



GREATER CHARLOTTE REGIONAL FREIGHT MOBILITY PLAN

STEERING COMMITTEE MEETING

September 23, 2015

Welcome

- **Builds on past regional work**
 - Three Pillars: land use, economy, and transportation
- CONNECT Our Future
- Comprehensive Economic Development Strategy (CEDS)
- MPO & RPO's transportation plans



Vibrant Communities – Robust Region

Welcome

- **Increased competition for Federal funding**
 - MAP-21 and Federal Transportation Funding



Welcome

- **Inform the NC State Freight Plan**
 - Regional level focus of issues and recommendations



Regions with Standalone Freight Plans/Studies





Discussion Question 1:

What outcome(s) are needed to make the regional freight mobility plan a success?



Victoria Rittenhouse, Centralina COG

BACKGROUND & CONTEXT



Background & Context

What brought us to developing a regional freight study?

- The Comprehensive Economic Development Strategy “CEDS”

What is a CEDS?

- A regional strategy which reflects local economic development needs and priorities and recommends a regional approach to achieving sustainable economic development.
- The CEDS is used as a regional strategy to coordinate economic development efforts.



Background & Context

Why develop a CEDS?

- To compete nationally and internationally for people and businesses, interdependent jurisdictions are planning regionally
- Across U.S., metropolitan areas are realizing significant competitive and fiscal advantages from coordinated and collaborative regional planning

Our region's CEDS

- builds on the region's strengths and assets
- emphasizes key regional industry clusters
- focuses the economic development priorities

Asset Inventory, SWOT & Target Industries and Competencies

Target Competency Matrix – Greater Charlotte Region

Target Competencies

Advanced Manufacturing

Advanced Materials
Specialty Chemicals
Industrial Machinery
Metalworking
Robotics, Automation, Mech.

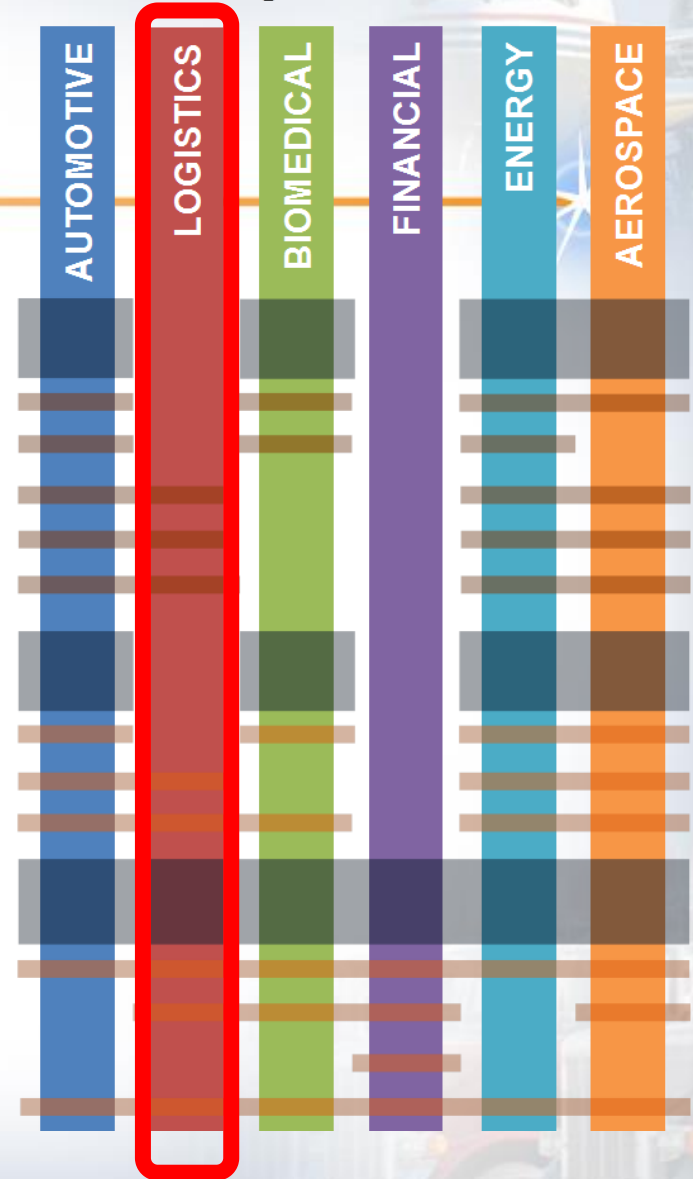
Engineering

Optoelectronics
Industrial Operations
Technology Development

Information Technology

Systems Software
Information Security
Banking IT
Web Applications

Target Industries



2012 CEDS Priorities & Goals

Goal: Ensure the region has a highly connected, efficient multimodal transportation system and an abundant supply of shovel-ready sites

- The region's industries must increase integration of new technologies to remain competitive and **leverage new logistics assets and infrastructure to access global markets** (such as new intermodal facility at the airport and regional telecom infrastructure).
- New and emerging industries and technologies must be supported through improved entrepreneurial support systems and **targeted infrastructure improvements**.
- Regional collaboration is strong in economic development but should be strengthened by strategic collaboration in entrepreneurship, **infrastructure planning**, education and workforce development planning.

Charlotte's Market Accessibility

Charlotte's central East Coast location and excellent transportation network provide businesses with a strategic advantage in receiving and shipping goods and services.

Population Comparison 650 Mile Radius

	Pop. (mil.)	% of U.S.
Charlotte	164.2	53%
Atlanta	139.9	45%
New York	116.2	37%

Total U.S. Population: 311,212,863

Source: ESRI 2012

Within 650 miles of Charlotte are:

- 164 million U.S. and Canadian consumers
- 55 of the country's top 100 metropolitan areas



Why freight matters?

- 62% of U.S. national industrial base and over 60% of the U.S. population is accessible within 24 hour drive (650 miles) of Charlotte, giving the Region a unique logistical and Global competitive advantage.
- According to Site Selection, Charlotte ranks 5th in the nation for new and expanded distribution operations, with 192 facilities and serving as home base for distribution operations at such diverse companies as Family Dollar, Black & Decker, General Motors, Lucent Technologies and TJ Maxx.
- Charlotte is the nation's 12th largest trucking center with over 339 firms operating here that employ over 8,000 workers. Additionally, 817 transportation and warehousing companies call this region home.

The U.S. business logistics system cost is the equivalent of 8.3% of GDP in 2014

(\$ billions)

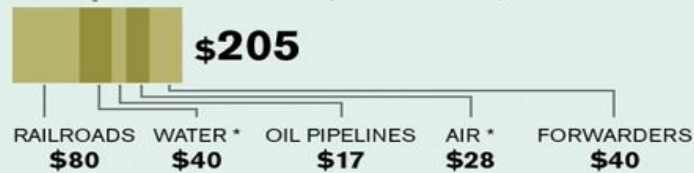
Carrying costs (\$2.496 trillion all business inventory)



Transportation costs (Motor carriers)



Transportation costs (Other carriers)



* WATER: INTERNATIONAL 31, DOMESTIC 9
AIR: INTERNATIONAL 12, DOMESTIC 16

Shipper related costs

\$10

Logistics administration

\$56

TOTAL LOGISTICS COST \$1,449

Note: May not sum to total due to rounding

Source: CSCMP's Annual State of Logistics Report

Why freight matters?

- In 2014 the Cost of Logistics as Percentage of GDP was 8.3
- Logistics related cost as a percentage of sales range from 9% -14%
- Successful freight mobility planning will strengthen the regional economy
- Efficiencies have multiple benefits.




Pat Anater, CDM Smith

GREATER CHARLOTTE REGIONAL FREIGHT MOBILITY PLAN

Planning for Fast, Efficient Freight Transport in the Greater Charlotte Bi-State Region

Plan Purpose

1. Understanding the Current Freight Climate



The efficient, reliable, and safe movement of goods and commodities in the Greater Charlotte region is required to sustain private sector commerce.

Manufacturing, logistics, distribution and agricultural sectors rely on freight transportation to connect their supply chains.

In order for existing businesses to grow and attract customers, the freight system must provide mobility to get goods to market.

2. Looking Toward the Future



The Greater Charlotte Region should look to position itself as an emerging trade hub in Southeast.

The region is rich in the attributes and characteristics to become a national and global trade hub.

The major west-east and south-north highway corridors, and first class access to the rail network with Charlotte as a hub.

The Charlotte-Douglas International Airport recently developed their multimodal strategic plan and should serve as a tool to inform the Freight Mobility Plan.

Understanding the Region's Freight Landscape

- Congestion has a significant impact on commerce
- Multijurisdictional issues
- Sprawl/Land Use Management
- Making what we have work better
- Capitalize on port connections
- Enhancing modal connectivity
- Good planning leads to implementable projects
- Outreach to freight system users

Plan Development Process

Existing Conditions

Bottlenecks

Commodity Flows

O-D Analysis and
Freight Corridors

Network
Identification

Economic Impacts

Truck Parking

Land Use, Facility, Infrastructure & Regulatory Gaps

Existing Land Uses

Regional Freight
Land Use Policies
and Regulations

Truck Parking
Capacity and
Needs

Road/Rail
Network Corridor
Demand

Best Practices

Technology
Trends

Safety and
Security

Public Private
Partnerships

Prioritizing Regional Needs

Bottlenecks & LOS

Pavement/Bridge
Conditions

High Crash
Location

Economic
Opportunity

Rail/Truck Grade
Crossings

Intermodal
Connections

Performance Measures

Goals Addressed

Freight Impacted,
Related or
Focused

Quantifiable and
Trackable

Stakeholder Engagement

Greater Charlotte Regional Freight Mobility Plan

Plan Outcomes

The background of the slide is a collage. On the left, a freight train with a locomotive numbered 2800 is visible. On the right, the nose and cockpit of a commercial airplane are shown. In the center, a faint, light-colored map of the United States is overlaid. A bright, multi-pointed starburst graphic is located on the right side, near the airplane.

- Recommendations and guidance for actions, policies and investments
- Project prioritization processes for Strategic Transportation Investments
- Opportunity to increase federal share beyond MAP-21
- Freight transportation conditions, performance, needs and opportunities
- Freight logistical, infrastructure, land use and economic impacts

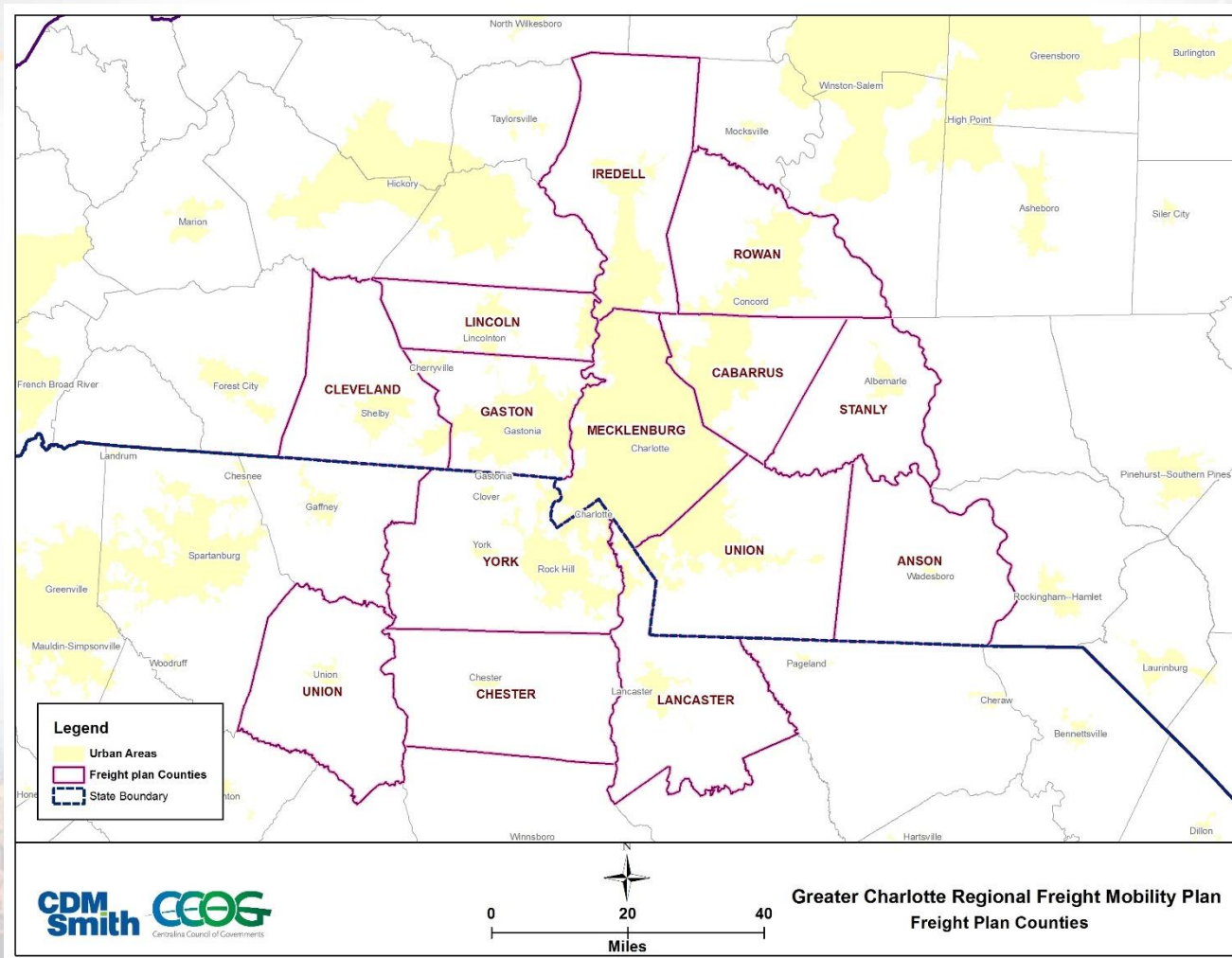
It is critical that the Charlotte region prioritize needs that provide the greatest impact to freight mobility and opportunity.

Plan Update—Progress to date



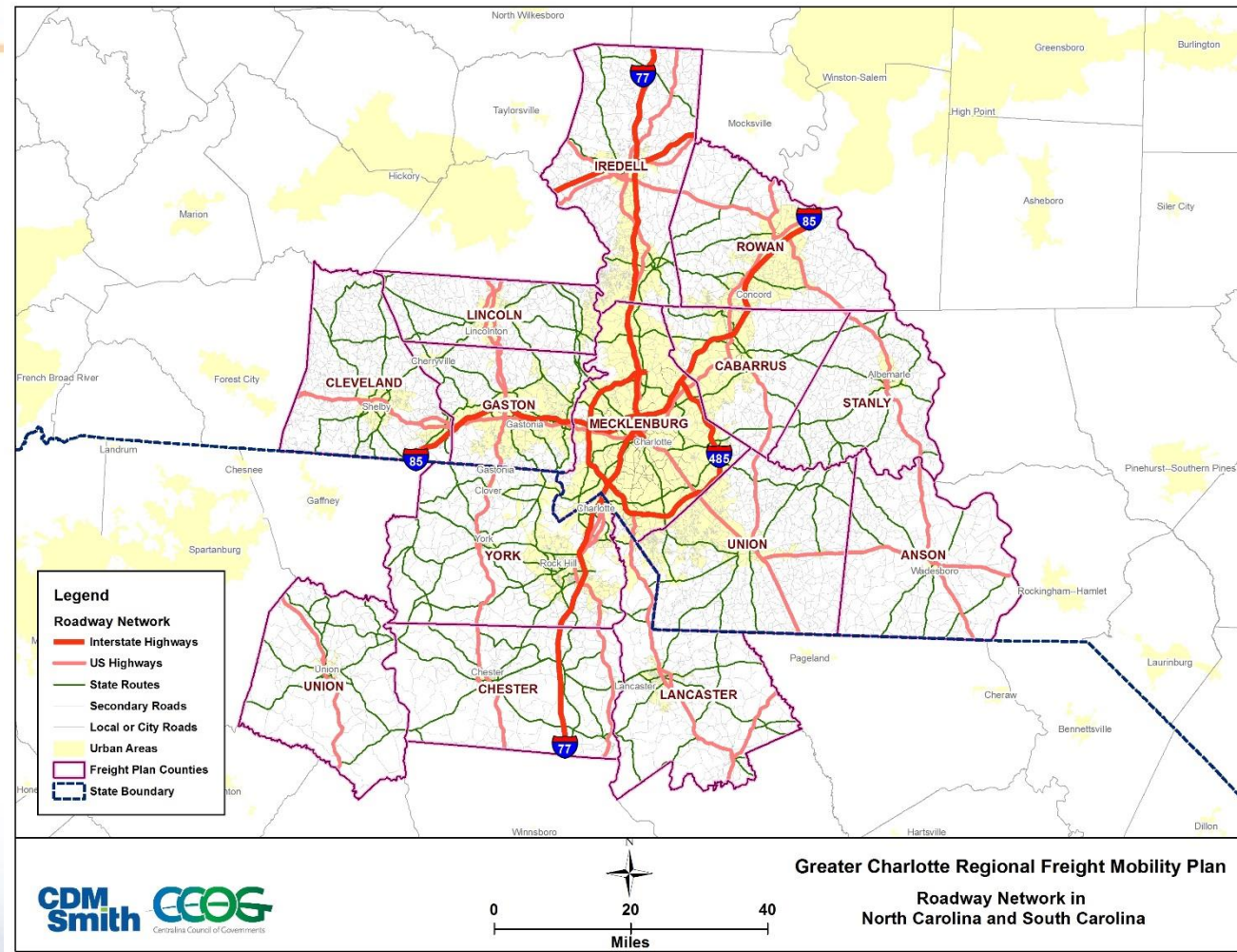
- Sub consultants getting under contract
- Data files from Coordinating Committee
- Freight network inventory
- Truck parking inventory and utilization
- Review of existing plans
- Mapping

Study Area Boundary



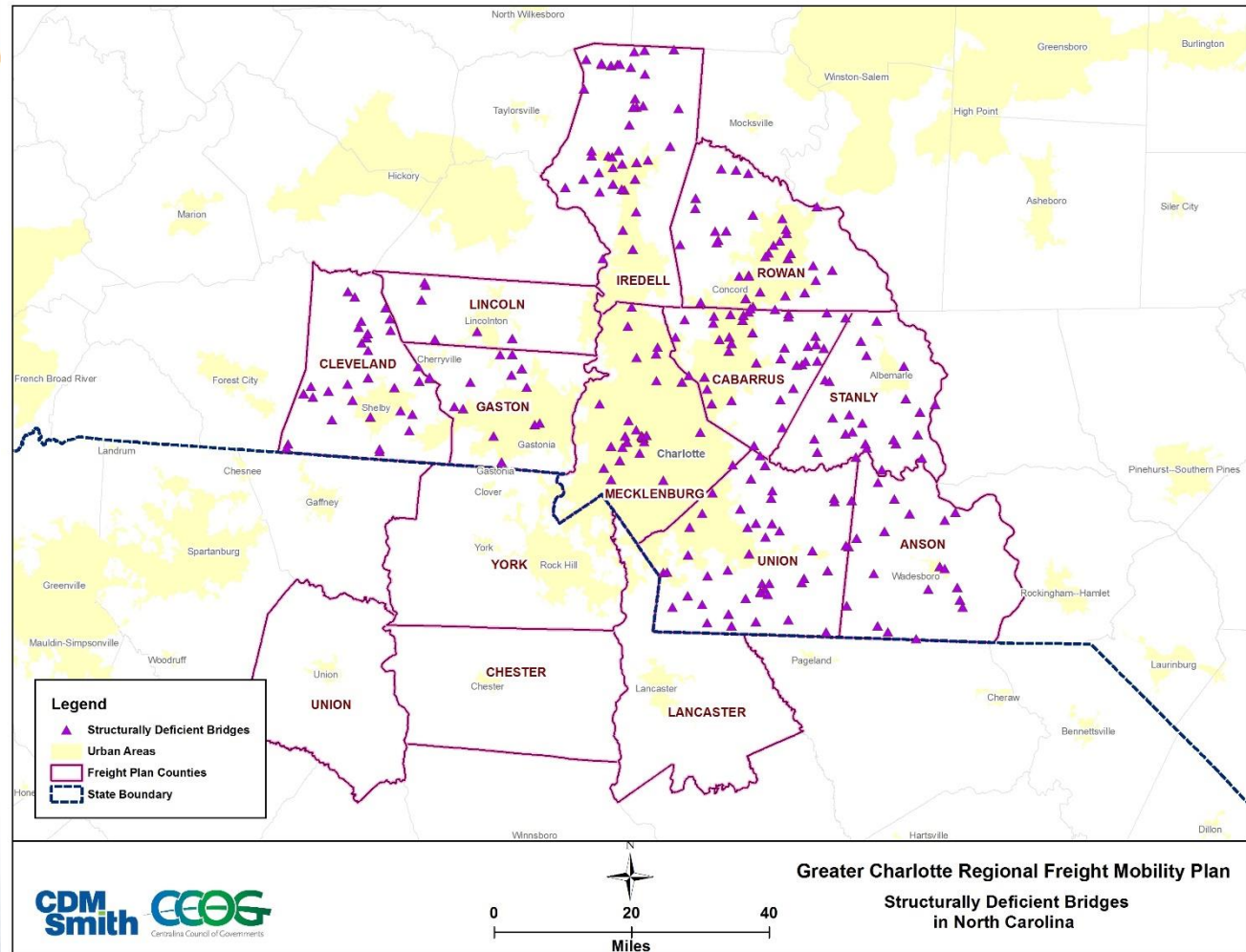
Truck Roadway Network Inventory

Roadway Type	Miles
Interstate	556.86
US Highway	920.06
State	1,846.41
Local	12,051.34



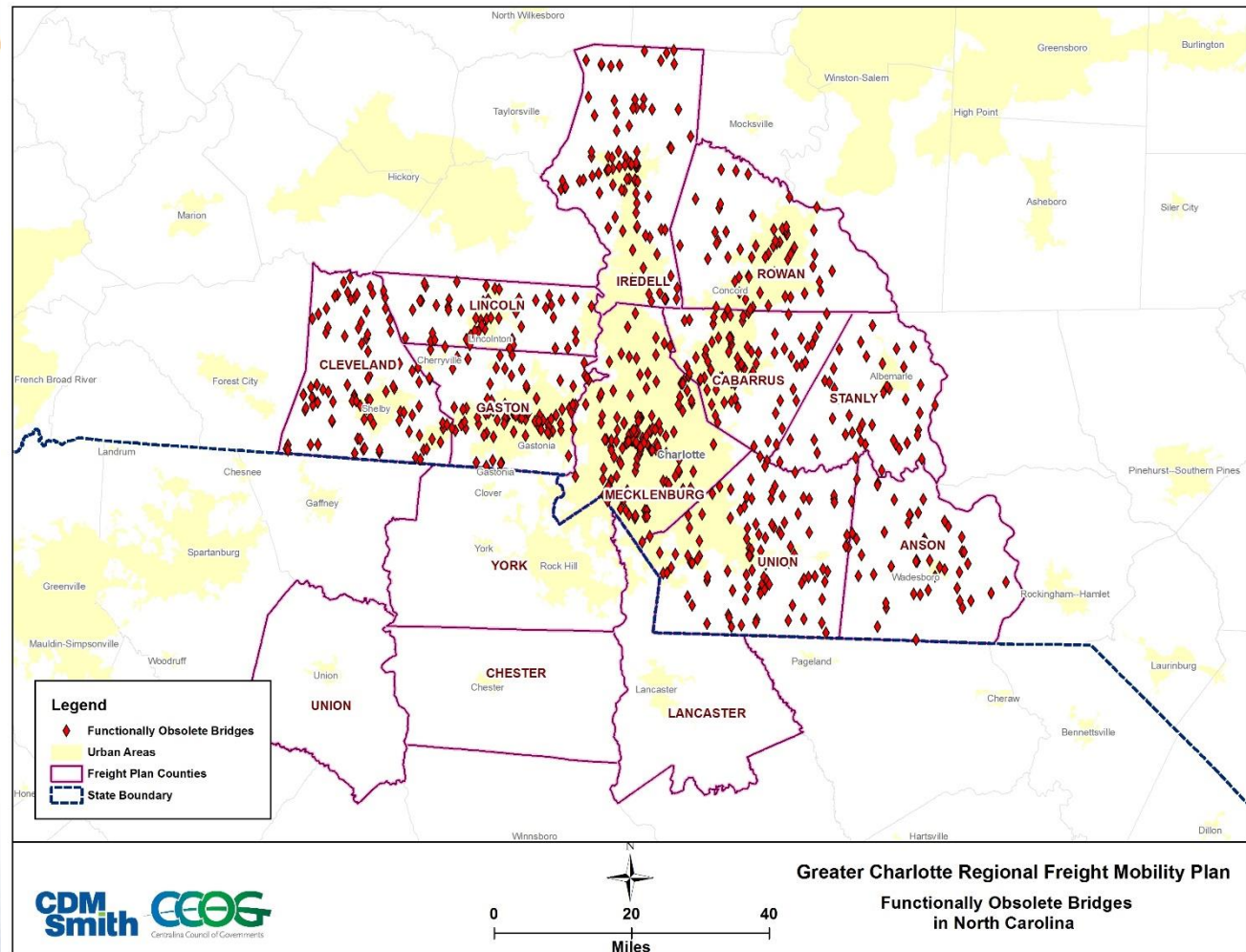
Bridges—Structurally Deficient

- North Carolina: 282 Bridges
- South Carolina: No Data



Bridges—Functionally Obsolete

- North Carolina: 831 bridges
- South Carolina: No Data





Truck Parking Demand

- Observations
 - Heavy utilization of truck parking facilities along I-77 between Exit 65 and Exit 36 in Iredell County. Trucks parked on multiple I-77 interchange and rest area ramps.
 - Heavy utilization of I-85 truck parking facilities from Exit 71 in Rowan County to Exit 39 in Mecklenburg. Trucks observed being parked on shoulders, ramps and side streets.
 - Heavy utilization of I-77 facilities south of the city through Chester County, SC.

Truck Parking Inventory

Truck Parking Facilities:

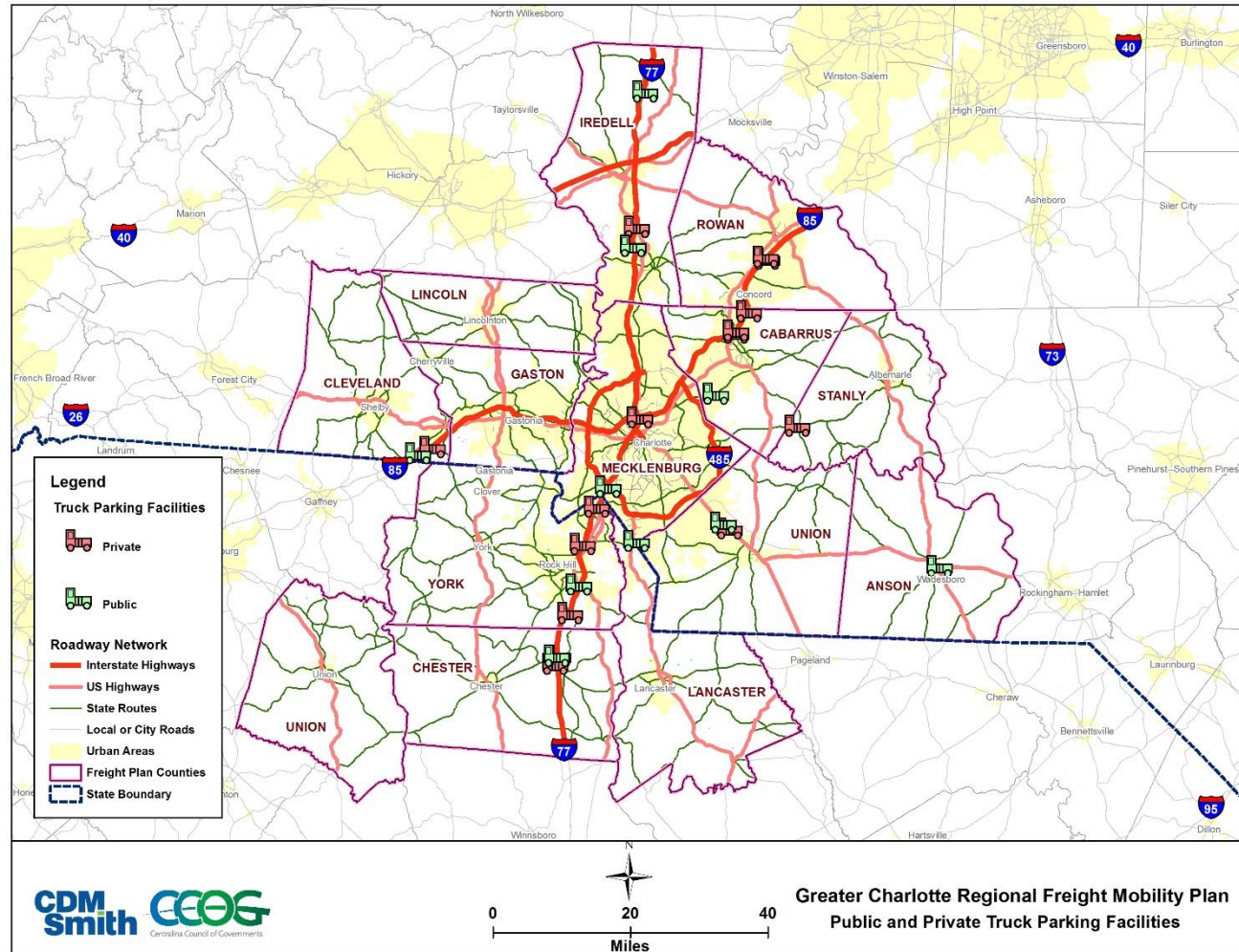
- 10 Public
- 16 Private

Private truck stops:

- www.truckstops.com
- 2015 National Truck Stop Directory.

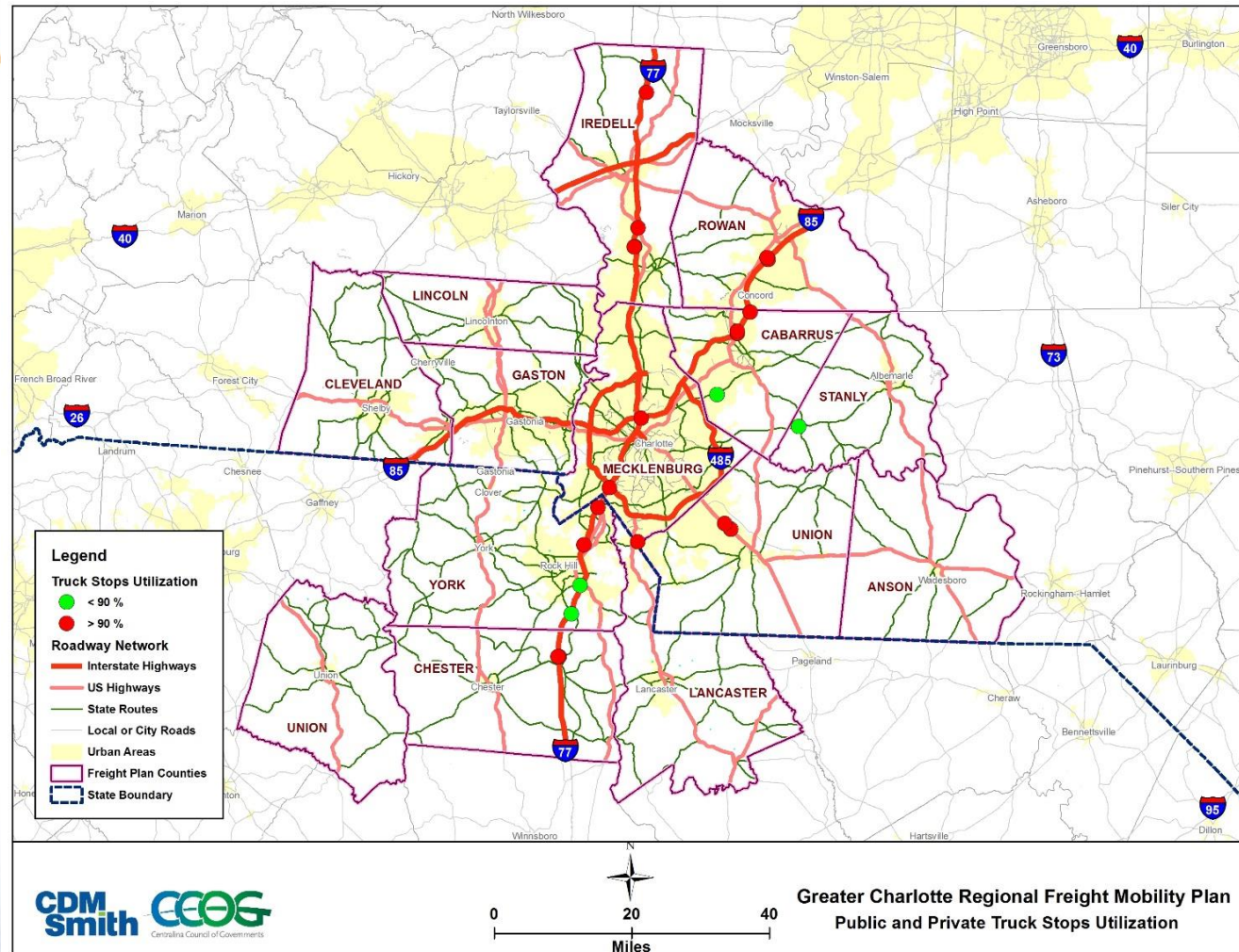
Public rest areas, welcome centers and visitor centers:

- NCDOT
- SCDOT
- Field Visits



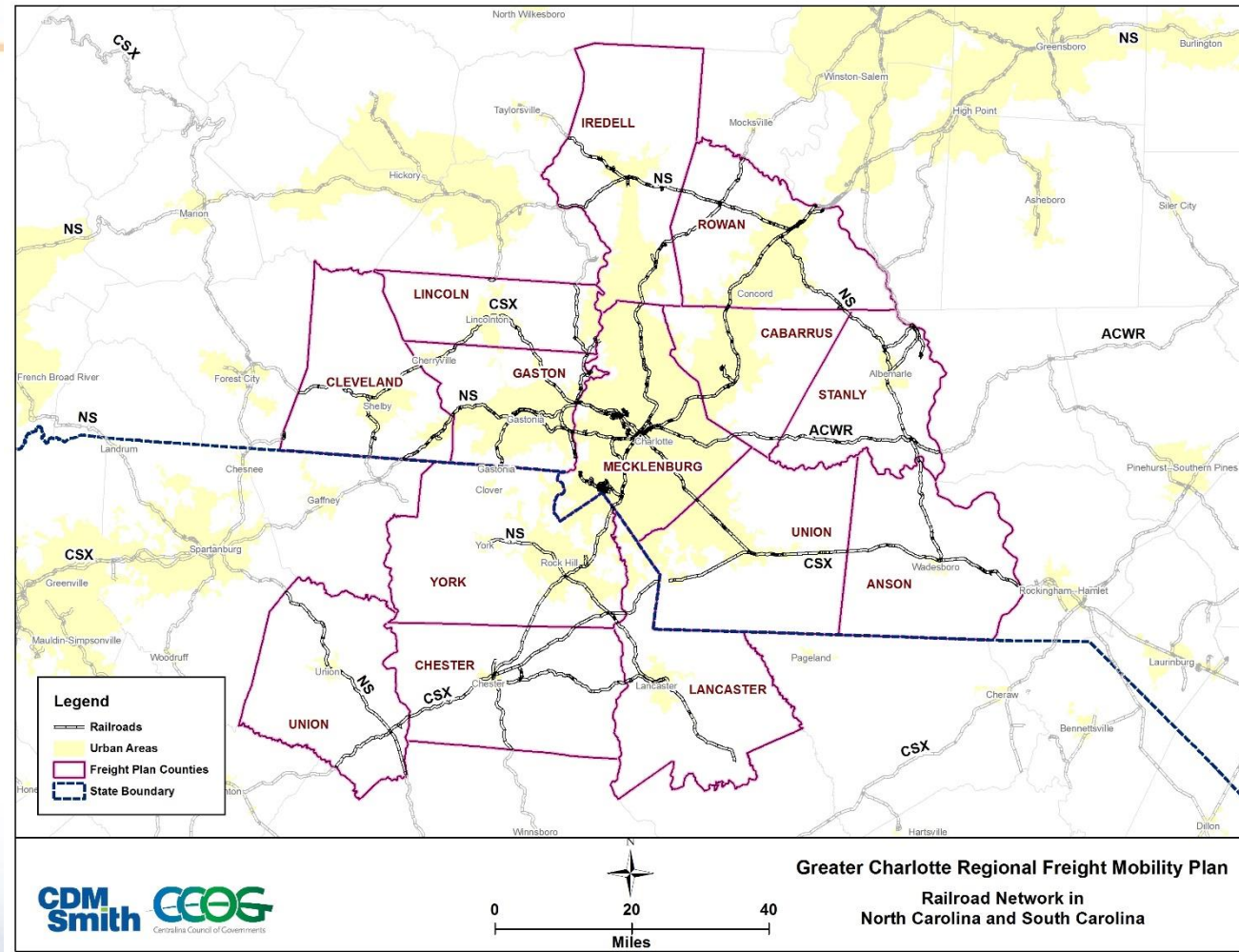
Truck Parking Utilization

Of the 26 truck parking locations where data was collected, only 5 are less than 90% utilized



Region's Railroads

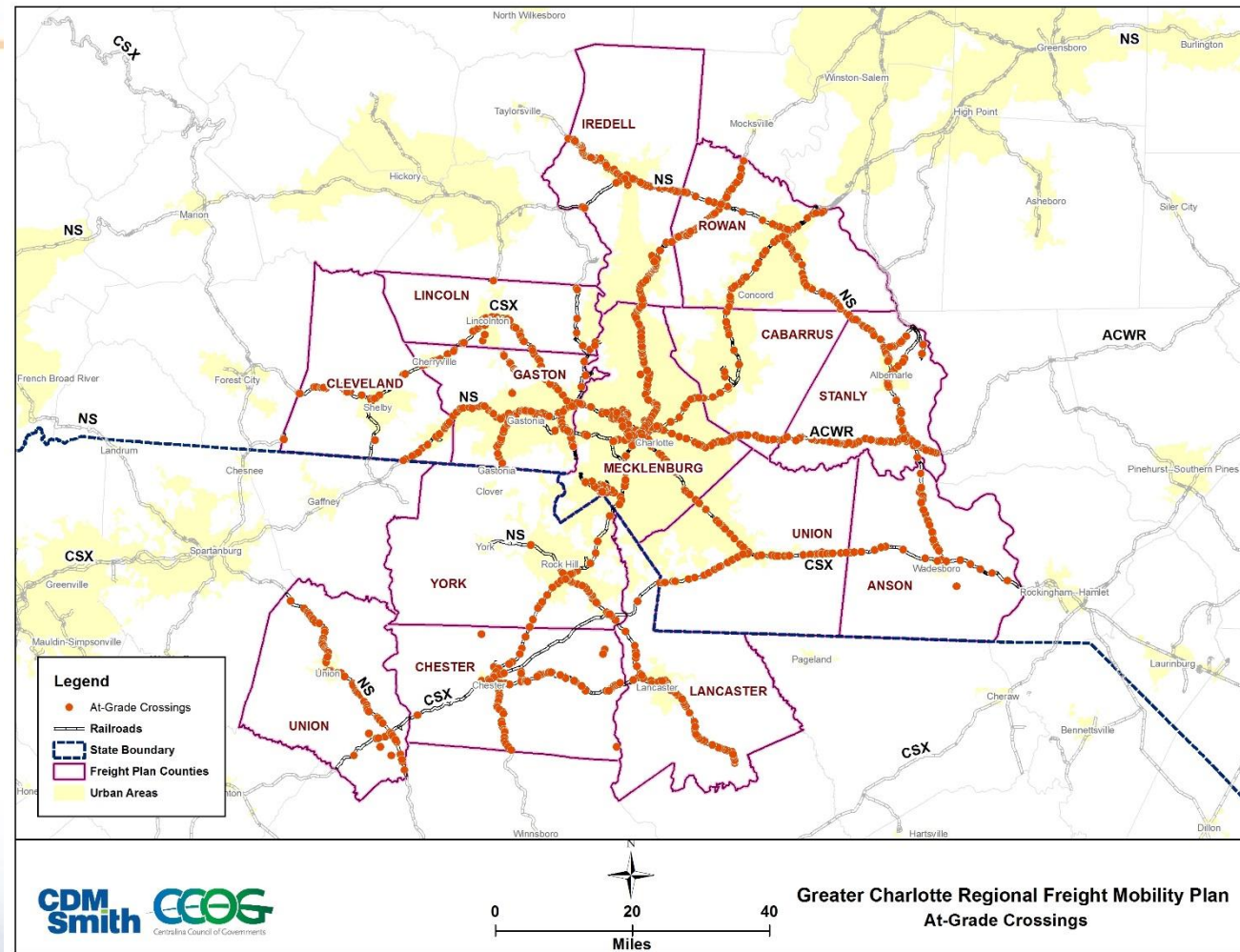
Railroad Owner	Miles
Aberdeen Carolina & Western Railway	50.8
Alexander Railroad Company	13.6
Carolina Coastal Railway	13.5
CSX	335.0
NCDOT	1.0
Norfolk Southern	593.7
Piedmont & Northern Railway	15.5
Winston-Salem Southbound Railway	42.10
Lancaster & Chester	66.8
Others/Unknown	10.0



Rail/Highway at-Grade Crossings

North Carolina -
1,158 crossings

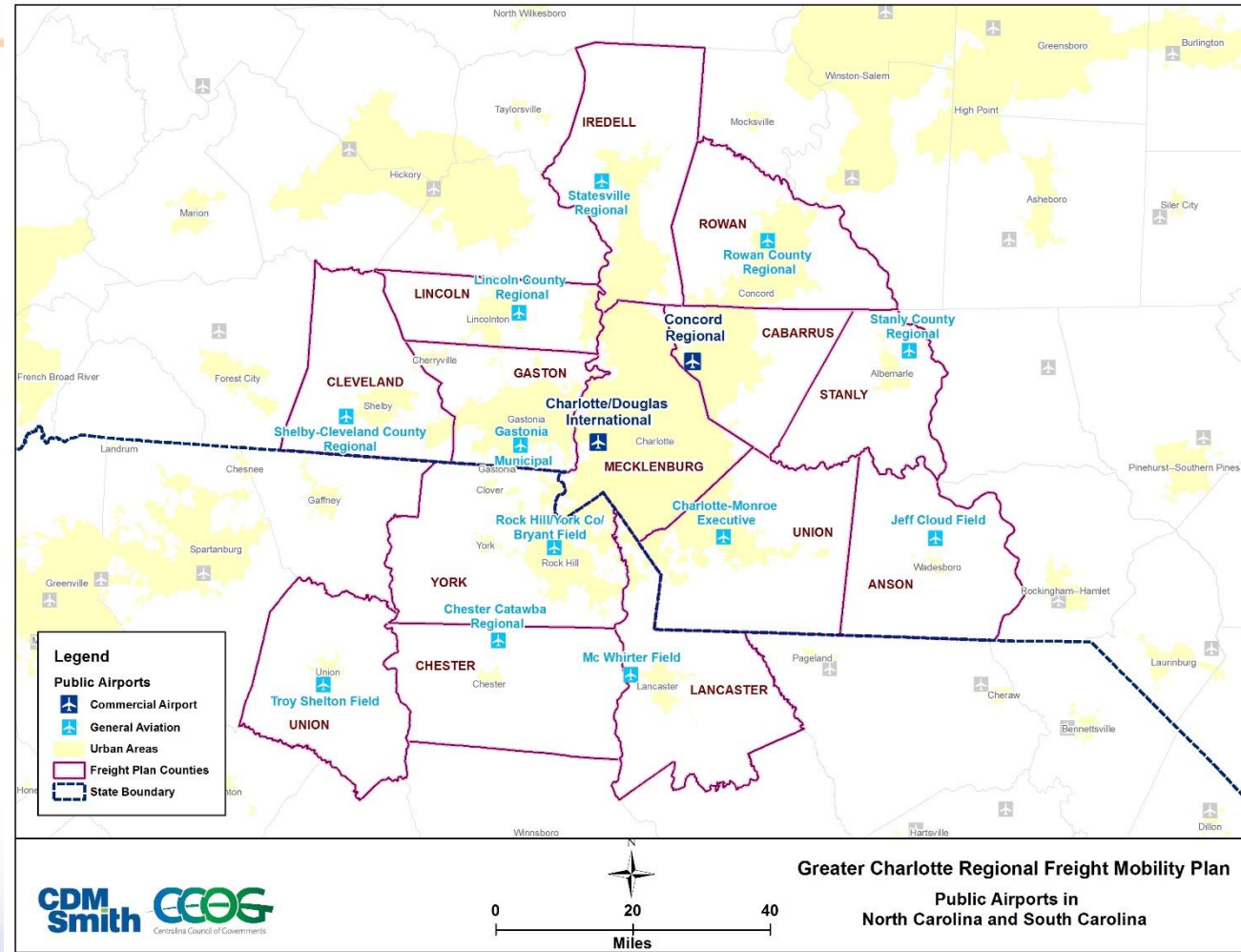
South Carolina -
343 crossings



Region's Airports

Commercial Service
Airports - 2

General Aviation
Airports - 12



Current Relevant Freight Planning

- Cabarrus-Rowan Metropolitan Planning Organization (CRMPO) Draft 2040 Metropolitan Transportation Plan (MTP) (March 2014)
- Charlotte Region Transportation Planning Organization (CRTPO) MTP (April 2014)
- Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) MTP
- Stanly County Comprehensive Transportation Plan (CTP) (2012)
- Anson County Comprehensive Transportation Plan (CTP) (2012)
- Rock Hill-Fort Mill Area Transportation Study (RFATS) 2035 Long Range Transportation Plan (LRTP)
- Catawba Regional Council of Governments LRTP
- NCDOT Seven Portals Study (2011)
- Piedmont Improvement Program
- Charlotte Railroad Improvement and Safety Program (CRISP)
- NCDOT Statewide Logistics Plan (2008)
- South Carolina Statewide Freight Plan (2014)

Schedule

TASK	TIMEFRAME
Task 1: Analysis of Existing Conditions	Aug – Dec 2015
Task 2: Land Use, Facility, Infrastructure and Regulatory Gap/Future Demand Analysis	Aug 2015 – Jan 2016
Task 3: Best Practices	Dec 2015 – May 2016
Task 4: Prioritize Regional Needs	Jan – June 2016
Task 5: Freight Performance Measures	May – Aug 2016
Task 6: Draft and Final Plan Report	May – Dec 2016



Jessica Hill, Centralina COG

STEERING COMMITTEE'S PURPOSE & ROLE

Steering Committee Context

- Three Freight Plan Committees
 - **Coordinating Committee** – comprised of region's MPO, RPO, NC DOT, FHWA, SC DOT staff representatives.
 - **Steering Committee** – comprised of key regional experts in transportation and land use planning, economic development, logistics, and local government elected officials.
 - **Advisory Committee** – comprised of freight systems providers (rail, trucking, air cargo firms) and users (manufacturing, distribution, and logistics firms).

Steering Committee's Purpose

- To help guide and inform the development of the region's first Freight Mobility Plan.
- By providing reviews and recommendations to the project team during the development of the Freight Mobility Plan.
- Approve and endorse project deliverables as appropriate.



Steering Committee's Role

Steering Committee members agree to volunteer to:

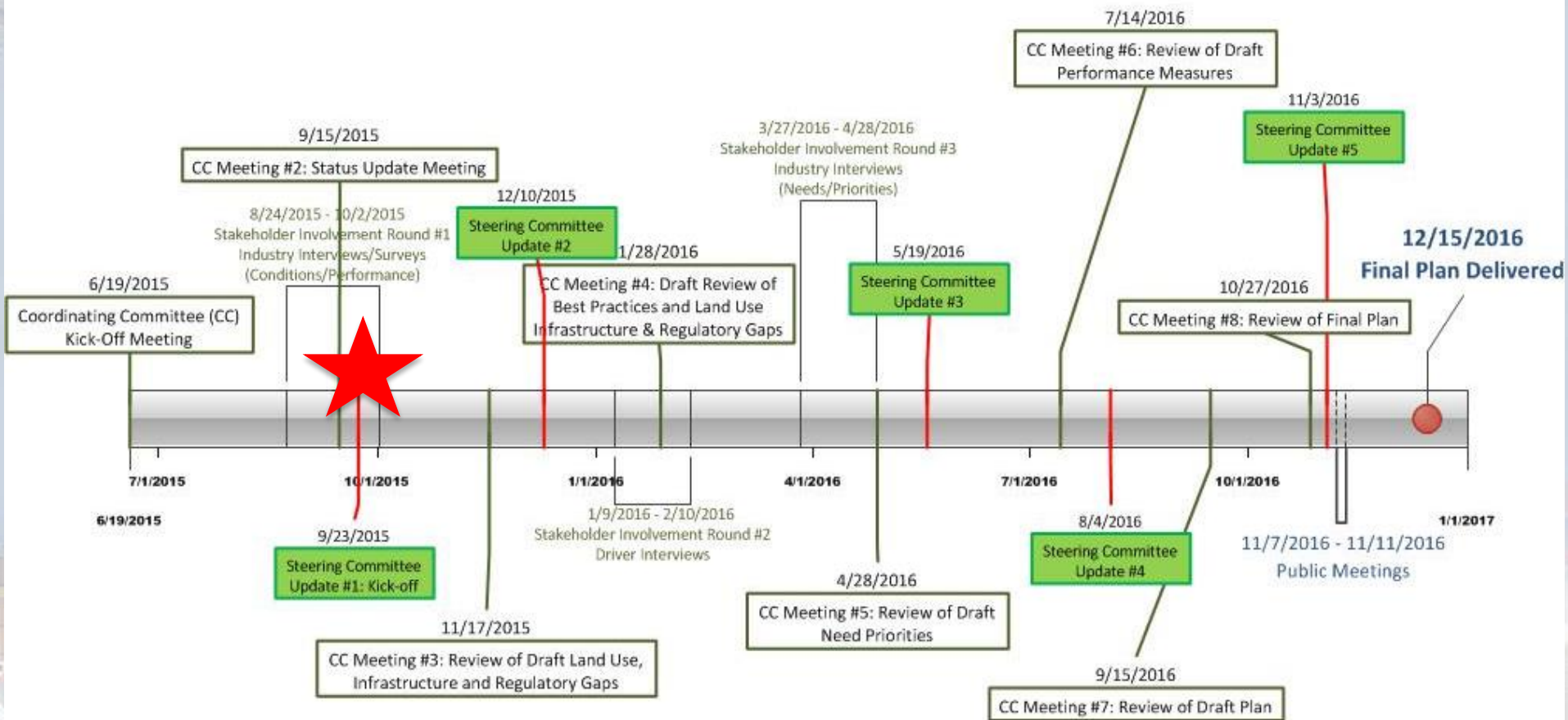
- Focus on initiatives to benefit the entire region;
- Ensure public and private sector objectives met;
- Provide insight on long-term strategies;
- Participate in Steering Committee meetings;
- Review technical memorandums (deliverables);
- Participate in stakeholder engagement events;
- Reflect the interests of your constituents;
- Communicate information back to your agency;
- Help recruit Freight Advisory Committee members;

Project Team's Role

Centralina COG and CDM Smith agree to:

- Provide Steering Committee members the opportunity to collaborate with other agencies and groups on making recommendations for the project;
- Keep Steering Committee members informed of progress;
- Provide technical expertise;
- Provide documentation for Study Task deliverables;
- Manage logistics for meetings;
- Conduct broader engagement activities as necessary to inform and engage other stakeholders; and
- Effectively manage the scope, schedule, and budget.

Stakeholder Engagement Timeline





Jessica Hill and Michelle Nance, Centralina COG

TABLE DISCUSSION AND REPORT OUT



Discussion Question 2

What are the
current challenges impacting
efficient freight movement
in the Greater Charlotte
Region?



Discussion Question 3

What opportunities exist
to support economic growth
through freight mobility?



Jim Prosser, Centralina COG

WRAP UP & NEXT STEPS



How To Stay Up-to-date

- Attend Freight Steering Committee Meetings
- Attend the **Planes, Trains & Semis: Keeping a Dynamic Economy on the Move** Peer Exchange on November 13th
- Check our website www.centralina.org for new information

Thank You!

We are excited to work with each of you and get your input on the region's first Freight Mobility Plan to ensure that our region will continue to be economically competitive and a great place to live and work.

For more information, contact:

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Pat Anater, CDM Smith Senior Project Manager, at 919-325-3555 or anaterpr@cdmsmith.com