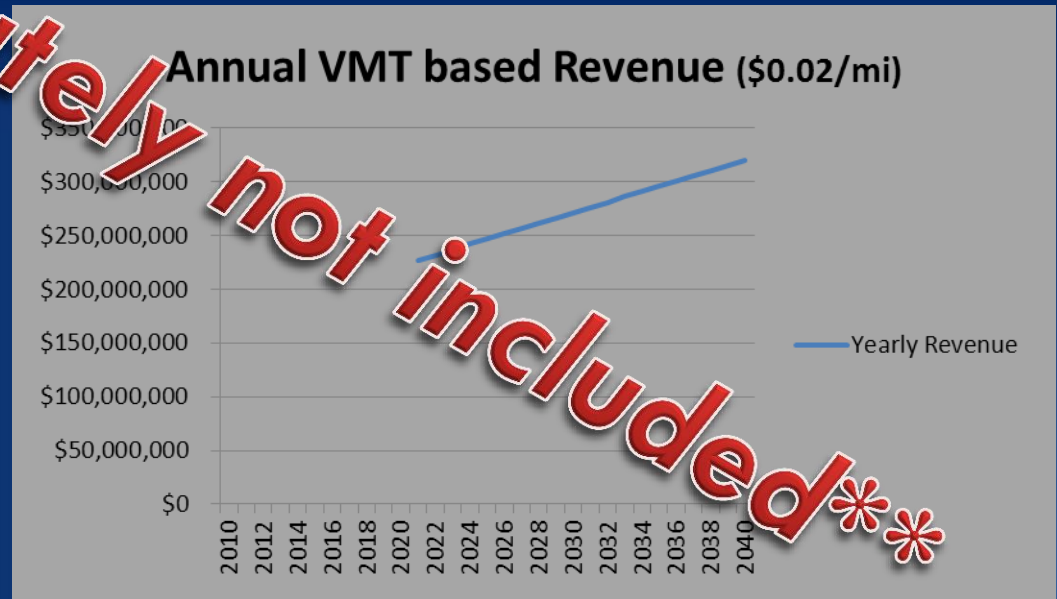
2040 MTP “New” Funding Options

| ITEM | ASSUMPTION | ASSUMED NEW REVENUE (millions in 2012 dollars) | STATUS |
|--|---|--|--|
| Wake I | Roadway 1 cent sales tax equivalent (STE) beginning in 2021-30 (Wake County) | \$466 | No Enabling Legislation |
| Wake II | Roadway 1 cent sales tax equivalent (STE) beginning in 2031-40 (Wake County) | \$836 | No Enabling Legislation |
| Johnston I | Roadway ½ cent sales tax equivalent (STE) beginning in 2031-40 (Johnston County) | \$35.7 | No Enabling Legislation |
| Harnett I | Roadway ½ cent sales tax equivalent (STE) beginning in 2031-40 (Harnett County) | \$5.5 | No Enabling Legislation |
| Granville I | Roadway ½ cent sales tax equivalent (STE) beginning in 2031-40 (Granville County) | \$2.8 | No Enabling Legislation |
| Franklin I | Roadway ½ cent sales tax equivalent (STE) beginning in 2031-40 (Franklin County) | \$7.2 | No Enabling Legislation |
| Total Assumed New Revenue 2021-40 (millions in 2012 dollars) | | \$1,354 | No new revenue sources have been implemented |

VMT Based Revenue (2021-2040)

- VMT based Revenue (2021-40)
 - Approximately \$5.4 Billion
 - \$0.02 / mile

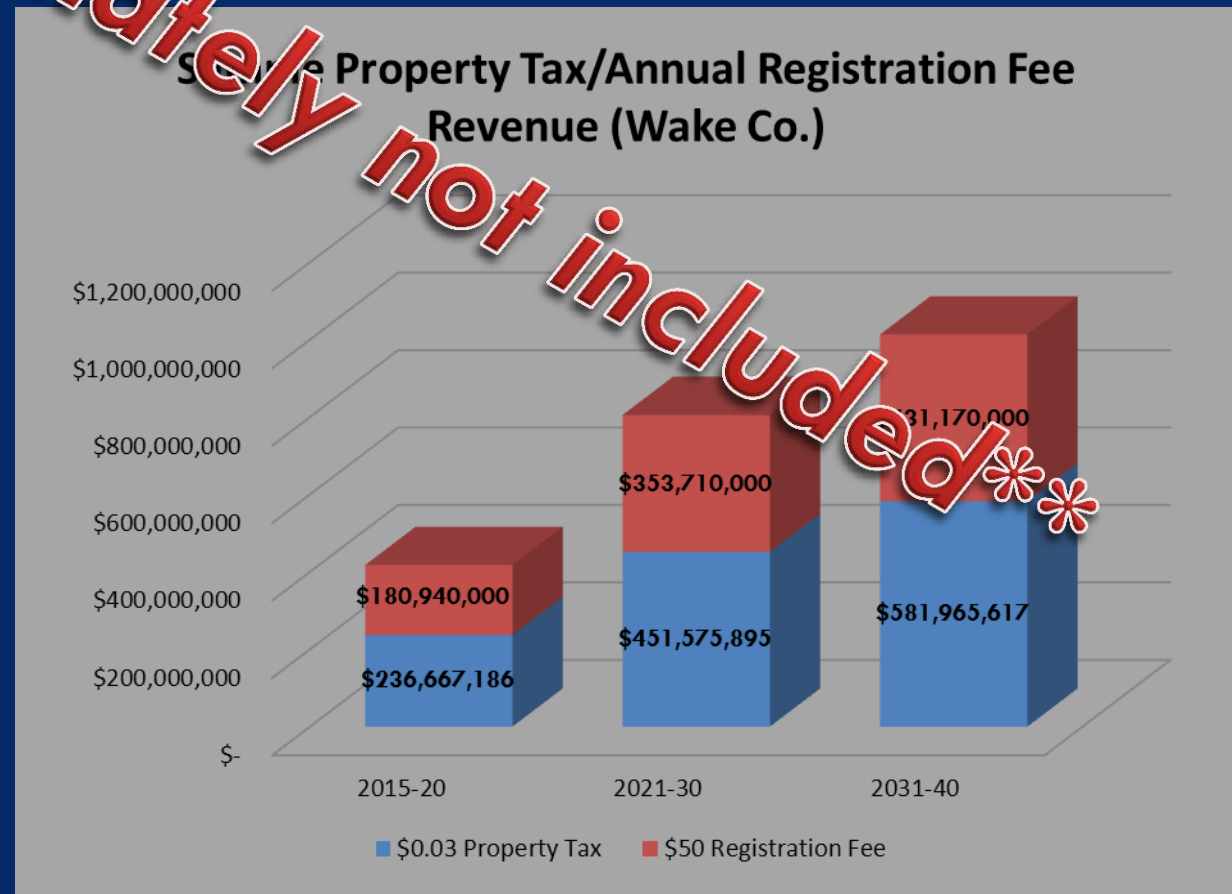
| Year | CAMPO Annual VMT |
|----------------------------------|------------------|
| 2010 | 8,643,537,000 |
| 2040 | 16,014,500,700 |
| Annual Growth (straight line) | 245,698,790 |



- *Current Gas Tax Revenue:*
 - *Approximately \$0.011 / mile (VMT Equivalent)*

Property Tax & Registration Fee Based Revenue (2021-2040)

- Wake County Example:
 - \$0.03/mil
 - -\$50 Annual Vehicle Registration Fee
 - Approx. \$2.23 Billion



What has changed for 2045 MTP?

- At the federal level (FAST ACT)
 - Funding levels and rules
 - Performance based approach
- At the state level (STI)
 - Project eligibility vs. funding availability
 - Modal & functional funding rules
- At the regional/local level
 - Updated and adopted Wake Transit Plan
 - Local funding

Sales Tax Equivalent (STE) Options

| CAMPO Portion Only | 1/2 Cent STE | 1 Cent STE |
|---|-----------------------|-----------------------|
| Franklin County | | |
| 2026-35 | \$ 15,276,389 | \$ 30,552,778 |
| 2036-45 | \$ 14,488,984 | \$ 28,977,968 |
| <i>2nd & 3rd Decade Total</i> | \$ 29,765,373 | \$ 59,530,746 |
| Granville County | | |
| 2026-35 | \$ 9,253,334 | \$ 18,506,668 |
| 2036-45 | \$ 8,776,381 | \$ 17,552,762 |
| <i>2nd & 3rd Decade Total</i> | \$ 18,029,715 | \$ 36,059,430 |
| Harnett County | | |
| 2026-35 | \$ 10,750,914 | \$ 21,501,828 |
| 2036-45 | \$ 10,039,597 | \$ 20,079,195 |
| <i>2nd & 3rd Decade Total</i> | \$ 20,790,512 | \$ 41,581,023 |
| Johnston County | | |
| 2026-35 | \$ 59,592,047 | \$ 119,184,094 |
| 2036-45 | \$ 54,683,594 | \$ 109,367,189 |
| <i>2nd & 3rd Decade Total</i> | \$ 114,275,641 | \$ 228,551,283 |
| TOTAL | \$ 182,861,241 | \$ 365,722,483 |

Sales Tax Equivalent (STE) Options

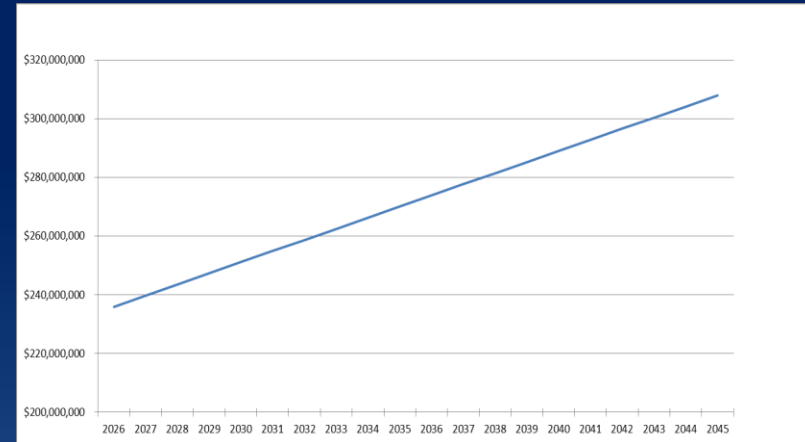
| Wake County | 1/2 Cent STE | 1 Cent STE |
|--------------|-------------------------|-------------------------|
| 2026-35 | \$ 1,361,353,717 | \$ 2,831,615,730 |
| 2036-45 | \$ 1,964,914,887 | \$ 3,594,144,604 |
| TOTAL | \$ 3,326,268,604 | \$ 6,425,760,334 |

VMT Based Revenue (2026-2045)

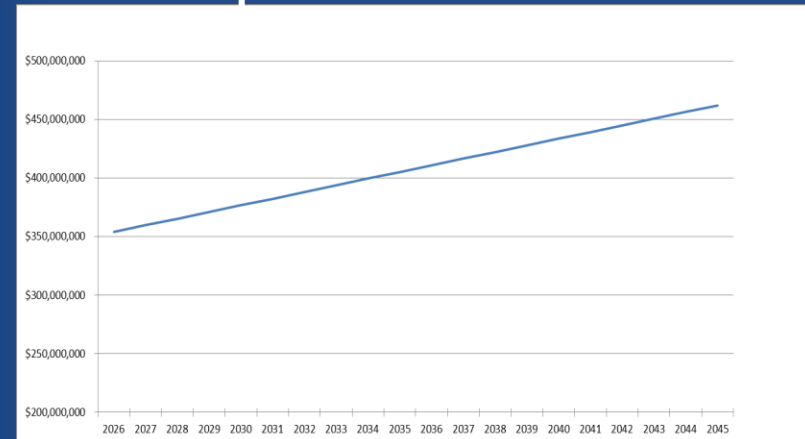
Several different assumptions could be made:

- Replacement of current gas tax based system
 - Replacement revenue needed for the 2045 MTP scenarios:
 - Moderate - Approximately \$10.33 Billion (\$0.038 / mile)
 - Aspirational- Approximately \$14.96 Billion (\$0.055 / mile)
- VMT revenue source in addition to gas tax
 - \$0.01 per VMT = \$1.265 Billion Revenue (2026-35)
 - \$0.01 per VMT = \$1.454 Billion Revenue (2036-45)

Moderate Scenario VMT



Aspirational Scenario VMT



5.3 2045 Metropolitan Transportation Plan Update

- Evaluating the Alternatives
 - Volume/Capacity (congestion)
 - Volume
 - Delay
 - Difference between how fast you want to go and how fast you can go
 - Measures the impact of both V/C and Volume
 - Transit Service, Accessibility, Ridership
- Moving from Alternatives to Preferred Plan
 - Identifying alternative to advance
 - Measuring project impacts
 - General prioritization
 - Applying fiscal constraint

Upcoming MTP Milestones

| Item | Anticipated Updates |
|--|------------------------|
| Alternatives Analysis Review | April – August 2017 |
| Revenue Forecast Updates | April - August 2017 |
| Preliminary Draft Financial Plan | August/September 2017 |
| Public Involvement (Preferred Alternative) | September/October 2017 |
| “Final” Draft Plan | September/October 2017 |
| Public Hearing | October/November 2017 |
| Adopt 2045 Plan | November/December 2017 |

Requested Action:

Receive as information. Consider recommendation of scenario to move forward for preferred scenario development

8. Informational Items: Budget

8.1: Member Shares - FY 17

8.2: Operating Budget - FY 17

Requested Action:

Receive as information

9. Information Item: Project Updates

- ### 9.1
- Hot Spot Program
 - Transit Systems Planning
 - Regional Freight Plan Study
 - (SRTS) John Rex Endowment Grant Award Update
 - NC Non-Motorized Volume Data Program- Phase II Region Roll-out
 - Triangle Tolling Study
 - NC 98 Corridor Study
 - Rolesville Main Street Study

Requested Action:
Receive as information

10. Information Item: Staff Reports

- MPO Director, Chris Lukasina
- TCC Chair
- NCDOT Transportation Planning Branch
- NCDOT Division 4
- NCDOT Division 5
- NCDOT Division 6
- NCDOT Rail Division
- NC Turnpike Authority

Requested Action:

Receive as information

Upcoming Events

| Date | Event |
|-------------------------------|-------------------------------|
| Aug. 16, 2017 – 4:00 – 6:00 | Executive Board |
| Sept. 7, 2017 – 10:00 – 12:00 | TCC |
| Sept. 20, 2017 – 4:00 – 6:00 | Executive Board |
| Oct. 5, 2017 – 10:00 – 12:00 | TCC |
| Oct. 17 – 20, 2017 | National AMPO Savannah, GA |
| Oct. 18, 2017 – 4:00 – 6:00 | Executive Board |

11.

ADJOURN