

Mayor Karl Dean, Chairman



NASHVILLE AREA

Metropolitan Planning Organization

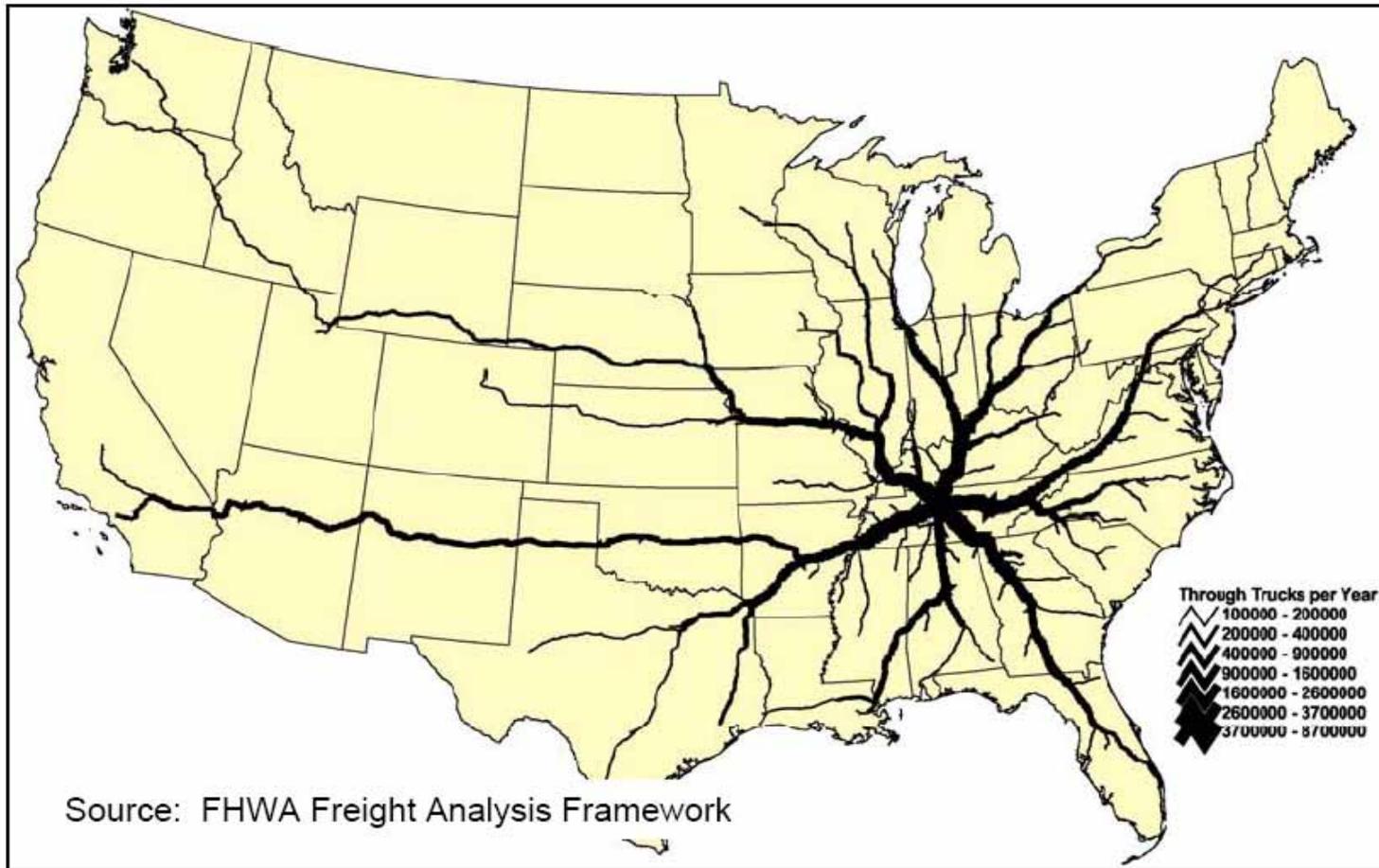
Brief Overview of Regional Transportation Planning Efforts

ULI Nashville | Financing Infrastructure Needs
February 18, 2010

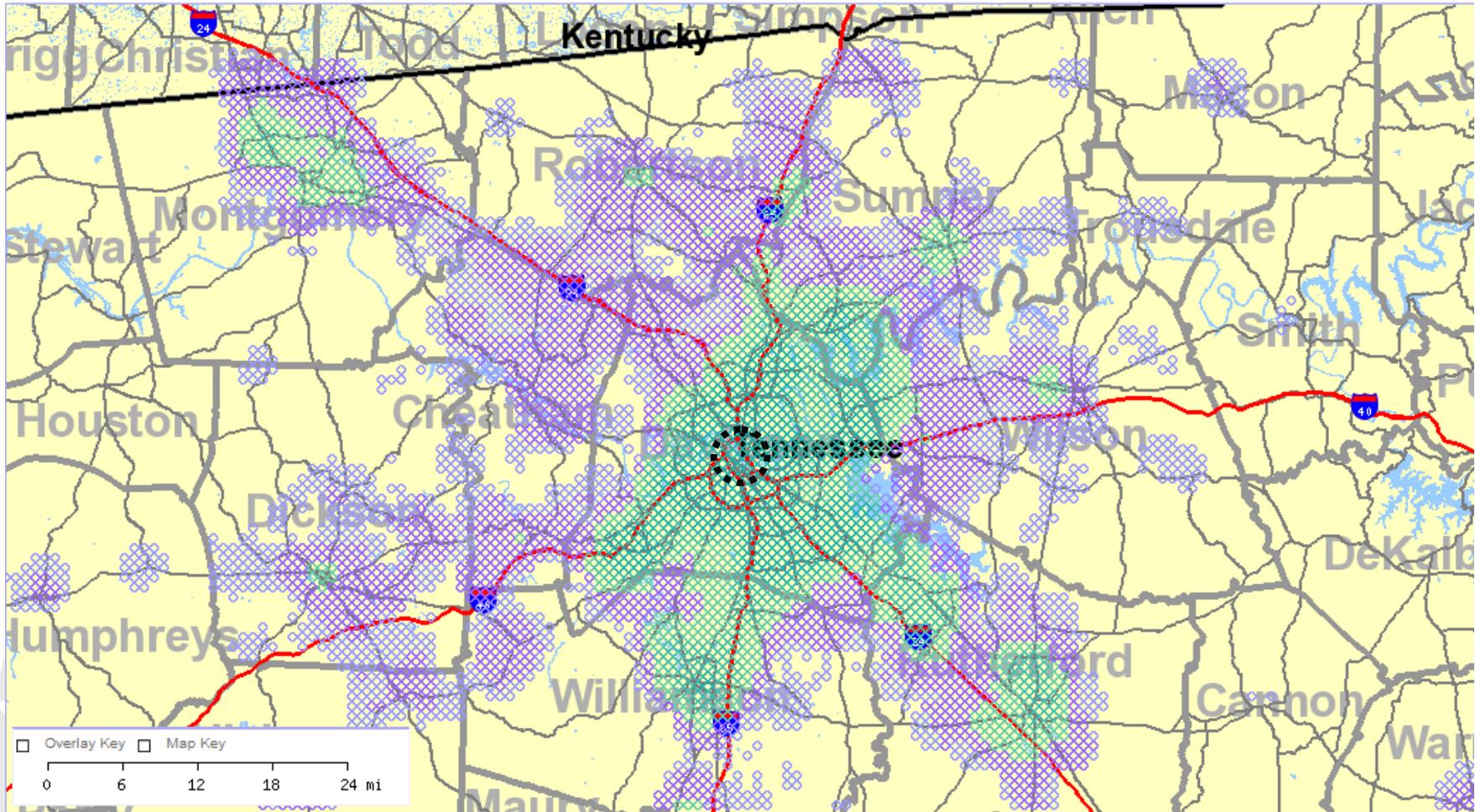
Transportation is a Regional Issue

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Transportation is Regional

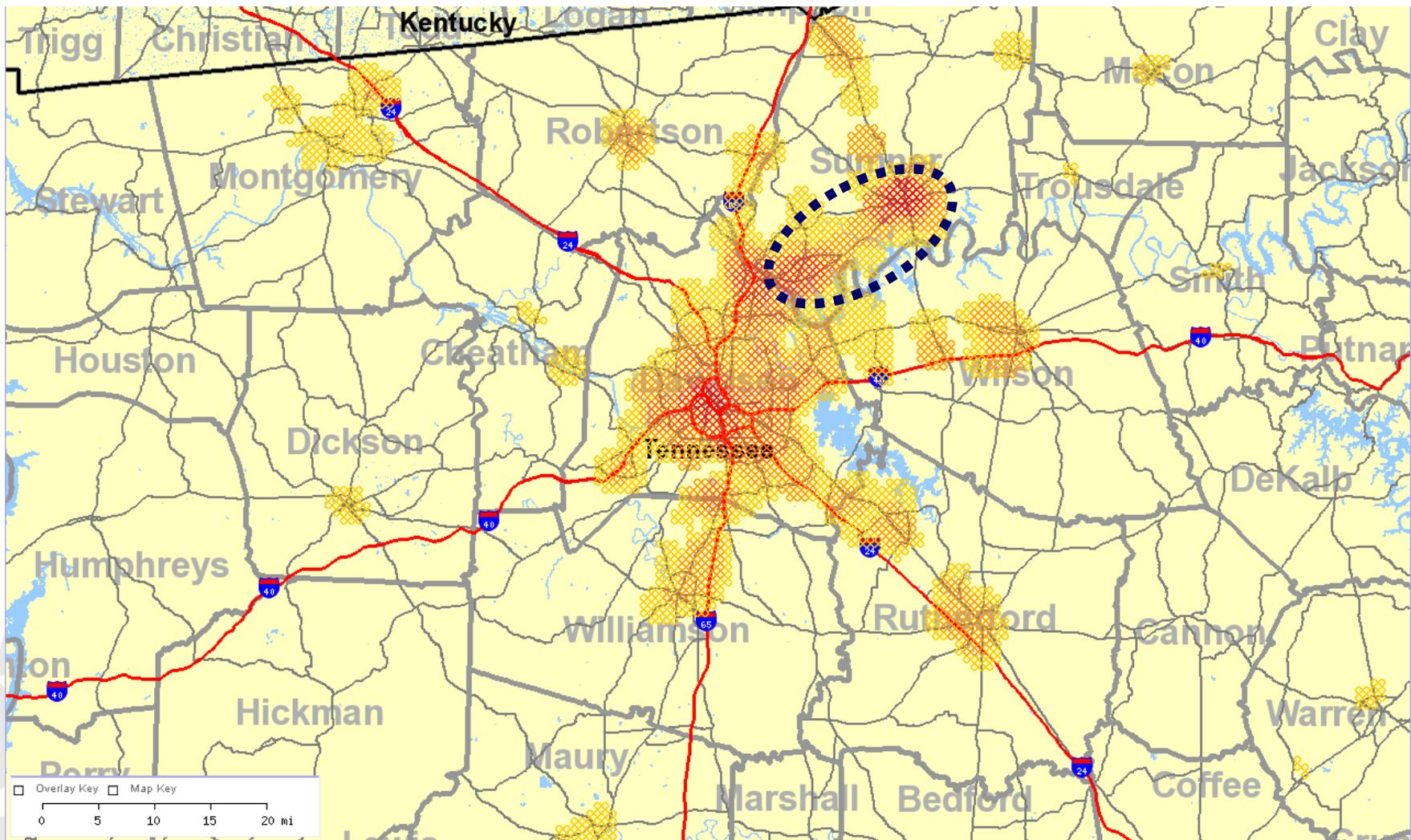


Transportation is Regional



WORK in Downtown Nashville, LIVE in..... nashvillempo.org

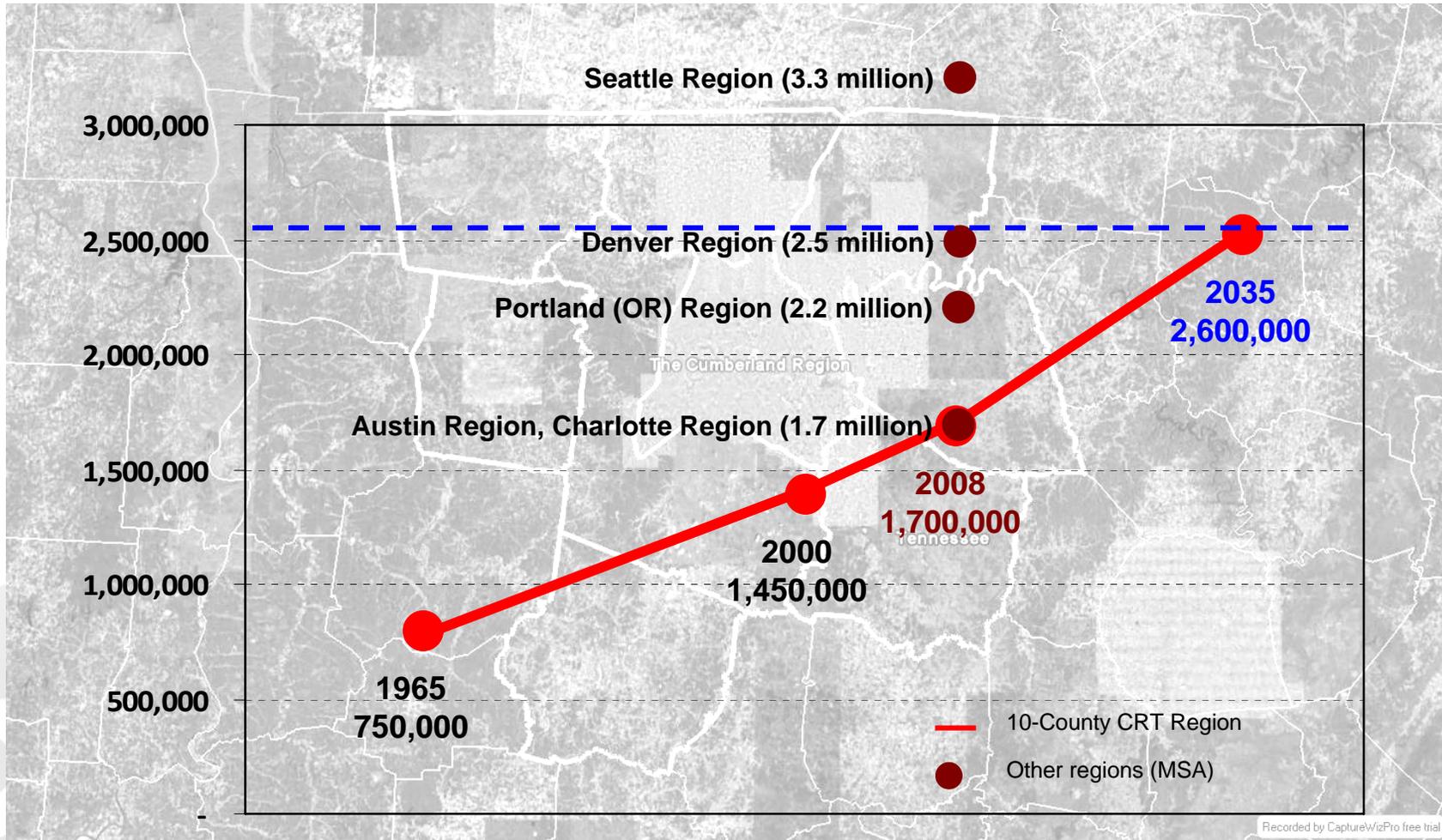
Transportation is Regional



Live in Hendersonville/ Gallatin Area, WORK in.....

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Population Growth, Middle Tennessee



How and Where will we
live, work, and play?

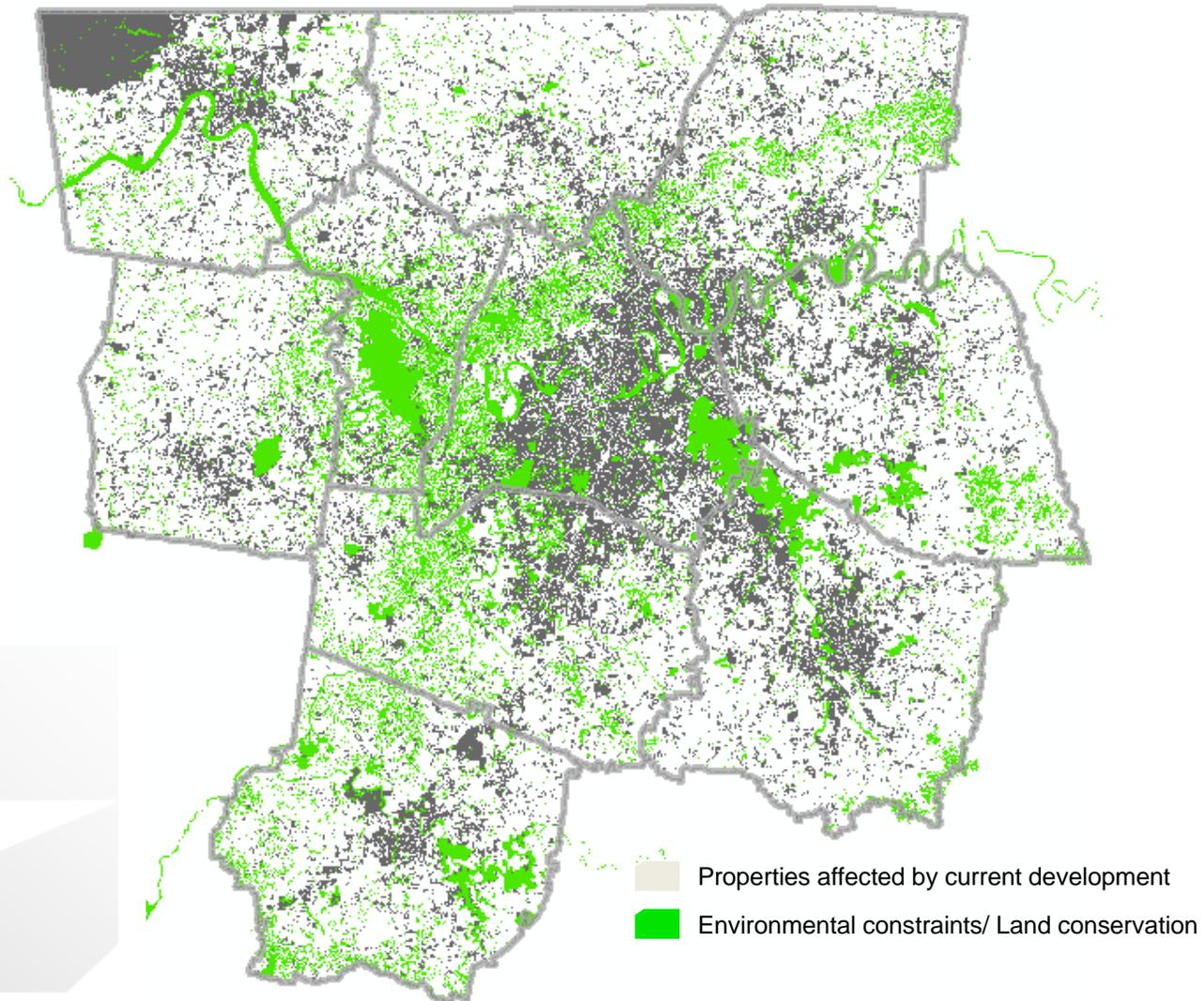
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2009 Development Pattern

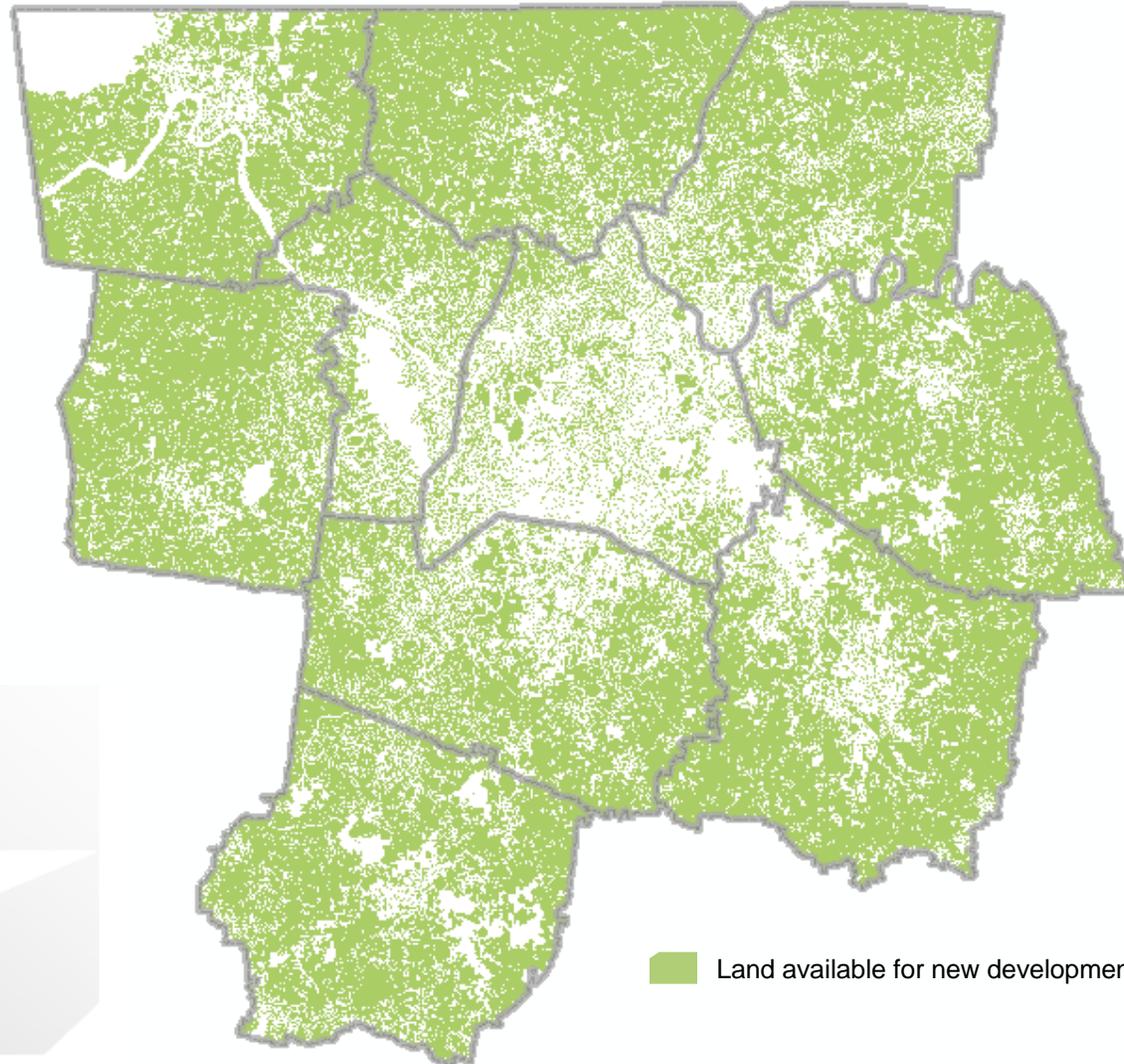


Properties with development or development constraints

Environmentally Constrained



Vacant Greenfield

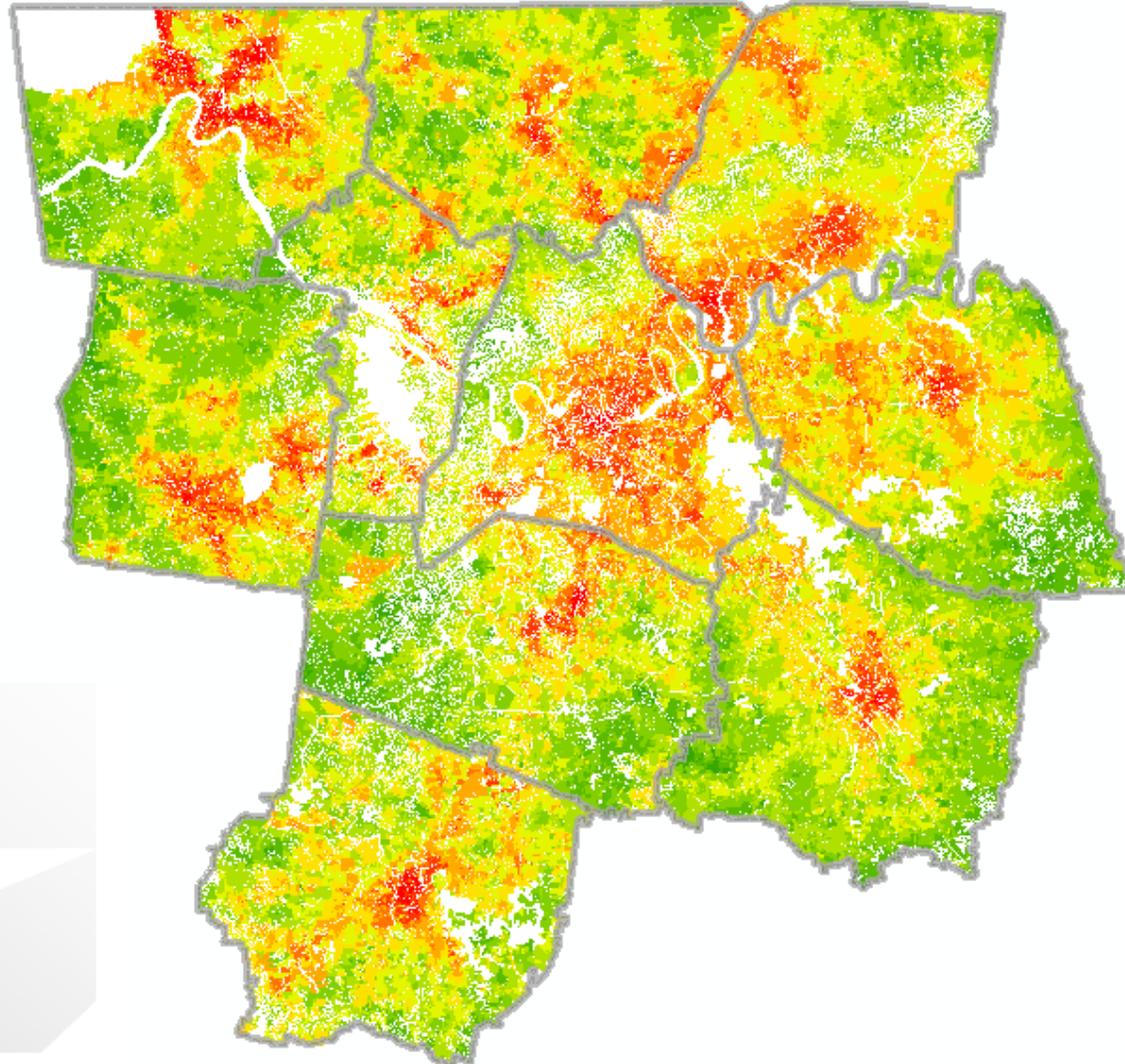


Land available for new development

Land Suitability

Defining Suitability:

- Land Values
- Water/ Sewer
- Schools
- Major Roads/ Intersections
- Retail Opportunities
- Traffic Congestion
- Transit Service/ Stations
- Hospitals
- Parks & Recreation
- Environmental Conflicts



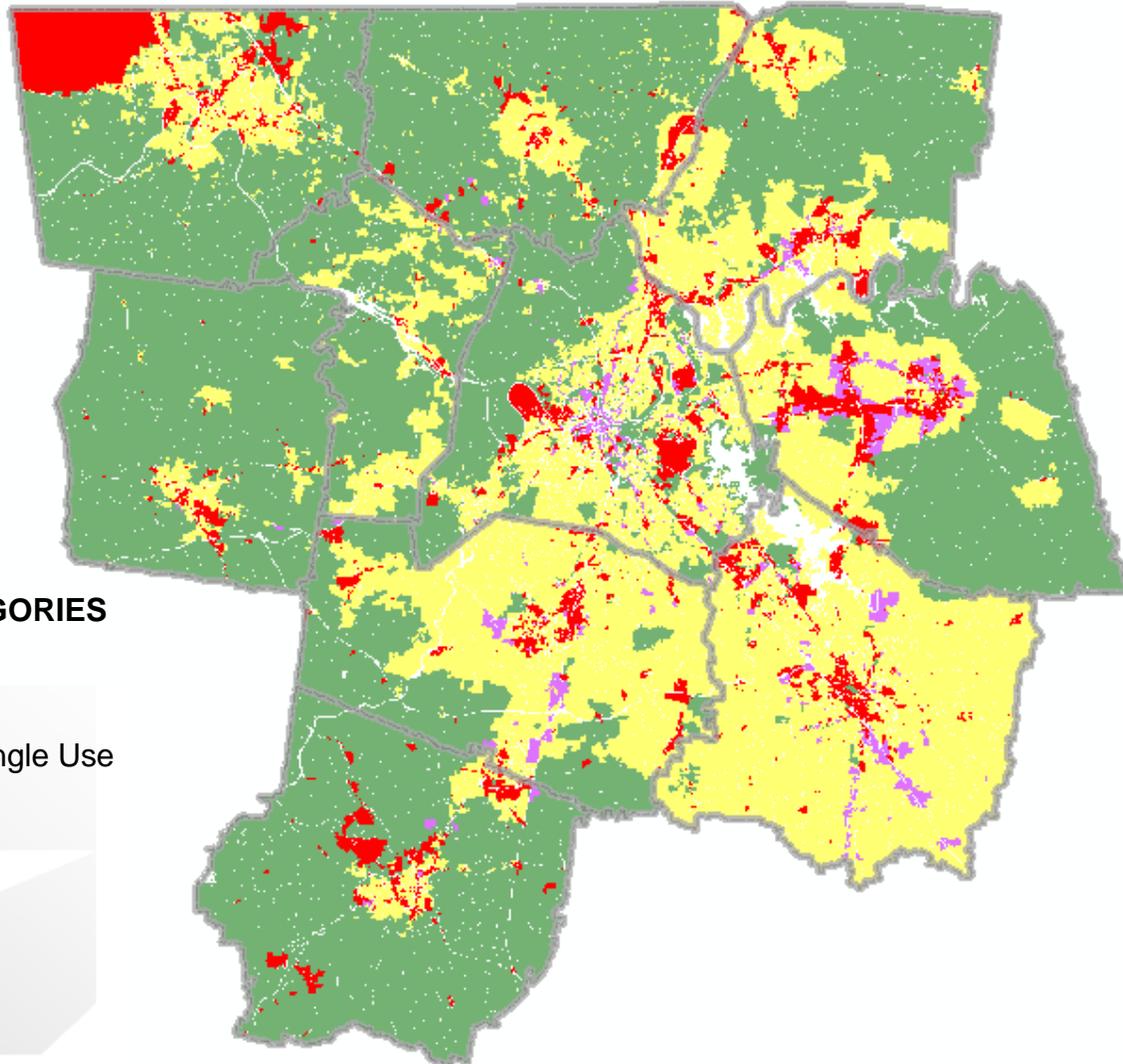
LAND SUITABILITY



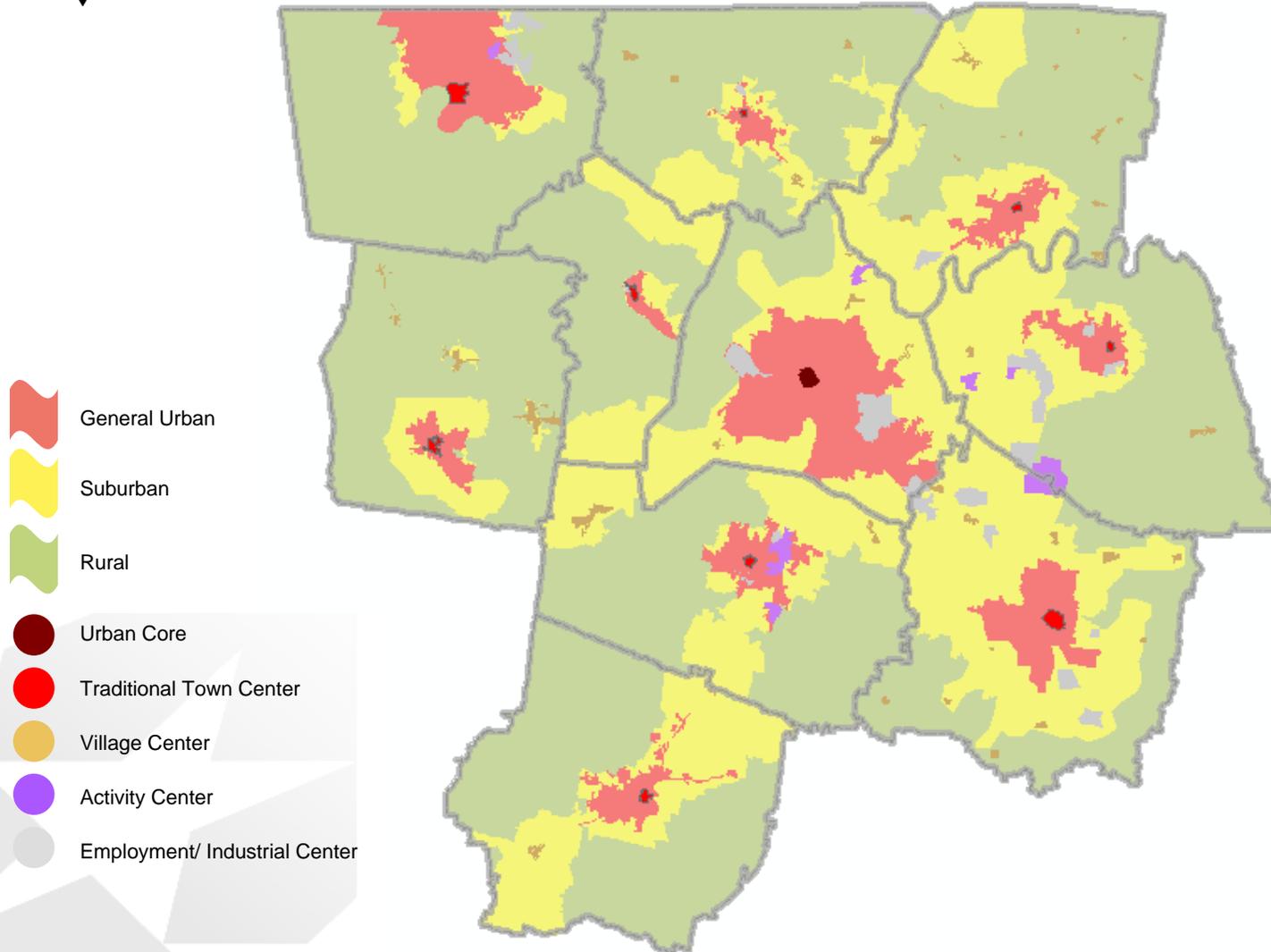
Land Use Policy

GENERALIZED CATEGORIES

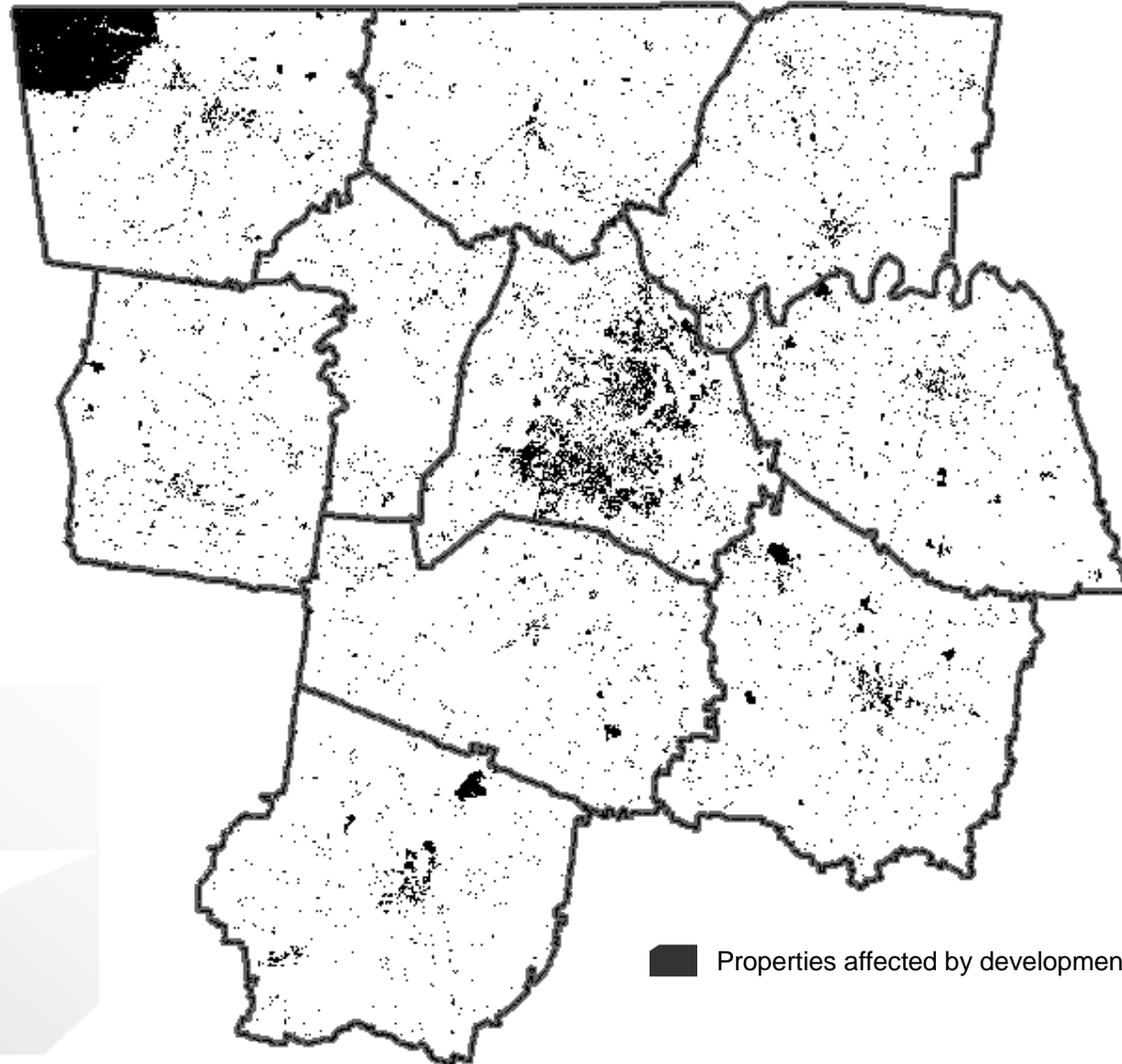
-  Agricultural, Open
-  Residential
-  Non-Residential Single Use
-  Mixed-Use



Growth & Development Policy

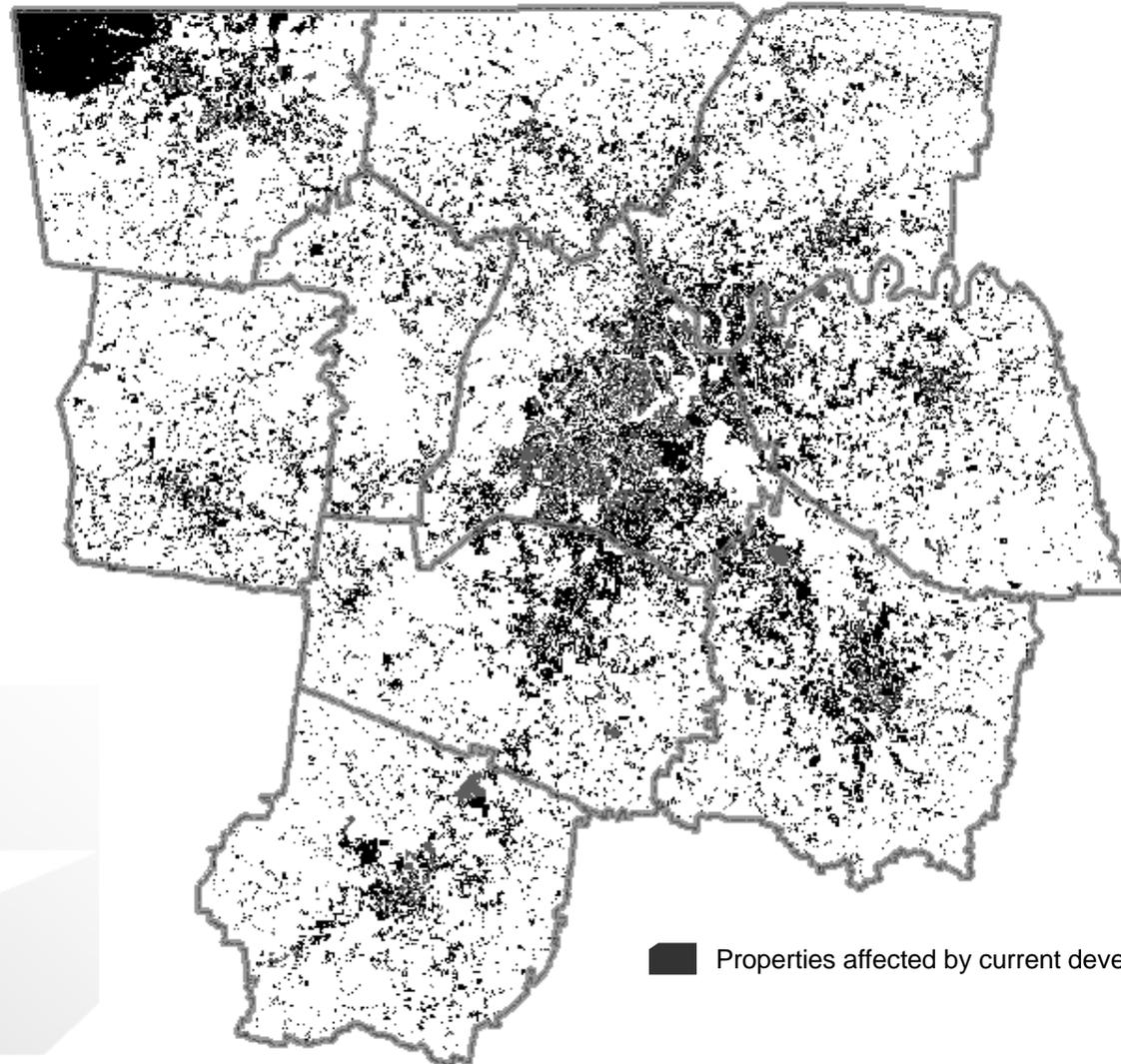


1965 Development Pattern



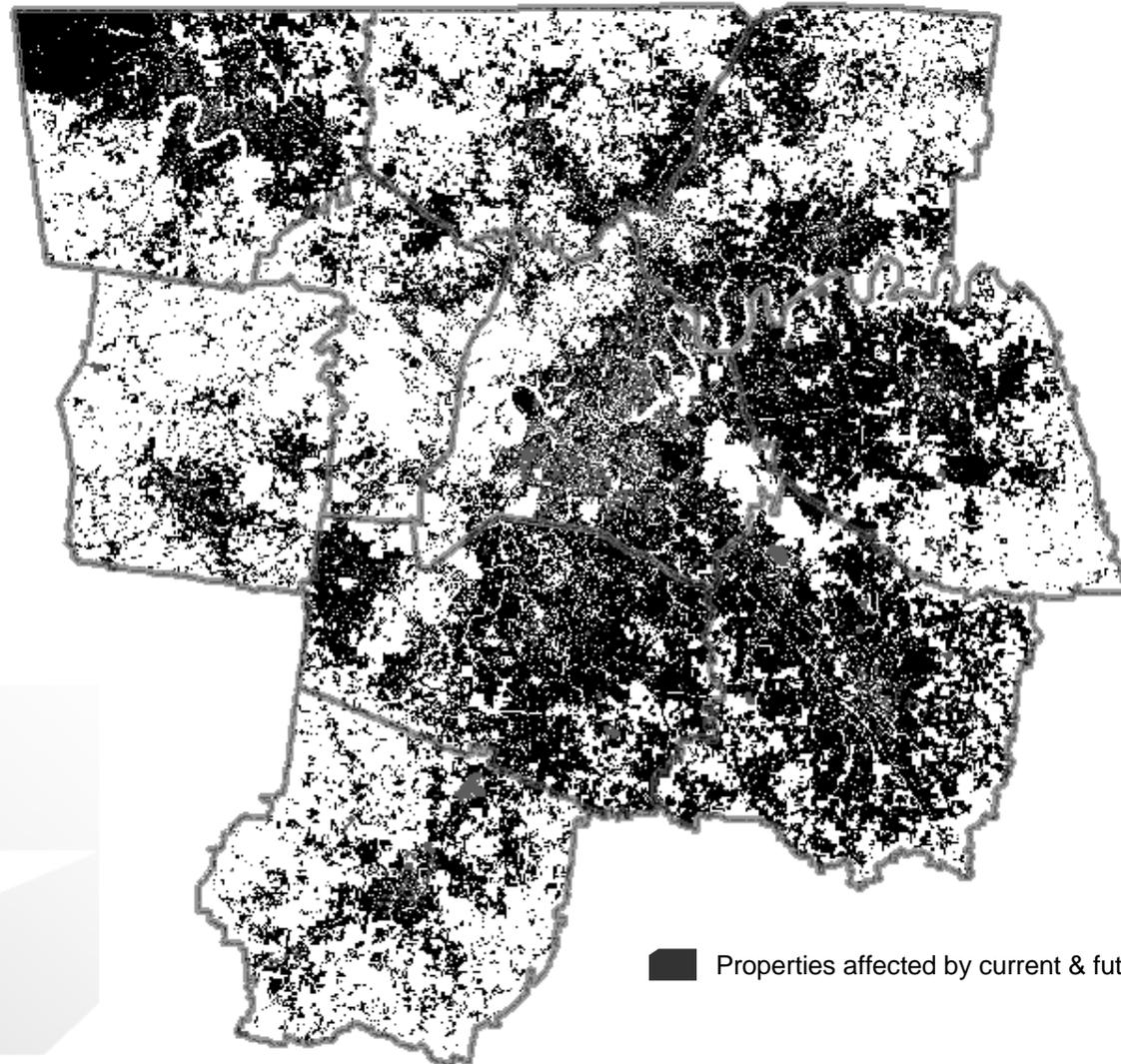
■ Properties affected by development in 1965

2009 Development Pattern



■ Properties affected by current development

2035 Development Pattern - Projected

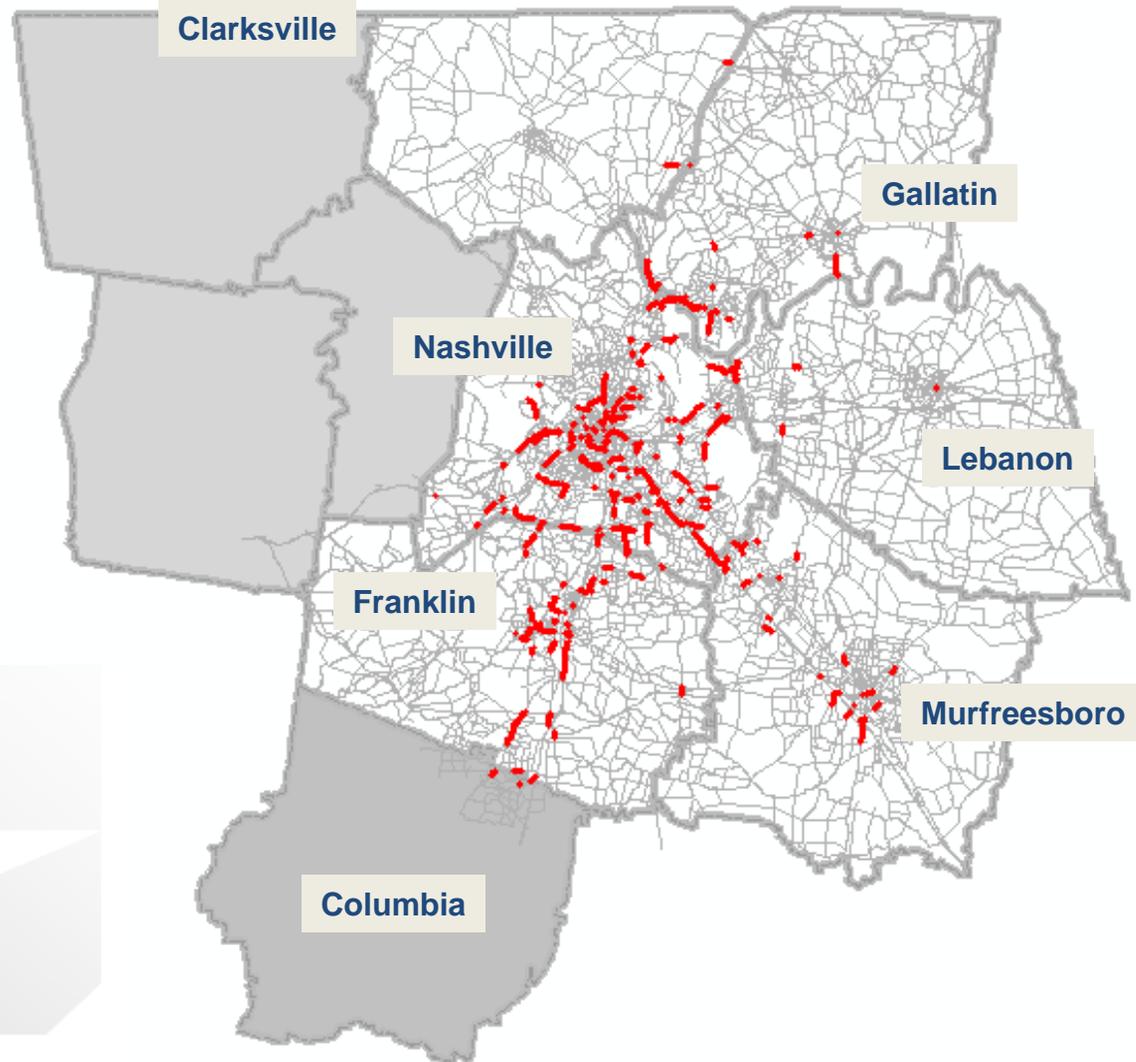


■ Properties affected by current & future development

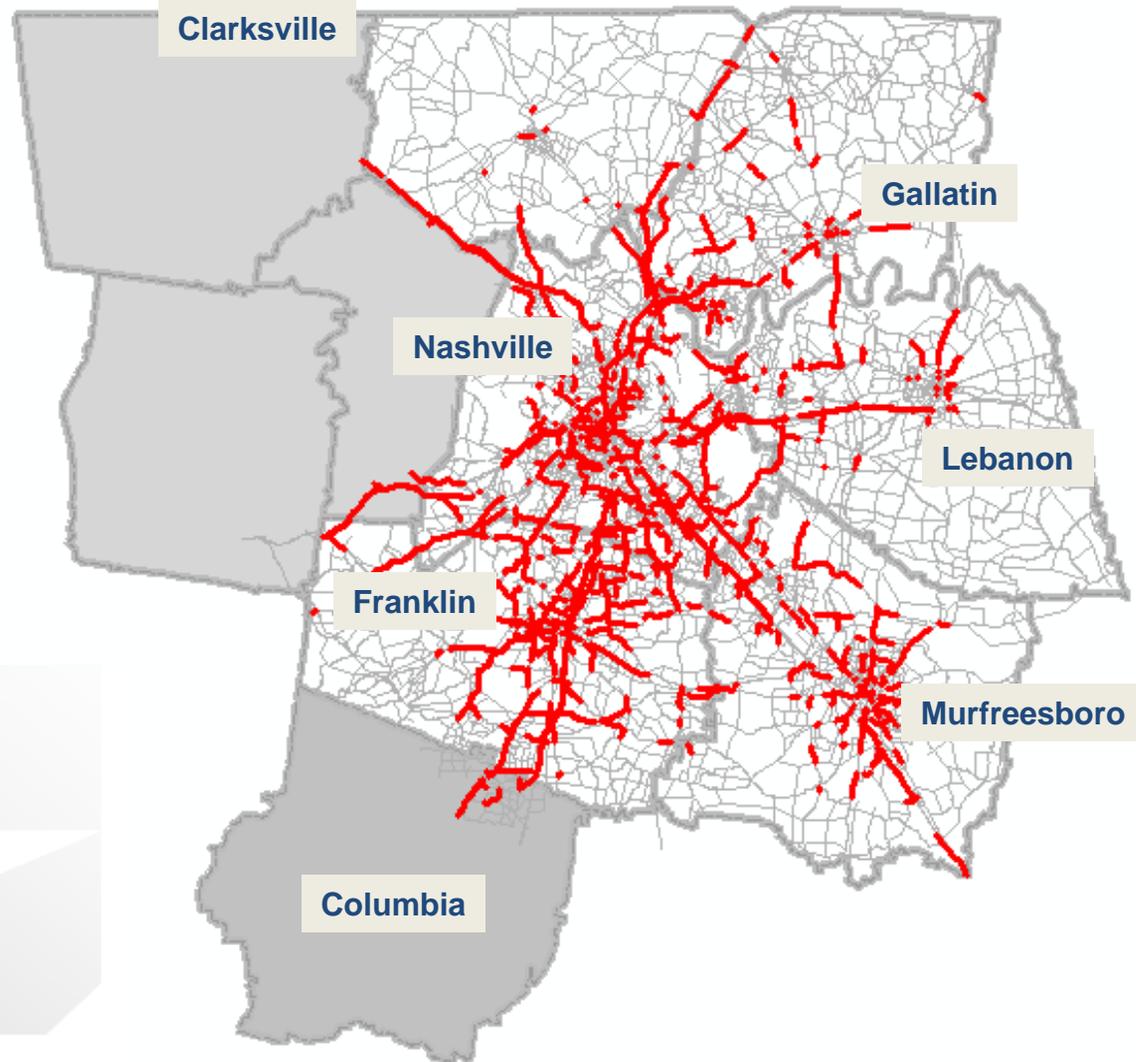
2008 Congestion



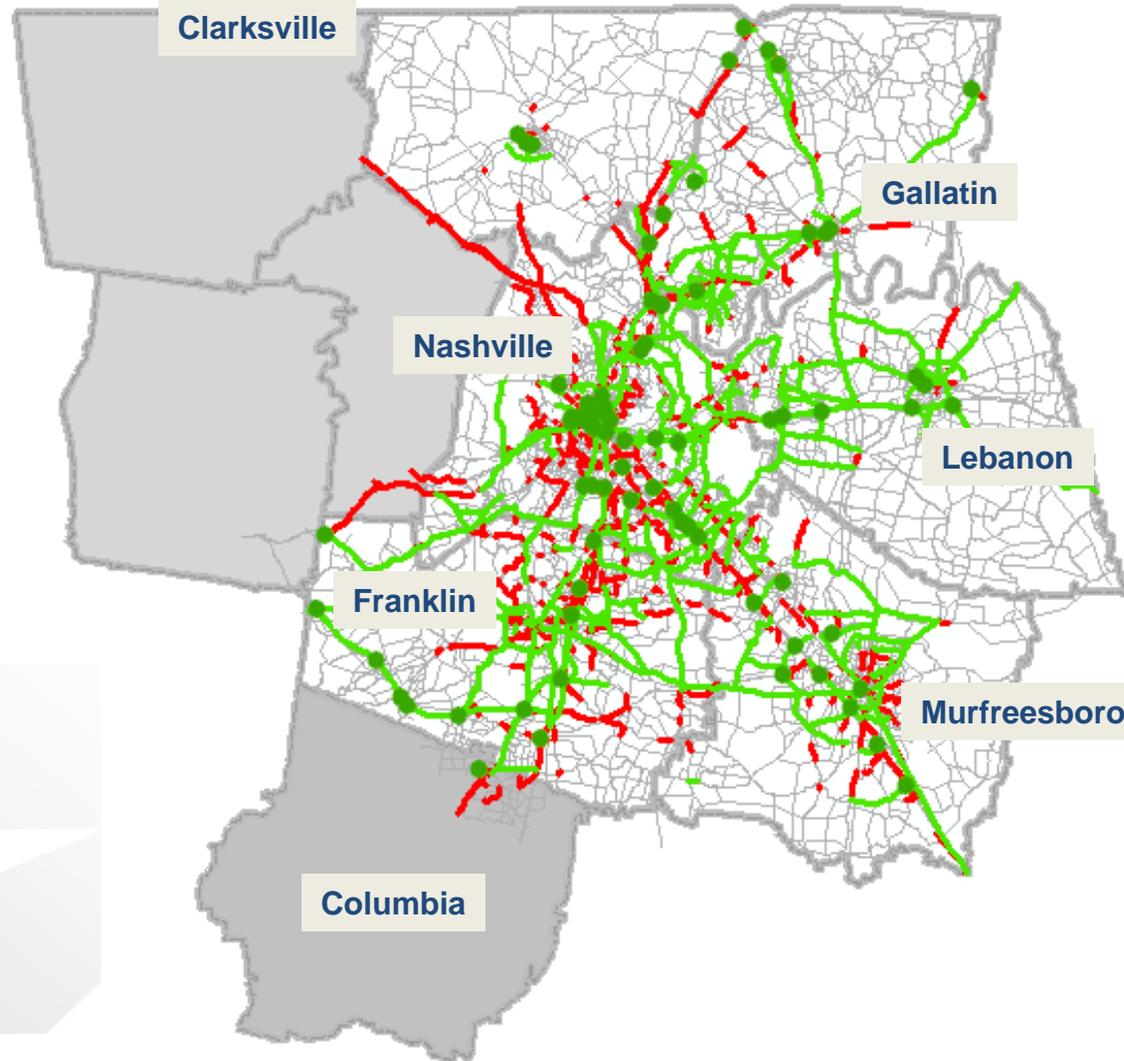
2008 Congestion



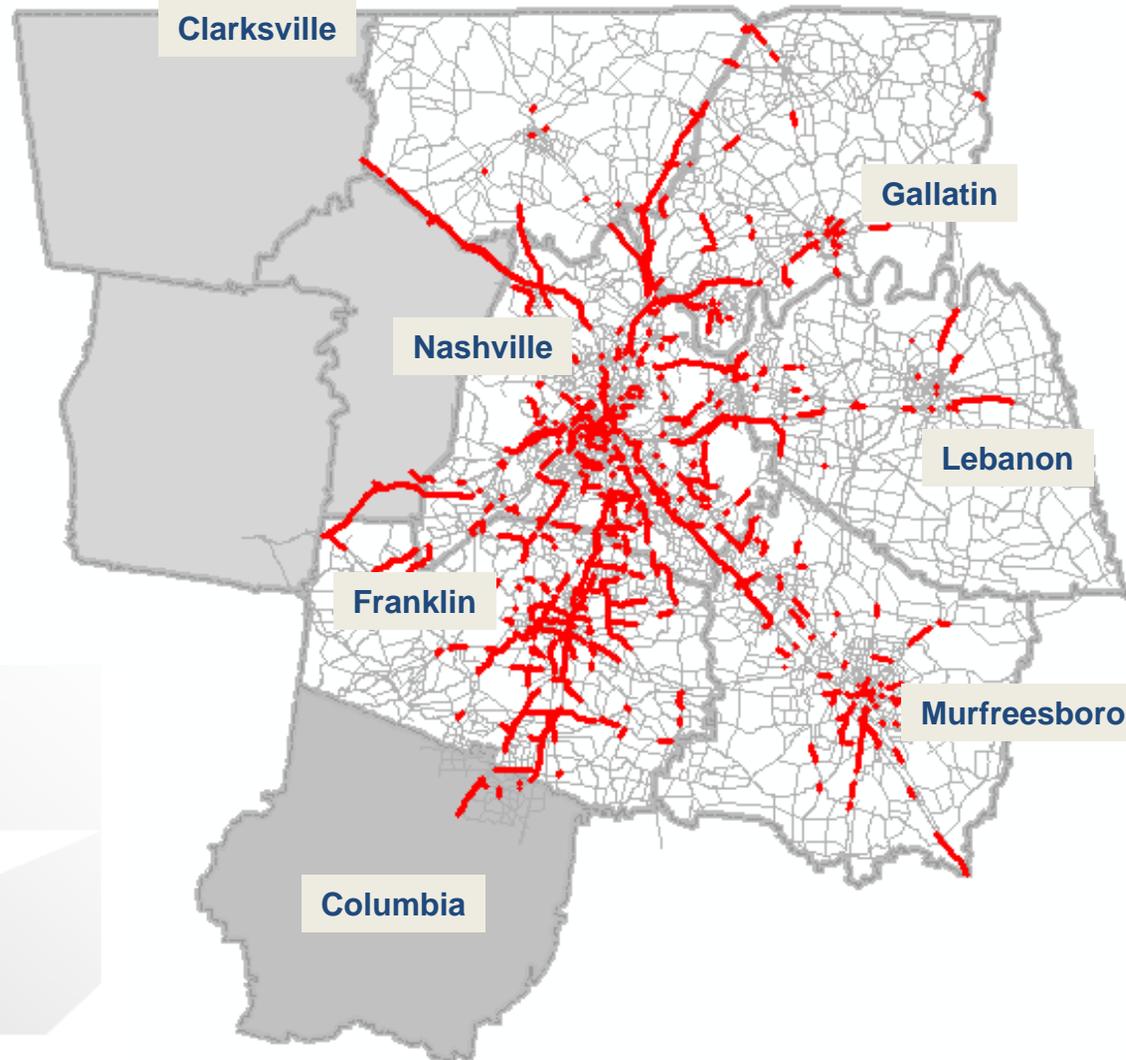
2035 Congestion, Projected



2035 Congestion, Planned Projects



2035 Congestion, After Projects Built



Growing Issues to Address

- ➔ Unmanageable Congestion
- ➔ Longer Travel Times & Trip Lengths
- ➔ Increasing Energy Consumption / Costs
- ➔ Declining Air & Water Quality
- ➔ Aging Population/ Dispersed Families
- ➔ Worsening Personal Health / Increasing Costs
- ➔ Lost Habitat / Natural Areas
- ➔ Unsustainable Costs/ Revenue Sources
- ➔ Lack of Housing Choice

Changing Demographics

A Sharp Decline in Traditional Family Households

Households	1960	2000	2025
With Children	<u>48%</u>	33%	<u>28%</u>
Without Children	<u>52%</u>	67%	<u>72%</u>
<i>Single Person</i>	13%	26%	28%

Census for 1960 and 2000, 2025 adapted from Martha Farnsworth Riche, *How Changes in the Nation's Age and Household Structure Will Reshape Housing Demand in the 21st Century*, HUD, 2003.

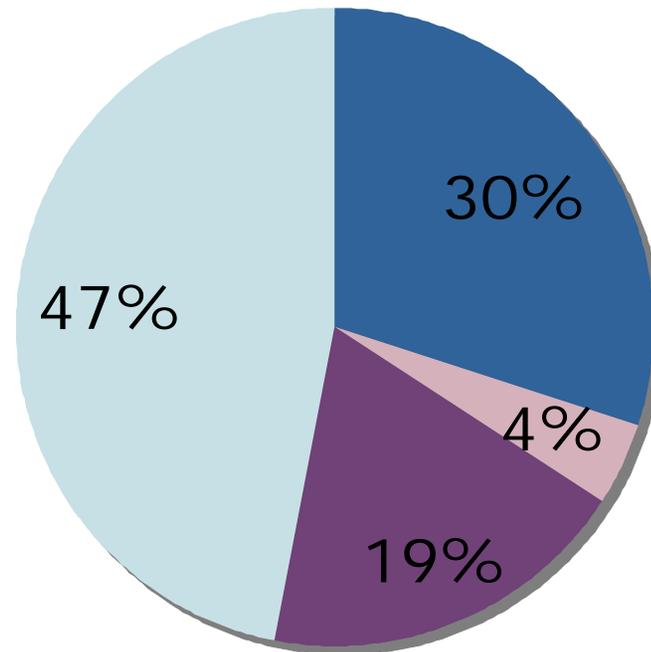
Housing Choices



SOURCE: NELSON 2006.

True Cost of Living

Inclusive Monthly Housing Costs



■ Housing ■ Energy ■ Transportation ■ Remaining Income

How Have Our Competitors Responded?

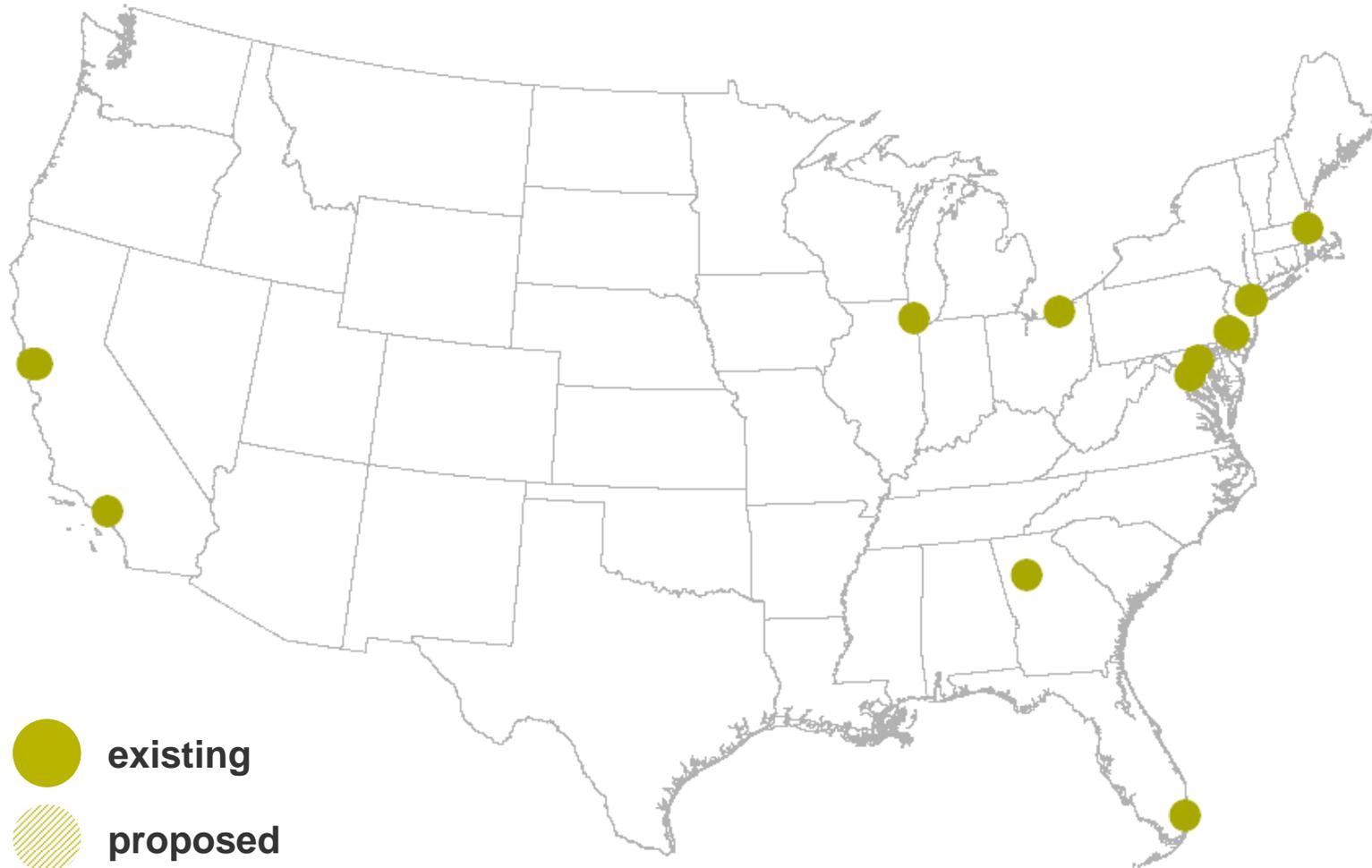
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Heavy Rail Transit



Source: American Public Transportation Association
Mapping: Nashville Area MPO

Heavy Rail Transit



-  existing
-  proposed

Source: American Public Transportation Association
Mapping: Nashville Area MPO

Heavy Rail Transit



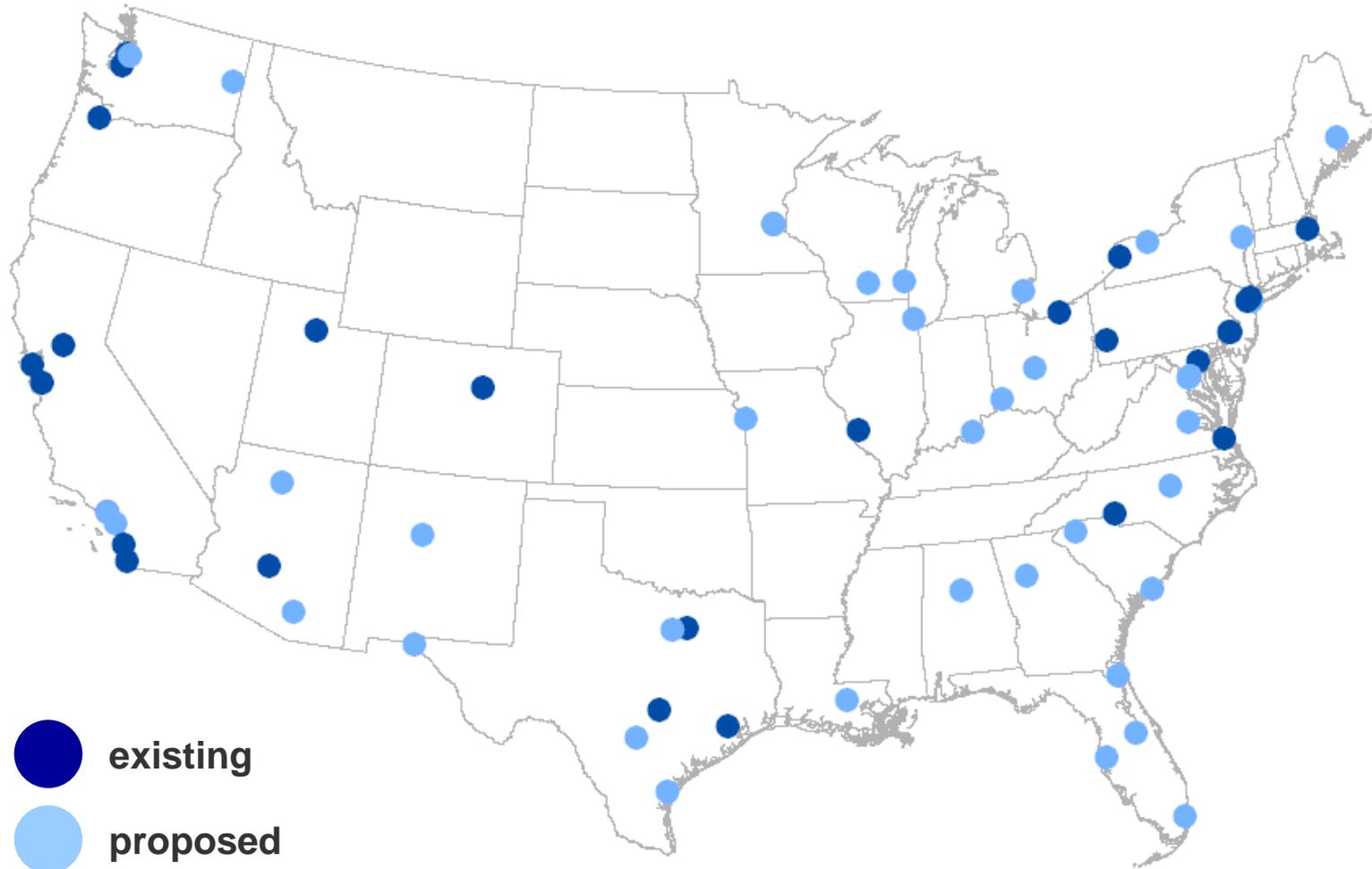
- existing
- ▨ proposed

Source: American Public Transportation Association
Mapping: Nashville Area MPO

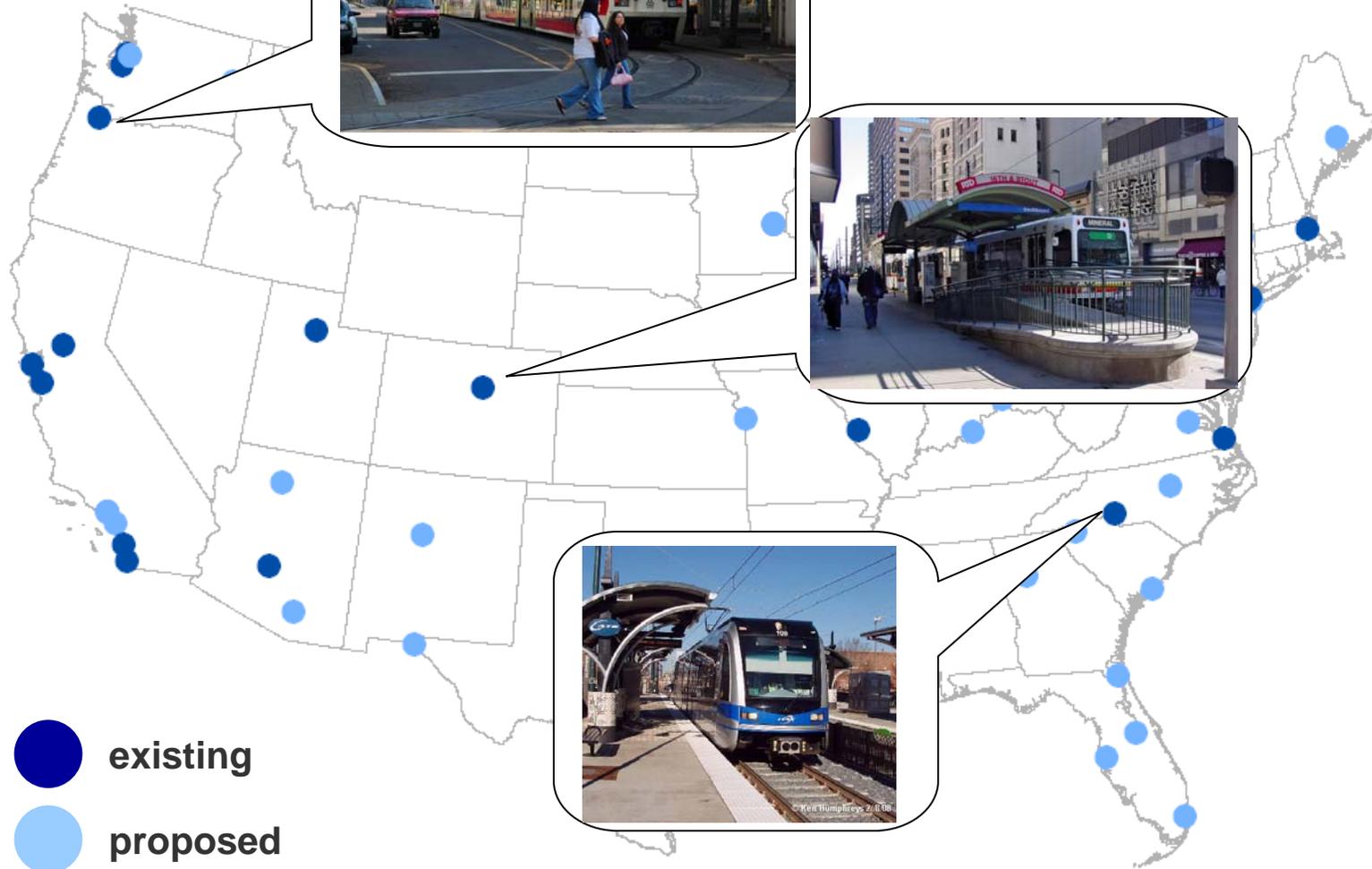
Light Rail Transit



Light Rail Transit



Light Rail Transit



Bus Rapid Transit – Dedicated Lane



Source: American Public Transportation Association
Mapping: Nashville Area MPO

Bus Rapid Transit – Dedicated Lane



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Bus Rapid Transit - Dedicated Lane



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Mapping: Nashville Area MPO

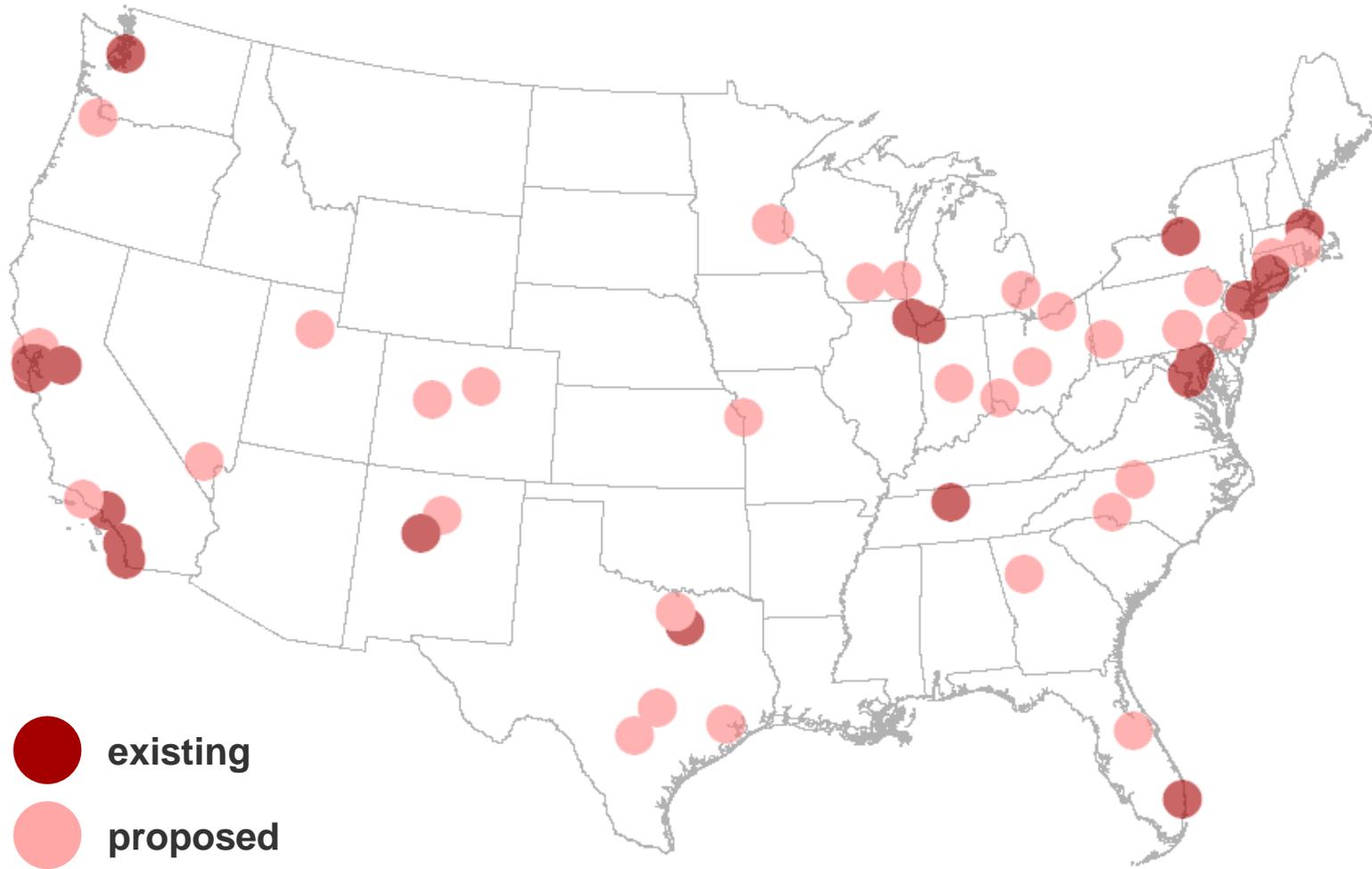
Commuter Rail

Commuter Rail Transit



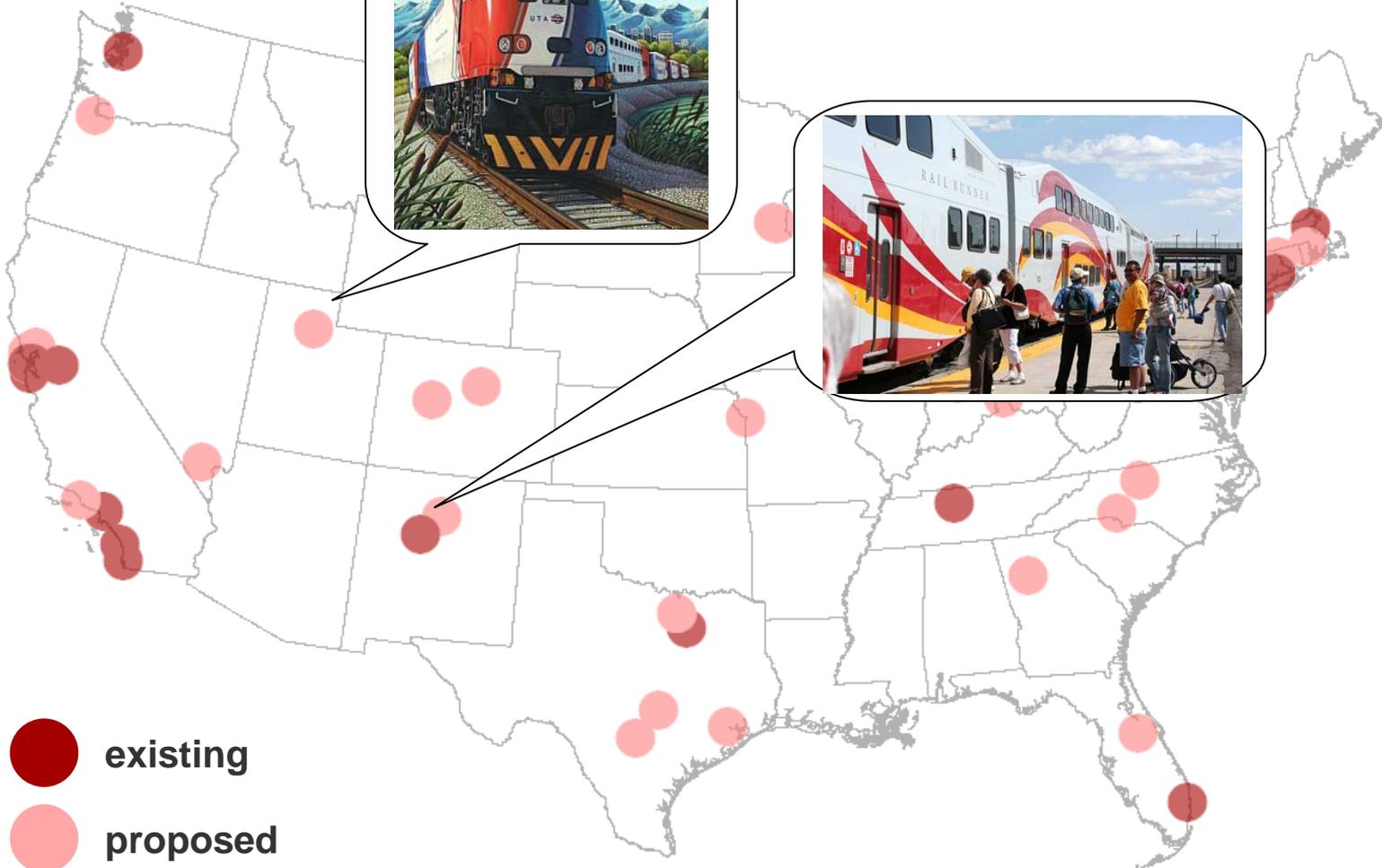
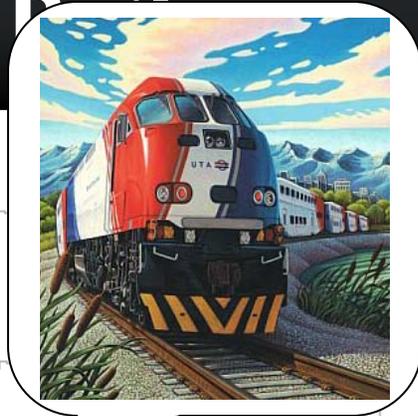
Source: American Public Transportation Association
Mapping: Nashville Area MPO

Commuter Rail



Source: American Public Transportation Association
Mapping: Nashville Area MPO

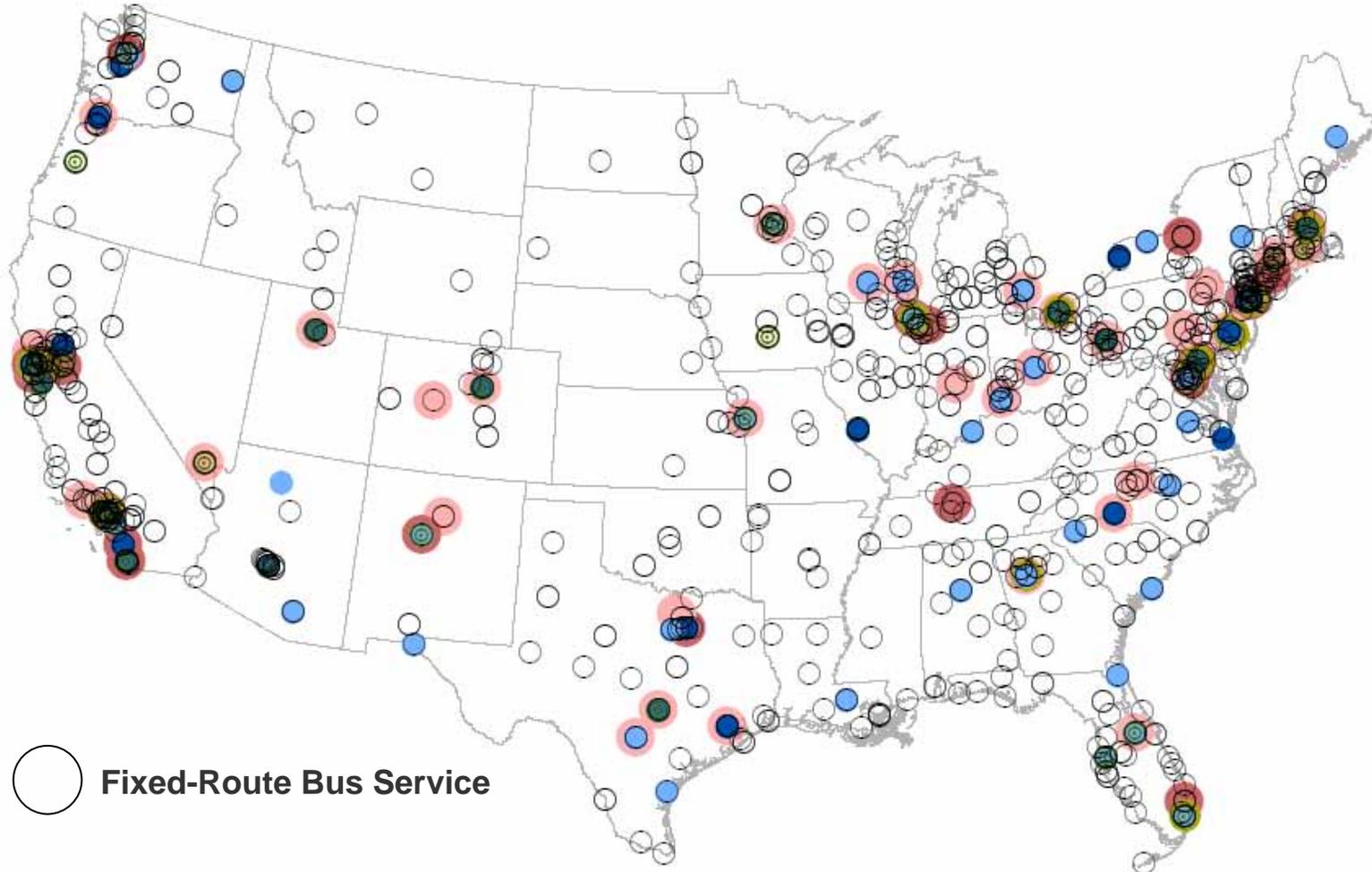
Commuter Rail



-  existing
-  proposed

Source: American Public Transportation Association
Mapping: Nashville Area MPO

Mass Transit across the Nation



Source: American Public Transportation Association
Mapping: Nashville Area MPO

How Should We Invest in Our Future?

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A Multi-Modal Approach

A PLAN TO SUPPORT:

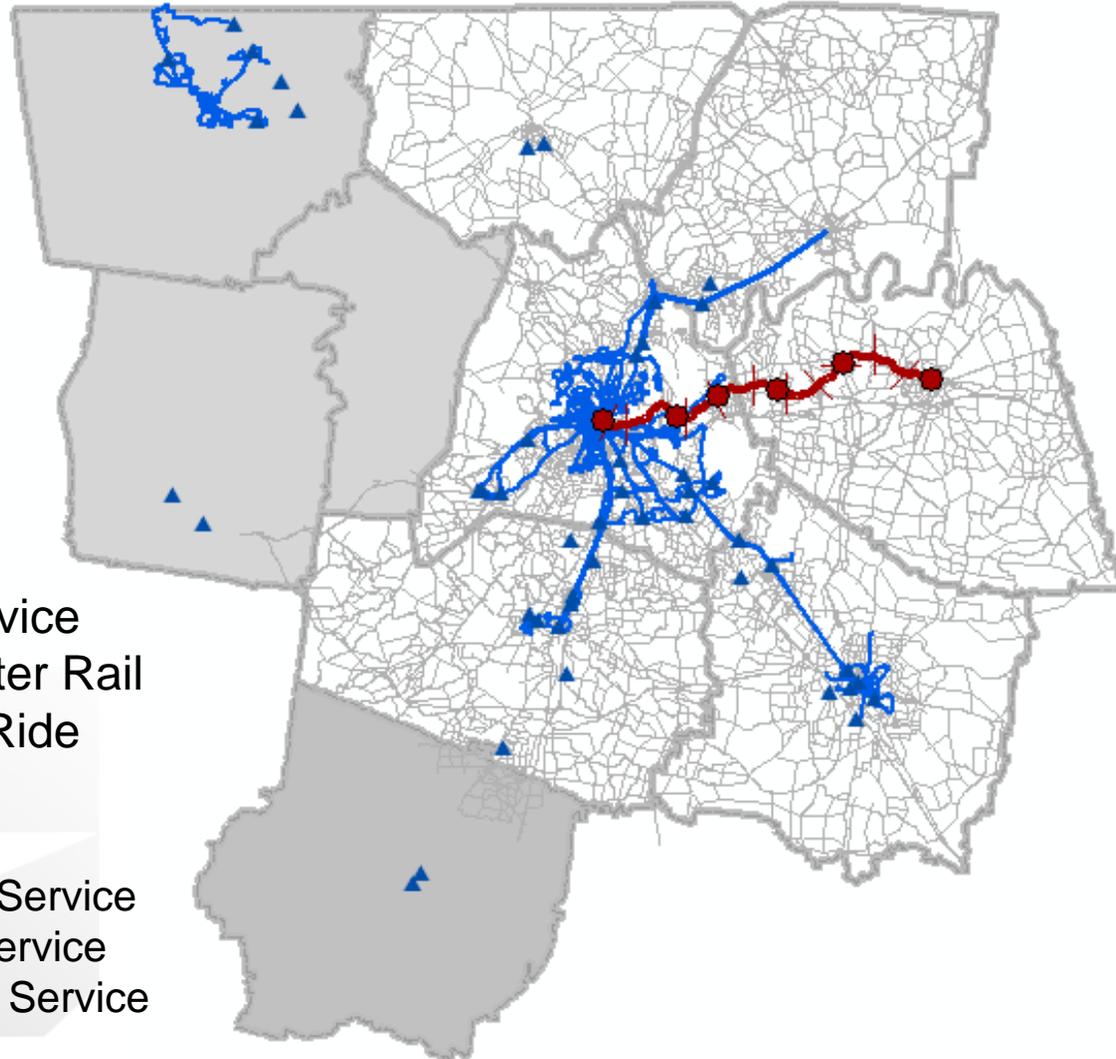
Economy
Mobility
Environment
Safety
Security
Choice



DEVELOPED BY & FOR:

Federal Agencies
State Agencies
Local Govts
Transit Agencies
Residents
Businesses

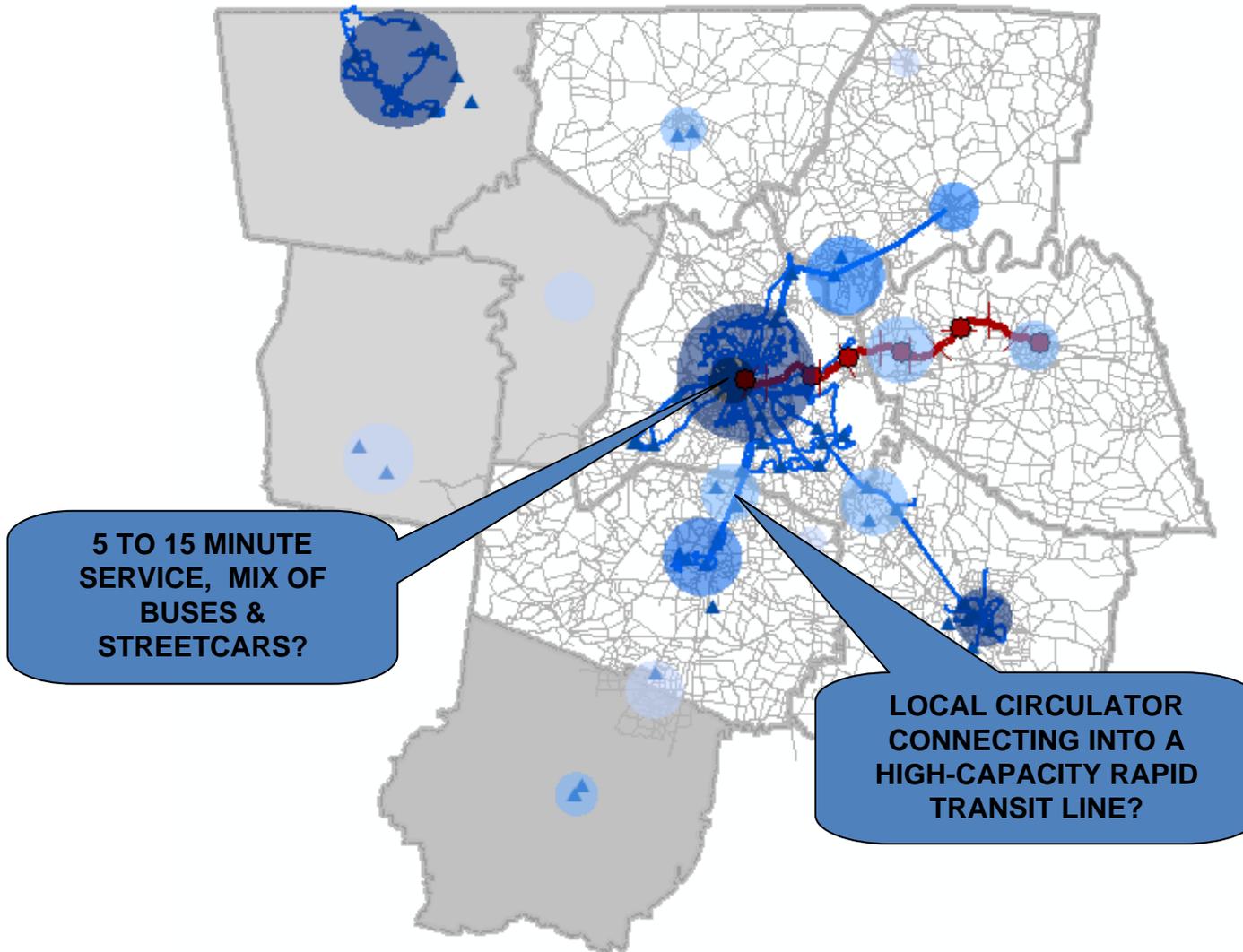
New Transit Options



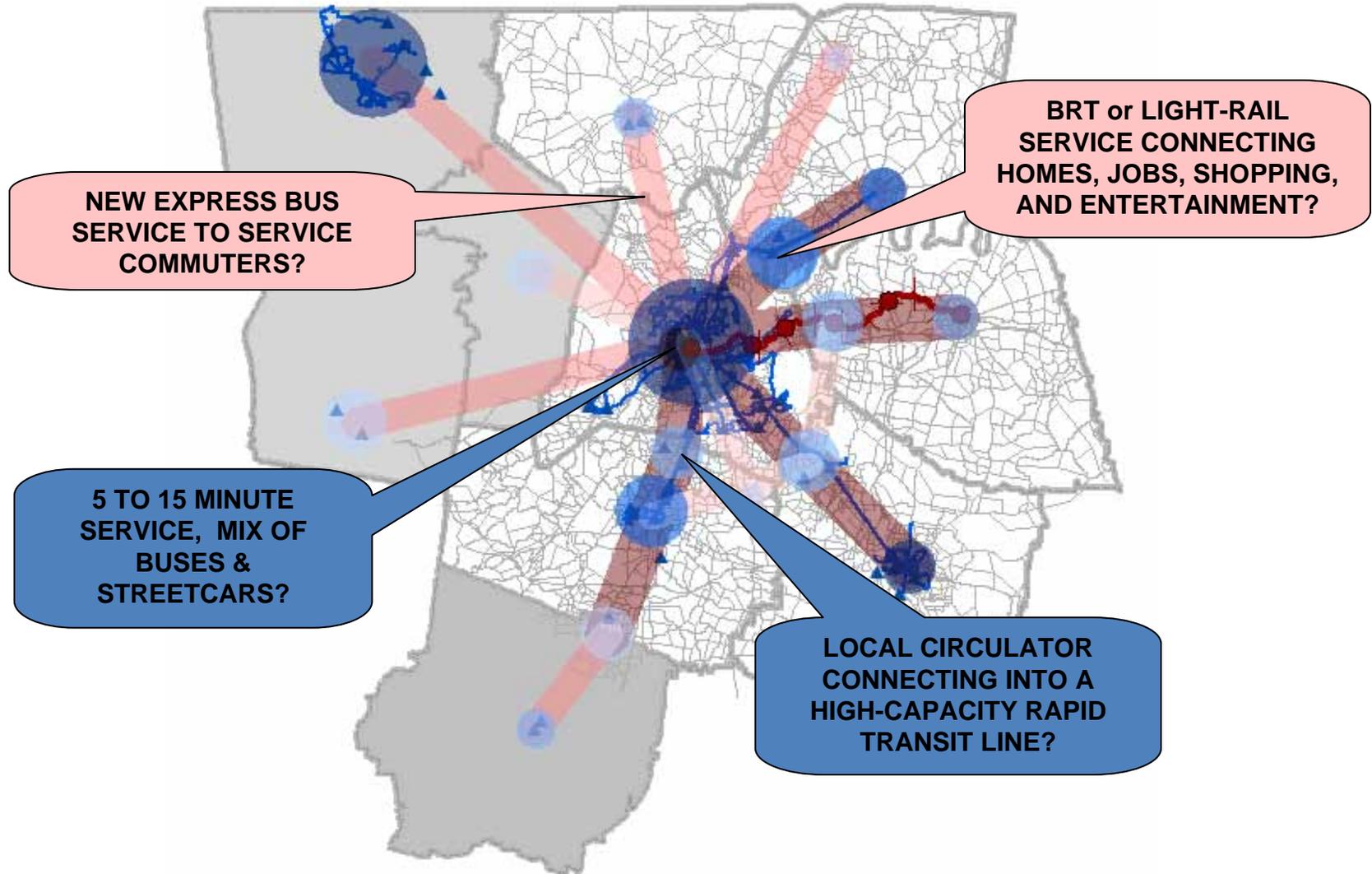
- Bus Service
- Commuter Rail
- ▲ Park & Ride

- Not Shown:
- Regional Vanpool Service
 - ADA Paratransit Service
 - Rural Intercity Bus Service

New Transit Options



New Transit Options



What will it Cost and
How will we Pay for it?

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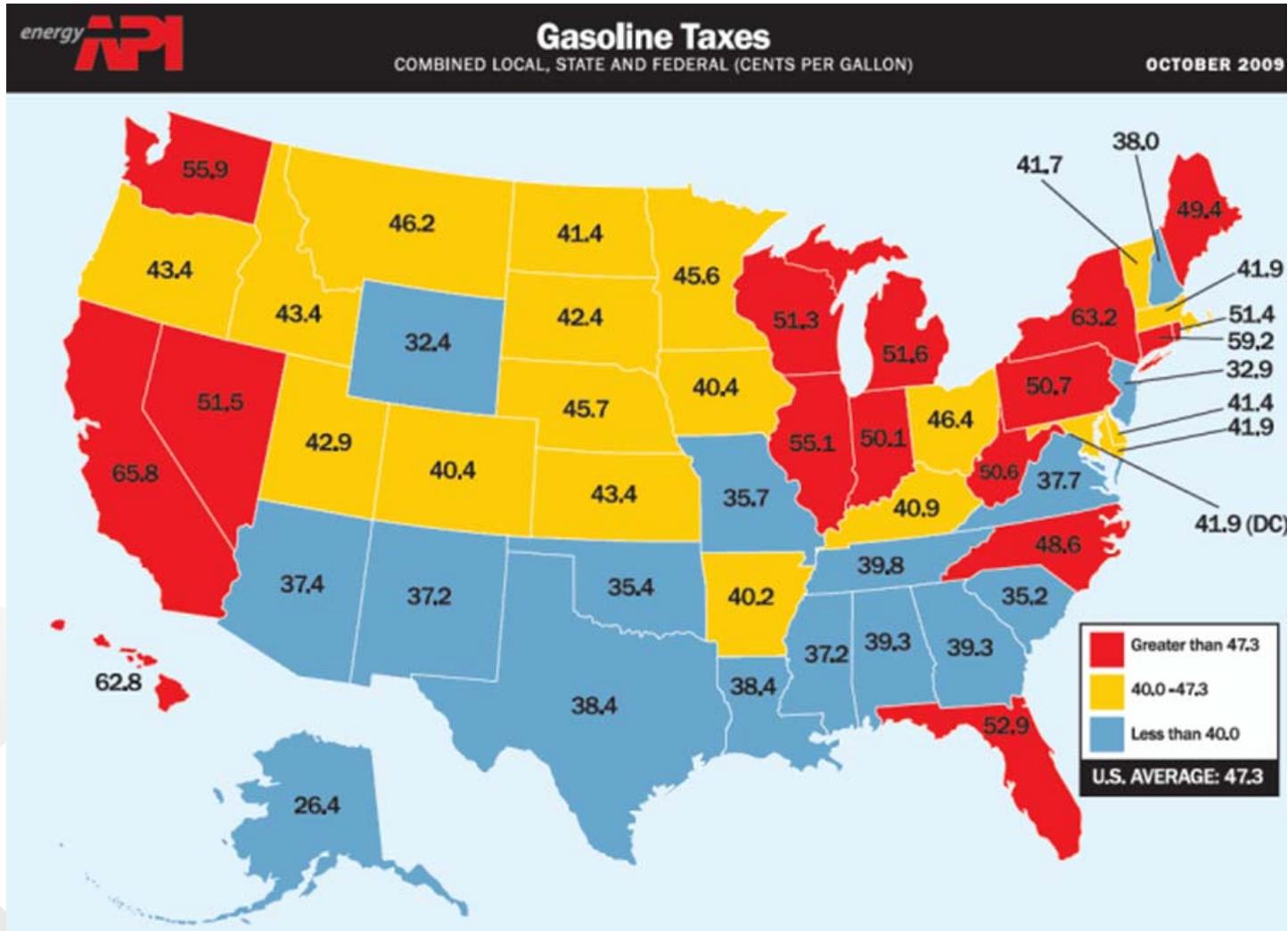
Average Costs per Mile

Transportation Option	Average Cost per mile
Heavy Rail Transit	\$139 – 323 million
Light Rail Transit	\$45 – 85 million
Bus Rapid Transit	\$3 – 49 million
Commuter Rail	\$1 – 15 million
4-Lane Highway	\$32 – 60 million

Funding/ Financing Issues

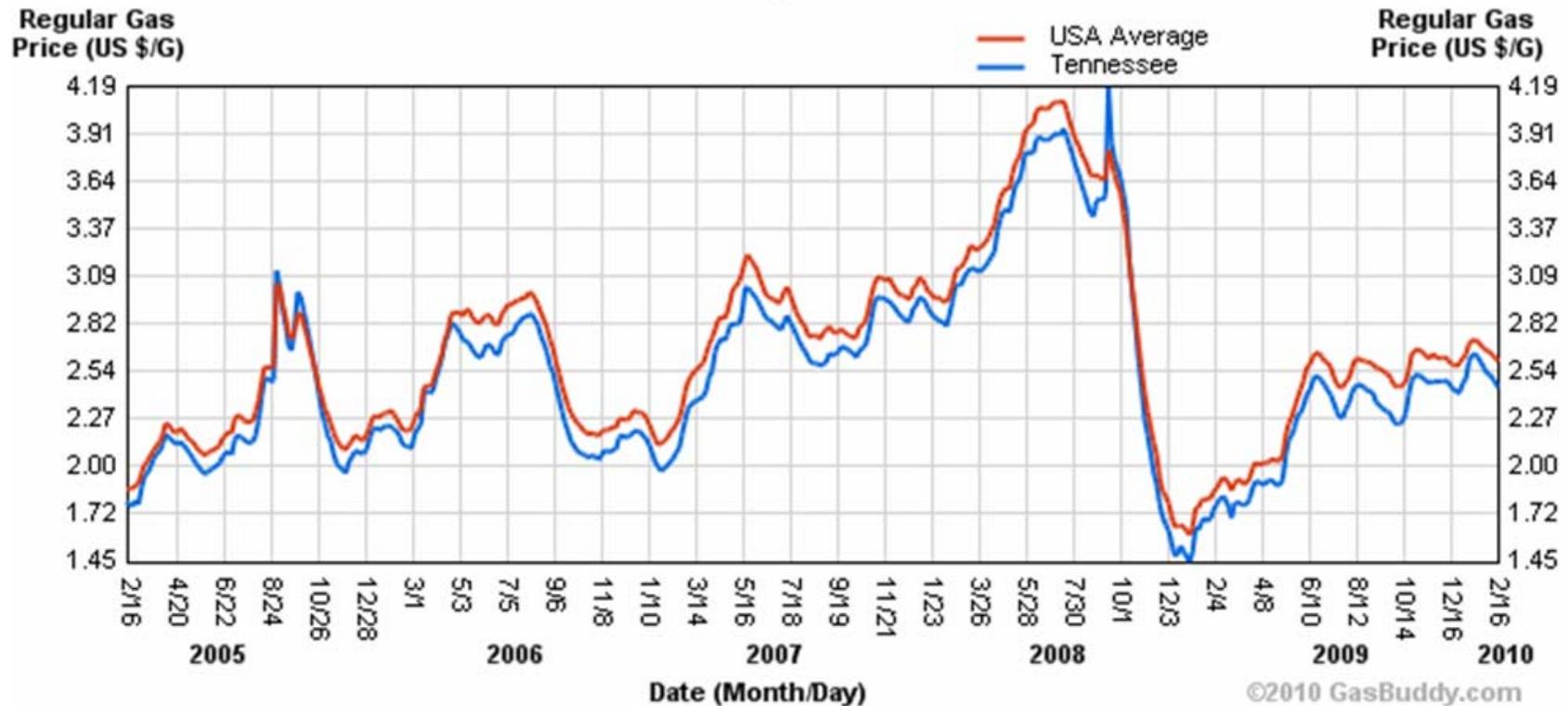
- ➔ 2030 Plan provided \$3.5 billion (2005)
- ➔ **2035 Plan estimated to provide approx \$4.5 billion**
- ➔ The cost of NEEDS is likely double or triple the anticipated revenues
- ➔ **Lack of dedicated funding for transit to ensure permanency and compete for federal funds**
- ➔ Declining fuel tax revenues and buying power means fewer projects funded
- ➔ **Sprawling land development pattern creates unsustainable demand for infrastructure**

Gasoline Prices, February 2010



Gasoline Prices, Last 5 Years

60 Month Average Retail Price Chart

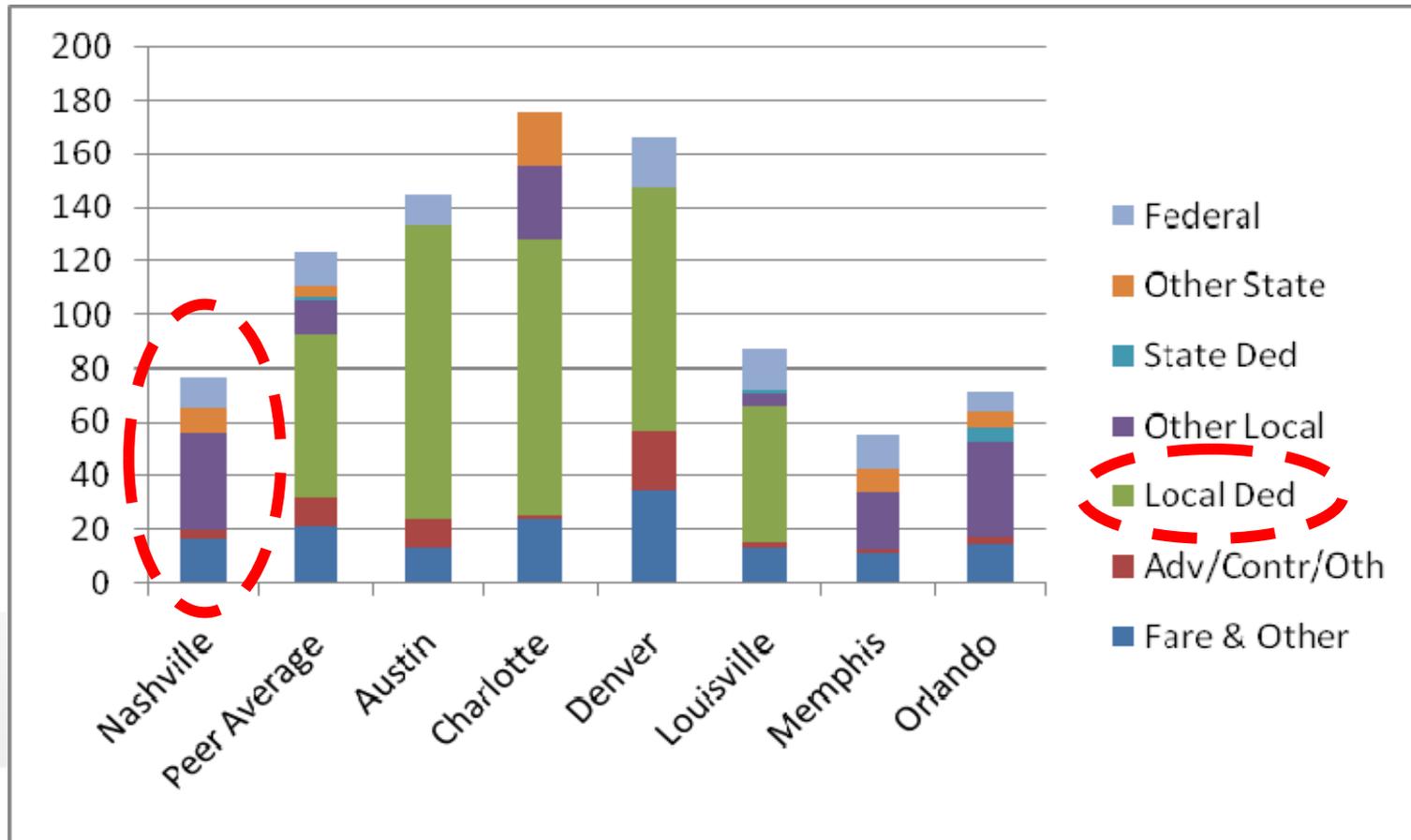


Thinking Beyond the Gas Tax...

- ➔ Re-Prioritization of Current Spending
- ➔ Public Private Partnerships
- ➔ Tolling & Congestion Pricing
- ➔ Distance-Based User Fees
- ➔ Multi-Modal District Impact Fees
- ➔ Dedicated Funding for Mass Transit...

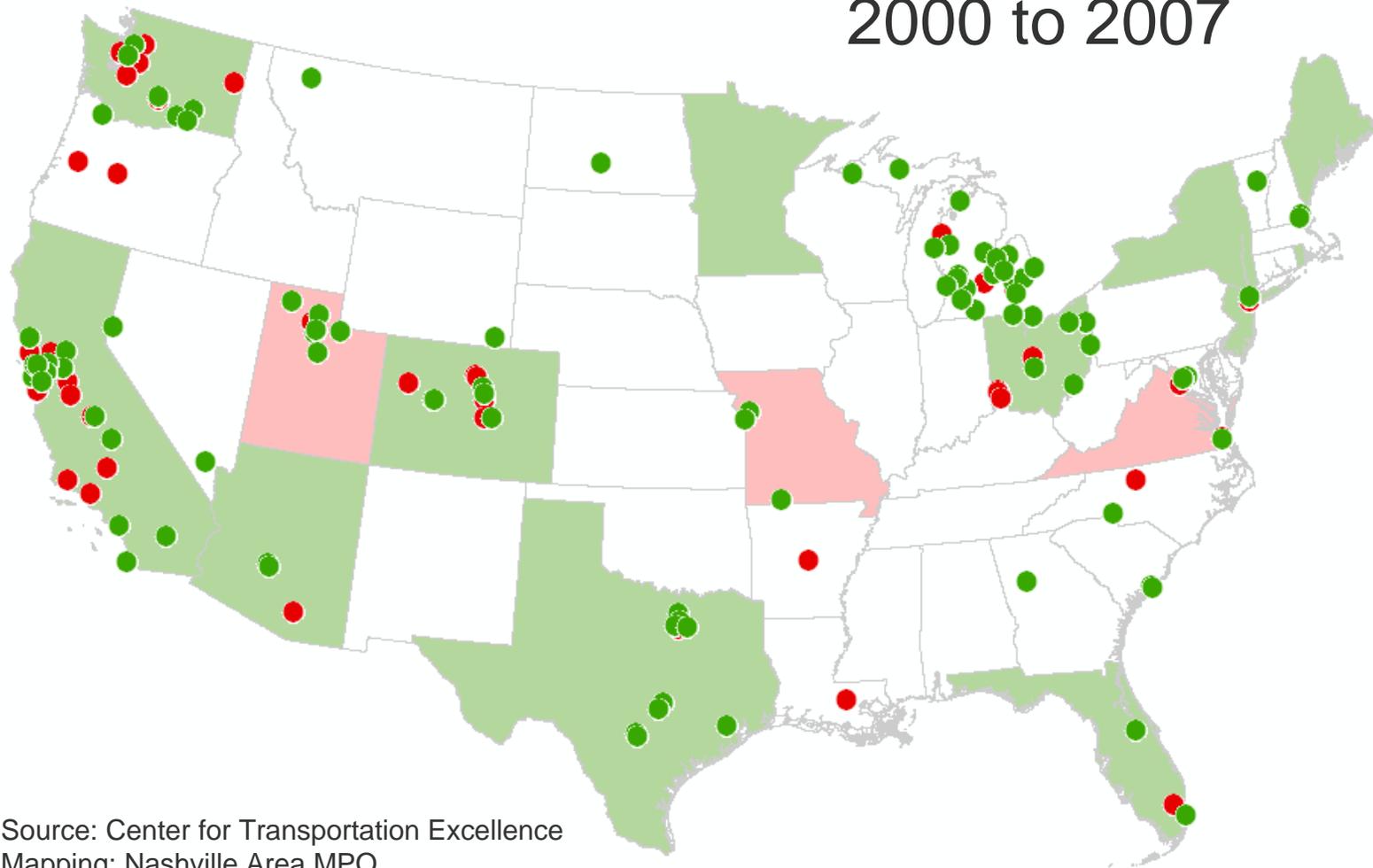


Dedicated Funding for Transit



Transit/ Transportation Ballot Initiatives

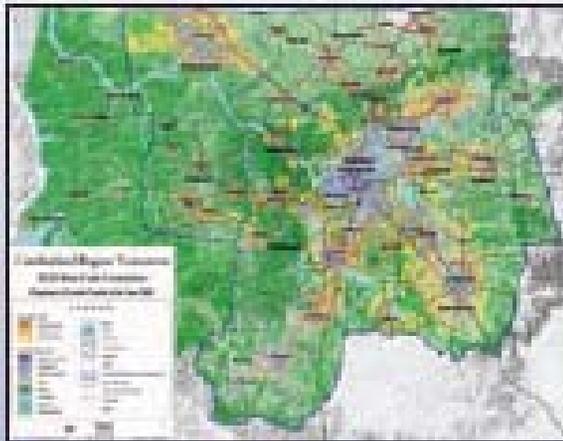
2000 to 2007



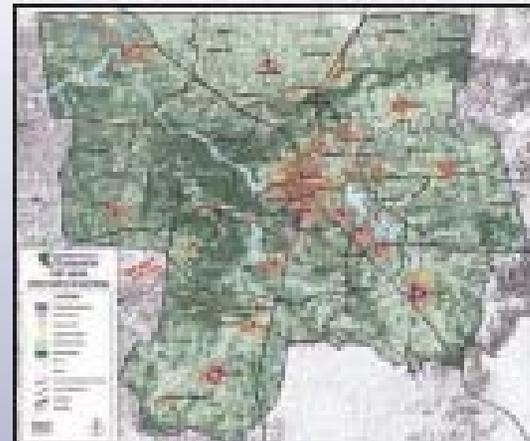
Source: Center for Transportation Excellence
Mapping: Nashville Area MPO

Alternative Growth Strategies

Base Case Scenario



Alternative Case Scenario



Growth Scenario Choices

Base Case	Indicator	Alternative Case
365,000 acres	Land we will consume	91,000 acres
\$6,957,085,995	Infrastructure costs	\$3,406,798,045
4,544 miles	New road miles	2,225 miles
62,444 acres	Acres of new impervious surfaces	35,033 acres
39 miles	Vehicle miles of travel increase	35.9 miles
1.13 persons/Acre	Density patterns-regionwide	5.8 persons/Acre



Livability. Sustainability. Prosperity. Diversity.