

E JOHN STREET
OUTER LOOP AREA
SMALL AREA PLAN
DRAFT

INTRODUCTION

The land area around E John Street, south of I-485 and extending up to the CSX rail line, is one of the last large mostly-vacant sectors within the Town of Matthews. In the near future, this property is expected to become prime for development as E John Street/Old Monroe Rd is improved and widened. Planning the future conceptual build-out of this area therefore must be strategic and intentional. This study builds on the recommendations and strategies for this sector set forth in Chapter 4 of the Land Use Plan. This plan will create a vision for appropriate density of development for the study area and will provide recommendations for implementing the vision. This plan also identifies unique opportunities for development here due to the proximity to established neighborhoods, Central Piedmont Community College, the Mecklenburg County Sportsplex, and the future Entertainment District.



The E John Street: Outer Loop Small Area Plan was born out of the E John/Old Monroe Rd widening project. NCDOT intends to widen E John Street from Downtown Matthews to the Mecklenburg-Union County line where the street name changes to Old Monroe Rd as the widening continues to Wesley Chapel-Stouts Road in Indian Trail between the years 2022 and 2024. The Town recognized the need for a more detailed vision of this corridor and its adjacent land area with the impending road project and sought out input from the public and community stakeholders to establish this vision.

On December 1, 2015, a public input session was held at Town Hall, where community members provided their feedback. The vision for the area began unfolding as citizens viewed options of different forms of residential, commercial, and industrial development, as well as various modes of transportation, and possible build-outs of the area. Participants and area residents were also asked to complete an online survey during the month of December which gauged individual preferences on potential styles and densities of development in the area.

As a result of the December 1st session, a community stakeholders committee was formed. The stakeholders met on January 28, 2016 to discuss the results from the public input session and the survey, and discussed the merits of varying development opportunities. [Stakeholders will meet three more times during the course of the study to consider Guiding Principles unique to this area and to evaluate the benefits and limitations of multiple build-out scenarios.]

[As a result of the stakeholders' efforts, a set of guiding principles were established that set the direction for the planning process and provide a framework for the plan preparation and recommendations.]

[The E John Street: Outer Loop Small Area Plan provides recommendations for development along with one or more desired build-out scenarios. A complimentary mix of land uses are shown in the plan consistent with the vision for the sector. Urban design principles play a significant role in the development of the plan and are important in achieving the vision. Taking advantage of the land's unique proximity to existing development and transportation networks favor this site to become a distinctive destination within the Town of Matthews.]

Below are the guiding principles, as defined in the planning process, which describe the primary intentions of the E John Street: Outer Loop Small Area Plan.

General Principles

- Create a cohesive vision for all land parcels throughout the study area boundaries.
- Recognize the properties adjacent to E John Street backing up to existing single family neighborhoods need to take extra care to adequately protect and buffer those existing developed sites.
- Involve affected stakeholders and citizens.
- Recognize new development within this study area will require significant expansion and improvement of public utilities and the public street network.
- Continue to build upon the recommendations of the Land Use Plan and other adopted plans and policies.
- Ensure any new development proposals are consistent with adopted policies and zoning actions.
- Incorporate walkability and transit-supportive design.

Specific Principles

- Identify a mix of land uses within the study area that are consistent with the vision.
- Emphasize pedestrian-friendly design and urban scale form of development as the vision calls for them.
- Create land development strategies that promote the use of alternate travel modes including pedestrians, bicycles and public transportation via development design standards and public infrastructure.
- Recognize the impact new driveway access points may cause as new development occurs on a parcel-by-parcel basis, so that long-term viability of the street network remains safe and allows traffic to flow at an appropriate pace.
- Consider unique uses and development layouts to create desirable new destinations and points of interest within the study area.
- Provide strategies that will promote sustainable development and not reduce the integrity of existing surrounding development.
- Protect and preserve large, healthy tree specimen during the initial site design process, both individually located and groves of trees where they can serve as buffers and screens between uses or against vehicular use areas.

The E John Street Study area encompasses over 280 acres of underdeveloped land. It is bordered by Brightmoore and Matthews Plantation subdivisions to the southwest and the CSX railroad line to the northeast. This area is predominately zoned residential R-12.

The average total property value per acre of land in this area is approximately \$377,000 when factoring in building, land, and feature value. The median home value in this area is \$50,800 and median value for land is \$111,250. There are five properties in this area whose value surpasses \$1,000,000: two properties owned by Duke Power Company to transport and process electricity and zoned as R-12, one property owned by LLC Withrow Ventures-Monroe Road designated as a Forested-Commercial Production area and zoned as R-20, one property owned by Lester And Mary Yandle, LLC designated as a woodland area and zoned as R-12, and one property owned by Mulvaney Group LTD and zoned as R-12 Single Family Residential.

In terms of zoning, most of the target area is zoned as R-12 with only a handful of properties being zoned as R-20 or I-1 (C-D). Total property value per acre varies significantly due to structures on the property and many other factors.

Below is a table evaluating properties within the focus area and their land values. Please note that these properties are not uniform in size and shape, land use, and development. Based on the information in the table, there are many lower priced properties within the focus site. However, there are several properties within the focus area that are valued at \$500,000+. Many of the properties valued at \$500,000+ are large tracts of land or are being used by Duke Energy and are unlikely to be altered with any development plan.

Land Value	Number of Properties
\$0-\$100,000	26
\$100,001-\$200,000	11
\$200,001-\$300,000	9
\$300,001-\$400,000	0
\$400,001-\$500,000	1
\$500,000+	9

Table XX evaluates buildings on properties within the focus area and building values. Based on the information in the table, many of the properties within the focus area are unimproved, with less than half of the properties having structures on them. The buildings that are in the focus site seem to be fairly uniform in value with only a handful of properties being valued less than \$40,000 or more than \$120,000.

Building Value	Number of Properties
N/A-No Building	34
\$0-\$40,000	4
\$40,001-\$80,000	8
\$80,001-\$120,000	8
\$120,000+	2

DRAFT

The Town of Matthews has seen a robust amount of development in recent years and has crossed the population threshold of 30,000 citizens. With growth on the rise, the Town has acted progressively in drafting plans to ensure that quality land uses are designated in areas that are soon to be ripe for development. The land area adjacent to E John Street is over 280 acres of largely undeveloped or underdeveloped property. Lack of utility connection in this area has hindered development along with the location of the Duke Energy Substation and transmission lines.

Due to the amount of acreage covered in this small area plan, it is necessary to have a diverse mix of land uses represented. Below listed are the mix of uses that should occur within the study area. The initial development that occurs in the study area will likely be the defining development and subsequent development after that will have a similar or complementing flavor. Therefore, the plan must clearly state the vision for desired outcomes in the area. While this plan does not designate existing zoning categories to the study area, it designates property to certain land use designations by creating focus areas. The focus areas are intended to give direction to future development, and not have the stringent limitations as a zoning classification. The below descriptions give examples of each type of development that may occur. A majority of the land use designations in the build-out scenario have a mixed use component, meaning land areas are given a primary development focus such as retail, office, daily services, production or residential, but can feature a mix of other uses.

Insert Graphics of land use examples

Office - architects, accountants, engineers, real estate agents, doctors, dentists, investment agencies, lawyers.

Restaurant - An establishment designed for the preparation, serving, and consumption of food and/ or beverages. There can be drive-through, drive-in, and sidewalk dining and carryout services.

Retail - grocery store, department store, clothing store, shoe store, craft shop, nursery

Daily Services- gas station/convenience store, coffee shop, dry cleaners, daycare, pet boarding, barber shop/beauty salon.

Civic Uses- Development which could include offices, libraries, playgrounds, community centers, assembly halls, police stations, and fire stations.

Office/Warehouse- Storage and distribution of manufactured products, supplies and equipment

Office/Production & Distribution- Light manufacturing and offices close to good transportation access which may include road and rail.

Office Park/Complex- A planned development with several office buildings with supportive uses. Special attention made to circulation, parking, aesthetics and compatibility.

Apartment/Condo Buildings- Single unit within a multi-unit structure that may or may not have separate ownership with common areas.

Townhomes- Single-family dwelling unit attached by one or more common walls with a private entrance.

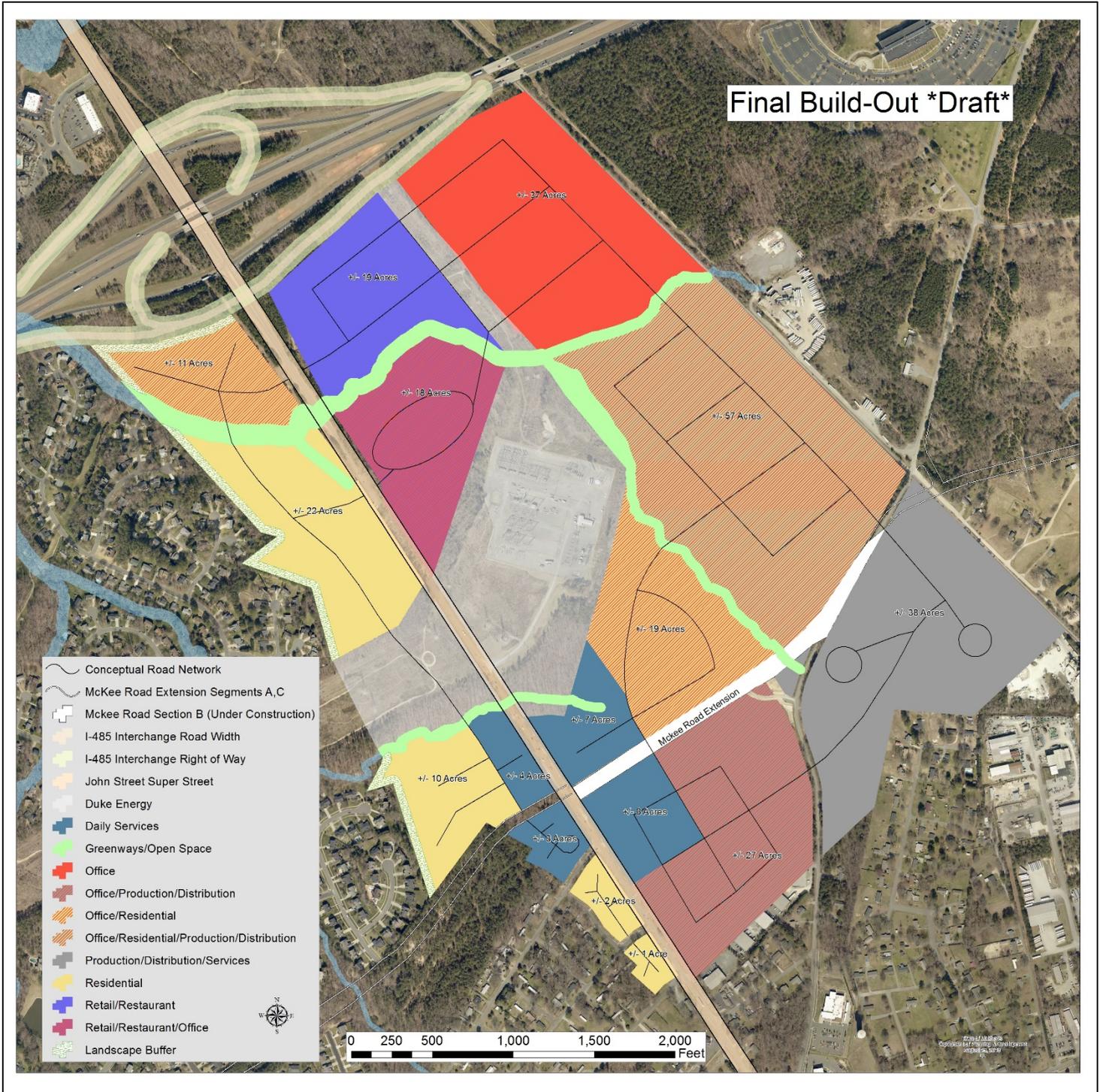
Cottage Clusters- grouping of small, single family dwelling units clustered around a common area and developed with a coherent plan for entire site.

Single-family detached- Single-family dwelling unit completely surrounded by permanent open space.

The land use designations shown in the build-out below are mindful that transition from one development to another is not stark, but rather transitions slowly over land area. The build-out reflects this notion and shows development transitioning smoothly between uses across the study area. Not only does the build-out effectively blend uses, the designations are strategically placed in the study area. Less intensive uses such as, residential and office, are placed along the south side of E John Street sensitive of the adjacent neighborhoods. Frontage along the north side of E John Street is to be reserved for more intensive restaurant, retail, and daily service usage. The land use areas bordering the CSX rail line are designated for the greatest variety of uses. Along Interstate 485 and the railroad, land is selected for office use. Office use is preferred here due to development being tolerable of the constant noise of highway traffic and passing trains. The largest tract of land located centrally along the railroad track was given largest mix of designations due to its location in the study area. It is sandwiched between office, residential, and production uses, so naturally its designation would be a hybrid of the three. Along the railroad at the Mecklenburg/Union County line production and distribution services was designated to the 38 acre tract of land. This property borders industrial uses in Union county along with the CSX rail line which makes it optimal for production and warehouse facilities. This area also has potential to utilize the rail line to transport goods to and from the property.

With the Mckee Road extension crossing the E John Street and passing through the study area, staff saw potential for a daily services node to be created on all four corners of the intersection. With heavy commuter traffic anticipated on both thoroughfares a node to service daily needs is ideal.

Below is the preferred build-out for the study area



The E John Street Corridor is one of the last undeveloped large tracts of land in Matthews, therefore an area plan is necessary to ensure that future development betters the Matthews community. It was determined early on in the planning process that creating a unique destination in the study area was a priority. A destination can be defined as a place where people will make a special trip to visit. Due to the proximity to two major thrufares, E John Street and Interstate 485, the study area is prime location for unique development. Destinations are achieved by bringing in development that is one of a kind and registers as an asset and a defining piece of the greater Matthews community.

Through several stakeholder meetings and public input sessions staff gathered input and determined appropriate types of destinations that could be located in the study area. These destinations are highly preferred if an opportunity arises for development to take place in the study area. Destinations include but are not limited to: medical/scientific research park, business incubator or entraprenuer startup facility, arts village, vineyard and winery, mixed-use retail facility, botanical garden, or nature preserve.

Arts Village or Vineyard Graphic

Place-making is an important part of the urban environment as well and is a priority for development that occurs in the study area. The importance of placemaking is dire as it creates identity and atmosphere in the community that people value. Placemaking should be achieved through a combination of elements including public art, quality architectural building design, public opean space, and landscaping.

Public Art or civic art should be considered in the early stages of planning any development. Not every site may be appropriate to showase a piece of art, but should certainly integrated into the overall design of a development. Art should be comprised of durable material/materials that can withstand extreme weather conditions.

Public Art Graphic

Architectural building design: buildings should have quality design elements and be in harmony with the look and feel of Matthews. Materials and styles used should be similar to those found in Matthews.

Public open Space: Not built upon land is equally as important in placemaking as the developed portion. Open space should be found throughout development and be integrated into the design. Open space should be utilized between buildings for parklets, interesting gathering spaces, or otherwise be preserved for natural habitat.

TBD

There is a relatively small number of public streets within the study area, and they are maintained by the state rather than by the Town of Matthews. They include:

- E John Street – bisects the area from I-485 to the Mecklenburg/Union County line
- McKee Road – a new segment, referred to as McKee Rd Segment B, was built and opened during the time this study was being conducted
- Campus Ridge Road – this roadway angles through the study area, coming from Stallings at the Mecklenburg-Union County line and exiting at the CSX railroad headed toward CPCC Levine campus
- Morningwood Drive – within Eastwood Forest, a small residential neighborhood straddling the County line, now being used as a primary cut-through street from Pleasant Plains Road to E John Street
- Forestmont Drive – within Eastwood Forest, intersecting E John Street
- Friendship Drive – within Eastwood Forest, intersecting E John St at the County line

Table of traffic counts for the various roads

Road	Average Daily Traffic	As of (Date)
E John Street		
Campus Ridge Road		
Morningwood Drive		
(any others have data?)		

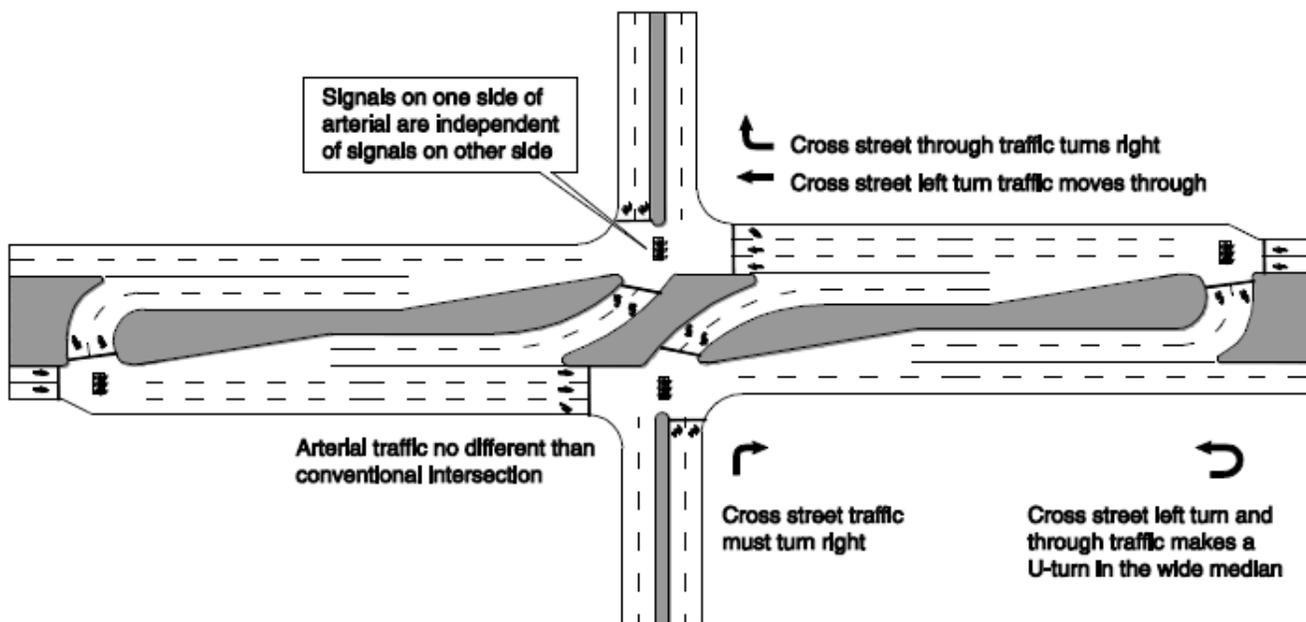
There is also an unnamed “30’ street” extending between Campus Ridge Road and the eastern boundary of the Duke Energy substation. ???????

One private property has a private driveway that connects between E John Street and Campus Ridge Road, which customers may use. It is not a public access road, and should not be used by the general public.

At this time, there are short pieces of no-longer-needed right-of-way that were part of former travel patterns before the new segment of McKee Rd was built. NCDOT may in the future decide to abandon these portions, and turn them over to adjacent property owners. This is not an automatic action, and no timing has been announced for this.

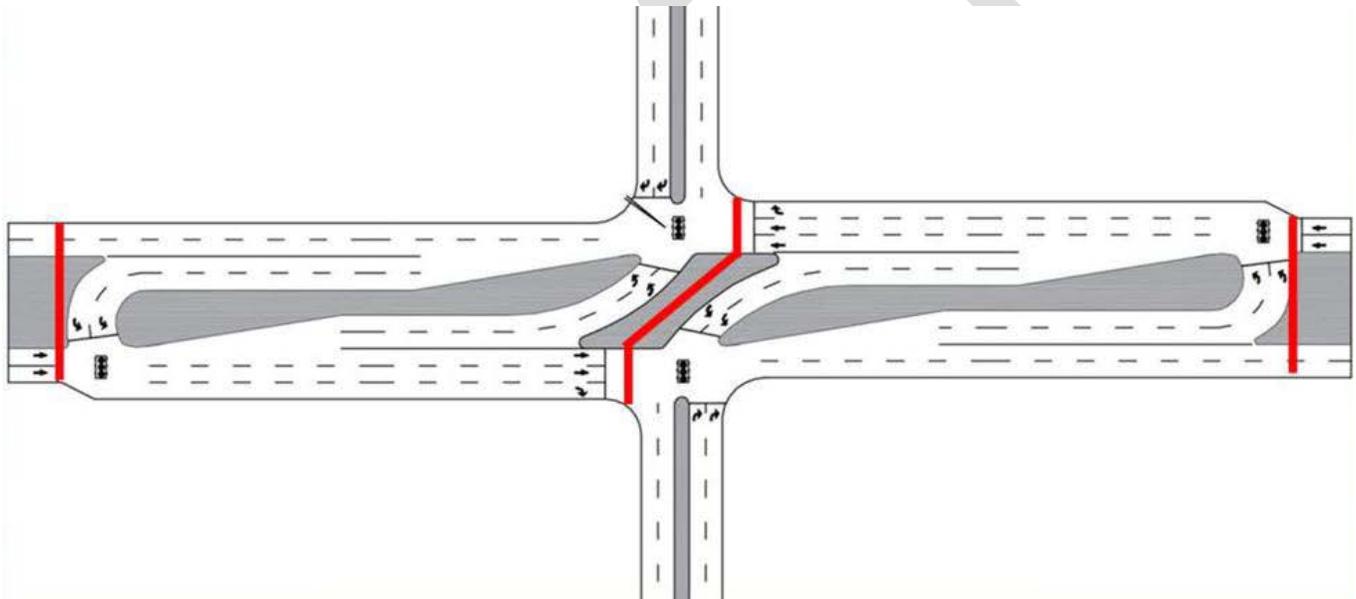
E John Street is part of U-4714, an NCDOT road widening project scheduled for additional right-of-way acquisition in 2020 and start of construction in 2022. The expected design will be two through lanes in both directions separated by a center planted median. A 5' sidewalk will be located for the full length on one side, while a 10' multi use path will be constructed on the other. This will be a "superstreet" design, which precludes left-turning movements at intersections, and replaces them with U-turn pavements across the grass median beyond certain cross streets to reduce the number of vehicle stopping points for through traffic. This means that any new streets or driveways created to connect to E John St will primarily have only right-in/right-out traffic movements. Some locations may become eligible, on a case-by-case basis, to have a left-turn lane created across the center median into the new side street or driveway.

This illustration shows the typical traffic flow on a superstreet.



The superstreet concept reduces or eliminates most traffic signals, and therefore this street widening project is being designed to allow for traffic on E John Street to proceed at ___ MPH. Pedestrians and bicyclists will therefore need safe opportunities to cross E John Street. Designated crossing locations have not at this time been determined, since there is little development in place today on either side. Pedestrian cross walks may be located near vehicular left-turn/U-turn breaks in the center median, which would allow those not in a motorized vehicle to only cross traffic coming from one direction at a time. Pedestrians and bicyclists would have a center median protected refuge area where they can wait for traffic to clear before continuing on the second half of their street crossing travel pathway.

This illustration shows how a pedestrian/bicycle crossing location can be incorporated into a super street design.



It is anticipated that McKee Rd Segment A may be built within the next decade, if it receives sufficient points from local and state transportation sectors. Like the Segment B just completed, it will initially be constructed with a single through travel lane in each direction, although it may be expanded to multiple lanes in future years. Once built, it will create a four-legged intersection of two major thoroughfares. The superstreet design for E John St does not include improvements for straight-through and left-turning movements for this fourth leg at this time, since funding has not yet been secured. Preliminary design work has been done to assure future revisions for this new traffic generation point, but it is not known at this time exactly how or where further right-of-way or pavement will be needed to accommodate full directional

movement for the new intersection.

This illustration shows where McKee Road Segment A will connect to E John Street.

map

Longer-term future planning indicates McKee Road Segment C will deviate from the existing Campus Ridge Road pavement to cross over the CSX railroad slightly to the southeast, and then continue beyond the study area as it heads toward US74 and into Union County. It is not known at this time whether the new crossing will be at grade or required to be raised to allow traffic to be separated from trains by going over the rail line.

This illustration shows Segments A, B, and C for McKee Road.

map

If E John Street is widened into a superstreet before McKee Road Segment A is built, it will disrupt existing travel patterns for many drivers in the area that now use Morningwood Drive between Pleasant Plains Road and E John Street. Since most vehicles use this as a cut-through to I-485 or toward Charlotte, they must turn left onto E John Street today. When the superstreet design is built, there will no longer be the opportunity for left turns here. Traffic using this route today may turn right to travel [into Union County before making a U-turn](#), or those vehicles will utilize Potter Road to the southeast, or they will stay on Pleasant Plains Road toward downtown Matthews. Once McKee Road Segment A is built and open for use, it should take the bulk of current cut-through traffic on Morningwood Drive.

As new development takes place on property on both sides of E John Street, there will be increased demand to provide safe pedestrian and bicycle access along this spine roadway. In addition to the sidewalk and multi use path that will parallel and run beside traffic on E John St, there is a need and expectation that internal multi use paths should be constructed to allow easy non-vehicular movement through all new development sites. Ideally, new individual buildings will be constructed within overall “mini-master” concepts of build-out such that sidewalk and multi use path connections will be well-coordinated.

Here is an example of a “mini-master” build out plan.

Illustration

Vehicles will also need new travel lanes to access new development sites. When three build out scenarios were shown to stakeholders and the public during this study process (see pages ____), each one showed a somewhat different general street network layout. The intent was to illustrate there are many possibilities in designing internal street access. New street connections or driveways to E John Street should be limited since only right-in/right-out movements will be possible. Driveway and street connections to E John Street therefore should be carefully planned to best coordinate their locations for new development sites that will make use of them. For those development sites closest to the future McKee Road/E John Street intersection, primary street connections should be directed to McKee Road, as it may not have as much restriction on turning movements

Discussions should begin with Duke Energy to determine that company's preferences on any vehicular and non-vehicular connections across their property edges at the substation, and across their easements for transmission towers on the southwest side of E John Street. Creating these internal pathways will reduce the need for street connections out to E John between the clusters of new development on each side of the spine road. The build out scenarios showed examples of how and where new green spaces and trails could be accommodated to allow good connectivity within the overall study area.

Because E John Street will have a center median, new streets may not necessarily need to have their center lines match directly when on opposite sides of E John Street. If there is any expectation of being given a left-over entrance from E John Street, however, then the new streets on opposite sides will need to be designed to match the same as if there was no center median.

For the portion of E John Street closest to I-485, NCDOT will maintain a certain distance where new connections are prohibited. This is necessary because there will be traffic signals at the ramps on and off I-485, which may result in some stacking of traffic when the signal is red, and will create more weaving movements on E John Street for traffic entering or exiting the ramps. Adding extra turning, slowing, or accelerating traffic at these points is not allowed for safety purposes.

Charlotte Water (formerly Charlotte-Mecklenburg Utility Department) is the primary provider of public potable water and sanitary sewer. The larger residential lots currently have private well and septic systems. The smaller properties are serviced by public sewer and either private wells or Union County Public Water. A large portion of the northeast side of E John Street is not yet developed and therefore there is no public water or sewer system in place.

Charlotte Water provides sewer to the Eastwood Forest Subdivision via an 8" main. The sewer line increases in size to 12" as it moves north (downstream in Brightmoor Subdivision) towards NC 485 where it discharges into a 16" main that crosses under the highway.

Charlotte Water has a Donated Projects program for the extension of both water and sewer mains, which are available to new developments. There is a sewer main servicing Central Piedmont Community College (CPCC) Levine Campus outside the study area. However, CSX railroad rail line is boarders the study area and would make it impossible to access for extensions within the study area.

Charlotte Water forecast installation of **infrastructure in 2050. *Waiting to hear back from them***

The study area is served by overhead transmission lines consisting of power, cable and phone. Above ground poles run along both sides of E John Street. Additional, Duke Energy has a transfer station within the study area. Any new development and redevelopment should bury the utilities in order to allow for street trees and a more scenic view.

Any new development within the area would be required to meet storm sewer regulations. There are many options available to develops to incorporate the storm sewer as a feature or seen as amenity to the overall development site.

E JOHN STREET SMALL AREA PLAN UTILITIES ACTION ITEMS

1. Utilities should be buried for all new development and redevelopment
2. Any sidewalk or street construction activity should be reviewed to include taking existing overhead lines underground
3. Developers need to work together in order to install sufficient infrastructure in order to service potential growth for their facility as well as future developments.

NATURAL RESOURCES & OPEN SPACE

Map of flood plain/SWIM buffers and/or map of greenways

STRATEGIES

TBD

DRAFT