

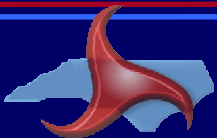
# 21st Century Transportation Committee

Presented by  
Mark Foster, CFO

Charlotte, NC  
January 16, 2008

# AGENDA

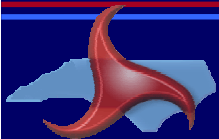
- NCDOT Transformation Update
- State Transportation Priorities
  - NCTA Gap Funding
- Alternative Funding Options
  - Debt Capacity
  - Industry Capacity



# NCDOT Transformation

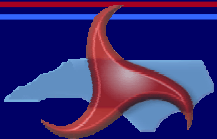
NCDOT's Transformation Includes:

- Vision - 21st Century DOT focused on State's transportation network connectivity and performance
- Prioritization - Realization of the need for a better prioritization of the State's resources to address congestion, safety, and infrastructure needs, and
- A better performing DOT



# Solving NC Transportation Problems

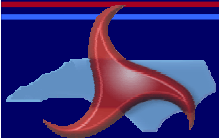
- Not Simple Matter of Revenue
- Requires a 3 Step Approach
  - 1) Improve NCDOT Organization & Process to become more efficient and impact focused
  - 2) Establish Statewide Prioritization Process
  - 3) Determine Incremental Resources/Revenues to achieve desired outcomes
    - Dependent on 1 and 2



# Transformation Beginnings

## 21st Century NCDOT Vision

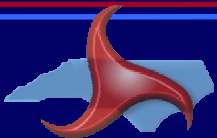
- Focus on Network Connectivity & Function, not just Projects
- Enhance Systems Operations, to leverage existing infrastructure
- Establish Network Performance Standards
- Greater Internal Efficiency, Ownership and Accountability
- Prioritized, Outcome-Based Budgets
- Link Infrastructure Delivery and Statewide Commerce Goals
- Culture Shift, become true Service Provider



# Transformation Diagnostic Highlights

## Development Areas

- Conflicting Vision and Goals
- Non-Strategic Portfolio of Project and Services
- Core Processes Lack Prioritization, Accountability, Coordination
  - Project Design & Delivery
  - Strategic Planning (ad-hoc)
  - Operational Processes (not linked to metrics)
  - Funding Flexibility
- Shortcomings
  - Organization Structure (Silo and non-collaborative)
  - Failing Talent System (Recruit/Motivate/Develop)
  - Communication (Not pro-active)
  - Employee Mindsets



# Five Key Transformation Initiatives

## Strategic Direction

- Define common **Mission** and **Goals** for the NCDOT
- Determine the appropriate **scope of activities** for NCDOT
- Identify potential opportunities for new sources of **funds**
- Evaluate possible **organizational changes** to reach strategic goals

## Planning and Prioritization

- Establish a **Strategic Planning Office**
- Develop **strategic plan** that aligns with Mission and Goals
- Establish a new **prioritization approach** based on strategic priorities

## Program and Project Delivery

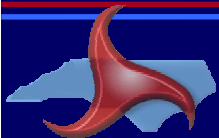
- Develop and implement enhanced **program and project delivery** models and processes

## Performance and Accountability

- Implement a public facing **Executive Dashboard** that is aligned with the mission and goals
- Introduction of a **performance based culture** that cascades performance metrics throughout the organization

## Improved Human Resource Management

- Design a **rigorous performance review** process tied to performance metrics
- Design a process for **leadership planning**
- Make high level recommendations on **employee recruitment, development and retention**



## Strategic Direction

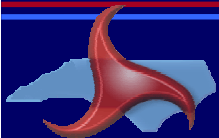
# Alignment of Strategic Direction with New Mission and Goals

### Accomplishments to Date:

- ✓ New Mission and Goals
- ✓ Strategic Leadership Roles Identified
- ✓ Organization Assessment Approach Identified and Plan Developed
- ✓ Alternative Funding Recommendations Developed
- ✓ Streamlined Project and Programs Delivery Models Identified

### Key Deliverables - Within Next 12 Months:

- Establish Appropriate Strategic Leadership Roles / Positions
- Complete a Comprehensive Organizational Assessment of All Business Units:
  - Mission
  - End Products
  - Activities
  - Efficiencies
- Recommend Strategic Organizational Changes
- Actively Participate in Development of Statewide Logistics Plan





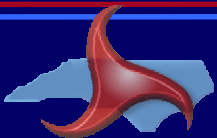
# Organizational Assessment

## Accomplishments to Date:

- **Efficiency-based Organization Design**
  - Addressing Repetitive Functions
  - Improving Cost Effectiveness By, E.G., Outsourcing or Devolving Activities
  - De-layering the Organization (Vertically and Horizontally)
  - Tightening Spans of Control Within Organization
  - Aligning Resource Levels With Levels of Work
- **Effectiveness-based Organization Design**
  - Map Major Functions of Organization
  - Identify Interdependencies, Coordination Points, and Mutual Accountabilities to the Branch Level
  - Review Other Organization Structures to Develop a Set of Organization Design Choices to Accommodate Linkages

## Key Deliverables - Within Next 12 Months:

- Assess Results
- Make Long Term Organizational Changes



## Program and Project Delivery

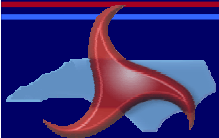
# Streamlined Program and Project Delivery

### Accomplishments to Date:

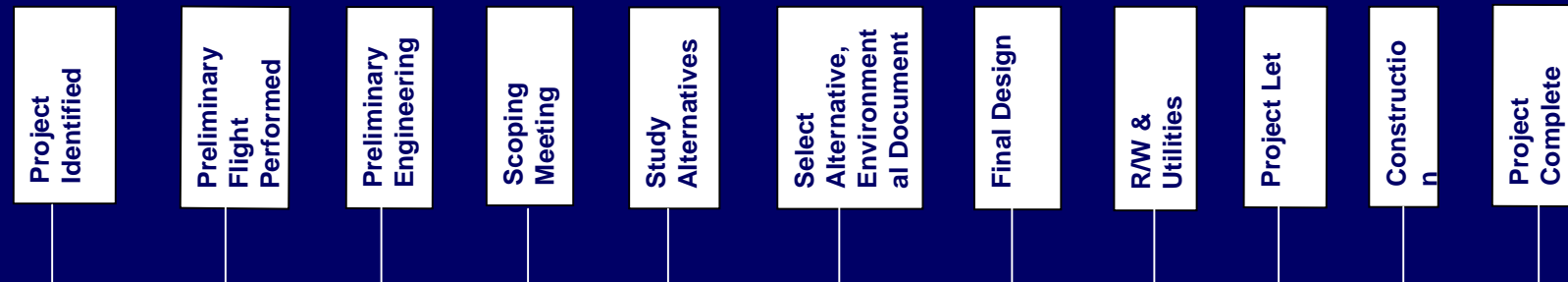
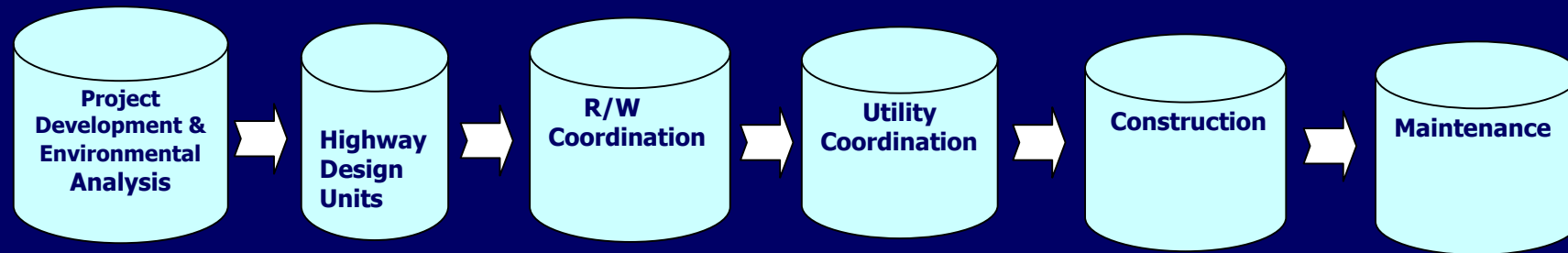
- **NCDOT Bridge Program**
  - Twenty Year Assessment of Statewide Bridge Needs
  - Developed Processes to Address Gaps in Bridge Program Needs
- **TIP Projects**
  - Test Streamlined Project Delivery Models on Select TIP Projects
  - Demonstrate Ability to Deliver Projects Efficiently Particularly When Clear Priorities Are Set
  - PBS&J Study
- **Mobility Program**
  - Establish Standard Measures of Congestion to Allow Prioritization of Solutions
  - Identify Alternative Approaches to Manage Congestion
  - Assess Efficiency and Effectiveness of Resources Currently Allocated to Mobility Management

### Key Deliverables - Within Next 12 Months

- Implement Processes
- Implement “Pilots”
- Assess Results and Make Long Term Changes Based on Lessons Learned



# Historic Bridge Program - Silo Effect

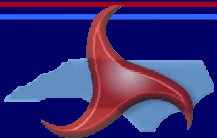


## 1-5 Year Process

Projects are selected based on Central list with minimal Division Input.

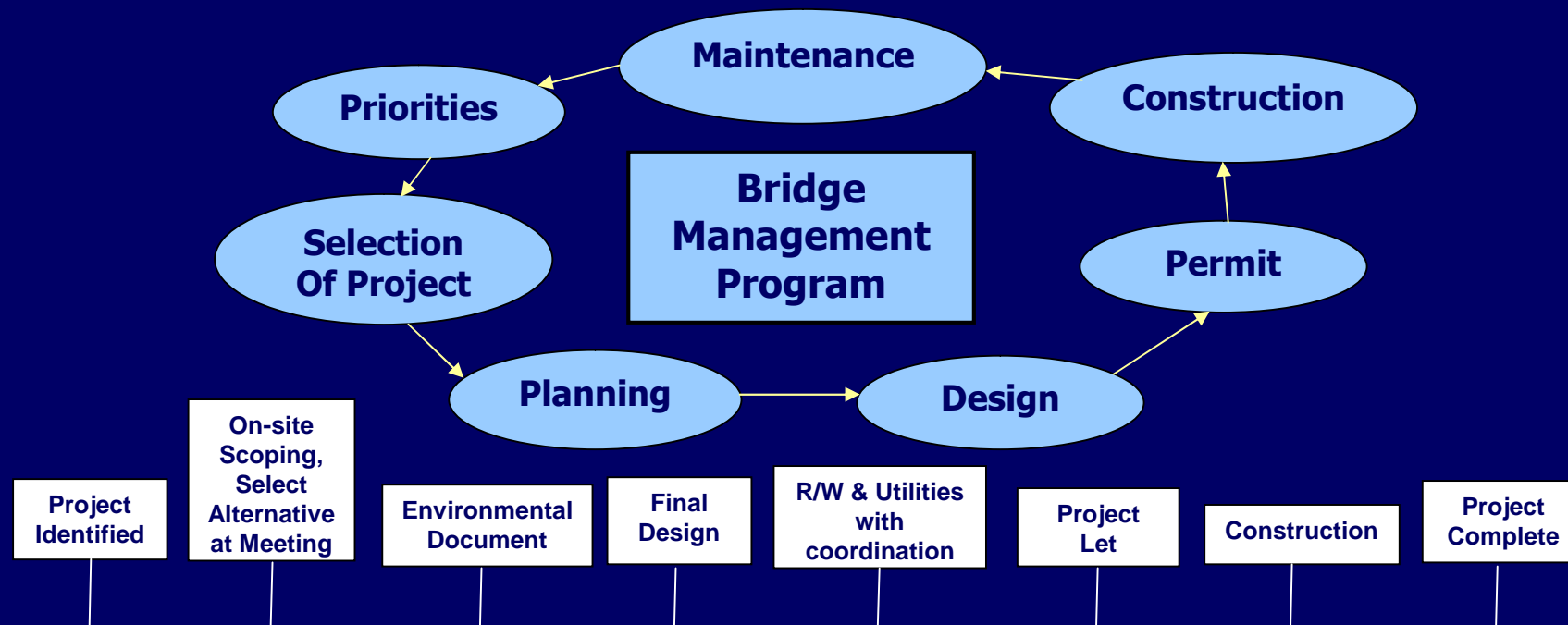
- The same design standards are applied to all bridges
- Design and Construction performed without budget constraints

- No team approach, Multiple hand-offs occur within units
- No Full accountability
- Inefficient Process



# New Bridge Program

## One Owner with Regional/Division Coordination



### 1-3 Year Process

**Projects are selected based on need and available funds with significant Division input.**

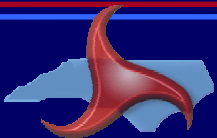
- Convert Bridge Maintenance to Bridge Management - accountable for entire bridge program
- Division Managers are accountable for bridges in the Division
- Regional Team Approach - better efficiency and accountability
- R/W and Utility Coordination will provide more focus on R/W and Utility Relocation

- On-site scoping minimizes alternatives, saving time and money
- Tiered Design Standards - right size bridge for route (est. 25% savings)
- Budget Based Design and Construction - spending awareness and accountability



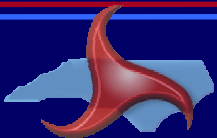
# TIP Projects - New Delivery Models

- Pilot Management Models
  - Project Executive
  - Project Executive with Formal Team
  - Tri-Technical Managers - This will be the standard operating practice
- Regionalization of NCDOT - Alignment of Planning, Design and Operations to create regional teams
- Creation of an informal two-tier TIP with one part Development and one part Delivery



# TIP Projects - Impact: New Delivery Models

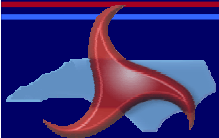
- Pilot Management Models
  - provide high level accountability
  - single point of responsibility
  - reduction in cost and delivery time
- Regionalization of NCDOT
  - creates teams in regions that will continuously work with each other to prevent silos and promotes collaboration among business units
  - increase efficiency
  - provide project accountability from scope to construction completion
- Informal two tier TIP with one part Development and one part Delivery
  - provides a measurable TIP with realistic delivery dates
  - establishes delivery expectations and budget constraints
  - sets achievable project expectations



# System Operations & Management



- 3 Transportation Mgmt Centers
- 150 Dynamic Message Signs
- 200 Traffic Cameras
- TIMS Website & 511
- 500 Miles of IMAP
- 139 CL Traffic Signal Systems





# System Operations & Management

- Freeway Management
- Arterial Management
- Traveler Information\*
- Incident Management\*
- Emergency Management
- Work Zone Management



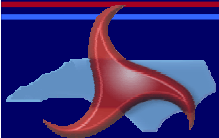
- Ramp Metering
- Commercial Vehicle Operations
- Transit Management
- Road Weather Management
- Electronic Payment Systems (Tolls)
- Crash Prevention & Safety





## Improved System Operations & Mgmt Benefit /Cost Estimates

- Tucson, AZ: \$6.3 benefit /\$1 invested
- Cincinnati, OH: \$11.80 benefit / \$1 invested
- Seattle, WA: \$12.20 benefit / \$1 invested



## Planning and Prioritization

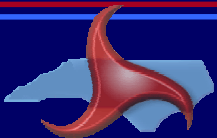
# Alignment of Strategic Direction with New Mission and Goals

### Accomplishments to Date

- ✓ Identified the Need for a Strategic Planning Office
- ✓ Hired a Strategic Planning Director
- ✓ Developed a Conceptual Strategic Planning and Prioritization Process
  - Strategic “Direction Setting” Cycle
    - Frequency 8 Years
    - Outlook 20 - 25 Years
  - Strategic Prioritization Cycle
    - Frequency 2 Years
    - Outlook 2 - 7 Years
  - Annual Action Planning Cycle
    - Frequency Every Year
    - Outlook 1 - 2 Years
- ✓ Trained Departmental Leaders and Stakeholders on the New Conceptual Strategic Prioritization Process

### Key Deliverables - Within Next 12 Months

- Establish Strategic Planning Office
- Continue to Communicate Conceptual Strategic Planning and Prioritization Processes to Key Stakeholders
- Pilot Annual Action Planning Process



## Performance and Accountability

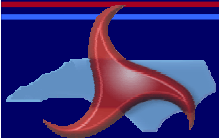
# Implementation of Performance Based Culture

### Accomplishments to Date

- ✓ Developed NCDOT's **Value Tree** Based on Department's New Mission and Goals
- ✓ Developed **Key Performance Indicators** That Align With New Mission and Goals
- ✓ Developed Performance **Metrics** for Department Leaders That Align With New Mission and Goals
- ✓ Implemented Performance Based Management **Targets** for NCDOT Maintenance and Operations Across the 14 Divisions
- ✓ Developed a Preliminary **Executive Dashboard** and Published on NCDOT Web Site

### Key Deliverables - Within Next 12 Months

- Complete Development of Performance Targets for All Goals
- Develop Performance Metrics for All NCDOT Employees
- Educate All Employees on New Performance Culture
- Develop a Robust Executive Dashboard That Will Show Progress Towards Accomplishing Performance Outcomes



## Improved Human Resource Management

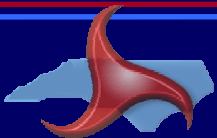
# Improved Human Resource Management

### Accomplishments to Date

- ✓ Completed Assessment of Current Personnel Practices and Developed Recommendations
- ✓ Developed Leadership Development System
- ✓ Developed Listing of “Core Values” for NCDOT
- ✓ Developed Performance Management System in Conjunction With Office of State Personnel
  - Includes Quantifiable Performance Metrics Assessment
  - Includes “Value Statement” Assessment
  - Includes Leadership Development Assessment
  - Includes Consequence Management Guidance
- ✓ Identified Need for Succession Planning
- ✓ Trained Senior Leadership on new Performance Management System

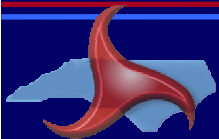
### Key Deliverables - Within Next 12 Months

- Continue Training and Pilot the Implementation of New Performance Management System for All NCDOT Employees
- Complete an Employee “Value Proposition” That Can Be Used to Recruit Top Talent
- Develop and Implement a Mentoring Program Throughout the Organization
- Develop Career Planning System for All Employees (Technical, Functional, Managerial)
- Evaluate the Training and Development Needs of NCDOT Employees



# Other NCDOT Transformation Accomplishments

- ✓ EEP Budget Reduction - \$43 Million
  - Collaboration with DENR, COE, DWQ
- ✓ I-95 Corridors of the Future - \$21 Million
  - VA, NC, SC, GA & FL: one of 6 National selections
  - Future Opportunity for Significant Federal Assistance
- ✓ Traffic Management Federal Grant - ≈\$1 Million
  - All Interstates
- ✓ Statewide Traffic Operations Center
  - Partnership with SHP/NCNG/EOC/NCDOT/NCTA
- ✓ GARVEE Bonds - \$300 Million
  - 30 Projects on Strategic Highway Corridors

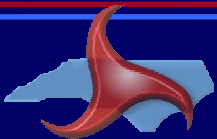


# Asset Management

- **Policy Driven** - Decisions based on well defined policy
- **Performance Based** - Policy decisions drive the outcomes
- **Analytical Analysis** - Resource allocation based on modern investment analysis and best value concepts
- **Decisions based on Quality Information** - Investment decision based on accurate and timely data
- **Monitoring for Accountability** - Performance results are monitored for accountability and efficiency improvement

*Allows better communication with stakeholders, legislature and public*

*Better able to allocate resources to most needed work*



# Mission & Goals

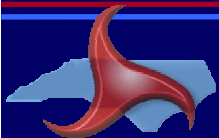
## NCDOT

### OUR MISSION

*"Connecting people and places  
in North Carolina – safely and  
efficiently, with accountability  
and environmental sensitivity"*

### OUR GOALS

- Make our transportation network **safer**
- Make our transportation network move people and goods more **efficiently**
- Make our infrastructure **last longer**
- Make our organization a place that **works well**
- Make our organization **a great place to work**



# Where are we Today?

## Strain of external trends

### Growing Demand on System

- *Doubling of VMT by 2030*
- *NC population projected to grow by 50% between 2000 and 2030, "7<sup>th</sup> most populous state by 2030"*

### Increasing Cost of Supplies

- *80% construction supplies inflation since 2002*
- *Spike in global asphalt, cement, and steel prices expected to continue*

### Declining Funding

- *State gas tax purchasing power has declined (inflation and mpg)*
- *Federal Highway Trust Fund program projected to run out of funding by 2009*
- *Transportation funding flat/declining for FY2008/09\**

\* Gas tax cap and increased other agency support  
Source: ASCE Report Card; NCDOT internal data

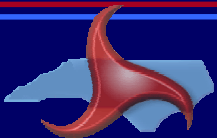
## ASCE Report Card

**NC current state:  
Bridges C-, Roads D**

|                |    |
|----------------|----|
| Airports       | D+ |
| Bridges        | C- |
| Dams           | D  |
| Drinking Water | C+ |
| Rail           | B- |
| Roads          | D  |
| Schools        | C- |
| Storm Water    | C- |
| Waste Water    | C- |

**NC GPA C-**

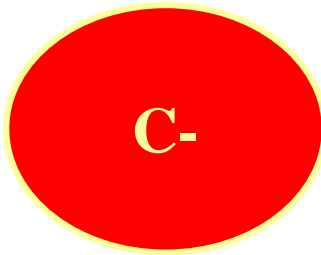
**On current course,  
overall grade will  
drop to a D in 6  
years**





# Where are we Going? 21st Century DOT

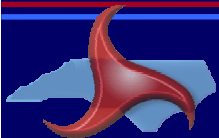
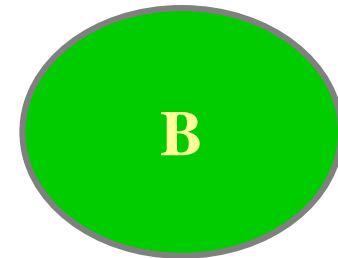
## Current scorecard



## Improving NC Infrastructure

- A statewide logistics plan
- A transformed DOT
  - Clear strategic direction
  - Efficient execution
  - Accountability for performance
- Adequate and sustained funding

## Desired scorecard



# Where are we Going?

## TIERED GOALS - EXAMPLE

| Category          | Tier              | Current Condition             | Current LOS | Target condition                 | Target LOS |
|-------------------|-------------------|-------------------------------|-------------|----------------------------------|------------|
| Bridges           | Overall           | – 31% deficient               | D           | – 22-23% deficient               | B          |
|                   | Statewide (14%)   | – 23% deficient               | C           | – 20% deficient*                 | B          |
|                   | Regional (8%)     | – 30% deficient               | F           | – 23% deficient*                 | B          |
|                   | Subregional (78%) | – 33% deficient               | C           | – 33% deficient*                 | C          |
| Pavements         | Overall           | – 66% Good/13% Poor           | D           | – 80% Good/7% Poor               | B          |
|                   | Statewide (11%)   | – 71% Good/13% Poor           | D           | – 85% Good/5% Poor               | B          |
|                   | Regional (14%)    | – 65% Good/16% Poor           | D           | – 80% Good/7% Poor               | C          |
|                   | Subregional (75%) | – 68% Good/13% Poor           | D           | – 75% Good/10% Poor              | C          |
| Signals           | Overall           | – Poor traffic progression    | C           | – Good traffic progression       | A          |
|                   | Statewide         | – Poor traffic progression    | C           | – Good traffic progression       | A          |
|                   | Regional          | – Poor traffic progression    | C           | – Good traffic progression       | A          |
|                   | Subregional       | – Poor traffic progression    | C           | – Good traffic progression       | A          |
| Network Condition | Overall           | – 79 Infrastructure Rating    | D           | – 87 Infrastructure Rating       | B          |
|                   | Statewide         | – 80 Infrastructure Rating    | C           | – 87 Infrastructure Rating       | B          |
|                   | Regional          | – 79 Infrastructure Rating    | D           | – 85 Infrastructure Rating       | C          |
|                   | Subregional       | – 79 Infrastructure Rating    | D           | – 83 Infrastructure Rating       | C          |
| System Operations | Overall           | – Closures <4hrs; info <2 hrs | D           | – Closures <1hrs; info <20 min   | A          |
|                   | Statewide         | – Closures <4hrs; info <2 hrs | D           | – Closures <30 min; info <15 min | A          |
|                   | Regional          | – Closures <4hrs; info <2 hrs | D           | – Closures <90 min; info <30 min | A          |
|                   | Subregional       | – N/A                         | N/A         | – N/A                            | N/A        |
| Total System      |                   |                               | C-          | B                                |            |

\* Same as national standard



## LEVEL OF SERVICE BY TIER, CATEGORY, AND MODE - Example

| NCMIN Tier  | Statewide |      |               |       |          |             |                       |      |               |       |          |             |          |      |               |       |          |             |
|-------------|-----------|------|---------------|-------|----------|-------------|-----------------------|------|---------------|-------|----------|-------------|----------|------|---------------|-------|----------|-------------|
| Target LOS* | A         |      |               |       |          |             |                       |      |               |       |          |             |          |      |               |       |          |             |
| Category    | Mobility  |      |               |       |          |             | Infrastructure Health |      |               |       |          |             | Safety   |      |               |       |          |             |
| Target LOS* | A         |      |               |       |          |             | A                     |      |               |       |          |             | A        |      |               |       |          |             |
| Mode        | Highways  | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. | Highways              | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. | Highways | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. |
|             | A         | A    | A             | A     | A        | A           | A                     | A    | A             | A     | A        | A           | A        | A    | A             | A     | A        | A           |

| NCMIN Tier  | Regional |      |               |       |          |             |                       |      |               |       |          |             |          |      |               |       |          |             |
|-------------|----------|------|---------------|-------|----------|-------------|-----------------------|------|---------------|-------|----------|-------------|----------|------|---------------|-------|----------|-------------|
| Target LOS* | B        |      |               |       |          |             |                       |      |               |       |          |             |          |      |               |       |          |             |
| Category    | Mobility |      |               |       |          |             | Infrastructure Health |      |               |       |          |             | Safety   |      |               |       |          |             |
| Target LOS* | B        |      |               |       |          |             | B                     |      |               |       |          |             | B        |      |               |       |          |             |
| Mode        | Highways | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. | Highways              | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. | Highways | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. |
|             | B        | B    | B             | B     | B        | B           | B                     | B    | B             | B     | B        | B           | B        | B    | B             | B     | B        | B           |

| NCMIN Tier  | Subregional |      |               |       |          |             |                       |      |               |       |          |             |          |      |               |       |          |             |
|-------------|-------------|------|---------------|-------|----------|-------------|-----------------------|------|---------------|-------|----------|-------------|----------|------|---------------|-------|----------|-------------|
| Target LOS* | C           |      |               |       |          |             |                       |      |               |       |          |             |          |      |               |       |          |             |
| Category    | Mobility    |      |               |       |          |             | Infrastructure Health |      |               |       |          |             | Safety   |      |               |       |          |             |
| Target LOS* | C           |      |               |       |          |             | C                     |      |               |       |          |             | C        |      |               |       |          |             |
| Mode        | Highways    | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. | Highways              | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. | Highways | Rail | Public Trans. | Ferry | Aviation | Bike & Ped. |
|             | C           | C    | C             | C     | C        | C           | C                     | C    | C             | C     | C        | C           | C        | C    | C             | C     | C        | C           |

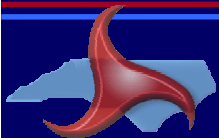
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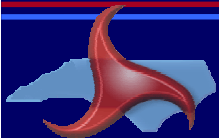
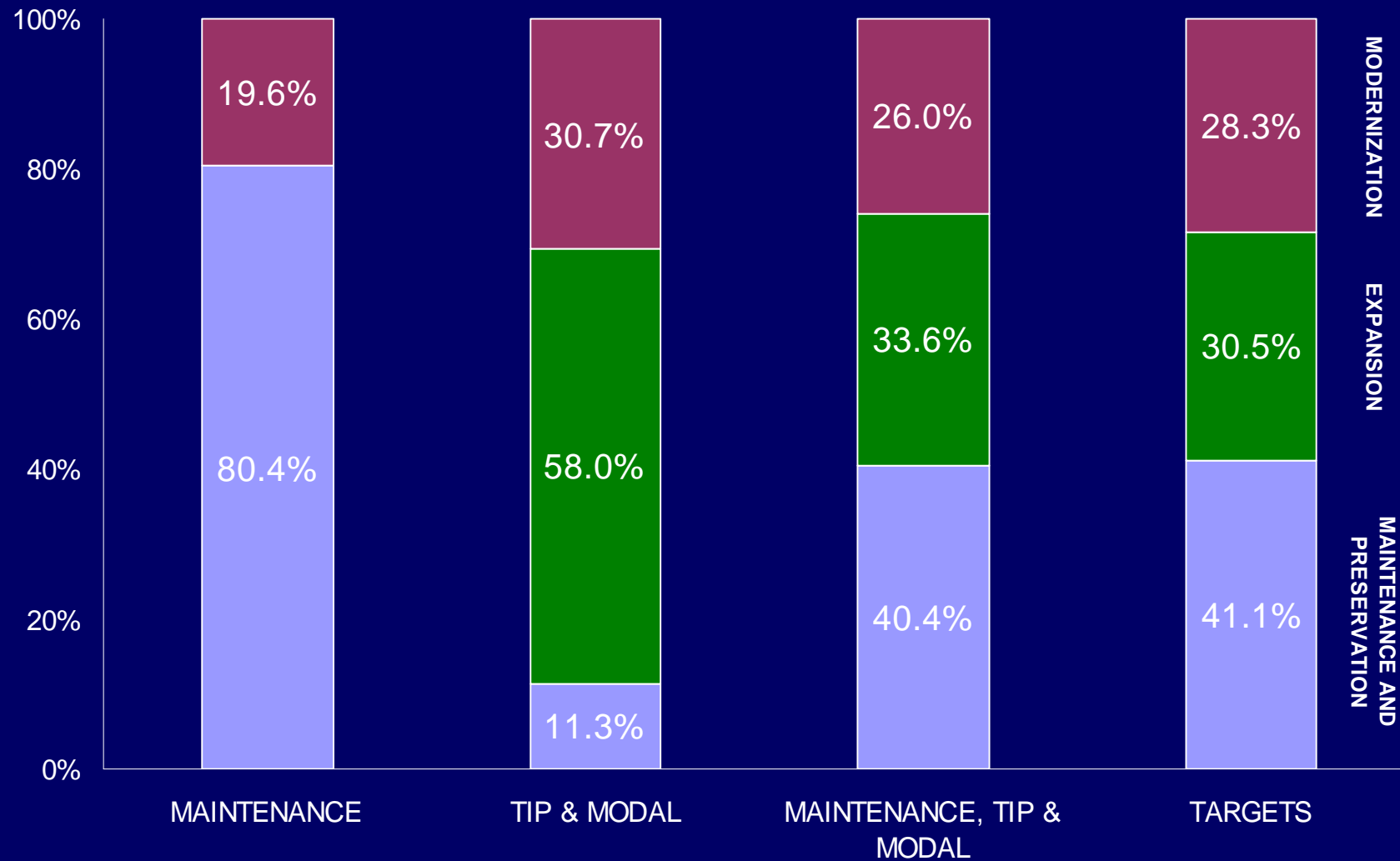


# 2004 Statewide Transportation Plan

|      |                  | Investment Category |           |                               | GOAL |
|------|------------------|---------------------|-----------|-------------------------------|------|
|      |                  | Modernization       | Expansion | Maintenance<br>& Preservation |      |
| TIER | Statewide        |                     |           |                               | ?    |
|      | Regional         |                     |           |                               | ?    |
|      | Sub-<br>regional |                     |           |                               | ?    |
| GOAL |                  | 28.3%               | 30.5%     | 41.1%                         |      |



# 2008-2015 Annual Spend Plan

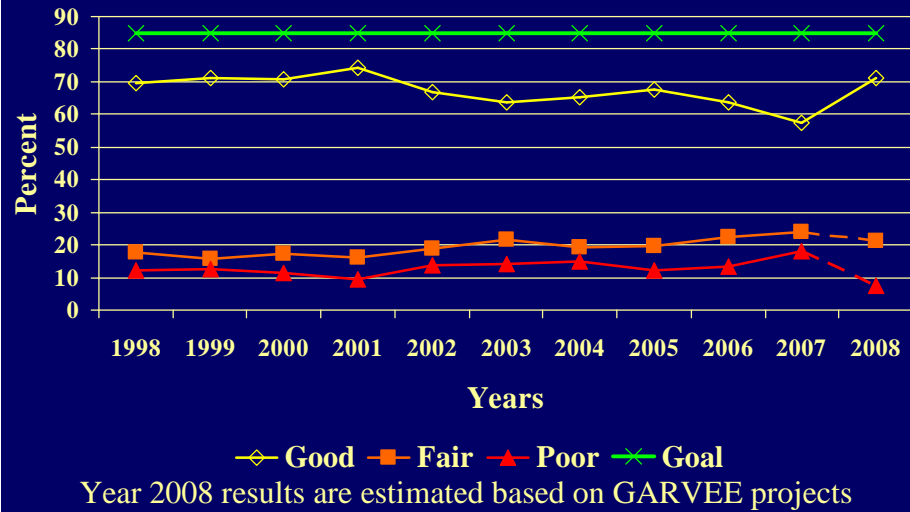


# 2004 Statewide Transportation Plan

|      |              | Investment Category |           |                            | ACTUAL |
|------|--------------|---------------------|-----------|----------------------------|--------|
|      |              | Modernization       | Expansion | Maintenance & Preservation |        |
| TIER | Statewide    |                     |           |                            | 37.2%  |
|      | Regional     |                     |           |                            | 19.3%  |
|      | Sub-regional |                     |           |                            | 43.5%  |
| GOAL |              | 28.3%               | 30.5%     | 41.1%                      |        |



### Interstate Pavement Condition

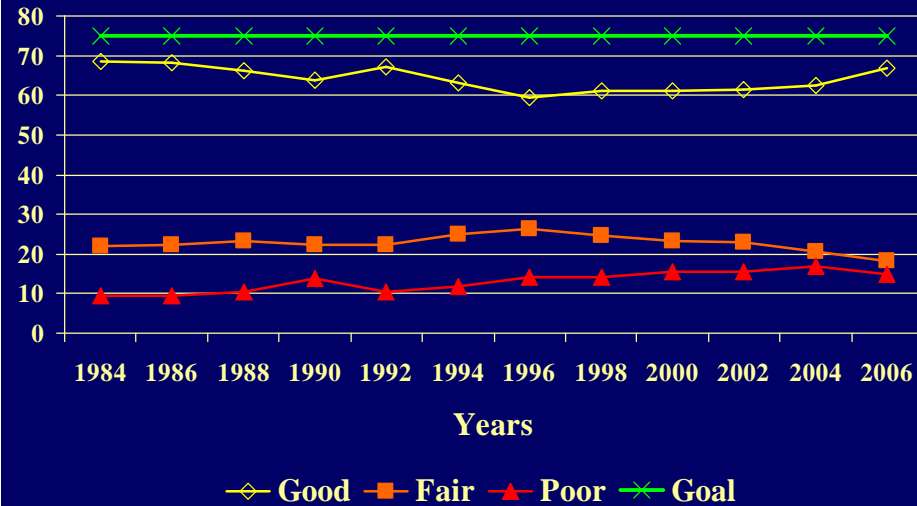


### Level of Service

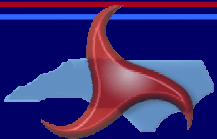
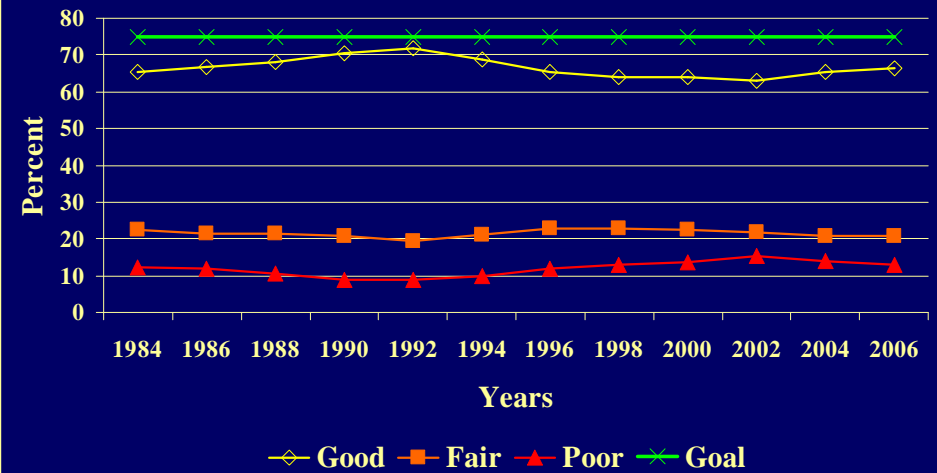
| System     | Target | Existing | W/GB*    |
|------------|--------|----------|----------|
| Interstate | B      | F        | <b>D</b> |
| Primary    | C      | D        | <b>D</b> |
| Secondary  | C      | D        | <b>D</b> |

**\*Projected LOS with GARVEE bond project completion on the Interstate**

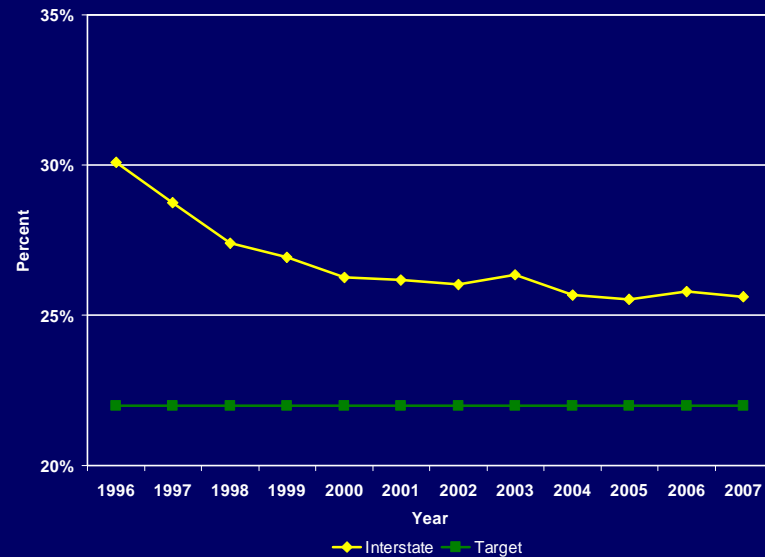
### Primary Pavement Condition



### Secondary Pavement Condition



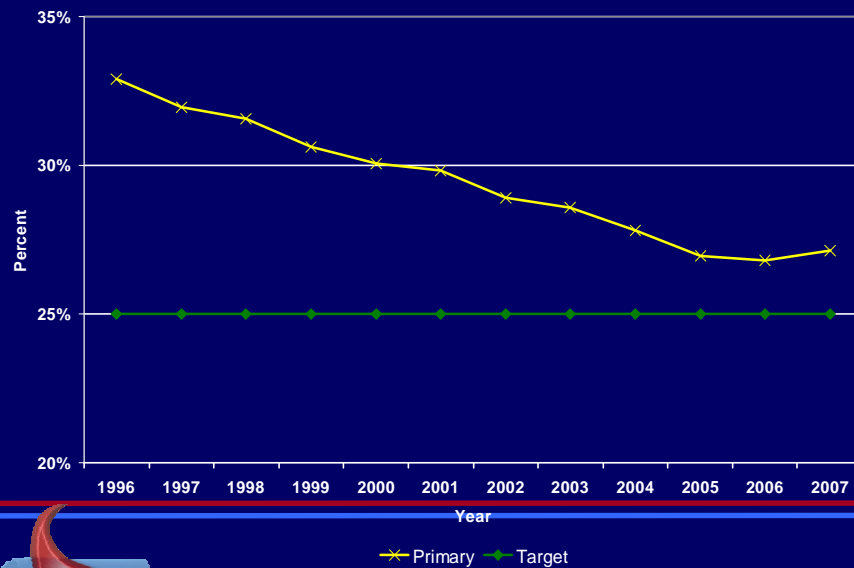
### Percent Deficient Bridges - Interstate



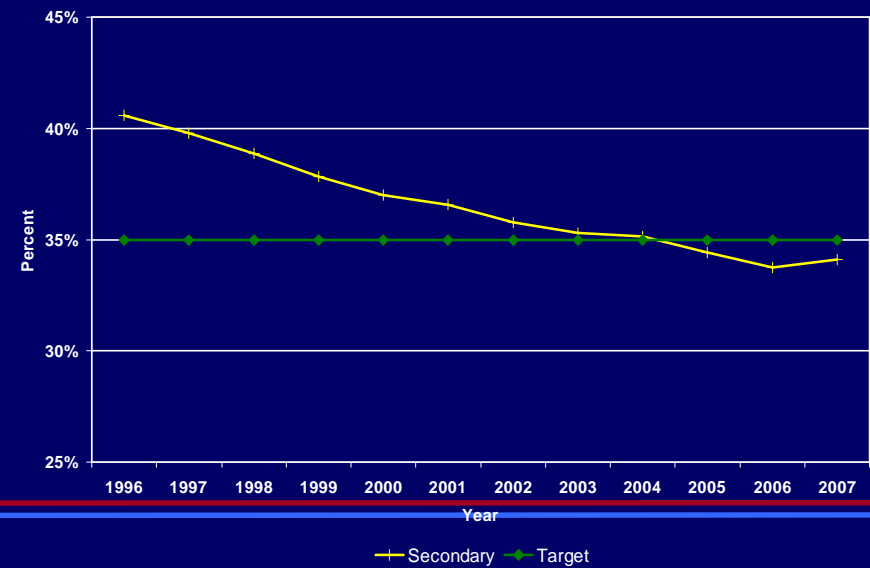
## Level of Service

| <u>System</u> | <u>Target</u> | <u>Existing</u> |
|---------------|---------------|-----------------|
| Interstate    | B             | D               |
| Primary       | C             | D               |
| Secondary     | C             | C               |

### Percent Deficient Bridges - Primary



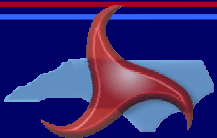
### Percent Deficient Bridges - Secondary





# Goal: Get to Network Standards Quickly and Maintain in Cost a Efficient Manner

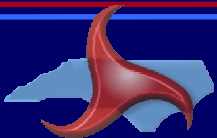
- Target Key Projects
  - Bottlenecks (I-85 Yadkin River Bridge)
  - Congestion Relief (Strategic Highway Corridor & Feeder Routes)
  - Safety / Economic Development (Bonner Bridge)
- Accelerate Project Delivery
  - Prioritization Based on Objective Criteria
  - Internal Delivery Efficiencies (recover diminished purchasing power of flat revenue)
  - Innovative Finance (Tolls)
- Better Leverage of Existing Infrastructure
  - Asset / Operations Management
  - Network Connectivity (All Transportation Modes)



# NCTA Gap Funding

|                          | <u>Cost</u>      | <u>Gap</u>       | <u>Annual Gap</u> | <u>Bonds as<br/>Pct of Cost</u> |
|--------------------------|------------------|------------------|-------------------|---------------------------------|
| Triangle Expressway (a)  | \$967.6          | \$265.0          | \$19.0            | 73%                             |
| Monroe Connector/Bypass  | 583.3            | 180.0            | 12.5              | 69%                             |
| Mid Currituck Bridge     | 460.9            | 198.9            | 15.6              | 57%                             |
| Cape Fear Skyway         | 971.6            | 439.0            | 39.0              | 55%                             |
| Gaston Parkway A         | 409.8            | 187.8            | 12.5              | 54%                             |
| Gaston Parkway B         | 765.4            | 418.1            | 26.0              | 45%                             |
| Gaston Parkway C         | 1,255.2          | 834.5            | 54.0              | 34%                             |
| <b>Total w/ Gaston A</b> | <b>\$3,393.2</b> | <b>\$1,270.7</b> | <b>\$98.6</b>     |                                 |
| Yadkin River Bridge      | 478.8            | 35.7             | 2.0               |                                 |
| <b>TOTAL w/ Gaston A</b> | <b>\$3,872.0</b> | <b>\$1,306.4</b> | <b>\$100.6</b>    |                                 |
| TOTAL w/ Gaston B        | \$4,227.6        | \$1,536.7        | \$114.1           |                                 |
| TOTAL w/ Gaston C        | \$4,717.4        | \$1,953.1        | \$142.1           |                                 |

(a) Excludes cost of 540P at \$108 million

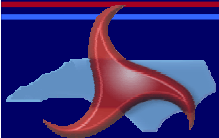


# Target Investment

(\$ In Millions)

| MILEAGE<br>(lanes miles) | NETWORK<br>TIER | LEVEL OF SERVICE (LOS) |        | 1-TIME<br>COST | INCREMENTAL<br>ANNUAL COST | SIX YEAR<br>TOTAL |
|--------------------------|-----------------|------------------------|--------|----------------|----------------------------|-------------------|
|                          |                 | CURRENT                | TARGET |                |                            |                   |
| 17,600 (11%)             | STATEWIDE       | C                      | A      | \$ 3,759       | \$ 341                     | \$ 5,805          |
| 22,500 (14%)             | REGIONAL        | C-                     | B      | 1,181          | 12                         | 1,254             |
| 122,000 (75%)            | SUBREGIONAL     | D                      | C      | 2,536          | 286                        | 4,252             |
| 162,000                  | TOTAL           | C-                     | B      | \$ 7,476       | \$ 639                     | \$ 11,310         |

|                       |    |    |       |      |        |
|-----------------------|----|----|-------|------|--------|
| DO NOTHING            | C- | D  | \$ -  | \$ - | \$ -   |
| MAINTAIN CURRENT LOS  | C- | C- | 1,100 | 122  | 1,666  |
| TARGET 1/2 INVESTMENT | C- | C+ | 3,300 | 424  | 5,841  |
| TARGET INVESTMENT     | C- | B  | 7,476 | 639  | 11,310 |

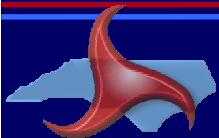


# Target 1/2 Investment

(\$ in Millions)

| MILEAGE<br>(lanes miles) | NETWORK<br>TIER | LEVEL OF SERVICE (LOS) |        | 1-TIME<br>COST | INCREMENTAL<br>COST | SIX YEAR<br>TOTAL |
|--------------------------|-----------------|------------------------|--------|----------------|---------------------|-------------------|
|                          |                 | CURRENT                | TARGET |                |                     |                   |
| 17,600 (11%)             | STATEWIDE       | C                      | A-     | \$ 2,200       | \$ 341              | \$ 4,246          |
| 22,500 (14%)             | REGIONAL        | C-                     | B-     | 990            | 12                  | 1,063             |
| 122,000 (75%)            | SUBREGIONAL     | D                      | D      | 110            | 70                  | 532               |
| 162,000                  | TOTAL           | D+                     | C+     | \$ 3,300       | \$ 424              | \$ 5,841          |

|                              |           |           |              |            |              |
|------------------------------|-----------|-----------|--------------|------------|--------------|
| DO NOTHING                   | C-        | D         | \$ -         | \$ -       | \$ -         |
| MAINTAIN CURRENT LOS         | C-        | C-        | 1,100        | 122        | 1,666        |
| <b>TARGET 1/2 INVESTMENT</b> | <b>C-</b> | <b>C+</b> | <b>3,300</b> | <b>424</b> | <b>5,841</b> |
| TARGET INVESTMENT            | C-        | B         | 7,476        | 639        | 11,310       |



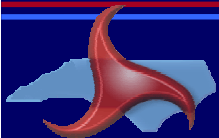
# Debt Availability

(\$ in Millions)

| BORROWING CAPACITY                              |            |   |
|---|------------|---|
| State General Obligation Bonds                  | Current 4% | Treasurer's Office Report<br>on DOT borrowing capacity<br>due February 2008 |
| State Revenue Base                              | \$ 2,930   |   |
| Max Annual Debt Service                         | 117        |   |
| Less: FY 2008 Actual Debt Service               | 90         |   |
| Annual Debt Service Availability                | 27         |   |
| Borrowing Capacity (25 Year Bond / 5% Interest) | \$ 381     |   |

| GARVEE Bonds  | Current 15% |
|---|-------------|
| Federal Revenue Base                                    | \$ 900      |
| Max Annual Debt Service                                 | 135         |
| FY 2009 Actual Debt Service                             | 32          |
| Annual Debt Service Availability*                       | 68          |
| Borrowing Capacity (12 Year Bond / 5% Interest)* \$ 600 |             |

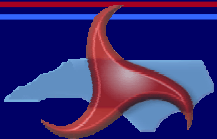
\* Total GARVEE debt outstanding can not exceed prior years' federal allocation



# Ad Hoc Committee Recommendations

Accomplish the Following during 2007-08

- Eliminate the HUT Trade-In Component/Increase HUT Rate
- Eliminate Cap on Gas Tax
- Reduce/Eliminate HTF and HF Transfers
- Enact a Menu of Local Options to Finance Transportation Projects
- Expand Statutory Authority to Leverage (Toll) Urban Loops
- Establish Surcharge on Vehicle Property Tax
- Develop a Logistics Needs Plan
- Study the Implementation of a VMT user Fee

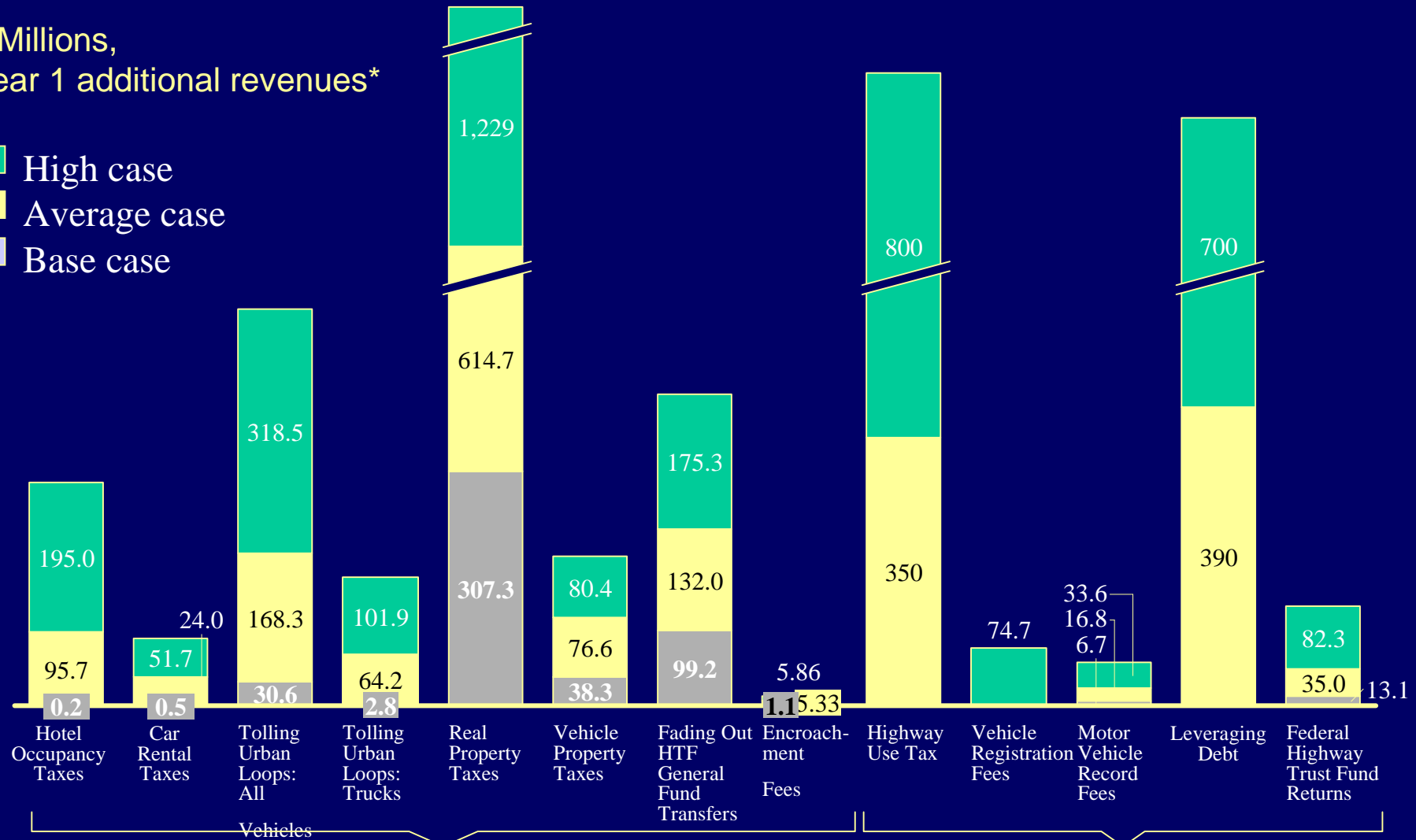


# REVENUE POSSIBILITIES FOR NCDOT

(McKinsey & Co. Report)

\$ Millions,  
Year 1 additional revenues\*

- High case
- Average case
- Base case



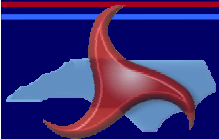
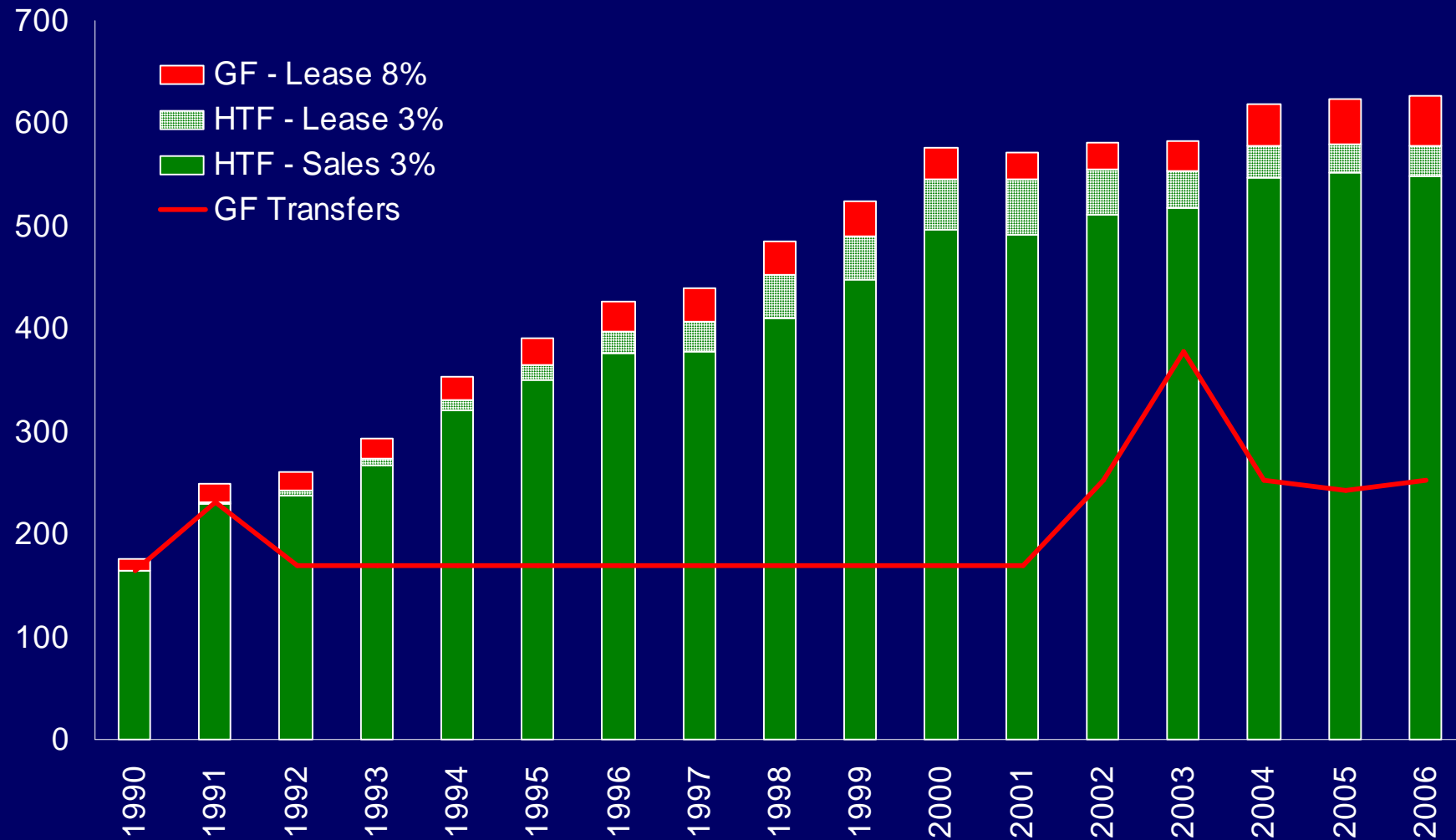
New Sources of Funding

Current Sources of Funding



# Highway Use Tax Revenue Distribution

(\$ in Millions)

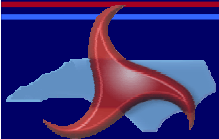




# Funding Impacts

| Funding Scenario                     | Rate | Potential Revenue (\$M/Year) | Additional Taxpayer Cost \$/Yr |
|--------------------------------------|------|------------------------------|--------------------------------|
| HUT - Rate Increase (%)              | 1    | 200.0                        | 44.0                           |
| HUT- Trade-in Elimination            |      | 110.0                        | 36.0                           |
| HUT- CV Cap Elimination <sup>1</sup> |      | 20.0                         | 307.7                          |
| MFT - Rate (¢)                       | 1    | 55.0                         | 7.50                           |
| HTF Transfer                         |      | 172.6                        |                                |
| HF Transfer                          |      | 265.8                        |                                |
| Vehicle Registration Fee             | 20   | 134.0                        | 20.00                          |
| Property Tax (¢/100)                 | 10   | 615.0                        | 108.30                         |
| Vehicle Property Tax (¢/100)         | 5    | 38.3                         | 5.90                           |

<sup>1</sup> 13,000 Transactions Annually

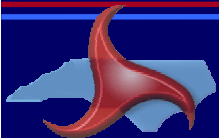


# Revenue Options - Target 1/2 Investment

(\$ in Millions)

|   | Total         | Highway Trust Fund |                    |                 | Highway Fund  | NCTA          |
|---|---------------|--------------------|--------------------|-----------------|---------------|---------------|
|   |               | Equity Formula     | Strategic Leverage | Total           | IS Maint      | Gap Funding   |
| General Fund Transfer                     | \$ 192        | \$ 72              | \$ -               | \$ 72           | \$ 20         | \$ 100        |
| HUT Cap Elimination                       | 110           | 110                |                    | 110             |               |               |
| HUT: +1%                                  | 200           |                    | 2,819              | 2,819           |               |               |
| DMV Reg. Fees: + \$20                     | 134           |                    |                    | -               | 134           |               |
| Gas Tax: Restore Index                    | 200           |                    | 700                | 700             | 150           |               |
| Total                                     | <u>\$ 836</u> | <u>\$ 182</u>      | <u>\$ 3,519</u>    | <u>\$ 3,701</u> | <u>\$ 304</u> | <u>\$ 100</u> |
| Incremental Debt Service                  | \$ 250        |                    |                    |                 |               |               |
| Potential Debt Service (10%) <sup>1</sup> | \$ 269        |                    |                    |                 |               |               |

<sup>1</sup> Treasurer's Office Report on DOT borrowing capacity due February 2008



# Revenue Options - 2007 Discussion

| Revenue Scenario                  | Rate | HF     | HTF    |
|-----------------------------------|------|--------|--------|
| HUT - Rate Increase (%)           | 1    | -      | 200.0  |
| HUT- CV Cap Elimination           |      | -      | 20.0   |
| HUT- Automobile Trade Elimination |      |        | 115.0  |
| MFT - Diesel Rate Increase (¢)    | 3    | 22.5   | 7.5    |
| MFT - Rate Cap                    |      | (75.0) | (25.0) |
| Sub-Total                         |      | (52.5) | 317.5  |
| HTF Statutory % <sup>1</sup>      | 17   |        | (54.0) |
| Net Funding (Reduction)/Addition  |      | (52.5) | 263.5  |

<sup>1</sup> Powell Bill/Sec. Roads/Admin

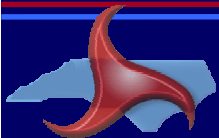
HUT, Highway Use Tax

MFT, Motor Fuel Tax

| Distribution                           | %  | HF     | HTF   |
|--|----|--------|-------|
| <u>Outside Equity</u>                  |    |        |       |
| TPA GAP (Recurring for 40 to 50 Years) |    |        | 31.5  |
| Transit                                | 10 |        | 23.2  |
| SHC Congestion                         | 45 |        |       |
| Construction (%)                       | 80 |        | 83.5  |
| Maintenance (%)                        | 20 |        | 20.9  |
| <u>Equity</u>                          |    |        |       |
| Construction (%)                       | 80 |        | 83.5  |
| Maintenance (%)                        | 20 |        | 20.9  |
| Total - Funding Distribution           |    | (52.5) | 263.5 |

HF, Highway Fund

HTF, Highway Trust Fund



# Revenue Options - '07 Draft Legislative Language

(\$ in Millions)

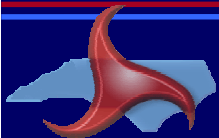
## Proposal (in Millions):

|  |    | <u>FY08</u> | <u>FY09</u> | <u>FY10</u> |
|--|----|-------------|-------------|-------------|
| Highway Use Tax: +1% (phased 1/2% over 2 yrs)    | \$ | 100         | \$ 200      | \$ 200      |
| Registration Fees: +\$5/Year (for 3 yrs) - to TF |    | 33          | 67          | 100         |
|  | \$ | 133         | \$ 267      | \$ 300      |

## Allocation (in Millions):

|   |    |     |        |        |
|---|----|-----|--------|--------|
| TF Statutes (PB / SR / Adm.)            | \$ | -   | \$ -   | \$ -   |
| TPA Gap Funding                         |    | 30  | 30     | 30     |
| Maintenance Funding                     |    | 30  | 30     | 30     |
| Strategic Highway Corridor (Non-Equity) |    | 37  | 104    | 120    |
| Remaining TF Allocation (IS / Loops)    |    | 36  | 103    | 120    |
|   | \$ | 133 | \$ 267 | \$ 300 |

| Registration Fees:         | Current: | <u>FY08</u> | <u>FY09</u> | <u>FY10</u> |
|----------------------------|----------|-------------|-------------|-------------|
| NC (Proposal)              | \$ 28.00 | \$ 33.00    | \$ 38.00    | \$ 43.00    |
| VA (range \$39.5 - \$44.5) | 39.50    | 39.50       | 39.50       | 39.50       |
| TN (range \$36 - \$55)     | 47.00    | 47.00       | 47.00       | 47.00       |
| SC                         | 24.00    | 24.00       | 24.00       | 24.00       |
| FL (range \$28 - \$46)     | 43.00    | 43.00       | 43.00       | 43.00       |



# Revenue Options - Target Investment

(\$ in Millions)

|   | Annual<br>Total | Allocation |                  |                |                     | Remainder<br>6 Year<br>Total |
|---|-----------------|------------|------------------|----------------|---------------------|------------------------------|
|   |                 | Admin      | Second.<br>Roads | Powell<br>Bill | Annual<br>Remainder |                              |
| Eliminate HUT Trade-in                        | \$ 110          | \$ 4       | \$ 7             | \$ 7           | \$ 92               | \$ 552                       |
| Raise HUT from 3% to 4%                       | 200             | 8          | 13               | 13             | 167                 | 1,004                        |
| Eliminate GF Transfer                         | 172             | 7          | 11               | 11             | 144                 | 864                          |
| Subtotal                                      | 482             | 18         | 30               | 30             | 403                 | 2,420                        |
| Raise TF DMV Fees (Title/Other - 112)         | 78              | 3          | 39               | 5              | (65)                | (390)                        |
| Leverage Opportunity                          | 920             |            |                  |                | 920 1x              | 920                          |
| Raise Registration Fee (6.7 Million Vehicles) |                 |            |                  |                |                     |                              |
| VA Proposal: +\$20                            | 134             |            |                  |                |                     |                              |
| Leverage Opportunity                          | 1,900           |            |                  |                | 1,900 1x            | 1,900                        |
| Raise HUT from 3% to 5%                       | 200             | 8          | 13               | 13             | 167                 |                              |
| Leverage Opportunity (1% HUT)                 | 2,360           |            |                  |                | 2,360 1x            | 2,360                        |
| Total 6 Year Collection                       |                 |            |                  |                |                     | \$ 7,210                     |

Memo:

One Time leverage

5,180

5,180

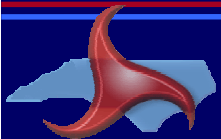
Incremental Annual Funding Per Year

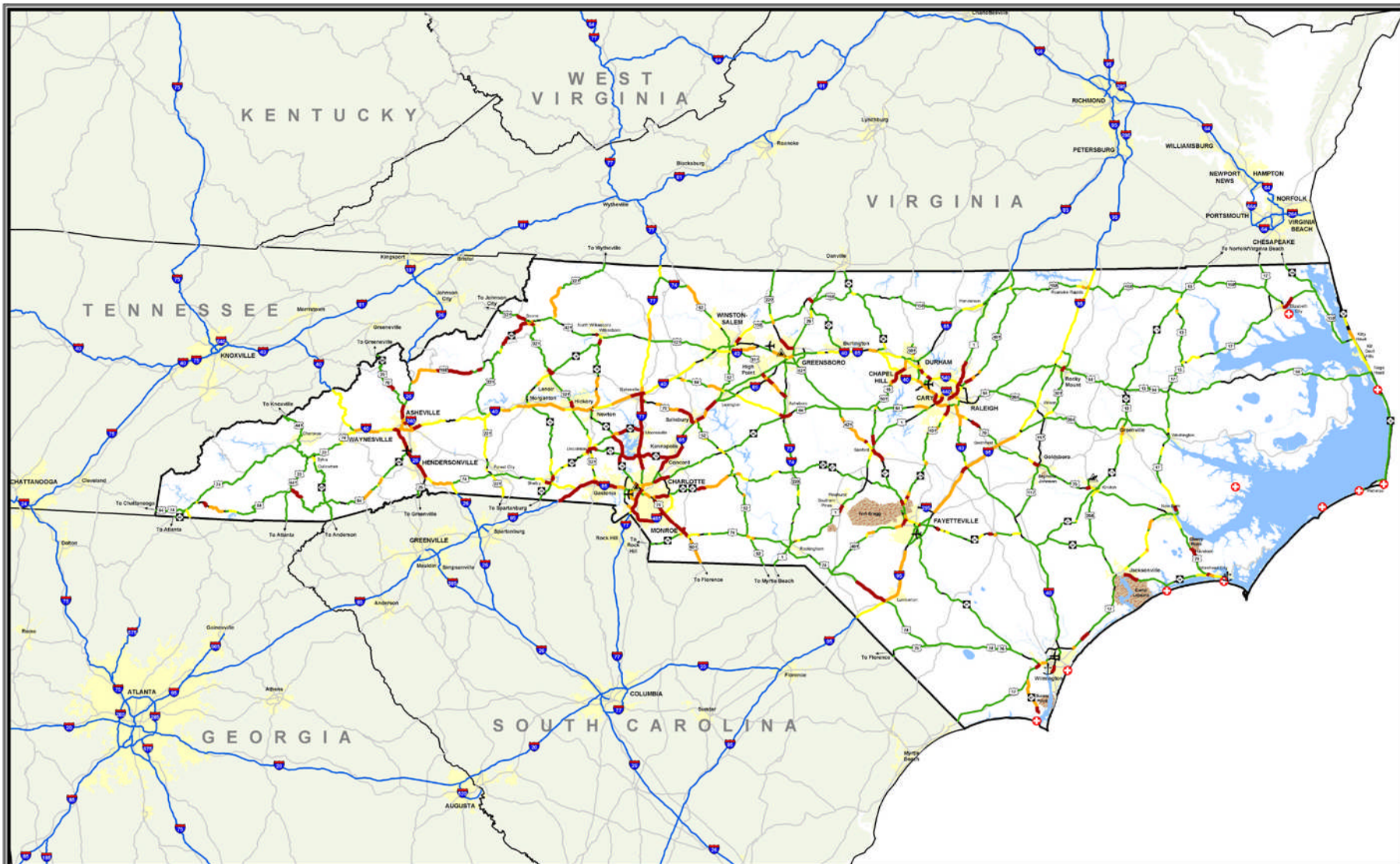
338

2,030



# Congestion

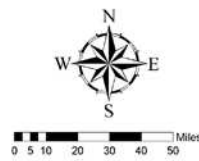




## Areas of Congestion

Based on 2005  
Traffic Counts

Map Date: January 8, 2008

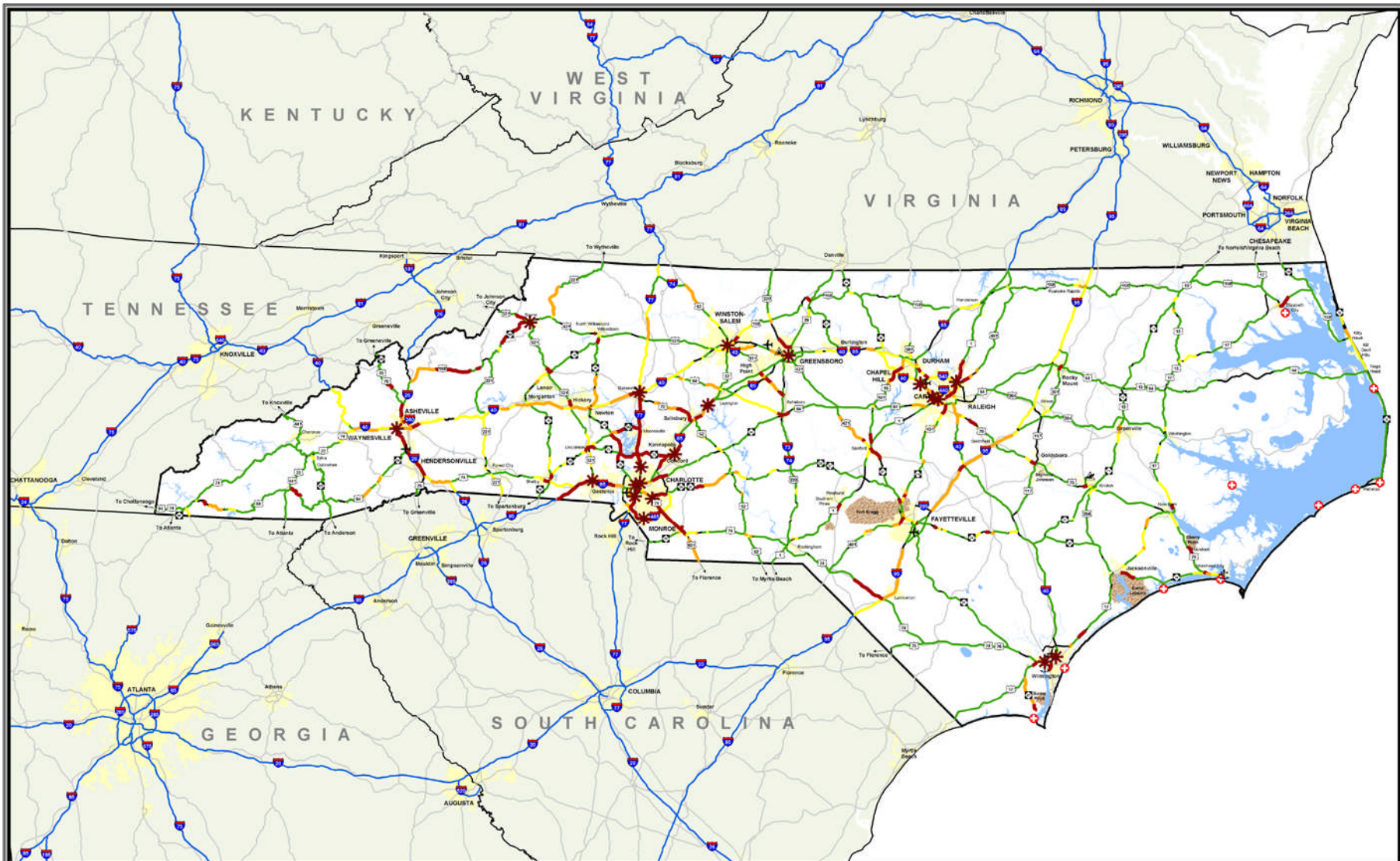


Prepared By:  
The North Carolina Department of Transportation  
Transportation Planning Branch  
Base Map Date: March 29, 2004

## Legend

- |                             |                        |
|-----------------------------|------------------------|
| — Always Congested          | — Interstate           |
| — Almost Always Congested   | — US/Other Route       |
| — Sometimes Congested       | ⚓ State Port           |
| — Never to Rarely Congested | ✈ Major Airport        |
| — No Data                   | ⚓ Intermodal Connector |
|                             | ⚓ Coast Guard Station  |
|                             | ⚓ Major Military Base  |
|                             | ⚓ Urban Area           |
|                             | ⚓ Water Features       |

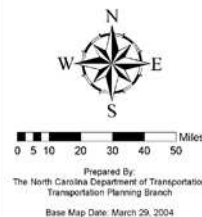




## Areas of Congestion

Based on 2005  
Traffic Counts

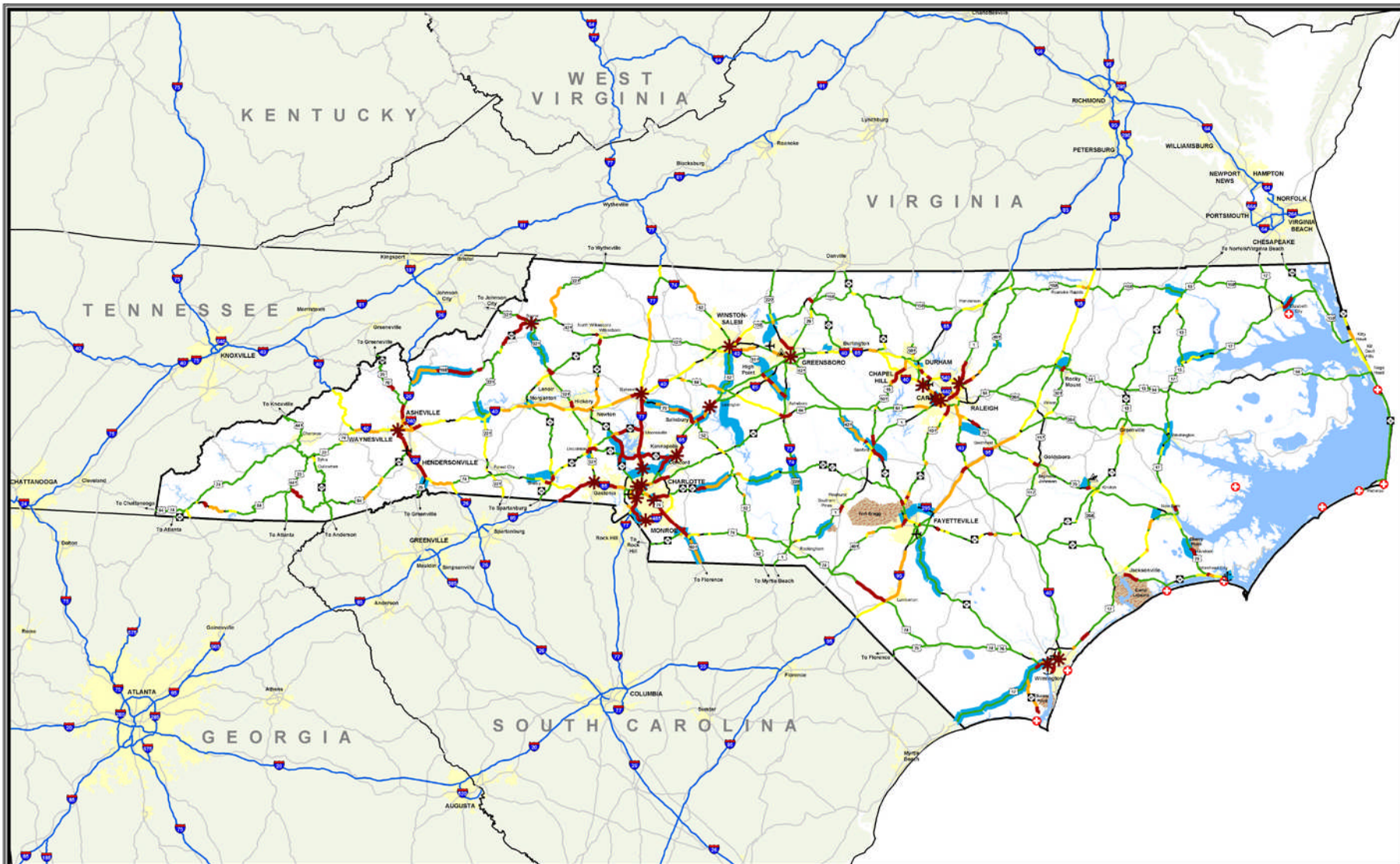
Map Date: January 8, 2008



### Legend

- Always Congested
- Almost Always Congested
- Sometimes Congested
- Never to Rarely Congested
- No Data
- \* Major Bottleneck
- Interstate
- US/Other Route
- ⚓ State Port
- ✈ Major Airport
- ⚓ Intermodal Connector
- ⚓ Coast Guard Station
- ⚓ Major Military Base
- Urban Area
- Water Features

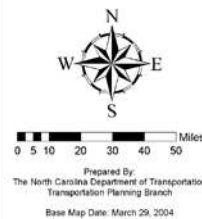




## Areas of Congestion

Based on 2005  
Traffic Counts

Map Date: January 8, 2008



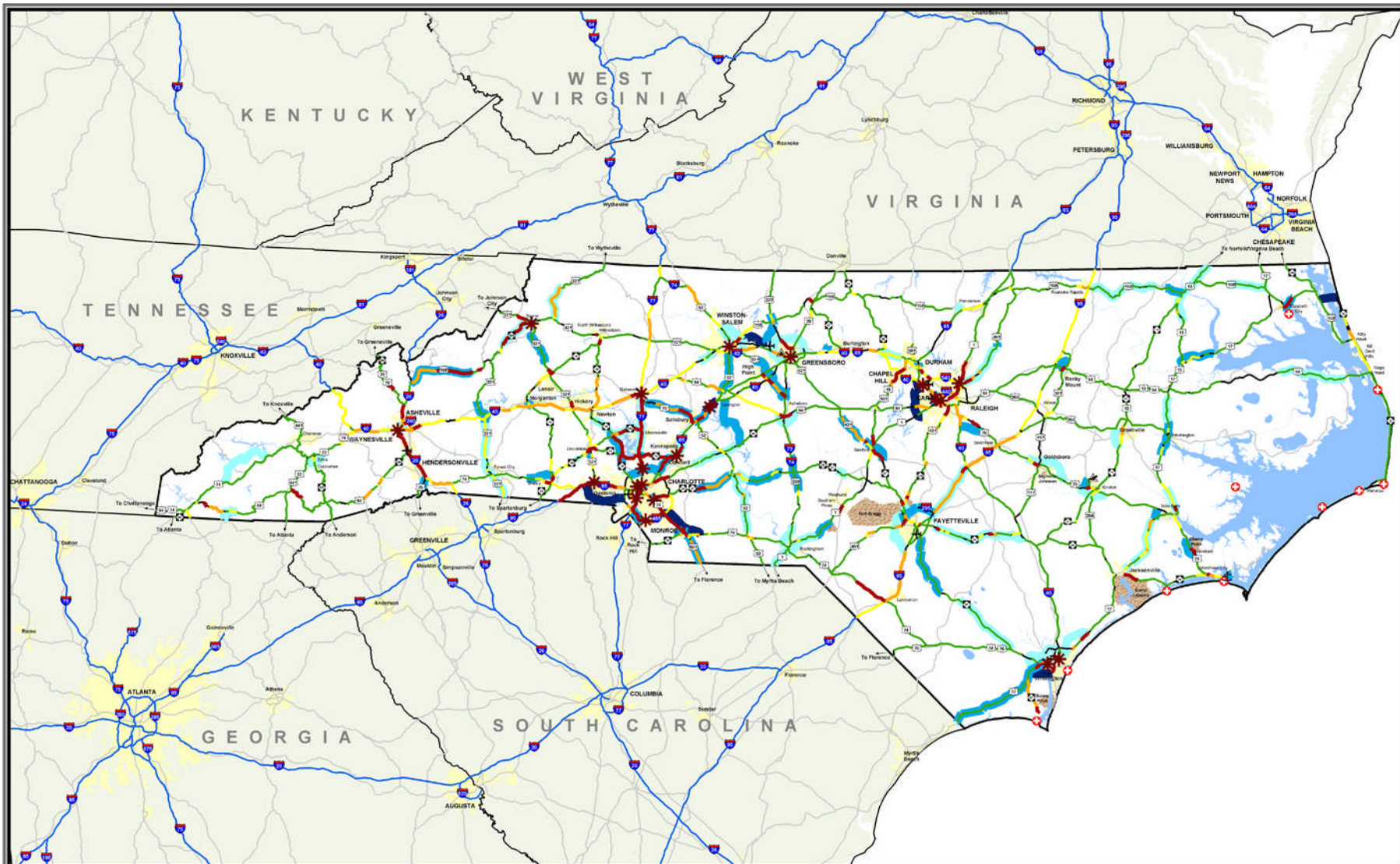
## Legend

- Always Congested
- Almost Always Congested
- Sometimes Congested
- Never to Rarely Congested
- No Data
- \* Major Bottleneck
- 2009-2015 DRAFT TIP Projects
- Fully Funded Project
- Interstate
- US/Other Route
- ⚓ State Port
- ✈ Major Airport
- ⚙ Intermodal Connector
- ⚓ Coast Guard Station
- ⚓ Major Military Base
- Urban Area
- Water Features





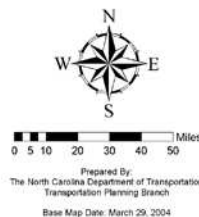




## Areas of Congestion

Based on 2005  
Traffic Counts

Map Date: January 8, 2008



## Legend

- Always Congested
- Almost Always Congested
- Sometimes Congested
- Never to Rarely Congested
- No Data
- \* Major Bottleneck
- 2009-2015 DRAFT TIP Projects
  - Fully Funded Project
  - Partially Funded Project
  - NC Turnpike Authority Project
- Interstate
- US/Other Route
- ⚓ State Port
- ✈ Major Airport
- ⚙ Intermodal Connector
- ⚓ Coast Guard Station
- ⚓ Major Military Base
- Urban Area
- Water Features



## Areas of Congestion Metrolina Area

Based on 2005  
Traffic Counts

Map Date: January 8, 2008



- Legend**
- Always Congested
  - Almost Always Congested
  - Sometimes Congested
  - Never to Rarely Congested
  - No Data
  - Interstate
  - US/Other Route
  - State Port
  - Major Airport
  - Intermodal Connector
  - Coast Guard Station
  - Major Military Base
  - Urban Area
  - Water Features





## Areas of Congestion Metrolina Area

Based on 2005  
Traffic Counts

Map Date: January 8, 2008



### Legend

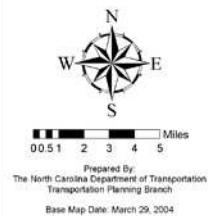
- Always Congested
- Almost Always Congested
- Sometimes Congested
- Never to Rarely Congested
- No Data
- Interstate
- US/Other Route
- State Port
- Major Airport
- Intermodal Connector
- Coast Guard Station
- Major Military Base
- Urban Area
- Water Features
- 2009-2015 DRAFT TIP Projects
- Fully Funded Project



## Areas of Congestion Metrolina Area

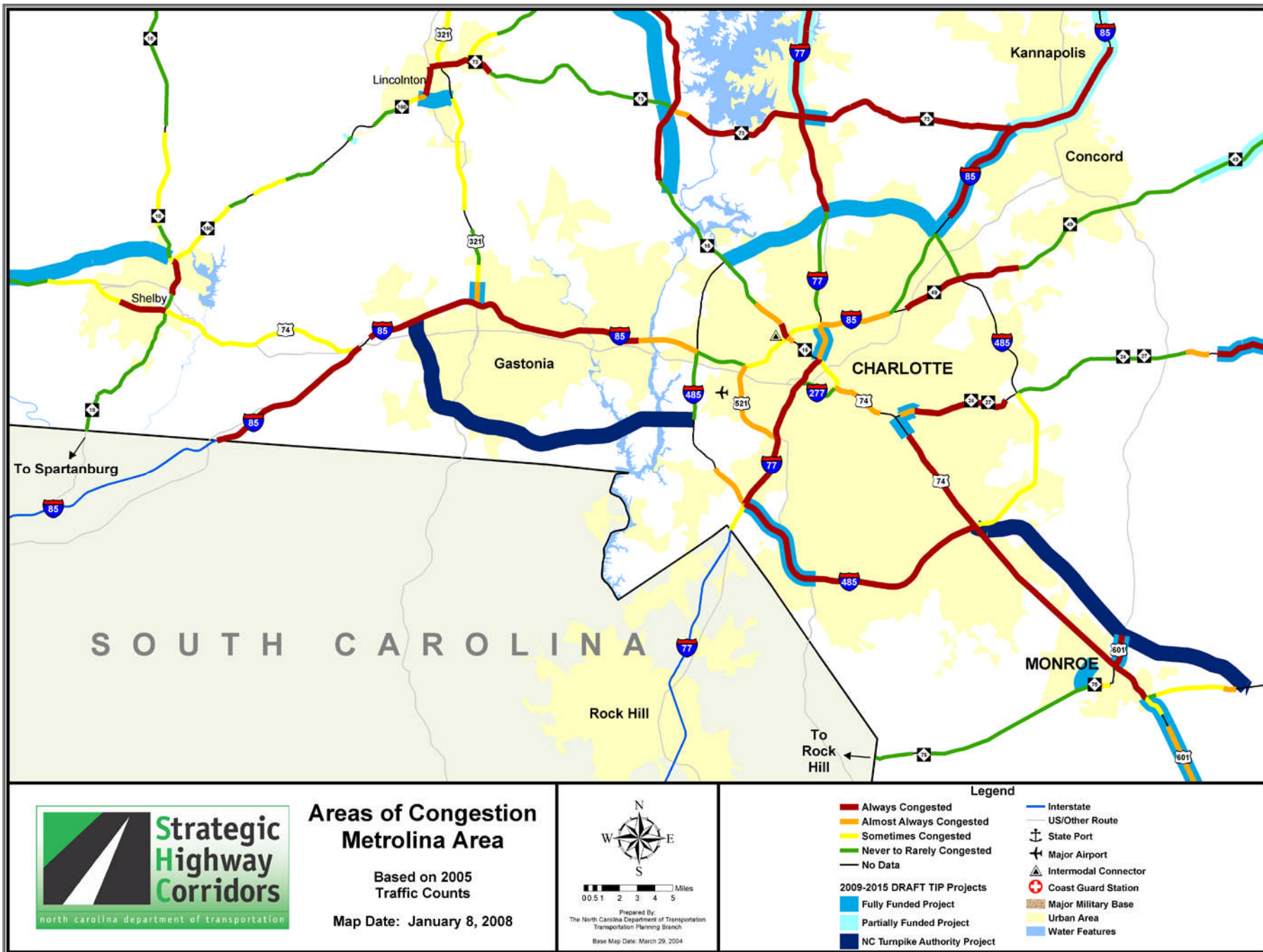
Based on 2005  
Traffic Counts

Map Date: January 8, 2008

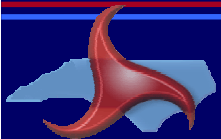


### Legend

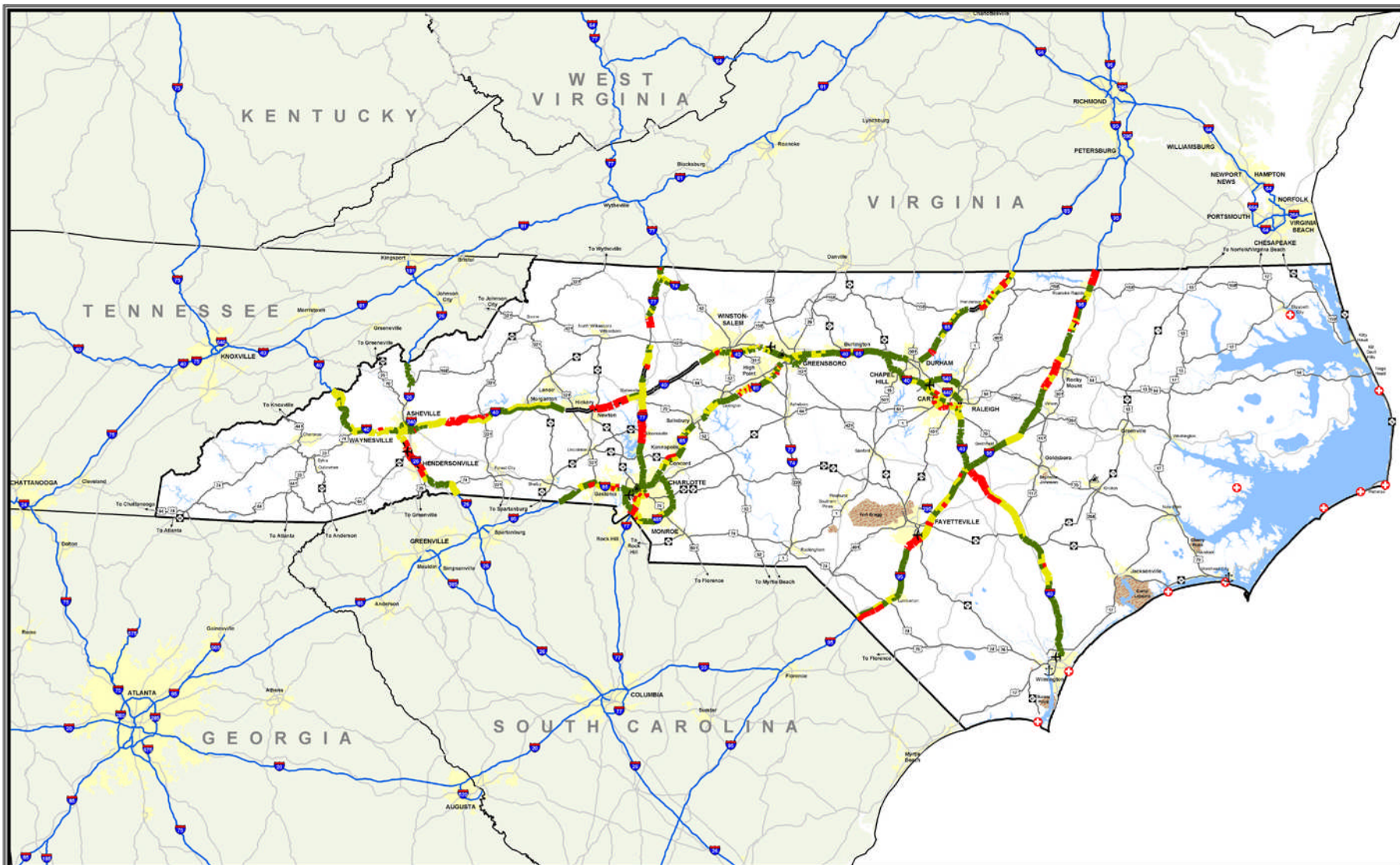
- Always Congested
- Almost Always Congested
- Sometimes Congested
- Never to Rarely Congested
- No Data
- Interstate
- US/Other Route
- State Port
- Major Airport
- Intermodal Connector
- Coast Guard Station
- Major Military Base
- Urban Area
- Water Features
- 2009-2015 DRAFT TIP Projects
- Fully Funded Project
- Partially Funded Project



# System Condition



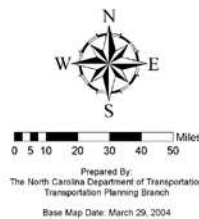




## Interstate Pavement Conditions

Based on 2007 FHWA Pavement Condition Survey

Map Date: January 8, 2008

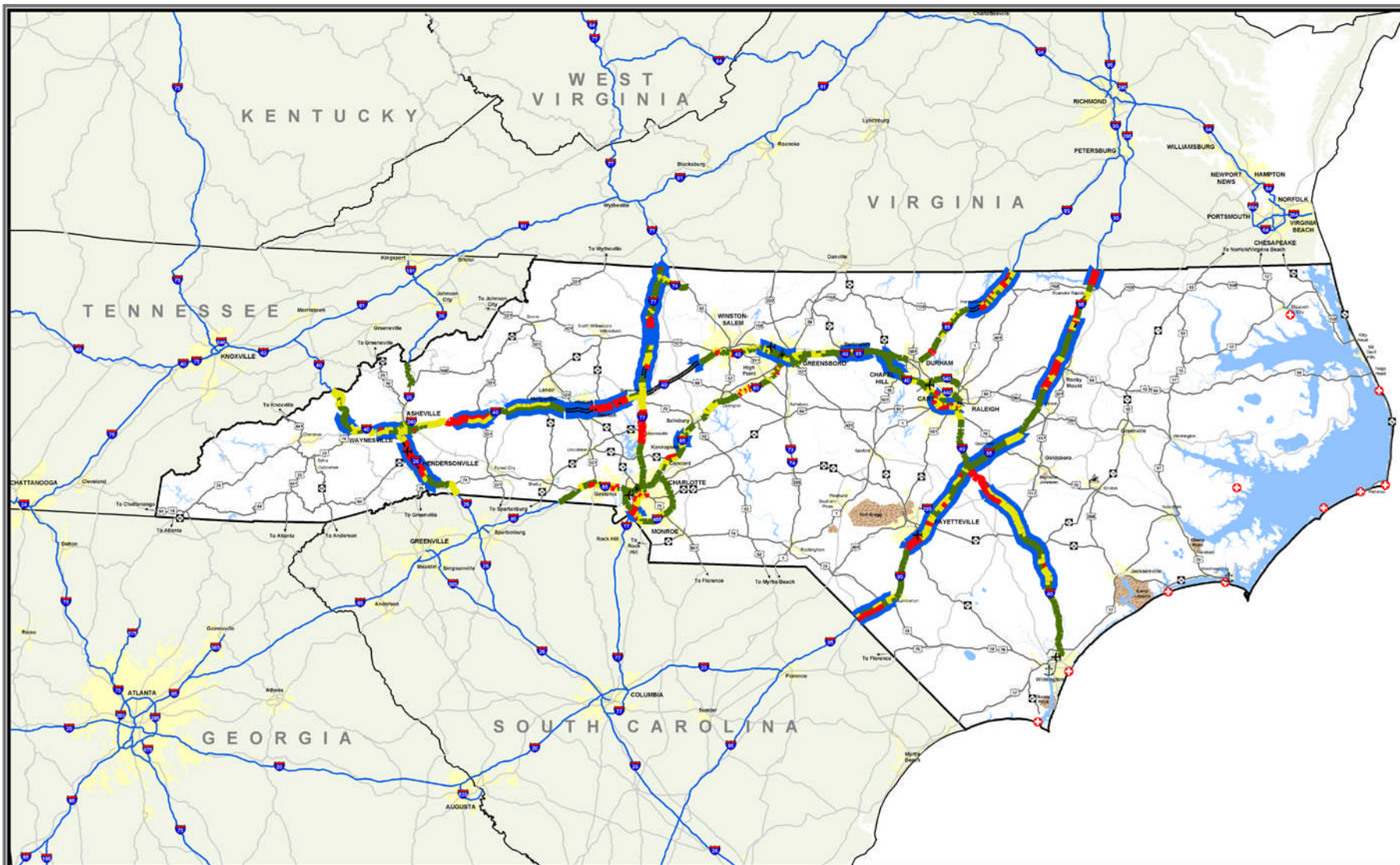


**Pavement Conditions**  
 — No Data  
 — Poor Condition  
 — Fair Condition  
 — Good Condition

### Legend

— Other Strategic Highway Corridor  
 — Interstate  
 — US/Other Route  
 ⚓ State Port  
 ✈ Major Airport  
 △ Intermodal Connector  
 ⚓ Coast Guard Station  
 🏠 Major Military Base  
 🏙 Urban Area  
 🌊 Water Features

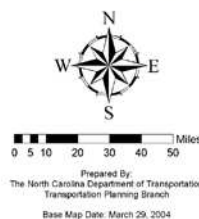




## Interstate Pavement Conditions

Based on 2007 FHWA  
Pavement Condition Survey

Map Date: January 8, 2008



**Pavement Conditions**  
 — No Data  
 — Poor Condition  
 — Fair Condition  
 — Good Condition

2009-2015 Draft TIP Health Projects

### Legend

— Other Strategic Highway Corridor  
 — Interstate  
 — US/Other Route  
 ⚓ State Port  
 ✈ Major Airport  
 ⚙ Intermodal Connector  
 ⚓ Coast Guard Station  
 ⚓ Major Military Base  
 Urban Area  
 Water Features

# GUIDE FOR DASHBOARD SCORECARD

## *FOR USE IN PERFORMANCE REVIEW MEETINGS*

| <b>Metric</b>  | <b>Metric Data</b>   | <b>Target</b> | <b>Wt (%)</b> |
|--|--|---------------|---------------|
| Crash Rates  | <i>Fatalities per 100 million vehicle miles; i.e. 1.58...this will be compared against a baseline TBD</i>  | TBD           |               |
| Level of Congestion on Strategic Highway Corridor System (SHC) | <i>Miles of SHC at V/C ratio of 1.2 &amp; above compared to total miles of SHC expresses as percentage</i>   | TBD           |               |
| Delivery of Bridge Replacement Program                         | <i># of major milestones planned for year divided by # actual met = % success rate (CE, R/W, Let, Const Completed)</i>   | TBD           |               |
| Projects/Programs/Services on Schedule and on Budget           | <i># of major milestones planned for year divided by # actual met = % success rate (CP's, EA, FONSI, EIS, PH's, R/W, Let, Const Completed)</i>   | TBD           |               |
| Project Scope  | <i>Once Cost Estimate Flow Chart and Scope Change Request processes are implemented, a metric needs to be developed to evaluate the performance</i>  | TBD           |               |
| Business Development & Outreach                                | <i>% Contract dollars awarded to DBEs, MBEs, WBEs, SBEs, &amp; HUBs</i>  | TBD           |               |
| Customer Service   | <i>Customer satisfaction surveys</i>   | TBD           |               |
| Fiscal Management  | <i>% improvement of existing Admin Budget</i>  | TBD           |               |
| Employee Safety  | <i># of reported incidents that cause lost work days and / or worker's comp claims compared to baseline, i.e previous year(s) reported incidents</i>   | TBD           |               |
| Employee Satisfaction  | <i>Employee Survey</i>   | TBD           |               |
| Recruiting, developing and retaining employees                 | <ul style="list-style-type: none"> <li>- % retention of employees that continuously meet or exceed expectations on their PDA's</li> <li>- Overall % of employees retained at the end of cycle vs. # of employees at beginning of cycle.</li> </ul> <i>(Retirement or positive movement within the Dept. does not negatively affect rating)</i> | TBD           |               |

