CHARLOTTE

WT HARRIS BOULEVARD ROADWAY CLASSIFICATION STUDY

Steering Committee Launch

January 31, 2012

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Today's Expected Outcomes

- Define the framework for the study
- Provide feedback for community outreach strategy
- Not choose any classifications today

Presentation Outline

- Study Purpose
- Classification Systems & Policy Context
- W.T. Harris Boulevard
- Committee Role & Next Steps

Why do a study?

Roadway Classification

Functional Purpose

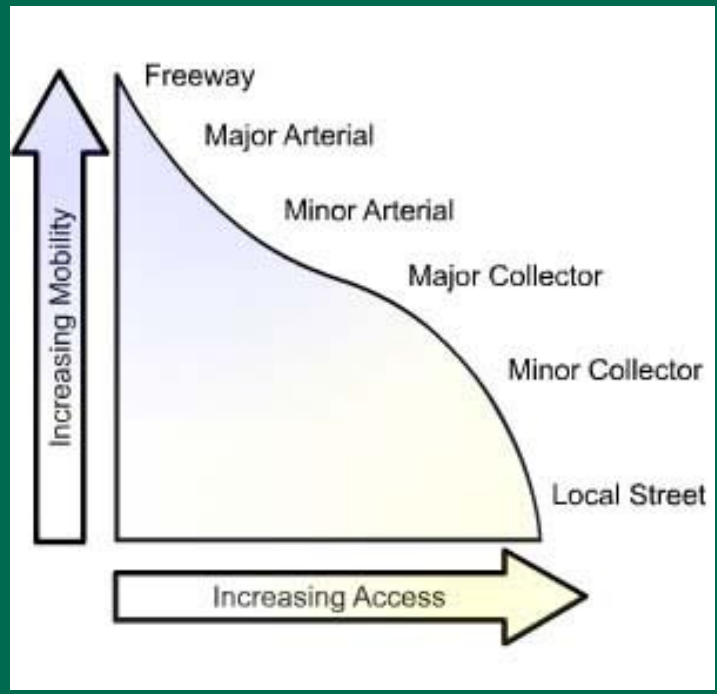
Design Elements

Access Strategies

User Benefits & Impacts

Land Use Context

Transition Points



What does “Roadway Classification” mean?

- Motorists – speed limit, lane widths, median widths, shoulder, curb & gutter, street lighting, and driveway & street connections
- Pedestrians – sidewalk location and width, intersection crosswalks, pedestrian signals, median refuge, bus stops, and mid-block pedestrian crossings
- Bicyclists – bike lane location and width, multi-use paths, connectivity to greenways & trails, and overall bicycle accommodations
- Development – land use, setbacks, access, and connectivity

Purpose, Need, Goals of Study

- Develop an overall plan for “functional” or “roadway type” classification
- Determine appropriate classification and cross section by segments and transition areas
- Consistency and compatibility in land development and transportation investment decisions
- Over time, the results of this Study will affect access, development, and mobility for existing and new businesses and residents along these roadways.

What a Classification Study is NOT

- It is NOT a preliminary or final design project
- It is NOT a construction project
- It is NOT a maintenance project
- It is NOT a widening or alignment study
- It is NOT a right-of-way acquisition project
- It is NOT an environmental assessment
- It is NOT a land use plan
- It is NOT a funding prioritization plan

Current Classification Systems

- Federal (FHWA) Functional Classification
- Thoroughfare Plan
- Comprehensive Transportation Plan (CTP)
- City of Charlotte Urban Street Design Guidelines (USDG)
- NCDOT Complete Streets

FHWA Functional Classification

Classification	Description
Principal Arterial	Includes interstate, other freeways and expressways, and other principal arterials (with no control of access).
Minor Arterial	More emphasis on land access than principal arterials, and offer a lower level of traffic mobility.
Collector	The collector street system provides both land access service and traffic circulation within residential neighborhoods, commercial and industrial areas.
Local	Serves primarily to provide direct access to abutting land and access to the higher order systems.

Note: “Collector” and “Local” classifications are not appropriate for this corridor.
Source: FHWA

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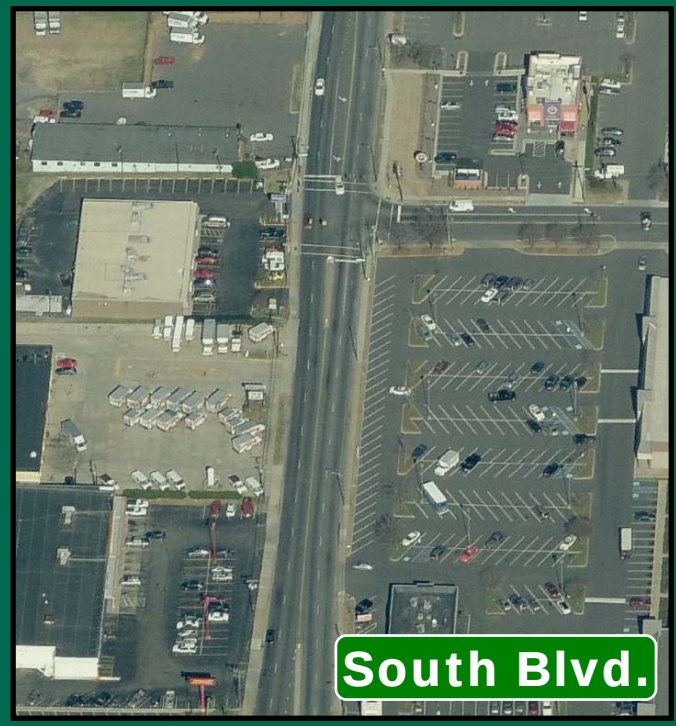
FHWA Functional Classification

Examples of Principal Arterials



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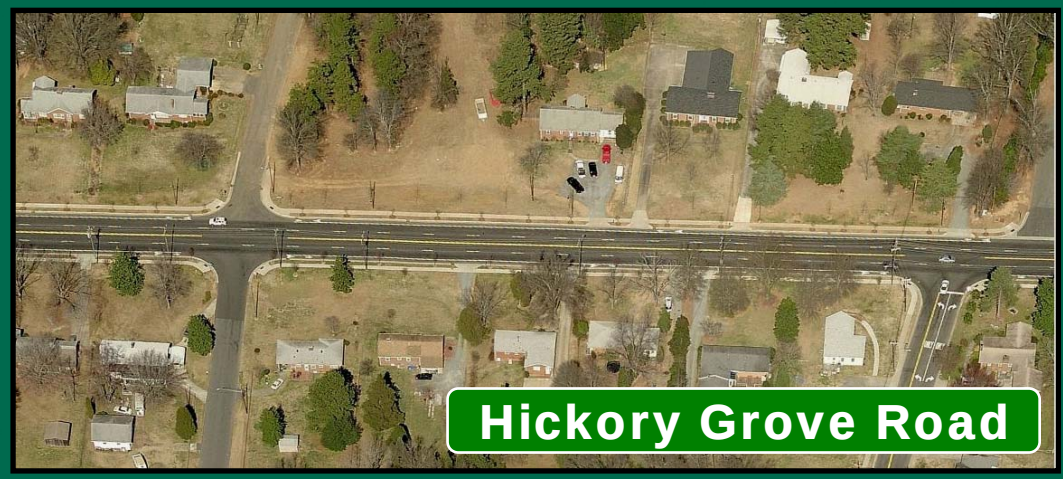
FHWA Functional Classification

Examples of Minor Arterials



Thoroughfare Plan

Classification	R/W width	# of Lanes	Access Control	Median	Left turn lanes at signals
Freeway/Expressway	350’	4+	Full or partial	Closed	NA
Limited Access Thoroughfare	200’	4-6	Partial	>30’ wide	1-2 lanes
Commercial Thoroughfare	150’	4-6	None	Always	1-2 lanes
Major Thoroughfare	80-100’	4-6	None	Varies	1-2 lanes
Minor Thoroughfare	60-70’	2-4	None	Rare	0-1 lane

Source: NCDOT and MUMPO

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Thoroughfare Plan

Limited Access Thoroughfare

WT Harris Blvd.
(near W. Sugar Creek Rd.)

Major Thoroughfare

WT Harris Blvd.
(north of Independence Blvd.)

Comprehensive Transportation Plan (CTP)

Classification	Functional Purpose	Speed Limit	Access Control	Driveways	Cross Section Elements	Median Crossovers
Freeway	High mobility, low access	55+	Full	Not allowed	Min. 4 lane w/ median	Not allowed
Expressway	High mobility, low to moderate access	45-60	Limited or partial	1/parcel; limited to right-in/right-out	Min. 4 lane w/ median	Allowed with spacing limitations
Boulevard	Moderate mobility, low to moderate access	30-55	Limited, partial, or none	Allowed	Min. 2 lane w/ median	Allowed with spacing limitations

Source: MUMPO

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Comprehensive Transportation Plan (CTP)

Expressway

WT Harris Blvd.
(near W. Sugar Creek Rd.)

Boulevard

WT Harris Blvd.
(north of Independence Blvd.)

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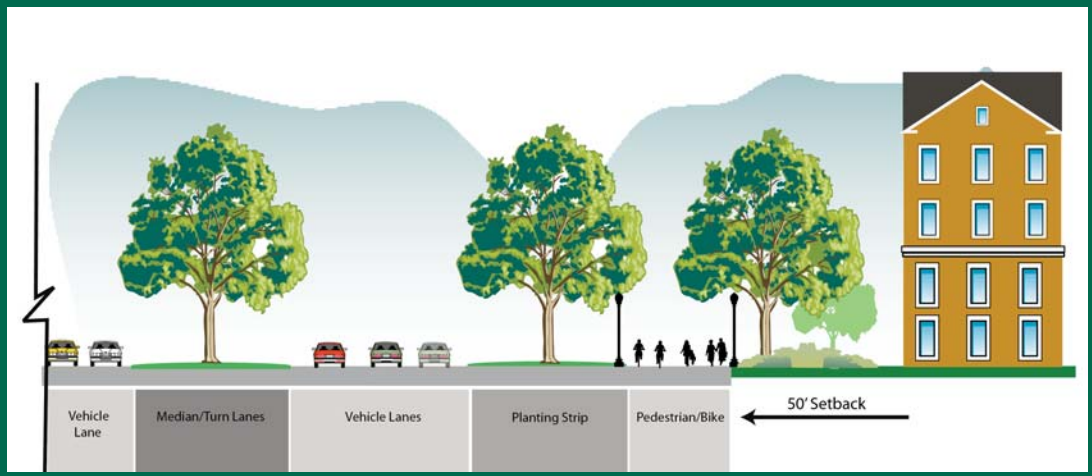
City of Charlotte USDG

Classification	Posted Speed Limit	# of Lanes	Lane Width	Medians	Sidewalks	Bicycle Accommo-dations	Block Length
Parkway	Up to 55	4-6	12’	20’	Separate, parallel facility; 10’ shared path	Separate, parallel facility; 10’ shared path	½ mile preferred
Boulevard	Up to 45	4	10-11’; 14’ for shared bike lane	17’	6’	5’ bike lane	1000-2000’
Avenue	30-40	2-4	10’	Not typical (16’ in resident-ial areas)	6’	4’	600’

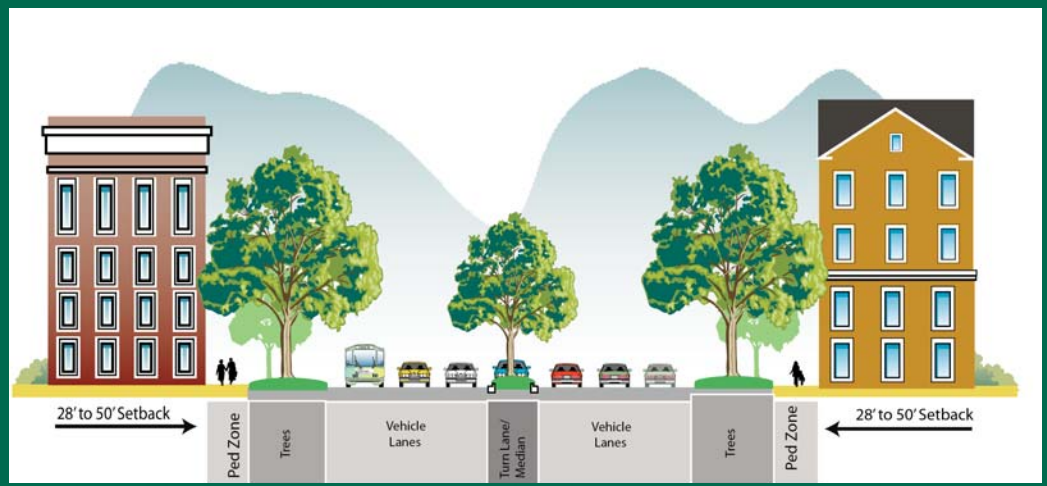
Note: “Avenue” classification is not appropriate for this corridor.
Source: City of Charlotte

City of Charlotte USDG



Partial section only

Parkway



Boulevard

NCDOT Complete Streets

Classification	Target Speed	Lane Width	Medians	Sidewalks	Bicycle Accommo-dations	Access Point Spacing
Urban/Suburban Parkway	>35	11-12’	17’6”-32’	Separate, parallel facility; 10-20’ shared path	Separate, parallel facility; 10-20’ shared path	>1000’ (<5 access points per mile)
Urban/Suburban Boulevard	25-40	10-11’; 14’ for shared bike lane	8-30’	6-20’	4-6’	400-1000’ (5-15 access points per mile)
Urban/Suburban Avenue	25-35	10-11’; 14’ for shared bike lane	0-17’6”	6-20’	4-6’	Varies depending on functional classification

Source: NCDOT Complete Streets (Draft 1/20/2012)

NCDOT Complete Streets

Urban / Suburban	Street Type	Main Street			Avenue			Boulevard	Parkway
	Target Speed (MPH)	20-25	20-25	20-25	25-35	25-35	25-35	25-40	> 35
	Traffic Volume	H / M	M	M / L	H	M	L	H	H
	Access Density	H	H	H	M	H / M	H	L/M	L
	Functional Classification	Arterial	Collector	Local	Arterial	Collector	Local	Arterial	Arterial

Suggested Ranges:

Traffic Volume	L - Low	Less than 8,000 vpd		
	M - Moderate	6,000-24,000 vpd		
	H - High	Greater than 20,000 vpd		
Access Density (Traffic Signal Spacing and Access Point Spacing)	L - Low	Up to 1 signal per mile	OR	Greater than 1000 ft. average spacing between access points (less than 5 access points on each side of street)
	M - Moderate	1 - 3 signals per mile	OR	400 -1000 ft. average spacing between access points (5-15 access points per mile on each side of street)
	H - High	More than 3 signals per mile	OR	Less than 400 ft. average spacing between access points (more than 15 access points per mile on each side of street)

Note: Access points include street intersections and commercial access points (excluding single family residential). Access points should be counted on both sides of the street when determining the number of access points.

Source: NCDOT Complete Streets (Draft 1/20/2012)

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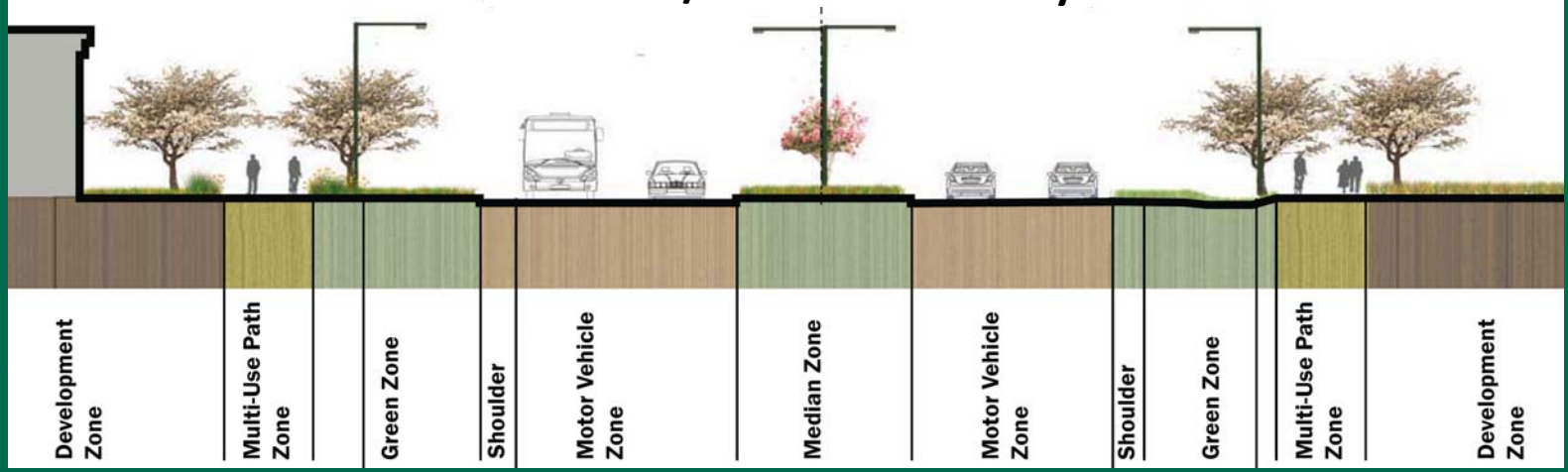
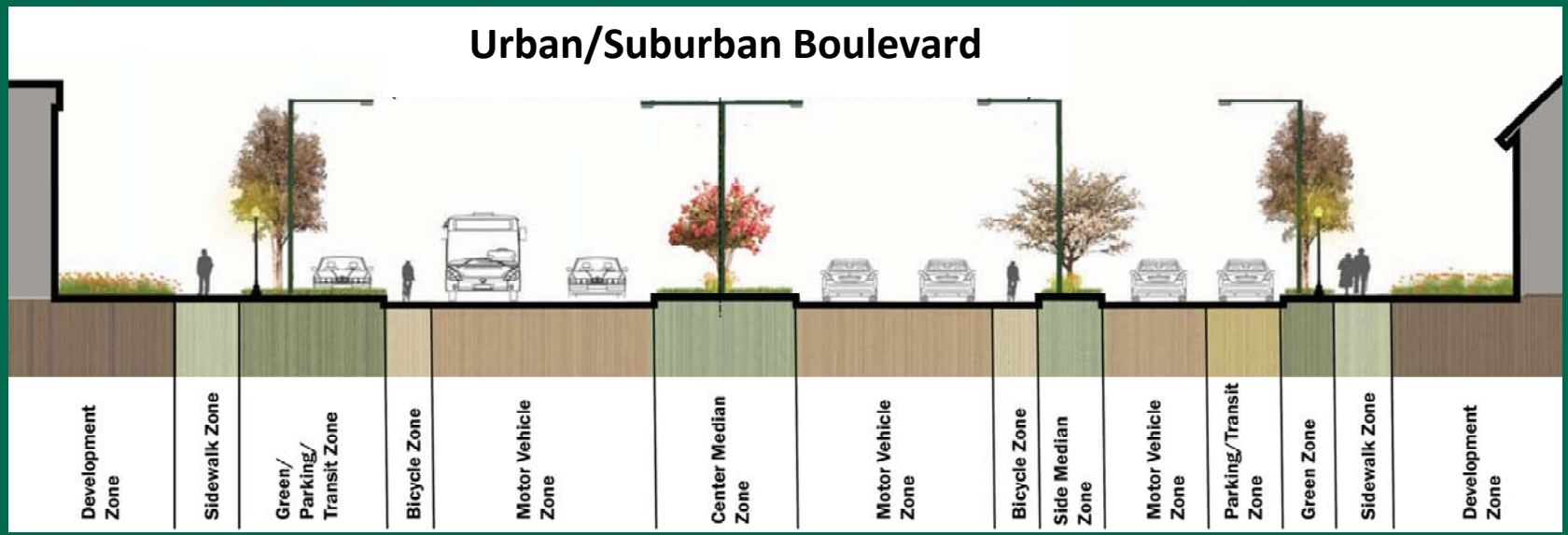
NCDOT Complete Streets

Urban/Suburban Parkway

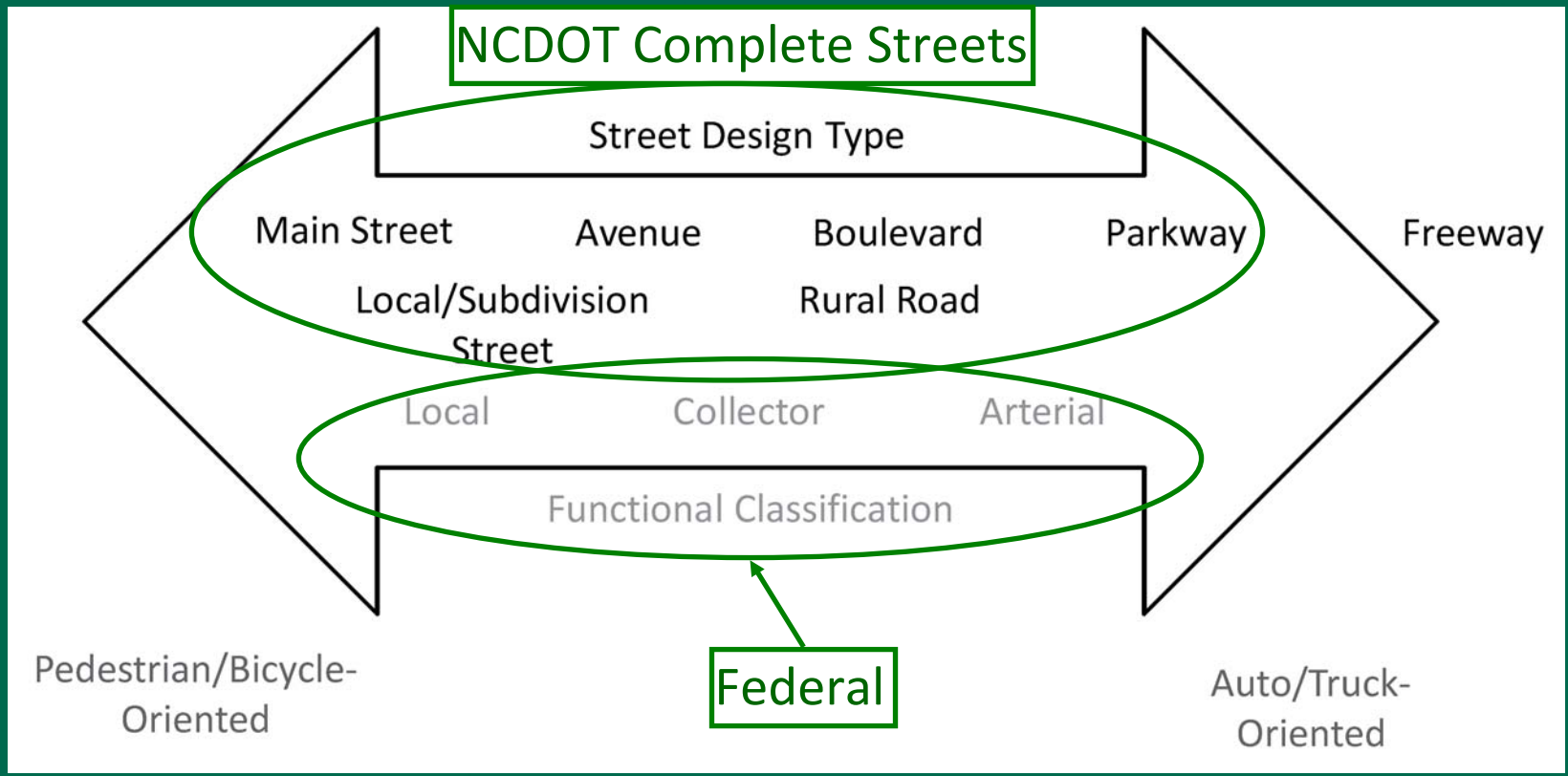


Urban/Suburban Boulevard



Source: NCDOT Complete Streets (Draft 1/20/2012)

NCDOT Complete Streets

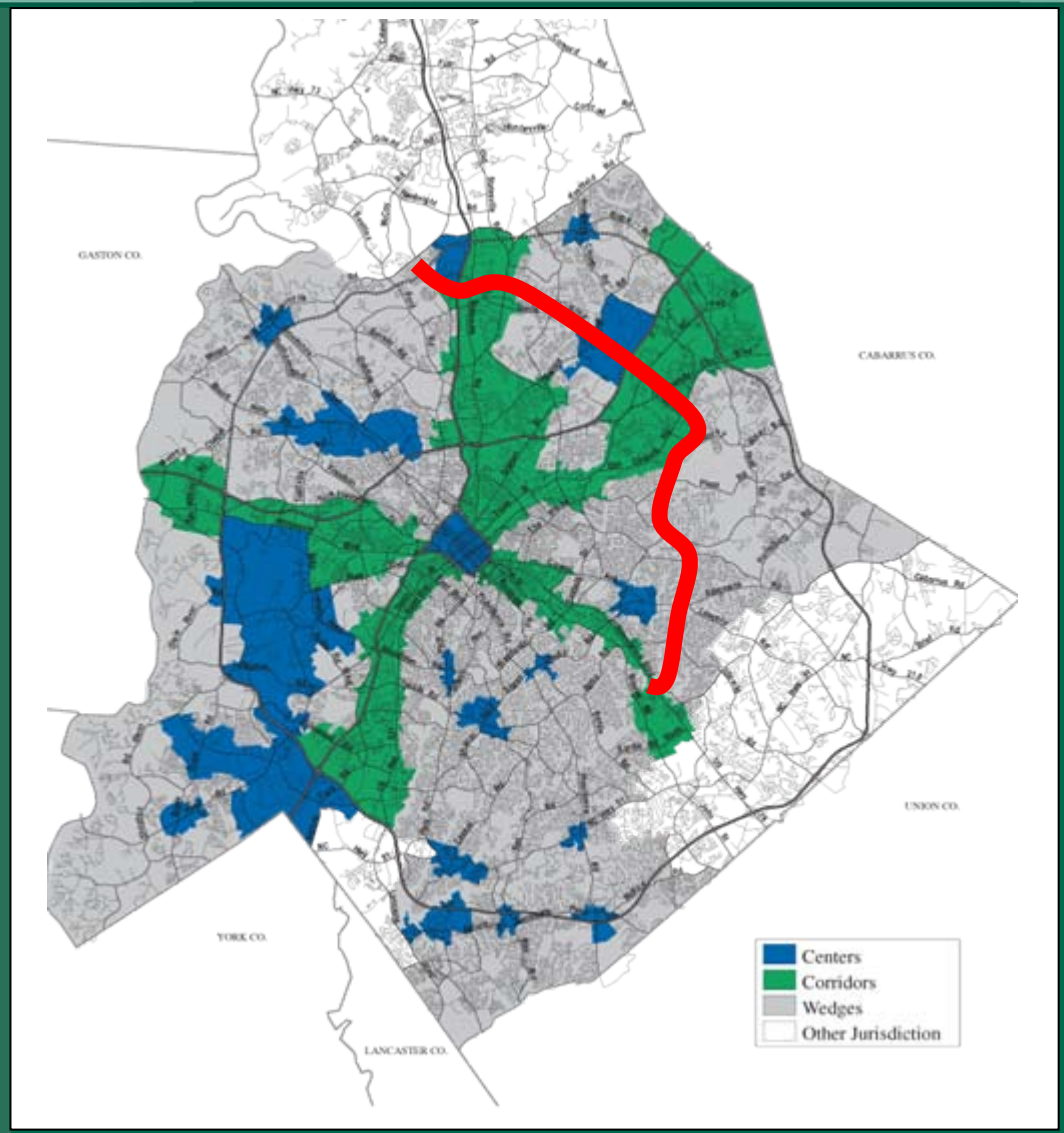


Source: NCDOT Complete Streets (Draft 1/20/2012)

Policy Context

Centers, Corridors and Wedges Growth Framework

- Framework provides "starting point" for developing plan recommendations
- Centers: Northlake & University Research Park
- Corridors: North (Red Line) & Northeast (BLE)
- Wedges: Northwest, North & East Charlotte



Area Plans

Adopted Plans

Eastside Strategy (2001)

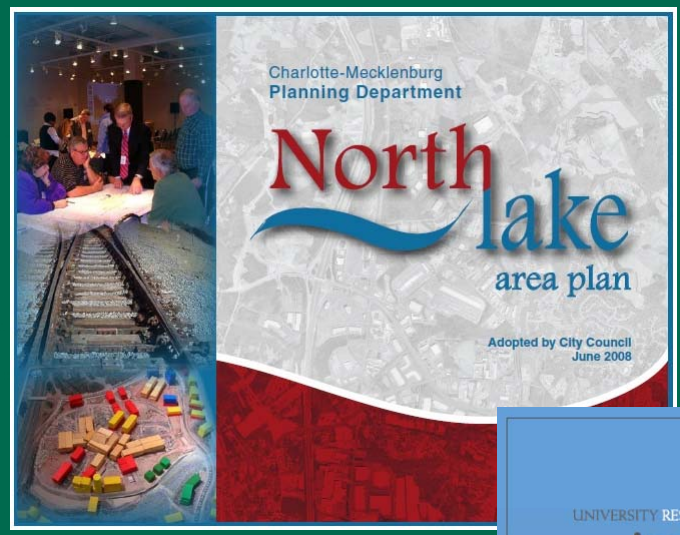
Eastland (2003)

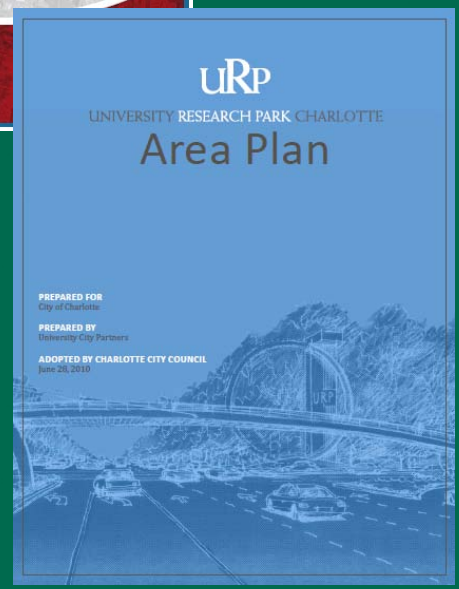
University City (2007)

Northlake (2008)

University Research Park (2010)

Independence Boulevard (2011)





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Thoroughfare Plan

- Adopted by MUMPO
- Classification Types
- Proposed Alignments
- Used by City Zoning and Subdivision Ordinances

CLASSIFICATION	EXISTING	PROPOSED
FREEWAY-EXPRESSWAY		
CLASS II		
MAJOR THOROUGHFARE		
MINOR THOROUGHFARE		
INTERCHANGE		
GRADE SEPARATION		
RAILROAD		

Draft Comprehensive Transportation Plan (CTP)

CHARLOTTE

Comprehensive Transportation Plan

Plan date: August 30, 2011

Freeways
- Existing
- Needs Improvement
- Recommended

Expressways
- Existing
- Needs Improvement
- Recommended

Boulevards
- Existing
- Needs Improvement
- Recommended

Other Major Thoroughfares
- Existing
- Needs Improvement
- Recommended

Minor Thoroughfares
- Existing
- Needs Improvement
- Recommended

- Existing Interchange
- Proposed Interchange
- Existing Grade Separation
- Proposed Grade Separation

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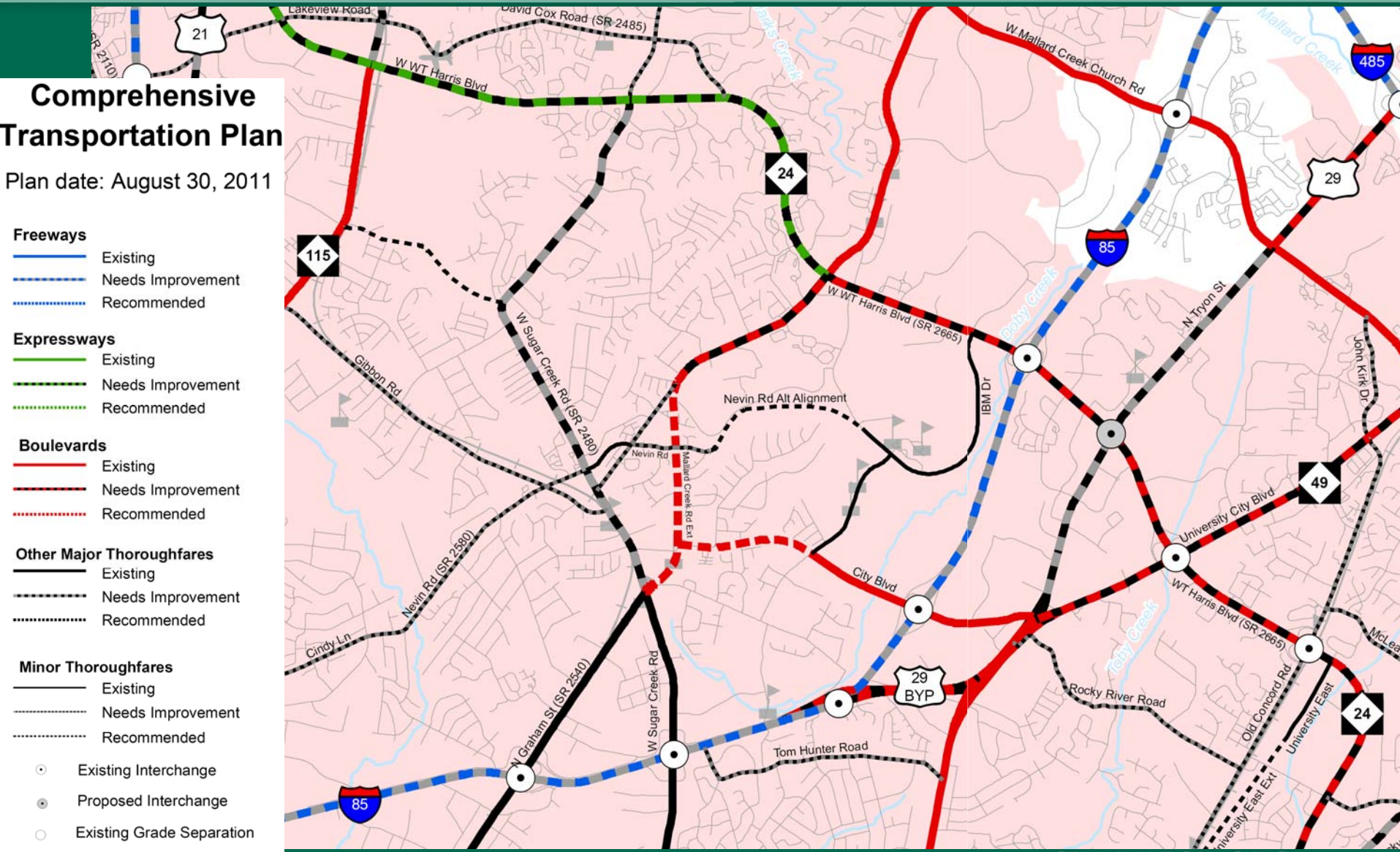
Draft Comprehensive Transportation Plan (CTP)



MUMPO 2035 Long Range Transportation Plan (LRTP)

The following projects are identified as funded in the 2035 Draft LRTP:

- Independence Boulevard (6-lane with HOV or Bus Lanes) from Conference Drive to Village Lake Drive [2016-2025]
- Mallard Creek Road (4-lane) from Sugar Creek Road to W.T. Harris Boulevard [2010-2015]
- Statesville Road (US 21) (4-lane) from W.T. Harris Boulevard to Gilead Road [2026-2035]

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W.T. Harris Boulevard

- Study Limits – Independence Boulevard (US 74) to Mt. Holly-Huntersville Road
- 2010 Average Daily Traffic Volume –
  - 13,000 (at Mt. Holly-Huntersville Road)
  - 63,000 (at I-85)
- 2035 Projected Average Daily Traffic Volume –
  - 25,000 (at Mt. Holly-Huntersville Road)
  - 80,000 (at I-85)
- Posted speed limit – 40-55 mph
- Circumferential thoroughfare serving major commercial centers (Northlake Mall, University City, Hickory Grove, Independence Blvd.)
- Crosses three interstates (I-85, I-77, I-485)
- Complex assessment of tradeoffs for competing stakeholder perspectives

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W.T. Harris Boulevard @ Northlake

1978

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W.T. Harris Boulevard @ Northlake

1997

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W.T. Harris Boulevard @ Northlake

2011

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W.T. Harris Boulevard @ University City

1978

CITY OF CHARLOTTE

W.T. Harris Boulevard @ University City

1997

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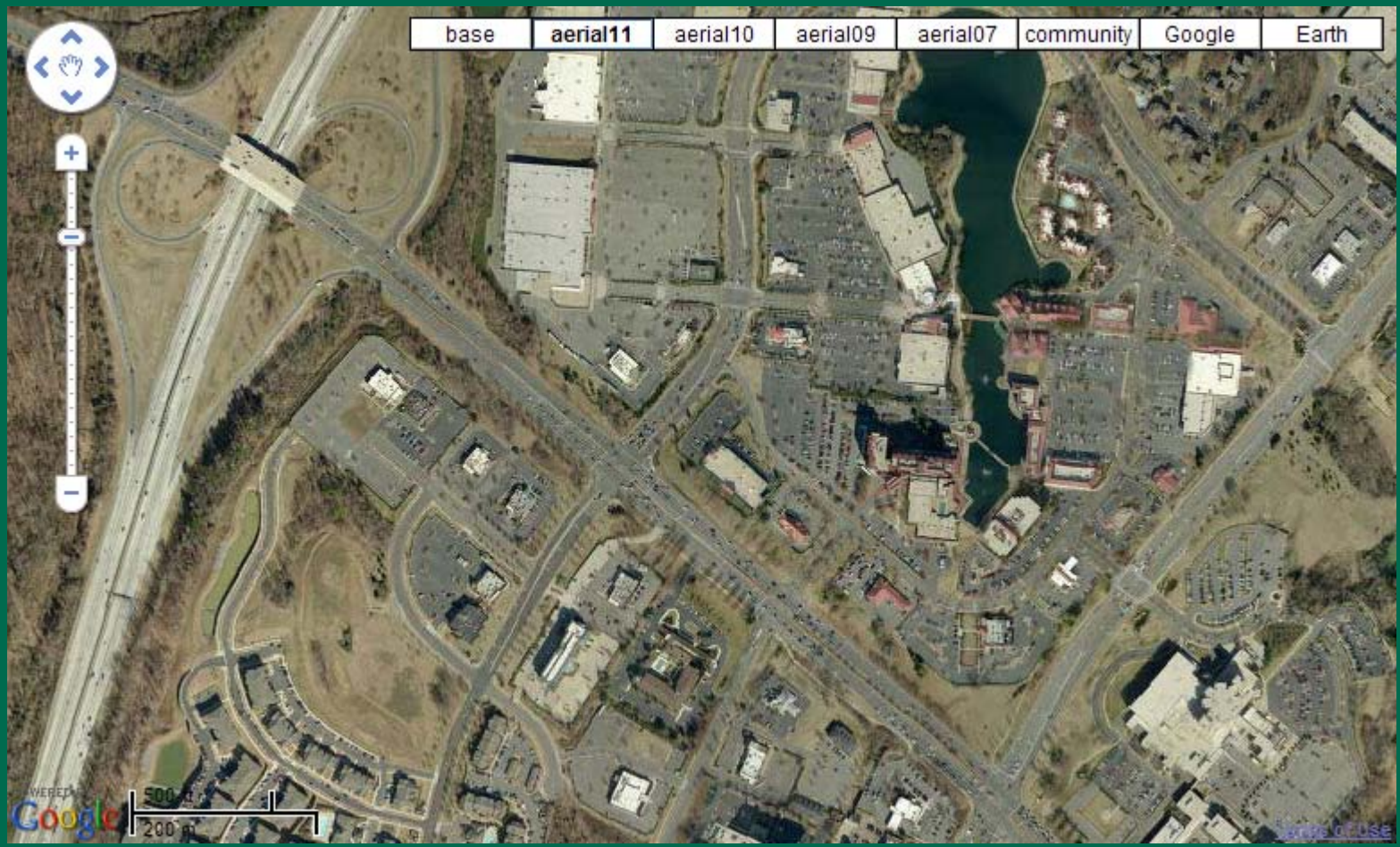
W.T. Harris Boulevard @ University City

2011



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W.T. Harris Boulevard @ The Plaza

1978

CITY OF CHARLOTTE

W.T. Harris Boulevard @ The Plaza

1997

CITY OF CHARLOTTE

W.T. Harris Boulevard @ The Plaza

2011

CITY OF CHARLOTTE

W.T. Harris Boulevard @ Albemarle Rd

1978

CITY OF CHARLOTTE

W.T. Harris Boulevard @ Albemarle Rd

1997

CITY OF CHARLOTTE

W.T. Harris Boulevard @ Albemarle Rd

2011

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WT Harris Boulevard
2007 - 2011

W.T. Harris Boulevard

McCullough Dr.

WT Harris Blvd.

Tryon St.

University Executive Park Dr.

Boulevard

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W.T. Harris Boulevard

McCullough Dr.

WT Harris Blvd.

Tryon St.

University Executive Park Dr.

Parkway

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W.T. Harris Boulevard

Boulevard

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W.T. Harris Boulevard

Parkway

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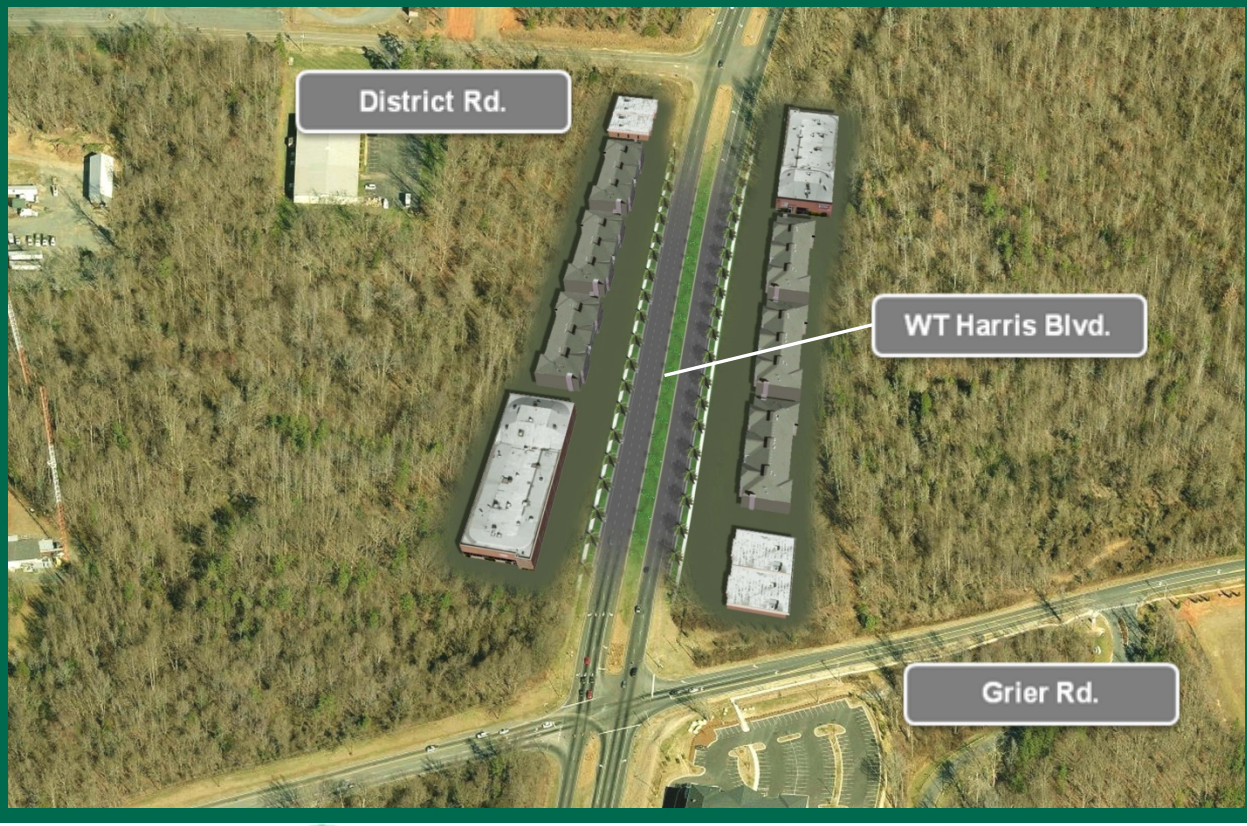
W.T. Harris Boulevard

Boulevard



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W.T. Harris Boulevard

Parkway

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W.T. Harris Boulevard

Segment	W.T. Harris Boulevard Current Classifications				
	FHWA Functional Classification	Thoroughfare Plan	CTP	USDG	NCDOT Complete Streets
Independence to The Plaza	Principal Arterial	Major Thoroughfare	Boulevard	Boulevard	N/A
The Plaza to I-85	Principal Arterial	Limited Access Thoroughfare	Boulevard	Parkway	N/A
I-85 to Mallard Creek	Principal Arterial	Major Thoroughfare	Boulevard	Parkway	N/A
Mallard Creek to I-77	Principal Arterial	Limited Access Thoroughfare	Expressway	Parkway	N/A
I-77 to Mt. Holly-Huntersville Road	Principal Arterial	Major Thoroughfare	Boulevard	Boulevard	N/A

Focus of the W.T. Harris Boulevard Roadway Classification Study

CTP

USDG/NCDOT Complete Streets

Roles / Responsibilities

- Steering Committee – solicit input from stakeholders
- Stakeholders – provide feedback
- CDOT, MUMPO, NCDOT – project oversight; project funding; approval of study recommendations
- Consultant Team – analysis, recommendations

Next Steps

- Define framework of the study
  - Presentation and Corridor Tour (not choosing classification today)
- Choices, tradeoffs, develop vision
  - Public Outreach, Stakeholder Interviews (February/March 2012)
- Analysis, Findings & Recommendations (April 2012)
- Public Meetings to present recommendations (May/June 2012)
- Refine Vision, Adjust Findings & Recommendations, Finalize Study (June/July 2012)

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Additional Info

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  CDOT Project Manager
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  bhorton@charlottenc.gov
- Visit http://cdotprojects.charlottenc.gov and click on “Brookshire Blvd. and W.T. Harris Boulevard Study” to find out more. Survey forms available online in 2-3 weeks.

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