

Comprehensive Investment Strategy Report

Applied Innovation Corridor's North End FY2014 - FY2015 Community Investment Plan

Charlotte, North Carolina
June 2016





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Executive Summary

The City of Charlotte's 2014-2018 Community Investment Plan (CIP) establishes specific goals to meet the needs of the growing populace through transformative community investments. The Applied Innovation Corridor's (AIC) North End is an area identified within the CIP to fulfill the emphasis on investing in corridors and promoting job growth through infrastructure investment.

The City of Charlotte (the City) has established a project team and obtained the services of HDR to evaluate potential infrastructure projects throughout the AIC's North End. The objective of this team is to establish a prioritized list of projects to meet the goals of the CIP, which are listed later in this report, and help achieve the vision of the AIC through 2014-2018 CIP funding.

North End is an area identified within the CIP to fulfill the emphasis on investing in corridors and promoting job growth through infrastructure investment.

A number of planning efforts have been prepared that establish goals for the North End. Three of these recent documents were referenced in depth in the initial stages of this study: *Center City 2020 Vision Plan* (adopted September 2011), *North Tryon Area Plan* (adopted May 2010) and Urban Land Institute (ULI) Advisory Services Panel Report.

The vision of the AIC was initiated by the *Center City 2020 Vision Plan*. The AIC extends from South End to the University of North Carolina at Charlotte (UNCC). The North End of the AIC extends from the eastern limits of I-277 to the northeast. One of the recommendations within the *Center City 2020 Vision Plan* is the North End Development Strategy.

The prior *North Tryon Area Plan* established similar goals for the North End. One component of the *North Tryon Area Plan* was implementing street connections to complete the street grid and provide connectivity between residential and commercial land uses.

An Advisory Services Panel from the ULI conducted a study focused on the feasibility of the AIC specific to the North End and provided recommendations in their report.

The project team reviewed the previous planning efforts identified above, conducted a market analysis, and solicited input from stakeholders and the community to identify potential infrastructure projects within the North End, illustrated on Figure 1, for consideration of CIP funding.

The market analysis inventoried the strengths of the AIC North End along with the challenges for development/redevelopment. It identified opportunities for development throughout the study boundary so that the project team could consider infrastructure projects that would enhance those sites that had strong near-term development potential. The market analysis evaluated the North End relative to the general "Ingredients of an Innovative District" put forth by the Brookings Institute.

The community engagement process was implemented to ensure input from the community at key steps in the study process. This consisted of over 20 stakeholder interviews which were used to contribute to the identification of potential infrastructure projects. A stakeholder





workshop was conducted to obtain input on the potential projects, which contributed to the subsequent prioritization of projects. An open house concluded the process by presenting the draft priorities, which entails the top nine prioritized potential projects. The community engagement process included a website that was continually updated as the project moved through the various stages.

The identified projects were evaluated on feasibility and applicability with respect to the CIP goals. The projects were further developed to establish proposed typical sections and planning-level cost estimates. A project ranking system was developed and used as one criterion for prioritization. A project ranking matrix was compiled and utilized to prioritize the potential projects.

Street connectivity projects, which were identified by the *North Tryon Area Plan* and through stakeholder input, were evaluated separately from the other potential projects.

The results of the prioritization for the top nine potential projects, along with the projects' planning-level cost estimates and proposed allocated funding through the 2014-2018 CIP, are indicated in Table 1 and illustrated on Figure 2.

Table 1 Prioritized Projects

Priority	Project	Planning-Level Cost Estimate	Cumulative Planning-Level Cost Estimate
1	Matheson Avenue Bridge Streetscape	\$5 million	
2	N. Tryon Gateway		
	N. Tryon Street Streetscape	\$12 million	↑
	N. Tryon Gateway - Aesthetic Improvements @ RR Structures	* \$2 million	
	Total (N. Tryon Gateway) =	\$14 million	
3	N. Graham Street Sidewalk Aesthetic Enhancements	\$0.26 million	2014/2016 Funds \$19.26 Million
4	16th Street Streetscape	\$3 million	
5	Multi-Use Paths		1
	Segment 1 from Statesville Ave to N. Graham St.	\$3 million	
	Segment 2 from N. Graham St. to N. Tryon St.	\$5 million	** Remaining Funds
	Total (Multi-Use Paths) =	\$8 million	\$30.26 Million
6	Newland Road/Norris Avenue Intersection	\$1 million	\$21 Million
7	N. Tryon Area Street Connectivity Projects	* \$2 million	Funds Not Available
8	N. Graham Street Streetscape	\$16 million	\downarrow
9	Druid Hills Park Street Grid Improvements	* \$2 million	

Total = \$51.26 million

^{*} The \$2 million indicated for these three projects are provided for budget purposes. They are not based on calculated planning-level cost estimates.

^{**} Estimated costs through priority no. 5 (Multi-Use Paths) exceed funding proposed through FY 2019 bond cycle by \$1.3 million.



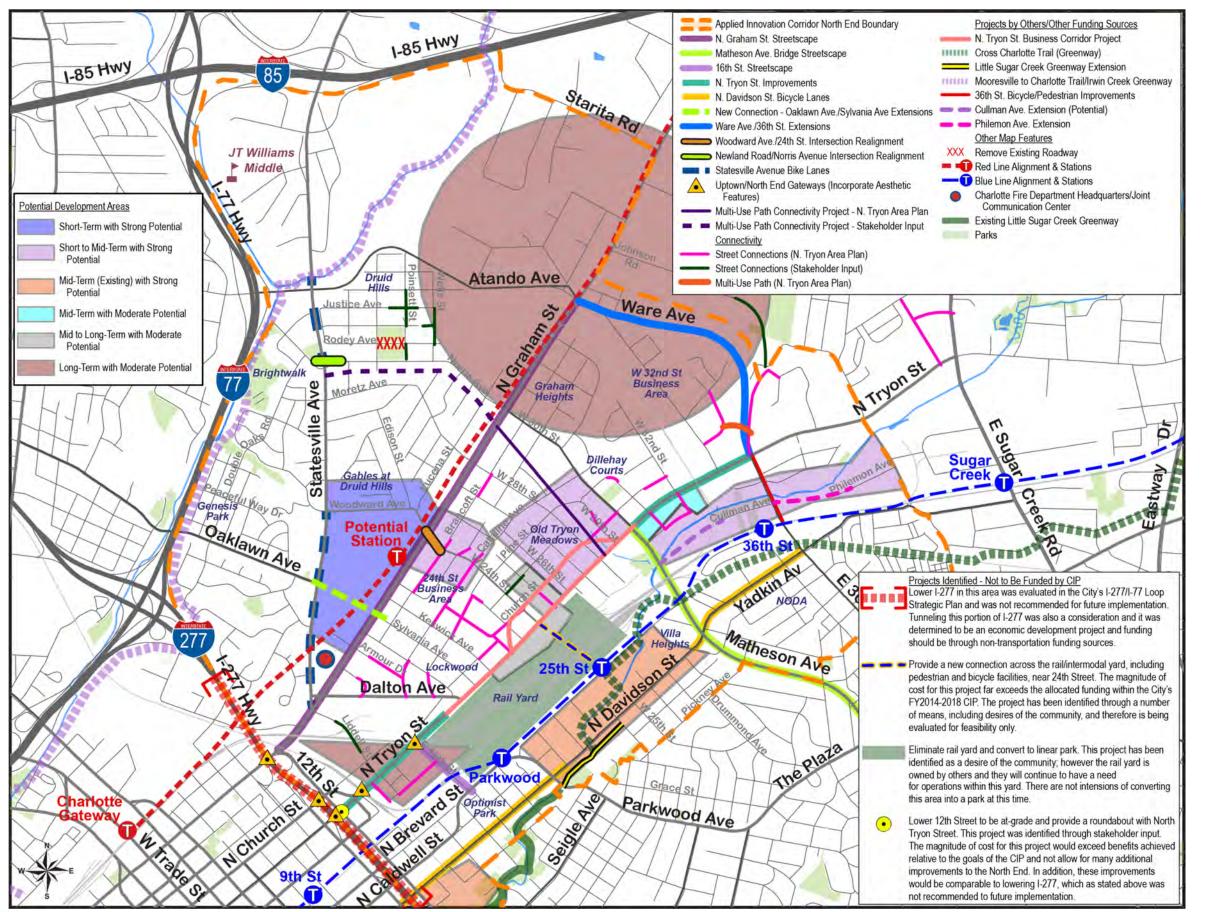


The project team recommends further development of these nine projects in order to identify the specific improvements to be implemented, including determining the proposed future typical sections. It is also recommended that the top five prioritized projects continue forward into design. As the project development and design progress on these projects, the prioritized projects to be implemented with CIP funding should be reevaluated. In addition, as development occurs and opportunities for public/private partnerships arise, the priorities of projects can be adjusted.

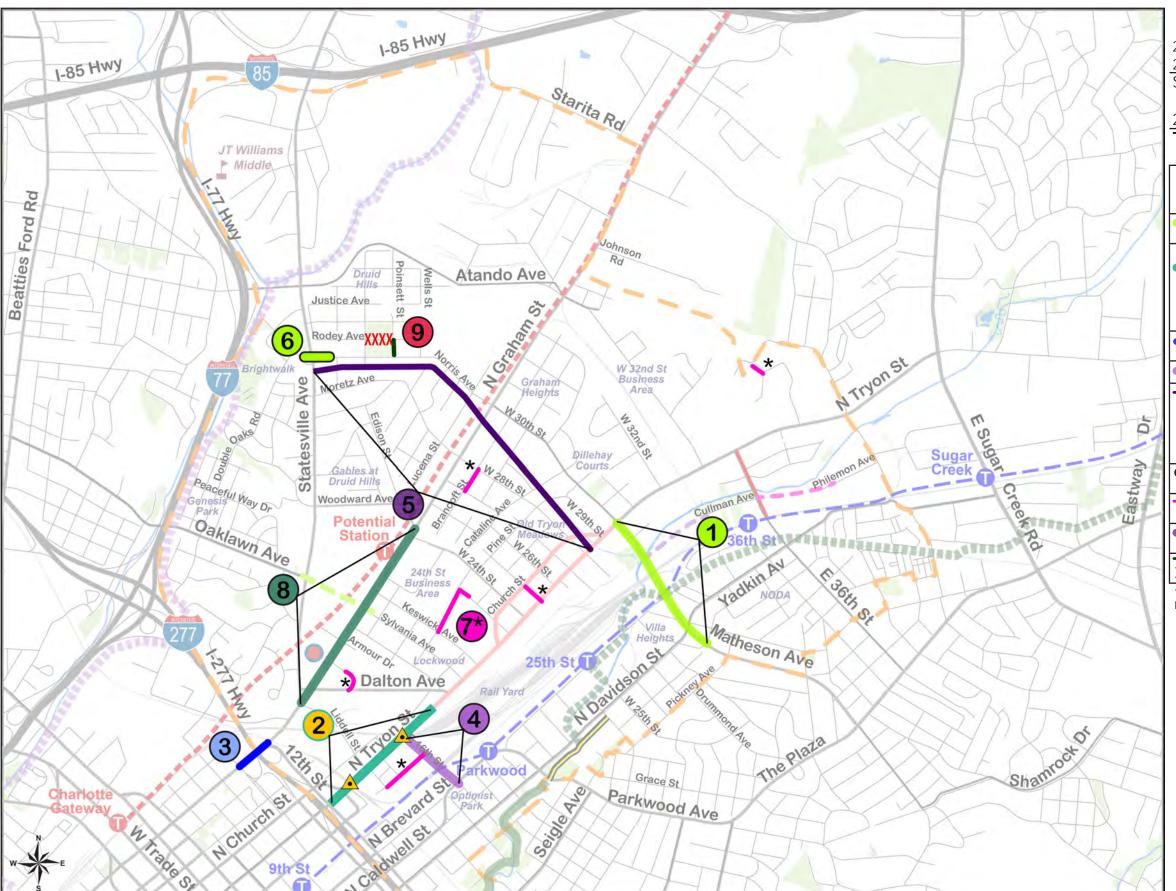
"The CIP alone will not create innovation districts or attract the type of businesses as described in the 2020 Vision Plan or subsequent planning documents.

This study will develop economic strategy for the AIC's North End and assess which locations are strategically positioned to be redeveloped as compact districts attractive to a variety of start-up and entrepreneurial industries. It will also assess the ability to attract major institutional user (e.g. university or medical component)."

Quotes from the City's *Applied Innovation Corridor Key Messages* document are highlighted in blue throughout this report. A copy of the complete City document is included in Appendix N.







 2014 CIP Bonds
 \$12.48 Million

 2016 CIP Bonds
 \$7.72 Million

 Subtotal for 2014 & 2016
 \$20.2 Million

2018 CIP Bonds \$8.76 Million

Total Funding =

\$28.96 Million

	Priority	Project	Cost Estimate	Cumulative Cost Estimate
	1	Matheson Avenue Bridge Streetscape - Segment 1	\$5 Million	A
_	2	N. Tryon Gateway N. Tryon Street Streetscape - Segment 1 N. Tryon Gateway - Aesthetic Improvements	\$12 Million \$2 Million	2014/2016 Funds
		@ RR sturctures	\$14 Million	\$19.26
	3	N. Graham Street Sidwalk Aesthetic Enhancements	\$0.26 Million	Million
	4	16th Street Streetscape	\$3 Million	
	5	Multi-Use Paths	*\$3 Million \$ <u>5 Million</u> \$8 Million	Remaining Funds \$30.26 Million
	6	Newland Road/Norris Avenue Intersection	\$1 Million	\$21.26 Million Reserved
	7	N. Tryon Area Street Connectivity Projects	\$2 Million	Funding
	8	N. Graham Street Streetscape - Segment 1	\$16 Million	
XXXX	9	Druid Hills Park Street Grid Improvements	\$2 Million	▼

*Estimated costs through priority no. 5 (Multi-Use Paths) exceed funding available by \$1.3 Million.







1 Defining the Applied Innovation Corridor

This report will describe the basis for the study undertaken by the City which maps a strategy for infrastructure improvements in the North End of the AIC. The report begins with the fundamental goals and objectives for the AIC and the CIP which are the basis for all the work that followed. The report continues with a description of the process that identified a range of possible infrastructure improvements and the resulting list of prioritized fundable projects for implementation. The foundation pieces of the AIC goals and objectives, with an emphasis on land use and the goals of the CIP, and the recommended allocation of CIP funding for infrastructure projects are described more fully in the following sections.

Quotes from the City's *Applied Innovation Corridor Key Messages* document are highlighted in blue throughout this report. A copy of the complete City document is included in Appendix N.

"The AIC is an area identified in the Center City's 2020 Vision Plan for targeted economic growth and industry recruitment to leverage the City's academic and research capital with its business assets.

The AIC, as stated in the 2020 Vision Plan, begins in South End, extends through Uptown and North End and ultimately linking into the UNC Charlotte main campus. Per the 2020 Vision Plan, the North End redevelopment was planned to be a walkable, mixed-use, urban industrial park with distinctive neighborhoods.

The AIC may comprise a series of "districts" located throughout the corridor where leading-edge companies, research institutions, start-ups, and business incubators are located in dense proximity. The intent of these districts is to facilitate new connections and ideas, accelerate the commercialization of those ideas, and support metropolitan economies by growing jobs in ways that leverage their distinct economic position.

Industries could include health care, biosciences, food technology or food hubs, finance, and energy.

Goals of the AIC can be summarized as follows:

- Create communities that support people, academic research, and companies in their discovery of new products and services.
- These communities, which could form "districts," are physically compact, transitaccessible, and offer mixed-use housing, office and retail uses.
- Attract leading-edge people and companies looking for an urban and compact environment to cluster and connect with start-ups, incubators, and accelerators.

Innovative Land Uses

Innovation in Charlotte takes many forms. Part of being "innovative" is seeking new industries, new ideas, or new services not yet recognized or sought after by other regions.





Examples of innovative land uses include:

- Established anchor and small start-up technology companies in the corridor are concentrated in Uptown and in University City.
- The NoDa neighborhood is recognized as an arts district, fostering a creative culture within the community.
- The South End neighborhood has been on the rise over the past several years fostering new businesses within a mixed-use transit community. Innovation within food-focused industries is on the rise with opportunities to capture this new wave of growth within the North End of the Applied Innovation Corridor.

Additionally, the Applied Innovation Corridor provides long term opportunities to:

- Leverage the well-established commercial banking and finance sectors and growing industry clusters in energy production and infrastructure, biosciences, informatics, health care, and food production/hubs.
- Build upon the precedent for successful redevelopment and branding in South End and apply to other parts of the Applied Innovation Corridor.
- Link to research and development activities at the main UNCC campus with the future Blue Line light rail connection.
- Capitalize on the presence of academic programming and students at the UNCC Uptown facility.
- Use the existing arts, culture, nightlife and other quality of life amenities located in Uptown and the surrounding neighborhoods to attract companies and employees.
- Benefit from the availability of underutilized industrial land and space in North End.
- Take advantage of current investor and developer interest in North End property.
- Leverage potential development to benefit city through increased tax revenues."

2 Community Investment Plan

The FY2014 – FY2018 CIP is the City's long-range investment program, which has established the following overall goal:

"...to maintain or replace high priority infrastructure to not only meet the needs of our growing populace, but also transform our community and strengthen our competiveness as a modern, urban city in the following ways:

- Creating jobs and growing the tax base;
- Leveraging public and private investment;
- Enhancing public safety;
- Enhancing transportation choices and mobility;
- Ensuring housing diversity; and

Providing integrated neighborhood improvements."



These six items listed above are the CIP goals as referenced throughout this report.







The CIP assigns greater value to approved capital projects that approach the City's infrastructure needs with long-term, sustainable emphasis on:

- 1) Investing in corridors
- 2) Increasing connections
- 3) Improving communities

The CIP's emphasis has been further refined to include an enhanced approach to focus on:

- Livability addressing housing diversity, neighborhood improvements, and quality of life needs.
- 2) Getting Around increasing connectivity through road projects and infrastructure improvements.
- 3) Job Growth promoting economic development, expansion, and job creation.

The AIC's North End is an area that has been identified within the CIP to fulfill the emphasis on **investing in corridors** and to focus on **job growth**.



In June 2013, the Charlotte City Council approved the CIP funding for a total of \$816.4 million. Within the plan, \$28.96 million has been allocated for the AIC as follows:

- 2014 bonds \$12.48 million approved by voters November 2014
- 2016 bonds \$7.72 million contingent upon bonds passing
- 2018 bonds \$8.76 million contingent upon bonds passing

The FY2014 - FY2018 CIP, as well as the adopted subsequent FY2015 – FY2016 and FY2016 – FY2020 CIPs, currently identifies and allocates funding to these projects as follows:

- Graham Streetscape \$10.4 million to add new sidewalk and planting strips where possible.
- Matheson Avenue Bridge Streetscape \$6.7 million to convert Matheson Avenue into a two or three-lane urban complete street.
- Woodward Avenue/24th Street Connection \$2.6 million to make a four-way intersection.
- North Tryon Area Plan Street Connectivity \$5.2 million to restore the neighborhood street grid and provide greater connectivity within and between residential and commercial areas.
- Private Leverage Fund \$4 million to provide infrastructure and/or gap financing for projects within the AIC.

The intent of this study is to identify potential infrastructure projects throughout the AIC's North End, including those identified above, and evaluate these projects with respect to the CIP goals and vision for the AIC. The overall objective is to provide a prioritized list of projects to further develop and ultimately implement with the funding available, which is \$28.96 million identified above through the 2014, 2016, and 2018 bonds.





"It should be noted that the CIP alone will not create innovation districts or attract the type of businesses as described in the 2020 Vision Plan or subsequent planning documents.

This study will develop economic strategy for the AIC's North End and assess which locations are strategically positioned to be redeveloped as compact districts attractive to a variety of start-up and entrepreneurial industries. It will also assess the ability to attract major institutional user (e.g. university or medical component)."

3 Objective of the AIC North End Study

The City has established a project team and obtained the services of HDR to conduct this study. The objective of this team is to establish a prioritized list of projects which meet the goals of the CIP and help achieve the vision of the AIC through the 2014-2018 CIP funding.

The City's project team is comprised of a number of City staff members representing varying departments as follows.

- Tim Greene Engineering & Property Management (E&PM); AIC Program Manager
- Leslie Bing E± AIC Project Manager
- Jim Keenan E± Chair of the North Strategy Team
- Norman Steinman Charlotte Department of Transportation
- Johanna Quinn Charlotte Department of Transportation
- Amanda Vari Planning
- Todd DeLong Economic Development within Neighborhood & Business Services
- HDR's team, including subconsultants, serves as an extension to the above team members

"Applied Innovation Corridor project team goals and objectives:

- Improve connectivity, livability, and job growth in Charlotte.
- Include an intensive community engagement effort, which comprises stakeholder interviews and community workshops.
- Identify projects that will improve connectivity within the North End area and strengthen connections to NoDa and Uptown (increased bike-ped connections, accessibility to future Blue Line, etc.).
- Leverage the North End's proximity to Uptown and the Blue Line as inherent assets, and capture and improve the urban framework to make this area more attractive to businesses and residents."

In order to identify potential infrastructure projects, the project team conducted the following:

- Review of previous planning efforts
- Market analysis
- Engagement with the community





"The study will identify strategies needed to attract innovative uses to the area and consider how the CIP expenditures be leveraged to establish a foundation to encourage and attract innovative companies to the area.

We know that CIP expenditures alone cannot create, foster, or attract companies within the innovation economy. Strategic deployment of CIP dollars can help set the stage to create an environment or a "place" where people want to live, work, and play. By creating this "improved" urban environment more companies and employees will begin considering the North End as a viable alternative to live and work. The CIP is merely one part of an overall strategy to attract targeted industries to the North End.

The following is a brief list of ways the CIP can be used to help create the necessary urban environment to attract targeted industries.

- The process to prioritize specific CIP projects considers the potential impact on livability, connectivity, and job growth within the North End.
- When feasible, CIP projects will leverage private investment in the area to increase economic opportunities for existing and future residents and businesses.
- · Create a sense of place.
- Eradicate the "ugliness."
- Increase connectivity.
- Connect North End to Uptown and the surrounding areas to fully leverage nearby assets.
- Leverage transit-oriented development (TOD) to foster a unique set of employment opportunities.
- Foster an economic environment to create a jobs-housing balance that not only provides employment opportunities for the existing residents but attracts new workers and employers from industries within the innovation economy.
- Ensure a variety of neighborhood amenities to support residents and employees.
- Improve the bicycle and pedestrian environment."

Once the potential projects were identified, the team completed the following tasks to reach the final objective of developing a prioritized list of projects to proceed further into planning and design:

- Evaluate feasibility and applicability
- Develop project concepts and cost estimates
- Develop project ranking system (scoring)
- Develop project ranking matrix
- Evaluate street connectivity projects

Using the project ranking matrix, the team established the prioritization of the potential projects. The street connectivity projects were evaluated separately by other means. The process and results of these efforts are provided in further detail in Section 5, Prioritization of Potential Projects.





4 Identification of Potential Projects

4.1 Review of Previous Planning Efforts

A number of planning efforts, from both private and public entities, have been prepared that establish goals for the North End. The current vision of the AIC's North End are attributed most to two recent planning documents:

- The North Tryon Area Plan Adopted by City Council May 2010
- Center City 2020 Vision Plan Adopted by City Council September 2011

In addition, in April/May of 2014, an Advisory Services Panel within the ULI conducted a study focused on the feasibility of the AIC, specific to the North End. The panel provided a final report of their recommendations. Below are brief summaries from each of these documents.

4.1.1 North Tryon Area Plan

The *North Tryon Area Plan* identifies North Tryon Street north from Center City as a key area for growth within the City and Mecklenburg County. The plan area extends along North Tryon Street from I-277 to Sugar Creek Road as shown on the Plan Area Boundary map in Appendix K.

The purpose of the plan was to establish a vision for the area and provide recommendations to guide future growth and development. The vision statement from the plan states:

"The North Tryon Area Plan area is a community of residents, businesses, and industries located just northeast of Charlotte's Center City. The opportunity is at hand to build upon the area's locational strengths and market opportunities to improve its physical condition, functional utility, economic viability, appearance, and livability. The area will take its place as one of the thriving mixed use communities surrounding and interacting with the Center City, including stable single family neighborhoods."



The area plan established a number of goals which are summarized in Appendix A of this study report. It also established a list of implementation strategies that outlined specific approaches to achieve the vision and goals identified; a copy of the list is provided in Appendix K. In addition, the plan identified three catalyst sites as redevelopment opportunities. The current CIP allocates funding for the implementation of street connectivity projects identified in the *North Tryon Area Plan*. These connectivity projects were evaluated by the project team and are discussed in further detail later in this report. Maps of the catalyst sites and connectivity projects identified in the *North Tryon Area Plan* are provided in Appendix K.

4.1.2 Center City 2020 Vision Plan

The AIC was initially defined in the *Center City 2020 Vision Plan*. The plan was developed by the City, Mecklenburg County, and Charlotte Center City Partners. It is a strategic plan that provides a big picture framework and unifying vision for Center City







growth and development. The plan provides recommendations for Transformative Strategies and Focus Areas.

The AIC was identified as a Transformative Strategy. The AIC extends from South End (south of I-277 loop), extending through Uptown and North End (north of I-277 loop) onward to the University of North Carolina at Charlotte (UNCC) as shown in Figure 3.



Source: Charlotte Center City 2020 Vision Plan

Figure 3 AIC Location Map

The North End of the AIC is defined by I-277 northward to the industrial district along North Tryon Street, and from North Davidson Street to Statesville Avenue. The boundary of the North End was later refined as shown in Figure 4 by the City in preparation for the ULI Advisory Services Panel's evaluation.

The Center City 2020 Vision Plan provides specific recommendations for the AIC. One of these is to create and implement a North End Development Strategy. The specific recommendations for this strategy are summarized in Appendix A. The result of this North End Development Strategy is envisioned to be a walkable, mixed-use urban industrial park with distinctive neighborhoods.





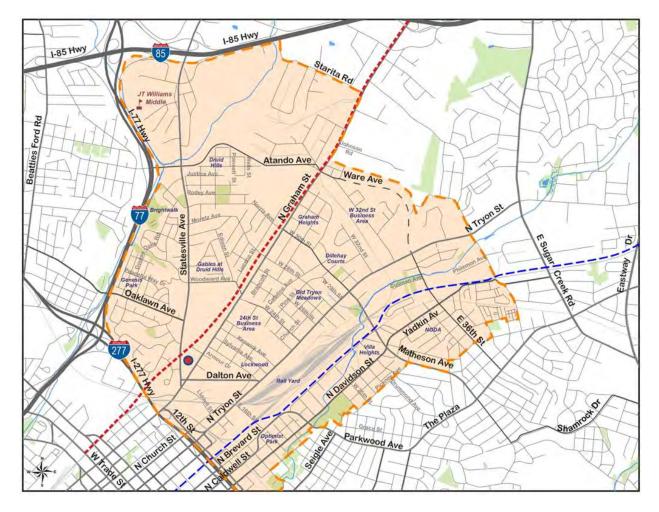
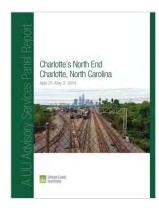


Figure 4 AIC North End Boundary Detail

4.1.3 ULI's Advisory Services Panel Report

The ULI's Advisory Services Panel was requested to focus on the feasibility of the innovation aspect within the North End of the AIC that could be a catalyst for new land uses and neighborhood revitalization. The panel was also asked to identify supporting uses and development to accomplish the vision of the AIC established by the *Center City 2020 Vision Plan*. A summary of the ULI's recommendations are provided in Appendix A.



4.2 Market Analysis

A market analysis was conducted on the AIC's North End by Robert Charles Lesser & Co. (RCLCO), as a subconsultant to HDR, to assist with recommending infrastructure projects that will further the goals for the North End as previously discussed. A full report of the analysis was provided to the City as a separate document. A brief summary of the analysis is provided here.





4.2.1 Site Analysis – Strengths

- Excellent interstate access and convenient access to Uptown.
- Provides great views of Uptown, which is good for residential and/or office.
- Significant development has occurred in the area.
- Large landowners are motivated to develop and could catalyze other projects.
- City is growing and the demand for all land uses throughout Charlotte is strong.





4.2.2 Site Analysis – Challenges





- Area is fragmented by the rail corridor and rail yard North Davidson Area (NoDa) is separated from remaining North End.
- I-277 is a physical and perceived barrier between the North End and Uptown.
- Distance from the University of North Carolina Charlotte (UNCC) is approximately six miles, making it hard to create a technology transfer from the University to AIC's North
- Area has an industrial feel and existing industrial buildings lack strong architectural qualities for retrofitted/redeveloped residential use.
- Rents, home prices, and income are lower than metropolitan average.
- Concentration of social services creates a challenge for new real estate, specifically residential.
- Competition is strong for high-tech and office in other areas of metro region, state, and nation.





4.2.3 Summary of Commercial Land Use Opportunities

A summary of the commercial land use opportunities in the North End is provided in Table 2.

Table 2 Commercial Land Use Opportunities

Land Use	North End Short-Term Opportunity	North End Long-Term Opportunity	Strengths	Challenges	Absorption Potential
Office	Moderate	Moderate	Adjacent to Uptown Good interstate access	 Limited services for workers Very competitive office market in Charlotte Not currently a strong office location 	Very large range. Current capture = 35K square feet to 2030. If the North End behaved like a job core (concentration of jobs) in the region, the capture demand increases to 650K square feet. More reasonable at 350K square feet to 2030
Industrial	Strong	Strong	 Good access to the region Existing industrial area Good interstate access 	 Outdated industrial buildings 	Warehouse: 300-500K square feet to 2030 Flex: 80-170K square feet to 2030
Local Retail	Moderate	Strong	 Limited new retail in the area – unmet demand potential Significant amount of leakage out of the area Demand will grow as residential increases in the study area Good access and traffic counts 	 Housing is not currently very dense in the area, and the incomes are lower than average Poor quality of existing retail stock Safety issues 	Up to 80,000 square feet over the next five years (based upon household-based demand). After that, 10K to 30K per year, depending on household and employment growth
Regional Retail	Weak	Moderate	Good access to the region	 Not a large concentration of households in the area Other, better located locations for regional retail 	Unmet demand for up to 176K square feet over the next five years, however not likely to locate in North End. Would need to identify one large anchor (like Walmart)

The absorption potential for each land use for the low end of the range is based upon the North End's current capture of that land use. The high end of the range varies for each land use, but is based upon improvements in the North End including increased popularity of the area, branding, marketing, infrastructure, etc.





4.2.4 Summary of Residential Land Use Opportunities

A summary of the residential land use opportunities in the North End is provided in Table 3.

Table 3 Residential Land Use Opportunities

Land Use	North End Short-Term Opportunity	North End Long-Term Opportunity	Strengths	Challenges	Absorption Potential
For-Rent Residential	Moderate	Strong	Close to Uptown Strong access	 Limited services for residential Not in the Favored Quarter of growth New development to date has been affordable Only NoDa portion has transit access Not perceived as a "hip" area for younger renters 	Up to 350 units per year (entire study area)
For-Sale Residential	Strong	Strong	 Already for-sale housing in the area Value compared to other locations Close to Uptown Strong access 	 Limited services for residents Schools not as strong as other areas Not in the Favored Quarter of growth Only NoDa portion has transit access Issues with safety, real and perceived 	Up to 170 units per year (entire study area)

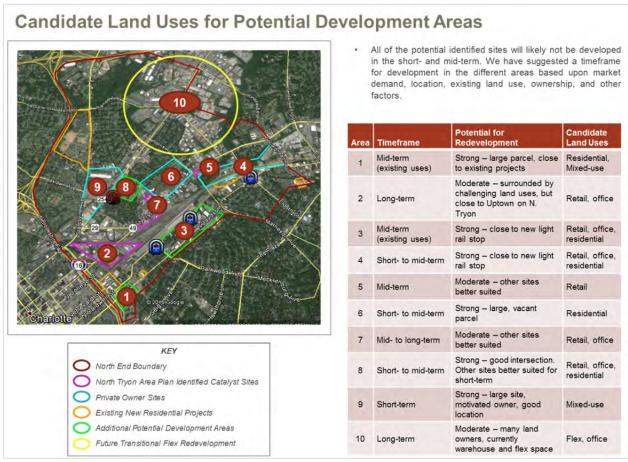
The absorption potential for each land use for the low end of the range is based upon the North End's current capture of that land use. The high end of the range varies for each land use, but is based upon improvements in the North End including increased popularity of the area, branding, marketing, infrastructure, etc.





4.2.5 Potential Development Areas and Candidate Land Uses

The market analysis identified areas of potential development/redevelopment within the North End. It also provided estimated time frames (short, mid, and long-term) in which these developments could occur based upon market demand, location, existing land use, ownership, and other factors. Figure 5 illustrates these areas and their potential uses. These areas are also shown on Figure 1.



Source: RCLCO Market Analysis - North End Applied Innovation Corridor. February 2015

Figure 5 Potential Development Areas

4.2.6 Innovative Districts and Attracting High Tech Jobs

A report published by the Brookings Institute in May 2014 titled *The Rise of the Innovative Districts: A New Geography of Innovative America* was referenced to identify ingredients necessary for an innovative district. Current conditions in the North End were examined to determine the necessary steps to create these ingredients in the area; this information is outlined by RCLCO in Table 4.





Table 4 Ingredients for Innovative Districts

Ingredient	Currently Exists in North End?	Can it be Created in North End?	Necessary Steps to Achieve
Physically compact	No	Yes	 Introduce more density into the North End Ensure new projects are urban-scale with buildings up to the street
Transit-accessible	No	Maybe	 The new commuter station would provide access to downtown and suburbs, but does not have as much service as a subway/light rail system Create connections to the Blue Line in NoDa
Mixed-use	No	Yes	 Encourage mixed-use and multiuse development Help the market with the gap between market supportable rents and rents necessary for vertically integrated mixed-use projects
Presence of Anchor Institution (University or medical)	No	Maybe	Will need to reach out to potential anchor institutions to determine their interest in locating within the North End
Close to downtown	Yes	Yes	Already adjacent to downtown
Historic building stock	No	No	 Limited amount of historic buildings to re- purpose
Current location of technology, research, creative fields, and/or small batch manufacturing	No	Maybe	 Need to create the type of environment where they want to locate (compact, urban, mixed-use)
Current location of entrepreneurs	No	Maybe	 Need to create the cultivators (see below) that support entrepreneurs Need to create the environment to attract the entrepreneurs
Location of cultivators (Incubator, accelerator, tech transfer offices, etc.)	No	Yes	Would need to create these types of programs and spaces
Neighborhood amenities (medical, grocery, drug store, restaurant)	No	Yes	Encourage this type of developmentSupport the market when necessary
Public realm spaces (parks, plazas)	No	Yes	 Need to create a focal point for development and a place for workers to congregate
Availability of space for start up businesses or inexpensive housing	Yes	Yes	 Inexpensive housing is available Plenty of inexpensive flex space – would be nice to make it "cooler"
Networking assets (workshops, training, meetings, breakfasts)	No	Yes	Need to create a business community
Collaborative leadership network	Somewhat	Yes	 Need to get government, university, medical community, business community, and major tenants working together to create the North End





Table 4 Ingredients for Innovative Districts (continued)

Ingredient	Currently Exists in North End?	Can it be Created in North End?	Necessary Steps to Achieve
Clear vision	Somewhat	Yes	 Need to finalize the vision, study the opportunity in detail, and set aside resources to move the idea forward

The best feature of the North End with respect to an innovative district is its proximity to Uptown. The biggest deficit is the lack of an existing anchor institute, such as a research institute, hospital, etc.

The market analysis provided the following critical success factors for attracting high tech jobs to the North End.

Create a strong sense of place.

Make a unique district.

Create a marketing and branding campaign.

Improve pedestrian experience.

The best feature of the North End with respect to an innovative district is its proximity to Uptown.

- Create a business incubator atmosphere use the affordable rents and good transportation access to draw emerging businesses.
- Improve transportation access.

In addition, the market analysis recommends that various entities collaborate to advance the vision of the AIC together and to conduct a detailed study on the appropriateness of the North End as an innovative corridor. The detailed study should include a target industry analysis, economic development plan, and an assessment of this area in comparison to other areas in Charlotte for attracting high-tech jobs.

"The North End has unique challenges to the growth of innovation that differ somewhat from the Applied Innovation Corridor as a whole.

- Strong and increasing competition in other areas of the metro region.
- Physical barriers:
 - Brookshire Freeway
 - o Rail yards disconnect North End neighborhoods, impede access to the Blue Line, and limit redevelopment opportunities throughout the North End.
- Loitering and perception of safety in specific areas of the North End. Most prominent of which is along North Tryon just north of Uptown.
- An anchor institution (research university, major health care provider, etc.) is one of the
 most important features of an innovation district. The North End may be close to
 Uptown, and many urban features can be created as the market evolves (mixed-use,
 walkability, urban-nature, etc.), but it lacks an anchor institution that could attract other
 businesses and industries to "feed" off it.





- The designated area is not physically compact, but there are opportunities to create multiple compact "districts" within the larger Applied Innovation Corridor.
 - These more compact districts are in line with the desires of R&D and start-up companies.
- In its current condition the North End offers minimal opportunities to facilitate the growth and development of an innovation district, but with public investment strategically placed in the community there is significant potential to leverage its assets (transitioning urban neighborhoods, increasing younger and educated population, large industrial buildings looking for new uses, and its proximity to Uptown)."

4.3 Community Engagement

The project team established the following objectives for the community engagement associated with this study:

- Identify the project stakeholders and community partners.
- Develop and sustain meaningful engagement with the stakeholders.
- Gather input from the stakeholders to identify the needed improvements and desires of the community.
- Enhance the engagement and participation of the stakeholders to determine which investments meet the collective aspirations of the community and the City.
- Provide the stakeholders with balanced and objective information.

In order to achieve these objectives, the project team interviewed key stakeholders, conducted a stakeholder workshop, and held a final open house to present the outcome of the prioritized projects.

A full list of stakeholders was developed for the North End. Key stakeholders were then identified from this list to include neighborhood leaders,



business owners, potential and current developers, organizations that are advocates for the area, and representatives with private social services. The majority of these key stakeholders were interviewed. The Stakeholder Interviews Summary is provided in Appendix B and provides detail on the stakeholders and input that was solicited and received.



On March 11, 2015, a stakeholder workshop was held to communicate with the stakeholders the goals of the CIP, vision of the AIC, the intended process for prioritizing the infrastructure projects with the CIP funding, and to solicit input on potential projects and needed improvements to the North End. The Stakeholder Workshop Summary is provided in Appendix C, which provides detail on the workshop format and the input that was solicited and received.





On June 17, 2015, a stakeholders' forum was held that was facilitated by the North End Partners and other community leaders. The intent of this forum was to be the first of several meetings for the North End community to strategize and collaborate on effective ways to make the North End Corridor a desirable place to live, work, and play. Members of the City's project team, as well as additional City staff and officials, attended the forum to answer questions about the City's efforts and gather input. The discussion points at this forum were the same concerns and issues that were captured through the stakeholder interviews and workshop; however, it was clearly communicated to the project team that improvements to the North Tryon Street corridor between 10th and 16th Streets are these stakeholders' first priority. There were no specific action items as an outcome to this forum other than the intent to hold additional forums in the future. The initiation to hold this meeting and the engaging discussions that occurred is a reflection of the community's commitment to the North End.

On October 20, 2015, an open house was held to communicate the outcome of the prioritized list of projects, which is discussed further in this report. The Open House Summary is provided in Appendix D. The feedback received from the community was positive.

4.4 Potential Projects for Evaluation

As a result of reviewing the previous planning efforts, market analysis, and engaging with the community, a number of infrastructure projects were identified and are listed in Table 5 and illustrated on Figure 1. Many of these projects were identified through more than one source.

Table 5 Potential Projects for Evaluation

Project	Source of Project Identification
N. Graham Street Streetscape	CIP – Questioned in ULI Panel Report as being transformative to area – N. Tryon
Matheson Avenue Bridge Streetscape	Area Plan – Stakeholder Input CIP – Questioned in ULI Panel Report as being transformative to area – N. Tryon Area Plan – Stakeholder Input
Woodward Avenue/24 th Street Intersection Realignment	CIP – ULI Panel Report – N. Tryon Area Plan – Stakeholder Input
16 th Street Streetscape	N. Tryon Area Plan – Stakeholder Input
New Connection - Oaklawn Avenue/Sylvania Avenue Extension	Stakeholder Input
Ware Avenue/36 th Street Extension	ULI Panel Report – Charlotte Regional Transportation Planning Organization Thoroughfare Plan
N. Tryon Street Improvements	Questioned in ULI Panel Report as being transformative to area – N. Tryon Area Plan – Stakeholder Input
N. Davidson Street Bicycle Lanes	Stakeholder Input
Uptown/North End Gateways – aesthetic features to structures over N. Tryon, Church, and N. Graham Streets	ULI Panel Report – Stakeholder Input
Multi-Use Paths – from Statesville Ave. to N. Graham, and N. Tryon Streets	N. Tryon Area Plan – Stakeholder Input
Druid Hills Park Street Grid Improvements – removal of Rodey Avenue and extension of Poinsett Street	Stakeholder Input





Table 5 Potential Projects for Evaluation (continued)

Project	Source of Project Identification
Newland Road/Norris Avenue Intersection Realignment	Stakeholder Input
Statesville Avenue Bike Lanes	Stakeholder Input
Lower I-277	ULI Panel Report – 2020 Vision Plan
New Connection – Bridge over Rail Yard	ULI Panel Report – 2020 Vision Plan – Stakeholder Input
Eliminate Rail Yard and Convert to Linear Park	Stakeholder Input

The potential projects include the street connectivity projects identified within the *North Tryon Area Plan*, as well as a few additional street connections that were identified by stakeholders. Figure 1 distinguishes those identified through the plan and those by stakeholders.

5 Prioritization of Potential Projects

Once the full list of potential projects was assembled, a four-step process was developed to evaluate and ultimately prioritize the projects to be further studied and ultimately to be implemented with CIP funding. This four-step process entailed:

- Evaluation of feasibility and applicability.
- Development of project concepts.
- Development and utilization of priority ranking system (scoring).
- Development and utilization of a project ranking matrix.

In addition to the list of projects provided in Table 5, the street connectivity projects, which are identified on Figure 1, were evaluated separately by other means. The evaluation of these connectivity projects are discussed in further detail in Section 5.3.

5.1 Initial Screening for Feasibility and Applicability

A general evaluation to determine the feasibility and applicability of implementing the improvements with the CIP was conducted. The following projects were determined to either not further the goals of the CIP and/or be of a cost magnitude that transcends the CIP funding; therefore, they were not evaluated further:

- Minor improvements to local streets Many of the stakeholders indicated desired improvements to local streets, such as lighting, speed bumps, etc. It was communicated to the stakeholders that these improvements could be implemented through other City programs and would not be implemented through the CIP.
- Lowering I-277 Lowering I-277 in this area was evaluated in the City's I-277/I-77 Loop Strategic Plan and was not recommended for future implementation. Tunneling this portion of I-277 was also a consideration within the Loop Strategic Plan. It was





determined to be an economic development project and funding should be through non-transportation funding sources.

 Eliminate rail yard and convert to a linear park – The project team conducted a stakeholder interview with the rail entities who own the yard. This rail yard is significant to their operations and they will continue to have a need for the yard in its current configuration for some time. There may be a need to

expand it in the future.

Provide a new connection across the rail/intermodal yard – The magnitude of the cost of this project will likely exceed the allocated funding within the City's 2014-2018 CIP. In addition, the feasibility to span the rail yard would need to be evaluated further. This potential project was discussed with the rail entities and it was not viewed favorably by those representatives.



 Create an at-grade roundabout at 12th Street and North Tryon Street – The magnitude of this improvement will likely consume or exceed the allocated funding within the City's 2014-2018 CIP, which would not allow for any additional improvements. In addition, the benefits gained from this improvement are less than those resulting from other projects.

5.2 Development of Project Concepts and Cost Estimates

In order to evaluate the cost and potential impact of the remaining potential projects, each project was developed to produce a footprint for generating estimates of construction and land acquisition costs. For each project, a typical section was established based on the City's Urban Street Design Guidelines (USDG) and a proposed right-of-way (ROW) was established. Scale base mapping on aerial photography was prepared which included existing ROW and parcel boundaries. Referencing the typical sections and base mapping, planning-level cost estimates were developed for each potential project. Unit costs were developed for some line items based on current bid averages and some costs were determined on a percentage basis. A 20 percent contingency and 25 percent for engineering and construction engineering and inspection were applied.

Hinde Engineering, Inc. (Hinde), as a subconsultant to HDR, conducted a utility impact assessment, which is provided as Appendix E. Within this assessment, estimated costs associated with the relocation of the private overhead utilities and potential upgrades to the underground utilities owned by the City, based on Hinde's past experiences on similar projects, were provided.

The proposed ROW determined with the development of the typical sections was overlaid on the base mapping. Land acquisition cost estimates were prepared based on square footage and property values obtained through Mecklenburg County's GIS Polaris 3G inflated by a multiplier to account for the potential need for easements, inflation and negotiations. In addition, potential business and residential relocations were identified, and costs associated with these relocations were accounted for. The administration costs associated with acquiring ROW/easements and





the relocations were also included. The project team collaborated with the City's E&PM Real Estate Division in developing the land acquisition cost estimates.

The construction cost, utility relocations/upgrades, and land acquisition cost estimates were compiled and are provided in Appendix F. These planning-level cost estimates can be used for cost comparison between potential projects and overall programming purposes. The cost estimates for each project are provided in Table 6.

Table 6 Project Planning-Level Cost Estimates

Project	Planning-Level Cost Estimate
Matheson Avenue Streetscape	
Segment 1	\$5,000,000
Segment 2	\$8,000,000
N. Tryon Street Streetscape	
Segment 1	\$12,000,000
Segment 2	\$10,000,000
16th Street Streetscape	\$3,000,000
Multi-Use Path	
West - Segment 1	\$3,000,000
East - Segment 2	\$5,000,000
Newland Avenue/Norris Avenue Intersection Realignment	\$1,000,000
N. Graham Street Streetscape	
Segment 1	\$16,000,000
Segment 2	\$13,000,000
Segment 3	\$15,000,000
Woodward/24th Street Intersection Realignment	\$3,000,000
Statesville Avenue Streetscape - Segment 1	\$6,000,000

This method of project development is based on conservative assumptions and should be considered to be at a high conceptual level. In addition, the improvements are not defined at this time and project limits are subject to change as these projects progress into further development; therefore the estimated project costs as identified above are not definitive.

These cost estimates were an evaluation factor within the priority ranking system as cost feasibility and are assembled on the project ranking matrix as one factor to prioritize projects.

In addition to the project development discussed above, Alta Planning + Design (Alta), as a subconsultant to HDR, evaluated each potential project identified with respect to bicycle and pedestrian improvements. They provided additional recommendations for the North End beyond the potential projects. Alta's insight and recommendations are provided as Appendix G.





5.3 Preliminary Priority Ranking System (Scoring)

Comparing and ranking candidate projects using an organized and justifiable method was an overarching goal of the AIC project team. It was determined that this could best be achieved by

developing a matrix as a tool for comparisons between projects to ultimately establish the prioritization of these projects. The matrix is discussed in further detail in the section below. To provide a measureable aspect as one factor to be considered within this matrix, a numerical scoring system was developed.

The projects are scored via ranking factors, which are based on CIP goals, the community's support, and cost feasibility.

CIP goals:

- Growing jobs and tax base
- Leveraging investments
- Enhancing public safety and mobility
- Promoting housing diversity
- Providing integrated neighborhood improvements

The eight ranking factors that were utilized to prioritize the AIC projects are as follows:

- 1) Potential to promote non-residential development
- 2) Potential to promote residential development
- 3) Potential to attract leverage
- 4) Public input (community support)
- 5) Traffic capacity or safety improvement
- 6) Connectivity and access improvement
- 7) Community enhancement
- 8) Cost feasibility

Each ranking factor was given a relative weight by using a pairwise system which compared each ranking factor to all of the others and yielded a composite weighting that reflected the relative importance of each factor based on the goals set forth for the project, as shown on Figure 6. For example, the ability to promote non-residential development has a weighting of 2.9, which reflects the importance of the program goal of deriving infrastructure improvements that will promote job-creating development in the AIC. In comparison, traffic capacity achieved a weight of 2.3.

In order to derive a total score for each project, the individual ranking factors were given a score based on a rubric that describes how well a particular project satisfied the ranking factor, which is shown on Figure 7. The score for each factor was then weighted and totaled to determine a final weighted score for each project. The scoring for each individual project is provided in Appendix H and summarized in Table 7.





Charlotte North End - Ranking Factor Weighting													
			ITEM 2								Ra	nk	Weight
		F	1	2	3	4	5	6	7	8			
		Factor	Non- Residental	Residential	Leverage	Public Input	Traffic Capacity	Connectivity & Access	Community	Cost	SUM	Rank	Weighting
	1	Non-Residental		4	4	2	3	4	4	3	24	2	2.9
	2	Residential	2		3	2	3	3	3	3	19	6	2.3
	3	Leverage	2	3		2	4	4	4	3	22	3	2.6
ITEM 1	4	Public Input	4	4	4		4	4	4	2	26	1	3.1
ITE	5	Traffic Capacity	3	3	2	2		3	3	3	19	6	2.3
	6	Connectivity & Access	2	3	2	2	3		4	4	20	5	2.4
	7	Community	2	3	2	2	3	2		2	16	8	1.9
	8	Cost	3	3	3	4	3	2	4		22	3	2.6
											168		20
					Importance of	of Item 1 Relat		: not Relevant =	1				
						Item 1 is le		than Item 2 =					
					Item			ce as Item 2 =					
								than Item 2 =					
					Item	1 is much mo	ore important	than Item 2 =	5				

Figure 6 Ranking Factor Weighting

Table 7 Project Scoring

Project	Project Score
Matheson Avenue Bridge Streetscape - Segment 1	65.7
N. Tryon Gateway (N. Tyron Streetscape Segment 1 and aesthetic improvements at RR structures)	64.8
Multi-use Paths	61.9
16 th Street Streetscape	61.4
Newland Road/Norris Avenue Intersection	59.0
N. Graham Street Streetscape - Segment 1	58.1
Woodward Ave/24 th Street Intersection	53.9
N. Tryon Street Improvements - Segment 2	49.5
Statesville Avenue Streetscape - Segment 1	47.3
Statesville Avenue Streetscape - Segment 2	47.1
Druid Hills Park Street Improvements	46.7
Matheson Avenue Streetscape - Segment 2	42.6
N. Davidson Street Bike Lanes - Segments 1 & 2	41.4
N. Graham Street Streetscape - Segments 2 & 3	39.9
Ware Ave/36 th Street Extension	33.2
Oaklawn Avenue/ Sylvania Avenue Ext)	28.5





	Charlotte North End - Project Scoring						
1	Potential to Promote Non-Residential Development:						
	Score	Measurement Project Score					
	0	No support from the development community					
	3	Development community supports, or RCLCO Catalyst Areas 4, 8 or 9					
	5	Development community strongly endorses					
2	Potential to Promote Residential Development:						
	Score	Measurement Project Score					
	0	No support from the development community					
	3	Development community supports, or RCLCO catalyst areas 4, 6, 8 or 9					
	5	Development community strongly endorses					
3	Potential to A	ttract Leverage:					
	Score						
	0	Measurement Project Score No support from the development community					
	3	One or more developers supports and indicates tentative financial participation					
	5						
4	-	Construction of the constr					
4	Public Input						
1	Score	Measurement Project Score					
	-3	Opposition to project					
	0	No discussion					
	3	Positive input and/or support					
	5	Strong, specific documented preference for this project					
5	Traffic Capacity or Safety Improvement: (all modes)						
	Score	Measurement Project Score					
	0	No improvement to capacity or safety					
	3	Improvement to capacity or safety but does not address a demonstrated need					
	5	Direct, measurable improvement to capacity and/or safety and addresses a demonstrated need					
6	Connectivity and/or Access Improvement:						
	Score	Measurement Project Score					
	0	No improvement to connectivity					
	3	Improvement to neighborhood connectivity					
	5	Improvement to area transportation network connectivity					
7	Community Enhancement:						
	Score	Measurement Project Score					
	0	No improvement to neighborhood(s)					
	3	Improvement to neighborhood or community features					
	5	Greately enhances community					
8	Cost Feasibili						
	Score	Measurement Project Score					
	0	Cost greately exceeds any existing or planned funding					
	3	Single project cost consumes entire funding availability					
	5	Cost is well within funding guidelines and will allow multiple projects to be constructed					

Figure 7 North End Project Scoring





5.4 Project Ranking Matrix

The project ranking matrix assembled the full range of considerations that would provide input into the decision-making process. These considerations are reflected in the numerical scoring to the extent possible, but additional pertinent facts were considered to support the prioritization of the projects to proceed into further development. The AIC Project Ranking Matrix is provided in Appendix I. The following topics form the project ranking matrix and make it valuable as a decision-making tool.

5.4.1 Purpose (Benefits and Achievements)

Starting with the project description, this ranking explains what the project accomplishes in ways that augment the numerical ranking for instance:

- Enhancement of gateways and/or corridors that border high development potential parcels.
- Connections between high-value areas i.e. access to Blue line stations, pedestrian and bicycle connections.
- Traffic capacity improvement for all modes.

5.4.2 Areas or Projects Potentially Benefitted

This ranking specifically identifies geographic areas that would benefit from a given improvement i.e. North Tryon Area, Optimist Park neighborhood, specific parcels planned for private development, existing or planned multi-use paths, specific Charlotte Area Transit System's Blue or Red Line stations, etc.

5.4.3 Stakeholder Input

A brief summary of input received on the specific project during the public and stakeholder involvement process are provided in this ranking. Describes source of input i.e. interviews or workshop and how the project was ranked during the workshop exercise.

5.4.4 Impacts and Challenges

This ranking explains aspects that could have a substantial effect on the viability of the project i.e. limited available ROW, public safety issues, available attractive alternatives, perceived effectiveness, etc.

5.4.5 Ranking Score Comments

The ranking comments provide an opportunity to explain the numerical ranking score and describe assumptions and considerations leading to the eventual conclusion in a meaningful way.

5.4.6 Costs

This ranking factor is based on the planning-level cost estimates prepared.





5.5 Evaluation of Street Connectivity Projects

The street connectivity projects identified through the *North Tryon Area Plan* and through stakeholder input were evaluated separately from the other potential projects. These were mostly two-lane residential or commercial low-volume collector streets where connections had been previously identified to complete the street grid without consideration to cost, engineering feasibility, or need. These connectivity projects were not conceptually developed to prepare cost estimates, nor were they evaluated with the scoring or the project ranking matrix.

Since the CIP funding initially identified projects of this type and there was potential for some of the connectivity projects to contribute to the potential for development/redevelopment of adjacent parcels, an organized approach was taken to identify which of these connections are feasible to implement at this time.

The street connections were overlaid on scale aerial photography with a footprint based on an assumed standard ROW. The ROW widths are based on the City's USDG, which yield 56 feet



Figure 8 Street Connectivity Evaluation

for residential and commercial areas, 65 feet for industrial areas. Projects could then be evaluated, and in many cases eliminated, if there were impacts to businesses, homes or there were environmental concerns such as floodplains, or adverse terrain.

Projects remaining after the initial screen were then reviewed for potential benefits such as traffic circulation, access to parcels (particularly previously identified Catalyst sites), and a short list of

candidate connectivity projects was assembled for further consideration and funding. These are identified on Figure 2 as "N. Tryon Area Street Connectivity Projects".

Figures provided in Appendix J show the results of the evaluation of these road connections. The connectivity projects that are shown in green were determined to be feasible and beneficial to consider further for implementation, whereas those projects shown in red were not.





6 Recommendation and Conclusions

6.1 Prioritization of Projects

Utilizing the project ranking matrix, the project team prioritized the potential projects through priority nine as indicated in Table 8 and illustrated on Figure 2. The planning-level cost estimates for each project and proposed allocated funding through the CIP based on these estimates are indicated for each of the prioritized projects. As discussed previously, the estimated costs provided are not definitive and are subject to change as the projects are developed further.

Table 8 Prioritized Projects

Priority	Project	Planning-Level Cost Estimate	Cumulative Planning-Level Cost Estimate
1	Matheson Avenue Bridge Streetscape	\$5 million	
2	N. Tryon Gateway		
	N. Tryon Street Streetscape	\$12 million	↑
	N. Tryon Gateway - Aesthetic Improvements @ RR Structures	* \$2 million	1
	Total (N. Tryon Gateway) =	\$14 million	
3	N. Graham Street Sidewalk Aesthetic Enhancements	\$0.26 million	2014/2016 Funds \$19.26 Million
4	16th Street Streetscape	\$3 million	↑
5	Multi-Use Paths		
	Segment 1 from Statesville Ave to N. Graham St.	\$3 million	
	Segment 2 from N. Graham St. to N. Tryon St.	\$5 million	** Remaining Funds
	Total (Multi-Use Paths) =	\$8 million	\$30.26 Million
6	Newland Road/Norris Avenue Intersection	\$1 million	\$21 Million
7	N. Tryon Area Street Connectivity Projects	* \$2 million	Funds Not Available
8	N. Graham Street Streetscape	\$16 million	\downarrow
9	Druid Hills Park Street Grid Improvements	* \$2 million	
	Tatal	\$54.00 !!!	

Total = \$51.26 million

As indicated in the table above, the cost estimates through priority number five (Multi-Use Paths) slightly exceed the total CIP funding of \$28.96 million. As the planning and design of these projects progress, the improvements to be implemented are better defined, and more detailed cost estimates can be completed, the subsequent prioritized projects or additional projects could be implemented with the funding available. The concepts for these projects were developed and evaluated as absolute preferred typical sections in accordance with the USDG. Reductions in proposed typical sections and ROW widths, as well as other design aspects can be evaluated to reduce cost and impacts to adjacent properties, utilities, etc.

^{*} The \$2 million indicated for these three projects are provided for budget purposes. They are not based on calculated planning-level cost estimates.

^{**} Estimated costs through priority no. 5 (Multi-Use Paths) exceed funding proposed through FY 2019 bond cycle by \$1.3 million.





Project priorities should be re-evaluated based on:

- further project development;
- future development within the North End; and
- potential public/private partnerships.

6.2 Summary of Potential Project Improvements and Benefits

1. Matheson Avenue Bridge Streetscape

FROM NORTH TRYON STREET TO JORDAN PLACE/YADKIN AVENUE

Potential Improvements:

Evaluate the reduction of travel lanes to incorporate bicycle, pedestrian, and aesthetic improvements that could include street trees, landscaping, lighting, aesthetic railing, etc.

Benefits:

- Provides connection to the Blue Line Extension (BLE) Stations.
- Provides transportation choices for cycling and walking, specifically with this being only one of two facilities crossing the rail yard.
- Complements other public investments in the area, such as:
 - BLE, Cross Charlotte Trail, North Tryon Street Business Corridor Improvements, and Northeast Corridor Infrastructure Program (NECI).
 - Funding currently allocated within NCDOT's State Transportation Improvement
 Program for changes to pavement markings to incorporate bicycle lanes.
- Provides potential leverage for public/private partnership market analysis identified area in vicinity as strong potential for development.

2. North Tryon Gateway

INCLUDES NORTH TRYON STREET STREETSCAPE FROM 11TH STREET TO DALTON AVENUE AND AESTHETIC IMPROVEMENTS AT THE RAILROAD STRUCTURES

The North Tryon Gateway has been identified to fulfill the stakeholders' and community's desire to provide a significant aesthetic improvement to this area. The entire North Tryon Street corridor is blighted, but this specific area has been identified by the community as having the greatest need for improvement. In addition, there are concerns for safety to pedestrians relative to crime in this section of the corridor.

Potential Improvements:

Streetscape aspect – incorporate improvements to the sidewalk/planting strips and
aesthetic enhancements that could include street trees, landscaping, lighting, etc.
The implementation of bike lanes would also be evaluated. The typical section that is
being implemented for the adjacent North Tryon Street Business Corridor Project;
five-foot bike lanes, eight-foot planting strips, and six-foot sidewalks, would likely be
considered for this project.





- Improvements at railroad structures:
 - Aesthetic improvements beautification and implementation of aesthetic features, such as landscaping, art, etc.
 - Safety improvements railroad structures include columns creating a tunnel effect, which is dark and overall uninviting to pedestrians. Consideration for lighting should be evaluated, as well as other improvements.

Benefits:

- Creates a gateway between Uptown and North End.
- Provides a direct response to community concerns.
- Improvements in this area will help change negative perceptions of the North End.
- Improvements could transform this area to be more attractive for potential development.

Additional Discussion:

Because this project is driven by the community, it will be important to engage them for continuing input regarding the specific improvements to be incorporated. This additional engagement with the community will occur in the next phase for planning.

The planning-level cost estimate for the streetscape aspect of this project was \$12 million. The project improvements can be refined to reduce cost and allow for additional projects to be implemented. It is recommended a budget of \$2 million be assigned for improvements at the railroad structures. This results in a total estimated cost of \$14 million total for the North Tryon Gateway.

3. N. Graham Street Sidewalk Aesthetic Enhancements

FROM 10TH STREET TO 11TH STREET ALONG THE EAST SIDE

Potential Improvements:

This is an existing City sidewalk project being funded through other sources. The current project funding does not allow for aesthetic features. With additional funding through the CIP for the AIC, aesthetic improvements can be incorporated into the project. The enhancements could potentially include decorative façade for a retaining wall, decorative fencing, decorative features for the sidewalks and crosswalks, lighting, etc. The community outreach for this project can help define these features to be added.

Benefits:

- Contributes to a gateway feature between Uptown and North End; and
- Provides beautification and community enhancements to this area and can be accomplished with minimal contributions from the funding allocated to the AIC.





4. 16th Street Streetscape

FROM N. TRYON STREET TO PARKWOOD AVENUE

Potential Improvements:

Utilize the existing two-lane roadway section and incorporate bicycle, pedestrian, and aesthetic improvements that could include street trees, landscaping, lighting, etc. The existing lanes are wider than typical and existing pavement could be utilized for some of these improvements.

Benefits:

- Provides transportation choices for cycling and walking as a direct connection to the BLE Parkwood Station.
- Improves connection as one of the two current roadway facilities that cross the rail vard.
- Complements other public investments in the area; the BLE and Northeast Corridor Infrastructure projects.
- Is relatively low in comparison to other projects.
- As a complete street, will provide a higher quality roadway facility and can help provide a more positive perception of the surrounding area.
- Although the market analysis did not identify a strong potential for development within the vicinity, this project could be transformative for the surrounding area.

5. Multi-use Paths

FROM STATESVILLE AVENUE TO NORTH TRYON STREET

Potential Improvements:

The proposed multi-use paths utilize an existing Duke Transmission Easement and provide east-west connection across the area for alternative transportation modes; cycling and walking. These connections can be extended in the future to connect to the planned Cross Charlotte Trail and Mooresville-to-Charlotte Trail (Irwin Creek Greenway). The continued development and implementation of this project will be contingent upon Duke Energy's approval of encroachment within their easement.

Benefits:

- Enhancement will make the North End a more attractive area for residents and commercial businesses.
- The cost of the project is relatively low in comparison to others.
- The eastern portion of this project complements the current North Tryon Street Business Corridor Improvements.
- Stakeholders' feedback was very favorable.
- Provides potential leverage for private investment with respect to the Old Tryon Meadows neighborhood, which has been identified by the market analysis to have strong potential for development or redevelopment to occur.





6. Newland Road/Norris Avenue Intersection Realignment

AT STATESVILLE AVENUE

Potential Improvements:

The Newland Road/Norris Avenue Intersection Realignment entails flattening a sharp curve along Newland Road in close proximity to the intersection to provide better maneuverability for vehicles, specifically larger delivery trucks.

Benefits:

- Creates a more attractive intersection for potential commercial development at this location.
- Cost of these improvements is relatively low in comparison to other projects, which could result in a positive return on investment.

Additional Discussion:

The priority of this project is based on the potential to leverage investments of other entities that are involved with the Brightwalk Community and have interest in its surrounding area, such as Charlotte-Mecklenburg Housing Partnership (CMHP). If a partnership is not identified for this project, the priority should be lowered.

7. North Tryon Area Street Connectivity Projects

EXISTING STREET NETWORK BETWEEN N. GRAHAM STREET AND N. TRYON STREET

Potential Improvements:

The street connectivity projects are intended to extend existing streets to complete the street grid in this area.

Benefits:

- Provides connectivity between residential and commercial.
- Costs of implementing improvements will be minimal in comparison to the other projects.

Additional Discussion:

It is recommended to establish a lump sum amount to consider CIP funds for implementing some of these street connections. The community should be engaged further on their desires in determining which connections proceed further.

8. North Graham Street Streetscape

FROM DALTON AVENUE TO WOODWARD AVENUE

Potential Improvements:

Incorporate improvements to the sidewalk and planting strips and aesthetic enhancements that could include street trees, landscaping, lighting, etc. The implementation of bike lanes would also be evaluated.





Benefits:

- Provides a beautification to this corridor, which is currently unsightly with a strong industrial presence.
- Complements other public investments in the area:
 - o newly constructed Charlotte Fire Department headquarters;
 - o planned Joint Communication Center; and
 - o planned Red Line Commuter Rail.
- The area fronting this section of N. Graham Street has been identified as having the highest potential for development. These improvements will transform this area to be more attractive to potential development and well positioned to leverage private investment.

Additional Discussion:

The overall challenges, with respect to land acquisition and utility relocation, and cost to implement these improvements will be significant in comparison to other projects; therefore the return on investment will not be as great. This project will also result in some potentially significant impacts to businesses fronting North Graham Street.

9. Druid Hills Park Street Grid Improvements

REMOVAL OF RODEY AVENUE AND EXTENSION OF POINSETT STREET

Potential Improvements:

The Druid Hills Park is currently bisected by Rodey Avenue, which requires park users, including children, to cross a street to access one side of the park from the other. In order to eliminate this conflict, it is recommended to remove this portion of Rodey Avenue. To provide an alternate route for the current traffic using this road and complete the street grid surrounding the park in its entirety, it is recommended to extend Poinsett Street from Rodey Avenue to Norris Avenue.

Benefits:

These changes to the street network will greatly enhance the park and provide safer conditions. These improvements were initially identified by Mecklenburg County Parks and Recreation and there is a high potential to leverage investments from the County and other interested parties, such as Charlotte-Mecklenburg Housing Partnership, Inc.

6.3 Potential Partnerships

It is likely that initial improvements in the AIC will include limited private sector funding. Gaining and holding private sector interest will require strong leadership to implement the steps necessary to create the vision for the AIC, examples of success in the North End, a compelling argument for their participation, and a sustained commitment from the public sector. Over time, the amount of private sector interest and funding in the area should increase.

Initial partnerships should focus on those entities (both private and public) already engaged and active in the North End (such as Charlotte-Mecklenburg Housing Partnership, Vision Ventures, etc.). Initial projects could focus on shared funding of projects important to those entities, joint





application for grant money, or utilizing a private leverage fund to provide infrastructure and/or gap financing for projects within the AIC.

An example of a potential partnering opportunity is the multi-use paths. Sponsors of the path could include employers, developers, or business owners who are located along or accessible to the multi-use path (Brightwalk, Vision Ventures, Duke Energy, etc.). Name recognition for partners could be accomplished through some type of signage.

Another potential source of partnerships would be to tap into the draft North Tryon Vision Plan, which is currently being developed by the Charlotte Center City Partners, and the 18+ partners identified for the redevelopment south of I-277. This plan will establish a vision to catalyze and sustain growth and development for a portion of North Tryon Street and the surrounding area along the northern part of Center City's premier business corridor. While the bulk of their focus is inside the I-277 Loop, the area along North Tryon outside the I-277 Loop would be a logical extension of their efforts and tie into the North Tryon Gateway, which is number two within the prioritization established.

The prioritization provided for the following two projects is contingent upon partnerships with other entities. If partnership agreements are not entered, then the prioritization of these projects should be lowered.

- Newland Road/Norris Avenue Intersection there is the potential to enter into a
 partnership with Charlotte-Mecklenburg Housing Partnership or other developers who
 may have interest in this site.
- Druid Hills Park Street Grid Improvements Mecklenburg County Park and Recreation
 has interest in the implementation of this project. They do not have funds currently
 identified for these improvements, but are in the process of pursuing grants. With the
 funding they may receive, the will still need to accomplish the construction in phases. By
 partnering with the City and utilizing CIP funds, all if the improvements can likely be
 completed at one time.

The potential for development to occur within the Statesville Avenue, North Graham Street, Woodward Avenue area should be continuously evaluated for potential partnerships associated with the North Graham Street Streetscape project. Dedication of ROW or contributions of funding toward the improvements could be viable options. If these options become a possibility, then the prioritization of this project should be re-evaluated.





6.4 Recommendations

The project team recommends the planning efforts begin for the nine prioritized projects. The goal of these efforts should be to identify the improvements to be implemented, specifically the future typical section, and determine the viability of the ultimate implementation for each of these projects.

Identify the improvements to be implemented, specifically the future typical section, and determine the viability of the ultimate implementation for each of these projects.

These planning efforts should include:

- Engaging the community and stakeholders for further input on desires and needs for improvements.
- Applying the USDG to identify a proposed cross-section.
- Performing traffic analysis, as needed.
- Performing alternatives analysis, as needed.
- Identifying natural resources in the vicinity of the project, potential environmental impacts, and permitting requirements.
- Developing conceptual design.
- Conducting geotechnical subsurface investigation.
- Preparing conceptual cost estimates.
- Preparing a City standard planning report.

With defining the improvements (future typical section), the overall proposed footprint can be determined, allowing for more detailed conceptual cost estimate to be developed. At that time, the overall prioritization of projects should be revisited to determine if additional projects beyond the top five prioritized may be implemented with the CIP funding and any changes to prioritization are needed.

The team also recommends the top five prioritized projects; Matheson Avenue Streetscape, North Tryon Gateway, North Graham Street Sidewalk Aesthetic Enhancements, 16th Street Streetscape, and the Multi-Use Paths progress into design and ultimately construction, contingent upon the 2016 and 2018 bond approval by voters. If it is determined additional projects can be implemented with the allocated CIP funds upon completing the planning efforts as discussed above, they should also progress into design and construction.

As development occurs throughout the North End, opportunities for public/private partnerships should be pursued, specifically for any improvements that can be implemented with the potential projects that have been identified within this study, but also other potential projects. As the future development occurs and public/private partnerships are entered, the prioritization of the projects should be reevaluated.

6.5 City Council Workshop - CIP Update

At the City Council Workshop on October 5, 2015, an update of the overall CIP was given to City Council to:





- Highlight the status and progress of the 2014 CIP projects and programs;
- List upcoming Requests for Council Action related to 2014 projects; and
- Share the schedule for the FY2017 Biennial Review of the CIP.

The AIC project team participated in this presentation and provided a quick summary of the vision and goals for the AIC. A brief description of the process and activities that occurred to identify and prioritize infrastructure projects was given, with the result being a prioritized list of projects within the North End that contribute to the following:

- Create a sense of place;
- Create a desirable area to work, live, and play;
- Improve connectivity, including alternate modes of transportation (bicycle/pedestrian);
- Improve streetscapes to be more aesthetically pleasing;
- Provide a gateway to/from Uptown; and
- Improve recreation.

These prioritized projects will create revitalized urban communities as a foundation for the AIC.

Matheson Avenue Streetscape, North Tryon Gateway, and 16th Street Streetscape were presented as the top three prioritized projects selected to proceed into further development. The AIC portion of the presentation is provided in Appendix L. The minutes from the workshop applicable to the AIC are provided in Appendix M.







Appendix A – Summaries of Previous Planning Goals and Recommendations





North Tryon Area Plan (Adopted 2010)

A summary of the goals established within the North Tryon Area Plan are as follows:

Land Use:

- Encourage a variety in housing types and diversity of residents;
- Stabilize business and industrial uses through redevelopment, renovation, and transition to a more orderly arrangement of uses;
- Encourage commercial revitalization;
- Capitalize on proximity to Center City, interstate system, and BLE;
- o Reduce heavier industrial close to Uptown and BLE stations;
- Support long term mixed-use development near the BLE;
- Support office and light industrial uses along North Tryon Street;
- Protect edges of existing neighborhoods and encourage office, residential, and neighborhood retail on adjacent properties of neighborhoods; and
- Support reinvestment in Atando industrial area, including encouragement of office and retail.
- Community Design Create an improved urban environment:
 - Encourage project design that contributes to the community;
 - o Provide attractive streetscapes;
 - Build on the synergy of infrastructure investments; and
 - Respect the character of the neighborhoods.

• Transportation:

- o Improve street connectivity;
- o Improve the pedestrian and bicycle environment;
- Implement a North Tryon Streetscape (the City's current North Tryon Street Business Corridor project is a result of this recommendation);
- Increase the span to accommodate a wider sidewalks and bike lanes along North Tryon Street under the railroad bridge at 16th Street when it's upgraded; and
- Modify interchange at I-277 and North Tryon Street to foster economic development opportunities.
- Infrastructure and Public Facilities Provide the infrastructure and facilities needed to support development:
 - Water and sewer improvements and relocations;
 - Stormwater improvements;
 - Overhead utilities –Relocate utility poles to the planting strips or at back of sidewalk and relocate utilities to underground at catalyst sites; and
 - Ensure schools, parks, libraries, recreation facilities, etc. are well connected within area.

Environment:

- Make trees a feature on all streets;
- o Reduce impervious areas:
- Design buildings and parking areas to encourage alternative modes of transportation, reduce stormwater runoff, and improve water quality;
- o Protect or enhance the Little Sugar Creek watershed;





- o Expand and provide improved access to the Little Sugar Creek Greenway; and
- Assist with remediation of sites with known contamination of soil.

Center City 2020 Vision Plan (Adopted 2011)

A summary of the recommendations within the *Center City 2020 Vision Plan* to create and implement a North End Development Strategy are as follows:

- North End is the central anchor of the AIC and will be the focal point of a new urban mixed-use neighborhood.
- Provide a place where people can easily walk, bike, or use transit between home, work, services, and entertainment.
- Integrate new businesses, workforce housing, and neighborhood centers with the existing industrial and residential uses to revitalize this area.
- Connect North End to Uptown by:
 - Implementing improvements to I-277, 11th and 12th Streets to remove the physical barrier;
 - o Bringing in new development to bridge the gap; and
 - Providing east-west connectivity by improving existing connections and explore new connections across the rail yard.
- Leverage transit-oriented development (TOD) to foster unique employment opportunities.
- Create a true jobs-housing balance by:
 - Developing new workforce housing to offer more housing choices and support neighborhood centers; and
 - New development should respect and enhance existing neighborhood's character and heritage.
- Work with railroad agencies to consolidate rail operations within the rail yard and make land available for new development.
- Ensure a variety of neighborhood amenities, such as coffee shops, cafes, bars, retail shops, recreational spaces, and other social gathering spots.
- Improve the bicycle and pedestrian environment.
- Build public infrastructure to attract desired employers, which should include information technology, flexible production facilities, and access to cutting edge equipment and tools.

ULI's Advisory Services Panel Report (Conducted 2014)

A summary of the ULI's Advisory Services Panel's recommendations are as follows:

- Revitalize the existing Amtrak station in lieu of relocating it to the future Gateway Station
 within Uptown the intent in retaining it in its current location is so that it can become an
 anchor for new mixed-use retail center.
- Seek a new location for Charlotte Area Transit System's proposed maintenance facility within the existing rail yard allowing for more redevelopment in its proposed location.
- Develop strategies for a collaborative knowledge center.





- Recognize potential clusters in the creative, food, and high-tech sectors along with future retail.
- Focus on human capital and ensure benefits of development extend to everyone within the North End.
- Expand the street network and conceptual structure (increase connectivity) between Uptown and North End:
 - Reduce the barrier of I-277 by burying the expressway or converting it to an atgrade boulevard; and
 - o Implement aesthetic improvements to the railroad bridges.
- Expand the existing street grid throughout the North End create ideal block sizes of 350 feet.
- Implement new road connections/improvements:
 - New road through the current Rite Aid site that connects Oaklawn Avenue to Sylvania Avenue;
 - Realignment of Woodlawn Avenue and 24th Street intersections at Graham Street;
 - o Ware Avenue extension; and
 - Provide connection to the BLE new road/bridge over the rail yard in the vicinity of 24th Street.
- Provide multimodal transportation and continue exploring innovative transportation programs, such as car-sharing, and extend bike-sharing into the North End, specifically at the BLE stations.
- Improve and enhance the current bus service greater frequencies, enhanced stations, provide real-time arrival information, and specialized vehicles.
- Implementation of complete streets and streetscaping are positive, but may not be transformative.
- Reduce availability and manage pricing of parking as development occurs;
- Reprioritize investments in areas that support immediate redevelopment. Focus attention
 in the western portion of the North End near Brightwalk and where initial stages of tech
 clusters develop.
- Create a new flexible mixed-use overlay zoning, which permits adjacent/subdivided living space in single-family districts and district-wide master plan design guidelines.
- Streamline the development approval process.
- Integrate smaller parks within the urban street grid in lieu of a single, massive central park.
- Recognize Atando Avenue as a line of division Maintain industrial uses north of this line and focus ULI's recommendations south of this line.
- Continue to engage with the people within the North End community.
- Establish a new public/private community development corporation to:
 - Streamline zoning and development approvals;
 - Leverage public and private investment;
 - Foster high-tech level strategic collaboration;
 - o Establish land banking that leads to catalytic development; and





- o Promote the holistic redevelopment of the North End.
- Establish CTECH as a proposed industry cluster for the North End:
 - Phase I Repurpose existing industrial facilities in the area bounded by Statesville Avenue, North Graham Street, and Woodward Avenue – Build upon Vision Venture's New Camp Station.
 - "Mid-North End District" between North Graham Street and North Tryon Street, including the eastern boundary at the Amtrak station/rail yard, and from I-277 to 30th Street – Redevelop vacant industrial land to create a diverse urban mixeduse district
 - Phase I subarea North Graham Street along Vision Venture's New Camp Station and including old Tryon Meadows neighborhood.





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Appendix B – Stakeholder Interview Summary

Charlotte's Applied Innovation Corridor North End:

Stakeholder Interviews Summary

At the onset of the project, an initial list of stakeholders was identified through conversations with City staff, City's neighborhood contact list, referencing stakeholders from the 2014 Urban Land Institute Panel's (ULI) Investigation, previous project stakeholder lists, and desktop research. Within this list, key stakeholders were identified as neighborhood leaders, business owners, potential or current developers, organizations that are advocates, private social services that are located within the area. The majority of these key stakeholders were identified to be interviewed with the intent of engaging with individuals who could provide input from the various perspectives. The full list of key stakeholders is provided in Appendix A.

The goals of the interviews were to solicit the following input from the key stakeholders:

- Potential opportunities within the area to achieve a vibrant mixed-use urban environment and / or the vision of an "Applied Innovation Corridor" (AIC);
- Obstacles that prevent this from occurring;
- Existing character of the community(ies);
- Stakeholders' priorities of needed improvements for the area;
- Stakeholders' opinions of the current quality of the area;
- Identify current and potential future public and private projects (infrastructure and development).

A questionnaire was developed to guide the discussions and a map was generated to be referenced during the interviews. The questionnaire is provided in Appendix B and the map is provided in Appendix C. The Interviews began in December 2014 and continued into February 2015. A Stakeholder Workshop was held on March 11, 2015 and all of the key stakeholders were invited to participate. A few additional stakeholders were identified as the planning efforts progressed and a few additional interviews were conducted from April 2015 through June 2015.

The stakeholders that were interviewed and the dates of each interview are provided below:

Stakeholder	Interview Date
LandDesign	12/3/2014
Charlotte Mecklenburg Housing Partnership	12/11/2014
Vision Ventures and Flywheel Group	12/12/2015
Genesis Park Neighborhood	1/5/2015
Druid Hills Neighborhood	1/6/2015
Urban League of Central Carolinas	1/7/2015
NorthEnd Partners	1/7/2015
Graham Heights Neighborhood	1/7/2015
Greenville Neighborhood	1/8/2015

Stakeholder	Interview Date
Lockwood Neighborhood	1/8/2015
Harris Development Group	1/12/2015
Private Social Services - Men's Shelter of Charlotte & The Harvest Center	1/13/2015
ARK Group, Noah Lazes	1/14/2015
North Davidson Association (NoDa)	1/28/2015
Charlotte Housing Authority	1/28/2015
Charlotte Area Transit System (CATS)	2/2/2015
Mecklenburg County Park & Recreation	2/3/2015
Center City Partners	2/4/2015
University of North Carolina Charlotte	2/4/2015
Railroad Agencies (Norfolk Southern, NC Railroad, NCDOT-Rail)	2/6/2015
Dillehay Courts Project Housing	2/12/2015
Charlotte-Mecklenburg Police Department	4/20/2015
Crescent Communities	5/13/2015
Browder Group Real Estate	6/26/2015

<u>General Discussion – Reoccurring Topics from Multiple Interviews</u>

The reoccurring topics that were discussed during multiple interviews are provided below:

- Loitering, specifically of homeless individuals, was cited by many of the stakeholders as being a significant issue for the area. The abundance of private social services within the study area was noted as the cause of this:
 - Men's Shelter of Charlotte at 1210 N. Tryon Street and 3410 Statesville Avenue
 - Urban Ministry Center at 945 N. College Street
 - Crisis Assistance Ministry at 500 Spratt Street
 - Salvation Army Center of Hope Shelter for Women & Children at 534 Spratt Street
 - The Harvest Center at 1800 Brewton Drive

The Men's Shelter located on N. Tryon Street and the Urban Ministry Center were discussed as the two entities that contribute the most to this issue, especially with their close proximity to each other. The individuals who stay at the shelter are required to leave the building in the morning and food is provided at Urban Ministry, which results in people loitering throughout the day in the vicinity of these two facilities.

The overall loitering was discussed as a public safety concern and as a deterrence for new development in the area.

• The need for retail was a consistent topic from all of the varying interest groups. There are no grocery stores that are viewed to have reasonable prices. There are a few convenient stores and small grocery stores, but many residents voiced frustration with high prices. Overall neighborhood retail services; restaurants, drug stores, banking, etc. are not available within the area. Many stakeholders discussed desires for additional

- specialty retail, such as coffee shops and fresh food markets. Many of the residents travel outside the area to obtain needed goods and services.
- The need for more and better quality recreational areas was discussed by many stakeholders. There are a number of existing neighborhood parks, but they are considered to be of low quality. Some of the vacant land within the area could become parks. Mecklenburg County Park and Recreation's proposed Aquatic Center (redevelopment of the Double Oaks Pool) and the Cross-Charlotte Trail are perceived by many as a positive additions to provide recreational opportunities.
- The need for a centralized park for the area.
- The need for the area to be "walkable". Sidewalks and crosswalks are needed in many areas throughout the area.
- Provide transportation choices; transit (rail and bus), pedestrian, and bicycle. Provide more east/west connections throughout the area for all modes of transportation.
- Implement connectivity projects to complete street grids.
- There are some historic buildings throughout the area that could be re-used as new
 development occurs. The old missile plant at the Hercules Industrial Park was
 mentioned as a good example of buildings that have character by a number of
 stakeholders.
- The need for employment opportunities. Residents voiced that they want to work in the area that they live. Many of them travel outside the area to their jobs.
- Unsightly conditions of the properties adjacent to the major routes within the study area, specifically the industrial businesses and vacant buildings. It was suggested that vacant buildings that are not in compliance be demolished or screen walls. The N. Tryon Street corridor was discussed specifically and businesses such as used car lots were cited. The area needs to be enforced more for mowing and maintaining properties.
- The location of the Norfolk Southern/North Carolina Railroad/CATS rail yard was identified by many as a significant barrier to the North Davidson Area (NoDa) and the Blue Line Extension.
- Some stakeholders voiced that they feel the City has allowed the area to reach a
 depressed state, but all of the various interest groups provided positive feedback that the
 City will be implementing improvements to the area. It is believed that if the City
 provides some positive changes, then private investors and business owners will also
 invest in the area.
- Many of the representatives within the neighborhoods voiced the need for improved lighting as a need throughout their neighborhood.
- The concern that housing communities and other development will not occur unless positive change occurs within the area.
- The concern that housing will not continue to be affordable to the current residents, especially seniors who have been the community for a long time and one-income families. Long-term residents are worried they will be forced to move elsewhere. The need for more senior housing in the area was discussed.

- The need for more diversity in the existing neighborhood communities. Some residents
 do not feel that the newly developed Brightwalk community is fully diversified. Potential
 developers voiced positive viewpoints about the Brightwalk community.
- Zoning, specifically enforcement of current codes, is considered a challenge by businesses, representatives of the private social services, and potential developers.
- The North End is perceived negatively and it needs a new image and branding. It is currently lacking in character, image, and aesthetics. Provide improvements such as lighting (including decorative light posts), signage, art, flower beds, benches, etc.
- There is positive energy from both the current residents and the potential developers about the North End. The current residents take great pride in their community and there are a number of highly engaged neighborhood leaders. The potential developers discussed the potential of the area for development opportunities.
- Many stakeholders discussed the implementation of Google Fiber to the North End will
 make the area attractive for high-tech companies and innovative industry.

General Discussion – Specific Topics Discussed with Individual Stakeholders

The individual topics that were discussed by specific stakeholders are provided below:

<u>Dillehay Courts – represented by Robin Anderson and Crystal Davis (residents) and Patricia McCaskiel (Charlotte Housing Authority Representative – intern)</u>

- There is significant crime occurring within Dillehay Courts, but much of this crime is committed by individuals who do not live in the community.
- There is a concern with the light rail because those using the rail, specifically the stations
 (all three stations within the North End), are likely to be victims of crime. It will not be
 safe.
- There is a Laundromat on N. Tryon Street, near 28th Street, and a pool hall on Statesville Avenue who is the same owner, that are safety issues due to loitering and generally unsafe conditions.
- There is a park on 30th Street (Tryon Hills Neighborhood Park) that does provide some recreation, but there is still some trouble.
- Many of the residents in Dillehay Courts walk to Wayne's for groceries or travel by bus to the Super Walmart further north on N. Tryon Street.

Druid Hills

- There are several vacant lots within Druid Hills. The community would like food trucks, drug stores, and have a strong interest in farmers' markets to fill these vacant areas.
- The community would like improvements such as street connectivity, repaving of existing streets, and multi-use paths be implemented. Olando Street is disconnected and there is vegetation at the intersection with Moretz Avenue that needs to be removed.
- Crime and public safety is a concern. The existing barricade on Tinnin Avenue at Double Oaks within Genesis Park behind the 7th Day Adventist Church seems to attract negative activity. There are also streetlights along Woodward Avenue that are not working.

- The leaders within the Druid Hills neighborhood were disappointed that they were not informed of the Charlotte Housing Authority's Moore Place at the intersection of Moretz Avenue and Lucena Street, which is a facility for homeless individuals.
- There is an issue with absentee landlords of apartments at Olando Street and Norris Avenue. They were referred to as "slums".
- The areas of Holland Avenue, Wainwright Avenue, and Poinsett Street flood, although infrastructure has been upgraded in area.
- The Community needs a "MAP Academy", a place for students who are sent home from school, which will result in the children avoiding trouble.

Genesis Park

The barricade needs to be taken down between Genesis Park and Brightwalk.

Graham Heights

- CATS buses currently travel through the neighborhood and the residents want this to remain so.
- Absentee landlords are an issue. There are a disproportionate number of boarded-up single-family houses that are in need of repair. Vagrants move into these houses.
- The residents of the adjacent community, Dillehay Courts, which is a Charlotte Housing Authority community, are younger and there are a lot of children. The residents of Graham Heights have the perception that these children create trouble. When crimes occur within Graham Heights, the residents assume its' the children from Dillehay Courts. The residents in Graham Heights would like to see Dillehay Courts be redeveloped by Charlotte Housing Authority, but it should be an extension of the neighborhood.
- Many of the residents are elderly, in their 70's and fear they will not live to see improvements to the area.
- The residents want safe and affordable housing.
- NoDa is a neighborhood that appears to "have it all". Brightwalk is positive for the area, but it only provided residential and likely is not affordable for current residents within the area.
- Starnes Pallet, which is an industrial business, divides the neighborhood. It was initially a house that fronted Graham Street, but extended its property into the neighborhood. The residents have reported violations of code enforcement, but there is the feeling that things are "allowed" for these types of businesses.
- There is too much traffic on Norris and 30th Streets.
- Speeding through the neighborhood is not an issue. CDOT completed a study and determined the average speed was 37 mph. The posted speed limits are 35 mph.

Greenville

 Music Factory and AvidExchange actively engaged with the neighborhood. The Music Factory currently employs local residents; 8 to 10 full-time, +50 seasonal, and includes jobs such as security, clean-up, etc. It is currently leasing office space on its top floor. Northwest School of the Arts has occupied some space on the 2nd floor. AvidExchange, which is a company that conducts electronic invoicing and software development, plans to provide 600 jobs.

- The attributes of the Greenville neighborhood are that it is a very stable neighborhood with little residential turnover and low crime. There is a school, park, and 5 churches within the neighborhood. Students within the neighborhood attend Walter G. Byers Elementary School.
- Adding more residential to the area is good because this will bring in more dollars to the community.
- More neighborhood signs are needed to identify the community.
- Add amenities to the Greenville Park; restroom facilities, more shelters, benches, and additional lighting.

Lockwood

- The community has concerns regarding above and below ground storage tanks at the business located at the end of Plymouth Avenue.
- There are concerns with the gas station at Dalton Avenue and N. Tryon Street. The
 residents discussed loitering, and suspected drug sells, and prostitution as issues at this
 location.

<u>Ark Group – represented by Noah Lazes (developer of Music Factory)</u>

- It is difficult to retain tenants because there is no 'draw' for weekday businesses to locate. He would not invest at this same location if he did it again.
- Instituting sales tax rebates for food and beverage industries and monetary incentives for businesses to locate and encouraging businesses to file for National Historic Tax Credits will help lure investments.
- A connection to NoDa should not be a priority. It is too difficult to cross the railroad.
- The name "Crisis Assistance" is not positive and it should be changed. The loitering of people around the Crisis Assistance is not a concern to him.
- Chain link fencing within the area should be removed.
- The area needs an identity, similar to the "Design District" in Dallas/Miami or "Warehouse District".

Browder Group Real Estate - represented by Matt Browder and Brandon Brown

- Browder is a real estate and development company. They have developed a number of areas in the south area and are now looking to the North End.
- They like to develop with adaptive re-use. They are interested in the current Rite Aid site. The buildings could be a challenge, but this could be a cool office redevelopment. Offers for the site are due at the end of July. Browder, Vision Ventures, and one out-of-town company are submitting offers.
- The streetscape projects and the Woodward/24th Street intersection will attract investors.

- They are also looking at some other parcels in the area between N. Tryon Street and N. Graham Street.
- Crime in the area is a concern to developers, especially in the area of the Men's Shelter and Dillehay Courts.
- The top three projects that will help with development are the southern N. Tryon Street Streetscape, N. Graham Street Streetscape, and Statesville Avenue bike lanes.

Charlotte Area Transit System (CATS) - represented by Brian Nadolny and Tina Votaw

- A CATS light maintenance facility is planned to be located within the Norfolk Southern/North Carolina Railroad rail yard. It had been removed from the current Blue Line Extension Project due to cost, but is now likely to be added.
- There is no current funding for the Red Line. Due to changes to Norfolk Southern's policies, commuter vehicles can no longer utilize the freight rail line as currently designed. A white paper has been prepared to evaluate the option of providing a parallel track for the commuter line. At this time, it is being determined what level of study to pursue to evaluate options for the Red Line. The I-77 HOT Lanes may be able to accommodate a rapid bus system to provide a mode for commuter travel, but the Red Line commuter rail will still be the intended long-term solution. The potential station along Graham Street within the AIC has not yet been identified by CATS as a planned station. It has only been evaluated at this time. If development occurs in the future in the area of the potential station, it could possibly be included. Additional evaluation would be needed.
- It was discussed that some of the stakeholders have asked about additional parking associated with the Blue Line Extension. Parking is only provided at four stations along the Blue Line Extension, which are further north of NoDa. It is not likely parking will be added at the stations in North End. Determining parking areas for transit stations is a balance between costs and ridership.
- Relocating the Amtrak station to the planned Gateway Station is a high priority for CATS.
 ULI's recommendation for the Amtrak station to remain in its current location goes against CATS' goals and policies.

Charlotte Center City Partners – represented by Michael Smith and Cheryl Myers

- The organization does not agree with the ULI Report's recommendations for the Amtrak station to remain in its current location in lieu of relocating to the planned Gateway Station or the CTECH.
- There is a planning piece that is missing to carry forward from the higher level concepts. A vision and strategy is needed to use for industry recruiting, etc. As development is proposed, there needs to be a determination on whether they meet the vision. It was stated that there needs to be 10 things for a something to be a "thing".
- Investors that have been brought into North End and decided to not pursue their development in the area have cited that it's too "pioneering" (too early). If there is a strategy, then it can be sold to investors.
- It is good that the North End is enveloped in transit.
- It is important to stagger work force and housing. The neighborhoods need neighborhood centers.

- In order to obtain middle class jobs of the 21st century, transit-oriented, walkable communities that provide entertainment close by is important. Providing connections to the Blue Line stations will be important.
- It is important to connect UNCC to Uptown, which is the major job center of the City.
- It is important to leverage private investors. The improvements that can be incorporated can be doubled and tripled with private investments. Incentives should be established to attract the investors.
- Zoning for this area needs to require retail be included in any development, such as along the bottom floor of multi-story buildings. Brightwalk did not include retail.
- Broadband telecommunication and power needs to be implemented in the area.

Charlotte Housing Authority (CHA) – represented by Jeff Meadows

- Dillehay Courts is 132 units of traditional public housing. This was a HUD project years ago. The residents are 30% and below "very low income" and 100% residents are "low income".
- The Park at Oaklawn is an old tax credit redeveloped by Hope IV. The residents are mixed income.
- 940 Brevard is a Crosland Development.
- The City/CHA relies on federal grants, general fund money, bonds that get paid back by the general funds for affordable housing.
- There is an obstacle to redeveloping Dillehay Courts due to the funding mechanism used to originally develop it. There is a loan on the property and the collateral has not been reached yet. There is a need to refinance the bonds.
- There is some on-going legislature associated with RAD (Rental Assistance Demonstration) thru HUD that could be a means to help provide some improvements for Dillehay Courts. They are awaiting the outcome of this legislation and are not sure on how long this may take.
- In order to redevelop Dillehay Courts, it is now required that affordable housing be combined with mixed income. In order to disperse the current 132 units, 4 x 132 will be required. Areas that can accommodate the needed amount of units will need to be identified.
- In summary, Dillehay Courts is facing both financial and relocation issues in order to redevelopment this community.
- There needs to be a catalyst within the North End to improve the area. This catalyst should be in the middle of the area. This catalyst/incubator will draw other developments.
- Implementing Google Fiber within the North End is the most significant opportunity that could transform the area.
- We need to take advantage of the "trade" and "technology" that is currently available in the area.
- There is a cash economy that is not being recognized; Wayne's Grocery.

- The social services in the area provide opportunities for volunteers. If volunteer opportunities are focused and organized this could draw a population to help server and overall provide a branding opportunity.
- Many of the homeless individuals have cell phones. If public outlets, such as at benches, could be provided, this will help them to communicate.
- UNCC (Deb Ryan) held a urban design charrette with their students to evaluate the North End and there were some good ideas that were generated to that could be looked into.
- The current zoning for this area does not allow for Microunits, which are appealing to millennials.

<u>Charlotte Mecklenburg Housing Partnership – represented by Fred Dodson and David</u> Howard

- CMHP is focused on building affordable housing throughout Charlotte. They provide education on home ownership and foreclosure. They are just beginning to focus on economic development.
- The two existing developments that CMHP are involved with in the North End or Brightwalk and Druid Hills.
- The recommendations provided in the ULI study are all positive for the North End.
- The Barcelona Innovative District should be referenced for what the AIC could be.
- The AIC should consider the implementation of innovative and or sustainable infrastructure, such as creating energy and handling waste on-site, heat to use. A signature infrastructure project should be implemented within the North End.
- Existing buildings within the North End need to be revitalized.
- The public investment of the Fire Headquarters and Joint Communications Center are all positive for the area. It sends the message that this area is safe.
- The infrastructure within the North End is aging and does not provide the necessary capacity. There have no utilities implemented in the area. All of the existing utilities should be revamped.
- There is a negative perception of the area due to Dillehay Courts.
- There should be a station along the Red Line within the North End.
- A special zoning should be created for innovative developments, similar to TOD. There should be some creative thinking to land use for this area. If any developments that arise are "cool", then they should be looking at the AIC. The millennials follow "cool".

<u>Charlotte-Mecklenburg Police Department (Metro Division) – representatives Lieutenant Will Farrell, Officer Paul Blackwood, and Officer Greg McTique</u>

• The area in the vicinity of the Men's Shelter (between the shelter and Urban Ministry) is the most problem area for the Metro Division where they spend most of their resources. One particular issue they encounter is that the Urban Ministry is located in the Central Division and when individuals move between the two sites, they are within two separate jurisdictions, which can cause difficulty in the police responding.

- One of the reasons the Men's Shelter has so many people is there are people who travel to Charlotte specifically because there are resources available to help them.
- The Men's Shelter on Statesville Avenue does not have as many issues as the shelter on North Tryon. The police attribute the issue being worse at North Tryon is due to the proximity of Urban Ministry. Some of the individuals staying at the Statesville shelter will walk toward Uptown to go to the Crisis Assistance Ministry or the Harvest Center. They will cut through Brightwalk.
- The best solution to reducing loitering and crime would be to remove Ashby Street, which extends between Dalton Avenue and N. Tryon Street. There is a significant amount of drug use and loitering in this area.
- There is a concern that crime will occur at the Parkwood Station. There is also concern
 with providing the improvements along 16th Street that will seem to be inviting and safe
 to pedestrians when it will likely not be.
- The removal of the 16th Street section associated with the construction of the BLE had caused more loitering in this area.
- Prostitution and drug use is the majority of the crime that occurs in this area and specifically occurs near the homeless shelter.
- There is a barber shop near 1018 N. Tryon Street that is a front for drug use.
- The strip mall (includes a convenient store and Laundromat) near 2200 Statesville Avenue is an eyesore for the area.
- There have been some previous discussions on whether crime associated with Dillehay Courts is real or perceived. It is a real issue. Probably 50% is attributed to those who live there and 50% is attributed to those that attracted to that area. Most of the issues are caused by those in the age range of 14 to 17. The Girls and Boys Clubs that services the children in Dillehay Courts are good.
- The removal of Tryon Meadows, Park at Oaklawn, Brightwalk, and Moore Place have helped a lot with crime in the North End.
- There is not a lot of crime in Druid Hills or Lockwood. Druid Hills is an up and coming neighborhood, which is attributed to the leadership of Darryl Gaston and the proximity of Brightwalk. Lockwood needs parking and there is an issue with absentee landlords not maintaining residences.
- There is not a lot of crime in the area of Wayne's Super Market located on North Graham Street.
- We asked the question whether more street connectivity would be beneficial to the
 police and there response was that they really do not have an issue with the street
 connections with respect to their responses. They did mention there are some roads
 that are dead-ins in the JT Williams area that does cause them some issues, such as
 Julia Avenue. There are some issues with drugs and the police vehicles can't get to
 where they need to and people get away by foot.
- Vehicles use Sylvania Avenue and Keswick Avenue as cut-throughs.
- An issue that contributes to the crime within the North End is the amount of recycling centers that are available. They buy copper wiring, etc.; therefore the police feel the

breaking and entering and theft from sites are attributed to obtaining these scraps. They asked if these recycling centers could be excluded from the corridor.

- There has been some larceny at the rail yard.
- The only area where they encounter issues with pedestrians are individuals crossing N.
 Tryon Street coming to and from the Men's Shelter. There are many occasions where
 individuals crossing the road where there is not a crosswalk cause near accidents for
 motorists. There has been only one fatality where they were aware of and this individual
 jumped in front of a bus.
- The N. Tryon Streetscape is a good project. The N. Graham Street Streetscape is not needed as much as the N. Tryon project. The vision of New Camp Station generated by Vision Ventures is good.
- Providing parks and recreation will not help reduce the crime.
- · Redevelopment helps reduce the crime.
- Unless the situation changes with the Men's shelter, the overall issues with respect to crime will not change in this area.
- Improvements to the Men's Shelter to expand and improve the facility will begin soon.

<u>Crescent Communities – represented by Michael Tubridy, Elizabeth McMillan, and Katie</u> Maloomian

- Looking at a multi-family development in the North End along the light rail that will also include retail. It will not include office at this time.
- The development will entail local art in the essence of NoDa. The intent will be to have food trucks and art tents in the development on a reoccurring basis. NoDa is spilling over crossing N. Tryon Street, which is a good thing for the North End. The heart of NoDa is 36th Street and N. Davidson.
- The Cross Charlotte Trail is the biggest factor that will help improve the North End. It will create active people and connection between nodes.
- Matheson Avenue Streetscape is also important to the North End. Matheson provides a secondary connection to Plaza/Midwood. Multiple east-west connections are not needed. Only one good connection is needed.
- Google Fiber should be installed into the corridor quickly.
- Development is going to focus on the nodes; the stations along the BLE.
- It will be important to identify the heart of the system and the grid system and avoid sprawl. A grid may need to be created. The sprawl that could occur from Uptown will be the most challenging.
- Bike racks are needed throughout the North End.
- Parking is a significant issue. Underground parking should be considered. Private/public partnerships should be considered for parking.
- The pricing in NoDa is starting to drive the artists away. Lower rents need to be
 provided so that the smaller art studios stay local to the area. Rent also needs to be
 lower or start-ups will not be able to afford it.

- Need to be sure to incorporate art into the infrastructure improvements.
- Crescent had some frustration with the rezoning of a property in the North End. It was initially going to be a City sponsored rezoning, but some of the community took issue because they would not have input through the normal zoning process; therefore, Crescent was then required to follow this process. They had to scramble on the site plan, etc. and it almost impeded the development to proceed. Because the surrounding communities have so much voice during the rezoning process, this can deter development. There was a suggestion that maybe a criteria can be established that is less cumbersome for blighted properties for TOD. There was also a point made that the City did not overlay a TOD corridor along the light rail.

Harris Development Group – represented by Steve Harris

- Harris Development Group owns a property located at 32nd Street and N. Tryon Street (2921 N. Tryon Street) where the NoDa Brewery is intended to relocate to. The company is pursuing multiple projects along the Blue Line Extension.
- Feels there are development opportunities if Uptown can be seen from a particular property.
- The City needs to advocate reinstating the State's Rehabilitation Tax Credits, which
 recently expired. Mr. Harris asked if there are tax incentives for businesses to come into
 the area. The Harris Development Group is applying for Federal Rehab Tax Credits for
 some of its existing projects that are not located in North End.
- The City needs to evaluate zoning for the area. If the City does not modify the "Change of Use" code (an example is I-2 zoned property for scrap metal facilities), then it will be difficult for developers to begin developing in the area. The City needs to establish a policy that supports the developer's visions for this area.
- N. Graham Street bridge (Mr. Harris referred to it as the Dalton Street bridge) over Norfolk Southern needs to be "dressed up" or re-routed. This is the entrance between Uptown and North End.

LandDesign – represented by Richard Petersheim

- LandDesign has helped with the master planning of Brightwalk, the Little Sugar Creek Greenway, and various properties within NoDa.
- The site of the old Ford Plant (currently Hercules Business Park) is the best opportunity is bring in high-tech development. There are some significant industrial buildings that could adapt to creative uses; it has "cool" space and the proximity to Uptown makes it attractive. The buildings should be retained. The adjacent business, Rite Aid is ready to talk about selling their property.
- 24th Street is a good area where existing buildings can be re-used.
- The biggest obstacle to prevent the North End from transforming is the misalignment of investment to economic cycle. Don't wait until it's too late. The window is 6 years.
- Investors want certainty. The Rite Aid site and Dillehay Courts are uncertainties.
- The City's concerns within this area do not align with developers.
- It will be important to allow the right investors develop within the North End to help fulfill the vision of the AIC. Say no if it's not the right development.

- The conversion of the Craighead intersection with the Blue Line from at-grade to grade separated is not good for development or the Cross Charlotte Trail.
- CHA and Vision Ventures needs to focus on redeveloping the old Tryon Meadows area to help with the positive results that Brightwalk is bringing to the North End.
- Local investors have told Fortune 500 companies to avoid the North End. Need to look at re-branding the North End.
- Incorporate innovative technology, such as Google Fiber.

Mecklenburg County Park and Recreation – represented by James Williams

- The County has a number of projects within the North End; providing indoor park shelters that can be rented; the extension of the Little Sugar Creek Greenway, which will tunnel under Parkwood and North Davidson and connect to the Cross Charlotte Trail; and improvements to the playground and basketball courts in Druid Hills Park.
- The Greenville Park is a good community open space, but it currently does not have amenities.
- The County is pursuing a land swap for the Druid Hills pool (to replace the existing pool).
 The new proposed location is at Woodward Avenue and Statesville Avenue. If the land swap occurs, the current planned site for the pool will be rezoned for mixed-use.
- CMHP's Druid Hills Plan identifies a greenway within Duke's easement. They are currently looking for funding for this.
- The County is applying for a grant for the Irwin Creek Greenway that includes a bridge for \$500,000 through the Knights Foundation. They will know in the spring if they receive the grant. There may be some matching City funds for this project.
- The County uses the "Parks for Partners" program for funding projects, which uses fundraisers within the community to obtain the needed funds.
- There needs to be some transitional housing available for the homeless. More lower income housing needs to be available dispersed throughout the area.
- There needs to be connection between the housing, education, and jobs.
- The various agencies focused on the North End need to partner and work together.
- It is important to connect green infrastructure to the transit.
- Green space should include pocket parks, linear parks, and green streets/smart streets.

North Davidson Association - represented by Liza Hart, Jason Idilbi, and Chad Maupin

- NoDa has 10 Board Members. NoDa is comprised of homeowners and service industries. There are 1200 to 1400 households. The HOA considers the NoDa boundaries as N. Tryon Street, E. Sugar Creek, The Plaza, and Matheson Avenue. Villa Heights is adjacent to NoDa and is sometimes referred to as "Lower NoDa".
- The NoDa homeowners describe their community as the City's "Arts and Entertainment"
 District. Lower NoDa is a warehouse district. Upper NoDa is the arts district.
- NoDa is more interested in maintaining the current development rather than sparking new development. They do not want the big box or chain stores (including grocery stores) but prefer independently owned, quaint small stores/retailers.

- The greatest issue for NoDa is the lack of parking, particularly in front of residences when evening events are occurring in the central district (considered 36the Street to N. Davidson Street). The HOA lobbied CATS to build a parking deck as part of the BLE, but were told that it was not likely people would drive into NoDa to park and ride in lieu of just continuing to drive into Uptown. The City's Neighborhood and Business Services (Peter Zeiler) completed a parking study of NoDa, but they do not know the results of this study.
- Focus should be on N. Tryon Street for dense development opportunities.
- Birdsong Brewery is moving to Optimist Park.
- NoDa homeowners are pleased with the proposed improvements along Cullman Avenue and the Cross Charlotte Trail.
- There is concern that the park adjacent to Cullman Avenue is contaminated. A developer plans to build a three-story apartment complex adjacent to the park.
- One representative discussed that a series of one-way streets would afford bike lanes.
 Currently the road conditions are too narrow to support good bike lanes.
- Pedestrian and bike paths should be implemented adjacent to the BLE. The HOA has not received a definitive answer on whether these types of facilities will be implemented.
- HOA has developed and adopted its own vision plan; NoDa 2030 Vision Plan, which has been shared with the City's Planning Department.

NorthEnd Partners – represented by Mark Middlesworth, Carol Burke, Linda Holden, and Ali Bahmanyar

- The area surrounding the Amtrak station needs to be improved.
- Local farming; grow and eat locally greenspace should be considered for the North End.
- Brightwalk has helped clean-up the North End, although it does lose some of the historic characteristics of the area. N. Tryon Street needs a similar development.

<u>Private Social Services - represented by Carlson Dean, Executive Director of Men's Shelter</u> of Charlotte and Colin Pinkney, Executive Director of The Harvest Center of Charlotte

- Men's Shelter is a 501c non-profit organization. There are two campuses; N. Tryon and Statesville Avenue. They own the property where the shelter is located.
- The Urban Ministry is a separate organization from the Men's Shelter. It is a day center.
 It operates Room in the Inn and Moore Place, which are housing for the chronically homeless.
- The Men's Shelter currently has a capital campaign to renovate their site. Their goal is \$3.3 million. This will all be through private donation. Part of the funds will be used to improve the exterior façade.
- The Men's Shelter wants to be good partners with the surrounding neighborhoods.
- Zoning requires that the shelter be located on a major thoroughfare. It is typically
 preferred that large service centers change to institutional zoning rather than industrial
 zoning. Service centers are part of the community and the current zoning confuses the
 actual use. The zoning process is cumbersome to these service entities.

- There have been discussions by others about the Men's Shelter relocating to the airport area. The services are not need in this area. If the shelter relocated, the homeless problem would worsen.
- The Men's Shelter is not eligible for grants programs to improve the façade.
- Loitering is a problem for the shelter. The perception of N. Tryon Street is a place where people do not want to stop. It is used as a route to somewhere else.
- Homeless shelters are for day use. Emergency shelters are for night use. The
 designation is dependent upon the services being provided. Emergency shelters only
 provide a bed and shower, whereas a homeless shelter provides additional services
 beyond this.
- The Men's Shelter attends Druid Hills' HOA and they feel there is a good relationship with their HOA, Darryl Gaston.
- Men's Shelter clients use their subsidized benefits as a means of generating funds to sustain themselves, such as selling food stamps to pay for bus fare, money for restaurants, etc.
- Harvest Center is an outreach arm of the facility. They provide case management, job
 training, and spiritual needs. It started as a church. The building was built to be a
 community center. They serve meals. They also own two houses and lease four
 houses that are used for transitional housing. Individuals can stay in these residences
 for six months with a possible six-month extension.
- Harvest Center plans to relocate to Freedom Drive to a building that was formerly occupied by Southern Electric (across from Goodwill) by July 2015. This may help diminish concerns from Genesis Park residents with loitering associated with the Harvest Center.
- Salvation Army manages the Center of Hope for homeless women. This shelter and the Men's Shelter are alternatives to people living on the street.
- The North End needs sustainable jobs in the area in order to attract high end retail.
- The implementation of the Fire Headquarters and the new aquatic center are good for the North End.
- The City should consider reaching out to the Hornets and Panthers considering Graham Street serves both of their facilities. In addition, many of the Men's Shelter and Harvest Center clients work for these two organizations.
- Before considering greenspaces, details should be discussed with CMPD Metro Area because parks can become places where criminal activities occur, which will add to the perception of the area being unsafe.
- Stormwater improvements are needed. Flooding occurs under the bridge.
- Charlotte Business Journal reported that the Rite Aid Distribution facility is vacating. A
 date was not provided.
- Many of the industry owners have vacated the properties and let them get to disarray because they think they are sitting on gold mines due to potential development in the area that will be likely generated with the BLE. The homeless camp on these vacant properties.

Railroad Entities – Norfolk Southern (NS) Durwood Laughinghouse, North Carolina Railroad (NCRR) John Spencer, NCDOT Rail Division Marc Hamel

- NCRR is not a public organization, but is private. They have one stakeholder, NCDOT.
 The stock is solely owned by the State. NCRR is focused on economic development,
 specifically with large manufacturer mega sites (+2000 acres) along the rail corridor.
 They focus on improving infrastructure to get the site ready, such as utilities, grading,
 etc. They do not operate trains.
- NS is focused on moving freight. There is a lot of freight to be moved along this corridor. They are currently experiencing some congestion north of this area.
- A 200' corridor within the rail yard in the North End is owned by NCRR, a portion within
 the eastern area of the yard was sold to the City for the light rail maintenance facility, the
 remaining portion of the rail yard is owned by NS. NS owns the property where the
 Amtrak station is currently located. There could be a need in the future for the rail yard
 to expand into this area.
- The line that extends east from the rail yard is an old NS line that is leased to Aberdeen Carolina & Western Railway Company (ACWR).
- The intermodal facility at the airport will be beneficial. The Charlotte to Chicago freight tripled with the new facility at the airport. Some of the freight that was previously going through Charleston is coming through Charlotte. Only the intermodal operations changed to the new facility. Bulk transfer is still being accomplished at rail yard. The switch yard within this rail yard is a major operation. The overall operations within this rail yard are significant.
- The bulk transfer that is going to occur within the rail yard is going to increase; therefore trucks accessing the site and traveling the surrounding road network is going to increase.
- A proposed bridge over the rail yard is not a good option. It would be impossible to span
 the yard. Even a pedestrian bridge would not be favorable because this would be a
 dangerous environment with the switch yard below.
- A new grade crossing of the O-Line would not be approved. Any crossing would be required to be a grade separated. Even a bike/pedestrian crossing only would be approved as at-grade.
- Improvements to Matheson Avenue and 16th Street would likely be possible at the grade crossings.
- There have been issues in the past with theft of freight within the rail yard.

<u>University of North Carolina Charlotte – represented by Bob Wilhelm, Krista Newkirk, and</u> Peter Franz

- The Charlotte Research Institute (department within UNCC) partners with companies (Research & Development (R&D), start-up technology oriented).
- The main campus has +27,000 students and is 1000 acres. 130 acres on the main campus has a special designation for R&D. The Uptown campus is 90,000 SF. There is not a high priority to expand the Uptown campus at this time.
- Many companies that the CRI engages with are locating to the Research Park is private.
 It's 2 miles and 2000 acres.

- The university would consider a facility within the North End if the situation was right.
- Some of the university's students and faculty currently live in the North End. The extension of the BLE will increase this. Students will gravitate to the light rail.
- The area should stay gritty to stay attractive for the light industrial and high-tech companies.
- Installing dense Google Fiber will be a significant improvement that will help transform the North End.
- Artist studios should be looked at to be created at the old Missile site (currently Hercules Business Park).
- Provide infrastructure to be enticing. Streetscapes are critical. The areas along North Tryon could be more vibrant.
- Keep residential rates low and affordable.
- One obstacle for the North End is the competing objectives of the neighborhoods and industrial land holders.
- Truck traffic along Graham Street has increased and it should be decreased to achieve a more urban environment.
- Consider people as the infrastructure and how we can connect people.
- NoDa and the North End need to become a destination.
- Look to develop areas just inside the loop and then provide connectivity.
- The Amtrak station can be attractive to other development. Could another Amtrak station be implemented near the University or on NC 49 in Harrisburg?
- The university has some current programs that may provide some opportunities for the North End. There is a health program that is its preliminary stages. It may entail a kitchen on campus and a garden club.
- There is a possibility that a hotel and conference center will be developed at US 29 and JW clay adjacent to the university. It will include 300 beds and 20,000 to 30,000 SF of conference space.
- There will be a new swim facility on campus, which will require new road infrastructure.
- In the near term, connectivity between the light rail and present grittier residential, commercial, industrial seems like an achievable and enabling approach.
- Long term, there may be opportunities for 2 or 3 further cycles of development that will lead to a mix that includes senior housing, medical services, affordable housing, etc.
- UNCC is interested to embark on outreach activities that impact the health and growth of this corridor.
- Long term, there looks to be large untapped potential by connecting the light rail with the larger industrial and residential properties along North Graham Street. This is a big infrastructure investment so it would have to address many different interests to be feasible.
- The university is very interested in efforts that attract more people to this corridor while offering opportunities to the current residents.

Urban League – represented by Patrick Graham

- Urban League is an agency that provides workforce development and job readiness training to residents within the North End communities. The agency is located on W. 5th Street.
- Feels the highest priorities to improve the North End are education (youth and adults) and desegregating the neighborhoods.
- There needs to be a balanced approach to living wages and jobs. Youth need to be trained in innovative industries such as broadband fiber optics, HVAC, and more technical skill sets.
- The North End needs more businesses that encompass mixed-use entrepreneurs and include advanced manufacturing, health care, education centers that mirror the communities, grocery store, and life-essential businesses. The businesses must have a façade that blends in with the neighborhoods.

Vision Ventures and Flywheel Group – represented by Tony Kuhn

- Vision Ventures has developed a vision for New Camp (entails the current Hercules Business Park, the Rite Aid Distribution Center, and a few parcels on the opposite side of N. Graham Street. They formally teamed with a broker, started some site visits, and are working on a marketing roll-out. Vision Ventures does not own the Rite Aid site, but Rite Aid is closing in 2016.
- Vision Ventures also owns the property where Tryon Meadows used to be located.
 When developers/investors look a this site, they are concerned with Dillehay Courts.
 How/when can Dillehay be revitalized?
- Flywheel is Tony's private company. Flywheel is purchasing land in the vicinity of the BLE and east of Matheson Avenue and has developed a vision plan. There are developers interested in this area. There are a lot of development challenges, such as brownfields.
- The potential Red Line Station south of Woodlawn Avenue/24th Street would be a significant opportunity to transform the North End.
- Construction needs to be occurring to remove uncertainty of investors. Projects in planning are not enough.
- The buildings in the old Missile Plant (currently Hercules Business Park) have great character; history and the wood/truss work.
- Dalton Avenue has a lot of potential for retail/entertainment. The views in this area are good.
- The recycling centers along N. Tryon Street are unsightly. Could they be relocated to the landfill?
- Schools in the area are a priority for public investment. Options should be looked into, charter schools, etc.
- Green and gray infrastructure are needed, not just roads.

Potential Projects Identified - Reoccurring from Multiple Interviews

Potential infrastructure projects that were identified by multiple stakeholders are provided below:

- Overall improvements are needed to Statesville Avenue, N. Graham Street, and N.
 Tryon Street. The streets are to narrow and the sidewalks that exist are not pedestrian
 friendly. The section of N. Tryon Street from 10th Street to 24th Street and Graham
 Street from Fourth Ward has the strongest need. Crosswalks are needed along N.
 Tryon Street.
- Sidewalks and lighting are needed along 16th Street.
- Provide sidewalks along both sides of Matheson Avenue.
- Convert the rail yard to a linear park or provide connection over the rail yard.
- Gateways are needed in between Uptown and North End.

Potential Projects Identified –from Individual Stakeholders

Potential infrastructure projects that were identified by specific stakeholders are provided below:

<u>Dillehay Courts – represented by Robin Anderson and Crystal Davis (residents) and Patricia McCaskiel (Charlotte Housing Authority Representative – intern)</u>

Sidewalk is needed along N. Pine Street and W. 24th Street.

Druid Hills

 A pedestrian crosswalk is needed at the intersection of Lucena Street and Norris Avenue.

Genesis Park

- Traffic calming is needed at Oaklawn.
- Traffic improvements are needed at Double Oaks and Woodward.

Graham Heights

- Extend Bancroft Street to Moretz Avenue through the current site of Starnes Pallet Company if the vacates its property.
- Improve the sidewalks within the area, including widening and providing planting strips. The existing sidewalk network is good in the area, but some are too narrow.
- The connectivity projects are positive for the area. The representatives were especially
 in favor of the Catalina Avenue extension to be connected to 24th Street.

Greenville

- Implement a greenway where pedestrians can cross under I-277 into Uptown specifically that leads into the Gateway area. Provide a "safe" connection to the existing Greenway that extends from Ray's Splash Plant through Frazier Park. The lighting is poor in this area.
- Implement a walking trail through Greenville Park that includes a call-box, adequate lighting for security, and indicator lights indicating the distanced walked.
- Connectivity to the adjacent neighborhoods.

Lockwood

- Traffic calming (speed humps were requested) is needed on Sylvania Avenue. It is a
 heavily used road and the residents say speeding is an issue.
- Improvements should be considered to improve connectivity to other neighborhoods.

Ark Group – represented by Noah Lazes (developer of Music Factory)

- Make the area along N. Graham Street under I-277 and over the railroad more
 pedestrian friendly and visually appealing (streetscape & lighting). N. Graham Street
 should be a gateway between the North End and Uptown. N. Graham Street should
 "feel like" Fourth Ward and be an extension of Fourth Ward. Mr. Lazes feels this should
 be the highest priority.
- Develop greenway connections to building infrastructures to allow walkability. Provide wider sidewalks. The greenways are needed to enable connectivity and would draw businesses to it.
- Screen walls should be installed in areas/fronts of buildings where habitual loitering occurs.

Charlotte Center City Partners

A unique bicycle facility, such as a cycle track, would be a good attribute to incorporate.

<u>Charlotte Mecklenburg Housing Partnership – represented by Fred Dodson and David</u> Howard

- Extend the road diet project along Statesville Avenue.
- Extension of Justice Avenue, Poinsett Street, and Wells Street within Druid Hills to close gaps. There may be grade issues.
- Provide a greenway along the Duke easement between Statesville Avenue and North Graham Street (in the vicinity of Druid Hills) and along Irwin Creek along the back of Brightwalk.
- Realign the roads within the northern entrance into Brightwalk to provide an improved intersection and create a focal point.

Harris Development Group – represented by Steve Harris

- Provide bike paths and sidewalks/walking trails along the Blue Line Extension.
- Improved sidewalks are needed.

<u>LandDesign – represented by Richard Petersheim</u>

- Extend N. Poplar Street between 24th Street and 25th Street
- Provide a new connection between Statesville Avenue and Graham Street (extension of Oaklawn Avenue/Sylvania Avenue). Extend Wolfberry Street east to Tryon Street, which could be incorporated with the extension of Oaklawn Avenue.
- Include bicycle lanes in the Matheson Avenue improvements. Matheson Avenue's connection needs to be improved east of the rail line.

Extend 36th Street west to Johnson Road.

Mecklenburg County Park & Recreation

- Remove Rodney Avenue (thru Druid Hills Park) and extend Poinsett Street to complete the street grid around park.
- Provide a greenway connection along Duke easement from Statesville Avenue to N.
 Graham Street along outskirts of Druid Hills neighborhood.
- Provide sidewalk connections within the Druid Hills Park.

North Davidson Association - represented by Liza Hart, Jason Idilbi, and Chad Maupin

- Matheson Avenue should be two-lanes.
- Half of 36th Street provides good facilities for bicycle/pedestrians, but the other half needs improvements.
- Provide a parking deck behind the Johnston YMCA or on a vacant property.
- Provide parallel parking along N. Davidson Street and 36th Street. This was previously requested of CDOT. Provide bike paths along N. Davidson.
- Implement a traffic circle at the Jordan Place and N. Davidson intersection.
- Implement a 4-way stop condition at the Yadkin Avenue and 35th Street intersection.
- Improve Spencer Street and 36th Street intersection, which is dangerous. Spencer Street is offset, which causes conflicts with left turns.
- Implement pedestrian safety crosswalks and traffic calming bollards.
- Provide sidewalks on non-numbered streets. Minimize planting strips to limit impacts to adjacent properties.
- Provide more trash receptacles in the center of North Davidson.
- Provide a bike/walking trail ("Rails to Trails") along the light rail track and/or the Aberdeen Western Rail Line.
- Do not spend money on the Cullman Avenue Park.

Northend Partners

- Provide a grade-crossing with gates and signals or a bridge over the railroad at Lidell Street.
- Pedestrian and bicycle improvements to access Uptown are needed.
- Sidewalks are needed along 16th Street, especially with connection to the Blue Line. There are currently safety concerns in this area.

<u>Private Social Services - represented by Carlson Dean, Executive Director of Men's Shelter</u> of Charlotte and Colin Pinkney, Executive Director of The Harvest Center of Charlotte

16th Street needs sidewalks.

<u>Vision Ventures and Flywheel Group – represented by Tony Kuhn</u>

- Extend Philemon Avenue.
- Matheson Avenue Streetscape, including a linear park at the top of the bridge where Uptown can be viewed.
- Provide a new connection between Statesville Avenue and Graham Street (extension of Oaklawn Avenue/Sylvania Avenue).
- Provide bicycle facilities along N. Graham Street and N. Tryon Street.
- Implement improvements to N. Tryon Street from 36th Street north.
- Provide a green connection from Cordelia Park under Matheson Avenue to the Cross-Charlotte Trail. Provide connections from Cross-Charlotte Trail to Tryon Street to the north and south with the south connection continuing into Dillehay Courts.
- Improve the existing roads within the Old Tryon Hills neighborhood.

Appendix A: Key Stakeholder List

Neighborhood Leaders:

* <u>Druid Hills Community</u>
Darryl Gaston, Community President
Diane Wingard, Neighborhood Representative
Bobbie Toatly, Neighborhood Representative
Tammie Gaston, Resident

Gables at Druid Hills

* Lockwood Neighborhood Association

Christopher Dennis, Chair T. Chisholm William Green David Younts Leroy Dunlap

* Greenville Neighborhood Thomas Sadler, HOA President Lucille Smith, Neighborhood Officer

* <u>Dillehay Courts</u>
Robin Anderson, resident
Crystal Davis, resident

* North Davidson Neighborhood Association
Hollis Nixon, Association President
Chad Maupin

Liza Hart

Jason Idilbi

* Graham Heights
Rosalyn Davis, President
Joe Howarth
Jeff Pharr

* Genesis Park Community

Joanne West, President Arty Holmes Clarence Ervin Eddie Lee Williams Lula Jones Sharon Churchill Marlene Jackson Elvira Guy

Melissa Lowe, Park at Oaklawn, President

Non-Profit Housing & Private Development Contacts

Emma Littlejohn, The Littlejohn Group

* Charlotte-Mecklenburg Housing Partnership

Julie Porter, President Fred Dodson (Real Estate Development), Vice President David Howard

* Charlotte Housing Authority

A. Fulton Meachem, Executive Director
Jeff Meadows, Sr. Development Officer
Christopher Campbell (representative for Dillehay Courts)
Patricia McCaskiel, intern (representative for Dillehay Courts)

Geoffrey Curme, Mount Vernon Asset Management, LLC, Distressed Debt Investor

Gene Bodycott, New Forum, Executive Vice President

Robby Lowe, Balfour Beatty Construction, Director of Strategic Business Development

John Nichols, The Nichols Company, President

Dan Roselli, Packard Place, Cofounder

* Steve Harris, Harris Development Group, Owner

Michael Praeger, AvidXchange, CEO

Jon Morris - Beacon Properties

City Staff & Other Municipal Service Contacts

* CATS

John Muth, Interim CEO
Brian Nadolny, Project Manager
Tina Votaw, Transportation Planner

* Charlotte Center City Partners

Michael Smith, President & CEO

Cheryl Myers, Senior Vice President of Planning & Development

Darlene Heater, University City Partners, Executive Director

^{*} Tony Kuhn, Vision Ventures, Vice President

^{*} Richard Petersheim, Land Design, Senior Architect

^{*} Noah Lazes, Ark Group, President

Mecklenburg County Park & Rec

Gwen Cook, Greenway Planning and Development Services, Director Kevin Brickman, Greenway Planner James Williams, Park Planner

Non-Profit Organization

* North End Partners

Mark Middlesworth, President - Extravaganza

Ziya Tarapore, Vice President – Sugar Creek Charter School

Carol Burke, Secretary / Treasurer

Ali Bahmanyar, Board Member – United Construction

Alice Harrison, Board Member – Hope Haven, Inc.

Carl Patterson, Board Member – The Body Shop Collision Center

Chuck Howard, Board Member - AutoBell

Linda Holden, Board Member - Holden Properties - North Tryon Business Offices

Martin Zimmerman, Board Member

Stuart Hodgeman, Board Member

Ted Greve, Board Member – Ted A. Greve and Associates

Tony Kuhn, Board Member – Vision Ventures

Pete Heuberger, Board Member - Crisis Assistance Ministry, Business Developer Manager

Ron Johnson, Board Member – WSOC TV

Rev. Kojo Nantambu, NAACP, president

Crisis Assistance Ministry

Carol Hardison, CEO

Steven Chastain, Crisis Assistance Ministry, Chief Operating Officer

Carson Dean, Men's Shelter of Charlotte, Executive Director

Colin T. Pinkney, The Harvest Center, Executive Director

Major Bobby Lancaster, Salvation Army Center of Hope Shelter, Executive Director

Urban Ministry Center

Dale Mullennix, Executive Director

Caroline Chambre Hammock, Director HousingWorks

Elected Officials

Greg Phipps, District 4 Councilman

David Howard, At-Large Councilman

Other Organizations

Marc Hamel, Rail Project Development Manager, NCDOT Rail

^{*} Patrick Graham, Urban League of Central Carolina, President & CEO

^{*} Combined interview with social service organizations (shelters, Crisis Assistance, Salvation Army)

Norfolk Southern
Wiley McCain
Durwood Laughinghouse

North Carolina Railroad

Jim Kessler, Vice President - Engineering

John Spencer, Real Estate Representative

Jay McArthur, Amtrak, Senior Manager State Supported Corridors

* UNCC

Bob Wilhelm, Charlotte Research Institute, Executive Director Kristen Newkirk, Chancellor's Chief of Staff Peter Franz, Real Estate and Land Use Director

Local Businesses

Showalter Construction Co., Inc.

JW Demolition

Zeke Burns, Omitt Trade School

Utilities

Barry Shearin, Charlotte-Mecklenburg Utilities Department, Deputy Director

Beverly Paull-Grizzi, Duke Energy, Engineering Supervisor

Barry Shearin, Charlotte-Mecklenburg Utilities Department, Deputy Director

Bryan Lemons, Piedmont Natural Gas, Construction Project Coordinator

Roger Ramsey, AT&T, OSP Design Engineer

Jake Stevenson, Comporium Group, Engineer

Samuel Gonzalez, Time Warner Cable

Larry Cox, TWTelecom, Senior OSP Engineer

Eric Crane, Verizon Business, OSP Senior Engineer

John Carlisle, Windstream/ CT Communications, Manager

Karl Michaelson, Level 3. OSP Engineer

Appendix B: Stakeholder Interview Questionnaire

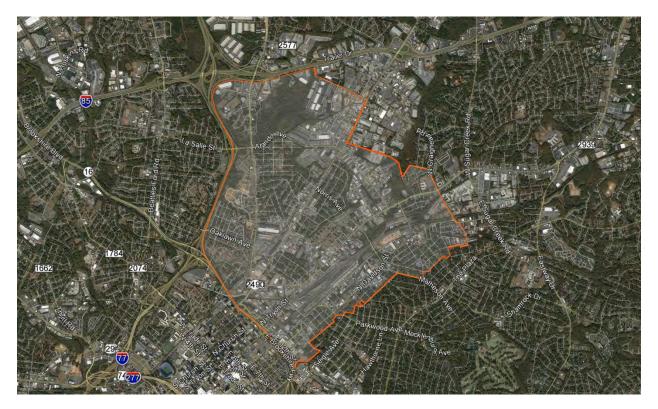
The Charlotte Center City 2020 Vision Plan identifies the North End as a central anchor of the proposed Applied Innovation Corridor (AIC). The North End is envisioned as:

- An urban mixed-use neighborhood with a unique combination of employment and residential development
- Providing the middle class 21st century jobs and
- Having places where people can easily walk, bike or take transit between home, work, services and entertainment.

Existing industrial and residential uses are intended to be integrated with new businesses, workforce housing and neighborhood centers that together revitalize the area.

Stated goals of the North End Development Strategy include:

- leveraging transit-oriented development to foster a unique set of employment opportunities
- creating a true jobs-housing balance
- optimizing freight operations while increasing redevelopment potential of rail yards
- ensuring a variety of neighborhood amenities to support residents and employee
- improving the bicycle and pedestrian environment
- building the innovation infrastructure necessary to attract desired employers



1.	What is yo	our interest in the North End? (check all that apply)
		ive there
		work there
		own property there (specify location)
	□ li	ntend to invest in the area (specify development type and location)
	□ O	ther (specify)
2.	•	been involved in local planning here previously or is this your first time? (If involved explain how)
	□ N	0
	□ Ye	es (describe)
3.	transform	you see as the top opportunities (infrastructure improvements) that are capable of ing the North End into a vibrant, successful mixed-use urban (innovative district) ent? (priority order)
	1	
	2	
	3	
4.		see as potential obstacles (existing infrastructure) that could prevent the North Endoming an economically successful and vibrant urban place (innovative district)?
	1	
	2	
	3	
5.	institution	atisfied with the current balance of land uses (industrial, retail, office, residential, nal/governmental, recreational) in the study area? If not, describe which land uses are nd/or over represented.
	□ Ye	es ·
	□ No	o (describe)
	□ Uı	nsure/don't know

6.		a significant amount of vacant and underutilized land in the study area. In your view, e the three best potential uses for those areas? (priority order)
	1.	
	2.	
	3.	
7.		p to three North End neighborhoods you like the most. Describe the characteristics that ish them. (circle areas on map)
	1.	
	2.	
	3.	
8.		p to three commercial areas within the North End you like the most. Describe the eristics that distinguish them. (circle areas on map)
	1.	
	2.	
	3.	
9.	What is	your impression of the industrial areas within the North End? Describe some of their
	characte	eristics.
10.		ewer describes Brightwalk). In your view, is this type of development a good model for evelopment in the North End? Please specify why or why not.
		Yes (describe)
		No (describe)
		Unsure/don't know

11.	11. (Interviewer describes New Camp Station). In your view, is this type of redevelopment a goo model for urban infill and adaptive reuse in the North End? Please specify why or why not.		
		Yes (describe)	
		No (describe)	
		Unsure/don't know	
12.	-	think the proposed light rail and commuter rail lines are sufficient to support the type of oment envisioned in the 2020 Vision Plan? If not, what should be considered?	
		Yes	
		No (describe)	
		Unsure/don't know	
13. Do you think the City's Zoning Ordinance contains the necessary requirements to foster and guide the type of development envisioned in the 2020 Vision Plan? If not, what needs to change?			
		Yes	
		No (explain)	
		Unsure/don't know	
14.	housing	re your top three priorities for public investment in the study area? Examples include g, transit, bike/ped facilities, roads, parks, stormwater facilities, public artwork, etc. why. (priority order)	
	1.		
	2.		
	3.		
	[ne	xt page]	

15.	Rate the <u>importance</u> of the following elements as the North End further develops (-2 not
	important to +2 very important):

	-2	-1	0	+1	+2
Pedestrian safety and convenience					
Bike safety and convenience					
Access to transit					
Affordable housing					
Market-rate housing					
Senior housing					
Neighborhood retail and services					
Job creation/attracting businesses					
Aesthetics and livability					
Public parks and recreational amenities					
Connectivity between neighborhoods and commercial areas					
Connectivity to and from Center City and UNCC					
Other (specify)					

16. Rate the <u>quality</u> of the following existing conditions (-2 very poor to +2 very good):

	-2	-1	0	+1	+2
Aesthetics/community identity					
Housing choices					
Housing affordability					
Retail and services					
Industrial					
Recreation/entertainment opportunities					
Schools					
Other institutional/government services					
Parks and open space					
Pedestrian safety					
Bike safety					
Vehicular circulation/traffic					
Transit					
Connectivity to and from Center City and UNCC					
Noise from rail and industrial uses					
Other (specify)					

17. Tell us more about your development plans for the North End.

1. In your view, what needs to happen politically and in the community for your project to be successful?

		2.	What are the biggest be	arriers to your project suc	cceeding?	What needs to	change?
		3.	How can your project b	e part of a larger commu	nity vision	here?	
18.			u be able to fully particip	pate publicly in the North mfortable with?	End plann	ing process? If	⁻ not, what
19.	Wha	at is	s the best way for us to o	oordinate with you as we	e move for	ward?	

Appendix C: Project Map







C

Appendix C – Stakeholder Workshop Summary





Stakeholder Workshop Summary

Charlotte's Applied Innovation Corridor North End

Charlotte, North Carolina March 2015



Charlotte's Applied Innovation Corridor North End:

Stakeholder Workshop Summary



Wednesday, March 11, 2015 5:00 PM – 8:00 PM The Extravaganza Depot 1610 North Tryon Street Charlotte, NC 28206



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Appendices

Appendix A: Meeting Announcement Postcard

Appendix B: Handouts

Appendix C: Participant Sign-In Sheet

Appendix D: Maps

Appendix E: Boards

Appendix F: Comment Form

Appendix G: Local/Neighborhood Street Projects



1. Introduction

In 2013, the City of Charlotte (City) approved the Community Investment Plan (CIP) to improve infrastructure and leverage private investments throughout the city. The goals of the CIP are:

- Creating jobs and growing the tax base
- Leveraging public and private investment
- Enhancing public safety
- Enhancing transportation choices and mobility
- Ensuring housing diversity
- Providing integrated neighborhood improvements

One of the areas identified to incorporate these improvements is Charlotte's emerging North End within the Applied Innovation Corridor, which consists of neighborhoods adjacent to Uptown in the Statesville Avenue, Graham Street, North Tryon Street, and North Davidson Street areas. Drawing from various existing planning documents and stakeholder input, a list of 10 potential large infrastructure projects was prepared in 2014 for consideration by the project team and community:

- Graham Street Streetscape
- Matheson Avenue Bridge Streetscape
- Woodward Avenue / 24th Street Intersection Realignment
- 16th Street Streetscape
- New connection between Statesville Avenue and Graham Street (Oaklawn Avenue / Sylvania Avenue Extensions)
- Ware Avenue / 36th Street Extension
- N. Tryon Street Improvements provide bike lanes and pedestrian improvements beyond the current streetscape project
- N. Davidson Street Bicycle Lanes
- Uptown / North End Gateways provide aesthetic features to structures over N. Tryon Street, Church Street, and N. Graham Street
- Multi-use path connections from Statesville Avenue to N. Graham Street to N. Tryon Street

In addition, smaller "Connectivity Projects" that were identified through the North Tryon Area Plan, adopted by Charlotte City Council May 24, 2010, and through stakeholder input are being considered.

On Wednesday, March 11, 2015, the City held a Stakeholder Workshop to present the potential projects, obtain input on these presented projects, and receive additional project suggestions from North End stakeholders. The workshop was held at The Extravaganza Depot at 1610 North Tryon Street from 5:00 p.m. – 8:00 p.m. This document presents the results from that event.



1.1 Project Team

The City and their consultant, HDR Engineering, planned the Stakeholder Workshop. Thirteen people staffed the event and each representative wore a name tag identifying themselves and their affiliation. The project team greeted workshop participants, provided information, facilitated small group discussions, and answered questions. The project team included the following people:

City of Charlotte

Tim Greene Leslie Bing Jim Keenan Johanna Quinn Mandi Vari Todd DeLong

HDR Engineering

Michelle Podeszwa Kirk Stull Alex Cousins Doug Zenn Krista Lee Brad Taylor Shane Shape

1.2 Stakeholder Identification

At the onset of the project, an initial list of stakeholders was identified through conversations with City staff, identifying key stakeholders from the 2014 Urban Land Institute Report, previous project stakeholder lists, and desktop research. In fall 2014, members of the project team contacted individuals from the initial list of key stakeholders to hold one-on-one interviews in order to obtain information and opinions regarding potential development and concerns in the project area. A summary of the stakeholder interviews have been documented in a separate similar report.

1.3 Meeting Announcements

A "save the date" email alert was sent to a list of over 100 identified stakeholders on February 25, 2015, notifying them of the Stakeholder Workshop date, time, and location. This was followed by a meeting invitation postcard that was also sent via first-class U.S. Mail on February 25, 2015. A copy of the postcard can be found in Appendix A. Additionally, follow-up phone calls and e-mails were made during the week leading up to the event to obtain RSVPs.

1.4 Meeting Purpose and Goals

The purpose of the Stakeholder Workshop was to engage interest groups and key stakeholders in the planning process and solicit their feedback on the identified potential projects within the North End study area. Additionally, the project team wanted to gain insight about any additional



projects suggested by the stakeholders. Workshop participants could learn about the identification process of potential projects, review maps showing their locations, ask questions, and share ideas with each other and members of the project team.

The goals of the Stakeholder Workshop included:

- Inform stakeholders about the CIP, the Applied Innovation Corridor, and the North End study area;
- educate stakeholders about potential infrastructure projects;
- gain insight into community issues/concerns in the study area;
- solicit feedback and prioritize a list of potential infrastructure projects; and
- encourage individuals who live, work, and have an interest in the study area to remain engaged in improving their community.

1.5 Meeting Format

The three-hour meeting had two parts: a one-hour Open House followed by a two-hour Workshop. The Open House featured two information stations about the North End of the Applied Innovation Corridor and five additional stations staffed with representatives who could provide information on additional projects within the North End. Participants were provided the following handouts (see Appendix B for copies of these documents):

- Project fact sheet with a map of potential projects
- A handout (list) of potential projects
- Brochure about the CIP
- Comment card

At the end of the Open House, everyone was asked to take a seat at one of seven round tables for a formal PowerPoint presentation and workshop activities. Table 1 below shows the agenda for the meeting.

Table 1 Agenda

Time	Activity
5:00 - 6:00	Open House
6:00 - 6:05	Workshop called to order & Welcome
6:05 – 6:30	CIP and Applied Innovation Corridor Overview / Presentation
6:30 – 7:15	Facilitated table discussions, including maps and questions to work through in table groups
7:15 – 7:35	Table facilitators report summaries of table discussions
7:35 – 7:50	Dot exercise; individuals given sticky dots and asked to place dots on boards representing their project priorities
7:50 – 7:55	Recap of dot exercise outcomes
7:55 – 8:00	Next Steps and Thank You





Fifty-nine participants signed in for the Open House and Workshop.



2. Open House & Workshop Proceedings

2.1 Room Layout & Displays

The Extravaganza Depot is a multi-purpose event venue located within the North End study area. Outside of the building entrance, participants were directed from the parking lot to the entrance door by a directional lawn sign that pointed to the meeting entrance. Inside, the meeting room was separated into two areas: one area for the Open House and the other for the Stakeholder Workshop.

Participants were greeted by project team members at a sign-in table where they signed-in, received a color-coded name badge, and were provided handouts and information materials. Fifty-nine stakeholders signed in for the meeting. See appendix C for the participant sign-in sheet.

Open House

Two project overview stations were placed at either end of the Open House area, each containing a project area map, typical road section and project information sheets.

Five additional stations lined the side area of the Open House and were staffed by representatives who could provide information on additional projects within the North End. Each representative brought their own materials to be displayed at their table. The stations included the following representation:

- CATS Brian Nadolny
- Mecklenburg County Park & Recreation
 James Williams
- City Project Cross-Charlotte Trail Vivian Coleman
- City Projects N. Tryon Street Business Corridor Improvements and Northeast Corridor Infrastructure Projects – Tom Russell
- City Local and Neighborhood Street
 Improvement Programs Chip Gallup



Stakeholder Workshop

At the beginning of the workshop, a PowerPoint presentation was given by members of the project team. The presentation provided background information about the City's CIP and the



Applied Innovation Corridor, as well as an overview of the individual potential infrastructure projects.

Seven round tables were available for participants in the workshop. Each table was identified by a color (Black, Blue, Red, Purple, Green, Pink,



Orange). In order to distribute participants, each person was asked to take a seat at the table with the same color as the dot on their name tag.

Each table contained three large maps displaying different potential projects. The maps included: a map for the ten large potential infrastructure projects, a map for potential connectivity projects and a map for bicycle/pedestrian connections. The maps were provided as discussion aids and for participants to write on during the small group discussions. Copies of the maps can be found in Appendix D.

To the side of the room, 10 boards representing potential infrastructure projects (sized 30" x 40") were stationed on easels for the Dot voting exercise. Each board showed a different potential project location on a map and a visual of what the current location looks like today. Copies of the boards can be found in Appendix E.

3. Stakeholder Feedback

3.1 Small Group Discussions

Members of the project team were stationed at each table to facilitate small group discussions and record flip chart notes based on comments and input on the list of potential projects and project maps. Other members of the project team roamed throughout the room as "floaters" to answer questions. Workshop participants were encouraged to identify additional projects that they would like to see implemented. Collective feedback is summarized below.

General Feedback about the North End

Workshop participants were generally supportive of all the projects in varying degrees, agreeing that they largely meet the stated goals for the area. Beautifying the entrances into the North End from Uptown was a popular idea. However, some who supported the Uptown/North End Gateways were interpreting that would mean moving the social services providers from the area. The concentration of social services providers is largely seen as an obstacle to redevelopment for the North End. Homelessness and loitering are viewed as significant problems for real or perceived public safety. Dillehay Courts also creates issues with safety and perception. It was recognized that while these services may be necessary, their presence would continue to pose a challenge to changing public attitudes about the North End. Some suggested working with the social service providers and the City to discuss the possibilities of a coordinated a unified campus that could better provide such services.

Participants generally would like the streets to be greener and more bike/pedestrian friendly. Residents want more transportation options as well. Walkability and safety are important. Burying overhead utilities is desirable. More retail and grocery options in the area would be highly valued improvements. Better connections to local and regional trails and more greenspaces and parks were mentioned often. Connecting disconnected streets was viewed favorably as long as existing, viable businesses were not harmed. People seem to recognize the importance of the industrial activity in the area and suggested embracing it rather than trying to change it. Reusing existing, vacant industrial buildings with new mixed-uses was supported.



Small business incubation, tech start-ups and housing to support tech workers would be welcome in the area.

The Workshop had a lot of positive energy. Participants seemed to appreciate diversity of perspectives and the opportunity to weigh in on the list of projects and brainstorm new ideas together. There was a palpable sense of excitement that the North End is a priority for new investment and change.

Large Infrastructure Projects

GRAHAM STREETSCAPE

- Streetscape project is a good idea, but the area lacks development / investment. It is a narrow street.
- Beautification should embrace the industrial character. Street connections to Graham Street are not strong.
- Eyesores along the roadway (i.e. Waynes) and an industrial street. This area along Graham Street is also a Gateway.
- Bike / pedestrian improvements recently implemented on Statesville Avenue would work well for Graham Street too.

MATHESON BRIDGE STREETSCAPE

- An east-west connection is needed between the area west of the rail yard and NoDa.
 The current pedestrian facilities are uncomfortable too narrow. There could be opportunities to connect to the proposed Cross-Charlotte Trail in the area.
- Develop 36th/ Matheson Avenue Infrastructure to allow for more growth.

16TH STREET STREETSCAPE

- Consider the relationship with the N. Tryon Street Gateway. It is currently invisible.
- Considered by some as a lower priority and by others as a high priority.
- Many people don't realize that 16th Street crosses the rail. Some felt this streetscape project is important in order to provide sidewalk connection.

N. TRYON STREET IMPROVEMENTS

- Would like to see better sidewalks on N. Tryon Street.
- Gateways on N. Tryon Street are important.
- Bus turnouts on N. Tryon Street would be helpful.

OAKLAWN AVENUE/SYLVANIA AVENUE

- One small group did not find value in bridging a new connection over the rail line.
- Oaklawn Avenue / Sylvania Avenue connection not among the top choices for investment.
- Some Lockwood residents specifically did not like the extension because they felt it would turn Sylvania Avenue into a thoroughfare.



WARE AVENUE/36TH STREET

- Low priority, but provides a nice connection between The Plaza and N. Graham Street.
- Some attendees stated Ware Avenue is better for cars than bikes / peds and others felt the bicycle and pedestrian improvements are important to implement.

WOODWARD AVENUE/24TH STREET ALIGNMENT

- Intersection is currently confusing and dangerous. The improvement is very important.
- It was also noted that with the realignment, this intersection could become a stronger retail node.

NORTH DAVIDSON STREET BICYCLE LANES

- Bike lanes are not important investment should focus on cars and pedestrians
- The area west of the rail yard needs more help than NoDa bike lanes on N. Davidson Street are a lower priority.
- Proposed improvements for N. Davidson Street should not impact existing houses. The right-of-way and easements should not be affected.
- Utilize share the road for bikes and be mindful of pedestrian improvements.

UPTOWN/NORTH END GATEWAYS

- Gateway on N. Tryon Streetscape to downtown: railroad is a barrier. Beautify it, integrate it, space is "too tight." Loitering is a concern.
- Until the environment changes at the N. Tryon Street gateway into uptown, the North End area will have a tough time evolving.
- The gateway area is most important in order to make the connection with Center City and not leave a gap between the new Applied Innovation Corridor core and Central Business District.
- Signage is needed at the gateways to identify "North End".
- Gateways are important! They are the front door of our community.

New Project Ideas

- Realign Newland Road / Norris
 Avenue at Statesville Avenue
 for better truck access to
 support retail development.
- Consider previous study's recommendations to implement a roundabout at 12th Street and N. Tryon Street and eliminate the 12th Street ramp at I-277.
- Open up the ally way on Wadsworth Place by the Men's Shelter.





Bicycle / Pedestrian Improvements

- East / west greenways make good connections and are budget-friendly improvements.
- Potential multi-use paths along Duke Easement have the potential similar to the
 pedestrian projects that were installed in Wesley Heights neighborhood (adjacent to
 Third Ward), which had a positive impact on the community and have been expanded
 upon.
- Connect Druid Hills Park to the potential multi-use trail within Duke Easement.
- Connect the proposed Cross-Charlotte Trail to Matheson Bridge. This will also provide a connection between Brightwalk and NoDa.
- Make the streets walkable.
- The recent improvements that have been implemented along Statesville Avenue would work well for Graham Street, Church Street, and N. Tryon Street.
- Extend the potential multi-use path from Norris Avenue / Statesville Avenue area to the Mooresville-to-Charlotte Trail.
- Maximize connections between Cross-Charlotte Trail and Mooresville-to-Charlotte Trail.
- Enhance east / west connections, especially if they could link the greenways to the potential multi-use paths.
- If Ware Avenue is improved and connected, make sure to include good bike lanes and sidewalks.
- Consider a bike / ped connection between Ware Avenue northwest to the Mooresville-to-Charlotte Trail.
- Need more amenities, such as parks, to make the bike / ped connections more worthwhile. "The connections don't matter if there's not a place to connect to."
- Provide pedestrian exits from I-277 between 16th Street and 12th Street to allow for more accessibility to the area for pedestrians.
- Provide a bike / ped route at Matheson Avenue connecting to N. Tryon Street.
- Provide bike / ped connecting 36th Street to N. Tryon Street.
- Provide a shared bike lane on N. Davidson Street.
- Greenways should link neighborhoods with schools.
- Provide bike lanes on Statesville Avenue north from Atando Avenue.
- Provide sidewalks on W. Craighead Road.
- The multi-use path Connectivity Project from N. Tryon to Statesville Avenue is highly needed and wanted. It would be great if it could extend to the Blue Line Extension and N. Davidson Street.
- Provide a greenway through cemetery to Oaklawn Language Academy.
- Provide greenways to connect on both sides of I-277.
- Provide pedestrian crossings at the Matheson Avenue intersection.
- Provide pedestrian crossings on Statesville Avenue.

Connectivity Projects

- One small group liked focusing projects in the 24th Street business area.
- Consider the impacts to existing businesses.
- The majority of the participants were generally in favor of connectivity.



- Connections to / from the Dalton Avenue / N. Tryon Street /12th Street area and in vicinity of the Old Tryon Meadows neighborhood would be more successful with a park in the vicinity.
- Restore the grid: improve the grid-like sections of roads for safer travel and more aesthetic appeal.
- Rodney Avenue splits the Druid Hills Park, which seems to stall projects for Mecklenburg County Parks and Recreation. If you close Rodney Avenue, Poinsett Street needs to be extended.
- Some participants did not support the Catalina Avenue connection.
- Small connections are needed to connect neighborhoods to one another.
- Removing dead end streets would help with safety.
- Poinsett Street Extension with removal of the Rodey Avenue through Druid Hills Park stands out as a good connectivity project.
- Catalina Street and Pine Street would be highly beneficial connections.
- The extension of Catalina Avenue to Dalton Avenue is a good connectivity project.
- The N. Poplar Street extension between 24th Street and 25th Street is a good connectivity project.
- Connecting the area between Dalton and 12th Street with the Music Factory would be a good connection for the area.
- Connections in the Lockwood area are needed. 16th Street is a higher priority.
- Avoid spending public dollars improving connectivity in commercial areas.
- The 25th Street NECI Project needs to be identified.
- The extension of N. College Street from Wadsworth Place to 16th Street is a good connectivity project.
- Connect 32nd Street to Dogwood Avenue.

Local and Neighborhood Street Improvements

- Druid Hills Neighborhood needs lighting; particularly Norris Avenue.
- · Genesis Park Neighborhood needs lighting.
- Provide traffic circles at Jordan Place and N. Davidson Street.

Other Improvements

- The current planned N. Tryon Business Corridor Improvements (N. Tryon Street Streetscape) creates challenging access to the City North Business Center and impacts the WSOC-TV station site.
- Landmarks in the area should be celebrated with signage and / or wayfinding.
- More parking in the area is needed.
- The Community Crisis Center needs more parking customers arrive by car and have to circle around.
- Connections to the new light rail stations are important and the Amtrak Station needs beautification.
- The Asian Corners Mall (outside of study area) is a big re-development opportunity for nearby retail.



3.2 Dot Voting Exercise

Following small group discussions, workshop participants had the ability to provide input on their preferences of the identified large potential projects. Display boards of the projects were placed around the room and participants were given five sticky dots to place on the boards to identify their preferred projects. They could put one or more dots on up to five projects of their choice. One of the dots had a white circle on it, indicating that it was a "super-dot." Participants were asked to use it for their top project choice. More than 40 people participated in the dot exercise.



From the resulting votes, several projects emerged with higher numbers of dots. The Uptown / North End Gateways project received a significant more number of dots and super dots. As noted earlier, some of this support was based on an assumption that the social service agencies might move associated with the gateways. Graham Street Streetscape and the multi-use paths received higher numbers of dots relative to the other projects.

Three projects received relatively moderate numbers of dots from participants; Woodward Avenue / 24th Street Intersection, Matheson Avenue Bridge Streetscape, and N. Tryon Street Improvements.

While all projects showed support from at least some of the participants, four resulted in lower dots than the others; Oaklawn Avenue / Sylvania Avenue Extension, N. Davidson Bike Lanes, Ware Avenue / 36th Street Extension, and 16th Street Streetscape.

Table 2 below shows the final results and ranking from the dot voting exercise.

Table 2 Dot Exercise Results

Ranking	Potential Large Projects	Total Dots (Super Dots)					
	Highest Results						
1	Uptown / North End Gateways	49 (11)					
2	Graham Street Streetscape	28 (8)					
3	Multi-Use Paths (Statesville Ave. to N. Graham St. to N. Tryon St.)	25 (7)					
Moderate Results							
4	Woodward Avenue / 24th Street Intersection	21 (5)					
5	Matheson Avenue Bridge Streetscape	18 (4)					
6	N. Tryon Street Improvements	25 (1)					
	Lower Results						
7	Oaklawn Ave. / Sylvania Ave. Extension	14 (2)					
8	N. Davidson Street Bike Lanes	13 (1)					
9	Ware Avenue / 36 th Street Extension	7 (1)					
10	16 th Street Streetscape	2 (1)					

Following this exercise, the project team reviewed the results for each of the projects.

4. Comments

Comment forms were provided and the participants were informed that they could provide any additional comments on these forms. Only one comment form was received, which is provided in Appendix F.

In addition, a form was provided for participants to identify project improvements for local and neighborhood streets. It was explained during the presentation given at the beginning of the workshop that these types of projects would not likely be funded through the CIP and the City has other programs available. Chip Gallup was attendance as a City representative who could provide more information on these programs. The completed form is provided in Appendix G.

5. Next Steps

At the end of the meeting, participants were thanked for their time and participation and informed of the next steps. The next steps include ranking each potential project to lead to a prioritized list of identified projects that would progress into design and construction. The results of these rankings / priorities will be made available.







Appendix A: Meeting Announcement Postcard





Attend a Public Workshop and help shape the future of your community!

When?

Wednesday, March 11, 2015 from 5-8 p.m. Open House from 5-6 p.m., Workshop from 6-8 p.m.

Where

The Extravaganza Depot, 1610 N Tryon St, Charlotte

We'll provide the food - you provide the ideas and input!

For details contact Michelle Podeszwa, HDR, at 704-338-6773 or at michelle.podeszwa@hdrinc.com

WHAT IS THIS ABOUT?

In 2013, the City of Charlotte approved the Community Investment Plan to improve infrastructure and leverage private investments in neighborhoods throughout the city. One of those areas is Charlotte's emerging North End (the neighborhoods adjacent to Uptown bounded by I-277, I-77, I-85 and N. Davidson Street).

A list of potential public infrastructure projects was recently prepared to help improve the economy, development and transportation choices. Now is your chance to help shape priorities for the North End to make this the next chapter in Charlotte's urban success story!



City of Charlotte
Charlotte-Mecklenburg Government Center
600 E. Fourth St.
Charlotte, NC 28202

Want to know more? Visit us online at www.charlottefuture.com/AIC for more details and to submit your feedback.

Translation can be provided at the workshop if requested. Please contact Michelle Podeszwa at michelle.podeszwa@hdrinc.com or 704-338-6773 if this service is needed.

Appendix B: Handouts



Charlotte's Next Chapter

Applied Innovation Corridor

WHAT IS THIS PROJECT?

In 2013, the City of Charlotte approved the Community Investment Plan (CIP) to improve infrastructure and leverage private investments throughout the city. One of those areas is Charlotte's emerging North End within the Applied Innovation Corridor, which consists of neighborhoods adjacent to Uptown in the Statesville Avenue, N. Graham Street, N. Tryon Street, N. Davidson Street areas. A list of potential infrastructure projects to help improve livability, getting around, and job growth in this area has been developed from a variety of prior planning efforts and recent stakeholder feedback. The City is now soliciting additional input about this list to identify the community's priorities for the North End.

WHY IS IT NEEDED?

The Applied Innovation Corridor (AIC) seeks to grow 21st-century jobs in energy, biosciences, finance, informatics, and health care. The AIC is a focus for this type of development because it is the link between Uptown and UNC-Charlotte with the North End as its key anchor.

There are six goals that have been established for the CIP, which are guiding the City's efforts:

- Create jobs and grow the tax base
- Leverage public and private investments
- Enhance transportation choices and mobility
- Enhance public safety
- Ensure housing diversity
- Provide integrated neighborhood improvements

Tonight's Stakeholder Open House and Workshop will provide information, answer questions, and receive community input regarding the CIP and its list of potential infrastructure projects in the North End.

WHO IS LEADING THIS EFFORT?

The City of Charlotte, Engineering & Property Management is sponsoring this project with consultant support from HDR Engineering.

WHAT AMOUNT OF FUNDING IS AVAILABLE?

The CIP allocated funds for infrastructure projects within the North End of the AIC are as follows:

- \$12.5 Million 2014 (Bonds already passed)
- \$7.7 Million 2016 Contingent upon bonds passing \$8.7 Million 2018

WHEN WILL LIST OF PROJECTS BE FINALIZED?

September 2015

WHAT HAPPENS NEXT?

The projects identified through this process will proceed directly into detailed planning (evaluate alternatives, determine proposed features to be implemented, evaluate impacts, etc.) and design.

Project Contacts:

tlgreene@ci.charlotte.nc.us

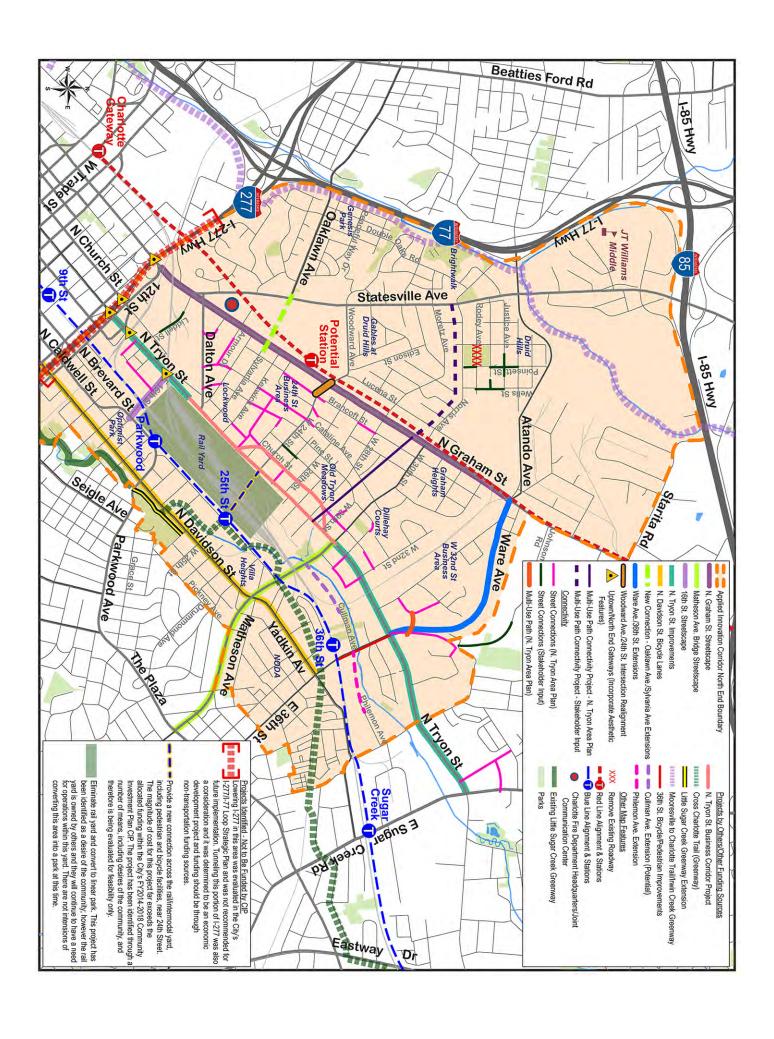
Tim Greene, PE City of Charlotte Engineering & Property Management 704-336-3649

Leslie Bing City of Charlotte Engineering & Property Management 704-336-7277

Michelle Podeszwa, PE HDR Engineering, Inc. 704-338-6773 michelle.podeszwa@hdrinc.com

lbing@charlotte.nc.us

FOR MORE INFORMATION VISIT: www.charlottefuture.com/AIC





NORTH END: Charlotte's Next Chapter Applied Innovation Corridor

Applied Innovation Corridor - North End Initial Infrastructure Project List

Graham Street Streetscape Project

» CIP - Questioned in ULI - Tryon Area - Stakeholder Input

Matheson Avenue Bridge Streetscape Project

» CIP - Questioned in ULI - Tryon Area - Stakeholder Input

Woodward Avenue/24th Street Intersection Realignment

» CIP - ULI - Tryon Area - Stakeholder Input

16th Street Streetscape Project

» Tryon Area - Stakeholder Input

New connection between Statesville Avenue (Oaklawn Avenue Extension) and Graham Street (to Sylvania Extension) - Evaluate as atgrade crossing and grade separation

» Stakeholder Input

Alternative connection from Oaklawn Avenue to Wolfberry Street or other streets along the east side of Graham Street

» Stakeholder Input

Ware Avenue/36th Street Extension

» ULI - CRTPO Thoroughfare

Alternative - 36th Street Extension east to Johnson Road

» Stakeholder Input

N. Tryon Street Improvements - Provide bike lanes and pedestrian improvements beyond current streetscape project

» Questioned in ULI - Tryon Area - Stakeholder Input

N. Davidson Street - Provide bicycle lanes

» Stakeholder Input

Uptown/North End Gateways - Incorporated aesthetic features to structures over Tryon Street, Church Street, and Graham Street entering into Uptown - Serve as a gateway instead of a perceived barrier

» ULI - Stakeholder Input

Provide multi-use path connections from Statesville Avenue to N. Graham Street along outskirts of Druid Hills neighborhood (along existing Duke Easement) and from N. Graham Street to N. Tryon Street

- » Stakeholder Input (western portion) Tryon Area (eastern portion)
- CIP Projects currently identified for funding through FY 2014-2018
 Community Investment Plan
- * ULI Urban Land Institute Panel Report for Charlotte's North End (April 27 -May 2, 2014)
- *** 2020 Plan** Center City 2020 Vision Plan (October 2011)
- * **Tryon Area** Projects identified within the Adopted North Tryon Area Plan (May 24, 2010)
- * **CRTPO Thoroughfare** Projects identified on the Charlotte Regional Transportation Planning Organization Thoroughfare Plan
- * **Stakeholder Input** Projects identified from Stakeholder Interviews

Connectivity Projects

N. Tryon Area Plan Connectivity Projects - see map

» Tryon Area

Extension of N. Popular Street between 24th Street and 25th Street

» Stakeholder Input

Extension of Justice Avenue, Poinsett Street, and Wells Street within Druid Hills to close gaps

» Stakeholder Input

Extension of Poinsett Street (complete street grid around Druid Hills Park) and removal of Rodey Avenue (through park)

» Stakeholder Input

Grade separation at W. Liddel Street - or create an at-grade crossing with gates & signals

» Stakeholder Input

Projects Identified - Not to be Funded by CIP

Lower I-277 barrier to eliminate perception of barrier between North End and Center City $^{(1)}$

» ULI - 2020 Plan

Provide a new connection across the rail/intermodal yard, including pedestrian and bicycle facilities - near 24th Street (2)

» ULI - 2020 Plan - Stakeholder Input

Eliminate rail yard and convert to linear park (3)

» Stakeholder Input

- Lowering I-277 in this area was evaluated in the City's I-277/I-77 Loop Strategic
 Plan and was not recommended for future implementation. Tunneling this portion
 of I-277 was also a consideration and it was determined to be an economic
 development project and funding should be through non-transportation funding
 sources.
- 2. The magnitude of cost for this project far exceeds the allocated funding within the City's FY2014-2018 Community Investment Plan (CIP). The project has been identified through a number of means, including desires of the community, and therefore is being evaluated for feasibility only.
- This project has been identified as a desire of the community; however the rail yard is owned by others and they will continue to have a need for operations within this yard. There are not intentions of converting this area into a park at this time.

FOR MORE INFORMATION VISIT: www.charlottefuture.com/AIC

Investing in Charlotte's Future

In 2013, Charlotte City Council approved a Community Investment Plan, which is a long-range investment program designed to meet the needs of our growing community. This plan incorporates innovative and creative approaches to leverage limited resources into projects that can truly transform our community and strengthen our competitiveness regionally, nationally and globally. Over the next several years, \$816.4 million in proposed community improvements will be planned, designed and implemented.

The plan accomplishes several goals:

- Creating jobs and growing the tax base
- Leveraging public and private investments
- Enhancing public safety
- Enhancing transportation choices and mobility
- Ensuring housing diversity
- Providing integrated neighborhood improvements

With an *engaged community*, we can continue to transform Charlotte through:

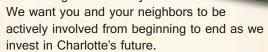
- Street and intersection improvements
- Sidewalks, walking and bike trails
- Diversity of housing
- Transit access
- Neighborhood improvements
- Airport area investments
- Police and Fire facilities

Residents will have a greater voice in creating what our city becomes.

How you can Get Involved

To remain a vibrant city where people want to live and work, Charlotte needs the ideas and voices of many residents with diverse viewpoints and interests. That's where you come in.

This is an open invitation to be a part of the Community Investment Plan. You won't just be helping to build a bridge or a sidewalk or bike trail, you will be building a community.



By visiting www.charlottefuture.com, you can learn more about the Community Investment Plan and find regular updates on projects in your community and throughout Charlotte. We encourage you to attend community meetings, share your ideas, participate in surveys and collaborate with City planners and project managers.

Together, we can make the next Charlotte a reality.



Community Investment Plan www.charlottefuture.com

Imagine, Plan, Create CHARLOTTE'S FUTURE



What if you were given an opportunity to improve your community and help shape what Charlotte becomes?

Good news...that opportunity is available to you right now.

The City of Charlotte invites you to join in the planning and implementation of major investments in the city that will promote livability, getting around and job growth. Be a part of the process of building Charlotte's Future.

The City of Charlotte Community Investment Plan







- Protecting the environment
- Enhancing public safety Increasing availability of
- housing for all economic levels
- O Improving neighborhood amenities

Getting Around Transportation choices Transit access

- Sidewalks
- Bridges
- Streets
- Trails

Job Growth

- O Stimulating the economy
- Attracting global businesses
- Increasing entrepreneurial and employment opportunities
- Investing in the area around the Airport's Intermodal Facility





Community Investment Plan www.charlottefuture.com



2014 Community Investment Plan

Projects to be funded with proposed 2014 General Obligation Bonds.

- Land Acquisition and Street Connections along Independence Boulevard Corridor: \$12,500,000
- Bridge over I-85 connecting Research Drive to J.W. Clay Boulevard (Planning/Design): \$3,000,000
- Bridge over I-85 connecting University Pointe/IBM Drive to IKEA Boulevard: \$15,080,000
- bike and vehicle access to the Blue Line Extension Transportation Infrastructure improving pedestrian, transit stations: \$16,640,000
- Infrastructure in North Graham Street and Statesville Road area to support and grow innovative industries such as technology, biosciences, healthcare and energy: \$12,480,000
- Neighborhood Transportation Programs to enhance safety and mobility: \$5,200,000
- Eastern Circumferential Road from Hanberry Boulevard to Back Creek Church Road: \$12,064,000
- Cross Charlotte Biking/Walking Trail: \$5,000,000
- Sidewalks and Pedestrian Safety: \$15,000,000
- Traffic Signal System Coordination: \$3,000,000
- Traffic Control Devices: \$7,000,000
- Repair and Replace Bridges: \$4,000,000
- Housing: \$15,000,000
- Neighborhood Infrastructure: \$20,000,000

Additional projects to be funded through alternative financing:

- Amateur Sports Facilities (Bojangles/Ovens Area Redevelopment): \$25,000,000
- Public Safety/311 Joint Communications Center: \$68,000,000

Westover Police Station: \$10,500,000



Appendix C: Participant Sign-In Sheet



NORTH END: CHARLOTTE'S NEXT CHAPTER AIC PUBLIC MEETING SIGN-IN MARCH 11, 2015



CHARLOTTE. CHARLOTTE. Affiliation Address **Phone** E-Mail Name (resident/business/local official/interest group) wssell@Charlottencoox david. C. pounts @gmail. com 204-771 Lodewood Northerd Rentiers 704-488-5152 104 890-5017 DOT Rashwino 1610 N. Tryon markeextravagunzaere 13, com SHECTEROF CHARLOTTE. OR 4 723 N. GRAHAM STREET -2904 91170 msw, COM 2210 Bancroft St 365-1864 blesseddavis 46 @ Hotmai Graham Height Melun 840 2520 SARDIS Rd -564-1400 ner MISTS assistance . NOG onnix noDa Board 120 2730 ROZZelles Ferri RI rahamis achorottene sov 704 andr



NORTH END: CHARLOTTE'S NEXT CHAPTER AIC PUBLIC MEETING SIGN-IN MARCH 11, 2015



Affiliation	
Name Address Phone E-Mail (resident/business/local official	Vinterest group)
JUSTIN MARKER ZY35 LUKENAST. 704/501-7232 makeljustinahotmail.co. Da	end Hires
Jula Junes 2200 Double Cake Rd 201/1547.0982	
Sharon Churchell 2109 Doubloks 704 375-965-2	
Constal Davis 2401 Betletonte Dr. Apt B 980-365-1272 crysd958 Lagrail.com	
Stear + Hodgeman 1201 NTiyon St. 704-804-7109 steathodgeman any detades	n NEP
Kirsten Huntley 3725 Fastover Ridge #1217 CLTNC 28211 412589 2130 KSrhuntley Dyah	co . Coron
Christoph - Denni 445 Kesmick AVF CITNIZAGE COEnsid Gyanoo.com	
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Jeft Mar 704 453 7451 Graham Hts	0
Allisa Billings 704-332-9582 Charlotte Center C	
KIM BANNES TOY-336-8408 Kbarnes @ Charlotter	
Alice Harrison 704-226-2612 aliceharrison chop	schavening.
Sylvana 704-806-348 Sulay man-ny ang 6	
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NORTH END: CHARLOTTE'S NEXT CHAPTER AIC PUBLIC MEETING SIGN-IN MARCH 11, 2015



Name	Addres	ss	Phone	E-Mail	Affiliation (resident/business/local official/interest group)
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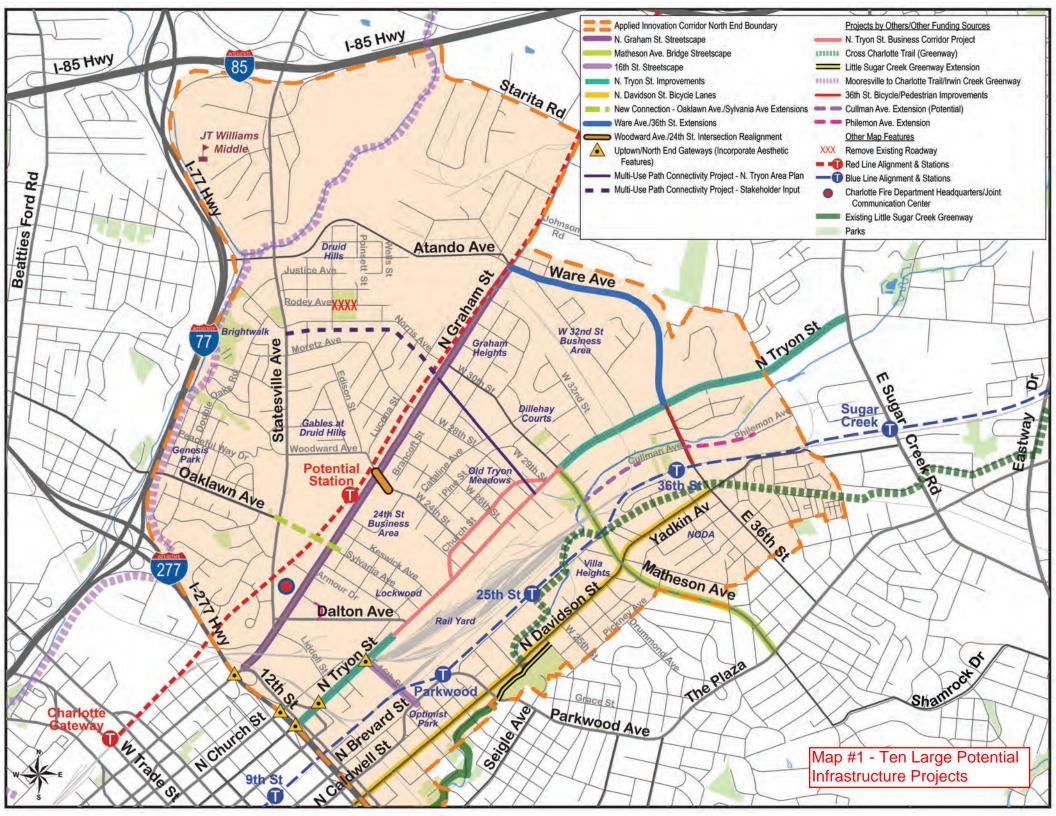


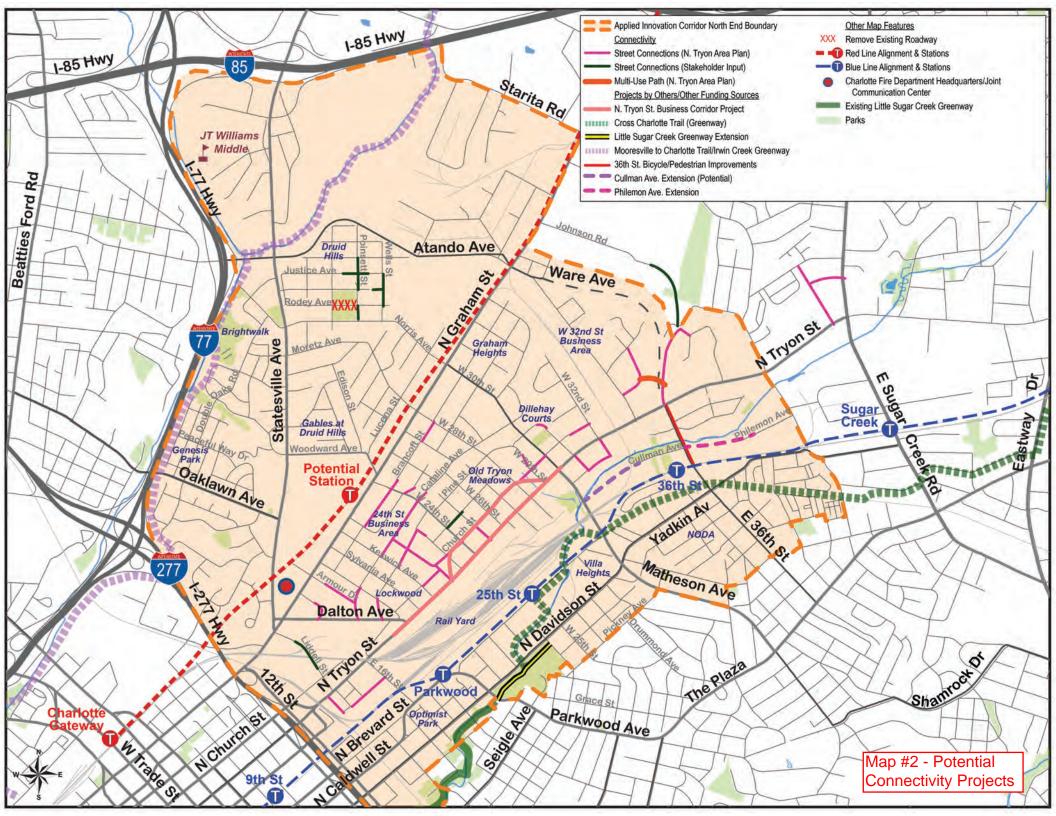
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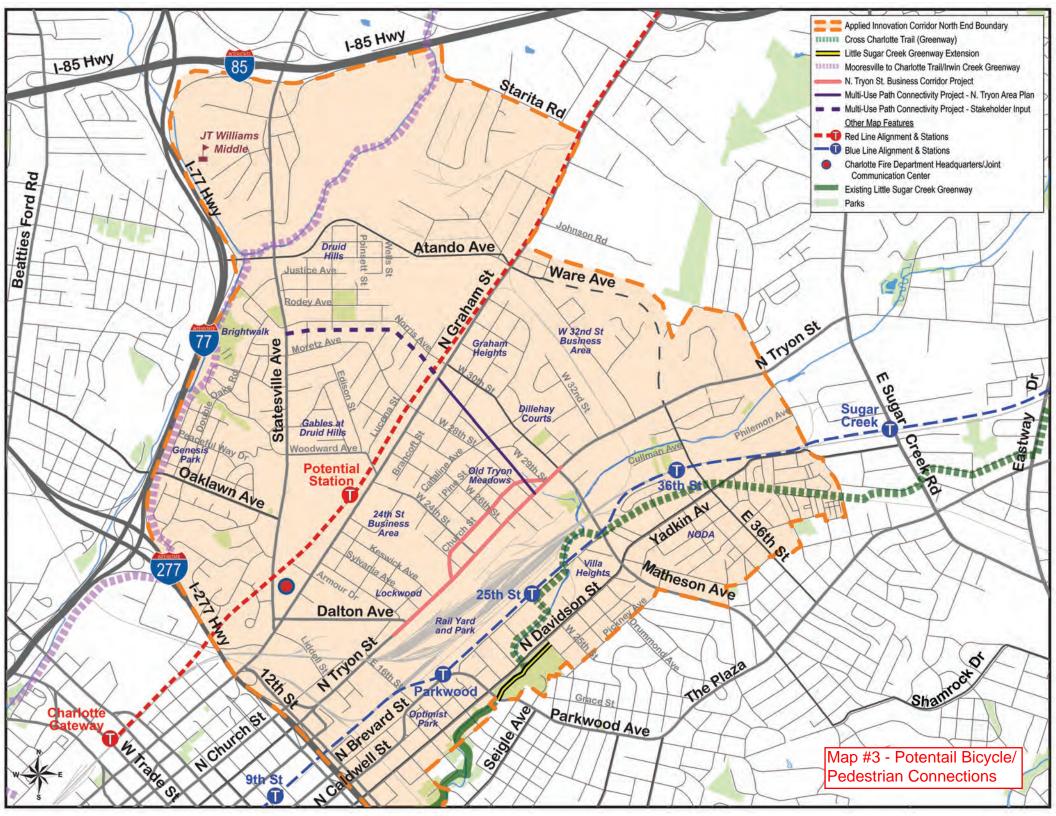


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Name	Address	Phone	E-Mail	Affiliation (resident/business/local official/interest group)
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Appendix D: Maps







Appendix E: Boards



MEETING TONIGHT



North End: Charlotte's Next Chapter Applied Innovation Corridor

The Extravaganza Depot 5:00 PM — 8:00 PM

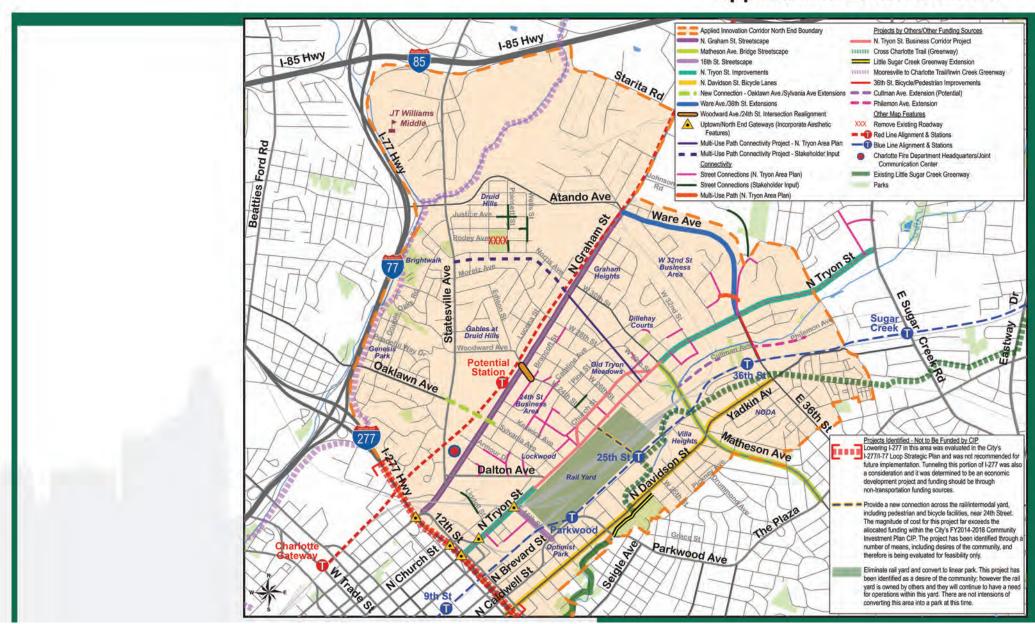
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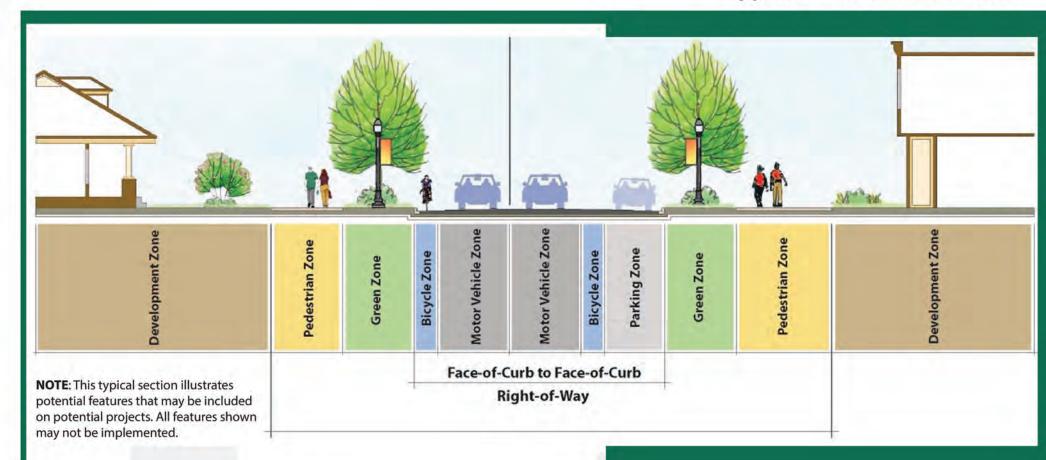
Charlotte's Next Chapter

Applied Innovation Corridor





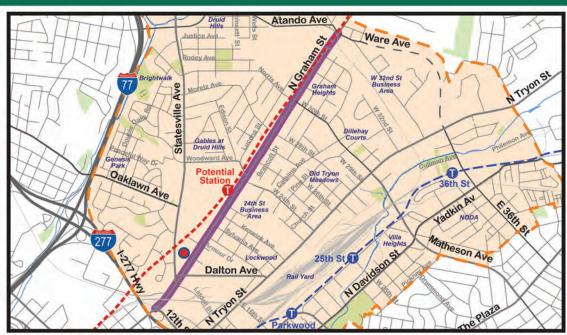
NORTH END: Charlotte's Next Chapter Applied Innovation Corridor



Potential Project Features



Applied Innovation Corridor



Potential Project Identified in/by the Following Sources:

- FY 2014-2018 Community Investment Plan
- North Tryon Area Plan
- Stakeholder Input

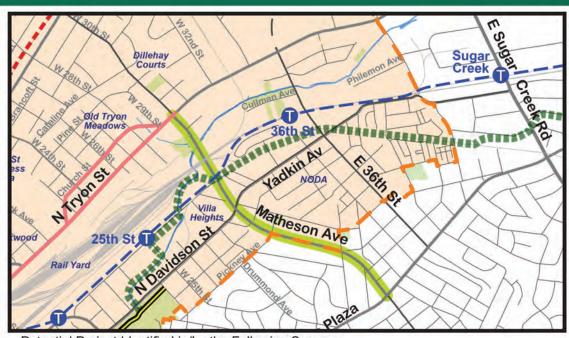


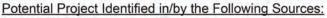


N. Graham Street Streetscape



NORTH END: Charlotte's Next Chapter Applied Innovation Corridor





- FY 2014-2018 Community Investment Plan
- North Tryon Area Plan
- Stakeholder Input







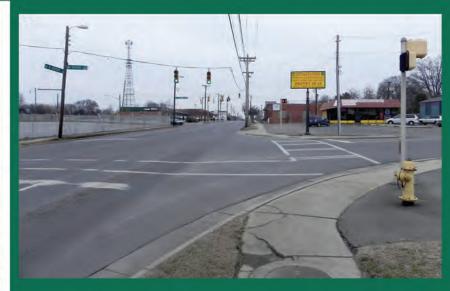
Applied Innovation Corridor



Potential Project Identified in/by the Following Sources:

- FY 2014-2018 Community Investment Plan
- Urban Land Institute Panel Report for Charlotte's North End
- North Tryon Area Plan
- Stakeholder Input

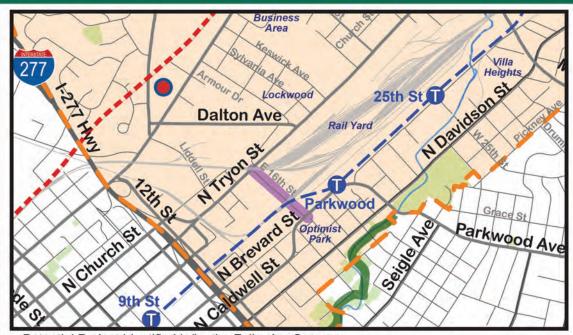
Woodward Avenue/24th Street Intersection Realignment







Applied Innovation Corridor



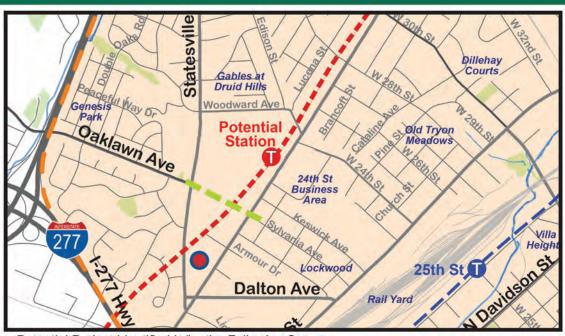


- Potential Project Identified in/by the Following Sources:
- North Tryon Area Plan
- Stakeholder Input

16th Street Streetscape



Applied Innovation Corridor



Potential Project Identified in/by the Following Sources:

- Stakeholder Input
- · Crosses existing railroad will likely be required to bridge over railroad
- · Additional options to connect to other roads east of N. Graham Street can be considered

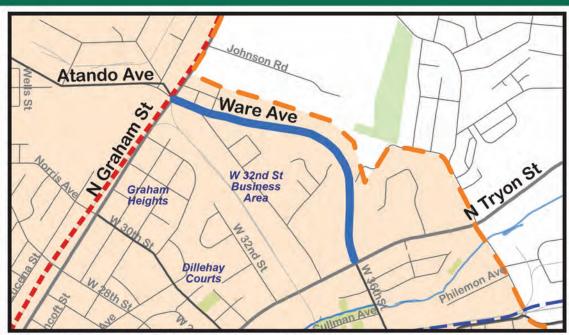
New Connection - Oaklawn Avenue/ Sylvania Avenue Extensions







NORTH END: Charlotte's Next Chapter Applied Innovation Corridor

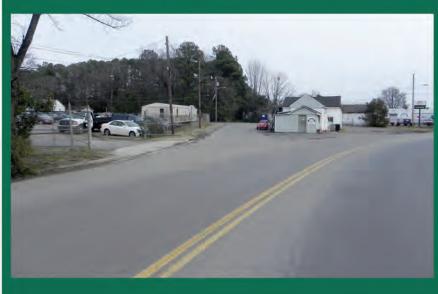


Potential Project Identified in/by the Following Sources:

- Urban Land Institute Panel Report for Charlotte's North End
- CRTPO Throughfare Plan
- An additional option that can be considered is to extend from 36th Street to Johnson Road

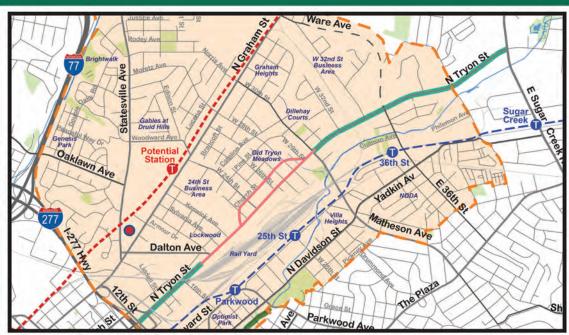








Applied Innovation Corridor



Potential Project Identified in/by the Following Sources:

- North Tryon Area Plan
- Stakeholder Input

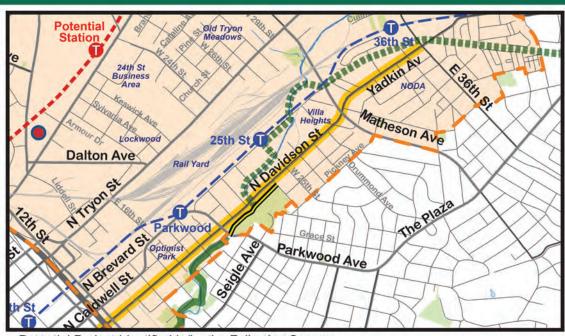




N. Tryon Street Improvements



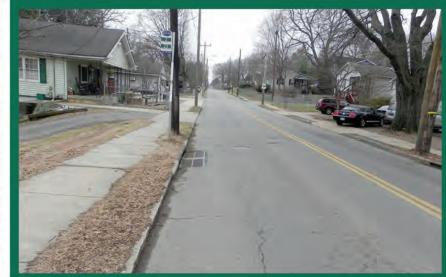
Applied Innovation Corridor



Potential Project Identified in/by the Following Sources:

Stakeholder Input

N. Davidson Street Bicycle Lanes







Applied Innovation Corridor



Potential Project Identified in/by the Following Sources:

- Urban Land Institute Panel Report for Charlotte's North End
- Stakeholder Input

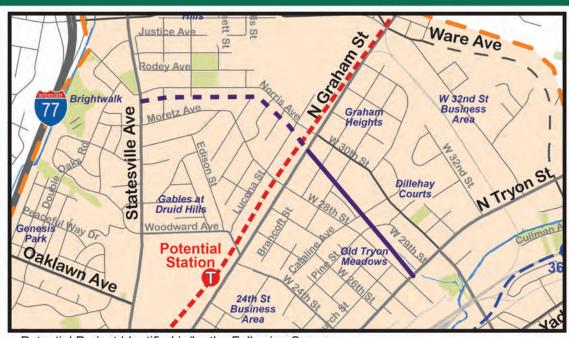




Uptown/North End Gateways



Applied Innovation Corridor



Potential Project Identified in/by the Following Sources:

- West Portion Stakeholder Input
- East Portion North Tryon Area Plan

Multi-Use Paths - Connecting Statesville Avenue to N. Graham Street to N. Tryon Street





Appendix F: Comment Form

North End: Charlotte's Next Chapter Applied Innovation Corridor

How Do I Submit Comments?

- Written Comments: Complete and submit this form at the open house or follow the directions on the reverse side of this sheet to mail your comments by March 18, 2015.
- Electronic Comments: Submit comments to michelle.podeszwa@hdrinc.com by March 18, 2015.

Want to know more? Visit us online at www.charlottefuture.com/AIC for more details.

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City, State, Zip:
Phone:
Email: RPETERSITEIM C. LANDDESTON. COM
Contact Preference: ☐ Direct Mail ☐ Email ☐ Do Not Contact
Contract Follows



Appendix G: Local/Neighborhood Street Projects



Potential Local/Neighborhood Street Projects



Name	Address	Phone	E-Mail	Project (Please be sure to include all road names)
	4601 Charlotte Park De	-		Realignment of Nerro Ave &
draw Posh	Sc. 7 = 350	764.785.6615	AROSTIC CMHP. Org	Daisle Oaks Rd
Crystal Davis	2601 Bellefonte Drive Aptartment B	(980) 365-1272	crysd9582@gmail.com	Safety concern at the East Blvd./Euclid Ave intersection - near accidents due to
				driver confusion on lanes - intersection maybe needs another lane
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Appendix D – Open House Summary







Open House Summary

Charlotte's Applied Innovation Corridor North End

Charlotte, North Carolina
October 2015



Charlotte's Applied Innovation Corridor North End: Open House Summary



Tuesday, October 20, 2015 5:00 PM – 7:00 PM The Extravaganza Depot 1610 North Tryon Street Charlotte, NC 28206



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	1.3	Meeting Announcements	. 2
		Meeting Purpose and Goals	
	1.5	Meeting Format	. 2
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Appendix B: Handouts

Appendix C: Participant Sign-In Sheet

Appendix D: Boards

Appendix E: Comment Forms



1. Introduction

In 2013, the City of Charlotte (City) approved the Community Investment Plan (CIP) to improve infrastructure and leverage private investments throughout the city. In November 2014, Charlotte voters overwhelmingly endorsed this effort by approving \$146 million in city bonds for CIP funding. The goals of the CIP are:

- creating jobs and growing the tax base
- leveraging public and private investment
- enhancing public safety
- enhancing transportation choices and mobility
- ensuring housing diversity
- providing integrated neighborhood improvements

One of the areas identified to incorporate these improvements is Charlotte's emerging North End within the Applied Innovation Corridor, which consists of neighborhoods adjacent to Uptown in the Statesville Avenue, Graham Street, North Tryon Street, and North Davidson Street areas. A portion of the 2014 approved CIP funds is being channeled for investment in the North End of the Applied Innovation Corridor through a list of infrastructure priorities, with a specific focus on redevelopment opportunities and jobs creation.

1.1 Project Team

The City and their consultant, HDR Engineering, planned the October 20, 2015 Open House. It was the second community meeting for the Applied Innovation Corridor. Six project team members staffed the event, greeted open house participants, provided information, and answered questions. The project team included:

City of Charlotte

Tim Greene Leslie Bing Johanna Quinn Mandi Vari

HDR Engineering

Michelle Podeszwa Kirk Stull

1.2 Stakeholder Identification

At the onset of the project during the summer of 2014, the project team identified an initial list of stakeholders through conversations with City staff, referencing previous stakeholder lists (including the 2014 Urban Land Institute's Advisory Panel Report), and desktop research. Since then, additional stakeholders have been added to the mailing list from meeting sign-in sheets, stakeholder interviews and other sources.



1.3 Meeting Announcements

A "save the date" email alert was sent on October 7, 2015, to more than 150 identified stakeholders, notifying them of the Open House date, time, and location. This was followed by the receipt of a meeting invitation postcard that was mailed via first-class mail on October 6, 2015. A copy of the postcard invitation can be found in Appendix A.

1.4 Meeting Purpose and Goals

The purpose of the Open House was to engage interest groups and key stakeholders in a project update in the study area at the same location as the spring 2015 Community Workshop. The Open House was held specifically to:

- share the process and criteria that was used to prioritize the projects for further development;
- provide the outcome of prioritized funding and the identified allocated CIP funding available for the implementation of the top projects;
- inform the stakeholders that the prioritized list is subject to change over time, depending on future development, partnerships with other entities, etc.;
- emphasize that partnerships between the City and others can increase the prioritization of projects;
- gather community feedback about the proposed project priorities; and
- discuss next steps, which includes additional engagement with the community to determine the specific improvements to be implemented for each project

1.5 Meeting Format

The two-hour meeting had a drop-in format for the convenience of stakeholders. Participants were provided the following handouts (see Appendix B for copies of these documents):

- project fact sheet with a map of the priority projects
- comment card

2. Open House Proceedings

The Extravaganza Depot is a multi-purpose event venue located within the North End study area.

Participants were greeted by Ms. Lori Garlitos, with the City, at a sign-in table where they signed-in and received handouts. Thirty-six participants signed in for the meeting. See Appendix C for the participant sign-in sheet. The various stakeholders previously engaged through the interviews and at the March 2015 Community Workshop were well represented at the Open House and included neighborhood leaders, members of the North End Partners, officers with the Charlotte-Mecklenburg Police Department, a representative with the University of North Carolina Charlotte, developers, business owners, and some of the private social-service providers.



The participants were then directed to one of two stations to have one-on-one discussions with the project team members. Two or three members of the project team were available at each station to speak to the participants. During these discussions, team members referenced the following:

- A list of all of the projects evaluated for prioritization, which were displayed on a board (included in Appendix D). These projects include:
 - o Matheson Avenue Bridge Streetscape Project
 - North Tryon Street Improvements
 - Uptown/North End Gateways
 - o 16th Street Streetscape Project
 - Multi-Use Path Connectivity Project
 - *Newland Road/Norris Avenue Intersection Realignment
 - North Tryon Area Plan Connectivity Projects
 - North Graham Street Streetscape Project
 - Druid Hills Park Street Grid Improvements
 - Woodward Avenue/24th Street Intersection Realignment
 - *Statesville Avenue Bicycle Lanes
 - North Davidson Street Bicycle Lanes
 - Ware Avenue/36th Street Extension
 - New Connection Oaklawn Avenue/Sylvania Avenue Extensions
 - o Extension of Justice Avenue, Poinsett Street, and Wells Street (within Druid Hills)

Projects in **bold** are the top eight prioritized. The North Tryon Street Improvements and Uptown/North End Gateways were combined into one prioritized project.

The asterisks denote projects identified through the March 11, 2015 stakeholder workshop.

- The criteria that were used to establish the prioritization of the projects were displayed on a board (included in Appendix D). The criteria includes:
 - o potential benefits and achievements
 - estimated cost
 - Community Investment Plan Goals
 - stakeholder Input
 - market Analysis
 - impacts and challenges
 - evaluation factors
- An overview of the top eight prioritized projects and the estimated allocated CIP funds for each prioritized project, with respect to the yearly bonds, which was displayed on a board (included in Appendix D). The prioritization of the projects was also referenced in the handout (included in Appendix B).



The prioritization and allocation of the CIP funding is shown Table 1 below:

Table 1 Prioritized Projects

Priority	Project	Estimated CIP Funding	
1	Matheson Avenue Bridge Streetscape	2014 Bonds – Passed November 2014	
2	N. Tryon Gateway (combined N. Tryon Street Streetscape and Uptown/North End Gateways)	2016 Bonds – Funding Contingent upon Bonds Passing	
3	16 th Street Streetscape	2018 Bonds – Funding	
4	Multi-Use Paths	Contingent upon Bonds Passing	
5	*Newland Road/Norris Avenue Intersection		
6	N. Tryon Area Street Connectivity Projects	Funding not Currently Allocated	
7	N. Graham Street Streetscape		
8	*Druid Hills Park Street Grid Improvements]	

^{*}Partnerships are anticipated for these projects to retain prioritization

• A display board of a typical cross-section representing potential improvements that can be incorporated into each project, (also included in Appendix D).

Key messages that were discussed with the participants include:

- The specific improvements have not yet been identified for each project. Pedestrian
 and bicycle improvements will be a consideration for every project. As the projects
 progress further into development, there will be additional outreach to the community to
 help determine improvements to be incorporated. (This was discussed specifically with
 respect to the North Tryon Gateway Project.)
- The allocation of the CIP funding is based on high-level conceptual cost estimates and as the project development progresses, the distinction of the funding between the bond years may change. In addition, the overall funding is indicated to extend through priority number 4 (Multi-Use Paths), but the funding may extend further to implement additional project(s) or it may be determined the funding cannot extend to complete the top four priorities in their entirety. Also, the funding indicated from the 2016 and 2018 bonds is contingent upon a favorable vote from voters in the City.
- Any opportunities where partnerships/agreements can be entered between the City and other public or private partners could raise the prioritization of individual projects.
- The prioritization of these projects is subject to change over time. They will be continuously revisited based on partnership opportunities and development that occurs within the North End.



An additional project that has been identified for the North End is the North Graham Street Sidewalk Project, which entails providing new sidewalk along the east side of North Graham Street from 11th Street to 12th Street. The City's project team established an additional station to provide information to the Open House attendees about this project. The City's project team members in attendance included Stephen Bolt, Chandler Crofts, and Felix Obregon.

3. Participant Feedback

This community meeting served as a project briefing. The majority of the attendees reviewed the project information and asked questions, but did not provide significant comments. The comments from staff discussion and those that were submitted were generally favorable toward the overall Applied Innovation Corridor as well as the specific project priorities. In particular, several attendees stated that they agreed with the top four priorities.

Project team conversations with meeting participants included the following themes:

- Members of the North End Partners were pleased that the North Tryon Gateway Project was a high priority. Some members did question why the Matheson Avenue Streetscape Project was priority number 1 over North Tryon Gateway.
- Many of the attendees asked about the specific improvements to be implemented, specifically with the North Tryon Gateway Project.
- There was not a significant amount of discussion from the attendees about the potential
 for priorities and funding allocations to change in the future; they seemed to be
 understanding of this. There were minimal concerns raised about projects that were not
 included on the priority list, nor were there concerns about the projects ranked 5 through
 8 which currently have no identified
 funding.
- Two participants owning property along N Tryon Street in the vicinity of 12th Street discussed the potential to donate funding for improvements to the area, but alluded that these improvements needed to be significant and attractive to potential developers. They mentioned the 12th Street roundabout concept that was discussed at the March 11, 2015, Stakeholder Workshop. They were informed that this concept was



considered, but it was determined the cost would be so significant within the CIP funding available, which would not allow for many additional improvements to other areas within



the North End. Therefore, it was not identified as a prioritized project. These participants completed a comment form, which is discussed further in the section below.

- One gentleman suggested that any bicycle improvements should be facilities separated from the motor vehicular traffic and innovative ideas beyond the City's USDG should be considered. He was informed that separated facilities have been discussed as possibilities for the Matheson Avenue and 16th Street projects and that alternatives such as this will be considered as the projects develop further.
- A representative with Mecklenburg County Park and Recreation asked about the low priority assigned to the Druid Hills Park Street Grid Improvements, specifically because it is not identified for allocated CIP funding. He was informed that the project does not meet the CIP goals at a high level, but it was identified as a prioritized project because it is recognized as a needed improvement for the area. If the County is able to secure funding to contribute to the improvements, the project could possibly be increased in priority. At this time, the County does not have identified funding for these improvements.
- One participant felt the North Tryon Street improvements from Matheson Avenue to 36th Street should have been a prioritized project.
- One participant discussed that the Multi-Use Path from Statesville Avenue should extend across North Tryon Street and connect east to Matheson Avenue. This would form a diagonal below the southern quadrant of the N. Tryon Street and Matheson Avenue intersection.
- There were some discussions that the Multi-Use Path should connect to the Cross Charlotte Trail.
- One stakeholder expressed disappointment that the Woodward Avenue/24th Street intersection realignment project was not among the list of prioritized projects.
- One participant suggested using barriers or other temporary measures to narrow Matheson Avenue to two lanes and allow uses in the resulting border areas such as pop-up businesses and containers stores.
- There was a question on whether the Multi-Use Paths will separate bicycles and pedestrians.
- A representative from the Lockwood neighborhood was pleased with the outcome of prioritized projects.

4. Comments

Four comment forms were turned in. They can be found in Appendix E and reflect the following themes:



- A member of the Druid Hills neighborhood expressed a concern that many of his neighbors have not participated in the project and asked how further information could be provided to them.
- A stakeholder (representative with the County's Park and Recreation) mentioned that closure of Rodey Avenue through Druid Hills Park is needed for connectivity and pedestrian safety.
- Property owners at the 900 block of N. Tryon Street expressed interested in the City reviving the 12th Street Roundabout concept as well as a potential public-private partnership for the redevelopment of their property.
- One stakeholder (developer) expressed a desire for the City to do something on the Matheson Avenue bridge now while additional planning takes place.

5. Next Steps

Open House participants were informed that the next steps for the Applied Innovation Corridor project are to test the feasibility of the infrastructure priorities, consider potential private leveraging opportunities and return on investment, and continue community and stakeholder engagement in project planning.



Appendix A: Meeting Announcement Postcard



NORTH END: Charlotte's Next Chapter

Applied Innovation Corridor



Come to a drop-in Open House and learn more about priorities for your neighborhood!

When?

Tuesday, October 20, 2015. Drop by anytime from 5-7 p.m.

Where?

The Extravaganza Depot, 1610 N Tryon St, Charlotte

For details contact Michelle Podeszwa, HDR, at 704-338-6773 or at michelle.podeszwa@hdrinc.com

WHAT IS THIS ABOUT?

In 2014, Charlotte voters approved the Community Investment Plan bond referendum to improve infrastructure and leverage private investments in neighborhoods throughout the city, including the North End (the neighborhoods adjacent to Uptown bounded by I-277, I-77, I-85, and N. Davidson Street).

A list of potential North End infrastructure projects was prepared and shared with the community at a workshop last March. The October 20th meeting will introduce the top priority projects for further planning and potential funding. Note: There will be no formal presentation.



City of Charlotte Charlotte-Mecklenburg Government Center 600 E. Fourth St. Charlotte, NC 28202

Want to know more? Visit us online at www.charlottefuture.com/AIC for more details and to submit your feedback.

Translation can be provided at the workshop if requested. Please contact Michelle Podeszwa at michelle.podeszwa@hdrinc.com or 704-338-6773 if this service is needed.

Appendix B: Handouts



NORTH END: Charlotte's Next Chapter

FALL 2015

Applied Innovation Corridor

WHAT IS THIS PROJECT?

In November 2014, Charlotte voters overwhelmingly approved \$146 million in Community Investment Plan (CIP) bonds to improve infrastructure and leverage private investments throughout the city. One of those areas is Charlotte's emerging North End within the Applied Innovation Corridor, which consists of neighborhoods adjacent to Uptown in the Statesville Avenue, North Graham Street, North Tryon Street, North Davidson Street areas. A list of potential infrastructure projects to help improve **livability, getting around** and **job growth** in this area was developed and reviewed with community members at a workshop on March 11, 2015. Since then, staff with the City of Charlotte has further refined the list of projects using a number of criteria, including additional stakeholder feedback and suggestions.

WHAT ARE THE TOP PRIORITIES?

Eight infrastructure projects have been prioritized as identified below. See map on reverse for more detail. Funding from the 2014 – 2018 CIP is currently identified to potentially implement the first four projects. As projects are further developed, cost estimates will be refined and allocated funding for each project will be adjusted accordingly. This prioritized list will be continuously evaluated over time and is subject to adjustments.

- 1. **Matheson Avenue Bridge Streetscape**. Incorporate pedestrian, bicycle and aesthetic improvements (potential improvements include lighting, street trees, aesthetic railing, etc.) from North Tryon Street to Jordan Place/Yadkin Avenue.
- 2. **North Tryon Gateway**. Create a gateway between Uptown and the North End through streetscape enhancements along North Tryon Street in the vicinity of 11th Street to Dalton Avenue as well as aesthetic improvements at the railroad overcrossings.
- 3. **16th Street Streetscape**. Use existing 2-lane roadway and incorporate pedestrian, bicycle and aesthetic improvements (potential improvements include lighting, street trees, landscaping, etc.).
- 4. **Multi-Use Paths from Statesville Avenue to North Tryon Street**. Provide a neighborhood connection to planned regional trails by constructing a bicycle/pedestrian pathway along an existing Duke easement from Statesville Avenue to North Graham Street and then on to North Tryon Street.
- 5. *Newland Road/Norris Avenue Intersection. Realign intersection to flatten a sharp curve on Newland to provide better, safer vehicle movement.
- 6. **North Tryon Street Area Connectivity Projects**. Extend some existing local streets between North Graham Street and North Tryon Street to better connect the street grid and residential/business access.
- 7. **North Graham Streetscape**. Incorporate sidewalks and aesthetic improvements (potential improvements include lighting, street trees, landscaping, etc.) and evaluate potential for bike lanes from Dalton Avenue to Woodward Avenue.
- 8. *Druid Hills Park Street Grid Improvements. Remove the portion of Rodey Avenue that bisects this park and extend Poinsett Street to improve the street grid surrounding Druid Hills Park.
 - *The prioritization for these two projects is contingent upon partnerships with other entities, which could affect their future ranking.

For the complete list of all potential infrastructure projects that were considered and evaluated, along with the evaluation criteria, visit www.charlottefuture.com/AIC.

WHO IS LEADING THIS EFFORT?

The City of Charlotte, Engineering & Property Management is sponsoring this project with consultant support from HDR Engineering.

WHAT AMOUNT OF FUNDING IS AVAILABLE?

The CIP allocated funds for infrastructure projects within the North End of the AIC are as follows:

- \$12.5 Million 2014 (bonds already passed)
- \$7.7 Million 2016 (Contingent upon bonds passing)
- \$8.7 Million 2018 (Contingent upon bonds passing)

WHAT HAPPENS NEXT?

- Test feasibility of prioritized projects.
- Consider potential private leveraging opportunities and return on investment.
- Facilitate focused and intentional community engagement for each project.

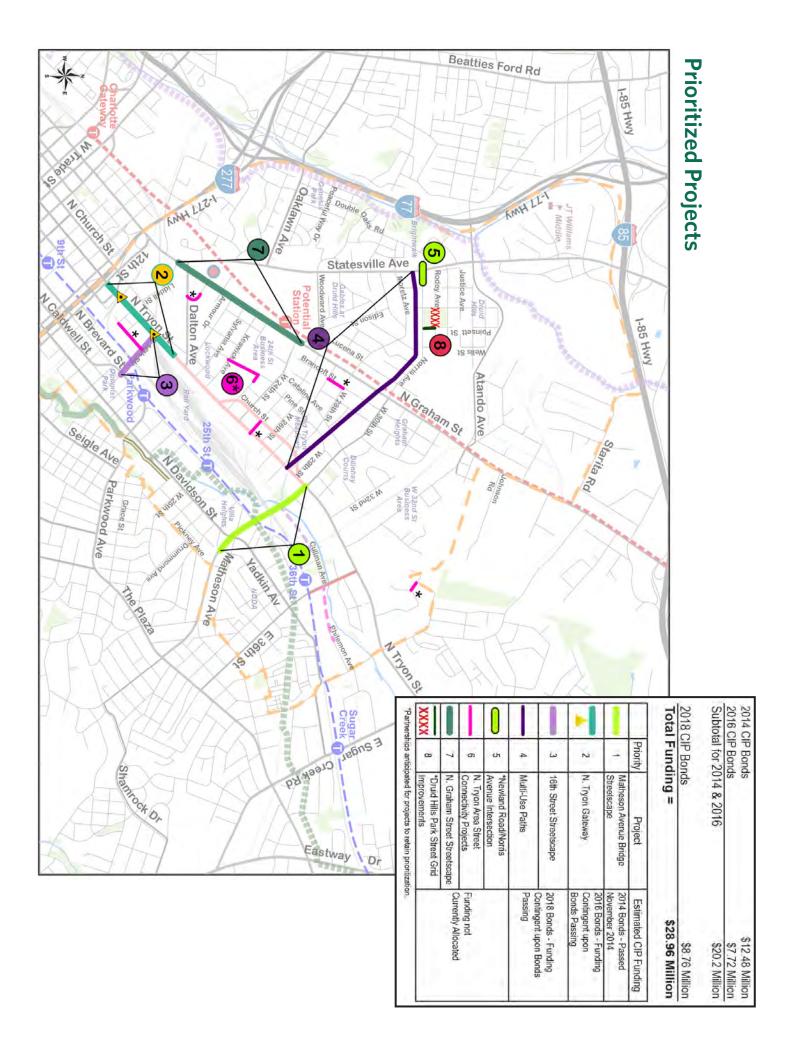
Project Contacts:

Tim Greene, PE
City of Charlotte
Engineering & Property Management
704-336-3649
tlgreene@charlottenc.gov

Leslie Bing
City of Charlotte
Engineering & Property Management
704-336-7277
Ibing@charlottenc.gov

Michelle Podeszwa, PE HDR Engineering, Inc. 704-338-6773 michelle.podeszwa@hdrinc.com

FOR MORE INFORMATION VISIT: www.charlottefuture.com/AIC



North End: Charlotte's Next Chapter Applied Innovation Corridor

How Do I Submit Comments?

- Written Comments: Complete and submit this form at the open house or follow the directions on the reverse side of this sheet to mail your comments by November 3, 2015.
- Electronic Comments: Submit comments to michelle.podeszwa@hdrinc.com by November 3, 2015.

Want to know more? Visit us online at www.charlottefuture.com/AIC for more details. Comments: Name: Street Address: City, State, Zip: _____ Phone:

Contact Preference: ☐ Direct Mail ☐ Email ☐ Do Not Contact

Please fold, fasten with tape and mail. No envelope necessary. Do not staple.	
	Place Stamp Here
Applied Innovation Corridor c/o Michelle Podeszwa 440 S. Church Street Suite 1000 Charlotte, NC 28202	



Appendix C: Participant Sign-In Sheet



NORTH END: CHARLOTTE'S NEXT CHAPTER AIC PUBLIC MEETING SIGN-IN October 20, 2015



CHARLOTTE	i.			CHARLOTTE.
Name	Address	Phone	E-Mail	Affiliation (resident/business/local official/interest group)
SAM ES	smail (Samesm	ail 68 Q Snall. com
ROGER	GROSSWALD		UWIN	@ goI worth. Com
Carol	Burke	336-786-2886	maybe	rrymom@hotmail.com
C. LEE AS	BERNETZYTT	704-905-5684	CLEEA	DERNETHY 3Rd @ GMail. Com.
Linda	Holden	708-333-7120	Lindo	atolden Properties, com
Tom W	1156N	704-956-4906		(The NEW Hidden Valley CDC)
Geraldine:	Danas	704-650-1460	GERRI	10404@hotmail.com
Tony &	Lu thi	901-219-3987	anko	לשות בשקעורשיעליניע
STUART	BASHAN	704-845-1151	SLBF	SHAME NODOT, GOV
A	act	704-334.3187 X106		CACHOMONSCHETTER OF CHARLOTTE ORG
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Liza Ha	ff	704-650-9157		a egmail.com nota NEA
Xefe f	feelere	704-451-1063		bergelochsisassistance.org
Bob 3	Inndel Wilhelm	7042365216	1 7	swither evaccode
Duanto	Bethec	704-380-1577		
Melissa	GASTEN	(704) 890-5017	m	ellowe 3 @ yahoo.com
Donny	of R. Gosten	(744)		- D / / D
Jeff	Phan	7044537451	Th	arman@ Kocketmail. Com
Lovi 1	Allaro	704.302.3274		vaccaro @ hopehoven inc. org
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NORTH END: CHARLOTTE'S NEXT CHAPTER AIC PUBLIC MEETING SIGN-IN October 20, 2015



Name	Address	Phone	E-Mail	Affiliation (resident/business	/local official/interest group)
Chiston	Densis 445 Kermine	Av 704-506-	oy27 Colensis	Jay Lou Con	
Richard Co	derter 231 Sylvan	Ave			
Kim Gr	cor and it		104285-6038	Kgrahama Canh p	.on
Darryl	R. Gaston 2313	Edison st	704 37510	DI WILL THIN	s THA
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NORTH END: CHARLOTTE'S NEXT CHAPTER AIC PUBLIC MEETING SIGN-IN October 20, 2015



Affiliation Address E-Mail Phone Name (resident/business/local official/interest group) Hues. Wallson encetter co chardison ocrisisausistanceorg crisis

Appendix D: Boards



MEETING TONIGHT



North End: Charlotte's Next Chapter Applied Innovation Corridor

The Extravaganza Depot 5:00 PM — 8:00 PM

WELCONE



NORTH END: Charlotte's Next Chapter

Potential Infrastructure Projects Evaluated **Applied Innovation Corridor - North End**

- **Matheson Avenue Bridge** Streetscape Project
- **North Tryon Street Improvements** - Provide bike lanes and pedestrian improvements beyond current streetscape project
- **Uptown/North End Gateways**
- Uptown Serve as a gateway instead of Street, and Graham Street entering into structures over Tryon Street, Church Incorporate aesthetic features to a perceived barrier
- **16th Street Streetscape Project**
- Multi-Use Path Connectivity Project Ware Avenue/36th Street Extension
- Street to N. Tryon Street (along existing from Statesville Avenue to N. Graham Street along outskirts of Druid Hills neighborhood and from N. Graham Duke Easement)
- tight curve on Newland Road to better **Intersection Realignment** - flatten *Newland Road/Norris Avenue accommodate truck traffic

North Tryon Area Plan Connectivity **Projects**

- North Graham Street Streetscape
- Street and extension of Poinsett Street **Improvements** - removal of Rodey **Druid Hills Park Street Grid**
- Woodward Avenue/24th Street Intersection Realignment
- north and south of recent improvements *Statesville Avenue Bicycle Lanes -
- North Davidson Street Bicycle Lanes
- New Connection Oaklawn Avenue/ Sylvania Avenue Extensions
- Street, and Wells Street within Druid Extension of Justice Avenue, Poinsett Hills to close gaps

Items in **Bold** are Prioritized Projects.

*Additional projects identified through the stakeholder workshop.

FOR MORE INFORMATION VISIT: www.charlottefuture.com/AIC



Charlotte's Next Chapter NORTH END:

Applied Innovation Corridor

Applied Innovation Corridor - North End **Prioritization Criteria**

- beautification of a corridor/neighborhood, provides alternative **Potential Benefits and Achievements** - enhancement/ transportation choices, improves connectivity, etc.
- Estimated Cost
- achieves CIP goals for creating jobs, improved transportation choices and connections, and neighborhood improvements. **Community Investment Plan (CIP) Goals** - project
- Stakeholder Input is the community in favor of the project and how is it favored in comparision to the other projects?
- has been identified with strong potential for development or Market Analysis - project is in the vicinity of an area that redevelopment in the short-term.
- Impacts and Challenges costly utility relocation and land acquisition, environmental impacts, etc.
- based on CIP goals, stakeholder input, and cost feasibility. Evaluation Factors - evaluation factors were developed



NORTH END: Charlotte's Next Chapter Applied Innovation Corridor

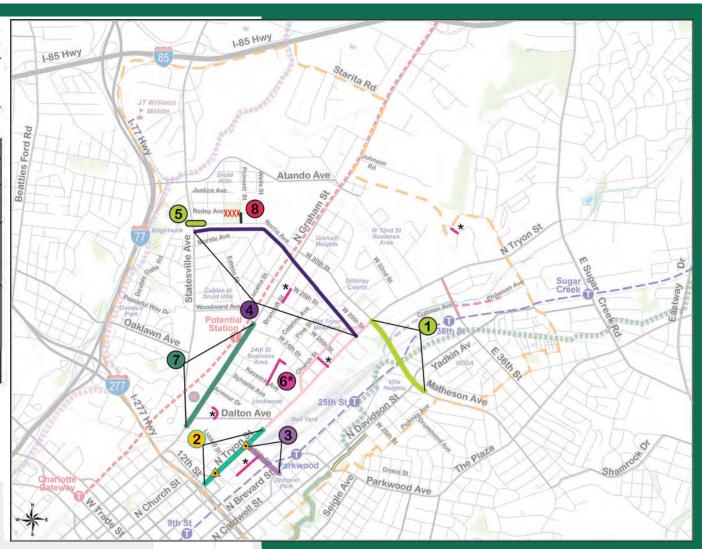
2014 CIP Bonds	\$12.48 Million
2016 CIP Bonds	\$7.72 Million
Subtotal for 2014 & 2016	\$20.2 Million

2018 CIP Bonds \$8.76 Million

Total Funding = \$28.96 Million

	Priority	Project	Estimated CIP Funding
_	Į.	Matheson Avenue Bridge Streetscape	2014 Bonds - Passed November 2014
A	2	N. Tryon Gateway	2016 Bonds - Funding Contingent upon Bonds Passing
	3	16th Street Streetscape	2018 Bonds - Funding
	4	Multi-Use Paths	Contingent upon Bonds Passing
	5	*Newland Road/Norris Avenue Intersection	
	6	N. Tryon Area Street Connectivity Projects	Funding not
	7	N. Graham Street Streetscape	Currently Allocated
XXXX	8	*Druid Hills Park Street Grid Improvements	

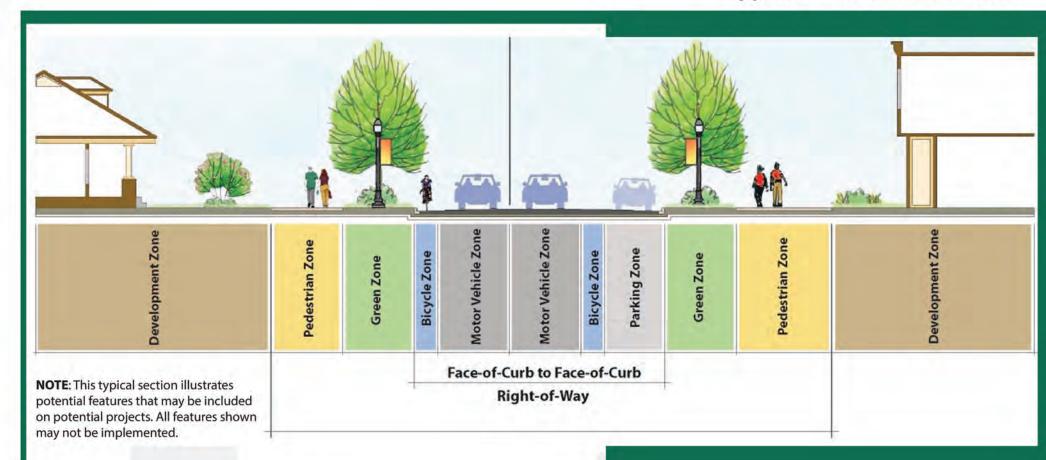
^{*}Partnerships anticipated for projects to retain prioritization



Prioritized Projects



NORTH END: Charlotte's Next Chapter Applied Innovation Corridor



Potential Project Features

Appendix E: Comment Forms

North End: Charlotte's Next Chapter **Applied Innovation Corridor**

How Do I Submit Comments?

- Written Comments: Complete and submit this form at the open house or follow the directions on the reverse side of this sheet to mail your comments by November 3, 2015.
- Electronic Comments: Submit comments to michelle.podeszwa@hdrinc.com by November 3, 2015.

Want to know more? Visit us online at www.charlottefuture.com/AIC for more details.
Comments:
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In light of the fact that
many of residents and stakeholder
have not fully participated in the
various forum of provided by the city,
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residents engaged.
Date:
Name: Darry R Gaston
Street Address: 313 Edison 318 A 2006
City, State, Zip:
Phone: 104 315 -105
Email: dreginald 1961 (a) aol, com
Contact Preference: Direct Mail

North End: Charlotte's Next Chapter **Applied Innovation Corridor**

How Do I Submit Comments?

- Written Comments: Complete and submit this form at the open house or follow the directions on the reverse side of this sheet to mail your comments by November 3, 2015.
- Electronic Comments: Submit comments to michelle.podeszwa@hdrinc.com by November 3, 2015.

Want to know more? Visit us online at www.charlottefuture.com/AIC for more details.

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North End: Charlotte's Next Chapter Applied Innovation Corridor

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Street Address: ROGER GARSSWALL 4242 TOWN & COUNTRY
City, State, Zip:
Phone:
Email: SAM ESMAIL GIZ LOWISE AVE
Contact Preference: ☐ Direct Mail ☑ Email ☐ Do Not Contact 704 - 488 - 91 72
OR PHONE
ROGER- UWIN @901 HONTH, COM /SAM SAMESMAIL68@
GMAIL, COM

North End: Charlotte's Next Chapter **Applied Innovation Corridor**

How Do I Submit Comments?

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- Electronic Comments: Submit comments to michelle podeszwa@hdrinc.com by November 3, 2015.

Contact Preference: ☐ Direct Mail

Want to know more? Visit us online at www.charlottefuture.com/AIC for more details. 4 MONTHS. SOMETHING THE COMMUNITY CAN SET. Comments: Do SOMETHING IN THE NEXT Date: __ Name: __ Street Address: _ City, State, Zip: Phone: anko vision ventures wet Email:

☐ Email

□ Do Not Contact





Appendix E – Utility Impact Assessment

2014 CIP – Applied Innovation Corridor North End Potential Projects

Submitted by:



7520 E. Independence Blvd., Suite 230, Charlotte, NC 28227 704 814 4407

Michael E. Davis: mdavis@hindeengineering.com Bill Black: bblack@hindeengineering.com

July 08, 2015

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11	Multi-use path connections from Statesville Avenue to N. Graham Street
12	Statesville Ave. Bike Lanes

Executive Summary:

The following is a high level assessment of existing and future utility infrastructure that may substantially impact the development of the Applied Innovation Corridors North End (AIC).

A total of twelve projects are addressed in individual sections as identified below.

- 1. N Graham Street Streetscape
- 2. Matheson Ave. Bridge Streetscape
- 3. 16th Street Streetscape
- 4. N. Tryon Street Improvements
- 5. N. Davidson Street Bicycle Lanes
- 6. Statesville Avenue (Oaklawn Avenue Extension) and N Graham Street (to Sylvania Extension) Connector.
- 7. Ware Avenue/36th Street Extension
- 8. Woodward Ave. / 24th St. Intersection Realignment
- 9. Uptown/North End Gateways (Aesthetic Features).
- 10. Multi Use Path N Graham St. to N Tryon St.
- 11. Multi Use Path Statesville Ave. to N Graham
- 12. Statesville Rd. Bike Lanes

Each section contains the following subsections:

- 1. Exiting Facilities
- 2. Future Facilities
- 3. Prior Rights (Private Utilities)
- 4. Estimated Cost to City for Utility Relocations
- 5. Estimated Time to Relocate
- 6. Restrictions and / or Moratoriums
- 7. Non-Utility Conflicts Observed During Investigation

Estimated costs and timelines are based on information derived from previous projects, site visits and discussions with utility representatives. The following pages as summarized by project reflect potential conflicts with existing and future utility infrastructure.

The most costly relocations the City may incur are related to transmission facilities owned by both electric and gas companies. These companies will have prior rights and each will seek 100% compensation for relocation and/or modification to facilities. In addition, the relocation and/or modification to these types of facilities are the most time consuming. In many cases transmission facilities may take in excess of one year to clear the project given the need to purchase new right-of-way, order special materials as well as possible moratoriums, both regulatory and seasonal.

Based on the information gathered the City may want to consider some of the following suggestions to help reduce the impact of utility conflicts and consequentially costs related to relocations and/or modifications.

- At any location where the Project impacts an aerial transmission line, the design team should try to avoid having to excavate (cut or fill) within thirty (30) feet of an existing structure.
- Consider realignment to avoid existing towers, especially "corner" towers.
- Minimize reduction in vertical clearance when crossing transmission line between towers (mid span).
- Minimize fill over gas transmission lines
- Avoid cuts at gas transmission lines

Utilities identified in this phase of the investigation that may impact the projects listed on page one are as follows:

- Power
 - o Duke Energy (Distribution)
 - o Duke Energy (Transmission)
 - o Duke Energy (Lighting)
- Gas
 - o Piedmont Natural Gas
- Water / Sewer
 - o Charlotte Water
- Storm Water
 - o Charlotte Storm Water
- Telecommunications
 - Access Fiber
 - o Adelphia (owned by Level 3)
 - o American Tower
 - o AT&T (Local) BellSouth
 - o AT&T (Legacy) Long Distance
 - o AT&T (NC) Teleport
 - o Century Link
 - o DukeNet (owned by Time Warner Cable)
 - o EarthLink
 - o Level3
 - o MCNC
 - o Palmetto Net
 - o Qwest (owned by Century Link)
 - o Springboard
 - Sprint Communications
 - o Time Warne Cable
 - o Time Warner Telecom (owned by Level 3)
 - o Verizon Business / MCI
 - Windstream
 - o Zayo
- Department of Transportation
 - o CDOT
 - o NCDOT

1 N Graham Street Streetscape Project

The corridor identified for improvements extends from (on the northerly end) Atando Ave. and moves southward along N Graham St. to the 12th St Area.

1.1 Existing Facilities

- Duke Energy (Distribution):
 - o There is a 3 phase (single circuit) distribution line that runs thru the entire corridor. It extends from Atando Ave. (on the westerly side of N Graham St.) and moves southward to Woodward Ave. crossing N Graham St. and running southward on the easterly side of N. Graham St.

At Woodward Ave., it is joined by another 3 phase distribution line. This second (single circuit) distribution line crosses over the first and is positioned on the westerly side of N Graham St.

The two circuits then run parallel (on opposite sides of the road), moving southward to Sylvania Ave. where the second circuit turns west and moves onto the "Rite Aid" parcel located at 701 N Graham St.

The first circuit now becomes double circuit and then crosses back over N Graham St. to resume its position on the westerly side of the road and continues southward to Music Factory Blvd.

- o See pictures at the end of this section
 - N Graham St. Distribution (1)
 - N Graham St Distribution (2)
 - N Graham St Distribution (3)
- Duke Energy (Lighting)
 - Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Transmission):
 - There is a double circuit 100KV transmission line crossing perpendicular to N Graham St. at the 2500 Block.
 - o See picture at the end of this section
 - N Graham St. Transmission Lines
- Piedmont Natural Gas (Distribution)
 - o There are gas distribution lines along N Graham St. size and material are unknown
- AT&T (Legacy) Long Distance

Facilities in the area. Specific location and type not identified.

- AT&T (Local) BellSouth
 - o Aerial cables on AT&T pole line run along the NB (easterly) side of N Graham St. & parallel to N Graham St.
 - o See Picture at the end of this section
 - N Graham St. Telecom pole line

• Time Warner Cable (TWC)

Aerial cables on AT&T pole line run along NB (easterly) side of N Graham St. and underground in various locations.

• Sprint Communications

o A fiber optic line runs parallel to N Graham St. along the NB (easterly) side of the road. It is buried in the planting strip and is clearly marked with above ground markers.

• Other Telecom Companies

There are potentially seven other telecommunication companies with aerial cables also attached on the AT&T pole line running on the easterly side (NB) of N Graham St.

• Charlotte Water

o The table below lists the existing Water lines within this project by size and description

Size	Description
8"	From W. Brookshire Fwr to hydrant before the tracks
12"	Starts before the tracks and runs to W. Liddell St.
42"	Crosses N. Graham St. at W. Liddell St.
8"	Starts at W. Liddell St. and runs to Plymouth Ave
8"	Connects off of N. Graham St. and runs down Dalton Ave
16"	Connects off of N. Graham St. and runs to Statesville Ave
Unknown	Connects off of N. Graham St. and runs down Plymouth Ave
6"	Connects off of N. Graham St. and runs down Sylvania Ave
12"	Connects off of N. Graham St. and runs down Keswick Ave
8"	Connects off of N. Graham St. and runs down Wolfberry St.
8"	Connects off of N. Graham St. and runs down W. 24th St.
12"	From Plymouth Ave to Concordia Ave
2 1/2"	From W. 24th St. to Franklin Ave
2"	From Concordia Ave and then ties into 12" after Norris Ave
Unknown	Connects off of N. Graham St. and runs down Concordia Ave
Unknown	Connects off of N. Graham St. and runs down Franklin Ave
12"	Starts after Franklin Ave and runs to Atando Ave
Unknown	Connects off of N. Graham St. and runs down Woodward Ave
6"	Connects off of N. Graham St. and runs down Moretz Ave
6"	Connects off of N. Graham St. and runs NW up Norris Ave
12"	Connects off of N. Graham St. and runs SE down Norris Ave
8"	Connects off of N. Graham St. and runs down Atando Ave

• The table below lists the existing Sewer lines within this project by size and description.

Size	Description
8"	Starts just after the track and stops just before Norris Ave
8"	From Norris and stops just after Dogwood Ave
8"	Connects off of N. Graham St. and runs up Statesville Ave
Assumed 8"	Connects off of N. Graham St. and runs down W. Liddell St.
Assumed 8"	Connects off of N. Graham St. and runs down Dalton Ave
Assumed 8"	Connects off of N. Graham St. and runs down Plymouth Ave
Assumed 8"	Connects off of N. Graham St. and runs down Sylvania Ave
Assumed 8"	Connects off of N. Graham St. and runs down Keswick Ave
Assumed 8"	Connects off of N. Graham St. between Wolfberry St. and W. 24th St.
Assumed 8" Connects off of N. Graham St. and runs down W. 24th St.	
	1
Assumed 8"	Connects off of N. Graham St. and runs up Moretz Ave
Assumed 8"	Connects off of N. Graham St. and runs SE just before Norris Ave
Assumed 8"	Crosses N. Graham St. at Norris Ave

1.2 Future Facilities

- Duke Energy (Distribution)
 - No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - o No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Sprint Communications
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this report.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.

- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- CDOT
 - o CDOT is currently in the developmental stages of installing a ductal system that will start in front of 626 N. Graham St. The conduit will go northward along Graham to the CDOT controller cabinet at 12th/Graham. At that point the cable will rise up the Duke Energy pole, cross to the west side of Graham, then continue northward to Dalton/Graham/Statesville, then down the pole at the corner, continuing northward about 800' until opposite the back of the Fire Department HQ.

1.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocation of overhead facilities are allocated 60/40 (60% to City, 40% Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

1.4 Estimate Cost to City for Utility Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 133 poles x \$15,000 per pole

\$1.995M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 90 streetlights leased by City
- 33 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

Transmission facilities not impacted

- Charlotte Water
 - o Total water & sewer

\$2.540M

■ *Water* \$1.275M

■ Sewer \$1.265M

1.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

- Duke Energy (Distribution)
 - o Engineering / Design 2 - 3 months 2 - 4 months
- o Construction/Cutover/Removal
- Duke Energy (Transmission)
 - Acquisition of new R/W and Design 12 months
 - o Construction/Cutover/Removal 12 - 18 months
- Piedmont Natural Gas
 - o Engineering / Design 1 - 2 months
 - o Construction/Cutover/Removal 2 - 4 months
- AT&T
 - o Engineering / Design 2-4 months
 - o Construction/Cutover/Removal 4 - 6 months
 - o OH relocations may depend on Duke Energy Design
- Time Warner Cable
 - o Engineering / Design 2-4 months
 - Construction/Cutover/Removal 4 - 6 months
 - OH relocations may depend on Duke Energy Design
- **Sprint Communications**
 - 2-4 months o Engineering / Design
 - o Construction/Cutover/Removal 4-6 months
 - o OH relocations may depend on Duke Energy Design
- Other Telecommunication Companies
 - o Engineering / Design 2-4 months
 - o Construction/Cutover/Removal 4-6 months
- Charlotte Water
 - o Engineering / Design 2-4 months
 - o Construction/Cutover/Removal 4-6 months

Restrictions and/or Moratoriums *1.6*

- Duke Energy (Distribution)
 - o Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months

- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - O Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

1.7 Non-Utility Conflicts Observed During Investigation

- Business Signs:
 - o There are numerous business signs along the corridor that may be impacted by improvements causing utility relocations in this area.
 - o See Pictures at the end of this section
 - N Graham St. Business Sign (1)
 - N Graham St. Business Sign (2)
 - N Graham St. Business Sign (3)
- Billboards:
 - o There are a few billboards along the N Graham St. corridor that could be impacted by improvements causing utility relocations in this area.
 - See Pictures at the end of this section
 - N Graham St. Billboard (1)
 - N Graham St. Billboard (2)
- Traffic Signals/Signs:
 - O There are multiple intersections along this corridor with signalization facilities that could be affected by project and utility relocations
 - See Pictures at the end of this section
 - N Graham St. Intersection (1)
 - N Graham St. Intersection (2)
 - N Graham St. Intersection (3)
- RR Crossing Arms:
 - o This type of facility can impact how a given utility will design its respective relocation to maintain adequate clearance
 - o RR will seek 100% compensation for any modification to its facilities
 - o See picture at the end of this section
 - N Graham St. RR Crossing Arm

Pictures of Existing Utilities and Structures located along the N Graham St Corridor.



N Graham St. Distribution (1)



N Graham St. Distribution (2)



N Graham St. Distribution (3)



N Graham St. Transmission Lines



N Graham St. Telecom Pole Line



N Graham St. Business Sign (1)



N Graham St. Business Sign (2)



N Graham St. Business Sign (3)



N Graham St. Billboard (1)



N Graham St. Billboard (2)



N Graham St. Intersection (1)



N Graham St. Intersection (2)



N Graham St. Intersection (3)



N Graham St. RR Crossing Arm

2 Matheson Ave. Bridge Streetscape Project

The corridor identified for improvements extends from N Tryon St. (on the northerly end) and moves southeasterly along Matheson Ave. to The Plaza. It also incorporates the bridge located between Jordan Pl. & N Tryon St.

2.1 Existing Facilities

- Duke Energy (Distribution)
 - O There is a double circuit distribution pole line that extends from Jordan Pl. to The Plaza. It parallels Matheson Ave. and continues along the south side of the road. This pole line originates at the "N Tryon" end of the project and is initially located on the northern side of the road but quickly crosses to the opposite side and moves away from the road to cross over the RR tracks. It then moves back up to Matheson Ave. around Jordan Pl. and runs to The Plaza area.
 - See pictures at the end of this section
 - Matheson Ave. Distribution Lines (1)
 - Matheson Ave. Distribution Lines (2)
 - Matheson Ave. Distribution Lines (3)
- Duke Energy (Lighting)
 - O Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Transmission)
 - There is a double circuit 100KV transmission line crossing perpendicular to Matheson Ave. at the bridge area.
 - See pictures at the end of this section
 - Matheson Ave. Transmission Lines
- Piedmont Natural Gas (Distribution)
 - o There are distribution lines along Matheson Ave. size and material is unknown.
- AT&T (Legacy) Long Distance
 - Facilities in the area. Specific location and type not identified.
- AT&T (Local) BellSouth
 - o Aerial cables on existing Duke Energy pole line.
- Time Warner Cable
 - o Aerial cables on existing Duke Energy pole line.
- Verizon Business / MCI
 - Aerial on existing Duke Energy pole line

• Charlotte Water

o The table below lists the existing Water lines within the project by size and description

Size	Description
12"	Runs along N. Tryon St. and intersects at Matheson Ave at N.
	Tryon St.
8"	Crosses Matheson Ave at N. Brevard St.
12"	Crosses Matheson Ave at N. Davidson St.
Unknown	Crosses Matheson Ave at Yadkin Ave
2"	From Yadkin Ave to Clemson Ave
24"	From Pinckney Ave to Clemson Ave
2"	Connects off of Matheson Ave and runs north on Clemson Ave
6"	Connects off of Matheson Ave and runs south on Clemson Ave
Unknown	Crosses Matheson Ave from Whiting Ave to Holt St.
Unknown	Crosses Matheson Ave from Whiting Ave to Holt St.
6"	From Holt St. to The Plaza
24"	From Holt St. to The Plaza
20"	Connects off of Matheson Ave and runs NE on Holt St.
Unknown	Connects off of Matheson Ave and runs NE on Holt St.
12"	Crosses Matheson Ave at The Plaza
6"	Crosses Matheson Ave at The Plaza
Unknown	Connects off of Matheson Ave and runs up Hudson St.
Unknown	Connects off of Matheson Ave and runs up Wesley Ave

o The table below lists the existing Sewer lines within this project by size and description

Size	Description
8"	Runs along N. Tryon St. and intersects at Matheson Ave at N.
	Tryon St.
27"	Crosses Matheson Ave after Chick Godley Rd.
8"	crosses Matheson Ave at N. Brevard St.
Assumed 8"	Connects off of Matheson Ave and runs behind properties on
Assumed o	Faison Ave
8"	Crosses Matheson Ave at Charles Ave
8"	Connects off of Matheson Ave and runs north on Pinckney Ave
8"	From Pinckney Ave to just short of Clemson Ave
8"	Crosses Matheson Ave at Clemson Ave
Assumed 8"	Crosses Matheson Ave from Whiting Ave to Holt St.
8"	From Holt St. to The Plaza
Assumed 8"	Connects off of Matheson Ave and runs east on Holt St.
Assumed 8"	Connects off of Matheson Ave and runs up Hudson St.
8"	Crosses Matheson Ave at The Plaza

• Charlotte Storm Water

There is a storm water system in place along Matheson Ave. with storm water inlets positioned along both sides of the road.

2.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - o No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

2.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - o Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

2.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - Duke Energy (Distribution)
 - Distribution poles (primary)
 - 28 poles x \$15,000 per pole

\$0.420M

o Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 46 streetlights leased by City
- -0- lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water

Total water & sewer

\$1.421M

Water \$1.040MSewer \$0.381M

2.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

• Duke Energy (Distribution)

Engineering / Design
 Construction/Cutover/Removal
 2 - 3 months
 2 - 4 months

Duke Energy (Transmission)

Acquisition of new R/W and Design
 Construction/Cutover/Removal
 12 months
 12-18 months

Piedmont Natural Gas

o Engineering / Design 1 − 2 months o Construction/Cutover/Removal 2 − 4 months

AT&T

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

OH relocations may depend on Duke Energy Design

• Time Warner Cable

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

OH relocations may depend on Duke Energy Design

• Sprint Communications

Engineering / Design 2 - 4 months
 Construction/Cutover/Removal 4 - 6 months

OH relocations may depend on Duke Energy Design

• Other Telecommunication Companies

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

• Charlotte Water

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

2.6 Restrictions and/or Moratoriums

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - O Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

2.7 Non-Utility Conflicts Observed During Investigation

- Business Signs:
 - With the exception of the intersections at N Tryon St. and The Plaza, the corridor is strictly residential with relatively few businesses. The few businesses that have signs are located at these intersections.
 - o See Pictures at the end of this section
 - Matheson Ave. Business Sign (1)
 - Matheson Ave. Business Sign (2)
 - Matheson Ave. Business Sign (3)

• Traffic Signals / Signs:

- There are a total of three intersections with signalization facilities that could be impacted by improvements in this corridor. N Tryon St., Jordan Pl. & The Plaza.
- See Pictures at the end of this section
 - Matheson Ave. Traffic Signals (1)
 - Matheson Ave. Traffic Signals (2)
 - Matheson Ave. Traffic Signals (3)

• Cell Towers:

- There are 2 cell towers observed along the corridor; 1) near the N Tryon St. & Matheson Ave. intersection and; 2) near The Plaza & Matheson Ave. intersection. Both are physically located well outside the limits of the corridor identified for improvements.
- o See pictures at the end of this section
 - Matheson Ave. Cell Tower (1)
 - Matheson Ave. Cell Tower (2)
- Privately Owned Structures:
 - There is a segment of the corridor on the northerly side of the road where a property owner has constructed a privacy fence up to the edge of the sidewalk. There is also a picket fence located near Jordan Pl. that could be impacted. These structures could be a factor in future improvements.
 - o See Picture at the end of this section
 - Matheson Ave. Privacy Fence
 - Matheson Ave. Picket fence

<u>Pictures of Existing Utilities and Structures located along the Matheson Ave.</u> <u>Corridor</u>



Matheson Ave. Distribution Lines (1)



Matheson Ave. Distribution Lines (2)



Matheson Ave. Distribution Lines (3)



Matheson Ave. Transmission Lines (1)



Matheson Ave. Cell Tower (1)



Matheson Ave. Cell Tower (2)



Matheson Ave. Business Sign (1)



Matheson Ave. Business Sign (2)



Matheson Ave. Business Sign (3)



Matheson Ave. Traffic Signals (1) (Jordan Pl.)



Matheson Ave. Traffic Signals (2) (N Tryon St)



Matheson Ave. Traffic Signals (3) (The Plaza)



Matheson Ave. Privacy Fence



Matheson Ave. Picket fence

3 16th Street Streetscape Project

Extends from Parkwood Ave. (on the easterly end) and moves northwesterly to N Tryon St.

3.1 Existing Facilities

- Duke Energy (Distribution)
 - o There is a double circuit distribution pole line running on the northerly side of 16th St.
 - o See pictures at the end of this section
 - 16th St. Distribution Lines (1)
 - 16th St. Distribution Lines (2)
- Duke Energy (Lighting)
 - o Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Piedmont Natural Gas (Distribution)
- There are distribution lines along 16th St. size and material is unknown
- AT&T (Legacy) Long Distance
 - O Has Facilities in the area. Specific location and type have not been identified.
- Time Warner Cable (TWC)
 - o Aerial cables on existing Duke Energy pole line run on northerly side of 16th St.
- Verizon Business / MCI
 - o Underground facilities along 16th St.
- Charlotte Water
 - o The table below lists the existing Water lines within the project by size and description

Size	Description
12"	Runs along N. Tryon St. and intersects E. 16th St. at N. Tryon St.
8"	From N. Tryon St. to Parkwood Ave
12"	Runs along Parkwood Ave and intersects E. 16th St. at Parkwood
	Ave
24"	Runs along Parkwood Ave and intersects E. 16th St. at Parkwood
	Ave

o The table below lists the existing Sewer lines within this project by size and description

Size	Description
8"	Runs along N. Tryon St. and intersects E. 16th St. at N. Tryon St.
8"	From N. Tryon St. to just shy of the train tracks
8"	From after the train tracks to Parkwood Ave
	Runs along Parkwood Ave and intersects E. 16th St. at Parkwood
8"	Ave

- Charlotte Storm Water
 - o There is an existing storm water system in place along 16th St.
 - See Picture at the end of this section
 - 16th St. Storm Water Inlet

3.2 Future Facilities

- Duke Energy (Distribution)
 - No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

3.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - o Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - Deeded R/W
 - 100% compensable

3.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 16 poles x \$15,000 per pole

\$0.240M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 12 streetlights leased by City
- 6 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water
 - o Total water & sewer

\$0.345M

Water \$0.163MSewer \$0.183M

3.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

- Duke Energy (Distribution)
 - o Engineering / Design 2-3 months
 - o Construction/Cutover/Removal 2 4 months
- Duke Energy (Transmission)
 - Acquisition of new R/W and Design 12 months
 Construction/Cutover/Removal 12-18 months
- Piedmont Natural Gas
 - o Engineering / Design 1-2 months
 - Construction/Cutover/Removal 2 4 months
- AT&T
 - o Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months
 - o OH relocations may depend on Duke Energy Design
- Time Warner Cable
 - o Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months
 - o OH relocations may depend on Duke Energy Design
- Sprint Communications
 - o Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months
 - OH relocations may depend on Duke Energy Design
- Other Telecommunication Companies
 - Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months

• Charlotte Water

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

3.6 Restrictions and/or Moratoriums

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

3.7 Non-Utility Conflicts Observed During Investigation

- Traffic Signals/Signs
 - o There is only 1 intersection in this corridor that has signalization facilities that could be affected by improvements. The intersection of N Tryon St. & 16th St.
 - o See Picture at the end of this section
 - 16th St. Intersection (1)
- RR Crossing Arms
 - o There is a multiline rail corridor passing perpendicular to 16th St. the crossing arms may need to be relocated.
 - o See Picture at the end of this section
 - 16th St. RR Crossing Arms
- Privately Owned Structures:
 - o A chain link fence appears to belong to the storage facility located on the southerly side of 16th St. (entrance at N Tryon St.), could be affected by improvements.
 - See Picture at the end of this section
 - 16th St. Chain link Fence (1)
 - o A chain link fence appears to belong to the Consolidated Pipe and Supply Co. located on the northerly side of 16th St. (entrance on 16th St.) could be affected by improvements.
 - See Picture at the end of this section
 - 16th St. Chain Link Fence (2)

Pictures of Existing Utilities and Structures located along the 16th St. Corridor



16th St. Distribution Lines (1)



16th St. Distribution Lines (2)



16th St. Storm Water Inlet



16th St. Intersection (1)



16th St. RR Crossing Arms



16th St. Chain Link Fence (1)



16th St. Chain Link Fence (2)

4 N. Tryon Street Improvements

The corridor identified for improvements extends from E Sugar Creek Rd. (on the northerly end) and moves southward along N Tryon St. to W 30th St. / Matheson Ave.

4.1 Existing Facilities

- Duke Energy (Distribution)
 - O A 3 phase (single circuit) distribution line runs on the southerly side of N Tryon Street thru the entire corridor. It begins at E Sugar Creek Rd. and moves southwesterly to 30th St. but remains on the southerly side the entire distance. There are multiple locations where the circuit will split off and cross over N Tryon St. heading north and some split off heading south.
 - See Pictures at the end of this section
 - N Tryon St. Distribution (1)
 - N Tryon St. Distribution (2)
 - N Tryon St. Distribution (3)
- Duke Energy (Lighting)
 - Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Transmission):
 - o There is a double circuit 100KV transmission line crossing perpendicular to N Tryon St. near physical address 3600 N Tryon St.
 - See picture at the end of this section
 - N Tryon St. Transmission Lines
- Piedmont Natural Gas (Distribution)
 - o There are distribution lines along N Tryon St. size and material is unknown
- AT&T (Legacy) Long Distance

Facilities in the area. Specific location and type not identified.

- AT&T (Local) BellSouth
 - o Aerial cables on existing Duke Energy pole line run on southerly side of N Tryon St. and possibly underground facilities in various areas.
 - See Picture at the end of this section
 - N Tryon St. Telecom Attachments
- Time Warner Cable (TWC)
 - Aerial cables on existing Duke Energy pole line that run on southerly side of N Tryon St.
 - See Picture at the end of this section
 - N Tryon St. Telecom Attachments
- Other Telecom Companies
 - o There are potentially 3-5 other telecommunication companies with aerial cables also attached on the existing Duke Energy pole line that run on southerly side of N Tryon St.

• Charlotte Water

o The table below lists the existing Water lines within this project by size and description

Size	Description
12"	From W. 12th St. to Dalton Ave
1"	In vicinity of W. Liddell St. and E. Liddell St.
6"	Connects off of N. Tryon St. and runs south on W. 12th St.
Unknown	Connects off of N. Tryon St. just before E. Liddell St. and runs
	SE into properties
Unknown	Connects off of N. Tryon St. and runs down E. Liddell St.
Unknown	Connects off of N. Tryon St. and runs down Wadsworth Pl
6"	Connects off of N. Tryon St. and runs up W. 15th St.
8"	Connects off of N. Tryon St. and runs down E. 16th St.
2"	Connects off of N. Tryon St. and runs up Ashby St.
6"	Connects off of N. Tryon St. between W. 12th St. and N. Church
	St. and runs north through properties

o The table below lists the existing Sewer lines within this project by size and description

Size	Description
8"	From W. 12th St. to just after the first set of train tracks
8"	From E. Liddell St. to W. 15th St.
8"	From Wadsworth Pl to Dalton Ave
8"	Connects off of N. Tryon St. and goes north across N. Church St.
Assumed 8"	Connects off of N. Tryon St. and goes north across N. Church St.
Assumed 8"	Connects off of N. Tryon St. and goes SE and connects to E.
	Liddell St.
Assumed 8"	Connects off of N. Tryon St. and goes down E. Liddell St.
Assumed 8"	Connects off of N. Tryon St. and goes down Wadsworth Pl
Assumed 8"	Connects off of N. Tryon St. and goes up W. 15th St.
8"	Connects off of N. Tryon St. and goes down E. 16th St.
Assumed 8"	Connects off of N. Tryon St. and goes NE through properties

• Charlotte Storm Water

- There is a storm water system in place along N Tryon St. with storm water inlets positioned along both sides of the road.
- o See picture at the end of this section
 - N Tryon St. Storm Water Inlet

4.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - o No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

4.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - o Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60% to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

4.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities Private Utilities
 - o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 53 poles x \$15,000 per pole

\$0.795M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 109 streetlights leased by City
- 100 lights leased by private entities

o Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water
 - o Total water & sewer

\$2.050M

Water \$1.172MSewer \$0.878M

4.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

- Duke Energy (Distribution)
 - Engineering / Design
 Construction/Cutover/Removal
 2 3 months
 2 4 months
- Duke Energy (Transmission)
 - Acquisition of new R/W and Design
 Construction/Cutover/Removal
 12 months
 12-18 months
- Piedmont Natural Gas
 - Engineering / Design
 Construction/Cutover/Removal
 1 2 months
 2 4 months
- AT&T
 - Engineering / Design
 Construction/Cutover/Removal
 4 6 months
 - OH relocations may depend on Duke Energy Design
- Time Warner Cable
 - Engineering / Design
 Construction/Cutover/Removal
 4 6 months
 - o OH relocations may depend on Duke Energy Design
- Sprint Communications
 - o Engineering / Design 2 4 months
 - o Construction/Cutover/Removal 4 − 6 months
 - o OH relocations may depend on Duke Energy Design
- Other Telecommunication Companies
 - Engineering / Design
 Construction/Cutover/Removal
 4 6 months
- Charlotte Water
 - Engineering / Design
 Construction/Cutover/Removal
 4 6 months

4.6 Restrictions and/or Moratoriums

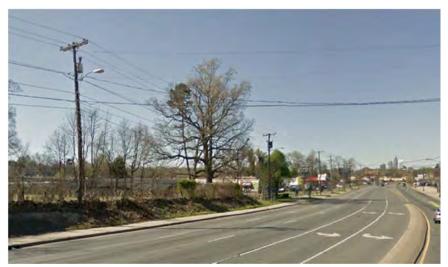
- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility/customer.

4.7 Non-Utility Conflicts Observed During Investigation

- Business signs:
 - There are multiple business signs along the corridor that could be affected by improvements in this area.
 - See Pictures at the end of this section
 - N Tryon St. Business Sign (1)
 - N Tryon St. Business Sign (2)
 - N Tryon St. Business Sign (3)
- Billboards:
 - There are several billboards along the corridor that could be affected by improvements in this area.
 - See Pictures at the end of this section
 - N Tryon St. Billboard (1)
 - N Tryon St. Billboard (2)
 - N Tryon St. Billboard (3)
- Traffic Signals/Signs
 - o There are several intersections that are incorporated in the corridor. The signalization facilities could be affected.
 - o See pictures at the end of this section
 - N Tryon St. Intersection (1)
 - N Tryon St. Intersection (2)
 - N Tryon St. Intersection (3)

- Radio/TV Towers
 - o There is a radio tower located at physical address
 - o See picture at the end of this section
 - N Tryon St. Radio Tower
- Cell Towers
 - o There is a Cellular tower located at 2729 N Tryon St.
 - o See picture at the end of this section
 - N Tryon St. Cell Tower
- RR Crossing Arms
 - o N Tryon St. crosses a RR between Atondo Ave. and E 32nd St. may impact improvements and/or utility relocations.
 - See picture at the end of this section
 - N Tryon St. RR Crossing Arms
- Privately Owned Structures
 - There are a number of structures along the corridor that would be affected by improvements such as fences, gates, etc.
 - See Pictures at the end of this section
 - N Tryon St. Gate
 - N Tryon St. Fence (1)
 - N Tryon St. Fence (2)

Pictures of Existing Utilities and Structures located along the N Tryon St. Corridor



N Tryon St. Distribution Lin (1)



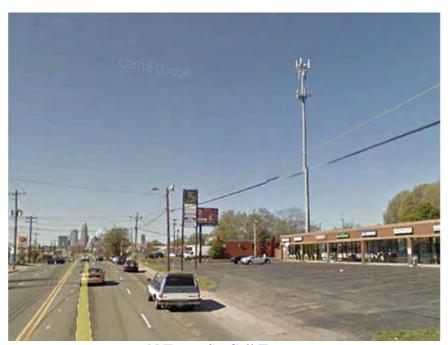
N Tryon St. Distribution Lin (2)



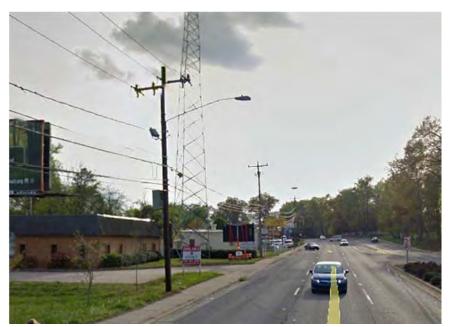
N Tryon St. Distribution Lin (3)



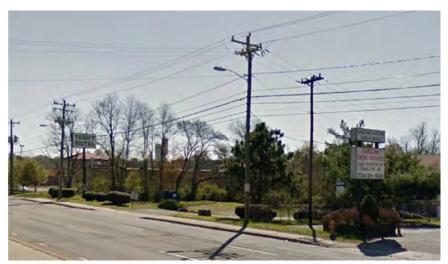
N Tryon St. Transmission lines



N Tryon St. Cell Tower



N Tryon St. Radio Tower



N Tryon St. Telecom Attachments



N Tryon St. Storm Water Inlet



N Tryon St. Business Sign (1)



N Tryon St. Business Sign (2)



N Tryon St. Business Sign (3)



N Tryon St. Billboard (1)



N Tryon St. Billboard (2)



N Tryon St. Billboard (3)



N Tryon St. Intersection (1)



N Tryon St. Intersection (2)



N Tryon St. Intersection (3)



N Tryon St. Radio Tower



N Tryon St. Cell Tower



N Tryon St. RR Crossing Arms



N Tryon St. Gate



N Tryon St. Fence (1)



N Tryon St. Fence (2)

5 N Davidson St. Bicycle Lanes.

The addition of Bicycle Lanes along N Davidson from E. 36th St. extending southward to 12th St. are divided into 5 sections. Each section has unique circumstances that do not convey throughout the entire corridor. They have been designated as segments A, B, C, D and E respectively.

- <u>Section A</u> is defined as the segment that begins at 12th St. and moves northward to Belmont Ave.
- <u>Section B</u> is defined as the segment that begins at Belmont Ave. and moves northward to Parkwood Ave.
- <u>Section C</u> is defined as the segment that begins at Parkwood Ave. and moves northward to Jordan Pl.
- <u>Section D</u> is defined as the segment that begins at Jordan Pl. and moves northward to N Brevard St
- <u>Section E</u> is defined as the segment that begins at N Brevard St. and moves northward to 36^{th} St.

Noteworthy: Section C & E already have bicycle lanes identified along N Davidson St.

- o See pictures at the end of this section
 - N Davidson St. Section (C) bicycle Lanes
 - N Davidson St. Section (E) bicycle Lanes

5.1 Existing Facilities

- Duke Energy (Distribution):
 - Seg A: Beginning at the intersection of McGill Garden Way & N Davidson St., a 3
 phase (single circuit) distribution line moves NW up McGill Garden Way and turns
 easterly on N Davidson St. on the southerly side of the road and moves NW along N
 Davidson to Belmont Ave.
 - o Seg B: The circuit from Seg A picks up at Belmont Ave. and crosses over N Davidson for a short distance (after Belmont Ave.) to the northerly side of the road, then returns to the southerly side of the road where it remains until it crosses Parkwood Ave. At this point it turns and runs backlot away from the corridor.
 - O Seg C: A Duke Energy pole line begins near physical address 2021 N Davidson St, where it is joined by another 3 phase (single circuit) Duke Energy pole line approaching from the north along N Davidson from Jordan Pl. This Duke Energy pole line taps and crosses over N Davidson in several places but the main pole line remains on the easterly side of the road just short of Jordan Pl.
 - Seg D: On the southerly side of Jordan Pl., the single circuit Duke Energy pole line crosses over N Davidson St to the westerly side of the road and turns back northward and crosses Jordan Pl. It splits and run east and west along Jordan Pl. where it leaves the corridor.
 - From the northern side of the intersection at Parkwood & N Davidson there is no power pole line as N. Davidson moves under the Matheson Ave. bridge and approaches N Brevard St. near 2728 N Davidson St. Another 3 phase (single circuit) power pole line begins (dead ends) and begins moving north again along N Davidson on the westerly side of the road toward N Brevard St. It remains on this side of the road until it reaches N Brevard St.

- O Seg E: On the north side of Brevard St. the single circuit line from Seg D is joined by an additional circuit and becomes a double circuit as it moves northward along N Davidson street toward 36th St. This double circuit pole line moves to the easterly side of N Davidson where it taps and crosses over N Davidson St. in a few places. The main Duke Energy pole line remains on the easterly side of the road until it reaches 36th St.
- o See pictures at the end of this section
 - N Davidson St. (A) Distribution (1)
 - N Davidson St. (A) Distribution (2)
 - N Davidson St. (B) Distribution (1)
 - N Davidson St. (B) Distribution (2)
 - N Davidson St. (C) Distribution (1)
 - N Davidson St. (C) Distribution (2)
 - N Davidson St. (D) Distribution (1)
 - N Davidson St. (D) Distribution (2)
 - N Davidson St. (E) Distribution (1)
 - N Davidson St. (E) Distribution (2)
- Duke Energy (Lighting)
 - O Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Transmission):
 - There is a double circuit 100KV transmission line crossing perpendicular to N Davidson St. near physical address: 520 E 22nd St
 - o See picture at the end of this section
 - N Graham St. (C) Transmission Lines
- Piedmont Natural Gas (Distribution)
 - o There are gas distribution lines along N Davidson St. size and material unknown
- AT&T (Legacy) Long Distance
 - o Facilities in the area. Specific location and type not identified.
- AT&T (Local) BellSouth
 - Aerial cables on existing Duke Energy pole line run along N Davidson Street from McGill Garden to Belmont Ave.
 - (A), Aerial from Belmont Ave. to Parkwood Ave. on both Duke Energy pole line and AT&T pole line.
 - (B), Aerially on AT&T pole line and Duke Energy pole line
 - (C), Aerially on AT&T pole line and Duke Energy pole line
 - (D), Aerially on AT&T pole line and Duke Energy pole line
 - (E). AT&T has underground facilities in all of these section.
 - o See picture at the end of this section
 - N Davidson (B) Telecom pole line
 - N Davidson (C) Telecom pole line

- Time Warner Cable (TWC)
 - o Aerial cables on existing Duke Energy pole line run along N Davidson Street from McGill Garden to Belmont Ave.
 - (A), Aerial from Belmont Ave. to Parkwood Ave. on both Duke Energy pole line and AT&T pole line.
 - (B), Aerially on AT&T pole line and Duke Energy pole line
 - (C), Aerially on AT&T pole line and Duke Energy pole line
 - (D), Aerially on AT&T pole line and Duke Energy pole line
 - (E), TWC has underground facilities in all of these section.
 - o See picture at the end of this section
 - N Davidson (B) Telecom pole line
 - N Davidson (C) Telecom pole line
- Other Telecom Companies
 - o There are other telecommunication companies with underground cables within the confines of the corridor.

• Charlotte Water

o The table below lists the existing Water lines within this project by size and description

Size	Description		
Unknown	Runs along W. 12th St. and intersects N. Davidson St. at E. 12th		
Ulikilowii	St.		
8"	From W. 12th St. to E. 22nd St.		
24"	From Parkwood Ave to E. 28th St.		
8"	From right after E. 23rd St. to E. 28th St.		
12"	From Parkwood Ave to E. 36th St.		
Unknown	Runs along E. 36th St. and intersects N. Davidson St. at E. 36th St.		
Unknown	Connects off of N. Davidson St. and run down McGill Garden Way		
Unknown Crosses N. Davidson St. at E. 13th St.			
6" Crosses N. Davidson St. at Belmont Ave			
Unknown Crosses N. Davidson St. at E. 15th St.			
6" Crosses N. Davidson St. at E. 16th St.			
Unknown Connects off of N. Davidson St. and run up E. 17th St.			
Unknown Crosses N. Davidson St. at E. 18th St.			
1" Crosses N. Davidson St. at Parkwood Ave			
Unknown	Connects off of N. Davidson St. and run up E. 21st St.		
Unknown	Unknown Connects off of N. Davidson St. and run up E. 22nd St.		
8"	Connects off of N. Davidson St. and run up E. 25th St.		
Unknown Connects off of N. Davidson St. and run up E. 26th St.			
Unknown	Connects off of N. Davidson St. and run down E. 27th St.		
6"	6" Crosses N. Davidson St. at E.28th St.		
6" Crosses N. Davidson St. at Jordan Pl			
Unknown Connects off of N. Davidson St. and run up Matheson Av Charles Ave			
8"	Connects off of N. Davidson St. and run down Charles Ave		
6"	Connects off of N. Davidson St. and run up Faison Ave		
Unknown	Connects off of N. Davidson St. and run up N. Brevard St.		
Unknown	Connects off of N. Davidson St. and run down E. 32nd St.		
Unknown	Unknown Connects off of N. Davidson St. and run up E. 33rd St.		
Unknown			
Unknown	Unknown Crosses N. Davidson St. at E. 35th St.		
12" Crosses N. Davidson St. at E. 36th St.			

O The table below lists the existing Sewer lines within this project by size and description.

Size	Description		
8"	Connects off of N. Davidson St. at and run SE down E.		
	12th St.		
8"	From E. 12th St. to E. 22nd St.		
8"	From Just after E. 22nd St. to just before E. 24th St.		
8"	From E. 24th St. to E. 25th St.		
8"	From just after E. 25th St. to E. 27th St.		
Assumed 8"	From Jordan Pl to Matheson Ave		
8"	From just after Matheson Ave to E. 36th St.		
Assumed 8"	Connects off of N. Davidson St. and run up E. 13th St.		
Assumed 8"	Connects off of N. Davidson St. and run up Belmont Ave		
Assumed 8"			
Assumed 8"	Connects off of N. Davidson St. and run up E. 16th St.		
Assumed 8" Connects off of N. Davidson St. and run up E. 17th St.			
Assumed 8"	Crosses N. Davidson St. at E. 18th St.		
Assumed 8"	Connects off of N. Davidson St. and run up E. 19th St.		
8"	8" Connects off of N. Davidson St. and run up Parkwood A		
8"	Crosses N. Davidson St. at E. 21st St.		
Assumed 8"	Connects off of N. Davidson St. and run up E. 22nd St.		
8"	Connects off of N. Davidson St. and run north in between		
	E. 22nd St. and E. 23rd St.		
Assumed 8"	Connects off of N. Davidson St. and run up E. 25th St.		
Assumed 8"			
12" Crosses N. Davidson St. at E. 27th St.			
Assumed 8"	Connects off of N. Davidson and run north to Jordan Pl		
	8" Crosses N. Davidson St. at Jordan Pl		
8"	Crosses N. Davidson St. at Charles Ave		
8"	Crosses N. Davidson St. just before Faison Ave		
8"	Connects off of N. Davidson St. and run up N. Brevard St.		
8"	Connects off of N. Davidson St. and run up N. Brevard St.		
Assumed 8"	Connects off of N. Davidson St. and run up E. 33rd St.		
Assumed 8"	Connects off of N. Davidson St. and run down E. 34th St.		
Assumed 8"	Assumed 8" Connects off of N. Davidson St. and run down E. 35th St.		
8"	8" Crosses N. Davidson St. at E. 36th St.		

5.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

5.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - o Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

5.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities Private Utilities
 - Duke Energy (Distribution)
 - Distribution poles (primary)
 - 71 poles x \$15,000 per pole

\$1.065M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 82 streetlights leased by City
- 15 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water

o Total water & sewer

\$2.931M

Water \$1.772MSewer \$1.159M

5.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

• Duke Energy (Distribution)

Engineering / Design
 Construction/Cutover/Removal
 2 - 3 months
 2 - 4 months

• Duke Energy (Transmission)

Acquisition of new R/W and Design
 Construction/Cutover/Removal
 12 months
 12-18 months

• Piedmont Natural Gas

Engineering / Design 1 - 2 months
 Construction/Cutover/Removal 2 - 4 months

AT&T

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

OH relocations may depend on Duke Energy Design

• Time Warner Cable

Engineering / Design 2 - 4 months
 Construction/Cutover/Removal 4 - 6 months
 OH relocations may depend on Duke Energy Design

• Sprint Communications

Engineering / Design 2 - 4 months
 Construction/Cutover/Removal 4 - 6 months
 OH relocations may depend on Duke Energy Design

Other Telecommunication Companies

Engineering / Design
 Construction/Cutover/Removal
 4 – 6 months

Charlotte Water

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

5.6 Restrictions and/or Moratoriums

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - O Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

5.7 Non-Utility Conflicts Observed During Investigation

- Business Signs
 - o The corridor passes thru business and residential districts and encounters a number of business signs.
 - o See picture at the end of this section
 - N Davidson St. (C) Business Sign
- Traffic Signals / Signs
 - o There are a number of traffic signals at intersections with signalization facilities that could be impacted by improvements in these areas.
 - o See picture at the end of this section
 - N Davidson St. (C) Intersection

- RR Crossing Arms
 - The corridor crosses RR tracks in Section (A). Improvements in this area could require the relocation of RR Crossing Arms.
 - o See picture at the end of this section
 - N Davidson St. (A) RR Crossing Arms
- Privately Owned Structures
 - There are a number of structures that could be affected by improvements in this area.
 - o See picture at the end of this section
 - N Davidson St. (C) Fence

<u>Pictures of Existing Utilities and Structures located along the N Davidson St.</u> <u>Corridor</u>



N Davidson St. Section (C) Bicycle lanes



N Davidson St. Section (E) Bicycle lanes



N Davidson St. (A) Distribution Lines (1)



N Davidson St. (A) Distribution Lines (2)





N Davidson St. (B) Distribution Lines (2)



N Davidson St. © Distribution Lines (1)



N Davidson St. (C) Distribution Lines (2)



N Davidson St. (D) Distribution Lines (1)



N Davidson St. (D) Distribution Lines (2)



N Davidson St. (E) Distribution Lines (1)



N Davidson St. (E) Distribution Lines (2)



N Davidson St. (C) Transmission Lines



N Davidson St. (B) Telecom pole line



N Davidson St. (C) Telecom pole line



N Davidson St. (C) Business Sign



N Davidson St. (C) Intersection



N Davidson St. (A) RR Crossing Arms



N Davidson St. (C) Fence

6 Statesville Avenue (Oaklawn Avenue Extension) and Graham Street (to Sylvania Extension)

(Alternative connection from Oaklawn Avenue to Wolfberry Street or other streets along the east side of Graham Street.)

It is envisioned that this new connector will transition thru the current Rite Aid parcel and adjoin Sylvania Ave. and Oaklawn Ave.

6.1 Existing Facilities

- Duke Energy (Distribution):
 - o From Oaklawn Ave. & Statesville Road intersection there are two separate pole lines that traverse thru the intersection. One is a 3 phase (single circuit) with vertical construction and the other is a triple circuit (on cross arms). The triple circuit moves along the southerly side of Statesville Ave. crossing perpendicular to the corridor. While the single circuit crosses over the top of the triple circuit and makes a turn at the intersection and moves southward.
 - o See pictures at the end of this section
 - Oaklawn Ave. & Statesville Rd. Distribution (1)
 - Oaklawn Ave. & Statesville Rd. Distribution (2)
 - Oaklawn Ave. & Statesville Rd. Distribution (3)
 - o From Sylvania Ave. & N Graham St. There are 2 separate pole lines. A vertical construction 3 phase pole line along the westerly side of N Graham St. and a 3 phase (single circuit) pole line (on cross arms) along the easterly side of N Graham St. The vertical construction pole line turns to the west directly across from the intersection of Sylvania and N Graham St. and heads toward to the Rite Aid parcel, while the horizontal construction pole line transitions to the westerly side of N Graham St. and continues southbound.
 - See pictures at the end of this section
 - Sylvania Ave. & N Graham St. Distribution Lines (1)
 - Sylvania Ave. & N Graham St. Distribution Lines (2)
 - Sylvania Ave. & N Graham St. Distribution Lines (3)
- Duke Energy (Lighting)
 - Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Piedmont Natural Gas (Distribution)
 - o There are gas distribution lines along N Graham St. and Statesville Rd. size and material is unknown
- AT&T (Local) BellSouth
 - o Aerial cables on both existing Duke Energy pole line and AT&T pole line along the easterly side of N Graham St. & parallel to N Graham St.
 - See Picture at the end of this section
 - N Graham St. Telecom pole line

- Time Warner Cable (TWC)
 - o Aerial cables on both existing Duke Energy pole line and AT&T pole line along the easterly side of N Graham St. & parallel to N Graham St.
 - See Picture at the end of this section
 - N Graham St. Telecom pole line
- Sprint Communications
 - o A fiber optic line runs parallel to N Graham St. along the NB (easterly) side of the road. It is buried in the planting strip and is clearly marked with above ground markers.
 - Other Telecom Companies
 - o There may be other telecommunication companies with aerial cables attached to the AT&T pole line on the easterly side (NB) of N Graham St.
 - Charlotte Water
 - o The table below lists the existing Water lines within this project by size and description

Size	Description	
16"	Runs down Oaklawn Ave to intersection of Oaklawn Ave and	
16	Statesville Ave	
12"	Runs along Statesville Ave at intersection of Statesville Ave and	
12	Oaklawn Ave	
16"	Connects off of Oaklawn Ave and runs south on Statesville Ave	
6"	Runs down Sylvania Ave to intersection of Sylvania Ave and N.	
0	Graham St.	
12"	Runs along N. Graham St. at intersection of N. Graham St. and Sylvania	
12	Ave	

o The table below lists the existing Sewer lines within this project by size and description

Size	Description	
Assumed 8"	Runs down Oaklawn Ave and stops just short of Statesville Ave	
8"	Runs along Statesville Ave at intersection of Statesville Ave and Oaklawn Ave	
Assumed	Runs down Sylvania Ave to intersection of Sylvania Ave and N.	
8"	Graham St.	
8"	Runs along N. Graham St. at intersection of N. Graham St. and Sylvania	
0	Ave	

- Charlotte Storm Water
 - O There is an existing storm water system in place along both N Graham St. and Statesville Ave.
 - o See Picture at the end of this section
 - Statesville Ave. Storm Drain Inlet
 - N Graham St. Storm drain Inlet

6.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

6.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - Deeded R/W
 - 100% compensable

6.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 19 poles x \$15,000 per pole

\$0.285M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 12 streetlights leased by City
- 6 lights leased by private entities
- o Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water
 - o Total water & sewer

\$0.200M

Water \$0.100MSewer \$0.100M

6.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

- Duke Energy (Distribution)
 - o Engineering / Design 2-3 months
 - Construction/Cutover/Removal 2 4 months
- Duke Energy (Transmission)
 - o Acquisition of new R/W and Design 12 months
 - o Construction/Cutover/Removal 12-18 months
- Piedmont Natural Gas
 - o Engineering / Design 1-2 months
 - Construction/Cutover/Removal 2 4 months
- AT&T
 - o Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months
 - o OH relocations may depend on Duke Energy Design
- Time Warner Cable
 - o Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months
 - o OH relocations may depend on Duke Energy Design
- Sprint Communications
 - o Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months
 - o OH relocations may depend on Duke Energy Design
- Other Telecommunication Companies
 - Engineering / Design 2 4 months
 - Construction/Cutover/Removal 4 6 months

• Charlotte Water

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

6.6 Restrictions and/or Moratoriums

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

6.7 Non-Utility Conflicts Observed During Investigation

- Billboards
 - o There is a billboard that could be impacted by improvements in this area.
 - o See picture at the end of this section.
 - N Graham St. Billboard
- Traffic Signals / Signs
 - o The traffic signalization facilities at Statesville Rd. & Oaklawn Ave. could be a affected by improvements and may require relocation.
 - o See picture at the end of this section
 - Oaklawn Ave. at Statesville Rd. Traffic Signal
- Privately Owned Structures
 - There are privately owned (business) structures thru the entire corridor that could be affected by improvements.

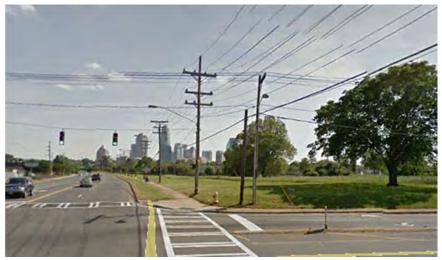
<u>Pictures of Existing Utilities and Structures located along the Oaklawn Ave. &</u> Sylvania Ave. Corridor



Oaklawn Ave. & Statesville Rd. Distribution (1)



Oaklawn Ave. & Statesville Rd. Distribution (2)



Oaklawn Ave. & Statesville Rd. Distribution (3)



Sylvania Ave. & N Graham St. Distribution Lines (1)



Sylvania Ave. & N Graham St. Distribution Lines (2)



Sylvania Ave. & N Graham St. Distribution Lines (3)



N Graham St. Telecom Pole Line



N Graham St. Storm drain Inlet



Statesville Ave. Storm drain Inlet



N Graham St. Billboard



Oaklawn Ave. at Statesville Rd. traffic Signal

7 Ware Ave. / 36th St. Extensions

New street connection that extends 36th Avenue to Ware Ave. at Atando Ave. to N Graham St.

7.1 Existing Facilities

- Duke Energy (Distribution):
 - o From the 36th St. & N Tryon St. intersection where the connector begins/ends there is a 3 phase (single circuit) pole line running parallel to N Tryon St. on the southerly side of the road. This same circuit taps and runs down 36th St extending for 1 span down the private road (along the proposed corridor).
 - From the Ware Ave. side, there is a single phase pole line running across Atondo Ave. and the proposed corridor to a pole positioned at the corner of Ware Ave. & Rainbow Cir.
 - o There is a segment located just off Robinson Cir., about the middle of the corridor that has a single phase pole line running to the end of Robinson Cir., then turning into the woods for 1 span.
 - o See pictures at the end of this section
 - N Tryon St. & 36th St. Distribution (1)
 - N Tryon St. & 36th St. Distribution (2)
 - Ware Ave. & Atondo Ave. Distribution (1)
 - Ware Ave. & Rainbow Cir Distribution (1)
 - Robinson Cir Distribution (1)
 - Robinson Cir Distribution (2)
 - Robinson Cir Distribution (3)
- Duke Energy (Lighting)
 - o Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Piedmont Natural Gas (Distribution)
 - o There are gas distribution lines along N Graham St. size and material is unknown
- AT&T (Legacy) Long Distance
 - o Facilities in the area. Specific location and type not identified.
- AT&T (Local) BellSouth
 - o Aerial cables on existing Duke Energy pole line along N Tryon St.
 - o See Picture at the end of this section
 - N Tryon St. existing Duke Energy pole line with telecom attachments
- Time Warner Cable (TWC)
 - o Aerial cables on existing Duke Energy pole line along N Tryon St.
- Other Telecom Companies
 - o There are other telecommunication companies with underground facilities within the corridor.

• Charlotte Water

o The table below lists the existing Water lines within this project by size and description

Size	Description	
Unknown	Starts at Atando Ave and runs to Rainbow Cir	
12"	12" Runs down E. 36th St. to intersection of E. 36th St. and N. Tryon St. 16" Runs along N. Tryon St. at intersection of N. Tryon St. and E. 36th St.	
16"		
6"	Connects off of E. 36th St. and runs NE on N. Tryon. St.	

The table below lists the existing Sewer lines within this project by size and description

Size	Description	
Assumed 8"	Starte at Atando Ave and runs to Rainbow Cir	
8"	In path of where the extension will go	
12"	In path of where the extension will go	
8"	In path of where the extension will go	
8"	Runs along N. Tryon St. at intersection of N. Tryon St. and E. 36th St.	
Assumed 8"	From Rich Ave to Benard Ave	

• Charlotte Storm Water

- o There is an existing storm water system in place along Atondo Ave. near Ware Ave.
- o See Picture at the end of this section
 - Atondo Ave. Storm drain Inlet

7.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - o No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.

- American Tower
 - No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - Has not disclosed any future plans for relocations or installations in this area.

7.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - o Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

7.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 9 poles x \$15,000 per pole

\$0.135M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 11 streetlights leased by City
- 10 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water
 - Total water & sewer

\$0.200M

Water \$0.100MSewer \$0.100M

7.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

• Duke Energy (Distribution)

Engineering / Design
 Construction/Cutover/Removal
 2 - 3 months
 2 - 4 months

•	Dι	Duke Energy (Transmission)			
	0	Acquisition of new R/W and Design	12 months		
	0	Construction/Cutover/Removal	12-18 months		
•	Pi	edmont Natural Gas			
	0	Engineering / Design	1-2 months		
	0	Construction/Cutover/Removal	2-4 months		
•	A	Γ&Τ			
	0	Engineering / Design	2-4 months		
	0	Construction/Cutover/Removal	4-6 months		
	0	OH relocations may depend on Duke En	nergy Design		
•	Ti	Time Warner Cable			
	0	Engineering / Design	2-4 months		
	0	Construction/Cutover/Removal	4 - 6 months		
	0	OH relocations may depend on Duke Er	nergy Design		
•	Sprint Communications				
	0	Engineering / Design	2-4 months		
	0	Construction/Cutover/Removal	4 - 6 months		
	0	OH relocations may depend on Duke En	nergy Design		
• Oth		her Telecommunication Companies			
	0	Engineering / Design	2-4 months		
	0	Construction/Cutover/Removal	4 - 6 months		
•	Cł	narlotte Water			
	0	Engineering / Design	2-4 months		
	0	Construction/Cutover/Removal	4 - 6 months		

7.6 Restrictions and/or Moratoriums

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

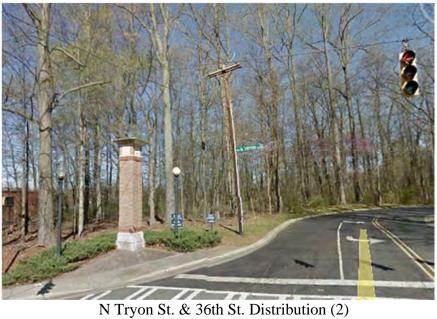
7.7 Non-Utility Conflicts Observed During Investigation

- Business Signs
 - There are a couple of decorative brick markers at the intersection of N Tryon St. & 36th St.
 - o See picture at the end of this section
 - N Tryon St. Business Sign
- Traffic Signals / Signs
 - o The traffic signals and signalization facilities at the intersection of N Tryon St. and 36th St. could be affected and need relocated by improvements in this area.
 - o See picture at the end of this section
 - N Tryon St. & 36th St. Intersection
- Privately Owned Structures
 - o This corridor extends backlot and thru an existing auto salvage yard and in close proximity to some existing residential properties. The probability exists there are privately owned structures that may be encountered during the construction of this extension.
 - Near Ware Ave. there is a privacy fence that may be in conflict with the construction of the extension.
 - o See picture at the end of this section
 - Ware Ave. Fence

Pictures of Existing Utilities and Structures located along the Ware Ave. Corridor.



N Tryon St. & 36th St. Distribution (1)





Ware Ave. & Atondo Ave. Distribution (1)



Ware Ave. & Rainbow Cir Distribution (1)



Robinson Cir Distribution (1)



Robinson Cir Distribution (2)



Robinson Cir Distribution (3)



N Tryon St. existing power pole Line with Telecom Attachments



Atondo Storm Drain Inlet (Near Ware Ave.)



N Tryon St. Business Sign



N Tryon St. & 36th St. Intersection



Ware Ave. Fence

8 Woodward Ave. / 24th Intersection Realignment

Realignment of 24th Street to Woodward Avenue at North Graham Street.

8.1 Existing Facilities

- Duke Energy (Distribution):
 - o At North Graham St. where 24th St. & Woodward Ave. converge, there are (2) separate 3 phase (single circuit) distribution pole lines.

The first pole line along N Graham St. transitions from the westerly side of N Graham St just before it approaches Woodward Ave. to easterly side of N Graham St. and continues southbound.

The second pole line along 24th St. on the northerly side of the road crosses over the first single circuit at the intersection of N Graham St. & 24th St. to the westerly side of N Graham St. Then continues southward down the road.

There were no observed aerial distribution lines at Woodward Ave. in the vicinity of the corridor.

- o See pictures at the end of this section
 - N Graham St. Distribution (1)
 - N Graham St Distribution (2)
 - 24th St. Distribution (1)
- Duke Energy (Lighting)
 - O Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Piedmont Natural Gas (Distribution)
 - o There are gas distribution lines along N Graham St. size and material is unknown
- AT&T (Local) BellSouth
 - o Aerial cables on both existing Duke Energy pole line and AT&T pole line that run along the NB (easterly) side of N Graham St. & parallel to N Graham St.
 - See Picture at the end of this section
 - N Graham St. Telecom pole line
- Time Warner Cable (TWC)
 - o Aerial cables on AT&T pole line that run along NB (easterly) side of N Graham St. and underground in various locations.
- Sprint Communications
 - o A fiber optic line runs parallel to N Graham St. along the NB (easterly) side of the road. It is buried in the planting strip and is clearly marked with above ground markers.
 - See Picture at the end of this section
 - N Graham St. Sprint Communications Underground marker
- Other Telecom Companies
 - There are potentially other telecommunication companies with aerial cables attached on the AT&T pole line that run on the easterly side (NB) of N Graham St.

Charlotte Water

The table below lists the existing Water lines within this project by size and description

Size	Description	
Unknown	Runs down Woodward Ave to intersection of Woodward Ave and N.	
Ulikilowii	Graham St.	
12"	Crosses where Woodward Ave and E. 24th St. will be aligned	
2 1/2"	2 1/2" Crosses where Woodward Ave and E. 24th St. will be aligned	
8"	Runs down E. 24th St. to intersection of E. 24th St. and N. Graham St.	

The table below lists the existing Sewer lines within this project by size and description

Size	Description	
Assumed 8"	Runs down Woodward Ave to Lucena St.	
8"	Crosses where Woodward Ave and E. 24th St. will be aligned	
8"	Runs down E. 24th St. to intersection of E. 24th St. and N. Graham St.	

• Charlotte Storm Water

o There is an existing storm water system in place along N Graham St. that could be affected during construction of the extension.

8.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - o No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.

- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

8.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

8.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

 NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed

Private Utilities

- o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 6 poles x \$15,000 per pole

\$0.090M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 14 streetlights leased by City
- 10 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water
 - Total water & sewer

\$0.200M

Water \$0.100MSewer \$0.100M

8.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

• Duke Energy (Distribution)

Engineering / Design
 Construction/Cutover/Removal
 2 - 3 months
 2 - 4 months

• Duke Energy (Transmission)

Acquisition of new R/W and Design 12 months
 Construction/Cutover/Removal 12-18 months

•	P16	edmont Natural	Gas
	\circ	Engineering /	Des

1-2 months

Construction/Cutover/Removal

2-4 months

AT&T

o Engineering / Design

- 2-4 months
- o Construction/Cutover/Removal
- 4-6 months
- o OH relocations may depend on Duke Energy Design
- Time Warner Cable
 - o Engineering / Design

- 2 4 months
- o Construction/Cutover/Removal
- 4 6 months
- o OH relocations may depend on Duke Energy Design
- Sprint Communications
 - o Engineering / Design

- 2-4 months
- o Construction/Cutover/Removal
- 4 6 months
- o OH relocations may depend on Duke Energy Design
- Other Telecommunication Companies
 - o Engineering / Design

- 2-4 months
- o Construction/Cutover/Removal
- 4-6 months

- Charlotte Water
 - o Engineering / Design

- 2-4 months
- o Construction/Cutover/Removal
- 4 6 months

8.6 Restrictions and/or Moratoriums

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

8.7 Non-Utility Conflicts Observed During Investigation

- Business Signs
 - o A business sign at the intersection of N Graham St. & 24th St. would likely be affected by a road extension.
 - o See picture at the end of this section
 - N Graham St. Business Sign.
- Traffic Signals / Signs
 - Traffic signalization facilities could be affected at the intersections of N Graham St. & Woodward Ave. and N Graham St. & 24th St.
 - o See pictures at the end of this section
 - N Graham St. & Woodward Ave. Intersection
 - N Graham St. & 24th St. Intersection
- RR Crossing Arms
 - Woodward Ave. crosses RR tracks just NW of the intersection of N Graham St. & Woodward Ave. These crossing arms may need to relocate if future improvements are made.
 - o See pictures at the end of this section
 - Woodward Ave. RR Crossing Arms
- Privately Owned Structures
 - o This proposed extension could impact a privately owned fence at the southwest corner of the intersection of N Graham St. and Woodward Ave.
 - o See pictures at the end of this section
 - Woodward Ave. & N Graham St. Private structures

<u>Pictures of Existing Utilities and Structures located within the Woodward Ave. / 24th St. Corridor</u>



N Graham St. Distribution (1)



N Graham St. Distribution (2)



24th St. Distribution (1)



N Graham St. Telecom Attachments



N Graham St. Sprint Communications Underground marker



N Graham St. & Woodward Ave. Intersection



N Graham St. & 24th St. Intersection



Woodward Ave. RR Crossing Arms



N Graham St. Business Sign.



Woodward Ave. & N Graham St. Private structures



Woodward Ave. & N Graham St. Private structures

9 Newland Rd. - Norris Ave. Realign at Statesville Ave.

The intention of this project is to realign Newland Rd. and Norris Ave. converging at Statesville Ave. to provide a more perpendicular crossing.

9.1 Existing Facilities

- Duke Energy (Distribution)
 - A 3 phase (single circuit) distribution line runs along the westerly side of Statesville
 Ave. This line taps and runs down Newland Rd. on the northerly side of Newland Rd.
 A single phase tap from this line spanning over Statesville Ave. just south of the
 intersection from the SW corner to the SE corner.
 - Additionally, a couple of span guy poles may need to be relocated along with approximately 6-8 distribution poles.
 - The relocation of the distribution line may be impacted by the vertical separation required when spanning under the transmission lines running just south of the intersection.
 - o See pictures at the end of this section
 - Electrical Distribution at Statesville Ave. & Newland Rd. area (1)
 - Electrical Distribution at Statesville Ave. & Newland Rd. area (2)
 - Electrical Distribution at Statesville Ave. & Norris Ave. area (1)
- Duke Energy (Lighting)
 - o Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Transmission):
 - A double circuit 100KV Transmission line runs parallel to Newland Rd. and Norris Ave. just south of the proposed intersection. It is not anticipated the proposed improvements will impact the facility.
 - o See pictures at the end of this section
 - Transmission at Statesville Ave. & Newland Rd. area. (1)
- Duke Energy (Lighting)
 - O Duke leased lighting poles/fixtures located at various places within the intersection may be affected by improvements in this area.
 - See Pictures at the end of this section
 - Duke Light Pole at Statesville Ave. & Newland Rd. (1)
 - Duke Light Pole at Statesville Ave. & Norris Ave. (1)
- Piedmont Natural Gas (Distribution)
 - o A gas distribution main line along Statesville Ave. 8" steel.
 - o See pictures at the end of this section
 - PNG Gas line Statesville Ave. at Newland Rd.(1)
- AT&T (Legacy) Long Distance
 - Facilities in the area. Specific location and type not identified.

- AT&T (Local) *BellSouth*
 - o Aerial cables on existing Duke Energy pole lines along Statesville Ave. and Newland Rd. and also on ATT owned telecom poles on Norris Ave.
 - AT&T has underground facilities in the area. Exact locations are unknown.
 - See Picture at the end of this section
 - Telecoms attached to Duke Energy poles on Statesville Ave. and Newland Rd. (1)
 - Telecoms attached to Duke Energy poles on Statesville Ave. and Newland Rd. (2)
- Time Warner Cable (TWC)
 - o Aerial cables on existing Duke Energy pole lines along Statesville Ave. and Newland Rd. and on AT&T owned telecom poles on Norris Ave.
 - See Picture at the end of this section
 - Telecoms attached to Duke Energy poles on Statesville Ave. and Newland Rd. (1)
 - Telecoms attached to Duke Energy poles on Statesville Ave. and Newland Rd. (2)
- Comporium/Springboard
 - o Aerial cables on existing Duke Energy pole lines along Statesville Ave and possibly along Newland Rd. and Norris Ave.
- Level 3
 - o Underground facilities along Statesville Ave.
- Other Telecom Companies: There are potentially other telecommunication companies located within the corridor.
- Charlotte Water
 - o The table below lists the existing Water lines within this project by size and description

Size	Description
Unknown	Runs down Newland Rd. and intersects Statesville Ave then
Ulikilowii	connects to Norris Ave
6"	Runs up Norris Ave and intersects Statesville Ave then connects to
0	Newland Rd.
12"	Runs along Statesville Ave and crosses Newland Rd. and Norris
12	Ave

o The table below lists the existing Sewer lines within this project by size and description

Size	Description	
Assumed 8"	8" Runs down Newland Rd. and stops short of Statesville Ave	
8"	Runs along Statesville Ave and stops at Newland Rd.	
8"	Starts at Norris Ave and runs up Statesville Ave	

- Charlotte Storm Water
 - o Storm water systems exist along Statesville Ave. and on Norris Ave.

9.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical Transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

9.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - o Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - Deeded R/W
 - 100% compensable

9.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 4 poles x \$15,000 per pole

\$0.060M

o Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 16 streetlights leased by City
- 7 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

- Transmission facilities not impacted
- Charlotte Water

Total water & sewer

\$0.200M

Water \$0.100MSewer \$0.100M

9.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

• Duke Energy (Distribution)

Engineering / Design
 Construction/Cutover/Removal
 2 - 3 months
 2 - 4 months

• Duke Energy (Transmission)

Acquisition of new R/W and Design
 Construction/Cutover/Removal
 12 months
 12-18 months

• Piedmont Natural Gas

○ Engineering / Design 1 - 2 months
 ○ Construction/Cutover/Removal 2 - 4 months

AT&T

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

Dependent on Duke Energy Design

• Time Warner Cable

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

Dependent on Duke Energy Design

•	Sprint	Commi	unica	tions
-	Spriii	Commi	amcu	LI OII

0	Engineering / Design	2-4 months
0	Construction/Cutover/Removal	4 - 6 months
0	Dependent on Duke Energy Design	
Ot	her Telecommunication Companies	
0	Engineering / Design	2-4 months
0	Construction/Cutover/Removal	4 - 6 months
Ch	arlotte Water	

Construction/Cutover/Removal*Restrictions and/or Moratoriums*

• Duke Energy (Distribution)

o Engineering / Design

- Cutovers for distribution vary vastly on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinated 3-6 months in advance.

2-4 months

4 - 6 months

- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
- Some Telecoms may be restricted by Federal mandates as to when certain facilities / customers can be cutover. Some mandated notifications could require 6 months or more depending on the facility / customer.

9.7 Non-Utility Conflicts Observed During Investigation

- Business Signs:
 - A business sign on the northeast corner of the intersection at Statesville Ave. & Norris Ave. could conflict if improvements are made in this area.
 A business sign on the northwest corner of the intersection of Statesville Ave. & Newland Rd. could conflict if improvements are made in this area.
 - o See Picture at the end of this section
 - Business sign at Statesville Ave & Norris Ave. (1)
 - Business sign at Statesville Ave & Newland Rd. (1)

<u>Pictures of Existing Utilities and Structures located at the Newland Rd. – Norris Ave.</u> Realign at Statesville Ave



Electrical Distribution at Statesville Ave. & Newland Rd. area (1)



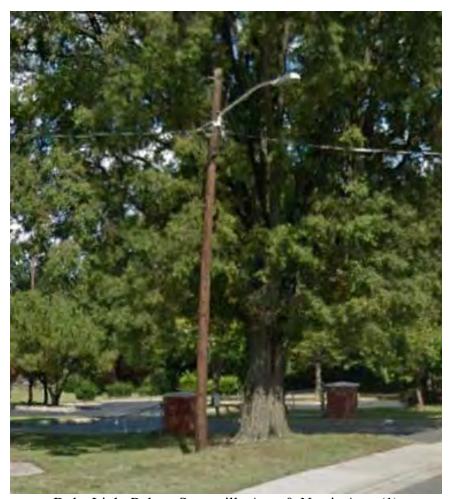
Electrical Distribution at Statesville Ave. & Newland Rd. area (2)



Electrical Distribution at Statesville Ave. & Norris Ave. area (1)



Duke Light Pole at Statesville Ave. & Newland Rd. (1)



Duke Light Pole at Statesville Ave. & Norris Ave. (1)



PNG Gas line Statesville Ave. at Newland Rd.(1)



Transmission at Statesville Ave. & Newland Rd. area. (1)



Telecoms attached to Duke Distribution Poles on Statesville Ave. and Newland Rd. (1)



ATT owned Telecom Poles at Norris Ave. (1)



Business sign at Statesville Ave & Norris Ave. (1)



Business sign at Statesville Ave & Newland Rd. (1)

10 Multi-use path connection from N. Graham Street to N. Tryon Street

New pathway connects N. Tryon Street with N. Graham Street along the Duke Energy transmission right-of-way.

10.1 Existing Facilities

- Duke Energy (Distribution)
 - At N Tryon St. (the beginning/end of the corridor) there is a 3 phase (single circuit) pole line along the easterly side of N Tryon St. It passes under the Duke Energy transmission line.
 - There is a 3 phase Duke Energy pole line along the westerly side of N Graham St. that also passes under the transmission line perpendicular to the corridor.
 - See picture at the end of this section
 - Multi Use Path N Graham St N Tryon St Distribution (1) N Tryon St.
 - Multi Use Path N Graham St N Tryon St Distribution (1) N Graham St.
- Duke Energy (Lighting)
 - Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Transmission)
 - o The corridor for this section appears to follow along under the existing Duke Energy transmission lines and inside the existing Duke Energy R/W
 - See pictures at the end of this section
 - Multi Use Path N Graham St N Tryon St Transmission Lines (1)
 - Multi Use Path N Graham St N Tryon St Transmission Lines (2)
 - Multi Use Path N Graham St N Tryon St Transmission Lines (3)
- Piedmont Natural Gas (Distribution)
 - o There are gas distribution lines along both N Tryon St. and N Graham St. size and material are unknown.
- AT&T (Local) *BellSouth*
 - Aerial cables on existing Duke Energy pole lines and AT&T pole lines along both N
 Tryon St. and N Graham St. as well as other location thru the corridor.
 - See Picture at the end of this section
 - Multi Use Path N Graham St N Tryon St Telecom Pole Line (1) N Tryon St.
 - Multi Use Path N Graham St N Tryon St Telecom Pole Line (1) N Graham St.
 - Multi Use Path N Graham St N Tryon St Telecom Pole Line (1) Grimes St.
- Time Warner Cable (TWC)
 - Aerial cables on existing Duke Energy pole lines and AT&T pole lines along both N Tryon St. and N Graham St.
 - o See Picture at the end of this section
 - Multi Use Path N Graham St N Tryon St Telecom Pole Line (1) N Tryon St.
 - Multi Use Path N Graham St N Tryon St Telecom Pole Line (1) N Graham St.
 - Multi Use Path N Graham St N Tryon St Telecom Pole Line (1) Grimes St.

• Sprint Communications

- O A fiber optic line runs parallel to N Graham St. along the NB (easterly) side of the road. It is buried in the planting strip and is clearly marked with above ground markers.
- o See picture at the end of this section
 - Multi Use Path N Graham St N Tryon St. Fiber N Graham St.
- Other Telecom Companies
 - o There are other telecommunication companies located within the corridor.
- Charlotte Water
 - o The table below lists the existing Water lines within this project by size and description

Size	Description
2"	Runs along N. Graham St. from W. 28th St. to W. 30th St.
12"	Runs along N. Graham St. from W. 28th St. to W. 30th St.
6"	Runs along Bancroft St. from W. 28th St. to W. 30th St.
Unknown	Runs along Grimes St. from W. 28th St. to W. 30th St.
Unknown	Along Winston St. from Grimes St. to Catalina Ave
Unknown	Runs along Catalina Ave from W. 28th St. to W. 30th St.
20"	Runs along N. Pine St. from W. 28th St. to W. 30th St.
Unknown	Runs along Bellefonte Dr. from N. Pine St. to W. 30th St.
12"	Runs along N. Tryon St. from W. 28th St. to W. 30th St.

o The table below lists the existing Sewer lines within this project by size and description

Size	Description		
8"	Runs along N. Graham St. from W. 28th St. to W. 30th St.		
Assumed 8"	Runs along Bancroft St. and to sewer line just before W. 28th St.		
Assumed 8"	Along Winston St. from Grimes St. to Catalina Ave		
Assumed 8"	Runs along Catalina Ave from W. 28th St. to W. 30th St.		
Assumed 8"	Runs along N. Pine St. and connects to sewer line just before W. 28th		
Assumed o	St.		
Assumed 8"	med 8" Runs in Between N. Pine St. and N. Tryon St.		
8"	Runs along N. Tryon St. from W. 28th St. to W. 30th St.		
Assumed 8"	From N. Graham St. to N. Tryon St. through project area and connects		
Assumed 8	at W. 29th St.		

• Charlotte Storm Water

o There are storm water systems in place along both N Tryon St. and N Graham St.

10.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Sprint Communications
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

10.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - o Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

10.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - Duke Energy (Distribution)
 - Distribution poles (primary)
 - 15 poles x \$15,000 per pole

\$0.225M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 20 streetlights leased by City
- 30 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

Total transmission

\$3.000M

3,500 feet x \$500 per foot \$1.750M
 5 structures x \$250K per structure \$1.250M

Charlotte Water

o Total water & sewer

\$0.725M

Water \$0.150MSewer \$0.575M

10.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

• Duke Energy (Distribution)

Engineering / Design
 Construction/Cutover/Removal
 2 - 3 months
 2 - 4 months

• Duke Energy (Transmission)

Acquisition of new R/W and Design
 Construction/Cutover/Removal
 12 months
 12-18 months

Piedmont Natural Gas

Engineering / Design 1 - 2 months
 Construction/Cutover/Removal 2 - 4 months

AT&T

Engineering / Design 2 - 4 months
 Construction/Cutover/Removal 4 - 6 months
 OH relocations may depend on Duke Energy Design

•	Time	Warner	Cable
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0	Engineering / Design	2-4 months
0	Construction/Cutover/Removal	4-6 months
0	OH relocations may depend on Duke Er	nergy Design

o officerotations may depend on E

Sprint Communications

o Engineering / Design 2 – 4 months

o Construction/Cutover/Removal 4 – 6 months

o OH relocations may depend on Duke Energy Design

• Other Telecommunication Companies

0	Engineering / Design	2-4 months
0	Construction/Cutover/Removal	4-6 months

Charlotte Water

Engineering / Design
 Construction/Cutover/Removal
 4 - 6 months

10.6 Restrictions and/or Moratoriums

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.
- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

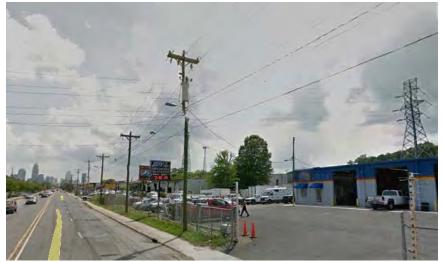
10.7 Non-Utility Conflicts Observed During Investigation

- Privately Owned Structures
 - o There are a multitude of privately owned structures within the corridor.
 - o See pictures at the end of this section
 - Multi Use Path N Graham St N Tryon St. privately owned structures (1) Bancroft St.
 - Multi Use Path N Graham St N Tryon St. privately owned structures (1) Catalina St.

Pictures of Existing Utilities and Structures located along the Multi Use Corridor.



Multi Use Path N Graham St - N Tryon St Distribution (1) N Tryon St.



Multi Use Path N Graham St - N Tryon St Distribution (1) N Graham St.



Multi Use Path N Graham St - N Tryon St Transmission Lines (1)



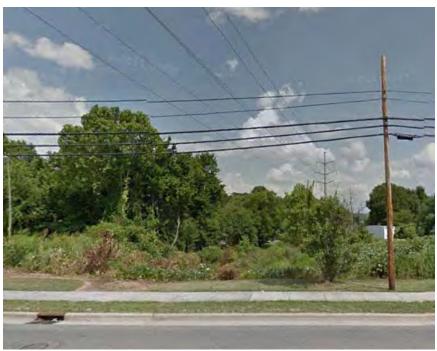
Multi Use Path N Graham St - N Tryon St Transmission Lines (2)



Multi Use Path N Graham St - N Tryon St Transmission Lines (3)



Multi Use Path N Graham St - N Tryon St Telecom Pole Line (1) N Tryon St.



Multi Use Path N Graham St - N Tryon St Telecom Pole Line (1) N Graham St.



Multi Use Path N Graham St - N Tryon St Telecom Pole Line (1) Grimes St.



Multi Use Path N Graham St - N Tryon St. Fiber N Graham St.





Multi Use Path N Graham St - N Tryon St. privately owned structures (1) Catalina St.

11 Multi-use path connections from Statesville Avenue to N. Graham Street

New pathway connects N. Graham Street with Statesville Avenue on the outskirts of Druid Hills neighborhood along the Duke Energy Transmission right-of-way.

11.1 Existing Facilities

- Duke Energy (Distribution)
 - At N Graham St. (the beginning/end of the corridor) there is a 3 phase (single circuit) pole line along the westerly side of N Graham St. passing under the Duke Energy transmission line.
 - At Statesville Ave. there is a 3 phase Duke Energy pole line along the westerly side of Statesville Ave. passing under the existing Duke Energy transmission line. Additionally there are single phase lines that approach the corridor in various locations. Lastly, there are Duke Energy distribution lines paralleling the Duke Energy transmission R/W.
 - See picture at the end of this section
 - Multi Use Path Statesville Ave. N Graham St. Distribution (1)
 N Graham St.
 - Multi Use Path Statesville Ave. N Graham St. Distribution (1) Statesville Ave.
 - Multi Use Path Statesville Ave. N Graham St. Distribution (1) Rachel St.
 - Multi Use Path Statesville Ave. N Graham St. Distribution (1) Olando St.
- Duke Energy (Lighting)
 - o Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Transmission)
 - o The corridor for this section appears to follow along with the existing Duke Energy transmission line and inside the existing Duke Energy R/W
 - O A Duke Energy Switching Station approximately the width of the existing Duke Energy transmission R/W is located within the proposed corridor near N Tryon St.
 - o See pictures at the end of this section
 - Multi Use Path Statesville Ave. N Graham St. Transmission Lines (1)
 N Graham St.
 - Multi Use Path Statesville Ave. N Graham St. Transmission Lines (1) Rachel St.
 - Multi Use Path Statesville Ave. N Graham St. Transmission Lines (3)
 Montreat St.
 - Multi Use Path N Graham St N Tryon St Sub Station (1) Lucena St.
- Piedmont Natural Gas (Distribution)
 - There are gas distribution lines along both N Graham St. and Statesville Ave. size and material are unknown.

- AT&T (Legacy) Long Distance
 - o Facilities in the area. Specific location and type not identified.
- AT&T (Local) BellSouth
 - o Aerial cables on existing Duke Energy pole lines and AT&T pole lines along both N Graham St. and Statesville Ave. as well as other locations thru the corridor.
 - o See Picture at the end of this section
 - Multi Use Path Statesville Ave. N Graham St. Telecom pole line (1)
 N Graham St.
- Time Warner Cable (TWC)
 - Aerial cables on existing Duke Energy pole lines and AT&T pole lines along N Graham St.
 - See Picture at the end of this section
 - Multi Use Path N Graham St N Tryon St Telecom pole line (1) N Graham St.
- Sprint Communications
 - O A fiber optic line runs parallel to N Graham St. along the NB (easterly) side of the road. It is buried in the planting strip and is clearly marked with above ground markers.
 - o See picture at the end of this section
 - Multi Use Path N Graham St N Tryon St. (1) Fiber N Graham St.
- Other Telecom Companies
 - o There are other telecommunication companies located within the corridor.
- Charlotte Water
 - o The table below lists the existing Water lines within this project by size and description

Size	Description
12"	Runs along Statesville Ave from Moretz Ave to Norris Ave
Unknown	Runs along Statesville Ave right before Norris Ave to Rodney Ave
Unknown Runs along Montreat St. from Moretz Ave and ends just before Norri	
Clikilowii	Ave
Unknown	Runs along Jefferson Davis St. and ends in middle of new project
6"	runs along Rachel St. from Moretz Ave to Norris Ave
Unknown	Connects off of Norris Ave and runs through new project on Olando St.
6"	Runs along Lucena St. from Moretz Ave to Norris Ave
12"	Runs along N. Graham St. from Moretz Ave to Norris Ave
2"	Runs along N. Graham St. from Moretz Ave to Norris Ave

o The table below lists the existing Sewer lines within this project by size and description

Size	Description
8"	Runs along Statesville Ave from Moretz Ave to Norris Ave
8"	Runs along Montreat St. from Moretz Ave to Norris Ave
Assumed 8"	runs along Jefferson Davis St. and crosses new project to Wells St.
Assumed 8"	runs along Rachel St. from Moretz Ave to Norris Ave
Assumed 8"	Connects off of Norris Ave and stops on new project on Olando St.
Assumed 8"	Runs along Lucena St. from Moretz Ave to Norris Ave
8"	Runs along N. Graham St. from Moretz Ave to just before Norris Ave

Charlotte Storm Water

o There are storm water systems in place along both N Graham St. and Statesville Ave.

11.2 Future Facilities

- Duke Energy (Distribution)
 - o No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.
- AT&T
 - o No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Sprint Communications
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - o No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

11.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

11.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
 - o Duke Energy (Distribution)
 - Distribution poles (primary)
 - 10 poles x \$15,000 per pole

\$0.150M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 45 streetlights leased by City
- 30 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

\$1.850M

\$1.750M

Total transmission

\$3.600M

3,700 feet x \$500 per foot
7 structures x \$250K per structure

Charlotte Water

Total water & sewer

\$0.200M

Water \$0.100MSewer \$0.100M

11.5 Estimated Time to Relocate

(Based on past project experience and input from utilities)

• Duke Energy (Distribution)

Engineering / Design
 Construction/Cutover/Removal
 2 - 3 months
 2 - 4 months

• Duke Energy (Transmission)

Acquisition of new R/W and Design
 Construction/Cutover/Removal
 12 months
 12-18 months

•	Pie	edmont Natural Gas	
	0	Engineering / Design	1-2 months
	0	Construction/Cutover/Removal	2-4 months
•	A^{T}	Г&Т	
	0	Engineering / Design	2-4 months
	0	Construction/Cutover/Removal	4-6 months
	0	OH relocations may depend on Duke Er	nergy Design
•	Ti	me Warner Cable	
	0	Engineering / Design	2-4 months
	0	Construction/Cutover/Removal	4-6 months
	0	OH relocations may depend on Duke Er	nergy Design
•	Sp	rint Communications	
	0	Engineering / Design	2-4 months
	0	Construction/Cutover/Removal	4-6 months
	0	OH relocations may depend on Duke Er	nergy Design
•	Ot	her Telecommunication Companies	
	0	Engineering / Design	2-4 months
	0	Construction/Cutover/Removal	4 - 6 months
•	Ch	arlotte Water	
	0	Engineering / Design	2-4 months

11.6 Restrictions and/or Moratoriums

o Construction/Cutover/Removal

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.

4 - 6 months

- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

11.7 Non-Utility Conflicts Observed During Investigation

- Business Signs
 - o There is a business sign near the Duke Energy transmission R/W at both Statesville Ave. & N Graham St. that may be within the corridor.
 - o See picture at the end of this section
 - Multi Use Path N Graham St N Tryon St Business Sign (1) Statesville Ave.
 - Multi Use Path N Graham St N Tryon St Business Sign (1) N Graham St.

Billboards

- o There is a billboard near the Duke Energy transmission R/W at N Graham St. that may be within the corridor.
- o See picture at the end of this section
 - Multi Use Path N Graham St N Tryon St Billboard (1) N Graham St.

Cell Towers

- o There is a cellular tower located near Statesville Ave. within the Duke Energy transmission R/W.
- o See picture at the end of this section
 - Multi Use Path N Graham St N Tryon St Cell Tower (1) Statesville Ave.
- Privately Owned Structures
 - o There are multiple privately owned structures within the corridor.
 - o See pictures at the end of this section
 - Multi Use Path N Graham St N Tryon St. Privately owned structures/ Fence (1)
 Lucena St.
 - Multi Use Path N Graham St N Tryon St. Privately owned structures/ Fence (2) Lucena St.

Pictures of Existing Utilities and Structures located along the Multi Use Corridor.



Multi Use Path Statesville Ave. - N Graham St. Distribution (1) N Graham St.



Multi Use Path Statesville Ave. - N Graham St. Distribution (1) Statesville Ave.



Multi Use Path Statesville Ave. - N Graham St. Distribution (1) Rachel St.



Multi Use Path Statesville Ave. - N Graham St. Distribution (1) Orlando St.



Multi Use Path Statesville Ave. - N Graham St. Transmission (1) N Graham St.



Multi Use Path Statesville Ave. - N Graham St. Transmission (1) Rachel St



Multi Use Path Statesville Ave. - N Graham St. Transmission (1) Montreat St



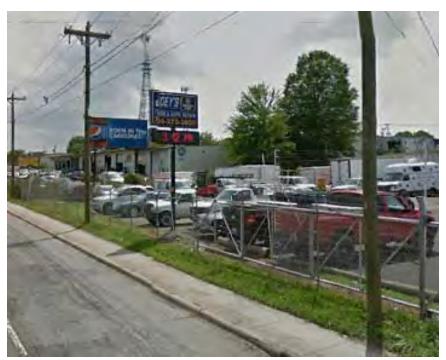
Multi Use Path Statesville Ave. - N Graham St. Telecom pole line (1) N Graham St.



Multi Use Path N Graham St - N Tryon St. (1) Fiber N Graham St.



Multi Use Path Statesville Ave. - N Graham St. Business Sign (1) Statesville Ave.



Multi Use Path Statesville Ave. - N Graham St. Business Sign (1) N Graham St.



Multi Use Path Statesville Ave. - N Graham St. Billboard (1) N Graham St.



Multi Use Path N Graham St - N Tryon St Cell Tower (1) Statesville Ave.



Multi Use Path N Graham St - N Tryon St Substation (1) Lucena St.



Multi Use Path N Graham St - N Tryon St. Privately owned structures/ Fence (1) Lucena St.



Multi Use Path N Graham St - N Tryon St. Privately owned structures/ Fence (2) Lucena St.

12 Statesville Ave. Bike Lanes

Two new sections of bike lanes along Statesville Ave.

- 1) Between N. Graham Street and Woodward Avenue.
- 2) Between Rodey Avenue and Atando Avenue.

12.1 Existing Facilities

- Duke Energy (Distribution) 1
 - O At the section of Statesville Ave. between Graham St. and Woodward Ave. A Duke Energy double circuit pole line runs northward on the westerly side on N Graham St. thru the intersection of N Graham St. & Statesville Ave.

 On Statesville Ave. from N Graham St. a Duke Energy 3 phase (single circuit) pole line runs northwesterly along on the western side of Statesville Ave.

 There is a second Duke Energy 3 phase (single circuit) pole line (vertical construction) that enters Statesville Ave. beside the Rite Aid property on the easterly side of Statesville Ave. and just north of Callahan St. It then runs northbound until Oaklawn Ave. turning westerly and exiting the corridor.
 - o See picture at the end of this section
 - Statesville Ave. Bike Lanes N Graham St. Woodward Ave. Distribution Lines
 (1) N Graham St.
 - Statesville Ave. Bike Lanes N Graham St. Woodward Ave. Distribution Lines
 (1) Statesville Ave.
 - Statesville Ave. Bike Lanes N Graham St. Woodward Ave. Distribution Lines
 (2) Statesville Ave.
 - Statesville Ave. Bike Lanes N Graham St. Woodward Ave. Distribution Lines
 (3) Statesville Ave.
 - Statesville Ave. Bike Lanes N Graham St. Woodward Ave. Distribution Lines
 (1) Statesville Ave. Vertical Construction
 - Statesville Ave. Bike Lanes N Graham St. Woodward Ave. Distribution Lines
 (2) Statesville Ave. Vertical Construction
- Duke Energy (Lighting)
 - Duke Energy fixtures of various types and styles leased by the City are located throughout the corridor.
- Duke Energy (Distribution) 2
 - o At the section of Statesville Ave. between Rodey Ave. and Atando Ave. the Duke Energy 3 phase distribution pole line runs thru Section (1) continues thru Section (2) on the westerly side of Statesville Ave. all the way thru the remainder of the corridor.
 - o See picture at the end of this section
 - Statesville Ave. Bike Lanes Rodey Ave. Atando Ave. Distribution Lines (1)
 Statesville Ave.
- Piedmont Natural Gas (Distribution)
 - o There are gas distribution lines along Statesville Ave. size and material are unknown.
- AT&T (Legacy) Long Distance
 - o Facilities in the area. Specific location and type not identified.

- AT&T (Local) *BellSouth*
 - o Aerial cables on existing Duke Energy pole lines along Statesville Ave. and at other locations thru the corridor.
 - See Picture at the end of this section
 - Statesville Ave. Bike Lanes N Graham St. Atondo Ave. Telecom Attachments
 (1) Statesville Ave.
- Time Warner Cable (TWC)
 - o Aerial cables on existing Duke Energy pole lines along Statesville Ave. and at other locations thru the corridor.
 - See Picture at the end of this section
 - Statesville Ave. Bike Lanes N Graham St. Atondo Ave. Telecom Attachments
 (1) Statesville Ave.
- Sprint Communications
 - o A fiber optic line runs parallel to N Graham St. along the NB (easterly) side of the road. It is buried in the planting strip and is clearly marked with above ground markers.
 - o See picture at the end of this section
 - Multi Use Path N Graham St. Woodward Ave. Fiber N Graham St.
- Other Telecom Companies
 - o There are other telecommunication companies located within the corridor.

• Charlotte Water

o The table below lists the existing Water lines within this project by size and description

Size	Description
12"	Runs along Statesville Ave from Norris Ave to Just after Atando Ave
Unknown	Runs along L D Parker Dr. and turns onto Statesville Ave and stops just
Chknown	after Atando Ave
8"	Crosses Statesville Ave at Atando Ave
Unknown	Connects off of Statesville Ave and runs down Atando Ave
6"	Connects off of Statesville Ave and runs up Samuel St.
Unknown	Runs down Newland Rd. and intersects Statesville Ave then connects to
Clikilowii	Norris Ave
6"	Runs up Norris Ave and intersects Statesville Ave then connects to
_	Newland Rd.
8"	Crosses Statesville Ave at Woodward Ave
12"	Runs along Statesville Ave from Woodward Ave to Armour Dr.
16"	From Oaklawn to just before Callahan St. then goes SE through
10	properties
Unknown	Connects off of Statesville Ave and runs up Callahan St.
Unknown	Connects off of Statesville Ave and runs up Oliver St.
Unknown	Crosses Statesville Ave at W. Liddell St.
8"	Runs along Statesville Ave from W. Liddell St. to Armour Dr.
8"	Connects off of Statesville Ave and runs down Dalton Ave
Unknown	Connects off of Statesville Ave and runs down Dalton Ave
8"	Intersects Statesville Ave at N. Graham St.

o The table below lists the existing Sewer lines within this project by size and description

Size	Description
Assumed 8"	Starts by Norris Ave and runs up L D Parker Dr. and ends just after Atando Ave
Assumed 8"	Starts after Rodney Ave and runs just after Atando Ave
Assumed 8"	Connects off of Statesville Ave at Samuel St.
Assumed 8"	Connects off of Statesville Ave at Moss Ln.
8"	Runs along Statesville Ave from Moss Ln. to Badger Cir.
8"	Runs along Statesville Ave from Druid Cir. To Woodward Ave
10"	Runs along Statesville Ave from Woodward Ave to just before Oaklawn Ave
8"	Runs along Statesville Ave from before Oaklawn Ave to W. Liddell St.
Assumed 8"	Connects off of Statesville Ave and runs down Moretz Ave
Assumed 8"	Connects off of Statesville Ave and runs down Druid Cir
Assumed 8"	Connects off of Statesville Ave and runs down Mona Dr.
Assumed 8"	Connects off of Statesville Ave and runs down Kohler Ave
Assumed 8"	Crosses Statesville Ave at Woodward Ave
Assumed	Connects off of Statesville Ave and runs NW through properties
8"	between Callahan St. and Oliver St.
8"	Intersects Statesville Ave at N. Graham St.

- Charlotte Storm Water
 - o There are storm water systems in place along Statesville Ave.

12.2 Future Facilities

- Duke Energy (Distribution)
 - No planned relocations or installations to Electrical distribution facilities in this area at the time of this report.
- Duke Energy (Transmission)
 - o No planned relocations or installations to Electrical transmission facilities in this area at the time of this report.
- Piedmont Natural Gas
 - No planned relocations or installations to Gas distribution facilities in this area at the time of this report.

- AT&T
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- Time Warner Cable
 - No planned relocations or installations to aerial facilities in this area at the time of this report.
- American Tower
 - No planned relocations or installations to aerial or structured facilities in this area at the time of this reports compilation.
- Charlotte Water
 - o Has not disclosed any future plans for relocations or installations in this area.
- Charlotte Storm Water
 - o Has not disclosed any future plans for relocations or installations in this area.

12.3 Prior Rights (Private Utilities)

- Duke Energy (Distribution)
 - Master Agreement between City of Charlotte and Duke Energy
 - Cost for any relocations of overhead facilities are allocated 60/40 (60%to City, 40% to Duke)
- Duke Energy (Transmission)
 - o Deeded R/W
 - 100% compensable

12.4 Estimate Cost to City for Relocation

(Only utilities with prior rights are eligible for compensation from the City for relocations)

- NOTE: Actual cost may deviate greatly from amounts suggested below dependent upon actual facilities requiring relocation. Each utility will determine actual cost as project is further developed
- Private Utilities
- Duke Energy (Distribution)
 - Distribution poles (primary)
 - 55 poles x \$15,000 per pole

\$0.825M

Duke Energy Lighting

(Street lighting cost pursuant to existing lighting agreements between the City and Duke Energy)

- 75 streetlights leased by City
- 50 lights leased by private entities
- Duke Energy (Transmission)

Typical cost to relocate / modify transmission facilities range between \$75K to \$250K per structure (towers / poles) and /or \$300 to \$500 per foot

Transmission facilities not impacted

•	Charlotte Water		
	o Total water & sewer		\$1.250M
	■ <i>Water</i> \$0.725M		
	■ Sewer \$0.525M		
12.5	Estimated Time to Relocate (Based on past project experience and input	t from utilities)	
•	Duke Energy (Distribution)		
	o Engineering / Design	2-3 months	
	o Construction/Cutover/Removal	2-4 months	
•	Duke Energy (Transmission)		
	o Acquisition of new R/W and Design	12 months	
	o Construction/Cutover/Removal	12-18 months	
•	Piedmont Natural Gas		
	o Engineering / Design	1-2 months	
	o Construction/Cutover/Removal	2-4 months	
•	AT&T		
	o Engineering / Design	2-4 months	
	o Construction/Cutover/Removal	4 - 6 months	
	o OH relocations may depend on Duke	Energy Design	
•	Time Warner Cable		
	o Engineering / Design	2-4 months	
	o Construction/Cutover/Removal	4 - 6 months	
	o OH relocations may depend on Duke	Energy Design	
•	Sprint Communications		
	o Engineering / Design	2-4 months	
	o Construction/Cutover/Removal	4 - 6 months	
	o OH relocations may depend on Duke	Energy Design	
•	Other Telecommunication Companies		
	o Engineering / Design	2-4 months	
	o Construction/Cutover/Removal	4-6 months	
•	Charlotte Water		
	o Engineering / Design	2-4 months	

12.6 Restrictions and/or Moratoriums

o Construction/Cutover/Removal

- Duke Energy (Distribution)
 - Cutovers for distribution vary vastly based on the type of facilities and customer requirements. Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times.

4-6 months

- Duke Energy (Transmission)
 - o Cutovers for transmission lines are restricted during winter and summer months and must coordinate 3-6 months in advance.
- Piedmont Natural Gas
 - o Cutover for major gas lines are restricted during winter months
- Telecommunications (General)
 - Typically after hour cutovers are required for business/industrial customers with 30-60 day lead times
 - Some Telecoms may be restricted by Federal mandates when certain facilities / customers can be cutover. Some mandated notifications could be as long as 6 months or more depending on the facility / customer.

12.7 Non-Utility Conflicts Observed During Investigation

- Business Signs
 - o There is a business sign on Statesville Ave. in front of the Rite Aid parcel that could be in conflict if improvements are made in this area.
 - o See Picture at the end of this section
 - Statesville Ave. Bike Lanes N Graham ST. Woodward Ave. Business Sign (1)
 Statesville Ave.
- Traffic Signals / Signs
 - o There are several intersections along the corridor with traffic signals and signalization facilities that could be impacted by improvements made in this area.
 - See Picture at the end of this section
 - Statesville Ave. Bike Lanes N Graham ST. Woodward Ave. Traffic Signals (1)
 Statesville Ave.
 - Statesville Ave. Bike Lanes N Graham ST. Woodward Ave. Traffic Signals (1)
 Statesville Ave.
- RR Crossing Arms
 - o The corridor crosses over an existing RR track. The crossing arms may require relocation if any improvements are done.
 - o See picture at the end of this section
 - Statesville Ave. Bike Lanes N Graham ST. Woodward Ave. RR Crossing Arms (1) Statesville Ave.

<u>Pictures of Existing Utilities and Structures located along the Statesville Ave.</u> <u>Corridor</u>



Statesville Ave. - Bike Lanes - N Graham ST. - Woodward Ave. Distribution Lines (1) N Graham St.



Statesville Ave. - Bike Lanes - N Graham ST. - Woodward Ave. Distribution Lines (1) Statesville Ave.



Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Distribution Lines (2) Statesville Ave.



Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Distribution Lines (3) Statesville Ave.



Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Distribution Lines (1) Statesville Ave. Vertical Construction



Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Distribution Lines (2) Statesville Ave. Vertical Construction



Statesville Ave. Bike Lanes – Rodey Avenue - Atando Avenue.

Distribution Lines (1) Statesville Ave.



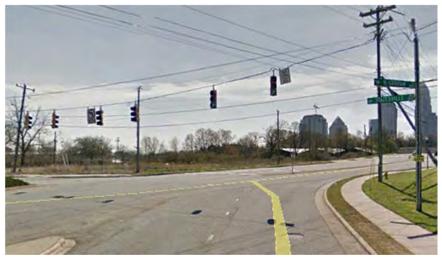
Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Telecom Attachments (1) Statesville Ave.



Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Fiber (1) N Graham St.



Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Business Sign (1) Statesville Ave.



Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Traffic Signals (1) Statesville Ave.



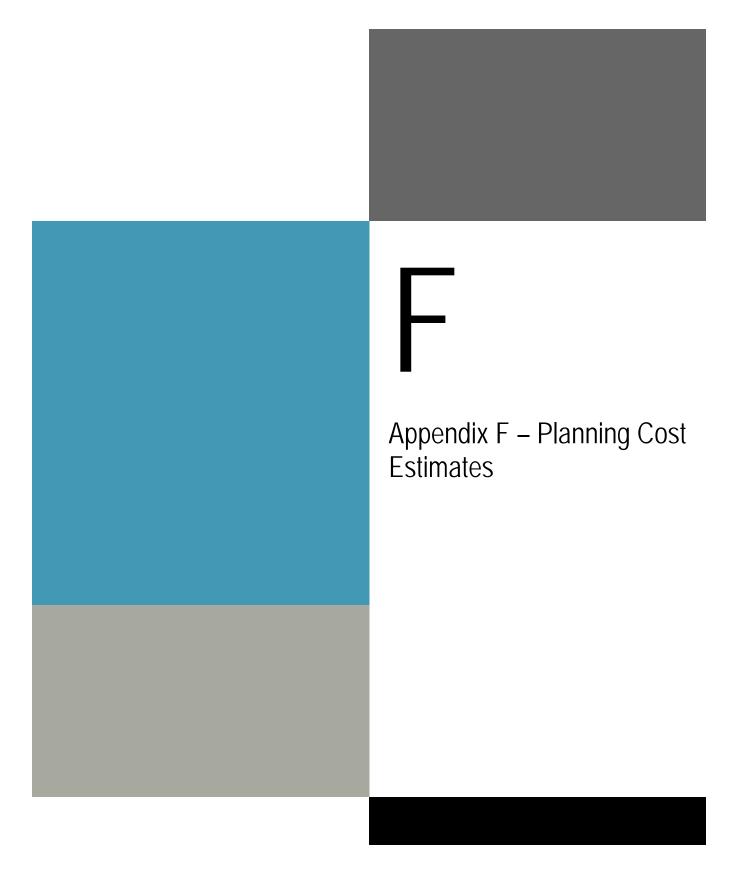
Statesville Ave. Bike Lanes – N Graham St. – Woodward Ave. Traffic Signals (2) Statesville Ave.



Statesville Ave. - Bike Lanes - N Graham ST. - Woodward Ave. RR Crossing Arms (1) Statesville Ave.







Route: N. Graham Street (NCDOT maintained - SR 2540) - Segment 1

4-lane curb & gutter with 4' bike lanes, 8'-6" planting strips, & 8' sidewalks Proposed Typical Section:

Prepared By: HDR 8/11/2015

> Length (ft) = Width Exist Pvmt (ft) = 3,800 Width Widening (ft) =12

Proposed Roadway Features Width (ft) = 93 % Existing Pavement Reconstructed = 50%

No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = 9 2

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	6	ACRE	\$10,000.00	\$60,000.00
Earthwork (Unclassified Excavation)	26,600	CY	\$6.00	\$159,600.00
Earthwork (Borrow Excavation)	8,900	CY	\$6.00	\$53,400.00
Fine Grading	26,600	SY	\$2.50	\$66,500.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter	-	LF	\$15.00	
2'-6" Concrete Curb and Gutter	7,600	LF	\$20.00	\$152,000.00
4" Concrete Sidewalk	7,600	LF	\$17.00	\$129,200.00
New Concrete Driveway	7,600	LF	\$20.00	\$152,000.00
Pavement Marking and Markers	3,800	LF	\$10.00	\$38,000.00
Signage	3,800	LF	\$2.00	\$38,000.00
Signage	3,800	LF	\$2.00	\$7,000.00
Guardrail		<u> </u>	+	
Steel Beam Guardrail	-	LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000,00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	8,500	SY	\$2.00	\$17,000.00
Pavement Widening	5,100	SY	\$55.00	\$280,500.00
Full Pavement Reconstruction	8,500	SY	\$55.00	\$467,500.00
Pavement Resurfacing	8,500	SY	\$14.70	\$124,950.00
Pavement Wedging	8,500	SY	\$9.20	\$78,200.00
Additional Misc Units		+		
Concrete curb ramp	18	EA	\$1,200.00	\$21,600.00
Upgrades to Existing Traffic Signals	2	EA	\$100,000,00	\$200,000,00
Decorative Lighting	38	EA	\$3,000.00	\$114,000.00
Structures				
Bridge		SY		
Culvert	-	LS		
Aesthetic Barrier		LF		
Retaining Walls		SY		
		+	+ +	
Subtotal		1	†	\$2,122,050.00
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	+ +	\$106,200.00
Additional Misc. Costs (40%)		LS	+ +	\$848,900.00
Proposed Drainage (assume 10%)		LS	+ +	\$212,300.00
Landscaping (assume 3%)		LS	1 1	\$63,700.00
Erosion Control Measures (assume 3%)		LS		\$63,700.00

Construction Cost	\$3,586,650.00
Contingency (20%)	\$717,330.00
Subtotal	\$4,303,980.00
Say	\$4,310,000.00
Engineering & CE&I (assume 25%)	\$1,077,500.00
Utility Relocation (Duke Energy Distribution)	\$260,000.00
Utility Relocation & Upgrades (City Underground)	\$910,000.00
Land Acquisition	\$8,900,000.00
Subtotal	\$11,147,500.00
Project Total	\$15,457,500.00
Say	\$16,000,000.00

Route: N. Graham Street (NCDOT maintained - SR 2540) - Segment 2

4-lane curb & gutter with 4' bike lanes, 8'-6" planting strips, & 8' sidewalks Proposed Typical Section:

Prepared By: HDR 8/11/2015

> Length (ft) = Width Exist Pvmt (ft) = 1,700 Width Widening (ft) =12

Proposed Roadway Features Width (ft) = 93 % Existing Pavement Reconstructed = 50%

No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = 5

3 11,900 4,000 11,900 3,400 3,400 3,400	ACRE CY CY SY LF LF LF LF LF	\$10,000.00 \$6.00 \$6.00 \$2.50 \$15.00 \$20.00 \$17.00	\$30,000.00 \$71,400.00 \$24,000.00 \$29,750.00
11,900 4,000 11,900 3,400 3,400 3,400	CY CY SY LF LF LF	\$6.00 \$6.00 \$2.50 \$15.00 \$20.00	\$71,400.00 \$24,000.00 \$29,750.00
4,000 11,900 3,400 3,400 3,400	CY SY LF LF LF	\$6.00 \$2.50 \$15.00 \$20.00	\$24,000.00 \$29,750.00
11,900 3,400 3,400 3,400	SY LF LF LF	\$2.50 \$15.00 \$20.00	\$29,750.00
3,400 3,400 3,400	LF LF LF	\$15.00 \$20.00	
3,400 3,400 3,400	LF LF	\$20.00	
3,400 3,400 3,400	LF LF	\$20.00	
3,400 3,400 3,400	LF LF	\$20.00	
3,400 3,400	LF		£60,000,00
3,400		\$17.00	\$68,000.00
	LF	φ17.00	\$57,800.00
1 700		\$20.00	\$68,000.00
1.700			
1,/00	LF	\$10.00	\$17,000.00
1,700	LF	\$2.00	\$3,400.00
	\bot		
		1 /	
	EA	\$800.00	
			\$7,600.00
			\$126,500.00
			\$209,000.00
			\$55,860.00
3,800	SY	\$9.20	\$34,960.00
10	EA	\$1,200.00	\$12,000.00
1			\$100,000,00
17		,	\$51,000.00
		, , , , , , , , , , , , , , , , , , , ,	
	SY		
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	SY		
		+ +	\$966,270.00
	-	1	
	LS		\$48,400.00
	LS		\$386,600.00
	LS		\$96,700.00
	LS	<u> </u>	\$29,000.00
	LS		\$29,000.00
	LS		\$77,400.00
	3,800 2,300 3,800 3,800 3,800 10 11 17	1,700 LF LF EA EA EA EA 3,800 SY 2,300 SY 3,800 SY 3,800 SY 3,800 SY 10 EA 1 EA 17 EA SY LS LF LF LF LF LF LF LF LS LF LS	1,700

Construction Cost	\$1,633,370.00
Contingency (20%)	\$326,674.00
Subtotal	\$1,960,044.00
Say	\$1,970,000.00
Engineering & CE&I (assume 25%)	\$492,500.00
Utility Relocation (Duke Energy Distribution)	\$120,000.00
Utility Relocation & Upgrades (City Underground)	\$410,000.00
Land Acquisition	\$9,900,000.00
Subtotal	\$10,922,500.00
Project Total	\$12,892,500.00
Say	\$13,000,000.00

N. Graham Street (NCDOT maintained - SR 2540) - Segment 3

from Moretz Avenue to Atando Avenue 4-lane curb & gutter with 17' median/turn-lanes, 4' bike lanes, 8'-6" planting strips, & 8' side Proposed Typical Section:

Prepared By: 8/11/2015

> 3,700 Length (ft) = 40 31 Width Exist Pvmt (ft) = Width Widening (ft) =

Proposed Roadway Features Width (ft) = % Existing Pavement Reconstructed = 108 50%

No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = 7

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	7	ACRE	\$10,000.00	\$70,000.00
Earthwork (Unclassified Excavation)	32,100	CY	\$6.00	\$192,600.00
Earthwork (Borrow Excavation)	10,700	CY	\$6.00	\$64,200.00
Fine Grading	32,100	SY	\$2.50	\$80,250.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter	6,000	LF	\$15.00	\$90,000.00
2'-6" Concrete Curb and Gutter	7,400	LF	\$20.00	\$148,000.00
4" Concrete Sidewalk	7,400	LF	\$17.00	\$125,800.00
New Concrete Driveway	7,400	LF	\$20.00	\$148,000.00
Pavement Marking and Markers	3,700	LF	\$10.00	\$37,000.00
Signage	3,700	LF	\$2.00	\$7,400.00
2 1 "			1	
Guardrail			620.00	
Steel Beam Guardrail		LF EA	\$20.00	
Guardrail Anchor Units, Type III			\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement			+	
Milling	8,300	SY	\$2.00	\$16,600.00
Pavement Widening	12,800	SY	\$55.00	\$704,000.00
Full Pavement Reconstruction	8,300	SY	\$55.00	\$456,500.00
Pavement Resurfacing	8,300	SY	\$14.70	\$122,010.00
Pavement Wedging	8,300	SY	\$9.20	\$76,360.00
i avenient wedging	8,500	31	\$7.20	\$70,500.00
Additional Misc Units				
Concrete curb ramp	14	EA	\$1,200.00	\$16,800.00
Upgrades to Existing Traffic Signals	2	EA	\$100,000.00	\$200,000.00
Decorative Lighting	37	EA	\$3,000.00	\$111,000.00
Grade Crossing Gates	1	EA	\$100,000.00	\$100,000.00
Structures				
Bridge	==	SY		
Culvert		LS		
Aesthetic Barrier		LF		
Retaining Walls		SY		
			<u> </u>	
			<u> </u>	
<u>Subtotal</u>		_		\$2,766,520.00
			1	
T G (NA()				
Lump Sum (assumed %)		1.0	1	£120 400 00
Mobilization (assume 5%)		LS		\$138,400.00
Additional Misc. Costs (40%)		LS	1	\$1,106,700.00
Proposed Drainage (assume 10%) Landscaping (assume 3%)		LS LS	+	\$276,700.00 \$83,000.00
Erosion Control Measures (assume 3%)		LS	+	\$83,000.00
Traffic Control (assume 8%)		LS	+	\$221,400.00
Traine Condoi (assume 670)	l.	Construction Cos		\$4.675.720.00

Construction Cost	\$4,675,720.00
Contingency (20%)	\$935,144.00
Subtotal	\$5,610,864.00
Say	\$5,620,000.00
Engineering & CE&I (assume 25%)	\$1,405,000.00
Utility Relocation (Duke Energy Distribution)	\$250,000.00
Utility Relocation & Upgrades (City Underground)	\$880,000.00
Land Acquisition	\$6,600,000.00
Subtotal	\$9,135,000.00
Project Total	\$14,755,000.00
Say	\$15,000,000.00

Route: Matheson Avenue - Segment 1 from N. Tryon Street to Jordan Place Proposed Typical Section: 2-lane curb & gutter with 4' bike lanes, 3' planting strips, & 6' sidewalks

Prepared By: HDR Date: 8/11/2015

Length (ft) = 2,100 Width Exist Pvmt (ft) =
Width Widening (ft) = 48 0 Proposed Roadway Features Width (ft) =
Proposed Pvmt Width (ft) =
Security 52 30 20% Existing Bridge Length (2 structures) = Additional Sidewalk on Existing Bridges (ft) = 910 11 No. Side Street Intersections (EA) =No. Signalized Intersections (EA) =1

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	0.7	ACRE	\$10,000.00	\$7,000.00
Earthwork (Unclassified Excavation)	7,500	CY	\$6.00	\$45,000.00
Earthwork (Borrow Excavation)	2,500	CY	\$6.00	\$15,000.00
Fine Grading	7,500	SY	\$2.50	\$18,750.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	4,200	LF	\$20.00	\$84,000.00
4" Concrete Sidewalk	4,200	LF	\$17.00	\$71,400.00
New Concrete Driveway	4,200	LF	\$20.00	\$84,000.00
Pavement Marking and Markers	2,100	LF	\$10.00	\$21,000.00
Signage	2,100	LF	\$2.00	\$4,200.00
Guardrail			+	
Steel Beam Guardrail	-	LF	\$20.00	
Guardrail Anchor Units, Type III	ŀ	EA	\$1,500.00	
Guardrail Anchor Units, Type 350	=	EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	5,600	SY	\$2.00	\$11,200.00
Pavement Widening	=	SY	\$55.00	
Full Pavement Reconstruction	1,400	SY	\$55.00	\$77,000.00
Pavement Resurfacing	5,600	SY	\$14.70	\$82,320.00
Pavement Wedging	5,600	SY	\$9.20	\$51,520.00
Additional Misc Units				
Concrete curb ramp	2	EA	\$1,200.00	\$2,400.00
Upgrades to Existing Traffic Signals	1	EA	\$100,000.00	\$100,000.00
Decorative Lighting	21	EA	\$3,000.00	\$63,000.00
Structures				
Bridge (addition of sidewalk)	10,010	SF	\$50.00	\$500,500.00
Culvert	-	LS		
Aesthetic Barrier	1,820	LF	\$25.00	\$45,500.00
Retaining Walls		SF		
<u>Subtotal</u>				\$1,283,790.00
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	† †	\$64,200.00
Additional Misc. Costs (40%)		LS		\$513,600.00
Proposed Drainage (assume 10%)		LS		\$128,400.00
Landscaping (assume 3%)		LS	<u> </u>	\$38,600.00
Erosion Control Measures (assume 3%)		LS		\$38,600.00
Traffic Control (assume 8%)		LS		\$102,800.00

LS	\$102,800.00
Construction Cost	\$2,169,990.00
Contingency (20%)	\$433,998.00
Subtotal	\$2,603,988.00
Say	\$2,610,000.00
Engineering & CE&I (assume 25%)	\$652,500.00
Utility Relocation (Duke Energy Distribution)	\$170,000.00
Utility Relocation & Upgrades (City Underground)	\$170,000.00
Land Acquisition	\$540,000.00
Subtotal	\$1,532,500.00
Project Total	\$4,142,500.00
Say	\$5,000,000.00

Route: Matheson Avenue - Segment 2 from Jordan Place to The Plaza
Proposed Typical Section: 3-lane curb & gutter with 4' bike lanes, 8'-6" planting strips, & 6' sidewalks

Prepared By: HDR Date: 8/11/2015

Length (ft) = 3,500 Width Exist Pvmt (ft) = 48 Width Widening (ft) = 4 85 Proposed Roadway Features Width (ft) = % Existing Pavement Reconstructed =

No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = $\frac{1}{2}$

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	3.8	ACRE	\$10,000.00	\$38,000.00
Earthwork (Unclassified Excavation)	18,300	CY	\$6.00	\$109,800.00
Earthwork (Borrow Excavation)	6,100	CY	\$6.00	\$36,600.00
Fine Grading	18,300	SY	\$2.50	\$45,750.00
Linear Feet Units			04 # 00	40400000
1'-6" Concrete Curb and Gutter	5,600	LF	\$15.00	\$84,000.00
2'-6" Concrete Curb and Gutter	7,000	LF	\$20.00	\$140,000.00
4" Concrete Sidewalk	7,000	LF	\$17.00	\$119,000.00
New Concrete Driveway	7,000	LF	\$20.00	\$140,000.00
Pavement Marking and Markers	3,500	LF	\$10.00	\$35,000.00
Signage	3,500	LF	\$2.00	\$7,000.00
a para series				, , , , , , , , , , , , , , , , , , , ,
Guardrail				
Steel Beam Guardrail	7,000	LF	\$20.00	\$140,000.00
Guardrail Anchor Units, Type III	8	EA	\$1,500.00	\$12,000.00
Guardrail Anchor Units, Type 350	4	EA	\$2,000.00	\$8,000.00
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	15,000	SY	\$2.00	\$30,000.00
Pavement Widening	1,600	SY	\$55.00	\$50,000.00
Full Pavement Reconstruction	3,800	SY	\$55.00	\$209,000.00
Pavement Resurfacing	15,000	SY	\$14.70	\$220,500.00
Pavement Wedging	15,000	SY	\$9.20	\$138,000.00
ravement wedging	15,000	31	\$9.20	\$136,000.00
Additional Misc Units				
Concrete curb ramp	2	EA	\$1,200.00	\$2,400.00
Upgrades to Existing Traffic Signals	1	EA	\$100,000.00	\$100,000.00
Decorative Lighting	35	EA	\$3,000.00	\$105,000.00
G				
Structures		SY		
Bridge Culvert		LS		
Aesthetic Barrier		LF	+	
Retaining Walls		SY		
Retaining wans		31		
<u>Subtotal</u>				\$1,720,050.00
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	† †	\$86,100.00
Additional Misc. Costs (40%)		LS	† †	\$688,100.00
Proposed Drainage (assume 10%)		LS	† †	\$172,100.00
Landscaping (assume 3%)		LS		\$51,700.00
Erosion Control Measures (assume 3%)		LS		\$51,700.00
Traffic Control (assume 8%)		LS	1	\$137,700.00

	Li	\$137,700.00
Cor	nstruction Cost	\$2,907,450.00
Con	tingency (20%)	\$581,490.00
	Subtotal	\$3,488,940.00
	Say	\$3,490,000.00
Environment 6 CE 6	I (250/)	6972 500 00
Engineering & CE&	:I (assume 25%)	\$872,500.00
Utility Relocation (Duke Ener	gy Distribution)	\$340,000.00
Utility Relocation & Upgrades (Cit	y Underground)	\$890,000.00
Li	and Acquisition	\$1,700,000.00
	Subtotal	\$3,802,500.00
	Project Total	\$7,292,500.00
	Say	\$8,000,000.00

Route: 16th Street

from N. Tryon Street to Parkwood Avenue

Proposed Typical Section: 2-lane curb & gutter with 4' bike lanes, 8'-6" planting strips, & 8' sidewalks

Prepared By: HDR Date: 8/11/2015

Length (ft) = 1,334 Width Exist Pvmt (ft) = 30 0 Width Widening (ft) =

67 Proposed Roadway Features Width (ft) = % Existing Pavement Reconstructed =

No. Side Street Intersections (EA) =2 No. Signalized Intersections (EA) =

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	1.5	ACRE	\$10,000.00	\$15,000.00
Earthwork (Unclassified Excavation)	7,000	CY	\$6.00	\$42,000.00
Earthwork (Borrow Excavation)	2,400	CY	\$6.00	\$14,400.00
Fine Grading	7,000	SY	\$2.50	\$17,500.00
Linear Feet Units		+		
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	2,700	LF	\$20.00	\$54,000.00
4" Concrete Sidewalk	2,700	LF	\$17.00	\$45,900.00
New Concrete Driveway	2,700	LF	\$20.00	\$54,000.00
Pavement Marking and Markers	1,400	LF	\$10.00	\$14,000.00
Signage	1,400	LF	\$2.00	\$2,800.00
Cuandrall				
Guardrail Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Guardran Anenor Cines, Type CAT 1		L/1	φοσο.σο	
Pavement				
Milling	3,600	SY	\$2.00	\$7,200.00
Pavement Widening	0	SY	\$55.00	
Full Pavement Reconstruction	900	SY	\$55.00	\$49,500.00
Pavement Resurfacing	3,600	SY	\$14.70	\$52,920.00
Pavement Wedging	3,600	SY	\$9.20	\$33,120.00
Additional Misc Units				
Concrete curb ramp	4	EA	\$1,200.00	\$4,800.00
Upgrades to Existing Traffic Signals	1	EA	\$100,000.00	\$100,000.00
Decorative Lighting	13	EA	\$3,000.00	\$40,020.00
Grade Crossing Gates	1	EA	\$100,000.00	\$100,000.00
Structures				
Bridge		SY		
Culvert		LS		
Aesthetic Barrier		LF		
Retaining Walls		SY		
Subtotal				\$647,160.00
Lump Sum (assumed %)		1.0	+	\$22,400,00
Mobilization (assume 5%)		LS	+	\$32,400.00
Additional Misc. Costs (40%) Proposed Drainage (assume 10%)		LS LS	++	\$258,900.00 \$64,800.00
Landscaping (assume 3%)		LS	+	\$19,500.00
Erosion Control Measures (assume 3%)		LS	+ +	\$19,500.00
Traffic Control (assume 8%)		LS	+ +	\$51,800.00
Transe Condui (assume 670)	1	Construction Cos		\$1,094,060.00

ES	Ψ51,000.00
Construction Cost	\$1,094,060.00
Contingency (20%)	\$218,812.00
Subtotal	\$1,312,872.00
Say	\$1,320,000.00
Engineering & CE&I (assume 25%)	\$330,000.00
Utility Relocation (Duke Energy Distribution)	\$144,000.00
Utility Relocation & Upgrades (City Underground)	\$345,000.00
Land Acquisition	\$380,000.00
Subtotal	\$1,199,000.00
Project Total	\$2,519,000.00
Say	\$3,000,000.00

Route: N. Tryon Street (NCDOT maintained - US 29/NC49) - Segment 1 from 11th Street to Dalton Avenue

Proposed Typical Section: 4-lane with 11' median/turn-lanes curb & gutter with 5' bike lanes, 8'-6" planting strips, & 6

Prepared By: HDR Date: 8/11/2015

Length (ft) = 3,700 Width Exist Pvmt (ft) = 40 25 Width Widening (ft) = Proposed Roadway Features Width (ft) = % Existing Pavement Reconstructed = 50%

No. Side Street Intersections (EA) =8 No. Signalized Intersections (EA) =2

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	5.8	ACRE	\$10,000.00	\$58,000.00
Earthwork (Unclassified Excavation)	28,000	CY	\$6.00	\$168,000.00
Earthwork (Borrow Excavation)	9,400	CY	\$6.00	\$56,400.00
Fine Grading	28,000	SY	\$2.50	\$70,000.00
	·			
Linear Feet Units				
1'-6" Concrete Curb and Gutter	6,000	LF	\$15.00	\$90,000.00
2'-6" Concrete Curb and Gutter	7,400	LF	\$20.00	\$148,000.00
4" Concrete Sidewalk	7,400	LF	\$17.00	\$125,800.00
New Concrete Driveway	7,400	LF	\$20.00	\$148,000.00
•				
Pavement Marking and Markers	3,700	LF	\$10.00	\$37,000.00
Signage	3,700	LF	\$2.00	\$7,400.00
Guardrail				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	8,300	SY	\$2.00	\$16,600.00
Pavement Widening	10,300	SY	\$55.00	
Full Pavement Reconstruction	8,300	SY	\$55.00	\$456,500.00
Pavement Resurfacing	8,300	SY	\$14.70	\$122,010.00
Pavement Wedging	8,300	SY	\$9.20	\$76,360.00
Additional Misc Units		-		
Concrete curb ramp	16	EA	\$1,200.00	\$19,200.00
Upgrades to Existing Traffic Signals	2	EA	\$100,000.00	\$200,000.00
Decorative Lighting	37	EA	\$3,000.00	\$111,000.00
Structures				
Bridge		SY		
Culvert		LS	1	
Aesthetic Barrier		LF	1	
Retaining Walls		SY		
Subtotal				\$1,910,270.00
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	1	\$95,600.00
Additional Misc. Costs (40%)		LS		\$764,200,00
Proposed Drainage (assume 10%)		LS	1	\$191,100.00
Landscaping (assume 3%)		LS		\$57,400.00
Erosion Control Measures (assume 3%)		LS		\$57,400.00
Traffic Control (assume 8%)		LS		\$152,900.00
, ,	•	Construction Cost		\$3,228,870,00

\$3,228,870.00
\$645,774.00
\$3,874,644.00
\$3,880,000.00
\$970,000.00
\$260,000.00
\$1,040,000.00
\$5,800,000.00
\$8,070,000.00
\$11,950,000.00
\$12,000,000.00

Route: N. Tryon Street (NCDOT maintained - US 29/NC49) - Segment 2

from Matheson Avenue to 36th Street

Proposed Typical Section: 4-lane with 12' median/turn-lanes curb & gutter with 4' bike lanes, 8'-6" planting strips, & 8

Prepared By: HDR Date: 8/11/2015

 $\begin{array}{ccc} Length (ft) = & 2,800 \\ Width Exist Pvmt (ft) = & 60 \\ Width Widening (ft) = & 5 \\ \end{array}$ $\begin{array}{ccc} Proposed Roadway Features Width (ft) = & 98 \\ \% Existing Pavement Reconstructed = & 50\% \\ \end{array}$

No. Side Street Intersections (EA) =
No. Signalized Intersections (EA) =

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	3.1	ACRE	\$10,000.00	\$31,000.00
Earthwork (Unclassified Excavation)	15,000	CY	\$6.00	\$90,000.00
Earthwork (Borrow Excavation)	5,000	CY	\$6.00	\$30,000.00
Fine Grading	15,000	SY	\$2.50	\$37,500.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter	2,800	LF	\$15.00	\$42,000.00
2'-6" Concrete Curb and Gutter	5,600	LF	\$20.00	\$112,000.00
4" Concrete Sidewalk	5,600	LF	\$17.00	\$95,200.00
New Concrete Driveway	5,600	LF	\$20.00	\$112,000.00
Pavement Marking and Markers	2,800	LF	\$10.00	\$28,000.00
Signage	2,800	LF	\$2.00	\$5,600.00
Guardrail				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1	==	EA	\$800.00	
Pavement	0.400	977	44.00	A40.000.00
Milling	9,400	SY	\$2.00	\$18,800.00
Pavement Widening	1,600	SY	\$55.00	
Full Pavement Reconstruction	9,400	SY	\$55.00	\$517,000.00
Pavement Resurfacing	9,400	SY	\$14.70	\$138,180.00
Pavement Wedging	9,400	SY	\$9.20	\$86,480.00
Additional Misc Units				
Concrete curb ramp	14	EA	\$1,200.00	\$16,800.00
Upgrades to Existing Traffic Signals	4	EA	\$100,000.00	\$400,000.00
Decorative Lighting	28	EA	\$3,000.00	\$84,000.00
Grade Crossing Gates	1	EA	\$100,000.00	\$100,000.00
Structures				
Bridge		SY		
Culvert		LS		
Aesthetic Barrier		LF		
Retaining Walls		SY		
			1	
Subtotal				\$1,944,560.00
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	1	\$97,300,00
Additional Misc. Costs (40%)		LS	†	\$777,900.00
Proposed Drainage (assume 10%)		LS	†	\$194,500.00
Landscaping (assume 3%)		LS		\$58,400.00
Erosion Control Measures (assume 3%)		LS		\$58,400.00
Traffic Control (assume 8%)		LS		\$155,600.00
		Construction Cos	t	\$3,286,660.00

ES	Ψ155,000.00
Construction Cost	\$3,286,660.00
Contingency (20%)	\$657,332.00
Subtotal	\$3,943,992.00
Say	\$3,950,000.00
Engineering & CE&I (assume 25%)	\$987,500.00
Utility Relocation (Duke Energy Distribution)	\$110,000.00
Utility Relocation & Upgrades (City Underground)	\$790,000.00
Land Acquisition	\$4,000,000.00
Subtotal	\$5,887,500.00
Project Total	\$9,837,500.00
Say	\$10,000,000.00

Route: Davidson Avenue Bike Lanes - Segment 1

from 11th Street to 21st Street
Proposed Typical Section: 2-lane curb & gutter with 4' bike lanes and replacement of existing planting strips and sidew

Prepared By: HDR Date: 8/11/2015

Length (ft) = 4,300 Width Exist Pvmt (ft) = 24 Width Widening (ft) = 6 48 Proposed Roadway Features Width (ft) = % Existing Pavement Reconstructed = No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = 21

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	3.4	ACRE	\$10,000.00	\$34,000.00
Earthwork (Unclassified Excavation)	16,300	CY	\$6.00	\$97,800.00
Earthwork (Borrow Excavation)	5,500	CY	\$6.00	\$33,000.00
Fine Grading	16,300	SY	\$2.50	\$40,750.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	8,600	LF	\$20.00	\$172,000.00
4" Concrete Sidewalk	8,600	LF	\$17.00	\$146,200.00
New Concrete Driveway	8,600	LF	\$20.00	\$172,000.00
Pavement Marking and Markers	4,300	LF	\$10.00	\$43,000.00
Signage	4,300	LF	\$2.00	\$8,600.00
Guardrail				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	11,500	SY	\$2.00	\$23,000.00
Pavement Widening	2,900	SY	\$55.00	
Full Pavement Reconstruction	0	SY	\$55.00	\$0.00
Pavement Resurfacing	11,500	SY	\$14.70	\$169,050.00
Pavement Wedging	11,500	SY	\$9.20	\$105,800.00
Additional Misc Units				
Concrete curb ramp	42	EA	\$1,200.00	\$50,400.00
Upgrades to Existing Traffic Signals		EA	\$100,000.00	
Decorative Lighting		EA	\$3,000.00	
Grade Crossing Gates	1	EA	\$100,000.00	\$100,000.00
n				
Structures		GT/		
Bridge		SY		
Culvert		LS LF		
Aesthetic Barrier Retaining Walls		SY		
Retaining walls		SY		
Subtotal	1	+	1	\$1,195,600.00
Subtotal		+		\$1,193,000.00
			+	
Lump Sum (assumed %)			+	
Mobilization (assume 5%)		LS	+	\$59,800,00
Additional Misc. Costs (40%)	+	LS	 	\$478,300.00
Proposed Drainage (assume 10%)		LS	+	\$119.600.00
Landscaping (assume 3%)	+	LS	 	\$35,900.00
Erosion Control Measures (assume 3%)		LS		\$35,900.00
Traffic Control (assume 8%)		LS		\$95,700.00
Camor (assume 070)	-	Construction Cost		\$2,020,800,00

\$95,700.00
\$2,020,800.00
\$404,160.00
\$2,424,960.00
\$2,430,000.00
\$607,500.00
\$150,000.00
\$1,110,000.00
\$990,000.00
\$2,857,500.00
\$5,287,500.00
\$6,000,000.00

Route: Davidson Avenue Bike Lanes - Segment 2
from Jordan Place to 34th Street
Proposed Typical Section: 2-lane curb & gutter with 4' bike lanes and replacement of existing planting strips and sidew

Prepared By: HDR Date: 8/11/2015

Length (ft) = 3,000 Width Exist Pvmt (ft) = 30 0 Width Widening (ft) = 48 Proposed Roadway Features Width (ft) = % Existing Pavement Reconstructed = No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = 9

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	2.0	ACRE	\$10,000.00	\$20,000.00
Earthwork (Unclassified Excavation)	9,400	CY	\$6.00	\$56,400.00
Earthwork (Borrow Excavation)	3,200	CY	\$6.00	\$19,200.00
Fine Grading	9,400	SY	\$2.50	\$23,500.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	6,000	LF	\$20.00	\$120,000.00
4" Concrete Sidewalk	6,000	LF	\$17.00	\$102,000.00
New Concrete Driveway	6,000	LF	\$20.00	\$120,000.00
Pavement Marking and Markers	3,000	LF	\$10.00	\$30,000.00
Signage	3,000	LF	\$2.00	\$6,000.00
Guardrail				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	10,000	SY	\$2.00	\$20,000.00
Pavement Widening	0	SY	\$55.00	φ20,000.00
Full Pavement Reconstruction	0	SY	\$55.00	\$0.00
Pavement Resurfacing	10,000	SY	\$14.70	\$147,000.00
Pavement Wedging	10,000	SY	\$9.20	\$92,000.00
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Additional Misc Units				
Concrete curb ramp	18	EA	\$1,200.00	\$21,600.00
Upgrades to Existing Traffic Signals		EA	\$100,000.00	
Decorative Lighting		EA	\$3,000.00	-
Structures		_	-	
Bridge		SY	1	
Culvert		LS	1	
Aesthetic Barrier		LF	1	
Retaining Walls		SY		
reaming wans		51		
<u>Subtotal</u>				\$777,700.00
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS		\$38,900.00
Additional Misc. Costs (40%)		LS		\$311,100,00
Proposed Drainage (assume 10%)		LS		\$77,800.00
Landscaping (assume 3%)		LS		\$23,400.00
Erosion Control Measures (assume 3%)		LS		\$23,400.00
Traffic Control (assume 8%)		LS		\$62,300.00

	LS	\$62,300.00
Cor	nstruction Cost	\$1,314,600.00
Cor	tingency (20%)	\$262,920.00
	Subtotal	\$1,577,520.00
	Say	\$1,580,000.00
Engineering & CE&	zI (assume 25%)	\$395,000.00
Utility Relocation (Duke Energy	rgy Distribution)	\$110,000.00
Utility Relocation & Upgrades (Ci	ty Underground)	\$780,000.00
La	nd Acquisition	
	Subtotal	\$1,285,000.00
	Project Total	\$2,865,000.00
	Sav	\$3,000,000,00

Route: New Connection bwn Statesville Ave and N. Graham Street
Oaklawn Avenue & Sylvania Avenue Extension
Proposed Typical Section: 3-lane curb & gutter with 4' bike lanes, 8'-6" planting strips, & 8' sidewalks

Prepared By: HDR Date: 8/11/2015

1,800 200 1,600 Total Length (ft) = Bridge Length (ft) =
Length of Pavement (ft) =
Width of New Pavement (ft) =

Proposed Roadway Features Width (ft) =
Proposed Bridge Width (ft) =
Max. Raise in Profile (ft) = 78 62 30

No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = 3

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	4.0	ACRE	\$10,000.00	\$39,669.42
Earthwork (Unclassified Excavation)	2,400	CY	\$6.00	\$14,400.00
Earthwork (Borrow Excavation)	96,000	CY	\$6.00	\$576,000.00
Fine Grading	19,200	SY	\$2.50	\$48,000.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	3,600	LF	\$20.00	\$72,000.00
4" Concrete Sidewalk	3,600	LF	\$17.00	\$61,200.00
New Concrete Driveway	3,600	LF	\$20.00	\$72,000.00
·				
Pavement Marking and Markers	1,800	LF	\$10.00	\$18,000.00
Signage	1,800	LF	\$2.00	\$3,600.00
<u>Guardrail</u>			<u> </u>	
Steel Beam Guardrail	3,200	LF	\$20.00	\$64,000.00
Guardrail Anchor Units, Type III	4	EA	\$1,500.00	\$6,000.00
Guardrail Anchor Units, Type 350	2	EA	\$2,000.00	\$4,000.00
Guardrail Anchor Units, Type CAT-1	2	EA	\$800.00	\$1,600.00
Pavement		CV	62.00	60.00
Milling		SY	\$2.00	\$0.00
Pavement Widening	7.200	SY	\$55.00	£400.000.00
Full Pavement	7,289	SY	\$55.00	\$400,888.89
Pavement Resurfacing		SY	\$14.70	\$0.00
Pavement Wedging		SY	\$9.20	\$0.00
Additional Misc Units				
Concrete curb ramp	6	EA	\$1,200.00	\$7,200.00
Upgrades to Existing Traffic Signals	ī	EA	\$100,000.00	\$100,000.00
Decorative Lighting	18	EA	\$3,000.00	\$54,000.00
Decorative Engining	10		\$3,000.00	ψ5 1,000.00
Structures				
Bridge	12,400	SF	\$175.00	\$2,170,000.00
Culvert		LS		
Aesthetic Barrier	400	LF	\$25.00	\$10,000.00
Retaining Walls		SY		
Subtotal		-		\$3,722,558.31
Subtotai		1	1	φ3,722,336.31
			1	
Lump Sum (assumed %)			1	
Mobilization (assume 5%)		LS		\$186,200.00
Additional Misc. Costs (40%)		LS		\$1,489,100.00
Proposed Drainage (assume 10%)		LS		\$372,300.00
Landscaping (assume 3%)		LS		\$111,700.00
Erosion Control Measures (assume 3%)		LS		\$111,700.00
Traffic Control (assume 8%)		LS		\$297,900.00
		Construction Cos	t	\$6,291,458.31

Construction Cost	\$6,291,458.31
Contingency (20%)	\$1,258,291.66
Subtotal	\$7,549,749.97
Say	\$7,550,000.00
Engineering & CE&I (assume 25%)	\$1,887,500.00
Utility Relocation (Duke Energy Distribution)	\$171,000.00
Utility Relocation & Upgrades (City Underground)	\$200,000.00
Land Acquisition	\$14,700,000.00
Subtotal	\$16,958,500.00
Project Total	\$24,508,500.00
Sav	\$25,000,000.00

Route: Ware Avenue Extension

from Ware Avenue (at Atando Avenue) to 36th Street/N. Tryon Street Intersection
Proposed Typical Section: 2-lane curb & gutter with 5' bike lanes, 8'-6" planting strips, & 8' sidewalks

Prepared By: HDR Date: 8/11/2015

Length (ft) = 4,850 Bridge Length (ft) = Length of Pavement (ft) = Width of New Pavement (ft) = 300 4,550 44 Proposed Roadway Features Width (ft) = Proposed Bridge Width (ft) = 65 No. Side Street Intersections (EA) = No. Signalized Intersections (EA) =

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	10.8	ACRE	\$10,000.00	\$107,968.32
Earthwork (Unclassified Excavation)	26,300	CY	\$6.00	\$157,800.00
Earthwork (Borrow Excavation)	49,400	CY	\$6.00	\$296,400.00
Fine Grading	52,257	SY	\$2.50	\$130,641.67
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	9,700	LF	\$20.00	\$194,000.00
4" Concrete Sidewalk	9,700	LF	\$17.00	\$164,900.00
New Concrete Driveway	9,700	LF	\$20.00	\$194,000.00
Pavement Marking and Markers	4,900	LF	\$10.00	\$49,000.00
Signage	4,900	LF	\$2.00	\$9,800.00
g 1 n				
Guardrail				
Steel Beam Guardrail	1,975	LF	\$20.00	\$39,500.00
Guardrail Anchor Units, Type III	4	EA	\$1,500.00	\$6,000.00
Guardrail Anchor Units, Type 350	4	EA	\$2,000.00	\$8,000.00
Guardrail Anchor Units, Type CAT-1	4	EA	\$800.00	\$3,200.00
Pavement			+	
Milling		SY	\$2.00	
Pavement Widening		SY	\$55.00	
Full Pavement	22,244	SY	\$55.00	\$1,223,444.44
Pavement Resurfacing		SY	\$14.70	
Pavement Wedging		SY	\$9.20	
Additional Misc Units				
Concrete curb ramp	4	EA	\$1,200.00	\$4,800.00
Upgrades to Existing Traffic Signals	2	EA	\$100,000.00	\$200,000.00
Decorative Lighting	49	EA	\$3,000.00	\$145,500.00
Structures				
Bridge	19,500	SF	\$150.00	\$2,925,000.00
Culvert		LS		
Aesthetic Barrier	600	LF	25	\$15,000.00
Retaining Walls		SY		
Subtotal		+	+	\$5,874,954.43
			1	ψυ,οττ,ουτ.τυ
Lump Sum (assumed %)			1	
Mobilization (assume 5%)		LS		\$293,800.00
Additional Misc. Costs (40%)		LS		\$2,350,000.00
Proposed Drainage (assume 10%)		LS	+	\$587,500.00
Landscaping (assume 3%)		LS	+	\$176,300.00
Erosion Control Measures (assume 3%)		LS LS	+	\$176,300.00 \$470,000.00
Traffic Control (assume 8%)	<u> </u>	LS Construction Cos		\$470,000.00

LS	\$ + 70,000.00
Construction Cost	\$9,928,854.43
Contingency (20%)	\$1,985,770.89
Subtotal	\$11,914,625.32
Say	\$11,920,000.00
Engineering & CE&I (assume 25%)	\$2,980,000.00
Utility Relocation (Duke Energy Distribution)	\$81,000.00
Utility Relocation & Upgrades (City Underground)	\$200,000.00
Land Acquisition	\$4,800,000.00
Subtotal	\$8,061,000.00
Project Total	\$19,981,000.00
Say	\$20,000,000.00

Route: Woodward Avenue/24th Street @ N. Graham Street

Proposed Typical Section: 2-lanes with turn lanes curb & gutter with 8'-6" planting strips & 8' sidewalks

Prepared By: HDR Date: 8/11/2015

Length of New Alignment (ft) =	680
Width of New Pavement (ft) =	36
Length of Widening (ft) =	130
Width Exist Pvmt (ft) =	33
Width Widening (ft) =	0
osed Roadway Features Width (ft) =	73
Existing Pavement Reconstructed =	0%
No. Side Street Intersections (EA) =	2
N- Cilid I(EA)	- 1

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	1.3	ACRE	\$10,000.00	\$13,000.00
Earthwork (Unclassified Excavation)	6,300	CY	\$6.00	\$37,800.00
Earthwork (Borrow Excavation)	2,100	CY	\$6.00	\$12,600.00
Fine Grading	6,300	SY	\$2.50	\$15,750.00
•				
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	1,400	LF	\$20.00	\$28,000.00
4" Concrete Sidewalk	1,400	LF	\$17.00	\$23,800.00
New Concrete Driveway	1,400	LF	\$20.00	\$28,000.00
Pavement Marking and Markers	700	LF	\$10.00	\$7,000.00
Signage	700	LF	\$2.00	\$1,400.00
Guardrail				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	500	SY	\$2.00	\$1,000.00
Pavement Widening	0	SY	\$55.00	
New Pavement Construction	5,600	SY	\$55.00	
Full Pavement Reconstruction	0	SY	\$55.00	\$0.00
Pavement Resurfacing	500	SY	\$14.70	\$7,350.00
Pavement Wedging	500	SY	\$9.20	\$4,600.00
Additional Misc Units				
Concrete curb ramp	4	EA	\$1,200.00	\$4,800.00
Upgrades to Existing Traffic Signals	1	EA	\$100,000.00	\$100,000.00
Decorative Lighting		EA	\$3,000.00	
Grade Crossing Gates	1	EA	\$100,000.00	\$100,000.00
Structures				
Bridge		SY		
Culvert		LS		
Aesthetic Barrier		LF		
Retaining Walls		SY		
<u>Subtotal</u>				\$385,100.00
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS		\$19,300.00
Additional Misc. Costs (40%)		LS		\$154,100.00
Proposed Drainage (assume 10%)		LS		\$38,600.00
Landscaping (assume 3%)		LS		\$11,600.00
Erosion Control Measures (assume 3%)		LS		\$11,600.00
Traffic Control (assume 8%)		LS		\$30,900.00

Construction Cost	\$651,200.00
Contingency (20%)	\$130,240.00
Subtotal	\$781,440.00
Say	\$790,000.00
Engineering & CE&I (assume 25%)	\$197,500.00
Utility Relocation (Duke Energy Distribution)	\$54,000.00
Utility Relocation & Upgrades (City Underground)	\$200,000.00
Land Acquisition	\$1,400,000.00
Subtotal	\$1,851,500.00
Project Total	\$2,641,500.00
Say	\$3,000,000.00

Route: Newland/Norris Avenue Intersection at Statesville Avenue

Proposed Typical Section: 2-lanes with turn lanes curb & gutter with 8'-6" planting strips & 8' sidewalks

Prepared By: HDR Date: 8/11/2015

Length of New Alignment (ft) =	910
Width of New Pavement (ft) =	36
Length of Widening (ft) =	-
Width Exist Pvmt (ft) =	-
Width Widening (ft) =	-
Proposed Roadway Features Width (ft) =	73
% Existing Pavement Reconstructed =	0%
No. Side Street Intersections (EA) =	3

No. Signalized Intersections (EA) =

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	1.6	ACRE	\$10,000.00	\$16,000.00
Earthwork (Unclassified Excavation)	7,400	CY	\$6.00	\$44,400.00
Earthwork (Borrow Excavation)	2,500	CY	\$6,00	\$15,000.00
Fine Grading	7,400	SY	\$2,50	\$18,500.00
	1,100		7=.00	4-0,00000
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter	1,900	LF	\$20.00	\$38,000.00
4" Concrete Sidewalk	1,900	LF	\$17.00	\$32,300.00
New Concrete Driveway	1,900	LF	\$20.00	\$38,000.00
Pavement Marking and Markers	1,000	LF	\$10.00	\$10,000.00
Signage	1,000	LF	\$2.00	\$2,000.00
organge	1,000	Li	Ψ2.00	Ψ2,000.00
<u>Guardrail</u>				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III	-	EA	\$1,500.00	==
Guardrail Anchor Units, Type 350	==	EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	-
D				
Pavement Activities and Activities a	0	CXZ	\$2.00	60.00
Milling Pavement Widening	0	SY SY	\$2.00 \$55.00	\$0.00
New Pavement Construction	7,400	SY	\$55.00	****
Full Pavement Reconstruction	0	SY	\$55.00	\$0.00
Pavement Resurfacing	0	SY	\$14.70	\$0.00
Pavement Wedging	0	SY	\$9.20	\$0.00
Additional Misc Units				
Concrete curb ramp	6	EA	\$1,200.00	\$7,200.00
Upgrades to Existing Traffic Signals	==	EA	\$100,000.00	==
Decorative Lighting	-	EA	\$3,000.00	-
Structures				
Bridge		SY		
Culvert	==	LS		
Aesthetic Barrier		LF		
Retaining Walls		SY	1	
<u>Subtotal</u>				\$221,400.00
Lump Sum (assumed %)	_			
Mobilization (assume 5%)		LS		\$11,100.00
Additional Misc. Costs (40%)		LS		\$88,600.00
Proposed Drainage (assume 10%)		LS		\$22,200.00
Landscaping (assume 3%)		LS	1	\$6,700.00
Erosion Control Measures (assume 3%)		LS		\$6,700.00
Traffic Control (assume 8%)		LS	1	\$17,800.00

Traffic Control (assume 8%)

LS	\$17,800.00
Construction Cost	\$374,500.00
Contingency (20%)	\$74,900.00
Subtotal	\$449,400.00
Say	\$450,000.00

Engineering & CE&I (assume 25%)	\$112,500.00
Utility Relocation (Duke Energy Distribution)	\$36,000.00
Utility Relocation & Upgrades (City Underground)	\$20,000.00
Land Acquisition	\$90,000.00
Subtotal	\$258,500.00
Project Total	\$708,500.00
Say	\$1.000.000.00

Route: Statesville Avenue (NCDOT maintained - SR 2691) Streetscape - Segment 1 from N. Graham Street to Woodward Avenue

Proposed Typical Section: 3-lane curb & gutter with 4' bike lanes, 8'-6" planting strips, & 6' sidewalks

Prepared By: HDR Date: 8/11/2015

Length (ft) = Width Exist Pvmt (ft) = Width Widening (ft) = 3,900 64 Proposed Roadway Features Width (ft) =
Proposed Pvmt Width (ft) =
Security 77 41 20% No. Side Street Intersections (EA) = No. Signalized Intersections (EA) = 8 2

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	2.1	ACRE	\$10,000.00	\$21,000.00
Earthwork (Unclassified Excavation)	20,000	CY	\$6.00	\$120,000.00
Earthwork (Borrow Excavation)	6,700	CY	\$6.00	\$40,200.00
Fine Grading	20,000	SY	\$2.50	\$50,000.00
Ü				
Linear Feet Units				
1'-6" Concrete Curb and Gutter	2,000	LF	\$15.00	\$30,000.00
2'-6" Concrete Curb and Gutter	7,800	LF	\$20.00	\$156,000.00
4" Concrete Sidewalk	7,800	LF	\$17.00	\$132,600.00
New Concrete Driveway	7,800	LF	\$20.00	\$156,000.00
•				
Pavement Marking and Markers	3,900	LF	\$10.00	\$39,000.00
Signage	3,900	LF	\$2.00	\$7,800.00
-				
<u>Guardrail</u>				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	14,300	SY	\$2.00	\$28,600.00
Pavement Widening		SY	\$55.00	
Full Pavement Reconstruction	3,600	SY	\$55.00	\$198,000.00
Pavement Resurfacing	14,300	SY	\$14.70	\$210,210.00
Pavement Wedging	14,300	SY	\$9.20	\$131,560.00
Additional Misc Units		+	+	
Concrete curb ramp	16	EA	\$1,200.00	\$19,200.00
Upgrades to Existing Traffic Signals	2	EA	\$100,000.00	\$200,000.00
Decorative Lighting	39	EA	\$3,000.00	\$117,000.00
Grade Crossing Gates	1	EA	\$100,000.00	\$100,000.00
Structures				
Bridge		SY		
Culvert		LS		
Aesthetic Barrier		LF		
Retaining Walls		SY		
Subtotal			+	\$1,757,170.00
				. ,,
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	+	\$87,900.00
Additional Misc. Costs (40%)		LS	+	\$702,900.00
Proposed Drainage (assume 10%)		LS	1	\$175,800.00
Landscaping (assume 3%)		LS	+	\$52,800.00
Erosion Control Measures (assume 3%)		LS	+ +	\$52,800.00
Traffic Control (assume 8%)		LS	+ +	\$140,600.00

Construction Cost	\$2,969,970.00
Contingency (20%)	\$593,994.00
Subtotal	\$3,563,964.00
Say	\$3,570,000.00
Engineering & CE&I (assume 25%)	\$892,500.00
Utility Relocation (Duke Energy Distribution)	\$370,000.00
Utility Relocation & Upgrades (City Underground)	\$920,000.00
Land Acquisition	\$200,000.00
Subtotal	\$2,382,500.00
Project Total	\$5,952,500.00
Say	\$6,000,000.00

 $Route: \ \ Statesville\ Avenue\ (NCDOT\ maintained\ -\ SR\ 2691)\ Streetscape\ -\ Segment\ 2$

from Newland/Norris Avenue to Atando Avenue

Proposed Typical Section: 3-lane curb & gutter with 4' bike lanes, 8'-6" planting strips, & 6' sidewalks

Prepared By: HDR Date: 8/11/2015

Length (ft) = 1,400 Width Exist Pvmt (ft) =
Width Widening (ft) = 64 Proposed Roadway Features Width (ft) =
Proposed Pvmt Width (ft) =
String Pavement Reconstructed = 77 20% No. Side Street Intersections (EA) = No. Signalized Intersections (EA) =

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	0.8	ACRE	\$10,000.00	\$8,000.00
Earthwork (Unclassified Excavation)	7,200	CY	\$6.00	\$43,200.00
Earthwork (Borrow Excavation)	2,400	CY	\$6.00	\$14,400.00
Fine Grading	7,200	SY	\$2.50	\$18,000.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter	700	LF	\$15.00	\$10,500.00
2'-6" Concrete Curb and Gutter	2,800	LF	\$20.00	\$56,000.00
4" Concrete Sidewalk	2,800	LF	\$17.00	\$47,600.00
New Concrete Driveway	2,800	LF	\$20.00	\$56,000.00
Pavement Marking and Markers	1,400	LF	\$10.00	\$14,000.00
Signage	1,400	LF	\$2.00	\$2,800.00
Guardrail			#20.00	
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling	5,200	SY	\$2.00	\$10,400.00
Pavement Widening		SY	\$55,00	φ10,400.00
Full Pavement Reconstruction	1,300	SY	\$55.00	\$71,500.00
Pavement Resurfacing	5,200	SY	\$14.70	\$76,440.00
Pavement Wedging	5,200	SY	\$9.20	\$47,840.00
A A Material Miles Timbe				
Additional Misc Units Concrete curb ramp	10	EA	\$1,200.00	\$12,000.00
	2	EA		
Upgrades to Existing Traffic Signals Decorative Lighting	14	EA EA	\$100,000.00 \$3,000.00	\$200,000.00 \$42,000.00
Decorative Lighting	14	EA	\$5,000.00	\$42,000.00
Structures				
Bridge		SY		
Culvert		LS		
Aesthetic Barrier		LF		
Retaining Walls		SY		
			 	
Subtotal			 	\$730,680.00
				, ,
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	1	\$36,600.00
Additional Misc. Costs (40%)		LS	+	\$292,300.00
Proposed Drainage (assume 10%)		LS	+	\$73,100.00
Landscaping (assume 3%)		LS	1	\$22,000.00
Erosion Control Measures (assume 3%)		LS		\$22,000.00
Traffic Control (assume 8%)		LS	1	\$58,500.00
Transe Constor (assume 070)	1	Construction Cos		\$1 235 180 00

2.0	Φ50,500.00
Construction Cost	\$1,235,180.00
Contingency (20%)	\$247,036.00
Subtotal	\$1,482,216.00
Say	\$1,490,000.00
Engineering & CE&I (assume 25%)	\$372,500.00
Utility Relocation (Duke Energy Distribution)	\$140,000.00
Utility Relocation & Upgrades (City Underground)	\$340,000.00
Land Acquisition	
Subtotal	\$852,500.00
Project Total	\$2,342,500.00
Say	\$3,000,000.00

Route: Multi-Use Path - Segement 1 - West from Statesville Avenue to N. Graham Street
Proposed Typical Section: 10' multi-use path with 5' shoulders & ditch section

Prepared By: HDR Date: 8/11/2015

Length (ft) = 3,700 Width of New Pavement (ft) = 10

30

Proposed MUP Features Width (ft) =

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	2.5	ACRE	\$2,500.00	\$6,370.52
Earthwork (Unclassified Excavation)	12,400	CY	\$6.00	\$74,400.00
Earthwork (Borrow Excavation)	4,200	CY	\$6.00	\$25,200.00
Fine Grading	12,400	SY	\$2.50	\$31,000.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter		LF	\$20.00	
4" Concrete Sidewalk		LF	\$17.00	
New Concrete Driveway		LF	\$20.00	
Pavement Marking and Markers		LF	\$10.00	
Signage	3,700	LF	\$1.00	\$3,700.00
Guardrail				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement				
Milling		SY	\$2.00	
Pavement Widening		SY	\$55.00	
Full Pavement	4,111	SY	\$55.00	\$226,111.11
Pavement Resurfacing		SY	\$14.70	
Pavement Wedging		SY	\$9.20	
A TRUE TRUE TO SE				
Additional Misc Units		E.4	61 200 00	
Concrete curb ramp		EA	\$1,200.00	
Upgrades to Existing Traffic Signals		EA	\$100,000.00	
Decorative Lighting Grade Crossing Gates	37	EA EA	\$3,000.00 \$100,000.00	\$111,000.00 \$100,000.00
Grade Crossing Gates	1	EA	\$100,000.00	\$100,000.00
Structures				
Bridge		SY	 	
Culvert		LS	 	
Aesthetic Barrier		LF	 	
Retaining Walls		SY	1	
	1		†	
	1		†	
Subtotal				\$577,781.63
				,
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS		\$28,900.00
Additional Misc. Costs (40%)		LS		\$231,200.00
Proposed Drainage (assume 10%)		LS		\$57,800.00
Landscaping (assume 3%)		LS		\$17,400.00
Erosion Control Measures (assume 3%)		LS		\$17,400.00
Traffic Control (assume 8%)		LS		\$46,300.00

LS	\$46,300.00
Construction Cost	\$976,781.63
Contingency (20%)	\$195,356.33
Subtotal	\$1,172,137.96
Say	\$1,180,000.00
Engineering & CE&I (assume 25%)	\$295,000.00
Utility Relocation (Duke Energy Distribution)	\$90,000.00
Utility Relocation & Upgrades (City Underground)	\$200,000.00
Land Acquisition	\$290,000.00
Subtotal	\$875,000.00
Project Total	\$2,055,000.00
Say	\$3,000,000.00

Route: Multi-Use Path - Segment 2 - East from N. Graham Street to N. Tryon Street
Proposed Typical Section: 10' multi-use path with 5' shoulders & ditch section

Prepared By: HDR Date: 8/11/2015

Length (ft) = 3,300 Width of New Pavement (ft) = 10

Proposed Roadway Features Width (ft) =30

Description	Quantity	Unit	Price per Unit	Amount
Grading & Earthwork				
Clearing and Grubbing	2.3	ACRE	\$2,500.00	\$5,681.82
Earthwork (Unclassified Excavation)	11,000	CY	\$6.00	\$66,000.00
Earthwork (Borrow Excavation)	3,700	CY	\$6.00	\$22,200.00
Fine Grading	11,000	SY	\$2.50	\$27,500.00
Linear Feet Units				
1'-6" Concrete Curb and Gutter		LF	\$15.00	
2'-6" Concrete Curb and Gutter		LF	\$20.00	
4" Concrete Sidewalk		LF	\$17.00	
New Concrete Driveway		LF	\$20.00	
Pavement Marking and Markers		LF	\$10.00	
Signage	3,300	LF	\$1.00	\$3,300.00
				. ,
Guardrail				
Steel Beam Guardrail		LF	\$20.00	
Guardrail Anchor Units, Type III		EA	\$1,500.00	
Guardrail Anchor Units, Type 350		EA	\$2,000.00	
Guardrail Anchor Units, Type CAT-1		EA	\$800.00	
Pavement		+	 	
Milling		SY	\$2.00	
Pavement Widening		SY	\$55.00	
Full Pavement	3,667	SY	\$55.00	\$201,666.67
Pavement Resurfacing	3,007	SY	\$14.70	\$201,000.07
Pavement Wedging		SY	\$9.20	
Additional Misc Units				
Concrete curb ramp		EA	\$1,200.00	
Upgrades to Existing Traffic Signals		EA	\$100,000.00	
Decorative Lighting	33	EA	\$3,000.00	\$99,000.00
Structures				
Bridge		SY		
Culvert	1	LS	\$150,000.00	\$150,000.00
Aesthetic Barrier		LF	\$130,000.00	
Retaining Walls		SY		
Retaining wans		31		
<u>Subtotal</u>				\$575,348.48
Lump Sum (assumed %)				
Mobilization (assume 5%)		LS	†	\$28,800.00
Additional Misc. Costs (40%)		LS	1	\$230,200.00
Proposed Drainage (assume 10%)		LS	†	\$57,600.00
Landscaping (assume 3%)		LS	1	\$17,300.00
Erosion Control Measures (assume 3%)		LS		\$17,300.00
Traffic Control (assume 8%)		LS	†	\$46,100.00

Construction Cost	\$972,648.48
Contingency (20%)	\$194,529.70
Subtotal	\$1,167,178.18
Say	\$1,170,000.00
Engineering & CE&I (assume 25%)	\$292,500.00
Utility Relocation (Duke Energy Distribution)	\$140,000.00
Utility Relocation & Upgrades (City Underground)	\$730,000.00
Land Acquisition	\$1,900,000.00
Subtotal	\$3,062,500.00
Project Total	\$4,232,500.00
Sav	\$5,000,000,00





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Appendix G – Bicycle/Pedestrian Recommendations **To:** Michelle Podeszwa, HDR

From: John Cock, Alta Planning + Design

Date: July 27, 2015 (REVISED)

Re: Charlotte Applied Innovation Corridor's North End Project: Bike/Ped Project Input



Project Identification: Input on Proposed Projects

Alta staff have completed:

- Review proposed bike/ped projects identified by HDR team
- Review the following documents:
 - o CDOT Connectivity Study
 - o Charlotte Bike Plan
 - o Charlotte Bike Map
 - o NECI Bikeway Study
 - o Mecklenburg County Greenway Plan
 - o NCDOT Bike/Ped Crash data for key corridors (2007-2012)
- Windshield review of project area and key projects locations
- Identified potential additional projects based on the plans above and field work (see notes and map below)

Project Development/Feasibility for Priority Projects

Below are Alta's professional observations on issues related to bike/ped conditions and potential improvements in the study area. Observations include background information and assumptions based on discussions with HDR, plus field notes and recommendations. The narrative below is supplemented with a map of bike/ped crash locations and bikeway network recommendations.

General Recommendations for Pedestrian Network:

- o Fill gaps in sidewalk connectivity
- o Provide pedestrian lighting, shade trees, transit stop improvements
- o Improve accessibility conditions (curb ramps, driveways, obstructions, etc.)
- o Provide additional mid-block crossings, especially on streets with more than one lane in each direction and/or greater than 9,000 ADT: especially N. Tryon Street, N. Graham Street, Statesville Avenue, and Oaklawn Avenue
- o Improve intersections for pedestrian safety/comfort

- o Provide for connections to future Cross Charlotte Trail (XCLT) and Mooresville-Charlotte Trail (MCT)
- o Implement appropriate traffic calming measures for area streets

General Recommendations for Bicycle Network:

- Provide for multiple east-west low-stress/family-friendly bikeway connections (bike routes/bike boulevards on low volume streets, separated bikeways, and greenways/multi-use pathways) to future XCLT and MCT trails and to the LYNX Blue Line light rail Extension (BLE) stations
- Provide for multiple north-south connections through the district, including low-stress parallel bikeway alternatives to major roadways such as Graham St., N. Tryon St., and Statesville Ave.
- o 4 mile spacing between parallel bikeways is ideal, where possible
- Implement appropriate traffic calming measures for area streets

Graham Street Streetscape Project:

- Background Notes/Assumptions:
 - Strongest potential area for development/redevelopment
 - Road diet is not a likely option per NCDOT/CDOT; commuter route and truck route
 - Traffic volumes (13,000-15,000 north of Statesville Ave.; 20,000 south of Statesville Ave.)
 - Overhead utilities are a constraint
 - Charlotte Bike Plan recommends bike lanes from I-277 to Statesville Ave.
 - Pavement may need resurfacing
 - Storm drain improvements needed
- Bike/Ped Crash History: 8 pedestrian crashes (mostly at intersections, 1 midblock), 4 bike crashes (3 at intersections) along study area in past five years (2007-2012). Second highest corridor for crashes involving cyclists or pedestrians in the study area. (See map for locations.)
- General Recommendations (Additional details in notes below):
 - o Fill gaps in sidewalk connectivity
 - Provide pedestrian lighting, shade trees, transit stop improvements need improvement along entire length
 - Fix ADA issues at intersections, driveways, and in sidewalk obstructions
 - Resurface street, fix grates for better bicycling conditions
- Bikeway recommendations:
 - Near term recommendation:
 - Provide shared lane markings (sharrows) from Statesville Rd Ave. north to Atando Ave.
 - Implement parallel bike routes/bike boulevards (low-volume, low-stress bike routes; see link from NACTO Urban Bikeway Design Guide and below)
 - Long term recommendation:
 - Consider road reallocation from 4 lanes to 3-lane section plus bike lanes, if this is considered feasible in future.
 - The Charlotte Bike Plan recommends bike lanes from I-277 to Statesville Ave
 - Traffic volumes and truck/bus volumes warrant greater separation for bicyclists
 - Additionally:
 - Improve pavement condition through resurfacing
 - Make drainage grates bike friendly
 - Limit traffic speeds via traffic calming measures appropriate for thoroughfares
 - Develop parallel bike routes/bike boulevards east of corridor (Bancroft Street and retrofit connections including Catalina Avenue extension to 24th Street near term; also, Grimes Street extension between Franklin Avenue and Concordia Avenue would be helpful near

term; Bancroft Street extensions through redevelopment) and west of corridor (Lucena Street with retrofit connections and rail-with-trail with future commuter rail line).

Pedestrian Recommendations: Segments

- Consider consolidating power lines to one side of the street to provide opportunities for landscaping/trees, improving visual aesthetics, and removing potential sidewalk obstructions
- Plant street trees where feasible for pedestrian buffer and shade (especially between Moretz Ave. and Norris Ave.)
- Sidewalks North of Atando Ave.:
 - Fix sidewalk/ADA issues
 - Repair sidewalk on east side where needed
 - Provide new sidewalk on west side no sidewalk on west side currently; access to transit stops should be a priority for sidewalk implementation.
- Sidewalks Colorado Avenue to Atando Ave.:
 - Replace sidewalk on east side (Sidewalk is back of curb; poor condition in some places)
 - Add new sidewalk on west side (no sidewalks currently exist on west side)
- Install sidewalks and/or bus waiting areas at bus stops on south-bound N. Graham St. in areas with no sidewalks
- Remove overgrowth over sidewalk between 24th St. and Sylvania Ave. (west side)
- Relocate trash cans at transit stops which block access or restrict pedestrian access in some

Pedestrian Recommendations: Intersections/Crossings

- Implement pedestrian crossing markings at N. Graham St. and Atando Ave intersection. Markings are worn away on east side of Graham St.; non-existent on all other sides.
- Moretz Ave. intersection: replace ADA ramps

Matheson Avenue Bridge Streetscape Project:

- Background Notes/Assumptions:
 - Over \$400,000 in NCDOT STIP for restriping for bike lanes budgeted
- Field Notes:
 - Sidewalk only on one side; in good shape.
 - Bike Route #7 crosses Matheson Ave. at Pinckney Ave. A raised median in Matheson Ave. blocks through bike traffic.

Recommendations:

- Provide cut in median at Pinckney Ave. to allow bicyclist crossing
- Implement Bike lanes and/or 2-way cycle track from N. Tryon St. to The Plaza (Charlotte Bicycle Master Plan recommended bike lanes; however the City is willing to consider other bikeway facility options. Matheson also provides an important potential east-west bikeway connection through the study area and to the future XCLT trail and a proposed greenway west of N. Tryon St.). Even with the cycle track, it will still be desirable to facilitate westbound bike traffic on Matheson for those bicyclists using the corridor for purposes other than connecting the two trails.
- Potential cross sections include those below (All sections could be accommodated within the existing paved surface for the bridge section):
 - Option 1: Represents the ideal from a bicycle mobility perspective: Metal rail | WB 8 foot buffered bike lane (with 2 or 3' buffer included) | 11 foot WB travel lane | 11 foot EB travel lane | 2 foot jersey barrier | 12 foot cycle track | 2' gutter | 5 foot existing sidewalk | Metal rail with fence
 - Option 2: Represents a compromise with more generous vehicle accommodation:

Metal rail | WB 6 foot bike lane | 12 foot WB travel lane | 12 foot EB travel lane | 2 foot jersey barrier or other physical separator | 12 foot cycle track | 2' gutter | 5 foot existing sidewalk | Metal rail with fence

- Option 3: Depending on how sidewalk is affixed to bridge structure, it could be removed, creating the opportunity to recover additional width, by making the cycle track a wider 15 foot shared-use path. This could lessen the dead load of the bridge and provide pedestrians additional space.
- Study potential connections to XCLT trail via "low stress" quiet street bike route and/or retrofit bike/ped pathways:
 - Charles Street; Jordan Place; or Faison Avenue
 - Bridge/ramp down to XCLT trail from existing Matheson bridge (see attached schematic)

Woodward Avenue/24th Street Intersection Realignment

- Background Notes/Assumptions:
 - Realignment is top priority
 - USDGs to determine x-section
- Field notes:
 - Project would help create critical crossing for cyclists/peds across N. Graham St.
 - o 1 bike crash @ Woodward Ave. & N. Graham St. in past 5 years (2007-2012)
- Recommendations:
 - o Woodward Ave: new sidewalk from Statesville Ave. east to Vanderbilt Rd.
 - Implement traffic calming features to create low-stress bike route
 - Ped crossing needed at Lucena St. and at RR crossing

16th St. Streetscape Project

- Background Notes/Assumptions:
 - o No sidewalks currently
 - Connects to blue line transit station
- Field notes:
 - Needs sidewalk
 - Curbs would have to be moved in or property acquired to accommodate sidewalks
 - Lanes are wide enough (-30' curb-curb) that there's room for roadway narrowing and shared lane markings to add sidewalks
 - Important connection between Parkwood Ave. and N. Tryon St. south of rail yard
- Recommendations:
 - o Provide sidewalks (priority for ped connection between N. Tryon St. and BLE)
 - Provide shared lane markings (SLM) and bike route wayfinding signage for bikeway treatment if the road is not expected to be widened. If volumes on this street remain below 3,000-5,000 vpd, SLMs and wayfinding should be a sufficient bikeway treatment.
 - If the road is widened and/or if traffic volumes are expected to be above the 3,000-5,000 vpd lanes or one-way cycle tracks should be considered

New connection- Statesville Ave./Sylvania Ave./Oaklawn Ave. connection

- Background Info/Assumptions:
 - No grade crossing
 - Will require a bridge 0
 - o Not high priority in process or community input
 - Station not in CATS plans
 - o Could be important bike/ped connection if red line station implemented

Field Notes and crash data:

- 2 pedestrian crashes on Oaklawn Ave., and 1 bike crash
- o Oaklawn Ave. needs pedestrian refuges in center; pedestrians observed crossing to/from transit stops and waiting in center turn lane

Recommendations:

- Implement Bike lanes on new connector to Graham Street; will create important bike connection from Genesis Park neighborhood across N. Tryon St from existing bike lanes on Oaklawn. Provide sharrows and wayfinding on Sylvania to N. Tryon Street.
- If traffic volumes on Sylvania are expected to increase beyond 3,000 vpd after implementing the connection, consider providing bike lanes.
- Construct mid-block pedestrian refuges on Oaklawn Ave., esp. at transit stops
- Consider bike/ped connection when red line station is developed

Ware Avenue/36th Street extension

- Background/Assumptions:
 - New street on new alignment
 - Project could have environmental impacts

Field Notes:

- 2 bike crashes at Atando Ave. and N. Tryon St., 1 at 36th St. and N. Tryon St.
- Possibility for an off street path on the north/west side of N. Tryon St. to connect 36th St. to Atando Ave.?

Recommendations:

Near term, construct off-street 2-way bike/ped path on west side of N. Tryon St. to connect 36th St. to Atando Ave. This will help cyclists avoid complex left turns across N. Tryon St. and provide continuity on east-west bikeway continuing from 36th St

N. Tryon Street

- Field Notes/Crash data:
 - 33 pedestrian crashes along this corridor in 5 years (2007-2012). Highest and most concentrated in the study area. Likely, one of the highest pedestrian and bike/ped crash corridors in the City (this should be confirmed with City-wide data from CDOT):
 - Clusters of crashes at the following intersections: 4 @ Wadsworth Place, 3 @ Dalton Ave., 3 @ Matheson Ave., 3 @ 28th St., 3 @ 27th St., 3 @ 16th St., 3 @ Liddell St.
 - 12 bike crashes along this corridor (2007-2012)
 - Clusters: 3 @ Atando Ave./36th St.; 2@ 15th St., 2 @ 28th St., 2 @ 30th St.,
 - No crosswalk marked at Ashby St.
 - Sidewalk condition is poor in places, ADA issues at intersections and driveways
 - Sidewalks are in acceptable shape from 36th St. to Sugar Creek Rd.
 - Cyclists observed riding on sidewalks
 - Bike lanes are proposed in the Charlotte Bike Plan from 12th St north to Dalton Ave., from Matheson Ave. north past Sugar Creek Rd.

Recommendations:

- Based on speeds and volumes, the corridor warrants a dedicated bike facility -- ideally, a higher order bikeway than a standard bike lane (e.g., wide bike lane, buffered bike lane, cycle track, etc.)
- Sidewalk condition and continuity needs to be upgraded for accessibility, safety, and comfort
- Construct off-street shared-use path connection between Atando Ave. and 36th St.
- Construct off-street shared-use path connection between Matheson Ave. and proposed shareduse path/greenway along Duke Energy easement between Statesville and N. Tryon

N. Davidson Street bike lanes

- Background info/assumptions:
 - Existing bike lanes on portion
 - Sharrows (SLMs) exist through NoDa
 - Some NoDa residents support bike lanes, but some other stakeholders do not

Field Notes:

- Sharrows south of 34th St. could be replaced with bike lanes since there's no on-street parking there and streets are wide
- Road north of 36th St. is currently too narrow for bike lanes; sharrows could suffice if no widening feasible or planned based and if traffic volumes remain below 5,000 VPD.

Recommendations:

- South of 34th St. to N. Brevard St.: implement bike lanes since there's no on-street parking there and lanes are sufficiently wide
- Bike lanes justified/warranted based on traffic volumes (9,000-10,000 VPD in 2013)
- Implement shared lane markings north of 36th St.
- N. Davidson St. & Jordan Place intersection: reduce curb radii and area of roadway to create better bike/ped crossing safety and comfort

Uptown/Northend Gateways

- Recommendations:
 - Ensure adequate lighting for nighttime bike/ped use

Greenway connection from Statesville Ave. to N. Graham St. to N. Tryon St.

- Assumptions/Background Info:
 - o alignment follows Duke easement
 - eastern follows stream tributary
 - positive feedback from stakeholders
 - need to consider easement rights on Duke property

Field Notes:

- Easement has potential as an attractive community greenspace
- There may be precedent for using such space for community greenspace in Charlotte: community gardens in power line easement Tuckaseegee Rd. corridor
- Confirmed Duke Energy ownership of utility easement
- Use guidelines for utility line rights of way: does not specify whether greenways are allowed, but does not specifically prohibit them either. Duke has developed guidelines for development of greenways in their utility corridors.
 - https://www.duke-energy.com/safety/right-of-way-management/pec-distribution-lineuse-guidelines.asp

Recommendations:

A multi-use path (greenway) will provide important low-stress bikeway/pedestrian connection on northern end of project area as well as a valuable community greenspace/open space. Will also provide a nice parallel east-west bike ped facility connecting the Cross-Charlotte Trail (via potential Matheson cycle track or shared-use path) and the Mooresville to Charlotte Trail, although the grades may not be as attractive as street-level connections. Creating a formal open space will also increase positive uses of the space.

- At Statesville Avenue, Greenway should connect north to Norris Ave. (at Montreat St.) for street crossing at Statesville Avenue intersection and an on-street connection to the MCT. Alternatively, the greenway could turn north at Statesville Avenue as a shared-use path to the Statesville Avenue/Norris Ave. intersection.
- At Lucena Street, the power easement terminates at a power substation. The greenway could go around the substation to the south through a property aquisition or easement. This crossing will also require a rail road crossing and a mid-block crossing of Graham Street. Alternatively, the greenway alignment could follow Norris Avenue across Graham Street and return to the Duke Power corridor along Bancroft Street.
- At North Tryon, the greenway could cross under the roadway with an underpass or cross at-grade with a HAWK signal, where it could connect to a potential cycle track or sidepath along Matheson Avenue. (See attached alignment option recommendations graphic.)

Connectivity Projects: N. Tryon St. connectivity recommendations

- Assumptions, background information:
 - Based on recommendations in N. Tryon St. Small Area Plan; some of these may not be feasible; not studied for implementation in Small Area Plan process
 - Many of the street connections proposed within the plan require the relocation of businesses/ residences and are not likely to be implemented at this time due to these impacts. Some may be feasible with redevelopment.
 - Determined that if Rodney Ave is removed that Poinsett needs to be extended.
 - CIP currently allocates \$5.2 Million for implementing the street connections identified within the North Tryon Area Plan.

Recommendations:

- New connections to make Bancroft St. continuous will be important for a low-stress, parallel bikeway alternative to N. Graham St. (between 28th St. and Franklin Ave., Concordia Ave. to Wolfberry St.). Implement through redevelopment
- Near term, a connection between 24th St. and Catalina Ave. would make a longer north-south parallel bike route to N. Graham St.
- Poplar Street Connection between 24th St. and 25th St. creates a good parallel route closer to N.
- Wells Street Connection might be the most important link to complete bike/ped connectivity
- Liddell St. connection along with the connection from SE end of Liddell St. up to 16th St. creates an important low-stress bike/ped route on south side to connect to BLE
- Church St. connections between 32nd St and 31st St, and between 30th St. and 28th St. create another important low-stress bike route to parallel N. Tryon St.
- Some of these connections could be developed as bike/ped or bike/ped/emergency vehicle access only versus full street connections, if so desired.

Norris Avenue/Newland Road/Statesville Avenue intersection realignment

- Recommendations:
 - Reduce pedestrian crossing distances through tightening up intersection area
 - Implement shared lane markings along Norris Ave. and 30th St (recommended in Charlotte Bicycle Master Plan)

Statesville Avenue

- Field Notes and crash data:
 - o Existing trees aren't good shade trees
 - Sidewalks are in good shape in most places, except:
 - North of Norris Ave./Atando Ave., towards I-85 sidewalks are in poor condition and are at back of curb
 - Sidewalks crumbling near Woodward Ave. intersection

- Interstate ramps at I-85 don't have good pedestrian crossing conditions
- Bike lanes appear too narrow along parts of the corridor
- 11 pedestrian crashes between I-85 and N. Graham St. intersection (2007-2012)
 - 2 @ Oaklawn Ave. and Statesville Ave. intersection
- 4 bike crashes

Recommendations:

- Install bike lanes from N. Graham St./Dalton Ave. north to Woodward Ave., from Norris Ave. north to Mooresville-Charlotte Trail
- Sharrows recommended north of Atando Ave. per Charlotte Bike Plan (bike lanes are warranted based on volumes; would require roadway widening or road reconfiguration to reduce number of travel lanes)

Other Projects Identified: Currently not being considered for CIP Funding

New Bike/Ped Connection Across Intermodal Yard

New bike/ped or street connection across the rail/intermodal yard would provide a vital east-west connection to the BLE that otherwise isn't available except at 16th St. and Matheson Ave.

Connections to Music Factory area from Greenville Neighborhood:

- Field Notes:
 - Johnson St. under 277
 - some sidewalk gaps
 - bus route and stops but no sidewalks near I-277 bridge
 - Hamilton St. (a suggested bike route on Charlotte Bike Map)
 - need to formalize bike route with shared lane markings and wayfinding
 - could be interim bike route for Mooresville-Charlotte Trail
- Recommendations:
 - Fill sidewalk gaps on Johnson Street
 - Implement suggested bike route (per Charlotte Bike Map) along Hamilton St. with wayfinding and share lane markings; could be interim route for Mooresville-Charlotte Trail

NECI projects:

- Project Recommendations from NECI Bikeway Study
 - Construct 25th Street Connection from N. Davidson St. across creek to BLE; could be constructed as bike/ped bridge only (see concept in NECI Bikeway Study); important connection from N. Davidson St. and Villa Heights neighborhood to BLE. This project is being considered for implementation through NECI project implementation.
 - Consider cycletrack along Brevard St. to parallel BLE (as recommended in NECI Bikeway Study); alternatively, consider buffered bike lanes; 18' lanes currently
 - Sidepath along 12th St. and College St., as recommended in the NECI plans. Currently being designed as a cycle track by CDOT.
 - Philemon Ave. and Cullman Ave. connection creates a low-stress bike/ped route that parallels N. Tryon St. and could create connection to BLE on the northern end of this corridor

Other Projects to consider:

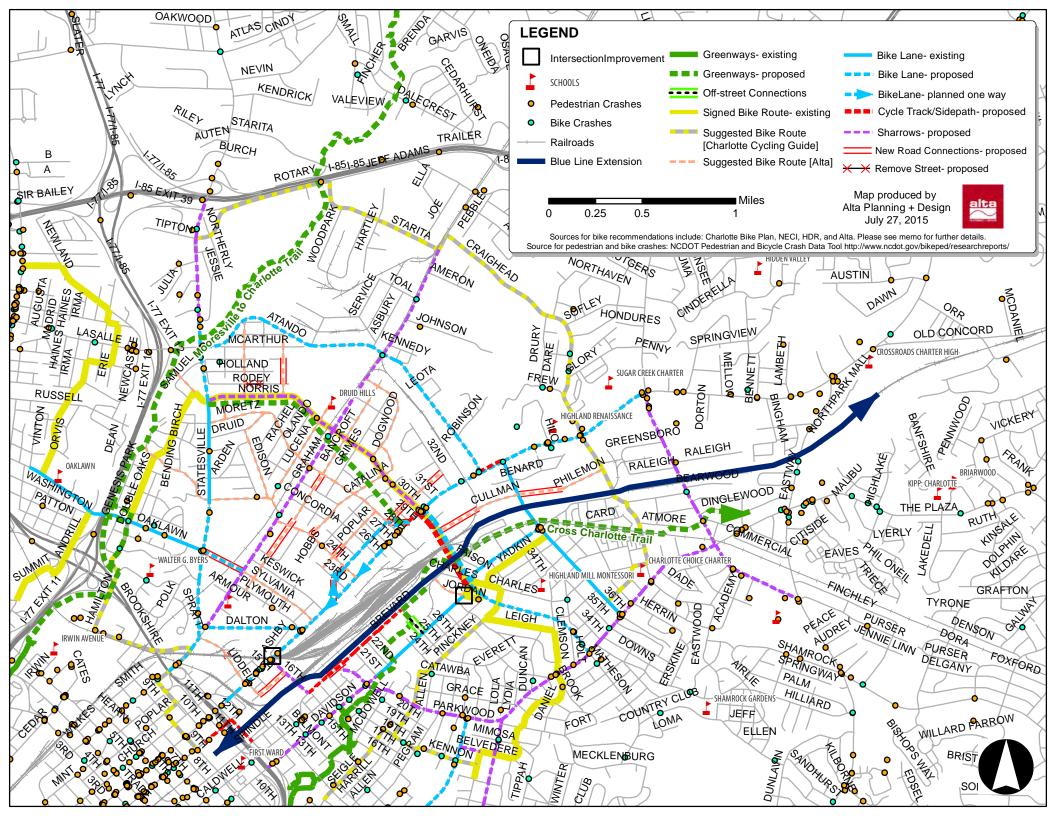
- Dalton Avenue
 - o Consider road diet (reconfiguration). Traffic volumes are 6,900 ADT. Volumes warrant consideration of bike lanes.
 - o sidewalk gaps on north side, sidewalk damage on south side

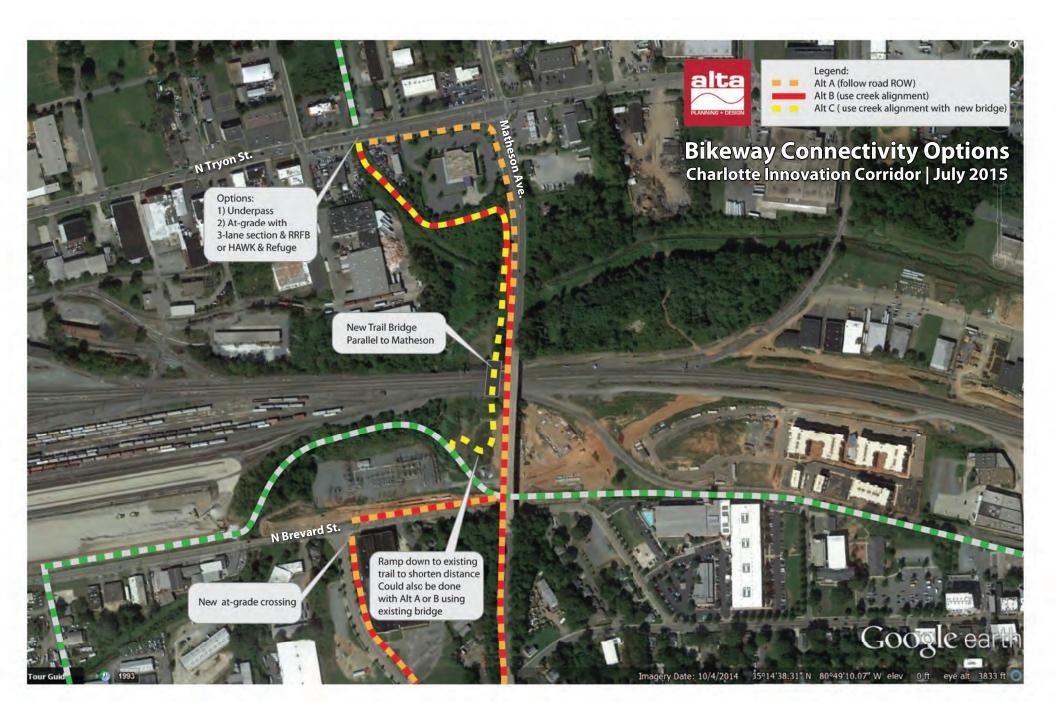
Recommendations:

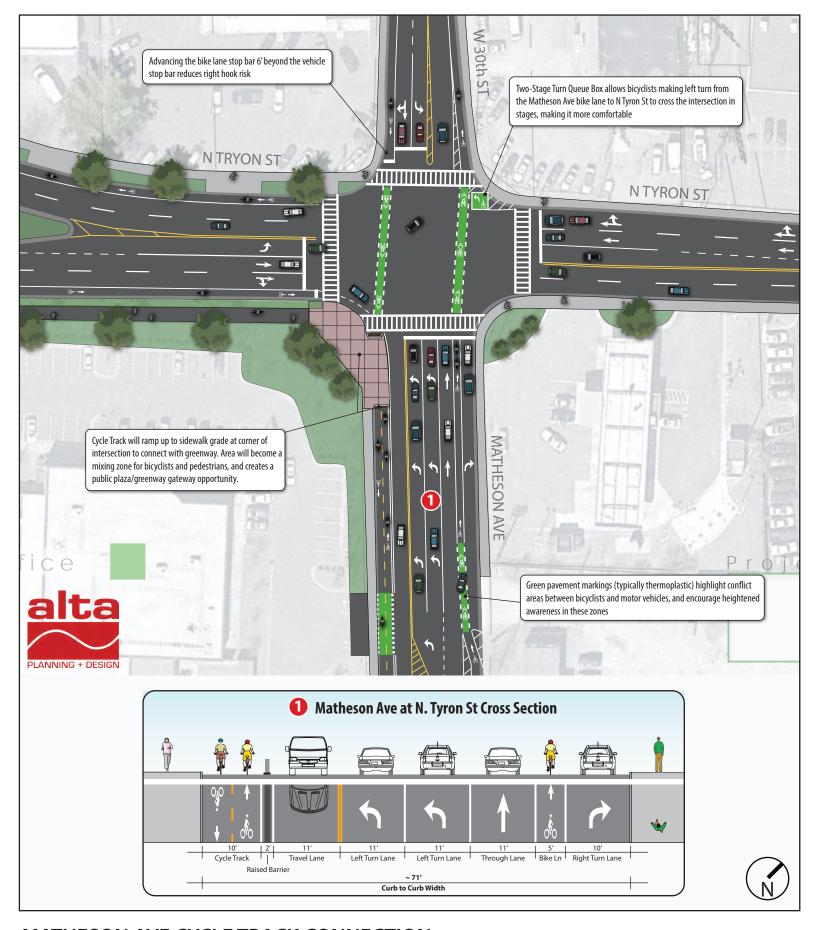
Bike lanes are recommended, as noted in the Charlotte Bike Plan

Atando Ave.

- Between N. Graham St. and N. Tryon St. there is some existing sidewalk along the northern/eastern side starting east of Cornelius St. and ending west of Robinson Circle. Some of this is narrow and at the back of curb.
- Traffic volumes 6,600-9,300 ADT
- o Important connection to future MCT and XCLT Trail (via 36th Street)
- o Recommendations:
 - Install bike lanes along Atando Ave. to complete connectivity at northern end of study
 - Provide or repair/improve sidewalks where needed along the corridor for access to employment and future MCT Trail access







MATHESON AVE CYCLE TRACK CONNECTION

PROJECT NAME

Date: July 27, 2015

Author: SP







Appendix H – Project Scores

Project: Matheson Ave. Bridge Streetscape Segment 1
Date: 7/22/2015

FDS

Reviewer:	Stull	
Reviewer:	Stull	

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	3	8.57	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	3	6.79	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	3	7.86	Economic
Public Input	4 Community Support	3.1	4	12.38	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	3	7.14	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 65.7

Project:	Matheson Street Streetscape Segment 2	
_	Date:	7/22/2015



Reviewer: Stull

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and	1 Potential to Promote Non-Residential Development	2.9	1	2.86	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	1	2.26	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	0	0.00	Economic
Public Input	4 Community Support	3.1	4	12.38	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	2	4.76	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	3	7.86	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 42.6

Project: N. Tryon Streetscape Segment 1 & Uptown/North End Gateways

Date: 7/22/2015

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	-

Reviewer: Stull

		Relative			
		Weight*	Score**	Weighted	
CIP Goal	Ranking Factor	Based on CIP Goals	Project Specific	Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	2	5.71	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	2	4.52	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	2	5.24	Economic
Public Input	4 Community Support	3.1	5	15.48	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	4	9.05	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	2	4.76	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	5	9.52	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 64.8

Project: N. Tryon Streetscape Segment 2



Reviewer: Stull Date: 7/22/2015

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and	1 Potential to Promote Non-Residential Development	2.9	3	8.57	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	3	6.79	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	0	0.00	Economic
Public Input	4 Community Support	3.1	3	9.29	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	3	7.14	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	2	5.24	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 49.5

Project: 16th Street Streetscape

FDS

Reviewer: Stull Date: 7/22/2015

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and	1 Potential to Promote Non-Residential Development	2.9	3	8.57	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	2	4.52	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	0	0.00	Economic
Public Input	4 Community Support	3.1	3	9.29	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	4	9.05	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	5	11.90	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	4	7.62	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 61.4

Multi-Use Path Statesville-Graham-N. Tryon	
Date:	7/22/2015



Reviewer: Stull

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	' Weighted Score	Program Goal
Create jobs and	1 Potential to Promote Non-Residential Development	2.9	2	5.71	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	2	4.52	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	0	0.00	Economic
Public Input	4 Community Support	3.1	4	12.38	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	4	9.05	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	4	9.52	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	4	7.62	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	5	13.10	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 61.9

Project: Newland Rd/Norris Ave. Int @ Statesville Ave.

FDS

Reviewer: Stull

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and	1 Potential to Promote Non-Residential Development	2.9	3	8.57	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	3	6.79	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	4	10.48	Economic
Public Input	4 Community Support	3.1	1.5	4.64	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	4	9.05	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	3	7.14	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	1	1.90	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 59.0

Project: N. Graham Street Streetscape Section 1

FDS

Reviewer: Stull 7/22/2015

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	5	14.29	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	4	9.05	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	3	7.86	Economic
Public Input	4 Community Support	3.1	3	9.29	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	0	0.00	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	2	5.24	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 58.2

Project: N. Graham Street Streetscape Sections 2 and 3

FDS

Reviewer: Stull Date: 7/22/2015

CIP Goal		Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and grow the tax base	1	Potential to Promote Non-Residential Development	2.9	2	5.71	Social and Economic
grow the tax base	2	Potential to Promote Residential Development	2.3	2	4.52	Social
Leverage public and private investment	3	Potential to Attract Leverage	2.6	1	2.62	Economic
Public Input	4	Community Support	3.1	3	9.29	Social
Enhance transportation choices and	5	Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6	Connectivity and Access Improvement	2.4	0	0.00	Trans/Infrastr
Ensure housing diversity		See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7	Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8	Cost Feasibility (Construction Cost and Utility Impacts)	2.6	2	5.24	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 39.9

Project:	Druid Hills Park (Rodey removal - Poinsett Ext)
-	Date:	7/22/2015



Reviewer:	Stull				
CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	0	0.00	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	2	4.52	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	3	7.86	Economic
Public Input	4 Community Support	3.1	3	9.29	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	0	0.00	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	1	2.38	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	5	9.52	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	5	13.10	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 46.7

Project: Woodward Ave./24th St Int at Graham Street

FDS

 Date:
 7/22/2015

 Reviewer:
 Stull

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	4.5	12.86	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	3	6.79	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	2	5.24	Economic
Public Input	4 Community Support	3.1	0	0.00	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	4	9.05	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	4	9.52	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	0	0.00	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 53.9

Project: Statesville Ave Streetscape - Segment 1



Reviewer: Stull Date: 8/11/2015

CID.		Relative Weight*	Score**	Weighted	
CIP Goal	Ranking Factor	Based on CIP Goals	Project Specific	Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	1.5	4.29	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	1.5	3.39	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	1	2.62	Economic
Public Input	4 Community Support	3.1	3	9.29	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	2	4.76	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 47.3

Project: Statesville Ave Streetscape - Seg 2

FDS

Reviewer: Stull Date: 8/11/2015

CIP	Ranking Factor	Relative Weight* Based on CIP	Scor Proje	ct Score	Program
Goal	Namening Factor	Goals	Speci	fic	Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	1	2.86	Social and Economic
	2 Potential to Promote Residential Development	2.3	1	2.26	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	1	2.62	Economic
Public Input	4 Community Support	3.1	3	9.29	Social
Enhance transportation choices and mobility	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
	6 Connectivity and Access Improvement	2.4	3	7.14	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 47.1

PRIORITY SCORING FRAMEWORK

Project: N Davidson Bike lanes

FDS

Reviewer: Stull 7/22/2015

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	1	2.86	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	1	2.26	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	0	0.00	Economic
Public Input	4 Community Support	3.1	2	6.19	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	3	7.14	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	3	5.71	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	4	10.48	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 41.4

PRIORITY SCORING FRAMEWORK

Project:	Ware A	Avenue/36th	Street Ext.

FDR

		Date:	7/22/2015
Reviewer:	Stull		

CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and grow the tax base	1 Potential to Promote Non-Residential Development	2.9	1	2.86	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	1	2.26	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	0	0.00	Economic
Public Input	4 Community Support	3.1	1.5	4.64	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	3	6.79	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	4	9.52	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	1	1.90	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	2	5.24	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 33.2

PRIORITY SCORING FRAMEWORK

Project: Oaklawn Ave./Sylvania Ave. Ext.

Date: 7/22/2015

Reviewer: Stull

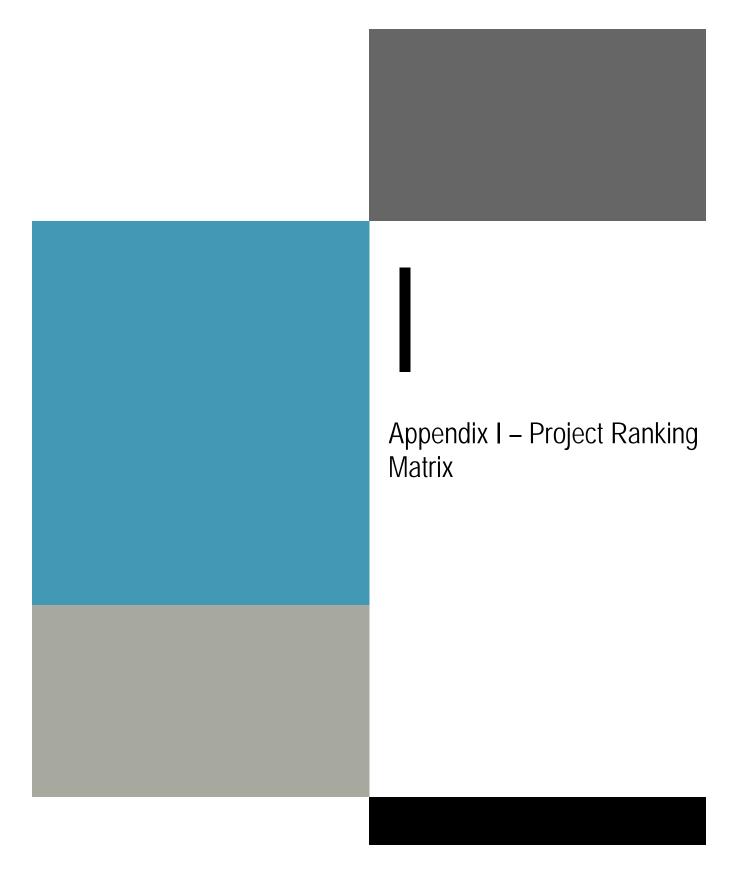
CIP Goal	Ranking Factor	Relative Weight* Based on CIP Goals	Score** Project Specific	Weighted Score	Program Goal
Create jobs and	1 Potential to Promote Non-Residential Development	2.9	3	8.57	Social and Economic
grow the tax base	2 Potential to Promote Residential Development	2.3	3	6.79	Social
Leverage public and private investment	3 Potential to Attract Leverage	2.6	0	0.00	Economic
Enhance public safety	4 Potential to Enhance Public Safety	3.1	-1	-3.10	Social
Enhance transportation choices and	5 Traffic Capacity or Safety Improvement	2.3	2	4.52	Trans/Infrastr
mobility	6 Connectivity and Access Improvement	2.4	3	7.14	Trans/Infrastr
Ensure housing diversity	See Residential Development above and Community Enhancement below				
Provide integrated neighborhood improvements	7 Community Enhancement	1.9	1	1.90	Social
does not directly address CIP Goals	8 Cost Feasibility (Construction Cost and Utility Impacts)	2.6	1	2.62	N/A

^{*} from Evaluation Factors Weighting System spreadsheet

^{**} See Scoring Guideline TOTAL SCORE 28.5







Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
Matheson Avenue Streetscape Segment 1 from N. Tryon Street to Jordan Place	\$5 Million	Enhances major corridor/gateway bordering high-potential development parcels. Beautifies a critical connection which provides access to Blue Line Stations. Only significant east-west connection across rail yard. Provides pedestrian and bicycle connection to N. Tryon Street Business Corridor Improvements. A connection to the Cross-Charlotte Trail could be accommodated.	Flywheel's NoDa 36 (potential connection of Cullman Ave. Ext) Vision Ventures' redevelopment of Tryon Hills. Dillehay Courts North Tryon Area Plan Catalyst Site Blue Line 25 th and 36 th Stations NoDa Cross-Charlotte Trail	Create jobs and grow the tax base Enhance transportation choices and mobility	Stakeholders view improvements as beneficial, specifically in providing connection over rail yard. Workshop Exercise - Ranked No. 5 of 10	Area 4 Potential for development Matheson/N. Tryon quadrants	Improvements are constricted to existing footprint due to limiting conditions of existing bridges. Reduced vehicular capacity.	65.7	Ranks moderate to high in most factors, relatively high in aesthetics, more cost feasible than Graham Street Streetscape. Overlays NCDOT project to add bike lanes. (leverages NCDOT STIP project.) Enhances mobility for bike and ped modes at the expense of reduced vehicular capacity. Major connection. Gateway to two neighborhoods/ communities. Relatively low cost in comparison to other streetscape projects.
Matheson Avenue Streetscape Segment 2 from Jordan Place to The Plaza	\$8 Million	Enhances major corridor.	N/A	Enhance transportation choices and mobility	Same as above	None	All improvements will be fronting existing residential and will require acquisition of ROW and/or easements. Overhead utilities will need relocation.	42.6	High in aesthetics. This segment does not satisfy most AIC CIP goals.

Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
N. Tryon Gateway Includes N. Tryon Street Streetscape Segment 1 from 11 th Street to Dalton Avenue and aesthetic and improvements at RR structures.	\$14 Million	Strongly supported by community. Good opportunity to engage with the community and show support of the feedback received. Streetscape project provides pedestrian and bicycle and aesthetic improvements which extend the current project. Potentially transformative for the surrounding area.	Perceived to enhance North End as a whole, but specifically N. Tryon Street Corridor North Tryon Street Business Corridor Improvements	Enhance transportation choices and mobility Perception that this project will enhance Public Safety Integrated Neighborhood Improvements	Overwhelming positive response at workshop and during postworkshop discussions. Workshop Exercise – Gateway project (aesthetic improvements) ranked No. 1 of 10 (significantly more votes than all other projects) and N. Tryon Streetscape ranked No. 6 of 10.	None	ROW is limited to incorporate improvements w/o significant R/W acquisition and impacts to existing businesses. Area along N. Tryon Street from 10 th St. to 16 th St has significant concerns for public safety due to current crime and loitering in the area. Effectiveness relative to stakeholders' expectations may be limited. NCDOT coordination.	64.8	Potential to promote development. Project with the strongest support of the community. Connects to current project underway. Significant aesthetic improvement. Improved pedestrian environment. Transformative potential. Relatively high cost in comparison to other projects. Arts & Science Council or other funding sources could be pursued to accomplish some or all of these improvements. (leverage).

Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
N. Tryon Streetscape Segment 2 from Matheson Avenue/30 th Street to 36 th Street	\$10 Million	Provides pedestrian and bicycle and aesthetic improvements which extend the current project. A connection to the Cross-Charlotte Trail could be accommodated. If Matheson Avenue Segment 1 project proceeds, this project provides connection bwn Matheson Avenue, and the ped/bike improvements being implemented on N. Tryon Street, and 36 th Street.	Cross-Charlotte Trail W. 32 nd Street Business Area Blue Line 36 th Street Station Flywheel's NoDa 36 Crescent Communities Development	Enhance transportation choices and mobility	Stakeholders have shown support for this during the interviews and at the workshop. Workshop Exercise - Ranked No. 6 of 10	Area 4 Potential for development of Matheson/N. Tryon quadrants	ROW is limited. Improvements may require significant R/W acquisition. Relatively expensive. NCDOT coordination.	49.5	Bike/ped connectivity to Matheson/N. Tryon/30 th Street intersection. Supported by the stakeholders. Connects to current two projects underway. Significant aesthetic improvement. Improved pedestrian environment. Transformative potential. Relatively high cost in comparison to other projects.

Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
16 th Street Streetscape from N. Tryon Street to Parkwood Avenue	\$3 Million	Enhances major corridor/gateway. Could include pedestrian and bicycle improvements allowing the Blue Line Stations to be accessed by foot or bicycle. Enhances one of the few connections across the rail yard.	North Tryon Area Plan Catalyst Site BLE Parkwood Station Optimist Park Neighborhood	Enhance transportation choices and mobility Could be transformative to achieve goal to create jobs and grow the tax base	Stakeholders have shown support for this during the interviews and at the workshop, although it ranked last with the workshop exercise. Workshop Exercise - Ranked No. 10 of 10	None	Overhead utilities will need relocation.	61.4	Good for access and connectivity to Blue Line. Fits Parkwood Station Area Plan. Potential to promote non-residential development. Stakeholders strongly support. Relatively low cost in comparison to other projects.

Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
Multi-use Paths Segments 1 and 2 from Statesville to N. Graham Street and N. Graham Street to N. Tryon Street	\$8 Million	Valuable bike/ped east-west connection, including between planned trails. Connection to designated bike routes on Statesville, Norris and Double Oaks. Connection between neighborhoods. Connection to Druid Hills Park.	Druid Hills Park Druid Hills Neighborhood Brightwalk Genesis Park Current bike route (Norris/Double Oaks) Vision Ventures' redevelopment of Tryon Hills North Tryon Street Business Corridor Improvements Cross-Charlotte Trail Mooresville to Charlotte Trail	Enhance transportation choices and mobility Integrated neighborhood improvements	West MUP was identified through stakeholder interviews and both connections have received overall stakeholder support. Workshop Exercise - Ranked No. 3 of 10	Area 6 Potential for development Matheson/N. Tryon quadrants	Project will require Duke's approval. Accommodating connections to interesting roads (Statesville/N. Graham, N. Tryon) and around existing substation could be difficult. There is a stream that extends along segment 2 (eastern). Stream impacts will need to be considered. Some portions of the Duke easement are owned by private owners. Easements will be to be acquired for the paths in their entirety. There are some parking, etc. currently located within Duke's easement.	61.9	Potential connection between Cross Charlotte trail and Morrisville to Charlotte trail. Relatively low cost in comparison to other projects.

Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
Newland Road/Norris Avenue Intersection @ Statesville Avenue Intersection	\$1 Million	Increases attractiveness of adjacent parcels for development.	Brightwalk (specifically for commercial development)	Enhance transportation choices and mobility	Project identified through stakeholder interviews and workshop.	None		59.0	High potential leverage. Ranks moderate to low in most factors. Lowest cost in comparison to other projects.
Graham Street Streetscape Segment 1 from Dalton Avenue to Woodward Avenue	\$16 Million	Enhances major corridor/gateway bordering high-potential development parcels.	Vision Ventures' New Camp Station Lockwood Neighborhood 24 th Street Business Area	Create jobs and grow the tax base Leverage public and private investment (if expected adjacent redevelopment occurs)	Stakeholders strongly in favor, sees as catalyst for redevelopment. Workshop Exercise Ranked No. 2 of 10	Areas 8 and 9	Very limited ROW to accommodate improvements. ROW acquisition will likely result in significant business relocations. Utility relocation is significant. NCDOT coordination.	58.1	Ranks high in primary factors; potential to promote development and aesthetics. Strongly supported by public and stakeholders. Ranks low on access, capacity, connectivity and cost feasibility. Potential leverage via donated Right of Way.
Graham Street Streetscape Segments 2 and 3 from Woodward Avenue to Atando Avenue	\$28 Million	Enhances major corridor/gateway.	N/A	Same as above	Same as above	None	Same as above	39.9	Ranks lower on potential to promote development.

Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
Druid Hills Park Street Improvements		Enhances Druid Hills Park by eliminating road through park and overall connectivity around park.	Druid Hills Park Druid Hills Neighborhood	Provide integrated neighborhood improvements.	Project identified by Meck Co. Park & Rec. Multiple stakeholders are in support; CMHP, Druid Hills, and CMPD strongly support it.	None	Coordination with Mecklenburg County Park & Rec.	46.7	Ranks high for neighborhood enhancement and cost feasibility. Rank very low in primary factors 1 thru 4. Leverage; Mecklenburg County has indicated intentions of providing funding.
Woodward Ave/24 th Street @ N. Graham Street Intersection	\$3 Million	Addresses traffic capacity and connectivity issues directly adjacent to high-potential development parcels. Improved access to potential Red Line station.	Vision Ventures' New Camp Station Red Line potential station	Create jobs and grow the tax base	Community sees this as a current traffic bottleneck in need of improvement. Developers and owners of adjacent property strongly support. Workshop Exercise - Ranked No. 4 of 10	Area 9	Project requires the relocation of an existing business. Realignment to Woodward Ave. is limited due to existing bridge.	53.9	Ranks high in potential to promote development and traffic capacity, low in most others. Mostly commercial, some residential demand. Relatively low cost in comparison to other projects.
Statesville Avenue Streetscape Segment 1 from N. Graham Street to Woodward Avenue	\$6 Million	Provides pedestrian and bicycle and aesthetic improvements which extend beyond the recent project.	Vision Ventures' New Camp Station Red Line potential station. Brightwalk	Enhance transportation choices and mobility Integrated neighborhood improvements	Project identified through the 3/11/15 workshop, but had not been discussed much by stakeholders prior to this. Stakeholders provided positive feedback on recent road diet project in the interviews.	Area 9	Reduced vehicular capacity. Overhead utilities will likely need relocation. NCDOT coordination.	47.3	Ranks moderate to low in most factors. Enhances mobility for bike and ped modes at the expense of reduced vehicular capacity. Relatively low cost in comparison to other projects.

Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
Statesville Avenue Streetscape Segments 2 from Newland Road/Norris Avenue to Atando Avenue	\$3 Million	Same as above. Will provide bike/ped connections to multi-use path segment 1 (if it proceeds) and the planned Mooresville-to-Charlotte Trail.	Druid Hills Park and neighborhood Current bike route (Norris/Double Oaks) Brightwalk	Same as above	Same as above	None	Same as above	47.1	Same as above.
N. Davidson Street Bike Lanes Segments 1 & 2 from 11 th Street to 21 st Street and Jordan Place to 34 th Street	\$9 Million	Provides bicycle improvements.	Optimist Park Villa Heights NoDa Blue Line Stations Flywheel's NoDa 36	Enhance transportation choices and mobility	Project identified by sole stakeholder (NoDa) and has not received significant support from other stakeholders. Workshop Exercise - Ranked No. 8 of 10	None	Segment 1 fronts existing residents and will likely require acquisition of ROW and/or easements. Overhead utilities will need relocation.	41.4	Stakeholders support, but no evidence of developer interest. Parallel routes reduce need. Relatively low cost in comparison to other projects.

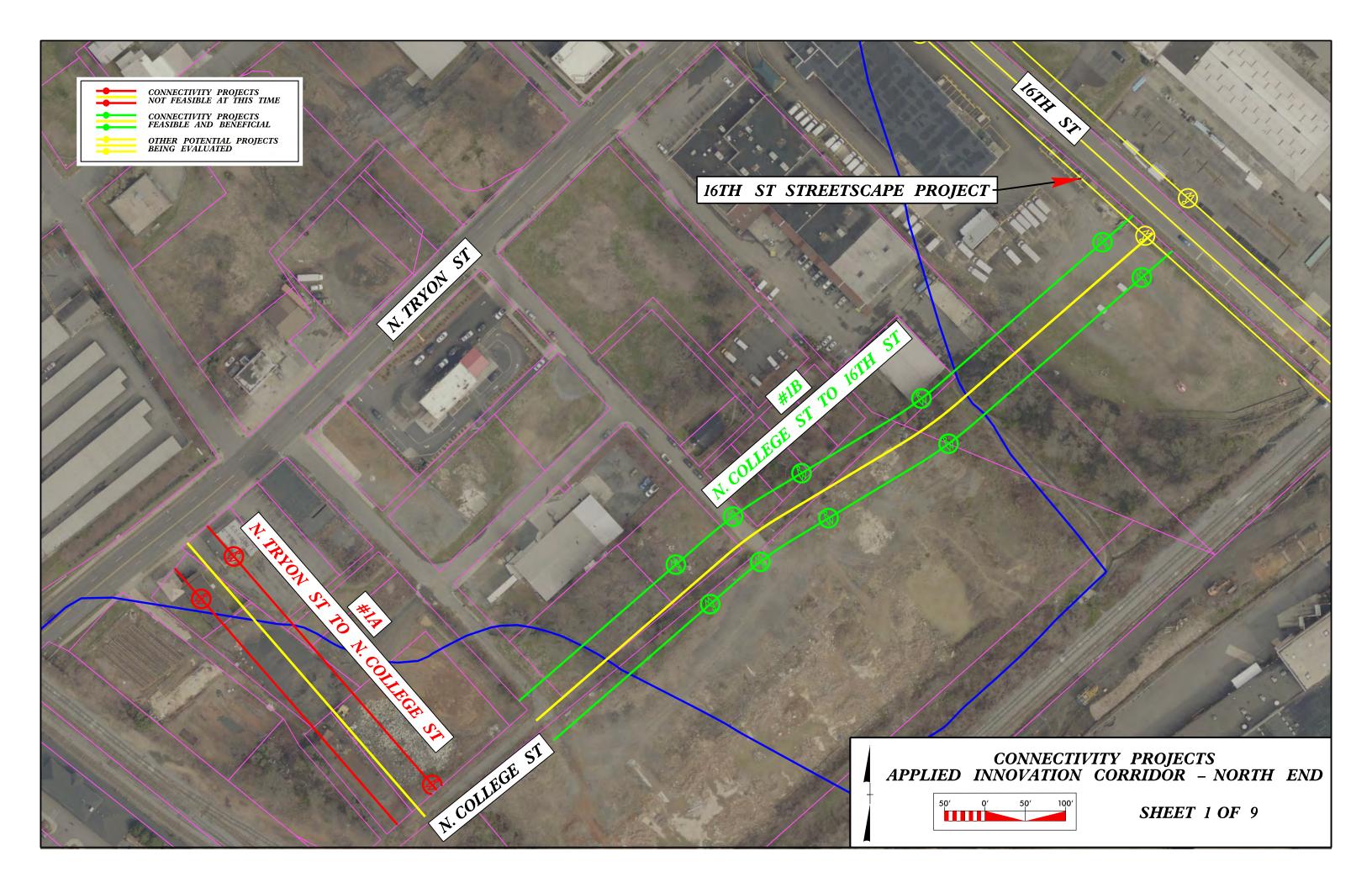
Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
Ware Avenue/36 th Street Extension from Ware Avenue (@ Atando Avenue) to 36 th Street/N. Tryon Street intersection	\$20 Million	Provides east/west connection. Could include pedestrian and bicycle improvements.	Atando Industrial Area W. 32 nd Street Business Area Blue Line 36 th Street Station Flywheel's NoDa 36 Cross-Charlotte Trail	Enhance transportation choices and mobility	Stakeholder opinions vary on whether pedestrian and bicycle improvements should be incorporated. Workshop Exercise – Ranked No. 9 of 10	None	Project will include a minimum of two stream crossings, and could cross others; all are potentially jurisdictional. Can likely be permitted with a NWP 14, but individual permit may be required. Project is located in a floodplain. Any fill in the floodplain will require FEMA approval.	33.2	Environmental challenges. No evidence that this project would promote development of the adjacent parcels. Significantly high cost in comparison to other projects.

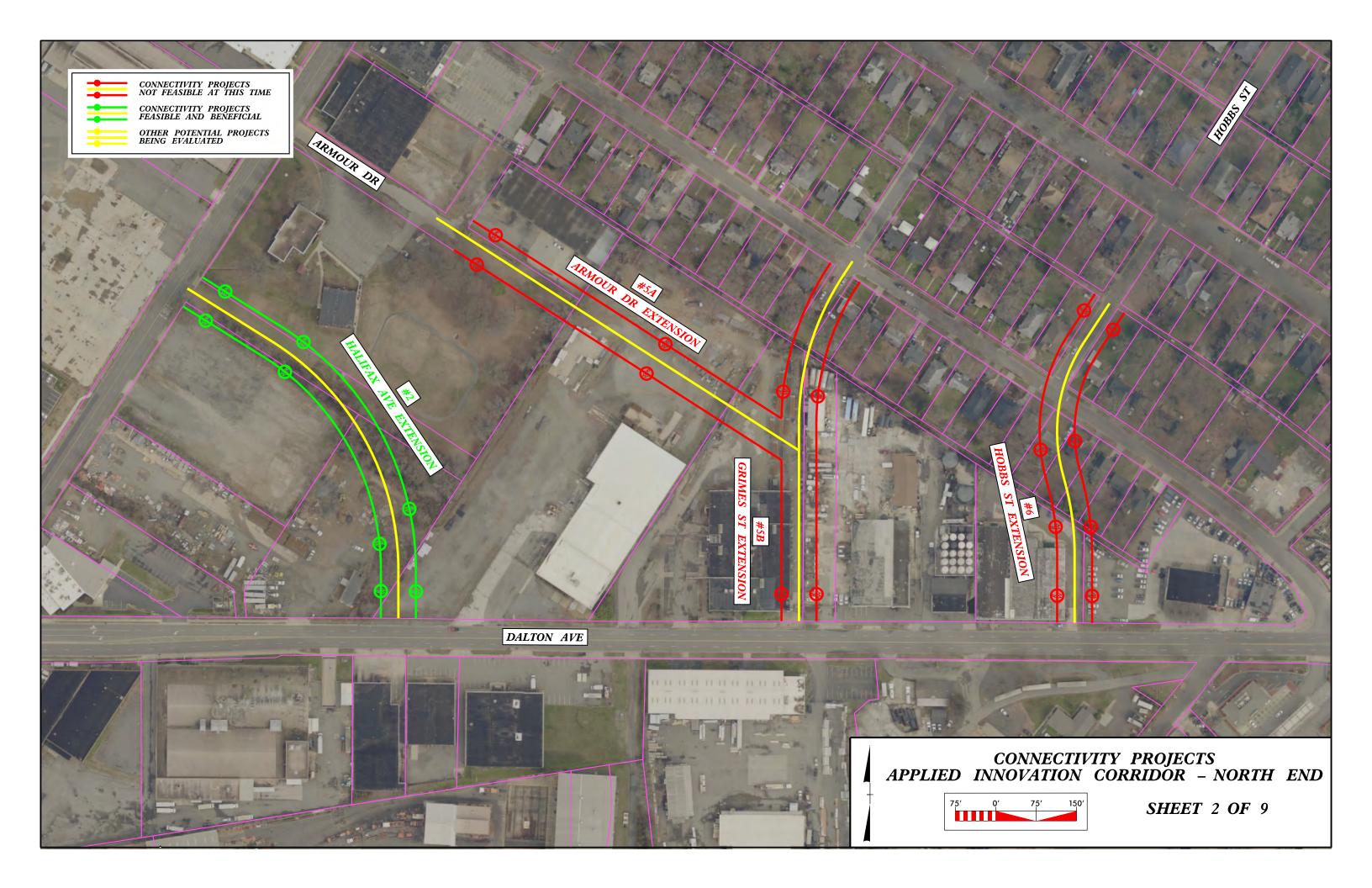
Project	Cost Estimate	Purpose (Potential Benefits and Achievements)	Areas/Projects Potentially Benefitted	Community Investment Plan Goal	Stakeholder Input (from interviews and 3/11/15 workshop)	RCLCO High potential Development Area	Impacts and Challenges	Ranking Score KS & MP 7-22-15	Ranking Score Comments
New Connection: Statesville Avenue to N. Graham Street (Oaklawn / Sylvania Ext) Evaluation of project considers a structure over the NCRR/NS rail line and Statesville Avenue	\$25 Million	Provides east/west connection.	None due to grade separation required at railroad.	Enhance transportation choices and mobility	Project identified through Stakeholder interviews (more from the Developer perspective). Workshop Exercise - Ranked No. 7 of 10	Area 9	New connection crosses rail line. Will likely be required to be a bridge. Lockwood neighborhood is opposed, diverts traffic to residential area. Direct impacts to Lockwood neighborhood caused by overpass touchdown. Significant impacts to property/ buildings on existing Rite-Aid site.	28.5	Bisects development site on fill which prevents access. No identifiable benefit. Significantly high cost in comparison to other projects.

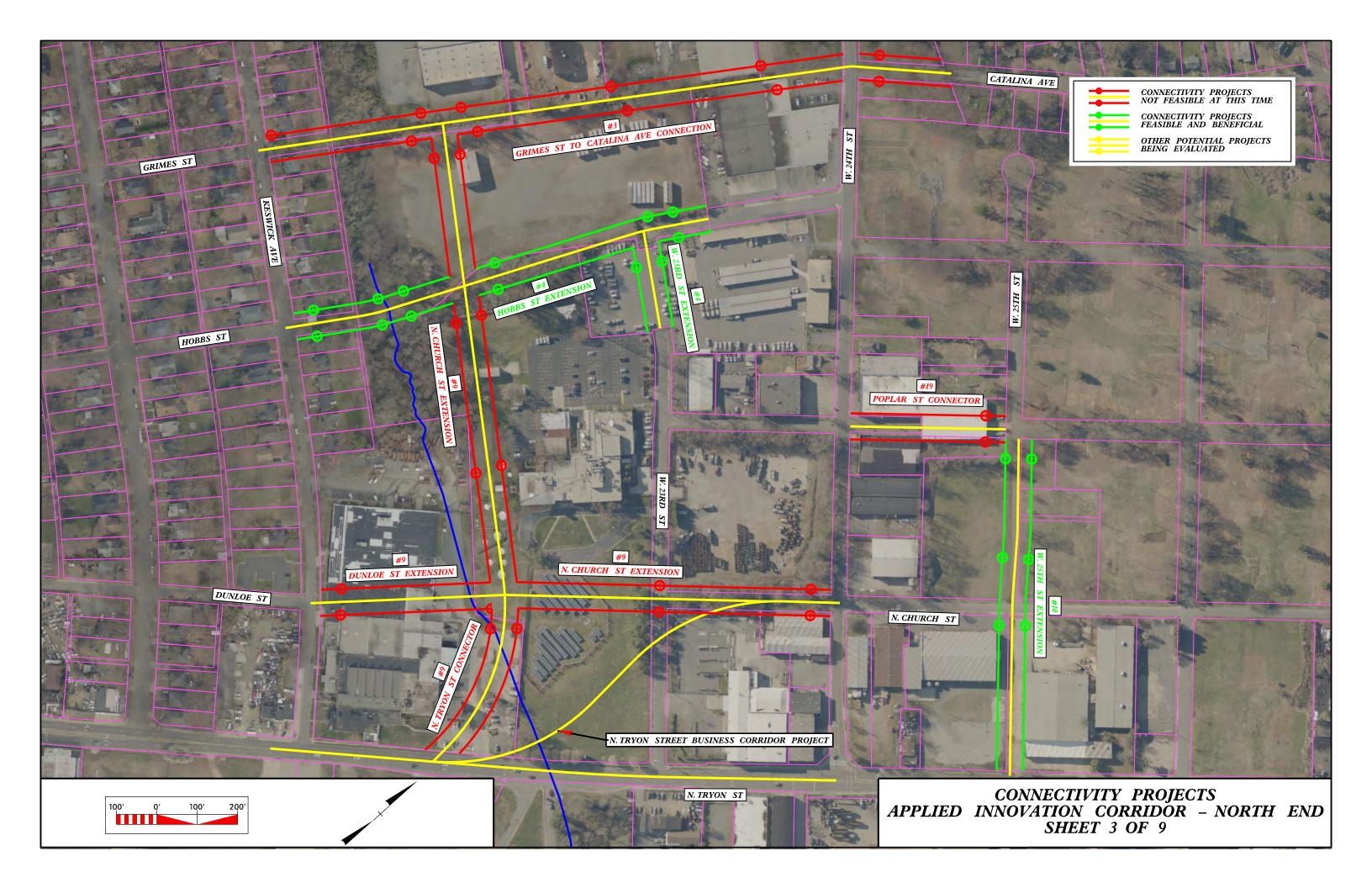


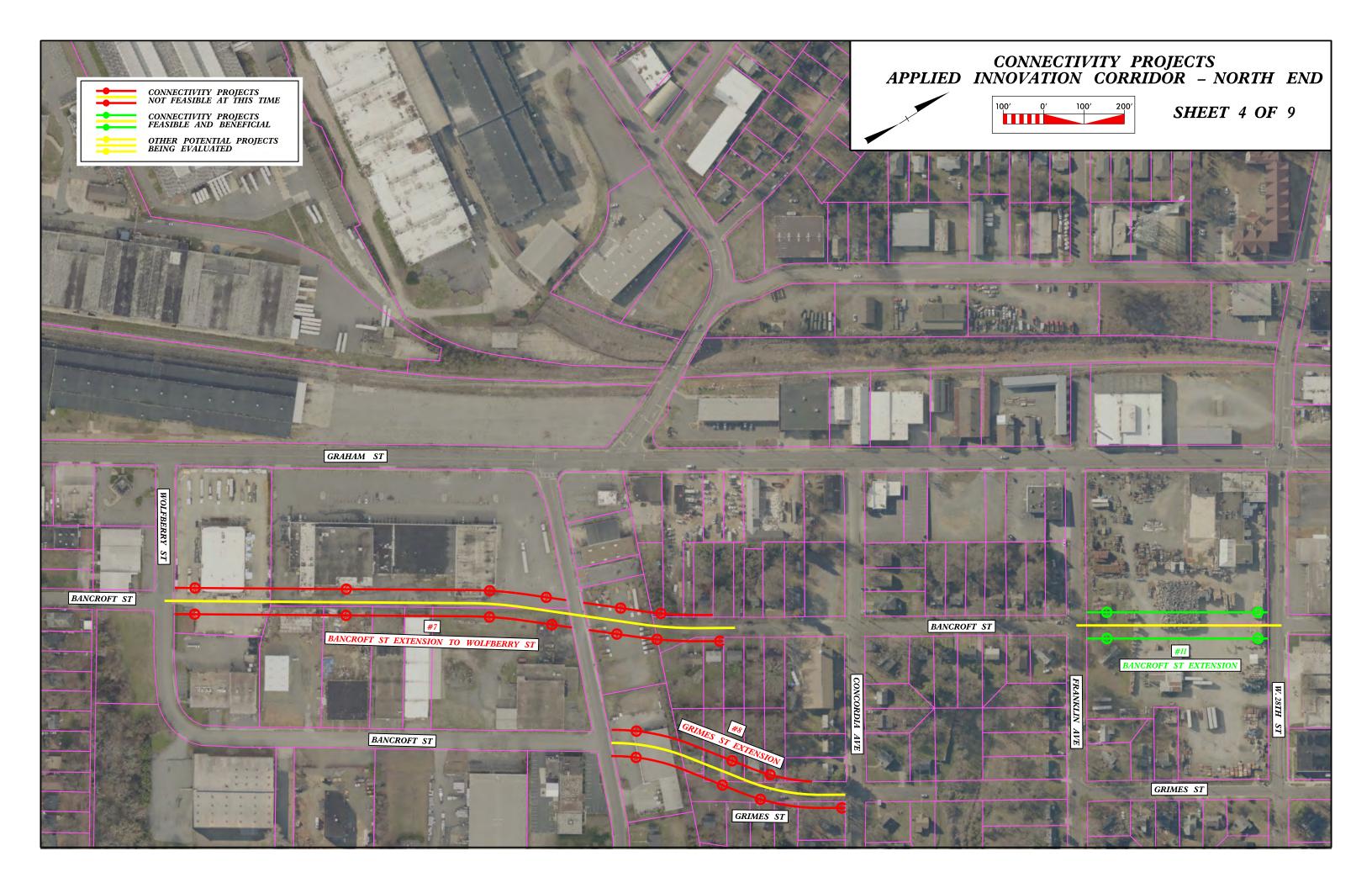


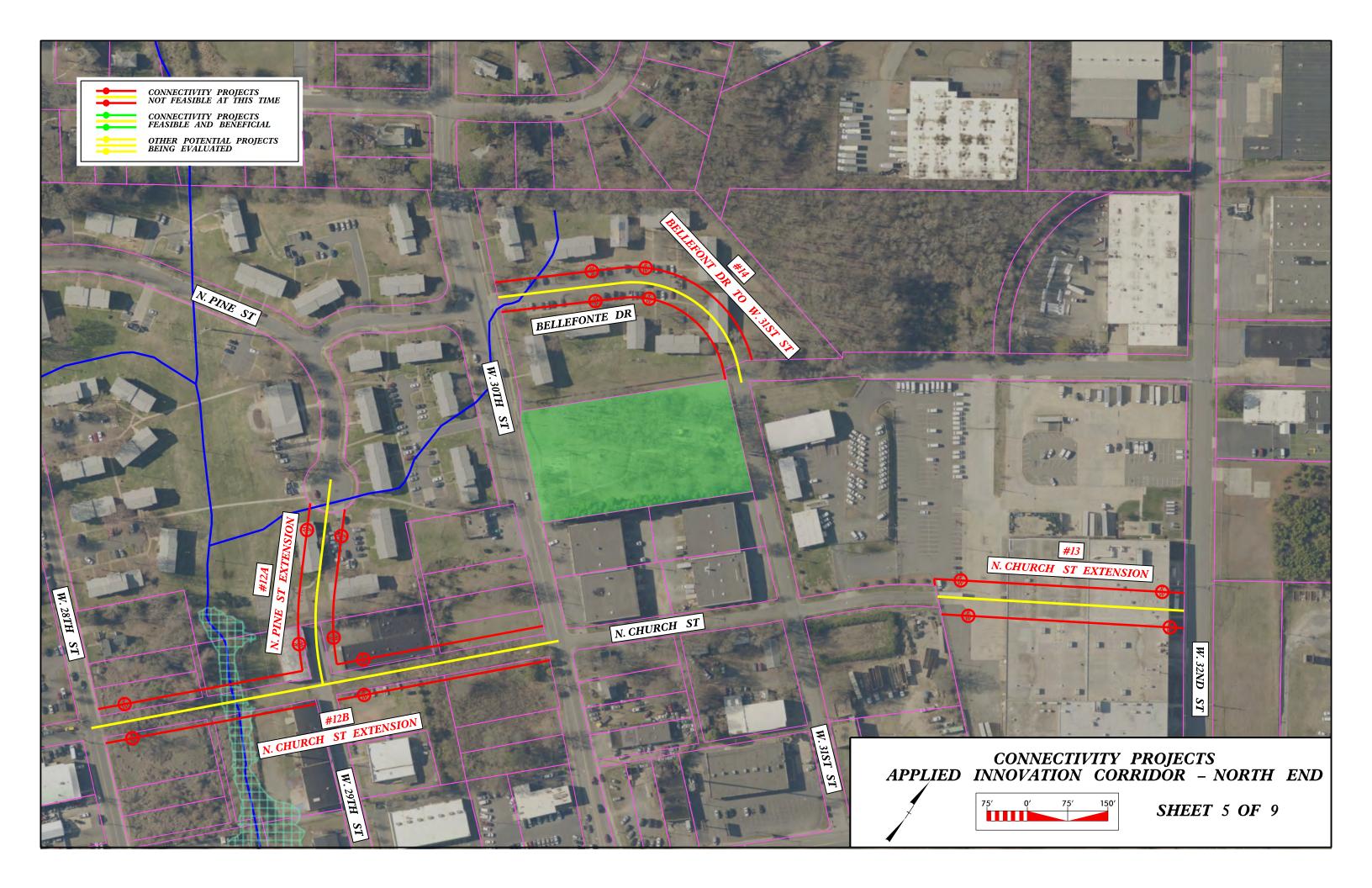
Appendix J – Connectivity Projects

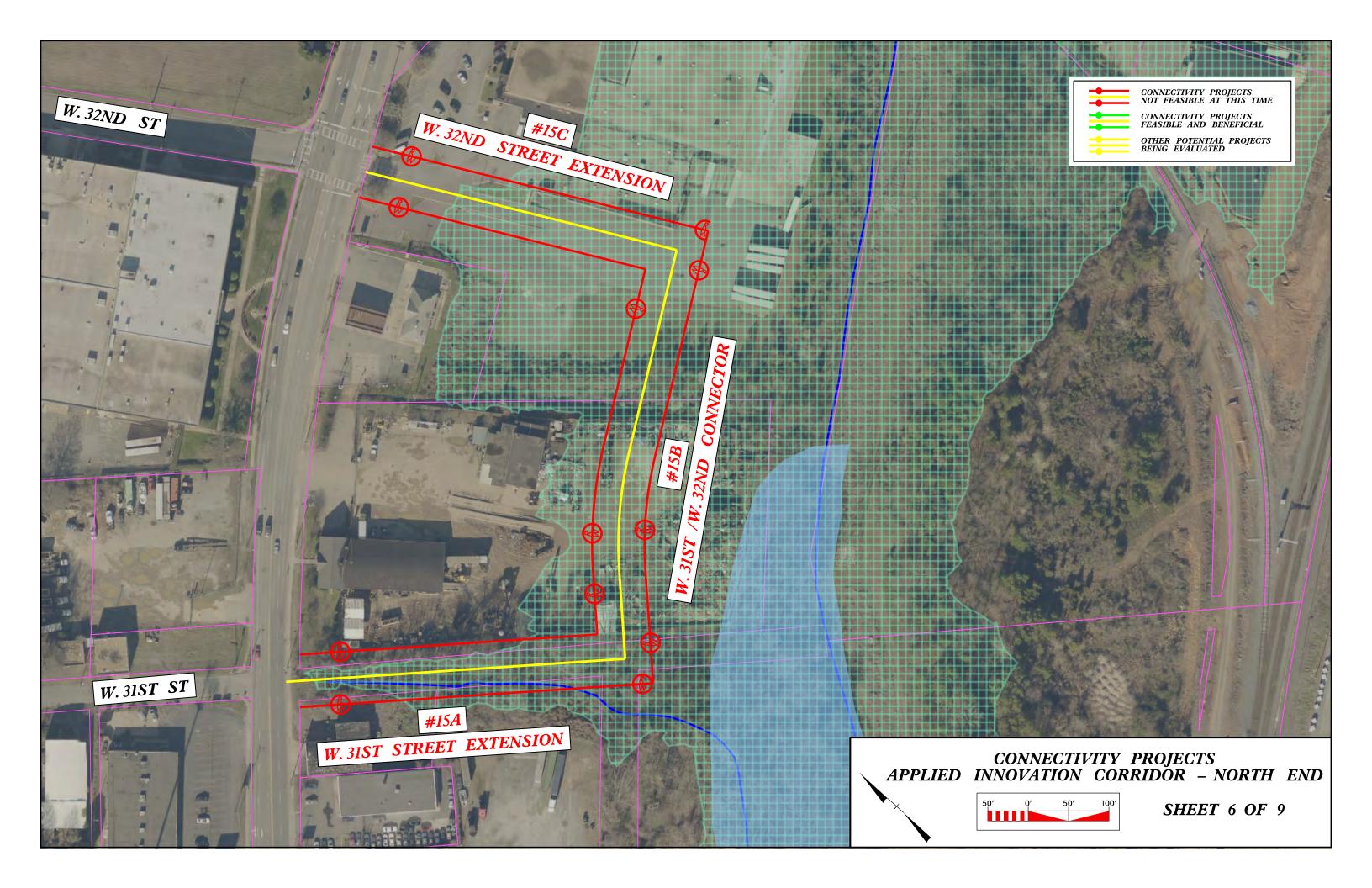


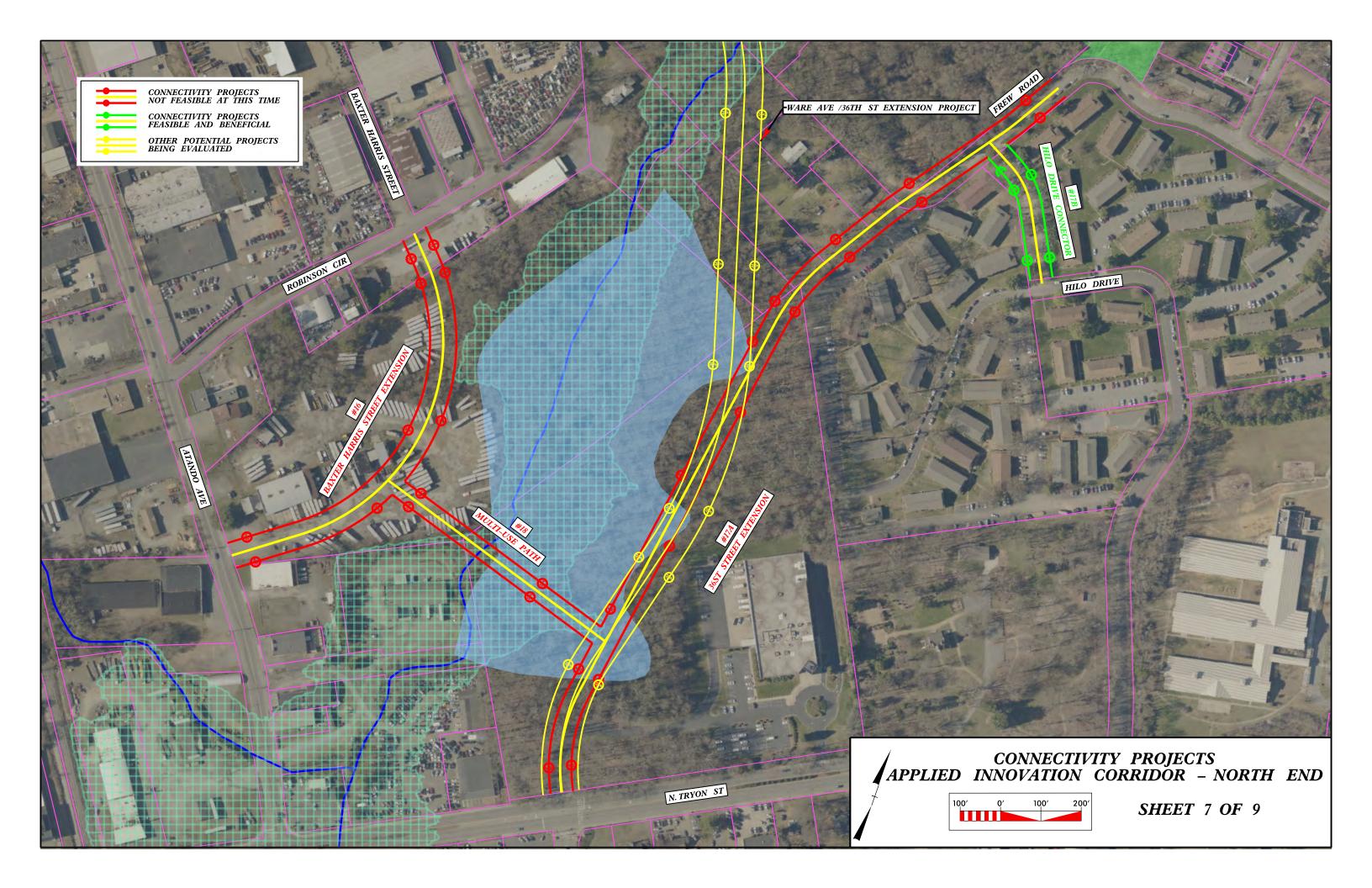


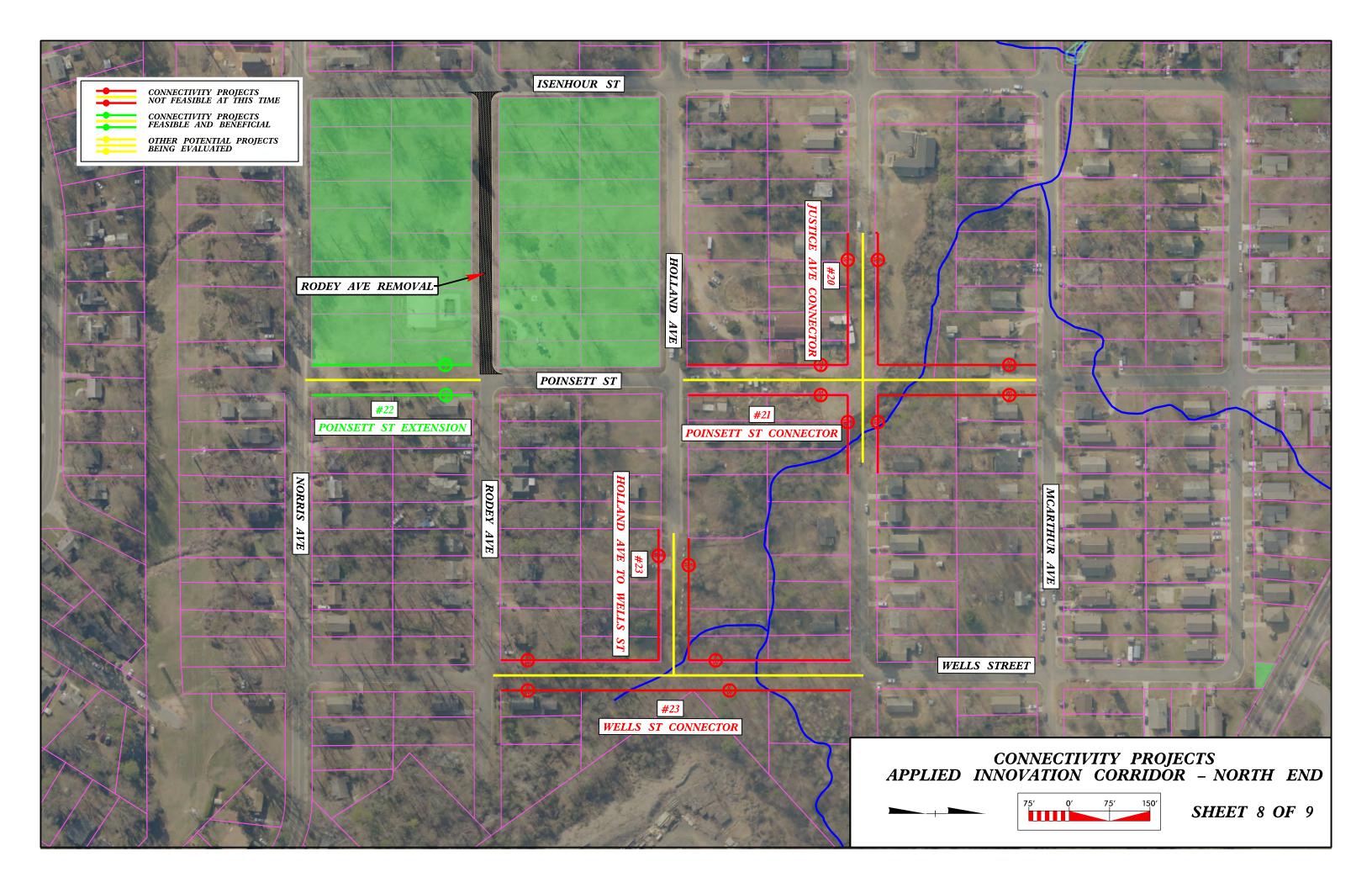


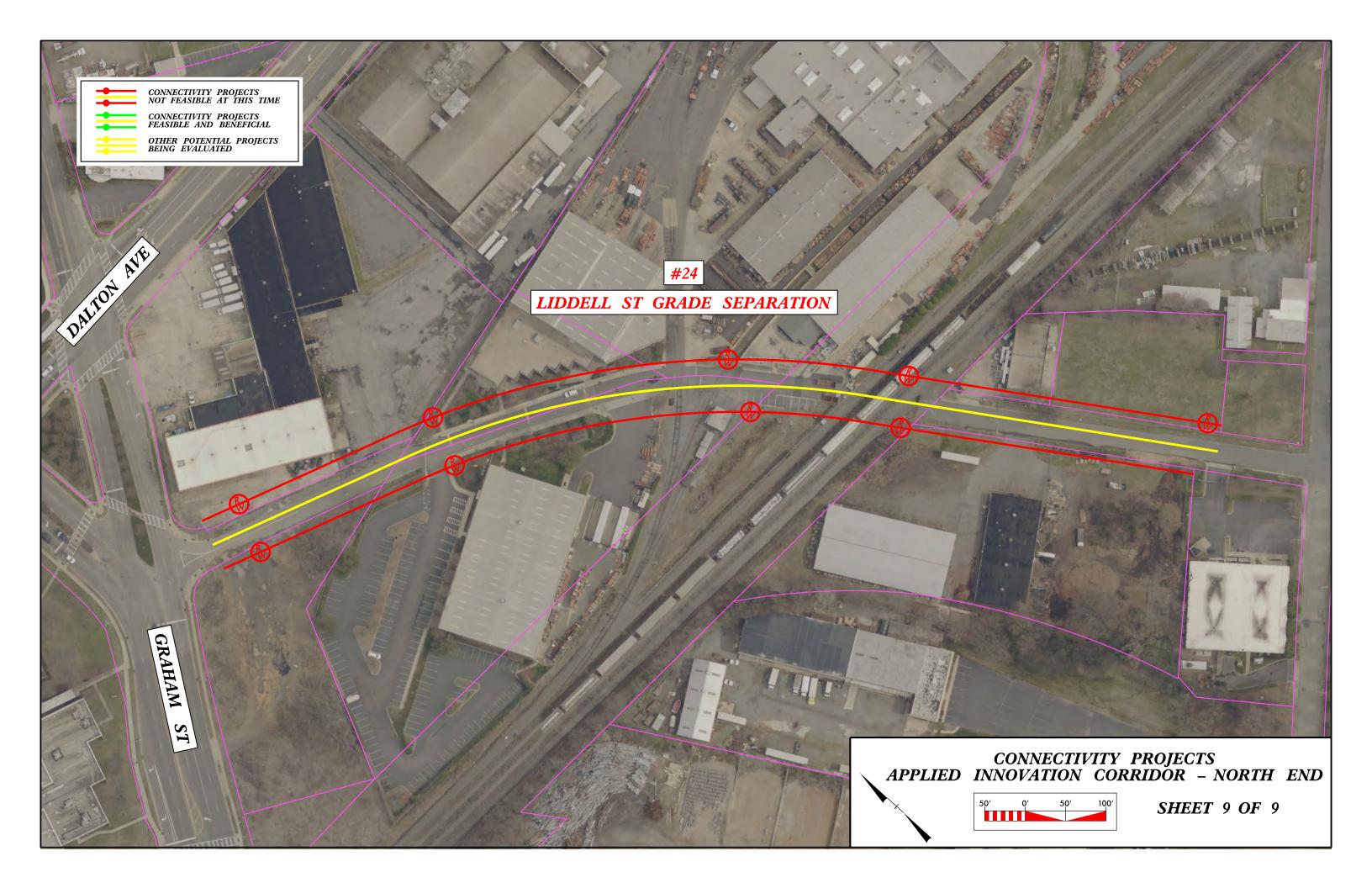










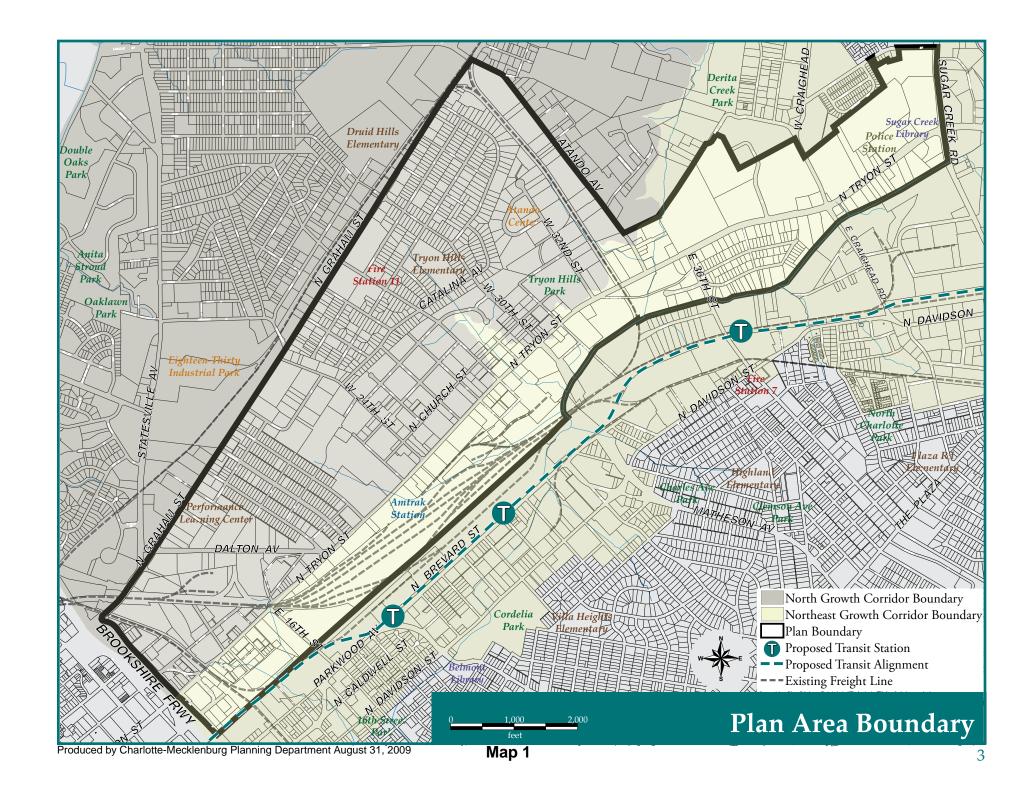






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Appendix K – Reference Figures from Previous Planning Efforts



Implementation Strategies

The number of each action corresponds to the number for the recommendation in the Concept Plan.

	Action Item	Туре	Lead Agency	Time Frame
	Land Use			
1 2 3 4 5 6 7	Area A: Use land use recommendations to guide and evaluate development proposals.	Zoning	Planning	as devel occurs
8	Develop an internal, interconnected network of local streets throughout Area A.	Transp.	CDOT	as devel occurs
9	Acquire an easement at the rear of the Uptown Men's Shelter property to create more contiguous land and provide the opportunity for an increased street network that connects to 16th street.	Transp.	CDOT	as devel occurs
10	Improve the streetscape of 16th Street by providing curb and gutter, a planting strip, street trees, sidewalks, and bike lanes.	Transp.	CDOT	as devel occurs
11	Encourage site layouts to use shared drives between buildings to reduce access points to North Tryon Street.	Transp.	CDOT	as devel occurs
12 13 14 15 16 17 20 21	Area B: Use land use recommendations to guide and evaluate development proposals.	Zoning	Planning	as devel occurs
18	Pursue development of a neighborhood park, as part of the Tryon Hills redevelopment or within Graham Heights. Consider partnering with the existing Tryon Hills Pre-K School.	Park	Park & Rec	as devel occurs
19	Pursue a greenway connection from Little Sugar Creek through Graham Heights and Tryon Hills.	Park	Park & Rec	as devel occurs
22	Recreate local street and pedestrian connections as feasible between Lockwood, Graham Heights, and Tryon Hills Neighborhoods.	Transp.	CDOT	as devel occurs
23	Provide sidewalks with planting strip and street trees that allow residents to walk comfortably to uses on North Graham and North Tryon Streets.	Transp.	CDOT	as devel occurs

	Action Item	Туре	Lead Agency	Time Frame
24 25 26 27	Area C: Use land use recommendations to guide and evaluate development proposals.	Zoning	Planning	as devel occurs
28	Encourage the development of Little Sugar Creek greenway on the east side of North Tryon Street.	Park	Planning/ Park & Rec	as devel occurs
29	New retail, development along Little Sugar Creek floodplain should reflect heightened environmental concerns, and follow current standards.	Zoning	Planning	as devel occurs
30	Develop an internal, interconnected network of local streets as redevelopment occurs, to allow moderate density land use.	Transp.	CDOT	as devel occurs
31 32 33 34 35 36	Area D: Use land use recommendations to guide and evaluate development proposals.	Zoning	Planning	as devel occurs
37	Develop an internal, interconnected network of local streets as redevelopment occurs, to allow moderate density land use. The connections include connections from North Tryon Street to isolated streets north or west.	Transp.	CDOT	as devel occurs
	Transportation			
38	Provide new street connections and closer street spacing to support increasing land use intensity. The recommended street connections are depicted on Map 5.	Transp.	CDOT	as devel occurs
39	Using the conceptual corridor cross sections in the plan, make public and private improvements to North Tryon Street.	Transp.	CDOT	5 yrs.; as devel occurs
40	When the railroad bridge at 16th Street is upgraded and/or rehabilitated, the span shoulde be increased to allow for wider sidewalks and bike lanes.	Transp.	CDOT	Medium (5-10 yrs)
41	Modify interchange between I-277 and North Tryon Street.	Transp.	CDOT	Medium (5-10 yrs)

	Action Item	Туре	Lead Agency	Time Frame
42	Place bus shelters at key locations that emerge through redevelopment with high ridership, including the proposed future catalyst sites along North Tryon Street.	Transit	CATS	Medium (5-10 yrs)
43	Incorporate pedestrian amenities in vicinity of 16th Street, 30th Street, and 36th Street, with wider sidewalks, pedestrian-scale lighting, and connections to the future greenway extension. These improvements are needed in particular with the potential Northeast Light Rail service located parallel to North Tryon Street.	Transit	CATS	Medium (5-10 yrs)
	Infrastructure &			
	Public Facilities			
44	Perform localized water main and gravity sewer line relocations along with new development and streetscape improvements.	Utilities	СМИ	as devel occurs
45	Make stormwater improvements to the existing roadway culverts and stormwater network during street widening activities.	Utilities	E&PM	as devel occurs
46	Move utilities to the planting strip or at the back of sidewalk where possible; Relocate utilities in the section between 30th and 32nd Streets underground to complement Catalyst Site 3. As additional catalyst sites are developed, bury the utilities.	Utilities	Planning	as devel occurs
47	Ensure that public facilities are well connected to the surrounding area and to each other to take advantage of joint use opportunities, and that public facilities are well designed.	Planning	Planning	as devel occurs
	Environment			
48	Make trees a key feature of the entire plan area.	Zoning/ Tree Ord	Planning/ E&PM	as devel occurs
49	Design site plans for new buildings, renovations, and parking lots to improve water quality for stormwater run-off, consistent with the Council-adopted Post Construction Controls Ordinance.	Storm- water	E&PM	as devel occurs
50	Protect or enhance the Little Sugar Creek watershed when possible.	Storm- water	E&PM	as devel occurs
51	Provide opportunities for expansion and improved access to the Little Sugar Creek Greenway and for additional park facilities within the Plan Area.	Park	Planning/ Park & Rec	as devel occurs
52	Assist property owners with remediation of sites known or perceived to have contaminated soil.	Brown- field	Neigh & Busin Serv	as devel occurs

Potential Development Program

The overall vision for Catalyst Site 1 is to provide for the redevelopment opportunity, through land assembly, of an urban business park. Close proximity to Center City Charlotte, as well as convenient highway access, makes this area attractive for employment uses.

A Light Rail Station is proposed in the general vicinity of 16th Street and Parkwood Avenue. From this site, there are seven existing railroad tracks crossing 16th Street, making it a challenge to the pedestrian as well as to transit-oriented development possibilities along North Tryon Street.

The Uptown Men's Shelter has frontage on North Tryon Street south of 16th Street. Its programming relationship with the Urban Ministries facility makes it difficult to relocate one facility and not the other. The two facilities could potentially serve as an impediment to future redevelopment opportunities on this catalyst site, particularly for residential uses.

Catalyst Site 1: Both Sides Of North Tryon Street Between Railroad and 16th Street & North Side of 16th Street Between North Tryon and Railroad



Catalyst Site 1 Potential Build-Out

Use	Square Feet	% of Total
Light Industrial	435,000	62.7%
Flex	244,000	35.2%
Retail	15,000	2.2%
Total	694,000	100.0%

Source: Warren & Associates, November 2008

The concept for Catalyst Site 1 includes:

- A concentration of specific development types with a connected internal road network and shared open spaces.
- A mix of uses including flex (office/ warehouse), light industrial/warehouse and a small allowance for local-serving retail in the vicinity of North Tryon and 16th Streets.
- Flex buildings to accommodate small or medium size firms with varying requirements for a mix of office and warehouse space.
- Buildings arranged to provide a sense of enclosure and to help frame and define the fronting streets as well as internal streets.

- Light industrial uses located to the rear of the property.
- Higher-intensity flex buildings fronting North Tryon Street or along the internal street network.
- Limiting parking in front of the flex buildings to a maximum of one double loaded bay of parking, including those fronting North Tryon Street. For any other building fronting North Tryon Street, parking would be located to the rear of the building.
- Locating parking lots out of the setback and adhering to the buffer and screening requirements per city code.
- On-street, parallel parking on internal streets.
- Street network revisions when the current Church Street at-grade railroad crossing closes as a part of rail realignment underway.
- Creating a new internal street network that extends to both sides of North Tryon Street.
- Realigning minor streets to create fourway intersections with North Tryon Street; extending streets to establish a complete network.
- Establishing the newly connected minor streets as internal main streets with on-street parking, sidewalks, pedestrian-scale lighting, and street trees.

Following is an illustrative site plan, which shows how development of the catalyst site might look. The site plan is intended to illustrate general development potential. It is not intended to represent specific development requirements.



The current Church Street at-grade rail crossing will close as part of rail realignment underway.

Catalyst Site 1: Illustrative Site Plan



Catalyst Site 2

Catalyst Site 2, located in Areas A and B, includes 12 parcels totaling 19.5 acres with seven different property owners. The parcels are located on the east side of North Tryon Street between Sylvania Avenue and 24th Street and on the west side of North Tryon Street between 23rd and 24th Streets. Approximately half of the acreage is vacant.

Most of the land along the east side of North Tryon Street is owned by Norfolk-Southern, and includes land currently occupied by the Charlotte Amtrak station.

Because of its proximity to the low-vacancy office market in Center City Charlotte and existing office uses along North Tryon Street, such as WSOC and the City North Business Center, this Catalyst Site is recommended

to develop with professional office space. The pending relocation of the Amtrak station would provide a large, contiguous tract of land across from the two existing office properties. Furthermore, an entire block of land adjacent to the WSOC facility is vacant with right-ofway for a Church Street extension between 23rd and 24th streets already in place.

Potential Development Program

The overall vision for 20-acre, Catalyst Site 2 is a professional office and flex cluster that takes advantage of the close proximity to Center City Charlotte, WSOC, and the City North Business Center. The site straddles both sides of North Tryon Street. The portion of the site east of North Tryon Street is recommended for flex space because of physical constraints (railroad), while the site to the west is better suited for office. Flex buildings provide opportunities for small to medium size businesses with varying requirements for office and warehouse space.

Catalyst Site 2 Potential Build-Out

Use	Square Feet	% of Total
Office	181,000	61.1%
Flex	115,000	38.9%
Total	296,000	100.0%

Source: Warren & Associates, November 2008

Catalyst Site 2: East Side of North Tryon Between Sylvania and 24th Street & West Side of North Tryon (Two Blocks Deep) Between 23rd and 24th Streets

wsoc wsoc	Christia
TV	Life S
City North Business Center	
is to swick Av	
Ph. Outlo	2 Amtrak Station
Phymouth Av Carlle	LI Brevard St
ALMORS	

The concept for Catalyst Site 2 includes:

- Flex and office buildings fronting on North Tryon Street.
- One bay of double-loaded parking on the east side of North Tryon Street in front of the buildings to provide for pedestrian access.
- All additional vehicular parking to the sides and loading to the rear.
- Parking lots out of the setback and adhering to the buffer and screening requirements per City of Charlotte Code.
- Limiting the curb cuts to contribute to a less chaotic streetscape and provide the opportunity for a rhythm of sidewalks and street trees.
- Extending Church Street south to the City North Business Center property and then north to provide for a connected network. This would promote both vehicular and pedestrian connectivity to surrounding uses.
- In the block on the west side of North Tryon Street between 23rd and 24th Streets, two new two- to three-story office buildings, and the renovation of one existing industrial building for office uses.
- In the adjacent block to the west, between North Church and North Poplar streets, three new two- to three-story office buildings arranged to create an urban streetscape with sidewalks and street trees.
- Orienting the new office buildings toward the streets, with parking in the interior of the blocks.

Following is an illustrative site plan, which shows how development of the catalyst site might look. The site plan is intended to illustrate general development potential. It is not intended to represent specific development requirements.



WSOC's grassy studios establish an appropriate center for more new office development.

Catalyst Site 2: Illustrative Site Plan



North Tryon Area Plan

Catalyst Site 3

The third Catalyst Site is located in Area C on the east side of North Tryon Street between 30th Street and a railroad spur line. It includes eight tax parcels with eight different property owners on 14 acres of land. A portion of the site is covered by FEMA floodplain area from Little Sugar Creek. Only 1.8 acres are currently vacant. The site redevelopment would potentially require the demolition of the 211,729-square-foot Allison Erwin Building.

This Catalyst Site is centrally located in the plan area and fronts both North Tryon Street and Matheson Avenue (30th Street). The site is recommended to develop as a community-oriented retail node with some limited office space serving area residents and businesses. It is adjacent to a potential greenway along Little Sugar Creek, which could serve as an amenity for restaurants and other pedestrian-friendly retail uses.

Catalyst Site 3: East Side of North Tryon Between 30th Street and Railroad



Potential Development Program

The overall vision for Catalyst Site 3 is to take advantage of the need for a community retail node. From a market perspective, the intersection of North Tryon Street and Matheson Avenue/30th Street has the greatest potential. Thirtieth Street is the street in the plan area connecting North Graham and North Davidson Streets. This allows for retailers at the site to serve not only North Tryon Area residents and businesses, but also those within the NoDa, Optimist Park, and Druid Hills neighborhoods.

Catalyst Site 3
Potential Build-Out

Use	Square Feet	Total Units
Retail	167,000	•
Office	52,000	-
Attached residential	-	70
Total	219,000	70

Source: Warren & Associates, November 2998

The concept for Catalyst Site 3 includes:

 A mix of uses including retail, office and attached residential. Retail would be focused along North Tryon and 30th Streets, as well as along a proposed extension of 31st Street in a northeasterly direction that could eventually intersect with 36th Street. This extension would expand the number of entry points into the site and promote higherdensity development opportunities.

- A 35,000 to 40,000 square-foot grocery store that would serve as the anchor tenant of a 150,000 to 170,000 square-foot retail center. The preferred grocery location is along 30th Street near the North Tryon Street intersection. This would provide the strongest opportunity to serve neighborhoods on both sides of the railroad line.
- Incorporating the existing gas station in the northeast quadrant of the North Tryon and 30th Streets intersection.
- Retail buildings framing the streets with parking internal to the site on the parcel of land between North Tryon, 31st, and 30th Streets. Pedestrian access would be provided to the front of the buildings from the street.
- Establishing an interior road paralleling Little Sugar Creek. Uses such as restaurants could locate along this new road taking advantage of the natural amenity of the greenway.
- Extending 31st Street to serve as an internal main street framed by retail buildings closer to North Tryon Street and residential uses east of the proposed internal street paralleling Little Sugar Creek.
- Extending 32nd Street from North Tryon Street to the proposed 31st Street extension to provide residential development opportunities.
- One-story office buildings fronting North Tryon Street between the Allison Erwin Building and the proposed retail. Parking would be located behind the

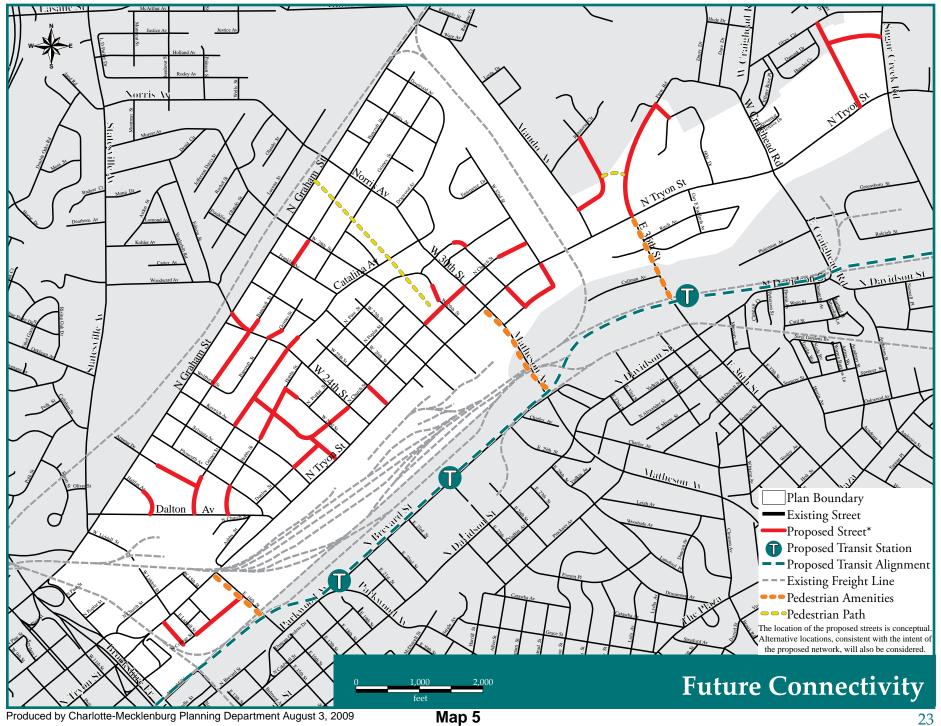
- buildings, which are to have compatible architectural design and pedestrian accessibility.
- Attached residential at an average of 12 units per acre between 32nd Street and the retail uses. The units can also take advantage of the potential greenway along Little Sugar Creek. Their orientation would take this amenity into consideration.
- Buildings arranged to provide a façade along North Tryon Street, framing and defining the street as well as the internal streets.

 Careful consideration given to pedestrians trying to access retail uses along North Tryon Street since all parking is proposed internal to the site.

Following is an illustrative site plan, which shows how development of the catalyst site might look. The site plan is intended to illustrate general development potential. It is not intended to represent specific development requirements.



North Tryon Area Plan







Appendix L – City Council Workshop - AIC Portion of CIP Update

















Community Investment Plan Update

City Council Workshop
October 5, 2015



Community Investment Plan 2014 Program and Project Updates





Applied Innovation Corridor The Vision

What is the Applied Innovation Corridor?

- Initiative from Center City 2020 Vision Plan
- Link City's academic and research assets with private and public investment
- May be comprised of a series of "districts" in:
 - Energy
 - o Biosciences
 - Food technology/food hubs
 - o Informatics
 - Health care



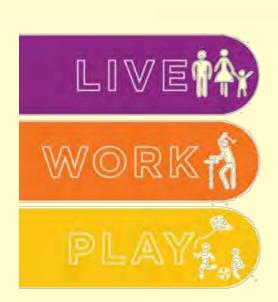


Applied Innovation Corridor Infrastructure Projects

What are we trying to accomplish?

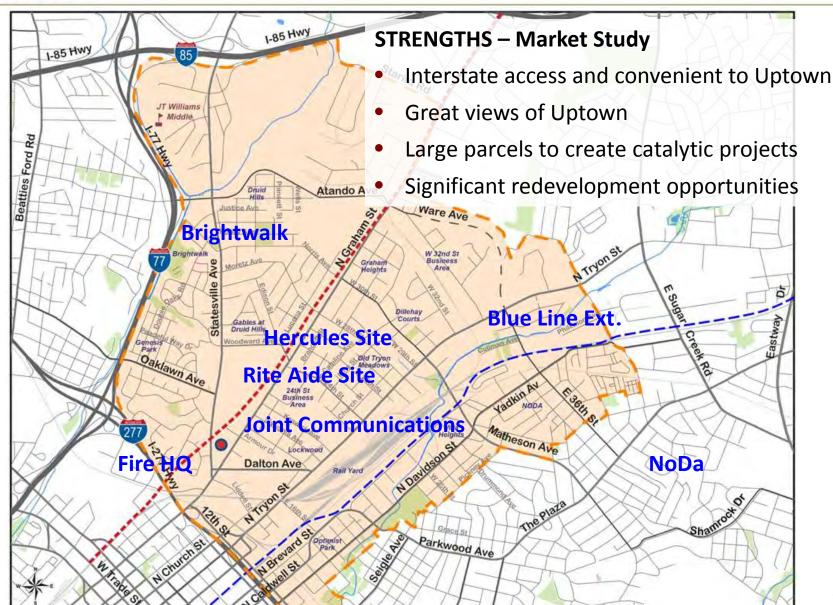
- Create a sense of place
- Create a desirable area to work, live, play
- Improve connectivity including bike/ped
- Improve streetscapes aesthetically pleasing
- Provide gateway to/from Uptown
- Improved recreation

Create revitalized urban communities as a "foundation" for the Applied Innovation Corridor





Applied Innovation Corridor The Corridor's North End





Applied Innovation Corridor Market Analysis - Challenges

- Area fragmented by rail corridor/yard
- I-277 barrier from Uptown
- Distance from UNCC 6 miles
- Industrial feel
- Rents, home prices, income lower than average
- Concentration of social services
- Strong competition for hightech in other areas
- Incenting initial investments







Applied Innovation Corridor Community Engagement

Stakeholder Interviews & Workshop Feedback

- Need for retail food desert
- Need for east-west connectivity
- Need for improved bike/ped facilities & connectivity
- Need for improved green spaces/recreational areas
- Need for improved perception of North End









Applied Innovation Corridor Top Three Priority Projects





Within the next four to six months:

- Future Council Action: to approve planning and design contracts
- Continued pursuit of private leveraging opportunities



Community Investment Plan Job Growth







M

Appendix M – City Council Workshop - AIC Portion of Minutes

The City Council of the City of Charlotte, North Carolina convened for a Workshop on Monday, October 05, 2015 at 5:12 p.m.in Room 267 of the Charlotte Mecklenburg Government Center with Mayor Dan Clodfelter presiding. Councilmembers present were Al Austin, John Autry, Michael Barnes, Edmund Driggs, Claire Fallon, Patsy Kinsey, Vi Lyles, LaWana Mayfield and Kenny Smith.

ABSENT UNTIL NOTED: Councilmembers David Howard and Greg Phipps

ITEM NO. 2: COMMUNITY INVESTMENT PLAN

A. Introduction and Program Overview

Assistant City Manager Debra Campbell said good evening and thank you Mayor and Council for giving us the opportunity to provide you with a fairly extensive presentation on your 2014 CIP Program. What we hope to accomplish with this presentation is to provide you with a progress report on your 2014 projects, update you on some of the future Council actions and then discuss the next steps for your review for your 2017 process. I want to just break for a minute and ask you to look in your agenda packet because you will see that as we provide this presentation we're going to have a number of speakers that are going to come after I provide just an overview and I'm going to hopefully help the Mayor orchestrate a number of different speakers speaking about different topics so we've got a lot of information, we've got a number of speakers but hopefully this will go seamlessly.

We will not be covering all the detailed projects but in your agenda packet there is a short synopsis of all of the projects and so if we don't get an opportunity to answer questions on all of the projects hopefully that information will be helpful. We also have a flip chart if we need to capture information again that isn't covered either as part of our presentation or in the written material hopefully we can provide you with information on the follow-up report. Again, in terms of the format we're going to have a lot of people speaking but again I hope I can help the Mayor with that transition.

Being that there is going to be a lot of information shared with you we wanted to kind of start this presentation actually with the end in mind so we're beginning with the end in mind. It's a lot of information but hopefully you'll take away some of the kind of key messages. Staff is making steady progress on our 2014 Community Investment Plan and we are also investigating ways that we can actually accelerate some of the projects and you'll hear a little bit about that when we talk about the bridges; about a different type of approach. As we describe some of these projects you're going to frequently hear something like multi-modal connections and connections to neighborhoods and from neighborhoods and to key destinations. You're going to hear a lot about community engagement and we are almost as proud of the effort related to community engagement as we are about the amount of progress that we have made with these projects and here's why because we think that the amount of public participation that we've had this year in our not this calendar year but since 2014 starting this initiative it has been unprecedented.

We think that the community is really embracing the concept of a Community Investment Plan and we are doing our best to engage as many of our partners as possible. Also, with the amount of orange barrels and construction projects that we have already underway in our community that are public projects we know that we need to do better at making sure that for our future projects that we are doing our best to mitigate impacts and you're hear something about a new strategy, some innovative things that we're trying to do to make this impact a little less on the community and then lastly we know that you probably feel like you just finished a budget process and you're getting ready to start another process and so we'll be talking about a schedule for review of your 2017 Community Investment Plan.

Just as a way of review the Community Investment Plan is kind of a long range investment strategy to meet the growing pretty much capital needs of our community. For the 2014 projects you had some goals and you organized the discussion for community dialog and for us to kind of get our arms around what is that we're trying to accomplish around three major categories; livability, getting around and then job growth. As we present this information we're going to

presenting it from this perspective, utilizing those major categories of livability, getting around and job growth.

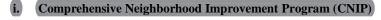
For 2014 there was a bond referendum and for the most part the entire capital program totaled \$816.4 million dollars to be spread over four bond referendums and again the first one was in 2014 and was a very, very successful one and I'll get to the vote process in just a minute. There was \$145.9 million in bonds and what we call certificate of participation that was also approved as a part of that community investment program and in terms of the bond referendum very successful vote with most being over 60% voter approval and there were categorized into these big buckets of public improvement, housing bonds and neighborhood improvement bonds. Again, we are not going to talk about all of the programs but I wanted to demonstrate that the projects were identified and actually approved from a very kind of geographically based perspective so there are projects throughout the community but then also there are city-wide programs related to housing diversity and I won't go through all of them but a number of things were approved and identified.

In terms of the organizational framework and I'm trying to hint to you that we are doing things and have done things very differently this time related to our community investment program. In particular the way that we have organized ourselves to do the work is very different. There has been a lot of engagement from the City Manager's office, the city department directors working with interdepartmental teams you can see a lot of staff are here tonight. It's taken a big army to try to get our arms around this effort but also to engage the community in a very meaningful way as it relates to identifying and prioritizing the projects. We are also engaging the county and trying to make sure that there is a lot of coordination and collaboration between the City's Community Investment Plan as well as what the County is doing so that again we can leverage and complement each other's efforts.

Community engagement is really the cornerstone of this initiative. We are very pleased at the amount and the numbers of people who are showing up at meetings, who are responding to the variety of different ways that we are trying to provide opportunities for engagement. We are utilizing very traditional kind of meetings but we are also utilizing very non-traditional types of engagement opportunities. I recall a young lady who came and spoke at the last Council meeting and her advice to us was you need to start meeting people where they are. This is the epitome of what we are trying to do with this effort. We are trying to meet people where they are so we're going out to neighborhoods, we're going to offices, we're going to greenway trails; we're going to a number of places to meet people where they are in order to garner their input and to hear what their concerns are. You all are probably most familiar with the newsletter. We try to include it in the Council Manager Memo on a monthly basis. Hopefully, that's been a useful tool for you to keep abreast of what we're doing and obviously we're utilizing a lot of the social media tools.

In terms of our presentation we're going to talk to you with regards to again these three categories, livability, job growth and getting around and at this time I'm going to invite one of my posse members to come up and we're going to provide you with information related to the Comprehensive Neighborhood Improvement Program (CNIP).

B. (Livability Projects)



Tom Warshauer, Neighborhood and Business Services said so the Comprehensive Neighborhood Improvement Program really came out of an expansion in what we were doing in our Neighborhood and Improvement Program for years and that really came out of our listening to what is going on in the Neighborhood Improvement Program to develop some new goals of where neighborhoods really wanted to be. Neighborhoods are for the most part really excited about sidewalks. We always had a couple of people in any neighborhood that we are working on that wasn't so excited about a sidewalk in front of their home but for the most part they loved it. They asked us to really begin to focus on some different issues that couldn't be accomplished just inside their neighborhood. They asked us to address making sure that they connected to amenities that were really important to their life so they connected to greenways, they connected to schools, they connected to retail; they connected to things that were important to them. They also wanted us to make sure that they were easily connected to transit and a larger network of

architects contract as well as construction manager contracts and again we will provide you with a briefing before we request any kind of Council action and that will happen in November. I will stop there to see if there are any additional questions on the two that I just went over.

Councilmember Lyles said this isn't in your presentation but in the handout that we got we've got the Police Division Stations and we've got the purchase land for future Fire Stations and if Council recall in our budget discussions we've been talking about a company that needs to be located in the Northern part of the City and again I just wondered if at some point the appropriate time to talk about how we might do that is at the budget or at the retreat but when you've got the COPS funding you have the ability to make those things occur and it occurred to me that it's easier to lease police stations than off space versus a fire station and if we have to look at that I'd like to really consider that in the upcoming budget for how do we accomplish the appropriate decision making around a fire station so just something as a heads up as we move forward there.

Mr. Barnes said Mr. Manager and Ms. Campbell on this same point one issue that I would like to raise and Ms. Lyles and I talked about this, Mr. Phipps and I have talked about it before and I've talked to Chief Putney about it before; several years now we've been trying to locate land for the University City Division office and have had not a great deal of luck. As the Blue Line Extension is coming closer to reality parcels of land that might be attractive for this use are being bought and so our options are becoming increasingly limited. I would encourage us to accelerate our efforts with regard to that division office if only to buy the land now and build it later as opposed to waiting. The real estate values are going up and our options are becoming extremely limited. I'm sure Mr. Phipps will continue to advocate for that.

Mr. Carlee said we'll include that in a future meeting.

Ms. Fallon said I call Mr. Harrington about that before because I was looking at maybe putting it over more near the North Lake Mall.

Mr. Barnes said that's another division office.

Ms. Fallon said yes but we need a North division there because Ridge Road and Highland Creek area have become a city by themselves. I had talked to him about where we could buy land and about options and that kind of thing if we found a piece could we option it, how long do we hold it and I understand we do not have any kind of a fund for options. We just have to go find the money someplace. Might it be a better thing to maybe have some kind of a fund for options, for land obtainment?

Mr. Carlee said normally land acquisition would be part of the Community Improvement Program towards whatever facilities it was going to support. We don't have just an opportunities fund to go buy things that may be of interest for facilities in the future to the Council. It's usually based on the Council deciding that we want to do this facility in this general geographical area or wherever and then we fund the land acquisition either advancing the project or as part of the project itself.

Ms. Fallon said well land is becoming so rare that maybe it might be a smarter idea to have some kind of a small fund where you could move immediately when a piece came up that you wanted before someone else go to it.

Mr. Carlee said we can certainly visit that as part of your advisement to the CIP.

C. Job Growth Projects

Assistant City Manager Debra Campbell said we're going to transition now into job growth and when we talk about job growth we are essentially talking about stimulating the economy, attracting global businesses, increasing entrepreneur opportunities. For this particular presentation we're only going to highlight the Applied Innovation Corridor and I'd like to call up Todd DeLong with Neighborhood and Business Services; their Economic Development division to share with you an update on this initiative.

i. Applied Innovation Corridor

Todd DeLong, Economic Development said I'd like to start with a brief reminder of what is the Applied Innovation Corridor. The Applied Innovation Corridor originated in the 2020 Vision Plan from the Center City. As stated in that plan the Applied Innovation Corridor runs from South End all the way up through UNC Charlotte and connecting through Uptown and Northend so we're talking about today primarily the Northend which is just a small subset of the entire Applied Innovation Corridor. The Applied Innovation Corridor is not a single district. A lot of times it's being referenced as an Innovation District which it's not. They're not synonymous; they're not the same thing. The Applied Innovation Corridor could comprise of a series of districts located throughout the corridor where leading edge companies, research institutions, start-ups and business incubators are located in dense proximity. These districts should be physically compact, transit accessible and offer diversity of housing types, office and retail uses.

The intent of these districts is to facilitate new connections and ideas, accelerate the commercialization of those ideas and support the economy by growing jobs in ways that leverage their distinctive economic position. The industries that could be inclusive of these districts would include or could include energy, biosciences, informatics, food technology, food hubs, healthcare, finance, etc. One thing to keep in mind as we continue moving this vision forward is that being innovative is seeking new industries, new ideas and new services not yet recognized or sought after across various regions. Infrastructure improvements such as road improvements, sidewalks, bike pathways, etc. are not enough by themselves to attract tech jobs and innovation types of jobs. Strategic deployment of CIP funds can however help set the stage to create an environment or place where people want to live, work and play. By facilitating the evolution of this improved urban environment more companies and employees will begin considering the Northend as a viable alternative to live and work. Success comes down to basically demonstrating and showing the world that there's a "there" there, there's a place.

Here's an outline of the area that we're focusing on throughout the CIP and we're talking about today. Conducted a market analysis to help us identify development priorities or I'm sorry, development opportunities as well as project priorities. Some of the things that came out of the market analysis were to build upon the successes that BrightWalk, the NoDa community as well as the investment of the Blue Line Extension and the future redevelopment opportunities along that corridor. We also see the Fire Headquarters and the Joint Communications Center also as raising the bar for redevelopment in the area. The Hercules sight and the Rite Aid site also pose as redevelopment challenges, sorry not challenges but opportunities going forward as they comprise of a very large piece of property; about 70 acres or so that can be repurposed and renovated into the types of uses that we see coming into the Innovation Corridor.

The area also has its challenges. The area is fragmented by a rail yard which we've seen substantial and significant investment to the Eastside of that rail yard with some limited investment on the West side of the rail yard. The industrial field which is listed as a challenge here could also be seen as an opportunity going forward. The industrial properties can be repurposed and aligned with some of the types of industries that we're looking at from the Innovation Corridor which would include innovation hubs, worker spaces, shared working environments, some of the things that we're starting to see in the market today. As Jane Jakes once said "the best new ideas are generated in old faces." As Tom and Debra both alluded to we really strive to have a very significant community engagement effort here. We wanted to listen to what will we receive in terms of feedback from the community as well as the stakeholders in the community. The team interviewed 23 stakeholder groups, held two community events with the third scheduled for later this month on October 20th. As you can see from the list of needs and the feedback that we received they're well online and consistent with the idea of creating a place and creating their there.

Before I get into the projects that we're looking at now in terms of priority I want to preface it by saying none of these projects have been designed, none of them have been scoped so right now they are potential projects and they're just our list of priorities at this point in time. The first is the Matheson Avenue Bridge Project; this project would complement other public investment in the area such as the Blue Line Extension and the Cross Charlotte trail. This will also provide opportunities for leveraging private investment and complement potential private sector led redevelopment in the area. Bicycle, pedestrian and other esthetic improvements could be in line

for this particular project. The second project is the North Tryon Gateway. We heard loud and clear from our engagement effort that this was a very high on the list of priorities from the community. This was seen as really needing a significant improvement in terms of esthetics and as overall perception. Projects here or elements of the projects here could enhance quality to the sidewalk, planning strips and other improvement such as lighting, in street trees and landscaping. The third is the 16th Street Streetscape project; this would increase accessibility to the Blue Line Extension and compliment other investments in areas such as the Blue Line and the Cross Charlotte Trail project. Again, improvements here would include or could include a bicycle and pedestrian improvements and other esthetic improvements that go along with the streetscaping.

<u>Mayor Pro Tem Barnes</u> said with regard to the Matheson Avenue project, I think I like that for a moment. Where you talking about replacement of the bridge?

Mr. DeLong said no sir. We would basically be using the space that's there and just creating a more bike/pedestrian friendly and just increasing the quality of the facility itself.

Mr. Barnes said within the current limitations of the bridge or adding something to the sides of it.

Mr. DeLong said I believe that's correct.

Mr. Barnes said A or B?

Mr. DeLong said it is within the limitations of what exists today.

Mr. Barnes said also you mentioned the railroad infrastructure that exists in that area. Years ago we had tried to work with Norfolk Southern to get them to give up some of that space since they got the intermodal yard at the Airport now. Have we considered revisiting that Mr. Manager to help free up that land for redevelopment? I know it's a very tough conversation to have with Norfolk Southern but have we at least thought to revisit it?

<u>City Manager Ron Carlee</u> said I'm not familiar with anything that we've done most recently. Again the focus has been really working with them on the Blue Line and getting all of those right-of-ways settled. Certainly it's something that we can do.

Assistant City Manager Debra Campbell said just to reinforce what the Manager said we are not able to work out anything with them to date but hopefully...we are not aware of Norfolk Southern changing their minds, giving up any more than they have given up as it relates to the construction of the Blue Line Extension.

Mr. Barnes said would it be advisable Ms. Campbell to revisit that in 2016 do you think?

Ms. Campbell said sure. We're always having conversations with them but it's tough.

Mr. Carlee said I would say from prior experience with railroads you know not watching railroads change in their attitude I think where the opportunities going to occur there is with the completion of the Blue Line and its success and then that's going to change the economics of the land that they hold there and as the economics around their land changes and opportunities present itself for redevelopment I think there's some potential for transforming that area and making it something that connects better with the rest of the corridor.

Councilmember Howard said to me the Applied Innovation district around Northend, the corridor, the area around Northend. Todd, I told Bill this last week is that beyond just the economic development impact that we got from Mr. Gallis we also did a ULI study that talked about the area. The ULI study actually talked about something went beyond just infrastructure improvements. It talked about a whole ecosystem around making the Applied Innovation Corridor around Northend work. To me a I'm a little concerned that everything that we've heard so far, this conversation about the Applied Innovation Corridor sounds just like the other five that we just heard about and this is supposed to be more than that. Examples that come to mind and I wish that Ron Kimble was here. When we went to Barcelona we saw an area called 22@ in Barcelona, it's a whole innovation district. It's actually one of the leading ones in the world that we could learn from. If we look at what Bloomberg did up in New York, they actually did more

of a collaborative approach Mr. Manager where they actually put out an RFP and asked universities to come in and be part of what they're talking about.

Now a lot of that has to do with what industries you would build that ecosystem around and that's why the ULI plan actually took a dive into some of what those could be. Now you listed some of those Todd but I would love to see a process where staff is actually looking at something more innovative to jumpstart this area so we're not talking about building just an urban office park because that's the way it feels right now. Not an Applied Innovation Corridor that will spin off jobs, that will spin off new industries that will make Charlotte separate and apart from a lot of other cities so I would hope going forward that there's a little bit more creativity put on this one and not to approach it just as a district; not to just look for infrastructure. Up in New York they actually put out an RFP and they've put money in and they asked universities to bring ideas from around the world and if I remember right I think its Carnegie. I can't remember what school actually took them up on it but in the ULI plan it talks a lot about how that process could work if we did it here in Charlotte as well. Please approach this with a little bit more creatively Mr. Manager and Todd just like one of the other five areas we're putting money in.

Mr. DeLong said thank you very much. We actually have approached some of those conversations and are continuing those. With the infrastructure we have to start as to set that foundation and creating that place we're working to build upon that as well as the previous plan such as the ULI, the Vision Plan and other plans that have been in place and start building upon those.

Mr. Howard said and I get there's some things like Matheson we need to take care of but those are really more infrastructure needs that we have already. I'm not sure how innovative that makes that area. If it's not something that makes that area more innovative I don't know if we should be spending money on it but I get it. Some of it's going to be on just general infrastructure but I doubt the Matheson bridge unless you're putting some type of new science in there that's going to glow at night or something that's innovative it plays into this conversation at all

Councilmember Smith said Councilman Howard I was going to agree with the Manager. The problem is with the private sector development west of the railroad tracks I really think that connection and I think what Matheson and some of these other areas are doing there's been very little private development or private investment on the west side. I know the Brewery Vault, the old Ruth Building but you hadn't had much. I think a lot of that is going to come when the train lane becomes too valuable and we can help connect the two; the NoDa side and that side so I think a lot of these infrastructure projects are actually going to lay the groundwork and I think it needs to be bigger and bolder with how we recruit people to make that corridor special but I really do think that some of those connections are going to help out tremendously. As you ride up and down the corridor and you have the train tracks on your right it's really tough to navigate both sides and I think to leverage the stations stops and the abundance of urban dwellers that live in NoDa that would likely want to go do something innovative just across the tracks is going to be getting them there. The question I was going to ask I see we've got a fair amount of good public sector investment other than the Brewery and the name right now escapes me, NoDa Brewery; what other type activity have we had over there?

Mr. DeLong said none that have actually been completed but we're in conversations and...

Mr. Smith said a division of interest has about 70, 60 acres tied up over there.

Mr. DeLong said that's correct and there are a few other large landowners who are looking for ways to dispose of their property in terms of putting it into a more economically productive asset so we're continuing in those conversations.

Mr. Smith said I think it's going to come and I agree David it needs to stay bold and we want that corridor to be something special but I think once some infrastructure is in place we can help with some of the connectivity between the two I think the private sector development. I know of another group that's looking over there. It's just that there's not quite the right product or quite the right time yet but as we've seen up north with this rapid development just in the past Councilmember Fallon and I were talking about it, it's just in the past year has been explosive.

Mr. Howard said I think we're saying the same thing. I just wanted to be intentional with the big picture when we start spending and not just kind of grabbing at projects that we've been looking for money for already.

Mr. Smith said I think that Matheson bridge, I've shown real estate, like that to me can really anchor and really be a gateway between NoDa which has got a lot of really good things going on it now and the corridor which we're really hoping will have some good things. I think if it's done right I actually think this is an infrastructure investment that will...

<u>Councilmember Driggs</u> said I was curious to know the stated goal for this particular investment is job creation. Do we have any concept of how many jobs or what we expect to see come from this. Will we be able to look back in a few years' time and say okay we met the goal or we exceeded it? I mean I think there will be improvements that are beneficial but since this is being done under the banner of job creation I just wonder if we have a target.

Mr. DeLong said I wouldn't say we have a target right now but it is something that would continue the conversations of what is the Applied Innovation Corridor or how do we make these investments more intentional through the innovation industry and the innovation economy. That's something we'll definitely want to look into is what is our goal and at the same time not actually attributing other types of jobs to that goal. We want to make sure that our goal is actually for these types of industries, not all jobs, and make sure everything is intentional.

Mr. Driggs said what is your expectation about private sector investment? Like an idea, we've seen for example in other situations \$2 billion dollars of induce investment. Is there a concept like that for this?

Mr. DeLong said I believe Mr. Gallis included the Applied Innovation Corridor but I can't remember or recall the specific number which I'd be happy to get to you.

<u>Councilmember Austin</u> said I guess I am just beginning to kind of look at this from a different perspective. There are a number of neighborhoods and communities within that Applied Innovation Corridor and I think it's a great idea however are we beginning to see the beginning of what might be gentrification of those neighborhoods?

Councilmember Kinsey said over my dead body.

Mr. Austin said exactly, I'm just...like Lockwood and Druid Hills and a number of communities that exist in here. How are we going to safeguard that they don't get wiped out and that's kind of one of my concerns? How are we going to do that because even in Lockwood that's right there on North Tryon Street we're beginning to see some really, really expensive housing right next door and people are already....so great when we do this but then we destroy those communities and then we have another Cherry on our hands; just a comment to throw it out there on the floor and marinate on it.

Ms. Kinsey said thank you very much because that is a concern of mine. Right now is Lockwood they're not tearing down too many houses, the City's talking about tearing down one but they're being renovated and lived in but if we're not careful we are going to have the Hearty Plank Mansions moving in and I would hate to see that. It's a beautiful neighborhood, a couple of wide streets, nice trees but what I really wanted to mention was on this tiny map the 16th Street, project number three that's' 16th Street, that connection is really needed as well over to North Tryon. You almost don't see it now, I take it but unless you know it's there you don't know it's there so you don't use it so that's an important connection too. Project number two, North Tryon Street, I noticed that's from 12th to right before Dalton so that's not really the North Tryon Street Improvement Project that we have talked about, that area right there has huge challenges to development because of the men's shelter and because of the urban ministry. What is that plan for that area? That little green strip right there.

Mr. DeLong said the scope for that particular project hasn't been identified as of yet but right now we're looking to increase the esthetics, try to transfer the perception of safety. Right now there's a negative perception of safety and try to make it a more comfortable convenient, more

inviting place to walk up and down the street and make it a better looking gateway to uptown or if you're coming from uptown a better gateway to the Northend.

Ms. Kinsey said do we have a budget for that yet? This is the first time I've heard about it.

Mr. DeLong said we're looking into those types of things right now and we'll be going over that over the next year or so.

Ms. Kinsey said there is a safety problem there because the people who do walk up and down that area it's back of curbside walk and it's really pretty dangerous because of the high speed of the cars, well they're not speeding but the speed of the cars, well some of them are I guess, I'd like to know more about that.

Mr. Barnes said just to tag onto that there was a project that CDOT was working on farther North towards WSOC and the Amtrak station that involved some realignment of Tryon and adding a service road or two. Is that still in the Works?

Mr. DeLong said yes.

Mr. Barnes said okay good so this is just and addition to that.

Mr. DeLong said yes, that's actually right here.

Councilmember Lyles said I wanted to follow up with Ms. Kinsey and Mr. Austin. I actually think this is an opportunity when we have the discussion about our housing policy. In there, there's a section on land acquisition and opportunities for resale and whatever so if we actually begin to be very deliberate about saving properties for working and affordable housing I think we ought to put that on the list for our discussion. We've done a lot of work in Lockwood and you can see the results. I mean you can really see some of the things happening over there now but to keep it from being where we're experiencing a lot of that, it's going to be much more deliberative on our part I think.

Ms. Kinsey said speaking of Lockwood there was a tree down that we didn't cut. It was across Sylvania. I hope somebody has gotten that by now. I got an email last night it was there for two days. Ms. Wall, if you would check into that I would appreciate it.

Chief Financial Officer Randy Harrington said if I could just add to Mr. DeLong just for a second. One thing just to clarify the three projects that are at least outlined here would not use the full amount of the funding for the Applied Innovation Corridor and that was one of the pieces that was important in some of the staff conversations around this notion of some core basic level infrastructure improvements that are needed in the area and then reserving a significant level of funding so that when we have some of these additional economic opportunities and the partners that we can leverage that. We've got that pull to do that and to bring in the infrastructure that we need for the concepts that are talked about here.

Mr. DeLong said I just want to wrap up; this is my final slide. I just want to basically say that over the next four to six months we'll be coming back to Council to approve some planning and design contract that would further test the feasibility and prioritization of the projects you've heard today.

Assistant City Manager Debra Campbell said just as a reminder again of the information that's included in your packet there is a sheet that is in your community investment, it's a summary of all of the projects. Behind the map is a list of all of the projects and the budget for those projects. There is a line item for Applied Innovation Corridor specifically and then it gives the amounts based upon the different bond referendum cycles. I just wanted to alert you to that information that that information is included in your packet.

<u>Councilmember Driggs</u> said these slide were not included electronically is that right? I got a packet that has other materials but the slides. Can I get these as an electronic document?

Ms. Campbell said absolutely. We will send it out to you just as soon as we finish this presentation. Also, just to note we are obviously recording all of your questions and we'll make sure that we do the follow-up that's needed.

E. Getting Around Projects

Assistant City Manager Debra Campbell said our last section with regards to the Community Investment Plan and the Categories is focused around getting around and we're going to have some Staff from the Charlotte Department of Transportation to talk about this subject matter. We're going to have Dan Gallagher talk about the Cross Charlotte Trail and then we're going to have Johanna Quinn who you probably don't get a whole of exposure too but we're glad she's here tonight to present on the bridges at I-85 as well as some of the transportation projects so I'm going to turn it over to them and let them present.

<u>Dan Gallagher, Transportation</u> said I'm the Transportation Planning Manager for Charlotte DOT and I'll be tag teaming with Johanna Quinn, the Transportation Design Manager for Charlotte Dot. As Debra said this section is entitled getting around it's all about transportation and transportation really is if you think about it it's appropriately titled. Transportation is all about how you get around. We're going to talk about a number of things. It's everything from bike trails to bridges, traffic signals to sidewalks, new roads to school safety zones because in the end how we get around our town relies on each and every one of those items.

i. Cross Charlotte Trail

Dan Gallagher, Transportation said I have the privilege of talking about the Cross Charlotte Trail. I'm very excited about this project. I was with you just a few months ago and we went into great detail about the Cross Charlotte Trail. It's definitely a project that's sort of captured people's imagination and attention and interest. As you know we are working, partnering with Mecklenburg County to try and build a 26 mile seamless trail from basically Pineville through Uptown and out through the UNC Charlotte area. The goal is to completely separate this from automobile traffic and literally connect dozens of destinations and neighborhoods along the way. If you recall we mentioned that this trail will connect almost 100,000 jobs and 80,000 residents across our city; certainly, a transportation option for our community. You've seen this slide before, this is the trail from basically the Pineville area through Center City and out through the University to the Cabarrus County Line. Just a reminder it's being built in segments. Some segments are already in place. We're very fortunate that Mecklenburg County has already put these segments in place. The red segments are what the County is advancing right now and their moving diligently forward on that. Some of this is moving forward very quickly and I'll show you that in a second and then finally the yellow segments are the segments that the City is looking to advance.

As you can see the County and the City are advancing different segments of the trail into design and ultimately towards constructions and some of these segments will be done and moving into construction as early as the end of this year; just in the next few months and some segments in 2016. It's a really exciting time. I wanted to just share with you a little bit about the segment as it moves north out of Center City. The Cross Charlotte Trail or Little Sugar Creek Greenway comes to Parkwood right here and simultaneously we're building the Blue Line Extension right here and probably the first segment in the North that will be built is this Cordelia Park segment that begins to lead into the NoDa area and connects Optimus Park and Villa Heights and Belmont to Center City and to the segment to the South.

We're getting an awful lot of development interest in this area. You're seeing a lot of rezoning's in this area, right in the vicinity of where the Cross Charlotte Trail and the Blue Line Extension and we're working closely with developers to really work through those orientation issues towards the Cross Charlotte Trail as they're developments begin to move forward. A lot's happening with the Cross Charlotte Trail, it's not all going to be built at once. It's going to be built in a whole series of segments. You took a couple of actions just last week to move the Cross Charlotte Trail forward; you advanced the interlocal agreement with Mecklenburg County. You also approved the Developer Agreement for a small portion of the trail in the South. There's going to be lots of little pieces coming before you over the upcoming months and years. In term of future Council actions you're going to see Cordelia Park segment come forward to you;





N

Appendix N – Applied Innovation Corridor Key Messages

What is the Applied Innovation Corridor?

The Applied Innovation Corridor is an area identified in the Center City 2020 Vision Plan for targeted economic growth and industry recruitment to leverage the City's academic and research capital with its business assets.

- The AIC, as stated in the 2020 Vision Plan, begins in South End, extends through Uptown and North End and ultimately linking into the UNC Charlotte main campus.
- Per the 2020 Vision Plan, the North End redevelopment was planned to be a walkable, mixed-use, urban industrial park with distinctive neighborhoods.
- The AIC may comprise a series of "districts" located throughout the corridor where leading-edge companies, research institutions, start-ups, and business incubators are located in dense proximity. The intent of these districts is to facilitate new connections and ideas, accelerate the commercialization of those ideas, and support metropolitan economies by growing jobs in ways that leverage their distinct economic position.
- Industries could include: health care, biosciences, food technology or food hubs, finance, and energy.
 - o Part of being "innovative" is seeking new industries, new ideas, or new services not yet recognized or sought after by other regions.

What are the goals of the Applied Innovation Corridor?

- Create communities that support people, academic research, and companies in their discovery of new products and services.
- These communities, which could form "districts," are physically compact, transit-accessible, and offer mixed-use housing, office and retail uses.
- Attract leading-edge people and companies looking for an urban and compact environment to cluster and connect with start-ups, incubators, and accelerators.

What are the goals of the CIP Applied Innovation Corridor Project Team?

- The AIC Team was formed to identify and prioritize infrastructure projects within the North End area that are intended to meet the goals and objectives of the overall Community Investment Plan to improve connectivity, livability, and job growth in Charlotte.
 - The process to identify and prioritize projects includes an intensive community engagement effort, which comprises stakeholder interviews and community workshops.
- The identified projects will improve connectivity within the North End area and strengthen connections to NoDa and Uptown (increased bike-ped connections, accessibility to future Blue Line, etc.).
- North End's proximity to Uptown and the Blue Line are inherent assets, and these investments intend to capture and improve the urban framework to make this area more attractive to businesses and residents.

How are we defining "innovative uses"?

Innovation in Charlotte takes many forms.

 Established anchor and small start-up technology companies in the corridor are concentrated in Uptown and in University City. The NoDa neighborhood is recognized as an arts district, fostering a creative culture within the community. The South End neighborhood has been on the rise over the past several years fostering new businesses within a mixed-use transit community. Innovation within food-focused industries is on the rise with opportunities to capture this new wave of growth within the North End of the Applied Innovation Corridor.

Additionally, there are long term opportunities to:

- Leverage the well-established commercial banking and finance sectors and growing industry clusters in energy production and infrastructure, biosciences, informatics, health care, and food production/hubs
- Build upon the precedent for successful redevelopment and branding in South End and apply to other parts of the Applied Innovation Corridor
- Link to research and development activities at the main UNCC campus with the future Blue Line light rail connection
- Capitalize on the presence of academic programming and students at the UNCC Uptown facility,
- Use the existing arts, culture, nightlife and other quality of life amenities located in Uptown and the surrounding neighborhoods to attract companies and employees
- Benefit from the availability of underutilized industrial land and space in North End
- Take advantage of current investor and developer interest in North End property
- Leverage potential development to benefit city through increased tax revenues.

What are the strategies needed to attract innovative uses in the area? How can the CIP expenditures be leveraged to establish a foundation to encourage and attract innovative companies to the area?

CIP expenditures alone cannot create, foster, or attract companies within the innovation economy. Strategic deployment of CIP dollars can help set the stage to create an environment or a "place" where people want to live, work, and play. By creating this "improved" urban environment more companies and employees will begin considering the North End as a viable alternative to live and work. The CIP is merely one part of an overall strategy to attract targeted industries to the North End.

The following is a brief list of ways the CIP can be used to help create the necessary urban environment to attract targeted industries.

- The process to prioritize specific CIP projects considers the potential impact on livability, connectivity, and job growth within the North End.
- When feasible, CIP projects will leverage private investment in the area to increase economic opportunities for existing and future residents and businesses.
- Create a sense of place
- Eradicate the "ugliness"
- Increase connectivity

- Connect North End to Uptown and the surrounding areas to fully leverage nearby assets.
- Leverage transit-oriented development (TOD) to foster a unique set of employment opportunities.
- Foster an economic environment to create a jobs-housing balance that not only provides
 employment opportunities for the existing residents but attracts new workers and employers
 from industries within the innovation economy.
- Ensure a variety of neighborhood amenities to support residents and employees.
- Improve the bicycle and pedestrian environment.

What are the challenges in facilitating the growth of innovation in the North End? And how do these differ from other parts of the Corridor?

- Strong and increasing competition in other areas of the metro region.
- Physical barriers:
 - o Brookshire Freeway
 - Rail yards disconnect North End neighborhoods, impedes access to the Blue Line, and limits redevelopment opportunities throughout the North End.
- Loitering and perception of safety in specific areas of the North End. Most prominent of which is along North Tryon just north of Uptown.
- An anchor institution (research university, major health care provider, etc.) is one of the most important features of an innovation district. The North End may be close to Uptown, and many urban features can be created as the market evolves (mixed-use, walkability, urban-nature, etc.), but it lacks an anchor institution that could attract other businesses and industries to "feed" off it.
- The designated area is not physically compact, but there are opportunities to create multiple compact "districts" within the larger Applied Innovation Corridor.
 - These more compact districts are in line with the desires of R&D and start-up companies.
- In its current condition the North End offers minimal opportunities to facilitate the growth and development of an innovation district, but with public investment strategically placed in the community there is significant potential to leverage its assets (transitioning urban neighborhoods, increasing younger and educated population, large industrial buildings looking for new uses, and its proximity to Uptown).

Moving Beyond the CIP

- The CIP alone will not create innovation districts or attract the type of businesses as described in the 2020 Vision Plan or subsequent planning documents.
- Develop economic strategy for the entire Applied Innovation Corridor and assess which locations are in strategically positioned to be redeveloped as compact districts attractive to a variety of start-up and entrepreneurial industries.
 - Assess ability to attract major institutional user (e.g. university or medical component)





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