

# Legislative Study Commission on Urban Growth & Infrastructure

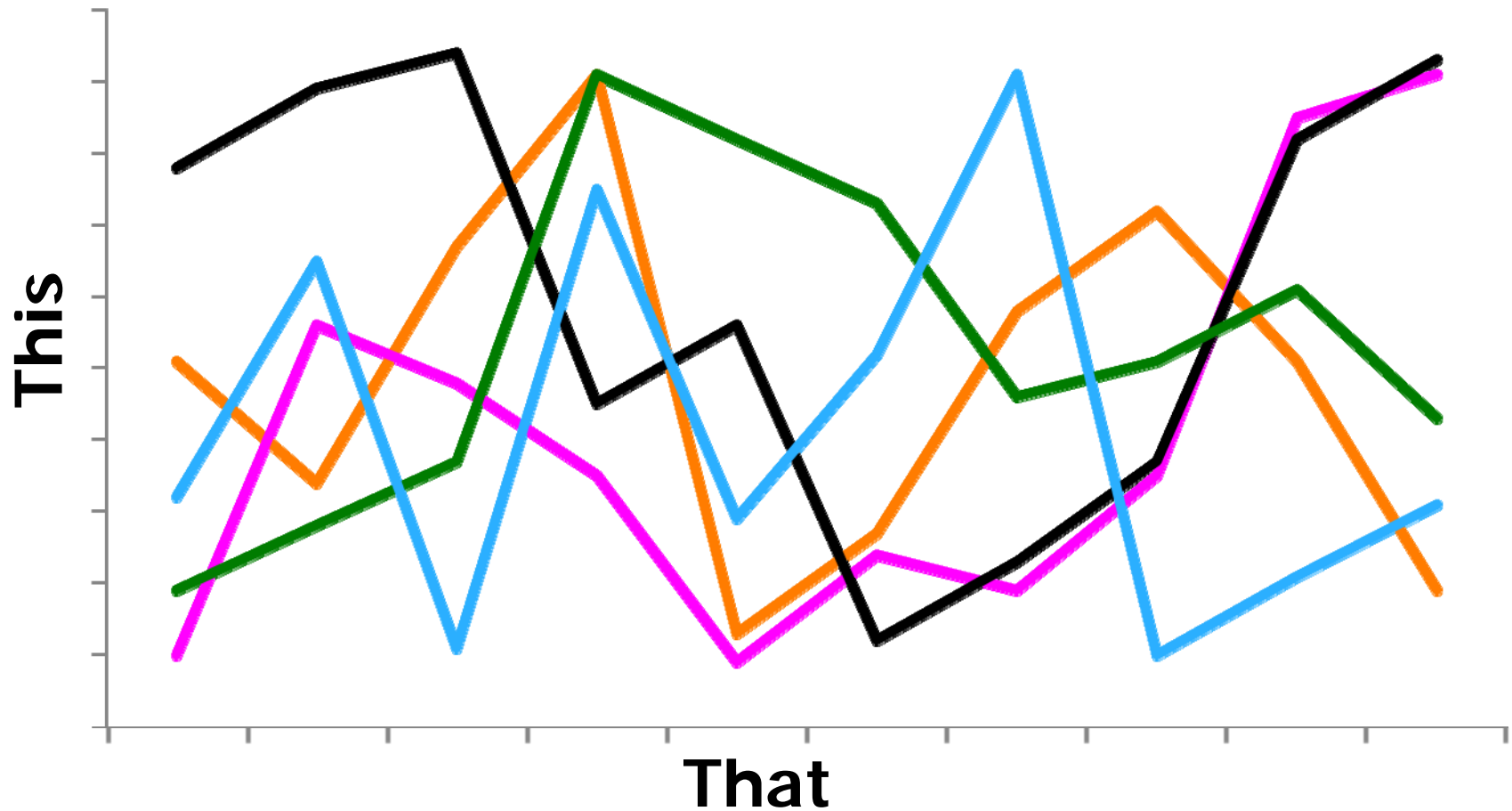
John Hodges-Copple  
Triangle J Council of Governments

January 26, 2009

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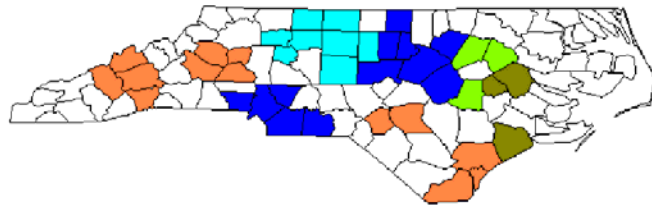
# When People With Engineering Degrees Use PowerPoint



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# The Slide for Blackberry Addicts

- ❖ Even in tough times, NC metro areas have crucial assets to harness
- ❖ Larger trends position NC metro areas well for the future



- ❖ North Carolina is changing and our economy requires metro areas to meet challenges and compete

- ❖ Decisions about infrastructure have far-reaching influence
- ❖ 2009-10 can be a critical time for deciding urban infrastructure issues



**Economy:  
“The Management of the Household”**



# *Future Economic Success Depends on Harnessing Four Assets* – Brookings Institute



human  
capital



innovation



quality  
of place



infrastructure

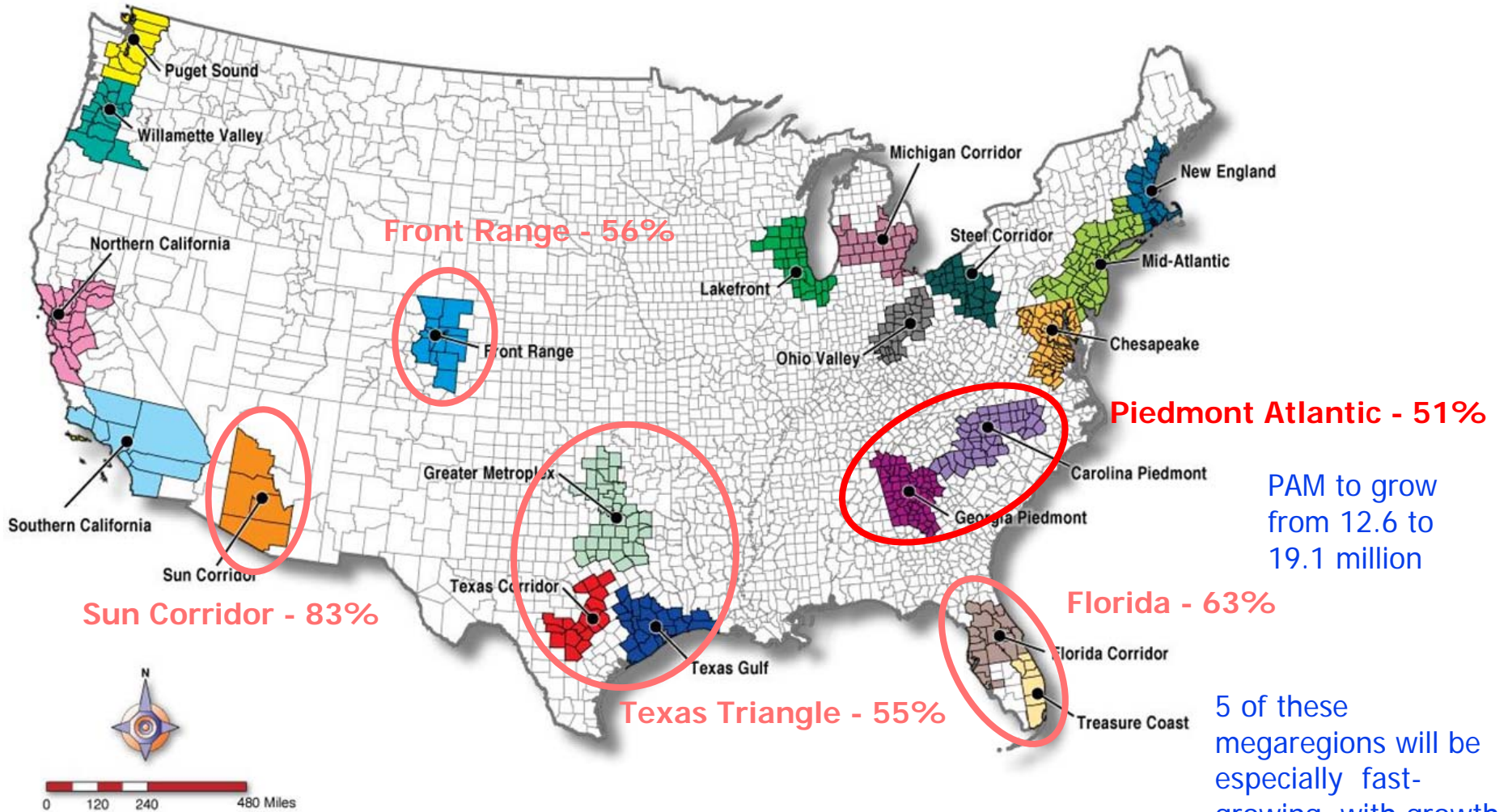
- transportation
- water



"US remains the top nation for embracing diversity, stressing tolerance, and providing opportunity." -- Bruce Katz, Brookings Institute

# Megaregions

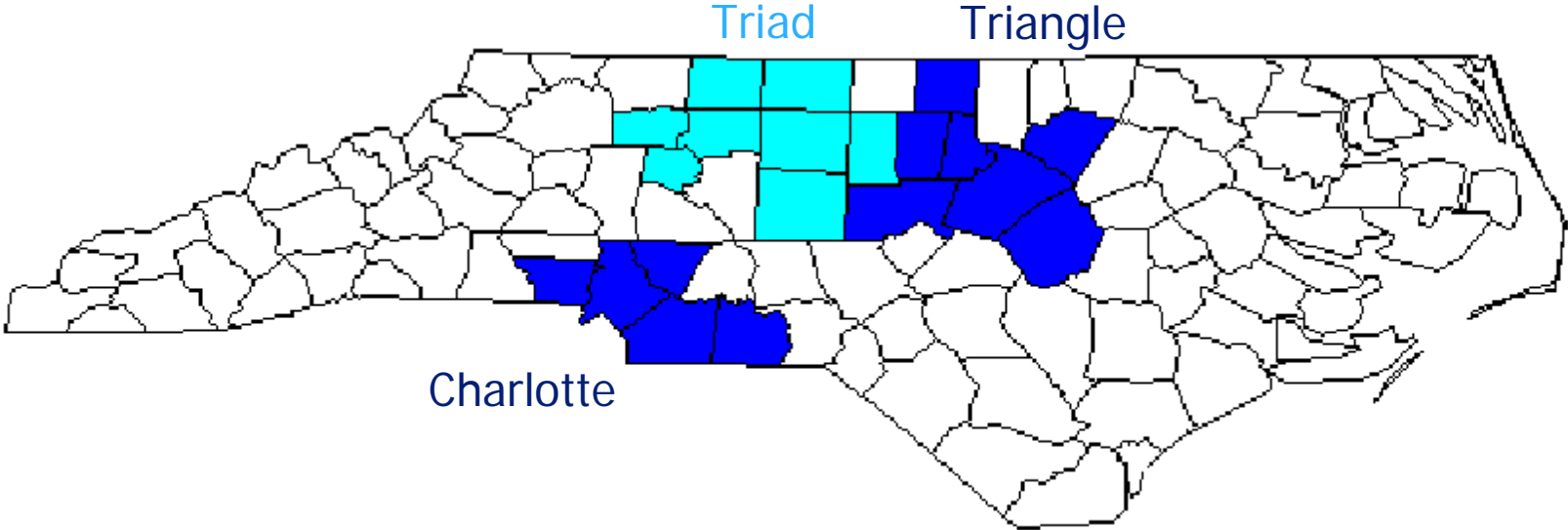
Megaregions will account for 2/3 of U.S. growth between 2000 and 2030



PAM to grow from 12.6 to 19.1 million

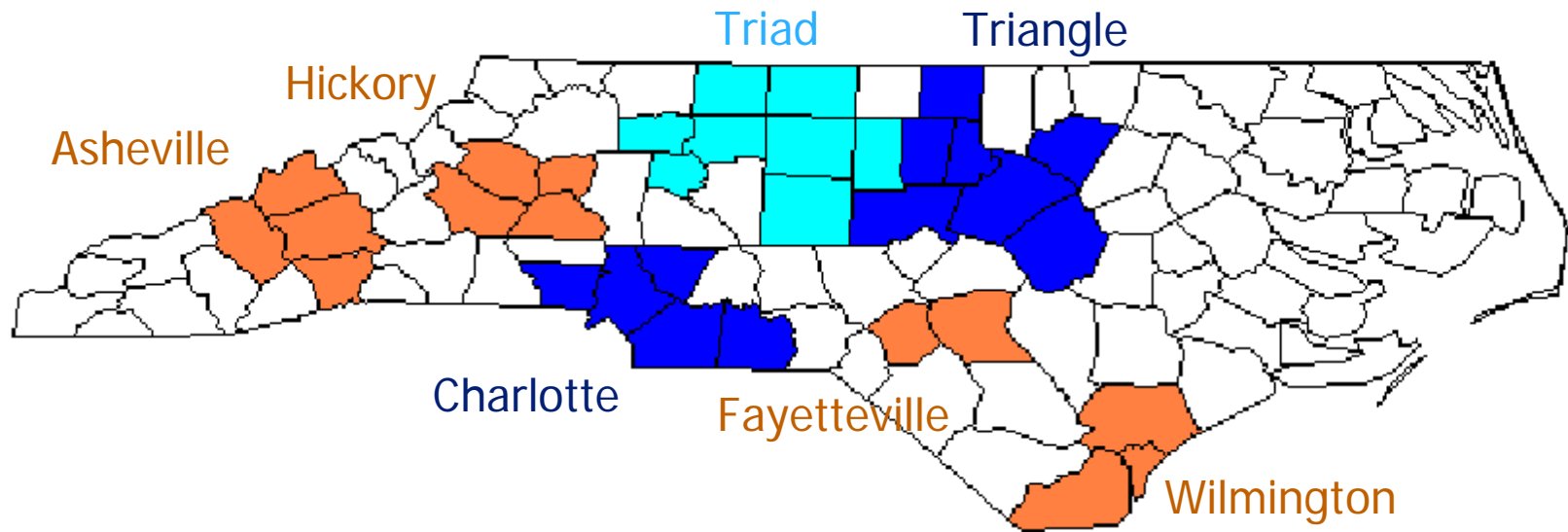
5 of these megaregions will be especially fast-growing, with growth exceeding 50%

# North Carolina's Metro Regions



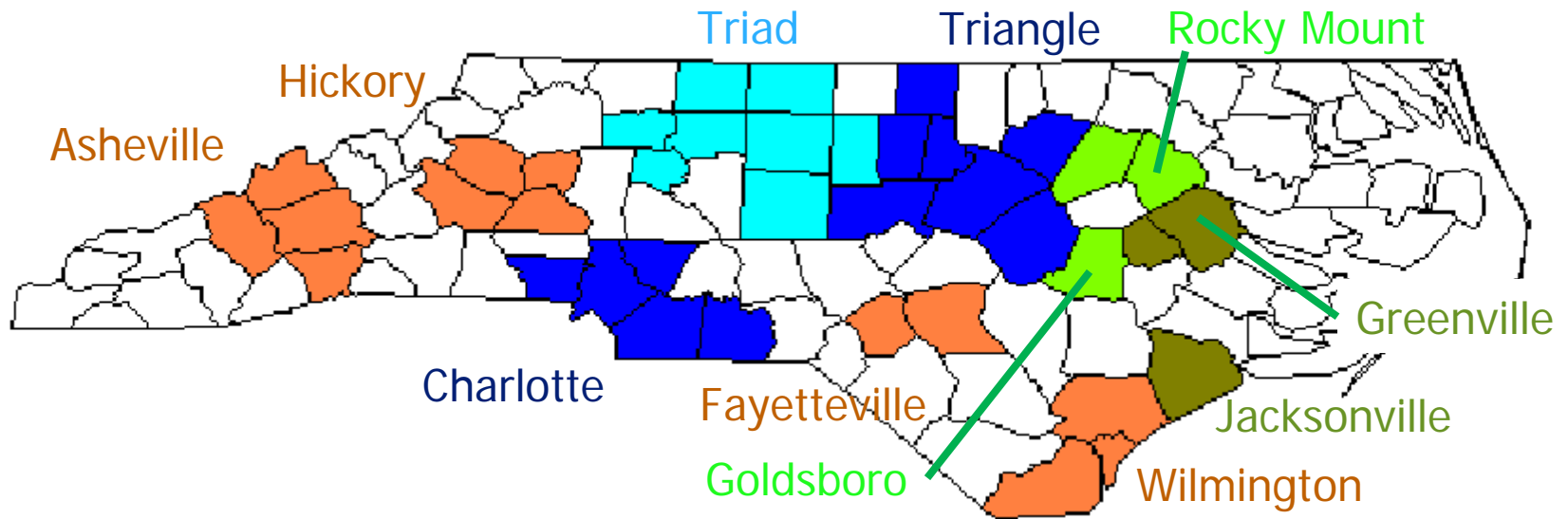
NC Metros	Regions	Population	# of NC counties
Big 3	Charlotte, Triangle, Triad	1.5 million+	5 to 8

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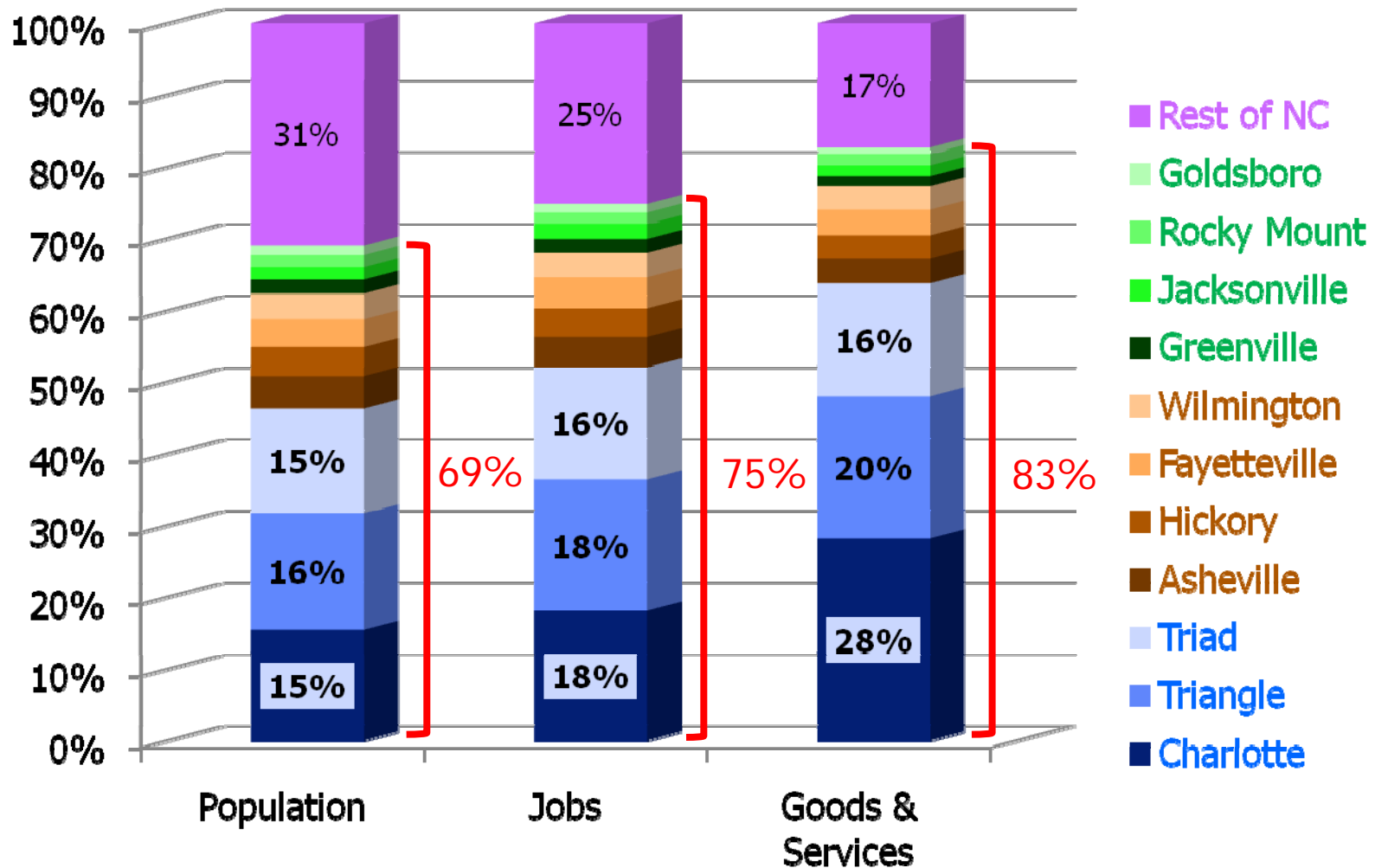
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Advancing 4	Asheville, Hickory, Fayetteville, Wilmington	300,000-400,000	2 to 4

# North Carolina's Metro Regions



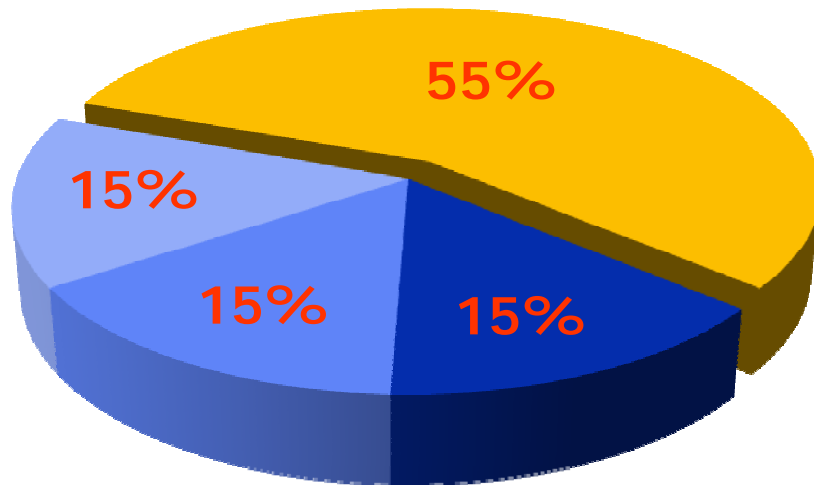
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Big 3	Charlotte, Triangle, Triad	1.5 million+	5 to 8
Advancing 4	Asheville, Hickory, Fayetteville, Wilmington	300,000-400,000	2 to 4
Emerging 4	Greenville, Jacksonville, Rocky Mount, Goldsboro	100,000-200,000	1 or 2

# Metropolitan Measures in North Carolina



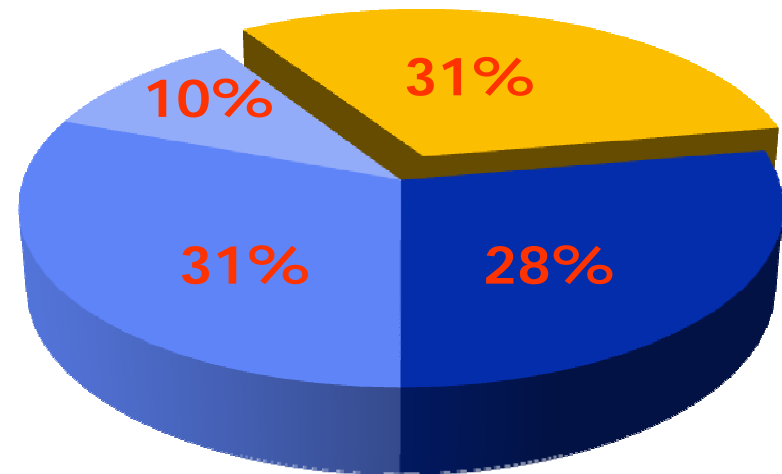
# Future growth is forecast to be even more concentrated in metro areas, especially in the "Big 3"

Distribution of NC Population in 2000



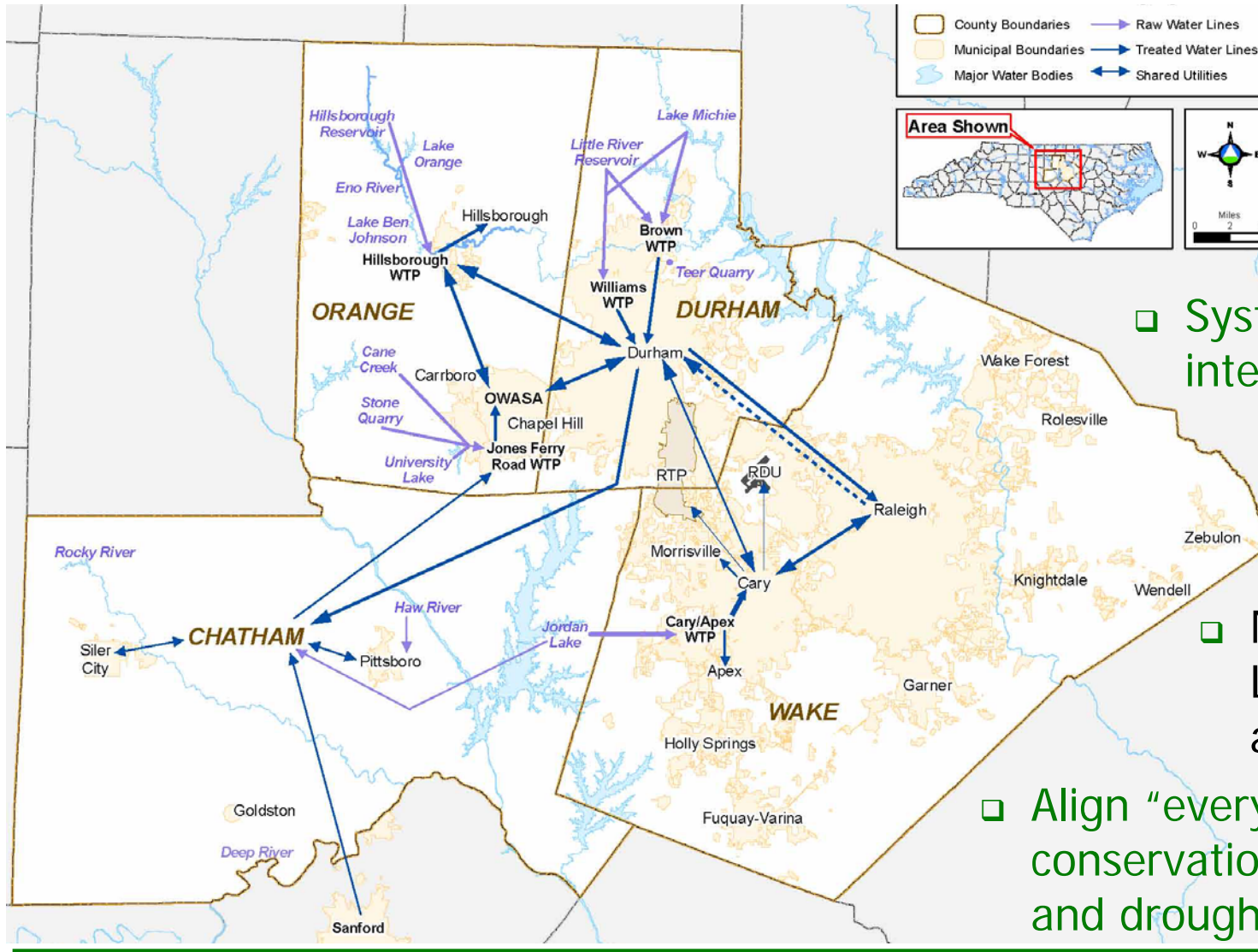
■ Charlotte  
■ Triangle  
■ Triad  
■ Rest of NC

Distribution of NC Population *added* between 2000 and 2030



■ Charlotte  
■ Triangle  
■ Triad  
■ Rest of NC

# Urban Challenge: Water Infrastructure

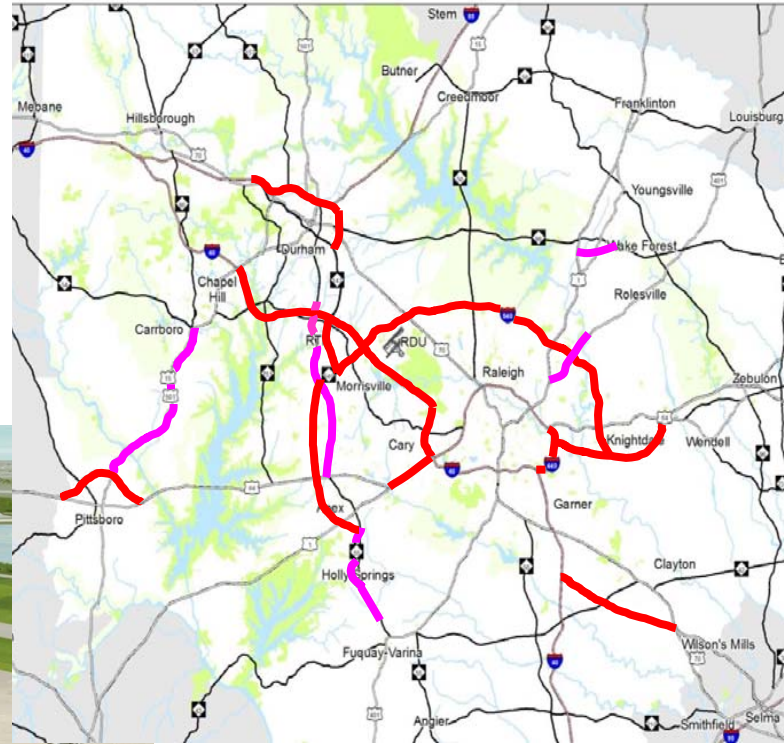


□ System interconnections

□ New Jordan Lake intake and allocation

□ Align “everyday” conservation measures and drought response

# Urban Challenge: Transportation Infrastructure



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# Transportation is a means, not an end



# Transportation is a means, not an end ... but the “end” may be complex

## ❖ Transit Investment #1

- ❑ annual financial losses more than expected
- ❑ ridership declined in 2007 to lowest level ever
- ❑ elected official: “It goes from no place to nowhere”



Tampa Streetcar:  
\$63 million project supports \$2 billion in development:  
“payoff” of \$32 for each \$1 invested.

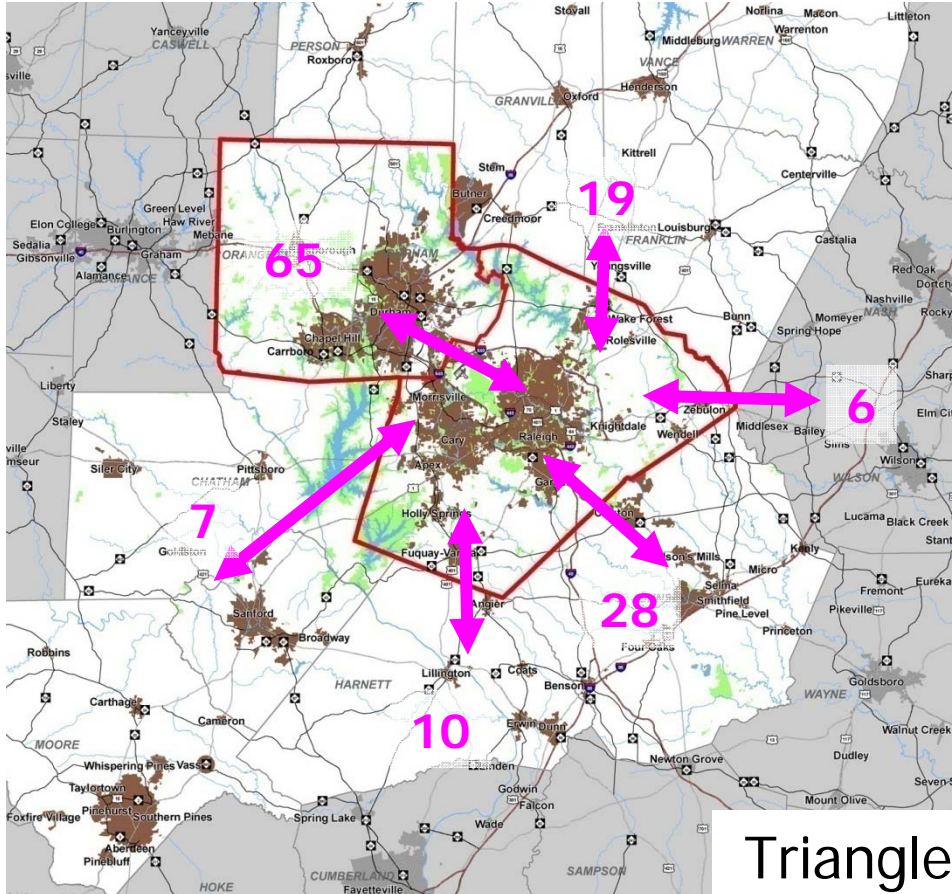
## ❖ Transit Investment #2

- ❑ \$450 million in new corridor development on the ground, \$450 million being built and \$1 billion in planning stages
- ❑ developer: “It’s a big plus”

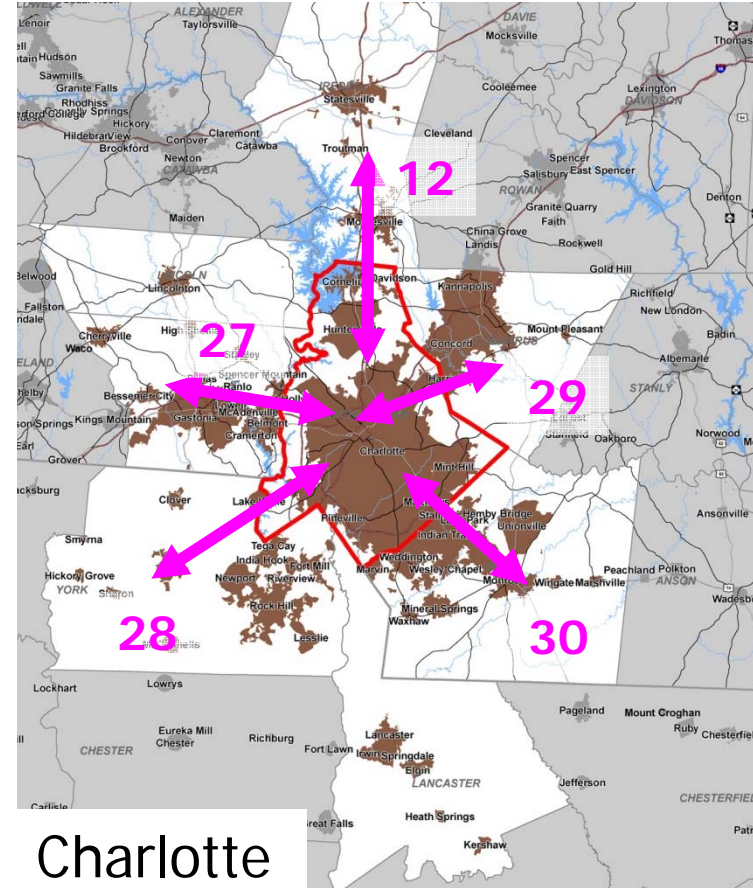


# Travel Patterns Differ By Region

(commuting flows in thousands)



Triangle

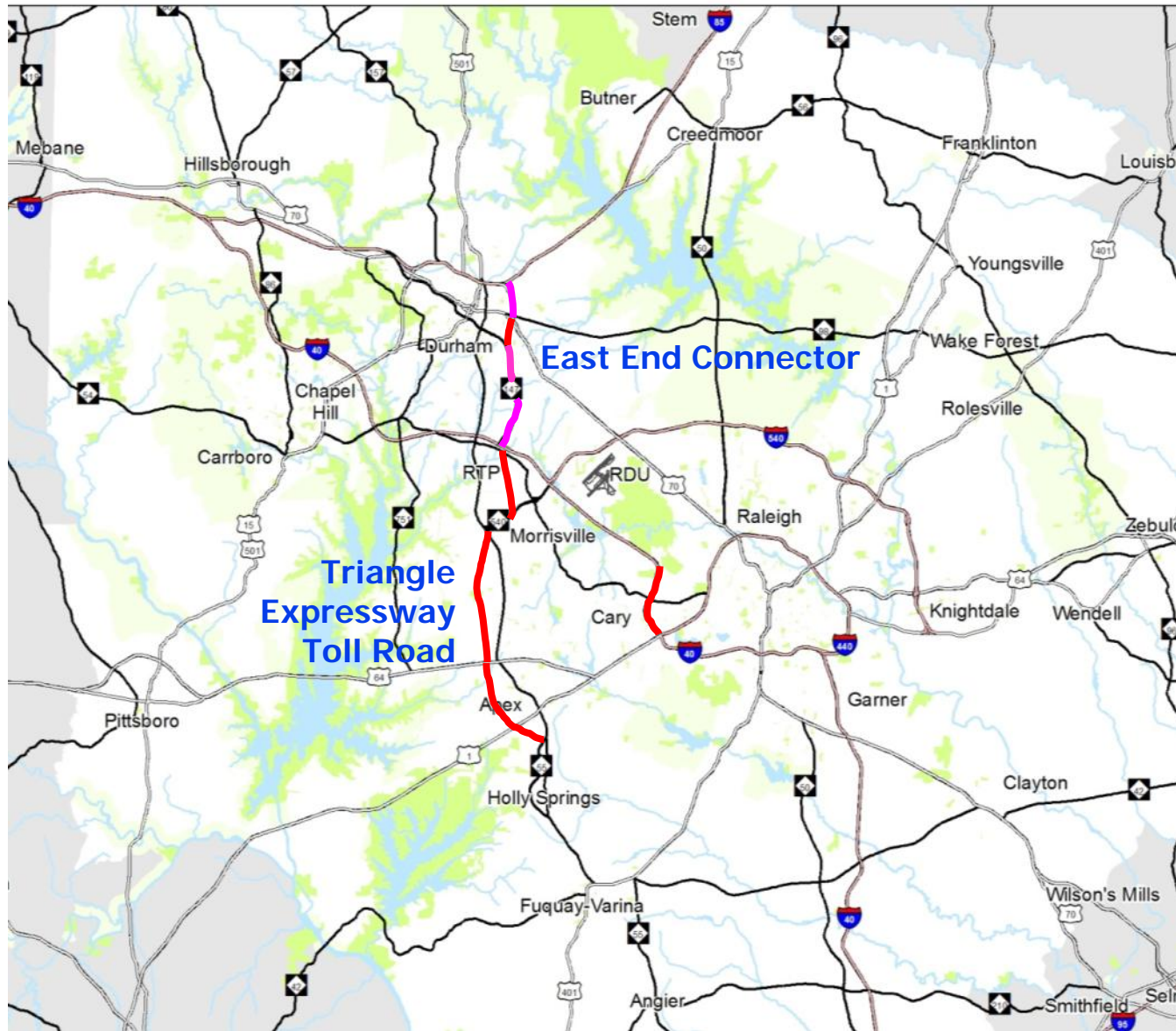


Charlotte

*2000 Census journey-to-work*

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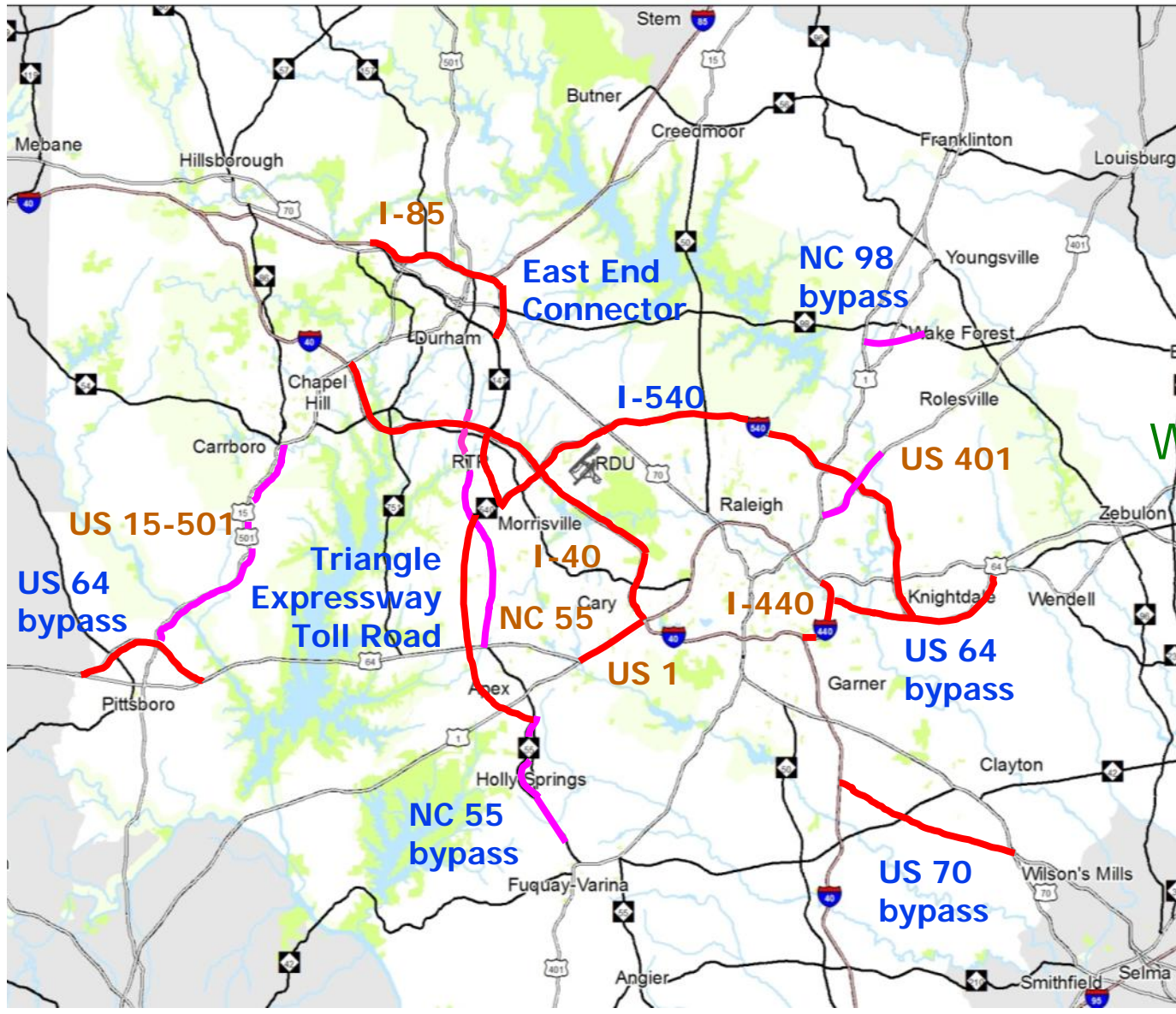
# Metro Road Connections

- The East End Connector and Triangle Expressway Toll Road will add another major grade-separated facility, at a cost of over \$1 billion.
- Widening I-40 in Cary will unclog a bottleneck.

— New projects                      — Existing highway

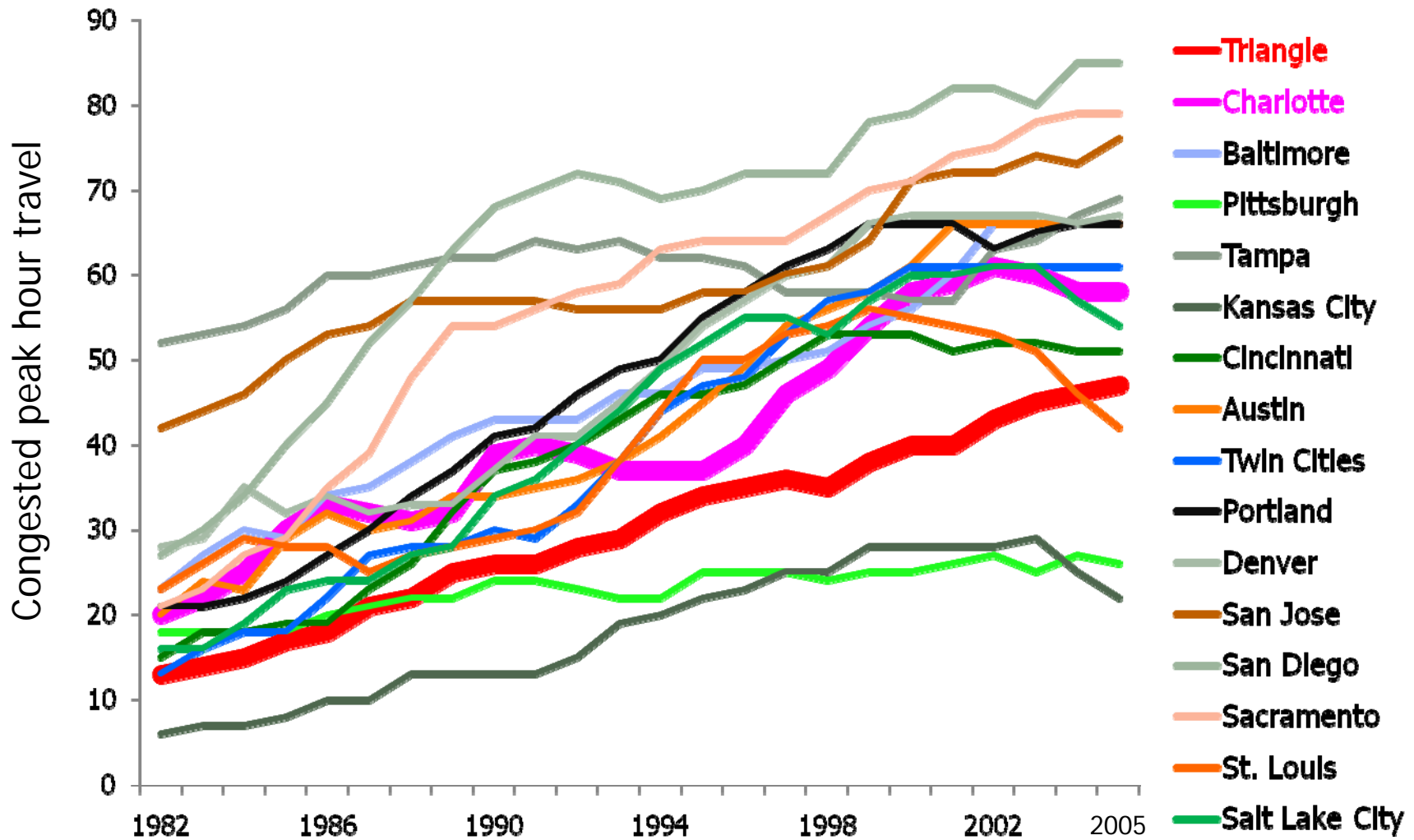
# Metro Road Connections

When finished, the new & expansion projects shown reflect a combined investment of about \$2.8 billion

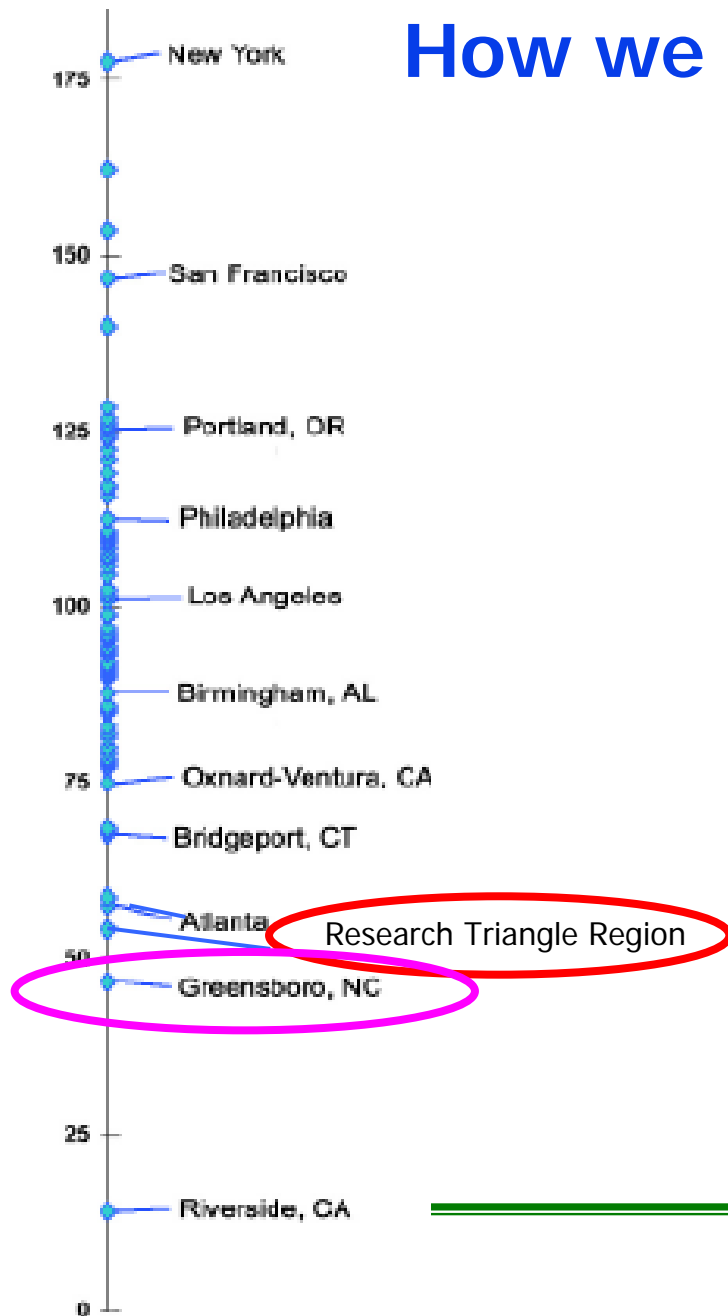


— Grade-separated      — Other projects

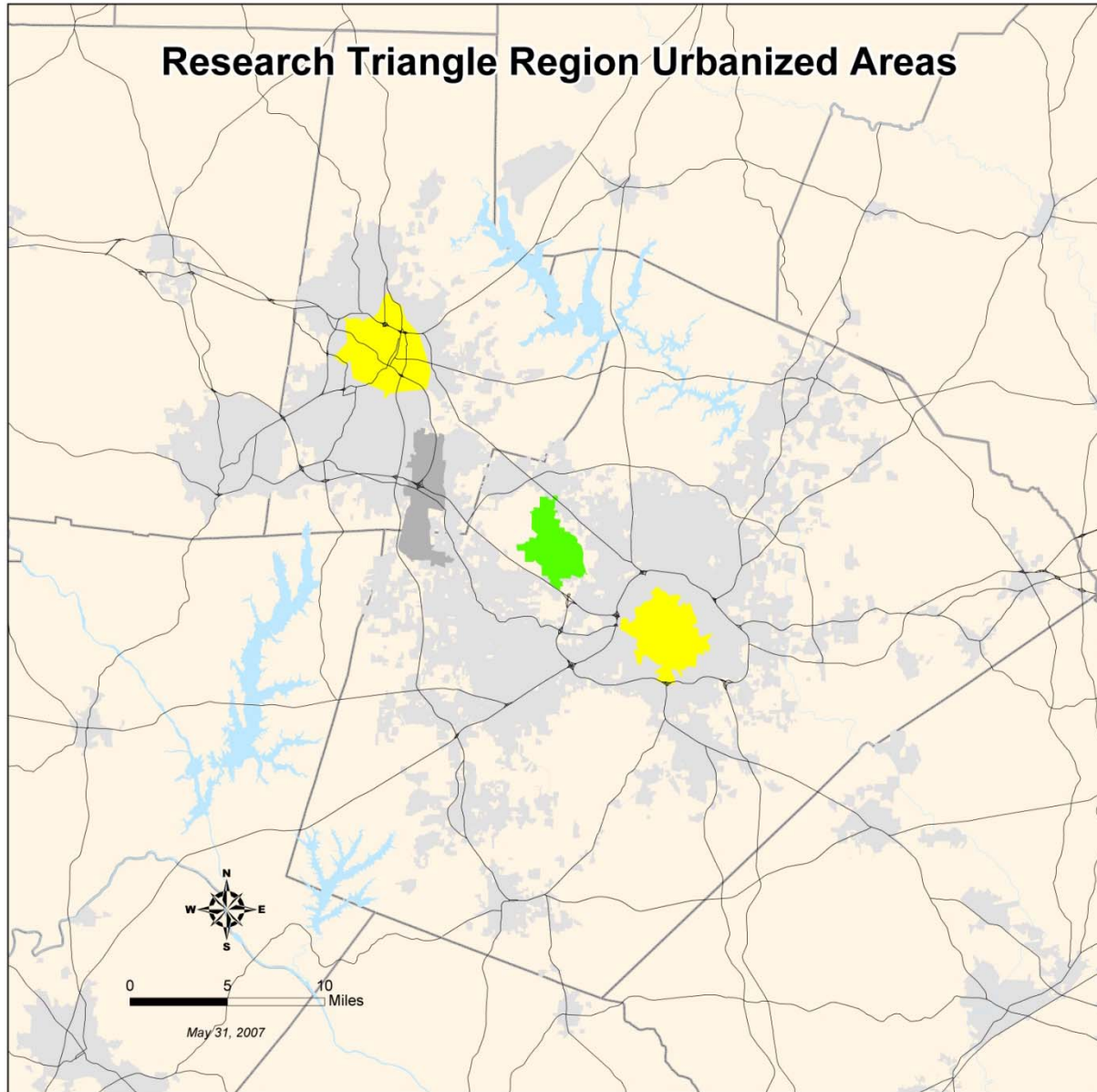
## Our Road Investments Have Kept Us Ahead of the Pack, But Still Losing Ground



# How we connect influences how we develop



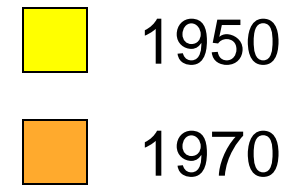
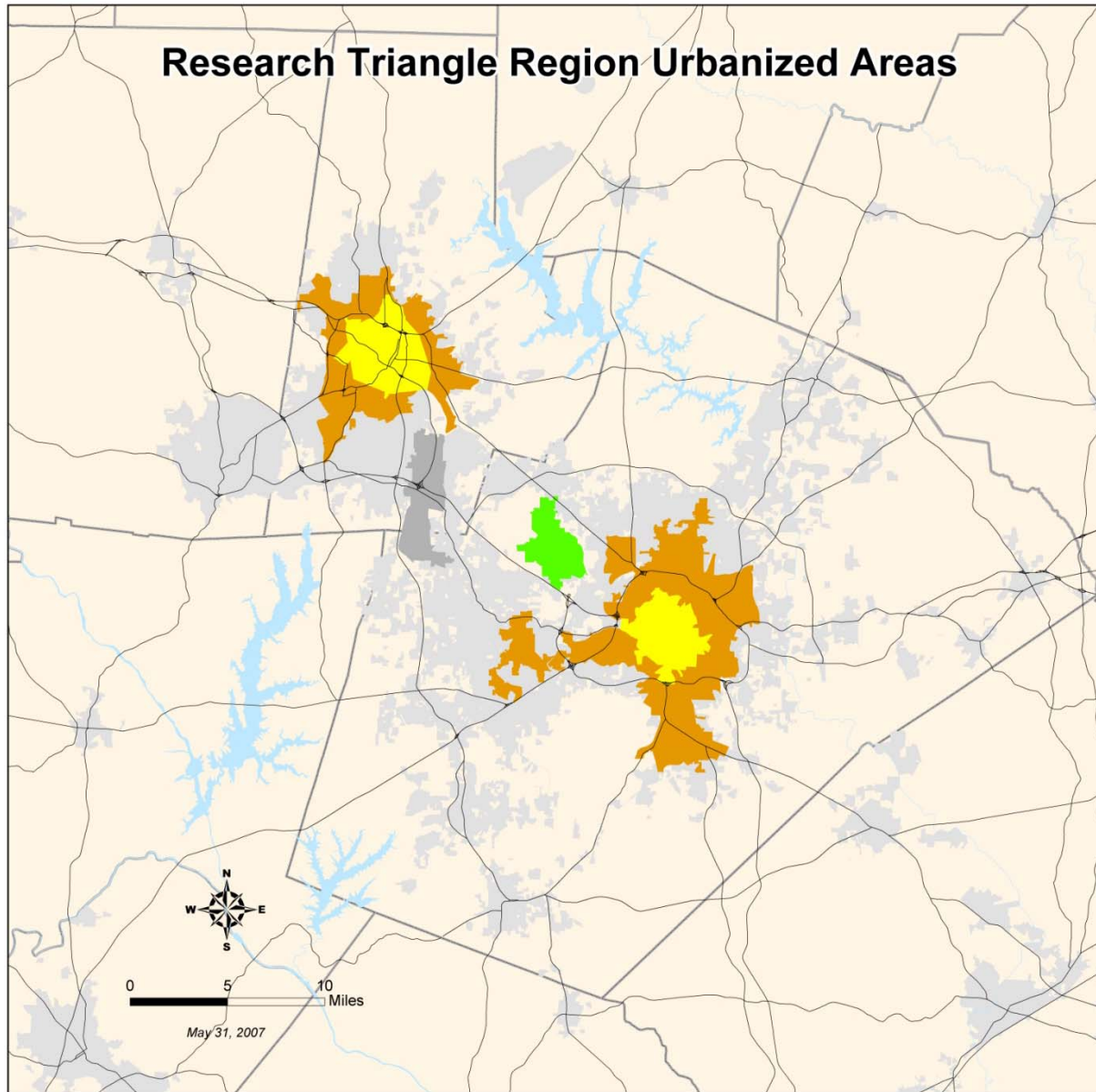
- ❖ In a study of 83 Metropolitan Areas, Greensboro was judged the second most sprawling and the Triangle was judged the third most sprawling based on measures of density, mixed use, centeredness and road connectivity.



1950

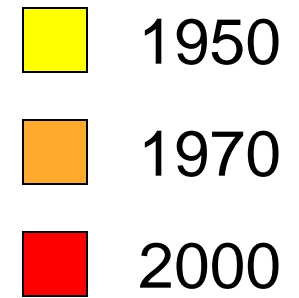
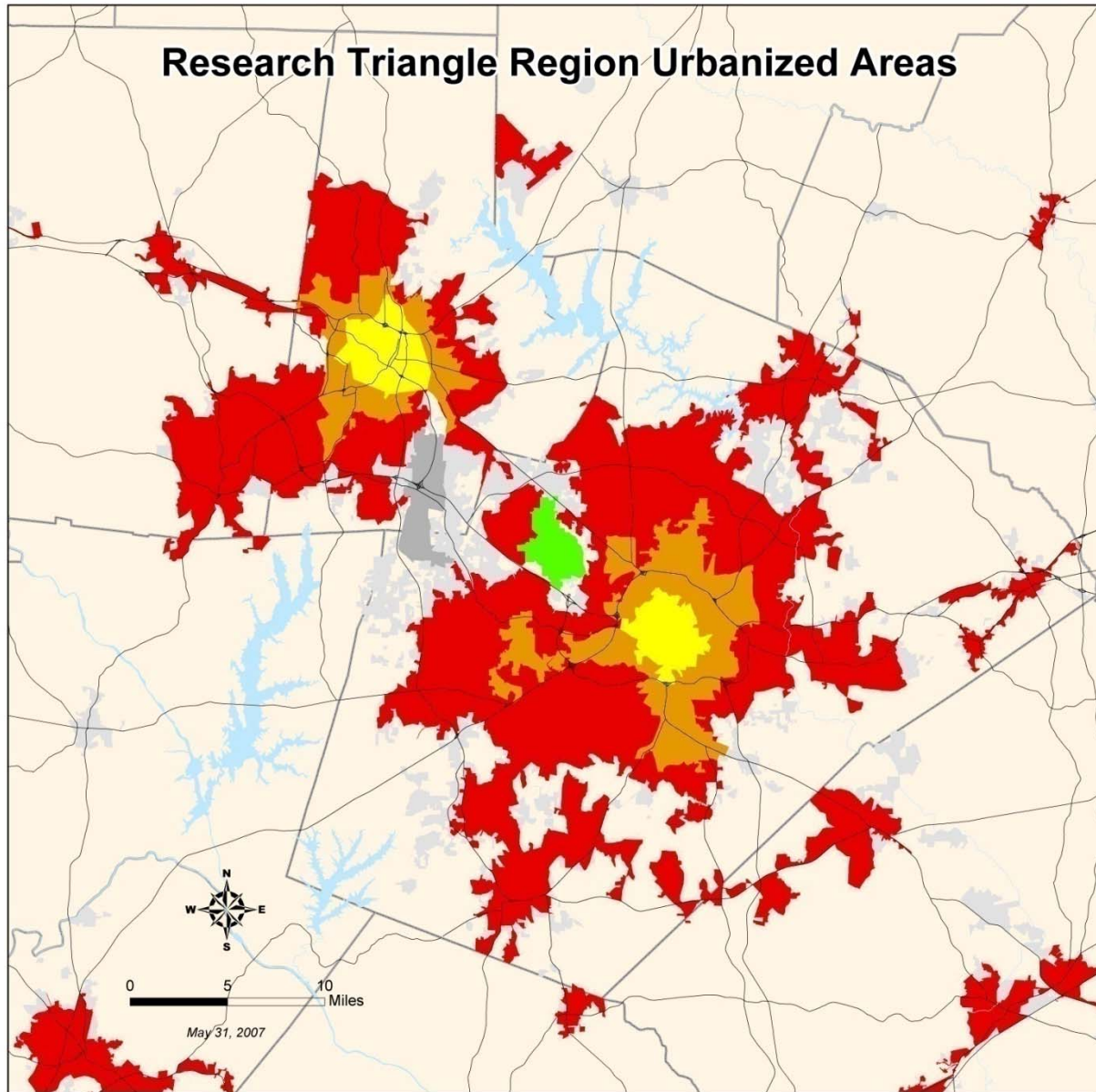
Census "urbanized" definition =  
500 people per square mile

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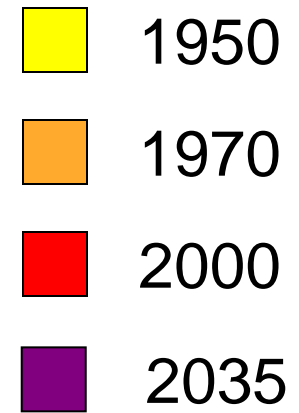
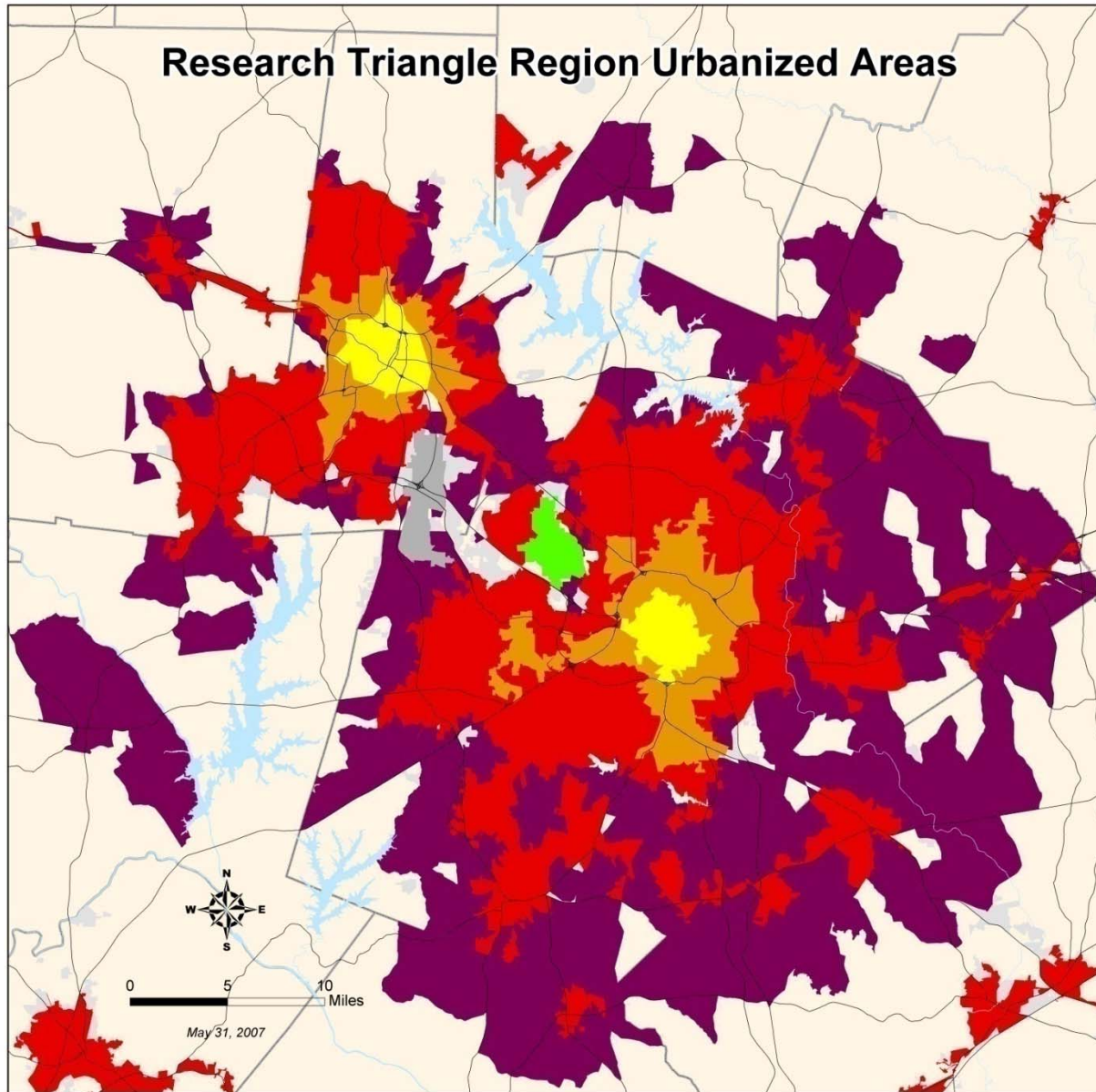
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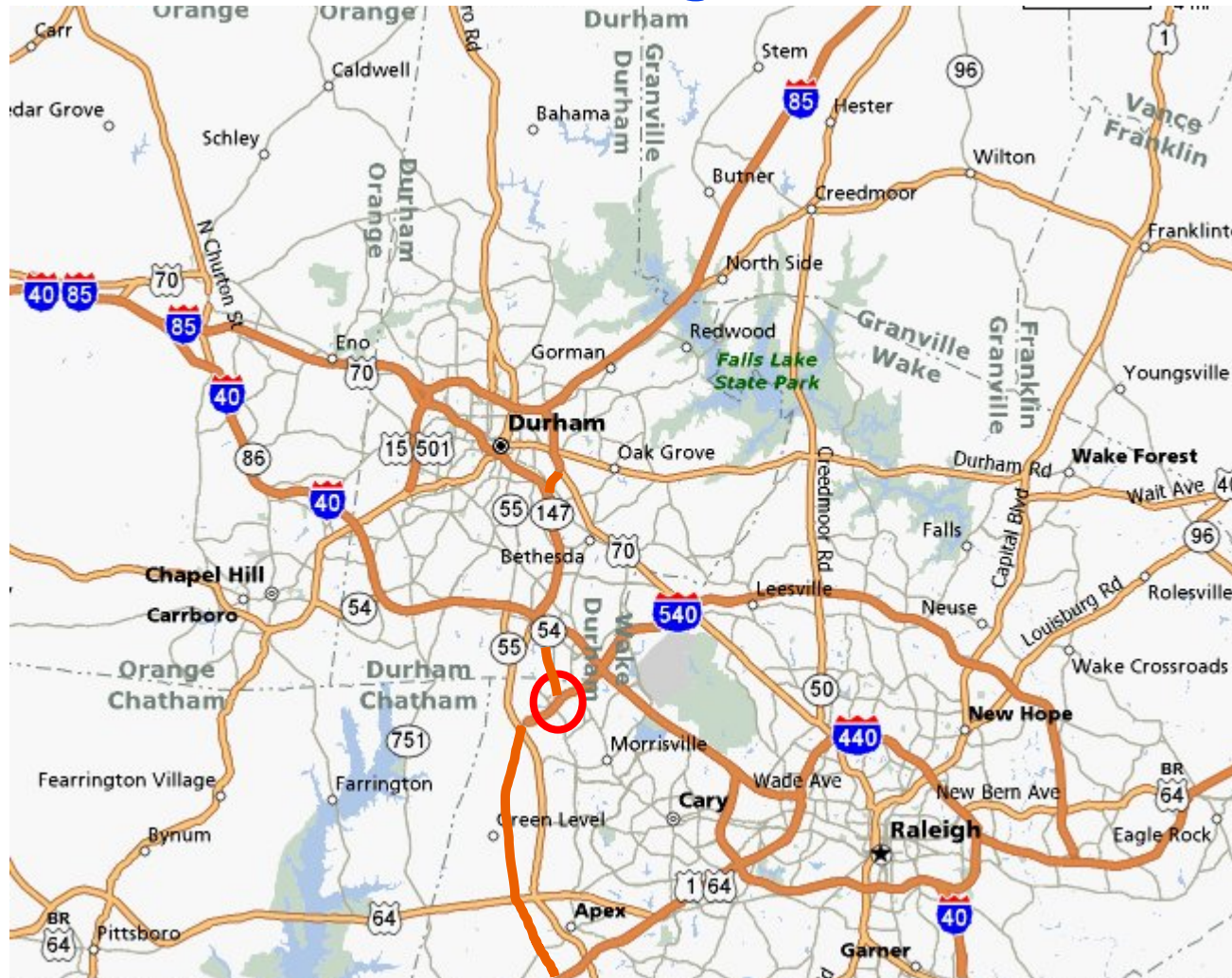
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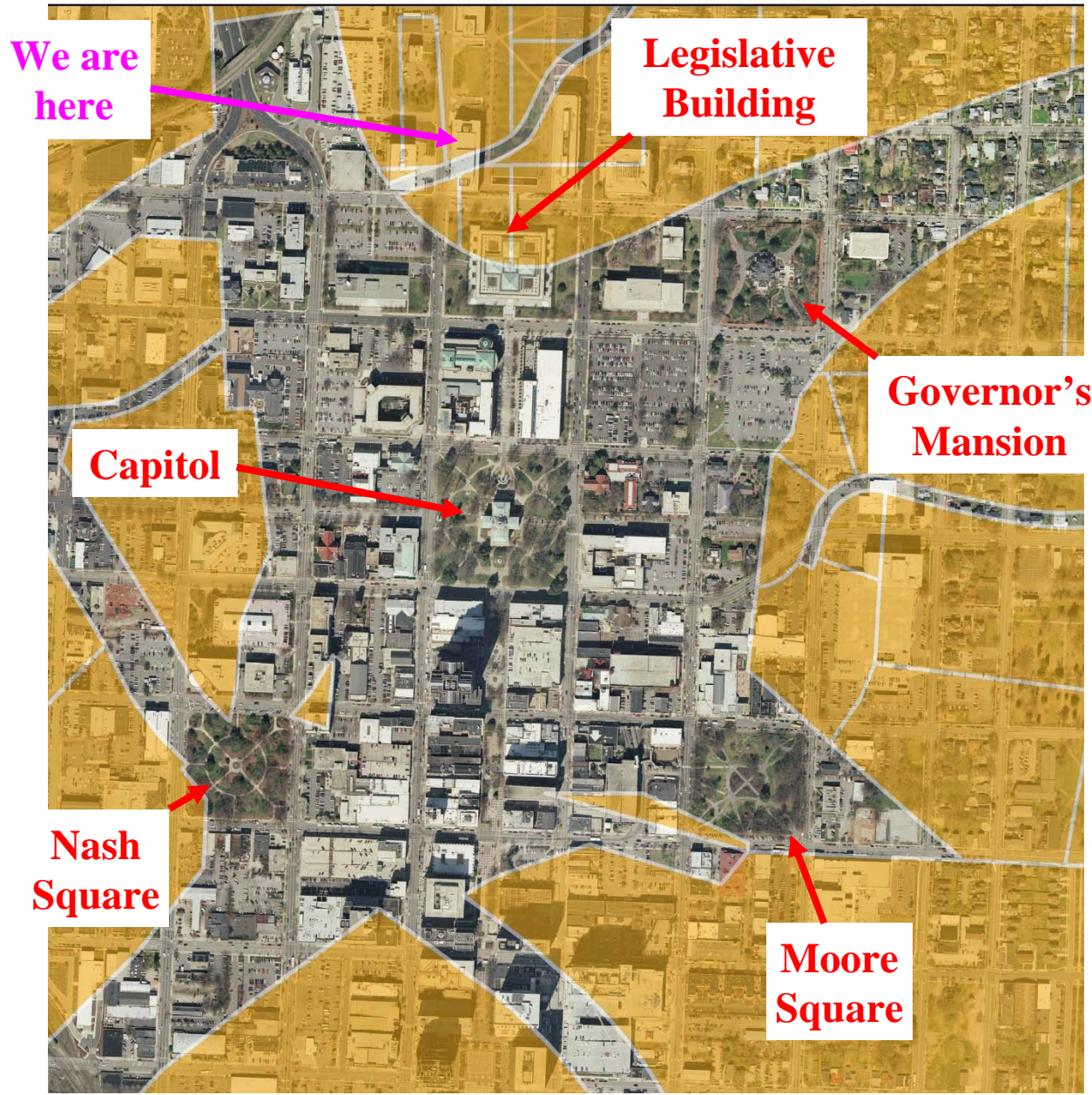
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# And how we connect influences development at the neighborhood scale



Future NC-540 interchange with NC-147 near RTP



## Future I-540 interchange with NC147 near RTP

(footprint  
superimposed over  
Downtown  
Raleigh)

Note: interchange is  
roughly 150-160 acres;  
total land acquired  
outside of existing  
railroad ROW for rail  
service between Durham  
and Raleigh is 83 acres.

# I-75 in Atlanta

double-track  
rail width



# A challenge for us is creating the mobility infrastructure to match our changing state

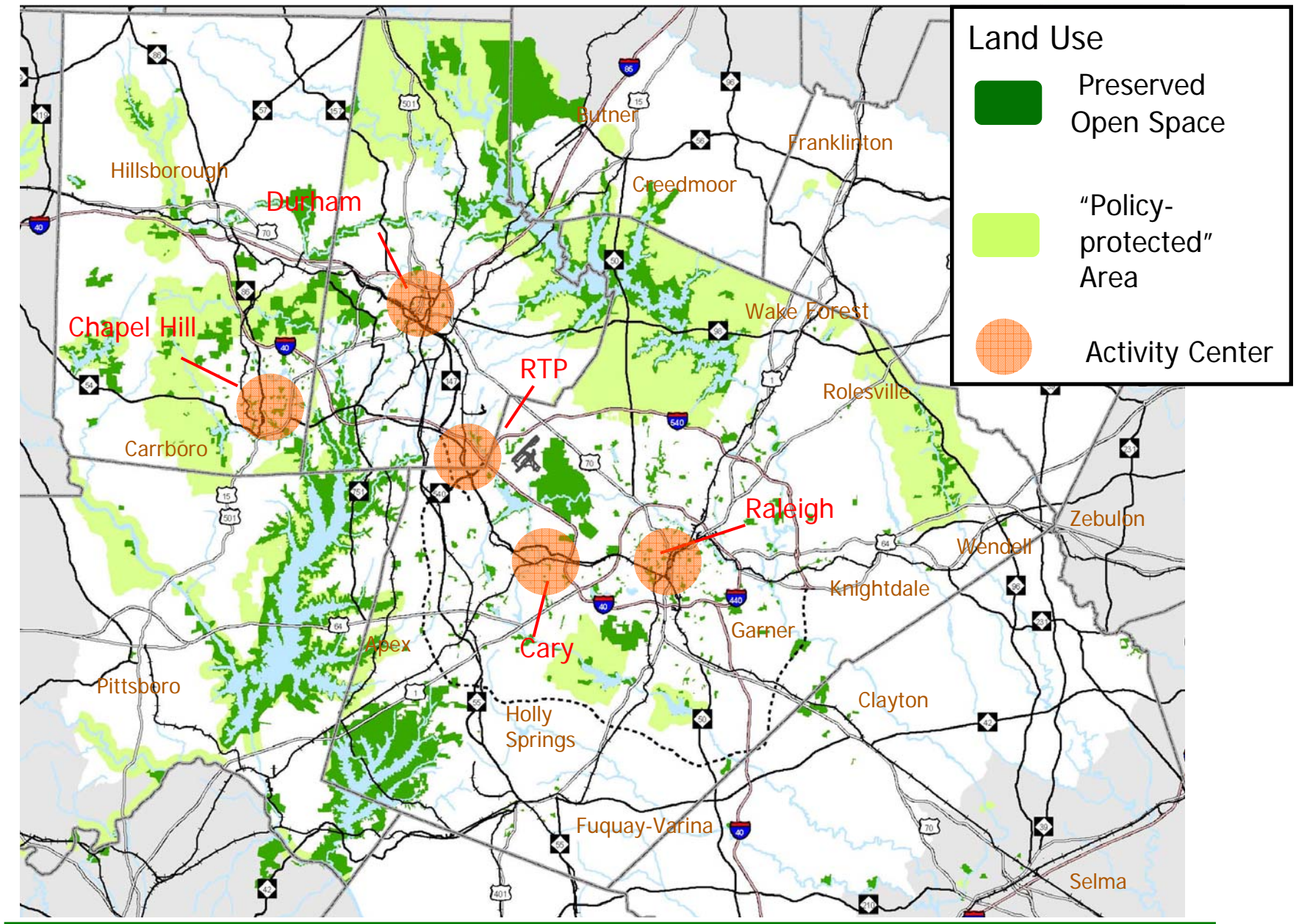
- ❖ Each of the “Big 3” will add another half million or more people by the 2030s, Charlotte and the Triangle will be >2.5 million people; 12 of the 13 regions with 2 to 3 million people today have rail systems
- ❖ 230,000 households in North Carolina have no car available, and this number has increased in each of the past 4 years
- ❖ By 2030, almost 18% of North Carolina residents will be 65 or older, up from 12% in 2000
- ❖ Increasing shares of households are made up of single-person and two-person households without children
- ❖ 20-30% of households would prefer to live in a compact, walkable neighborhood with a mix of activities

# Metro regions are working hard to define transit systems to match our road investments (and how to pay for it)

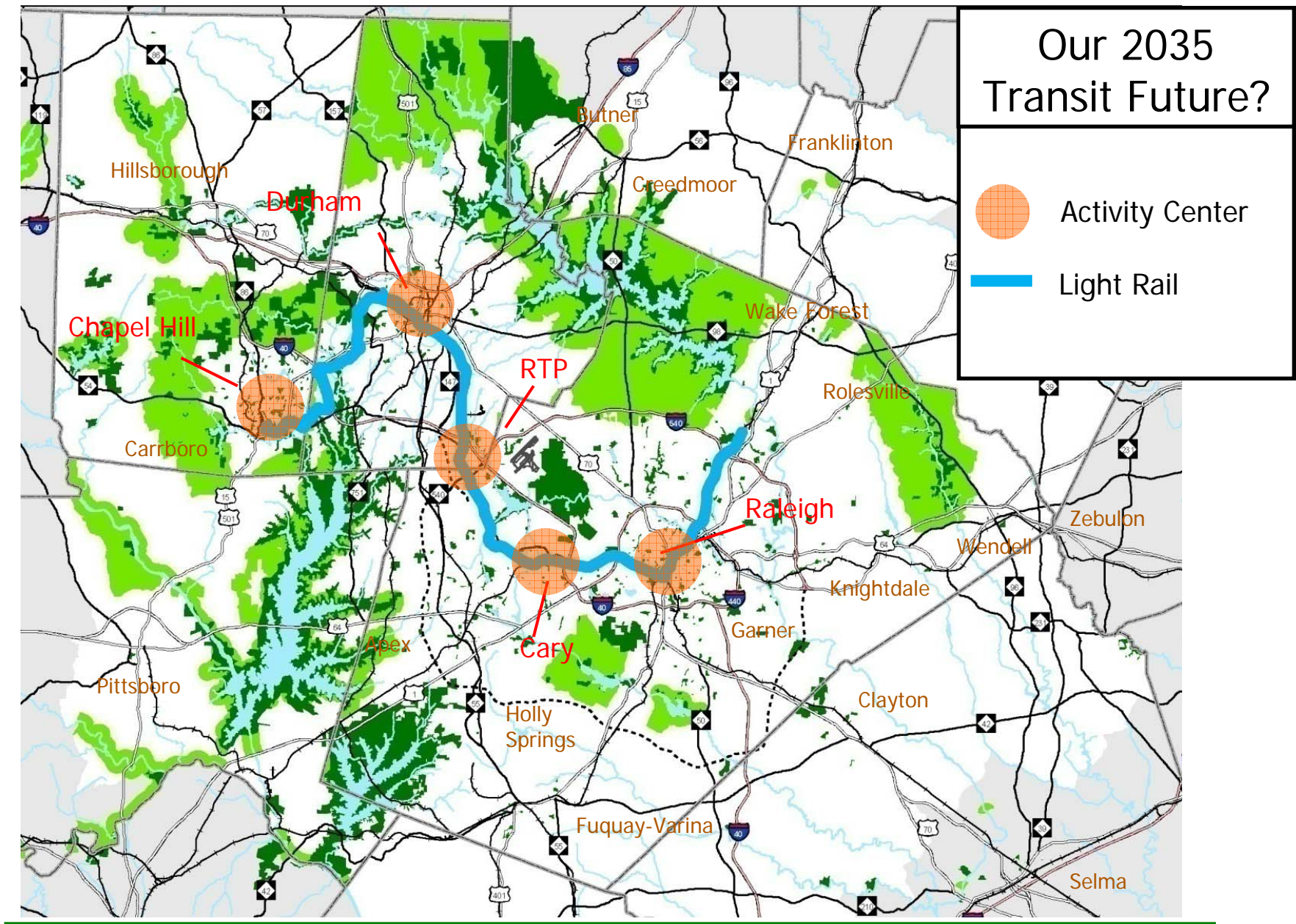
A Special Transit Commission and the Triangle's communities are focusing on a plan with:

- ❖ Expanded Local & Regional Bus Service
  - ❑ Quickest, most extensive return on investment
  - ❑ Foundation for rail service
- ❖ Activity Center Circulators
  - ❑ Serve and support high-activity centers
  - ❑ Complete "last mile" of regional trips
  - ❑ Can evolve: bus to street car or other vehicle
- ❖ Rail
  - ❑ Shape land use
  - ❑ Compete with peer regions throughout the US
  - ❑ Superior mobility in heavily traveled corridors



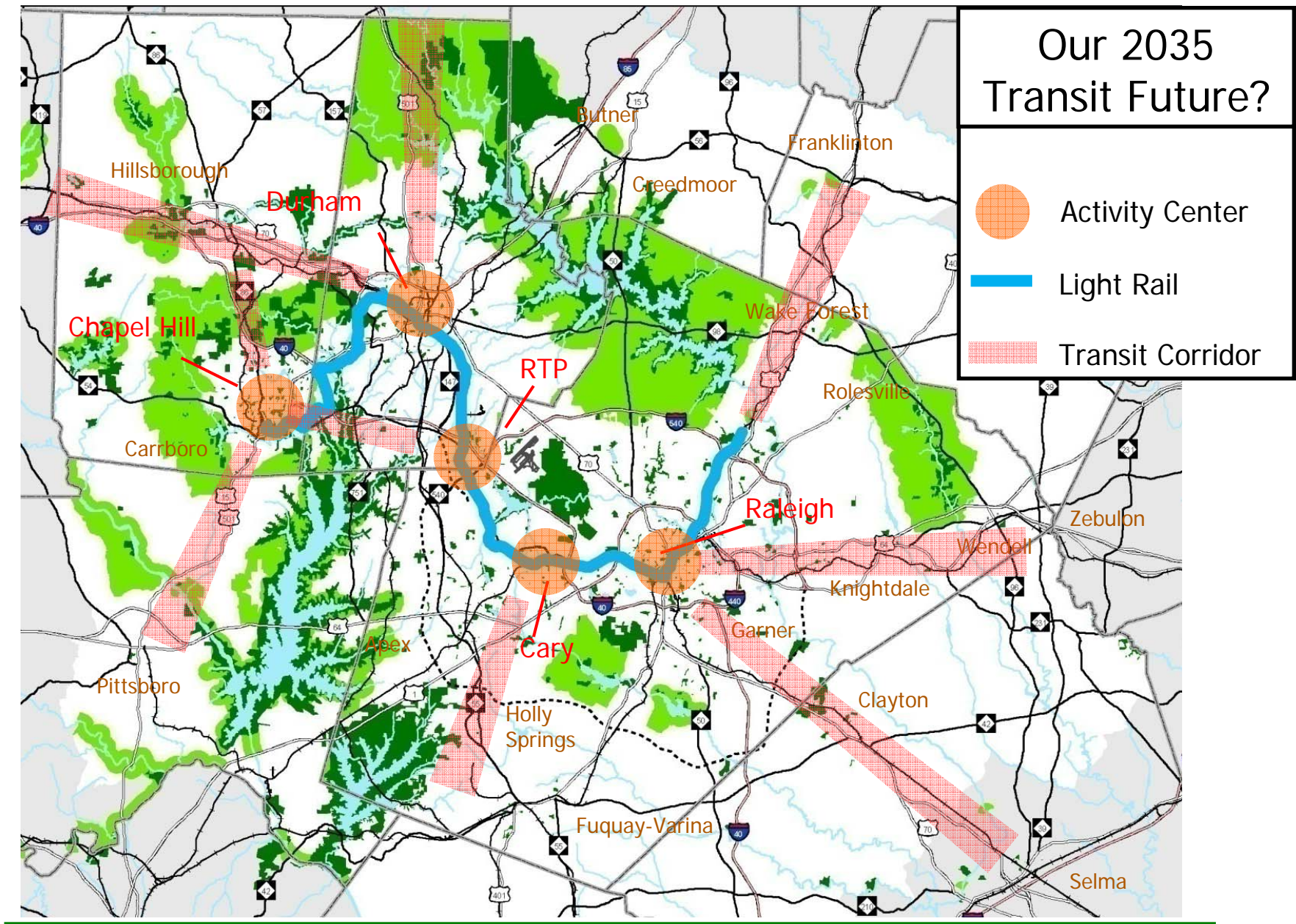


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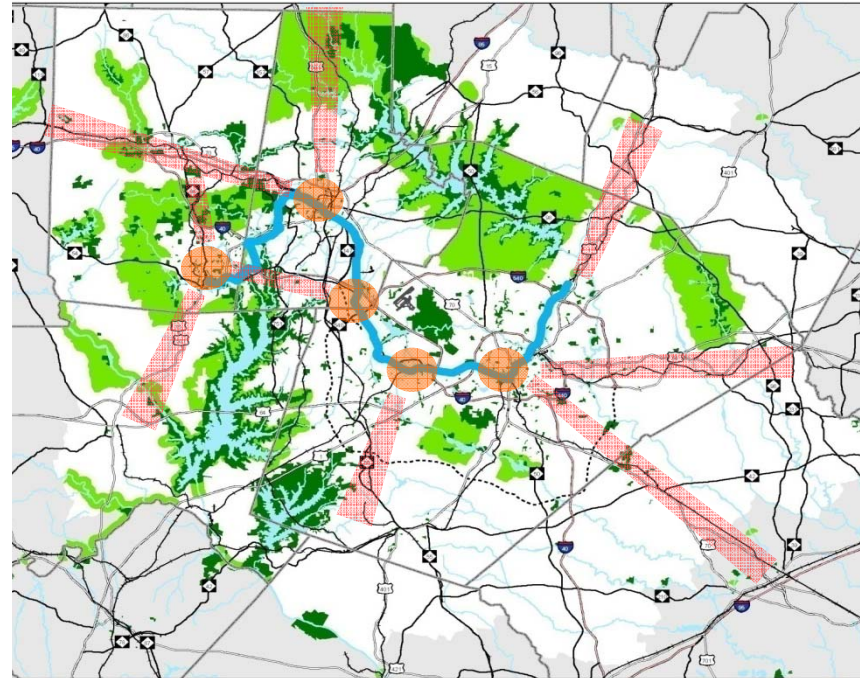
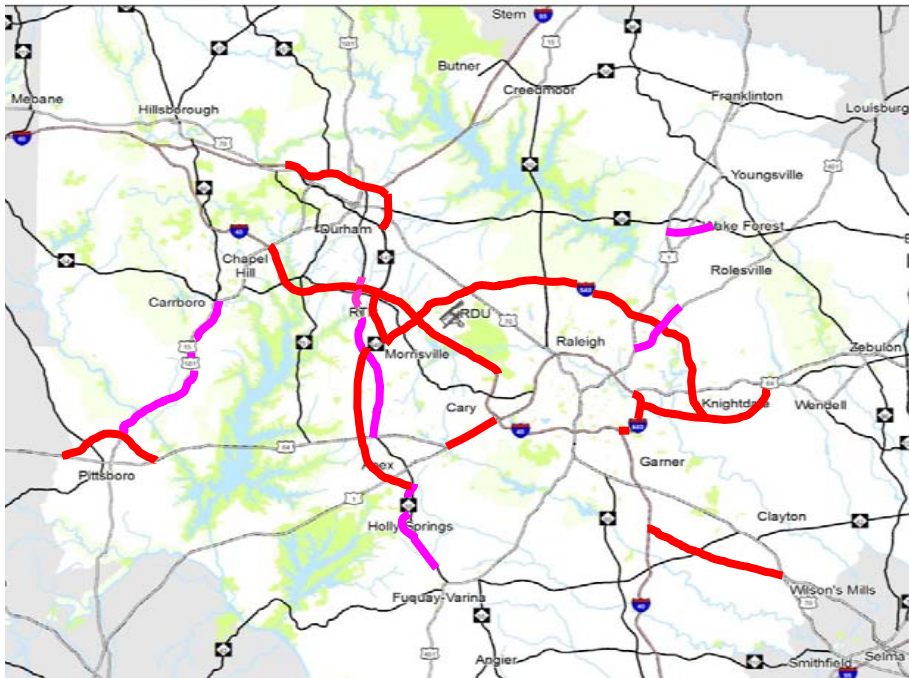
## Our 2035 Transit Future?

- Activity Center
- Light Rail



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# Infrastructure Challenge: If we don't have a plan to pay for it, we don't have a plan



❖ Triangle is completing ~\$2.8 billion in major road supply investments

❑ gas tax

❑ tolls

❖ Triangle is considering investing ~\$2.5 billion in major transit supply?

❑ sales tax?

# Challenge: If we don't match development to infrastructure investments, we don't have a plan

