

# Indianapolis Rapid Transit Study Peer Review

## *Charlotte's Experience*

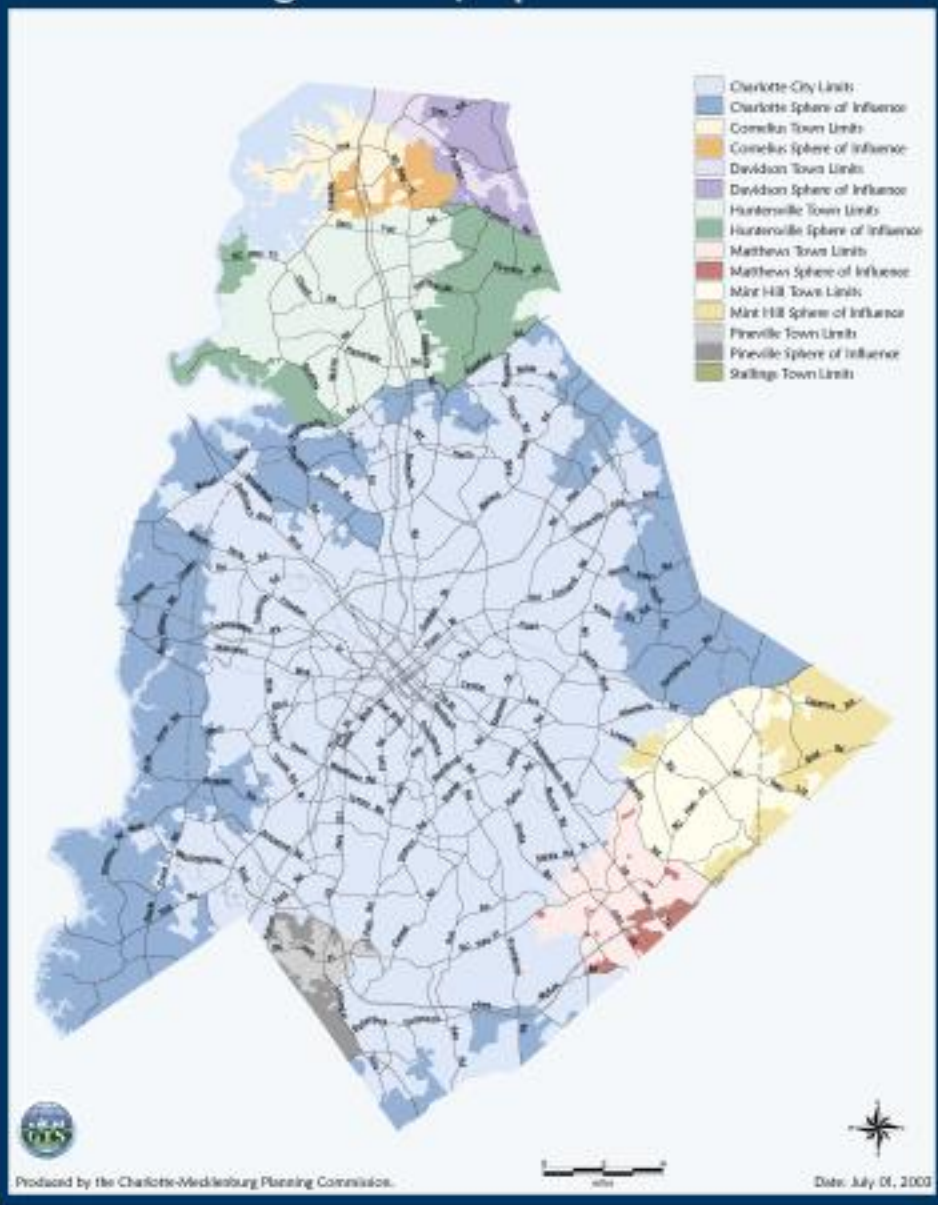


**Charlotte Area Transit System  
May 17, 2006**



# Charlotte- Mecklenburg County

## Mecklenburg County Spheres of Influence



# Population Growth 1970 – 2020

	1970 Population	2000 Population	2020 Population	Increase 1970 - 2020
Mecklenburg County	354,656	695,370	1,082,890	305 %
Davidson	2,931	7,139	30,895	1054 %
Cornelius	1,296	11,969	37,293	2877 %
Huntersville	1,538	24,960	80,860	5257 %
Charlotte	241,420	540,820	847,400	351 %



# Dealing With Rapid Regional Growth

- Significant Population & Employment Growth
  - By 2035, Charlotte's 40 mile region will approach 4 million residents – today's Atlanta
- Consumption Of Open Space And Tree Canopy
- Growing Air Quality, Sprawl & Congestion
  - VMT growth outpaced population growth
  - 9<sup>th</sup> worst metropolitan air quality
  - Non-attainment designation in 6 North Carolina counties and 1 South Carolina county



# Goal: Growth, But . . .

- Mixed Use, Pedestrian-Oriented Environment
- More Compact, Organized
- Revitalization/Stabilization Of Older Areas
- Mixed Use Development
- Expanded Travel Choices
- On-going Cohesive Civic Dialogue About Growth



# Transit Planning History



# 10 Years Of Building Consensus For Transit

1989 Transit Corridor Study

1994 Committee of 100

- Develop consensus vision for Land Use and Transportation
- Define Major Revenue Sources
- Determine Organizations Structure

1996 Committee of 10

- 5 Year Transportation Plan
- Support for "Local Option" Revenue Sources for Transit Improvements
- Led to Enabling Legislation for ½ Cent Local Option Sales Tax

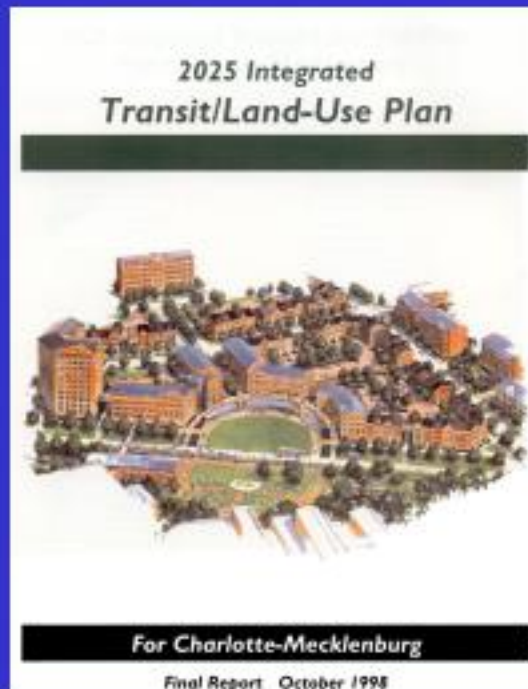
1998 2025 Integrated Transit/Land Use Plan

- Centers and Corridors Land Use Vision
- Provide Choices in Mode of Travel
- Develop a Regional Transit System



# Success in 1998!

- Voter referendum on ½ percent sales use tax for public transportation on November 1998 ballot
- Promoted by Chamber and paired with \$100 million Road Bond
- Sales tax approved 58% to 42%



# Evolution of Transit Department

1999

- Creation of Metropolitan Transit Commission (MTC)
- Transit Department created within City (November)
- Ron Tober hired as Public Transit Director

2000

- Charlotte Area Transit System (CATS) created



# 2025 Integrated Transit/Land Use & Corridor System Plan



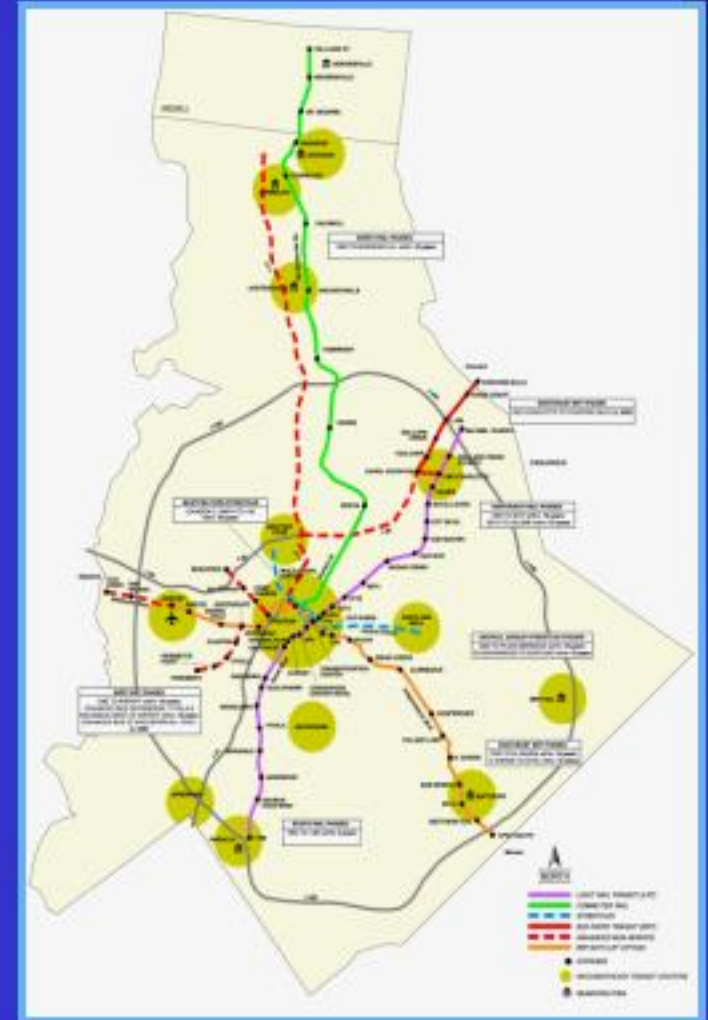
# System Plan Development



# Integrated Transit/Land Use System Plan



- Light Rail Transit
- Bus Rapid Transit
- Trolley
- Commuter Rail: DMU
- Local Buses



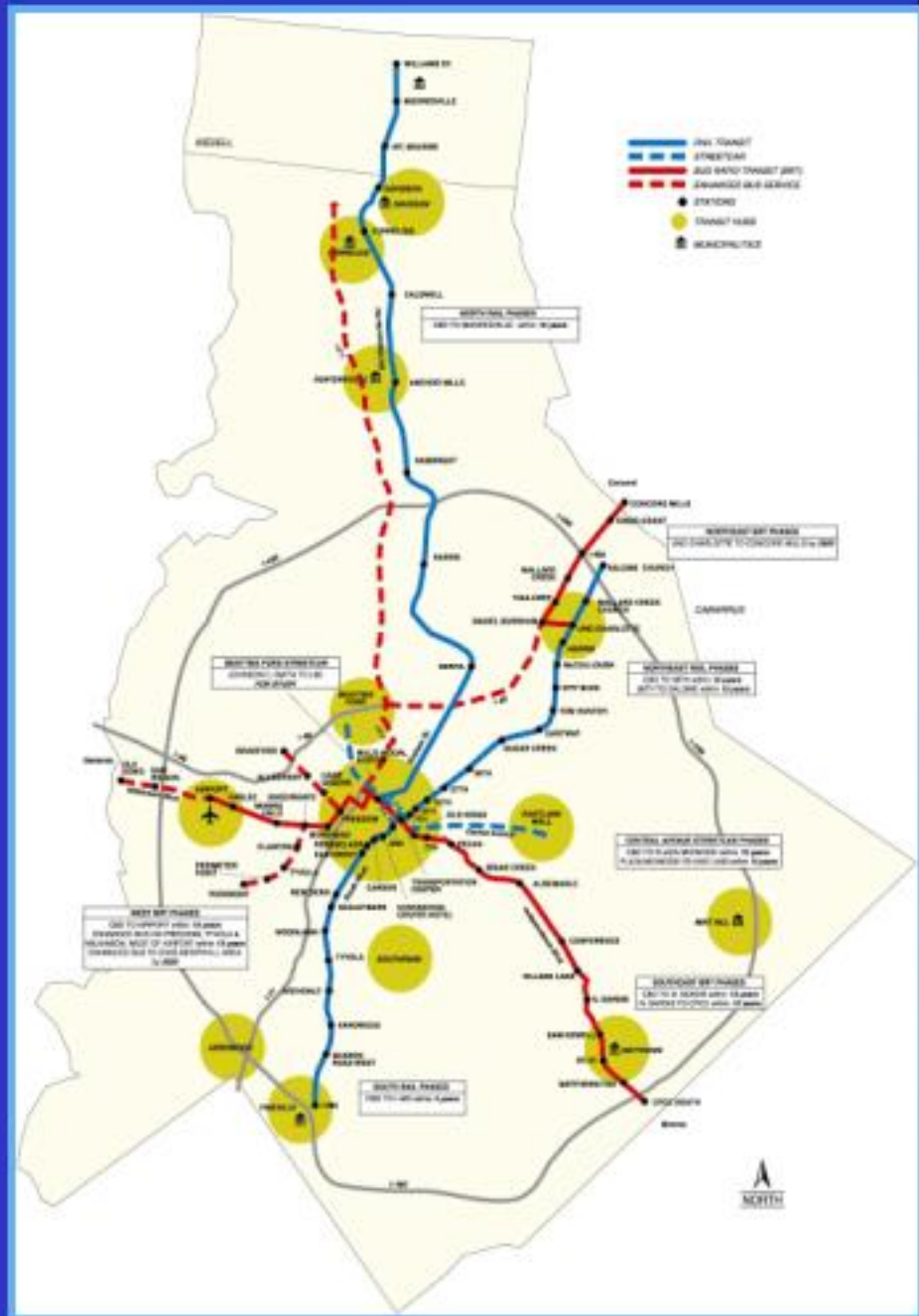
# Selection of the LPA

- LRT, Commuter Rail, BRT Considered in All Corridors
- LPA Selected Following Completion of the MIS
- Factors Included:
  - Land use impact
  - Cost
  - Availability of ROW
  - Ridership
- Southeast & West: LPA included both BRT & LRT options
  - Streetcar added to West Corridor during conceptual engineering



# Recommended System Plan

- Serves 205,000 – 215,000 daily transit riders by 2025
- 28 miles of BRT guideway
- 21 miles of LRT
- 11 miles of streetcar
- 29 miles of commuter rail
- Extensive network of bus and other types of transit services throughout the region



# Implementation Plan

Corridor	First 10 yrs. (to 2012)	First 15 yrs. (to 2017)	By 2025
South	<ul style="list-style-type: none"> <li>• LRT to I-485</li> </ul>		
North	<ul style="list-style-type: none"> <li>• Commuter rail to Mooresville</li> <li>• Enhanced bus services on I-77 HOV lanes</li> </ul>		
Northeast	<ul style="list-style-type: none"> <li>• LRT to 36<sup>th</sup> St. (NoDa)</li> </ul>	<ul style="list-style-type: none"> <li>• LRT to I-485</li> </ul>	<ul style="list-style-type: none"> <li>• BRT / enhanced bus to University Research Park Area</li> </ul>
Southeast	<ul style="list-style-type: none"> <li>• BRT to N. Sardis station</li> <li>• Central Ave. streetcar to Plaza / Midwood</li> </ul>	<ul style="list-style-type: none"> <li>• BRT to I-485</li> <li>• Streetcar to Eastland Mall</li> </ul>	
West	<ul style="list-style-type: none"> <li>• BRT to Charlotte Douglas Int'l Airport</li> <li>• Beginning of enhanced bus along Freedom Dr. and Tyvola Rd.</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced bus on Tyvola Rd.</li> <li>• Enhanced bus on Freedom Dr.</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced bus on Wilkinson Blvd. west of airport</li> </ul>
Center City	<ul style="list-style-type: none"> <li>• Trade Street facilities and streetscape</li> <li>• Trade Street Streetcar</li> <li>• West Trade Multi-Modal Station</li> <li>• Transportation Center improvements</li> <li>• Beatties Ford Road Streetcar</li> </ul>		<ul style="list-style-type: none"> <li>• Center City streetcar loop</li> </ul>

## Long Strings Attached . . .

- 1999 South Corridor Major Investment Study (MIS) begins
- 2000** Completion of South Corridor MIS and final selection of Light Rail Transit (LRT); Project enters PE
- 2002** FTA rates South Corridor LRT “highly recommended”
- 2003** FTA approved Record of Decision
- 2005** Full Funding Grant Agreement; Construction begins
- 2007 Start-up of South Corridor Light Rail system



# Cost Comparison

	Commuter Rail	Bus Rapid Transit	Light Rail
Capital Cost (per mile)	\$ 10 million (excluding ROW)	\$20 million (excluding ROW)	\$42 million (Including ROW)
Operating Cost (per mile)	\$500,000 (including ROW lease)	\$1.4 million (?)	\$1.4 million

- Estimates only for Commuter Rail & BRT; LRT based on South Corridor Light Rail Project, which is in construction
- Costs include equipment and maintenance facilities
- Cost of South Corridor Light Rail increased about 60% since MIS due to redesign work, FTA-driven changes and increase in material costs



# Lessons & Challenges

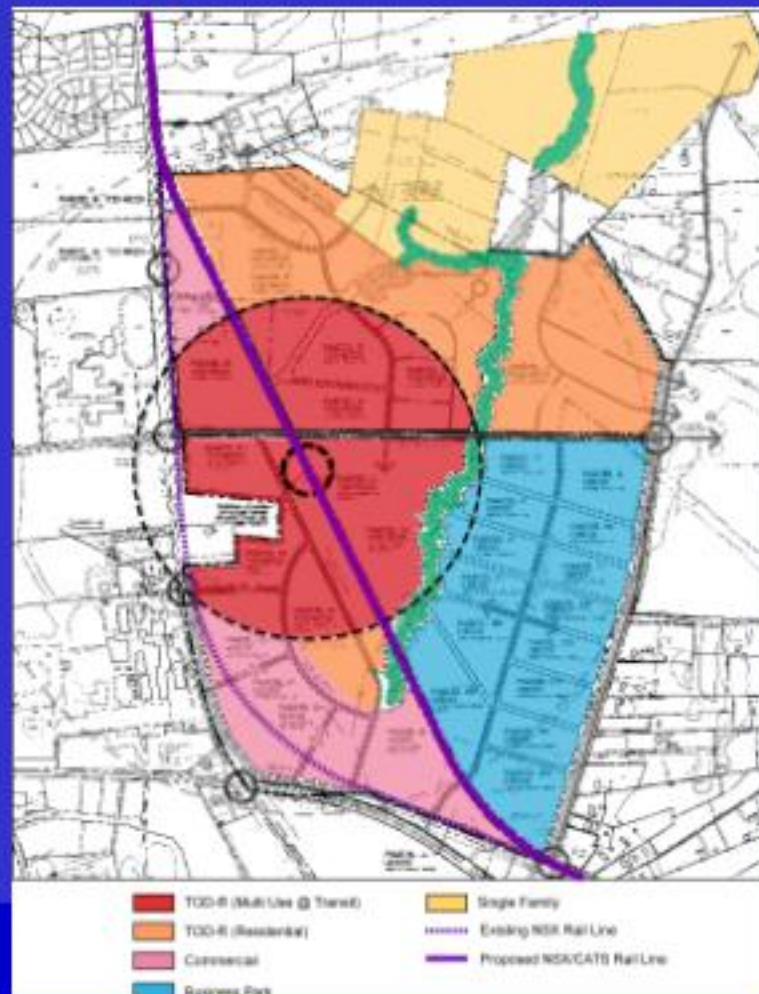
- Land Use Connection Is Very Powerful
  - TOD Zoning adopted by municipalities
  - Developer buy-in
  - Greenfield & redevelopment opportunities



## Bryton – The Model Transit-Oriented Development



- Residential: 3,200 units
- Retail: 1 million sq. ft
- Commercial: 1.2 million sq. ft
- Office: 100,000 sq. ft
- Incremental tax value: \$638 million



# Antiquity – Village Of Cornelius

- Site Acquired by Cornelius
- Rail Station Within TOD
  - 951 Households
  - 280,000 sq. ft Office/Retail



# Lessons & Challenges

- LPA/Technology
  - Leverage investments already planned for ROW
    - I-77 HOV lanes
    - Independence expansion
    - “O” line upgrade
  - Challenge of selling bus
  - Honesty regarding visual impacts
- Thinking & Acting Regionally
- Business Community Buy-In



# Lessons & Challenges

- Federal Funding Comes At A High Price
  - Delay: 5 years from start of PE to start of construction
  - Changing FTA standards & thresholds
  - FTA Oversight – PMO, quarterly meetings, risk assessments
  - Cost: oversight, additional studies & activities, inflation
- The Railroad Right-of Way Challenge
  - Hello? Anybody there . . . .?
  - Who's in charge?
  - 150 years of annoyed neighbors



# Lessons & Challenges

- High Standards From the Start
  - Credibility is Everything!
  - Vigilance over project cost
  - Avoiding embarrassments
- Manage Expectations
  - Don't promise dates you can't meet
  - Don't promise results you can't achieve
  - Prepare the public, elected officials for how long this takes
  - Prepare the public, elected officials for cost increases



# Lessons & Challenges

- Avoid Open Wounds
  - Resolve technology/alignment issues ASAP
- Never Stop Selling
  - Secure support of newly elected officials
  - Educate the media – Transit 101
  - Engage opponents
  - Force supporters to be vocal
  - Provide elected officials with tools/info to respond

