



2016 Federal Legislative Agenda



Delegation Briefing Book

March 8, 2016



2016 FEDERAL DELEGATION BRIEFING BOOK

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**CITY OF CHARLOTTE
2016 FEDERAL DELEGATION BRIEFING ISSUES**

Airport Control Tower

- Continue working with the Congress and the Administration to commission the new airport control tower

2030 Transit System Plan

- Continue working with the Congress and the Administration to secure federal resources for the build-out of the 2030 Transit System Plan

Smart City Challenge Grant

- Secure the Smart City Challenge Grant administered by the US Department of Transportation

North End Smart District

- Explore partnerships with the private and not-for-profit sectors and colleges and universities in identifying and securing federal resources for the development of the North End Smart District

Urban Areas Security Initiative

- Support efforts to maintain eligibility for the Charlotte region in the Urban Areas Security Initiative

Community Development Block Grant

- Support efforts to maintain funding for the Community Development Block Grant at or above currently appropriated levels

Doppler Weather Radar

- Support legislation to require the Department of Commerce to operate at least one Doppler Weather Radar site within 55 miles of each City with at least 700,000 population



2016 Federal Legislative Agenda

Issue:	Airport Control Tower
Position:	Continue working with the Congress and the Administration to commission the new airport control tower
Staff Resources:	Brent Cagle, Aviation, 704.359.4035 Jack Christine, Aviation, 704.359.4932

Background and History: The City of Charlotte and the Federal Aviation Administration funded a new \$325 million runway at Charlotte Douglas International Airport which officially opened on February 11, 2010. The federal share of this project totaled over \$200 million including land acquisition and construction. Due to funding challenges, the federal portion of the cost of the new runway was far less than is authorized by statute for large hub airports and did not include funding for a new air traffic control tower. The new runway is an extremely important asset to Charlotte and the region, and was in the developmental stages for fifteen years. It immediately enhanced airport capacity and has the potential to sharply reduce flight delays if used to its maximum potential. Achieving the full benefits of the new runway depends upon the Federal Aviation Administration being able to operate the expanded airfield to its maximum capacity. The existing air traffic control tower at the airport, which is too low and in the wrong position, is no longer adequate for this purpose.

Current Need/Problem (including potential allies or detractors): The existing tower was constructed in 1979 and stands 155 feet above ground level. The tower has a 525 square foot controller cab, which accommodates a maximum seven controllers at a time. From this tower, the Federal Aviation Administration controlled 224,324 aircraft operations in 1979. Entering 2015, the airport has grown into the sixth busiest airport in the nation, controlling approximately 550,000 aircraft operations in 2014. That number is forecasted to grow to approximately 775,000 by 2020 and nearly 1 million by 2030. The existing volume of activity alone renders the tower inadequate and unable to handle the level of operations projected for the future. Moreover, the existing tower is too low and in the wrong position to permit adequate visual contact between the controllers and the aircraft operating from the existing runways and the new runway (*Please see attached exhibit: Shadow Study*). This was communicated in a letter from the Federal Aviation Administration in May of 2007 which reads in pertinent part:

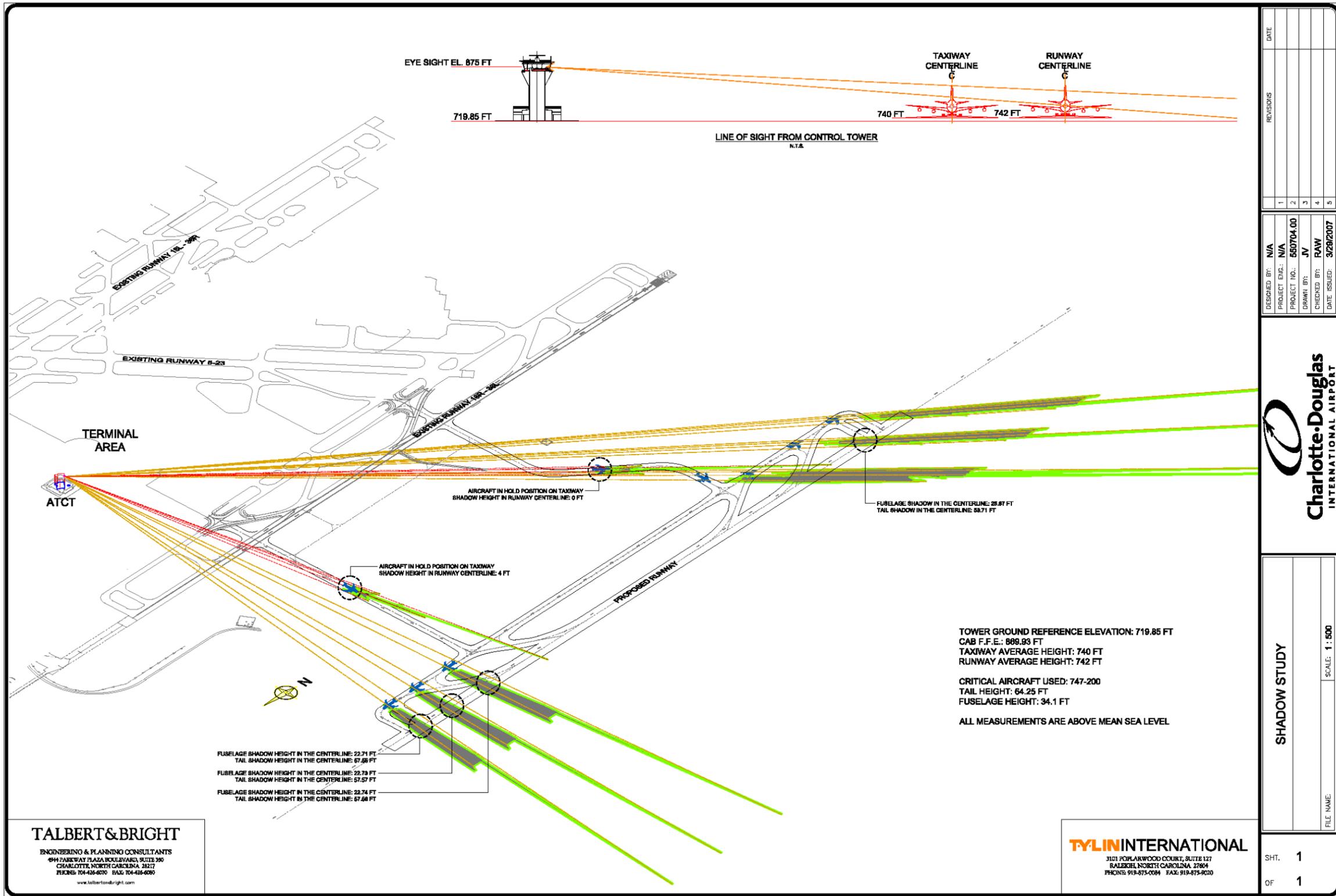
“The original study used the Boeing 747 as the critical aircraft utilizing the new runway. The results depicted fuselage and wing shadowing caused by aircraft taxiing on the parallel and adjoining runways. The impact of this shadowing would be the intermittent obscuration of the runway approach ends. The second shadow study submitted used aircraft more common to Charlotte’s operations, the CRJ900 and A321-100 series aircraft. The results of this study also contained similar impacts to the operations of the proposed runway. Due to these impacts, there will be operational restrictions associated with the new runway. Air Traffic will design procedures to utilize the runway to the maximum extent possible given the described impacts.”

The Federal Aviation Administration recognizes that a business case has been made for construction of a new tower. The Federal Aviation Administration has chosen a site for the new tower south of the American Airlines hangar. *(Please see attached exhibit: CLT Airfield Layout)*. Design of the new tower is complete. The Federal Aviation Administration will be awarding a contract for construction of the new tower in second quarter of federal FY 2016. Tower construction and outfitting is projected to cost \$66 million with commissioning taking place in late 2019 or early 2020. The tower will stand 370 feet above ground level.

The local business community, including the Charlotte Chamber of Commerce and American Airlines, strongly supports commissioning of a new airport control tower.

Impact if Adopted: If the new airport control tower is constructed and commissioned, then the airfield will be used to its fullest extent thereby improving the provision of air service to and from the Charlotte region.

EXHIBIT – SHADOW STUDY



REVISIONS	DATE
1	
2	
3	
4	
5	

DESIGNED BY: N/A	PROJECT E.I.C.: N/A	PROJECT NO.: 560704.00
DRAWN BY: JV	CHECKED BY: RAW	DATE ISSUED: 3/29/2007



SHADOW STUDY	SCALE: 1 : 500
FILE NAME:	

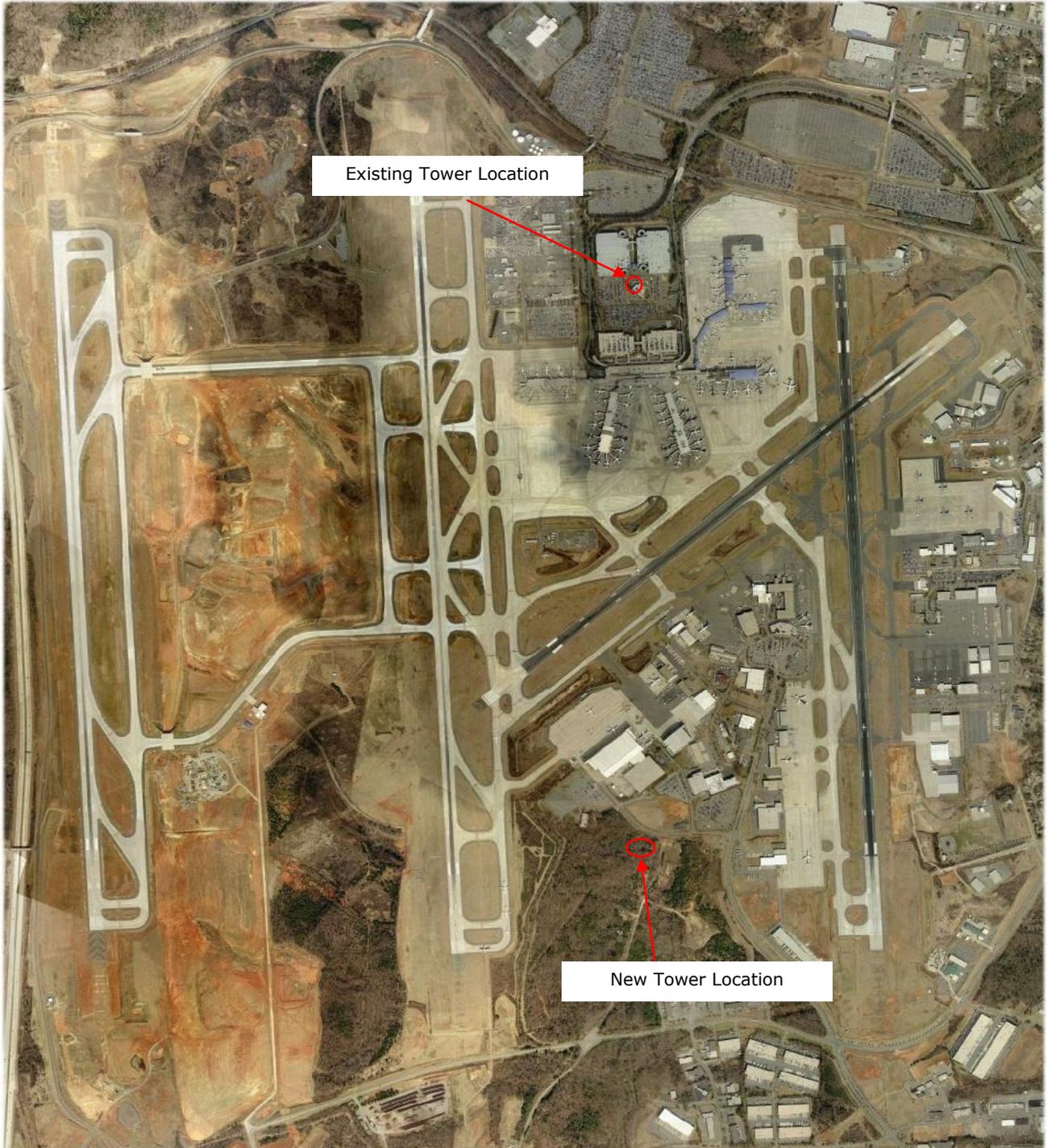
TOWER GROUND REFERENCE ELEVATION: 719.85 FT
 CAB F.F.E.: 888.93 FT
 TAXIWAY AVERAGE HEIGHT: 740 FT
 RUNWAY AVERAGE HEIGHT: 742 FT
 CRITICAL AIRCRAFT USED: 747-200
 TAIL HEIGHT: 64.25 FT
 FUSELAGE HEIGHT: 34.1 FT
 ALL MEASUREMENTS ARE ABOVE MEAN SEA LEVEL

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 OF 1

EXHIBIT – CLT AIRFIELD LAYOUT





2016 Federal Legislative Agenda

Issue:	2030 Transit System Plan
Position:	Continue working with Congress and the Administration to secure federal resources for the build-out of the 2030 Transit System Plan
Staff Resources:	John Lewis, Transit, 704.336.3855

Background and History: The Charlotte Area Transit System continues to implement the regional 2030 Transit Corridor System Plan to develop primary transportation corridors, linking our area's key centers of economic activity. The Plan supports development of pedestrian-friendly urban neighborhoods with a mixture of land uses, offers people a choice in meeting their mobility needs, increases transit's share of the local travel market, reduces the region's dependence on overloaded and gridlocked roads, eases air and noise pollution and enhances the overall quality of life in the region. The successful LYNX Blue Line - South Corridor project has generated approximately \$1.45 billion of new or announced investment along the 9.6 mile alignment and continues an average daily ridership of 15,000.

Current Need/Problem (including potential allies or detractors): The System is actively developing or constructing the LYNX Blue Line Extension, CityLYNX Gold Line – Phase 2, LYNX Silver Line, LYNX Red Line, and Charlotte Gateway Station. All of the projects are included in the 2030 Transit System Plan. The projects either utilize or propose to partially utilize federal resources for their deployment. For the FY 2017 federal budget, the City is seeking the federal share of \$100 million for the LYNX Blue Line Extension. This project is funded from the Capital Investment Grants – New Starts program.

The local business community, including the Charlotte Chamber of Commerce supports the build-out of the Metropolitan Transit Commission's 2030 Transit Corridor System Plan.

Impact if Adopted: The provision of federal resources for the build-out and operation of the Metropolitan Transit Commission's 2030 Transit Corridor System Plan will enable the region to implement its public transportation vision as well as implement a balanced regional highway and transit network supported by the Charlotte Regional Transportation Planning Organization and the State of North Carolina.

2030 TRANSIT SYSTEM PLAN PROJECTS

LYNX Blue Line Extension:

- New Starts project
- Extends 9.33 miles from Center City Charlotte through the North Davidson historic district and along North Tryon Street, and terminates on the campus of UNC Charlotte
- \$1.16 billion project
- Federal share of project is \$580 million or 50% of project costs
- State share of the project is \$299 million or 25.7% of project costs
- Opens for revenue service in summer 2017
- Projected to transport 25,000 daily riders at opening
- Full funding grant agreement calls for the federal government to provide \$100 million annually for the project in federal fiscal years 2017 and 2018, which will need to be appropriated by Congress

CityLYNX Gold Line:

- Phase 2 is Small Starts project
- CityLYNX Gold Line – Phase 2 extends service along North Trade and Beatties Ford Roads from the Charlotte Transit Center to Johnson C. Smith University and along Hawthorne Avenue from Novant Presbyterian Hospital to Sunnyside Avenue
- Phase 2 will cost \$150 million, with federal share of \$75 million appropriated in FY 2016 federal budget
- City is working with the Federal Transit Administration to execute Phase 2 Small Starts Funding Agreement
- When completed, the CityLYNX Gold Line will extend 9.9 miles linking the Eastland Mall and Rosa Parks Transit Centers with Center City Charlotte; the line is planned to have 34 stops
- CityLYNX Gold Line – Phase 1, linking the Charlotte Transit Center and Novant Presbyterian Hospital, is 1.5 miles long and opened for service in July 2015;
- In August 2015 alone, 44,747 trips were made on Phase 1 of the CityLYNX Gold Line.

Charlotte Gateway Station:

- Transportation Investments Generating Economic Recovery grant
- Will be located at Graham and West Trade Streets, replacing the current AMTRAK station on North Tryon Street
- Provides seamless integration for intercity passenger rail, intercity bus service, local rail service, and local and express bus service
- City is working with the North Carolina Department of Transportation to develop the station
- North Carolina Department of Transportation is working with Norfolk-Southern Railroad on modeling the track layout for the station
- Federal grants totaling \$45 million, including recently announced TIGER grant for \$25 million, for land acquisition, track, structures, canopies, platform and bridge work have been committed to the project
- City is in process of identifying local resources to match the Federal grant

2030 TRANSIT SYSTEM PLAN PROJECTS

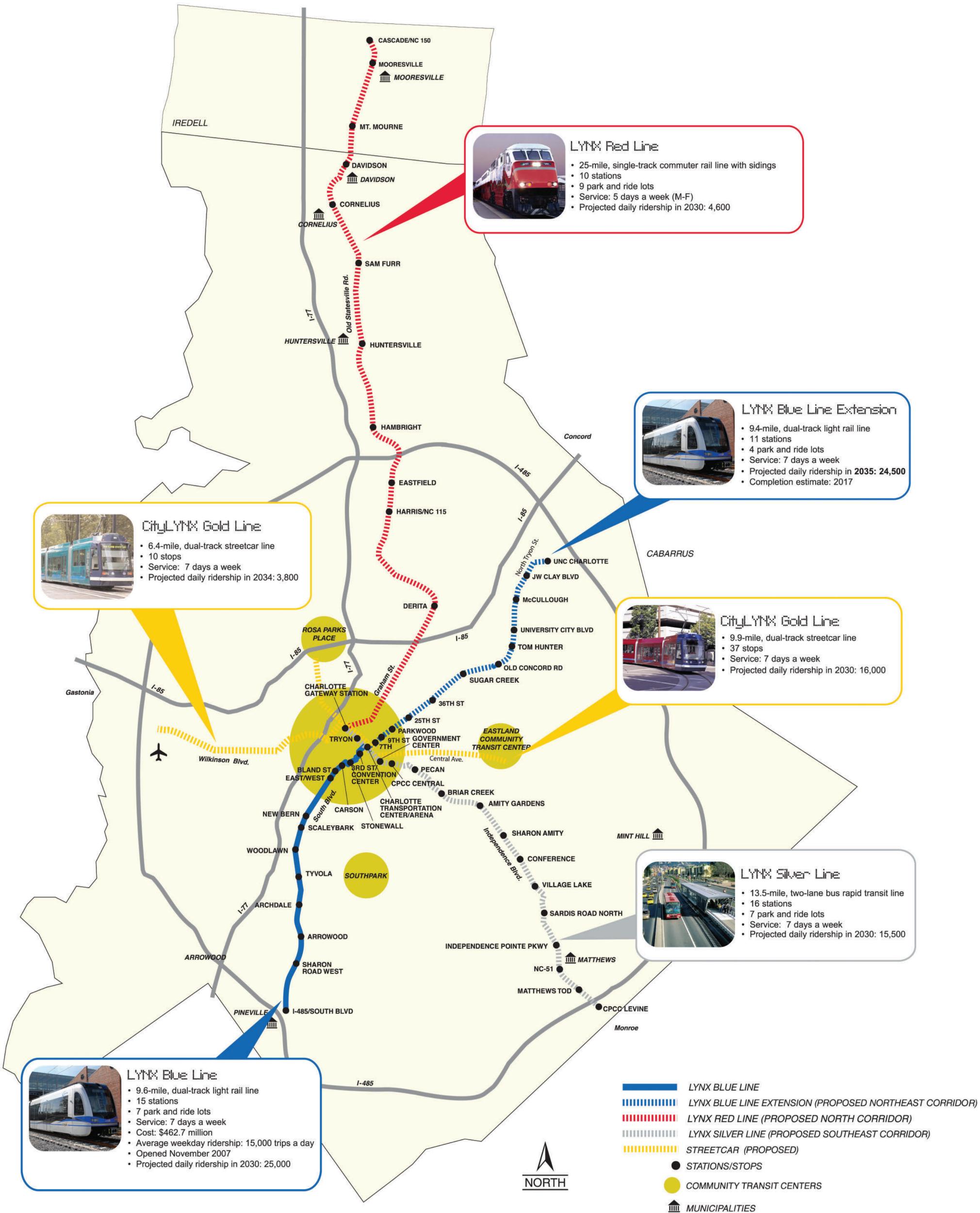
LYNX Silver Line:

- Extends approximately 13.5 miles from Center City Charlotte along the Independence Boulevard corridor and terminates at Central Piedmont Community College's Levine Campus on the border of Mecklenburg and Union counties
- Environmental analysis of the corridor was completed in 2006
- Alternatives Analysis, which will identify a preferable rail alternative for the consideration of the Metropolitan Transit Commission, is underway at this time

LYNX Red Line:

- Extends 25 miles from Center City Charlotte through the fast growing Mecklenburg towns of Huntersville, Cornelius, and Davidson and terminate in the Iredell County town of Mooresville
- Terminus of the LYNX Red Line in Center City Charlotte is the proposed Gateway Center providing connectivity to other points in the region and eastern United States
- Projected to have 16 daily round trip trains will accommodate 4,500-6,000 daily trips
- LYNX Red Line is intended to operate on the Norfolk-Southern Railways (NS) "O" line, NS has communicated that the LYNX Red Line may not operate on the same tracks as the "O" line due to the need to separate passenger and freight rail traffic
- Due to the challenges presented by the NS decision, the project would have to be structured as a public-private partnership so that both public and private sector capital can be used to finance construction and operation
- Metropolitan Transit Commission has identified federal commuter rail floor funding as one of several possible sources of revenue for the public sector funding

2030 Transit System Plan




LYNX Red Line

- 25-mile, single-track commuter rail line with sidings
- 10 stations
- 9 park and ride lots
- Service: 5 days a week (M-F)
- Projected daily ridership in 2030: 4,600



LYNX Blue Line Extension

- 9.4-mile, dual-track light rail line
- 11 stations
- 4 park and ride lots
- Service: 7 days a week
- Projected daily ridership in 2035: 24,500
- Completion estimate: 2017



CityLYNX Gold Line

- 6.4-mile, dual-track streetcar line
- 10 stops
- Service: 7 days a week
- Projected daily ridership in 2034: 3,800



CityLYNX Gold Line

- 9.9-mile, dual-track streetcar line
- 37 stops
- Service: 7 days a week
- Projected daily ridership in 2030: 16,000



LYNX Silver Line

- 13.5-mile, two-lane bus rapid transit line
- 16 stations
- 7 park and ride lots
- Service: 7 days a week
- Projected daily ridership in 2030: 15,500



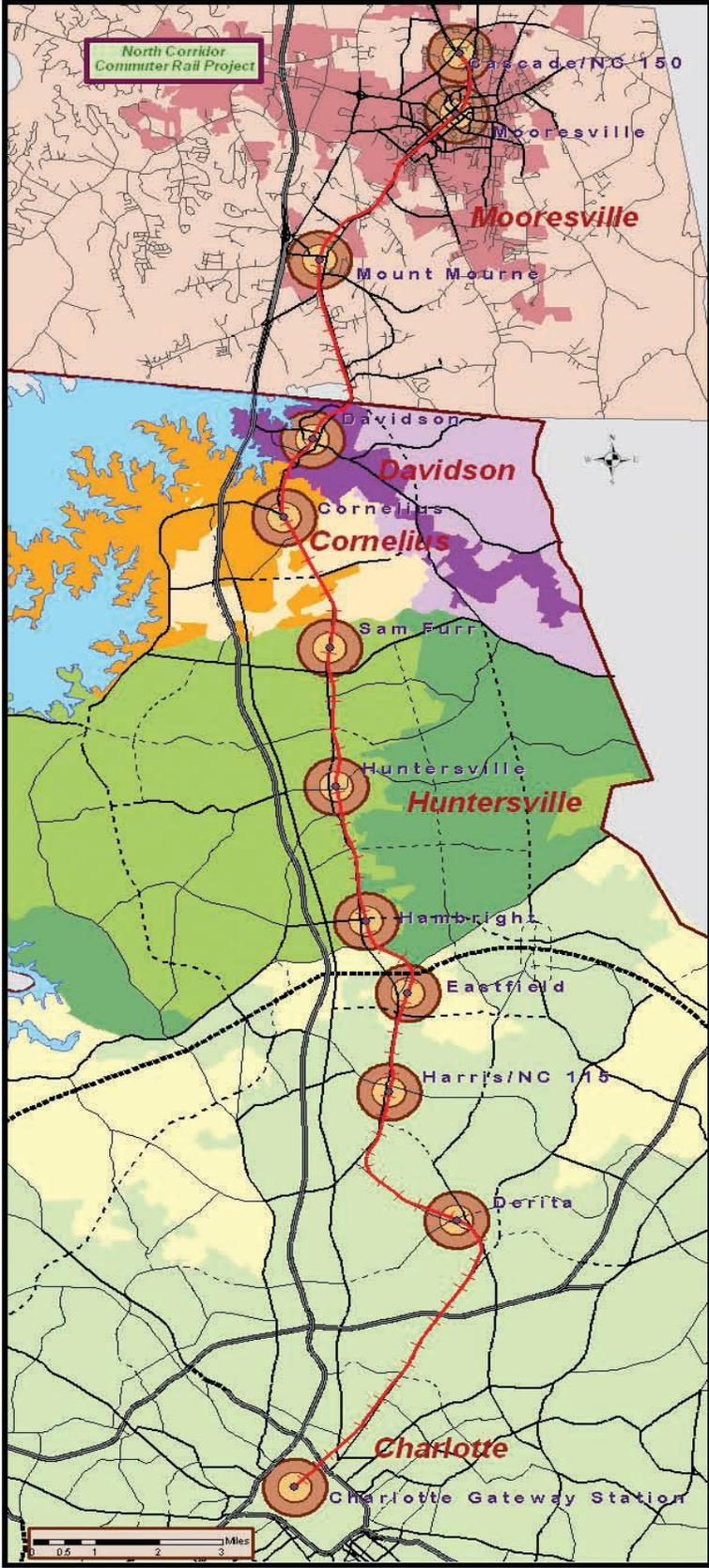
LYNX Blue Line

- 9.6-mile, dual-track light rail line
- 15 stations
- 7 park and ride lots
- Service: 7 days a week
- Cost: \$462.7 million
- Average weekday ridership: 15,000 trips a day
- Opened November 2007
- Projected daily ridership in 2030: 25,000

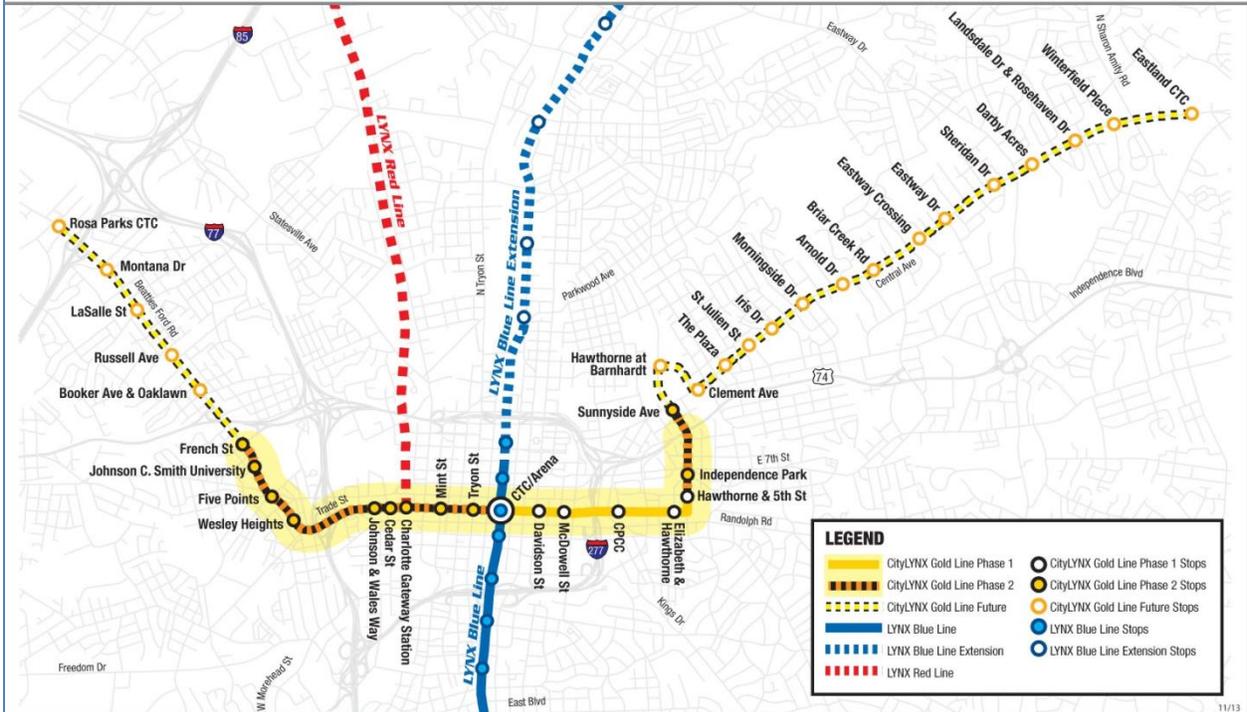
-  LYNX BLUE LINE
-  LYNX BLUE LINE EXTENSION (PROPOSED NORTHEAST CORRIDOR)
-  LYNX RED LINE (PROPOSED NORTH CORRIDOR)
-  LYNX SILVER LINE (PROPOSED SOUTHEAST CORRIDOR)
-  STREETCAR (PROPOSED)
-  STATIONS/STOPS
-  COMMUNITY TRANSIT CENTERS
-  MUNICIPALITIES



LYNX RED LINE CORRIDOR



CityLYNX GOLD LINE CORRIDOR



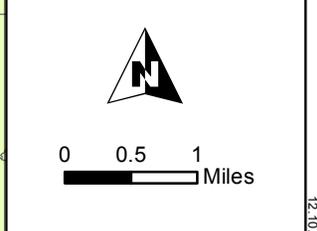
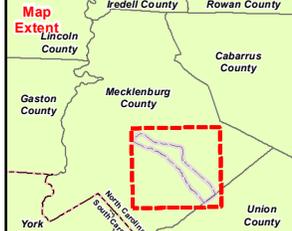
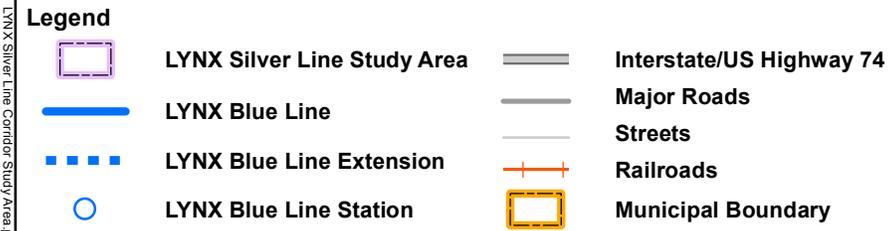
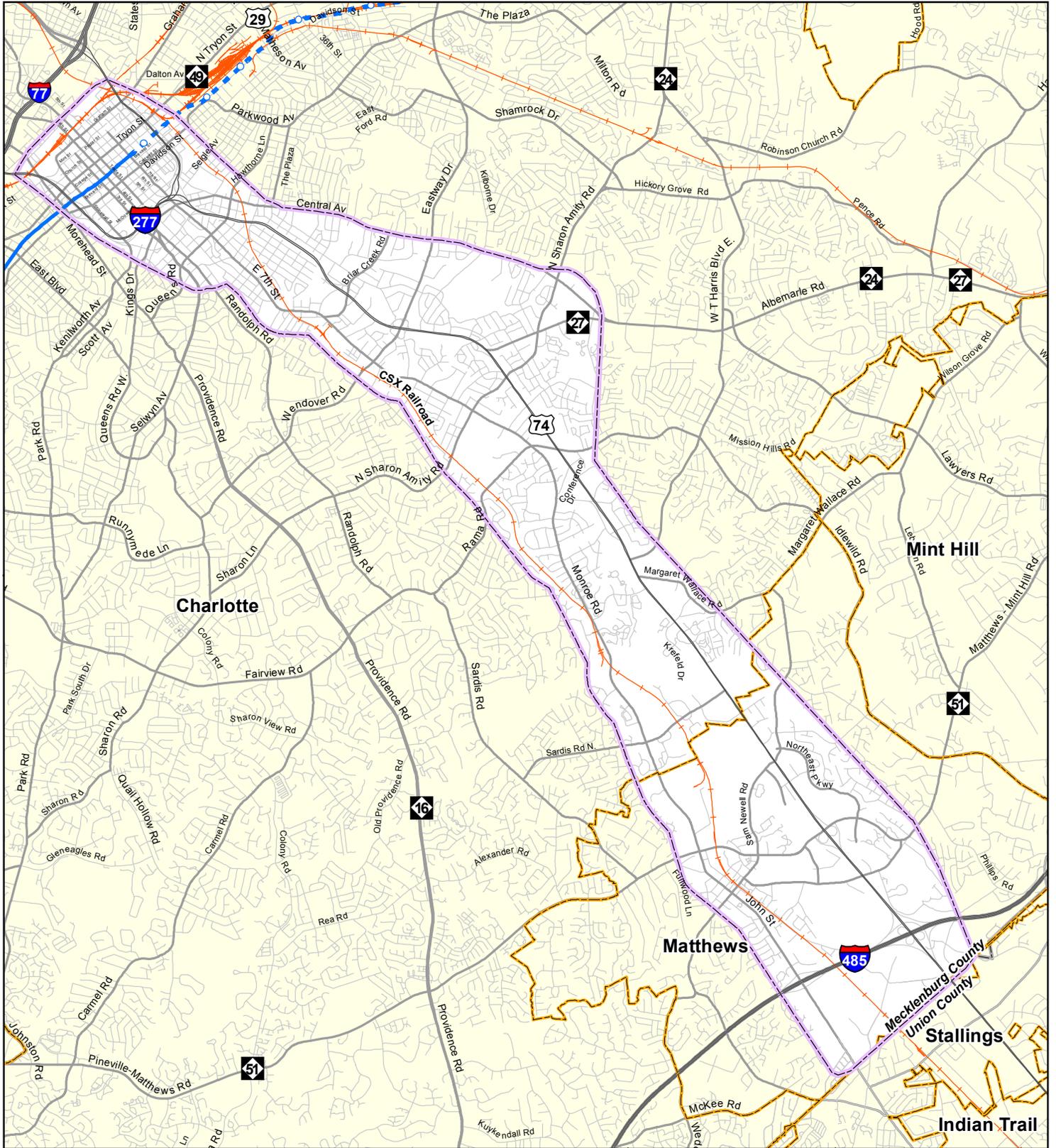
LEGEND			
	CityLYNX Gold Line Phase 1		CityLYNX Gold Line Phase 1 Stops
	CityLYNX Gold Line Phase 2		CityLYNX Gold Line Phase 2 Stops
	CityLYNX Gold Line Future		CityLYNX Gold Line Future Stops
	LYNX Blue Line		LYNX Blue Line Stops
	LYNX Blue Line Extension		LYNX Blue Line Extension Stops
	LYNX Red Line		

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Panoramic View West at W 4th St and S Mint St



Charlotte Gateway Station Area Context

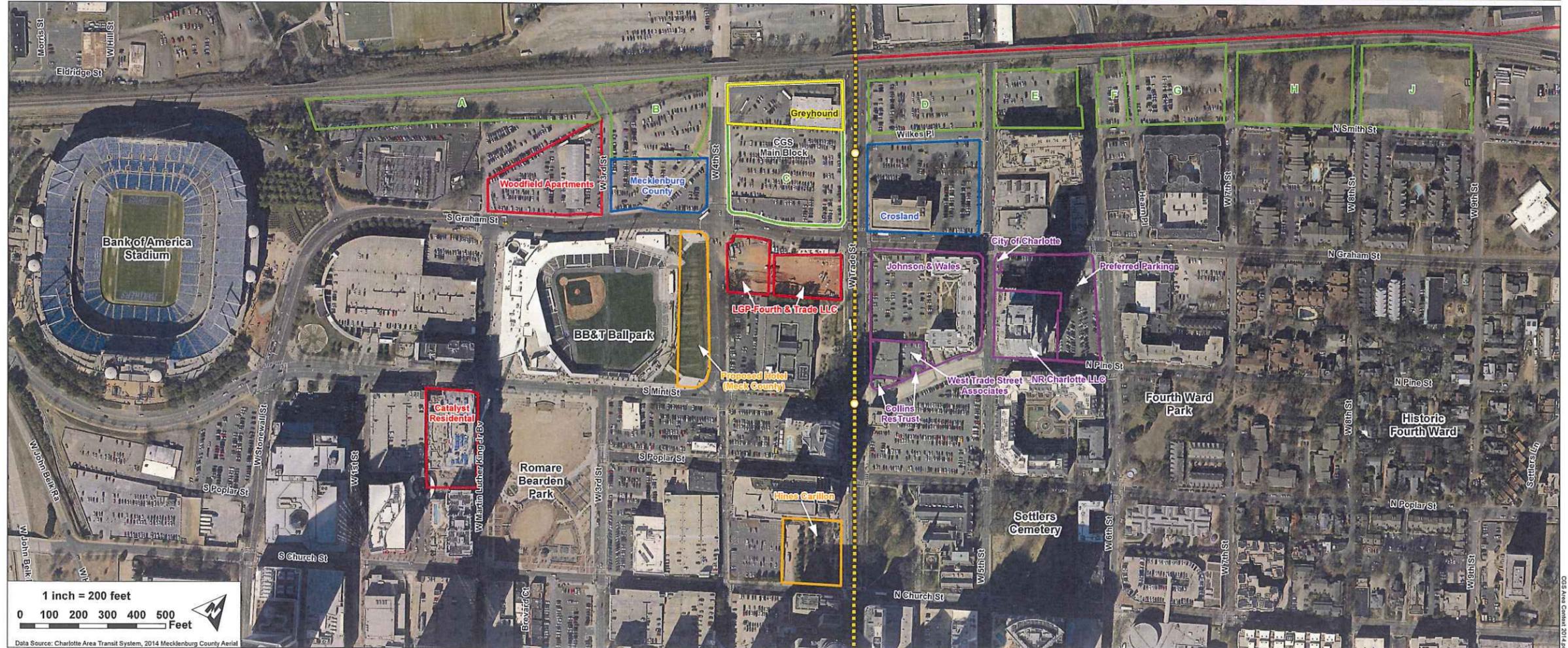
Legend

- *CGS (NCDOT) Main Block
- *NCDOT-Owned Property
- *Greyhound
- *Mecklenburg County/Crosland Property
- Proposed Residential
- Proposed Hotel
- Privately Held Property

*Approximate Acreage Before Future Track Alignment

NCDOT		Greyhound	1.34
A	3.75	Mecklenburg County	1.1
B	1.5	Crosland	2.75
C	2.88		
D	1.56		
E	1.29		
F	0.47		
G	1.8	CGS Main Block	
H	2.14	NCDOT C	2.88
J	2.35	Greyhound	1.34
Total	17.74	Total	4.22

- Proposed LYNX Red Line Alignment
- Proposed Phase 2 CityLYNX Gold Line Alignment
- Stop





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US Department of Transportation
“Beyond Traffic: The Smart City Challenge”

“Smart City Challenge” Notice of Funding Opportunity

- The US Department of Transportation (USDOT) issued a Notice of Funding Opportunity (“NOFO”) on 12/7/15 titled, “Beyond Traffic: The Smart City Challenge” (see, www.transportation.gov/smartcity).
- USDOT, in partnership with the private investment firm Vulcan, will make an award of up to \$50 million to one mid-sized US city that can demonstrate how advanced data and intelligent transportation systems technologies can be used to improve safety, enhance mobility and address climate change.
- USDOT intends for this challenge to address how emerging transportation data, technologies, and applications can be integrated with existing systems in a city to address that city’s transportation challenges.
- USDOT seeks bold and innovative ideas for proposed demonstrations to effectively test and evaluate the significant benefits of smart city concepts.
- The NOFO recognizes the successful implementation of a smart city will rely on strategic partnering opportunities between public agencies and the private sector and therefore encourages applicants to demonstrate how they can leverage federal resources through stakeholder partnerships.

Charlotte’s Application: Creating Charlotte’s Urban Mobility Ecosystem

- Charlotte submitted it’s application on 2/4/1016 with the vision of using a robust data platform and smart technologies to create more mobility options to all our citizens to better move people and transport things (freight) in a safer and environmentally beneficial manner.
- Charlotte’s vision focuses on three modules in three demonstration areas inside the city limits.
- The demonstration areas are: 1) the University Area; 2) the NorthEnd Smart District (AIC); and 3) an area that includes the Airport/Intermodal facility and the distributions centers in the Arrowood/ Westinghouse Blvd. area.
- The **first module**, applicable to all three demonstration areas, addresses “Connecting Communities” . . . how we collect, manage, integrate, analyze visual data to create a “data backbone” that will allow us to: bridge the digital divide;

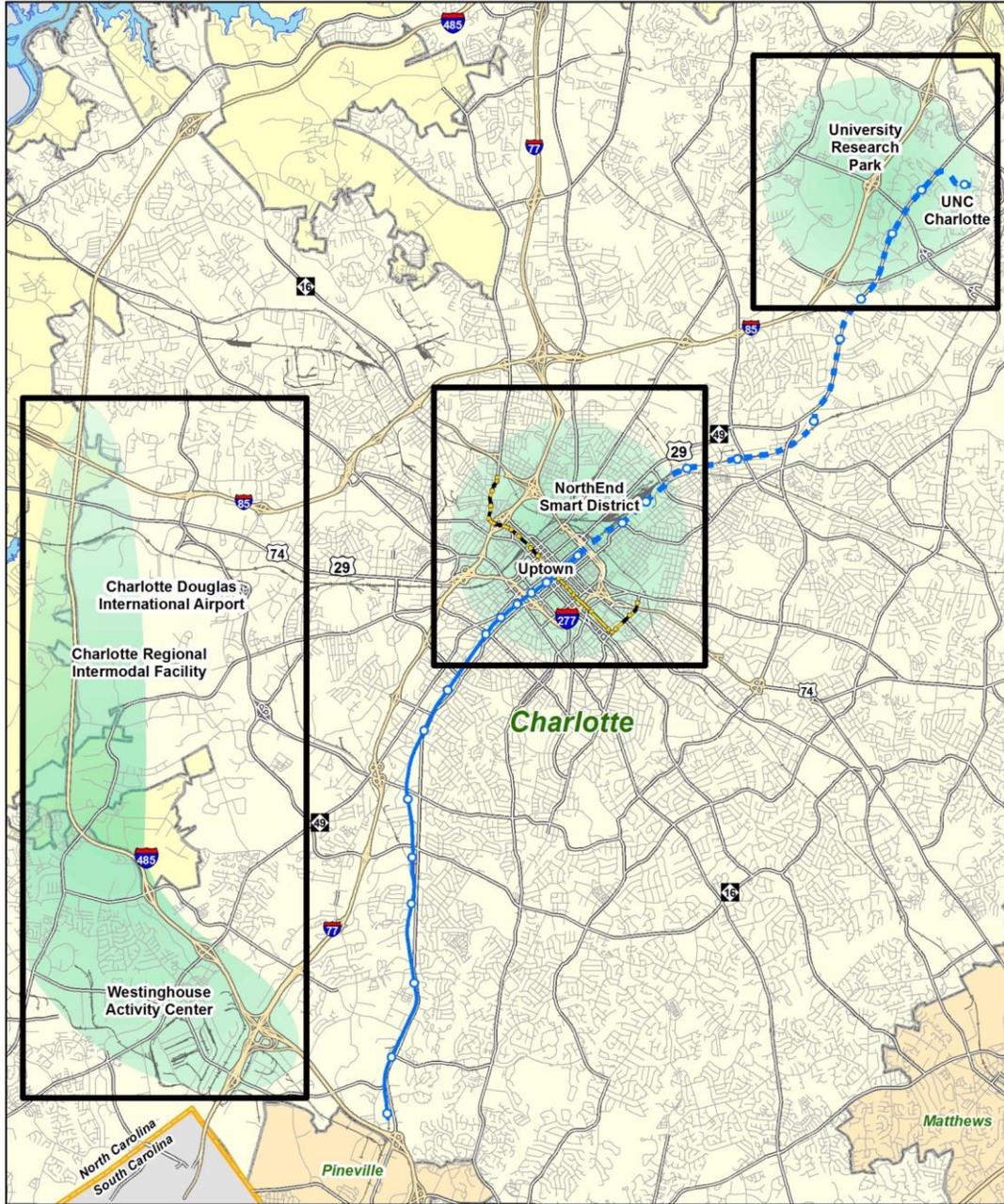
provide seamless connectivity and trip-planning between all modes of transportation; and enable a single payment per trip across transportation modes. Data is the fuel for smart mobility, analytics is the engine . . . it turns the data into power.

- The **second module**, applicable in the City’s NorthEnd Smart District (AIC) and the University Area, will address “Moving people” and solve the “first and last mile” problem . . . How do we provide the most convenient, cost-effective, safe and environmentally beneficial transportation option to get our citizens to a location, *e.g.*, bus line, fixed rail, supermarket, school, and back again.
- The **third module**, applicable in the southwest quadrant of the city, will address “Transporting Things” and provide signal prioritization routing for freight and delivery vehicles in partnership with logistics partners.
- Technologies, such as autonomous vehicles, vehicle to vehicle communications, electric vehicles, smart phone apps, digital kiosks and digital roadways will be some of the smart tools the City will deploy.
- Charlotte has partnered with leading private entities, including: Microsoft; OSI Soft/SAS/ESRI; Ford; GM; Ericsson/IBM/AT&T; Uber; Lyft; Sidewalk Laboratories; Bosch; and ABB.
- Charlotte has also partnered with academia: Johnson C. Smith University and UNC Charlotte and non-profits: Foundation for the Carolinas; Queen City Forward; Crisis Assistance Ministries; Queen’s University’s Digital Inclusion program; and the AARP.

Next Steps

- **February 8:** USDOT announced it had received 77 applications.
- **March 12:** USDOT will announce five Smart City Challenge Finalists at South by Southwest in Austin, Texas.
- **March 13:** Secretary Foxx will participate in a panel discussion with the five Mayors on the USDOT Smart City Challenge at the Austin Convention Center.
- **May 2016:** Final applications due.
- **June 2015:** Selected Smart City Challenge Implementation Awardee Announced.
- Charlotte’s Smart City Challenge Team will continue to meet to discuss strategy moving forward.

Charlotte Smart City Challenge: Project Geographies



Legend	
	Charlotte Smart City Challenge Project Geography
	LYNX Blue Line
	LYNX Blue Line Extension
	LYNX Station
	CityLYNX Gold Line Phase One
	CityLYNX Gold Line Phase Two
	CityLYNX Gold Line Stop
	Interstate Highway
	Thoroughfare
	Streets
	Railroads
	Charlotte City Limits
	State Boundary

Map Area
Mecklenburg County

0 0.5 1 2 Miles

Data Source:
City of Charlotte, Charlotte Area Transit System



2016 Federal Legislative Agenda

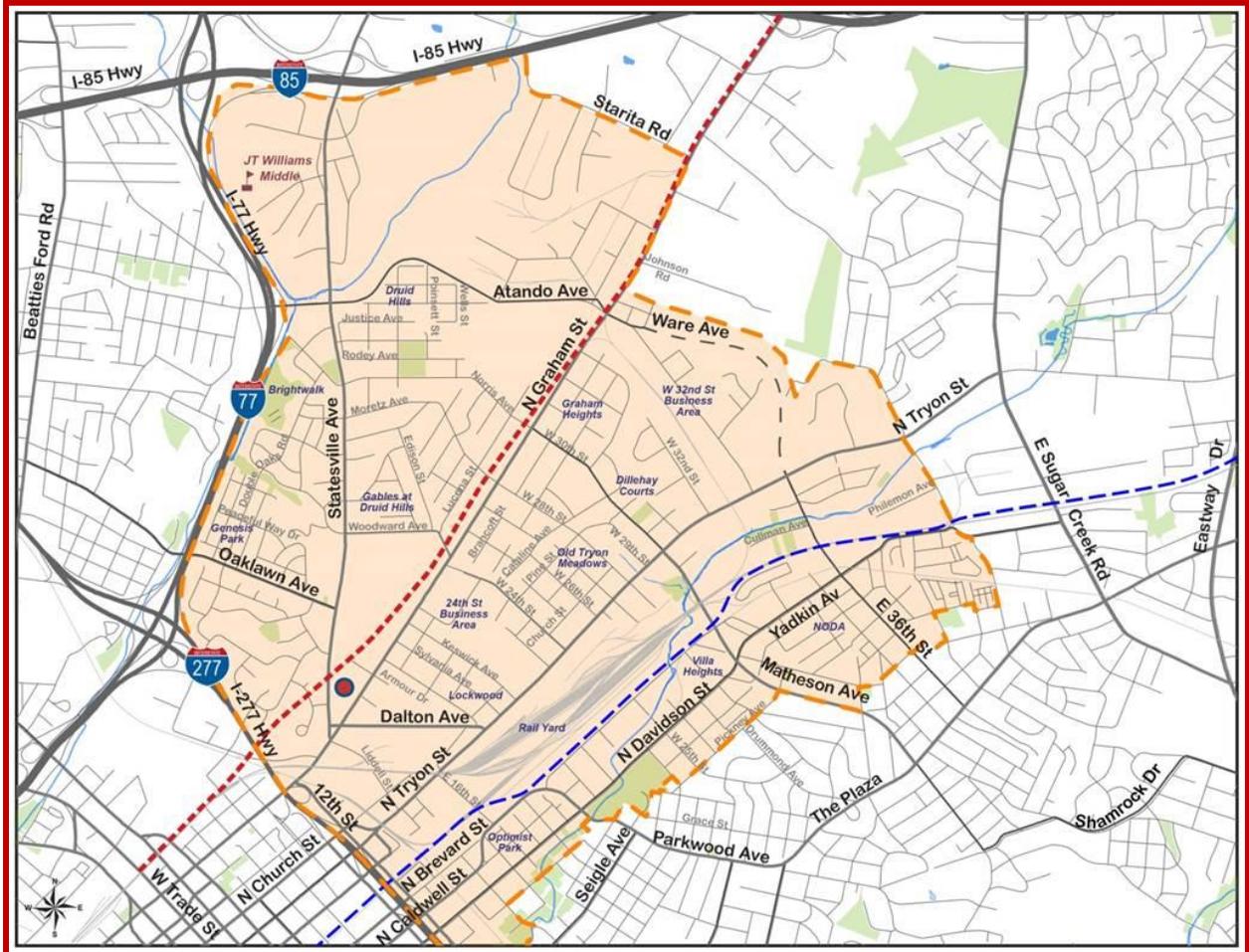
Issue:	North End Smart District
Position:	Explore partnerships with the private and not-for-profit sectors and colleges and universities in identifying and securing federal resources for the development of the North End Smart District
Staff Resources:	Rob Phocas, Neighborhood & Business Services, 704.336.7558

Background and History: Over the past decade, Charlotte's Center City has experienced extraordinary growth. This tremendous growth is the result of strong collaboration, successful planning, and strategic investments by the public and private sectors. Building off Charlotte's strong tradition of planning and visioning, the City, Mecklenburg County, and Charlotte Center City Partners worked together to create the 2020 Vision Plan, a comprehensive plan that provides "a big picture framework and unifying vision for Center City growth and development." The Charlotte Center City 2020 Vision Plan endorses targeted economic growth and industry recruitment in an Applied Innovation Corridor that extends from Center City to the University of North Carolina at Charlotte campus. That strategy draws on the development momentum that exists in Uptown and South End and is modeled after the emerging practice of urban "innovation districts" being applied in cities across the world. Future investment and redevelopment are envisioned to link and leverage Charlotte's academic and research capital with its business assets, emerging industries, and governmental support. The primary goal is to foster job growth in future "21st-century" industries and clusters, including energy production and infrastructure, biosciences, information technology, smart city programs and healthcare. The Applied Innovation Corridor strategy is also intended to attract entrepreneurial startups and business expansion in innovative industries to catalyze further investment in mixed-use and mixed-income housing and commercial development. The intention is to create vibrant urban places by focusing investments on economic development and job growth.

Current Need/Problem (including potential allies or detractors): A significant opportunity exists in the Applied Innovation Corridor, located just north of Uptown in an area bordered by Interstate 77 to the West, 30th Street to the North, and North Tryon Street to the East. In addition to its proximity to Uptown, easy freight movement, future light-rail access, a potential commuter rail station, quick connections to Uptown's major transportation centers, new pedestrian and bicycle connections, and existing affordable and workforce housing, this area is the site of several "smart city" projects the City is developing through public-private and academic partnerships. Called the North End Smart District, the City and its partners intend to use smart technologies in the residential, commercial and light industrial sectors to create a platform on which redevelopment and economic growth can occur. The deployment of microgrids, gigabit broadband service, smart energy efficiency tools and the creation of a living laboratory where companies can co-locate and co-create will help to spawn an urban innovation district. Federal level financial support, in the form of grant funds and technical assistance, is needed to facilitate the development and creation of such districts.

Impact if Adopted: If Federal agencies provided funds and extended their technical expertise to develop and implement the North End Smart District, Charlotte will be able to revitalize this area using 21st century smart city programs and projects; the lessons learned and experiences gained in Charlotte can be replicated throughout the United States.

North End Smart District





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URBAN AREAS SECURITY INITIATIVE

Background:

- President’s proposed federal FY 2017 budget would end our region’s participation in the Urban Areas Security Initiative by making it available for “Tier 1” areas that represent 85% of the risk for terrorism:
 - 19 “Tier 2” areas, including the Charlotte area, would cease participation in the program
 - Policy would take effect beginning with City’s FY 2018 budget
- Proposed federal FY 2017 budget also reduces program funding from \$600 million to \$330 million
- City and the region have participated in this program since its inception
 - Charlotte Urban Areas Security Initiative service area encompasses Mecklenburg and nine other counties
- Region has significant terrorism related risks (i.e. Bank of America HQ, Duke Energy, Federal Reserve, nuclear power plants, etc.)
- Region has used the program to update its communications capabilities, purchase HazMat bomb equipment for first responders, and other needs

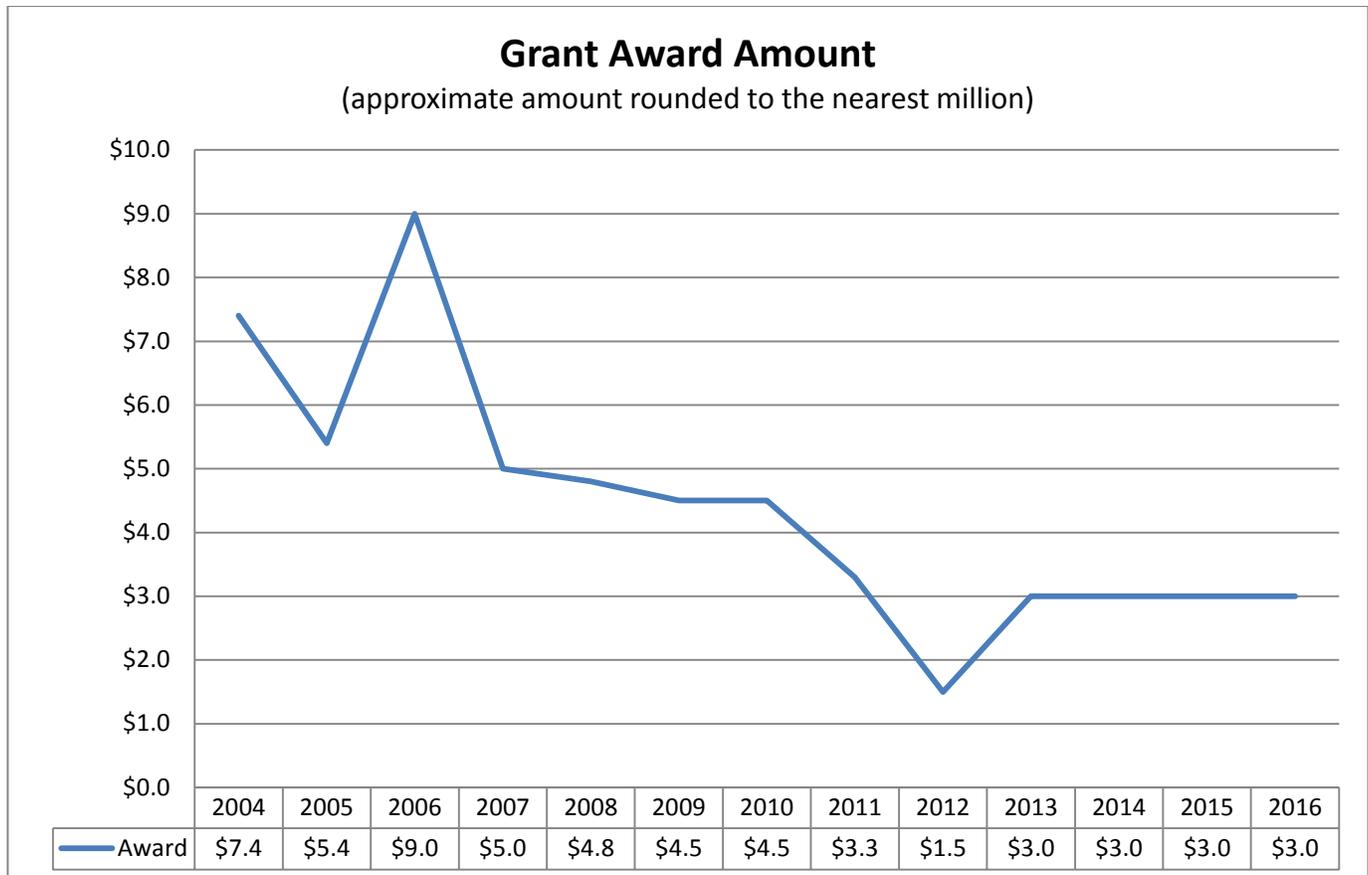
The Ask:

Support efforts to retain regional eligibility in the Urban Areas Security Initiative and maintain program funding levels at or above FY 2016 levels



URBAN AREA SECURITY INITIATIVE (UASI)

The Charlotte area has been receiving Urban Area Security Initiative (UASI) funding through the Department of Homeland Security's (DHS) Homeland Security Grant Program (HSGP) since 2004. Over the life of the program, the area has received close to \$55 million dollars to aid in the prevention of terrorism and other catastrophic events and to prepare the country for threats and hazards that pose the greatest risk to the security of the United States. Charlotte is currently 1 of 29 UASI funded cities.



UASI Service Area		
County	Population Estimate	Square Mileage
Cabarrus	192,103	361.75
Catawba	154,356	398.72
Gaston	211,127	356.03
Iredell	166,675	573.83
Lancaster (South Carolina)	83,160	549.16
Lincoln	79,829	297.94
Mecklenburg (Charlotte)	1,012,539	523.84
Stanly	60,600	395.09
Union	218,568	631.52
York (South Carolina)	245,346	680.60
TOTAL	2,424,303	4,768.48



Critical Infrastructure	Economic Impact	Significance
Bank of America (Headquarters)	\$82.50 Billion (Revenue)	2 nd Largest Bank Holding Company
Wells Fargo Securities (Headquarters)	\$4 Billion (Revenue)	9 th Largest Investment Banking Division
Federal Reserve Bank of Richmond (Charlotte Branch)	Distribution of Currency and Coin (Regionally)	- Supports 2 nd Largest Financial Center - Produces Monetary Commerce (Cash)
Duke Energy - Headquarters - Catawba Nuclear Station - McGuire Nuclear Station - Hydro Stations/Dams (Multiple)	\$24.60 Billion (Revenue)	- Largest Electric Power Company - Only Metropolitan Statistical Area (MSA) with (2) Radiological Emergency Preparedness Zones (EPZs) - Major power generator for region (approximately 1,000 megawatts)
Lake Norman / Lake Wylie	\$50 Billion in Water/Energy/Recreation (Generation)	- Supplies 3,505 megawatts of renewable energy (annually) - Supplies water for 2 million people
Colonial Pipeline (Plantation)	Serves 50 Million Clients	100 Million Gallons Petroleum/Day
Bank of America Stadium	\$325 Million (Revenue)	Carolina Panthers (NFL) / Capacity = 75K
Time Warner Cable Arena	\$315 Million (Revenue)	Charlotte Hornets (NBA) / Event Venue
BB&T Ball Park	\$13 Million (Revenue)	Charlotte Knights (AAA Baseball)
Charlotte Motor Speedway	\$570 Million (Revenue)	Bank of America 500 / Coca Cola 600
Carowinds (Theme Park)	\$250-500 Million (Revenue)	Region's Largest Theme Park (NC/SC)
Concord Mills	\$15 – 20 Million (Revenue)	Ranks in Top Five for Outlet Centers in US
South Park Mall	Leases for \$700 per sq. ft	10 th Largest Mall on the East Coast
Charlotte-Douglas International Airport	700 departures/landings per day (Domestic/Abroad)	- 6 th Busiest Airport in the United States - American Airlines Hub
I-77 / I-85 (Transportation Corridors)	\$700 Billion Dollars of Commercial Goods (Annually)	- East Coast Transportation Arteries - I-85 serves as primary interstate connection between Atlanta and DC
Amtrak/CSX/Norfolk Southern (Rail)	70 freight routes (daily) 8 passenger routes (daily)	Primary East Coast Rail Arteries / Class 1 Rail Lines
145 th Airlift Wing (North Carolina Air National Guard)	Supports Regional Critical Infrastructure (Backup)	Supports regional military and disaster efforts (located at Charlotte-Douglas)

Significant UASI Funded Projects	
PAPR/SCBA	Gerstel Water Testing System
Mobile Operations Center (MOC)	Bear/Bear Cat Tactical Law Enforcement Vehicles (CMPD)
Mobile 800 mhz Tower	Highway Patrol Dispatch Center Up-Fit (Union County)
(2) 205 kw Generators	800 mhz Subscriber Units
(2) Light Towers	Regional HazMat Equipment for First Responders
(2) Evac. Buses (MEDIC)	Explosive Protection Suits (Dozens Across Region)
Back Up Generator for Lancaster County 911 Center	Bomb Robots (CMPD / Cabarrus County)
EMS Training Center for MEDIC	Surveillance Robots (Huntersville)
Urban Search & Rescue Training and Mobile Equip.	Mecklenburg County Sheriff Command Vehicle



Urban Area Security Initiative (UASI) 2016 Tier Two Cities

State	Funded Urban Area	FY 2016 UASI Allocation
Arizona	Phoenix	\$5,430,000
California	Anaheim/Santa Ana Area	\$5,430,000
	Riverside Area	\$2,962,000
	Sacramento Area	\$2,962,000
	San Diego	\$16,658,000
Colorado	Denver Area	\$2,962,000
Florida	Miami/Fort Lauderdale Area	\$5,430,000
	Tampa Area	\$2,962,000
Georgia	Atlanta Area	\$5,430,000
Maryland	Baltimore Area	\$2,962,000
Michigan	Detroit Area	\$5,430,000
Minnesota	Twin Cities Area	\$5,430,000
Missouri	St. Louis Area	\$2,962,000
Nevada	Las Vegas Area	\$2,962,000
North Carolina	Charlotte Area	\$2,962,000
Ohio	Cleveland Area	\$2,962,000
Oregon	Portland Area	\$2,962,000
Pennsylvania	Pittsburgh Area	\$2,962,000
Washington	Seattle Area	\$5,430,000



CHARLOTTE

CITY OF CHARLOTTE

COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

Background:

- Administration has proposed reducing funding for the Community Development Block Grant (CDBG) program in federal FY 2017 by \$200 million
 - Reduction would take effect beginning with City's FY 2018 budget
- The CDBG program provides communities with resources to address a wide range of unique community development needs.
- CDBG funding is the City's primary funding source for providing housing and out-of-school time activities to low-to-moderate income families.
- CDBG funding allows City to fund rehabilitation program for:
 - repairing minimum housing code violations,
 - improving health and safety, and
 - providing energy efficiency retrofits and accessibility modifications to households earning at or below 60% (\$40,320) of the area median income.
- Through this program the City is able to maintain and preserve some of its existing affordable housing stock and many low and moderate income homeowners are able to age in place.
- CDBG funding is also used to provide Out of School activities for low and moderate income children. Each year, approximately 1,000 low-to-moderate income children are able to attend high-quality out-of-school activities.

The Ask:

Maintain FY 2017 funding levels at or above FY 2016 appropriation



CHARLOTTE
CITY OF CHARLOTTE
DOPPLER WEATHER RADAR

Background:

- Senators Burr and Tillis, and Congressman Pittenger have introduced legislation (S. 2058 – Burr and Tillis, H.R. 3538 – Pittenger) to require the Department of Commerce to operate and maintain at least one Doppler Weather Radar site within 55 miles of each City with at least 700,000 population and to ensure that the radar is available to the office of the National Weather Service that provides services to that City
- Legislation was developed in response to the 2012 tornado that damaged up to 192 homes in Charlotte; the current Doppler weather radar being operated for our area is 94 miles away
- Due to the location of the radar, a majority of the Charlotte region is without radar beam coverage below 10,000 feet leading to lower resolutions and an inability to detect low-level dynamics of severe weather
- Rowan, Cabarrus, and Davidson Counties have an even more pronounced problem with limited radar coverage
- The City of Charlotte supports S. 2058 and H.R. 3538

The Ask:

How can the City help in passage of this legislation?

09.18.15

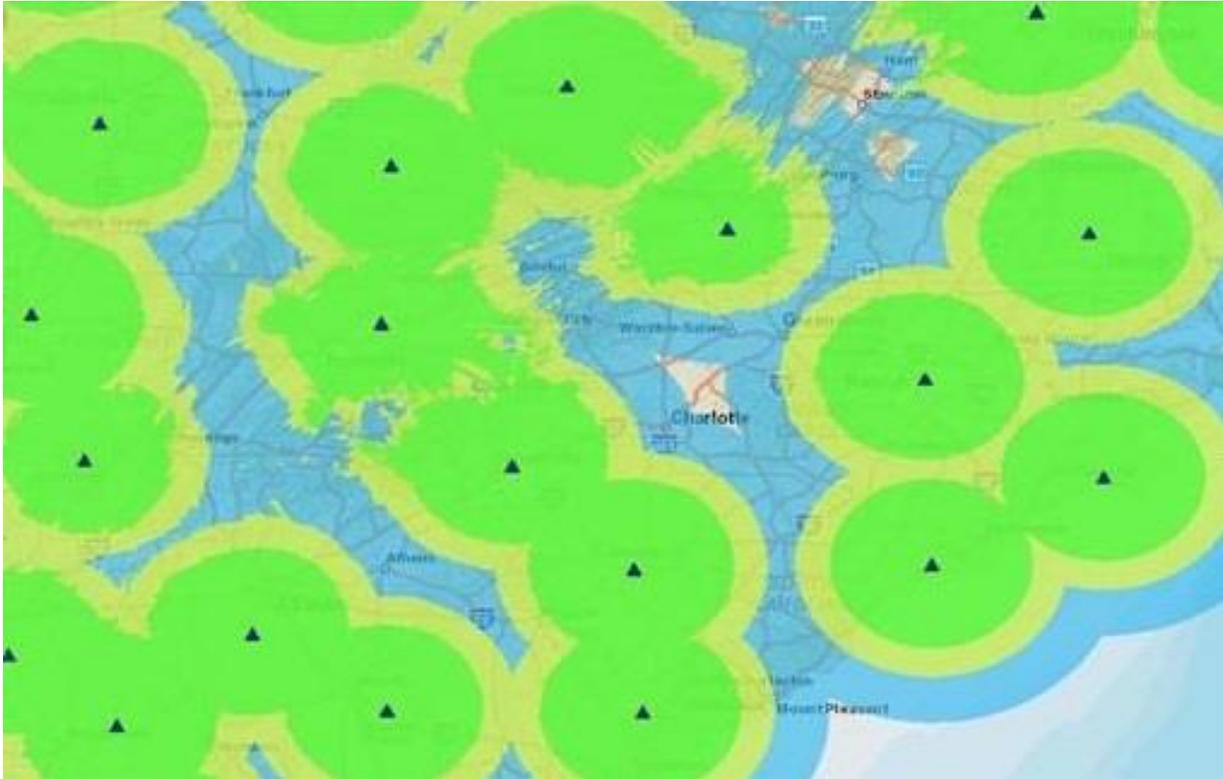
Sens. Burr and Tillis, Reps. Adams and Pittenger Introduce Bipartisan Bill to Improve Weather Hazard Detection

WASHINGTON – Yesterday, Senator Richard Burr (R-NC), Senator Thom Tillis (R-NC), Representative Alma Adams (D-NC) and Representative Robert Pittenger (R-NC) introduced the *Metropolitan Weather Hazards Protection Act of 2015*, which will enhance the Doppler radar system in North Carolina. This legislation requires the Secretary of Commerce to operate and maintain a National Weather Service (NWS) Doppler radar within 55 miles of a city with a population over 700,000, addressing a serious public safety deficiency in the North Carolina region.

“The National Weather Service should be treating all major metropolitan areas the same, but weather experts agree that the current Doppler technology locations in North Carolina are insufficient and do not give meteorologists the tools they need to detect and warn citizens of potentially dangerous weather. As we know from the tornado of 2012 that damaged up to 192 homes in the Charlotte area, this is a significant public safety problem,” said Senator Burr. “I’m pleased that Senator Tillis and Representatives Adams and Pittenger have joined me on this bill to help protect North Carolinians.”

Charlotte is currently covered by a NWS Doppler radar that is 94 miles away in Greer, SC. However, no other city of Charlotte’s size currently has a radar situated more than 58 miles away. The current location results in a majority of the metropolitan area being without radar beam coverage below 10,000 feet. Due to the circumference of the earth the further a radar is away from a given point, the higher the radar beam scans the atmosphere, leading to lower resolutions and an inability to detect the low-level dynamics of severe weather. Rowan, Cabarrus, and Davidson Counties have an even more pronounced problem with limited radar coverage because of the location of the radar.

This map from Brad Panovich, Chief Meteorologist WCNC-TV, clearly shows the gap in quality radar coverage over Charlotte:



Local meteorologists believe that the lack of quality radar coverage has made it difficult for the NWS office in Spartanburg to detect severe weather, specifically tornadoes. These meteorologists who understand the intricacies of weather in the Piedmont believe that the lack of a NWS Doppler radar in Charlotte contributed to the lack of a warning for a tornado that effected Mecklenburg, Rowan, and Cabarrus Counties in March of 2012 that damaged 192 homes. The failure was not the fault of the NWS, as it can be very difficult to detect rotation in the thunderstorms that tend to effect North Carolina; however, the lack of a Doppler radar for the Piedmont enhances the problem. This legislation will give the NWS, local and state officials, and news outlets the tools they need to protect our citizens.

Letters from three area meteorologists are available here: [WGHP](#), [WCNC](#) and [WBTB](#)

The legislation:

- Requires the Secretary of Commerce to operate and maintain a Doppler radar within 55 miles of a city with a population over 700,000.

- Requires the Secretary, when evaluating potential sites, to take into account adjacent counties with limited radar coverage and that have populations over 130,000.
- Requires that any new radar include the most up to date technology used around the country.



May 20, 2015

Dear Senator Burr:

Thank you for looking into this serious issue which we discussed a few months ago during your visit to our television station. As you now know from research, the curve of the earth and distance of the radar sites in Greer, Blacksburg, Columbia and Raleigh, leaves the area from near Charlotte to Winston-Salem insufficiently protected. These radars cannot see rotation below 8000 feet (even 10,000 feet in the extreme locations). This even led to a tornado being undetected on the northeast side of Charlotte on March 3, 2012 at 2:30 a.m. People were hurt and there was no warning. Someone could have been killed. One day without action we will not be so lucky.

We know from experience major tornadoes can and do strike this area. Between the Charlotte metro and Triad metro, there are more than 3 million people. This area desperately needs better radar coverage. To best serve the areas lacking adequate coverage, I would recommend the radar be located near Salisbury, NC (Rowan County). This would also help serve the Hickory area, which is also in a similar situation.

Thank you for serving the people of North Carolina.

Sincerely,

A handwritten signature in black ink, appearing to read 'Van Denton', is written over a horizontal line.

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Dear Senator Burr,

I would like to send my support for your legislation to have a National Weather Service Nexrad Doppler radar cover the Piedmont of North Carolina. As the Chief Meteorologist at NBC Charlotte, I cannot tell you the amount of times the lack of weather radar coverage has impact severe weather warnings.

One event in March of 2012 sick out as a prime example where the lack of quality radar coverage played a part in a tornado warning not being issued as an EF-2 tornado touched down. This tornado thankfully did not cause a fatality but did throw two young boys onto a new interstate.

I cannot stress enough the need for radar coverage in one of the country's fastest growing regions here in the Carolinas. Not only would this provide government forecasters better information on severe weather but numerous private sector meteorologist and aviation interests in the region.

Thank you for bringing this legislation to the floor. There are many things people argue about in politics and the role of government in our lives. I cannot think of anyone on either side of the aisle who cannot support this role as providing severe weather coverage for them and their families.

Sincerely,

Brad Panovich

A handwritten signature in black ink, appearing to read 'Brad Panovich', with a stylized, cursive script.

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Phone 704 374-3500

Tuesday, June 2, 2015

The Honorable Richard Burr
217 Russell Senate Office Building
Washington, DC 20510

Dear Senator Burr:

Thank you for your time. I want to commend Mr. Van Denton, Chief Meteorologist at WGHP-TV in High Point, NC for calling to your attention a very important public safety issue regarding the inadequate weather radar coverage currently in place across western North Carolina (NC). I am contacting you to both endorse Mr. Denton's concerns and add a few additional facts that will hopefully crystallize the gravity of the situation.

Our predicament began in the mid 1990s when the National Weather Service (NWS) modernization took place and our older WSR-74 radars were replaced by the newer WSR-88D (Doppler) radars. In doing so, Charlotte - one of the biggest cities and busiest airports in the country - lost its radar with no plans to replace it. North Carolina was allocated three new radars. The sites were, and still are Raleigh, Wilmington, and Morehead City. In other words, the three new radars were all positioned along and east of the I-95 corridor with the western 2/3rds of NC left behind. Why? My understanding is the modernization was funded by both NOAA and the DoD. Because of that, and understandably, the military was given first choice to ensure their bases were well covered. But it also used up the state's quota, and no money remained for the western side of NC.

As an example of how out of balance things are, let's take Clinton, NC as an example. Have you heard of it? I haven't prior to this, but I'm sure it is a very nice community. They are within just 40 (nautical) miles of Raleigh, 60nm from Wilmington, and 70nm from Morehead City. That's outstanding coverage from not one, but a network of three different weather radars. By contrast, using Raleigh as the nearest (and only) site available, Charlotte is 118nm away, Statesville 117nm, Hickory 139nm and Morganton 155nm!

Senator Ernest Hollings in South Carolina faced a similar situation with yet another radar installed along his coast and only one radar allocated inland, Columbia, SC. He understood that plan would leave the western region of his state poorly covered and fought for another weather radar in the Greenville-Spartanburg (GSP) area. He won. And by pure luck, that radar helped fill some of the gaping holes in western NC.

In short our region improved from virtually no adequate coverage to fringe coverage. Charlotte is now 70 (nautical) miles away from the GSP site and Statesville is 85nm away. Meanwhile Winston-Salem still remains 90nm away from Raleigh. So while tiny communities in rural eastern NC are blanketed by a network of radar coverage, larger cities in western NC still remain on the fringe, despite help from Senator Hollings.

As Mr. Denton pointed out, increased distance from a radar site results in a multiplicity of problems. Here are just a few of the basics:

1. Radar beam height increases with distance
2. Radar beam width increases with distance
3. Radar beam attenuation increases with distance

With respect to beam height, as it stands now, the beam centroid that passes over Charlotte is 7,500^[1] feet above the earth. For Statesville, it is 9,400^[1] feet and at Winston-Salem it is 10,650^[1] feet. As you can see that is over two miles of atmosphere left uncovered from the beam centroid down to the ground.

The average tornado drops from a cloud base no higher than 4,000 feet off the ground, so you can appreciate the profound difficulty here. Yes, these (supercell) thunderstorms do produce broader rotations above the tornado which allows the radar operator to infer a tornado below, but it still boils down to guesswork, and that is why, even in this day and age, we still have a 75% false alarm rate when the NWS issues tornado warnings.^[2]

Beam width is a problem. Just like a flashlight, as the beam gets farther away from the transmitter, it spreads out and becomes much wider. Therefore, because a distant storm from the radar only fills part of the (wide) radar beam, it appears weaker to the radar operator and he may underestimate the strength of the storm leaving the people affected by it vulnerable.^[3]

On the third point, if rain or storms lie between the radar transmitter and the distant storm in question, the nearby storms will attenuate the beam signal thereby leaving less energy to reach the distant storm which again will distort the final result and negatively affect the operator's ability to accurately interpret the situation.

To reiterate, all these problems are a direct result of greater distance from weather radar sites.

Finally, several years ago, the FAA did install a Terminal Doppler Weather Radar (TDWR) to help better serve the aviation community around the Charlotte Airport. It is designed to quickly capture small weather events in the terminal airspace which is a rather small useful radius. This radar, on some level, does complement the coverage of the larger NWS radars, but it offers fewer derived products, and because of its lower power and smaller wavelength, it is severely hampered by attenuation even within its smaller designated coverage area.^{[4][5]}

The tornado that struck Harrisburg, NC on 3 March 2012 at 2:30am (Mecklenburg/Cabarrus line) left 41 homes uninhabitable, six completely destroyed, four people injured, but incredibly, no deaths. The tornado was rated a strong EF2 tornado^{[6][7]}.

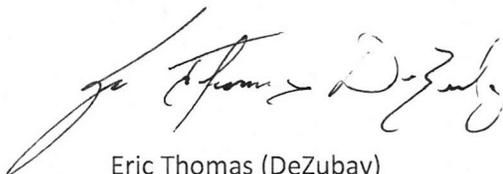
This tornado went undetected and no warning was issued for the victims in the path. **The tornado was only 13 miles from the TDWR.** This should serve to illustrate why depending on terminal doppler weather radars is not the solution.

In light of all the issues laid out, I simply wish to affirm and stand behind Mr. Denton's request for an additional NWS Doppler Radar to be installed in a location that will provide vastly improved, timely and critical weather information for the western half of North Carolina which comprises major metropolitan areas.

If you have any further questions or comments, please feel free to call or write the undersigned. Thank you again for your valuable time.

With kindest regards, I am

Sincerely yours,



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References:

- [1] <http://www.wdtb.noaa.gov/tools/misc/beamwidth/beamwidth.html>
- [2] <http://fivethirtyeight.com/features/three-out-of-every-four-tornado-warnings-are-false-alarms/>
- [3] http://www.srh.noaa.gov/jetstream/doppler/beam_max.htm
- [4] <http://www.wunderground.com/blog/JeffMasters/comment.html?entrynum=1168>
- [5] <http://www.erh.noaa.gov/gsp/tdwr/info/specs.html>
- [6] <http://www.spc.noaa.gov/faq/tornado/ef-scale.html>
- [7] <http://1.usa.gov/1HP8UZ9>



CHARLOTTE™

CITY OF CHARLOTTE

2015-2016 MECKLENBURG FEDERAL DELEGATION

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CHARLOTTE™

2015-2017 MAYOR AND CITY COUNCIL

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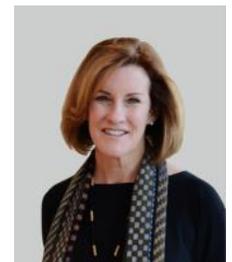
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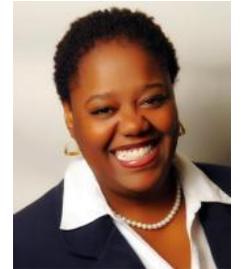
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