Existing Conditions Memo: Downtown Greenville, SC

Downtown Transportation Master Plan

Greenville, SC

October 14, 2019

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Project Statement

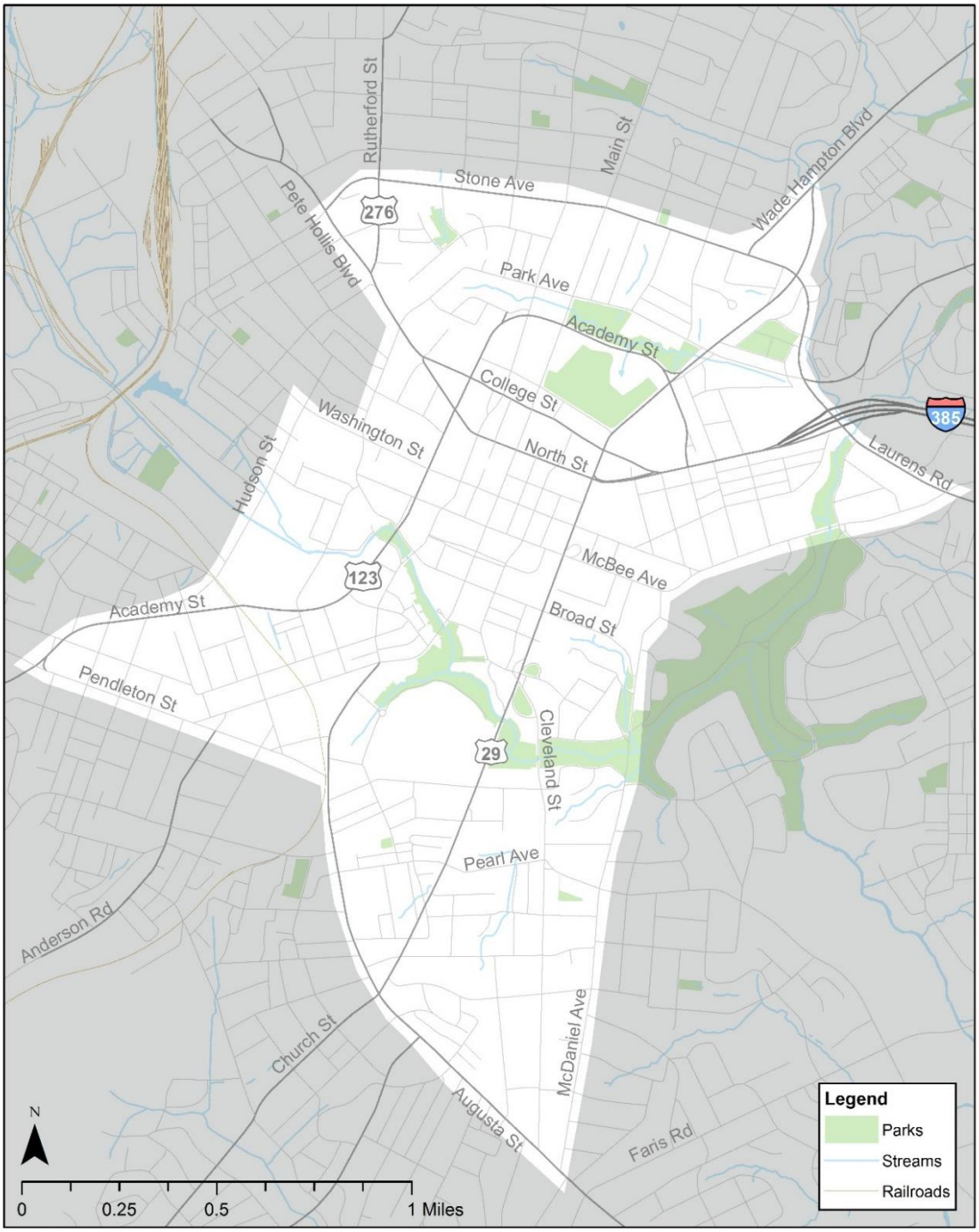
The City of Greenville has experienced significant growth in its downtown core, in the form of residential, commercial, and recreational land uses, since the City's most recent Downtown Transportation Master Plan was conducted in 1999. The 2019 Downtown Transportation Master Plan incorporates and supplements the recently adopted Downtown Strategic Master Plan, specifically to re-evaluate conditions in the city's Central Business District (CBD) with respect to recent and anticipated future growth, changes in land use and associated traffic patterns, and new technology. The 2019 Downtown Transportation Master Plan develops a short- and long-term strategy for approaching transportation improvements that will benefit traffic flow, congestion, safety, and alternative modes of travel.

The findings of this planning effort will be used to develop a prioritized list of improvement projects representing both motorized vehicle and alternative mode travel for the downtown core of the City. The document will be used in future efforts to help secure funding support from the local Metropolitan Planning Organization (MPO) known as the Greenville Pickens Area Transportation Study (GPATS) by providing a prioritized list of projects for evaluation and incorporation into future Long Range Transportation Planning (LRTP) efforts.

Study Area

The study area for the Downtown Transportation Master Plan is shown in **Figure 1**. It extends from Stone Avenue on the north end to Pendleton Street/Augusta Street on the south end. On the west, the study area is bounded by Academy Street, Hudson Street, Butler Avenue, and Pete Hollis Boulevard. The eastern boundary includes McDaniel Avenue and Washington Street.

Figure 1: Study Area



Relevant Plans and Projects

The Downtown Transportation Master Plan follows and builds upon a series of plans for Greenville developed over the past two decades, including alternative transportation mode studies and comprehensive planning efforts. The concepts from these documents have been considered and evaluated, and summaries of several of the key documents are provided below.

GPATS Horizon2040 Long Range Transportation Plan, 2019, GPATS

This federally mandated plan outlines an ongoing strategy for addressing needs in the Greenville-Pickens Region's transportation system, with the purpose of identifying short-term and long-term projects that can be implemented through the year 2040 to promote a connected system. The prioritization process that is used to score and rank potential projects is set forth using guidelines from FHWA. The process also satisfies the region's Congestion Management Process (CMP) initiatives and regional goals set forth in the Long Range Transportation Plan (LRTP) document. Highly ranked projects that make up the LRTP Project List are eligible to receive state and federal funding allocated through the MPO.

Greenlink 2020–2024 Transit Development Plan, 2018, Greenville Transit Authority

This planning document by the Greenville Transit Authority outlines immediate (2020-2024), short-term (2025-2029), and long-term (after 2029) plans for the development of the regional public transportation system. The immediate plan calls for service improvements, including expanded fixed-route networks and frequencies as well as expanded paratransit services. New capital projects proposed for the immediate future include a new maintenance facility and new vehicles that will allow for service expansion.

Greenville Downtown Plan Market Analysis, 2018, City of Greenville

This economic analysis examines and projects population growth and development in downtown Greenville. The report anticipates the need for quality-of-life investments to make downtown desirable for prospective residents and businesses.

Greenlink Comprehensive Operations Analysis, 2017, Greenlink

This report analyzes the economic and logistic performance of the Greenville bus network, Greenlink. It identifies the need for higher-density development in and around Greenville's downtown core to support the transit system. The document also proposes revising the bus network to increase ridership while keeping downtown at the center of the system.

Greenville West Side Comprehensive Plan, 2014, City of Greenville

This plan outlines long-term community development in neighborhoods immediately west of downtown Greenville. It proposes a series of public and private investments to improve quality-of-life and promote economic equity, including the creation of Complete Streets along major thoroughfares (Academy Street, Pete Hollis Boulevard) and a new Bus Rapid Transit (BRT) connection into downtown via Washington Street.

Greenlink 2011–2016 Transportation Development Plan, 2011, Greenville Transit Authority

This five-year plan identifies necessary investments in the Greenville transit network. It proposes extending and boosting service along existing bus lines that feed into downtown, and examines the feasibility of a downtown trolley line.

City of Greenville Bicycle Master Plan, 2011, City of Greenville

This study envisions a 140-mile on-street bikeway system covering the entirety of Greenville. The report identifies downtown as the most bikeable area in Greenville and proposes new on-street facilities on the district's main thoroughfares, bike stations, and a bike share/rental program.

Greenlink Transit Vision and Master Plan, 2010, Greenville Transit Authority

Broader in scope than the aforementioned transit development plans, this report examines the relationship between land use and transit viability in Greenville and makes a series of project proposals. Downtown is identified as the center of the transit network; the report calls for mixed-use development in downtown, a Downtown Trolley, express service to the suburbs, and new Bus Rapid Transit service into downtown.

City of Greenville Downtown Streetscape Master Plan, 2010, City of Greenville

This plan envisions strategies for redesigning the downtown streets to better accommodate new development and alternative transportation modes. It outlines a set of streetscape typologies to be implemented along 13 specific downtown corridors to best fit the environmental, cultural, social, and economic influences on each street. The plan specifically addresses the Academy Street and Church Street corridors, as well as the one-way pair of Beattie Place and North Street and proposes using one lane on Beattie Place to create a shared multi-modal space it names the "Cultural Corridor."

Greenville Comprehensive Plan, 2009, City of Greenville

This plan examines a variety of methods to improve quality of life and economic potential across Greenville. The report identifies downtown as a multi-modal center in need of strong transit connections, pedestrian infrastructure, and reduced surface parking.

Downtown Greenville Master Plan, 2008, City of Greenville

This document presents strategies for long-term development in downtown Greenville. It proposes strengthening downtown's position as a multi-modal transportation hub and expanding on Main Street's strengths by improving pedestrian accessibility throughout the street grid. The plan proposes a "Five Corners" framework to encourage development in underutilized areas at the periphery of downtown.

Trails and Greenways Master Plan, 2007, Greenville Parks and Recreation Department

This plan envisions a safe and interconnected city-wide network of trail facilities, linking people with destinations. The proposed network converges on the downtown area, where many of the trails convert to street-based trails or on-road routes to preserve network connectivity where off-

road trails are not feasible. These facilities include sidewalks, sidepaths, and on-street bicycle lanes. Streets included in the proposed network include Park Avenue, Washington Street, McBee Avenue, and Broad Street.

Downtown Greenville Master Plan, 1999, City of Greenville

This report examines and proposes a variety of transportation improvements in downtown, including street network modifications to reduce spot congestion, parking supply, additional transit service, and expanding the pedestrian-friendly environment beyond Main Street.

Key Points of Past Studies

Several major themes have continued to appear throughout all of these prior studies indicating that Greenville has a clear vision for the future and has, over the past twenty years, made strides toward accomplishing goals that serve that vision. Some of the recurring themes, with regards to the transportation system include; expansion and improved connectivity of the bicycle and pedestrian networks, provision of a variety of transportation options and linkages between them, and promotion of the downtown area as the multi-modal transportation hub for the City.

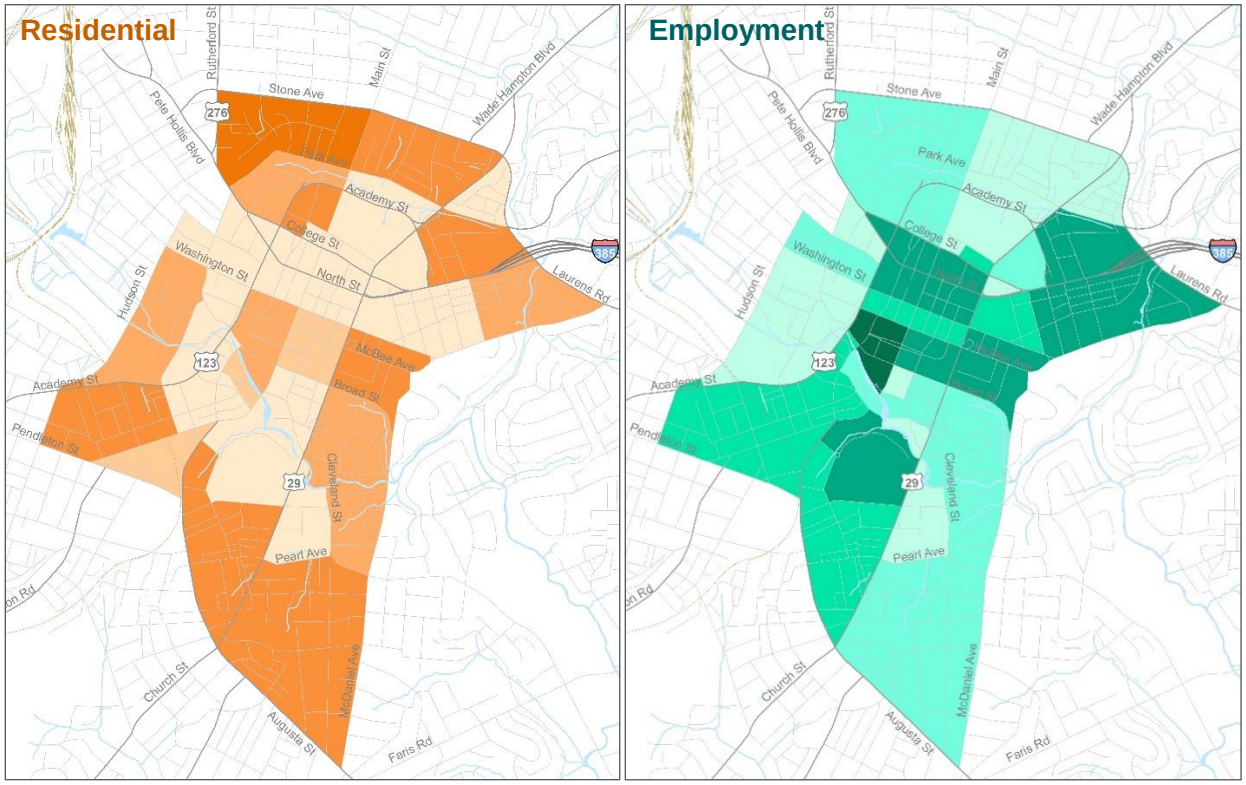
Recently Completed and Future Studies

Running in parallel to this Downtown Transportation Master Plan Update, the City recently completed its Downtown Strategic Master Plan, to provide a plan for and prioritize downtown's investment in future development, with City Council formally adopting the plan on August 26, 2019. Additionally, the City's Comprehensive Plan, called GVL2040, an effort to develop a plan to shape the vision and to guide decision-making in the City over the next 20 years and beyond, is ongoing with an anticipated adoption of winter 2020. The Downtown Strategic Plan, the Downtown Transportation Master Plan, and the City's Comprehensive Plan address some common components. The project teams for the three studies have coordinated and shared relevant information throughout the study process.

Land Use

Like most downtown areas, the Greenville study area is made up of many land uses from residential, to employment areas, to open space and parks. **Figure 2** displays the relative densities of residents and employees indicating where most people live and work within the study area. Darker areas reflect higher density areas while lighter areas show lower density. The majority of residents appear to live closer to the periphery of the study area, with a band through the center, south of Washington Street. Employment appears to be heaviest in the central part of the study area, as well as on the east end near I-385.

Figure 2: Current Downtown Land Use (2015)



Between 2010 and 2015 the study area experienced some fairly significant growth. Employment within the downtown area rose from 20,300 jobs to 32,000 jobs, a 57% increase over 5 years[1]. Residential growth occurred as well, although not as dramatically; the number of downtown residents increased from 6,580 to 6,755 (about 3%)[2].

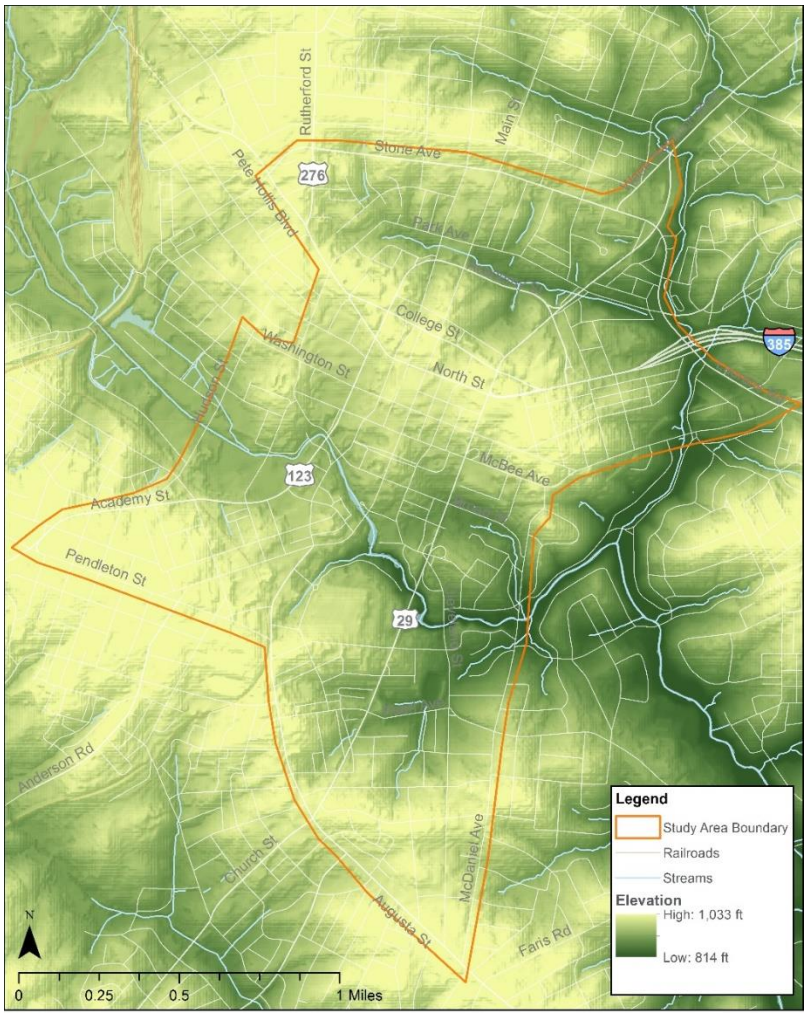
Due to this growth, along with anticipated future growth, the main purpose of this Downtown Transportation Master Plan is to create a “snapshot” of the City’s Central Business District (CBD), documenting the existing conditions of the downtown transportation system, and then identify what may be needed to better accommodate both the current and future residents and employees of downtown Greenville.

[1] Longitudinal Employer-Household Dynamics (LEHD), OnTheMap Data
[2] American Community Survey, 5-Year Estimates

Topography

The natural terrain of downtown Greenville is one characterized by rolling terrain and natural barriers. The Reedy River runs east-west through the southern part of downtown and opportunities to cross it are limited to US 123/Academy Street, River Street, South Main Street, US 29/Church Street, Cleveland Street, and McDaniel Avenue. Due to this, these roads have become common routes for people traveling into and out of the city. US 123 and US 29 are built to handle high volumes of traffic, but roads like Cleveland Street and McDaniel Avenue are residential and are less ideal for commuting traffic. The rolling terrain also presents challenges to mobility. The topography of the study area is represented in **Figure 3**. As seen, there are many roads built upon natural, or man-made ridges, with steep slopes on one or both sides, which can limit construction efforts. Also, much of Greenville's downtown road network is a grid system, but several grade-separated crossings limit connectivity opportunities.

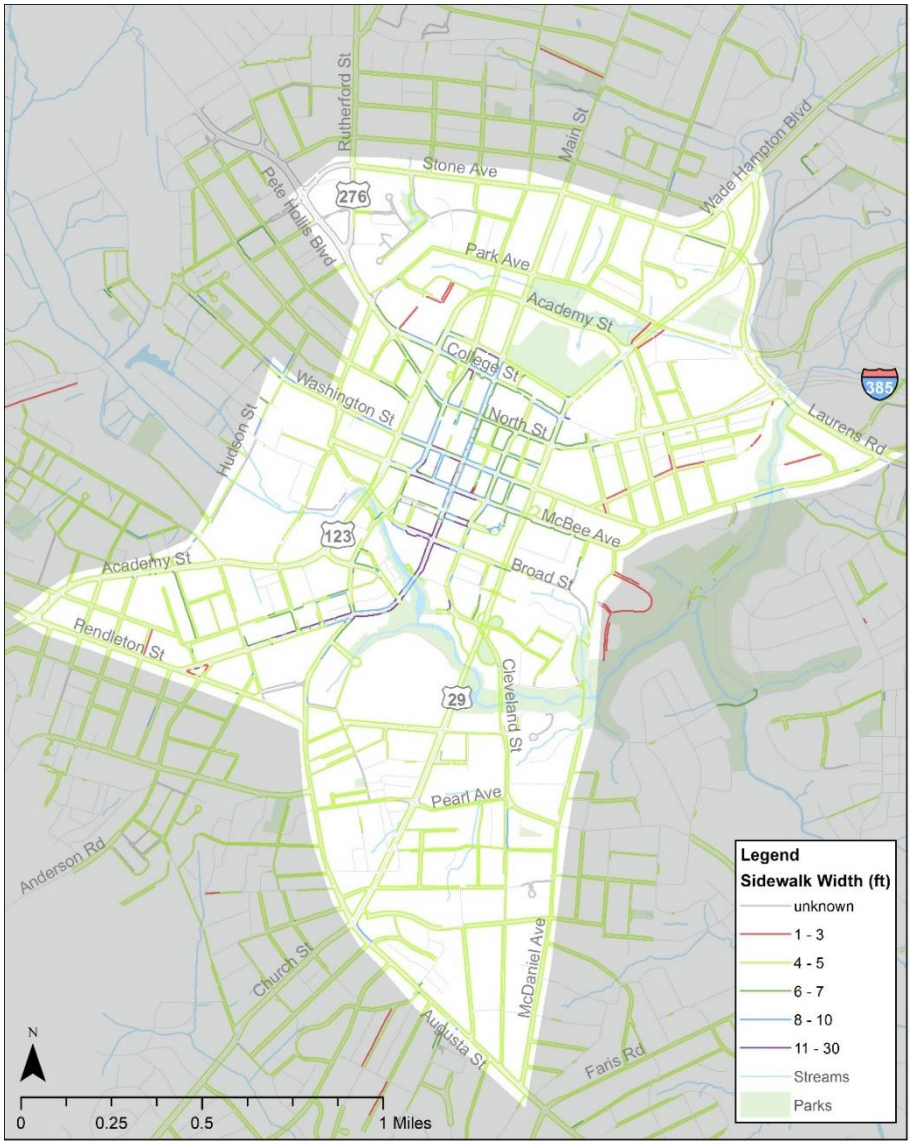
Figure 3: Topography



Pedestrian Facilities

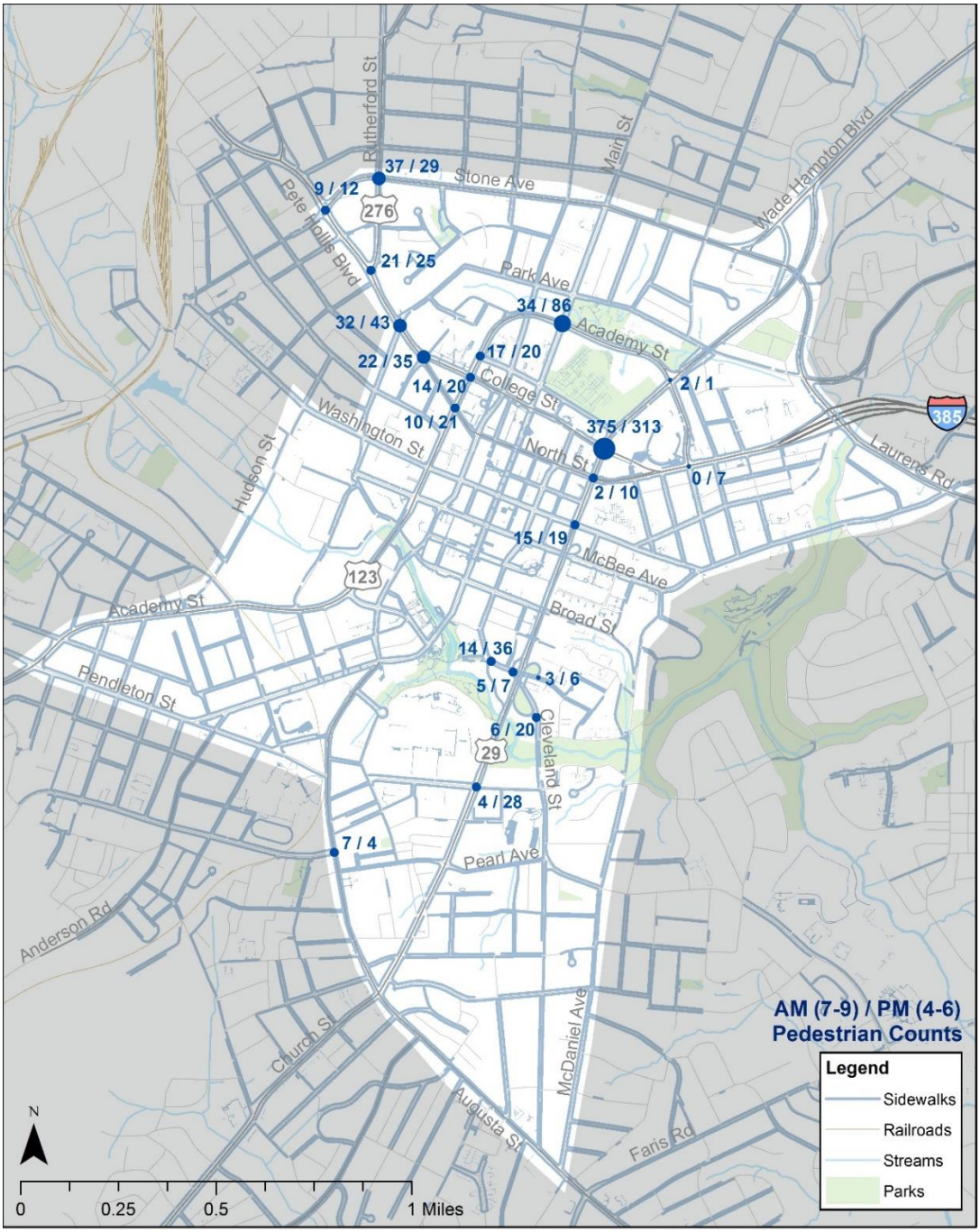
Downtown Greenville's compact streets include basic pedestrian infrastructure: sidewalks, marked crosswalks, ramps, and pedestrian signals. Along downtown-area streets, public sidewalks range from three to fifteen feet in width, with a few spot locations measuring up to 30 feet. As shown in **Figure 4**, the sidewalks in the heart of downtown tend to be wider, while sidewalks in areas farther out tend to be narrower. The minimum sidewalk width required by the Americans with Disabilities Act (ADA) is four feet; therefore a few spot locations are not in compliance (shown in red). The majority of sidewalks within the study area (71%) measure four feet wide.

Figure 4: Sidewalk Width



A limited number of peak-hour pedestrian counts were conducted as a part of this project (20 locations). The pedestrian counts were taken at the same time as vehicular counts, and the locations were primarily chosen with vehicular travel in mind. However, the count locations are fairly spread throughout the study area, and can provide some indication of heavier pedestrian corridors. **Figure 5** displays both the AM and PM two-hour pedestrian counts. Public and privately owned sidewalks are shown for context.

Figure 5: Pedestrian Counts and Sidewalk Locations



The busiest pedestrian intersection by far, of those counted, was Church Street at Beattie Place, where nearly 700 pedestrians crossed through the intersection during the four-hour count period. This appears to be predominantly people crossing between the parking garage on the north side of Beattie Place and the Courthouse (and other offices) on the south side. The intersection with the next highest pedestrian count is at Academy Street and Main Street, where 120 pedestrians crossed during the four-hour period.

In general, the intersections with higher pedestrian counts appear to be closer to the downtown core area, while intersections farther to the south have fewer pedestrians despite their proximity to recreational areas along the Reedy River. This is likely due to the time of day and day of the week the pedestrian counts were taken. The peak hours generally capture more commuting-type pedestrian trips, rather than recreational-type trips.

An important measure of the quality of a pedestrian network is its continuity. A network with missing sections can impede a pedestrian from making a safe trip, causing pedestrians to then walk in the street or through uneven terrain, or from making the trip at all, in the case of mobility-impaired users. A pedestrian continuity index (PCI) can be measured by calculating the ratio of the length of the pedestrian network to the length of the street network. A PCI with a value of 2.0 would mean that every street has a sidewalk on both sides, indicating a high degree of continuity. For the Greenville downtown area, the PCI is 1.3 for public sidewalks (lengths of privately-owned sidewalks are not available). With the inclusion of trails in the calculation, the PCI increases to 1.5.

Visually inspecting the public and private sidewalk coverage in **Figure 5**, the continuity appears to be better than the PCI indicates. This is due to privately-owned sidewalks filling in a number of the gaps between public sidewalks. Also, the majority of missing sidewalk segments appear to be along minor, residential neighborhood streets, rather than along major pedestrian thoroughfares. In some spots these gaps appear to be a result of existing landscape/hardscape features that would prevent “easy” continuation of the sidewalk.

The City has a program for constructing new sidewalks on City-owned streets called the Neighborhood Sidewalk Targeted Expansion Program (NSTEP). The program was established in 1999 to enhance pedestrian safety and mobility through an improved network of sidewalks. There are currently four projects on the NSTEP schedule, although none of them fall within the downtown study area.

Continuity of the pedestrian network is especially important at intersections. Providing well-marked, signalized pedestrian crossings at intersections with heavy pedestrian movements helps improve safety. Pedestrians have reported having a difficult time crossing both Church Street and Academy Street at signalized intersections. **Table 1** summarizes the missing pedestrian components at the selected intersections along those corridors.

Table 1. Pedestrian Continuity Challenges along Church Street and Academy Street

Intersection	Crossing Location	Missing Crosswalk	Missing Pedestrian Signals
Church St @ North St	East Side	X	
Church St @ University Ridge	North Side	X	X
Academy St @ McBee Ave	West Side	X	
Academy St @ Falls Park Dr	South Side	X	
Academy St @ Falls Park Dr	North Side	X	X
Academy St @ Westfield St	West Side		X
Academy St @ Markley St	North Side	X	X
Academy St @ Calhoun St	East Side	X	X
Academy St @ Pendleton St	East Side	X	X

Most of the existing pedestrian signals along these two corridors are equipped with a countdown timer feature. Pedestrian Countdown Signals (PCS) can help reduce the number of pedestrians caught in the crosswalk when the cycle ends, and can also help increase pedestrians' perceived safety. These signals may be of particular benefit for wider (multi-lane) crossings, as well as in areas where there are a larger number of older pedestrians or persons with mobility limitations. The applicability of this type of pedestrian signal should be considered throughout the study area.

The pedestrian crossing experience could also be improved by implementing a Leading Pedestrian Interval (LPI), which typically gives pedestrians a 3-7 second head start when entering the intersection before the corresponding green signal is activated for the same direction of travel. This increases the visibility of pedestrians and reinforces their right-of-way over turning vehicles. LPIs have been shown to reduce pedestrian-vehicle collisions as much as 60% at treated intersections[3]. This application is most effective at intersections with both high pedestrian volumes and high conflicting turning volumes. In the Greenville study area, one possible application would be at the Church Street and Beattie Place intersection, due to the high volume of pedestrian travel.

[3] *Urban Street Design Guide,* National Association of City Transportation Officials (NACTO)

Bicycle Facilities

Figure 6 shows the existing bicycle network in downtown, including bicycle lanes, sharrows, and off-street trails. The Swamp Rabbit Trail and various parks along the Reedy River provides an off-street east-west thoroughfare across the downtown study area for pedestrians and bicyclists.

Figure 6: Existing Bicycle and Pedestrian Facilities

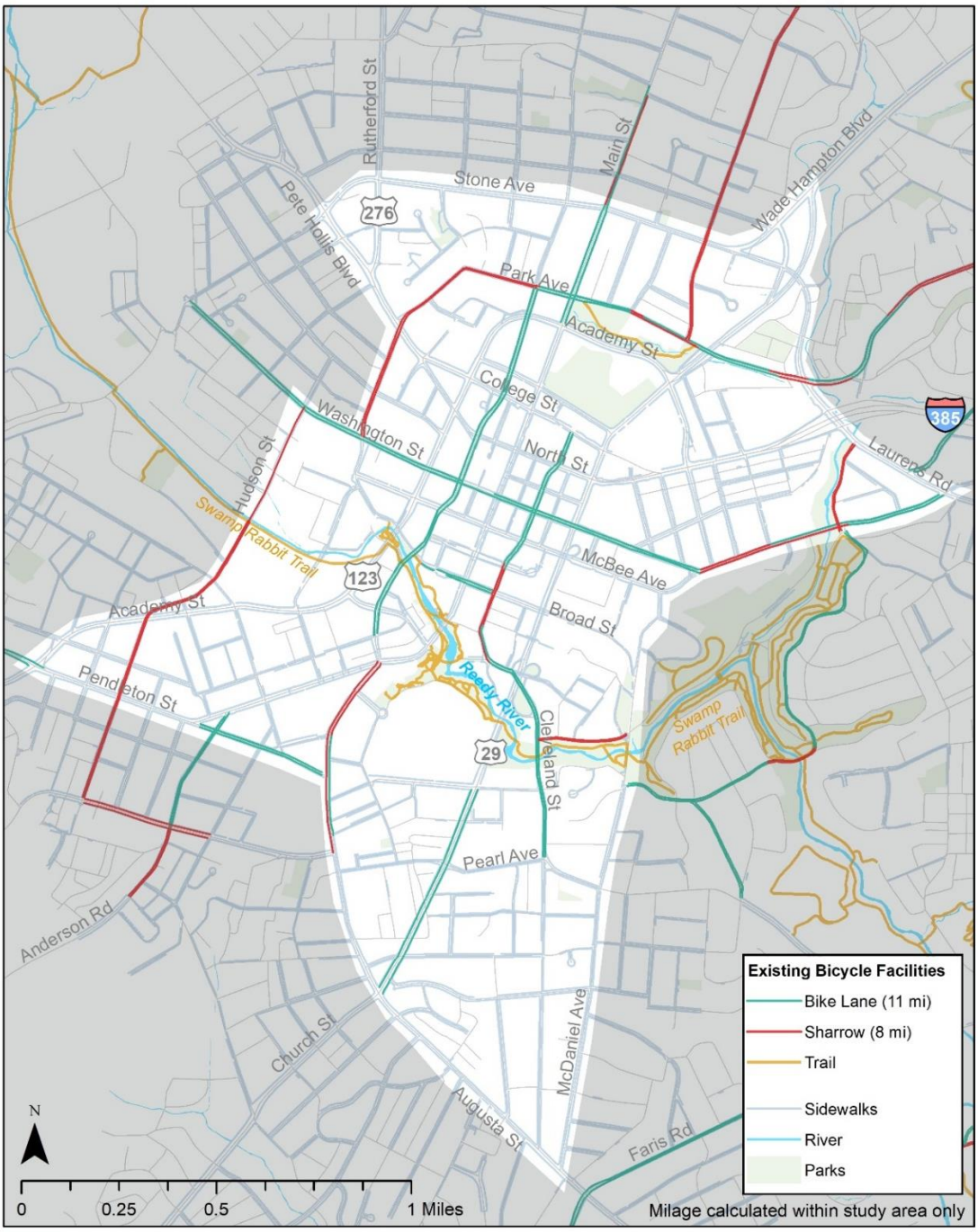
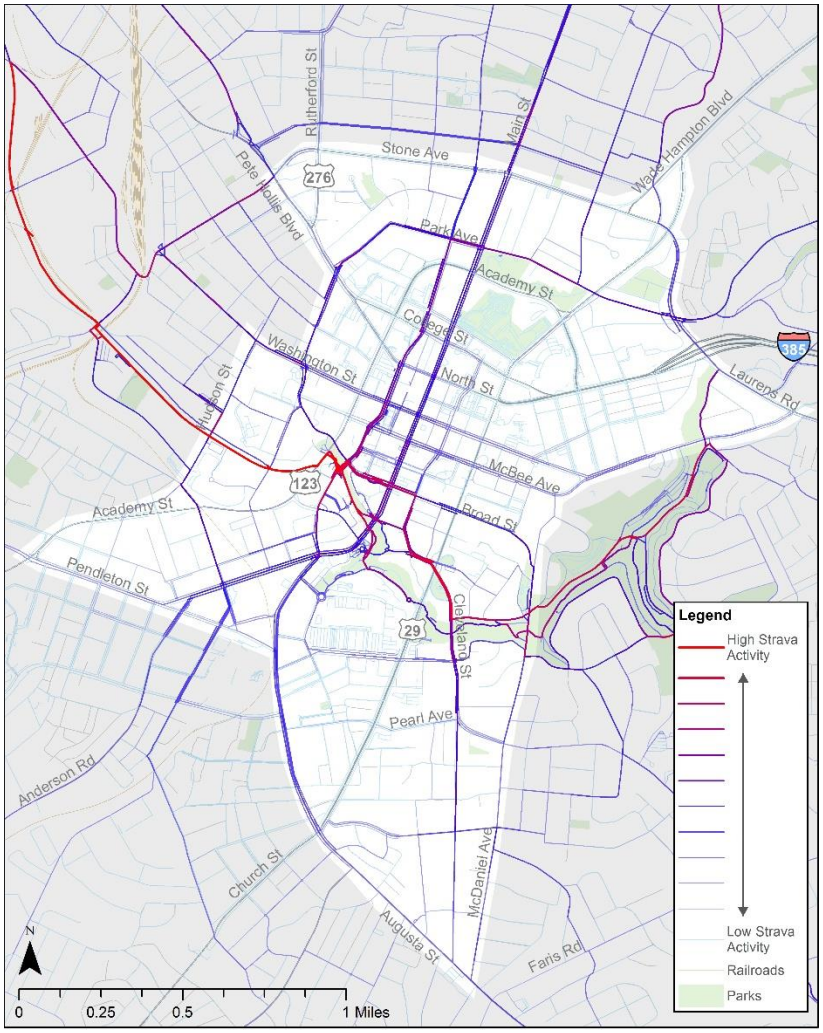


Figure 7 shows crowdsourced travel data from the social fitness app Strava. Developer Strava Labs offers an app that allows bicyclists to track the route and length of their rides via GPS. Activity maps are then generated by compiling route data from all Strava users in the area, revealing the most popular bicycle routes. The highest levels of pedestrian and bicyclist activity are in hues of red. Strava users are typically recreational and fitness riders, although some commuters may also be included in the dataset.

Figure 7: Strava Bicycle Activity



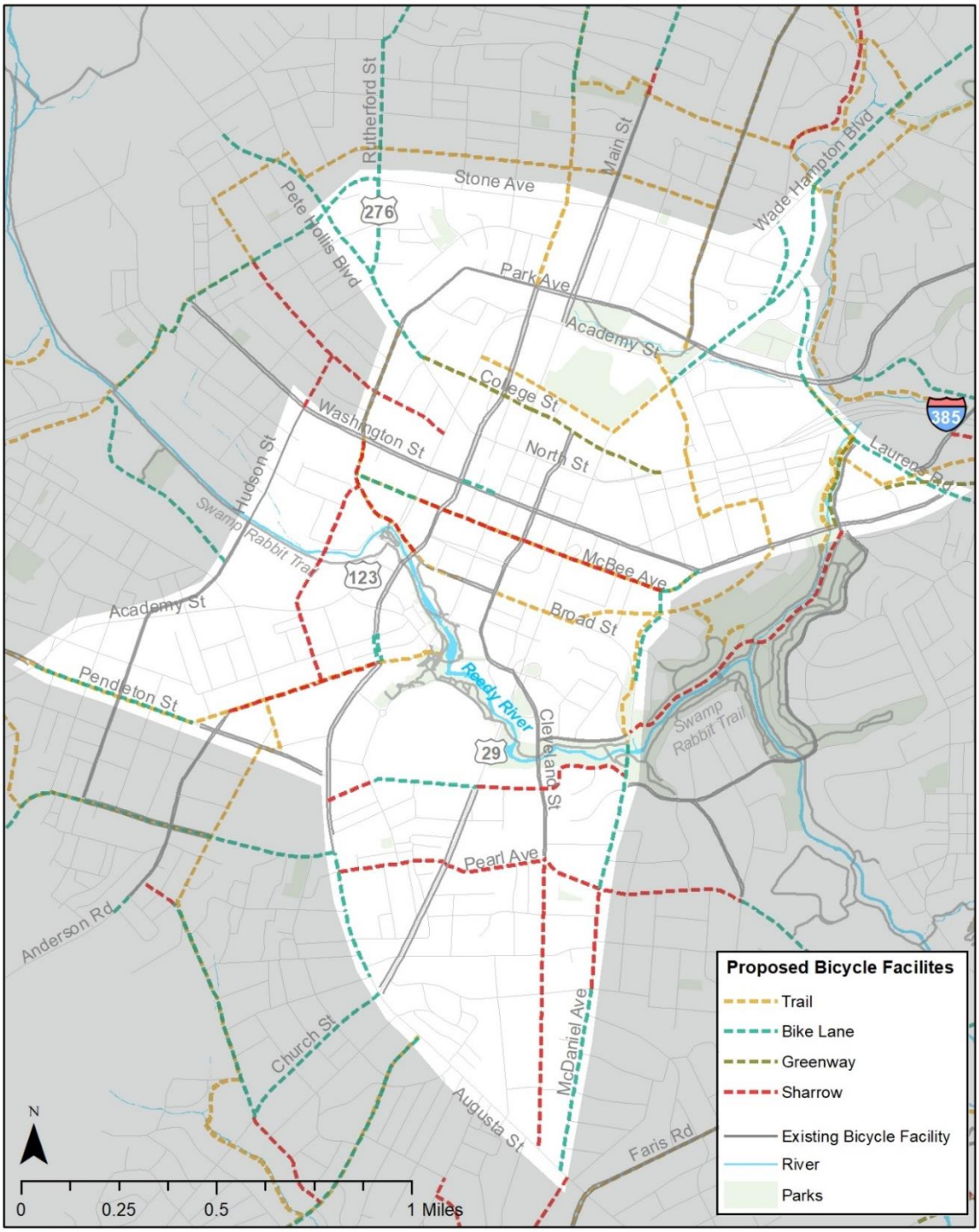
The activity map suggests bicyclists in downtown Greenville are attracted to high-comfort facilities along the Reedy River. The Swamp Rabbit Trail is the backbone of the district's active transportation network, bringing riders into the area from the east and west.

A frequently-used bicyclist link into the downtown street grid from the trail system utilizes Ridgeland Drive, Cleveland Street, Camperdown Way, Falls Street, and Broad Street. Sharrows and on-street bike lanes along these streets likely attract riders, and the on-street network provides a more direct route into downtown than the trail system along the river.

Within the downtown core, River Street and Main Street also attract significant volumes of Strava users. River Street features on-street bike lanes, while Main Street's high density of businesses and traffic-calming amenities may also prove attractive to bicyclists. On-street bicyclist activity is generally concentrated on arterial roads with relatively high residential and commercial densities.

A number of additional bike facilities that were proposed as a part of the *Greenville Bicycle Master Plan, 2011* have not yet been implemented. **Figure 8** shows those additional facilities in the context of the existing facilities.

Figure 8: Proposed Bicycle Facilities



Several of the proposed facilities are located along roadways that currently have a relatively high bicycle usage, according to the Strava data. This may indicate some of the preferred corridors for bike facility implementation when funding next becomes available. These include:

- *River Street from Rhett Street to Main Street* – This is a small section (approx. 350 feet), but if built would improve continuity of the bike system between River Street to north Main Street to the west and Augusta Street to the south. Right-of-way constraints appear to be a potential issue through this section. If the proposed bike lanes cannot be made to fit, a sharrow could be considered.
- *Augusta Street from University Street to Church Street* – This section is about three-quarters of a mile long, and is proposed as a bike lane. Completion of this section, plus the small piece of River Street mentioned above, would almost create a complete north-south bike corridor through the entire downtown study area.
- *University Ridge from Church Street to Cleveland Street* – The existing bike lane section along Church Street, from Augusta Street to University Ridge, appears to have relatively little usage according to the Strava data. This may be due to a lack of continuity, as the bike lanes end at University Ridge and do not connect to any other bicycle facility type. Completion of the sharrow along University Ridge over to Cleveland Street may help encourage usage of those existing bike lanes.

Within the downtown area, Greenville offers a bike share program called B-Cycle. The Greenville B-Cycle program is run through a partnership between Upstate Forever and the Greenville Health System. There are 10 downtown docking locations, similar in appearance to the image shown at right. Locations include the Hughes Main Library, Flour Field, and the Transit Center on McBee Avenue. Interactive online maps indicate the number of available bikes at each kiosk, as well as the number of open spaces available for docking.

Memberships can be purchased on a daily, weekly, or annual basis. After the membership fee, rides are free for up to one hour. This is to encourage short trips around town. After the first hour, additional fees are incurred every 30 minutes.

Transit

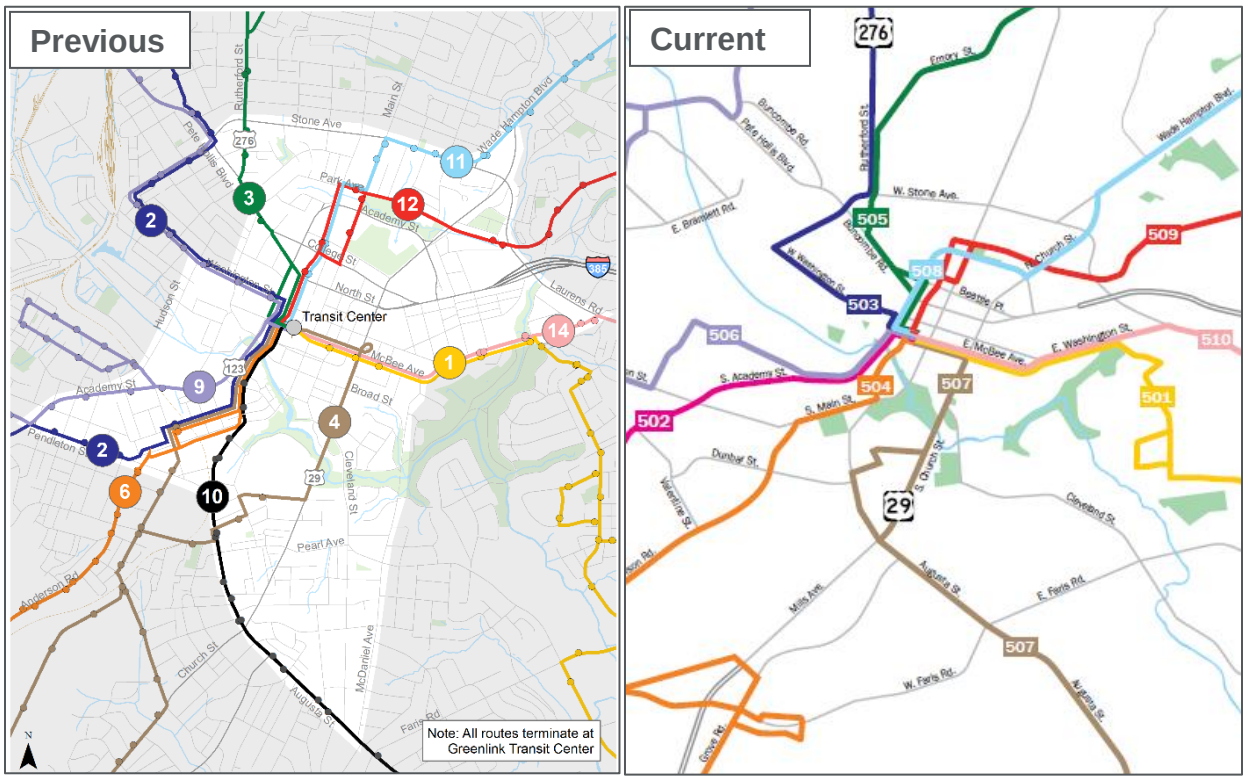
Greenlink Public Transit

Greenlink is Greenville's public transit system, operated by the City of Greenville, under contract to Greenville Transit Authority. Greenlink offers fixed-route service to destinations all across Greenville County. Effective July 1, 2019, the fixed-route schedule underwent a major overhaul affecting its routes, stops, and schedule numbering. These changes were based upon the following recommendations stated in the *Greenlink Comprehensive Operations Analysis* (COA), completed in 2017 through a public-private partnership among the City of Greenville, Greenville County, and the Piedmont Health Foundation, supporting the following goals.

- Continue to operate a pulse system, so that all buses arrive and depart from the transit center at the same time. This allows for efficient transfers.
- Continue to operate at 60-minute frequency, as current financial resources do not allow for increased frequencies.
- Convert loop routes into bi-directional routes, where possible without degrading service, to improve efficiency. This is expected to improve efficiency and allow buses to service both sides of the road.

Figure 9 shows both the old and new Greenlink bus routes that serve the downtown area. As shown, both networks have 10 routes with similar coverage, despite some re-routing.

Figure 9: Greenlink Bus Routes and Stops



For both route systems, the majority of bus lines originate/converge at the Greenlink Transit Center on Washington Street in the heart of dowtown. The main differences relate to the conversion of the routes from loop routes to bi-directional routes. All of the new routes enter the study area, arrive at the transit center, and then return along the same route to where they came from. In contrast, some of the old routes would enter and exit on opposite sides of the study area (Route 2, for example).

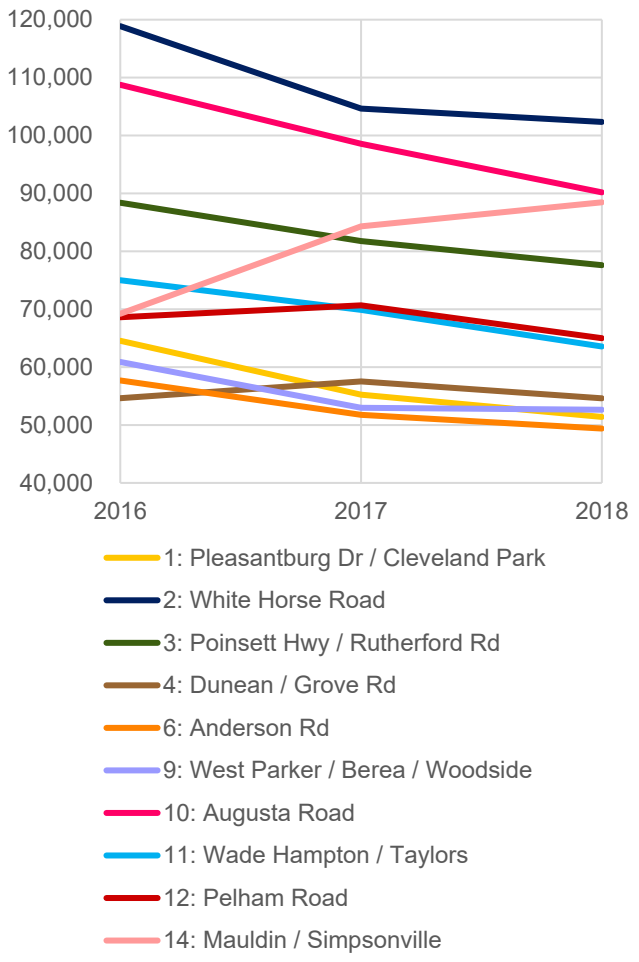
Since the transit system so recently underwent these changes, there is no ridership data available for the new routes. However, ridership data from the recent past (2016-2018) may still offer some insight into how the system is performing, given the similarities in coverage between the new and old routes. According to the COA, only 2% of Greenlink riders were using the stops in the areas that lost service with the July 1st changes. With the expected improvements to efficiency, it is hoped that ridership numbers will improve despite the minor coverage losses.

Figure 10 shows the total annual ridership for each route between 2016 and 2018. As shown, most of Greenville's transit lines experienced decreasing ridership during that period. Only two routes had a positive average year-over-year ridership change, Route 4 (Dunean/Grove Rd, 0.4%) and Route 14 (Mauldin/Simpsonville, 19.3%).

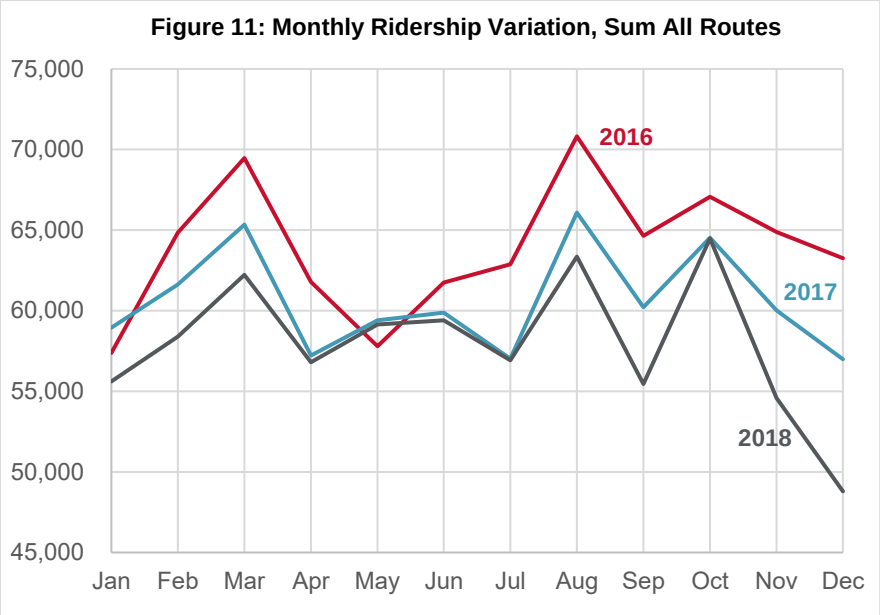
Route 2 (White Horse Road) was consistently the best-performing line, with an average of over 9,000 riders per month. Route 10 (Augusta Road) was also fairly high performing (with an average of over 8,000 rider per month), despite decreasing annual ridership on both routes.

Figure 11 shows the monthly variation in ridership for all routes (added together), for each year. All of the routes in the system experienced significant month-over-month ridership increases in August of each year, possibly due to the start of the school year. Strong ridership upticks are also observed in October. Sharp declines occur during April, September, and the winter months (particularly November and December). Declines in April and increases in October may reflect changes in trolley service, (Greenville trolley service is discussed further in the

Figure 10: Annual Ridership Trends



subsequent section). Trolley ridership exhibits the opposite effect, a sharp increase in April and decline in October, due to the opening and closing of seasonal routes.



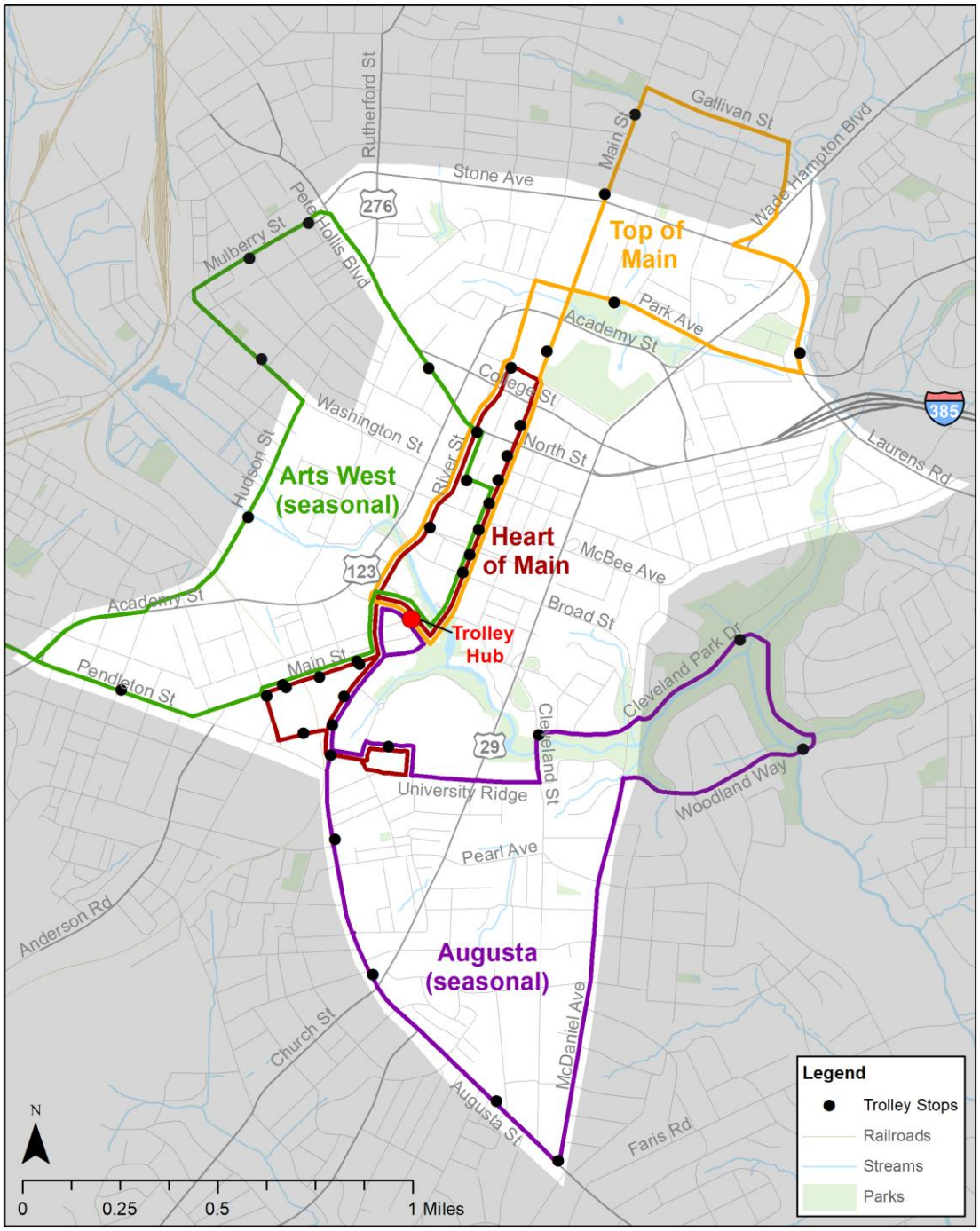
A particularly steep ridership decline occurred toward the end of 2018, with double-digit percentage losses in every route between October and November. This is equivalent to a loss of over 10,000 riders between the two months. The lowest monthly system ridership during the study period was observed in December 2018, with 49,000 riders (compared with an average of 62,900 riders).

All of the Greenlink transit routes servicing the downtown area operate Monday through Friday from 5:30 AM to 7:30 PM, with the last trip departing the transit center at 6:30 PM. Saturday service is also provided from 8:30 AM to 6:30 PM. No service is provided on Sundays. The 2018 Greenlink Transit Development Plan recommends extending service hours from 5:30 AM to 11:30 PM, Monday through Saturday, for all routes by 2020. This could help improve ridership numbers.

Downtown Trolley

The Downtown Greenville Trolley is a fare-free road trolley which operates along loop routes radiating out of the city center. Funded in large part by the city's hospitality tax, the Trolley system aims to enhance the "Main Street experience" with historic replica vehicles (see image at right). The trolley system is comprised of five routes; two run year-round (Heart of Main and Top of Main), two run seasonally from June through October only (Arts West and Augusta), and one only runs on Fridays. The Friday-only route is called Lunchlink and provides a connection from the Greenville County Square office complex to the Main Street corridor between 11 am and 2 pm. The other four routes are illustrated in **Figure 12**. All routes begin at the trolley hub at Falls Park Drive.

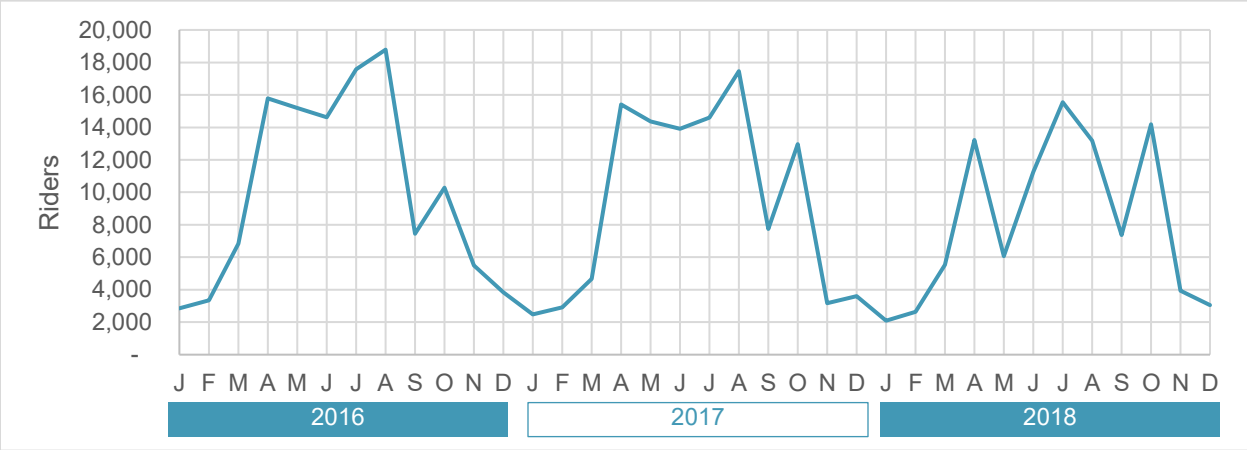
Figure 12: Trolley Routes and Stops



Aside from the Lunchlink route, the trolley system's operating window is 6pm–11pm Thursday and Friday, 10am–11pm Saturday, and 1pm–8pm Sunday. Modifications are occasionally made to schedules to accommodate events at the Bon Secours Wellness Arena. The trolleys do not advertise a set frequency, but the city does offer a free mobile application ("Trolley Tracker") to track vehicle locations in real time.

Figure 13 graphs the available trolley system ridership data from 2016 through 2018. Peak ridership coincides with Greenville's tourist season, which runs from April through October. January has the lowest ridership, with an average of 2,500 riders, while August has the highest ridership with an average of 16,500 riders.

Figure 13: Monthly Trolley System Ridership, 2016-2018



The data also indicates that annual trolley ridership declined nearly 20% from 2016 to 2018. The summer months experienced the largest decrease over the three year period, while winter months remained fairly constant. Fall months, October in particular, actually experienced fairly significant growth over the three year period, with ridership increasing from 10,284 in 2016 to 14,182 by 2018.

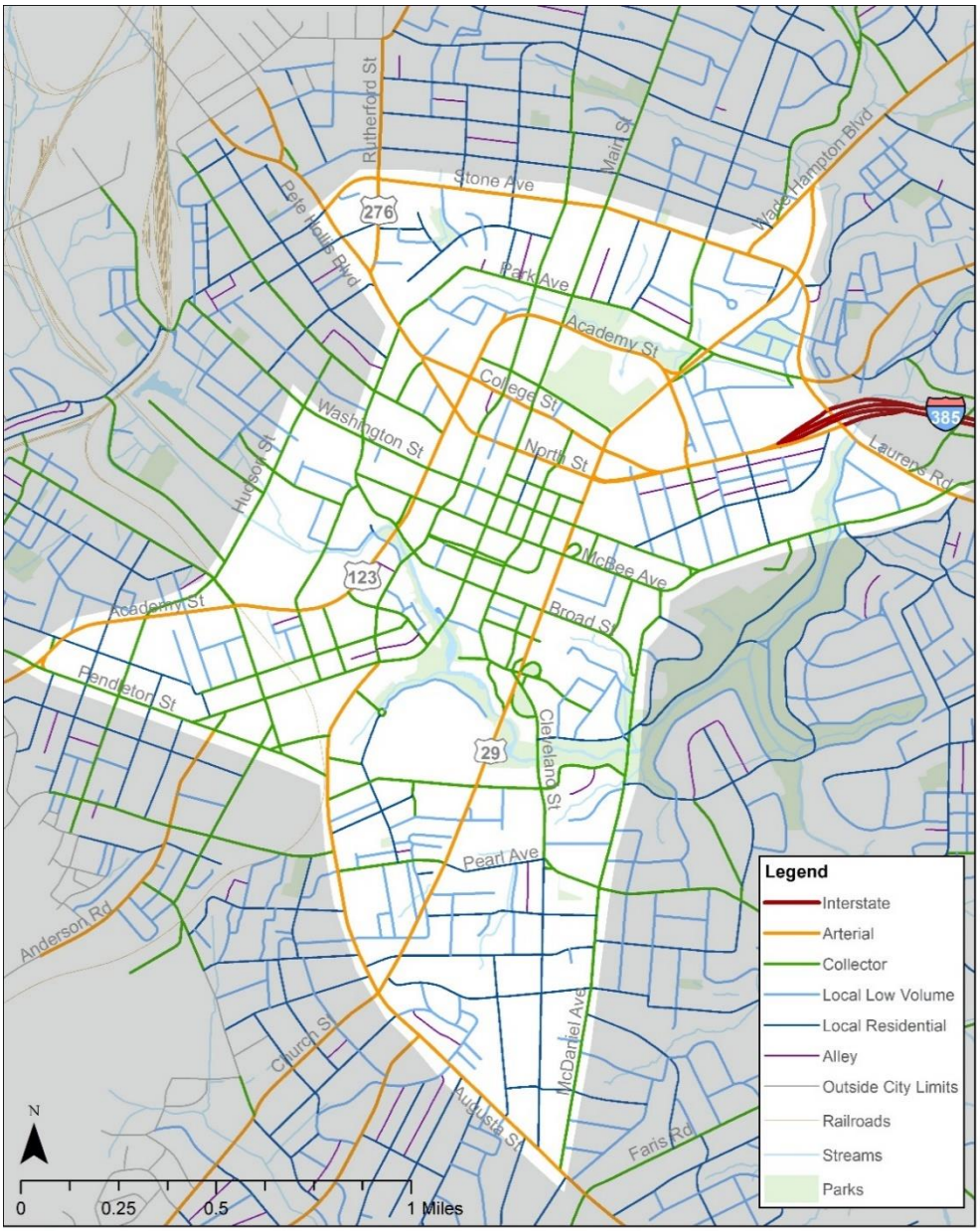
Despite the apparent downward trending ridership, local sentiment indicates that the trolley is still a very popular mode of transportation. It is possible that some errors in reporting may be contributing to the appearance of decline. In particular, the dip in the May 2018 ridership appears to be out of scale with the prior years.

Roadway System

Functional Classification

The Greenville downtown area is served by I-385 on the west end, which terminates as an interstate as it approaches the heart of downtown. Several east/west arterials bisect the study area, including Stone Avenue, Academy Street, and the College Street/North Street pair. There are also several north/south arterials that cross the study area including Church Street, Augusta Street, and Rutherford Street. A comprehensive network of collectors and local roads round out the downtown roadway system. **Figure 14** displays the functional classification for the entire study area.

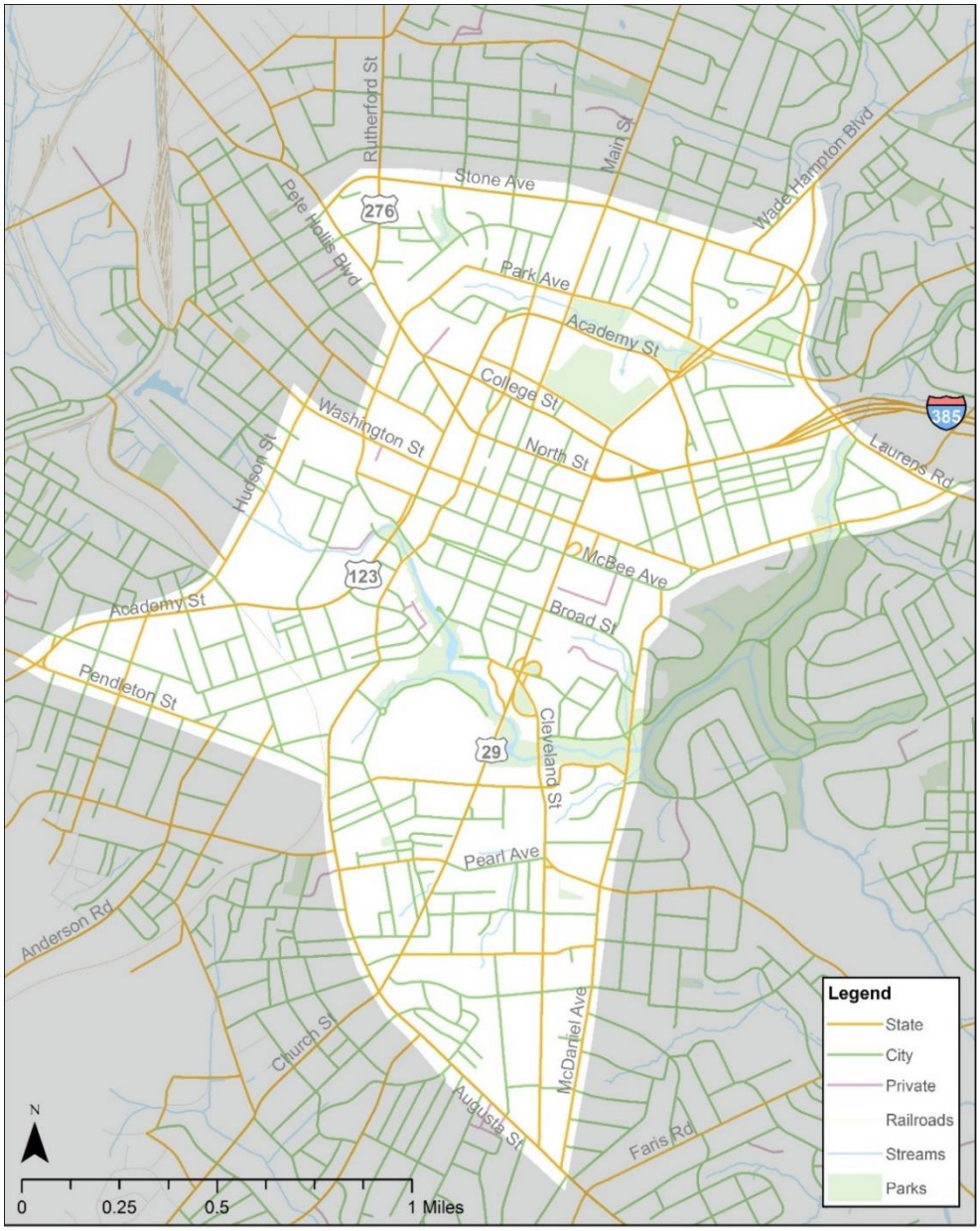
Figure 14: Functional Classification



Maintenance Responsibility

The street system within the downtown area is owned and maintained by multiple parties. The City of Greenville is responsible for maintenance of the largest number of linear miles within the study area, at approximately 29 miles. The South Carolina Department of Transportation (SCDOT) also maintains a significant number of linear miles, at approximately 25 miles. Streets that fall under the maintenance responsibility of the SCDOT include I-385, US 29/Church Street, US 123/Academy Street as well as several of the other arterials and a few collectors. A handful of privately-maintained roads also fall within the study area (less than 1 mile total). **Figure 15** illustrates the agency responsible for maintenance of all streets throughout the study area.

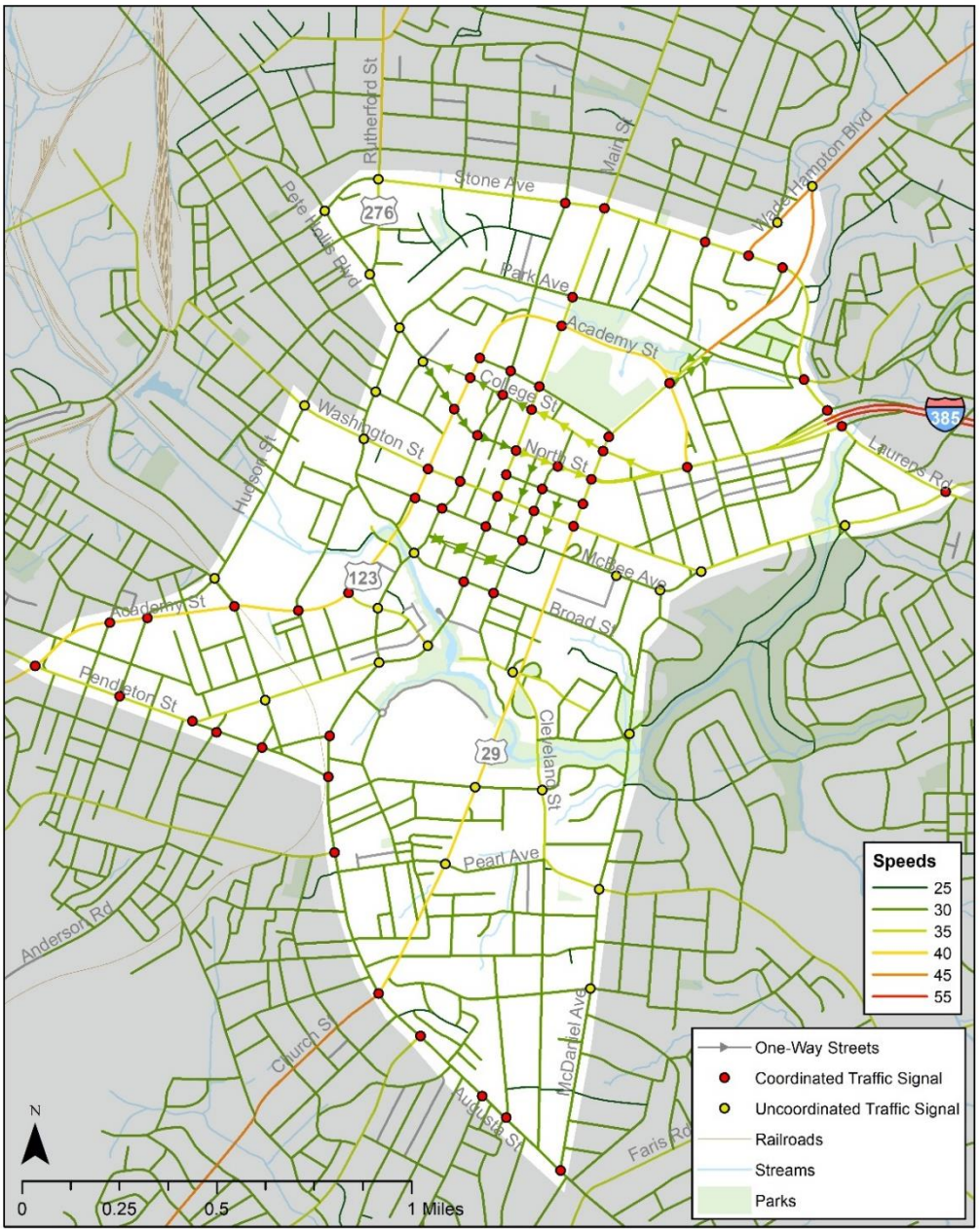
Figure 15: Maintenance Responsibility



Speeds, One-Way Streets, Traffic Signals

The downtown area has a typical non-arterial speed limit of 30 mph. Arterial roads designated as state or national highways, such as Academy Street (US 123) and Church Street (US 29), have 40 mph speed limits. These roads are the widest in the district, with four-lane divided boulevard configurations. Collector streets, which service inter-neighborhood traffic, such as Pendleton Street, Washington Street, and Cleveland Street, have 35 mph speed limits. The highest-speed traffic enters the district from the northeast, namely the terminus of Interstate 385 where the limit decreases from 55 mph to 35 mph. **Figure 16** displays the posted speeds on all downtown roadways, and also indicates the location of traffic signals and one-way streets.

Figure 16: Speed Limits, One-way Streets, Traffic Signal Locations



Nearly all roads in the downtown network are bi-directional, with the exception of the North Street/College Street east-west one-way pair, and two one-way streets in the center of the district (Brown Street and Irvine Street).

Figure 16 shows that a majority of the signals are coordinated in the downtown network including the major corridors into and around downtown such as US 123/Academy Street, North Street, College Street, Augusta Road, Stone Avenue, Washington Street and Main Street. However, the Pete Hollis Boulevard and Buncombe Street corridor stretching from Stone Avenue 2,500' east to College Street consists of four adjacent uncoordinated signals. This segment of road is a significant corridor into downtown that appears to be ideal for coordination although, the four existing intersections currently perform at LOS of C or better during the peak hours. Existing communication infrastructure or lack of functioning connections between signals could also pose a challenge or additional costs to coordinating this segment with little room for improvement to the current operations. With the existing extent of coordinated corridors, any near term or long term solutions proposed will consider potential impacts to existing coordination as well as opportunities for additional coordination.

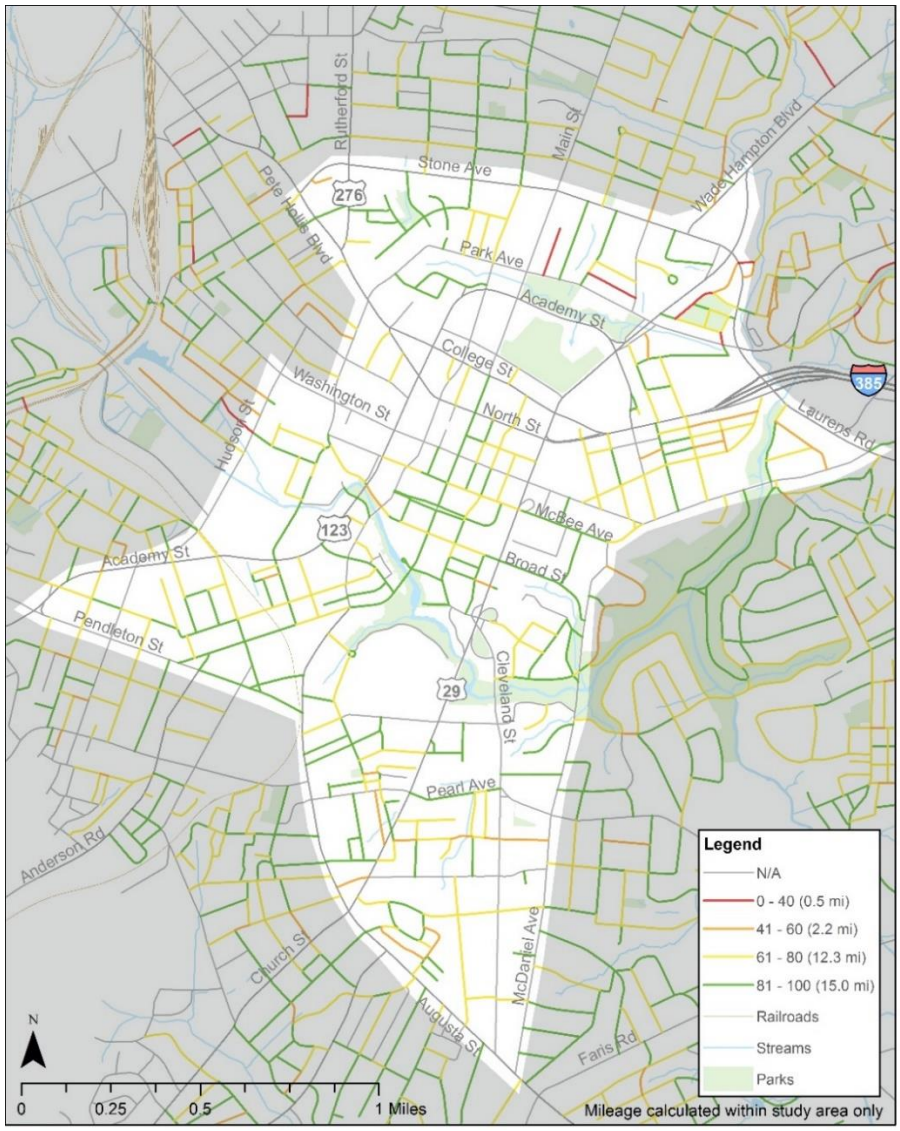
Existing communication infrastructure data could allow for discussion of coordination communication conditions, needs or opportunities for upgrades.

Pavement Condition

The condition of City streets is typically assessed on a five-year basis, and streets are assigned a Pavement Condition Index (PCI) rating between 20 (worst condition) and 100 (best condition). In addition to surface condition, the PCI rating takes into account the street's functional classification, traffic volumes, and structural condition. The rating helps the City determine a schedule for resurfacing/rehabilitating/replacing the street. **Figure 17** shows the PCI for the downtown area, as provided by the City. As shown, the majority of roads are rated in the higher ranges, meaning the pavement conditions are fairly good. A few streets fall into the lower PCI categories, but those are mainly alleys and other low-volume facilities. Note that SCDOT-maintained facilities are not rated by the City and therefore are not shown on this map.

As future improvement projects are planned in the downtown area, these should be coordinated with the resurfacing/rehabilitation schedule to the extent possible.

Figure 17: Pavement Condition (PCI) for City-Maintained Streets

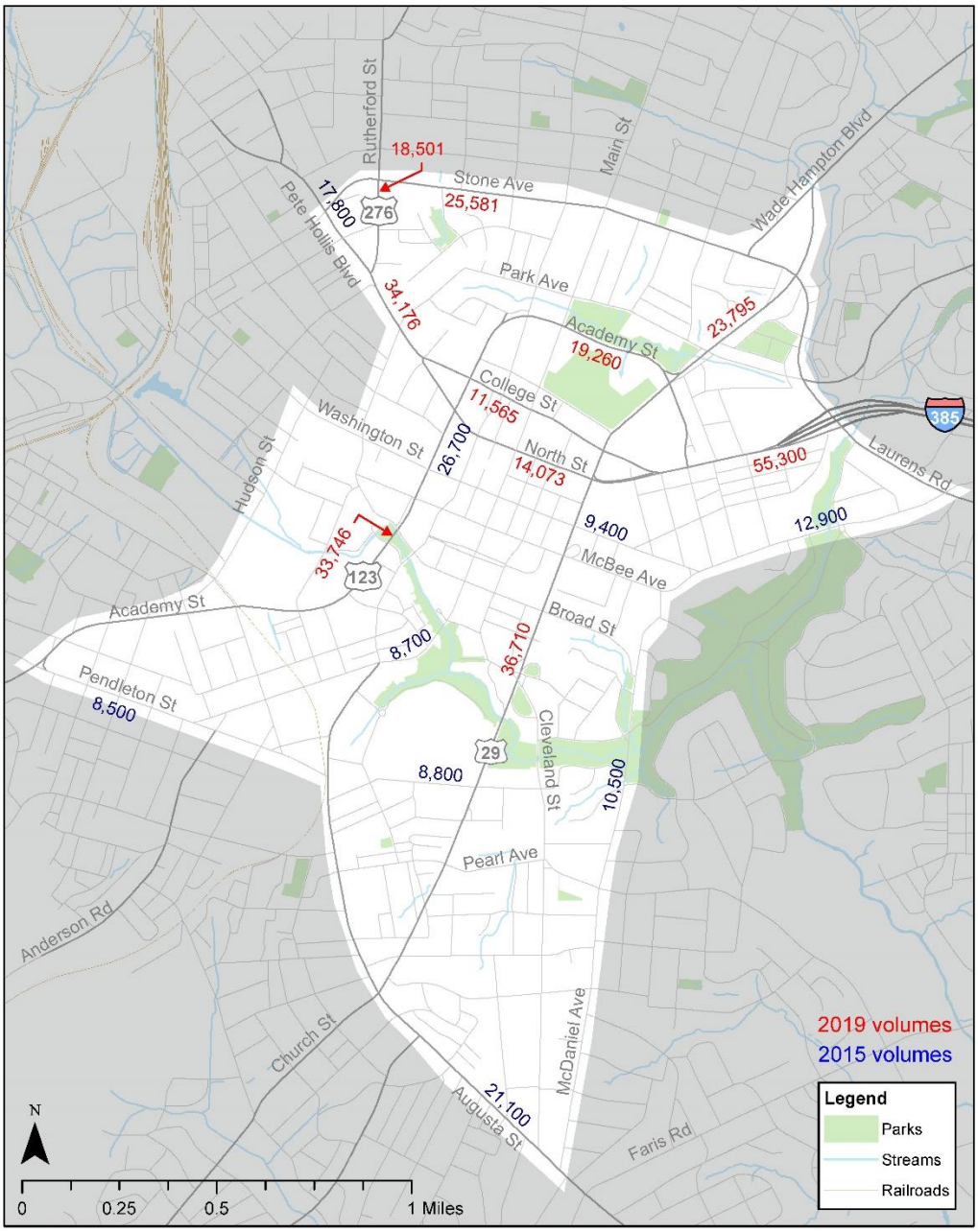


Existing Traffic

Figure 18 shows average daily traffic (ADT) volumes along select roadway segments around the study area. The red volumes are averaged from counts taken during a 48-hour study period on February 5 and 6, 2019. The blue volumes are from counts conducted in 2015.

The highest ADT volume was on North Street immediately west of the terminus of Interstate 385, at over 55,000 vehicles per day. Other heavily-travelled roads within the downtown area include Academy Street south of McBee Avenue, Buncombe Street south of Pete Hollis Boulevard/Rutherford Street, and Church Street north of Camperdown Way.

Figure 18: Average Daily Traffic Volumes



In addition to the 48-hour segment counts, four-hour turning movement counts were conducted at 20 high-priority intersections in the downtown area. These counts were collected on February 5, 2019, from 7–9 AM and 4–6 PM. **Figure 19** displays the AM and PM peak-hour volumes as derived from those counts. Heavier flows are displayed in darker shades.

Figure 19: Peak Hour Turning Movement Traffic Volumes

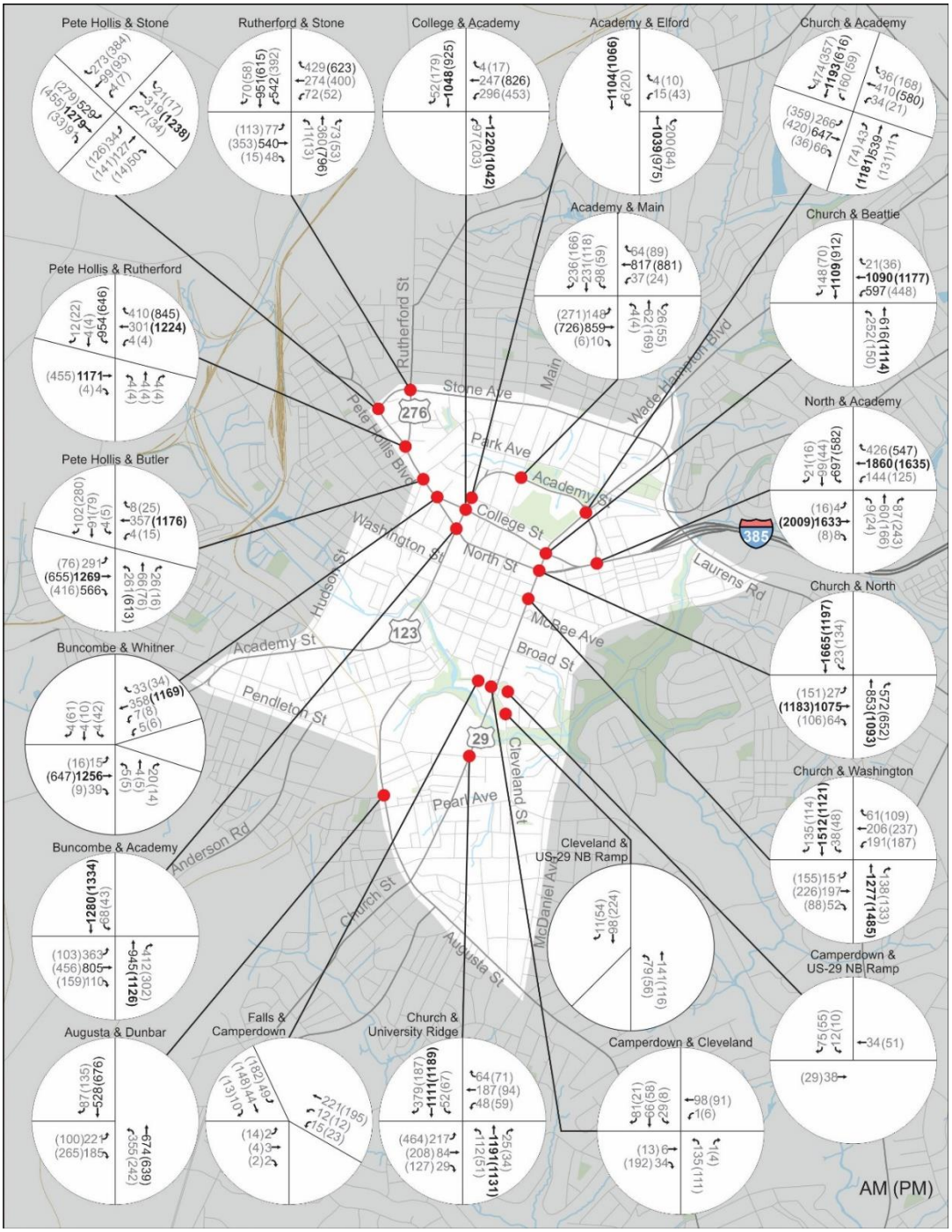
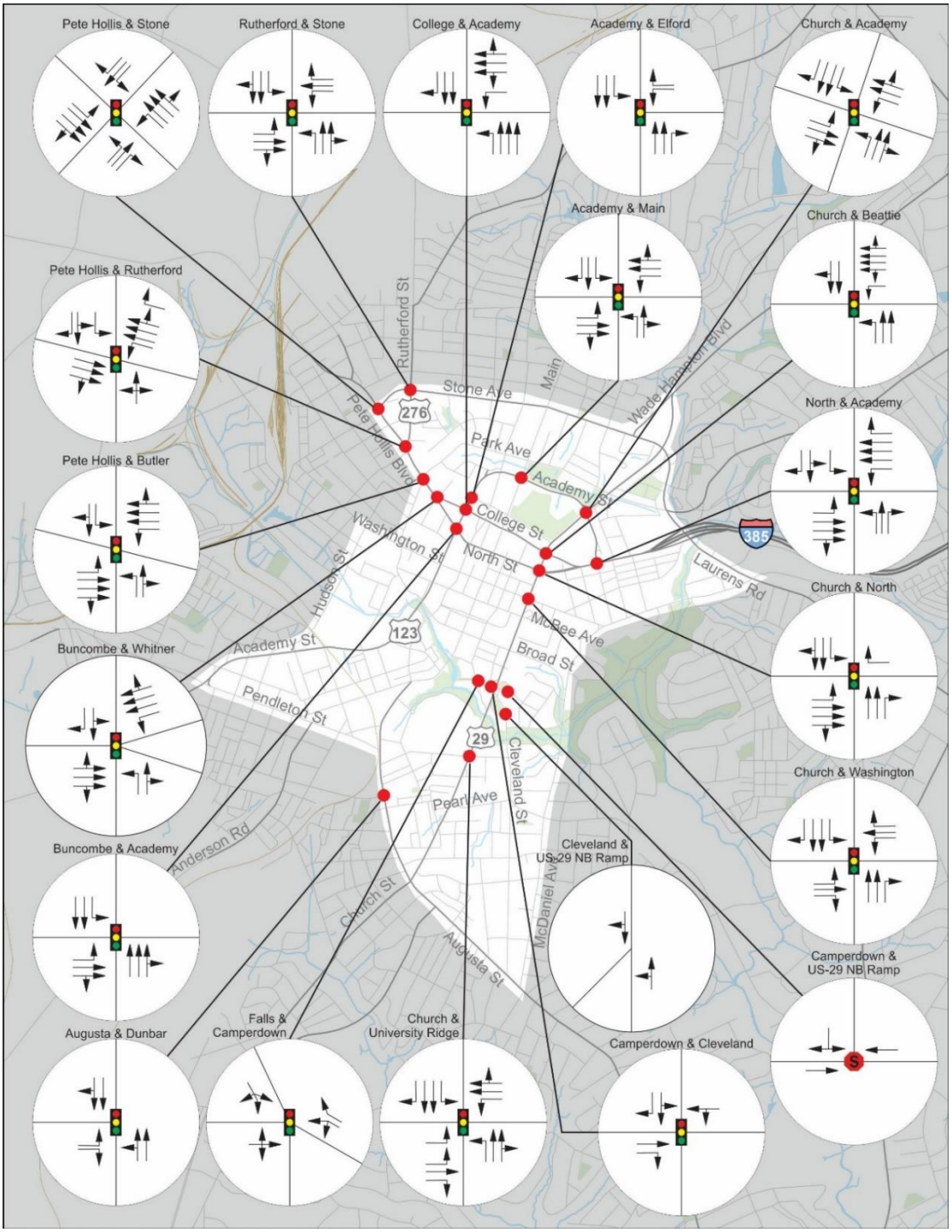


Figure 20 shows the existing intersection geometry and traffic control at the same 20 study intersections in the downtown area. All of the intersections are signalized with the exception of two ramp terminals at US 29. The intersection of Falls Street and Camperdown Way is shown as signalized, but is currently operating in flash mode and is slated for removal in the near future.

Figure 20: Existing Geometry and Traffic Control



The existing peak-hour volumes were analyzed with the current intersection geometry, traffic control, and City-provided signal timings to determine the existing level of service (LOS) at each of the study intersections. This analysis was performed using the Synchro 10 traffic analysis software, and evaluated using the HCM 6th Edition methodology. The results of this analysis are shown in **Figure 21** and **Table 2**.

Figure 21: Existing Study Intersection LOS

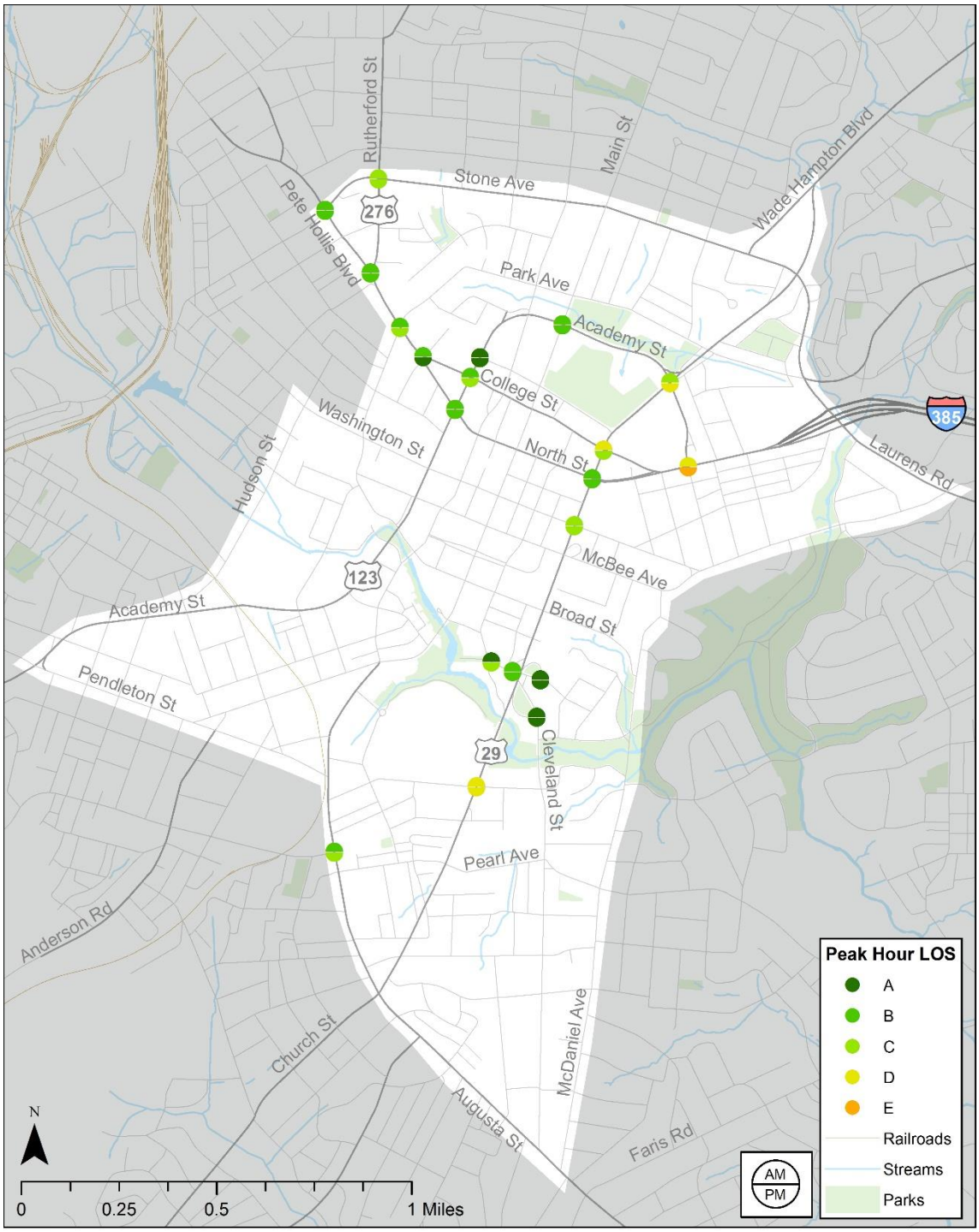


Table 2: Existing Study Intersection Synchro Analysis Results

Intersection	Traffic Control Type	AM LOS	PM LOS
US 29/Church Street at University Ridge	Signal	D	D
US 29/Church Street at Washington Street	Signal	C	C
US 29/Church Street at North Street	Signal	B	B
US 29/Church Street at Beattie Place	Signal	D	C
US 29/Church Street at Academy Street	Signal	C	D
US 123/Academy Street at North Street	Signal	D	E
US 123/Academy Street at Main Street	Signal	B	B
US 123/Academy Street at Elford Street	Signal	A	A
US 123/Academy Street at College Street	Signal	B	C
US 123/Academy Street at Buncombe Street	Signal	B	B
Buncombe Street at College Street and Whitner Street	Signal	B	A
Buncombe Street at Atwood Street/Butler Avenue	Signal	B	C
Pete Hollis Boulevard at Rutherford Street	Signal	B	B
Pete Hollis Boulevard at Stone Avenue	Signal	B	B
Rutherford Street at Stone Avenue	Signal	C	C
Camperdown Way at Falls Street	Two-way Stop*	A (EB)	C (EB)
Camperdown Way at Cleveland Street & US 29 Off-ramp	Signal	B	B
Camperdown Way at US 29/Church Street Loop Off-ramp	Two-way Stop	A (SB)	A (SB)
Cleveland Street at US 29/Church Street Loop On-ramp	Yield**	A (NBL)	A (NBL)
Augusta Street at Dunbar Street	Signal	B	C

**Currently operating as a flashing signal, expected to be removed in the near future. Therefore, it was analyzed as a two-way stop.*
***Side-street is one-way and traffic control consists of a major-street left turn yield to oncoming traffic.*

The results indicate that most of the study intersections are operating fairly well. North Street at Academy Street during the PM peak hour was the only intersection to experience an LOS of E or worse. This intersection is the first signalized intersection downstream of the terminus of Interstate 385; high volumes are carried on North Street to and from the interstate, and Academy Street is another high-volume facility. The intersection of these two important corridors sees high volumes of both through and turning movements, contributing to its poor performance.

Along urban SCDOT roads, such as Church Street and Academy Street, the desired target LOS is C. There are an additional three intersections exceeding this threshold at LOS D during one or both peak periods:

- US 29/Church Street at University Ridge
- US 29/Church Street at Beattie Place
- US 29/Church Street at Academy Street

Existing Conditions Synchro output documentation is located in Appendix A of this document.

Travel Demand Modeling

The Greenville-Pickens Area Transportation Study (GPATS) Travel Demand Model was obtained and utilized to conduct a base-year (2015) model run for the purpose of establishing baseline traffic conditions against which future traffic scenarios can be compared. A number of basic modifications were made to help improve the measured-to-actual traffic volumes, including addition of originally omitted roads, relocation of centroid connector loading points, and splitting/combining of TAZs. Changes were not made to socio-economic information within the model, other than reallocation in the case of TAZ modifications. For full documentation of the model adjustments and outputs see Appendix B.

Figure 22: 2015 GPATS Daily Volume Outputs

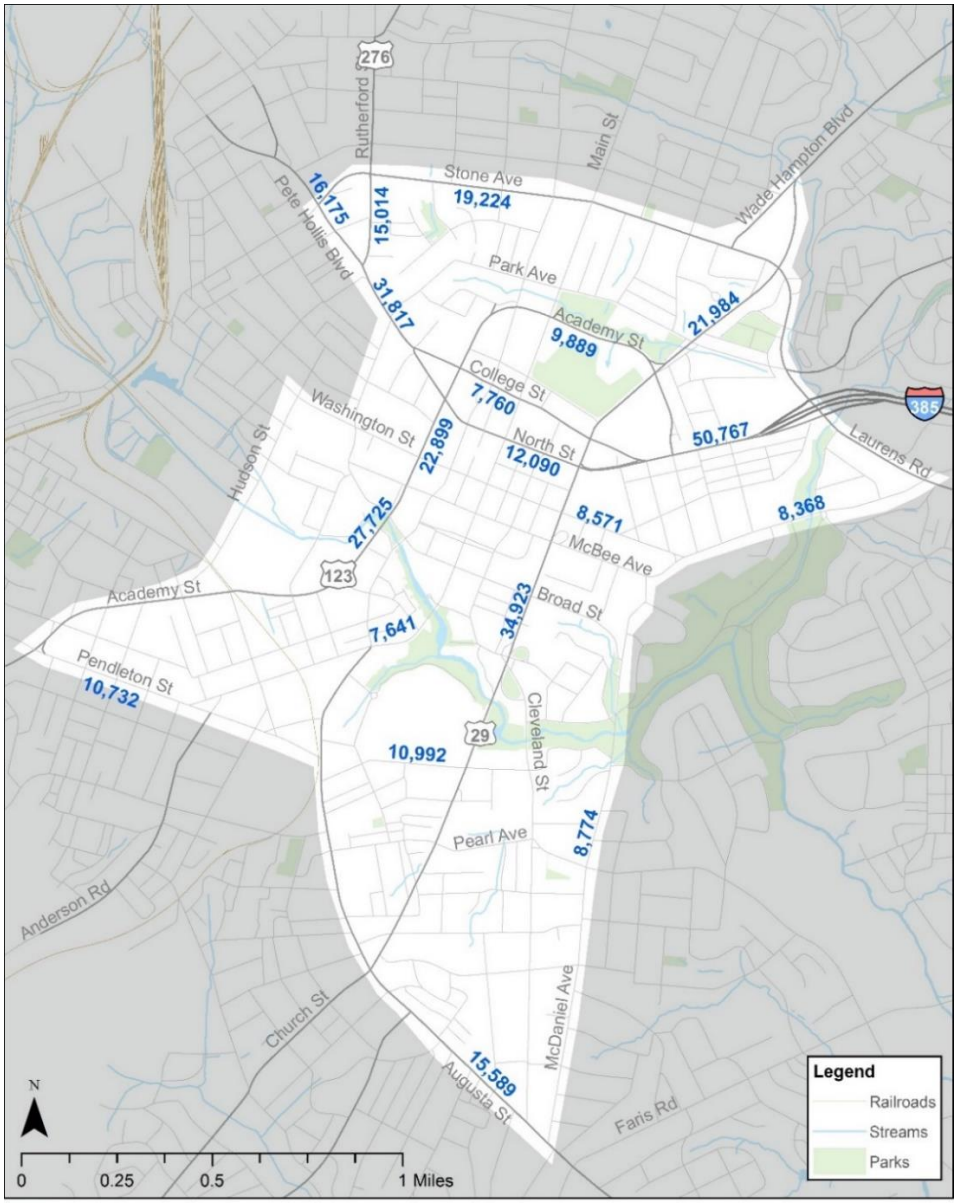


Figure 22 displays the 2015 daily model volume outputs for locations where existing ADTs were collected and/or provided by the City. These output volumes were compared to the counts to determine how well calibrated the model is, and how well it can forecast future volumes. The results of this comparison indicate that the model is generally forecasting about 20% low in the downtown area. Using an assumed growth rate to factor down the 2019 counts to 2015 estimates, and then comparing to the model outputs, still yields results that are about 15% low. This should be taken into account when making decisions regarding future projects based on the 2040 model outputs.

Figures 23 and 24 show the AM and PM period Level of Service outputs from the 2015 GPATS travel demand model runs. Green segments indicate minor delays (LOS A-C); red segments indicate severe delays (LOS F). During the AM period, congestion hotspots are shown along Buncombe Street just south of College Street and Main Street between Academy Street and Park Avenue.

Figure 23: 2015 AM Travel Demand Model Level of Service Outputs

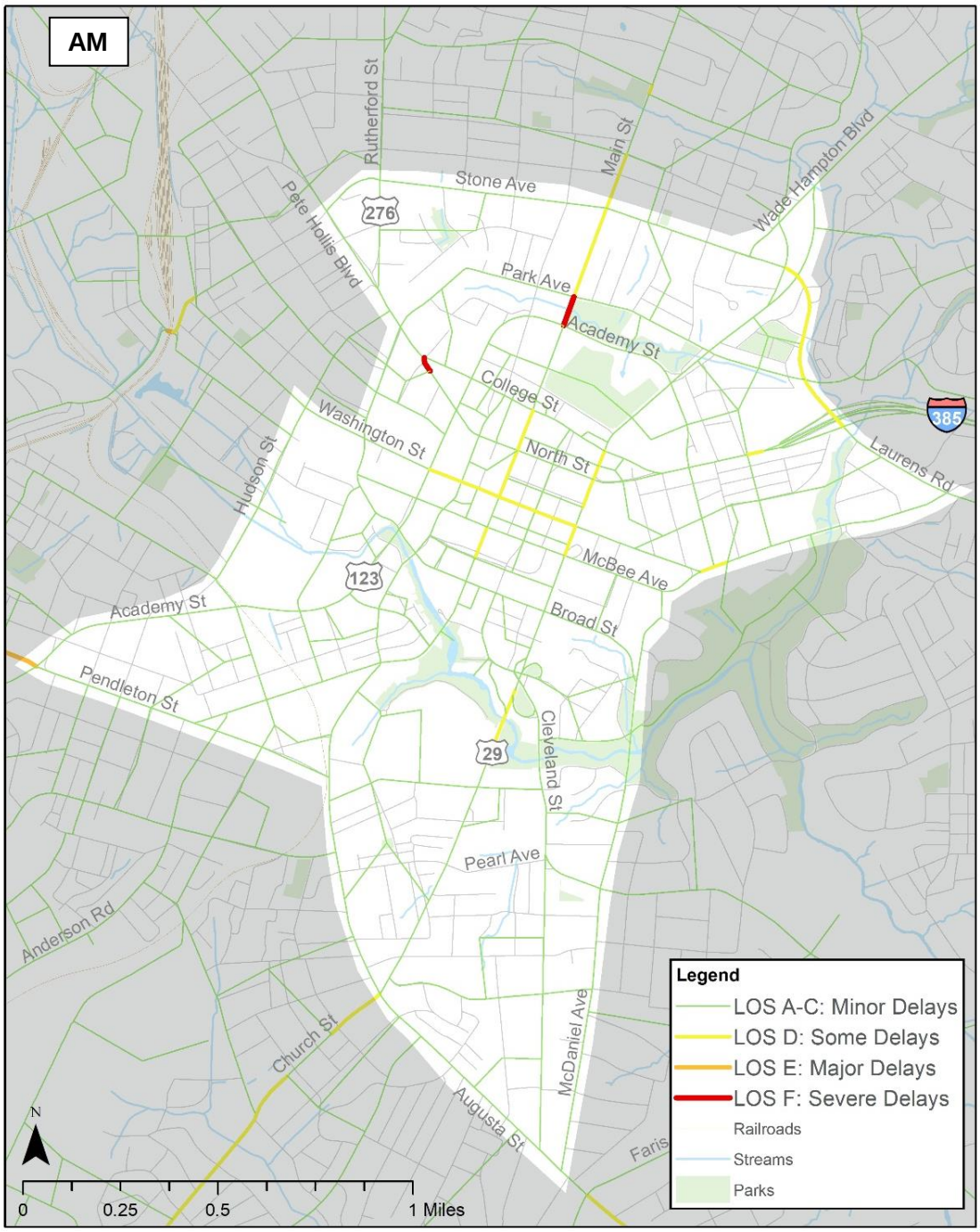
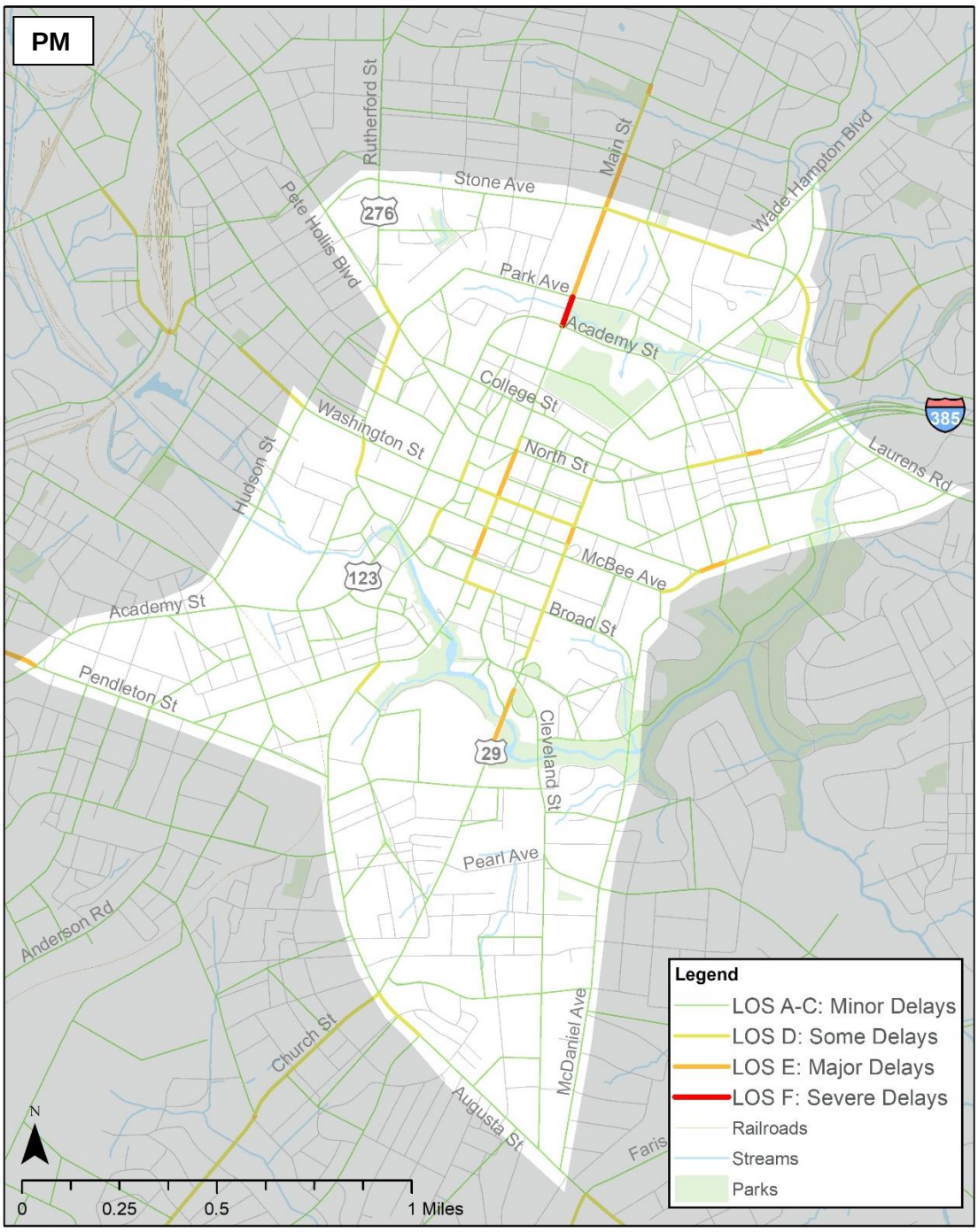


Figure 24: 2015 PM Travel Demand Model Level of Service Outputs



During the PM period, the model indicates congestion along Main Street north of Academy Street, Main Street between Court Street and North Street, near the terminus of Interstate 385, and on Church Street (US-29) between University Ridge and Camperdown Way.

The GPATS model outputs appear to correlate with the congestion experienced and reported by motorists in the downtown area. This also indicates that the model is suitably calibrated for use in forecasting downtown congestion.

Autonomous/Connected Vehicles

With the advance of technology and connectivity, autonomous and connected vehicles (AV/CV) are appearing on roads with increasing frequency, and planning for more of these types of mobility is essential. The city of Greenville has shown a strong interest in developing a strategy to welcome AV/CV technology, and to establish an infrastructure to accommodate vehicle-to-vehicle (V2V) and other smart-city communication methods. A more detailed technology primer for the City of Greenville is located in Appendix C of this memo.

Origin/Destination Studies

Origin/Destination (O-D) data for the downtown area was acquired from data vendor Streetlight, Inc. to see where downtown travelers are coming from and going to, and to help determine which routes experience the heaviest flows. A set of 28 internal zones, 17 external zones, and 5 middle filter zones were selected for which to gather data and perform analyses.

- *Internal Zones* – These are the zones that make up the downtown study area. They are typically divided at major roadways and/or between differing land use types. They vary in size from a square block to just over a square mile. Data is collected when a traveler begins or ends their trip within one of these zones.
- *External Zones* – These zones represent all the areas outside of the downtown study area from which downtown travelers begin or end their trip. The zones are small and are placed along each of the major arteries that provide service into the downtown area. Trip data is collected as travelers pass through these zones.
- *Middle Filter Zones* – These zones are created for very specific analyses. They add a third layer of data collection for determining how many trips start in one place, pass through a certain place, and then end at the final destination. Trips are categorized as O-M-D rather than just O-D.

All of the zones are illustrated by type, with their ID numbers in **Figure 25**.

Daily Trips

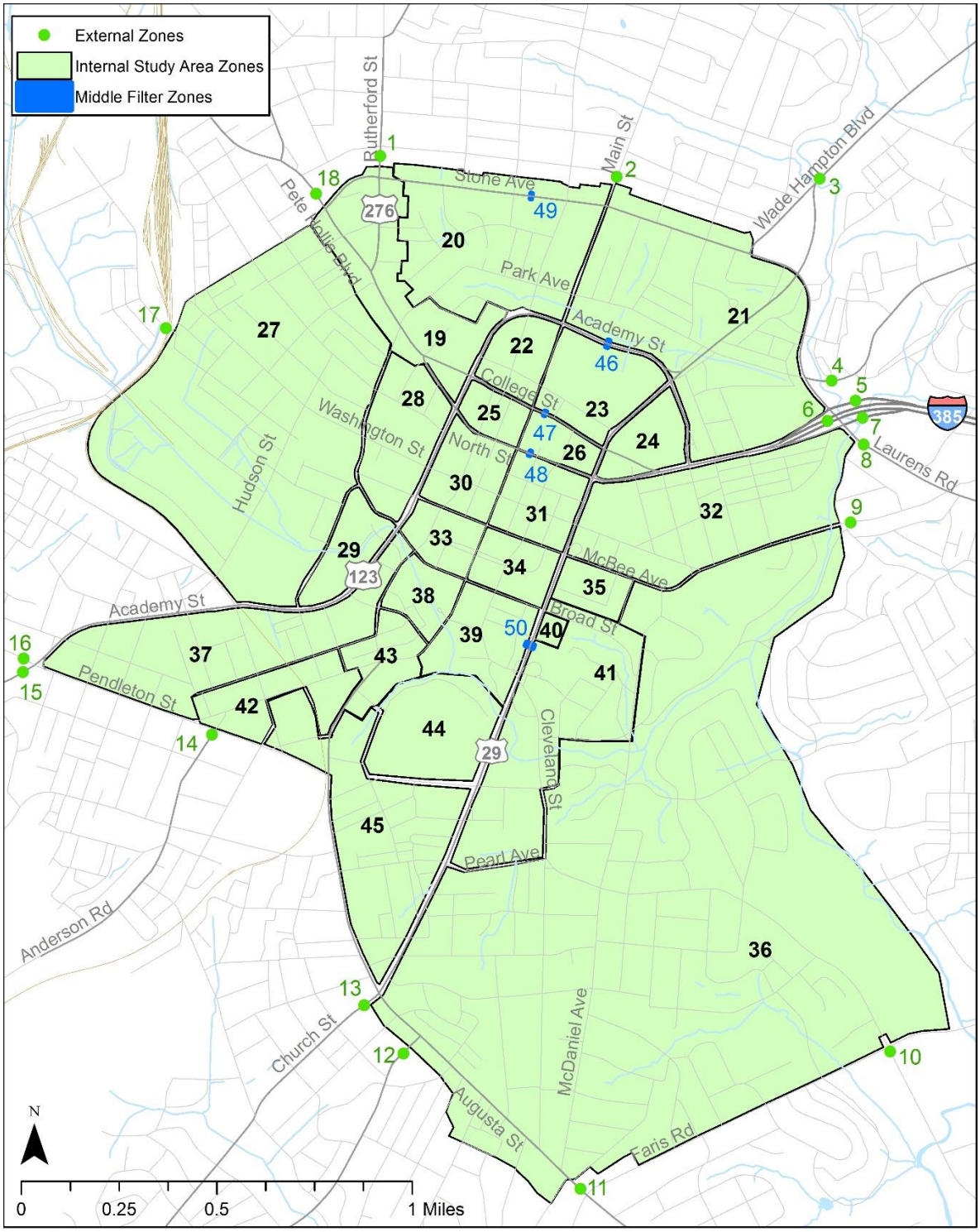
On an average weekday, the data indicates that the heaviest O-D movements occur between Southeast Greenville (internal zone 36) and Augusta Street to the south (external zone 11). However, these results may be skewed due to the fact that zone 36 is so large. If zone 36 is excluded from the analysis, the next several largest O-D movements are from external-to-external, meaning that there is a large number of pass-through trips; trips that do not stop within the downtown area. The heaviest external-to-external (E-E) movement is between Pete Hollis Boulevard (zone 18) on the west side of downtown and I-385 (zone 6) on the east side of town. Other significant E-E movements occur between Academy Street (zone 15) and I-385 (zone 6) and between Church Street (zone 13) and I-385 (zone 6).

When considering only O-D pairs in which one trip end is within the downtown study area, the heaviest movements are between I-385 (zone 6) and three of the zones that make up the heart

of the downtown business district: zones 30, 31, and 33. The data clearly indicates that the majority of trips to and through the study area are made via I-385.

A significantly smaller percentage of trips appear to have both their origin and destination within the downtown study area. This can mean either: not many people live and work downtown, or people that do live and work downtown do not travel by car. The largest internal-to-internal (I-I) pairs all include zone 36 at one end. As mentioned previously, this may just be an indication of the zone size. Other larger I-I movements are between zone 31 (heart of downtown) and zone 42 (near Fluor Field), and between zone 32 (an eastside, mainly residential area) and zone 38 (the Riverfront area).

Figure 25: Streetlight Data Analysis Zones

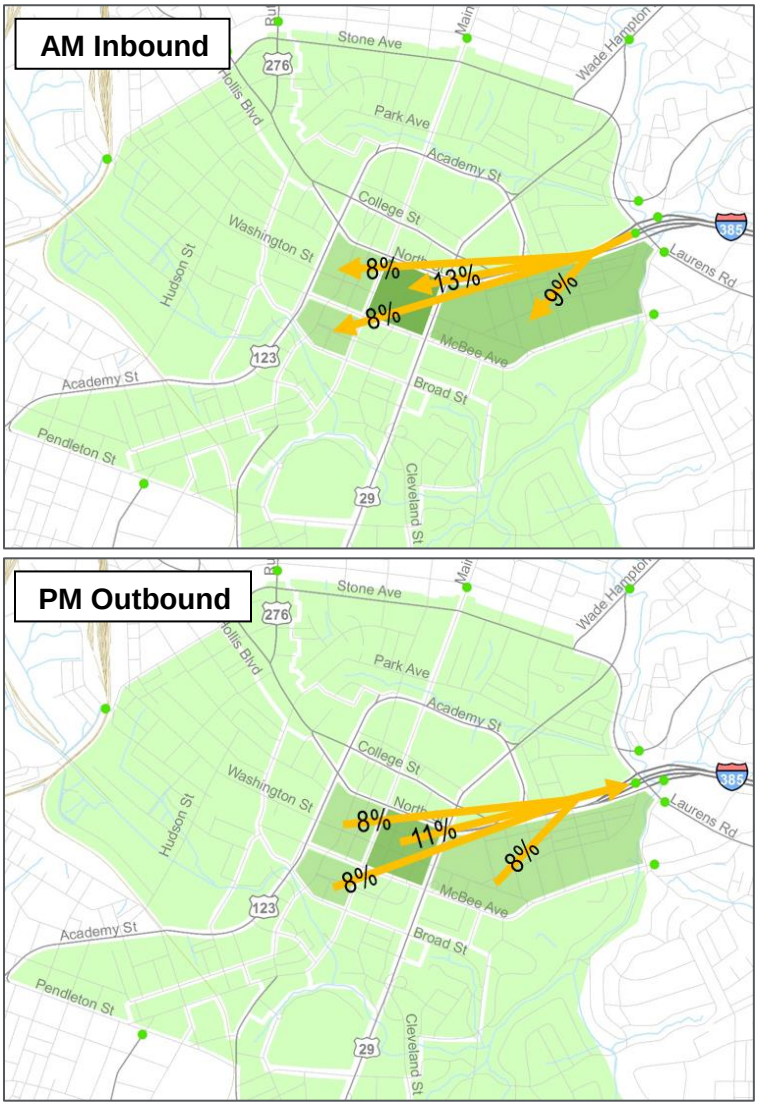


Peak-Hour Trips

Data was collected for the AM peak period, specifically for trips originating either at one of the externals or within the internal study area zones and ending within the study area. This was done to better analyze morning commute patterns. The results indicate that significantly more AM trips to the downtown area originate outside of the study area rather than within. As the daily trip data also indicated, the majority of AM inbound trips were via I-385. The largest O-D pairs were shown from I-385 (zone 6) to zones 31, 32, 33, and 30, see **Figure 26**.

Data was also collected for the PM peak period, and yielded expectedly reverse results. The largest O-D pairs were from the same four downtown business district zones to I-385 (zone 6).

Figure 26: Peak Period Trips To/From I-385



Several other major entry points into the system were also examined as a part of the origin-destination pair development process. **Table 3** summarizes the top four origin-destination zones by time of day for four other entry points to downtown Greenville.

Table 3. O-D Pairs for Major External Nodes

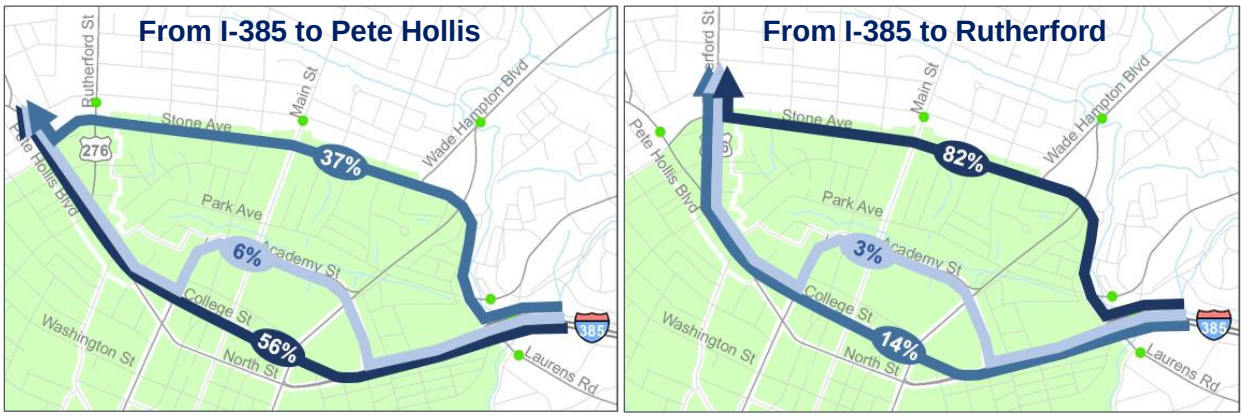
External Node	AM Inbound Trip Destinations	PM Outbound Trip Origins
Pete Hollis Blvd.		
#1	Zone 19 (Pete Hollis Corridor)	Zone 19 (Pete Hollis Corridor)
#2	Zone 21 (Northeast Academy St)	Zone 21 (Northeast Academy St)
#3	Zone 30 (West Main St)	Zone 44 (County Square)
#4	Zone 20 (Northwest Academy St)	Zone 23 (East College St)
Wade Hampton Blvd.		
#1	Zone 31 (East Main St)	Zone 36 (Southeast Greenville)
#2	Zone 36 (Southeast Greenville)	Zone 21 (Northeast Academy St)
#3	Zone 22 (West College St)	Zone 30 (West Main St)
#4	Zone 30 (West Main St)	Zone 31 (East Main St)
US 29/Church St.		
#1	Zone 21 (Northeast Academy St)	Zone 21 (Northeast Academy St)
#2	Zone 45 (South Greenville)	Zone 36 (Southeast Greenville)
#3	Zone 30 (West Main St)	Zone 45 (South Greenville)
#4	Zone 36 (Southeast Greenville)	Zone 33 (W Court St)
SC 123/Pendleton Rd.		
#1	Zone 28 (West Broad St)	Zone 28 (West Broad St)
#2	Zone 23 (East College St)	Zone 23 (East College St)
#3	Zone 32 (East Greenville)	Zone 31 (East Main St)
#4	Zone 41 (Cleveland St/Camperdown St)	Zone 41 (Cleveland St/Camperdown St)

Middle Filter Analysis

One specific reason that the O-D data was obtained was to answer the question: for pass-through trips from I-385 to the west side of the study area, which route is most commonly used? To help determine this, middle filters were created along Stone Avenue, Academy Street, and the College Street/North Street pair.

On a daily basis, pass-through trips headed westbound from I-385 to Pete Hollis Boulevard (zone 18) are most likely to use College Street (56%) rather than Stone Avenue (37%) or Academy Street (6%). There is a shift however, for trips headed from I-385 to Rutherford Street (zone 1), despite its proximity to Pete Hollis Boulevard; 82% use Stone Avenue compared to 14% using College Street and 3% using Academy Street.

Figure 27: Middle Filter Analysis: I-385 to West Side of Study Area



Pass-through trips from I-385 to Academy Street (zone 15) were also analyzed. Interestingly, a slight majority of trips still use College Street (53%), but a fairly high proportion also use Academy Street (46%) despite having to go north to essentially go south. Observations of peak period data indicate similar trends for each of these middle filter analyses.

Figure 28: Popular Routes from I-385 to Academy Street

In the opposite direction, complementary flows were observed. On a daily basis, flows from Pete Hollis Boulevard (zone 18) to I-385 favor North Street (58%) over Stone Avenue (36%), although the split is more even than from Rutherford Street (zone 1) to I-385 where 74% favor Stone Avenue over North Street (22%). From both zones 1 and 18 the percentage of trips using Academy Street were low, 3% and 5% respectively. The breakdown of percentages is similar for peak period data as well.

Trip Generation Studies

Data derived from Streetlight, Inc. was also utilized to conduct trip generation studies for a couple of the newer multifamily residential developments within the downtown area. The purpose of this analysis was to determine how consistent ITE Trip Generation Manual projections are with Streetlight data outputs.

The multifamily developments selected for this study were: Ellison on Broad Apartments (located in Streetlight zone 40), and the District West Apartments and Trailside at Reedy Point Apartments (both located in Streetlight zone 29). See **Figure 25** for location of zones. Streetlight data was collected using zones 40 and 29 (individually) as one trip end and all study area zones and externals as the other trip end, to essentially capture all trips that either originate or end in those zones. Data was collected both inbound and outbound. Streetlight outputs for AM and PM are provided in 4-hour periods, therefore adjustments were made to convert those outputs to a single peak hour number of trips. Trip totals for both the Streetlight and Trip Generation methods are provided in **Table 4**.

Table 4: Trip Generation vs. Streetlight Data

			Weekday			AM Peak Hour			PM Peak Hour		
Zone		DUs	Total	In	Out	Total	In	Out	Total	In	Out
40	Trip Generation*	201	1,093	547	547	72	19	53	88	54	34
	Streetlight		2,212	938	1,247	251	19	231	204	136	68
29	Trip Generation*	580	3,155	1,578	1,578	209	54	155	255	156	99
	Streetlight		2,436	1,146	1,290	216	21	195	251	157	95

**ITE Trip Generation Manual, 10th Edition, Land Use Code 221: Multifamily Housing (Mid-Rise)*

Results of this comparison indicate that the two methods yield somewhat consistent results, for the peak hours, for these test cases. However, the Trip Generation calculation for zone 40 produces half as many trips as the Streetlight data reports on a daily basis. Conversely, the Trip Generation calculation for zone 29 yields ~25% more daily trips than the Streetlight data reports. There are a number of variables that could be contributing to these differing results:

- Differences in zone size and number of units; smaller sample sizes equal more variability.
- The location of each of the zones in comparison to employment/shopping/recreation, could impact the number of walking trips vs. driving trips.
- Streetlight data does not draw from a 100% sample. It incorporates calibration methods, using available AADT data, to determine a number of trips based on a small sample.
- Trip Generation data is also based on a limited number of studies.

For a better test of the validity of using the Trip Generation Manual to project traffic for proposed developments in the downtown Greenville area, actual counts at the driveways of these test multifamily developments could be collected and compared to the Trip Generation traffic projections.

Crash Analysis

Between 2015 and 2017, the downtown Greenville study area experienced 4,167 crashes, including 801 injury crashes (19% of total) and two fatal crashes (0.05%). Approximately 1.5% of these crashes involved pedestrians (42 crashes) or bicycles (23 crashes), though these incidents made up over 7% of injury crashes. This data is summarized in **Table 5.**

Table 5. Three-Year Study Area Crash Data (2015 to 2017)

	Fatal	Injury	Property Damage Only	Total
Motor Vehicle Only Crashes	0	743	3,359	4,102
Pedestrian Crashes	2	39	1	42
Bicycle Crashes	0	19	4	23
All Crashes	2 (0.05%)	801 (19%)	3,364 (81%)	4,167

Figure 28 displays a heat map of crashes in downtown Greenville, with red areas indicating a higher density of crashes. Crashes appear to occur more frequently at major intersections of high-volume arterial roads, particularly along the College Street/North Street one-way pair through the heart of downtown. Other hotspots of crash activity can be found along Stone Avenue; both at the I-385 interchange and at the western end near the Rutherford Street and Pete Hollis Boulevard intersections. The two fatal crashes during the study period are indicated by solid red circles.

Pedestrian crashes are also shown on **Figure 29**. The distribution of these incidents does not necessarily follow the distribution of total crashes. Three high-activity corridors stand out: the College Street/North Street one-way pair, Rutherford Street between Pete Hollis Boulevard and Stone Avenue, and Augusta Street heading southward from Main Street. Notably, relatively few crashes (vehicular or pedestrian) occur along the Main Street corridor despite a high density of businesses and pedestrian activity, possibly owing to the pedestrian-focused design of the street.

A crash rate analysis was conducted for intersections in the downtown area. Crash rates are based on the number of crashes at an intersection compared to the traffic volume (typically per million entering vehicles) for a certain time period. **Figure 30** illustrates these crash rates. Intersections with crash rates that fall below the sample average were filtered out, and shown on the map in gray. Intersections with crash rates above the sample average are stratified from high to low using the standard deviation classification method. This helps indicate which intersections may have safety issues. The intersections with the highest crash rates are also listed in **Table 5**.

Similar to the density analysis, the crash rates indicate that the College Street/North Street corridor is particularly crash-prone; the two intersections with the most crashes in the downtown area are College Street at Townes Street and North Street at Main Street.

Other intersections that appear to have a higher-than-average crash rate include Pete Hollis Boulevard at Stone Avenue and College Street at Academy Street. Generally, the intersections with the highest crash rates fall along major arterials with higher volumes and speed limits.

Figure 29: Crash Density

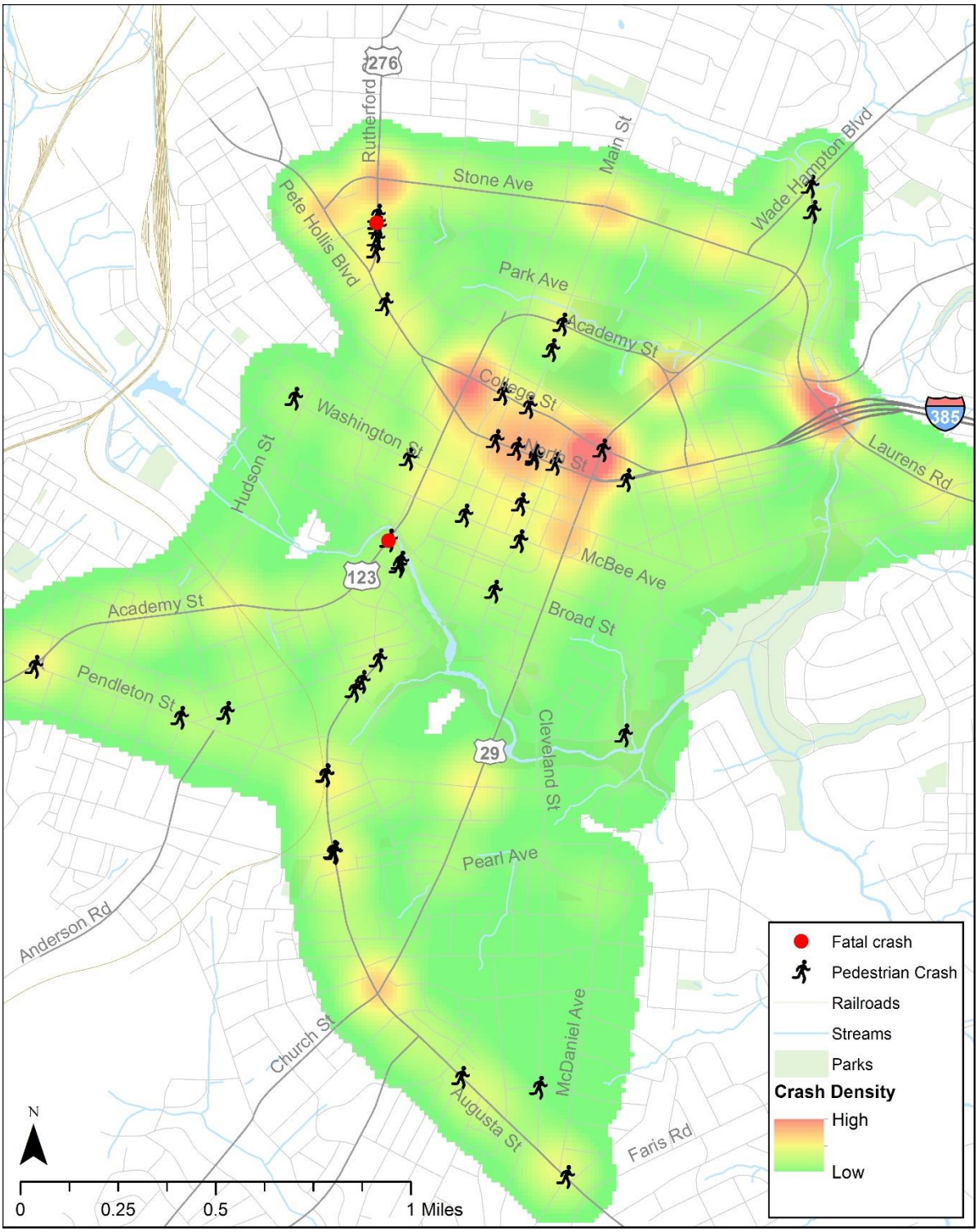


Figure 30: Intersection Crash Rates

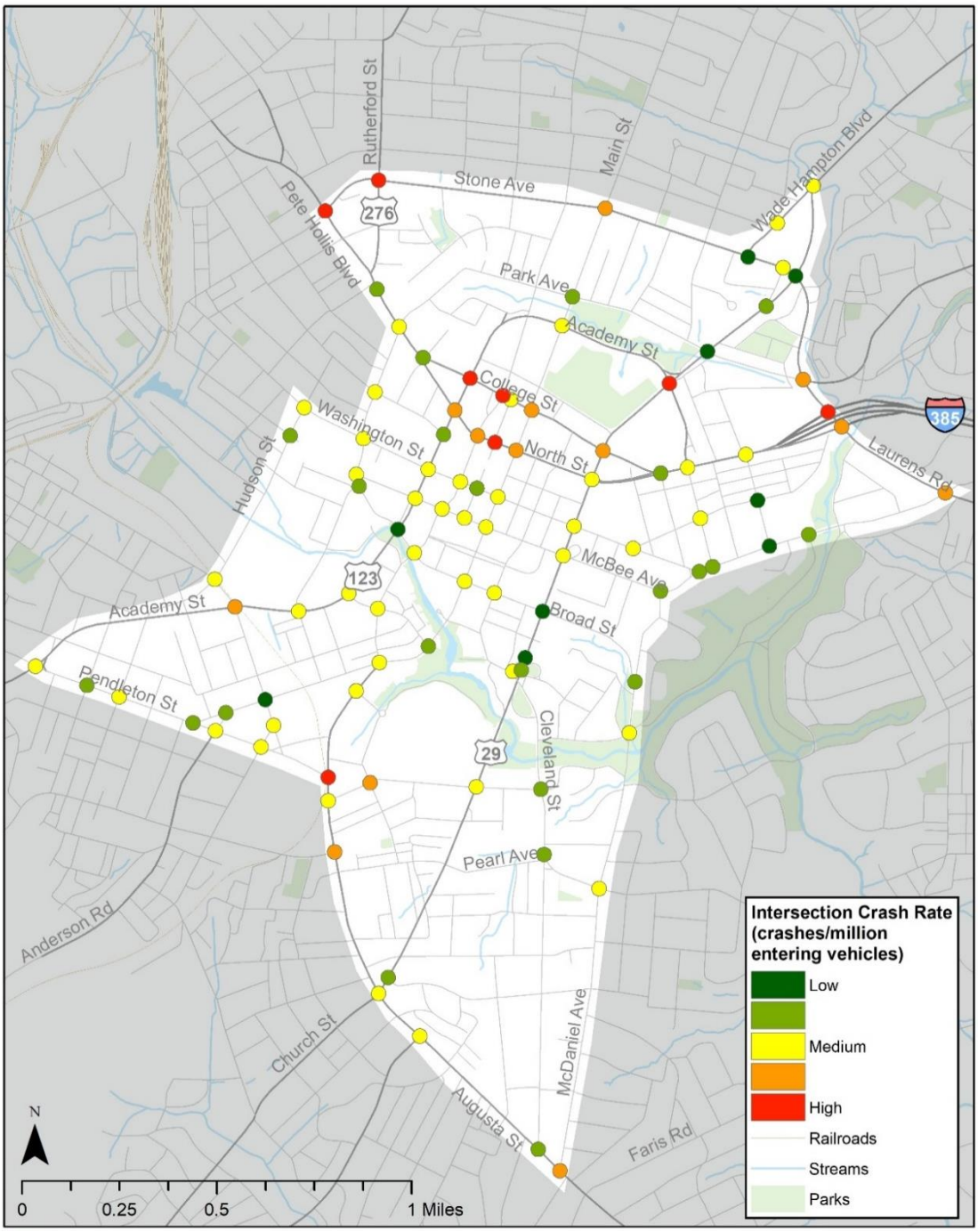


Table 5: Intersections with Highest Crash Rates

North Street & Laurens Street	3.87
College Street & Richardson Street/Townes Street	3.41
Pete Hollis Boulevard & Stone Avenue	2.94
College Street & Academy Street	2.68

Two specific corridors in the downtown area were selected by the City to be analyzed in more detail; the Pete Hollis Boulevard/Rutherford Street corridor and the College Street/North Street corridor. These corridors were selected as high-priority in terms of needed safety improvements; as indicated by both the crash density and crash rate maps. Full documentation of these corridor safety analyses are included in Appendix D; a summary is provided below.

Pete Hollis Boulevard/Rutherford Street

The Pete Hollis Boulevard/Rutherford Street corridor encompasses Pete Hollis Boulevard/Buncombe Street and Rutherford Street from just north of Stone Avenue to just east of Whitner Street. The corridor length is approximately three-quarters of a mile. Pete Hollis Boulevard and Buncombe Street are six-lane divided arterial roadways; Rutherford Street is a four-lane divided arterial roadway; Stone Avenue is a four-lane undivided minor arterial roadway. All roadways have a speed limit of 35 miles per hour.

The 3-year crash data (2015-2017) included a total of 391 crashes, and was analyzed for the following seven metrics:

- **Location:** The majority of crashes occurred at signalized intersections, and over half occurred at either the Rutherford Street and Stone Avenue intersection (110 crashes) or the Pete Hollis Boulevard and Stone Avenue/Mulberry Street intersection (93 crashes).
- **Manner of Collision:** The most common crash types were rear end collisions (50%), angle collisions (29%) and sideswipes (13%).
- **First Harmful Event:** In most instances, the first harmful event involved one motor vehicle striking another. However, there were six crashes involving pedestrians, and another 12 that involved another type of fixed or non-fixed object.
- **Injury Status:** There were 71 crashes that resulted in an injury, and six of those crashes included severe injuries. There was one fatal incident resulting in a pedestrian death.
- **Probable Cause:** The most common cause of crashes in the study area was found to be driving too fast for conditions (24%). Failure to yield right-of-way and following too closely were also common, making up 19% of crashes each.
- **Lighting:** The majority of crashes occurred during daylight conditions (77%).
- **Roadway Conditions:** The majority of crashes occurred under dry road surface conditions (86%).

Analysis of these seven metrics led to the following recommendations for transportation related improvements:

- Five of the six crashes involving pedestrians occurred along a quarter-mile segment of Rutherford Street, between Stone Avenue and Buncombe Street. Therefore, it is recommended that a study be performed to determine if a midblock pedestrian crossing is appropriate for this area.
- There is a cluster of angle and sideswipe crashes on the southbound Buncombe Street receiving lanes at the intersection with Rutherford Street. To help mitigate this, it is recommended that the pavement markings and geometry at the dual left-turn lanes from

Rutherford Street onto Buncombe Street be reevaluated. The need for additional signage should also be evaluated.

College Street/North Street

The College Street/North Street corridor includes the one-way pair of College Street/Beattie Place and Buncombe Street/North Street between Whitner Street, at the west end, and Manly Street, at the east end. Both corridors are principal arterials with 35 mile per hour speed limits. College Street/Beattie Place carries four westbound lanes, while Buncombe Street and North Street carry two to three eastbound lanes in different sections.

The 3-year crash data (2015-2017) included a total of 683 crashes, and was analyzed for the following seven metrics:

- **Location:** The majority of crashes occurred at signalized intersections. The intersections with the highest number of crashes were: Beattie Place at Church Street (94 crashes), College Street at Academy Street (86), North Street at Church Street (73), Buncombe Street at Academy Street (58), and North Street at Main Street (58). Crashes at these five intersections make up more than half (54%) of the total crashes along the corridor.
- **Manner of Collision:** The most common crash types were angle collisions (35%), sideswipes, same direction (31%) and rear-end collisions (23%).
- **First Harmful Event:** In most instances, the first harmful event involved one motor vehicle striking another. However, there were seven crashes involving a pedestrian, and five involving a bicycle.
- **Injury Status:** There were 105 crashes that resulted in an injury, and two of those crashes included severe injuries. There were no reported fatalities along this corridor during the three-year analysis period.
- **Probable Cause:** The most common cause of crashes in the study area was found to be improper lane usage or lane change (28%). Failure to yield right-of-way and disregarding signs/signals/etc. were also common causes, making up 13% and 12% of crashes respectively.
- **Lighting:** The majority of crashes occurred during daylight conditions (77%).
- **Roadway Conditions:** The majority of crashes occurred under dry road surface conditions (86%).

Analysis of these seven metrics led to the following recommendations for transportation related improvements:

- Three of the five bicycle incidents occurred along the northbound Richardson Street approach to College Street. This approach has narrow shoulders, approximately four feet wide, striped between the vehicle travel lanes and the sidewalk on both sides of the road. These lanes are not striped or signed for bicycles. It is recommended that the striping and signing be reviewed in this area as specifically related to bicycle and pedestrian travel.

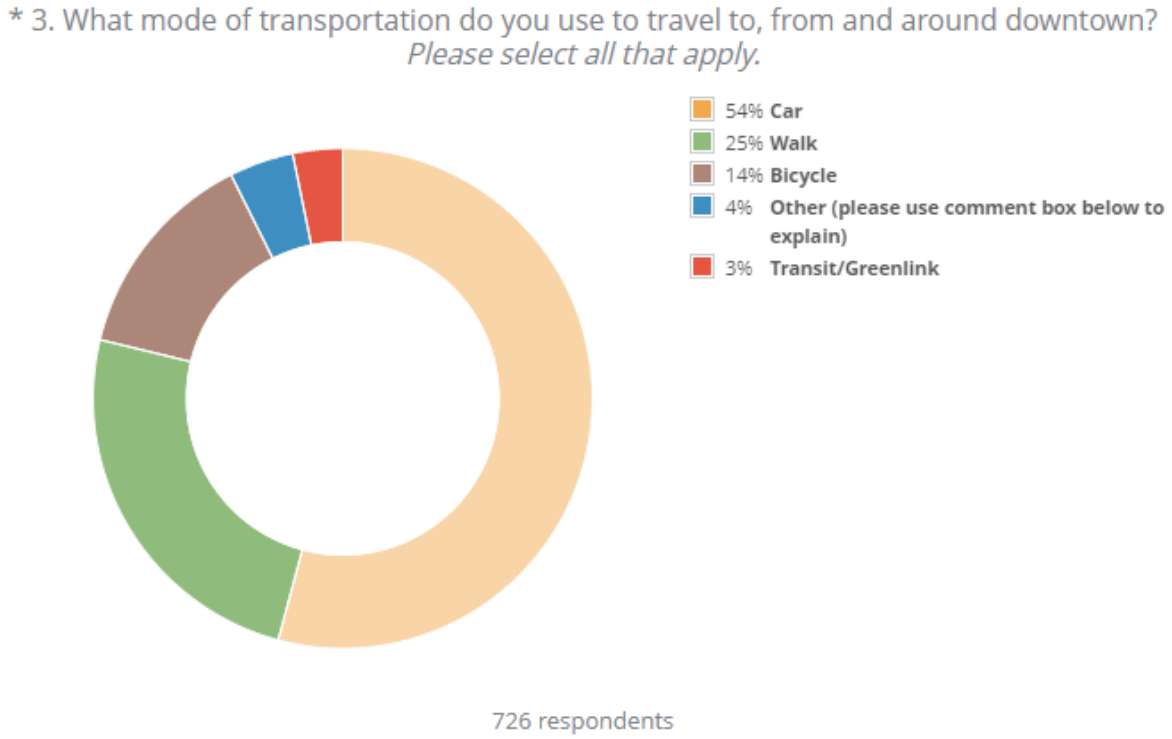
Community Outreach

A fact-finding effort to reach out to the community was undertaken as a part of the Existing Conditions assessment. This effort took the form of an online survey and a public informational meeting. The online survey consisted of 15 questions which were designed to gather information about the purpose of individual trips to downtown, the modes of travel, which routes are preferred and why, and what general areas of improvement the community would like to see. The survey was released on Wednesday, July 10, 2019 and was open for response until Tuesday, July 23, 2019 with a total of 789 respondents. The survey was distributed via social media and Next Door and was also accessible in person at the public meeting via iPads.

The results generated from the survey indicate common patterns in the respondents' mode choices, commuting experiences, and travel decisions to, from and through downtown. Conclusions about the overall modal split within the City should not be drawn from this data, as the questions were designed to ask respondents to reflect on their choices within the downtown district and are not representative of the mode split for the City as a whole. Other plans and studies, such as the *Bicycle Master Plan* and the *Transit Development Plan*, should be referenced for representations of respective modes of travel.

As evidenced by the responses given to Question #3 regarding mode choice in **Figure 31** below, it is apparent that motorized vehicle traffic only accounts for just over half of all of the trips being made by survey respondents within the downtown business district. This is important to note because much of the focus on downtown mobility lies on vehicles and making sure that those trips are as unimpeded as possible. On certain roads, such as Academy Street or Church Street, motorized traffic is certainly a priority. However, on lower-volume roads like Main Street, Spring Street, Butler Avenue, and Richardson Street, there should be more of a consideration for all users and optimizing for vehicle delay may not be the most effective treatment.

Figure 31: Survey Summary Question #3



Question #14, summarized in **Figure 32** (on the next page), asked people to rate their level of support for various transportation improvement tools that can be used in the context of downtown Greenville. Notably, upgrading the existing infrastructure to improve traffic flow received high levels of support. This tool is highly effective in constrained downtown areas where additional space for turn lanes or new roads comes at a premium. One idea receiving a high level of support was the idea of a downtown bypass.

There is also support for more road diet techniques which can provide space for pedestrians, cyclists, transit vehicles, or landscaping elements at the cost of motorized vehicle capacity. Essentially, responders were supportive of removing travel lanes to provide more mobility options. Road diets should always be evaluated from a motorized vehicle perspective however, removing capacity on arterial roads and some major collector roads can create bottlenecks for traffic flow.

Lastly it should be noted that while suport for one-way and two-way street conversions was mixed, these two tools received the least overall support. This is possibly indicative of an uncertainty as to whether they will help traffic flow. Often the perception of these types of changes is that familiar routes are interrupted and navigation becomes more challenging.

Figure 32: Survey Question #14 Summary

* 14. How supportive would you be of the following transportation improvements?

	Not supportive	Somewhat supportive	Supportive	Very supportive	Extremely supportive
Upgrading traffic signal equipment to improve the flow of traffic	2% Not supportive	9% Somewhat supportive	21% Supportive	27% Very supportive	38% Extremely supportive
Converting two-way streets to one-way streets to control the flow of traffic	22% Not supportive	26% Somewhat supportive	24% Supportive	13% Very supportive	11% Extremely supportive
Converting one-way streets to two-way streets to create more travel flexibility	25% Not supportive	26% Somewhat supportive	29% Supportive	11% Very supportive	6% Extremely supportive
Reducing the width of vehicular lanes, or removing a lane altogether (road diet), to provide space for other features (e.g., wider sidewalks, bike lanes, bus/trolley stops, turn lanes, pedestrian refuge medians)	17% Not supportive	19% Somewhat supportive	18% Supportive	17% Very supportive	25% Extremely supportive
Creating a bypass to allow vehicles to get from one side of downtown to the other without traveling through the center	10% Not supportive	11% Somewhat supportive	19% Supportive	24% Very supportive	31% Extremely supportive

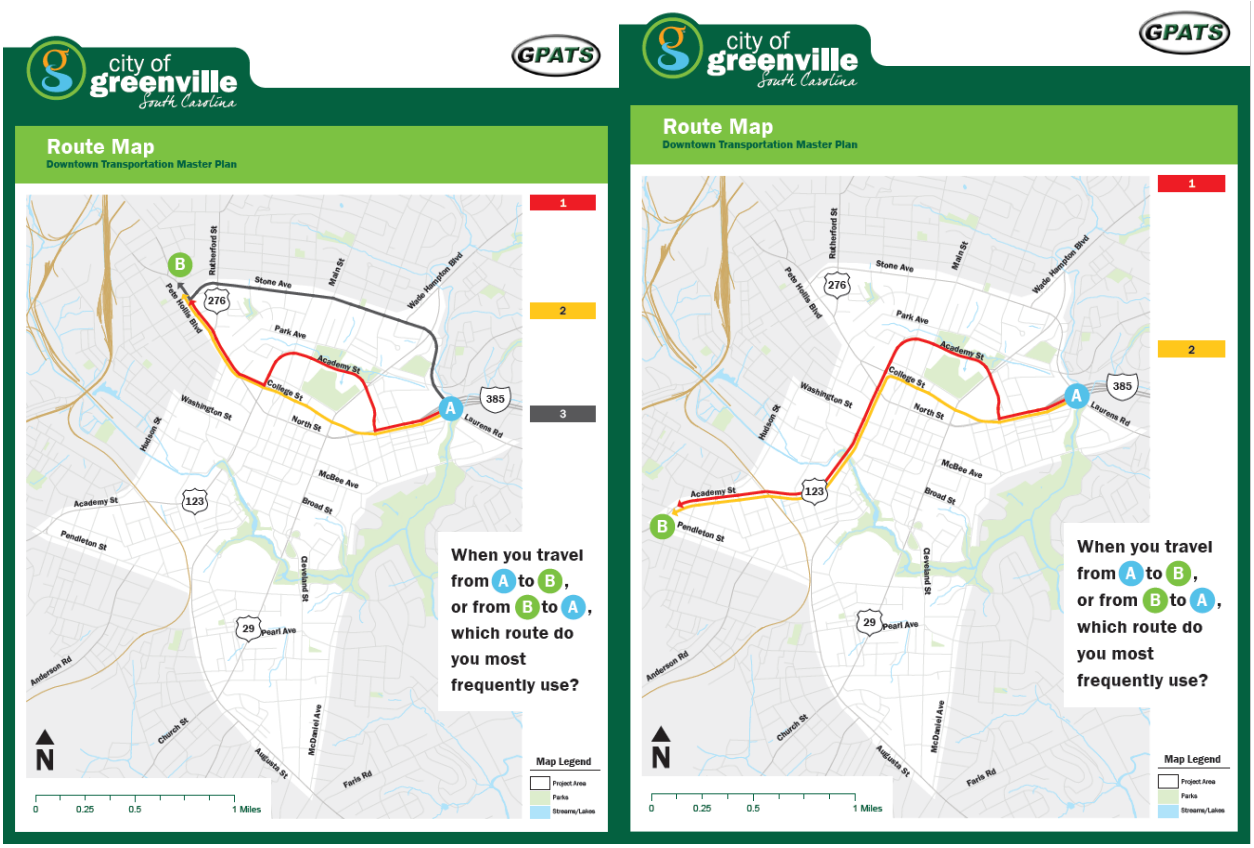
632 respondents

A full summary of the survey and responses can be found in the Appendix E of this memo.

In addition to the online survey, a public informational meeting was held at City Hall on July 16, 2019 from 5:00pm – 7:00pm (picture at right). A total of 20 attendees were met by project team members from the City of Greenville and HDR and were led through a series of seven boards describing the study area and offering opportunities to participate interactively.

Interactive displays asked meeting attendees to identify the routes they take when traveling through town, areas of congestion that were not currently marked and to provide commentary on their ideas to improve transportation downtown (examples shown below).

Figure 33: Survey Route Selection Maps



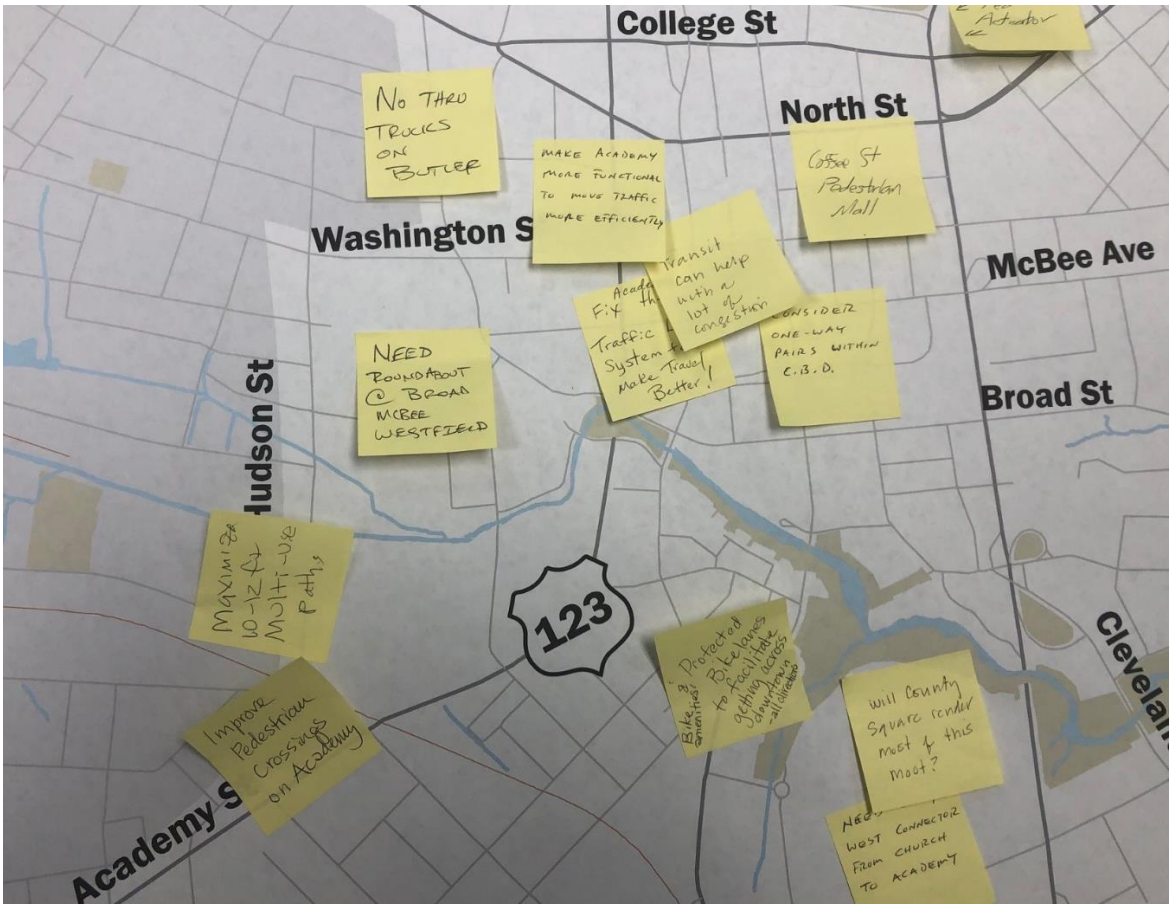
When identifying routes travelled, the majority of people tended to take the most direct route through downtown to get from point A to point B.

People commonly noted that congestion at the interchange at Stone Avenue and I-385 is excessive and causes frequent delays.

Lastly, attendees were asked to provide their commentary on the transportation plan and their ideas on future improvements for downtown transportation. Many comments addressed concerns for pedestrian travel throughout the entire study area, including improved walkways, improving traffic flow at traffic signals, and providing better pedestrian crossings. Several responses mentioned the intersection of Augusta Street at Faris Street and at Church Street as being congested. Academy Street signal timings were mentioned as being problematic as well as general traffic flow on Main Street.

A few responses from comment forms or other interactive boards also note that Butler Avenue is used as a cut-through for traffic on the west side of the City. Several proposed installing a roundabout at Butler Avenue/Broad Street at West McBee Ave and including Westfield Street in that intersection. Use of traffic calming elements on Butler Avenue were mentioned as one potential treatment to help control the speeds of that cut-through traffic. These recommendations were largely suggested by residents of the area that Butler Avenue adjoins.

Figure 34: Public Meeting Additional Comments



Appendices

Appendix A: 2019 Existing Conditions Synchro Output Files, HCM 6th Edition

Appendix B: GPATS Model Review and Modification Memorandum

Appendix C: Autonomous/Connected Vehicle Primer Memorandum

Appendix D: College Street/North Street Corridor Crash Analysis & Pete Hollis Boulevard/Rutherford Street Corridor Crash Analysis

Appendix E: Public Meeting Report and Survey Summary

Appendix A: 2019 Existing Conditions Synchro Output Files, HCM 6th Edition

DRAFT

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	805	110	0	0	0	0	945	412	68	1280	0
Future Volume (veh/h)	363	805	110	0	0	0	0	945	412	68	1280	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	367	813	111				0	1027	448	72	1347	0
Peak Hour Factor	0.99	0.99	0.99				0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	571	1008	138				0	1354	591	380	2098	0
Arrive On Green	0.32	0.32	0.30				0.00	0.78	0.73	0.27	1.00	0.00
Sat Flow, veh/h	1781	3141	429				0	3650	1519	1781	3647	0
Grp Volume(v), veh/h	367	460	464				0	1004	471	72	1347	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1793				0	1702	1597	1781	1777	0
Q Serve(g_s), s	15.9	21.3	21.4				0.0	14.4	15.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	15.9	21.3	21.4				0.0	14.4	15.9	0.0	0.0	0.0
Prop In Lane	1.00		0.24				0.00		0.95	1.00		0.00
Lane Grp Cap(c), veh/h	571	570	575				0	1324	621	380	2098	0
V/C Ratio(X)	0.64	0.81	0.81				0.00	0.76	0.76	0.19	0.64	0.00
Avail Cap(c_a), veh/h	693	691	697				0	1324	621	380	2098	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	26.1	28.0	28.2				0.0	7.7	9.4	22.2	0.0	0.0
Incr Delay (d2), s/veh	1.5	5.9	5.8				0.0	4.1	8.4	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	9.7	9.8				0.0	3.2	4.2	1.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	33.9	34.1				0.0	11.8	17.8	22.3	1.1	0.0
LnGrp LOS	C	C	C				A	B	B	C	A	A
Approach Vol, veh/h		1291						1475			1419	
Approach Delay, s/veh		32.2						13.7			2.2	
Approach LOS		C						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.1	39.0		32.9		57.1
Change Period (Y+Rc), s	6.0	* 6		6.0		6.0
Max Green Setting (Gmax), s	8.0	* 33		33.0		45.0
Max Q Clear Time (g_c+I1), s	2.0	17.9		23.4		2.0
Green Ext Time (p_c), s	0.0	8.5		3.5		13.1

Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	647	66	34	410	36	43	539	11	160	1193	474
Future Volume (veh/h)	266	647	66	34	410	36	43	539	11	160	1193	474
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	292	711	73	37	451	40	56	700	14	167	1243	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.77	0.77	0.77	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	2	2	2
Cap, veh/h	348	955	98	161	558	49	224	1742	35	523	1884	
Arrive On Green	0.15	0.29	0.28	0.03	0.17	0.15	0.06	0.99	0.96	0.06	0.53	0.00
Sat Flow, veh/h	1781	3253	334	1781	3303	292	1753	3507	70	1781	3647	0
Grp Volume(v), veh/h	292	388	396	37	242	249	56	349	365	167	1243	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1810	1781	1777	1818	1753	1749	1828	1781	1777	0
Q Serve(g_s), s	18.0	26.9	26.9	2.3	17.8	18.0	2.2	0.3	0.3	6.1	34.4	0.0
Cycle Q Clear(g_c), s	18.0	26.9	26.9	2.3	17.8	18.0	2.2	0.3	0.3	6.1	34.4	0.0
Prop In Lane	1.00		0.18	1.00		0.16	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	348	522	531	161	300	307	224	869	908	523	1884	
V/C Ratio(X)	0.84	0.74	0.75	0.23	0.81	0.81	0.25	0.40	0.40	0.32	0.66	
Avail Cap(c_a), veh/h	417	536	546	255	340	348	273	869	908	631	1884	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.87	0.87	0.87	0.95	0.95	0.95	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.9	43.4	43.6	46.4	54.4	54.6	19.5	0.2	0.3	14.2	23.1	0.0
Incr Delay (d2), s/veh	9.6	4.9	4.8	0.2	10.6	10.8	0.2	1.3	1.3	0.1	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	12.3	12.6	1.0	8.7	9.0	0.9	0.4	0.4	2.5	14.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	48.3	48.4	46.7	64.9	65.4	19.7	1.5	1.5	14.4	24.9	0.0
LnGrp LOS	D	D	D	D	E	E	B	A	A	B	C	
Approach Vol, veh/h		1076			528			770			1410	A
Approach Delay, s/veh		48.4			63.9			2.9			23.7	
Approach LOS		D			E			A			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	71.6	7.8	43.9	8.2	76.1	24.7	27.0
Change Period (Y+Rc), s	4.5	6.0	4.5	6.0	4.5	6.0	4.5	6.0
Max Green Setting (Gmax), s	16.5	49.0	10.5	39.0	7.5	58.0	25.5	24.0
Max Q Clear Time (g_c+I1), s	8.1	2.3	4.3	28.9	4.2	36.4	20.0	20.0
Green Ext Time (p_c), s	0.1	4.9	0.0	3.3	0.0	9.5	0.2	1.0

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	296	247	4	97	1220	0	0	1048	52
Future Volume (veh/h)	0	0	0	296	247	4	97	1220	0	0	1048	52
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				399	176	4	109	1371	0	0	1092	54
Peak Hour Factor				0.90	0.90	0.90	0.89	0.89	0.89	0.96	0.96	0.96
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				622	636	14	545	3761	0	0	1619	722
Arrive On Green				0.06	0.06	0.05	0.43	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3563	3643	83	1781	5274	0	0	3647	1585
Grp Volume(v), veh/h				399	90	90	109	1371	0	0	1092	54
Grp Sat Flow(s),veh/h/ln				1781	1870	1855	1781	1702	0	0	1777	1585
Q Serve(g_s), s				9.9	4.2	4.2	0.0	0.0	0.0	0.0	21.7	1.7
Cycle Q Clear(g_c), s				9.9	4.2	4.2	0.0	0.0	0.0	0.0	21.7	1.7
Prop In Lane				1.00		0.04	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				622	327	324	545	3761	0	0	1619	722
V/C Ratio(X)				0.64	0.28	0.28	0.20	0.36	0.00	0.00	0.67	0.07
Avail Cap(c_a), veh/h				1069	561	557	545	3761	0	0	1619	722
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.99	0.99	0.99	0.73	0.73	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				39.7	37.0	37.0	14.8	0.0	0.0	0.0	19.3	13.8
Incr Delay (d2), s/veh				1.1	0.4	0.5	0.0	0.2	0.0	0.0	2.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.7	2.0	2.0	1.1	0.1	0.0	0.0	8.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.8	37.4	37.4	14.9	0.2	0.0	0.0	21.4	14.0
LnGrp LOS				D	D	D	B	A	A	A	C	B
Approach Vol, veh/h					579			1480			1146	
Approach Delay, s/veh					39.7			1.3			21.1	
Approach LOS					D			A			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	70.3	25.3	45.0	19.7
Change Period (Y+Rc), s	6.0	6.0	* 6	6.0
Max Green Setting (Gmax), s	53.0	10.0	* 39	25.0
Max Q Clear Time (g_c+I1), s	2.0	2.0	23.7	11.9
Green Ext Time (p_c), s	13.2	0.1	6.7	1.8

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	4	1039	200	6	1104
Future Volume (veh/h)	15	4	1039	200	6	1104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	5	1154	222	6	1150
Peak Hour Factor	0.81	0.81	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	102	91	3034	1353	417	3034
Arrive On Green	0.06	0.06	1.00	1.00	0.85	0.85
Sat Flow, veh/h	1781	1585	3647	1585	394	3647
Grp Volume(v), veh/h	19	5	1154	222	6	1150
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	394	1777
Q Serve(g_s), s	0.9	0.3	0.0	0.0	0.2	6.3
Cycle Q Clear(g_c), s	0.9	0.3	0.0	0.0	0.2	6.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	102	91	3034	1353	417	3034
V/C Ratio(X)	0.19	0.06	0.38	0.16	0.01	0.38
Avail Cap(c_a), veh/h	475	423	3034	1353	417	3034
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	0.87	0.87
Uniform Delay (d), s/veh	40.4	40.1	0.0	0.0	1.0	1.4
Incr Delay (d2), s/veh	0.3	0.1	0.3	0.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.1	0.1	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.7	40.2	0.3	0.2	1.0	1.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	24		1376			1156
Approach Delay, s/veh	40.6		0.3			1.7
Approach LOS	D		A			A

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		80.8				80.8	9.2
Change Period (Y+Rc), s		6.0				6.0	6.0
Max Green Setting (Gmax), s		56.0				56.0	22.0
Max Q Clear Time (g_c+I1), s		2.0				8.3	2.9
Green Ext Time (p_c), s		11.9				10.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	1.3
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1633	8	144	1860	426	9	60	87	697	99	21
Future Volume (veh/h)	4	1633	8	144	1860	426	9	60	87	697	99	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	1775	9	152	1958	0	10	65	94	800	0	22
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2419	12	231	2629		157	165	140	927	0	413
Arrive On Green	0.02	0.46	0.45	0.07	0.51	0.00	0.09	0.09	0.09	0.26	0.00	0.26
Sat Flow, veh/h	1781	5243	27	1781	5106	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	4	1152	632	152	1958	0	10	65	94	800	0	22
Grp Sat Flow(s),veh/h/ln	1781	1702	1866	1781	1702	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	0.2	37.5	37.5	5.7	41.0	0.0	0.7	4.5	7.8	29.1	0.0	1.4
Cycle Q Clear(g_c), s	0.2	37.5	37.5	5.7	41.0	0.0	0.7	4.5	7.8	29.1	0.0	1.4
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	1570	861	231	2629		157	165	140	927	0	413
V/C Ratio(X)	0.03	0.73	0.73	0.66	0.74		0.06	0.39	0.67	0.86	0.00	0.05
Avail Cap(c_a), veh/h	206	1570	861	286	2629		236	248	210	1100	0	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.67	0.00	0.67
Uniform Delay (d), s/veh	22.7	29.8	29.8	26.5	26.0	0.0	56.8	58.5	60.1	48.0	0.0	37.7
Incr Delay (d2), s/veh	0.1	3.1	5.5	3.9	2.0	0.0	0.2	1.5	5.5	4.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	15.7	17.8	2.6	16.6	0.0	0.3	2.2	3.3	13.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	32.9	35.4	30.4	27.9	0.0	57.0	60.1	65.5	52.3	0.0	37.8
LnGrp LOS	C	C	D	C	C		E	E	E	D	A	D
Approach Vol, veh/h		1788			2110	A		169			822	
Approach Delay, s/veh		33.8			28.1			62.9			52.0	
Approach LOS		C			C			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.8	66.7		39.4	6.6	74.0		16.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	12.0	44.0		40.0	6.0	50.0		16.0
Max Q Clear Time (g_c+I1), s	7.7	39.5		31.1	2.2	43.0		9.8
Green Ext Time (p_c), s	0.1	2.8		2.3	0.0	4.6		0.2

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	859	10	37	817	64	4	62	26	98	231	236
Future Volume (veh/h)	148	859	10	37	817	64	4	62	26	98	231	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	999	12	39	869	68	4	65	27	105	248	254
Peak Hour Factor	0.86	0.86	0.86	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	2259	27	375	1961	153	164	273	114	300	408	345
Arrive On Green	0.06	0.63	0.61	0.02	0.59	0.57	0.07	0.07	0.06	0.15	0.15	0.15
Sat Flow, veh/h	1781	3596	43	1781	3339	261	896	1255	521	1304	1870	1585
Grp Volume(v), veh/h	172	494	517	39	462	475	4	0	92	105	248	254
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1823	896	0	1777	1304	1870	1585
Q Serve(g_s), s	3.4	12.9	12.9	0.8	13.1	13.1	0.4	0.0	4.4	6.8	11.2	13.8
Cycle Q Clear(g_c), s	3.4	12.9	12.9	0.8	13.1	13.1	11.6	0.0	4.4	11.2	11.2	13.8
Prop In Lane	1.00		0.02	1.00		0.14	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	440	1116	1170	375	1044	1071	164	0	387	300	408	345
V/C Ratio(X)	0.39	0.44	0.44	0.10	0.44	0.44	0.02	0.00	0.24	0.35	0.61	0.74
Avail Cap(c_a), veh/h	687	1116	1170	496	1044	1071	267	0	592	451	623	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.67	0.67	0.67
Upstream Filter(I)	0.94	0.94	0.94	0.60	0.60	0.60	1.00	0.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	8.0	8.6	8.6	8.4	10.4	10.5	43.5	0.0	34.8	36.9	34.8	35.9
Incr Delay (d2), s/veh	0.2	1.2	1.1	0.0	0.8	0.8	0.1	0.0	0.3	0.6	1.2	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.4	4.6	0.3	4.6	4.8	0.1	0.0	2.0	2.3	5.4	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.2	9.8	9.8	8.4	11.2	11.3	43.5	0.0	35.1	37.5	36.0	38.5
LnGrp LOS	A	A	A	A	B	B	D	A	D	D	D	D
Approach Vol, veh/h		1183			976			96			607	
Approach Delay, s/veh		9.6			11.1			35.5			37.3	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	56.9		23.6	5.9	60.5		23.6
Change Period (Y+Rc), s	4.0	6.0		6.0	4.0	6.0		6.0
Max Green Setting (Gmax), s	18.0	28.0		28.0	8.0	38.0		28.0
Max Q Clear Time (g_c+I1), s	5.4	15.1		15.8	2.8	14.9		13.6
Green Ext Time (p_c), s	0.2	4.6		1.8	0.0	6.5		0.2

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

33: Butler Ave./Atwood St. & Buncombe St. #1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	1269	566	4	357	8	261	66	26	4	91	102
Future Volume (veh/h)	291	1269	566	4	357	8	261	66	26	4	91	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1841	1841	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	313	1365	609	5	406	9	203	212	0	5	108	0
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.87	0.87	0.87	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	2	2	2
Cap, veh/h	738	2064	905	155	2155	48	333	350		205	215	
Arrive On Green	0.16	0.59	0.56	0.43	0.43	0.39	0.19	0.19	0.00	0.12	0.12	0.00
Sat Flow, veh/h	1781	3477	1523	217	5059	112	1781	1870	0	1781	1870	0
Grp Volume(v), veh/h	313	1336	638	5	268	147	203	212	0	5	108	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1596	217	1675	1821	1781	1870	0	1781	1870	0
Q Serve(g_s), s	6.9	21.7	23.4	1.3	4.1	4.2	8.7	8.6	0.0	0.2	4.5	0.0
Cycle Q Clear(g_c), s	6.9	21.7	23.4	10.8	4.1	4.2	8.7	8.6	0.0	0.2	4.5	0.0
Prop In Lane	1.00		0.95	1.00		0.06	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	738	2021	948	155	1427	776	333	350		205	215	
V/C Ratio(X)	0.42	0.66	0.67	0.03	0.19	0.19	0.61	0.61		0.02	0.50	
Avail Cap(c_a), veh/h	869	2343	1099	159	1497	813	697	732		624	655	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.0	11.2	12.5	20.1	14.8	14.9	30.9	30.9	0.0	32.5	34.4	0.0
Incr Delay (d2), s/veh	0.4	0.6	1.5	0.1	0.1	0.1	1.8	1.7	0.0	0.0	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	7.0	7.8	0.1	1.5	1.6	3.7	3.9	0.0	0.1	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.3	11.9	14.0	20.2	14.9	15.0	32.7	32.5	0.0	32.6	36.2	0.0
LnGrp LOS	A	B	B	C	B	B	C	C		C	D	
Approach Vol, veh/h		2287			420			415	A		113	A
Approach Delay, s/veh		12.0			15.0			32.6			36.0	
Approach LOS		B			B			C			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		52.2		12.5	13.9	38.3		18.1				
Change Period (Y+Rc), s		6.9		6.1	4.5	6.9		6.1				
Max Green Setting (Gmax), s		53.1		25.9	15.5	33.1		28.9				
Max Q Clear Time (g_c+I1), s		25.4		6.5	8.9	12.8		10.7				
Green Ext Time (p_c), s		19.9		0.5	0.5	3.0		1.2				

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

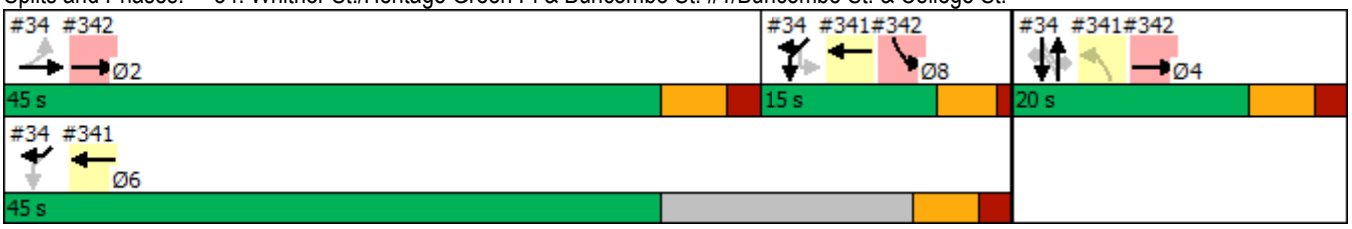
Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations												
Traffic Volume (vph)	15	1256	39	5	4	20	4	4	4	5	7	358
Future Volume (vph)	15	1256	39	5	4	20	4	4	4	5	7	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0	60			0		85		0	0
Storage Lanes			0	1			0		1		1	3
Taper Length (ft)				30			50				50	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.76
Frt		0.995				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.980			0.950	
Satd. Flow (prot)	1770	5060	0	1770	1863	1583	0	1825	1583	0	1752	3575
Flt Permitted	0.950			0.750				0.936			0.950	
Satd. Flow (perm)	1770	5060	0	1397	1863	1583	0	1744	1583	0	1752	3575
Right Turn on Red			Yes			Yes			Yes	Yes		
Satd. Flow (RTOR)		9				123			123		41	41
Link Speed (mph)		35			30			20			35	
Link Distance (ft)		526			314			497			228	
Travel Time (s)		10.2			7.1			16.9			4.4	
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.85	0.56	0.56	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Adj. Flow (vph)	16	1308	41	6	5	25	5	7	7	5	8	393
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1349	0	6	5	25	0	12	7	0	13	429
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15	15	35
Number of Detectors	1	1		1	1	0	1	1	1	1	1	1
Detector Template	Left									Left		
Leading Detector (ft)	20	106		30	30	0	50	30	30	20	30	106
Trailing Detector (ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Position(ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Size(ft)	20	6		30	30	50	50	30	30	20	30	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	pm+pt	custom
Protected Phases		2			4			4			8	6 8
Permitted Phases	2			4		4	4		4	8	6	
Detector Phase	2	2		4	4	4	4	4	4	8	8	6 8
Switch Phase												
Minimum Initial (s)	20.0	20.0		5.0	5.0	5.0	5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	26.0	26.0		25.0	25.0	25.0	25.0	25.0	25.0	16.0	16.0	

Lane Group	SWR2	Ø6
Lane Configurations		
Traffic Volume (vph)	33	
Future Volume (vph)	33	
Ideal Flow (vphpl)	1900	
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor	1.00	
Frt		
Flt Protected		
Satd. Flow (prot)	0	
Flt Permitted		
Satd. Flow (perm)	0	
Right Turn on Red	Yes	
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.91	
Heavy Vehicles (%)	3%	
Adj. Flow (vph)	36	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	
Enter Blocked Intersection	No	
Lane Alignment	Right	
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor	1.00	
Turning Speed (mph)	9	
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases		6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)		20.0
Minimum Split (s)		26.0

Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Total Split (s)	45.0	45.0		20.0	20.0	20.0	20.0	20.0	20.0	15.0	15.0	
Total Split (%)	56.3%	56.3%		25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	18.8%	18.8%	
Maximum Green (s)	39.0	39.0		14.0	14.0	14.0	14.0	14.0	14.0	10.5	10.5	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	
Lost Time Adjust (s)	0.0	-3.0		-3.0	-3.0	-3.0		-3.0	-3.0		0.0	
Total Lost Time (s)	6.0	3.0		3.0	3.0	3.0		3.0	3.0		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Max	Max		None	None	None	None	None	None	None	None	
Walk Time (s)				1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	
Flash Dont Walk (s)				18.0	18.0	18.0	18.0	18.0	18.0	9.0	9.0	
Pedestrian Calls (#/hr)				60	60	60	60	60	60	60	60	
Act Effct Green (s)	44.9	47.9		20.9	20.9	20.9		20.9	20.9		60.5	59.0
Actuated g/C Ratio	0.50	0.54		0.23	0.23	0.23		0.23	0.23		0.68	0.66
v/c Ratio	0.02	0.49		0.02	0.01	0.05		0.03	0.02		0.01	0.18
Control Delay	12.9	14.3		24.0	23.8	0.2		24.2	0.0		0.0	1.4
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.1
Total Delay	12.9	14.3		24.0	23.8	0.2		24.2	0.0		0.0	1.6
LOS	B	B		C	C	A		C	A		A	A
Approach Delay		14.3			7.4			15.3			1.5	
Approach LOS		B			A			B			A	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 89	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 50.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 34: Whitner St./Heritage Green Pl & Buncombe St. #1/Buncombe St. & College St.



Lane Group	SWR2	Ø6
Total Split (s)		45.0
Total Split (%)		56%
Maximum Green (s)		39.0
Yellow Time (s)		4.0
All-Red Time (s)		2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)		3.5
Recall Mode		Max
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1171	4	4	301	410	4	4	4	954	4	12
Future Volume (veh/h)	0	1171	4	4	301	410	4	4	4	954	4	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1287	4	4	334	456	16	16	16	1040	0	0
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.25	0.25	0.25	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h	0	2280	7	184	1610	2520	20	20	20	1309	0	
Arrive On Green	0.00	0.43	0.39	0.39	0.43	0.43	0.03	0.03	0.03	0.37	0.00	0.00
Sat Flow, veh/h	0	5423	16	424	3711	3145	579	579	579	3563	0	1585
Grp Volume(v), veh/h	0	834	457	4	334	456	48	0	0	1040	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1867	424	1856	1572	1737	0	0	1781	0	1585
Q Serve(g_s), s	0.0	14.0	14.0	0.6	4.3	2.6	2.1	0.0	0.0	19.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	14.0	14.0	14.5	4.3	2.6	2.1	0.0	0.0	19.8	0.0	0.0
Prop In Lane	0.00		0.01	1.00		1.00	0.33		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	0	1477	810	184	1610	2520	60	0	0	1309	0	
V/C Ratio(X)	0.00	0.56	0.56	0.02	0.21	0.18	0.80	0.00	0.00	0.79	0.00	
Avail Cap(c_a), veh/h	0	1880	1031	234	2049	2892	137	0	0	1475	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	16.1	16.2	23.9	13.4	1.8	36.5	0.0	0.0	21.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	1.1	0.1	0.1	0.1	25.1	0.0	0.0	2.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.0	5.6	0.1	1.6	2.4	1.3	0.0	0.0	8.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.7	17.2	24.0	13.5	1.8	61.6	0.0	0.0	24.4	0.0	0.0
LnGrp LOS	A	B	B	C	B	A	E	A	A	C	A	
Approach Vol, veh/h		1291			794			48			1040	A
Approach Delay, s/veh		16.9			6.8			61.6			24.4	
Approach LOS		B			A			E			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	36.0	31.4	36.0	8.6
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	39.0	28.5	39.0	6.0
Max Q Clear Time (g_c+I1), s	16.0	21.8	16.5	4.1
Green Ext Time (p_c), s	13.8	3.1	7.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	597	1090	21	252	616	0	0	1109	148
Future Volume (veh/h)	0	0	0	597	1090	21	252	616	0	0	1109	148
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				375	1591	23	293	716	0	0	1246	166
Peak Hour Factor				0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %				2	2	2	3	3	0	0	3	3
Cap, veh/h				511	2111	31	339	2074	0	0	1196	159
Arrive On Green				0.29	0.29	0.29	0.05	0.19	0.00	0.00	0.76	0.76
Sat Flow, veh/h				1781	7356	106	1767	3618	0	0	3221	415
Grp Volume(v), veh/h				375	1214	400	293	716	0	0	699	713
Grp Sat Flow(s),veh/h/ln				1781	1870	1851	1767	1763	0	0	1763	1781
Q Serve(g_s), s				25.9	26.8	26.8	18.3	23.9	0.0	0.0	52.0	52.0
Cycle Q Clear(g_c), s				25.9	26.8	26.8	18.3	23.9	0.0	0.0	52.0	52.0
Prop In Lane				1.00		0.06	1.00		0.00	0.00		0.23
Lane Grp Cap(c), veh/h				511	1610	531	339	2074	0	0	674	681
V/C Ratio(X)				0.73	0.75	0.75	0.86	0.35	0.00	0.00	1.04	1.05
Avail Cap(c_a), veh/h				576	1815	599	358	2074	0	0	674	681
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	1.00	1.00	0.90	0.90	0.00	0.00	0.71	0.71
Uniform Delay (d), s/veh				43.8	44.1	44.1	61.0	32.2	0.0	0.0	16.0	16.0
Incr Delay (d2), s/veh				4.8	1.8	5.4	16.1	0.4	0.0	0.0	39.5	41.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.0	12.6	13.0	12.0	11.4	0.0	0.0	15.0	15.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				48.6	45.9	49.5	77.0	32.6	0.0	0.0	55.5	57.9
LnGrp LOS				D	D	D	E	C	A	A	F	F
Approach Vol, veh/h					1989			1009			1412	
Approach Delay, s/veh					47.2			45.5			56.7	
Approach LOS					D			D			E	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	86.0	28.0	58.0	45.0
Change Period (Y+Rc), s	6.0	6.0	* 6	6.0
Max Green Setting (Gmax), s	80.0	23.5	* 52	44.0
Max Q Clear Time (g_c+I1), s	25.9	20.3	54.0	28.8
Green Ext Time (p_c), s	3.0	0.2	0.0	10.2

Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1075	64	0	0	0	0	853	572	23	1665	0
Future Volume (veh/h)	27	1075	64	0	0	0	0	853	572	23	1665	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1856	1856	1870	1870	0
Adj Flow Rate, veh/h	29	1144	68				0	917	615	25	1790	0
Peak Hour Factor	0.94	0.94	0.94				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	3	3	2	2	0
Cap, veh/h	468	1294	77				0	2125	948	281	2307	0
Arrive On Green	0.26	0.26	0.26				0.00	1.00	1.00	0.02	0.86	0.00
Sat Flow, veh/h	1781	4929	293				0	3618	1572	1781	3647	0
Grp Volume(v), veh/h	29	790	422				0	917	615	25	1790	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1818				0	1763	1572	1781	1777	0
Q Serve(g_s), s	1.7	30.3	30.3				0.0	0.0	0.0	0.7	28.3	0.0
Cycle Q Clear(g_c), s	1.7	30.3	30.3				0.0	0.0	0.0	0.7	28.3	0.0
Prop In Lane	1.00		0.16				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	468	894	477				0	2125	948	281	2307	0
V/C Ratio(X)	0.06	0.88	0.88				0.00	0.43	0.65	0.09	0.78	0.00
Avail Cap(c_a), veh/h	537	1026	548				0	2125	948	356	2307	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	1.33	1.33	1.00
Upstream Filter(I)	0.93	0.93	0.93				0.00	0.88	0.88	0.09	0.09	0.00
Uniform Delay (d), s/veh	37.6	48.1	48.2				0.0	0.0	0.0	9.4	5.2	0.0
Incr Delay (d2), s/veh	0.1	7.9	13.6				0.0	0.6	3.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	13.7	15.4				0.0	0.2	0.8	0.3	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	56.0	61.8				0.0	0.6	3.0	9.4	5.4	0.0
LnGrp LOS	D	E	E				A	A	A	A	A	A
Approach Vol, veh/h		1241						1532			1815	
Approach Delay, s/veh		57.6						1.6			5.5	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.3	88.0		41.7		94.3
Change Period (Y+Rc), s	4.5	6.0		6.0		6.0
Max Green Setting (Gmax), s	7.5	71.0		41.0		83.0
Max Q Clear Time (g_c+I1), s	2.7	2.0		32.3		30.3
Green Ext Time (p_c), s	0.0	8.2		3.4		12.0

Intersection Summary	
HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	197	52	191	206	61	0	1277	138	38	1512	135
Future Volume (veh/h)	151	197	52	191	206	61	0	1277	138	38	1512	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	0	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	180	235	62	225	242	72	0	1344	145	42	1662	148
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.95	0.95	0.95	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	2	2	2	0	3	3	2	2	2
Cap, veh/h	179	274	233	184	277	234	0	2214	987	227	2401	1071
Arrive On Green	0.06	0.15	0.15	0.06	0.15	0.15	0.00	0.63	0.63	0.04	1.00	1.00
Sat Flow, veh/h	1767	1856	1572	1781	1870	1585	0	3618	1572	1781	3554	1585
Grp Volume(v), veh/h	180	235	62	225	242	72	0	1344	145	42	1662	148
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1781	1870	1585	0	1763	1572	1781	1777	1585
Q Serve(g_s), s	8.0	16.8	4.8	8.0	17.2	5.5	0.0	31.2	5.1	1.1	0.0	0.0
Cycle Q Clear(g_c), s	8.0	16.8	4.8	8.0	17.2	5.5	0.0	31.2	5.1	1.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	274	233	184	277	234	0	2214	987	227	2401	1071
V/C Ratio(X)	1.00	0.86	0.27	1.22	0.87	0.31	0.00	0.61	0.15	0.19	0.69	0.14
Avail Cap(c_a), veh/h	179	491	416	184	495	420	0	2214	987	299	2401	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	0.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	53.8	56.5	51.4	54.0	56.7	51.7	0.0	15.2	10.4	12.4	0.0	0.0
Incr Delay (d2), s/veh	64.7	6.9	0.5	138.9	8.5	0.7	0.0	1.2	0.3	0.1	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	8.3	1.9	9.5	8.7	2.2	0.0	12.3	1.8	0.4	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	118.5	63.4	51.9	193.0	65.3	52.5	0.0	16.5	10.7	12.5	1.4	0.2
LnGrp LOS	F	E	D	F	E	D	A	B	B	B	A	A
Approach Vol, veh/h		477			539			1489			1852	
Approach Delay, s/veh		82.7			116.9			15.9			1.5	
Approach LOS		F			F			B			A	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	6.5	91.4	12.0	26.1		97.9	12.0	26.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0		6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	64.0	8.0	36.0		76.0	8.0	36.0
Max Q Clear Time (g_c+I1), s	3.1	33.2	10.0	18.8		2.0	10.0	19.2
Green Ext Time (p_c), s	0.0	7.6	0.0	0.8		11.8	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	540	48	72	274	429	11	360	73	542	951	70
Future Volume (veh/h)	77	540	48	72	274	429	11	360	73	542	951	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1826	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	92	643	57	76	288	452	12	383	78	589	1034	76
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.94	0.94	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	4	4	4	5	5	5	2	2	2
Cap, veh/h	384	977	86	352	542	666	239	1000	202	561	1706	125
Arrive On Green	0.10	0.30	0.27	0.09	0.29	0.29	0.35	0.35	0.32	0.13	0.51	0.48
Sat Flow, veh/h	1767	3276	290	1753	1841	1560	496	2876	580	1781	3356	247
Grp Volume(v), veh/h	92	346	354	76	288	452	12	230	231	589	547	563
Grp Sat Flow(s),veh/h/ln	1767	1763	1803	1753	1841	1560	496	1735	1721	1781	1777	1826
Q Serve(g_s), s	2.5	12.8	12.9	2.1	9.8	17.5	1.3	7.4	7.6	9.9	16.4	16.4
Cycle Q Clear(g_c), s	2.5	12.8	12.9	2.1	9.8	17.5	5.8	7.4	7.6	9.9	16.4	16.4
Prop In Lane	1.00		0.16	1.00		1.00	1.00		0.34	1.00		0.14
Lane Grp Cap(c), veh/h	384	526	538	352	542	666	239	603	599	561	903	928
V/C Ratio(X)	0.24	0.66	0.66	0.22	0.53	0.68	0.05	0.38	0.39	1.05	0.61	0.61
Avail Cap(c_a), veh/h	461	526	538	435	542	666	239	603	599	561	903	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	22.9	23.1	15.7	22.1	17.3	19.4	18.3	18.6	19.8	13.1	13.2
Incr Delay (d2), s/veh	0.2	3.0	3.0	0.2	1.0	2.8	0.4	1.8	1.9	51.9	3.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.4	5.5	0.8	4.1	6.1	0.2	3.1	3.1	13.1	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	25.9	26.0	16.0	23.1	20.1	19.8	20.1	20.5	71.7	16.1	16.1
LnGrp LOS	B	C	C	B	C	C	B	C	C	F	B	B
Approach Vol, veh/h		792			816			473			1699	
Approach Delay, s/veh		24.7			20.8			20.3			35.4	
Approach LOS		C			C			C			D	

Timer - Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		41.0	8.8	25.0	12.0	29.0	8.5	25.3
Change Period (Y+Rc), s		6.0	4.5	6.0	5.1	6.0	4.5	6.0
Max Green Setting (Gmax), s		23.0	7.5	19.0	6.9	23.0	7.5	19.0
Max Q Clear Time (g_c+I1), s		18.4	4.5	19.5	11.9	9.6	4.1	14.9
Green Ext Time (p_c), s		3.2	0.0	0.0	0.0	3.2	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

216: Mulberry St. #3/W. Stone Ave #3 & Pete Hollis Blvd. #1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	529	1279	91	27	319	21	34	127	50	4	99	273
Future Volume (veh/h)	529	1279	91	27	319	21	34	127	50	4	99	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	630	1523	108	33	384	25	37	137	0	4	104	0
Peak Hour Factor	0.84	0.84	0.84	0.83	0.83	0.83	0.93	0.93	0.93	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	803	2860	203	346	2600	167	289	387		262	384	
Arrive On Green	0.14	0.59	0.56	0.08	0.53	0.51	0.21	0.21	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1781	4867	345	1781	4902	316	1290	1870	1585	1242	1856	1572
Grp Volume(v), veh/h	630	1065	566	33	265	144	37	137	0	4	104	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1808	1781	1702	1814	1290	1870	1585	1242	1856	1572
Q Serve(g_s), s	11.8	16.3	16.4	0.6	3.4	3.5	2.2	5.4	0.0	0.2	4.1	0.0
Cycle Q Clear(g_c), s	11.8	16.3	16.4	0.6	3.4	3.5	6.2	5.4	0.0	5.7	4.1	0.0
Prop In Lane	1.00		0.19	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	803	2000	1062	346	1806	962	289	387		262	384	
V/C Ratio(X)	0.78	0.53	0.53	0.10	0.15	0.15	0.13	0.35		0.02	0.27	
Avail Cap(c_a), veh/h	803	2000	1062	448	1806	962	707	992		664	984	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.2	10.8	10.9	7.6	10.4	10.5	31.6	29.5	0.0	31.9	28.9	0.0
Incr Delay (d2), s/veh	5.0	1.0	1.9	0.1	0.2	0.3	0.2	0.5	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	5.6	6.3	0.2	1.2	1.4	0.7	2.4	0.0	0.1	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	11.8	12.8	7.7	10.6	10.8	31.8	30.0	0.0	31.9	29.3	0.0
LnGrp LOS	B	B	B	A	B	B	C	C		C	C	
Approach Vol, veh/h		2261			442			174	A		108	A
Approach Delay, s/veh		12.4			10.4			30.4			29.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	55.0		21.9	15.0	50.0		21.9
Change Period (Y+Rc), s	6.2	6.9		6.9	6.2	6.9		6.9
Max Green Setting (Gmax), s	8.8	43.1		43.1	8.8	43.1		43.1
Max Q Clear Time (g_c+I1), s	2.6	18.4		7.7	13.8	5.5		8.2
Green Ext Time (p_c), s	0.0	12.8		0.3	0.0	2.7		0.5

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	221	185	355	674	528	87
Future Volume (veh/h)	221	185	355	674	528	87
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	213	370	702	574	95
Peak Hour Factor	0.87	0.87	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	329	293	518	1368	901	149
Arrive On Green	0.18	0.18	0.11	0.73	0.58	0.56
Sat Flow, veh/h	1781	1585	1781	1870	1565	259
Grp Volume(v), veh/h	254	213	370	702	0	669
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	0	1824
Q Serve(g_s), s	12.9	12.0	7.6	15.3	0.0	23.4
Cycle Q Clear(g_c), s	12.9	12.0	7.6	15.3	0.0	23.4
Prop In Lane	1.00	1.00	1.00			0.14
Lane Grp Cap(c), veh/h	329	293	518	1368	0	1051
V/C Ratio(X)	0.77	0.73	0.71	0.51	0.00	0.64
Avail Cap(c_a), veh/h	394	350	617	1368	0	1051
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.8	36.5	12.2	5.5	0.0	13.6
Incr Delay (d2), s/veh	7.7	6.0	3.2	1.4	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.3	8.8	6.2	9.0	0.0	14.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.5	42.5	15.3	6.9	0.0	16.5
LnGrp LOS	D	D	B	A	A	B
Approach Vol, veh/h	467			1072	669	
Approach Delay, s/veh	43.6			9.8	16.5	
Approach LOS	D			A	B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.7	58.7		21.5		73.5
Change Period (Y+Rc), s	4.5	6.0		6.0		6.0
Max Green Setting (Gmax), s	15.5	44.0		19.0		64.0
Max Q Clear Time (g_c+I1), s	9.6	25.4		14.9		17.3
Green Ext Time (p_c), s	0.6	6.3		0.7		9.0

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	84	29	48	187	64	112	1191	25	52	1111	379
Future Volume (veh/h)	217	84	29	48	187	64	112	1191	25	52	1111	379
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	101	35	58	225	77	118	1254	26	54	1157	395
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.95	0.95	0.95	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	388	524	444	229	347	116	176	1343	28	100	1191	531
Arrive On Green	0.11	0.28	0.28	0.13	0.13	0.12	0.10	0.38	0.36	0.06	0.34	0.34
Sat Flow, veh/h	3456	1870	1585	1253	2618	872	1781	3560	74	1781	3554	1585
Grp Volume(v), veh/h	261	101	35	58	151	151	118	626	654	54	1157	395
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1253	1777	1713	1781	1777	1857	1781	1777	1585
Q Serve(g_s), s	8.3	4.7	1.9	4.8	9.2	9.6	7.3	38.6	38.6	3.4	36.6	25.2
Cycle Q Clear(g_c), s	8.3	4.7	1.9	4.8	9.2	9.6	7.3	38.6	38.6	3.4	36.6	25.2
Prop In Lane	1.00		1.00	1.00		0.51	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	388	524	444	229	236	227	176	670	700	100	1191	531
V/C Ratio(X)	0.67	0.19	0.08	0.25	0.64	0.67	0.67	0.93	0.93	0.54	0.97	0.74
Avail Cap(c_a), veh/h	606	738	626	294	327	316	313	670	700	219	1191	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	31.2	30.2	45.0	46.8	47.5	49.6	34.1	34.2	52.3	37.4	33.6
Incr Delay (d2), s/veh	2.0	0.1	0.0	0.8	4.1	4.7	4.4	21.8	21.2	4.4	19.7	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.6	3.8	1.3	2.8	7.7	7.9	6.2	27.7	28.7	2.9	26.0	15.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	31.3	30.2	45.8	50.9	52.2	54.0	55.9	55.4	56.8	57.1	39.9
LnGrp LOS	D	C	C	D	D	D	D	E	E	E	E	D
Approach Vol, veh/h		397			360			1398			1606	
Approach Delay, s/veh		43.9			50.6			55.5			52.8	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	15.2	42.2	16.8	19.1	10.4	47.0		35.9
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5		6.0
Max Green Setting (Gmax), s	18.0	34.5	18.0	19.0	12.0	40.5		43.0
Max Q Clear Time (g_c+I1), s	9.3	38.6	10.3	11.6	5.4	40.6		6.7
Green Ext Time (p_c), s	0.2	0.0	0.5	1.5	0.0	0.0		0.2

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	3	2	15	12	221	0	0	0	49	44	10
Future Vol, veh/h	2	3	2	15	12	221	0	0	0	49	44	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	110	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	35	35	35	93	93	93	25	25	25	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	9	6	16	13	238	0	0	0	68	61	14

Major/Minor	Minor1			Major2				Major1		
Conflicting Flow All	249	249	68	75	0	0		13	0	0
Stage 1	204	204	-	-	-	-		-	-	-
Stage 2	45	45	-	-	-	-		-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-		4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-		-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-		-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-		2.218	-	-
Pot Cap-1 Maneuver	739	654	995	1524	-	0		1606	-	-
Stage 1	830	733	-	-	-	0		-	-	-
Stage 2	977	857	-	-	-	0		-	-	-
Platoon blocked, %					-				-	-
Mov Cap-1 Maneuver	698	0	995	1524	-	-		1606	-	-
Mov Cap-2 Maneuver	698	0	-	-	-	-		-	-	-
Stage 1	793	0	-	-	-	-		-	-	-
Stage 2	966	0	-	-	-	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	9.5	4.1	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	EBLn1	WBL	WBT	SBL	SBT	SBR
Capacity (veh/h)	820	1524	-	1606	-	-
HCM Lane V/C Ratio	0.024	0.011	-	0.042	-	-
HCM Control Delay (s)	9.5	7.4	0	7.3	0	-
HCM Lane LOS	A	A	A	A	A	-
HCM 95th %tile Q(veh)	0.1	0	-	0.1	-	-

102: Cleveland Street/Church Street Ramp & E Camperdown Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	6	34	1	98	0	135	0	1	29	66	81
Future Volume (veh/h)	0	6	34	1	98	0	135	0	1	29	66	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	7	40	1	121	0	159	0	1	32	72	88
Peak Hour Factor	0.85	0.85	0.85	0.81	0.81	0.81	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	582	493	95	580	0	392	0	2	89	199	248
Arrive On Green	0.00	0.31	0.31	0.26	0.31	0.00	0.17	0.00	0.17	0.10	0.16	0.16
Sat Flow, veh/h	0	1870	1585	4	1865	0	1769	0	11	567	1275	1585
Grp Volume(v), veh/h	0	7	40	122	0	0	160	0	0	104	0	88
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1869	0	0	1780	0	0	1842	0	1585
Q Serve(g_s), s	0.0	0.1	0.7	0.0	0.0	0.0	3.1	0.0	0.0	2.0	0.0	1.9
Cycle Q Clear(g_c), s	0.0	0.1	0.7	1.9	0.0	0.0	3.1	0.0	0.0	2.0	0.0	1.9
Prop In Lane	0.00		1.00	0.01		0.00	0.99		0.01	0.31		1.00
Lane Grp Cap(c), veh/h	0	582	493	578	0	0	395	0	0	288	0	248
V/C Ratio(X)	0.00	0.01	0.08	0.21	0.00	0.00	0.41	0.00	0.00	0.36	0.00	0.36
Avail Cap(c_a), veh/h	0	1018	862	1013	0	0	922	0	0	955	0	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	9.2	9.4	9.8	0.0	0.0	13.7	0.0	0.0	14.8	0.0	14.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.0	0.7	0.0	0.0	0.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.7	0.0	0.0	1.1	0.0	0.0	0.8	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.2	9.5	10.0	0.0	0.0	14.4	0.0	0.0	15.6	0.0	15.4
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		47			122			160			192	
Approach Delay, s/veh		9.4			10.0			14.4			15.5	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	10.0	16.0	12.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	19.0	18.0	19.0	18.0
Max Q Clear Time (g_c+I1), s	2.7	4.0	3.9	5.1
Green Ext Time (p_c), s	0.1	0.7	0.5	0.6

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↖	↗
Traffic Vol, veh/h	0	38	34	0	12	75
Future Vol, veh/h	0	38	34	0	12	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	37	0	13	82

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	78	37
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	41	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	925	1035
Stage 1	0	-	-	0	985	-
Stage 2	0	-	-	0	981	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	925	1035
Mov Cap-2 Maneuver	-	-	-	-	925	-
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	981	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	925	1035
HCM Lane V/C Ratio	-	-	0.014	0.079
HCM Control Delay (s)	-	-	8.9	8.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	456	159	0	0	0	0	1126	302	43	1334	0
Future Volume (veh/h)	103	456	159	0	0	0	0	1126	302	43	1334	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	111	490	171				0	1325	355	45	1404	0
Peak Hour Factor	0.93	0.93	0.93				0.85	0.85	0.85	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	438	636	221				0	1782	476	435	2365	0
Arrive On Green	0.25	0.25	0.22				0.00	0.89	0.84	0.31	1.00	0.00
Sat Flow, veh/h	1781	2588	898				0	4178	1072	1781	3647	0
Grp Volume(v), veh/h	111	335	326				0	1125	555	45	1404	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1709				0	1702	1677	1781	1777	0
Q Serve(g_s), s	4.5	15.8	16.0				0.0	9.7	11.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	15.8	16.0				0.0	9.7	11.6	0.0	0.0	0.0
Prop In Lane	1.00		0.53				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	438	437	420				0	1513	746	435	2365	0
V/C Ratio(X)	0.25	0.77	0.78				0.00	0.74	0.75	0.10	0.59	0.00
Avail Cap(c_a), veh/h	594	592	570				0	1513	746	435	2365	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.50	0.50	0.00
Uniform Delay (d), s/veh	27.3	31.6	32.1				0.0	3.3	4.3	13.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	4.2	4.6				0.0	3.3	6.7	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.1	7.1				0.0	2.0	3.0	0.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	35.8	36.8				0.0	6.7	11.0	13.9	0.6	0.0
LnGrp LOS	C	D	D				A	A	B	B	A	A
Approach Vol, veh/h		772						1680			1449	
Approach Delay, s/veh		35.0						8.1			1.0	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.9	44.0		26.1		63.9
Change Period (Y+Rc), s	6.0	* 6		6.0		6.0
Max Green Setting (Gmax), s	8.0	* 38		28.0		50.0
Max Q Clear Time (g_c+I1), s	2.0	13.6		18.0		2.0
Green Ext Time (p_c), s	0.0	13.0		2.1		14.4

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	359	420	36	21	580	168	74	1181	131	59	616	357
Future Volume (veh/h)	359	420	36	21	580	168	74	1181	131	59	616	357
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	413	483	41	24	652	189	79	1256	139	66	684	0
Peak Hour Factor	0.87	0.87	0.87	0.89	0.89	0.89	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	398	1392	118	295	669	194	314	1292	142	136	1403	
Arrive On Green	0.19	0.42	0.40	0.02	0.25	0.23	0.09	0.80	0.77	0.04	0.39	0.00
Sat Flow, veh/h	1781	3316	281	1781	2718	787	1781	3227	356	1781	3647	0
Grp Volume(v), veh/h	413	258	266	24	426	415	79	690	705	66	684	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1777	1729	1781	1777	1806	1781	1777	0
Q Serve(g_s), s	25.0	12.8	12.9	1.3	30.9	31.0	3.5	44.9	46.4	2.9	18.8	0.0
Cycle Q Clear(g_c), s	25.0	12.8	12.9	1.3	30.9	31.0	3.5	44.9	46.4	2.9	18.8	0.0
Prop In Lane	1.00		0.15	1.00		0.46	1.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	398	746	764	295	437	426	314	711	723	136	1403	
V/C Ratio(X)	1.04	0.35	0.35	0.08	0.97	0.98	0.25	0.97	0.98	0.49	0.49	
Avail Cap(c_a), veh/h	398	746	764	398	437	426	387	711	723	177	1403	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.60	0.60	0.60	0.49	0.49	0.49	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	25.6	25.7	36.7	48.6	49.1	22.8	12.2	12.8	31.8	29.5	0.0
Incr Delay (d2), s/veh	53.4	0.3	0.2	0.0	26.9	27.6	0.1	17.3	18.3	1.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	5.4	5.6	0.6	16.6	16.4	1.4	8.3	8.8	1.3	8.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.1	25.9	26.0	36.8	75.5	76.7	22.8	29.6	31.1	32.8	30.7	0.0
LnGrp LOS	F	C	C	D	E	E	C	C	C	C	C	
Approach Vol, veh/h		937			865			1474			750	A
Approach Delay, s/veh		56.0			75.0			29.9			30.9	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	56.0	6.4	58.6	9.7	55.3	29.0	36.0
Change Period (Y+Rc), s	4.5	6.0	4.5	6.0	4.5	6.0	4.5	6.0
Max Green Setting (Gmax), s	7.5	47.0	9.5	45.0	10.5	44.0	24.5	30.0
Max Q Clear Time (g_c+I1), s	4.9	48.4	3.3	14.9	5.5	20.8	27.0	33.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.1	0.0	4.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	453	826	17	203	1042	0	0	925	179
Future Volume (veh/h)	0	0	0	453	826	17	203	1042	0	0	925	179
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				360	1118	19	239	1226	0	0	1016	197
Peak Hour Factor				0.90	0.90	0.90	0.85	0.85	0.85	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				508	1569	27	442	3196	0	0	1343	599
Arrive On Green				0.09	0.09	0.09	0.36	1.00	0.00	0.00	0.38	0.38
Sat Flow, veh/h				1781	5501	93	1781	5274	0	0	3647	1585
Grp Volume(v), veh/h				360	760	377	239	1226	0	0	1016	197
Grp Sat Flow(s),veh/h/ln				1781	1870	1854	1781	1702	0	0	1777	1585
Q Serve(g_s), s				17.7	17.8	17.8	2.3	0.0	0.0	0.0	22.4	7.9
Cycle Q Clear(g_c), s				17.7	17.8	17.8	2.3	0.0	0.0	0.0	22.4	7.9
Prop In Lane				1.00		0.05	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				508	1067	529	442	3196	0	0	1343	599
V/C Ratio(X)				0.71	0.71	0.71	0.54	0.38	0.00	0.00	0.76	0.33
Avail Cap(c_a), veh/h				594	1247	618	442	3196	0	0	1343	599
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.95	0.95	0.95	0.79	0.79	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh				37.1	37.2	37.2	23.0	0.0	0.0	0.0	24.4	19.9
Incr Delay (d2), s/veh				3.1	1.5	3.0	0.6	0.3	0.0	0.0	3.8	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	9.1	9.2	3.3	0.1	0.0	0.0	9.4	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.2	38.7	40.3	23.6	0.3	0.0	0.0	28.1	21.3
LnGrp LOS				D	D	D	C	A	A	A	C	C
Approach Vol, veh/h					1497			1465			1213	
Approach Delay, s/veh					39.5			4.1			27.0	
Approach LOS					D			A			C	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	60.3		22.3	38.0		29.7
Change Period (Y+Rc), s	6.0		6.0	* 6		6.0
Max Green Setting (Gmax), s	50.0		14.0	* 32		28.0
Max Q Clear Time (g_c+I1), s	2.0		4.3	24.4		19.8
Green Ext Time (p_c), s	11.0		0.3	4.2		3.9

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	10	975	84	20	1066
Future Volume (veh/h)	43	10	975	84	20	1066
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	14	1189	102	21	1134
Peak Hour Factor	0.71	0.71	0.82	0.82	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	157	140	2925	1305	432	2925
Arrive On Green	0.09	0.09	1.00	1.00	0.82	0.82
Sat Flow, veh/h	1781	1585	3647	1585	427	3647
Grp Volume(v), veh/h	61	14	1189	102	21	1134
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	427	1777
Q Serve(g_s), s	2.9	0.7	0.0	0.0	0.8	7.5
Cycle Q Clear(g_c), s	2.9	0.7	0.0	0.0	0.8	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	157	140	2925	1305	432	2925
V/C Ratio(X)	0.39	0.10	0.41	0.08	0.05	0.39
Avail Cap(c_a), veh/h	475	423	2925	1305	432	2925
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	0.76	0.76
Uniform Delay (d), s/veh	38.7	37.8	0.0	0.0	1.5	2.1
Incr Delay (d2), s/veh	0.6	0.1	0.4	0.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.3	0.2	0.0	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.3	37.9	0.4	0.1	1.6	2.4
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	75		1291			1155
Approach Delay, s/veh	39.1		0.4			2.4
Approach LOS	D		A			A

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		78.1				78.1	11.9
Change Period (Y+Rc), s		6.0				6.0	6.0
Max Green Setting (Gmax), s		56.0				56.0	22.0
Max Q Clear Time (g_c+I1), s		2.0				9.5	4.9
Green Ext Time (p_c), s		11.7				10.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	2.4
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	2009	8	125	1635	547	24	166	243	582	44	16
Future Volume (veh/h)	16	2009	8	125	1635	547	24	166	243	582	44	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	2160	9	140	1837	0	32	224	328	749	0	20
Peak Hour Factor	0.93	0.93	0.93	0.89	0.89	0.89	0.74	0.74	0.74	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	2449	10	177	2605		247	260	220	849	0	378
Arrive On Green	0.02	0.47	0.46	0.07	0.51	0.00	0.14	0.14	0.14	0.24	0.00	0.24
Sat Flow, veh/h	1781	5249	22	1781	5106	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	17	1401	768	140	1837	0	32	224	328	749	0	20
Grp Sat Flow(s),veh/h/ln	1781	1702	1866	1781	1702	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	0.9	67.1	67.2	8.1	49.6	0.0	2.8	21.1	25.0	36.5	0.0	1.8
Cycle Q Clear(g_c), s	0.9	67.1	67.2	8.1	49.6	0.0	2.8	21.1	25.0	36.5	0.0	1.8
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	1588	871	177	2605		247	260	220	849	0	378
V/C Ratio(X)	0.12	0.88	0.88	0.79	0.71		0.13	0.86	1.49	0.88	0.00	0.05
Avail Cap(c_a), veh/h	178	1588	871	196	2605		247	260	220	1029	0	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.94	0.00	0.94
Uniform Delay (d), s/veh	28.8	43.5	43.5	46.0	33.7	0.0	68.0	75.8	77.5	66.1	0.0	52.9
Incr Delay (d2), s/veh	0.4	7.4	12.5	17.9	1.6	0.0	0.2	24.4	243.0	7.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	29.7	33.8	7.3	20.8	0.0	1.3	11.9	25.1	17.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	50.9	56.0	64.0	35.4	0.0	68.2	100.2	320.5	73.6	0.0	52.9
LnGrp LOS	C	D	E	E	D		E	F	F	E	A	D
Approach Vol, veh/h		2186			1977	A		584			769	
Approach Delay, s/veh		52.6			37.4			222.2			73.1	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.1	88.0		46.9	8.3	95.8		29.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	12.0	71.0		50.0	6.0	77.0		23.0
Max Q Clear Time (g_c+I1), s	10.1	69.2		38.5	2.9	51.6		27.0
Green Ext Time (p_c), s	0.1	1.4		2.4	0.0	9.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	67.9
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	271	726	6	24	881	89	4	169	55	59	118	166
Future Volume (veh/h)	271	726	6	24	881	89	4	169	55	59	118	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	319	854	7	26	958	97	5	232	75	69	139	195
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.73	0.73	0.73	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	425	2133	17	411	1651	167	268	338	109	206	467	396
Arrive On Green	0.11	0.59	0.57	0.03	0.51	0.48	0.50	0.50	0.45	0.08	0.08	0.08
Sat Flow, veh/h	1781	3612	30	1781	3258	330	1046	1354	438	1072	1870	1585
Grp Volume(v), veh/h	319	420	441	26	522	533	5	0	307	69	139	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1811	1046	0	1792	1072	1870	1585
Q Serve(g_s), s	7.5	11.4	11.4	0.7	18.5	18.6	0.3	0.0	11.9	5.7	6.3	10.6
Cycle Q Clear(g_c), s	7.5	11.4	11.4	0.7	18.5	18.6	6.6	0.0	11.9	17.6	6.3	10.6
Prop In Lane	1.00		0.02	1.00		0.18	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	425	1049	1101	411	900	918	268	0	447	206	467	396
V/C Ratio(X)	0.75	0.40	0.40	0.06	0.58	0.58	0.02	0.00	0.69	0.33	0.30	0.49
Avail Cap(c_a), veh/h	625	1049	1101	522	900	918	344	0	577	284	603	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.92	0.92	0.92	0.25	0.25	0.25	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	9.9	9.9	11.0	15.5	15.7	20.6	0.0	20.3	44.9	33.9	35.8
Incr Delay (d2), s/veh	1.2	1.1	1.0	0.0	0.7	0.7	0.0	0.0	2.3	0.9	0.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.1	4.3	0.2	6.8	7.0	0.1	0.0	4.0	1.7	3.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	10.9	10.9	11.0	16.2	16.3	20.6	0.0	22.6	45.8	34.2	36.8
LnGrp LOS	B	B	B	B	B	B	C	A	C	D	C	D
Approach Vol, veh/h		1180			1081			312			403	
Approach Delay, s/veh		12.0			16.1			22.6			37.4	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.9	49.6		26.5	6.4	57.1		26.5
Change Period (Y+Rc), s	4.0	6.0		6.0	4.0	6.0		6.0
Max Green Setting (Gmax), s	20.0	27.0		27.0	8.0	39.0		27.0
Max Q Clear Time (g_c+I1), s	9.5	20.6		19.6	2.7	13.4		13.9
Green Ext Time (p_c), s	0.4	3.3		0.9	0.0	5.4		0.9

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	655	416	15	1176	25	613	76	16	5	79	280
Future Volume (veh/h)	76	655	416	15	1176	25	613	76	16	5	79	280
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	720	457	17	1352	29	767	0	0	5	87	0
Peak Hour Factor	0.91	0.91	0.91	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	1701	792	226	2019	43	1043	547		182	191	
Arrive On Green	0.10	0.50	0.46	0.39	0.39	0.36	0.29	0.00	0.00	0.10	0.10	0.00
Sat Flow, veh/h	1781	3404	1585	476	5144	110	3563	1870	0	1781	1870	0
Grp Volume(v), veh/h	84	720	457	17	895	486	767	0	0	5	87	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	476	1702	1850	1781	1870	0	1781	1870	0
Q Serve(g_s), s	2.0	11.0	17.2	2.1	17.7	17.7	15.8	0.0	0.0	0.2	3.6	0.0
Cycle Q Clear(g_c), s	2.0	11.0	17.2	10.6	17.7	17.7	15.8	0.0	0.0	0.2	3.6	0.0
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	335	1701	792	226	1336	726	1043	547		182	191	
V/C Ratio(X)	0.25	0.42	0.58	0.08	0.67	0.67	0.74	0.00		0.03	0.45	
Avail Cap(c_a), veh/h	580	2376	1106	255	1542	838	1414	742		633	664	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.0	13.0	15.6	21.4	20.4	20.5	26.0	0.0	0.0	33.0	34.5	0.0
Incr Delay (d2), s/veh	0.4	0.2	0.8	0.2	1.0	1.9	1.3	0.0	0.0	0.1	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.8	6.0	0.2	6.7	7.5	6.5	0.0	0.0	0.1	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.4	13.2	16.4	21.6	21.5	22.4	27.4	0.0	0.0	33.1	36.2	0.0
LnGrp LOS	B	B	B	C	C	C	C	A		C	D	
Approach Vol, veh/h		1261			1398			767	A		92	A
Approach Delay, s/veh		14.3			21.8			27.4			36.0	
Approach LOS		B			C			C			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		43.8		11.4	8.8	35.1		26.5				
Change Period (Y+Rc), s		6.9		6.1	4.5	6.9		6.1				
Max Green Setting (Gmax), s		53.1		25.9	15.5	33.1		28.9				
Max Q Clear Time (g_c+I1), s		19.2		5.6	4.0	19.7		17.8				
Green Ext Time (p_c), s		12.0		0.4	0.1	8.4		2.5				

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

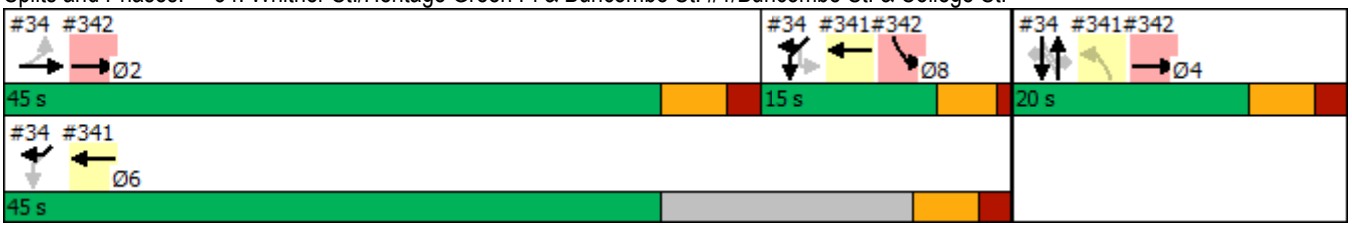
Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations												
Traffic Volume (vph)	16	647	9	5	5	14	42	10	61	6	8	1169
Future Volume (vph)	16	647	9	5	5	14	42	10	61	6	8	1169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0	60			0		85		0	0
Storage Lanes			0	1			0		1		1	3
Taper Length (ft)				30			50				50	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.76
Frt		0.998				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.964			0.950	
Satd. Flow (prot)	1770	5075	0	1770	1863	1583	0	1796	1583	0	1770	3610
Flt Permitted	0.950			0.715				0.811			0.950	
Satd. Flow (perm)	1770	5075	0	1332	1863	1583	0	1511	1583	0	1770	3610
Right Turn on Red			Yes			Yes			Yes	Yes		
Satd. Flow (RTOR)		4				123			123		41	41
Link Speed (mph)		35			30			20			35	
Link Distance (ft)		526			314			497			228	
Travel Time (s)		10.2			7.1			16.9			4.4	
Peak Hour Factor	0.89	0.89	0.89	0.67	0.67	0.67	0.85	0.63	0.63	0.96	0.96	0.96
Adj. Flow (vph)	18	727	10	7	7	21	49	16	97	6	8	1218
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	737	0	7	7	21	0	65	97	0	14	1253
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15	15	35
Number of Detectors	1	1		1	1	0	1	1	1	1	1	1
Detector Template	Left									Left		
Leading Detector (ft)	20	106		30	30	0	50	30	30	20	30	106
Trailing Detector (ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Position(ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Size(ft)	20	6		30	30	50	50	30	30	20	30	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	pm+pt	custom
Protected Phases		2			4			4			8	6 8
Permitted Phases	2			4		4	4		4	8	6	
Detector Phase	2	2		4	4	4	4	4	4	8	8	6 8
Switch Phase												
Minimum Initial (s)	20.0	20.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	26.0	26.0		25.0	25.0	25.0	25.0	25.0	25.0	16.0	16.0	
Total Split (s)	45.0	45.0		20.0	20.0	20.0	20.0	20.0	20.0	15.0	15.0	

Lane Group	SWR2	Ø6
Lane Configurations		
Traffic Volume (vph)	34	
Future Volume (vph)	34	
Ideal Flow (vphpl)	1900	
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor	1.00	
Frt		
Flt Protected		
Satd. Flow (prot)	0	
Flt Permitted		
Satd. Flow (perm)	0	
Right Turn on Red	Yes	
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.96	
Adj. Flow (vph)	35	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	
Enter Blocked Intersection	No	
Lane Alignment	Right	
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor	1.00	
Turning Speed (mph)	9	
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases		6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)		20.0
Minimum Split (s)		26.0
Total Split (s)		45.0

Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Total Split (%)	56.3%	56.3%		25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	18.8%	18.8%	
Maximum Green (s)	39.0	39.0		14.0	14.0	14.0	14.0	14.0	14.0	10.5	10.5	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	
Lost Time Adjust (s)	0.0	-3.0		-3.0	-3.0	-3.0		-3.0	-3.0		0.0	
Total Lost Time (s)	6.0	3.0		3.0	3.0	3.0		3.0	3.0		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Max	Max		None	None	None	None	None	None	None	None	
Walk Time (s)				1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	
Flash Dont Walk (s)				18.0	18.0	18.0	18.0	18.0	18.0	9.0	9.0	
Pedestrian Calls (#/hr)				60	60	60	60	60	60	60	60	
Act Effct Green (s)	42.1	45.1		18.1	18.1	18.1		18.1	18.1		57.9	56.4
Actuated g/C Ratio	0.50	0.54		0.22	0.22	0.22		0.22	0.22		0.69	0.68
v/c Ratio	0.02	0.27		0.02	0.02	0.05		0.20	0.22		0.01	0.51
Control Delay	12.9	11.6		24.2	24.0	0.2		26.8	4.4		0.0	3.3
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	12.9	11.6		24.2	24.0	0.2		26.8	4.4		0.0	3.3
LOS	B	B		C	C	A		C	A		A	A
Approach Delay		11.6			9.8			13.4			3.3	
Approach LOS		B			A			B			A	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 83.5	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 34: Whitner St./Heritage Green Pl & Buncombe St. #1/Buncombe St. & College St.



Lane Group	SWR2	Ø6
Total Split (%)		56%
Maximum Green (s)		39.0
Yellow Time (s)		4.0
All-Red Time (s)		2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)		3.5
Recall Mode		Max
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	455	4	4	1224	845	4	4	4	646	4	22
Future Volume (veh/h)	0	455	4	4	1224	845	4	4	4	646	4	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	469	4	4	1217	956	7	7	7	721	0	0
Peak Hour Factor	0.97	0.97	0.97	0.94	0.94	0.94	0.56	0.56	0.56	0.90	0.90	0.90
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	2738	23	499	1962	2580	11	11	11	1031	0	
Arrive On Green	0.00	0.52	0.48	0.48	0.52	0.52	0.02	0.02	0.02	0.29	0.00	0.00
Sat Flow, veh/h	0	5390	44	921	3741	3170	579	579	579	3563	0	1585
Grp Volume(v), veh/h	0	306	167	4	1217	956	21	0	0	721	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1862	921	1870	1585	1737	0	0	1781	0	1585
Q Serve(g_s), s	0.0	3.5	3.5	0.2	17.1	6.0	0.9	0.0	0.0	13.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.5	3.5	3.7	17.1	6.0	0.9	0.0	0.0	13.5	0.0	0.0
Prop In Lane	0.00		0.02	1.00		1.00	0.33		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	0	1785	977	499	1962	2580	33	0	0	1031	0	
V/C Ratio(X)	0.00	0.17	0.17	0.01	0.62	0.37	0.64	0.00	0.00	0.70	0.00	
Avail Cap(c_a), veh/h	0	1914	1047	534	2104	2700	140	0	0	1503	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	9.3	9.3	11.9	12.5	1.9	36.4	0.0	0.0	23.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.7	0.2	22.3	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	1.3	0.0	6.3	4.7	0.6	0.0	0.0	5.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.4	9.4	11.9	13.2	2.0	58.6	0.0	0.0	24.7	0.0	0.0
LnGrp LOS	A	A	A	B	B	A	E	A	A	C	A	
Approach Vol, veh/h		473			2177			21			721	A
Approach Delay, s/veh		9.4			8.3			58.6			24.7	
Approach LOS		A			A			E			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	42.2	25.1	42.2	7.4
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	39.0	28.5	39.0	6.0
Max Q Clear Time (g_c+I1), s	5.5	15.5	19.1	2.9
Green Ext Time (p_c), s	5.2	3.1	17.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	448	1177	36	150	1114	0	0	912	70
Future Volume (veh/h)	0	0	0	448	1177	36	150	1114	0	0	912	70
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				400	1614	43	169	1252	0	0	1013	78
Peak Hour Factor				0.83	0.83	0.83	0.89	0.89	0.89	0.90	0.90	0.90
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				542	2206	59	391	1996	0	0	1260	97
Arrive On Green				0.30	0.30	0.30	0.18	0.75	0.00	0.00	0.75	0.75
Sat Flow, veh/h				1781	7253	193	1781	3647	0	0	3437	257
Grp Volume(v), veh/h				400	1248	409	169	1252	0	0	538	553
Grp Sat Flow(s),veh/h/ln				1781	1870	1836	1781	1777	0	0	1777	1824
Q Serve(g_s), s				26.2	25.9	25.9	0.0	21.8	0.0	0.0	24.6	24.6
Cycle Q Clear(g_c), s				26.2	25.9	25.9	0.0	21.8	0.0	0.0	24.6	24.6
Prop In Lane				1.00		0.11	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h				542	1706	558	391	1996	0	0	670	688
V/C Ratio(X)				0.74	0.73	0.73	0.43	0.63	0.00	0.00	0.80	0.80
Avail Cap(c_a), veh/h				617	1942	635	412	1996	0	0	670	688
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	1.00	1.00	0.74	0.74	0.00	0.00	0.91	0.91
Uniform Delay (d), s/veh				40.6	40.5	40.5	39.8	10.0	0.0	0.0	13.0	13.0
Incr Delay (d2), s/veh				4.6	1.4	4.3	0.2	1.1	0.0	0.0	9.1	8.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.1	12.0	12.2	4.5	6.2	0.0	0.0	6.4	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.2	41.9	44.8	40.0	11.1	0.0	0.0	22.1	21.9
LnGrp LOS				D	D	D	D	B	A	A	C	C
Approach Vol, veh/h					2057			1421			1091	
Approach Delay, s/veh					43.1			14.5			22.0	
Approach LOS					D			B			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	79.0	24.0	55.0	45.5
Change Period (Y+Rc), s	6.0	6.0	* 6	6.0
Max Green Setting (Gmax), s	73.0	19.5	* 49	45.0
Max Q Clear Time (g_c+I1), s	23.8	2.0	26.6	28.2
Green Ext Time (p_c), s	6.4	0.2	4.0	11.3

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1183	106	0	0	0	0	1093	652	134	1197	0
Future Volume (veh/h)	151	1183	106	0	0	0	0	1093	652	134	1197	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	164	1286	115				0	1188	709	147	1315	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	525	1406	126				0	1865	832	276	2179	0
Arrive On Green	0.29	0.29	0.29				0.00	1.00	1.00	0.11	1.00	0.00
Sat Flow, veh/h	1781	4771	427				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	164	918	483				0	1188	709	147	1315	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1794				0	1777	1585	1781	1777	0
Q Serve(g_s), s	9.3	33.8	33.8				0.0	0.0	0.0	4.9	0.0	0.0
Cycle Q Clear(g_c), s	9.3	33.8	33.8				0.0	0.0	0.0	4.9	0.0	0.0
Prop In Lane	1.00		0.24				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	525	1003	528				0	1865	832	276	2179	0
V/C Ratio(X)	0.31	0.91	0.91				0.00	0.64	0.85	0.53	0.60	0.00
Avail Cap(c_a), veh/h	548	1047	552				0	1865	832	338	2179	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	0.93	0.93	0.93				0.00	0.79	0.79	0.48	0.48	0.00
Uniform Delay (d), s/veh	35.6	44.3	44.3				0.0	0.0	0.0	11.1	0.0	0.0
Incr Delay (d2), s/veh	0.3	11.2	18.5				0.0	1.3	8.7	0.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	15.6	17.5				0.0	0.3	2.0	1.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	55.5	62.8				0.0	1.3	8.7	11.4	0.6	0.0
LnGrp LOS	D	E	E				A	A	A	B	A	A
Approach Vol, veh/h		1565						1897			1462	
Approach Delay, s/veh		55.7						4.1			1.7	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.5	74.2		44.3		85.7
Change Period (Y+Rc), s	4.5	6.0		6.0		6.0
Max Green Setting (Gmax), s	11.5	62.0		40.0		78.0
Max Q Clear Time (g_c+I1), s	6.9	2.0		35.8		2.0
Green Ext Time (p_c), s	0.1	11.9		2.5		6.9

Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	226	88	187	237	109	0	1485	133	48	1121	114
Future Volume (veh/h)	155	226	88	187	237	109	0	1485	133	48	1121	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	251	98	203	258	118	0	1580	141	52	1205	123
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	243	351	297	228	289	245	0	2040	910	162	2232	995
Arrive On Green	0.09	0.19	0.19	0.06	0.15	0.15	0.00	0.57	0.57	0.05	1.00	1.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	0	3647	1585	1781	3554	1585
Grp Volume(v), veh/h	172	251	98	203	258	118	0	1580	141	52	1205	123
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	0	1777	1585	1781	1777	1585
Q Serve(g_s), s	10.2	16.4	7.0	8.0	17.6	8.8	0.0	44.3	5.4	1.5	0.0	0.0
Cycle Q Clear(g_c), s	10.2	16.4	7.0	8.0	17.6	8.8	0.0	44.3	5.4	1.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	351	297	228	289	245	0	2040	910	162	2232	995
V/C Ratio(X)	0.71	0.72	0.33	0.89	0.89	0.48	0.00	0.77	0.15	0.32	0.54	0.12
Avail Cap(c_a), veh/h	267	432	366	228	345	293	0	2040	910	231	2232	995
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	40.7	49.6	45.7	50.7	53.9	50.2	0.0	21.2	12.9	19.6	0.0	0.0
Incr Delay (d2), s/veh	6.0	4.3	0.6	30.9	21.4	1.5	0.0	2.9	0.4	0.4	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.0	2.8	4.7	9.9	3.6	0.0	18.3	2.0	0.6	0.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	53.9	46.4	81.7	75.3	51.6	0.0	24.2	13.3	20.0	0.9	0.2
LnGrp LOS	D	D	D	F	E	D	A	C	B	C	A	A
Approach Vol, veh/h		521			579			1721			1380	
Approach Delay, s/veh		50.1			72.7			23.3			1.5	
Approach LOS		D			E			C			A	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	7.0	80.6	12.0	30.4		87.6	16.2	26.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0		6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	64.0	8.0	30.0		76.0	14.0	24.0
Max Q Clear Time (g_c+I1), s	3.5	46.3	10.0	18.4		2.0	12.2	19.6
Green Ext Time (p_c), s	0.0	7.8	0.0	0.9		6.8	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	353	15	52	400	623	13	796	53	392	615	58
Future Volume (veh/h)	113	353	15	52	400	623	13	796	53	392	615	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	384	16	55	421	656	14	884	59	422	661	62
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	988	41	409	487	744	317	1090	73	503	1823	171
Arrive On Green	0.10	0.28	0.26	0.08	0.26	0.26	0.32	0.32	0.30	0.21	0.56	0.53
Sat Flow, veh/h	1781	3477	145	1781	1870	1585	730	3381	226	1781	3284	308
Grp Volume(v), veh/h	123	196	204	55	421	656	14	465	478	422	357	366
Grp Sat Flow(s),veh/h/ln	1781	1777	1844	1781	1870	1585	730	1777	1830	1781	1777	1815
Q Serve(g_s), s	4.0	7.8	7.9	1.9	19.0	23.0	1.2	21.2	21.2	13.2	9.9	10.0
Cycle Q Clear(g_c), s	4.0	7.8	7.9	1.9	19.0	23.0	1.2	21.2	21.2	13.2	9.9	10.0
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.12	1.00		0.17
Lane Grp Cap(c), veh/h	283	505	524	409	487	744	317	573	590	503	986	1007
V/C Ratio(X)	0.44	0.39	0.39	0.13	0.86	0.88	0.04	0.81	0.81	0.84	0.36	0.36
Avail Cap(c_a), veh/h	317	505	524	485	487	744	317	573	590	532	986	1007
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	25.4	25.5	20.3	31.1	21.2	20.7	27.4	27.6	18.2	10.9	11.1
Incr Delay (d2), s/veh	0.8	0.5	0.5	0.1	14.8	12.0	0.3	11.8	11.5	10.7	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.2	3.4	0.8	10.2	13.5	0.2	10.4	10.7	6.3	3.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	25.9	26.0	20.4	46.0	33.2	20.9	39.3	39.1	28.9	12.0	12.1
LnGrp LOS	C	C	C	C	D	C	C	D	D	C	B	B
Approach Vol, veh/h		523			1132			957			1145	
Approach Delay, s/veh		25.0			37.3			38.9			18.2	
Approach LOS		C			D			D			B	

Timer - Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		52.0	10.3	26.0	20.5	31.5	8.2	28.1
Change Period (Y+Rc), s		6.0	4.5	6.0	5.1	6.0	4.5	6.0
Max Green Setting (Gmax), s		46.0	7.5	20.0	16.9	24.0	7.5	20.0
Max Q Clear Time (g_c+I1), s		12.0	6.0	25.0	15.2	23.2	3.9	9.9
Green Ext Time (p_c), s		7.2	0.0	0.0	0.2	0.6	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

216: Mulberry St. #3/W. Stone Ave #3 & Pete Hollis Blvd. #1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	455	33	34	1238	17	126	141	14	7	93	384
Future Volume (veh/h)	279	455	33	34	1238	17	126	141	14	7	93	384
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	297	484	35	35	1290	18	159	178	0	7	96	0
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	0.79	0.79	0.79	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	476	2326	167	642	2166	30	400	497		333	497	
Arrive On Green	0.15	0.48	0.45	0.09	0.42	0.39	0.27	0.27	0.00	0.27	0.27	0.00
Sat Flow, veh/h	1781	4863	348	1781	5189	72	1300	1870	1585	1206	1870	1585
Grp Volume(v), veh/h	297	337	182	35	846	462	159	178	0	7	96	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1808	1781	1702	1857	1300	1870	1585	1206	1870	1585
Q Serve(g_s), s	5.4	3.9	4.0	0.7	13.1	13.1	7.3	5.2	0.0	0.3	2.7	0.0
Cycle Q Clear(g_c), s	5.4	3.9	4.0	0.7	13.1	13.1	10.0	5.2	0.0	5.6	2.7	0.0
Prop In Lane	1.00		0.19	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	476	1628	864	642	1421	775	400	497		333	497	
V/C Ratio(X)	0.62	0.21	0.21	0.05	0.60	0.60	0.40	0.36		0.02	0.19	
Avail Cap(c_a), veh/h	511	2315	1229	785	2315	1263	938	1272		833	1272	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.8	10.2	10.4	8.2	15.3	15.3	23.2	20.2	0.0	22.5	19.3	0.0
Incr Delay (d2), s/veh	1.8	0.1	0.1	0.0	0.4	0.7	0.6	0.4	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.3	1.4	0.2	4.5	5.0	2.1	2.2	0.0	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	10.3	10.5	8.3	15.7	16.1	23.8	20.6	0.0	22.5	19.5	0.0
LnGrp LOS	B	B	B	A	B	B	C	C		C	B	
Approach Vol, veh/h		816			1343			337	A		103	A
Approach Delay, s/veh		11.2			15.6			22.1			19.7	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	36.3		21.9	13.7	32.2		21.9
Change Period (Y+Rc), s	6.2	6.9		6.9	6.2	6.9		6.9
Max Green Setting (Gmax), s	8.8	43.1		43.1	8.8	43.1		43.1
Max Q Clear Time (g_c+I1), s	2.7	6.0		7.6	7.4	15.1		12.0
Green Ext Time (p_c), s	0.0	3.5		0.3	0.1	10.2		1.1

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	265	242	639	676	135
Future Volume (veh/h)	100	265	242	639	676	135
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	119	315	272	718	697	139
Peak Hour Factor	0.84	0.84	0.89	0.89	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	397	353	357	1310	855	170
Arrive On Green	0.22	0.22	0.09	0.69	0.56	0.54
Sat Flow, veh/h	1795	1598	1795	1885	1526	304
Grp Volume(v), veh/h	119	315	272	718	0	836
Grp Sat Flow(s),veh/h/ln	1795	1598	1795	1885	0	1830
Q Serve(g_s), s	5.3	18.2	5.8	17.8	0.0	35.2
Cycle Q Clear(g_c), s	5.3	18.2	5.8	17.8	0.0	35.2
Prop In Lane	1.00	1.00	1.00			0.17
Lane Grp Cap(c), veh/h	397	353	357	1310	0	1025
V/C Ratio(X)	0.30	0.89	0.76	0.55	0.00	0.82
Avail Cap(c_a), veh/h	397	353	493	1310	0	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.9	35.9	18.3	7.1	0.0	17.1
Incr Delay (d2), s/veh	0.4	23.5	4.6	1.7	0.0	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	14.2	6.7	10.8	0.0	22.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.3	59.4	22.9	8.8	0.0	24.2
LnGrp LOS	C	E	C	A	A	C
Approach Vol, veh/h	434			990	836	
Approach Delay, s/veh	51.7			12.7	24.2	
Approach LOS	D			B	C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.8	57.2		25.0		70.0
Change Period (Y+Rc), s	4.5	6.0		6.0		6.0
Max Green Setting (Gmax), s	15.5	44.0		19.0		64.0
Max Q Clear Time (g_c+I1), s	7.8	37.2		20.2		19.8
Green Ext Time (p_c), s	0.5	4.0		0.0		9.2

Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	208	127	59	94	71	51	1131	34	67	1189	187
Future Volume (veh/h)	464	208	127	59	94	71	51	1131	34	67	1189	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	559	251	153	71	113	86	54	1191	36	70	1239	195
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.95	0.95	0.95	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	606	610	517	176	230	162	101	1318	40	120	1369	611
Arrive On Green	0.18	0.33	0.33	0.12	0.12	0.10	0.06	0.37	0.35	0.07	0.39	0.39
Sat Flow, veh/h	3456	1870	1585	981	1993	1402	1781	3522	106	1781	3554	1585
Grp Volume(v), veh/h	559	251	153	71	100	99	54	601	626	70	1239	195
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	981	1777	1618	1781	1777	1851	1781	1777	1585
Q Serve(g_s), s	18.1	11.9	8.2	7.9	6.0	6.6	3.4	36.4	36.5	4.3	37.5	9.8
Cycle Q Clear(g_c), s	18.1	11.9	8.2	7.9	6.0	6.6	3.4	36.4	36.5	4.3	37.5	9.8
Prop In Lane	1.00		1.00	1.00		0.87	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	606	610	517	176	205	187	101	665	693	120	1369	611
V/C Ratio(X)	0.92	0.41	0.30	0.40	0.49	0.53	0.54	0.90	0.90	0.58	0.90	0.32
Avail Cap(c_a), veh/h	606	738	626	244	327	298	313	670	698	219	1369	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	29.9	28.7	48.1	47.3	48.4	52.3	33.7	33.8	51.6	33.1	24.6
Incr Delay (d2), s/veh	19.7	0.2	0.1	2.1	2.5	3.3	4.4	17.9	17.4	4.4	9.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	5.4	3.1	2.0	2.8	2.9	1.6	18.7	19.4	2.1	17.5	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	30.1	28.8	50.2	49.8	51.7	56.7	51.6	51.2	56.0	42.2	25.1
LnGrp LOS	E	C	C	D	D	D	E	D	D	E	D	C
Approach Vol, veh/h		963			270			1281			1504	
Approach Delay, s/veh		50.7			50.6			51.6			40.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	47.9	24.0	17.2	11.7	46.7		41.2
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5		6.0
Max Green Setting (Gmax), s	18.0	34.5	18.0	19.0	12.0	40.5		43.0
Max Q Clear Time (g_c+I1), s	5.4	39.5	20.1	9.9	6.3	38.5		13.9
Green Ext Time (p_c), s	0.1	0.0	0.0	1.3	0.1	1.7		0.6

Intersection Summary	
HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	14	4	2	23	12	195	0	0	0	1	182	148	13
Future Vol, veh/h	14	4	2	23	12	195	0	0	0	1	182	148	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	-	None
Storage Length	-	-	-	110	-	0	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	35	35	35	93	93	93	25	25	25	92	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	11	6	25	13	210	0	0	0	1	253	206	18

Major/Minor	Minor1			Major2				Major1			
Conflicting Flow All	784	786	215	224	0	0		-	13	0	0
Stage 1	721	723	-	-	-	-		-	-	-	-
Stage 2	63	63	-	-	-	-		-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-		-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-		-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-		-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-		-	2.218	-	-
Pot Cap-1 Maneuver	362	324	825	1345	-	0		-	1606	-	-
Stage 1	482	431	-	-	-	0		-	-	-	-
Stage 2	960	842	-	-	-	0		-	-	-	-
Platoon blocked, %					-					-	-
Mov Cap-1 Maneuver	355	0	825	1345	-	-		~ -273	~ -273	-	-
Mov Cap-2 Maneuver	355	0	-	-	-	-		-	-	-	-
Stage 1	482	0	-	-	-	-		-	-	-	-
Stage 2	942	0	-	-	-	-		-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	16.1	5.1	
HCM LOS	C		

Minor Lane/Major Mvmt	EBLn1	WBL	WBT	SBL	SBT	SBR
Capacity (veh/h)	382	1345	-	+	-	-
HCM Lane V/C Ratio	0.15	0.018	-	-	-	-
HCM Control Delay (s)	16.1	7.7	0	-	-	-
HCM Lane LOS	C	A	A	-	-	-
HCM 95th %tile Q(veh)	0.5	0.1	-	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	13	192	6	91	0	111	0	4	8	58	21
Future Volume (veh/h)	0	13	192	6	91	0	111	0	4	8	58	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	15	226	7	112	0	131	0	5	9	63	23
Peak Hour Factor	0.85	0.85	0.85	0.81	0.81	0.81	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	621	526	118	600	0	376	0	14	27	189	184
Arrive On Green	0.00	0.33	0.33	0.28	0.33	0.00	0.16	0.00	0.16	0.06	0.12	0.12
Sat Flow, veh/h	0	1870	1585	37	1810	0	1708	0	65	232	1626	1585
Grp Volume(v), veh/h	0	15	226	119	0	0	136	0	0	72	0	23
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1847	0	0	1773	0	0	1859	0	1585
Q Serve(g_s), s	0.0	0.2	4.0	0.0	0.0	0.0	2.5	0.0	0.0	1.3	0.0	0.5
Cycle Q Clear(g_c), s	0.0	0.2	4.0	1.7	0.0	0.0	2.5	0.0	0.0	1.3	0.0	0.5
Prop In Lane	0.00		1.00	0.06		0.00	0.96		0.04	0.12		1.00
Lane Grp Cap(c), veh/h	0	621	526	616	0	0	390	0	0	216	0	184
V/C Ratio(X)	0.00	0.02	0.43	0.19	0.00	0.00	0.35	0.00	0.00	0.33	0.00	0.12
Avail Cap(c_a), veh/h	0	1086	920	1064	0	0	981	0	0	1028	0	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.1	9.4	8.7	0.0	0.0	12.8	0.0	0.0	14.8	0.0	14.3
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.2	0.0	0.0	0.5	0.0	0.0	0.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	1.1	0.6	0.0	0.0	0.8	0.0	0.0	0.5	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.2	10.0	8.8	0.0	0.0	13.3	0.0	0.0	15.7	0.0	14.6
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		241			119			136			95	
Approach Delay, s/veh		9.9			8.8			13.3			15.4	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.0		8.2		16.0		12.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		19.0		18.0		19.0		18.0				
Max Q Clear Time (g_c+I1), s		6.0		3.3		3.7		4.5				
Green Ext Time (p_c), s		0.7		0.3		0.5		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	3.9

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑	↑		↖	↗
Traffic Vol, veh/h	1	0	29	51	0	10	55
Future Vol, veh/h	1	0	29	51	0	10	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	100	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	0	32	55	0	11	60

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	-	-	0	-	0	87	55
Stage 1	-	-	-	-	-	55	-
Stage 2	-	-	-	-	-	32	-
Critical Hdwy	-	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	0	-	-	0	914	1012
Stage 1	-	0	-	-	0	968	-
Stage 2	-	0	-	-	0	991	-
Platoon blocked, %			-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	914	1012
Mov Cap-2 Maneuver	-	-	-	-	-	914	-
Stage 1	-	-	-	-	-	968	-
Stage 2	-	-	-	-	-	991	-

Approach	EB	WB	SB
HCM Control Delay, s		0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	914	1012
HCM Lane V/C Ratio	-	-	0.012	0.059
HCM Control Delay (s)	-	-	9	8.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0.2

Appendix B: GPATS Model Review and Modification Memorandum

GPATS Model Review and Modification Memorandum

Greenville Downtown Transportation Master Plan

3/5/2019

The purpose of this memorandum is to provide a review and proposal of modifications to the Greenville-Pickens Area Transportation Study (GPATS) travel demand model for use in the development of a Downtown Transportation Master Plan for Greenville, SC. The focus of the model review and modifications are in the vicinity of the Master Plan study area.

1. MODEL SUMMARY

The GPATs Travel Demand Model is a transportation planning tool that has been developed in the TransCAD platform to assist in the analysis and evaluation of the transportation system in the Greenville-Spartanburg area. It has been calibrated to a base year of 2015 and has a future year of 2040. For each of these model years, input networks and socioeconomic data (housing and employment) have been developed. The model encompasses portions of Greenville, Pickens, Anderson, Laurens and Spartanburg Counties and includes the primary roadways within the study area. The highway network database contains attributes for each individual highway segment including information on the roadway classification, number of lanes, and speed limits. The model represents a simplified version of the transportation network and includes all freeways, arterials, and major collector roads. Model output includes volume information along with VMT and VHT by link and by time period (AM, Midday, PM, and Night).

1.1 MASTER PLAN STUDY AREA

The GPATS model includes portions of five counties – Greenville, Pickens, Anderson, Spartanburg, and Laurens. A total of 692 traffic analysis zones (TAZs) are included in the model to provide a geographic representation of housing and employment data. For the Master Plan, the network and TAZs in the study area were reviewed for appropriateness of data compared to available sources, shown in **Figure 1**.

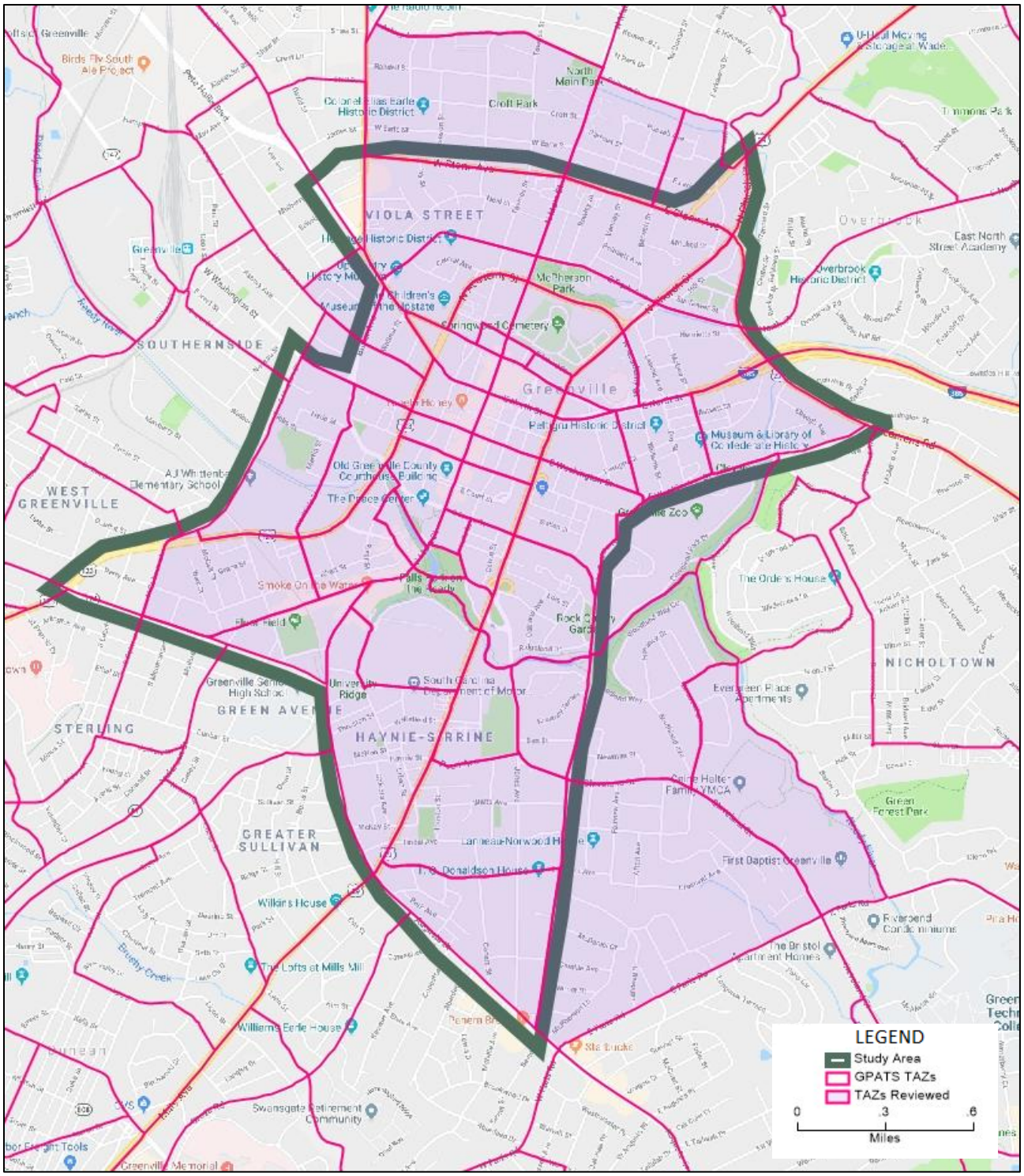
1.2 MODEL STATISTICS

The GPATS model covers 1135 square miles and 692 TAZs. The area reviewed for this study includes 3.6 square miles and 52 TAZs in the downtown Greenville Area. **Table 1** shows a summary of overall model data and the study area subset.

Table 1. Model Data Summary

Area	2015 Households	2015 Population	Employment
GPATS Model	262,012	677,745	368,204
Downtown Greenville	4,851	10,727	31,343

Figure 1. Project Study Area



2. Socioeconomic Data Review

Socioeconomic data in the GPATS model is the primary source for the number and types of trips that are represented in the travel demand model. This data, which is stored at the TAZ level, includes data on households, population, and employment. For the Master Plan, a cursory review of 2015 and 2040 socioeconomic data was completed to identify any potential concerns with input data that could impact the usefulness of model output. This review was completed for the study area in **Figure 1**, along with some portions of the model immediately adjacent to the study area that share Census Block Group boundaries with TAZs inside the study area.

2.1 HOUSEHOLD AND POPULATION DATA

Household and population data were reviewed at the Census Block Group level for the project area. This comparison, shown in **Table 2**, is useful as an overall comparison of input population data versus Census estimates. In all, the model estimates 14% higher population in the downtown Greenville area than the 2017 American Community Survey (ACS) estimate for the five-year span from 2013-2017. The ACS is an estimate based on a small, rolling sample of survey data and therefore only provides a point of comparison against model data. Based on the review against the ACS data, no concerns are identified in the 2015 population data that warrants modification for the Master Plan study.

Table 2. Population Data Comparison

Census Block Group	2017 5 YR ACS (2013-2017)		2015 GPATS Model		GPATS vs ACS	
	Households	Population	Households	Population	Households	Population
450450001001	303	655	418	816	115	161
450450001002	240	1,456	246	1,689	6	233
450450002001	638	941	835	1,224	197	283
450450004001	533	1,103	737	1,212	204	109
450450007001	201	595	248	983	47	388
450450010001	591	1,158	545	1,008	-46	-150
450450010002	605	1,040	708	1,242	103	202
450450042001	593	1,336	437	825	-156	-511
450450042002	495	1,158	677	1,728	182	570
Summary	**4,199**	**9,442**	**4,851**	**10,727**	**652**	**1,285**

2.2 EMPLOYMENT DATA

Employment data is notoriously difficult to obtain at a refined level without purchasing (and cleaning) a dataset from third party vendors such as InfoGroup or Woods and Poole. The GPATS 2015 employment data was estimated based on ESRI business analyst. The only other point of comparison available is the South Carolina Statewide Model (SCSWM). A comparison of the GPATS model data versus the SCSWM only identified one potential issue – TAZ #1 has

5,623 employees in the GPATS model while the SCSWM has 1,116 for the same area. This TAZ, southwest of West McBee Avenue and South Main Street, includes several shops and merchants, along with the Westin Hotel, the Peace Center, and the Old Greenville County courthouse. At this time no modifications are recommended for employment population for this TAZ, but during use of model output data, additional scrutiny of model volumes for this area is recommended.

2.3 2015 TO 2040 HOUSEHOLD AND POPULATION GROWTH

The GPATS model completes future year analysis using the anticipated transportation network along with year-specific forecasts of housing and employment for each TAZ. **Table 3** shows a comparison of 2015 and 2040 data for the downtown Greenville area. The 2040 model shows approximately 1% growth per year regionally for households and population – but no growth forecasted in the downtown Greenville area. While historically downtown areas such as Greenville maintained steady levels over many years, this area has had (and is expecting) multiple residential developments in the downtown area that don't appear to be considered in the GPATs Model. **It is recommended that for Phase 2 of this study, the consultant team work with the City to prepare updated housing and employment forecasts within the study area to represent development trends in an alternative land use scenario.**

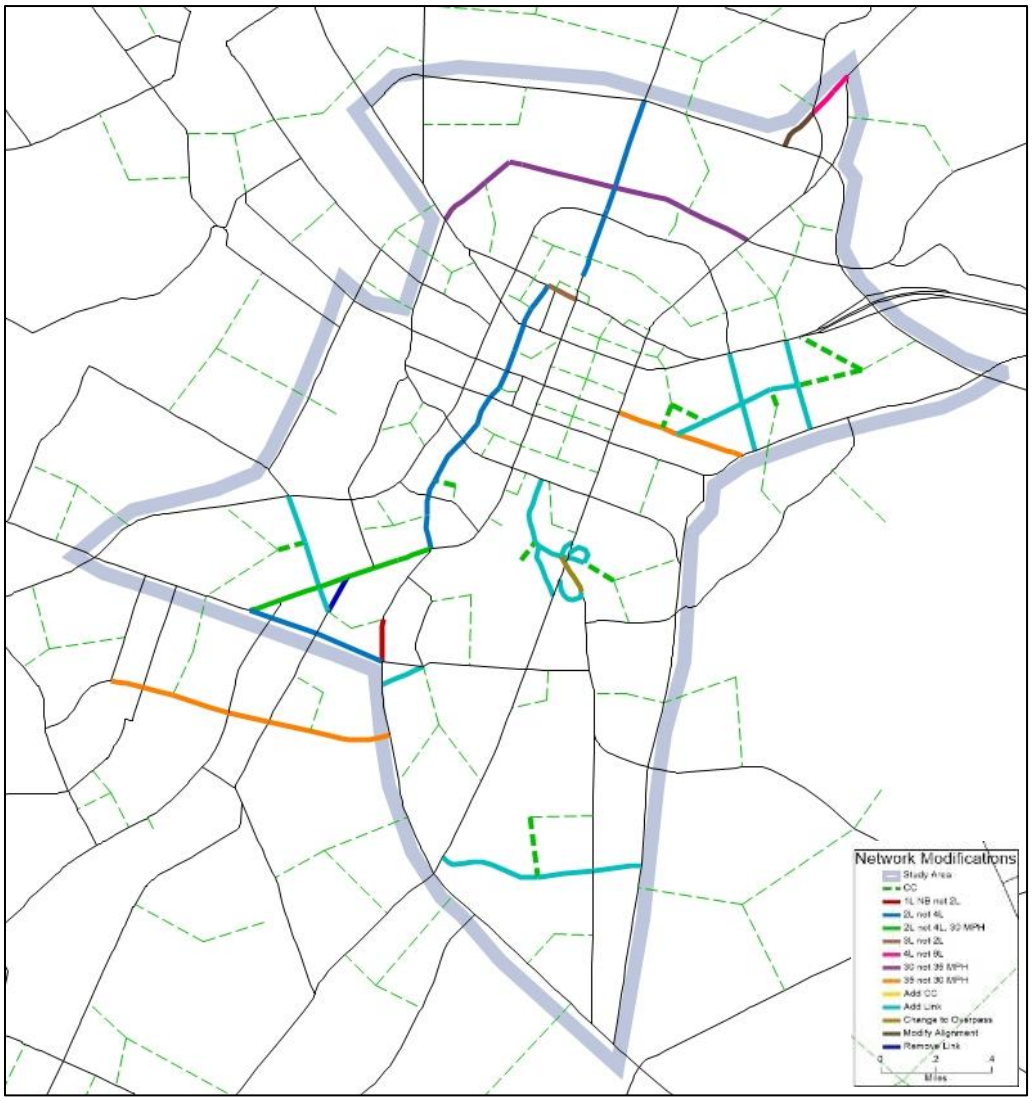
Table 3. 2015 and 2040 Socioeconomic Data Comparison

	Region		Study Area		Regional Annual Growth Rate	Study Area Annual Growth Rate
Type	2015	2040	2015	2040	2015-2040	2015-2040
Households	262,012	324,171	4,851	4,901	0.90%	**0.00%**
Population	677,745	822,146	10,727	10,574	0.80%	**-0.10%**
Employment	368,204	499,100	31,343	49,473	1.20%	1.80%

3. RECOMMENDED MODEL NETWORK MODIFICATIONS

The model network was reviewed for the study area shown in **Figure 1** against available data such as the Greenville County streets centerline file and current aerial mapping/street views from Google©. Review of the network focused on model connectivity, accuracy of input data (lanes, speed), and anticipated future projects. In general, the model network is representative of the transportation in the downtown Greenville area. Recommendations for network modifications for this project are documented in **Sections 3.1** through **3.3** and depicted in **Figure 2**. **Section 3.4** briefly discusses potential TAZ splits to consider for subsequent analysis, such as in Phase 2 of the Master Plan study.

Figure 2. Recommended Network Modifications



3.1 LINK ADDITIONS AND REMOVALS

The following link additions are recommended for the downtown model network:

1) Add Harris Street between Howe Street and Augusta Street
2) Add Markley Street between Green Avenue and S Academy Street
3) Add Williams Street between E North St and E Washington Street
4) Add Pettigru Street between Williams Street and Boyce Avenue
5) Add Boyce Avenue between E North Avenue and E Washington Street
6) Add Falls St/Camperdown Way between E Broad Street and S Church Street
7) Add Crescent Avenue between S Church Street and McDaniel Avenue
8) Realign Wade Hampton Blvd from College Street to Stone Avenue (new T-intersection)

The following link removals are recommended for the downtown model network:

9) Remove Green Avenue between Markley Street and S Main Street (goes through ballpark)

3.2 ATTRIBUTE MODIFICATIONS

Link modifications recommended for the downtown model network are shown in **Table 4**.

Table 4. Link Attribute Modifications

Road	From	To	Attribute	Existing Value	Proposed Value
Dunbar St	Leach St	Augusta St	Speed	30	35
E Washington St	Washington	N Church St	Speed	35	30
Park/Atwood	N Church St	Hampton Ave	Speed	35	30
N Main St	Elford St	Stone Ave	Lanes	4	2
Augusta St	Vardry St	Field St	Lanes (NB)	2	1
S Main St	Augusta St	Pendleton St	Lanes	4	2
Vardry St	Augusta St	Main St	Lanes	4	2
Wade Hampton Blvd	Church St	Mohawk Dr	Lanes	6	4
Richardson St	College St	W McBee Ave	Lanes	4	2
River St	W McBee Ave	S Main St	Lanes	4	2
College St	N Main St	Townes St	Lanes	2	3

3.3 COMMITTED PROJECTS

No committed roadway projects have been identified in the GPATS model for completion prior to 2040 in the vicinity of the downtown master plan study area. Four projects, shown in **Table 5**, have been coded in the model in/near the study area as part of a Vision (unfunded, uncommitted) Plan.

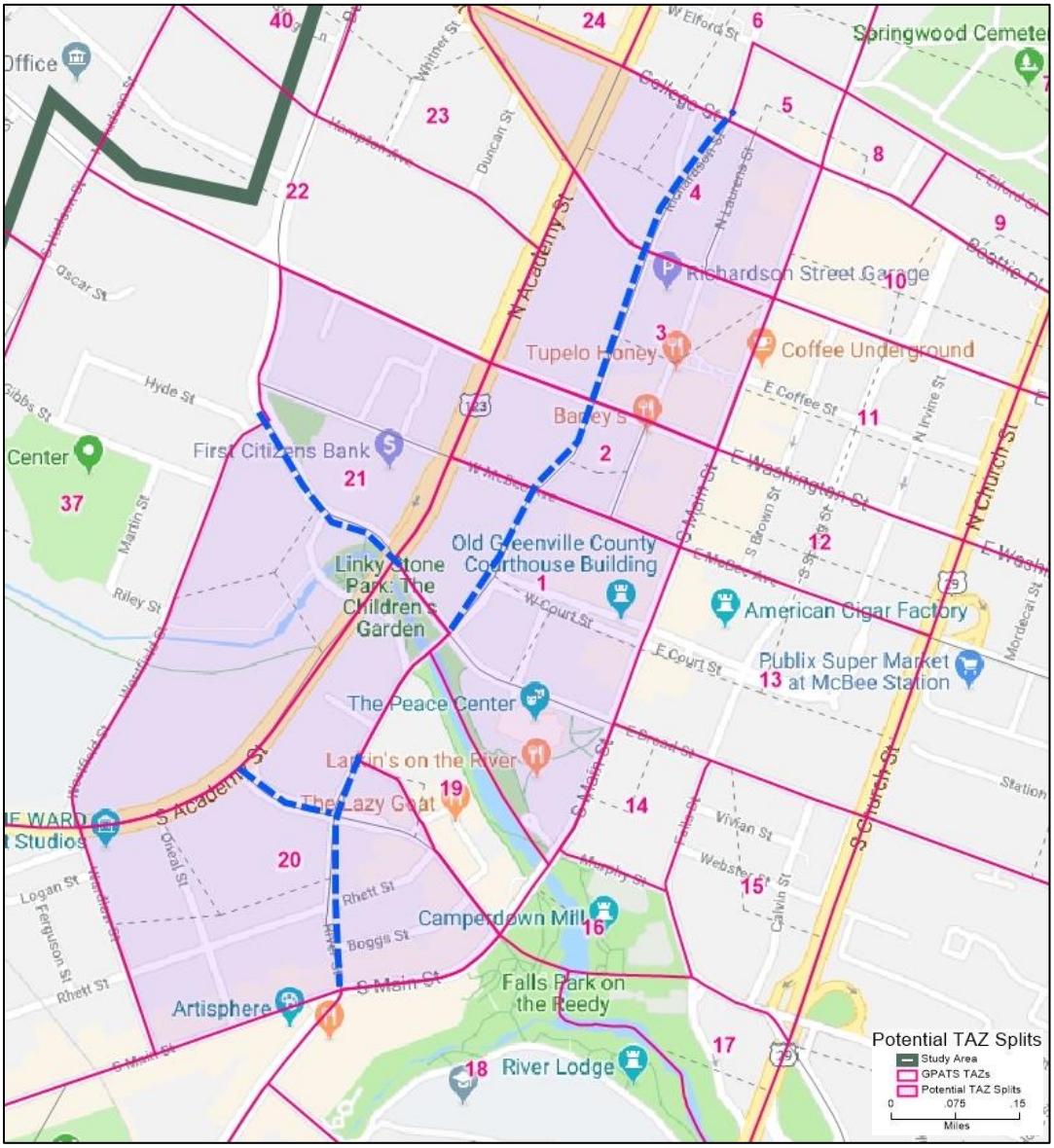
Table 5. GPATS Future Projects near Study Area

Project ID	Year	Alt	Road	From	To	Project
300029	2040	Vision	Washington Street Extension	Laurens Rd	Lowndes Hill Rd	New 2 lane Secondary
350006	2040	Vision	University Ridge Extension	Vardry St	University Ridge	New Road
350009	2040	Vision	Beatie/College St	Buncombe	E North	Road Diet
400016	2040	Vision	Cedar Lane/Pete Hollis Blvd	W Parker Road	Buncombe Street	Road Diet

3.4 TAZ SPLITS

In general, the TAZs in the downtown Greenville area match the street system/model network very well. For Phase 1 of the project, no splits are recommended. However, for Phase 2, TAZ splits should be considered for TAZS 1, 2, 3, and 4 (along Richardson St), TAZ 20 (along River St and Falls Park Dr), and TAZ 21 (along W Broad St). These potential splits are shown in **Figure 3**.

Figure 2. Potential TAZ Splits



4. 2015 Calibration Summaries

Calibration, in terms of a travel demand model, is a comparison of how well the travel demand model compares against observed data. For this study, calibration performance will focus on how well the 2015 model performs against 2015 traffic counts. The focus on model calibration results focuses on the master plan study area, but regional measures are included to demonstrate that the network modifications implemented for this study do not impact overall GPATS model results. Calibration summaries are provided without modifications (as provided) and with changes documented in **Section 3.1** and **3.2**.

4.1 OVERALL MODEL CALIBRATION

A cursory look at overall model calibration shows that the GPATS model generally meets typical model criteria. Table 1 shows the original model results (prior to changes in the Greenville Downtown Master Plan study area), along with the results with a modified network. In general, regional results only have minor differences while the results in the study area improve with the implementation of link additions/deletions/modifications.

Table 6. Model Calibration Comparison

Overall Calibration Summary		Original	Modified
Region	% Difference vs Counts	1.2%	1.1%
	R-Squared	0.91	0.91
	RMSE	33.7	33.6
Study Area	% Difference vs Counts	0.2%	-1.6%
	R-Squared	0.86	0.88
	RMSE	25.3	22.7

4.2 PERCENT DIFFERENCE, COUNT VS MODEL VOLUME

In total, there are 626 counts in the GPATS model area and 24 counts in the project study area. **Table 7** presents the percent difference between the original model and the modified network.

Table 7. Model Volume versus Count

	Observed		Original		Modified		
Summary Level	Counts	Daily Count Total	Daily Model Volume	% Difference vs Counts	Daily Model Volume	% Difference vs Counts	Target
Region	626	6,074,740	6,147,885	1.2%	6,143,726	1.1%	+/- 5%
Greenville County	267	3,637,115	3,525,276	-3.1%	3,521,116	-3.2%	+/- 5%
Study Area	24	335,500	336,020	0.2%	330,015	-1.6%	+/- 10%

4.3 PERCENT DIFFERENCE, COUNT VS MODEL BY VOLUME GROUP

Table 8 presents the difference between the model and daily counts by volume group.

Table 8. Model versus Count by Volume Group

Volume Group	Observed		Original		Modified		Target
	Counts	Daily Counts	Daily Volume	% Difference vs Counts	Daily Volume	% Difference vs Counts	
0-4999	4	11,900	15,025	26.3%	10,230	-14.0%	+/- 50%
5000-9999	5	43,900	45,471	3.6%	49,014	11.6%	+/- 25%
10000-19999	10	148,900	140,611	-5.6%	138,834	-6.8%	+/- 20%
20000+	5	130,800	134,913	3.1%	131,937	0.9%	+/- 15%
All	**24**	**335,500**	**336,020**	**0.2%**	**330,015**	**-1.6%**	**+/- 5%**

4.4 PERCENT DIFFERENCE, COUNT VS MODEL BY FACILITY TYPE

Table 9 presents a comparison of model volumes and traffic counts by facility type.

Table 9. Model versus Count by Facility Type

Facility Type	Observed		Original		Modified		Target
	Counts	Daily Counts	Daily Volume	% Difference vs Counts	Daily Volume	% Difference vs Counts	
Major Arterial	8	167,000	178,318	6.8%	177,050	6.0%	+/- 15%
Minor Arterial	12	149,200	143,515	-3.8%	138,394	-7.2%	+/- 20%
Collector/Local	4	19,300	14,187	-26.5%	14,571	-24.5%	+/- 25%

4.5 RMSE BY FACILITY TYPE

RMSE represents Root Mean Square Error and is a good measure of the overall quality of the model versus counts. Both the original and modified model fall within reasonable ranges (The lower the RMSE, the better). In **Table 10** the modified model shows marked improvement for minor and major arterials and some worsening on collector/local facilities (albeit with a very small collector/local sample set).

Table 10. RMSE by Facility Type

Facility Type	Original	Modified	Target
Major Arterial	22	21	<25
Minor Arterial	26	21	<35
Collector/Local	27	32	<45
Overall	**25**	**23**	**<35**

5. Measures-of-Effectiveness Summaries, 2015 and 2040 LRTP

To evaluate the effectiveness of the model in future conditions, the GPATS travel demand model was run for 2040 using the modified network (with the addition of committed and LRTP projects) and compared against 2015 results. **Table 11** presents a summary of measures-of-effectiveness (MOE) using Vehicle-Miles Traveled (VMT), Vehicle-Hours Traveled (VHT), average PM speed by facility type, and PM VMT by model generated Level-of-Service.

Table 11. MOE Summary, 2015 and 2040 LRTP (Master Plan Study Area)

MOE	Category	2015	2040	Change
VMT (1,000s)	Major Arterial	153,413	207,498	35%
	Minor Arterial	128,661	177,080	38%
	Collector/Local	35,244	51,706	47%
	Total	317,318	436,284	37%
VHT	Major Arterial	5,392	7,287	35%
	Minor Arterial	4,348	5,920	36%
	Collector/Local	1,400	2,085	49%
	Total	11,139	15,293	37%
Ave PM Speed	Major Arterial	27.1	26.4	-3%
	Minor Arterial	28.7	28.2	-2%
	Collector/Local	24.4	23.4	-4%
	Total	27.4	26.6	-3%
PM VMT by LOS	C	96331	87405	-9%
	D	12475	34496	177%
	E	1381	15362	1012%
	F	556	2935	428%
	Total	110744	140199	27%

The table shows that VMT and VHT grow in similar fashion, in the 35-40% range. As a point of comparison, 2040 SE data for the study area has growth changes of 0% for population and 58% for employment. VMT and VHT growth fall reasonably within that level. Average PM speeds drop, as one would expect, with growth in VMT and limited capacity improvements. A look at PM VMT by model generated Level-of-Service (LOS) shows a notable increase in the amount of traffic that experiences LOS E and F conditions vs LOS C and D in the base year. In 2015, only 2% of PM VMT is in LOS E/F conditions (according to the model, which is based on planning capacities and has limitations). In 2040, that number grows to 13%.

Appendix C: Autonomous/Connected Vehicle Primer Memorandum

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New Mobility and Emerging Technology

There are fundamental changes on the horizon for transportation. Emerging technologies are coming together at an unprecedented pace in ways that will shift the underlying assumptions about, and operation of, our transportation network. The key factors driving this change include connected and autonomous vehicles, electrification, and the emergence of alternate mobility devices for both people and goods.

This technical memo will address the initial opportunities related to new mobility through a series of near-term actions for the City of Greenville. Both project-based and policy-based, these recommendations will improve mobility options today while helping to prepare the city for the coming transportation revolution. With a set of uncertain factors in play, this plan will establish a series of strategies that will allow immediate action, while also “future-proofing” for change to the extent possible. The plan proposes key indicators for both the short-term and long-term to trigger additional evaluation and review of new mobility components and suggested steps to take over the next ten to twenty years.

Timeline and Investment

While there is still uncertainty in the exact adoption timeline for these technologies, early indicators make it possible to make informed estimates of how and when change will accelerate. In preparing for new mobility, it is helpful to think in and plan for three blocks of time: the present, at full adoption, and most importantly, during the transition. The following is a brief description of leading new mobility issues that the City of Greenville may want to consider.

Emerging Factors and Technology

New mobility aspects are beginning to emerge as massive corporate investment is pairing with technological advancement and new approaches in transportation network analysis and design. Below is a general overview that serves as a summary snapshot in time. With the industry changing so rapidly, it is certain that progress will quickly remake what we see today.

There are many factors in emerging technology and new mobility that are likely to impact Greenville. The following are some of the most impactful, and likely the most worthy of advanced discussion and planning. These are described in greater detail in this memo:

- Micromobility: A new set of smaller, nimble vehicles are adding to mobility options and opportunities for cities.
- Connected Vehicles: Rapid advancement in communication technology will enable vehicles to “speak” to each other and the surrounding infrastructure, improving safety and efficiency.
- Autonomous Vehicles: As vehicles of all types become independent of the need for human drivers, a host of changes and new approaches to transportation and land use will result.
- Curb Management: In this age of Uber and Lyft, we are already seeing changes in the way we access the curb and this will continue with changes in deliveries and future autonomous technology.
- Parking: The traditional link between parking, transportation and land use is about to be radically shifted by technology adoption.

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- Microtransit: The nature of transit will morph as the characteristics of the vehicles will change along with the service models they provide.

Micromobility

For many decades, we have relied on a limited set of travel modes and vehicle types. Certainly, the personally owned automobile has become vastly dominant in most cities followed distantly by buses/trains, bicycles and walking. For the delivery of goods, trucks of various sizes eventually carry almost everything that we use. Now we are seeing the introduction of different vehicle types for both travel and delivery, such as scooters and e-bikes (bikes with electric assist motors), and the change in use patterns are having immense impacts.

So what is micromobility? It's typically thought of as smaller personal transportation devices that are part of a shared network. These docked and dockless bikes, e-bikes, and scooters function in different ways than other more prevalent modes such as cars and buses. First of all, they are small in size (hence "micro" in the name) which allows people to increase the capacity of roads. While there have been concerns over these devices being left throughout the public ROW and private property in inappropriate locations, it is also true that they require a small fraction of the storage space needed for the equivalent number of automobiles. In addition, the shared use model provides another option that doesn't require a round trip for a specific vehicle, freeing consumers to switch modes at will. While personal bicycles certainly fit into this broad category, using your own bike means that you have to manage the location of your device at all times. Shared use micromobility allows each leg of a journey to be considered independently.

One promise of increased micromobility usage is the potential to deal with the "first mile/last mile" concerns that often make it difficult for people to effectively use and access modes like transit. Micromobility also presents opportunities to reduce car trips and gain more roadway network capacity. Information released by Lyft indicates that 30% of riders used their scooter ride to replace a car trip and that 27% used the ride to connect to transit[4], see **Figure 1** below:

Figure 1: Riders using E-Scooters

[4] https://www.forbes.com/sites/adeyemiajao/2019/02/01/everything-you-want-to-know-about-scooters-and-micro-mobility/#6466d6fc5de6

Micromobility and Personal Transportation: Scooters

In the past 12-18 months since scooters have been introduced to cities across the nation, in some cases seemingly overnight, hundreds of scooters appeared on streets. And they didn't just appear, but they were immediately embraced by users while simultaneously giving heartburn to cities and local officials as they scrambled to create policies and practices to deal with the negative aspects. In 2018 alone, over 38.5 million scooter rides (out of 84 million shared micromobility trips) were taken in the US.[5] It's anticipated that usage in 2019 will eclipse that total.

Two things are particularly significant about the "scooter boom." First, the user popularity shows a clear interest in expanded micromobility options. This has led to a vast increase in bike lanes and other "slow speed" facilities, and presents some new options for consideration. These options are discussed further in the Downtown Transportation Mater Plan Short Term Needs Assessment Appendix B.

Second, the speed with which scooters appeared indicates how quickly these changes in transportation can now occur. While we're not certain of the types of vehicles and pace of adoption, it is clear that rapid change is coming. It is the challenge of every city to prepare for that change today. See **Table 1** below:

Table 1: Scooter Concerns

SCOOTER CONCERNS	RESPONSES TO DATE
Most effective in denser urbanized areas where the number of devices is enough to be proximate at most times.	Densest areas do have the most efficient use and coverage. Other areas with targeted destinations such as university/medical campuses or entertainment districts also support more frequent use.
Equity concerns over distribution of shared devices throughout neighborhoods regardless of socioeconomic status.	Locational concerns can be mitigated by requiring companies to provide vehicles to a variety of designated socioeconomic neighborhoods
Equity issues a concern where app is tied to the need for banking	Some early data indicates higher than expected use for underrepresented groups in other modes.[6]
Regulation and enforcement needed to control the use, distribution and parking of devices.	The regulatory structure has been established by numerous cities in reaction to the initial roll-out. These can be used as models.
Current devices are only for able-bodied.	Ongoing challenge
Current devices are weather dependent to at least the same extent as bicycles.	Ongoing challenge

[5] https://nacto.org/shared-micromobility-2018/
[6] https://www.populus.ai/research

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Micromobility in Freight and Delivery

Related to micromobility beyond transportation for people, small-scale delivery devices will quickly alter the way package delivery works, having further effects on the overall function of freight and related land uses. There are two categories currently being tested in markets throughout the world. The first are small-scale delivery devices that include a human participant to drive the vehicle and make deliveries. In one example, UPS is in the process of testing electric tricycles for delivery in Seattle.[7] This type of smaller, slow-speed vehicle intermixes easily with other slow-speed vehicles on the roadways, and can also blur the lines between public rights-of-way use with the ability to travel on sidewalks and other pedestrian areas. See **Figure 2 and Figure 3** below.

Figure 2: UPS Tricycle Delivery Vehicle

Figure 3: Nuro Delivery Vehicle for Kroger

The second are “terrestrial drones” that operate autonomously for package delivery. At the larger size of these devices, Kroger is testing autonomous delivery with Nuro self-driving vehicles. This is now occurring in Houston, adding to the successful pilot project in Scottsdale, Arizona[8].

Several delivery and logistics companies are testing their own devices, including these two examples from Amazon (**Figure 4**) and FedEx (**Figure 5**.)

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[7] https://www.wired.com/story/ups-delivery-tricycle-seattle/
[8] https://www.supermarketnews.com/online-retail/kroger-expands-driverless-delivery-houston

Figure 4: Amazon Scout Delivery Robot[9]

Figure 5: FedEx Delivery Robot[10]

The development of these autonomous delivery vehicles coincides with a rapid increase in online sales and the related spike in package delivery to homes and businesses. Additionally, meal delivery options such as Uber Eats and Grubhub are reframing the typical perception about the variety of options and convenience of home food delivery.[11] The deployment of these vehicles and the ongoing evolution of them will continue to impact the market and mobility. For example, Amazon is contemplating roving "home base" trucks that can then deploy these small drones to blanket a neighborhood with deliveries and then return to the truck to reload.[12]

Connected Vehicles and 5G

Connected Vehicles (CVs) are cars, truck or other mobility devices that have embedded technology to allow communication with each other (vehicle to vehicle – V2V) and/or with surrounding infrastructure (vehicle to infrastructure – V2X). This allows vehicles to work in an integrated and predictive system, accomplishing many improvements to operation and safety as described in the section below. Previous efforts have used a variety of technologies to accomplish this connectivity, most frequently with dedicated short range communication (DSRC) devices. However, recent advances in 5G technology, coupled with private sector investment and federal changes in spectrum allocation, indicate that it will likely become the leading technology for 5G.

5G is the latest iteration of cellular technology, engineered to exponentially increase the speed (up to 100 times current levels) and responsiveness of wireless networks. 5G will facilitate a massive increase in the amount of data transmitted over these networks. It is designed from the ground up to support the Internet of Things (IOT), and in addition to delivering faster and more data, it will help connect everything from autonomous vehicles and medical equipment to smart trash cans and intelligent lighting. This increased speed and capacity will require extensive

[9] https://www.theverge.com/2019/1/23/18194566/amazon-scout-autonomous-six-wheeled-delivery-robot
[10] https://about.van.fedex.com/newsroom/thefuturefedex/
[11] https://www.washingtonpost.com/technology/2019/02/27/your-next-fedex-delivery-could-be-pizza/

[12] https://www.bizjournals.com/seattle/news/2018/03/27/driverless-delivery-amazon-patent-trucks-drones.html

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infrastructure investments including "vertical real estate," like towers and other tall structures, and new data centers to process the increased information load. Global technology analyst and advisory firm Moor Insights & Strategy estimates the infrastructure spending on 5G will exceed $326 billion by 2025.[13]

Unlike previous generations, 5G technology can exist in very different versions depending on which of three spectrum bands it operates on. Low-band spectrum (currently used for most LTE networks in the U.S.) allows for large coverage areas and great penetration, with a tradeoff of slower data speeds (around 100Mbps). Mid-band spectrum offers faster speeds (around 1Gbps), though the coverage area decreases and the network often fails to penetrate buildings. High-band spectrum, typically described in the 5G discussion, is primarily the proposed solution to improving both coverage and penetration. It requires trading large cell towers for small cells placed throughout a region at close distances from one another, each covering a small geographic area and together forming a reliable network. The most expected and useful form of 5G would be on this high-band spectrum, with small units placed on existing infrastructure such as street poles or the sides of buildings throughout a network area. Small cells use available spectrum more efficiently by re-using the same frequencies in their geographical range.

5G network pilots have been implemented in select areas of the US along with 5G capable phones and service plans (namely from Verizon, AT&T, and Sprint, and promises from each to expand their rollouts to more cities soon). Verizon has announced that by the end of 2019, they will have 5G networks operating in 30 cities. T-Mobile has made a similar announcement for deploying 5G in 30 cities and AT&T has announced the deployment of 5G in 12 cities including Waco, Dallas, and Houston, Texas.

5G is an enabling technology that allows communication between devices, but C-V2X is the critical application that allows for the connectivity between vehicles and everything else. C-V2X, which was standardized in 2017, is designed to connect vehicles to each other, to roadside infrastructure, to other road-users and to cloud-based services.[14] C-V2X employs two complementary transmission modes:

1. Direct communications between vehicles, between vehicles and infrastructure, and vehicles and other road users, such as cyclists and pedestrians. In this mode, C-V2X works independently of the cellular networks.
2. Network communications, in which C-V2X employs the conventional mobile network to enable a vehicle to receive information about road conditions and traffic in the area.[15]

The application of C-V2X will have a wide ranging effect on existing traffic management, traffic management safety, traffic tolling in dense urban areas, and the speed of adoption of autonomous vehicles. See **Figure 6** below.

[13] Will Cities be Ready for 5G? https://austinstartups.com/will-cities-be-ready-for-5g-9c4c79423dbb
[14] https://www.gsma.com/iot/wp-content/uploads/2017/12/C-2VX-Enabling-Intelligent-Transport_2.pdf
[15] Ibid

Figure 6: Connected Vehicles Integrated Communication

Examples of applications include:[16]

- Platooning: The formation of a convoy in which the vehicles are much closer together than can be safely achieved with human drivers, making better use of road space, saving fuel and making the transport of goods more efficient.
- Co-operative driving: Vehicles can use C-V2X to work together to minimize the disruption caused by lane changes and sudden braking.
- Queue warning: Roadside infrastructure can use C-V2X to warn vehicles of queues or road work ahead of them, so they can slow down smoothly and avoid hard braking.
- Avoiding collisions: Each vehicle on the road could use C-V2X to broadcast its identity, position, speed and direction. An on-board computer could combine that data with that from other vehicles to build its own real-time map of the immediate surroundings and alert the driver to any potential collisions.
- Hazards ahead warning: C-V2X can be used to extend a vehicle's electronic horizon, so it can detect hazards around a blind corner, obscured by fog or other obstructions, such as high vehicles or undulations in the landscape.
- Increasingly autonomous driving: Along with other sensors and communications systems, C-V2X will play an important role in enabling vehicles to become increasingly autonomous.
- Collecting road tolls: designed to reduce congestion and the impact of motor transport on the environment.

C-V2X allows for critical applications to be deployed which will allow for an increase in driving speeds and corresponding decrease in congestion, a reduction in roadside accidents and fatalities and the ability to create real-time demand-based tolling systems to change driving behavior in highly dense urban areas. C-V2X applications are now being tested by an assortment of leading automotive companies such as Audi, Toyota and the PSA Group, along

[16] https://www.gsma.com/iot/wp-content/uploads/2017/12/C-2VX-Enabling-Intelligent-Transport_2.pdf; page 2

with technology infrastructure companies such as Qualcomm, AT&T, Verizon and Nokia. Ford announced at CES 2019, that all of their global fleet will adopt C-V2X technology by 2022.[17]

5G Connected Vehicle Trials

Globally, there have been over 20 trials testing C-V2X technology with three in the United States. These trials have been utilizing the C-V2X PCM5 protocol while using a 4GLTE network. C-V2X 5G NR has been evaluated in China and one is in the process of being trialed in Ann Arbor, Michigan, in the fall of 2019. While the number of trials for C-V2X 5G NR is much lower in comparison to the number of trials for C-V2X PCM5, the C-V2X 5G NR trials are an indication of how 5G technology will allow for widespread adoption of C-V2X technology.

San Diego C-V2X Connected Car Technology Trials

In June, of 2017, AT&T, Ford, Nokia, and Qualcomm announced the first trial of C-V2X trials in San Diego at the San Diego Regional Proving Ground with the support of the San Diego Association of Governments (SANDAG), Caltrans, the City of Chula Vista, and intelligent transportation solutions provider McCain.[18] For this trial, C-V2X platforms were installed in Ford cars using the Qualcomm 9150 solution to facilitate direct communications through AT&T's 4G LTE network communications and ITS platform. Nokia provided the wireless base stations and multi-access edge computing technology. McCain facilitated the integration of existing and emerging traffic signal control infrastructure.

Testing looked at V2V use cases including:

- Do not pass warning
- Intersection movement assist
- Left turn assist

The trials supported advanced vehicle communication capabilities for improved traffic efficiencies, such as real-time mapping updates and event notifications relayed using AT&T's cellular network and Nokia Cloud Infrastructure[19].

Colorado CDOT Traffic Management Trial

In June of 2018, Qualcomm partnered with Ford, Panasonic and the Colorado Department of Transportation (CDOT) on trials to assess C-V2X capabilities on roads throughout Panasonic's own CityNow headquarters in Denver and in select areas along the state's portion of Interstate 70 (I-70) in the US.[20] Within Panasonic's CityNow campus, V2V communication was tested to assess the following scenarios[21]:

- Electronic emergency brake light warning: Which alerts the driver of a serious braking event down the road.

[17] https://www.zdnet.com/article/what-is-c-v2x-and-how-it-changes-the-driving-smart-cities/

[18] https://enterpriseiotinsights.com/20171101/connected-cars-2/att-qualcomm-nokia-announce-cellular-v2x-trials-san-diego-tag23
[19] Ibid
[20] https://rethinkresearch.biz/articles/qualcomm-to-work-with-ford-on-first-c-v2x-trials-in-usa/
[21] https://innovation-destination.com/2018/09/05/first-real-world-application-of-c-v2x-demod-in-colorado/

- Intersection movement assist: Which is designed to prevent a side-impact collision (broadside crash) such as from a car "running" a red light.
- Traffic signal phase and timing: Which provides information as to the next phase of traffic signals and will alert drivers to a potential red-light running violation.
- Pedestrian/Cyclist crossing: Which warns drivers of pedestrians or bicyclists on the road.
- Left turn assist: Which is designed to warn a driver who has signaled intent to turn left that an oncoming vehicle is quickly approaching.
- In addition, CDOT was awarded a $20 Million federal BUILD grant to expand V2X hardware technology on 90 miles of the I-70 corridor along with 40 miles on I-25 and C-470.

Autonomous Vehicles

Autonomous Vehicles (AVs) are rapidly advancing through a large number of real-world tests, and we now see every major auto manufacturer developing driverless technology.

The movement of goods is well into AV testing as well. In addition to the smaller autonomous delivery vehicles mentioned earlier, AV long-haul trucking is being extensively tested and is a very likely target for near-term implementation.

While there is uncertainty about the pace of rollout and AV adoption, it is a technology that is advancing and will have a profound impact on cities in many ways. Adaptation of our transportation network, infrastructure and site design are some of the largest and most important tasks that will be required. While the effects on roadway usage, demand and capacity, along with parking and site design won't be seen immediately, the rapid development of the technology will likely compel communities to begin planning for the substantial changes that it will bring.

Overview of Deployment Models

At this time, there are three emerging models of autonomous vehicle deployment. The speed of adoption and eventual adoption rate of each of these models will have impacts on the overall transportation network, development patterns and site design throughout our cities. A short description of each deployment model is outlined below.

Ownership Model

An ownership deployment model is centered around individually or family-owned vehicles, each capable of a high level of autonomous driving. While similar in some ways to our current system, it offers more flexibility in managing parking at certain destinations. With this system, parking may no longer be necessary within close, walkable proximity to the destination land use. If the car is capable of fully-automated driving, individuals would drive or be driven to a destination, and the car could then drive autonomously to a parking area, or even back to its origin. This model could allow better distribution and management of parking, and a better use of underutilized areas.

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MaaS/TaaS – Mobility as a Service (MaaS) or Transportation as a Service (TaaS)
A MaaS/TaaS – Mobility as a Service (MaaS) or Transportation as a Service (Taas) is a model that operates as an on-demand taxi service. The current deployment of this model is the Transportation Network Company (TNC) or a Mobility Service Provider (MSP), currently embodied by companies such as Uber and Lyft. In this model, mobility is no longer achieved through owning a vehicle, but rather utilizing a transportation service. The rapid growth of TNC operations throughout the country serves as an important indicator of the potential for shared mobility in the coming era of autonomy. It also presents immediate opportunities and challenges as we design our roadway networks and design our cities. The direction of this technology eventually suggests a fleet of privately operated autonomous cars able to orient themselves to transport users around the city. Rides can be shared among multiple users to reduce cost. Even the format or shape of the vehicle can change dramatically from the current format of consumer vehicles. A hallmark of this system would be an increase in the utilization of employed vehicles (individually owned vehicles are currently averaged at 5% utilization), with a potential reduction in the total amount of vehicles needed by a substantial amount.

Transit
The current models of transit are likely to be affected by the rise of autonomous technology. The promise of highly automated vehicles lies in the reduction of cost and the improvement of services that traditional transit may be unable to offer. While it is unlikely that fixed-asset transit such as inter-city rail or streetcars will be seriously transformed, the current model of bus transit may change significantly. The current generation of autonomous microshuttles give us a glimpse into the direction of future autonomous transit models. Various companies are already producing vehicles capable of carrying 10-14 passengers in open traffic scenarios. While traditional buses have larger capacities (35-60 passengers), they require a significant amount of riders on each trip to be fully utilized. A microshuttle system would be able to deploy more vehicles at times of higher demand, making more efficient use of each trip, and offering riders more frequent service. Future models may even pick up riders at their door or along “fuzzy routes”, incorporated into trips that are better oriented toward the trip origination and destination. More information is provided about this below in the Microtransit section.

It is worth noting that there is overlap in the terminology that refers to Autonomous Vehicles because there is also an overlap in technology. Connected Vehicles (CVs) are closely related in that connected technology is seen as instrumental to the most effective operations and safety of AVs. That is why you will often see this class of transportation technology referred to as CAVs, meaning Connected and Autonomous Vehicles.

In addition, the advent of this technology is seen as closely tied to two other trends – electrification and shared mobility (a result of MaaS/TaaS and AV transit). Collectively this is known as ACES, meaning Automated, Connected, Electrified and Shared vehicles.

While the shifting nomenclature can be a challenge, it also indicates how dynamic and exciting a time it is for mobility. By embracing the opportunities, Greenville can position itself as a leader in the next generation of transportation.

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Curb Management

Curb management is a topic gaining more and more interest as mobility modes shift. It is centered around the idea that there will be more and more competition for the curb as more shared mobility and various levels of autonomy become prevalent. For individuals, once you no longer have to stay with the vehicle you arrive in to find parking, you'll prefer to be dropped off closer to the door of your destination. We are already seeing this with the use of ride-hailing services such as Uber and Lyft. The issue will increase as individual cars become able to park themselves as standard practice, and as autonomy makes the shared model the dominant choice in denser areas.

Urban freight delivery mechanisms such as the micro-delivery robots discussed earlier, along with likely even more delivery trucks, are arriving at the same time that passenger mobility is changing.

This demand for the curb will continue to compete with transit (even as transit becomes autonomous, some type of transit vehicles will demand curb access) and bicyclists, and basic elements like crosswalks.

While Greenville might not immediately experience the density where impacts of these competing elements will be felt, it will happen as technologies evolve. Setting a timeframe to establish criteria will help mitigate adverse impacts as new mobility emerges.

Parking

Parking has always been inherently coupled with mobility since the rise of automobiles. There are managed smart parking approaches that can help cities increase efficiencies today while preparing for the next phase of parking where parking can be decoupled from individual sites or destinations.

Smart Parking Technology

There are a number of systems evolving to monitor and coordinate parking use. These systems integrate with mobile apps and dynamic wayfinding to indicate the location and availability of parking while also allowing integrated payment. This increases the efficiency of use, reducing the time and vehicle miles for drivers to find spaces. This is highly useful for on-street parking and city-owned surface parking lots. This can also be integrated into wayfinding and availability numbers for downtown parking garages.

There are a number of sensor technologies that are still being tested in various parts of the country.[22] For on-street parking, this includes in-street sensors, as well as sensors integrated into the surrounding infrastructure.[23] Any of these approaches are likely to be interim steps as connected vehicle technology matures over coming years, and the associated 5G networks are

[22] https://www.researchgate.net/publication/324822320_Smart_parking_sensors_technologies_and_applications_for_open_parking_lots_A_Review

[23] https://www.parking-net.com/parking-showcases

expanded. More closely related to that approach are systems that use anonymous cell phone data to predict parking availability based on locational information collected.[24] For Greenville, it will be useful to compare efforts in other cities at the time implementation is pursued.

Future Parking Demands

It is critical to understand the context of our current situation before discussing the changes that autonomous technology will bring. Our current system of automobile-dependent development has been structured almost completely around a particular mode of transportation, one that requires massive amounts of public infrastructure and private land to operate.

Cities have historically developed around the available transportation modes of the time, and our auto-dependent development pattern is no different. What we understand as suburban development is a direct result of our automobile dependency. That mode is about to change, and with it will change our way of developing cities and places.

How autonomous technology will eventually affect the parking of different land uses is dependent on the adoption rates for the various models. What is certain is that the amount of parking needed and the relative location of parking to specific uses will greatly change.

Parking Ratios

Our current parking policies typically require a very high number of parking spaces for each use. As autonomy and shared mobility adoption rates climb, the number of overall spaces needed and the amount of area those spaces take will be reduced as AV parking for storage and charging becomes much more efficient than current need with human drivers.

Distance Constraints

The location of parking is currently specific, as it must be within walking distance to whatever land use its users are accessing. That relationship will be fundamentally altered when shared usage accelerates and self-parking cars are finding spaces after leaving passengers at their destination. This could raise issues of equity in the strategy on where to locate parking facilities when the need for proximity to uses is reduced.

Greenville can consider a short-term strategy to maximize parking use, efficiency and revenue generation, while also considering the longer-term impacts of AV adoption. Due to likely changes, parking policies and codes must be updated. In addition, the funding for parking garages, which often involved decades-long bonding approaches, should be reconsidered under future demand models.

[24] https://www.streetline.com/our-innovations/

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Microtransit

Microtransit consists of a shared transportation system that serves both fixed routes and schedules as well as flexible, on-demand service. Microtransit generally uses smaller vehicles than traditional transit, typically transporting three to 10 people. On-demand services are typically accessed via smartphone app, with example operators including Via, and Lyft Shuttle. See **Figure 7** below.

Figure 7: Microshuttle Vehicle Example

Trials of microtransit service are ongoing in numerous cities throughout the country. The success of early microtransit offerings has been mixed, with privately-operated services in Kansas City and the San Francisco Bay area ceasing operations. However, recent new trials have proven successful in Arlington, Texas (Via) and Central Ohio (COTA Plus). In both cases, microtransit service was introduced where previous transit service did not exist to provide trips within low density environments.

The introduction of autonomous vehicle technology has the potential to make microtransit service more cost effective by reducing labor costs. A number of agencies such as the Contra Costa Transportation Authority and Jacksonville Transportation Authority have deployed autonomous microtransit pilots to evaluate vehicles, foster public acceptance, and develop the institutional knowledge required to manage an autonomous fleet of vehicles. While autonomous microtransit services to date have required a human operator on board to take over in case of emergencies, manufacturers such as EasyMile have indicated their next generation of vehicles will not require this level of fallback.

Autonomous microtransit is particularly well suited for circulator service in low density urban areas. Capable of operating in mixed traffic, new routes can be established (or existing routes served) without the need for the high levels of infrastructure investment required for bus rapid

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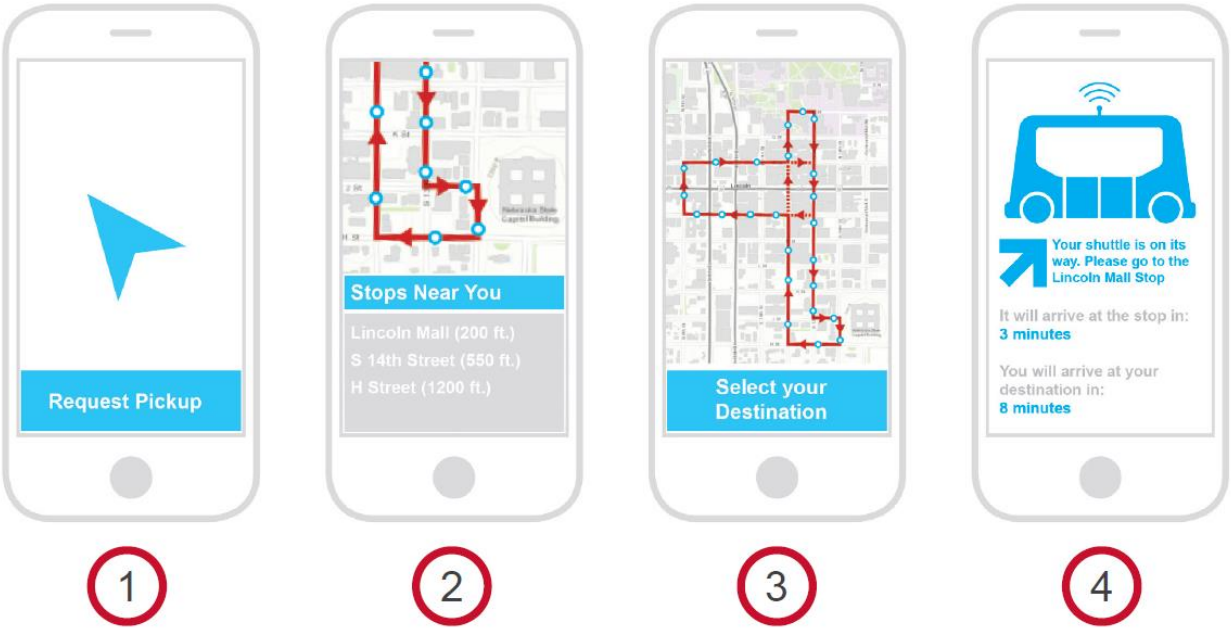
transit or streetcar service. The small vehicle size and potential for lower operating costs also mean that headways can be reduced or entirely demand-based, creating a more user-friendly service. The City of Lincoln, Nebraska has developed plans for such a service connecting numerous points of interest with parking facilities on the periphery of their downtown. See **Figure 8** below.

Figure 8: Proposed Microtransit Smartphone App Concept (City of Lincoln, NE)



Appendix D: College Street/North Street Corridor Crash Analysis & Pete Hollis Boulevard/Rutherford Street Corridor Crash Analysis

BIHL ENGINEERING

Memorandum

To: Jonathan Chasteen, PE, HDR

From: Jennifer T. Bihl, PE, PTOE

Date: April 10, 2019

Re: *City of Greenville Downtown Transportation Master Plan – College Street/North Street Corridor Crash Analysis*

This memo reviews the crash history and trends for the College Street/North Street corridor identified for study as part of the City of Greenville Downtown Transportation Master Plan. The Downtown Transportation Master Plan study area focuses on the downtown central business district area, including Stone Avenue and Laurens Road to the north, Hudson Road and Academy Street to the west, Pendleton Street and Augusta Street to the south, and Academy Street to the east, as well as some of the major corridors that feed the downtown.

Two corridors were identified by the project team for more study. These include:

- Pete Hollis Boulevard/Rutherford Street corridor – Pete Hollis Boulevard/Buncombe Street and Rutherford Street from just north of W Stone Avenue to just east of Whitner Street
- College Street/North Street corridor – College Street/Beattie Place and North Street from just east of Whitner Street to just west of Manly Street

This memo discusses the crash history and trends for the College Street/North Street corridor. **Figure 1** shows the extents of the College Street/North Street corridor. The crash history and trends for the Pete Hollis Boulevard/Rutherford Street corridor are discussed in a separate technical memo.

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Data Collection Summary

Crash data was provided by the City of Greenville for the period of January 1, 2015 through December 31, 2017 for the Downtown Transportation Master Plan study area. Crash data locations were identified by latitude/longitude coordinates, and the crash data was mapped using GIS software. The crash data was filtered to crashes that occurred in the College Street/North Street corridor.

The following variables were reviewed for each crash: location, manner of collision, first harmful event, injury status, probable cause, lighting, and roadway conditions.

Manner of collision describes the type of collision that occurred during the crash. The manner of collision for crashes is classified into the following categories:

- Angle
- Backed Into

- Head On
- Rear End
- Sideswipe, Opposite Direction
- Sideswipe, Same Direction
- Not Collision with Motor Vehicle – pedestrian, bicycle, fixed object
- Unknown

First harmful event describes the event that led to the crash. This category is useful when crashes involve objects other than motor vehicles, such as pedestrians or fixed objects. The first harmful event for crashes is classified into the following categories:

- Motor Vehicle (In Transport)
- Motor Vehicle (Parked)
- Motor Vehicle (Stopped)
- Curb
- Fence
- Median Barrier
- Other (Post, Pole, Support, Etc.)
- Other (Wall, Building, Tunnel, Etc.)
- Other Moveable Object
- Other Noncollision
- Pedalcycle
- Pedestrian
- Utility Pole

The injury status for each crash is identified by the max injury code, indicating the worst injury sustained in each collision. The Max Injury Codes are categorized as follows:

- INJ 0 - Property damage only
- INJ 1 - Possible injury
- INJ 2 - Non-incapacitating injury
- INJ 3 - Incapacitating injury
- INJ 4 - Fatal injury

The probable cause of each crash describes the event most likely element of why a crash occurred. A list all probable cause codes used in this study is provided in the **Appendix**.

A summary of the study crash data is provided in the **Appendix**.

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Overview of Corridor

The College Street/North Street corridor study area includes College Street/Beattie Place from just east of Whitner Street/Heritage Green Place to just east of the intersection of Beattie Place at E North Street and Buncombe Street/W North Street from just east of Whitner Street/Heritage Green Place to just east of the intersection of E North Street at Beattie Place.

Roadways in the project vicinity include College Street, Beattie Place, Buncombe Street, North Street, Academy Street, Church Street, and Main Street.

College Street (SC 183) is a four-lane, undivided, one-way, westbound principal arterial roadway with a posted speed limit of 35 miles per hour (mph), left-turn lanes, on-street parking, and a 2017 South Carolina Department of Transportation (SCDOT) annual average daily traffic (AADT) of 12,900 vehicles per day (vpd). College Street becomes Beattie Place east of Main Street and becomes Buncombe Street west of Heritage Green Place/Whitner Street.

Beattie Place (SC 183) is a four-lane, undivided, one-way, westbound principal arterial roadway with a posted speed limit of 35 mph, left-turn lanes, on-street parking, and a 2017 SCDOT AADT of approximately 12,900 vpd. Beattie Place becomes College Street west of Main Street and becomes North Street east of Thompson Street.

Buncombe Street (SC 183) is a six-lane, divided, principal arterial roadway with a posted speed limit of 35 mph and left- and right-turn lanes. Buncombe Street becomes a one-way street south of Whitner Street/Heritage Green Place and becomes North Street east of Academy Street. Buncombe Street had a 2017 SCDOT AADT of approximately 11,800 vpd south of Whitner Street/Heritage Green Place.

North Street (US 385) is a two-lane, one-way, principal arterial roadway with a posted speed limit of 35 mph, left- and right-turn lanes, and parking on both sides of the street. East of Spring Street, North Street becomes a four-lane, one-way eastbound roadway with on-street parking on the north side of the road. East of Church Street, North Street becomes a two-way, divided roadway. North Street had a 2017 AADT of approximately 13,300 vpd on the one-way section between Academy Street and Church Street.

Academy Street (US 123) is a five-lane, divided, principal arterial roadway with a posted speed limit of 40 mph, and left- and right-turn lanes in the study area. Per SCDOT counts, Academy Street had a 2017 AADT of approximately 21,300 vpd in the study area.

Church Street (US 29) is a four-lane, divided and undivided principal arterial roadway with a posted speed limit of 35 mph and left- and right-turn lanes in the study area. Per SCDOT counts, Church Street had a 2017 AADT of approximately 32,000 vpd south of Beattie Place and 22,800 vpd north of Beattie Place.

Main Street is a two-lane, major collector (south of North Street)/minor arterial (north of North Street) roadway with angled on-street parking on both sides of the street south of College Street/Beattie Place. Per

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SCDOT counts, Main Street had a 2017 AADT of 6,700 vpd south of College Street and 6,200 vpd north of College Street.

Crash Data Summary

Table 1 shows a summary of the crash data by collision type and injury status. The mapped crash data on the corridor by manner of collision is shown on **Figure 2** and discussed in **Tables 2**, **3**, and **4**. There were 683 crashes in this study area during the time period analyzed.

Table 1:
Crash Summary - Manner of Collision and Injury Status

Manner of Collision		Number of Crashes	Percent of Total	Injury Status			
				Property Damage Only	Injury[1]	Severe	Fatal
Not Collision with Motor Vehicle	Non-Fixed Object	16	2.3%	5	11	0	0
	Fixed Object	13	1.9%	9	4	0	0
	Other	3	>1%	3	0	0	0
Angle		239	35.0%	184	53	2	0
Rear End		155	22.7%	134	21	0	0
Sideswipe, Same Direction		214	31.3%	204	10	0	0
Backed Into		29	4.2%	27	2	0	0
Head On		6	>1%	4	2	0	0
Sideswipe, Opposite Direction		6	>1%	6	0	0	0
Unknown		2	>1%	2	0	0	0
Total		**683**	**100%**	**578**	**103**	**2**	**0**

1. Includes Inj. 1 and Inj. 2 crashes

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As shown in **Table 1**, angle (approximately 35%), sideswipe, same direction (approximately 31%) and rear end (approximately 23%), crashes were the most common type of crash on this corridor. Approximately 77% of angle crashes, 95% of sideswipe, same direction crashes, 86% of rear end crashes, and 85% of all crashes resulted in property damage only. Approximately 15% of all crashes resulted in an injury, less then one percent of all crashes resulted in a severe injury, and there were no fatalities.

There were two crashes on the College Street/North Street corridor during the study period that resulted in severe injury. Both occurred on dry pavement, at night, in streetlamp lit areas. The following describes the conditions as noted by the officers associated with these crashes:

- An angle collision between two vehicles on Buncombe Street in the center of its intersection with Academy Street due to a driver disregarding signs, traffic signals, etc.
- An angle collision between two vehicles on Church Street in the center of its intersection with North Street due to a driver disregarding signs, traffic signals, etc.

There were seven crashes involving a pedestrian and five crashes involving a bicycle. All crashes involving a pedestrian occurred at signalized intersections. Of the crashes involving a bicycle, three of them occurred on the northbound Richardson Street approach to the intersection of College Street at Richardson Street. This approach has narrow shoulders, approximately four feet wide, striped between the vehicle travel lane and the sidewalk. These lanes are not striped or signed for bicycles It is recommended that the striping and signing be reviewed in this area specifically related to bicycle and pedestrian travel.

Table 2 shows probable cause for crashes on the College Street/North Street corridor during the study period. The four most common probable causes of crashes were improper lane usage/change (approximately 28%), failure to yield right-of-way (approximately 13%), disregarded signs, signals, etc. (approximately 12%), driving too fast for conditions (approximately 10%).

Table 3 shows a summary of the crash data on the College Street/North Street corridor by light and road surface condition. The majority of crashes took place during daylight and dry pavement conditions (approximately 77% and 87%, respectively).

Crash Frequency

The crash rate for the corridor was calculated as 34.42 crashes per one million vehicle miles traveled. The crash rate included crashes along College Street, Beattie Place, Buncombe Street, and North Street, and did not factor crashes on intersecting streets.

A crash frequency heat map was generated for the College Street/North Street Corridor and is shown in **Figure 4**. Based on the study area data shown in **Figure 4**, hot spots on the corridor were identified as:

- Intersection of College Street at Academy Street
- Intersection of Beattie Place at Church Street
- Intersection of Buncombe Street at Academy Street
- Intersection of North Street at Main Street
- Intersection of North Street at Church Street

There were 86 crashes (13% of total corridor crashes) at the intersection of College Street at Academy Street. The primary crash types at this intersection were angle (approximately 59%), sideswipe, same direction (approximately 22%), and rear end (approximately 16%) crashes. Two crashes involved motorists

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hitting curbs, one at the northeast corner of the intersection and one at the southwest corner of the intersection. College Street is a one-way westbound roadway at this intersection.

Table 2:
Crash Summary - Collision Probable Cause

Cause	Number of Crashes	Percent of Total
Aggressive Operation of Vehicle	1	<1%
Brakes	1	<1%
Disregarded Signs, Signals, Etc.	83	12.2%
Distracted/Inattention	35	5.1%
Driving Too Fast for Conditions	71	10.4%
Failure to Yield Right of Way	88	12.9%
Followed Too Closely	66	9.7%
Glare	1	<1%
Improper Crossing	1	<1%
Improper Lane Usage/Change	193	28.3%
Lying and/or Illegally in Roadway	1	<1%
Made an Improper Turn	55	8.1%
Medical Related	2	<1%
Other	1	<1%
Other Improper Action	47	6.9%
Over-Correcting/Over-Steering	1	<1%
Ran Off Road	1	<1%
Under the Influence	6	<1%
Unknown	23	3.4%
Vision Obscured (Within Unit)	1	<1%
Wrong Side or Wrong Way	5	<1%
Total	**683**	100%

Table 3:
Crash Summary – Light and Road Surface Conditions

Conditions		Number of Crashes	Percent of Total
Light Condition	Dawn	8	2.6%
	Daylight	507	77.2%
	Dusk	10	2.6%
	Dark (Street Lamp Lit)	136	13.3%
	Dark (Street Lamp not Lit)	2	<1%
	Dark (Lighting Unspecified)	20	3.6%
Total		**683**	**100%**
Road Surface Condition	Dry	591	86.5%
	Wet	90	13.2%
	Ice	1	<1%
	Unknown	1	<1%
Total		**683**	**100%**

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There were 94 crashes (approximately 14% of total corridor crashes) at the intersection of Beattie Place at Church Street. The three primary crash types at this intersection were sideswipe, same direction (approximately 43%), angle (approximately 30%), and rear end (approximately 21%) crashes. The majority of angle crashes occurred near the center of the intersection, while most sideswipe and rear end crashes occurred on the intersection approaches. One pedestrian was struck in the crosswalk at this intersection with the crash attributed to a failure to yield the right-of-way. There was one head on crash on the southbound Church Street approach near the stop bar due to a driver disregarding signs, signals, etc.

There were 58 crashes (approximately 8% of total corridor crashes) at the intersection of Buncombe Street at Academy Street. The three primary crash types at this intersection were rear end (approximately 48%), angle (approximately 28%), and sideswipe, same direction (approximately 17%) crashes. The angle crashes were clustered toward the center of the intersection, while the rear end and sideswipe crashes were more frequent on the intersection approaches. In one instance, there was a crash between a driver and the median curb on the southbound approach approximately 100 feet from the center of the intersection due to driving too fast for conditions. It was classified as a head on crash by the responding officer.

There were 58 crashes (approximately 8% of total corridor crashes) at the intersection of North Street at Main Street. The three most common types of crash were rear end (approximately 48%), angle (approximately 28%), and sideswipe, same direction (approximately 17%) crashes. One pedestrian was struck by a vehicle on a crosswalk with the crash attributed to a failure to yield the right-of-way.

There were 73 crashes (approximately 11% of total crashes) at the intersection of North Street at Church Street. The three primary crash types at this intersection were rear end (approximately 41%), angle (approximately 38%), and sideswipe, same direction (approximately 18%). The angle crashes mostly occurred in the center of the intersection, while rear end crashes occurred more frequently on the intersection approaches.

Crash Analysis Summary

This memo reviewed the crash history and trends for the College Street/North Street corridor identified for study as part of the City of Greenville Downtown Transportation Master Plan.

Crash data was provided by the City of Greenville from January 1, 2015 through December 31, 2017 for the Master Plan study area. Crash data locations were identified by latitude/longitude coordinates, and the crash data was mapped using GIS software. The crash data was filtered to crashes that fell within the College Street/North Street corridor study area.

The College Street/North Street corridor had a high frequency of angle, sideswipe, same direction, and rear end crashes. Crashes occurred more frequently at signalized intersections. All crashes involving pedestrians occurred at signalized intersections. Of the five crashes involving a bicycle, three of them occurred on the northbound Richardson Street approach to the intersection of College Street at Richardson Street. This approach has narrow shoulders, approximately four feet wide, striped between the vehicle travel lanes and the sidewalk on both sides of the road. These lanes are not striped or signed for bicycles. It is recommended that the striping and signing be reviewed in this area specifically related to bicycle and pedestrian travel.

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Based on a review of the College Street/North Street crash data, the following transportation related improvements are recommended:

- Review the striping and signage related to pedestrian and bicycle travel in the vicinity of the intersection of College Street at Richardson Street

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Appendix

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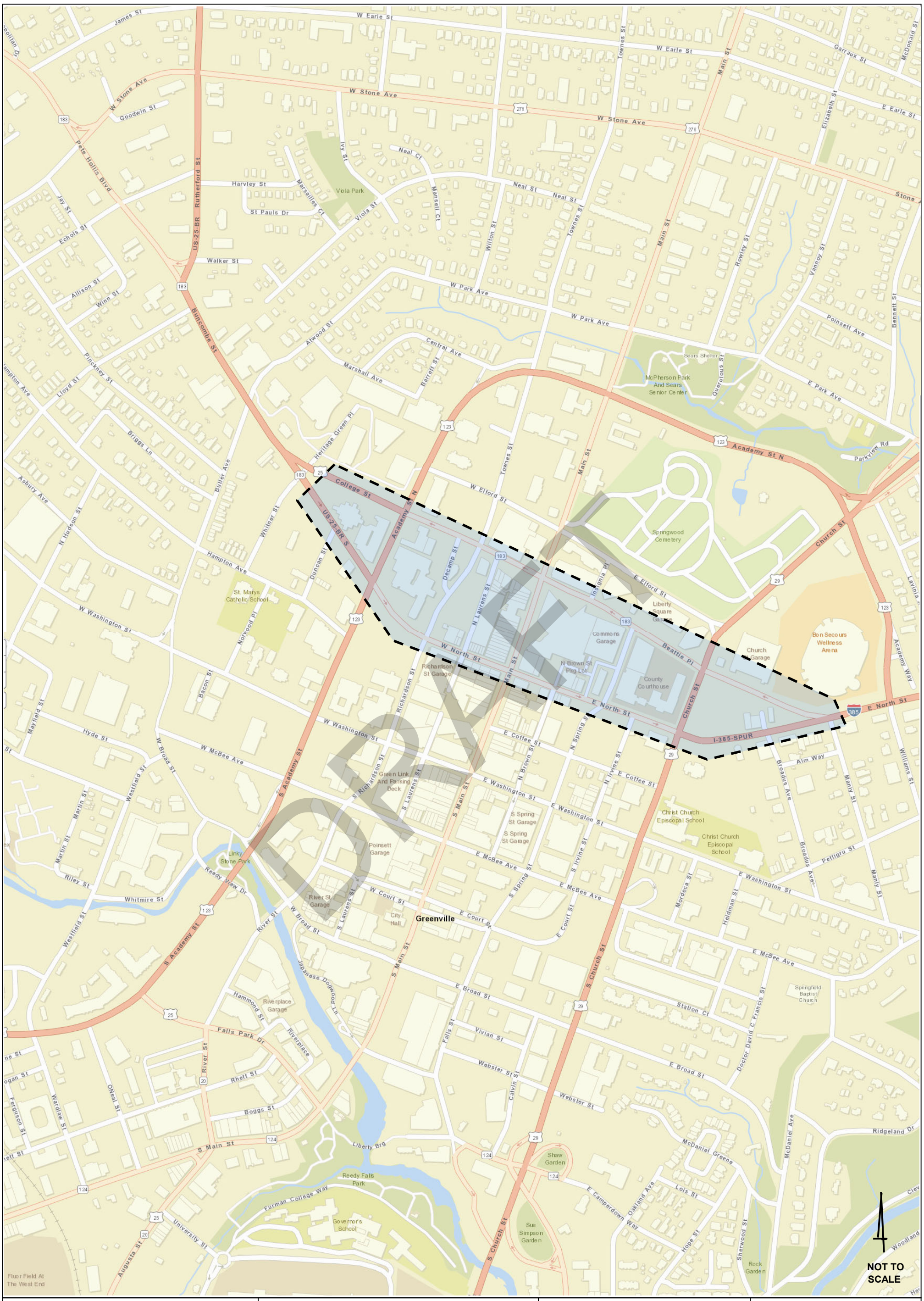
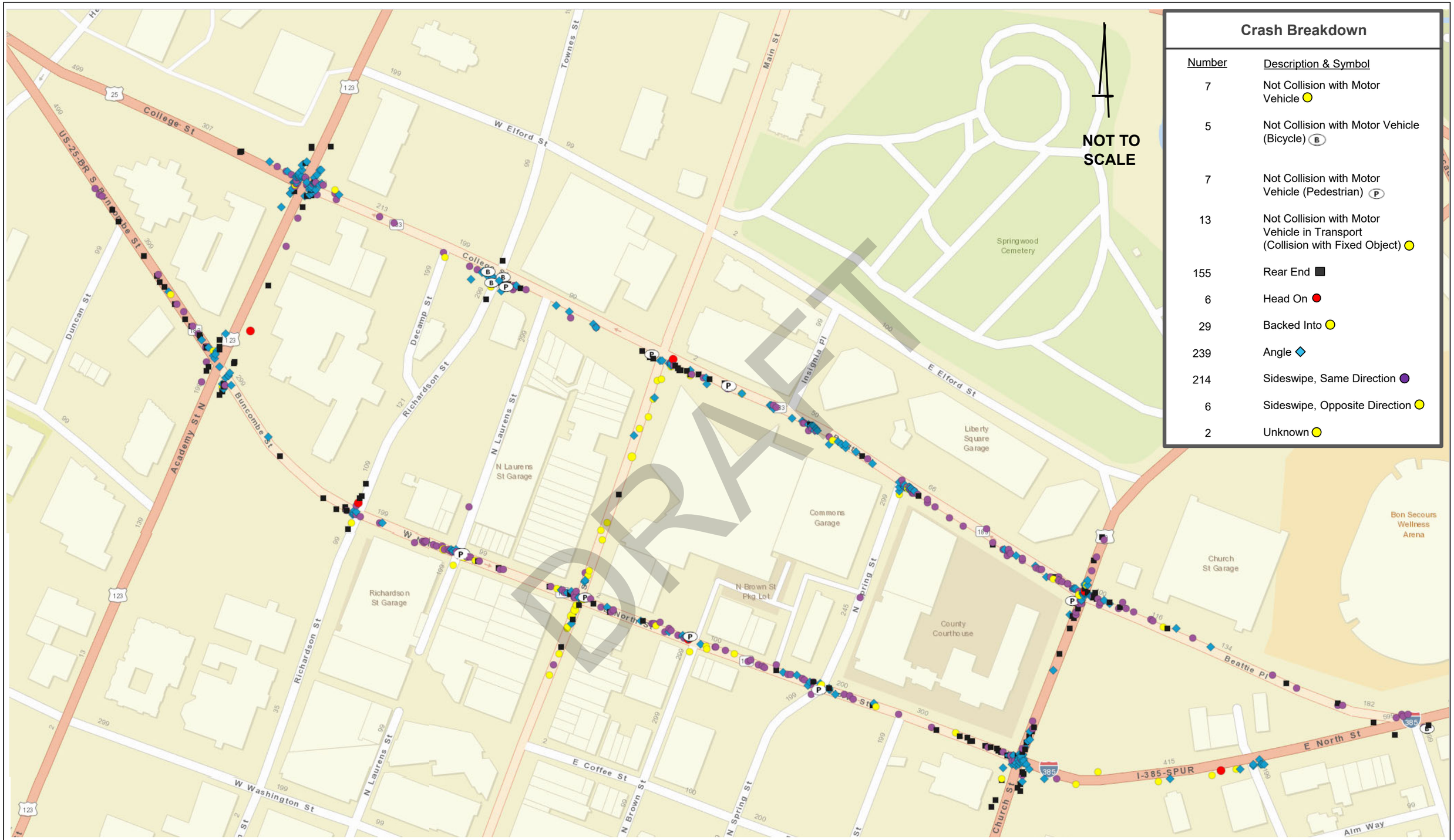


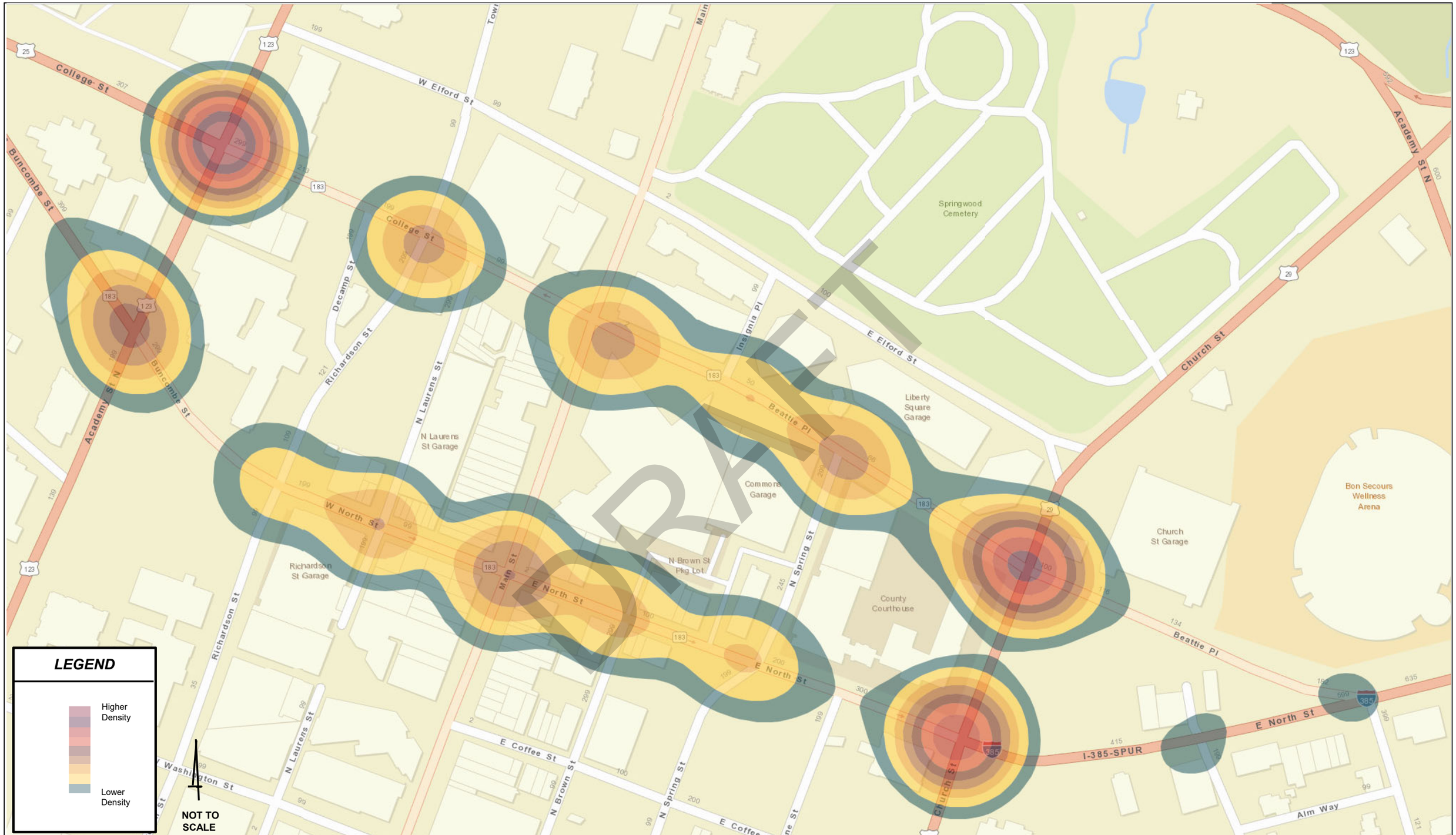
BIHL ENGINEERING	College St./North St. Corridor Crash Analysis	College St./North St. Corridor Study Area	Figure 1



Crash Breakdown

Number	Description & Symbol
7	Not Collision with Motor Vehicle
5	Not Collision with Motor Vehicle (Bicycle)
7	Not Collision with Motor Vehicle (Pedestrian)
13	Not Collision with Motor Vehicle in Transport (Collision with Fixed Object)
155	Rear End
6	Head On
29	Backed Into
239	Angle
214	Sideswipe, Same Direction
6	Sideswipe, Opposite Direction
2	Unknown

BIHL ENGINEERING	College St./North St. Corridor Crash Analysis	College St./North St. Corridor Crash Map	Figure 2



BIHL ENGINEERING

College St./North St. Corridor Crash Analysis

College St./North St. Corridor Crash Heat Map

Figure 3

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REFUSED	5
TEST TYPE	
BREATH – ALCOHOL ONLY	1
BLOOD	2
URINE	3
SERUM	4
OTHER	8
DRUG RESULTS	
AMPHETAMINES	1
COCAINE	2
MARIJUANA	3
OPIATES	4
PCP	5
NEGATIVE	7
OTHER	8

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TABLE 4. CONTRIBUTING FACTORS

DRIVER	
DISREGARDED SIGN,SIGNALS, ETC.	01
DISTRACTED/INATTENTION	02
DRIVING TOO FAST FOR CONDITIONS	03
EXCEEDED AUTHORIZED SPEED LIMITS	04
FAILED TO YIELD RIGHT OF WAY	05
RAN OFF ROAD	06

FATIGUED/ASLEEP 07

FOLLOWED TOO CLOSELY 08

MADE AN IMPROPER TURN 09

MEDICAL RELATED 10

AGGRESSIVE OPERATION OF VEHICLE 12

OVER-CORRECTING/OVER STEERING 13

SWERVING TO AVOID OBJECT 14

WRONG SIDE OR WRONG WAY 15

UNDER THE INFLUENCE 16

VISION OBSCURED (WITHIN UNIT) 17

IMPROPER LANE USAGE/CHANGE 18

CELL PHONE 19

TEXTING 20

OTHER IMPROPER ACTION 28

UNKNOWN 29

ROADWAY

DEBRIS 30

NON-HIGHWAY WORK 31

OBSTRUCTION IN ROADWAY 32

ROAD SURFACE CONDITION (I.E.,WET) 33

RUT, HOLES, BUMPS 34

SHOULDERS (NONE, LOW, SOFT, HIGH) 35

TRAFFIC CONTROL DEVICE (I.E., MISSING) 36

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WORK ZONE (CONSTRUCTION/MAINTNEANCE/UTILITY)	37
WORN, TRAVEL, POLISHED SURFACE	38
OTHER	48
UNKOWN	49
NON-MOTORIST	
INNATTENTIVE	50
LYING AND/OR ILLEGALLY IN ROADWAY	51
FAILURE TO YIELD RIGHT OF WAY	52
NOT VISIBLE (DARK CLOTHING)	53
DISREGARDED SIGNS, SIGNALS, ETC.	54
IMPROPER CROSSING	55
DARTING	56
WRONG SIDE OF ROAD	57
OTHER	58
UNKNOWN	59
PEDESTRIAN/BICYCLIST UNDER THE INFLUENCE	66
PASSENGER UNDER INFLUENCE	67
ENVIRONMENT	
ANIMAL IN ROAD	60
GLARE	61
OBSTRUCTION	62
WEATHER CONDITION	63
OTHER	68

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UNKNOWN	69
VEHICLE DEFECT	
BRAKES	70
STEERING	71
POWER PLANT	72
TIRES/WHEELS	73
LIGHTS	74
SIGNALS	75
WINDOWS/SHIELD	76
RESTRAINT SYSTEM	77
TRUCK COUPLING	78
CARGO	79
FUEL SYSTEM	80
OTHER	88
UNKNOWN	89

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TABLE 5. COUNTY CODE LIST

ABBEVILLE	01	GREENWOOD	24
AIKEN	02	HAMPTON	25
ALLENDALE	03	HORRY	26
ANDERSON	04	JASPER	27
BAMBERG	05	KERSHAW	28
BARNWELL	06	LANCASTER	29
BEAUFORT	07	LAURENS	30

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Crash_No	COUNTY	ROUTE_TYPE	ROUTE_NUMBER	ROUTE_AUXILIARY	St_Name	MP	BIR_Name	Base_St_Name	Nbr_of_Fatalities	Nbr_of_Injuries	Max_Injury_Code	Date	Collision_Time	Day_of_Week_Name	RD_SRFC_Name	Light_Name	Manner_of_Collision_Name	First_Harmful_Event_Name	Probable_cause_Name	Latitude	Longitude	Number_of_Units_Involved
17545600	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.798	County	DUNCAN ST	0	0	0	42841	2047	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.8551	-82.40195	2
15545347	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.8	County	DUNCAN ST	0	1	1	42132	2111	FRIDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85506111	-82.40191944	2
17684198	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.801	County	DUNCAN ST	0	0	0	43099	1236	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	IMPROPER LANE USAGE/CHANGE	34.85505	-82.4019	2
16626447	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.807	County	DUNCAN ST	0	0	0	42643	1722	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85496111	-82.40181944	2
15628581	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.812	County	DUNCAN ST	0	0	0	42324	1834	MONDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85488889	-82.40176944	2
16603235	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.827	County	DUNCAN ST	0	0	0	42605	710	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85466944	-82.40156944	2
16539613	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.835	County	DUNCAN ST	0	0	0	42469	2151	SATURDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85453889	-82.40146944	2
17559556	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.835	County	DUNCAN ST	0	0	0	42862	2341	SUNDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85455	-82.40146111	2
16627455	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.837	County	DUNCAN ST	0	1	2	42654	710	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.8545	-82.40145	2
17621819	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42996	629	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85446944	-82.40141111	2
16501509	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.842	US Primary	N ACADEMY ST	0	1	1	42376	2236	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85443889	-82.40138056	2
15552621	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.843	US Primary	N ACADEMY ST	0	0	0	42151	1733	WEDNESDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85441944	-82.40136111	2
16661614	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.847	US Primary	N ACADEMY ST	0	0	0	42703	812	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85436111	-82.40133056	2
16563895	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.847	County	DUNCAN ST	0	0	0	42516	1541	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85436111	-82.40131111	2
17671046	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	0	0	43082	620	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85431111	-82.40126111	2
16634849	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.853	US Primary	N ACADEMY ST	0	2	1	42661	1613	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85426111	-82.40125	2
16539633	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.856	US Primary	N ACADEMY ST	0	0	0	42474	1655	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85421944	-82.4012	2
17682677	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.857	County	DUNCAN ST	0	0	0	43098	940	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85421944	-82.40118889	2
16579287	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.86	US Primary	N ACADEMY ST	0	0	0	42546	2236	SATURDAY	DRY	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85416944	-82.40115	2
17607489	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42964	656	THURSDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85416111	-82.40113889	2
17650388	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	0	0	43028	1810	FRIDAY	DRY	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85415	-82.40113056	2
16630349	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.543	SC Primary	BUNCOMBE ST	0	0	0	42660	1159	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85386111	-82.40111944	2
16661430	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.862	County	DUNCAN ST	0	1	1	42713	1915	FRIDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85413056	-82.40111944	2
15502474	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.865	US Primary	N ACADEMY ST	0	0	0	42017	310	TUESDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85408056	-82.40108889	2
15543052	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.865	US Primary	N ACADEMY ST	0	0	0	42124	1251	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85408889	-82.40108889	2
16573285	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.549	SC Primary	BUNCOMBE ST	0	0	0	42538	11	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85393056	-82.40108056	2
15553077	GREENVILLE	US Route	00123	Main Line	N. ACADEMY ST.	5.552	SC Primary	BUNCOMBE ST.	0	1	1	42155	1111	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85398889	-82.40108056	2
16662157	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.866	County	DUNCAN ST	0	0	0	42713	2343	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85408056	-82.40108056	2
16661657	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.865	US Primary	N ACADEMY ST	0	1	1	42716	1443	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85408889	-82.40108056	2
17643342	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	0	0	43034	708	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85408889	-82.40108056	2
17654860	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	0	0	43050	1411	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85408889	-82.40108056	2
15529574	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.551	SC Primary	BUNCOMBE ST	0	1	1	42096	942	THURSDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85396111	-82.40106944	3
17565418	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42885	646	TUESDAY	DRY	DAWN	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85408056	-82.40106944	2
17676703	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.48	Secondary	HAMPTON AVE	0	0	0	43089	1335	WEDNESDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85403056	-82.40103056	2
15571164	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.868	SC Primary	ACADEMY ST	0	0	0	42205	830	MONDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	OTHER	DRIVING TOO FAST FOR CONDITIONS	34.85406111	-82.40103056	1
15508943	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.555	SC Primary	BUNCOMBE ST	0	1	1	42033	210	THURSDAY	DRY	DARK (LIGHTING UNSPECIFIED)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85401111	-82.40101944	2
15609294	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.557	SC Primary	BUNCOMBE ST	0	0	0	42288	527	SUNDAY	DRY	DARK (LIGHTING UNSPECIFIED)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85403889	-82.40101111	2
15590389	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.558	SC Primary	BUNCOMBE ST	0	0	0	42245	1725	SATURDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85406111	-82.401	2
17572574	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	0	0	42886	1617	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85378056	-82.40098056	2
17570864	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	US Primary	N ACADEMY ST	0	2	3	42894	21	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85396111	-82.40098056	2
16661416	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.559	SC Primary	BUNCOMBE ST	0	0	0	42712	1817	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85406944	-82.40098056	2
17548006	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	0	0	42845	1717	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85408889	-82.40098056	2
16579853	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.563	SC Primary	BUNCOMBE ST	0	0	0	42552	1105	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85413056	-82.40098056	2
17635187	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	0	0	43019	824	WEDNESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.8538	-82.40096111	3
15552630	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.544	SC Primary	BUNCOMBE ST	0	0	0	42152	1710	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85381111	-82.40096111	2
17560243	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	0	0	42873	754	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85381111	-82.40096111	2
15648755	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.544	SC Primary	BUNCOMBE ST	0	0	0	42354	1803	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85381944	-82.40096111	2
16656006	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.545	SC Primary	BUNCOMBE ST	0	0	0	42699	1636	FRIDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85383056	-82.40096111	2
15616279	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.546	Secondary	BUNCOMBE ST	0	0	0	42299	1427	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85385	-82.40096111	2
17615155	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	1	1	42982	2013	MONDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85381944	-82.40095	2
16655940	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.545	SC Primary	BUNCOMBE ST	0	0	0	42683	1002	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85383056	-82.40095	3
16661268	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.546	SC Primary	BUNCOMBE ST	0	0	0	42707	2328	SATURDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.85383889	-82.40095	2
17641034	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	0	0	43031	649	MONDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85383889	-82.40095	2
15506743	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.547	SC Primary	BUNCOMBE ST	0	0	0	42030	2110	MONDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85385	-82.40095	2
15613420	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.546	SC Primary	BUNCOMBE ST	0	0	0	42293	1428	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85383889	-82.40093889	2
16655999	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.88	Secondary	RICHARDSON ST	0	2	1	42699	1227	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85388889	-82.40093056	2
15513305	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.567	SC Primary	BUNCOMBE ST	0	0	0	42047	1255	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85416944	-82.40093056	2
17617689	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.551	SC Primary	BUNCOMBE ST	0	1	1	42615	853	FRIDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8539	-82.40091111	2
16661676	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.551	SC Primary	BUNCOMBE ST	0	0	0	42717	1102	TUESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8539	-82.40091111	2
15602854	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.552	SC Primary	BUNCOMBE ST	0	0	0	42272	1552	FRIDAY	WET	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85391944	-82.4009	2
16501503	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.884	US Primary	N ACADEMY ST	0	0	0	42373	1015	MONDAY	DRY	DAYLIGHT	ANGLE 1	OTHER (POST, POLE, SUPPORT, ETC)	OTHER IMP. ACT	34.85383889	-82.40088889	2
17598249	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	0	0	42948	2350	TUESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85398056	-82.40086944	2
17601738	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	0	0	42943	1616	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85398889	-82.40086111	2
15632327	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.816	US Primary	N ACADEMY ST	0	0	0	42328	1349	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85533056	-82.40081944	2
16593567	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.816	US Primary	N ACADEMY ST	0	1	1	42577	1454	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85533889	-82.40081111	3
17623084	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	BUNCOMBE ST	0	1	2	42991	751	WEDNESDAY	DRY	DAYLIGHT	HEAD ON	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85418889	-82.40073889	2
17501725	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.87	Secondary	RICHARDSON ST	0	0	0	42743	630	SUNDAY	DRY	DAWN	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85351111	-82.4006	2
15642839	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.593	SC Primary	COLLEGE ST	0	0	0	42352	1734	MONDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85448056	-82.4006	2
16557968	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.573	US Primary	N ACADEMY ST	0	0	0	42510	2237	FRIDAY	WET	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85526944	-82.40058889	2
17556877	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42804	1846	FRIDAY	DRY	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85523889	-82.40053056	2
16614777	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.92	Secondary	RICHARDSON ST	0	0	0	42622	1630	FRIDAY	DRY	DUSK	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85338889	-82.40051111	2
17626696	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	2	1	42998	1426	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85498056	-82.4005	3
17601739	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	42948	846	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85473056	-82.40046111	2
16530287	GREENVILLE	US Route	00123	Main Line	ACADEMY ST	5.639	SC Primary	COLLEGE ST	0	0	0	42447	1347	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85521111	-82.40046111	2
16624394	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.563	US Primary	N ACADEMY ST	0	0	0	42648	1747	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85521111	-82.40045	2
15528107	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.632	SC Primary	COLLEGE ST	0	3	2	42081	2233	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	UNDER THE INFLUENCE	34.85506944	-82.40043056	2
16507842	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.632	SC Primary	COLLEGE ST	0	0	0	42378	1204	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85506944	-82.40043056	2
17629059	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	43007	1153	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85518889	-82.40041944	2
16553549	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.634	SC Primary	COLLEGE ST	0	0	0	42506	1320	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.8551	-82.40041111	2
16558973	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.634	SC Primary	COLLEGE ST	0	2	2	42511	2152	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8551	-82.40041111	3
15528444	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.636	SC Primary	COLLEGE ST	0	0	0	42090	2022	FRIDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513889	-82.4004	2
17638526	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	43025	1953	TUESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85513889	-82.4004	2
15529575	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.635	SC Primary	COLLEGE ST	0	0	0	42096	1130	THURSDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85511111	-82.40038889	2
17607514	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	1	2	42966	1015	SATURDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	CURB	OVER-CORRECTING/OVER-STEERING	34.85511944	-82.40038889	1
15518500	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.637	SC Primary	COLLEGE ST	0	0	0	42061	1730	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85513889	-82.40038889	2
17617521	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	3	1	42987	1431	SATURDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513889	-82.40038889	2
16527258	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.636	SC Primary	COLLEGE ST	0	0	0	42441	2313	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85513056	-82.40038056	2
17670619	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	43082	545	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85513056	-82.40038056	2
15544927	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.637	US Primary	COLLEGE ST	0	0	0	42125	1654	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85513889	-82.40038056	2
16603209	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.637	SC Primary	COLLEGE ST	0	0	0	42582	1753	SUNDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85513889	-82.40038056	2
15617579	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.638	SC Primary	COLLEGE ST	0	0	0	42303	1745	MONDAY	WET	DUSK	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85515	-82.40038056	2
15627469	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.623	SC Primary	COLLEGE ST	0	0	0	42302	1356	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85491111	-82.40036944	2
15507598	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	SC Primary	COLLEGE ST	0	0	0	42027	1626	FRIDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85518056	-82.40036944	2
15542636	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	SC Primary	COLLEGE ST	0	0	0	42129	1425	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85518056	-82.40036944	2
16568536	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	SC Primary	COLLEGE ST	0	1	1	42524	1802	FRIDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85518056	-82.40036944	3
15513298	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	Secondary	W ELFORD ST	0	0	0	42041	1230	FRIDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85518889	-82.40036944	2
16545114	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.639	Secondary	W ELFORD ST	0	0	0	42483	937	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85516944	-82.40036111	2
16526188	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	SC Primary	COLLEGE ST	0	0	0	42416	2134	TUESDAY	WET	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85518056	-82.40036111	2
16657433	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.557	County	HERITAGE GREEN PL	0	2	1	42704	1254	WEDNESDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85518056	-82.40036111	3
17604133	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.557	US Primary	N ACADEMY ST	0	0	0	42959	1332	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85518056	-82.40036111	2
16550601	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	SC Primary	COLLEGE ST	0	5	2	42491	601	SUNDAY	WET	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85518889	-82.40036111	2
15625853	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.641	SC Primary	COLLEGE ST	0	2	1	42311	1132	TUESDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8552	-82.40036111	2
17519871	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	42790	958	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85518056	-82.40033889	2
17523378	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	42795	1630	WEDNESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (STOPPED)	FAIL TO YIELD R.O.W.	34.85521944	-82.40033889	2
16588398	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.644	SC Primary	COLLEGE ST	0	2	1	42565	358	THURSDAY	DRY	DARK (LIGHTING UNSPECIFIED)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85525	-82.40033889	2
16539070	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.628	SC Primary	COLLEGE ST	0	0	0	42462	1645	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85498056	-82.40033056	2
15640572	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.554	US Primary	N ACADEMY ST	0	1	2	42348	2130	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85516111	-82.40031111	2
17543296	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42835	1914	MONDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85516944	-82.40031111	2
17561592	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42874	900	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85516944	-82.40031111	2
16511644	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.645	SC Primary	COLLEGE ST	0	0	0	42405	700	FRIDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85526111	-82.40031111	2
16523570	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.633	SC Primary	COLLEGE ST	0	1	1	42433	1138	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85505	-82.4003	2
17595100	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	42943	912	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85505	-82.4003	2
15500808	GREENVILLE	US Route	00123	Main Line	N. ACADEMY ST.	5.637	SC Primary	COLLEGE ST.	0	0	0	42009	1636	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85511944	-82.4003	2
16536673	GREENVILLE	US Route	00123	Main Line	ACADEMY ST	5.638	US Primary	COLLEGE ST	0	0	0	42461	1327	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85513056	-82.4003	2
15571149	GREENVILLE	US Route	00123	Main Line	N. ACADEMY ST.	5.639	SC Primary	COLLEGE ST.	0	0	0	42203	1408	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513889	-82.4003	2
16525843	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.646	SC Primary	COLLEGE ST	0	0	0	42443	1116	MONDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85526944	-82.4003	2
15586396	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.634	SC Primary	COLLEGE ST	0	0	0	42234	1823	TUESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85505	-82.40028889	2
16541730	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.634	SC Primary	COLLEGE ST	0	0	0	42478	817	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85506111	-82.40028056	2
17548000	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	1	1	42843	1756	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85506111	-82.40028056	2
15555863	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.636	SC Primary	COLLEGE ST	0	1	2	42157	1138	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85508889	-82.40028056	3
16603933	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.636	SC Primary	COLLEGE ST	0	0	0	42598	831	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85508889	-82.40026944	2
15576374	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.635	SC Primary	COLLEGE ST	0	0	0	42217	921	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85506944	-82.40026111	2
17568449	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	42886	1137	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85506944	-82.40026111	2
16545570	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.637	SC Primary	COLLEGE ST	0	1	1	42481	140	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85508889	-82.40026111	2
17650562	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.637	SC Primary	COLLEGE ST	0	1	1	43042	720	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85508889	-82.40026111	2
16515778	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.637	SC Primary	COLLEGE ST	0	0	0	42417	1123	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8551	-82.40026111	2
16579366	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.637	SC Primary	COLLEGE ST	0	0	0	42556	905	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8551	-82.40026111	2
15526956	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.638	SC Primary	BUNCOMBE ST	0	0	0	42084	250	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85511111	-82.40026111	2
15539857	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.652	SC Primary	COLLEGE ST	0	0	0	42124	746	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85536111	-82.40026111	2
15587756	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.653	SC Primary	COLLEGE ST	0	0	0	42230	900	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85536944	-82.40026111	2
16661382	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.639	SC Primary	COLLEGE ST	0	0	0	42711	951	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85513056	-82.40025	2
15612349	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	SC Primary	COLLEGE ST	0	0	0	42290	1940	TUESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513056	-82.40023889	2
16613141	GREENVILLE	US Route	00123	Main Line	ACADEMY ST	5.64	SC Primary	COLLEGE ST.	0	1	1	42544	1333	THURSDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513889	-82.40023889	2
16634594	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.64	SC Primary	COLLEGE ST	0	1	1	42651	930	SATURDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513889	-82.40023889	2
17579716	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	42910	2309	SATURDAY	WET	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85513889	-82.40023889	2
17664983	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	43063	1731	FRIDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513889	-82.40023889	2
16500778	GREENVILLE	US Route	00123	Main Line	ACADEMY ST	5.641	US Primary	COLLEGE ST	0	0	0	42374	843	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85515	-82.40023889	2
16643625	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.642	SC Primary	COLLEGE ST	0	2	1	42657	1537	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85516944	-82.40023889	2
15500458	GREENVILLE	US Route	00123	Main Line	N. ACADEMY ST.	5.637	SC Primary	COLLEGE ST.	0	0	0	42007	1322	SATURDAY	WET	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85508889	-82.40023056	2
15605524	GREENVILLE	SC Route	00183	Main Line Couplet	N ACADEMY ST	0.549	US Primary	COLLEGE ST	0	3	2	42248	843	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513056	-82.40023056	2
16503988	GREENVILLE	US Route	00123	Main Line	ACADEMY ST	5.64	Interstate	COLLEGE ST	0	0	0	42378	1430	SATURDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85513889	-82.40023056	2
17662186	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	43058	1831	SUNDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85513889	-82.40023056	2
15502455	GREENVILLE	US Route	00123	Main Line	N. ACADEMY ST.	5.636	SC Primary	COLLEGE ST.	0	0	0	42010	1710	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85506111	-82.40021944	2
17575308	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	0	0	42904	130	SUNDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85518889	-82.40021944	2
17649109	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.547	SC Primary	N ACADEMY ST	0	2	1	43043	658	SATURDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	RAN OFF ROAD	34.85511944	-82.4002	2
16551324	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.645	SC Primary	COLLEGE ST	0	0	0	42494	16	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85521944	-82.4002	2
17682681	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	1	2	43100	1105	SUNDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85521944	-82.40018889	2
16641868	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.547	US Primary	N ACADEMY ST	0	0	0	42677	1915	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85513056	-82.40018056	2
15529018	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.946	Secondary	RICHARDSON ST	0	0	0	42090	2342	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85311944	-82.40016944	2
17593616	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42932	2122	SUNDAY	WET	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85511944	-82.40016944	2
17519902	GREENVILLE	US Route	00123	Main Line	N ACADEMY ST	5.55	SC Primary	COLLEGE ST	0	1	1	42791	1728	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85536944	-82.40011111	2
17650759	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	43045	1804	MONDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85506944	-82.40008056	2
16579369	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.541	US Primary	N ACADEMY ST	0	2	1	42556	1347	TUESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	CURB	MEDICAL RELATED	34.85508889	-82.40008056	1
16545120	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.952	Secondary	RICHARDSON ST	0	0	0	42486	1244	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85305	-82.40006944	2
16612077	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.538	US Primary	N ACADEMY ST	0	0	0	42620	1501	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85503056	-82.40006944	2
15579890	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.538	US Primary	N ACADEMY ST	0	0	0	42222	1706	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85506111	-82.40005	2
17597450	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.96	Secondary	RICHARDSON ST	0	0	0	42944	535	FRIDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85305	-82.4	2
16612066	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.956	Secondary	RICHARDSON ST	0	0	0	42615	1434	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85306111	-82.4	2
15629378	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.957	Secondary	RICHARDSON ST	0	0	0	42326	1315	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85303889	-82.39998889	2
17501702	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	7	US Primary	N ACADEMY ST	0	0	0	42739	1244	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85303889	-82.39998889	2
16635061	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.418	SC Primary	W NORTH ST	0	0	0	42665	2122	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85291944	-82.39998056	2
17541943	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.41	SC Primary	W NORTH ST	0	0	0	42830	1800	WEDNESDAY	WET	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85296111	-82.39995	2
15653026	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.96	Secondary	RICHARDSON ST	0	0	0	42324	1240	MONDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85301111	-82.39993889	2
15544402	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.96	Secondary	RICHARDSON ST	0	0	0	42101	905	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85301944	-82.39993889	2
17541938	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.96	Secondary	RICHARDSON ST	0	0	0	42830	1825	WEDNESDAY	WET	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85301944	-82.39993056	2
17524766	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	0	0	42802	1600	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85303889	-82.39993056	2
16516307	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.961	Secondary	RICHARDSON ST	0	0	0	42299	1729	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85301111	-82.39991111	2
15557462	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.961	Secondary	RICHARDSON ST	0	0	0	42168	1810	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85303056	-82.39991111	2
16623978	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.407	SC Primary	W NORTH ST	0	0	0	42642	2005	THURSDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85306944	-82.39991111	2
15569598	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.405	SC Primary	W NORTH ST	0	0	0	42196	206	SATURDAY	DRY	DARK (STREET LAMP LIT)	HEAD ON	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85308889	-82.3999	2
15576865	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST.	0.403	SC Primary	W. NORTH ST.	0	0	0	42218	1429	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85311944	-82.39988889	2
17632561	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.96	Secondary	RICHARDSON ST	0	0	0	43015	1054	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.853	-82.39988056	2
16556076	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.402	SC Primary	W NORTH ST	0	0	0	42510	833	FRIDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	BRAKES	34.85313056	-82.39986944	2
15569596	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.396	SC Primary	W NORTH ST	0	1	1	42195	1704	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85321111	-82.39983889	3
15640560	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.973	Secondary	RICHARDSON ST	0	0	0	42338	1325	MONDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85296111	-82.39973056	2
17611536	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.518	County	DECAMP ST	0	0	0	42970	2009	WEDNESDAY	DRY	DUSK	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85491944	-82.39973056	2
17578598	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.96	Secondary	RICHARDSON ST	0	0	0	42907	1800	WEDNESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85296111	-82.39971111	2
17617525	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.511	County	DECAMP ST	0	0	0	42987	2041	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85488056	-82.39961944	2
15525610	GREENVILLE	SC Route	00183	Main Line	W. NORTH ST.	6.991	County	N. LAURENS ST.	0	0	0	42085	1200	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85283889	-82.39946111	2
15502072	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.994	Secondary	RICHARDSON ST	0	0	0	42013	1224	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85285	-82.3994	2
15600583	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.994	County	N LAURENS ST	0	0	0	42267	14	SUNDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85283889	-82.39938889	2
15571996	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.995	County	N LAURENS ST	0	0	0	42177	1007	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85285	-82.39938056	2
15502079	GREENVILLE	SC Route	00183	Main Line	W. NORTH ST.	6.995	County	N. LAURENS ST.	0	0	0	42015	1429	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85285	-82.39936944	2
17558705	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	6.999	County	N LAURENS ST	0	0	0	42859	1707	THURSDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85281944	-82.39931944	2
15520491	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.001	County	N LAURENS ST	0	0	0	42071	35	SUNDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85281111	-82.39928889	2
17629062	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.003	County	N LAURENS ST	0	0	0	43008	1050	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85281111	-82.39925	2
16528792	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.004	County	N LAURENS ST	0	0	0	42411	1000	THURSDAY	DRY	DAYLIGHT	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	WRONG SIDE OR WRONG WAY	34.85278889	-82.39923889	2
17524749	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.004	County	N LAURENS ST	0	1	2	42802	926	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85278889	-82.39923056	2
15610380	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.486	Secondary	TOWNES ST	0	0	0	42287	2007	SATURDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85468889	-82.39923056	2
17603435	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.484	County	DECAMP ST	0	0	0	42957	1210	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	OTHER (WALL, BUILDING, TUNNEL, ETC)	IMPROPER LANE USAGE/CHANGE	34.85466111	-82.39921944	2
16611126	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.006	County	N LAURENS ST	0	0	0	42618	1327	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85278889	-82.3992	2
15569338	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.007	Secondary	RICHARDSON ST	0	0	0	42189	1335	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85278056	-82.39918889	2
17579424	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.007	County	N LAURENS ST	0	0	0	42913	1541	TUESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85278889	-82.39918056	2
17636584	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.008	County	N LAURENS ST	0	0	0	43018	815	TUESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85276944	-82.39916944	2
15602775	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.008	County	N LAURENS ST	0	0	0	42271	2149	THURSDAY	WET	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85278056	-82.39916944	2
15504326	GREENVILLE	Local road	04461	Main Line	N LAURENS ST	0.562	SC Primary	W NORTH ST	0	0	0	42023	1230	MONDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	OTHER	GLARE	34.85268889	-82.39916111	1
17642342	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.009	County	N LAURENS ST	0	0	0	43027	1118	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85276944	-82.39916111	2
17647043	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.008	County	N LAURENS ST	0	0	0	43042	1134	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85278056	-82.39916111	2
16503666	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.01	Secondary	RICHARDSON ST	0	0	0	42384	1318	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85276944	-82.39913889	2
16600440	GREENVILLE	SC Route	00183	Main Line	W. NORTH ST.	7.009	County	N. LAURENS ST.	0	0	0	42591	1717	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85278889	-82.39913889	2
17636566	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.01	County	N LAURENS ST	0	0	0	43022	1832	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85276944	-82.39913056	2
15529205	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.012	County	N LAURENS ST	0	0	0	42020	1320	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (STOPPED)	FAIL TO YIELD R.O.W.	34.85276944	-82.39911111	2
15653556	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.014	County	N LAURENS ST	0	0	0	42288	1721	SUNDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85273889	-82.39908889	2
16545080	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.013	County	N LAURENS ST	0	1	2	42462	1628	SATURDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDESTRIAN	FAIL TO YIELD R.O.W.	34.85276111	-82.39908889	2
16576458	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.015	Secondary	N MAIN ST	0	0	0	42533	1417	SUNDAY	DRY	DAYLIGHT	UNKNOWN	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85273889	-82.39906944	2
15630973	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.014	County	N LAURENS ST	0	0	0	42311	955	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85275	-82.39906944	2
15504323	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.016	County	N LAURENS ST	0	0	0	42021	753	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85273889	-82.39905	2
16549718	GREENVILLE	SC Route	00183	Main Line	W. NORTH ST.	7.008	County	N. LAURENS ST.	0	0	0	42490	1133	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85306111	-82.39903889	2
16631981	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.017	County	N MAIN ST	0	0	0	42603	1400	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85273889	-82.39903056	2
15563596	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.473	Secondary	TOWNES ST	0	0	0	42181	1230	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8546	-82.39903056	2
16585060	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST.	0.47	Secondary	RICHARDSON ST.	0	0	0	42568	1317	SUNDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85451944	-82.39901944	2
16600434	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.02	County	N LAURENS ST	0	2	1	42590	636	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85271944	-82.39898889	2
17506358	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.02	County	N MAIN ST	0	0	0	42756	158	SATURDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85271944	-82.39898889	2
15619740	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.021	County	N LAURENS ST	0	0	0	42307	1710	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85271111	-82.39896944	2
17541950	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.96	Secondary	TOWNES ST	0	0	0	42831	1307	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85458056	-82.39896944	2
17597993	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.021	County	N LAURENS ST	0	0	0	42945	2157	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85271111	-82.39896111	2
15637943	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.467	Secondary	TOWNES ST	0	0	0	42342	1521	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85456111	-82.39893056	2
17635202	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.96	Secondary	TOWNES ST	0	0	0	43019	1500	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85456944	-82.39891944	2
17580242	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.41	SC Primary	COLLEGE ST	0	1	1	42912	1801	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85438889	-82.3989	2
17511577	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.96	Secondary	TOWNES ST	0	0	0	42772	1405	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85453889	-82.39888889	2
15523135	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.295	SC Primary	COLLEGE ST	0	0	0	42068	339	THURSDAY	WET	DARK (LIGHTING UNSPECIFIED)	NOT COLLISION W/MOTOR VEHICLE	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85446944	-82.39886111	1
17560001	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.96	Secondary	RICHARDSON ST	0	0	0	42863	1917	MONDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85453056	-82.39885	2
16516292	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.462	County	RICHARDSON ST	0	0	0	42299	2146	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85453889	-82.39885	2
16543962	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.293	SC Primary	W NORTH ST	0	0	0	42477	1812	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85448889	-82.39883889	2
17516819	GREENVILLE	Secondary road	00664	Main Line	RICHARDSON ST	0.41	SC Primary	COLLEGE ST	0	0	0	42785	204	SUNDAY	DRY	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8545	-82.39883889	2
17534166	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.46	County	RICHARDSON ST	0	0	0	42821	1644	MONDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85453056	-82.39881944	2
17614418	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.88	US Primary	N ACADEMY ST	0	1	2	42967	1202	SUNDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDALCYCLE	FAIL TO YIELD R.O.W.	34.85453056	-82.39881944	2
15514303	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.031	County	N LAURENS ST	0	0	0	42047	1458	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85266944	-82.39881111	2
16543961	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.46	Secondary	TOWNES ST	0	0	0	42479	1541	TUESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDALCYCLE	FAIL TO YIELD R.O.W.	34.85453056	-82.39881111	2
17545937	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.96	Secondary	TOWNES ST	0	1	2	42846	200	FRIDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85453056	-82.39881111	2
16576465	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.032	County	N LAURENS ST	0	0	0	42537	1650	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85266111	-82.3988	2
16624004	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.459	Secondary	TOWNES ST	0	0	0	42644	5	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85451111	-82.3988	2
15586952	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.458	Secondary	TOWNES ST	0	0	0	42226	1611	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85451111	-82.39878889	2
16550916	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.458	Secondary	RICHARDSON ST	0	1	2	42495	1739	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDESTRIAN	FAIL TO YIELD R.O.W.	34.85451944	-82.39878889	2
16657387	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.459	Secondary	TOWNES ST	0	1	2	42687	819	SUNDAY	WET	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDALCYCLE	DISREGARDED SIGNS, SIGNALS, ETC	34.85453056	-82.39878889	2
15530501	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.033	County	N MAIN ST	0	0	0	42088	857	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85266111	-82.39876944	2
15627591	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.457	Secondary	RICHARDSON ST	0	1	1	42322	226	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8545	-82.39876944	2
17665463	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.96	Secondary	TOWNES ST	0	0	0	43065	1346	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	MADE AN IMPROPER TURN	34.8545	-82.39876944	2
16643683	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.457	Secondary	TOWNES ST	0	0	0	42684	758	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85451111	-82.39876944	3
16650374	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.457	Secondary	N MAIN ST	0	0	0	42694	1500	SUNDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (STOPPED)	WRONG SIDE OR WRONG WAY	34.85451111	-82.39876944	2
17505840	GREENVILLE	Secondary road	00664	Main Line	TOWNES ST	0.41	SC Primary	COLLEGE ST	0	0	0	42755	835	FRIDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85463889	-82.39876944	3
15514325	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.457	Secondary	TOWNES ST	0	0	0	42050	1722	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85451111	-82.39876111	2
16587332	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.457	Secondary	TOWNES ST	0	0	0	42571	1306	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85451111	-82.39876111	2
15650996	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.455	County	N LAURENS ST	0	0	0	42363	1448	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85448889	-82.39873056	2
16588421	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST.	0.452	Secondary	RICHARDSON ST.	0	0	0	42570	2011	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85445	-82.39868889	2
16548820	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.452	Secondary	TOWNES ST	0	0	0	42465	1104	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85446944	-82.39868889	2
15618521	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.452	Secondary	TOWNES ST	0	0	0	42305	801	WEDNESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85448056	-82.39868056	2
16508933	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.451	Secondary	N MAIN ST	0	0	0	42396	1209	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85446944	-82.39866944	2
15567532	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.451	County	N LAURENS ST	0	0	0	42194	1709	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85448056	-82.39866111	2
16643632	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.449	Secondary	TOWNES ST	0	0	0	42676	1026	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85446111	-82.39863056	2
16517152	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.447	County	N LAURENS ST	0	0	0	42418	1336	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85445	-82.39858889	2
15592544	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.529	County	E COFFEE ST	0	0	0	42231	1600	SATURDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85198056	-82.39841111	2
17650567	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.056	County	N MAIN ST	0	0	0	43039	2219	TUESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85255	-82.39841111	2
16655942	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.057	County	N MAIN ST	0	0	0	42685	933	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85255	-82.3984	2
15563606	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.534	County	E COFFEE ST.	0	0	0	42183	41	SUNDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	UNDER THE INFLUENCE	34.85205	-82.39838056	2
15545336	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.06	County	N MAIN ST	0	1	1	42084	1900	SATURDAY	UNKNOWN	DARK (LIGHTING UNSPECIFIED)	BACKED INTO	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85253889	-82.39835	2
17508422	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.432	County	N LAURENS ST	0	0	0	42743	1308	SUNDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85435	-82.39835	2

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17578565	GREENVILLE	Local road	00010	Main Line	N MAIN ST	1.166	SC Primary	W NORTH ST	0	0	0	42902	1749	FRIDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85211944	-82.39833889	2
15569597	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.543	SC Primary	W NORTH ST	0	0	0	42195	2051	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85216111	-82.39831944	2
17666970	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.062	County	N MAIN ST	0	0	0	43076	1307	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85253056	-82.39831944	3
17615148	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.063	County	N MAIN ST	0	0	0	42981	2006	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85253056	-82.39831111	2
17542026	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.064	County	N MAIN ST	0	1	1	42835	1441	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	IMPROPER LANE USAGE/CHANGE	34.85251111	-82.39828889	2
17653619	GREENVILLE	Local road	00010	Main Line	N MAIN ST	1.178	SC Primary	W NORTH ST	0	1	1	43049	133	FRIDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	UNDER THE INFLUENCE	34.85228056	-82.39826944	2
15590708	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.553	SC Primary	W NORTH ST	0	0	0	42239	1617	SUNDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85228889	-82.39826944	2
17519841	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.065	County	N MAIN ST	0	0	0	42787	1445	TUESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85251111	-82.39826944	2
15648871	GREENVILLE	SC Route	00183	Main Line	W. NORTH ST.	7.067	County	N. MAIN ST.	0	0	0	42364	1322	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.8525	-82.39825	2
17526492	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.066	County	N MAIN ST	0	0	0	42799	130	SUNDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85251111	-82.39825	2
17590592	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.426	County	N LAURENS ST	0	0	0	42933	1640	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85431111	-82.39825	3
15590373	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.555	SC Primary	W NORTH ST	0	0	0	42244	1544	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85231111	-82.39823889	2
15505008	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.559	SC Primary	W NORTH ST	0	0	0	42020	1545	FRIDAY	DRY	DAYLIGHT	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85236111	-82.39823889	2
16578246	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.067	County	N LAURENS ST	0	0	0	42534	1719	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8525	-82.39823889	2
16518705	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.067	County	N MAIN ST	0	0	0	42420	1623	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85251944	-82.39823889	2
17529964	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.424	County	N LAURENS ST	0	0	0	42814	1433	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85426944	-82.39823889	2
15564426	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.558	SC Primary	W NORTH ST	0	2	1	42182	1900	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85233889	-82.39823056	2
16626460	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.069	County	N MAIN ST	0	0	0	42650	930	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85248056	-82.39821944	2
16631995	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.069	County	N MAIN ST	0	0	0	42658	2328	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85248889	-82.39821944	2
15539808	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.068	County	N MAIN ST	0	0	0	42120	52	SUNDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8525	-82.39821944	2
15600596	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.562	SC Primary	W NORTH ST	0	0	0	42268	1107	MONDAY	DRY	DAYLIGHT	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (STOPPED)	OTHER	34.8524	-82.39821111	2
17682505	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.069	County	N MAIN ST	0	0	0	43083	2004	THURSDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85248056	-82.39821111	2
15513395	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.565	SC Primary	W NORTH ST	0	0	0	42047	1610	THURSDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85243056	-82.3982	2
16663793	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.069	County	N LAURENS ST	0	0	0	42717	1209	TUESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85251944	-82.3982	2
17666307	GREENVILLE	Local road	00010	Main Line	N MAIN ST	1.189	SC Primary	W NORTH ST	0	0	0	43069	1748	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85243056	-82.39818056	2
15555128	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.071	County	N MAIN ST	0	0	0	42161	2031	SATURDAY	DRY	DUSK	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85248056	-82.39818056	2
17596119	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.071	County	N MAIN ST	0	2	1	42936	200	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	UNDER THE INFLUENCE	34.85248056	-82.39818056	2
17677372	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.073	County	N MAIN ST	0	0	0	43088	825	TUESDAY	DRY	DAYLIGHT	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85246944	-82.39815	2
17622824	GREENVILLE	Local road	00010	Main Line	N MAIN ST	1.2	County	W NORTH ST	0	0	0	42991	1205	WEDNESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (STOPPED)	FAIL TO YIELD R.O.W.	34.85258056	-82.39813889	2
15627629	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.074	County	N MAIN ST	0	0	0	42317	1135	MONDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85246944	-82.39813056	2
16645874	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.074	County	N MAIN ST	0	1	1	42685	1444	FRIDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDESTRIAN	FAIL TO YIELD R.O.W.	34.85248056	-82.39813056	2
15616327	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.577	SC Primary	W NORTH ST	0	0	0	42302	2002	SUNDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85258889	-82.39813056	2
15509880	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.58	SC Primary	W NORTH ST	0	0	0	42037	5	MONDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	UNKNOWN	34.85263889	-82.39813056	2
15613431	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.579	SC Primary	W NORTH ST	0	0	0	42295	200	SUNDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85261944	-82.39811111	2
17551422	GREENVILLE	Local road	00010	Main Line	N MAIN ST	1.205	SC Primary	W NORTH ST	0	0	0	42853	1151	FRIDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85265	-82.3981	2
15542616	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.077	County	N MAIN ST	0	0	0	42125	1849	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	DRIVING TOO FAST FOR CONDITIONS	34.85246944	-82.39808889	2
15547899	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.078	County	N MAIN ST	0	0	0	42144	1450	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85243889	-82.39806944	2
16647287	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.415	Secondary	N MAIN ST	0	0	0	42689	1828	TUESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85423056	-82.39806111	2
15541259	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.413	Secondary	N MAIN ST	0	0	0	42119	2220	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85421111	-82.39803889	2
16655984	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.413	Secondary	N MAIN ST	0	2	1	42698	1248	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85421111	-82.39803889	2
16613171	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.082	County	N MAIN ST	0	0	0	42625	801	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85241944	-82.39801111	2
15554074	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.6	SC Primary	W NORTH ST	0	0	0	42156	109	MONDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85291111	-82.39801111	2
15531063	GREENVILLE	Local road	04461	Main Line	N MAIN ST	0.596	SC Primary	BEATTIE PL	0	0	0	42094	1620	TUESDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85285	-82.398	2
17680603	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.085	County	N BROWN ST	0	0	0	43090	2116	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85241944	-82.39796111	2
17560240	GREENVILLE	Local road	00010	Main Line	N MAIN ST	1.228	SC Primary	W NORTH ST	0	0	0	42870	1219	MONDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85296111	-82.39796111	2
15549200	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.087	County	N MAIN ST	0	2	1	42103	1254	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85238889	-82.39793889	2
15569626	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.087	County	N MAIN ST	0	0	0	42199	1532	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85238889	-82.39793056	2
16624395	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.088	County	N BROWN ST	0	0	0	42648	1510	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8524	-82.39791111	2
17568444	GREENVILLE	Local road	00010	Main Line	N MAIN ST	1.241	SC Primary	W NORTH ST	0	0	0	42880	2329	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85313889	-82.39786944	2
15533899	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	BEATTIE PL	0	0	0	42104	1300	FRIDAY	DRY	DAYLIGHT	UNKNOWN	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.85338056	-82.39776944	2
15562289	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	BEATTIE PL	0	0	0	42180	1009	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85351944	-82.39775	2
16542353	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	BEATTIE PL	0	0	0	42473	1925	WEDNESDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (PARKED)	VISION OBSCURED (WITHIN UNIT)	34.85356111	-82.39771111	2
15506470	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.102	County	N BROWN ST	0	0	0	42024	1137	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85233056	-82.3977	2
17506389	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.392	County	N LAURENS ST	0	0	0	42759	800	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85406111	-82.39768889	2
17575720	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.103	County	N MAIN ST	0	0	0	42892	1521	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85233056	-82.39768056	2
16508937	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	BEATTIE PL	0	0	0	42398	841	FRIDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	FAIL TO YIELD R.O.W.	34.85363889	-82.39763889	2
16606925	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST.	0.388	Secondary	N. MAIN ST.	0	0	0	42609	1137	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85401944	-82.39763056	2
15556597	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.107	County	N BROWN ST	0	0	0	42143	1331	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	IMPROPER LANE USAGE/CHANGE	34.85231111	-82.39761111	2
16503655	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.387	Secondary	N MAIN ST	0	1	1	42383	1133	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDESTRIAN	DISREGARDED SIGNS, SIGNALS, ETC	34.85403889	-82.39761111	2
17565458	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.108	County	N BROWN ST	0	0	0	42880	1146	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85231111	-82.3976	2
16550907	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	BEATTIE PL	0	0	0	42495	1132	THURSDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85375	-82.3976	2
17617529	GREENVILLE	SC Route	00183	Main Line Couplet	COLLEGE ST	0.386	Secondary	N MAIN ST	0	0	0	42987	1950	SATURDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85401111	-82.3976	2
16515782	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.108	County	N BROWN ST	0	0	0	42412	1152	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85231111	-82.39758889	2
16568510	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	BEATTIE PL	0	0	0	42510	30	FRIDAY	WET	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85376111	-82.39758889	2
17590566	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.109	County	N BROWN ST	0	0	0	42930	2225	FRIDAY	WET	DARK (LIGHTING UNSPECIFIED)	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.8523	-82.39758056	2
17508433	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	W NORTH ST	0	0	0	42763	2315	SATURDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85386944	-82.39756944	2
16603354	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.11	County	N BROWN ST	0	0	0	42594	1152	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85231944	-82.39755	2
15536562	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.383	Secondary	N MAIN ST	0	0	0	42109	1428	WEDNESDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.854	-82.39755	2
16500780	GREENVILLE	Local road	00003	Main Line	N MAIN ST	0	SC Primary	BEATTIE PL	0	0	0	42374	1343	TUESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	CURB	DISTRACTED/INATT.	34.85388056	-82.39753889	1
17530962	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.382	County	INSIGNIA PL	0	1	1	42814	924	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.854	-82.39753056	2
15643650	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.114	County	N BROWN ST	0	0	0	42351	1912	SUNDAY	DRY	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85226111	-82.39751111	2
17552497	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.116	County	N BROWN ST	0	0	0	42854	1703	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85226111	-82.39748056	2
15627558	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.115	County	N BROWN ST	0	0	0	42320	1011	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	DISTRACTED/INATT.	34.85228056	-82.39748056	2
15554952	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.379	Secondary	N MAIN ST	0	0	0	42144	1543	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85398056	-82.39748056	2
15653558	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.379	Secondary	N MAIN ST	0	0	0	42349	1754	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85398056	-82.39746944	2
16593543	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.117	County	N BROWN ST	0	0	0	42576	1118	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.85226944	-82.39746111	2
17676696	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.378	Secondary	N MAIN ST	0	1	1	43088	1901	TUESDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85396111	-82.39746111	2
15600540	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.378	Secondary	N MAIN ST	0	1	1	42235	1615	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85396944	-82.39746111	2
17662191	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.378	Secondary	N MAIN ST	0	0	0	43058	1347	SUNDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85396944	-82.39746111	2
17566162	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.378	Secondary	N MAIN ST	0	0	0	42885	1648	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85398056	-82.39746111	2
16661276	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.379	County	N SPRING ST	0	0	0	42708	154	SUNDAY	WET	DARK (STREET LAMP LIT)	HEAD ON	MOTOR VEHICLE (STOPPED)	WRONG SIDE OR WRONG WAY	34.85398889	-82.39746111	2
17558823	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.377	County	N MAIN ST	0	1	2	42860	1012	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85396944	-82.39743889	2
17615144	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.377	Secondary	N MAIN ST	0	0	0	42981	1658	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85396944	-82.39743056	2
15625884	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.12	County	N BROWN ST	0	1	1	42318	610	TUESDAY	DRY	DUSK	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85223889	-82.39741111	2
17586192	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.375	Secondary	N MAIN ST	0	1	1	42922	2131	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85395	-82.39741111	3
17607814	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.375	Secondary	N MAIN ST	0	0	0	42968	1800	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85395	-82.39741111	2
16500774	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.374	County	N MAIN ST	0	0	0	42374	1327	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85393889	-82.3974	2
15583667	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.374	County	N MAIN ST	0	0	0	42065	1200	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85393889	-82.39738889	2
17583687	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.123	County	N BROWN ST	0	0	0	42916	1707	FRIDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85223056	-82.39736944	2
15619721	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.123	County	N BROWN ST	0	0	0	42305	2033	WEDNESDAY	WET	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85223889	-82.39736944	2
15556039	GREENVILLE	SC Route	00183	Main Line	E. NORTH ST	7.124	County	N MAIN ST	0	0	0	42163	1146	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	IMPROPER LANE USAGE/CHANGE	34.85221944	-82.39736111	2
17568501	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.124	County	N BROWN ST	0	0	0	42890	1328	SUNDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85223056	-82.39735	2
15629376	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.124	County	N BROWN ST	0	0	0	42326	900	WEDNESDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85223056	-82.39733889	2
16621830	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.124	County	N BROWN ST	0	0	0	42642	1005	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85223056	-82.39733889	2
15511834	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.371	Secondary	N MAIN ST	0	0	0	42046	1456	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85393056	-82.39733889	2
17533878	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.371	Secondary	N MAIN ST	0	0	0	42819	1926	SATURDAY	DRY	DUSK	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85393056	-82.39733889	2
15518122	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.125	County	N BROWN ST	0	0	0	42047	2328	THURSDAY	DRY	DARK (LIGHTING UNSPECIFIED)	HEAD ON	MOTOR VEHICLE (IN TRANSPORT)	WRONG SIDE OR WRONG WAY	34.85221111	-82.39733056	2
17601764	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.125	County	N BROWN ST	0	0	0	42951	2258	FRIDAY	WET	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85221111	-82.39733056	2
17658134	GREENVILLE	Local road	00010	Main Line	N BROWN ST	1.187	SC Primary	W NORTH ST	0	1	1	43050	200	SATURDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE	MOTOR VEHICLE (IN TRANSPORT)	LYING &/OR ILLEGALLY IN ROADWAY	34.85213056	-82.39731944	2
15612072	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.126	County	N BROWN ST	0	0	0	42285	952	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85221944	-82.39731944	2
15592548	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.126	County	N MAIN ST	0	0	0	42240	1739	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85221944	-82.39731111	2
17669211	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.126	County	N BROWN ST	0	0	0	43056	59	FRIDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE	PEDESTRIAN	OTHER IMP. ACT	34.85223056	-82.39731111	3
15509329	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.369	County	N MAIN ST	0	0	0	42015	850	SUNDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.8539	-82.39731111	2
15637919	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.369	County	N MAIN ST	0	0	0	42330	611	SUNDAY	DRY	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85391111	-82.39731111	2
16543976	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.368	Secondary	N MAIN ST	0	0	0	42483	1830	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85391111	-82.3973	2
16502650	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.366	Secondary	N MAIN ST	0	0	0	42377	1703	FRIDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85391111	-82.39725	2
17531504	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.366	Secondary	N MAIN ST	0	0	0	42818	831	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85391111	-82.39725	2
16635045	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.132	County	N BROWN ST	0	0	0	42665	1740	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85218056	-82.39723056	2
15578197	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.363	Secondary	N MAIN ST	0	0	0	42218	1935	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85388889	-82.39721111	2
17646276	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.134	County	N BROWN ST	0	0	0	43023	130	SUNDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85216944	-82.39718889	2
17501719	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.362	Secondary	N MAIN ST	0	0	0	42741	1554	FRIDAY	WET	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85388889	-82.39718889	2
15515638	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.135	County	N BROWN ST	0	0	0	42055	909	FRIDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (PARKED)	DISTRACTED/INATT.	34.85215	-82.39718056	2
16525215	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.36	County	N SPRING ST	0	1	1	42439	1817	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	AGGRESSIVE OPERATION OF VEHICLE	34.85385	-82.39718056	2
15511062	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.36	County	INSIGNIA PL	0	0	0	42042	1230	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85388056	-82.39716111	2
15583224	GREENVILLE	SC Route	00183	Main Line	E. NORTH ST.	7.139	County	N. BROWN ST.	0	0	0	42232	1235	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85216111	-82.39711944	2
16542716	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.139	County	N SPRING ST	0	0	0	42468	2304	FRIDAY	DRY	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85216111	-82.39711111	2
17570266	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.144	County	N BROWN ST	0	0	0	42888	1432	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85213889	-82.39703889	2
16500320	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.353	Secondary	N MAIN ST	0	0	0	42370	1943	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85385	-82.39703889	2
17670595	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.352	Secondary	N MAIN ST	0	0	0	43078	2230	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85383056	-82.39703056	2
15533890	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.351	County	INSIGNIA PL	0	0	0	42105	1533	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85381944	-82.39701944	2
15547842	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.351	County	N MAIN ST	0	0	0	42133	2215	SATURDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE	PEDALCYCLE	MADE AN IMPROPER TURN	34.85383056	-82.39701944	2
16619722	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.351	County	INSIGNIA PL	0	0	0	42636	1619	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85383056	-82.39701944	2
16570966	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.148	County	N BROWN ST	0	0	0	42532	2155	SATURDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (PARKED)	DISTRACTED/INATT.	34.85211944	-82.39696944	2
17559555	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.345	County	N MAIN ST	0	0	0	42862	1437	SUNDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85378889	-82.39691111	2
17639105	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.345	Secondary	N MAIN ST	0	0	0	43025	1514	TUESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85378889	-82.39691111	2
17558695	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.155	County	N SPRING ST	0	0	0	42855	2025	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85206944	-82.39686111	2
15576858	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.156	County	N BROWN ST	0	0	0	42217	2038	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85208056	-82.39683889	2
17639121	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.16	County	N SPRING ST	0	0	0	43025	1744	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85205	-82.39678056	2
17545470	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.162	County	N SPRING ST	0	0	0	42812	1218	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.85203889	-82.39675	3
15622878	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.164	County	N SPRING ST	0	0	0	42311	2210	TUESDAY	WET	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85203056	-82.39673056	2
16510221	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.331	County	N MAIN ST	0	0	0	42403	1132	WEDNESDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85371111	-82.39668889	2
16535029	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.331	County	INSIGNIA PL	0	0	0	42460	1446	THURSDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85371111	-82.39668056	2
17512312	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.329	County	N MAIN ST	0	0	0	42770	1614	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85368889	-82.39666111	2
17551447	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.33	County	INSIGNIA PL	0	0	0	42856	1444	MONDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85371111	-82.39666111	2
15642815	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.169	County	N SPRING ST	0	0	0	42347	807	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85201111	-82.39663889	2
16517741	GREENVILLE	SC Route	00183	Main Line	E. NORTH ST.	7.168	County	N. SPRING ST.	0	0	0	42416	2000	TUESDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85205	-82.39663889	2
17525876	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.328	County	N MAIN ST	0	0	0	42806	1752	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8537	-82.39663889	2
15562295	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.173	County	N SPRING ST	0	0	0	42180	1948	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.852	-82.39658889	2
15559949	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.175	County	N SPRING ST	0	0	0	42168	6	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85198889	-82.39655	2
17533888	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.176	County	N SPRING ST	0	0	0	42822	1055	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	UNKNOWN	34.85198889	-82.39653056	2
16655943	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.32	County	INSIGNIA PL	0	0	0	42686	1510	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85363056	-82.39651944	2
16569107	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.179	County	N SPRING ST	0	0	0	42506	1402	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85198056	-82.39648056	2
17561593	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.182	County	N SPRING ST	0	0	0	42873	1703	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85196111	-82.39643889	2
15572429	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.315	County	INSIGNIA PL	0	0	0	42195	1415	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85361111	-82.39643889	2
16523263	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL.	0.315	County	INSIGNIA PL.	0	0	0	42428	1547	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8536	-82.39643056	2
16631042	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.183	County	N SPRING ST	0	0	0	42660	157	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85195	-82.39641944	2
15508954	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.314	County	INSIGNIA PL	0	0	0	42037	1249	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8536	-82.39641944	2
15602939	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL.	0.311	County	INSIGNIA PL.	0	0	0	42274	1047	SUNDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85355	-82.39638889	2
17512888	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.312	County	INSIGNIA PL	0	0	0	42774	1842	WEDNESDAY	WET	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85358889	-82.39638889	2
15643648	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.186	County	N BROWN ST	0	0	0	42350	2223	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85193889	-82.39638056	2
16531183	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.186	County	N SPRING ST	0	0	0	42441	2051	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85193889	-82.39638056	2
16647773	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.186	County	N SPRING ST	0	1	1	42691	1156	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDESTRIAN	DISREGARDED SIGNS, SIGNALS, ETC	34.85193889	-82.39638056	2
17560025	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.186	County	N SPRING ST	0	0	0	42865	1357	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85193889	-82.39638056	2
17523344	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.312	County	N SPRING ST	0	0	0	42791	2219	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85358889	-82.39638056	2
15592197	GREENVILLE	Local road	00076	Main Line	N SPRING ST	0.105	SC Primary	W NORTH ST	0	0	0	42248	726	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85186111	-82.39636944	2
16605122	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.311	County	INSIGNIA PL	0	0	0	42606	1741	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85358056	-82.39636944	2
16612885	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.31	Secondary	N MAIN ST	0	0	0	42613	1035	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85356111	-82.39636111	2
15554951	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.188	County	N SPRING ST	0	0	0	42145	1057	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85193889	-82.39635	2
17586938	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.188	County	N SPRING ST	0	0	0	42923	1735	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85193889	-82.39635	2
16503043	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.31	County	INSIGNIA PL	0	0	0	42383	1845	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85358056	-82.39635	2
17622876	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.308	County	N SPRING ST	0	0	0	42997	1101	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85355	-82.39633889	2
15516535	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.308	County	INSIGNIA PL	0	0	0	42058	1430	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85355	-82.39633056	2
15535951	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.308	County	INSIGNIA PL	0	0	0	42096	2215	THURSDAY	WET	DARK (STREET LAMP NOT LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85356111	-82.39633056	2
15641672	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.307	County	INSIGNIA PL	0	0	0	42348	919	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85355	-82.39631944	2
16611714	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.191	County	N SPRING ST	0	0	0	42620	1300	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85193056	-82.3963	2
17541994	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.192	County	N SPRING ST	0	0	0	42832	2202	FRIDAY	DRY	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85191111	-82.39628889	2
16547291	GREENVILLE	Local road	00076	Main Line	N SPRING ST	0.096	SC Primary	E NORTH ST	0	0	0	42468	1554	FRIDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	CURB	IMPROPER LANE USAGE/CHANGE	34.85191944	-82.39628889	2
15509883	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.196	US Primary	N CHURCH ST	0	0	0	42039	1339	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85188889	-82.39623056	2
17548002	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.195	SC Primary	N SPRING ST	0	0	0	42843	840	TUESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8519	-82.39623056	2
17638525	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.195	County	N SPRING ST	0	0	0	43021	737	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.8519	-82.39623056	2
15609950	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL.	0.3	County	INSIGNIA PL.	0	2	2	42288	1410	SUNDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85346111	-82.39623056	2
16531373	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.302	Secondary	N MAIN ST	0	0	0	42450	1627	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85351111	-82.39623056	2
16661415	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.3	County	INSIGNIA PL	0	0	0	42712	1405	THURSDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (PARKED)	OTHER IMP. ACT	34.85348889	-82.3962	2
15597084	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.199	County	N SPRING ST	0	0	0	42261	1808	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85186111	-82.39618056	2
15529209	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.297	County	INSIGNIA PL	0	0	0	42054	1621	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85348056	-82.39616111	2
17622810	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.295	County	INSIGNIA PL	0	1	1	42988	1136	SUNDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85346111	-82.39613056	2
16627863	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.203	County	N SPRING ST	0	0	0	42656	630	THURSDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85186111	-82.39611111	2
17547992	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.293	County	N SPRING ST	0	0	0	42838	708	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85343889	-82.3961	2
16514235	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.294	County	INSIGNIA PL	0	0	0	42412	2158	FRIDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85346111	-82.3961	2
15504322	GREENVILLE	SC Route	00183	Main Line	E. NORTH ST.	7.205	County	N. SPRING ST.	0	4	1	42022	1324	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85185	-82.39606944	2
15564410	GREENVILLE	SC Route	00183	Main Line	E. NORTH ST	7.208	County	N SPRING ST	0	0	0	42173	1024	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85183056	-82.39603889	2
15650980	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.288	County	INSIGNIA PL	0	0	0	42353	1000	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85341111	-82.39601944	2
17659101	GREENVILLE	Local road	00076	Main Line	N SPRING ST	0.053	SC Primary	W NORTH ST	0	0	0	43061	1336	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85248056	-82.39598889	2
15517246	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.285	County	INSIGNIA PL	0	0	0	42045	1200	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.85338889	-82.39596944	3
17677367	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.282	County	N SPRING ST	0	0	0	43088	927	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85336944	-82.39593056	2
16649089	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.217	County	N SPRING ST	0	0	0	42692	1848	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85178889	-82.39588889	2
16593592	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.279	County	N SPRING ST	0	0	0	42579	2057	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85333889	-82.39588889	2
17578587	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.217	County	N SPRING ST	0	0	0	42907	1217	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8518	-82.39588056	2
17548496	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.219	County	N IRVINE ST	0	1	1	42848	200	SUNDAY	WET	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85178056	-82.39586111	1
17519905	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.23	County	N IRVINE ST	0	0	0	42792	1514	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85173056	-82.39568889	2
15605602	GREENVILLE	Local road	00076	Main Line	N SPRING ST	0.005	SC Primary	BEATTIE PL	0	0	0	42277	1603	WEDNESDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	DISREGARDED SIGNS, SIGNALS, ETC	34.85313889	-82.39568056	2
15609291	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL.	0.263	County	N. SPRING ST.	0	0	0	42287	755	SATURDAY	WET	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (STOPPED)	FAIL TO YIELD R.O.W.	34.85316111	-82.39568056	2
15574894	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.264	County	SPRING ST	0	0	0	42213	1455	TUESDAY	WET	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85318889	-82.39568056	2
17653659	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.265	County	N SPRING ST	0	0	0	43052	1240	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85321944	-82.39568056	2
15555955	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.264	US Primary	N CHURCH ST	0	0	0	42164	1114	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85323056	-82.39566111	2
15574539	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL.	0.263	County	N. SPRING ST.	0	0	0	42210	1155	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.8532	-82.39565	2
16642502	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.262	County	SPRING ST	0	0	0	42653	1616	MONDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85318889	-82.39563889	2
16649105	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.262	County	N SPRING ST	0	0	0	42693	2300	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85318889	-82.39563889	2
17541953	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.262	County	N SPRING ST	0	0	0	42831	1432	THURSDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85318889	-82.39563889	2
17627553	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.262	County	N SPRING ST	0	0	0	43000	2329	FRIDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85318889	-82.39563889	2
17636583	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.262	US Primary	N CHURCH ST	0	0	0	43018	1527	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85318889	-82.39563889	2
15514738	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.262	County	N SPRING ST	0	0	0	42054	1142	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.8532	-82.39563889	2
15518507	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.261	County	N SPRING ST	0	0	0	42062	1346	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85318889	-82.39561944	2
16573341	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.26	County	N SPRING ST	0	0	0	42544	1650	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85318056	-82.39561111	2
16670823	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.26	County	N SPRING ST	0	0	0	42726	1145	THURSDAY	DRY	DAYLIGHT	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85318056	-82.39561111	2
17531493	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.259	County	N SPRING ST	0	0	0	42816	1324	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85316944	-82.3956	2
17544542	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.259	County	N SPRING ST	0	0	0	42844	1117	WEDNESDAY	WET	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (STOPPED)	MADE AN IMPROPER TURN	34.85316944	-82.3956	3
15586401	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.26	US Primary	N CHURCH ST	0	1	2	42237	1341	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85318056	-82.3956	2
16624011	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.26	County	N SPRING ST	0	0	0	42645	1618	SUNDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85318056	-82.3956	2
17652716	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.26	County	N SPRING ST	0	0	0	43046	1840	TUESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85318056	-82.3956	2
17536920	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.259	County	N SPRING ST	0	0	0	42826	1610	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85318056	-82.39558889	2
17565369	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.259	County	INSIGNIA PL	0	0	0	42878	1731	TUESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85318056	-82.39558889	2
17593621	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.258	County	N SPRING ST	0	0	0	42935	1510	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85315	-82.39558056	2
17639085	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.258	County	N SPRING ST	0	0	0	43022	1324	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85316111	-82.39558056	2
16557682	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.258	County	N SPRING ST	0	0	0	42501	1817	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85316944	-82.39558056	2
17542011	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.257	County	N SPRING ST	0	0	0	42833	1829	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85315	-82.39556944	2
16672806	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.257	County	N SPRING ST	0	0	0	42726	1424	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85316111	-82.39556111	2
17531496	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.257	County	N SPRING ST	0	0	0	42817	1818	THURSDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85316111	-82.39556111	2
15504029	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.255	County	N SPRING ST	0	0	0	42018	1206	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85313889	-82.39553889	2
15583733	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.254	County	N SPRING ST	0	0	0	42223	1912	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85313056	-82.39553056	2
15536860	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.25	US Primary	N CHURCH ST	0	0	0	42110	1222	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85308889	-82.39546111	2
17655908	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.25	County	N SPRING ST	0	0	0	43054	1149	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85311111	-82.39546111	2
16674197	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.246	SC Primary	E NORTH ST	0	0	0	42717	1819	TUESDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85165	-82.39543056	2
15531502	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.246	US Primary	N CHURCH ST	0	0	0	42101	904	TUESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85306111	-82.3954	2
15609963	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.249	US Primary	N CHURCH ST	0	2	2	42290	1341	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85163056	-82.39538889	3
17560005	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.238	County	N SPRING ST	0	0	0	42864	1735	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85298889	-82.39528889	2
15583715	GREENVILLE	Local road	00076	Main Line	E. NORTH ST	0.089	US Primary	N. CHURCH ST.	0	0	0	42201	2133	THURSDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (PARKED)	UNDER THE INFLUENCE	34.85161111	-82.39523889	2
17521733	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.26	County	N IRVINE ST	0	1	1	42768	2135	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85158889	-82.39521111	2
15630965	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.231	County	N SPRING ST	0	0	0	42222	831	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85293889	-82.39518056	2
17617330	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.263	US Primary	CHURCH ST	0	0	0	42978	1513	THURSDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85158056	-82.39515	4
15562271	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.265	US Primary	N CHURCH ST	0	0	0	42152	1408	THURSDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85156111	-82.39513056	2
16571654	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.266	US Primary	E NORTH ST	0	0	0	42531	857	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85156111	-82.39511111	2
15613416	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.272	US Primary	N CHURCH ST	0	0	0	42292	1248	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85153056	-82.39501111	2
16530857	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.221	County	N SPRING ST	0	0	0	42453	1230	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85291944	-82.395	2
17595101	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.274	US Primary	E NORTH ST	0	0	0	42943	1326	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85151944	-82.39498889	2
17621198	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.29	US Primary	N CHURCH ST	0	0	0	42984	901	WEDNESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85151944	-82.39496944	2
15614587	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.403	US Primary	E NORTH ST	0	0	0	42289	650	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85113889	-82.39496111	2
15546752	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.215	US Primary	N CHURCH ST	0	0	0	42136	1008	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85281944	-82.39495	2
16576464	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.216	US Primary	N CHURCH ST	0	0	0	42537	1717	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85283056	-82.39495	2
17539091	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0	0	42783	1707	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85118056	-82.39493056	2
15547147	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.278	US Primary	N CHURCH ST	0	0	0	42137	1613	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85151111	-82.39491944	2
17525856	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.279	County	N IRVINE ST	0	0	0	42801	2158	TUESDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.8515	-82.39491111	2
17680086	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.28	SC Primary	S. CHURCH ST	0	0	0	43089	1815	WEDNESDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85148889	-82.39488889	2
15648761	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.417	US Primary	E NORTH ST	0	0	0	42355	711	THURSDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85131111	-82.39488056	3
15568652	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.417	County	E NORTH ST	0	0	0	42185	1030	TUESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85131944	-82.39488056	2
15568754	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.427	SC Primary	E NORTH ST	0	1	1	42198	1450	MONDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85138889	-82.39486944	3
15572439	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.281	US Primary	E NORTH ST	0	1	1	42207	1525	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85148889	-82.39486944	2
17662239	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.281	County	N IRVINE ST	0	0	0	43064	1830	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.85148889	-82.39486944	2
15563595	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.21	US Primary	N CHURCH ST	0	0	0	42181	1044	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85278889	-82.39486944	2
15653559	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.21	US Primary	N CHURCH ST	0	0	0	42353	1349	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85278889	-82.39486111	2
17520259	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.283	US Primary	E NORTH ST	0	0	0	42791	344	SATURDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85146944	-82.39483889	2
15568324	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.208	US Primary	N CHURCH ST	0	0	0	42186	1448	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85275	-82.39483889	2
15520947	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.284	US Primary	N CHURCH ST	0	0	0	42072	1459	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85146944	-82.39483056	2
16569831	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.284	US Primary	N CHURCH ST	0	0	0	42538	735	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85146944	-82.39483056	2
15552111	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.208	US Primary	N CHURCH ST	0	0	0	42147	1730	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85278056	-82.39483056	2
17537814	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0	0	42802	1310	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85278056	-82.39483056	2
15630969	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.208	County	N SPRING ST	0	0	0	42269	2024	TUESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85278889	-82.39483056	2
16675607	GREENVILLE	SC Route	00183	Main Line	E NORTH ST	7.285	US Primary	N CHURCH ST	0	0	0	42725	1537	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85146944	-82.39481944	2

17603342	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.285	US Primary	N CHURCH ST	0	0 0	42954	1544	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85146944	-82.39481944	2
17599839	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.29	US Primary	N CHURCH ST	0	0 0	42941	1850	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85146944	-82.39481111	2
15607739	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.207	US Primary	N CHURCH ST	0	0 0	42283	1348	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85276111	-82.39481111	2
15564737	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.428	SC Primary	W NORTH ST	0	0 0	42187	848	THURSDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85141111	-82.3948	2
16661434	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.429	US Primary	E NORTH ST	0	2 1	42714	1111	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85143056	-82.3948	2
15567496	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	E NORTH ST	0	1 1	42157	1246	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85146944	-82.39478889	5
15613396	GREENVILLE	SC Route	00183	Main Line	N. CHURCH ST	7.286	US Primary	E. NORTH ST.	0	0 0	42245	2223	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85146944	-82.39478889	2
16681258	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.428	US Primary	E NORTH ST	0	0 0	42490	59	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85141111	-82.39478056	2
16570937	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.428	SC Primary	W NORTH ST	0	0 0	42538	1640	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85141111	-82.39478056	2
16606355	GREENVILLE	SC Route	00183	Main Line	E. NORTH ST	7.288	US Primary	CHURCH ST	0	0 0	42600	1710	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85143056	-82.39478056	2
16514222	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.428	US Primary	E NORTH ST	0	0 0	42412	1227	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85141944	-82.39476944	2
16515786	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.204	US Primary	N CHURCH ST	0	0 0	42417	1454	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85275	-82.39476944	2
17590531	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.416	SC Primary	E NORTH ST	0	0 0	42923	1848	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85126111	-82.39476111	2
16539607	GREENVILLE	SC Route	00183	Main Line	E. NORTH ST	7.288	County	CHURCH ST	0	0 0	42467	1844	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85146111	-82.39476111	2
15587331	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.428	US Primary	E NORTH ST	0	0 0	42188	1031	FRIDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85141111	-82.39475	2
17650578	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0 0	43045	1453	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85123889	-82.39473889	2
17635198	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0 0	43019	1430	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85128056	-82.39473889	2
16552053	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.65	County	THOMPSON ST	0	0 0	42495	1820	THURSDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85141944	-82.39473889	2
17511578	GREENVILLE	US Route	00029	Main Line	N. CHURCH ST	6.431	County	N IRVINE ST	0	1 1	42772	2311	MONDAY	DRY	DARK (STREET LAMP NOT LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85146111	-82.39473889	2
17685822	GREENVILLE	SC Route	00183	Main Line	W NORTH ST	7.289	US Primary	E. NORTH ST	0	2 1	43044	424	SUNDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85146111	-82.39473889	2
15554067	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0 0	42049	2151	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85143889	-82.39473056	2
15524276	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	4 1	42076	1534	FRIDAY	WET	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85143889	-82.39473056	3
16517149	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.65	SC Primary	CHURCH ST	0	0 0	42415	1920	MONDAY	ICE	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85143889	-82.39473056	2
15536859	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	E. NORTH ST	0	2 2	42106	411	SUNDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85145	-82.39473056	2
15593921	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E. NORTH STREET	0	1 1	42255	1307	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85145	-82.39473056	3
15500796	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.431	US Primary	E NORTH ST	0	0 0	42007	43	SATURDAY	WET	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85146111	-82.39473056	2
15574541	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.431	SC Primary	W NORTH ST	0	3 3	42210	2126	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85146111	-82.39473056	2
17595107	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0 0	42943	2048	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8513	-82.39471944	2
16650365	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.422	US Primary	E NORTH ST	0	0 0	42689	1047	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85133889	-82.39471944	2
16579279	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.424	US Primary	E NORTH ST	0	0 0	42547	107	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85136111	-82.39471944	2
15640549	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.429	Interstate	E NORTH ST	0	0 0	42192	727	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85143056	-82.39471944	2
15642827	GREENVILLE	US Route	00029	Main Line	N. CHURCH ST.	6.433	SC Primary	E. NORTH ST.	0	1 1	42351	1327	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85148889	-82.39471944	2
16579347	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.435	SC Primary	BEATTIE PL	0	0 0	42552	2207	FRIDAY	DRY	DAWN	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85151111	-82.39471944	2
17628441	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.201	County	N SPRING ST	0	0 0	43008	1333	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85271944	-82.39471944	2
17611533	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42970	1203	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85273056	-82.39471944	2
16541715	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.423	Secondary	E WASHINGTON ST	0	0 0	42476	1315	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85135	-82.39471111	2
17548098	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.65	US Primary	N CHURCH ST	0	0 0	42847	2339	SATURDAY	WET	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85141944	-82.39471111	2
16541716	GREENVILLE	US Route	00029	Main Line	N CHURCH	6.429	County	E COFFEE ST	0	0 0	42476	1437	SATURDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85143056	-82.39471111	3
15518979	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.436	US Primary	E NORTH ST	0	0 0	42066	613	TUESDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85151944	-82.3947	2
15613399	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.436	US Primary	E NORTH ST	0	0 0	42289	1246	MONDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85151944	-82.3947	2
16603953	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.649	US Primary	N CHURCH ST	0	0 0	42599	1659	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85141111	-82.39468889	2
17633999	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	1 1	43007	1909	FRIDAY	DRY	DUSK	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85155	-82.39468889	2
16523596	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.439	SC Primary	W NORTH ST	0	0 0	42435	919	SUNDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85156111	-82.39468056	2
17508409	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.649	SC Primary	W NORTH ST	0	0 0	42762	1106	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85138056	-82.39466944	2
17575719	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0 0	42887	1404	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85158889	-82.39466944	2
16643663	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.44	US Primary	E NORTH ST	0	0 0	42683	1643	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85156944	-82.39466111	2
16569254	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.443	US Primary	E NORTH ST	0	0 0	42416	1304	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85161944	-82.39466111	2
16641883	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.443	US Primary	E NORTH ST	0	0 0	42678	1242	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85161944	-82.39466111	2
17506918	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0 0	42760	1717	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85163889	-82.39463889	2
15549205	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.448	US Primary	E NORTH ST	0	0 0	42142	1258	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85168889	-82.39463889	2
15597430	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.446	US Primary	E NORTH ST	0	0 0	42261	1740	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85165	-82.39463056	2
17570865	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42893	1712	WEDNESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85268056	-82.39461944	2
16551361	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.194	US Primary	N CHURCH ST	0	0 0	42501	1208	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85266944	-82.39461111	2
15506727	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.192	US Primary	N CHURCH ST	0	0 0	42028	1313	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85266111	-82.39458889	2
15508549	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.191	US Primary	N CHURCH ST	0	0 0	42036	2315	SUNDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85266111	-82.39456944	2
15583732	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.64	US Primary	N CHURCH ST	0	0 0	42224	1625	SATURDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85131944	-82.39455	2
15568350	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.188	US Primary	N CHURCH ST	0	0 0	42195	1429	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85261111	-82.39453056	2
15582158	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.186	US Primary	N CHURCH ST	0	0 0	42228	1318	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85261111	-82.3945	2
17602885	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	US Primary	E NORTH ST	0	0 0	42946	1922	SUNDAY	DRY	DUSK	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85201111	-82.39448056	2
15596405	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.185	US Primary	N CHURCH ST	0	2 2	42248	1942	TUESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	CURB	MEDICAL RELATED	34.8526	-82.39448056	1
15622834	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.184	US Primary	N CHURCH ST	0	0 0	42307	1511	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85261111	-82.39446111	2
17505891	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.636	SC Primary	W NORTH ST	0	0 0	42752	1237	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85131944	-82.39445	2
15524297	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.182	County	N SPRING ST	0	0 0	42076	2337	FRIDAY	WET	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85258889	-82.39443889	2
17578631	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42910	2358	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85258889	-82.39443889	2
17600294	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42952	15	SATURDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85261111	-82.39443889	2
17595092	GREENVILLE	US Route	00029	Main Line	CHURCH ST	6.481	Secondary	BEATTIE ST	0	0 0	42942	756	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85211944	-82.39443056	2
16645887	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.181	US Primary	N CHURCH ST	0	0 0	42686	2352	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85258056	-82.39441111	2
15617589	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.178	US Primary	N CHURCH ST	0	0 0	42304	1555	TUESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85256944	-82.39436944	3
16634869	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.178	US Primary	N CHURCH ST	0	0 0	42663	825	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (PARKED)	DRIVING TOO FAST FOR CONDITIONS	34.85256944	-82.39436944	2
15539799	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.493	SC Primary	BEATTIE PL	0	0 0	42118	1243	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85228056	-82.39435	2
15588302	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.499	SC Primary	EAST NORTH STREET	0	0 0	42229	1352	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85236944	-82.39435	2
16509253	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.499	SC Primary	BEATTIE PL	0	0 0	42401	815	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85236111	-82.39433056	2
16502274	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.175	US Primary	N CHURCH ST	0	1 1	42374	915	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85253889	-82.39433056	2
15569952	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.498	SC Primary	BEATTIE PL	0	0 0	42201	1243	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85235	-82.39431944	2
16640538	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.175	US Primary	N CHURCH ST	0	1 1	42677	1309	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85253889	-82.39431944	2
16537245	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.174	US Primary	N CHURCH ST	0	1 1	42459	1336	WEDNESDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85253889	-82.39431111	2
16535034	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.63	US Primary	N CHURCH ST	0	0 0	42460	1738	THURSDAY	WET	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85128056	-82.3943	1
15531061	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.5	SC Primary	BEATTIE PL	0	0 0	42090	1749	FRIDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85236944	-82.3943	2
17502405	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	42746	830	WEDNESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85236944	-82.3943	2
17515398	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	42781	1327	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85238889	-82.3943	2
16605155	GREENVILLE	SC Route	00183	Main Line Couplet	N CHURCH ST	0.174	US Primary	BEATTIE PL	0	0 0	42598	909	TUESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85253889	-82.3943	2
16583256	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.503	SC Primary	BEATTIE PL	0	0 0	42560	32	SATURDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85241111	-82.39428889	2
17514927	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	42766	1140	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85243889	-82.39428056	2
16614804	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.506	SC Primary	BEATTIE PL	0	2 2	42625	1107	MONDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85246111	-82.39428056	2
15544960	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.172	US Primary	N CHURCH ST	0	0 0	42136	900	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85251944	-82.39428056	2
15502068	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.506	SC Primary	BEATTIE PL	0	1 2	42012	1311	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDESTRIAN	FAIL TO YIELD R.O.W.	34.85246111	-82.39426944	2
15583712	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.506	SC Primary	BEATTIE PL	0	0 0	42201	1812	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	IMPROPER LANE USAGE/CHANGE	34.85246111	-82.39426944	2
16567557	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.506	SC Primary	BEATTIE PL	0	0 0	42515	1109	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85246111	-82.39426944	2
16588431	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.505	SC Primary	BEATTIE PL	0	0 0	42574	104	SATURDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85243889	-82.39426111	2
17641019	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	43031	2050	MONDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85246111	-82.39426111	2
17646314	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	43036	752	SATURDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85246111	-82.39426111	2
15616240	GREENVILLE	US Route	00029	Main Line	CHURCH ST	6.509	SC Primary	BEATTIE PL	0	0 0	42268	1149	MONDAY	DRY	DAYLIGHT	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8525	-82.39425	2
17541981	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	1 1	42832	1422	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8525	-82.39425	2
16627846	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.17	US Primary	N CHURCH ST	0	0 0	42655	948	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85251111	-82.39425	2
16643631	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.511	US Primary	BEATTIE PL	0	2 2	42678	1351	FRIDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85251944	-82.39425	2
15519540	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.509	SC Primary	BEATTIE PL	0	0 0	42062	1503	FRIDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85248889	-82.39423889	2
16576456	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.51	SC Primary	BEATTIE PL	0	0 0	42533	1359	SUNDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8525	-82.39423889	2
16514207	GREENVILLE	US Route	00029	Main Line	CHURCH ST.	6.51	SC Primary	BEATTIE PL.	0	0 0	42409	824	TUESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85251111	-82.39423889	2
17646275	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.17	County	E ELFORD	0	2 2	43029	437	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	WRONG SIDE OR WRONG WAY	34.85251111	-82.39423889	2
15559924	GREENVILLE	US Route	00029	Main Line	CHURCH ST	6.51	SC Primary	BEATTIE PL	0	0 0	42154	1605	SATURDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85251111	-82.39423056	2
17543767	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	42838	1657	THURSDAY	DRY	DAYLIGHT	HEAD ON	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85251944	-82.39423056	2
16532703	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.512	SC Primary	BEATTIE PL	0	0 0	42443	840	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85253889	-82.39423056	3
16557964	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.514	SC Primary	BEATTIE PL	0	3 1	42510	1728	FRIDAY	WET	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85256111	-82.39423056	2
16627844	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.514	SC Primary	BEATTIE PL	0	0 0	42653	1537	MONDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85256944	-82.39423056	2
16638068	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.514	SC Primary	BEATTIE PL	0	0 0	42673	159	SUNDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE	CURB	UNDER THE INFLUENCE	34.85256111	-82.39421944	1
15539149	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.168	US Primary	N CHURCH ST	0	0 0	42116	1512	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85251111	-82.39421111	2
17632496	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	43012	1835	WEDNESDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85256111	-82.39421111	2
16642556	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.516	SC Primary	BEATTIE PL	0	0 0	42668	848	TUESDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85258889	-82.39421111	2
15580288	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.166	US Primary	N CHURCH ST	0	0 0	42226	1342	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85248889	-82.39418889	2
17539090	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.51	SC Primary	BEATTIE PL	0	0 0	42749	1525	SATURDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85248889	-82.39418056	2
17565374	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	42880	844	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85265	-82.39418056	2
17511078	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42770	1023	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85248056	-82.39416944	2
16556042	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.165	US Primary	N CHURCH ST	0	0 0	42507	629	TUESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85248889	-82.39416944	2
17524767	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	2 2	42803	859	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	IMPROPER LANE USAGE/CHANGE	34.85248056	-82.39416111	3
16638974	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.164	US Primary	N CHURCH ST	0	0 0	42675	1207	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85248889	-82.39416111	2
16553535	GREENVILLE	US Route	00029	Main Line	N. CHURCH ST.	6.524	SC Primary	BEATTIE PL.	0	0 0	42504	1018	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85271944	-82.39416111	2
16512955	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.164	US Primary	E NORTH ST	0	0 0	42403	2335	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85251111	-82.39415	2
16616747	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.162	US Primary	N CHURCH ST	0	0 0	42632	943	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85246944	-82.39413889	2
15569630	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.526	SC Primary	BEATTIE PL	0	0 0	42199	1639	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85273889	-82.39413889	2
15635434	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.624	US Primary	N CHURCH ST	0	0 0	42338	649	MONDAY	WET	DAWN	NOT COLLISION W/MOTOR VEHICLE	OTHER (WALL, BUILDING, TUNNEL, ETC)	DRIVING TOO FAST FOR CONDITIONS	34.85136111	-82.39413056	1
16617705	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.162	US Primary	N CHURCH ST	0	0 0	42634	1425	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85246944	-82.39413056	2
15653582	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.16	US Primary	E NORTH ST	0	0 0	42369	701	THURSDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85243056	-82.39411944	2
17575265	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42900	1540	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85245	-82.39411111	2
17568443	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.43	SC Primary	BEATTIE PL	0	0 0	42861	1957	SATURDAY	WET	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85286944	-82.3941	2
17572569	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42891	1157	MONDAY	DRY	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85246111	-82.39408056	2
16558959	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.534	Secondary	E ELFORD ST	0	0 0	42511	1822	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85285	-82.39408056	2
16528814	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.155	US Primary	N CHURCH ST	0	0 0	42447	1803	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85243889	-82.39403889	2
15616277	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.155	US Primary	N CHURCH ST	0	0 0	42299	1057	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85245	-82.39403889	2
16563741	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.15	US Primary	N CHURCH ST	0	0 0	42511	1257	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.85241111	-82.39396944	2
16542734	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.149	US Primary	N CHURCH ST	0	0 0	42475	2346	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85241944	-82.39396111	2
15534210	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.149	US Primary	N CHURCH ST	0	0 0	42108	1101	TUESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85245	-82.39393889	2
17652757	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	43051	1851	SUNDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85241111	-82.39391111	2
17652708	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	43044	1342	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85238889	-82.39385	2
17611519	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42969	714	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85233889	-82.39371944	2
16638976	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.13	US Primary	N CHURCH ST	0	0 0	42672	1328	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85233056	-82.3937	2
17533597	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.605	County	BROADUS AVE	0	0 0	42817	716	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	OTHER NONCOLLISION	IMPROPER LANE USAGE/CHANGE	34.8513	-82.39366111	2
16556044	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.124	US Primary	N CHURCH ST	0	0 0	42507	1340	TUESDAY	WET	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85228889	-82.39361944	2
15565750	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.122	US Primary	E NORTH ST	0	0 0	42183	1509	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85228056	-82.39358889	2
16514229	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.601	SC Primary	W NORTH ST	0	0 0	42412	1705	FRIDAY	DRY	DUSK	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85131944	-82.39356944	2
16507508	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.117	US Primary	N CHURCH ST	0	1 2	42373	1520	MONDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85228056	-82.39351944	2
17555363	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.29	US Primary	N CHURCH ST	0	0 0	42857	1548	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85221944	-82.39338889	2
17502393	GREENVILLE	SC Route	00183	Main Line	BEATTIE PL	7.23	US Primary	N CHURCH ST	0	0 0	42738	1835	TUESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85216111	-82.39325	2
15648777	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.588	County	BROADUS AVE	0	0 0	42360	14	TUESDAY	WET	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85133889	-82.39323889	1
17563948	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.585	County	BROADUS AVE	0	1 2	42876	2157	SUNDAY	WET	DARK (STREET LAMP LIT)	HEAD ON	PEDESTRIAN	IMPROPER CROSSING	34.85136944	-82.39316944	2
15574540	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.58	US Primary	N CHURCH ST	0	0 0	42208	1729	THURSDAY	WET	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	UTILITY POLE	DRIVING TOO FAST FOR CONDITIONS	34.85138056	-82.39305	1
17639136	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.578	County	BROADUS AVE	0	0 0	42986	808	FRIDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85138056	-82.39301944	2
17531494	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.574	County	BROADUS AVE	0	0 0	42817	908	THURSDAY	DRY	DAYLIGHT	ANGLE 3	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.8514	-82.39291944	2
15624702	GREENVILLE	US Route	00385	Spur	E. NORTH ST.	42.574	County	BROADUS AVE.	0	1 1	42304	1725	TUESDAY	WET	DUSK	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85141111	-82.39291944	2
15558558	GREENVILLE	US Route	00385	Spur	E. NORTH ST	42.572	County	BROADUUS AVE	0	0 0	42169	1746	SUNDAY	WET	DAYLIGHT	ANGLE 1	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85143889	-82.39286944	2
16523576	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.572	County	BROADUS AVE	0	1 2	42433	1323	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85141111	-82.39286111	2
15511815	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.571	County	BROADUS AVE	0	1 1	42041	1143	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85141111	-82.39285	2
16528802	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.57	County	BROADUS AVE	0	0 0	42447	1618	FRIDAY	DRY	DAYLIGHT	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85141111	-82.39283056	2
17560241	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.06	US Primary	E NORTH ST	0	0 0	42871	633	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85198056	-82.39276944	2
17663142	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.052	US Primary	N CHURCH ST	0	3 2	43059	1330	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85193056	-82.39266111	3
16565100	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.046	US Primary	E NORTH ST	0	0 0	42528	1435	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8519	-82.39258056	2
17525845	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.022	US Primary	E NORTH ST	0	0 0	42800	1326	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85178889	-82.39226111	2
16646745	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.022	Interstate	E NORTH ST	0	0 0	42689	721	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.8518	-82.39226111	2
15555939	GREENVILLE	SC Route	00183	Main Line Couplet	BEATTIE PL	0.019	US Primary	E NORTH ST	0	0 0	42163	1054	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85178889	-82.39221944	2
17607421	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.532	SC Primary	BEATTIE PL	0	3 2	42960	142	SUNDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (PARKED)	DRIVING TOO FAST FOR CONDITIONS	34.85168056	-82.39198056	2
17562746	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.519	County	MANLY ST	0	0 0	42872	1656	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8516	-82.39181111	2
15619732	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.518	SC Primary	BEATTIE PL	0	0 0	42307	1110	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85171111	-82.3918	2
16628185	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.514	SC Primary	BEATTIE PL	0	0 0	42657	752	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85173056	-82.39176111	2
15502063	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.513	SC Primary	BEATTIE PL	0	0 0	42010	816	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85171944	-82.39175	2
15606059	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.51	County	MANLY ST	0	0 0	42278	2050	THURSDAY	WET	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85173056	-82.39171111	2
16530228	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.502	County	MANLY ST	0	0 0	42440	2240	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.85165	-82.39158889	2
15542605	GREENVILLE	Local road	05753	Main Line	MANLY ST	0.234	Interstate	E NORTH ST	0	1 1	42122	1710	TUESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	PEDALCYCLE	OTHER IMP. ACT	34.85163889	-82.39156111	2
17543290	GREENVILLE	US Route	00385	Spur	E NORTH ST	42.4	Secondary	WILLIAMS STMANLY ST	0	0 0	42835	1741	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85163889	-82.39156111	2
15509335	GREENVILLE	US Route	00029	Main Line	N CHURCH ST	6.79	US Primary	ACADEMY ST	0	0 0	42035	1919	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE 2	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85508056	-82.39128889	2

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Memorandum

To: Jonathan Chasteen, PE, HDR

From: Jennifer T. Bihl, PE, PTOE

Date: April 10, 2019

Re: *City of Greenville Downtown Transportation Master Plan – Pete Hollis Boulevard/Rutherford Street Corridor Crash Analysis*

This memo reviews the crash history and trends for the Pete Hollis Boulevard/Rutherford Street corridor identified for study as part of the City of Greenville Downtown Transportation Master Plan. The Downtown Transportation Master Plan study area focuses on the downtown central business district area, including Stone Avenue and Laurens Road to the north, Hudson Road and Academy Street to the west, Pendleton Street and Augusta Street to the south, and Academy Street to the east, as well as some of the major corridors that feed the downtown.

Two corridors were identified by the project team for more study. These include:

- Pete Hollis Boulevard/Rutherford Street corridor – Pete Hollis Boulevard/Buncombe Street and Rutherford Street from just north of W Stone Avenue to just east of Whitner Street
- College Street/North Street corridor – College Street and North Street from just east of Whitner Street to just west of Manly Street

This memo discusses the crash history and trends for the Pete Hollis Boulevard/Rutherford Street corridor. **Figure 1 (Appendix)** shows the extents of the Pete Hollis Boulevard/Rutherford Street corridor. The crash history and trends for the College Street/North Street corridor are discussed in a separate technical memo.

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Data Collection Summary

Crash data was provided by the City of Greenville for the period from January 1, 2015 through December 31, 2017 for the Downtown Transportation Master Plan study area. Crash data locations were identified by latitude/longitude coordinates, and the crash data was mapped using GIS software. The crash data was filtered to crashes that occurred in the Pete Hollis Boulevard/Rutherford Street corridor.

The following variables were reviewed for each crash: location, manner of collision, first harmful event, injury status, probable cause, lighting, and roadway conditions.

Manner of collision describes the type of crash that occurred during the crash. The manner of collision for crashes is classified into the following categories:

- Angle
- Backed Into

- Head On
- Rear End
- Sideswipe, Opposite Direction
- Sideswipe, Same Direction
- Not Collision with Motor Vehicle – pedestrian, bicycle, fixed object,
- Unknown

One crash record in the selected dataset did not have a manner of collision entry. The manner of collision for this record was categorized as "Unknown" for this analysis.

First harmful event describes the event that led to the crash. This category is useful when crashes involve objects other than motor vehicles, such as pedestrians or fixed objects. The first harmful event for crashes is classified into the following categories:

- Motor Vehicle (In Transport)
- Motor Vehicle (Parked)
- Motor Vehicle (Stopped)
- Curb
- Fence
- Median Barrier
- Other (Post, Pole, Support, Etc.)
- Other (Wall, Building, Tunnel, Etc.)
- Other Moveable Object
- Other Noncollision
- Pedalcycle
- Pedestrian
- Utility Pole

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The injury status for each crash is identified by the max injury code, indicating the worst injury sustained in each crash. The Max Injury Codes are categorized as follows:

- INJ 0 - Property damage only
- INJ 1 - Possible injury
- INJ 2 - Non-incapacitating injury
- INJ 3 - Incapacitating injury
- INJ 4 - Fatal injury

The probable cause of each crash describes the event most likely element of why a crash occurred. A list of all probable cause codes used in this study is provided in the **Appendix**.

A summary of the study crash data is provided in the **Appendix**.

Overview of Corridor

The Pete Hollis Boulevard/Rutherford Street corridor study area includes Pete Hollis Boulevard from just north of W Stone Avenue to Buncombe Street, Rutherford Street from just north of W Stone Avenue to Buncombe Street, and Buncombe Street from Pete Hollis Boulevard/Rutherford Street to just south of Whitner Street/Heritage Green Place.

Roadways in the project vicinity include Pete Hollis Boulevard, Rutherford Street, Buncombe Street, W Stone Avenue, and Mulberry Street.

Pete Hollis Boulevard (SC 183) is a six-lane, divided, minor arterial roadway with a posted speed limit of 35 miles per hour (mph), left- and right-turn lanes, and a 2017 South Carolina Department of Transportation (SCDOT) annual average daily traffic (AADT) of 15,100 vehicles per day (vpd). Pete Hollis Boulevard becomes Buncombe Street south of Rutherford Street.

Rutherford Street (US 276, S-200) is four-lane, divided, principal arterial roadway with a posted speed limit of 35 mph, left- and right-turn lanes north of W Stone Avenue, and a two-way, left-turn lane (TWLTL) south of W Stone Avenue. Rutherford Street had a 2017 SCDOT AADT of 16,400 vpd between Buncombe Street and W Stone Avenue, and 28,700 vpd north of W Stone Avenue. Rutherford Street is designated as US 276 north of W Stone Avenue and as S-200 south of W Stone Avenue.

Buncombe Street (SC 183) is a six-lane, divided, principal arterial roadway with a posted speed limit of 35 mph and left- and right-turn lanes. Buncombe Street becomes a one-way street south of Whitner Street/Heritage Green Place. Buncombe Street had a 2017 SCDOT AADT of 11,800 vpd south of Whitner Street/Heritage Green Place.

W Stone Avenue (US 276) is a four-lane, undivided, minor arterial roadway with a posted speed limit of 35 mph and a 2017 SCDOT AADT of 23,500. W Stone Avenue becomes Mulberry Street west of Pete Hollis Boulevard.

Mulberry Street a two-lane roadway with a posted speed limit of 30 mph and on-street parking on both sides of the street.

Crash Data Summary

Table 1 shows a summary of the crash data by crash type and injury status. The mapped crash data on the corridor by manner of crash is shown on **Figure 2 (Appendix)** and discussed in **Tables 2**, **3**, and **4**. There were 391 crashes in this study area during the time period analyzed.

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Table 1:
Crash Summary - Manner of Crash and Injury Status

Manner of Crash		Number of Crashes	Percent of Total	Injury Status			
				Property Damage Only	Injury[1]	Severe	Fatal
Not Collision with Motor Vehicle	Non-Fixed Object	8	2.0%	1	5	1	1
	Fixed Object	9	2.3%	8	0	1	0
	Other	1	>1%	0	1	0	0
Angle		114	29.2%	76	35	3	0
Rear End		195	49.9%	177	17	1	0
Sideswipe, Same Direction		50	12.8%	46	4	0	0
Backed Into		6	1.5%	6	0	0	0
Head On		5	1.3%	3	2	0	0
Sideswipe, Opposite Direction		2	>1%	1	1	0	0
Unknown		1	>1%	1	0	0	0
Total		**391**	**100%**	**319**	**65**	**6**	**1**

1. Includes Inj. 1 and Inj. 2 crashes

As shown in **Table 1**, rear end (approximately 50%), angle (approximately 30%), and sideswipe, same direction (approximately 13%) crashes were the most common types of crash on this corridor. Approximately 91% of rear end crashes, 67% of angle crashes, 92% of sideswipe, same direction crashes, and 82% of all crashes resulted in property damage only. Approximately 17% of all crashes resulted in an injury, approximately 1% of all crashes resulted in a severe injury, and less than 1% of all crashes had a fatality.

There were six crashes on the Pete Hollis Boulevard/Rutherford Street corridor during the study period that resulted in severe injury. All six occurred on dry pavement. Four occurred in daylight, one was at night in a streetlamp lit area, and one was in the dark with no street lights. The following describes the conditions as noted by the officers associated with these crashes:

- A vehicle struck the curb due to a driver medical condition on Pete Hollis Boulevard between Echols Street and Rutherford Street. The crash occurred during daylight hours on dry pavement.
- An angle crash between two vehicles on Buncombe Road approximately 65 feet south of the intersection of Pete Hollis Boulevard and Rutherford Street due to a driver disregarding traffic signs or signals. The crash occurred during daylight hours on dry pavement.
- An angle crash between two vehicles on Rutherford Street approximately 20 feet south of W Stone Avenue. The probable cause of the event is unknown. The crash occurred at night in a streetlamp lit area on dry pavement.

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- An angle crash between two vehicles on Rutherford Street between W Stone Avenue and Echols Street due to a driver on the wrong side of the road/going the wrong way. The incident occurred during daylight hours on dry pavement.
- A vehicle struck a pedestrian on Buncombe Street between Lloyd Street and Butler Avenue/Atwood Street. The pedestrian was not in a crosswalk and the officer noted that the pedestrian was under the influence. The incident occurred at night in an unlit area on dry pavement.
- A rear end crash between three vehicles on W Stone Avenue approximately 250 feet east of the Rutherford Street. The officer noted the probable cause was improper lane usage/change. The incident occurred during the day on dry pavement.

There was one fatal crash with one fatality on the Pete Hollis Boulevard/Rutherford Street corridor during the study period. The following describes the conditions associated with the fatal crash:

- A vehicle struck a pedestrian on Rutherford Street at its intersection with Echols Street. The incident occurred at night in a street lamp lit area with wet pavement conditions. A pedestrian lying and/or illegally in the roadway was listed by the officer as the probable cause.

There were six crashes during the study time period involving pedestrians, five of which were on Rutherford Street between W Stone Avenue and Buncombe Street. There are three Greenlink Metro bus stops on this section of Rutherford Street – two on the east side of the road and one on the west side of the road. There are signalized pedestrian crosswalks at the W Stone Avenue and Pete Hollis Boulevard/Buncombe Street intersections, approximately 1,200 feet apart. A midblock pedestrian crossing study on Rutherford Street between W Stone Avenue and Buncombe Street is recommended to determine if a midblock pedestrian crossing is appropriate for this area.

Table 2 shows probable cause for crashes on the Pete Hollis Boulevard/Rutherford Street corridor during the study period. The four most common probable causes of crashes were driving too fast for conditions (24%), failure to yield right-of-way (19%), followed too closely (19%), and improper lane usage/change (13%).

Table 3 shows a summary of the crash data on the Pete Hollis Boulevard/Rutherford Street corridor by light and road surface condition. The majority of crashes took place during daylight and dry pavement conditions (77% and 86%, respectively).

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Table 2:
Crash Summary - Crash Probable Cause

Cause	Number of Crashes	Percent of Total
Debris	1	<1%
Disregarded Signs/Signals/Etc.	33	8.4%
Distracted/Inattention	6	1.5%
Driving Too Fast for Conditions	93	23.8%
Failed to Yield Right of Way	74	18.9%
Fatigued/Asleep	3	<1%
Followed Too Closely	73	18.7%
Improper Crossing	1	<1%
Improper Lane Usage/Change	50	12.8%
Inattentive	1	<1%
Lying and/or Illegally in Roadway	3	<1%
Made an Improper Turn	7	1.8%
Medical Related	1	<1%
Non-Motorist Under the Influence	1	<1%
Other	1	<1%
Other Improper Action	30	7.7%
Ran Off Road	1	<1%
Traffic Control Device (i.e. Missing)	1	<1%
Unknown	9	2.3%
Wrong Side or Wrong Way	2	<1%
Total	391	100%

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Table 3:
Crash Summary – Light and Road Surface Conditions

Conditions		Number of Crashes	Percent of Total
Light Condition	Dawn	10	2.6%
	Daylight	302	77.2%
	Dusk	10	2.6%
	Dark (Street Lamp Lit)	52	13.3%
	Dark (Street Lamp not Lit)	1	<1%
	Dark (Lighting Unspecified)	14	3.6%
	Dark (No Lights)	2	<1%
Total		**391**	**100%**
Road Surface Condition	Dry	338	86.4%
	Wet	53	13.6%
Total		**391**	**100%**

Crash Frequency

The crash rate for the corridor was calculated as 32.73 crashes per one million vehicle miles traveled. The crash rate included crashes along Pete Hollis Boulevard, Rutherford Street, and Buncombe Street, and did not factor crashes on intersecting streets.

A crash frequency heat map was generated for the Pete Hollis Boulevard/Rutherford Street Corridor and is shown in **Figure 3 (Appendix)**. Based on the study area data shown in **Figure 3 (Appendix)**, hot spots on the corridor were identified at:

- Intersection of Rutherford Street at W Stone Avenue
- Intersection of Pete Hollis Boulevard at W Stone Avenue/Mulberry Street
- Intersection of Pete Hollis Boulevard/Buncombe Street at Rutherford Street
- Intersection of Buncombe Street at Atwood Street/Butler Avenue

There were 110 crashes (28% of total corridor crashes) at the intersection of Rutherford Street at W Stone Avenue. The primary crash types at this intersection were rear end (54%) and angle (34%) crashes. The majority of the rear end crashes occurred on the intersection approaches, while the majority of the angle crashes occurred in the center of the intersection. There were two head on crashes and one crash involving a bicycle in the middle of the intersection. Both head on crashes were due to a driver failing to yield the right-of-way, and the crash involving a bicycle was due to inattention.

There were 93 crashes (24% of total corridor crashes) at the intersection of Pete Hollis Boulevard at W Stone Avenue/Mulberry Street. The two primary crash types at this intersection were rear end (73%) and angle (20%) crashes. The majority of rear end and angle crashes occurred near the center of the intersection. There was one head on crash in the center of the intersection during daylight hours on dry pavement due to a driver failing to yield the right-of-way.

There were 45 crashes (12% of total corridor crashes) at the intersection of Pete Hollis Boulevard/Buncombe Street at Rutherford Street. The three primary crash types at this intersection were angle (31%), sideswipe, same direction (31%), and rear end (29%) crashes. There is a cluster of angle (7) and sideswipe, same direction (6) crashes on the southbound Buncombe Street receiving lanes, likely due to drivers making lane changes while turning from southbound Rutherford Street on to Buncombe Street. Review of the southbound Rutherford Street left-turn lane and southbound Buncombe Street receiving lane geometry, striping, and signage is recommended.

There were 43 crashes (11% of total corridor crashes) at the intersection of Buncombe Street at Atwood Street/Butler Avenue. The three primary crash types were rear end (44%), angle (30%), and sideswipe, same direction (16%) crashes. There were two head on crashes in the center of the intersection due to a distracted driver and disregarding signs, signals, etc., respectively. Most of the crashes occurred on the southbound Buncombe Street side of the intersection.

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Crash Analysis Summary

This memo reviewed the crash history and trends for the Pete Hollis Boulevard/Rutherford Street corridor identified for study as part of the City of Greenville Downtown Transportation Master Plan.

Crash data was provided by the City of Greenville for the period from January 1, 2015 through December 31, 2017 for the Master Plan study area. Crash data locations were identified by latitude/longitude coordinates, and the crash data was mapped using GIS software. The crash data was filtered to crashes that occurred in the Pete Hollis Boulevard/Rutherford Street corridor.

The Pete Hollis Boulevard/Rutherford Street corridor had a high frequency of rear end and angle crashes. Crashes, particularly rear end and angle crashes occurred more frequently at signalized intersections. Sideswipe, same direction crashes occurred more frequently in areas between signalized intersections, most likely due to vehicles changing lanes. Five of the six crashes involving pedestrians occurred on Rutherford Street between W Stone Avenue and Buncombe Street. A midblock pedestrian crossing study on Rutherford Street between W Stone Avenue and Buncombe Street is recommended to determine if a midblock pedestrian crossing is appropriate for this area. There is a cluster of angle (7) and sideswipe, same direction (6) crashes on the southbound Buncombe Street receiving lanes, likely due to drivers making lane changes while turning from southbound Rutherford Street on to Buncombe Street. Review of the southbound Rutherford Street left-turn lane and southbound Buncombe Street receiving lane geometry, striping, and signage is recommended.

Based on a review of the Pete Hollis Boulevard/Rutherford Street crash data, the following transportation related improvements are recommended:

- Perform a midblock pedestrian crossing study on Rutherford Street between W Stone Avenue and Buncombe Street to determine if a midblock pedestrian crossing is appropriate for this area.
- Review of the southbound Rutherford Street left-turn lane and southbound Buncombe Street receiving lane geometry, striping, and signage

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Appendix

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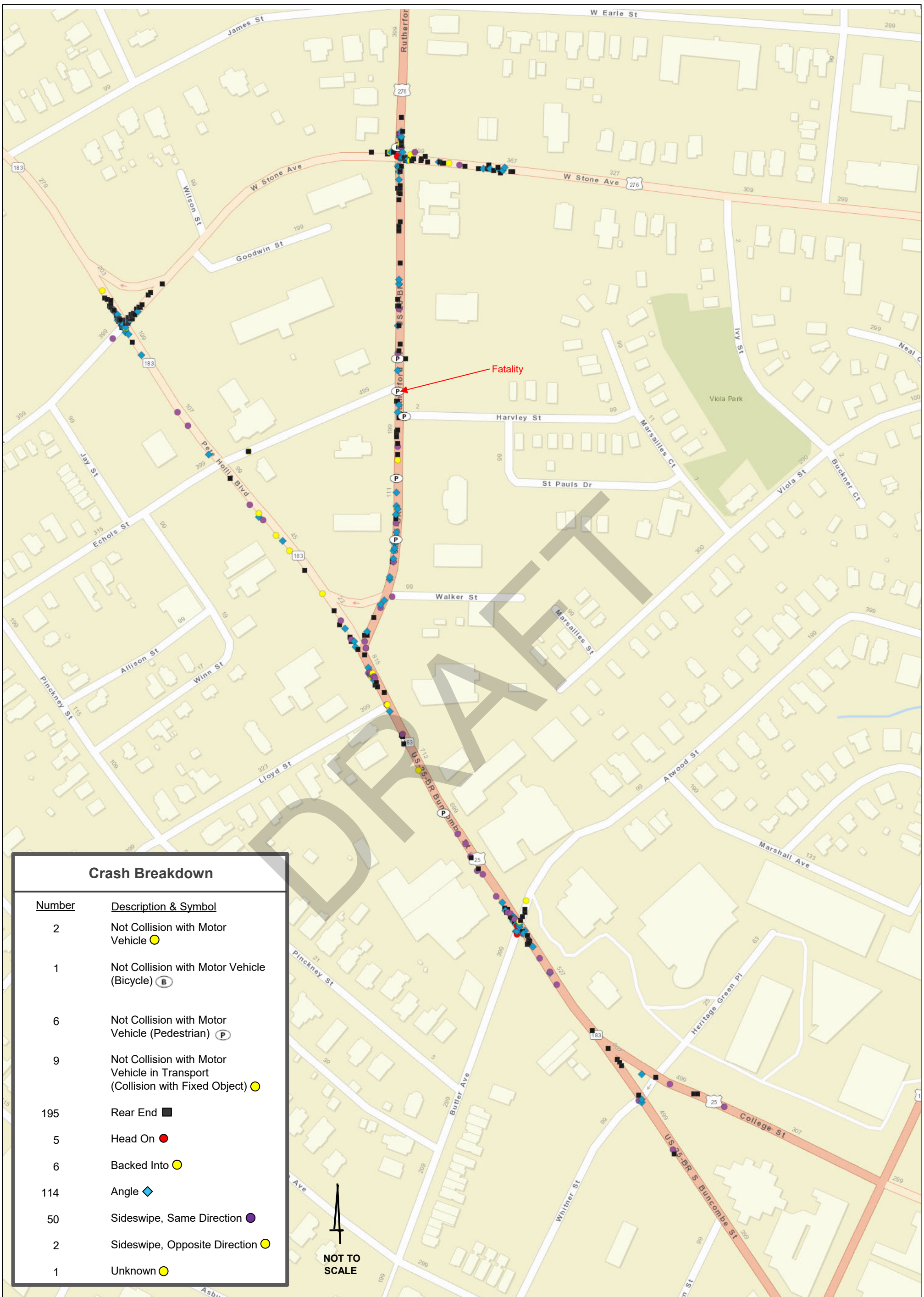
BIHL ENGINEERING	**Pete Hollis Blvd./Rutherford St. Corridor Crash Analysis**	**Pete Hollis Blvd./Rutherford St. Corridor Study Area**	**Figure 1**



Crash Breakdown

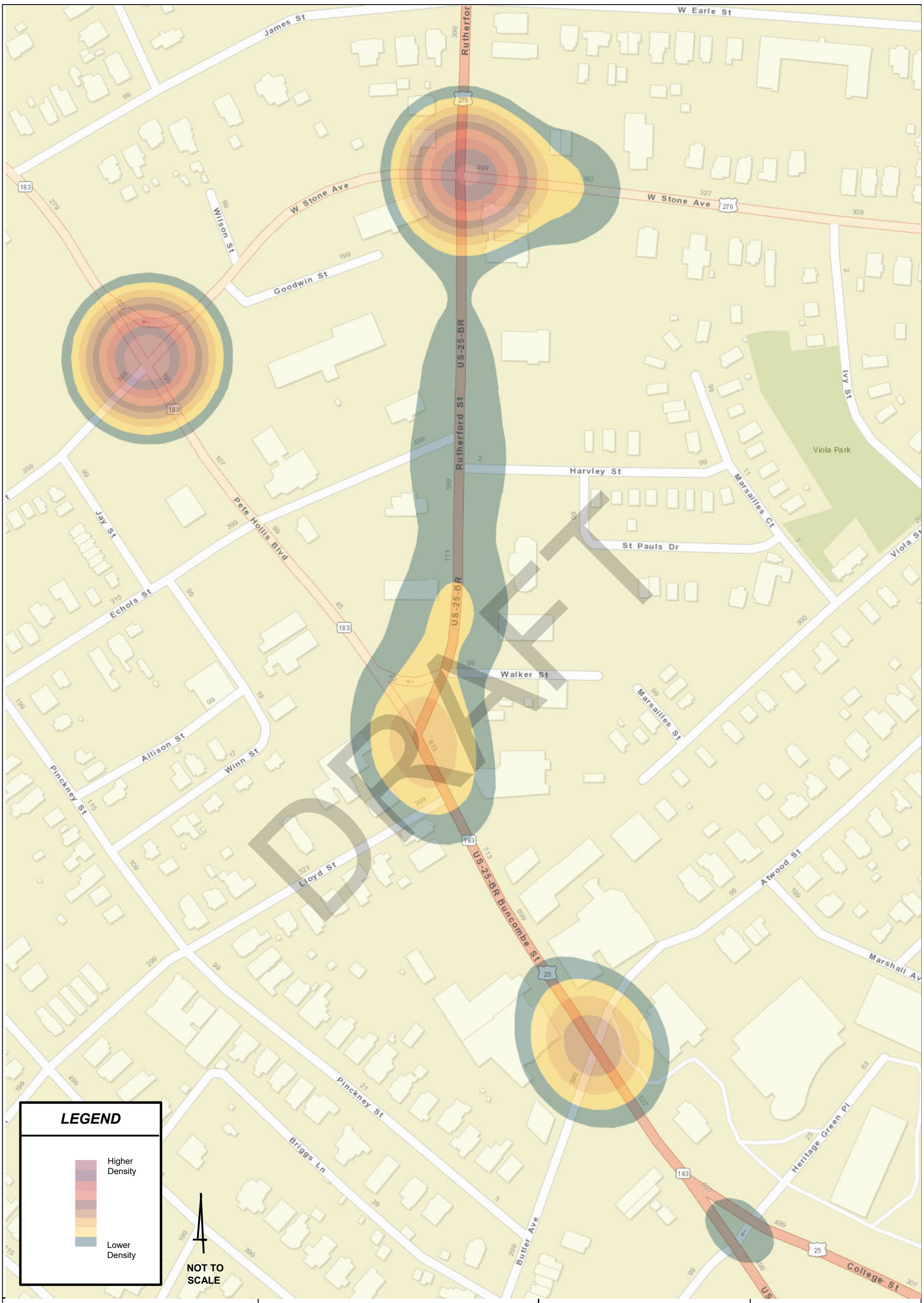
Number	Description & Symbol
2	Not Collision with Motor Vehicle ●
1	Not Collision with Motor Vehicle (Bicycle) (B)
6	Not Collision with Motor Vehicle (Pedestrian) (P)
9	Not Collision with Motor Vehicle in Transport (Collision with Fixed Object) ●
195	Rear End ■
5	Head On ●
6	Backed Into ●
114	Angle ◆
50	Sideswipe, Same Direction ●
2	Sideswipe, Opposite Direction ●
1	Unknown ●

BIHL ENGINEERING

Pete Hollis Blvd./Rutherford St. Corridor Crash Analysis

Pete Hollis Blvd./Rutherford St. Corridor Crash Map

Figure 2



BIHL ENGINEERING	Pete Hollis Blvd./Rutherford St. Corridor Crash Analysis	Pete Hollis Blvd./Rutherford St. Corridor Crash Heat Map	Figure 3

REFUSED	5
TEST TYPE	
BREATH – ALCOHOL ONLY	1
BLOOD	2
URINE	3
SERUM	4
OTHER	8
DRUG RESULTS	
AMPHETAMINES	1
COCAINE	2
MARIJUANA	3
OPIATES	4
PCP	5
NEGATIVE	7
OTHER	8

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TABLE 4. CONTRIBUTING FACTORS

DRIVER	
DISREGARDED SIGN,SIGNALS, ETC.	01
DISTRACTED/INATTENTION	02
DRIVING TOO FAST FOR CONDITIONS	03
EXCEEDED AUTHORIZED SPEED LIMITS	04
FAILED TO YIELD RIGHT OF WAY	05
RAN OFF ROAD	06

FATIGUED/ASLEEP 07

FOLLOWED TOO CLOSELY 08

MADE AN IMPROPER TURN 09

MEDICAL RELATED 10

AGGRESSIVE OPERATION OF VEHICLE 12

OVER-CORRECTING/OVER STEERING 13

SWERVING TO AVOID OBJECT 14

WRONG SIDE OR WRONG WAY 15

UNDER THE INFLUENCE 16

VISION OBSCURED (WITHIN UNIT) 17

IMPROPER LANE USAGE/CHANGE 18

CELL PHONE 19

TEXTING 20

OTHER IMPROPER ACTION 28

UNKNOWN 29

ROADWAY

DEBRIS 30

NON-HIGHWAY WORK 31

OBSTRUCTION IN ROADWAY 32

ROAD SURFACE CONDITION (I.E.,WET) 33

RUT, HOLES, BUMPS 34

SHOULDERS (NONE, LOW, SOFT, HIGH) 35

TRAFFIC CONTROL DEVICE (I.E., MISSING) 36

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WORK ZONE (CONSTRUCTION/MAINTNEANCE/UTILITY)	37
WORN, TRAVEL, POLISHED SURFACE	38
OTHER	48
UNKOWN	49
NON-MOTORIST	
INNATTENTIVE	50
LYING AND/OR ILLEGALLY IN ROADWAY	51
FAILURE TO YIELD RIGHT OF WAY	52
NOT VISIBLE (DARK CLOTHING)	53
DISREGARDED SIGNS, SIGNALS, ETC.	54
IMPROPER CROSSING	55
DARTING	56
WRONG SIDE OF ROAD	57
OTHER	58
UNKNOWN	59
PEDESTRIAN/BICYCLIST UNDER THE INFLUENCE	66
PASSENGER UNDER INFLUENCE	67
ENVIRONMENT	
ANIMAL IN ROAD	60
GLARE	61
OBSTRUCTION	62
WEATHER CONDITION	63
OTHER	68

DRAFT

UNKNOWN	69
VEHICLE DEFECT	
BRAKES	70
STEERING	71
POWER PLANT	72
TIRES/WHEELS	73
LIGHTS	74
SIGNALS	75
WINDOWS/SHIELD	76
RESTRAINT SYSTEM	77
TRUCK COUPLING	78
CARGO	79
FUEL SYSTEM	80
OTHER	88
UNKNOWN	89

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TABLE 5. COUNTY CODE LIST

ABBEVILLE	01	GREENWOOD	24
AIKEN	02	HAMPTON	25
ALLENDALE	03	HORRY	26
ANDERSON	04	JASPER	27
BAMBERG	05	KERSHAW	28
BARNWELL	06	LANCASTER	29
BEAUFORT	07	LAURENS	30

Crash_No	COUNTY	ROUTE_TYPE	ROUTE_NUMBER	ROUTE_AUXILIARY	St_Name	MP	BIR_Name	Base_St_Name	Nbr_of_Fatalities	Nbr_of_Injuries	Max_Injury_Code	Date	Collision_Time	Day_of_Week_Name	RD_SRFC_Name	Light_Name	Manner_of_Collision_Name	First_Harmful_Event_Name	Probable_cause_Name	Latitude	Longitude	Number_of_Units_Involved
17541948	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.314	County	JAMES ST	0	0	0	42831	1045	THURSDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.86153056	-82.40716111	2
15522142	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.317	County	W STONE AV	0	0	0	42074	1615	WEDNESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86148056	-82.40713889	2
15528438	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.318	County	W STONE AV	0	0	0	42089	1951	THURSDAY	DRY	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86146944	-82.40711944	2
17543297	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.321	County	W STONE AV	0	0	0	42836	958	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86141944	-82.4071	2
15500460	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.322	County	W STONE AV	0	0	0	42008	1359	SUNDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86141111	-82.40708889	2
17625593	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.322	County	W STONE AV	0	2	1	42998	1549	WEDNESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86141111	-82.40708889	2
17602886	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.32	County	JAMES ST	0	0	0	42951	1907	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86143889	-82.40708889	2
17549073	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.319	County	W STONE AV	0	0	0	42851	2110	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86146111	-82.40708889	2
16629523	GREENVILLE	Local road	00147	Main Line	MULBERRY ST	0.008	SC Primary	PETE HOLLIS BLVD	0	0	0	42657	1600	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86118889	-82.40706944	2
17529963	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.323	County	W STONE AV	0	1	1	42814	1355	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.8614	-82.40706944	2
17590584	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.324	County	W STONE AV	0	1	1	42933	1511	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86138056	-82.40706111	2
16558991	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.324	County	W STONE AV	0	0	0	42515	2053	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86138889	-82.40706111	2
17566700	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.324	County	JAMES ST	0	0	0	42886	2143	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86138889	-82.40706111	2
16520387	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.326	County	W STONE AV	0	0	0	42423	1914	TUESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.86135	-82.40703889	2
15586963	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.328	County	W STONE AV	0	0	0	42240	1545	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86131944	-82.40703056	2
16551537	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.327	County	W STONE AV	0	0	0	42501	2016	WEDNESDAY	DRY	DUSK	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86133889	-82.40703056	2
16603229	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.327	County	W STONE AV	0	0	0	42591	1823	TUESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86133889	-82.40703056	2
17636567	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.327	County	W STONE AV	0	1	2	43012	730	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86133889	-82.40703056	2
16526199	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.326	County	W STONE AV	0	1	1	42440	1414	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86135	-82.40703056	2
15603647	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.326	County	W STONE AV	0	0	0	42273	2147	SATURDAY	WET	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86136111	-82.40703056	2
15520466	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.328	County	W STONE AV	0	1	1	42066	1702	TUESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86131111	-82.40701944	2
16590283	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.328	County	W STONE AV	0	0	0	42572	2144	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.86131111	-82.40701944	2
17521737	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.328	County	W STONE AV	0	0	0	42785	958	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86131944	-82.40701944	2
15516536	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.327	County	W STONE AV	0	2	1	42054	1701	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86133056	-82.40701944	2
15561221	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.327	County	JAMES ST	0	0	0	42175	1228	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86133056	-82.40701944	2
17593643	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.327	County	W STONE AV	0	0	0	42936	1130	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86133056	-82.40701944	2
17633176	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.327	County	W STONE AV	0	0	0	43003	1401	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FAIL TO YIELD R.O.W.	34.86133056	-82.40701944	2
17627562	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.328	County	W STONE AV	0	0	0	43005	1607	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86131944	-82.40701111	2
16613160	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.328	County	W STONE AV	0	0	0	42622	1457	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86133056	-82.40701111	2
16662102	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.328	County	W STONE AV	0	0	0	42718	2125	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86133056	-82.40701111	2
15599384	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.329	County	W STONE AV	0	0	0	42268	2022	MONDAY	DRY	DUSK	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86131944	-82.407	2
16657446	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.329	County	W STONE AV	0	0	0	42704	1919	WEDNESDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86131944	-82.407	2
15616271	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.331	County	ECHOLS ST	0	1	1	42297	1230	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86126944	-82.40698889	2
16624390	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.331	County	W STONE AVE	0	0	0	42648	1412	WEDNESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86128056	-82.40698889	2
17677146	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.331	County	ECHOLS ST	0	0	0	43083	621	THURSDAY	DRY	DAWN	HEAD ON	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86128056	-82.40698889	2
17541931	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.331	County	W STONE AV	0	2	1	42830	1305	WEDNESDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86126944	-82.40698056	3
16603957	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.331	County	STONE AVE	0	0	0	42599	2059	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86128056	-82.40698056	2
17602909	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.331	County	JAMES ST	0	1	1	42957	2057	THURSDAY	DRY	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86128056	-82.40698056	2
17617508	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.33	County	W STONE AV	0	1	2	42985	1936	THURSDAY	DRY	DAYLIGHT	ANGLE	PEDALCYCLE	WRONG SIDE OR WRONG WAY	34.86128889	-82.40698056	2
16613593	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.332	County	W STONE AV	0	1	2	42617	1315	SUNDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86126944	-82.40696944	2
16550604	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.334	County	MULBERRY ST	0	0	0	42493	1105	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86123056	-82.40696111	2
17665003	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.333	County	W STONE AV	0	0	0	43066	1835	MONDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86125	-82.40696111	2
17548489	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.332	County	W STONE AV	0	0	0	42844	2245	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86126111	-82.40696111	2
16603956	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.332	County	W STONE AV	0	0	0	42599	1821	WEDNESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86126944	-82.40696111	2
16600387	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42574	1922	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8613	-82.40696111	2
16543972	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42483	1552	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.86131944	-82.40696111	2
16583281	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42564	1438	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86131111	-82.40695	2
17579734	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42914	1727	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86131111	-82.40695	2
17632489	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43013	1324	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86131944	-82.40695	2
17648445	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43037	1615	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86131944	-82.40695	2
16550575	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42486	1800	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8613	-82.40693889	2
17552745	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42858	1417	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86131111	-82.40693889	2
17562744	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42872	914	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86131111	-82.40693889	2
17639106	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43025	1624	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.86131111	-82.40693889	2
17655902	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43050	1508	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86131111	-82.40693889	2
16631940	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42541	1615	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86131944	-82.40693889	2
16667874	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42725	2002	WEDNESDAY	DRY	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86131944	-82.40693889	2
17622863	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42996	1810	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86131944	-82.40693889	2
17635204	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43020	913	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86131944	-82.40693889	2
17548068	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42846	1812	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86133889	-82.40693889	2
16634879	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.335	County	W STONE AV	0	2	2	42663	644	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86121944	-82.40693056	2
16521088	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42426	1408	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86131111	-82.40693056	2
17519910	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42792	753	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86131944	-82.40693056	2
17536830	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42823	1556	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86131944	-82.40693056	2
17662219	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43063	930	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86131944	-82.40693056	2
16614812	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42626	1515	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86133056	-82.40693056	2
17560067	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42867	6	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86133056	-82.40693056	2
16643643	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42681	2252	MONDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FATIGUED/ASLEEP	34.86133889	-82.40693056	2
16501504	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.331	County	W STONE AVE	0	0	0	42372	1807	SUNDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86131944	-82.40691944	2
17652734	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43048	1206	THURSDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86133056	-82.40691944	2
16517743	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42419	1735	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86133056	-82.40691111	2
16547299	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42481	1814	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86133056	-82.40691111	2
16550755	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42493	1819	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86135	-82.40691111	2
16629528	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42657	1750	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86136111	-82.40691111	2
17626686	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.339	Other	W STONE AV	0	0	0	42993	1600	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86116111	-82.4069	2
17635203	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43020	1104	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86133056	-82.4069	2
17611568	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42973	1519	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86135	-82.4069	2
17648434	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43035	2205	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86136111	-82.40688889	2
16503649	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42380	1422	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.86136944	-82.40688889	2
17562764	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42875	1015	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DISTRACTED/INATT.	34.86136111	-82.40688056	2
17653617	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43048	2010	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86136111	-82.40688056	2
16512975	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42407	1305	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8614	-82.40686111	2
16510697	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42386	1850	SUNDAY	DRY	DARK (STREET LAMP NOT LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86138056	-82.40685	2
16514191	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42402	1815	TUESDAY	WET	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86141111	-82.40683889	2
16629513	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42657	1050	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86141111	-82.40683889	2
17523913	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42797	1308	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86141111	-82.40683889	2
17676625	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43010	1500	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86141111	-82.40683889	2
17568488	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42888	1333	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86141111	-82.40683056	2
16604135	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.345	County	W STONE AV	0	0	0	42600	1805	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86106944	-82.40681944	2
16503652	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42381	1014	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.86143056	-82.40681111	2
16502117	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42375	1546	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.8615	-82.40676111	2
16602121	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	SC Primary	PETE HOLLIS BLVD	0	0	0	42590	2345	MONDAY	WET	DARK (NO LIGHTS)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86151944	-82.40673889	2
17648352	GREENVILLE	Local road	00147	Main Line	W STONE AV	0	County	GOODWIN ST	0	0	0	43012	1310	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86158056	-82.40663889	2
15593806	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.373	County	ECHOLS ST	0	0	0	42255	944	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86066111	-82.4065	2
16604133	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.38	County	ECHOLS ST	0	0	0	42600	2320	THURSDAY	WET	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86056111	-82.40641111	2
17566099	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.394	County	ECHOLS ST	0	3	2	42882	1407	SATURDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86036111	-82.40623056	2
15534776	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.408	County	ECHOLS ST	0	0	0	42104	1153	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86018889	-82.40603889	2
16579326	GREENVILLE	Local road	06113	Main Line	ECHOLS ST	0.241	SC Primary	PETE HOLLIS BLVD	0	2	1	42551	1427	THURSDAY	DRY	DAYLIGHT	SIDESWIPE OPPOSITE DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86038056	-82.40588056	2
17611503	GREENVILLE	Local road	06113	Main Line	ECHOLS ST	0.241	SC Primary	PETE HOLLIS BLVD	0	0	0	42975	1541	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86038056	-82.40588056	2
16582677	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.421	County	ECHOLS ST	0	0	0	42558	822	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86	-82.40586944	2
17512885	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.428	County	ECHOLS ST	0	1	1	42775	731	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85991111	-82.40578889	2
17533870	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.426	County	ECHOLS ST	0	0	0	42822	716	TUESDAY	WET	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE (FIXED)	UTILITY POLE	DRIVING TOO FAST FOR CONDITIONS	34.85993889	-82.40578889	1
15557420	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.43	County	ECHOLS ST	0	0	0	42123	1422	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85988889	-82.40575	2
16533297	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.438	County	ECHOLS ST	0	1	3	42453	1620	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE (FIXED)	CURB	MEDICAL RELATED	34.85978056	-82.40563889	1
16661457	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.442	Secondary	RUTHERFORD ST	0	3	2	42715	2034	SUNDAY	DRY	DARK (LIGHTING UNSPECIFIED)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85973889	-82.40558056	2
17534168	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.48	Secondary	RUTHERFORD ST	0	0	0	42822	702	TUESDAY	WET	DAWN	NOT COLLISION W/MOTOR VEHICLE (FIXED)	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85966944	-82.40551944	1
16536699	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.456	Secondary	RUTHERFORD ST	0	0	0	42467	815	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85953056	-82.40538889	3
16541741	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.469	Secondary	RUTHERFORD ST	0	0	0	42478	1510	MONDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	OTHER MOVABLE OBJECT	DEBRIS	34.85936111	-82.40523056	1
15621645	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.473	Secondary	RUTHERFORD ST	0	0	0	42305	750	WEDNESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85923889	-82.40513056	2
15516089	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.475	Secondary	RUTHERFORD ST	0	0	0	42054	845	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85913889	-82.40508056	2
15539793	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.475	Secondary	RUTHERFORD ST	0	0	0	42105	1543	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85916944	-82.40506944	2
17662192	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.48	Secondary	RUTHERFORD ST	0	0	0	43060	729	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85911111	-82.40503056	2
15528123	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.478	Secondary	RUTHERFORD ST	0	0	0	42087	844	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85905	-82.40498889	2
17541962	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.478	County	ECHOLS ST	0	0	0	42832	822	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85901944	-82.40498056	2
16563904	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.478	Secondary	RUTHERFORD ST	0	0	0	42517	624	FRIDAY	DRY	DAWN	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85903056	-82.40498056	2
15556282	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.478	Secondary	RUTHERFORD ST	0	2	1	42165	2207	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85901944	-82.40495	2
16665374	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.479	Secondary	RUTHERFORD ST	0	0	0	42722	2043	SUNDAY	WET	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85898056	-82.40493889	2
16586881	GREENVILLE	SC Route	00183	Main Line	PETE HOLLIS BLVD	6.48	Secondary	RUTHERFORD ST	0	0	0	42563	809	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85896111	-82.40491944	2
17559790	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0	SC Primary	BUNCOMBE ST	0	0	0	42863	2039	MONDAY	DRY	DARK (LIGHTING UNSPECIFIED)	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85891944	-82.40486111	2
15576350	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.005	SC Primary	PETE HOLLIS BLVD	0	0	0	42213	2139	TUESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85901944	-82.40486111	2
16565734	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.007	SC Primary	BUNCOMBE ST	0	0	0	42518	1728	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85906111	-82.40486111	2
15606071	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.002	SC Primary	BUNCOMBE ST	0	0	0	42282	1110	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85896944	-82.40485	2
17579733	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0	SC Primary	BUNCOMBE ST	0	0	0	42915	815	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85896944	-82.40485	2
16616213	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.008	SC Primary	BUNCOMBE ST	0	0	0	42621	1107	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85906111	-82.40483889	2
16576477	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.01	County	WALKER ST	0	0	0	42544	805	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85908889	-82.40483889	2
15618545	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.493	Secondary	RUTHERFORD ST	0	0	0	42306	1939	THURSDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85878889	-82.40483056	2
16592100	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.49	County	RUTHERFORD ST	0	0	0	42527	1612	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85883056	-82.40483056	2
15516917	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.495	Secondary	RUTHERFORD ST	0	0	0	42055	2300	FRIDAY	DRY	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85876944	-82.40481111	2
17543198	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.48	Secondary	RUTHERFORD ST	0	1	3	42825	1358	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85878056	-82.40481111	2
15562296	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.494	Secondary	RUTHERFORD ST	0	0	0	42180	2204	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85878889	-82.40481111	2
16601492	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.494	Secondary	RUTHERFORD ST	0	2	2	42586	1427	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85878889	-82.40481111	2
16583299	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.493	Secondary	RUTHERFORD ST	0	0	0	42563	753	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8588	-82.40481111	2
17674976	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.48	Secondary	RUTHERFORD ST	0	0	0	43074	249	TUESDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE (FIXED)	MEDIAN BARRIER	DRIVING TOO FAST FOR CONDITIONS	34.85876111	-82.4048	1
15542620	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.495	Secondary	RUTHERFORD ST	0	2	2	42126	2041	SATURDAY	DRY	DARK (LIGHTING UNSPECIFIED)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85876944	-82.4048	2
16510168	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.495	Secondary	RUTHERFORD ST	0	0	0	42395	2128	TUESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85876944	-82.4048	2
16526212	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.494	Secondary	RUTHERFORD ST	0	0	0	42425	1903	THURSDAY	DRY	DUSK	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85878056	-82.4048	2
16611720	GREENVILLE	Local road	08003	Main Line	W STONE AV	0.015	US Primary	RUTHERFORD ST	0	0	0	42621	906	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86253056	-82.4048	2
15561856	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.494	Secondary	RUTHERFORD ST	0	0	0	42174	1857	FRIDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE (FIXED)	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85878889	-82.40478889	1
15524293	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.496	Secondary	RUTHERFORD ST	0	0	0	42076	2041	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85876111	-82.40478056	2
17646312	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0	SC Primary	PETE HOLLIS BLVD	0	0	0	43035	1712	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85918889	-82.40478056	2
17622243	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.501	County	LLOYD ST	0	0	0	42976	1205	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8587	-82.40476944	2
17583668	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.48	Secondary	RUTHERFORD ST	0	1	1	42916	1141	FRIDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85873889	-82.40476944	3
15509337	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.497	Secondary	RUTHERFORD ST	0	0	0	42035	1711	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85875	-82.40476944	2
17583669	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.48	Secondary	RUTHERFORD ST	0	1	1	42913	1630	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FATIGUED/ASLEEP	34.85871944	-82.40476111	3
15522031	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.502	Secondary	RUTHERFORD ST	0	0	0	42074	750	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85868889	-82.40475	2
15598483	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.023	County	WALKER ST	0	0	0	42265	2215	FRIDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85926111	-82.40471944	2
15609293	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.024	County	WALKER ST	0	0	0	42287	1819	SATURDAY	WET	DUSK	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85928056	-82.40471944	2
15596447	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.506	Secondary	RUTHERFORD ST	0	0	0	42258	1546	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85865	-82.40468889	2
16591725	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.027	County	WALKER ST	0	1	1	42577	1302	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85931111	-82.40468889	2
16547328	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.512	Secondary	RUTHERFORD ST	0	0	0	42485	1504	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85856111	-82.40466944	2
16581596	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.513	County	LLOYD ST	0	0	0	42558	8	THURSDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE (FIXED)	CURB	DRIVING TOO FAST FOR CONDITIONS	34.85856111	-82.40466111	1
16541718	GREENVILLE	Local road	08003	Main Line	W STONE AV	0.007	US Primary	RUTHERFORD ST	0	0	0	42476	1902	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86251944	-82.40466111	2
16535400	GREENVILLE	Local road	08003	Main Line	W STONE AV	0.007	US Primary	RUTHERFORD ST.	0	0	0	42465	840	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86253056	-82.40466111	2
16611104	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.517	County	LLOYD ST	0	0	0	42607	847	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85851111	-82.40463889	2
16657391	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.038	County	WALKER ST	0	2	2	42701	2214	SUNDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85946111	-82.40463889	2
16517745	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.039	County	WALKER ST	0	0	0	42418	938	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85948056	-82.40463889	3
16638655	GREENVILLE	US Route	00276	Main Line	RUTHERFORD STREET	33.24	County	JAMES STREET	0	0	0	42668	758	TUESDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.86253056	-82.40463889	2
15508537	GREENVILLE	US Route	00276	Main Line	W STONE AV	33.24	US Primary	RUTHERFORD ST	0	0	0	42034	1624	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FATIGUED/ASLEEP	34.86253056	-82.40463056	2
16643071	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.03	County	ECHOLS ST	0	0	0	42677	1342	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85933889	-82.40461944	2
15549210	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.047	County	WALKER ST	0	0	0	42145	1525	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85958889	-82.40461944	2
15523771	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.047	County	WALKER ST	0	0	0	42072	740	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85958889	-82.40461111	2
16661285	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.047	County	WALKER ST	0	0	0	42709	1136	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85958889	-82.40461111	2
15513335	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.048	County	WALKER ST	0	0	0	42050	1622	SUNDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85961111	-82.40461111	2
15535267	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.052	County	WALKER ST	0	0	0	42096	1357	THURSDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85966944	-82.40461111	2
16531376	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.056	County	WALKER ST	0	0	0	42450	1220	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85973056	-82.40461111	2
17578458	GREENVILLE	Local road	08003	Main Line	W STONE AV	0.004	US Primary	RUTHERFORD ST	0	0	0	42852	1344	THURSDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.86253056	-82.40461111	2
17585672	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.054	County	WALKER ST	0	0	0	42925	913	SUNDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85968889	-82.4046	2
15550663	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.057	County	WALKER ST	0	0	0	42137	1948	WEDNESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85973056	-82.40458889	2
16594187	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.057	County	WALKER ST	0	0	0	42585	1006	WEDNESDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85973889	-82.40458889	2
16549025	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.058	County	WALKER ST	0	0	0	42495	1520	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85975	-82.40458889	2
16624006	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.058	County	WALKER ST	0	1	2	42645	1258	SUNDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE (PEDESTRIAN)	PEDESTRIAN	LYING &/OR ILLEGALLY IN ROADWAY	34.85975	-82.40458889	2
15569948	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.066	County	GIBSON ST	0	1	1	42200	1652	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85986944	-82.40458889	2
15560411	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.068	County	GIBSON ST	0	0	0	42153	1540	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.8599	-82.40458889	2
15599360	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.07	County	GIBSON ST	0	0	0	42262	1631	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85993056	-82.40458889	2
16600383	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD STREET	0.061	County	HARVLEY STREET	0	0	0	42570	1820	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8598	-82.40458056	2
15544406	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.074	County	GIBSON ST	0	2	2	42122	2311	TUESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE	OTHER NONCOLLISION	FAIL TO YIELD R.O.W.	34.85998056	-82.40458056	2
16605108	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.074	County	GIBSON ST	0	0	0	42605	1545	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85998889	-82.40458056	2
17583670	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.081	County	HARVLEY ST	0	0	0	42916	1355	FRIDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86008889	-82.40458056	2
15643651	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.088	County	HARVLEY ST	0	1	2	42353	708	TUESDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE (PEDESTRIAN)	PEDESTRIAN	IMPROPER CROSSING	34.86018889	-82.40458056	2
16616752	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.109	County	HARVLEY ST	0	0	0	42633	846	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86048889	-82.40458056	2
17665677	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.111	County	HARVLEY ST	0	0	0	43068	942	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86051944	-82.40458056	2
16606873	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.126	County	ECHOLS ST	0	0	0	42605	831	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86073889	-82.40458056	2
15568735	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.13	County	ECHOLS ST	0	1	1	42198	941	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8608	-82.40458056	2
16650360	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.073	County	GIBSON ST	0	0	0	42690	1729	WEDNESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85996944	-82.40456944	2
16590191	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.097	County	GIBSON ST	0	0	0	42565	1529	THURSDAY	DRY	DAYLIGHT	UNKNOWN	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86031944	-82.40456944	2
15645678	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.1	County	GIBSON ST	0	0	0	42352	820	MONDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86036111	-82.40456944	2
16552964	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.104	County	GIBSON ST	0	1	2	42486	1200	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86041944	-82.40456944	2
15635453	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.105	County	HARVLEY ST	0	0	0	42339	731	TUESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86043889	-82.40456944	2
17541986	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.112	County	HARVLEY ST	0	0	0	42832	1443	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86053056	-82.40456944	2
16663791	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.12	County	HARVLEY ST	0	1	1	42720	1115	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86066111	-82.40456944	2
16543951	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.126	County	HARVLEY ST	0	0	0	42482	1252	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86073889	-82.40456944	2
15527269	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.13	County	ECHOLS ST	0	0	0	42089	1350	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8608	-82.40456944	2
16673160	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.131	County	ECHOLS ST	1	0	4	42733	245	THURSDAY	WET	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE (PEDESTRIAN)	MOTOR VEHICLE (IN TRANSPORT)	LYING &/OR ILLEGALLY IN ROADWAY	34.86081111	-82.40456944	2
17512370	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.141	County	ECHOLS ST	0	0	0	42774	819	WEDNESDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86096111	-82.40456944	2
17506347	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.148	County	ECHOLS ST	0	1	2	42754	1937	THURSDAY	DRY	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE (PEDESTRIAN)	PEDESTRIAN	LYING &/OR ILLEGALLY IN ROADWAY	34.86106944	-82.40456944	2
17575323	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.149	County	ECHOLS ST	0	0	0	42905	922	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86108056	-82.40456944	2
15646870	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.163	County	ECHOLS ST	0	0	0	42356	1212	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86128056	-82.40456944	2
15561169	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.173	County	ECHOLS ST	0	0	0	42168	1220	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86141944	-82.40456944	2
17562787	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.176	County	ECHOLS ST	0	0	0	42877	754	MONDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86146944	-82.40456944	3
17517869	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.232	US Primary	W STONE AVE	0	0	0	42782	1655	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.86226944	-82.40456944	2
17604130	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	2	3	42928	412	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.86243056	-82.40456944	2
17519816	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.118	County	HARVLEY ST	0	0	0	42782	902	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86061944	-82.40456111	2
15526950	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.124	County	HARVLEY ST	0	0	0	42080	800	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86071111	-82.40456111	2
15516932	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.148	County	ECHOLS ST	0	0	0	42060	1218	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86106944	-82.40456111	2
17506352	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.151	County	ECHOLS ST	0	0	0	42755	1710	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8611	-82.40456111	2
16646686	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.163	County	ECHOLS ST	0	0	0	42688	1320	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86128056	-82.40456111	2
15581163	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.171	County	ECHOLS STREET	0	0	0	42224	1100	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8614	-82.40456111	2
16611710	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.173	County	ECHOLS ST	0	0	0	42620	812	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86141944	-82.40456111	3
17625579	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.184	County	ECHOLS ST	0	1	3	42973	1443	SATURDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	WRONG SIDE OR WRONG WAY	34.86158056	-82.40456111	2
17575301	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.186	US Primary	W STONE AVE	0	2	1	42903	1155	SATURDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86161111	-82.40456111	2
17629016	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	42999	833	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86196111	-82.40456111	2
17562763	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	42874	1742	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86196944	-82.40456111	2
17680420	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	43097	1648	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.862	-82.40456111	2
16635078	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.226	US Primary	W STONE AVE	0	0	0	42667	1659	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86218889	-82.40456111	2
15590716	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.23	County	ECHOLS ST	0	0	0	42244	1549	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86223889	-82.40456111	2
16656028	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.236	US Primary	W STONE AVE	0	0	0	42701	1006	SUNDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86233056	-82.40456111	2
17523391	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	42796	540	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86238889	-82.40456111	3
16579281	GREENVILLE	US Route	00276	Main Line	W. STONE AVE	33.24	US Primary	RUTHERFORD ST	0	1	2	42547	225	SUNDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86241944	-82.40456111	2
16631996	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.242	US Primary	W STONE AVE	0	1	2	42659	659	SUNDAY	DRY	DAWN	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86241944	-82.40456111	2
17598246	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.24	County	W STONE AV	0	1	1	42949	1351	WEDNESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86248889	-82.40456111	2
17523929	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	0	0	42798	1013	SATURDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86251944	-82.40456111	2
15616302	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.239	County	W STONE AV	0	1	2	42300	645	FRIDAY	DRY	DAYLIGHT	HEAD ON	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86253889	-82.40456111	2
16550903	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.236	County	W STONE AV	0	0	0	42494	2205	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86258056	-82.40456111	2
17541992	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.236	County	W STONE AV	0	0	0	42832	1622	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86258056	-82.40456111	2
15577702	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.236	County	W STONE AV	0	1	1	42213	1513	TUESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86258889	-82.40456111	2
17507684	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.232	County	W STONE AV	0	0	0	42762	645	FRIDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86265	-82.40456111	2
16641440	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.231	County	W STONE AV	0	0	0	42674	1139	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86266111	-82.40456111	2
16520800	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.154	County	ECHOLS ST	0	0	0	42430	830	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86115	-82.40455	2
17666325	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	43070	915	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86173056	-82.40455	2
15566628	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.215	SC Primary	W STONE AVE	0	0	0	42187	852	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86203056	-82.40455	2
16634952	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.229	US Primary	W STONE AVE	0	0	0	42664	708	FRIDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86223056	-82.40455	2
16576540	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.232	US Primary	W STONE AVE	0	0	0	42549	1420	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86226944	-82.40455	2
16525837	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.233	US Primary	W STONE AVE	0	0	0	42441	1819	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86228889	-82.40455	2
17677392	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	43090	1225	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86238889	-82.40455	2
17511074	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	42769	2041	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8624	-82.40455	2
17530976	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	42816	1340	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.8624	-82.40455	2
15605645	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.243	US Primary	W STONE AVE	0	0	0	42281	1435	SUNDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86243056	-82.40455	2
15573232	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.24	US Primary	W STONE AVE	0	0	0	42207	1202	WEDNESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.86248889	-82.40455	2
16566456	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	0	0	42525	301	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86248889	-82.40455	2
16655946	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	County	RUTHERFORD ST	0	0	0	42686	1634	SATURDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86248889	-82.40455	2
16657404	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	1	1	42703	1311	TUESDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8625	-82.40455	2
17597443	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.24	US Primary	W STONE AV	0	0	0	42942	2212	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86251111	-82.40455	2
16553128	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.239	County	W STONE AV	0	0	0	42503	1025	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86253889	-82.40455	2
15543873	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.239	County	W STONE AV	0	0	0	42118	2250	FRIDAY	DRY	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86255	-82.40455	2
17526593	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.239	County	W STONE AV	0	1	1	42807	1537	MONDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86255	-82.40455	2
16505143	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.238	County	W STONE AV	0	1	1	42386	1747	SUNDAY	DRY	DUSK	NOT COLLISION W/MOTOR VEHICLE (BICYCLE)	PEDALCYCLE	INATTENTIVE	34.86256111	-82.40455	2
15502473	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.237	County	W STONE AV	0	0	0	42016	2110	MONDAY	WET	DARK (STREET LAMP LIT)	HEAD ON	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86256944	-82.40455	2
17506359	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.237	County	W STONE AV	0	1	2	42756	609	SATURDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86256944	-82.40455	2
15582188	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.236	US Primary	W STONE AVE	0	0	0	42229	730	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86258056	-82.40455	2
15559958	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.236	County	W STONE AV	0	0	0	42171	1430	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86258889	-82.40455	2
16606360	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.236	County	W STONE AV	0	0	0	42601	1129	FRIDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.86258889	-82.40455	2
16518353	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.232	County	W STONE AV	0	0	0	42423	1710	TUESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.86263889	-82.40455	2
16661413	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.232	County	W STONE AV	0	0	0	42712	606	THURSDAY	DRY	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86263889	-82.40455	2
15625861	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.231	County	W STONE AV	0	0	0	42311	1703	TUESDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86266111	-82.40455	2
17657938	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.531	County	LLOYD ST	0	0	0	43059	845	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85833889	-82.40453889	2
17508418	GREENVILLE	Secondary road	00200	Main Line	RUTHERFORD ST	0.25	US Primary	W STONE AVE	0	0	0	42762	1803	FRIDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86243056	-82.40453889	2
17575293	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	0	0	42903	1554	SATURDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86248889	-82.40453889	2
17595113	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	1	1	42943	1425	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86248889	-82.40453889	2
17643350	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.238	County	W STONE AV	0	0	0	43035	735	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.86256111	-82.40453889	2
15597063	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.237	US Primary	W STONE AV	0	0	0	42260	1829	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86256944	-82.40453889	2
17514135	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.237	US Primary	W STONE AV	0	1	1	42778	1510	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.86258056	-82.40453889	2
17607342	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.235	County	W STONE AV	0	0	0	42958	1309	FRIDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.8626	-82.40453889	2
16528824	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.234	County	W STONE AV	0	0	0	42450	1105	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.86261111	-82.40453889	2
17634014	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.234	County	W STONE AV	0	0	0	43017	658	MONDAY	WET	DAWN	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86261111	-82.40453889	2
15539567	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.232	County	W STONE AV	0	0	0	42118	1608	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86263889	-82.40453889	2
16638677	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.232	County	W STONE AV	0	0	0	42674	950	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (STOPPED)	OTHER	34.86263889	-82.40453889	2
15500802	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.229	US Primary	W STONE AV	0	0	0	42007	1149	SATURDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86268056	-82.40453889	2
16628163	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.222	County	W STONE AV	0	2	2	42654	805	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86278056	-82.40453889	5
17519843	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.531	County	LLOYD ST	0	0	0	42780	1218	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85833056	-82.40453056	2
16507186	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.53	County	LLOYD ST	0	0	0	42394	2045	MONDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85835	-82.40453056	2
17505759	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.241	County	RUTHERFORD ST	0	0	0	42736	20	SUNDAY	WET	DARK (LIGHTING UNSPECIFIED)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86248889	-82.40453056	2
16531185	GREENVILLE	US Route	00276	Main Line	W STONE AV	33.24	US Primary	RUTHERFORD ST	0	3	2	42442	928	SUNDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86253056	-82.40453056	3
17511123	GREENVILLE	US Route	00276	Main Line	RUTHERFORD ST	33.229	County	W STONE AV	0	0	0	42762	1707	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86268056	-82.40453056	2
15576366	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.535	County	LLOYD ST	0	0	0	42216	745	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85828056	-82.40451944	2
15636904	GREENVILLE	Local road	05477	Main Line	HARVLEY ST	0.003	Secondary	RUTHERFORD ST	0	1	1	42338	1815	MONDAY	WET	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE (PEDESTRIAN)	PEDESTRIAN	DISTRACTED/INATT.	34.86063056	-82.40451111	2
15500805	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.242	Secondary	RUTHERFORD ST	0	0	0	42009	1135	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86248056	-82.40451111	2

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17512361	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.242	Secondary	RUTHERFORD ST	0	2	2	42773	1936	TUESDAY	WET	DARK (STREET LAMP LIT)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86248056	-82.40451111	2
15544928	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.242	Secondary	RUTHERFORD STREET	0	0	0	42125	1955	FRIDAY	DRY	DUSK	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86248889	-82.40451111	2
16502375	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.242	Secondary	RUTHERFORD ST	0	0	0	42376	2213	THURSDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86248889	-82.40451111	2
15544957	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.243	County	RUTHERFORD ST	0	0	0	42135	1904	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86246944	-82.4045	2
15613462	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.243	County	W STONE AV	0	0	0	42297	1245	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.86248056	-82.40448889	2
17614971	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.243	US Primary	RUTHERFORD ST	0	0	0	42977	1603	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86248056	-82.40448889	2
17632564	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.243	US Primary	RUTHERFORD ST	0	0	0	43016	1139	SUNDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86248056	-82.40448889	2
15508944	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.244	Secondary	RUTHERFORD ST	0	0	0	42033	1606	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.86248056	-82.40448056	2
16613164	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.245	Secondary	RUTHERFORD ST	0	0	0	42623	1028	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86248056	-82.40446111	2
17506355	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	0	0	42755	2053	FRIDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86248056	-82.40446111	2
17677407	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.244	Secondary	RUTHERFORD ST	0	0	0	43091	1925	FRIDAY	WET	DARK (STREET LAMP LIT)	NOT COLLISION W/MOTOR VEHICLE (FIXED)	OTHER (POST, POLE, SUPPORT, ETC)	MADE AN IMPROPER TURN	34.86251111	-82.40446111	1
15637936	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.245	US Primary	RUTHERFORD ST	0	0	0	42341	1209	THURSDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86246944	-82.40445	2
17575717	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.245	Secondary	RUTHERFORD ST	0	0	0	42902	1529	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86246944	-82.40445	2
15574793	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.246	County	RUTHERFORD ST	0	0	0	42198	153	MONDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86248056	-82.40443056	2
16564574	GREENVILLE	US Route	00276	Main Line	W. STONE AVE.	33.246	Secondary	RUTHERFORD ST.	0	0	0	42521	1825	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	OTHER IMP. ACT	34.86253056	-82.40441944	2
17513528	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.551	County	LLOYD ST	0	0	0	42767	1753	WEDNESDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE (FIXED)	FENCE	OTHER IMP. ACT	34.85808889	-82.40438889	1
15640557	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.25	County	RUTHERFORD ST	0	1	1	42347	1445	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86246944	-82.40436944	2
15637952	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.25	US Primary	RUTHERFORD ST	0	0	0	42343	1020	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86248056	-82.40436111	3
15518459	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.252	US Primary	RUTHERFORD ST	0	1	1	42046	1144	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.8625	-82.40433056	2
17617353	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.253	County	W STONE AV	0	0	0	42983	1505	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86246111	-82.40431111	2
17501710	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.259	US Primary	RUTHERFORD ST	0	0	0	42740	1609	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86246111	-82.40421111	2
16643637	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.259	Secondary	RUTHERFORD RD	0	5	1	42680	1212	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86246111	-82.4042	2
15566177	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.26	US Primary	RUTHERFORD ST	0	0	0	42191	1727	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86245	-82.40418056	2
17670047	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.71	Secondary	ATWOOD ST	0	1	3	43043	2306	SATURDAY	DRY	DARK (NO LIGHTS)	NOT COLLISION W/MOTOR VEHICLE (PEDESTRIAN)	PEDESTRIAN	NON-MOTORIST UNDER THE INFLUENCE	34.85778056	-82.40416944	2
16542738	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.261	Secondary	RUTHERFORD ST	0	1	1	42476	930	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.86245	-82.40416944	2
17602901	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.264	County	W STONE AV	0	0	0	42957	2105	THURSDAY	DRY	DARK (STREET LAMP LIT)	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.86245	-82.40411944	2
16627450	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.591	Secondary	ATWOOD ST	0	0	0	42653	1220	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85763056	-82.40405	2
16624356	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.269	County	W STONE AV	0	0	0	42648	733	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86243889	-82.40403056	2
16624032	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.597	Secondary	ATWOOD ST	0	0	0	42648	121	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85756111	-82.40398056	2
15607297	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.272	US Primary	RUTHERFORD ST	0	0	0	42281	1835	SUNDAY	DRY	DAWN	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86243056	-82.40398056	3
15633317	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.272	Secondary	RUTHERFORD ST	0	0	0	42328	1636	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86243056	-82.40398056	2
15564033	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.604	Secondary	ATWOOD ST	0	2	2	42183	1206	SUNDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85746944	-82.40393889	2
15602741	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.605	Secondary	ATWOOD ST	0	1	1	42270	1416	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85746111	-82.40393056	2
17626675	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	0	0	42993	750	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85736944	-82.40388056	2
15627552	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.612	Secondary	ATWOOD ST	0	0	0	42318	729	TUESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85738056	-82.40386944	2
16604569	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.279	Secondary	RUTHERFORD ST	0	0	0	42592	2155	WEDNESDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86241111	-82.40386111	2
15648742	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.616	County	LLYOD ST	0	0	0	42350	1123	SATURDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	IMPROPER LANE USAGE/CHANGE	34.85733889	-82.40383056	2
17510062	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.281	Secondary	RUTHERFORD ST	0	0	0	42765	1625	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86241111	-82.40381944	2
16617097	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.283	Secondary	RUTHERFORD ST	0	0	0	42633	1239	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86241111	-82.40378056	2
17657920	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.283	County	W STONE AV	0	0	0	43055	1515	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86241111	-82.40378056	3
15539821	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.284	US Primary	RUTHERFORD ST	0	0	0	42123	849	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86241944	-82.40376944	3
15500792	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.283	Secondary	RUTHERFORD ST	0	0	0	42006	1418	FRIDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86243889	-82.40376944	2
17621758	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.284	County	W STONE AV	0	1	1	42984	1000	WEDNESDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.86241111	-82.40376111	2
17530987	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.286	County	RUTHERFORD ST	0	2	3	42815	1736	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.8624	-82.40373056	3
17680139	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.24	Secondary	RUTHERFORD ST	0	1	1	43093	2205	SUNDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8624	-82.40373056	2
15562314	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.63	Secondary	ATWOOD ST	0	0	0	42179	1020	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85718056	-82.40371111	2
15547869	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.288	Secondary	RUTHERFORD ST	0	0	0	42139	1516	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86241111	-82.40368889	2
15507618	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.288	County	RUTHERFORD ST.	0	0	0	42032	732	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.86241944	-82.40368889	2
15618546	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.29	Secondary	RUTHERFORD ST	0	0	0	42306	1729	THURSDAY	DRY	DUSK	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86238056	-82.40366944	2
15593373	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.634	Secondary	ATWOOD ST	0	0	0	42245	2329	SATURDAY	DRY	DAWN	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85713889	-82.40366111	2
15610899	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.29	County	W STONE AV	0	0	0	42291	1630	WEDNESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8624	-82.40365	2
15555924	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.637	Secondary	ATWOOD ST	0	0	0	42158	1330	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.8571	-82.40363889	2
15650982	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.637	Secondary	ATWOOD ST	0	0	0	42357	1653	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.8571	-82.40363889	2
15584242	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.639	Secondary	ATWOOD ST	0	0	0	42231	1044	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85708056	-82.40363056	2
15656222	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.639	County	LLOYD ST	0	0	0	42363	928	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85708056	-82.40363056	2
16601501	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.291	SC Primary	RUTHERFORD ST	0	2	1	42590	1330	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.86241944	-82.40363056	2
16604263	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	BUTLER	0	0	0	42604	1153	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85706944	-82.40361944	2
16652432	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	0	0	42695	1040	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85706944	-82.40361111	2
17518571	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	0	0	42787	1225	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.85703889	-82.40358889	2
15571578	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.641	Secondary	ATWOOD ST	0	0	0	42205	1540	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85706111	-82.40358889	2
15512101	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.643	Secondary	ATWOOD ST	0	0	0	42047	1833	THURSDAY	DRY	DUSK	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85703056	-82.40358056	2
15553048	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.643	Secondary	ATWOOD ST	0	0	0	42153	1500	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85703056	-82.40358056	2
17543799	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.3	Secondary	RUTHERFORD ST	0	0	0	42842	1043	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.86238889	-82.40358056	2
15559928	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.644	Secondary	ATWOOD ST	0	0	0	42166	1529	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85701944	-82.40356944	2
15564412	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.644	Secondary	ATWOOD ST	0	0	0	42178	755	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85701944	-82.40356944	2
16537284	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.646	Secondary	ATWOOD ST	0	1	1	42465	655	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	TRAFFIC CONTROL DEVICE (IE MISSING)	34.857	-82.40356111	2
17651445	GREENVILLE	US Route	00276	Main Line	W STONE AVE	33.3	Secondary	RUTHERFORD ST	0	0	0	43042	1921	FRIDAY	WET	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.86238889	-82.40356111	3
15526951	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.646	Secondary	ATWOOD ST	0	0	0	42083	1028	FRIDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.857	-82.40355	2
15602740	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.645	Secondary	ATWOOD ST	0	1	1	42270	1441	WEDNESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85701944	-82.40355	2
16572427	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.651	Secondary	ATWOOD ST	0	0	0	42532	2153	SATURDAY	DRY	DARK (LIGHTING UNSPECIFIED)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85693056	-82.40353889	2
17666328	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	0	0	43070	1350	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85698056	-82.40353889	2
17687057	GREENVILLE	Secondary road	00079	Main Line	BUTLER AVE	1.035	Secondary	ATWOOD ST	0	0	0	43077	1933	FRIDAY	WET	DARK (LIGHTING UNSPECIFIED)	HEAD ON	MOTOR VEHICLE (STOPPED)	DISTRACTED/INATT.	34.85691111	-82.40353056	2
15632338	GREENVILLE	Secondary road	00094	Main Line	ATWOOD ST	11.2	SC Primary	BUNCOMBE ST	0	0	0	42331	1520	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85693056	-82.40353056	2
16550942	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.649	Secondary	ATWOOD ST	0	3	2	42497	732	SATURDAY	DRY	DAYLIGHT	HEAD ON	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85696944	-82.40353056	2
16641950	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE	6.65	Secondary	ATWOOD ST	0	2	1	42680	1839	SUNDAY	DRY	DARK (LIGHTING UNSPECIFIED)	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85696111	-82.40351111	2
17643205	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	0	0	43031	1422	MONDAY	WET	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85696111	-82.40351111	3
17585675	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	3	1	42926	1531	MONDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85698056	-82.40351111	3
15587758	GREENVILLE	SC Route	00183	Main Line	ATWOOD ST	6.648	Secondary	BUNCOMBE ST	0	0	0	42237	1058	FRIDAY	DRY	DAYLIGHT	BACKED INTO	MOTOR VEHICLE (STOPPED)	OTHER IMP. ACT	34.857	-82.40351111	2
17508822	GREENVILLE	Secondary road	00094	Main Line	ATWOOD ST	11.2	SC Primary	BUNCOMBE ST	0	0	0	42765	1859	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85701111	-82.4035	2
16661674	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.653	Secondary	BUTLER AVE	0	1	1	42717	738	TUESDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85691944	-82.40348889	2
15558559	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.654	Secondary	ATWOOD ST	0	0	0	42171	1800	TUESDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85691944	-82.40348056	2
15523826	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.653	Secondary	ATWOOD ST	0	0	0	42078	1608	SUNDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	MADE AN IMPROPER TURN	34.85693056	-82.40348056	2
15556603	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.653	Secondary	ATWOOD ST	0	0	0	42161	1533	SATURDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85693056	-82.40348056	2
16634832	GREENVILLE	Secondary road	00094	Main Line	ATWOOD ST	11.194	County	MARSHALL AVE	0	0	0	42659	1154	SUNDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85703889	-82.40348056	2
15635066	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.654	SC Primary	COLLEGE ST	0	5	1	42335	907	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.85691944	-82.40346944	2
15574996	GREENVILLE	Secondary road	00094	Main Line	ATWOOD ST	11.192	SC Primary	BUNCOMBE ST	0	0	0	42215	807	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85706944	-82.40346111	2
16667873	GREENVILLE	Secondary road	00094	Main Line	ATWOOD ST	11.191	SC Primary	BUNCOMBE ST	0	0	0	42725	1700	WEDNESDAY	DRY	DUSK	REAR END	MOTOR VEHICLE (STOPPED)	UNKNOWN	34.85708889	-82.40346111	2
17666292	GREENVILLE	Secondary road	00094	Main Line	ATWOOD ST	11.2	SC Primary	BUNCOMBE ST	0	0	0	43069	1526	THURSDAY	DRY	DAYLIGHT	NOT COLLISION W/MOTOR VEHICLE (FIXED)	CURB	RAN OFF ROAD	34.85715	-82.40345	1
17677976	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.66	Other	HERITAGE GREEN PL	0	0	0	43097	1540	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85683889	-82.40343889	2
16576512	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.656	Secondary	ATWOOD ST	0	0	0	42548	1256	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.8569	-82.40343889	2
15529278	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.659	Secondary	ATWOOD ST	0	0	0	42093	1731	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85685	-82.40343056	2
17579399	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	0	0	42900	1153	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	FOLLOWED TOO CLOSELY	34.85686944	-82.40343056	2
17627560	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.659	US Primary	COLLEGE ST	0	0	0	43005	701	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85686111	-82.40341944	2
17575268	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.64	Secondary	ATWOOD ST	0	1	2	42901	620	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85681944	-82.40338889	2
15635447	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.669	County	BUTLER AVE	0	0	0	42338	1412	MONDAY	WET	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85673889	-82.40333056	2
16568527	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.678	Secondary	ATWOOD ST	0	0	0	42523	1040	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85663056	-82.40323889	2
15572432	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.678	Secondary	ATWOOD ST	0	0	0	42202	1740	FRIDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85663889	-82.40323889	2
17533867	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.685	County	WHITNER ST	0	0	0	42821	1715	MONDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	IMPROPER LANE USAGE/CHANGE	34.85655	-82.40318056	2
17525858	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.715	SC Primary	COLLEGE ST	0	0	0	42804	834	FRIDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85621944	-82.40286944	2
16532130	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.727	County	WHITNER ST	0	0	0	42453	705	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85608889	-82.40273056	2
16503661	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.734	County	HERITAGE GREEN PL	0	0	0	42384	811	FRIDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85601111	-82.40265	2
16538039	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.736	County	WHITNER ST	0	0	0	42471	1853	MONDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85598889	-82.40263056	2
15628554	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.738	Secondary	ATWOOD ST	0	0	0	42318	1622	TUESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85596111	-82.40261111	2
16517184	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.758	County	WHITNER ST	0	0	0	42421	1803	SUNDAY	WET	DARK (LIGHTING UNSPECIFIED)	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85571111	-82.40246111	3
17634503	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.756	County	WHITNER ST	0	0	0	43019	740	WEDNESDAY	WET	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85575	-82.40246111	2
15508538	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.759	County	WHITNER ST	0	0	0	42034	1518	FRIDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	DISREGARDED SIGNS, SIGNALS, ETC	34.8557	-82.40243889	2
17510082	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.758	County	WHITNER ST	0	0	0	42768	1609	THURSDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.85571944	-82.40243889	2
17523327	GREENVILLE	Local road	05489	Main Line	HERITAGE GREEN PL	0	SC Primary	COLLEGE ST	0	0	0	42791	1240	SATURDAY	DRY	DAYLIGHT	ANGLE	MOTOR VEHICLE (IN TRANSPORT)	FAIL TO YIELD R.O.W.	34.8559	-82.40243889	2
16588401	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.752	County	HERITAGE GREEN PL	0	0	0	42565	2001	THURSDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85588056	-82.40231111	2
17568447	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.757	County	HERITAGE GREEN PL	0	0	0	42887	1026	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85583056	-82.40218889	2
16525187	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.781	County	DUNCAN ST	0	0	0	42426	1820	FRIDAY	DRY	DUSK	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	UNKNOWN	34.85536111	-82.40216111	2
17545469	GREENVILLE	SC Route	00183	Main Line	BUNCOMBE ST	6.782	County	WHITNER ST	0	0	0	42802	744	WEDNESDAY	DRY	DAYLIGHT	REAR END	MOTOR VEHICLE (IN TRANSPORT)	DRIVING TOO FAST FOR CONDITIONS	34.85533056	-82.40215	3
15508960	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST.	6.764	County	HERITAGE GREEN PL.	0	0	0	42037	1808	MONDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	DRIVING TOO FAST FOR CONDITIONS	34.85576111	-82.40198056	2
17524353	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.98	US Primary	N ACADEMY ST	0	0	0	42799	2128	SUNDAY	DRY	DARK (STREET LAMP LIT)	REAR END	MOTOR VEHICLE (STOPPED)	FOLLOWED TOO CLOSELY	34.85576111	-82.40195	2
17649085	GREENVILLE	SC Route	00183	Main Line	COLLEGE ST	6.778	County	HERITAGE GREEN PL	0	0	0	43041	908	THURSDAY	DRY	DAYLIGHT	SIDESWIPE SAME DIRECTION	MOTOR VEHICLE (IN TRANSPORT)	IMPROPER LANE USAGE/CHANGE	34.85566944	-82.40171111	2

Appendix E: Public Meeting Report and Survey Summary

City of Greenville Downtown Transportation Master Plan

Public Meeting Report

SUMMARY

This document summarizes the outreach, logistics, participation, meeting content and summary for the public meeting held on July 16, 2019.

PUBLIC MEETING OVERVIEW

The City of Greenville hosted a Public Meeting for the Downtown Transportation Master Plan on Tuesday, July 16, 2019 from 5:00 p.m. to 7:00 p.m. in the first floor conference room in Greenville City Hall. While at the meeting, individuals had the opportunity to interact with project update boards and project area plot maps to ask questions, learn information and provide feedback, provide comments via comment forms and take the survey via iPads. Meeting Sign-In sheets can be viewed in **Appendix A**. Meeting Materials and meeting photos can be viewed in **Appendix B**.

Public Meeting Details

Date	Time	Location	Location Contact	# of Attendees
Tuesday July 16, 2019	5:00 – 7:00 p.m.	City Hall First Floor Conference Room 206 S. Main Street Greenville, SC 29601	Valerie Holmes (864)467-4360 vholmes@greenvillesc.gov	20

AGENDA

3:00 p.m. – PI Team set-up
4:15 p.m. – Team arrival
4:30 p.m. – Team pre-meeting and safety briefing
4:45 p.m. – Doors open
5:00 p.m. – Meeting begins
7:00 p.m. – Doors close/Team clean up
7:15 p.m. – Team debrief
7:30 p.m. – Depart facility

STAFFING

Project team members from the City of Greenville and HDR staffed the public meeting. All staff was knowledgeable of the project and was prepared to communicate with the public. Staffing for the public meeting is detailed below

Name	Role	Organization
Valerie Holmes	Station #1	City of Greenville
Dwayne Cooper	Floater	City of Greenville
Allen Reid	Station #2	City of Greenville
Jonathan Chasteen	Station #1	HDR
Graham Malone	Station #2	HDR
Jennifer Mustar	Floater	HDR
Jesica Mackey	Sign-in Table/ Meeting Manager/ Photos	HDR
James Wallace	Floater	Bihl Engineering, LLC

Public Outreach

Public outreach materials were distributed by the City of Greenville.

Type	Date of Distribution	Responsibility
Public Meeting and Survey Email Notification	July 8, 2019	City of Greenville

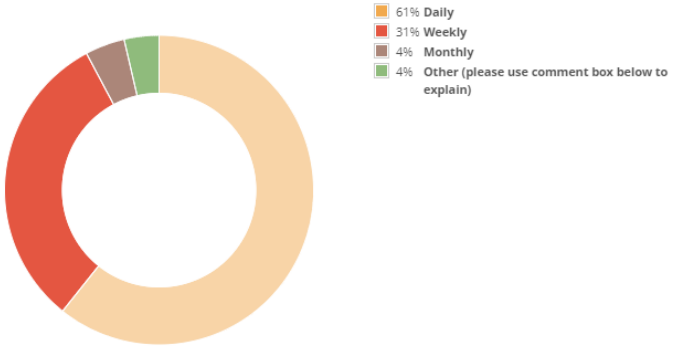
SURVEY SUMMARY

To collect feedback, the City of Greenville released a survey asking the public a series of questions regarding their travel patterns to, from and within the city of Greenville, SC. The survey was released on Wednesday, July 10, 2019 and was open for response until Tuesday, July 23, 2019 with a total of 789 respondents. The survey was distributed via social media, Next Door and was also accessible in person at the public meeting via iPads.

SURVEY RESULTS AND THEMES

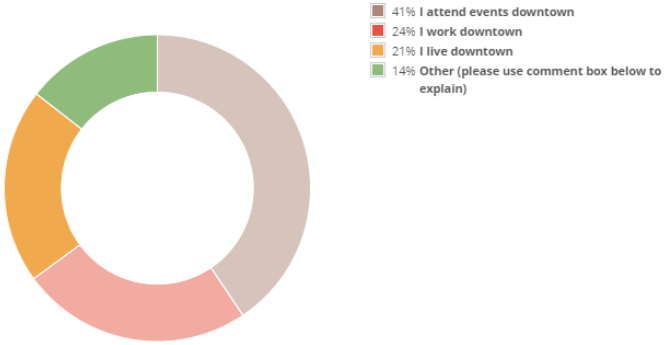
Included below are tables, charts and graphics depicting the survey results based on the public's responses to key questions. Comments show that overall, the public travels to/from/within Greenville frequently and is within majority agreement on the identified traffic areas for both morning and evening.

* 1. How often do you travel downtown?



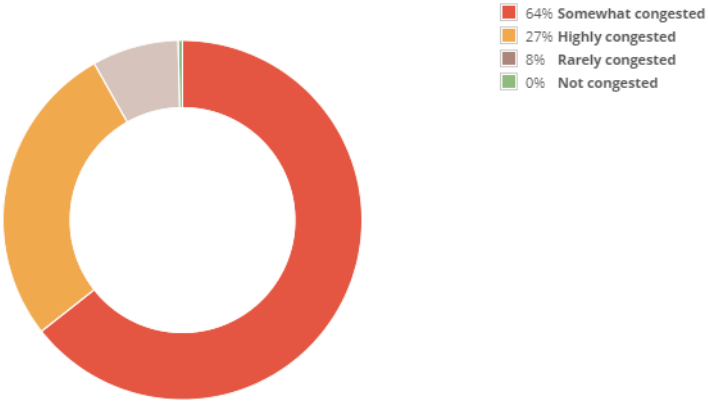
786 respondents

* 2. Why do you travel downtown? *Please select all that apply.*



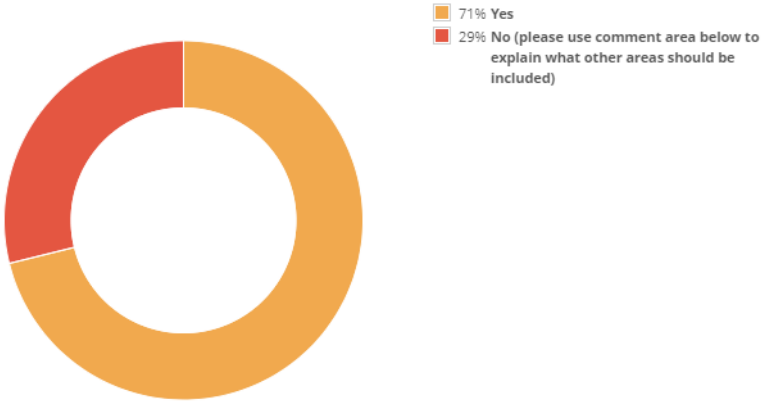
719 respondents

* 6. In general, how would you describe the level of traffic congestion on downtown streets?



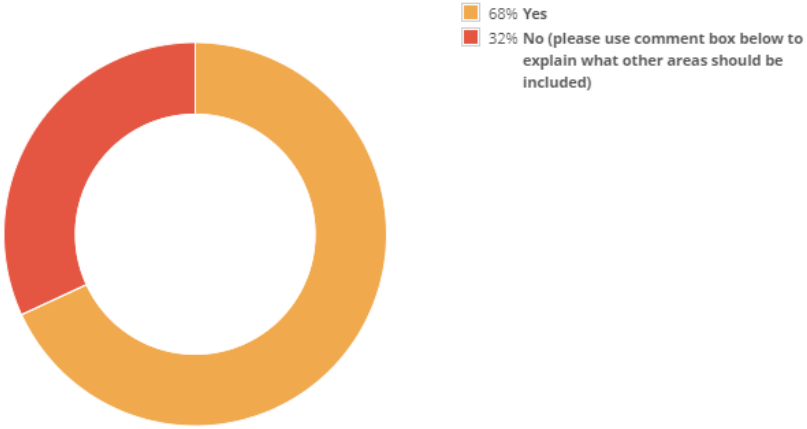
758 respondents

* 7. Are the areas with the most traffic congestion on **weekday mornings** identified on the map below?



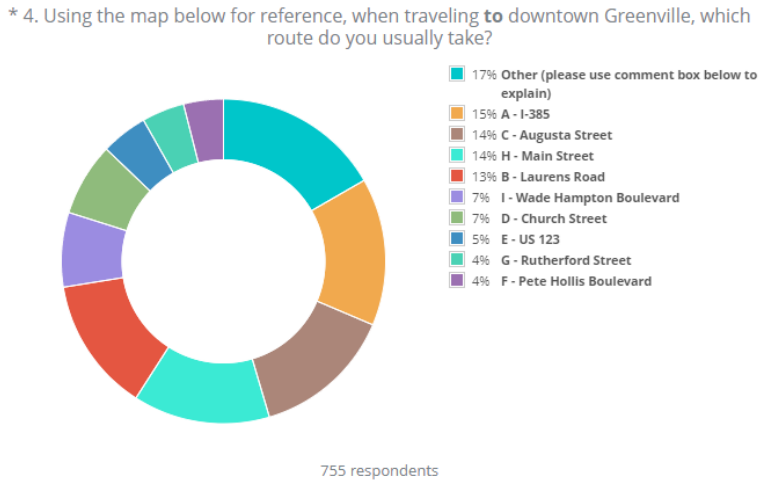
669 respondents

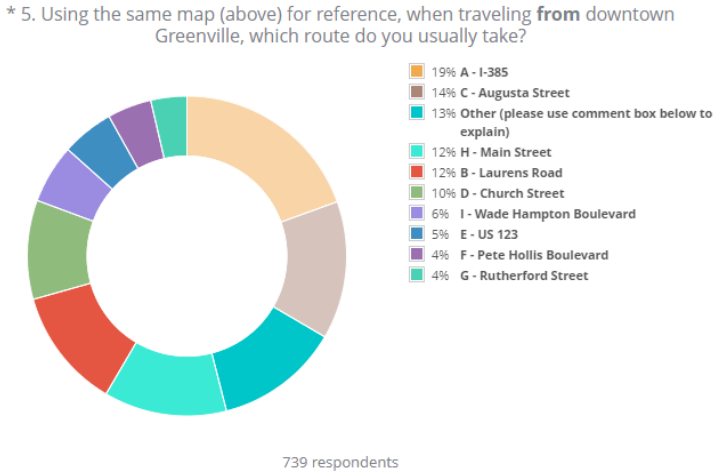
* 8. Are the areas with the most traffic congestion on **weekday evenings** identified on the map below?



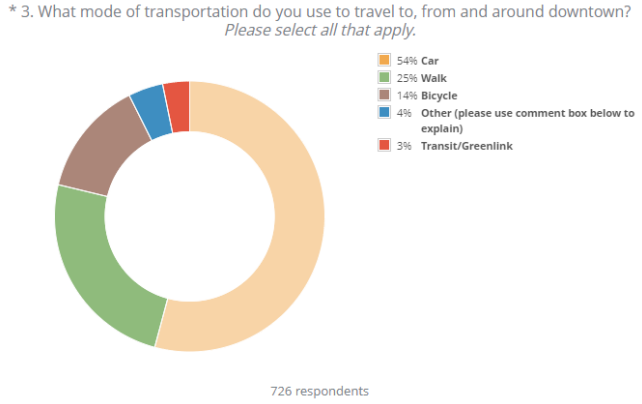
674 respondents

In the morning, the largest group of respondents take a route not listed by our team unlike the evening in which the largest group travel I-385.





Additionally, across the board respondents are interested in improved methods/infrastructure for alternative transportation.



In the question fourteen chart below, respondents ranked their level of support for five transportation improvement options.

- 86% of respondents were supportive of upgrading traffic signal equipment to improve the flow of traffic
- While 52% of respondents were supportive of converting two-way streets into one-way streets to control traffic flow, the two categories with the highest response were 'Not Supportive' and 'Somewhat Supportive' with 22% and 26% respectively.
- 51% of respondents were either 'Not Supportive' or only 'Somewhat Supportive' of converting one-way streets to two-way streets to create more travel flexibility
- Respondents were evenly spread between 'Not Supportive' and 'Extremely Supportive' of reducing the width of vehicular lanes or removing a lane altogether to provide space for other features.
- 74% of respondents were supportive of creating bypass to allow vehicles to get from one side of downtown to the other without traveling through the center.

* 14. How supportive would you be of the following transportation improvements?

	Not supportive	Somewhat supportive	Supportive	Very supportive	Extremely supportive
Upgrading traffic signal equipment to improve the flow of traffic	2% Not supportive	9% Somewhat supportive	21% Supportive	27% Very supportive	38% Extremely supportive
Converting two-way streets to one-way streets to control the flow of traffic	22% Not supportive	26% Somewhat supportive	24% Supportive	13% Very supportive	11% Extremely supportive
Converting one-way streets to two-way streets to create more travel flexibility	25% Not supportive	26% Somewhat supportive	29% Supportive	11% Very supportive	6% Extremely supportive
Reducing the width of vehicular lanes, or removing a lane altogether (road diet), to provide space for other features (e.g., wider sidewalks, bike lanes, bus/trolley stops, turn lanes, pedestrian refuge medians)	17% Not supportive	19% Somewhat supportive	18% Supportive	17% Very supportive	25% Extremely supportive
Creating a bypass to allow vehicles to get from one side of downtown to the other without traveling through the center	10% Not supportive	11% Somewhat supportive	19% Supportive	24% Very supportive	31% Extremely supportive

632 respondents

COMMENT FORMS

Comment forms were made available at the meeting. Four comment forms were collected during the meeting and zero were mailed in.

Individuals who submitted comment forms expressed their excitement over future improvements and desire to learn more as future plans unfold. As well, public transportation including pedestrian, bike and Greenlink were all mentioned as an important aspect to the transportation solution. Other suggestions included traffic roundabouts and getting a deeper understanding of the commuter households and their forms/reliability of transportation.

Comment forms can be found in **Appendix C**

INTERACTIVE DISPLAYS

Individuals who attended the public meeting had the opportunity to interact with meeting boards and plot maps to identify there traffic and congestion experiences as a Greenville commuter.

Interactive displays asked meeting attendees to identify the routes they take when traveling through town, areas of congestion that were not currently marked and to provide commentary on their ideas to improve transportation downtown.

When identifying routes travelled, the majority of people tended to take the most direct route through downtown to get from point A to point B.

When asked to identify areas of congestion downtown that were not currently addressed, the responses were spread throughout the downtown area. The area with the most concentrated number of responses was at the outside of the study area where I-385 enters downtown.

Lastly, attendees were asked to provide their commentary on the transportation plan and their ideas on future improvements for downtown transportation. Many comments addressed concerns for pedestrian travel throughout the entire study area, including improved walkways, traffic signals, etc. Additionally, Augusta Road intersections, specifically Faris, was a topic brought up in multiple comments. The area of downtown between College Street, Broad Street and Academy Street had the largest number of comments asking for improved Transit, intersections and calling out the high levels of congestion.

Photos of the interactive display responses can be found in **Appendix D**.

Appendix A: Sign-In Sheets

city of greenville

GPATS

GPATS Downtown Transportation Master Plan Public Meeting
July 16, 2019

NAME	ADDRESS	EMAIL ADDRESS PHONE NUMBER	ORGANIZATION	HOW DID YOU HEAR ABOUT THIS MEETING?	WOULD YOU LIKE TO BE ADDED TO OUR EMAIL LIST?
Charlotte Abrams	7 Buist Ave. G'ville 29609	emmakat@mindspring.com 301-580-5340	—	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☑ SOCIAL ☑ OTHER	☑ YES ☐ NO
Cheryl Cotner	114 WREN WAY	cbcotner1@gmail.com	Self	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☒ OTHER	☐ YES ☒ NO
Ariel Gilreath	54 Brookside Circle	agilreath@communityjournals.com	Greenville Journal	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☒ OTHER	☒ YES ☐ NO
Dorothy Dowe	221 Cleveland St Grl, 29601	dorothy@dorothydowe.com	candidate	☒ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☒ YES ☐ NO
AARON BARR	109 BUTLER AVE 29601	aaron.lee.barr@gmail.com	GRAC	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☑ SOCIAL ☐ OTHER	☒ YES ☐ NO
Clint Link		clink@greenvillesc.gov	City	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☒ OTHER	☒ YES ☐ NO

city of greenville

GPATS

GPATS Downtown Transportation Master Plan Public Meeting
July 16, 2019

NAME	ADDRESS	EMAIL ADDRESS PHONE NUMBER	ORGANIZATION	HOW DID YOU HEAR ABOUT THIS MEETING?	WOULD YOU LIKE TO BE ADDED TO OUR EMAIL LIST?
Sylvia M. Palmer	5 Roosevelt Ave 29609 Gville	Sylvpalm@Aol.com	Nicholtown Assoc.		
↓ Jordan	↓	↓	↓	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☑ SOCIAL ☐ OTHER	☑ YES ☐ NO
Jordan P. Edenfield	203 Kenilworth Drive 29615	sing jordan@att.net		☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☑ SOCIAL ☐ OTHER	☑ YES ☐ NO
Natalie Anderson	751 Old Buncombe St	neanderson@gmail.com	Greenlink	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☑ SOCIAL ☐ OTHER	☑ YES ☐ NO
Neil Wilson	18 highcroft ct	NWilson@lcucs.com	LCK	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☒ OTHER	☑ YES ☐ NO
Sherry Barrett	222 Hidden Hills Dr.	sbarrett@upstateforever.org (864) 907-5739	Upstate Forever	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☑ OTHER	☑ YES ☐ NO
Kenneth Drawer	111 Goodrich St	864 626 2441		☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☒ SOCIAL ☐ OTHER	☐ YES ☐ NO

city of greenville

GPATS

GPATS Downtown Transportation Master Plan Public Meeting
July 16, 2019

NAME	ADDRESS	EMAIL ADDRESS PHONE NUMBER	ORGANIZATION	HOW DID YOU HEAR ABOUT THIS MEETING?	WOULD YOU LIKE TO BE ADDED TO OUR EMAIL LIST?
Jason Zacher Greenville Chamber	24 Cleveland St.	jzacher@greenvillechamber.org 864-239-3718	Greenville Chamber	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☒ SOCIAL ☐ OTHER	☒ YES ☐ NO
Russell Stall	City Hall	RStall@GreenvilleSC.gov	City Council	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☒ OTHER	☐ YES ☐ NO
James Ribandar			FOX Carolina	☑ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO

city of greenville

GPATS

GPATS Downtown Transportation Master Plan Public Meeting
July 16, 2019

NAME	ADDRESS	EMAIL ADDRESS PHONE NUMBER	ORGANIZATION	HOW DID YOU HEAR ABOUT THIS MEETING?	WOULD YOU LIKE TO BE ADDED TO OUR EMAIL LIST?
Jeremy Williams	17 Crestline Rd. Greenville, SC 29609	jlwilliams@gmail.com	Gville Spinners	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☑ SOCIAL ☐ OTHER	☐ YES ☑ NO
Frank Mansbach	202 Hope St 29601	frankmansbach@gmail.com	Bike Walk Greenville	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☒ SOCIAL ☐ OTHER	☐ YES ☐ NO
Emanuel R Flemming	398 Oscar Street Greenville SC 29601	emanuelflemming@gmail.com	Sterling Land Trust (Ben Stevens)	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☒ OTHER	☒ YES ☐ NO
Gaye Sprague	10 Grey St Greenville, SC 29605	gayesprague@cs.com 864/346-3106	Sprague & Sprague	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☒ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO

city of greenville

GPATS

GPATS Downtown Transportation Master Plan Public Meeting
July 16, 2019

NAME	ADDRESS	EMAIL ADDRESS PHONE NUMBER	ORGANIZATION	HOW DID YOU HEAR ABOUT THIS MEETING?	WOULD YOU LIKE TO BE ADDED TO OUR EMAIL LIST?
Katy Smith	31 Riverside Dr Grl SC 29605	katypughsmith@bellsouth.net katysmith@pe	Piedmont Health Foundation .org	☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☑ SOCIAL ☐ OTHER	☑ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☑ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO
				☐ NEWS ☐ FLYER ☐ NEWSPAPER ☐ BUS STOP ☐ SOCIAL ☐ OTHER	☐ YES ☐ NO

Appendix B: Meeting Materials and Photos

city of greenville South Carolina

GPATS

Study Area

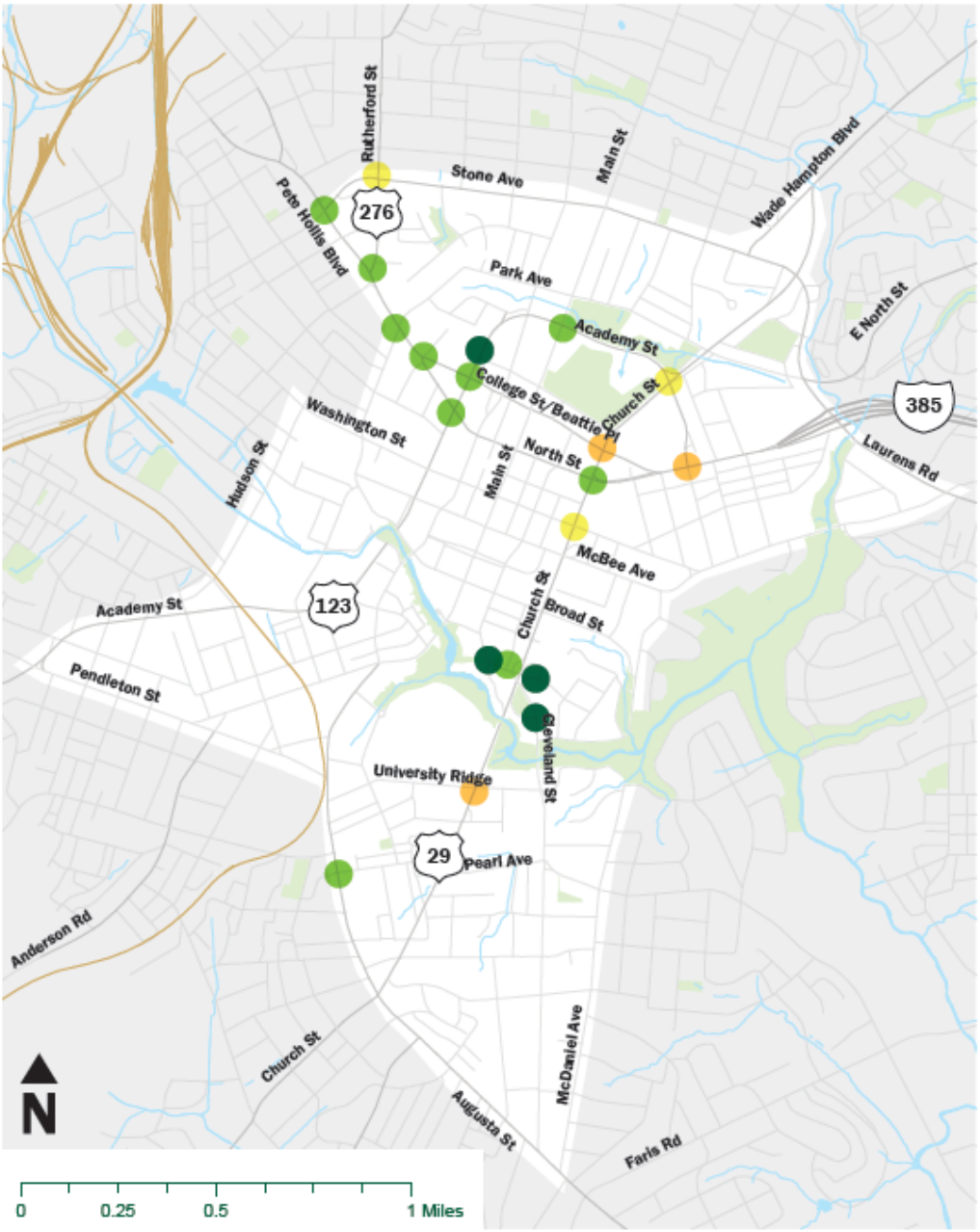
Downtown Transportation Master Plan

city of greenville South Carolina

GPATS

Traffic Operations AM

Downtown Transportation Master Plan



LEVEL OF SERVICE

A
- Light Traffic
- Free flow speeds

B
- Slightly increased traffic levels
- Still free flow speeds

C
- Approaching moderate congestion levels
- Speeds near free flow

D
- Speeds reduced
- Lane changes restricted due to traffic

E
- Congestion
- Irregular traffic flow

Map Legend

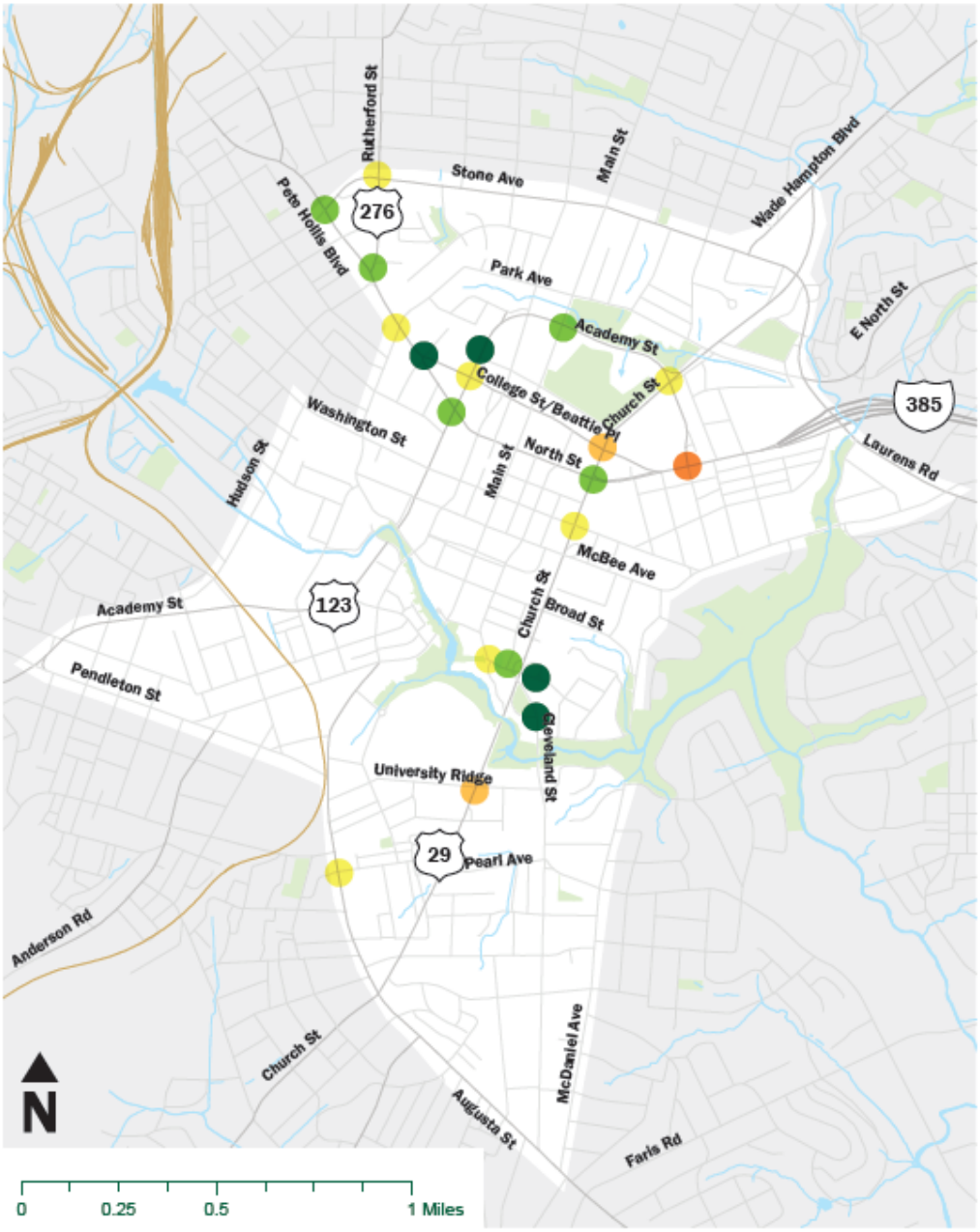
- Project Area
- Parks
- Streams/Lakes

city of greenville South Carolina

GPATS

Traffic Operations PM

Downtown Transportation Master Plan



LEVEL OF SERVICE

A
- Light Traffic
- Free flow speeds

B
- Slightly increased traffic levels
- Still free flow speeds

C
- Approaching moderate congestion levels
- Speeds near free flow

D
- Speeds reduced
- Lane changes restricted due to traffic

E
- Congestion
- Irregular traffic flow

Map Legend

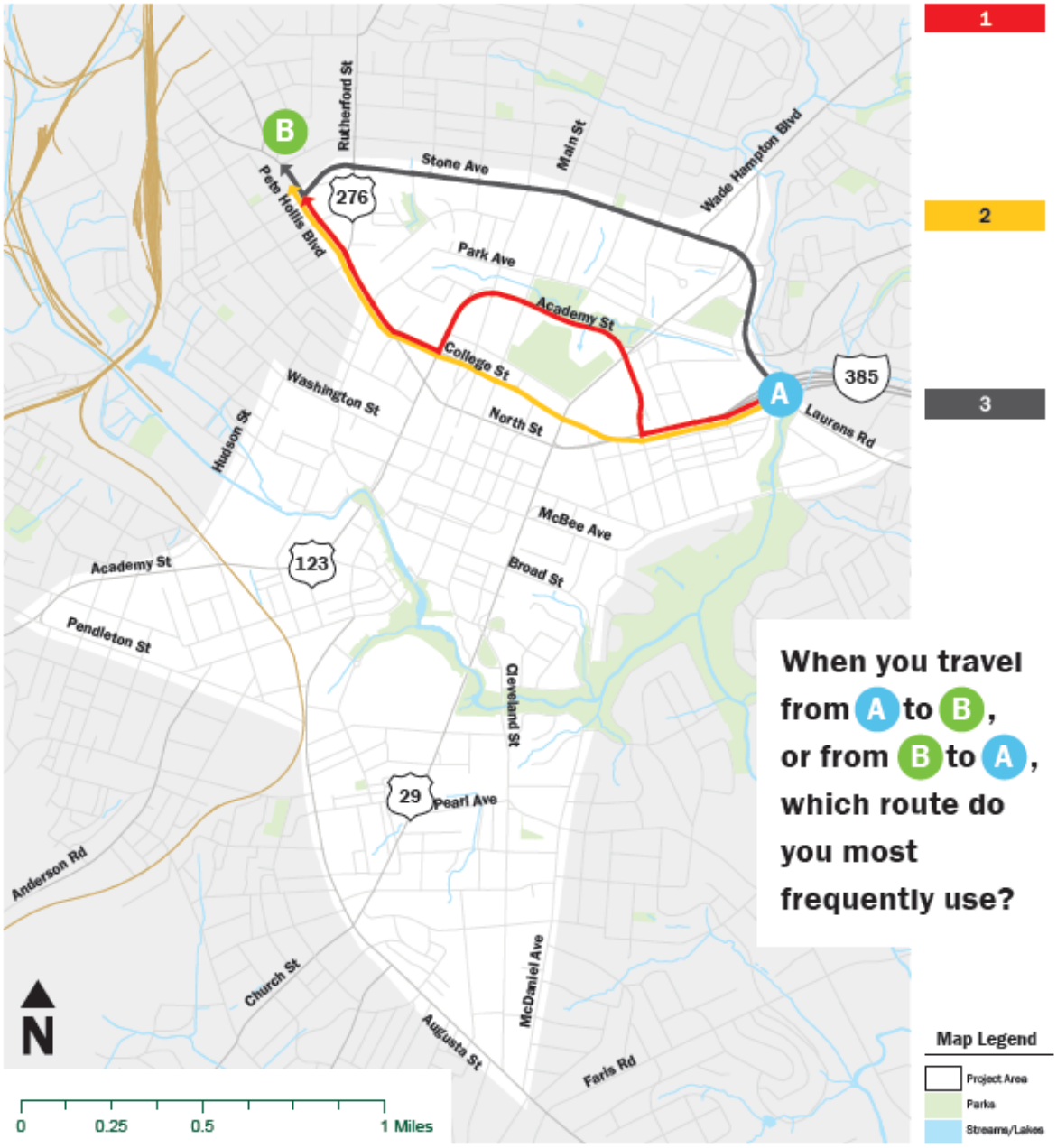
- Project Area
- Parks
- Streams/Lakes

city of greenville South Carolina

GPATS

Route Map

Downtown Transportation Master Plan

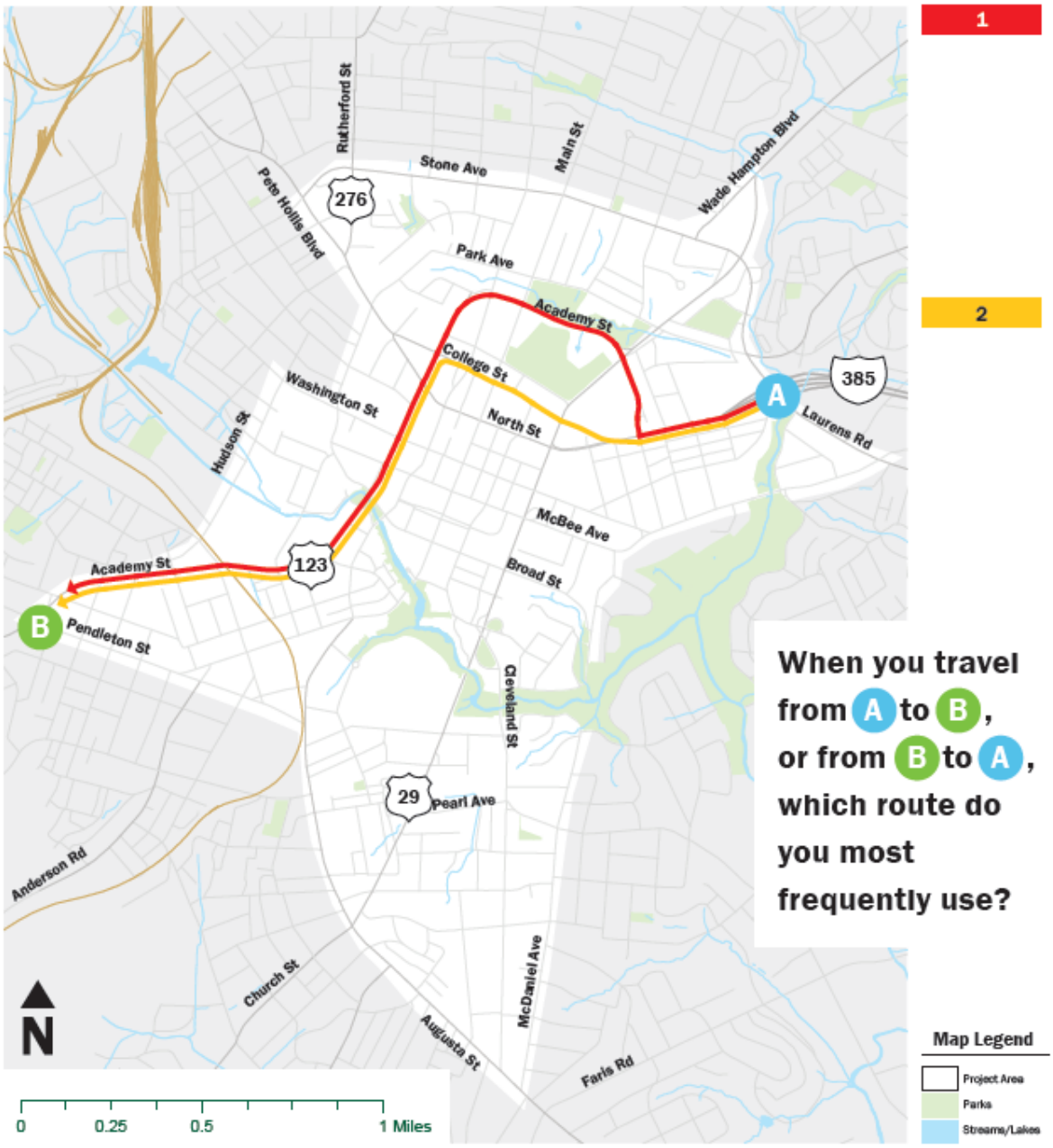


city of greenville South Carolina

GPATS

Route Map

Downtown Transportation Master Plan



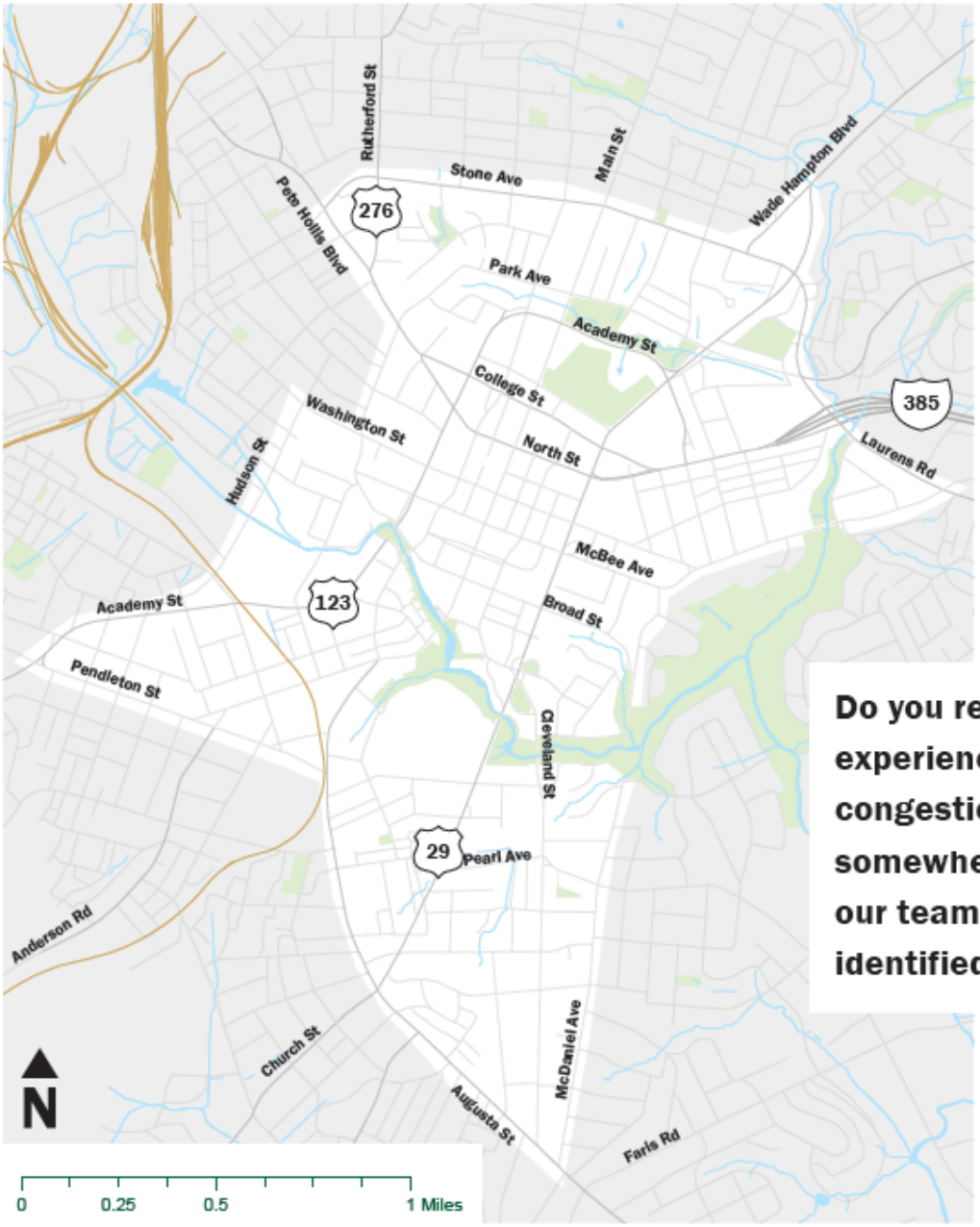
When you travel from A to B, or from B to A, which route do you most frequently use?

city of greenville South Carolina

GPATS

We want to hear from you!

Downtown Transportation Master Plan



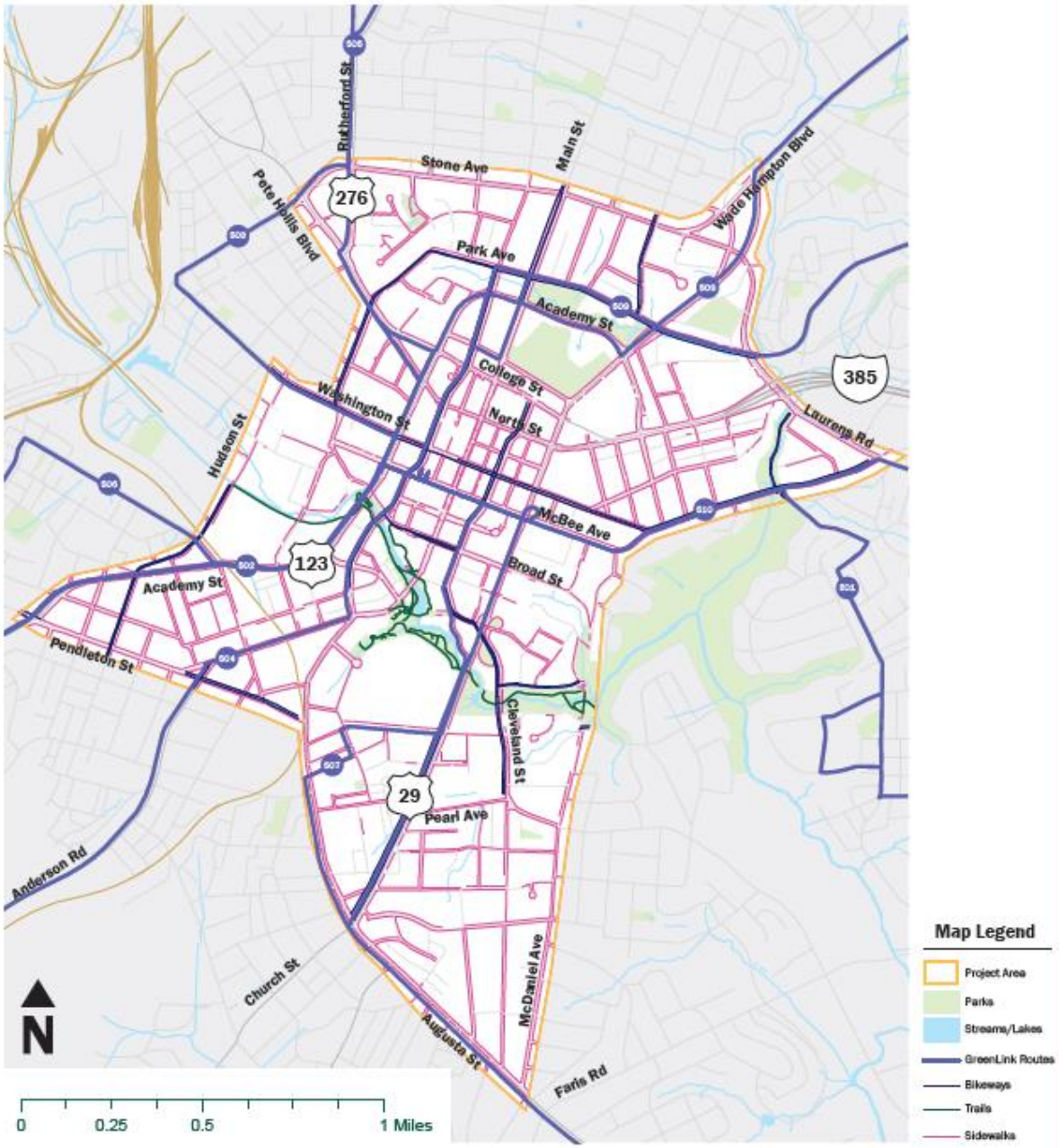
Do you regularly experience congestion somewhere that our team has not identified?

city of greenville South Carolina

GPATS

Alternative Modes of Transportation

Downtown Transportation Master Plan



city of greenville
south carolina
GPATS

GPATS
City of
greenville

Appendix C: Comment Forms

city of greenville

GPATS

GPATS Downtown Transportation Master Plan

Public Meeting Comment Form

There are multiple ways to submit your comments:

- Complete and place this form in the designated comment box at this public meeting.
- Follow the directions on the reverse side of this sheet to mail your comments.
- Email your comments to transportationmp@greenvillesc.gov.

The comment period will remain open until 7/23/19.

Please leave a comment for the project team in the space provided below:

It looks like the city is planning to cover the areas that affect my day to day travel in downtown. I'm also glad to know that they are working with Greenlink to fully understand our traffic and transportation issues. I'd be interested in see plans in the future from today's meeting. I am concerned about the added traffic from the new BB&T development, and from the Lampsdown development.

Date: 7/16/19

Name: Jordan R Edenfield

Street Address: 203 Kenilworth Drive

City, State, Zip: Greenville, SC 29615

Phone: (864) 991 - 1465

Email: singjordan@att.net

city of greenville

GPATS

GPATS Downtown Transportation Master Plan

Public Meeting Comment Form

There are multiple ways to submit your comments:

- Complete and place this form in the designated comment box at this public meeting.
- Follow the directions on the reverse side of this sheet to mail your comments.
- Email your comments to transportationmp@greenvillesc.gov.

The comment period will remain open until 7/23/19.

Please leave a comment for the project team in the space provided below:

Can you send me PDF copies of the map? arielg@communityjournals.com
Thank you!
Ariel Gilreath with Greenville Journal

Date:

Name:

Street Address:

City, State, Zip:

Phone: 864-525-2962

Email:

city of greenville

GPATS

GPATS Downtown Transportation Master Plan

Public Meeting Comment Form

There are multiple ways to submit your comments:

- Complete and place this form in the designated comment box at this public meeting.
- Follow the directions on the reverse side of this sheet to mail your comments.
- Email your comments to transportationmp@greenvillesc.gov.

The comment period will remain open until 7/23/19.

Please leave a comment for the project team in the space provided below:

LEVEL OF SERVICE (CONGESTION) IS THE WRONG METRIC FOR DOWNTOWN, PEDESTRIAN ORIENTED STREETS – TRAFFIC SHOULD BE CONGESTED DOWNTOWN!

ADD TRAFFIC CIRCLE TO BROAD ~~BUTLER~~/WESTFIELD

NEIGHBORHOOD STREETS SHOULD BE NO TRUCK THRO STREETS. BUTLER/MCDANIEL/PARK

TRAFFIC CALMING/BIKE LANES ON ALL NEIGHBORHOOD COLLECTORS – PUSH CAR TRAFFIC TO MAJOR STATE ROADS

Date: 07/16/2019

Name: AARON BARR

Street Address: 109 BUTLER AVE

City, State, Zip: GREENVILLE 29601

Phone: 540 239 0979

Email:

city of greenville

GPATS

GPATS Downtown Transportation Master Plan

Public Meeting Comment Form

There are multiple ways to submit your comments:

- Complete and place this form in the designated comment box at this public meeting.
- Follow the directions on the reverse side of this sheet to mail your comments.
- Email your comments to transportationmp@greenvillesc.gov.

The comment period will remain open until 7/23/19.

Please leave a comment for the project team in the space provided below:

First, I appreciate GPATS willingness to address the transportation concerns in Greenville. Secondly, I respectfully ask that we collect more data on the average household income within predominately minority communities, also collect information on how many of these households have reliable transportation? Finally, consider having longer hours of service for working pedestrians to commute back and forth.

Date: July, 16, 2019

Name: Emanuel Flemming

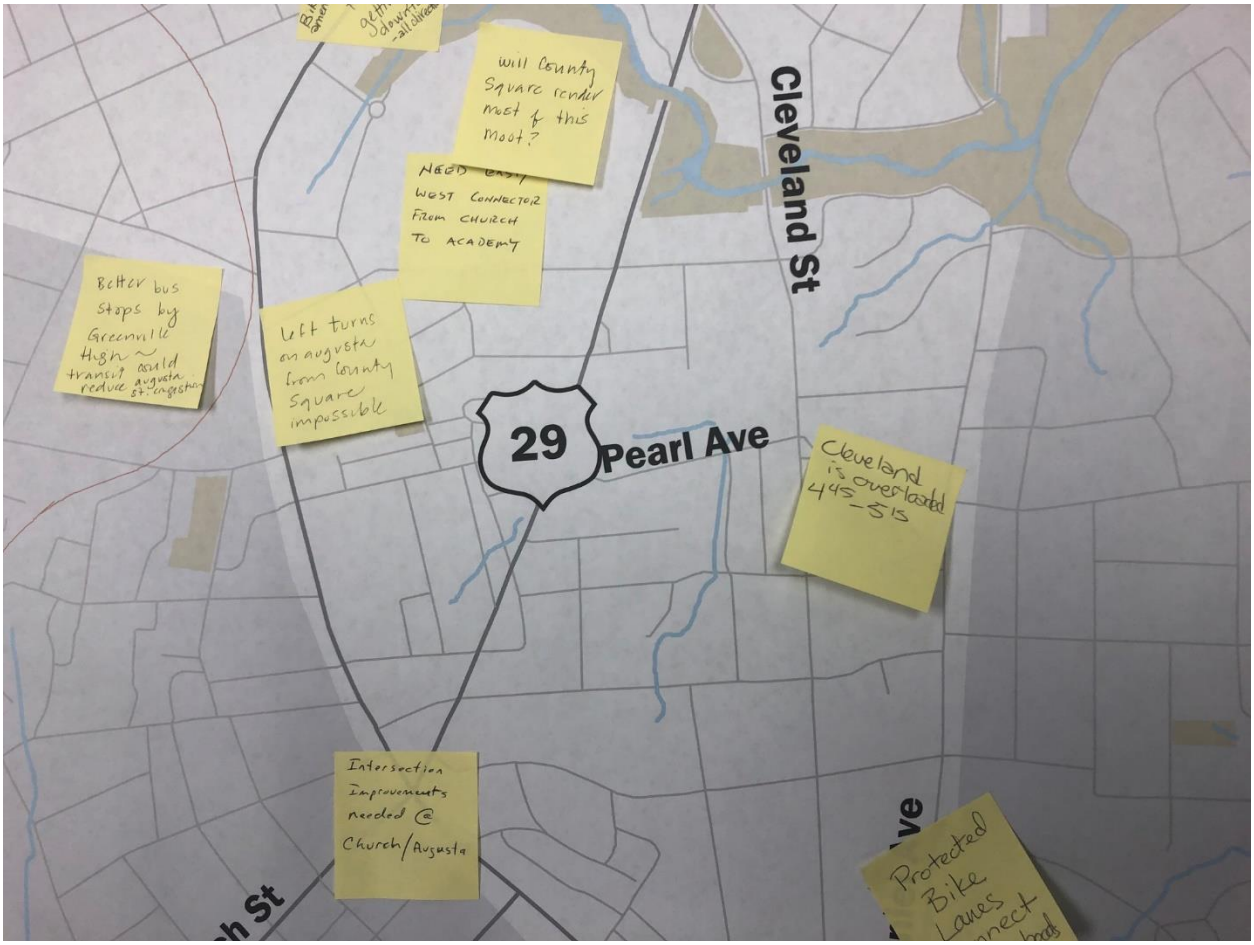
Street Address: 398 Oscar Street

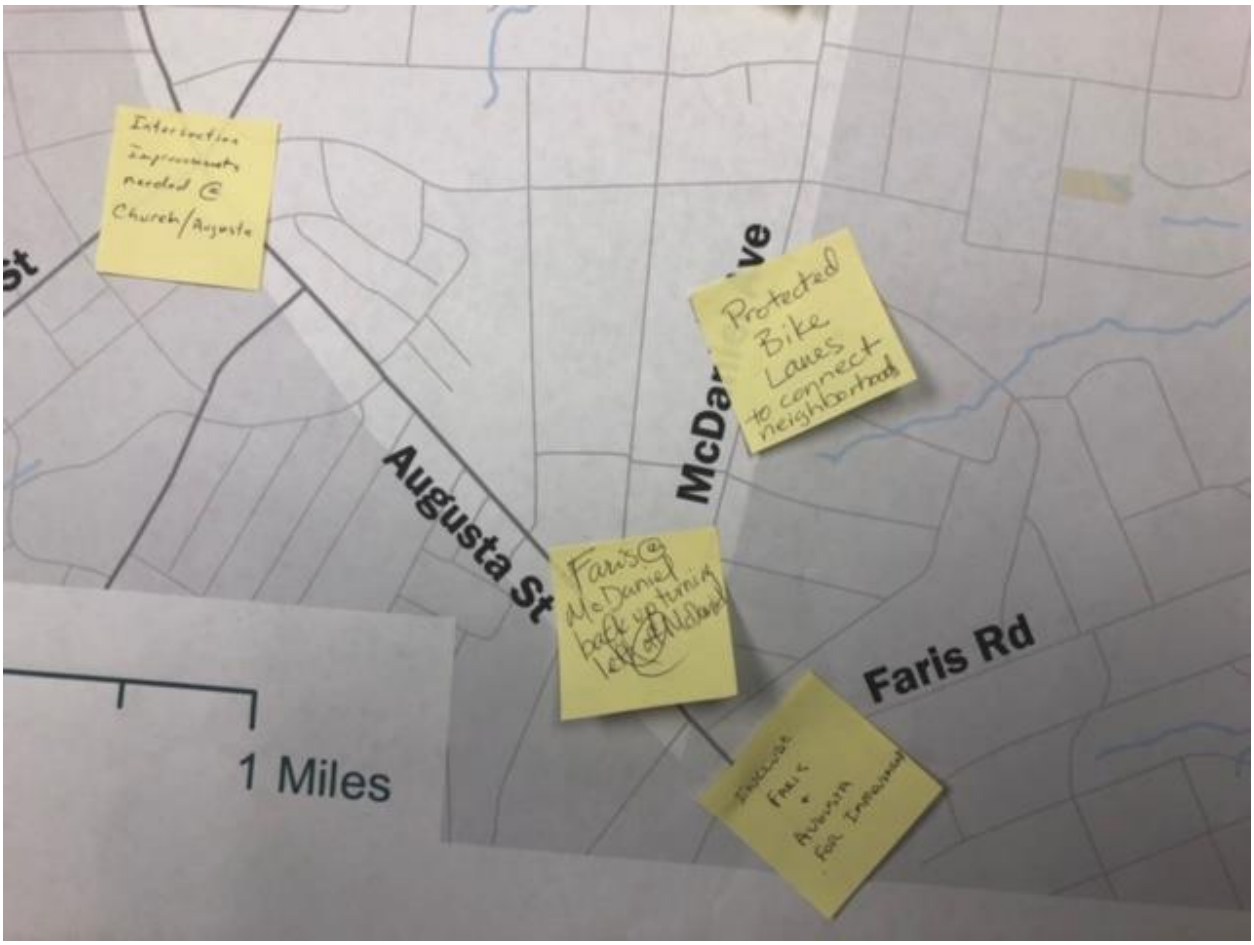
City, State, Zip: Greenville SC 29601

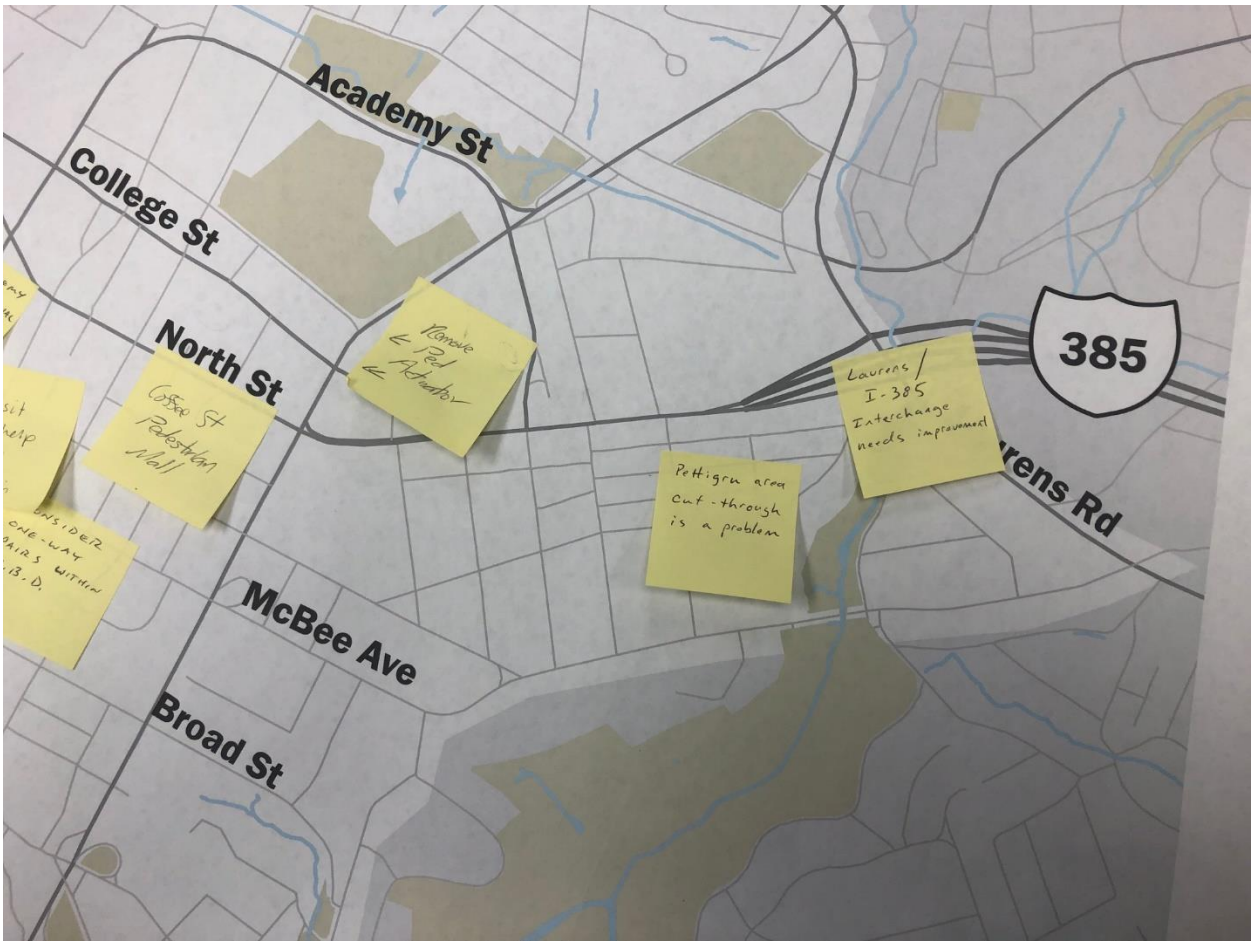
Phone: 864 320-5855

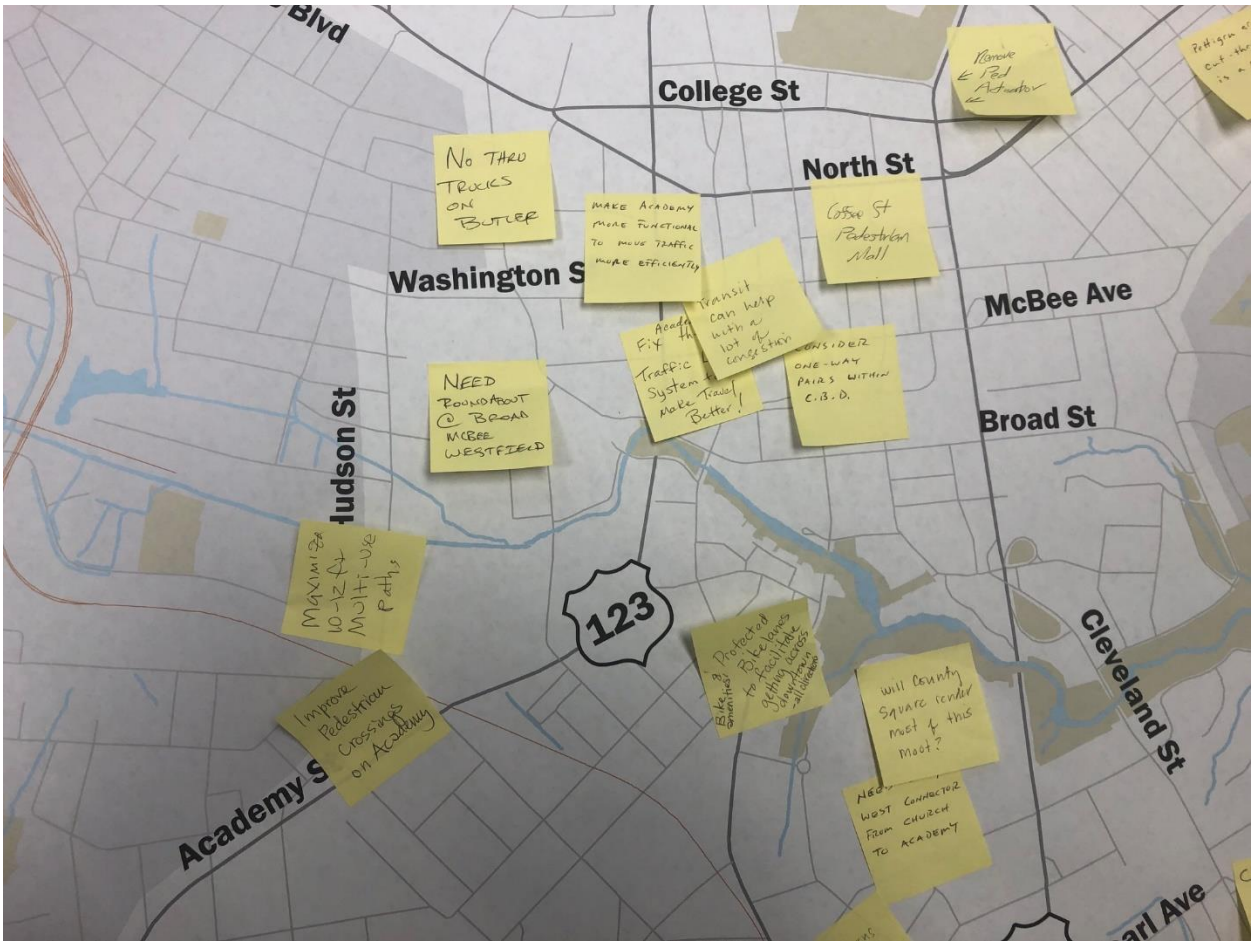
Email: emanuelflemming@gmail.com

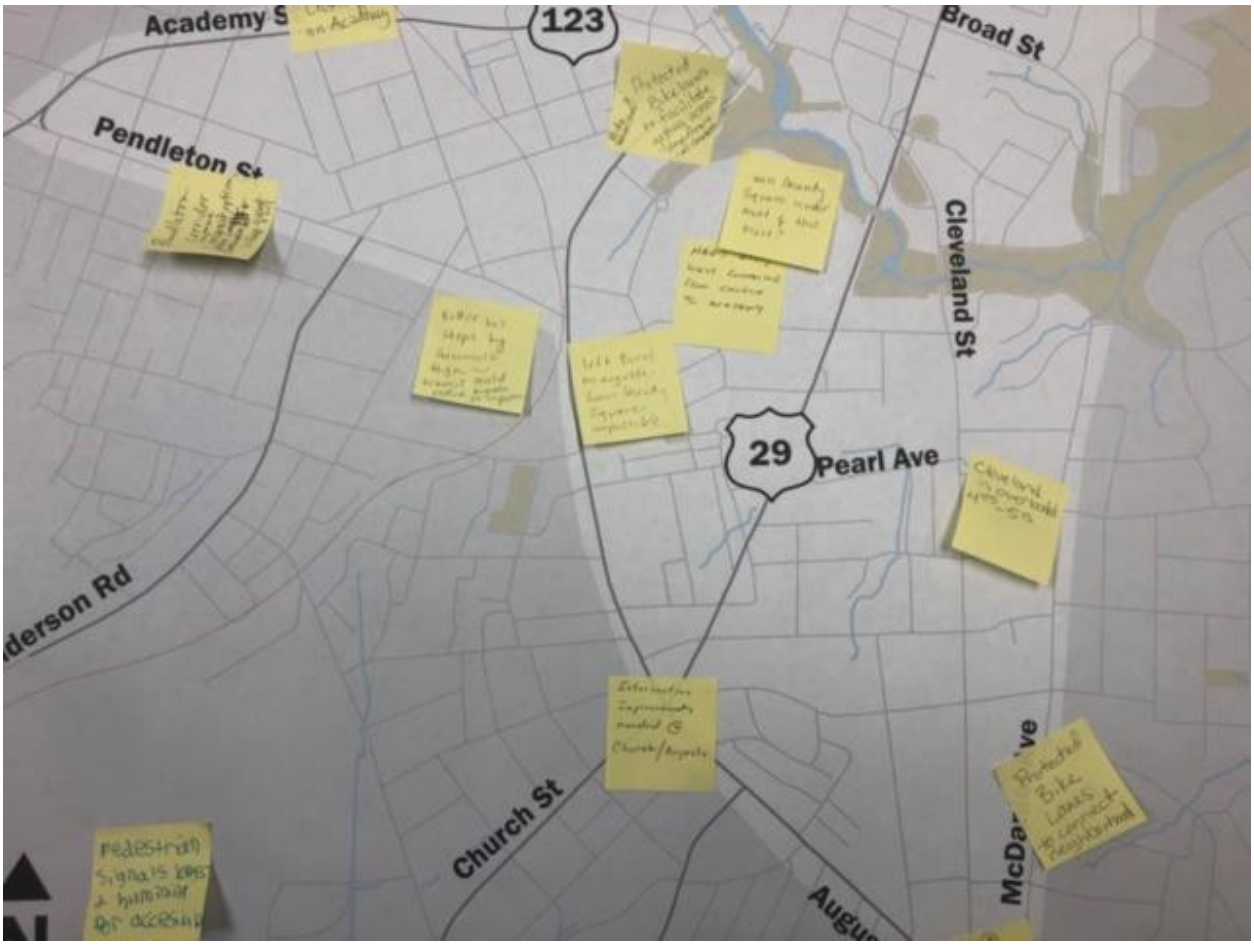
Appendix D: Interactive Display Responses

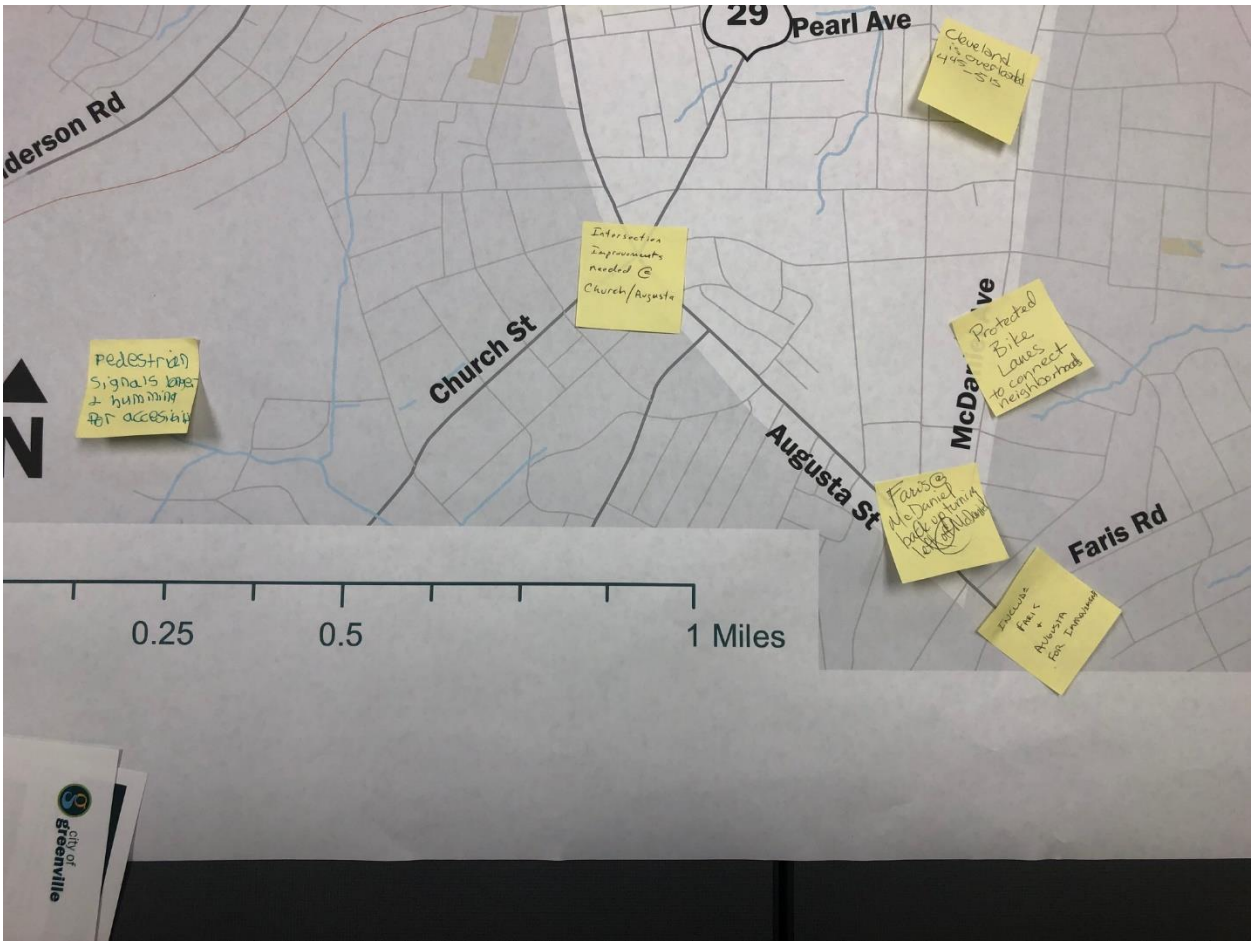


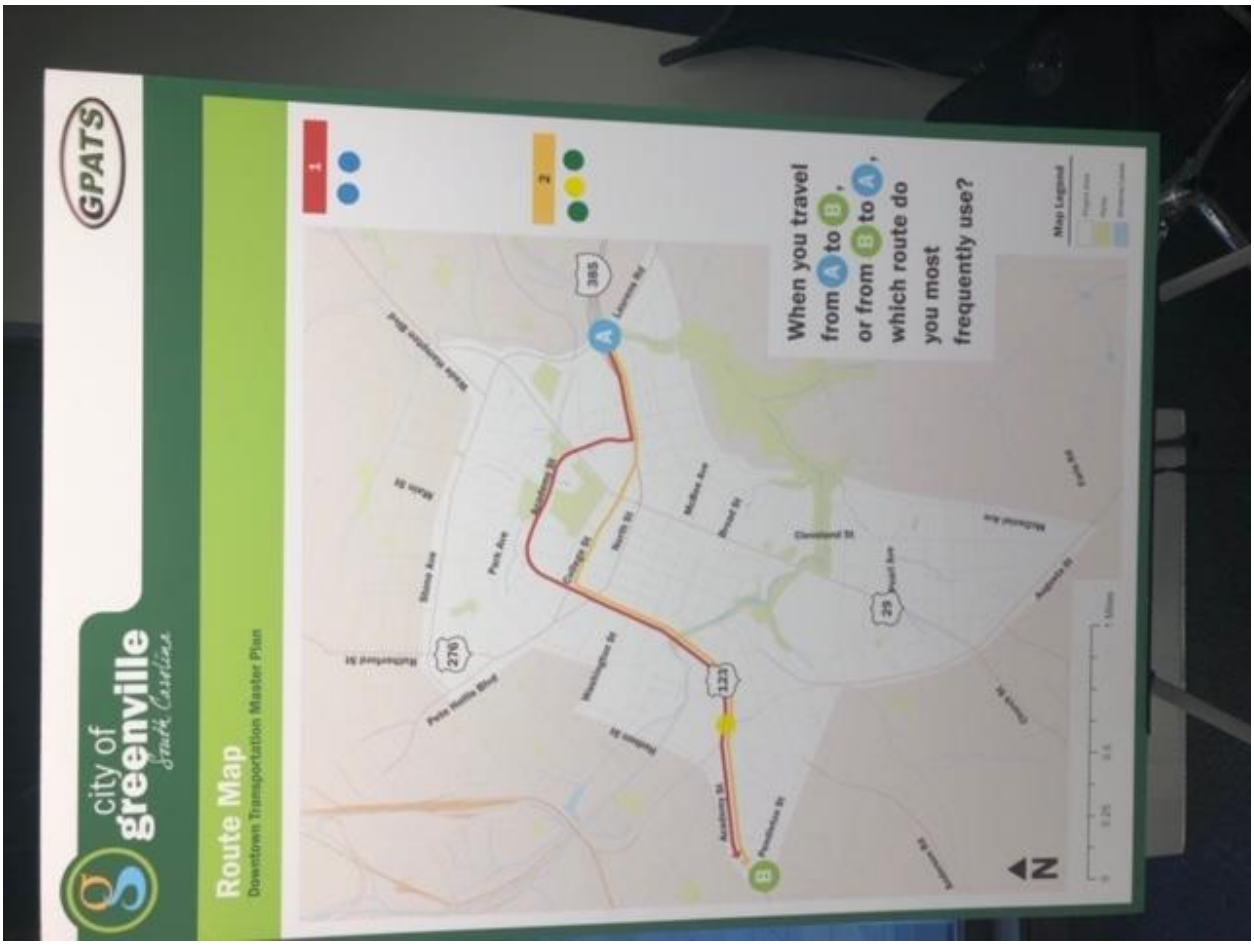

Intersection Improvements needed @ Church/Augusta
Protected Bike Lanes to connect neighborhoods
Augusta St
Faris Rd
1 Miles

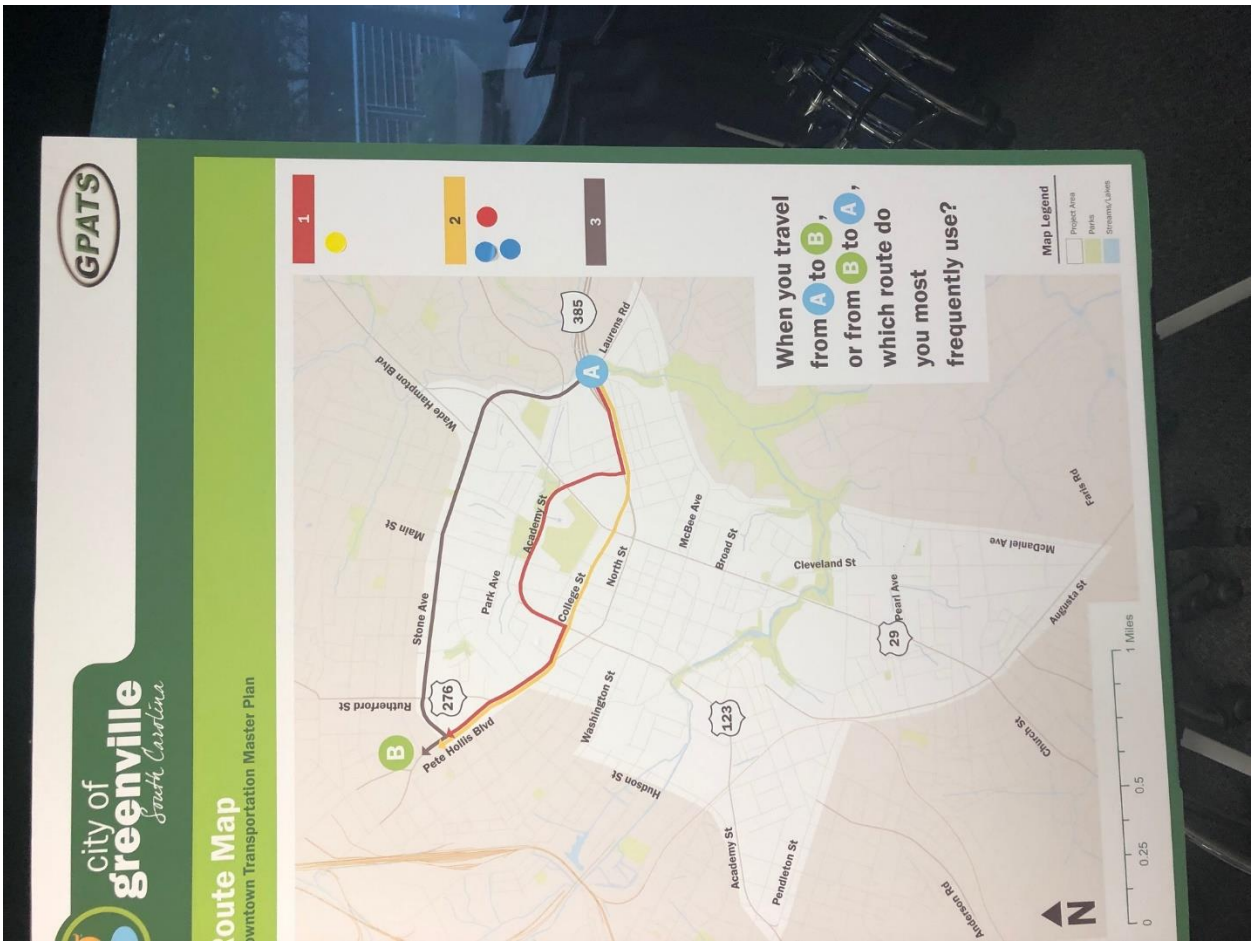

Academy St
College St
North St
385
Laurens Rd
McBee Ave
Broad St
Remove Red Activator
College St Pedestrian Mall
Laurens / I-385 Interchange needs improvement
Pettigrew area cut-through is a problem

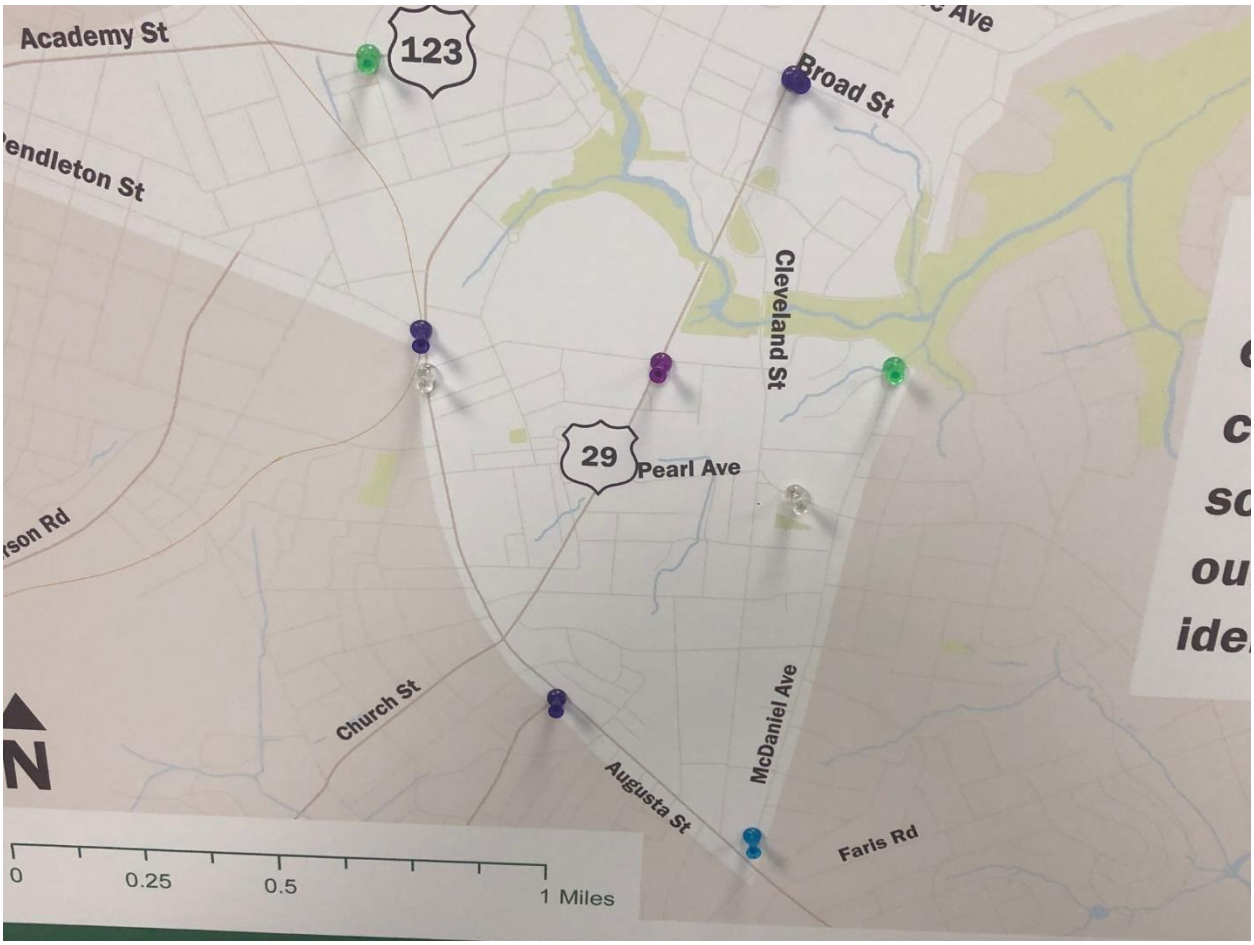

Blvd
College St
North St
Washington S
McBee Ave
Broad St
Cleveland St
Academy S
123
No THRU TRUCKS ON BUTLER
MAKE ACADEMY MORE FUNCTIONAL TO MOVE TRAFFIC MORE EFFICIENTLY
Coffee St Pedestrian Mall
Transit can help with a lot of congestion
Traffic System Make Travel Better!
CONSIDER ONE-WAY PAIRS WITHIN C.B.D.
NEED ROUNDABOUT @ BROAD MCBEE WESTFIELD
Maximize 10-12 ft Multi-use paths
Improve Pedestrian Crossings on Academy
Protected Bike lanes to facilitate getting across downtown
will County Square render most of this moot?
WEST CONNECTOR FROM CHURCH TO ACADEMY


Academy S
123
Broad St
Pendleton St
Cleveland St
29
Pearl Ave
derson Rd
Church St
Augu
McDa ve

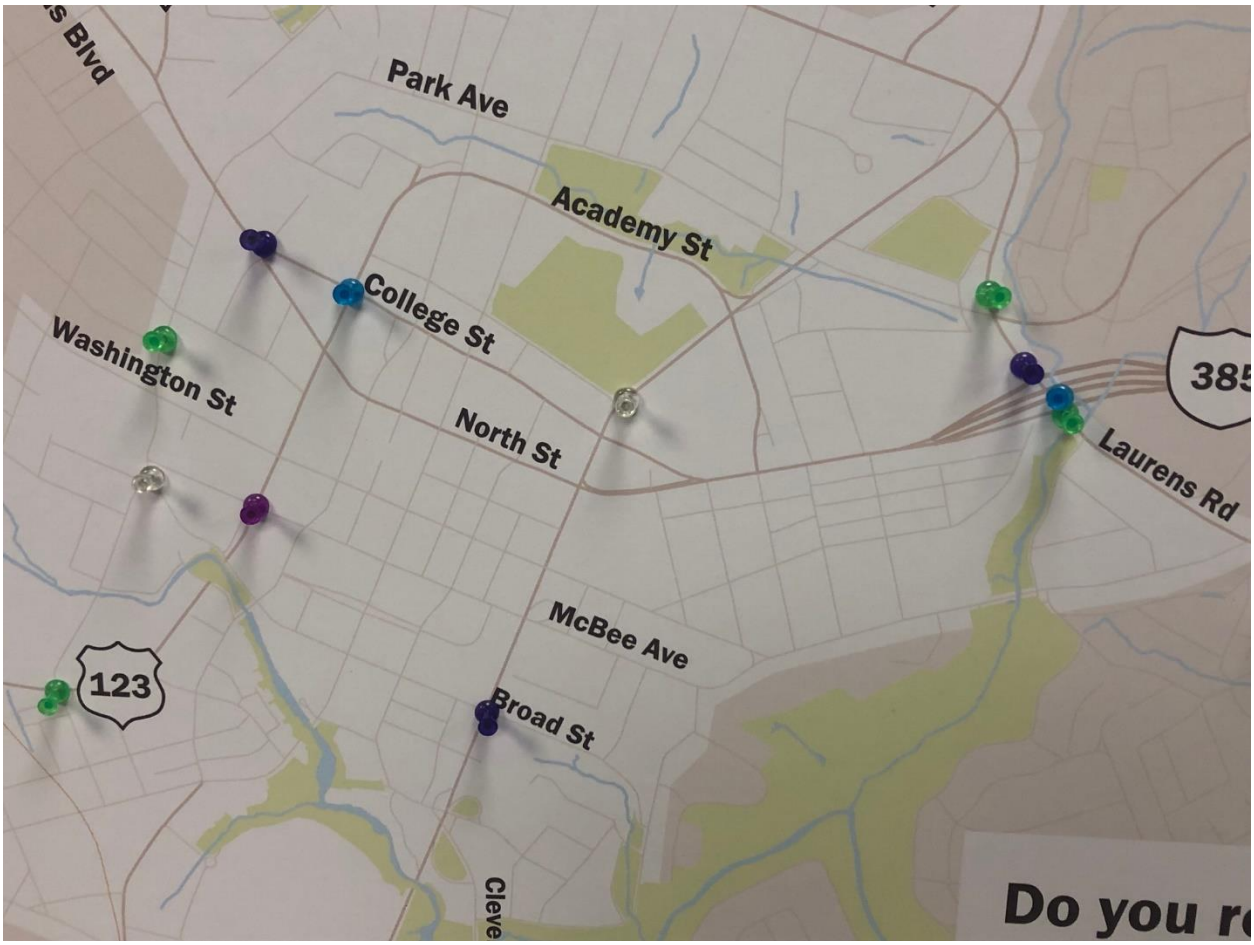

29
Pearl Ave
Cleveland is overloaded 445-515
Intersection Improvements needed @ Church/Augusta
Church St
Pedestrian signals longer + humming for accessibility
Protected Bike Lanes to connect neighborhoods
Augusta St
Faris @ McDaniel back up turning lot
Faris Rd
Include Faris + Augusta for Innovation
0.25
0.5
1 Miles
city of greenville


GPATS
city of
greenville
South Carolina
Route Map
Downtown Transportation Master Plan
1
2
When you travel from A to B, or from B to A, which route do you most frequently use?
Map Legend
N

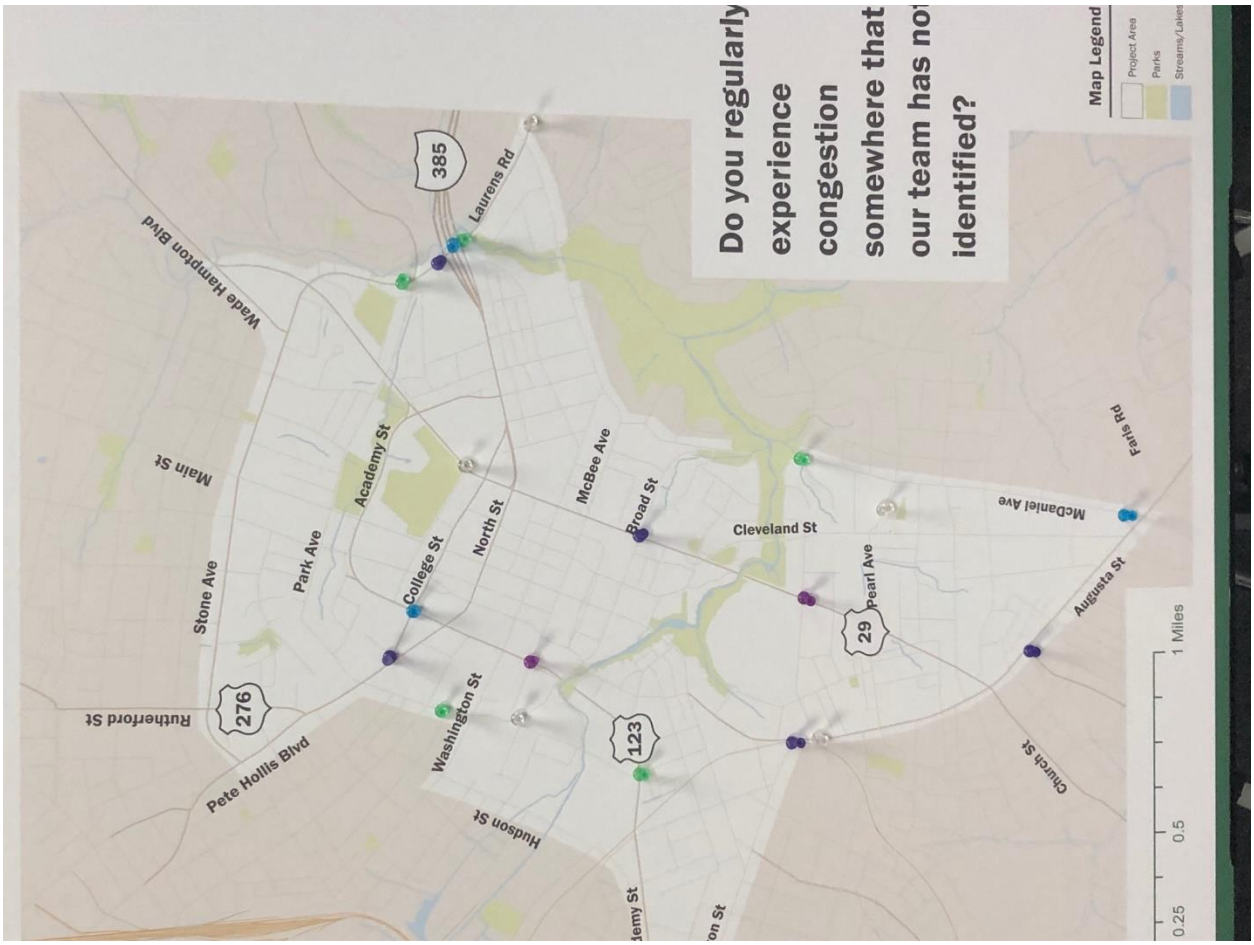

GPATS
city of greenville
South Carolina
Route Map
Downtown Transportation Master Plan
1
2
3
When you travel from A to B, or from B to A, which route do you most frequently use?
Map Legend
Project Area
Parks
Streams/Lakes
A
B
385
276
123
29
Laurens Rd
Wade Hampton Blvd
Main St
Stone Ave
Park Ave
Academy St
College St
North St
McBee Ave
Broad St
Cleveland St
Pearl Ave
McDaniel Ave
Fews Rd
Augusta St
Church St
Anderson Rd
Pendleton St
Academy St
Hudson St
Washington St
Pete Hollis Blvd
Rutherford St
N
0
0.25
0.5
1 Miles


Academy St
123
Broad St
endleton St
Cleveland St
29
Pearl Ave
son Rd
Church St
McDaniel Ave
Augusta St
Faris Rd
N
0
0.25
0.5
1 Miles

Hudson St
North St
McBee Ave
123
Broad St
Cleveland St
29
Pearl Ave


Park Ave
Academy St
College St
Washington St
North St
Laurens Rd
McBee Ave
Broad St
123
Do you r

Do you reg
experience
congestion
somewhere
our team ha
identified?
Map L
Wade Hampton Blvd
Laurens Rd
385
Main St
Stone Ave
Park Ave
Academy St
College St
North St
McBee Ave
Broad St
Cleveland St
Pearl Ave
McDaniel Ave
Augusta St
Rutherford St
276
Pete Hollis Blvd
Washington St
123
Hudson St
29
Davis St
0.25
0.5
1 Miles


Do you regularly experience congestion somewhere that our team has not identified?
Map Legend
Project Area
Parks
Streams/Lakes
0.25
0.5
1 Miles
Wade Hampton Blvd
Main St
Stone Ave
Park Ave
Academy St
College St
North St
McBee Ave
Broad St
Cleveland St
Laurens Rd
385
276
Rutherford St
Pete Hollis Blvd
Washington St
Hudson St
123
29
Pearl Ave
McDaniel Ave
Augusta St
Church St
Fairs Rd

Short Term Needs Assessments Memo: Downtown Greenville, SC

Downtown Transportation Master Plan

Greenville, SC
October 14, 2019

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Project Statement

The City of Greenville has experienced significant growth in its downtown core, in the form of residential, commercial, and recreational land uses, since the City's most recent Downtown Transportation Master Plan was conducted in 1999. The 2019 Downtown Transportation Master Plan incorporates and supplements the recently adopted Downtown Strategic Master Plan, specifically to re-evaluate conditions in the city's Central Business District (CBD) with respect to recent and anticipated future growth, changes in land use and associated traffic patterns, and new technology. The 2019 Downtown Transportation Master Plan develops a short- and long-term strategy for approaching transportation improvements that will benefit traffic flow, congestion, safety, and alternative modes of travel.

The findings of this planning effort will be used to develop a prioritized list of improvement projects representing both motorized vehicle and alternative mode travel for the downtown core of the City. The document will be used in future efforts to help secure funding support from the local Metropolitan Planning Organization (MPO) known as the Greenville Pickens Area Transportation Study (GPATS) by providing a prioritized list of projects for evaluation and incorporation into future Long Range Transportation Planning (LRTP) efforts.

Roadway Network Needs

Traffic Congestion & Safety

Intersection Level of Service

The AM and PM peak hour levels of service (LOS) at twenty intersections within the downtown study area were assessed and documented in the Existing Conditions memorandum associated with the City of Greenville Downtown Transportation Master Plan (DTMP). Those results are shown in **Table 1**. Synchro 10, developed by Trafficware, is the analysis tool used to develop LOS, and the output files are found in the Appendix A of this document as well as in the Existing Conditions memo Appendix A. LOS is based on Highway Capacity Manual (HCM) 6th Edition.

Table 1: 2019 Existing Intersection Level of Service

Intersection	Traffic Control Type	AM LOS	PM LOS
US 29/Church Street at University Ridge	Signal	D	D
US 29/Church Street at Washington Street	Signal	C	C
US 29/Church Street at North Street	Signal	B	B
US 29/Church Street at Beattie Place	Signal	D	C
US 29/Church Street at Academy Street	Signal	C	D
Academy Street at North Street	Signal	D	E
Academy Street at Main Street	Signal	B	B
Academy Street at Elford Street	Signal	A	A
Academy Street at College Street	Signal	B	C
Academy Street at Buncombe Street	Signal	B	B
Buncombe Street at College Street and Whitner Street	Signal	B	A
Buncombe Street at Atwood Street/Butler Avenue	Signal	B	C
Pete Hollis Boulevard at Rutherford Street	Signal	B	B
Pete Hollis Boulevard at Stone Avenue	Signal	B	B
Rutherford Street at Stone Avenue	Signal	C	C
Camperdown Way at Falls Street	Two-way Stop	A (EB)	C (EB)
Camperdown Way at Cleveland Street/US 29 Off-ramp	Signal	B	B
Camperdown Way at US 29/Church Street Loop Off-ramp	Two-way Stop	A (SB)	A (SB)
Cleveland Street at US 29/Church Street Loop On-ramp	Yield*	A (NBL)	A (NBL)
Augusta Street at Dunbar Street	Signal	B	C

*side-street is one-way and traffic control consist of a major-street left turn yield to oncoming traffic

On urban SCDOT roads, the desired target operations is LOS C. At times, this target may not be realistically achieved, due to physical impediments, high traffic volumes, or other constraints, and a minimum LOS D can be used as an acceptable secondary target. Findings from the 2019 Existing Conditions evaluation indicate that many of the studied intersections are operating at or

better than LOS D. The one exception within the study's count program is the intersection of Academy Street and North Street, during the PM peak. This intersection functions at LOS E, which is indicative of the congestion observed during peak times.

Other intersections that exhibit LOS D during one or both weekday peak hours include:

- US 29/Church Street at University Ridge
- US 29/Church Street at Beattie Place
- US 29/Church Street at Academy Street

Intersections at LOS D are not currently characterized as congested; however, they are more susceptible to the influence of additional traffic than intersections at LOS C or better. Intersections at LOS E are essentially at capacity, with minimal excess capacity, under current configurations, for additional traffic growth. Intersections at LOS D and LOS E should be targeted as short-term improvement candidates, to mitigate the potential of creating prolonged bottlenecks in the downtown road network. It is also probable that many of these intersections are currently already acting as short-term bottlenecks, which can cause intersection capacity reductions at upstream traffic signals. This can then cause congestion exposure at other nearby signals, which would not normally be congested under more favorable conditions. Observations from the project team and respondents from the public survey support this conclusion.

Travel Demand Model Results

Travel Demand Modeling (TDM) results from the Greenville-Pickens Area Transportation Study (GPATS) regional model have been documented in the Existing Conditions memorandum. The results are from the model's 2015 base year scenario. Holistically, the model illustrates a scenario in which several of the arterial routes through the study area are likely to experience some levels of peak congestion under current conditions, with isolated instances of major delay being observed on:

- US 29/Church Street between University Ridge and Beattie Place
- Main Street between Broad Street and Stone Avenue
- Stone Avenue between I-385 and Main Street
- North Street between Academy Street and the I-385 at Stone Avenue/Laurens Road interchange
- Butler Avenue on the west side of the study area and Washington Street on the east

These results are based on a model validation and calibration effort designed to approximate daily traffic to within standard acceptable variability thresholds for facility type and volume group. It is also known that regular daily congestion occurs on these roads during peak times, further validating the model. The full documentation of the model review and calibration effort can be found in the Appendix of the Existing Conditions memorandum.

Survey Results

The aforementioned modeled congestion locations are relatively consistent with anecdotal comments received from the public outreach survey, which was administered online from July

10 - 23, 2019 and in person at a public outreach meeting on July 16, 2019. Corridors that received repeated comments regarding congestion included:

- Stone Avenue
- The I-385 interchange with Stone Avenue/Laurens Road
- Academy Street between US 29/Church Street and North Street
- Academy Street between College Street and Westfield Street
- Park Avenue near the intersection with Stone Avenue and Park Avenue at Main Street
- Butler Avenue
- Faris Road near the intersection with Augusta Street
- US 123 at the intersection with Pendleton Street
- Segments of McDaniel Avenue
- Main Street

It is notable that the corridor that received the most comments regarding overall congestion and navigation difficulty was Stone Avenue between Rutherford Street and the I-385 interchange. Comments indicated that much of the corridor is congested, due to the lack of left turn lanes (except at Main Street) and also due to the interchange with I-385.

Academy Street received numerous comments as well, with regards to general congestion and signal coordination needs. Several responders noted that congestion forms at the signal at Westfield Street, and spills back to W. Washington Street, Buncombe Street and College Street. Additionally, the intersection of Academy and Church Street was referenced as being a congested intersection during the PM peak in multiple survey responses.

Butler Avenue was mentioned by several local residents as being somewhat congested, as well as being used by commuter traffic to travel between downtown and the Pete Hollis Boulevard corridor. Concerns centered on the overall travel speed of vehicles making this commuting trip and some discomfort associated with safety perception due to volume and speed of traffic. Several responders also noted that inbound AM traffic congestion on Pete Hollis Boulevard can be attributed to the lack of a right turn deceleration lane at the signalized intersection with Butler Avenue. 566 vehicles were counted turning right here during the AM peak while 415 were counted during the PM peak in 2019, confirming the high traffic volume making this movement.

Several survey responders also noted a general difficulty with traveling on Main Street. Surveys cited the numerous pedestrians, on-street parking turnover, and lack of left turn lanes as being primary causes of slow-moving traffic. Several responses asked for Main Street to be completely closed to motorized traffic making it a pedestrian plaza space. There are many factors that must be considered to accomplish a project such as this. Special design considerations would have to be made to allow access for emergency services such as fire, EMS, and police vehicles. Businesses receive deliveries from trucks that park on Main Street, which would be greatly impacted. Business owners would need to be consulted with regards to overall visibility as well to better understand the general support for restricting traffic on Main Street. There are numerous parking spaces on Main Street that serve local businesses and contribute to the total parking availability within downtown. Due to these potential impacts, the City's Economic Development Department should be involved in any discussion of major

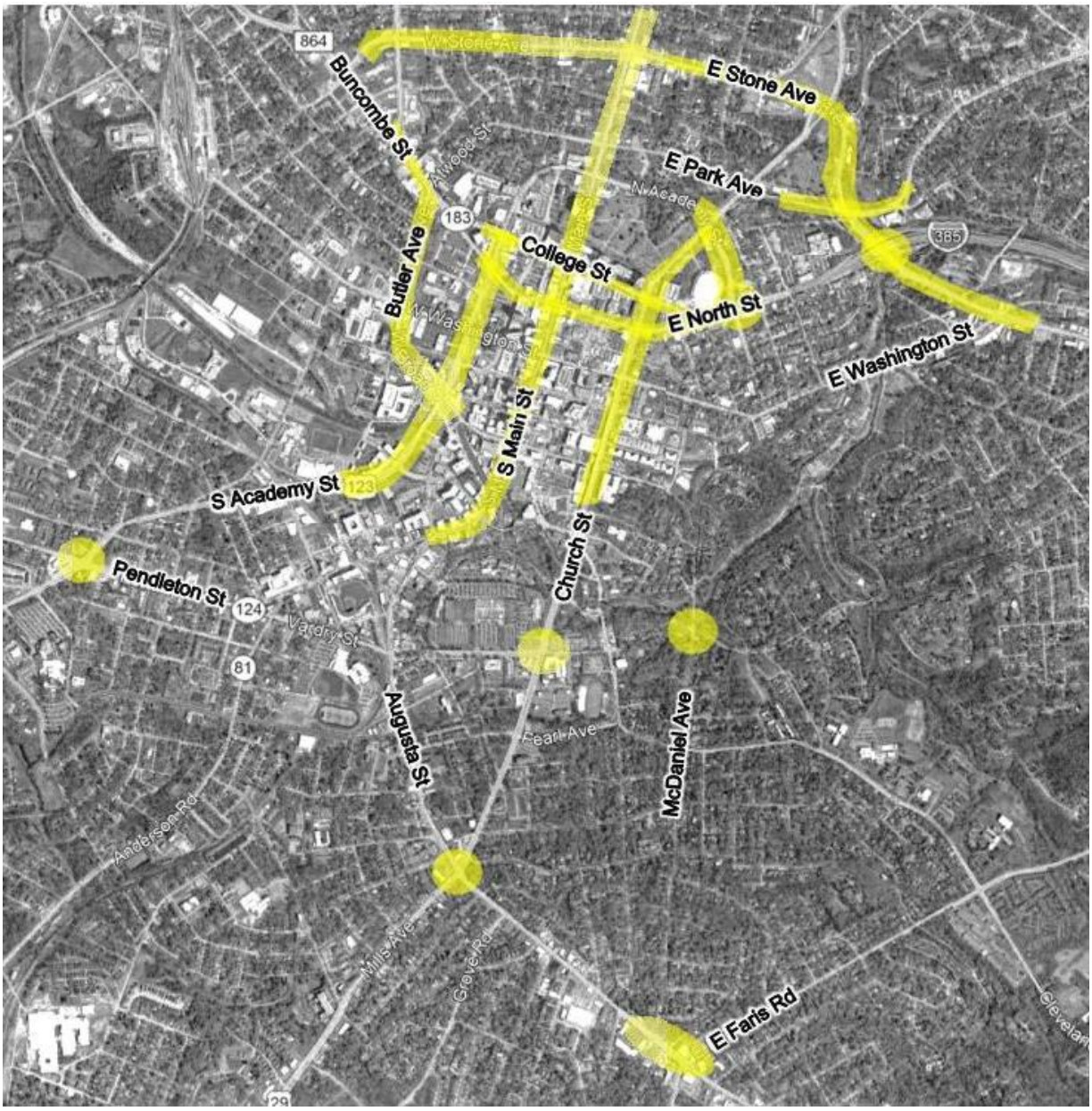
changes to Main Street access. An alternative solution to restrict left turns at signalized intersections should be explored to reduce vehicle delays and to also reduce conflict points between pedestrians in crosswalks and left turning vehicles. This could be a 24-hour left turn restriction, or the restriction could be limited by time of day using blank-out No Left Turn signs to indicate when the restriction is in place. It should be noted that some delays on Main Street are also caused by conflicts between pedestrians in crosswalks and vehicles waiting to turn right. The geometry of many of the intersections on Main Street does allow for a vehicle to turn the corner and clear the through lane before encountering the pedestrian crosswalk, allowing Main Street to continue to flow. This may allow Main Street to accommodate pedestrians and right turn vehicle conflicts without excessively impeding traffic flow.

Heavy congestion was also reported to occur around the Bon Secours Wellness Arena when arena events take place. While the added volume due to arena events should be expected to decrease mobility, some measures can be taken to reduce this congestion. A contributing factor to the congestion around the arena is the pick-up/drop-off lane on North Street. With the increase in rideshare services such as Uber or Lyft, this lane has potential to see heavy usage during events. The lane currently has capacity for 3 or 4 waiting vehicles at one time, meaning that any additional vehicles must wait on North Street, blocking travel lanes coming from I-385 or Academy Street. Traffic flow could be improved by either extending the pick-up/drop-off lane farther west down North Street, or installing signage directing rideshare services to use the parking lot on Church Street for their pick-up/drop-off location. This would require coordination with the Arena to allow rideshare drivers to access the parking lot without charge. Further discussions regarding improvements for arena traffic should also be coordinated with the Arena.

Observations have also been made that suggest that pedestrians will walk across North Street mid-block during events at the Arena, creating a potential safety challenge. The use of landscaping, such as planter boxes or dense vegetation, can help direct pedestrians to signalized intersections where crossings can take place.

Figure 1 below is based on the three primary sources of information related to vehicular congestion. This figure has been developed using both quantitative measures of performance (Level of Service, volume-to-capacity ratio) as well as qualitative measures, primarily taken from survey responses. These areas are key candidates for short-term improvements.

Figure 1: Areas of Congestion, as Identified by the Existing Conditions Assessment



Traffic Signal Coordination

Traffic signal timing is often a balance of conflicting movements competing for time and space at an intersection. Variations in traffic volume and direction by time of day, day of the week, and time of the year can lead to diminished capacity at signalized intersections, depending on when the signal was last timed. Often, short-term, immediate improvements can be realized by making modifications to traffic signal timing plans at congested intersections. This balance can be complicated by saturated conditions, which can cause capacity-reducing effects such as starved turn lanes, queue spillback, lane blockage, and prolonged start-up times. In saturated, or congested conditions, one primary technique for addressing such effects is to identify and focus on timing refinements to address congested movements. This can be a cost-effective way to improve travel times on congested corridors without the need to construct new lanes or modify overhead signal assemblies. The signal timing process is commonly described as a feedback loop which begins with the development of a desktop timing plan, followed by the implementation of that plan. Afterwards, observations and post-timing data should be collected and field adjustments should be made until it can be confirmed through data that travel times, delays, queues, or other metrics are improved over the initial conditions.

Routine updates to traffic signal timing plans are generally recommended for principal arterial corridors that provide regional mobility. Over time, traffic patterns can change with new development, new roadway improvements elsewhere, and new commuting habits. Timing plans can consist of isolated modifications to cycle length, split times, turn protection, pedestrian times, force-off parameters, and other variables. Additionally, a broader coordinated corridor plan can be established or modified to improve throughput for major-street traffic by adjusting elements such as signal offset time, corridor cycle length, and lead/lag turn protection.

A routine signal retiming effort is also an efficient way of taking inventory of equipment in the field. A thorough documentation process can help identify specific needs at critical intersections and can aid the City's staff in developing a detailed and prioritized maintenance list. During a retiming effort, many equipment issues can be examined, including:

- Controller status and age
- Communications status and connectivity
- Cabinet integrity
- Verification that pedestrian pushbutton and countdown timers are functioning correctly
- Verification that induction loops, cameras or radar detectors are functioning correctly
- Mounting hardware integrity
- Verification that proper sight distance to signal heads and signs is being maintained

Traffic Signal Coordination in Downtown Greenville

Downtown Greenville is largely a grid network, which can present challenges to effective traffic signal timing. Ideally, coordination on both east-west roads and north-south roads can be achieved using appropriate cycle lengths and offsets. It is common practice for urban grid systems to operate on short cycle lengths, which minimizes queuing and delays. One technique implemented in Portland, Oregon relies on a consideration of the block spacing and desired travel speeds to determine signal offsets and cycle lengths. This technique sets signal offsets to

one-quarter of the total cycle length. For example, if the downtown signals were all operating on a 60-second cycle, and all running on the same clock, the offsets between adjacent signals would be set to 15 seconds. This equated to travel times between blocks equivalent to approximately 13 miles per hour in Portland. Longer blocks under the same cycle and offset would promote higher travel speeds between signals in order for drivers to remain in the coordinated band. Within downtown Greenville, internal block spacing between signals does vary, but generally falls within an approximate range of 325'-550'. If a 60-second cycle is used on internal grid signals in Greenville, the resulting encouraged speed would range between 15 and 25 mph. This type of progression speed in a downtown setting is reasonable and is ideal for any setting where pedestrians and cyclists may be present in high numbers.

Low cycle lengths can contribute to reduced queues due to the number of times a movement gets served within an hour. Additional phases, such as protected left turns, can reduce the effectiveness of a low cycle length, which should be considered in timing efforts. A secondary consideration when setting system cycle lengths is how the internal grid signals can function within a larger arterial coordination plan. Generally, keeping cycle lengths equivalent is ideal, but often, there are major intersections with more than two phases that might require longer cycle lengths. The ideal cycle length for principal arterials serving downtown, such as US 123/Academy Street and US 29/Church Street, should be determined, and internal grid signals can function with the same cycle length or with half-cycle lengths, so that coordination can be maintained. A hierarchy of roads based on functional classification is recommended to establish which roads should serve motorized traffic, and which should serve a more balanced mix. The hierarchy below represents a possible strategy. The City should move forward with a strategy to undergo retiming of Tier 1 arterials, followed by Tier 2 roads in coordination with SCDOT and a signal timing consultant, if desired.

Tier 1	**Arterials - Downtown Bypass**
	US 123/Academy Street
	US 29/Church Street
Tier 2	**Arterials - Through and Serving Downtown**
	Beattie Place/College Street
	Pete Hollis Boulevard/Buncombe Street
	Augusta Street
Tier 3	**Collectors**
	Washington Street
	McBee Avenue
	River Street/Richardson Street
	Spring Street

Signal Timing with One-Way Pairs

One-way pairs provide more carrying capacity than traditional two-way streets. One-way streets provide valuable throughput but can lead to higher speeds that need to be regulated with offset times. Setting higher cycle lengths to encourage shorter travel times comes at the expense of

pedestrian, cyclist, and motorist safety and should be used with caution. The one-way pair in downtown is proposed as a Tier 2 route to introduce some regulation on speed and travel time through periodic forced stops of platoons. This should help with interactions between vehicles and bikes and pedestrians, as well as act as a way to promote the use of Academy Street to bypass downtown.

Left Turn Phases, Vehicle Detection and Controller Settings

During review of survey responses, several signals were specifically mentioned with regards to left turn phase operation. The most common requests were for left turn phases to be implemented at specific locations, and to adjust signals that recall left turn phases even when a vehicle is not present at the detector. Signals where left turn phases were requested are:

- Academy Street at McBee Street – westbound left turn lane
- Academy Street at Washington Street – westbound left turn lane
- Park Avenue at Main Street – eastbound and westbound left turn lanes
- Academy Street at Pendleton Street – northbound and southbound left turn lanes

Additionally, the southbound left turn lane from US 29/Church Street onto East Washington Street was mentioned as being set to recall with every cycle even if no vehicle is present. This condition was not visibly observed by this document's development team however the concern should be investigated further in the field for confirmation. A periodic traffic signal timing update and/or inventory update can be an ideal time to also look for issues with vehicle detectors and controller settings that can be adjusted to improve effective green time for critical movements.

Another controller setting which can impact signal coordination is the use of pedestrian actuators that allow pedestrians to call a phase during which they can cross safely. Because actuators do not call a pedestrian phase consistently every cycle, they can disrupt corridor signal coordination. Removing the actuators in favor of a regular pedestrian phase is a possible strategy for setting reliable coordination plans. However, in locations where the roadway is especially wide or pedestrian volumes are low, actuators may be the more practical method to avoid dedicating excessive time to pedestrian phases every cycle. This strategy should therefore be evaluated based on the conditions and needs of individual intersections or corridors.

Lane Restriping Strategy: US 29/Church Street at North Street

As an immediate short term project, the right-hand northbound through lane on Church Street at the traffic signal at Buncombe Street can be restriped into a through-right turn lane (Project ID #3). This has a minor effect on intersection LOS, but does indicate there would likely be a net benefit in queue length for the northbound right turn movement by 50%. Since this movement is heavy, and frequently extends back through the upstream signal at Washington Street, there is the potential to positively affect capacity constraints caused by that queuing.

Downtown Area Bypass

The road network of downtown Greenville is relatively well-connected to the suburban neighborhoods surrounding it by several principal arterials offering adequate mobility options, no

matter where a trip end is located. In addition to the principal arterial network, two controlled-access freeways can be considered components of the area's road network. I-385 is a major freeway route from the east that carries more than 60,000 vehicles per day (vpd)[1]. I-185, which transitions from a controlled-access freeway to a four-lane divided highway (US 29) south of the study area, carries approximately 19,000 vpd.[2]

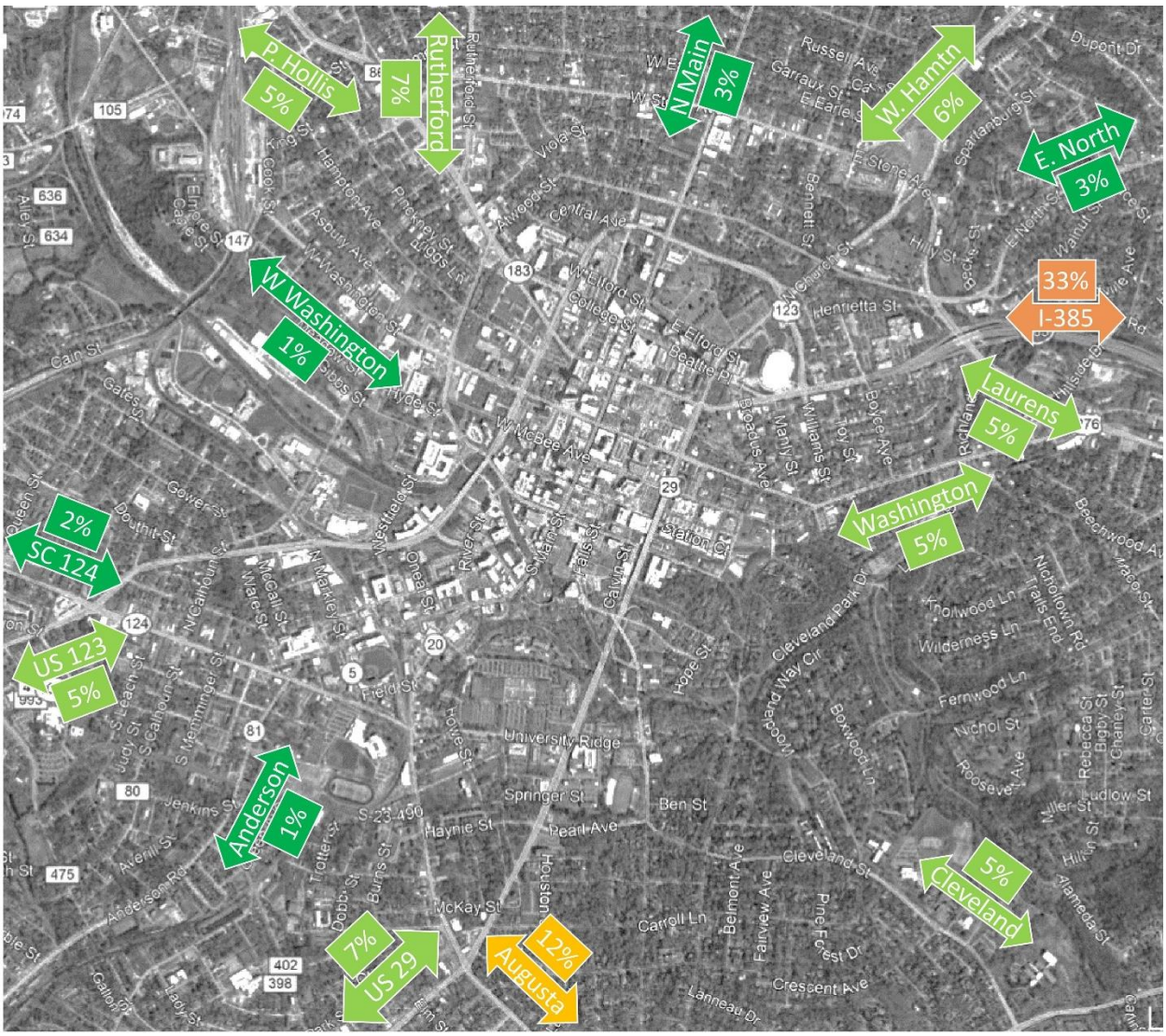
The Existing Conditions memorandum documents an analysis of traffic patterns within the downtown study area using a real-time traffic data vendor, Streetlight, Inc. Streetlight aggregates big-data sources, such as cell phones, fleet vehicles, and other built-in vehicle technology to accurately estimate relative traffic volumes, trip origins and destinations, travel time, and other metrics used in traffic and transportation engineering. An origin-destination (O-D) analysis was conducted to learn which routes were most favored by people traveling into and out of the downtown area. The results are shown in **Figure** 2.

As evidenced by the data, a third of the total daily bi-directional traffic makes use of I-385. The second-most used route is Augusta Street in the southeast. Rutherford Street and US 29/Mills Avenue have a similar proportion of daily bi-directional traffic on them, making them the third- and fourth-most used routes. This information suggests that a very large proportion of daily traffic makes use of I-385, and this is incidentally where much of the downtown congestion comes from on a daily basis.

People travel into downtown for various reasons, including traveling through the city on their way to other destinations. This is supported by middle-filter analysis within Streetlight's platform, which is documented in the Existing Conditions memo. The sample dataset from Streetlight indicates that on a typical weekday during an AM or PM peak period, approximately 19%-24% of the traffic from I-385 passes through the study area to external nodes on Pete Hollis Boulevard, Rutherford Street, or US 123/South Academy Street. These three external nodes were chosen for analysis because they represent three dominant routes that a driver might take if he or she has entered the downtown area from I-385 and is intending to pass through the city. Therefore, the total pass-through trip percentage will be higher than noted above for the three primary routes since other external nodes were not included in this analysis.

[1] SCDOT 2018 Count Data, Station 2483
[2] SCDOT 2018 Count Data, Station 2440

Figure 2: Daily Trip Distributions To and From Downtown



Further analysis of the pass-through trips yielded information about which route people tend to take to reach these three external nodes from I-385. **Figure 26 and Figure 27** in the Existing Conditions memo document the split of traffic using Academy Street, Stone Avenue, or College Street. The conclusions drawn in the Existing Conditions memo indicate that very few trips between Pete Hollis Boulevard or Rutherford Street and I-385 take place on Academy Street. Trips originating or ending on Rutherford Street tend to favor Stone Avenue as the preferred route, while trips originating or ending on Pete Hollis Boulevard tend to favor College Street/North Street.

Academy Street is used more frequently for trips originating or ending on US 123/South Academy Street, with 46% taking Academy Street and 53% taking College Street. This indicates that Academy Street may be underutilized for some trips through the city.

An estimate of free-flow travel time from I-385 to each destination is reported in **Table 2**. This information indicates that Academy Street has the potential to be a viable route for traffic to any

of the three destinations, as the free-flow travel time does not vary by more than one minute from the fastest and slowest routes. Notably, Academy Street has the potential to be the shorter route, by time, to both Rutherford Street and S. Academy Street when compared with College Street. Any of the three routes are essentially equivalent when exploring free-flow travel times to Pete Hollis Boulevard.

Table 2: Approximate Free-Flow Travel Times: Stone Ave, Academy St, College St

Trip	Route		
	Stone Avenue	Academy Street	College Street
I-385 to Rutherford St.	4 min	5 min	6 min
I-385 to Pete Hollis Blvd.	5 min	5 min	5 min
I-385 to S. Academy St.	-	5 min	6 min

During congested periods, the travel times can vary. Google Maps is referenced in **Table 3** as a snapshot estimate of travel times at 7:30 AM and 5:30 PM on a Wednesday. The travel times on each route are relatively similar; however, it appears that in both AM and PM peak times, the trip from I-385 to Rutherford Street may be shorter by up to four minutes if drivers take Stone Avenue. Trip times to Pete Hollis Boulevard are essentially equivalent, while trips to South Academy have the potential to be up to two minutes faster on College Street.

Table 3: Approximate Peak Travel Times: Stone Ave, Academy St, College St

Trip	Route					
	Stone Avenue		Academy Street		College Street	
	AM	PM	AM	PM	AM	PM
I-385 to Rutherford St.	4-8 min	5-16 min	5-12 min	6-18 min	5-10 min	6-18 min
I-385 to Pete Hollis Blvd.	4-9 min	5-16 min	4-10 min	5-16 min	4-9 min	5-16 min
I-385 to S. Academy St.	-	-	4-10 min	6-18 min	4-9 min	6-16 min

If even a 10%-15% improvement to traffic flow and signal progression on Academy can be achieved through adjustments to the cycle length, offsets, and lane geometry, the potential travel time savings could reach 2-3 minutes per vehicle. This would also help drive the travel time for Academy Street down closer to travel times for other routes. By using Academy Street as a bypass for through traffic, a secondary benefit of downtown congestion reduction can be achieved by the shifting of traffic from College Street and North Street and off local roads serving downtown parking decks, venues, and other attractions.

Survey Results

As previously discussed in the Traffic Signal Discussion and Needs section of this memo, and in the Existing Conditions memo, several questions on the public input survey were related to traffic signals and route choice. While responses on the survey did not exactly follow the precise percentages taken from the Streetlight middle-filter analysis, the ranking of route preference resembled the Streetlight results. Therefore, it is still clear that there is a dominant use of Stone Avenue to reach Rutherford Street and Pete Hollis Boulevard, and that very few trips are made

on Academy Street to reach those destinations. Additionally, the route choice was fairly balanced between Academy Street and College Street when asked which route was preferred to reach US 123/South Academy from I-385.

Reasons given for the preference of Stone Avenue to other routes included:

- Fewer signals
- Better signal timing
- It bypasses downtown
- Fewer turns
- Google or Waze directed survey respondents there

Reasons given for the preference of Academy Street included:

- Avoids congested downtown and Main Street
- Fewer signals
- Higher speed limit
- Fewer pedestrian conflicts
- Less congestion
- Does not lack turn lanes, like Stone Avenue
- Google or Waze directed survey respondents there

Reasons given for the preference of College Street included:

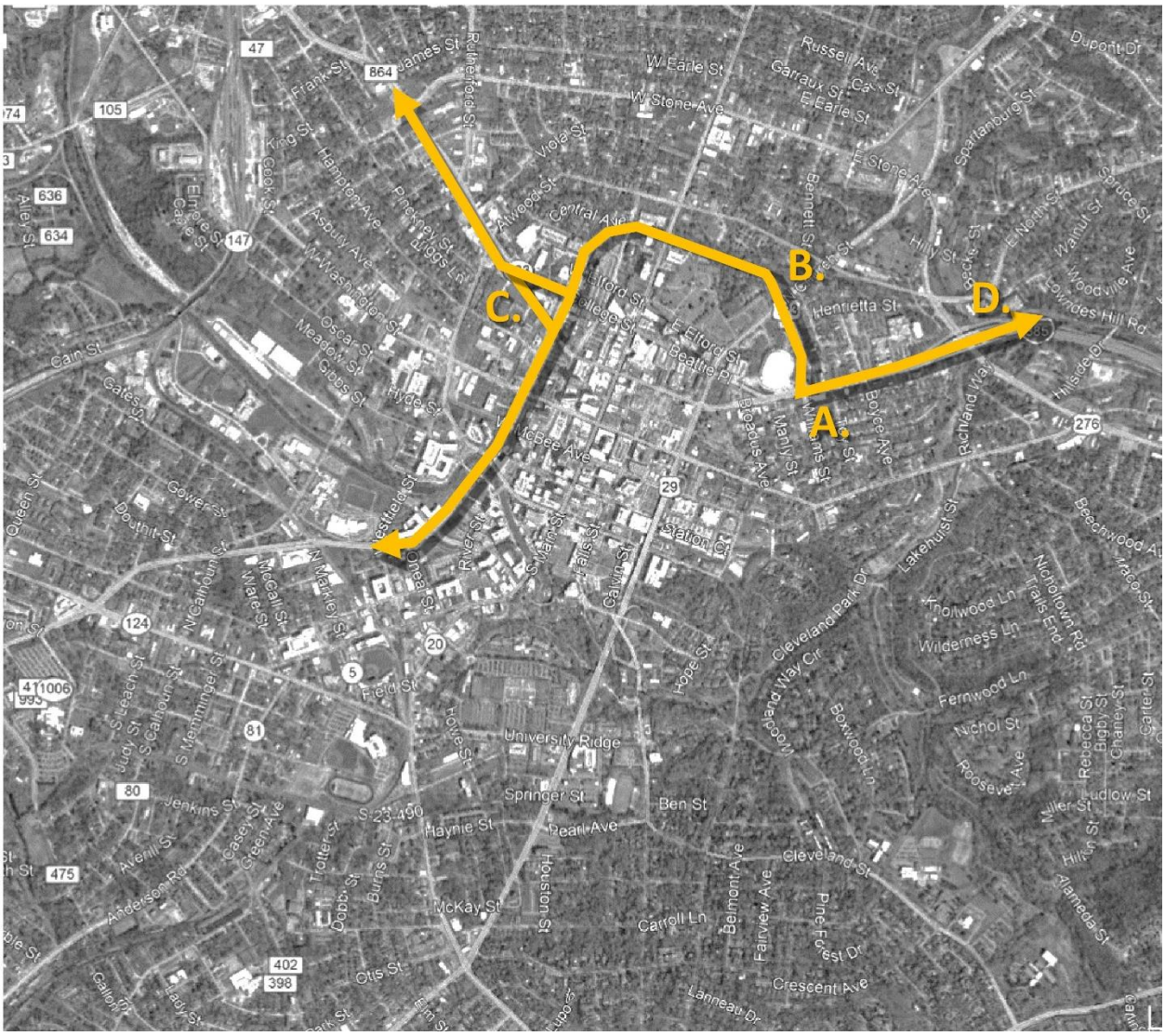
- It is the most direct route
- Avoids lights on Academy and Stone Avenue
- Driving downtown for pleasure
- Google or Waze directed survey respondents there

These results from the survey suggest that the reasons that many drivers consider routes other than Academy Street are tied to the signal timing, the directness of other routes, and that a navigation app simply told them the least congested route. Those drivers who do already choose Academy Street recognize that it offers benefits such as being wider, having several grade-separated intersections which eliminate delay points, having a higher speed limit, and having less congestion tied to downtown traffic and pedestrians. Notably, there are the same number of traffic signals on all three routes, but driver perception can be tied to how many signals they are required to stop for. This is coupled with the use of technology (Google Maps/Waze) directing people to all three routes, depending on the congestion at that given time.

Short Term Strategies for Creating a Downtown Bypass

Several short-term strategies can be implemented to improve driver perception of Academy Street as a viable route. The locations to be discussed in this section are shown in the **Figure** 3.

Figure 3: Academy Street Bypass Short Term Strategy Locations

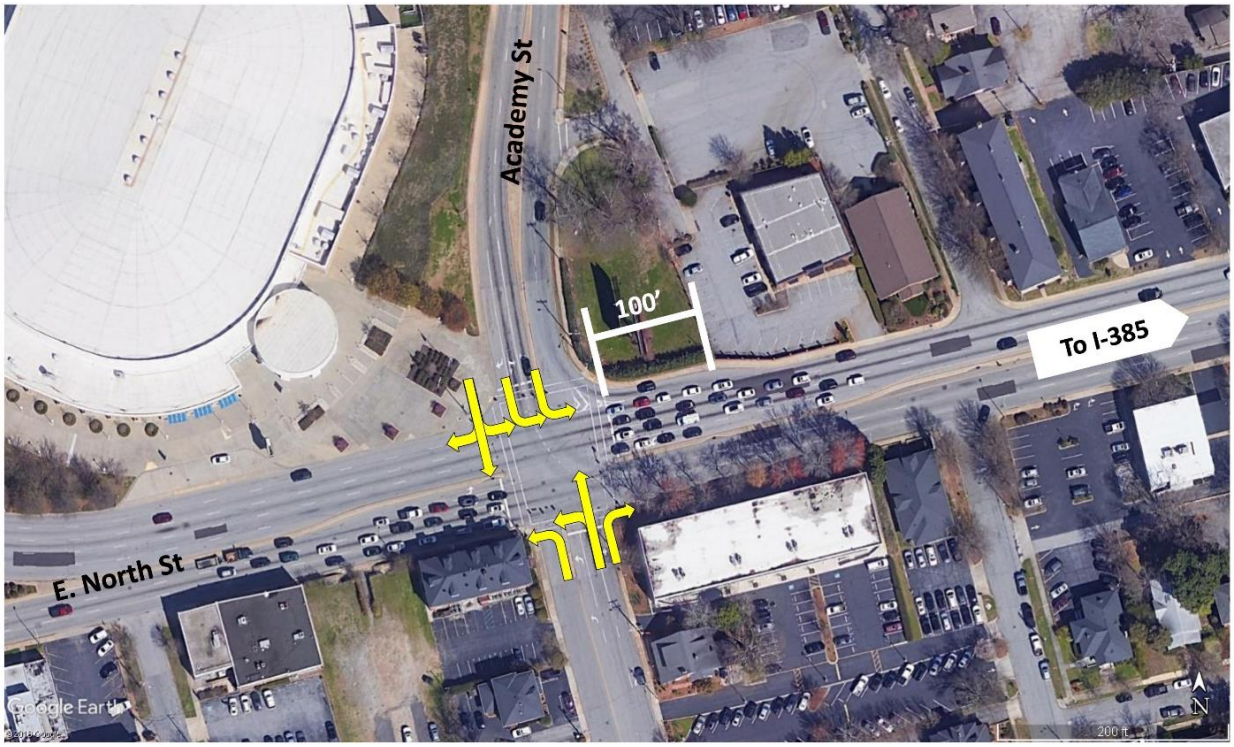


A. Provide Better Access with I-385

Currently, use of Academy Street is limited in part to the perceived amount of turns it requires drivers to make, as compared to a routes such as Beattie Place/College Street or Stone Avenue. Coming off I-385, the natural path for traffic is to continue onto Beattie Place and go through downtown because there is only one short right turn lane that is approximately 100 feet long leading to Academy Street. An immediate opportunity exists to reconstruct the right turn lane as a channelized right turn free-flow lane. To account for pedestrian crossings during events at the Bon Secours Wellness Center Arena, this movement can be controlled through pedestrian actuation by turning on flashing beacons when a pedestrian call is registered at a pushbutton on one of the two landings on either side of the crosswalk across Academy Street. The channelized lane also provides space for a pedestrian refuge island to allow pedestrians to cross in stages. This configuration might introduce a slight weaving maneuver that would take place with traffic from North Street turning into the first driveway on the right, although this condition is likely happening currently.

Capacity for the right turn movement from I-385 to Academy Street could also be increased by the addition of a second right-turn lane at this location. However, in order to maintain intersection alignment, the roadway would need to be widened, potentially impacting neighboring properties. A shared through-right lane could also increase right turn capacity without widening; but it should be noted that this would decrease the space available for a pedestrian refuge island while also introducing a second lane of right-turning vehicles to conflict with pedestrian movements. Given that this area sees high pedestrian volumes routinely for events at the Bon Secours Wellness Arena, it is recommended to maintain pedestrian refuge space if possible.

Figure 4: Proposed Short-Term Striping; Academy Street at North Street



Conversely, more capacity for the high-volume southbound left turn movement from Academy Street onto E. North Street can be accomplished by restriping the right turn lane into a shared left-through-right lane, and by restriping the middle shared left-through lane into a left-only lane.

A project involving this intersection should also include improvements to the visibility of the lane alignments through retroreflective pavement markings and overhead signage. The turning radii at this intersection should also be verified to ensure that they meet standards and are not inhibited by the existing medians or by any of the restriping efforts described above.

A secondary component to improving access to Academy Street and mitigating congestion is to remove the median break along North Street between Academy Street and I-385. This location is unsignalized, and presents a crash risk area that is a non-recurring causes of congestion, per the GPATS Congestion Management Plan. If the median break was closed, left turns onto Boyce Street would need to take place at the signal at Academy Street. While traffic counts at

Boyce Street were not collected in this study, a sensitivity check of the intersection with an additional 60% westbound left turns at Academy Street at North Street yielded a 5 second delay per vehicle increase in the PM peak and no recognizable increase to delay in the AM peak.

B. Reduce Actual and Perceived Travel Time

Academy Street is built to be a bypass. It naturally connects I-385 with US 123 and circumvents much of downtown. It is four lanes wide, and currently functions well below the capacity of a four-lane road. By 2018 average daily traffic estimates, there is as much as 50% reserve capacity on the north end of Academy Street (between North Street and College Street signals). This suggests that the road could handle additional through volume, but would likely require some modifications to existing signal timings.

There are some congested intersections on Academy Street currently. Improving the capacity of those intersections by adding turn lanes can help reduce overall delays, and can help with optimizing corridor coordination. Academy Street at US 29/Church Street is currently a major bottleneck for traffic on both roads. The City should explore opportunities to improve the intersection's capacity by adding turn lanes where feasible.

Other isolated intersection geometry improvements and signal coordination updates should be explored to improve capacity, reduce delay associated with critical movements, and provide drivers with a route that offers fewer stops, as compared to Stone Avenue and the College Street/North Street one-way pair.

C. Improve Access to Academy from the Buncombe Street Corridor

There is less overall traffic on the Pete Hollis Boulevard/Buncombe Street corridor than on I-385, however, access to Academy Street from the west side of the downtown area should still be considered, since reverse trips to I-385 are equally important. Improving the intersections at College Street and at Buncombe Street is likely to have indirect benefits at other nearby traffic signals due to queue and delay reduction.

Much of the congestion at these intersections comes from queue spillback from other intersections within the grid. As mentioned in the Traffic Signal Discussion and Needs section of this memo, the downtown grid network can benefit from a retiming effort to set consistent cycle lengths and optimize coordination parameters. However, one important observation is that during the AM peak, the inside eastbound lane of Buncombe Street becomes a left turn only, which contributes to a lane imbalance for inbound traffic. This results in two eastbound lanes being heavily favored at upstream signals at Butler Avenue/Atwood Street and at Rutherford Street. To help mitigate this condition, there are several short-term improvements that can be considered. The middle lane of Buncombe Street can be restriped to serve as a shared left-through lane, along with signal coordination along Academy Street, to encourage additional left turn vehicles onto Academy Street, which may help improve capacity and relieve some of the delays at this signal (see **Figure 5**). These improvements would need to be verified through additional study and design to ensure that turning radii and signal timings were adequate. Also, pedestrian crossings on the north leg may become more difficult with two left turn lanes and should be evaluated.

Figure 5: Proposed Short-Term Striping Alternative 1; Buncombe St. at Academy St.

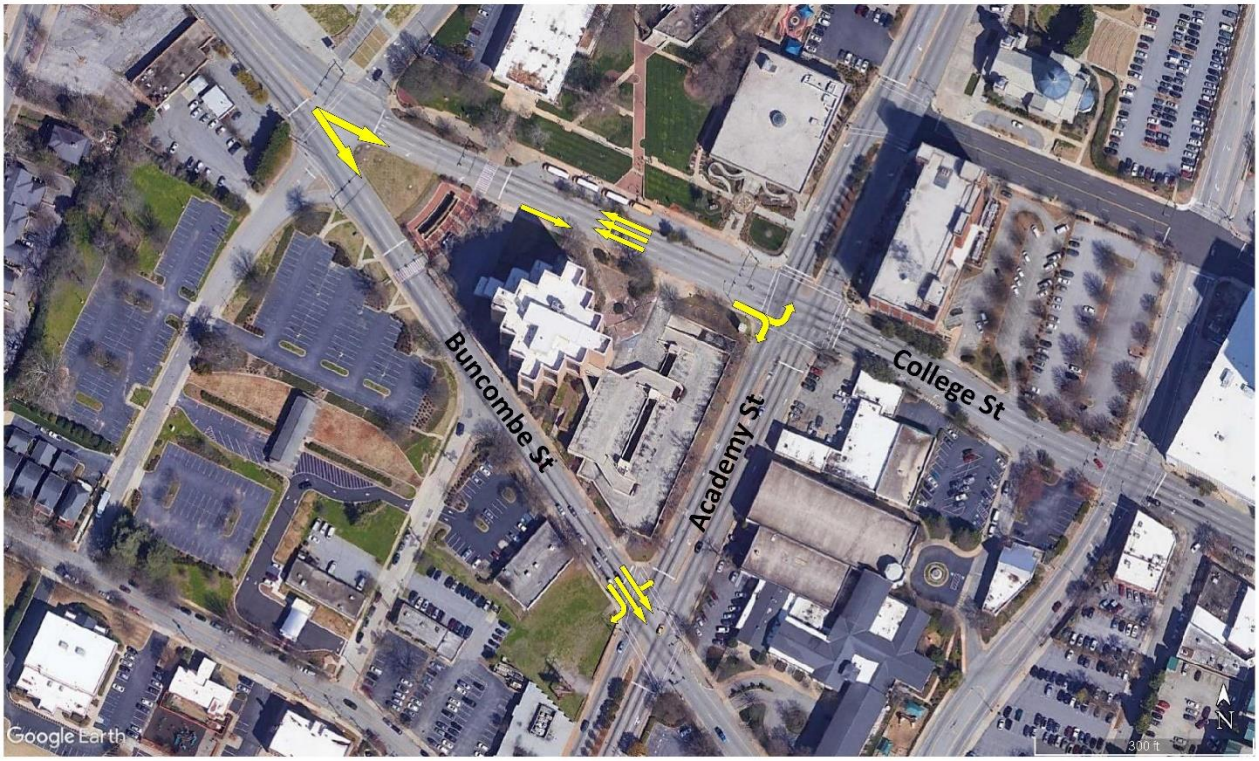
A second alternative to providing more capacity for left turns from Buncombe Street to Academy Street would be to flip the direction of one lane on College, between the signals at Whitner Street and US 123/Academy Street to provide one eastbound shared left/right turn lane. Another benefit that this alternative addresses is the lane imbalance on Buncombe Street between Rutherford Street and Academy Street. By swapping the direction of flow of one lane on College Street, this may provide drivers with a reason to use the inside lane and get left turning vehicles out of the traffic stream early. Additionally, at the signal at Academy Street, the inside lane could be restriped from a left turn only lane to a shared thru-left turn lane, further improving the lane balance (see **Figure 6**). The outside lane could be restriped as a right turn only lane, thereby maintaining two through lanes on Buncombe Street at Academy Street. This would likely have a beneficial effect on upstream queues that currently form at signals along Buncombe Street because of a desire to only use two of the three lanes. This alternative would impact the left turn lane onto Whitner Street and the left turn lane onto the Heritage Green Plaza. It is possible that the signal could be split-phased in such a way that left turns onto either side-street could be made without opposing traffic conflicts. Additionally, more signage for lane assignments and to direct drivers to Academy Street would be needed.

Alternative 2 could also be re-configured somewhat to provide the ability for eastbound through traffic at the signal at Academy Street, if flipping the direction of one lane through downtown is a project that is pursued in the future.

Additionally, Alternative 2 could still provide queue relief by improving lane imbalance with a simple restriping of the eastbound approach of Buncombe Street at Academy Street. Since the flipped lane on College Street contributes to a slight increase in delay at the College Street at

Academy Street signal, it should be noted that flipping one lane's direction is not critical for this benefit to be recognized.

Figure 6: Proposed Short-Term Striping Alternative 2; College St. at Academy St.



D. Provide Drivers with Real-Time Traffic Information

Overhead Dynamic Message Sign, I-26 in South Carolina

Survey participants who said that navigation apps help inform them of real-time congestion are already using technology to plan ahead. Dynamic Messaging Signs (DMS) can be used to update drivers on current conditions in advance of decision points to help them make more informed route choices. DMS are a frequently used component of Intelligent Transportation Systems (ITS), which use real-time monitoring technology to help improve traffic flow and throughput. These types of systems can be used to display messages about events at the Bon Secours Wellness Arena or traffic closures due to downtown festivals or other incidents, and can even monitor and provide information relating to travel speeds or trip times by route.

The proposed projects identified for Academy Street were evaluated using capacity analysis methods outlined in the Transportation Research Board's publication of the *Highway Capacity Manual, 6th Edition*. As with all analysis conducted in this document, Synchro 10 was used to

determine LOS and the output reports are found in the Appendix A of this document. A comparison of current conditions with anticipated Build conditions is represented in **Table 4**.

Table 4: 2019 Existing Conditions and Build LOS and Delay (sec./veh.); Academy Street

Academy Street Bypass	AM Peak		PM Peak	
	No Build	Build	No Build	Build
Academy Street at North Street	D (35.4)	C (30.5)	E (67.9)	D (41.0)
Academy Street at US 29/Church Street	C (32.1)	C (29.5)	D (45.8)	C (24.7)
Academy Street at Main Street	B (16.8)	B (16.8)	B (18.1)	B (16.4)
Academy Street at Elford Street	A (1.3)	A (1.3)	A (2.4)	A (2.6)
Academy Street at College Street (Alternate 1)	B (15.3)	B (11.0)	C (23.4)	C (28.2)
Academy Street at College Street (Alternate 2)		B (17.7)		C (28.2)
Academy Street at Buncombe Street (Alternate 1)	B (15.5)	B (16.2)	B (10.8)	A (9.7)
Academy Street at Buncombe Street (Alternate 2)		B (14.8)		A (8.8)

Improvements can be made at several signalized intersections by adding specific capacity enhancements and by optimizing signal timing and cycle length settings. At North Street, by adding a third lane for southbound left turns and a second lane for northbound left turns, and shortening the cycle length, a net improvement of almost 40% can be achieved during the afternoon peak and the signal becomes approximately 14% more efficient during the morning peak. At the next upstream signal, at US 29/Church Street, the goal of an intersection project here is to better control the critical movements on Academy Street. Those movements are the eastbound left turns, and the opposing westbound through lanes. By adding a second left turn lane for eastbound lefts, adding a corresponding southbound right turn overlap signal, and by providing a separate lane for westbound right turns, a net benefit of 46% less delay can be achieved for the afternoon peak.

Both alternative treatments on the west side of the northern Academy Street loop at College Street and at Buncombe Street exhibit either minimal improvements to intersection LOS or provide slight decreases in operations. This change is expected, primarily for Alternative 2, which introduces a new eastbound left turn phase at the College Street signal. Either alternative should still be considered, as these projects have the potential to benefit congestion caused by queue spillback and unbalanced lane utilization on Pete Hollis Boulevard and Buncombe Street.

Autonomous/Connected Vehicles

As part of this short-term needs assessment memo, a detailed framework plan for actively pursuing AV/CV technology is included in Appendix B of this report. This document outlines specific steps for developing pilot programs to introduce AV/CV drivers into every-day settings. Expanding AV/CV using shared lanes tactical testing approaches, smart parking strategies, creating a 5G test corridor, and integrating with existing Greenlink bus and downtown trolley services are all recommended short-term strategies that are discussed in detail in Appendix B: AV/CV Recommendations Memorandum.

Downtown Strategic Master Plan Proposed Network Changes

Concurrent with this Downtown Transportation Master Plan, the City of Greenville's Planning Department is undertaking a separate Downtown Strategic Master Plan (DSMP), which focuses on ways to shape the future of the downtown area through urban planning and the development of a framework for implementation. The plan looks ahead to the next ten years and outlines a roadmap to build upon the success of the previous decade's efforts to revitalize the downtown core. There is a focus on attracting and keeping traditional office-based business downtown and providing a talented workforce to support that effort. The plan also establishes a need to balance affordable housing with the changing landscape.

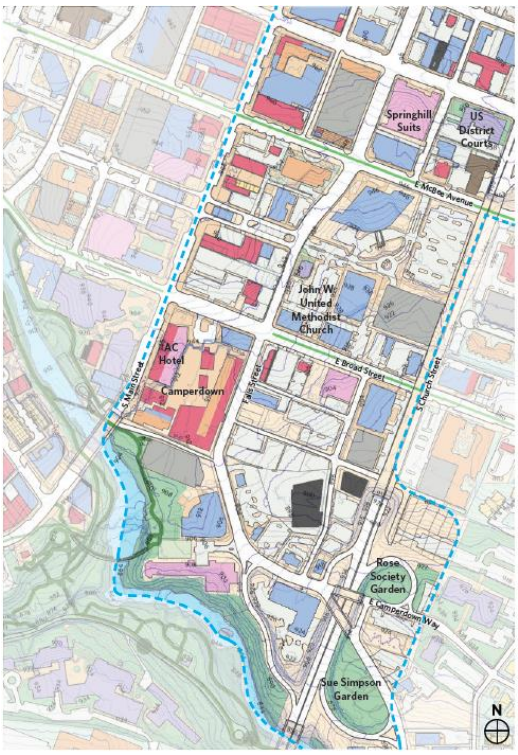
The DSMP largely makes recommendations for redevelopment opportunities within specific nodes of the downtown business district, as these areas offer the most opportunity to accomplish the goals set forth in the plan. Accompanying the strategic land use changes are planning-level recommendations for the downtown street network. These recommendations are predominantly centered on generating more block connectivity by establishing new local roads within the grid, and on converting arterials into urban boulevards and streets that support slower traffic speeds, emphasize multi-modal transportation alternatives such as walking and biking, and indirectly reinvigorate market value of adjacent properties to support redevelopment through public space streetscapes and beautification efforts.

The DSMP highlights several focus areas within the central business district and makes specific recommendations related to land use and mobility for each area. This process documented by the Plan is guided by extensive market analysis of the region and the city's downtown, as well as by a stakeholder steering committee and public outreach. The relevant areas discussed in this memo in greater detail, from a transportation network perspective, are:

- East Downtown
- Augusta Street and South Downtown (including University Square)
- Pete Hollis Boulevard/Buncombe Street Corridor
- College Street and North Street One-Way Pair

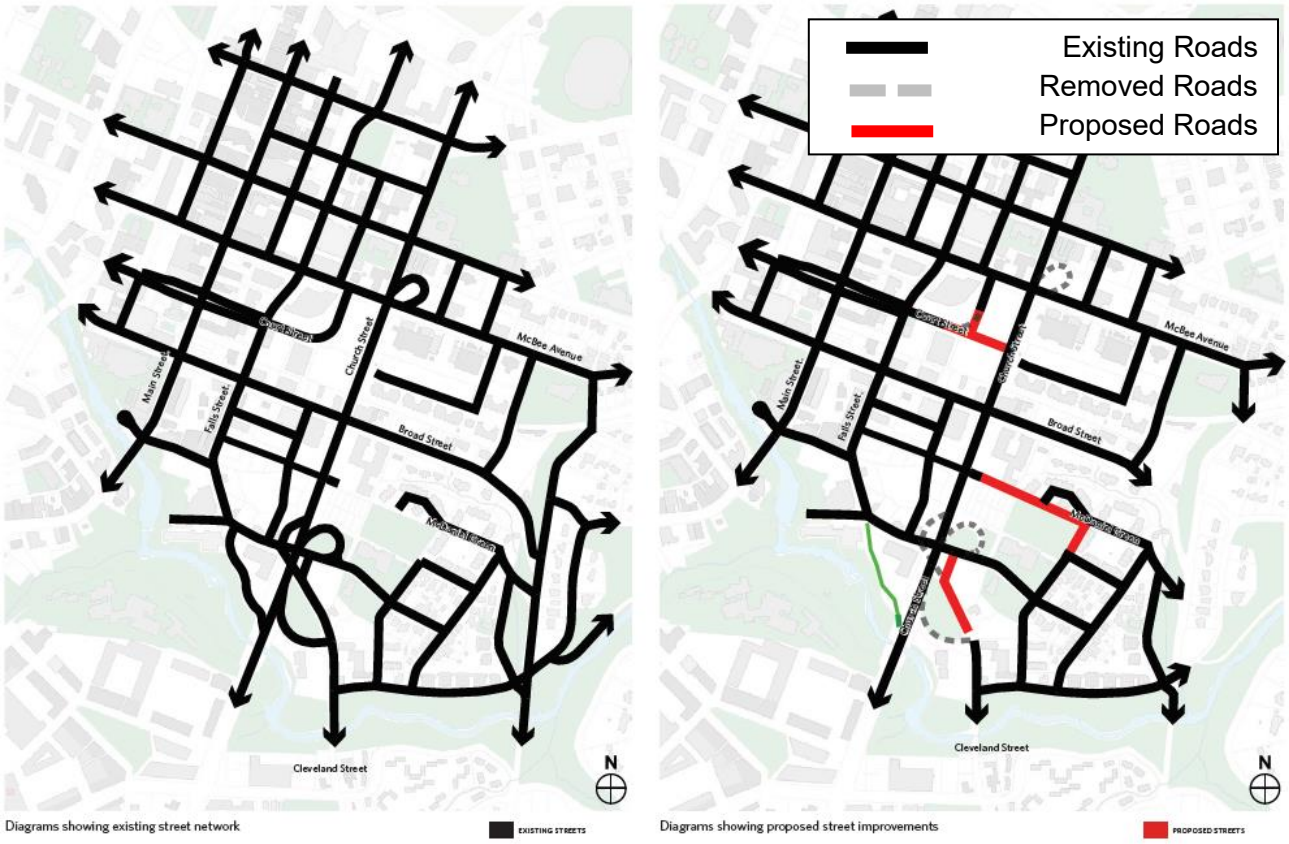
East Downtown

The DSMP identifies East Downtown as being the blocks bounded on the east and west by US 29/Church Street and Main Street, and by E. North Street and the Reedy River to the north and south respectively. This area also includes the loop ramp between McBee Avenue and US 29/Church Street and the series of loops and off-ramps between Camperdown Way, Cleveland Street, and US 29/Church Street.



Part of the proposed strategy for this district lies in establishing a connection between the areas that are currently separated by the US 29/Church Street overpass. The plan identifies how removing the largely underutilized loop ramps at Camperdown Way, Cleveland Street, and McBee Street would open up additional space for integrating development and public space on the east side of the highway. Additionally, several strategic new connections are proposed to transition a more defined grid to the east side of US 29.

East Downtown Existing Conditions and Proposed Road Network Connections



(Source: Downtown Strategic Master Plan)

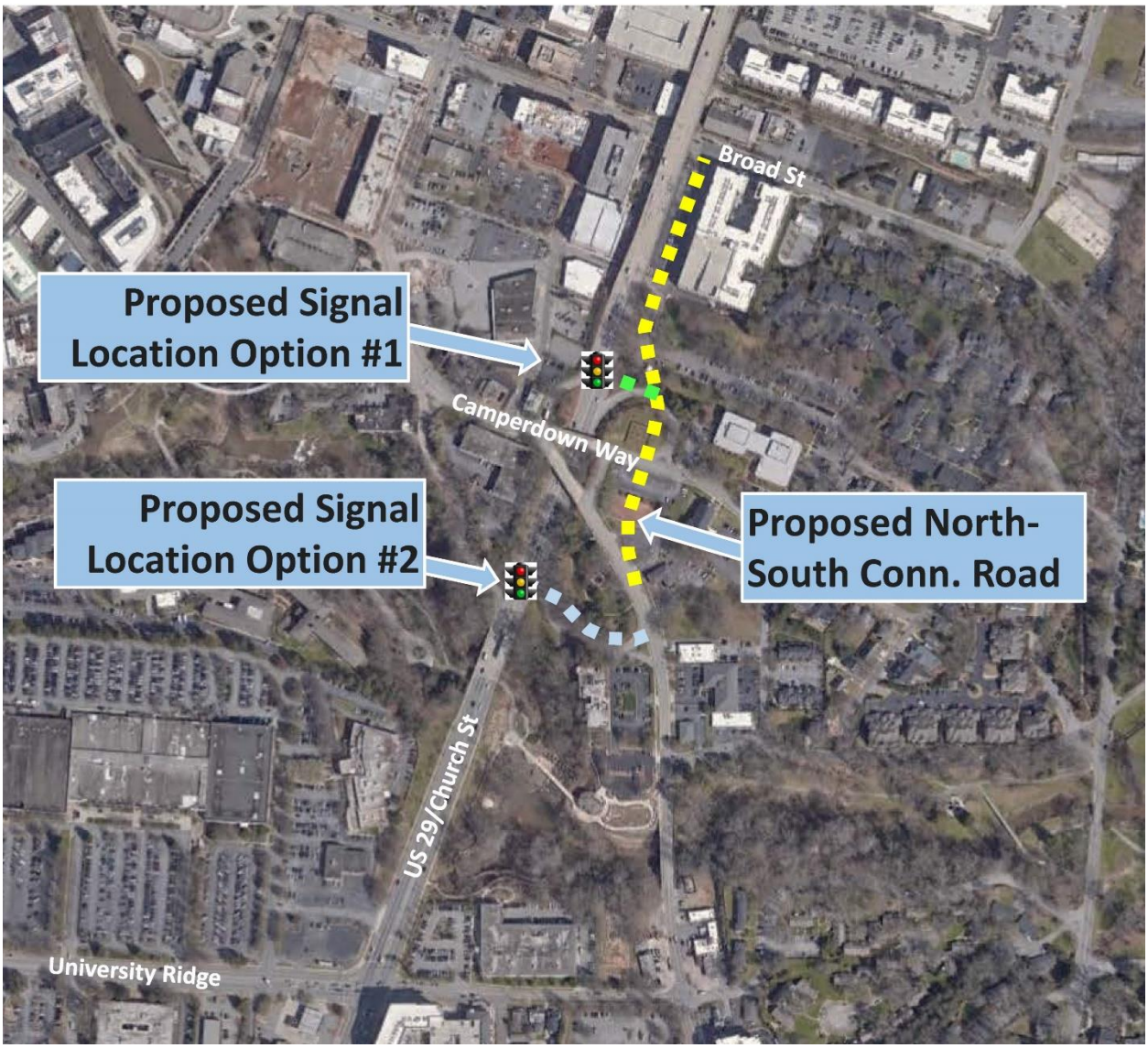
ELEMENTS TO CONSIDER

Removing the existing loop ramps does offer benefits as outlined in the DSMP and can create much-needed opportunities to drive long-term growth and to achieve livability goals for East Downtown. However, the loop ramps also provide an important function in the overall network connectivity between US 29 and the surface streets of downtown. The loop ramps provide the first opportunity for traffic on US 29 to reach Falls Street and South Main Street, as well as Falls Park. Removing the ramps completely would restrict the movement of vehicles between US 29 and downtown until the next at-grade intersection, which is located at US 29 at Washington Street. This would also bypass essentially all of the East Downtown district, which may have indirect effects on its economic viability. In general, this memo recommends maintaining access to the district from US 29 to continue to promote it as a well-connected place. This can be accomplished by removing the ramps, and replacing them with one signalized intersection on US 29. The location of the proposed traffic signal needs to be explored further; however, preliminary locations have been identified and are shown in **Figure 7.**

As this area develops, there should be a focus on creating continuous connections from north to south (also shown in **Figure 7**). Broad Street makes a natural southern end of a downtown loop and by providing a surface street option to travel between Broad Street and Camperdown Way, mobility options increase. A secondary benefit to providing a continuous connection to Broad Street lies in the potential to capture trips being generated by the County Square redevelopment project southwest of the loop ramps. Creating a parallel road to the US 29 overpass may be challenging, as much of the space underneath the bridge deck is dedicated to surface parking. As land use changes, there may be opportunities to provide shared parking decks or surface lots to free up the space for a public road. A new north-south road is not critical to providing adequate mobility to arterial roads, however it could provide an eastern alternative to Falls Street and Calvin Street, which are both located on the west side of US 29.

Ultimately, because the loop ramps provide access between the side streets and US 29, support from SCDOT would need to be acquired for their removal. To achieve this support, this project would need to be examined through a full access and connectivity plan to reconnect the neighborhoods on either side of US 29, as well as a detailed corridor or sub-area study.

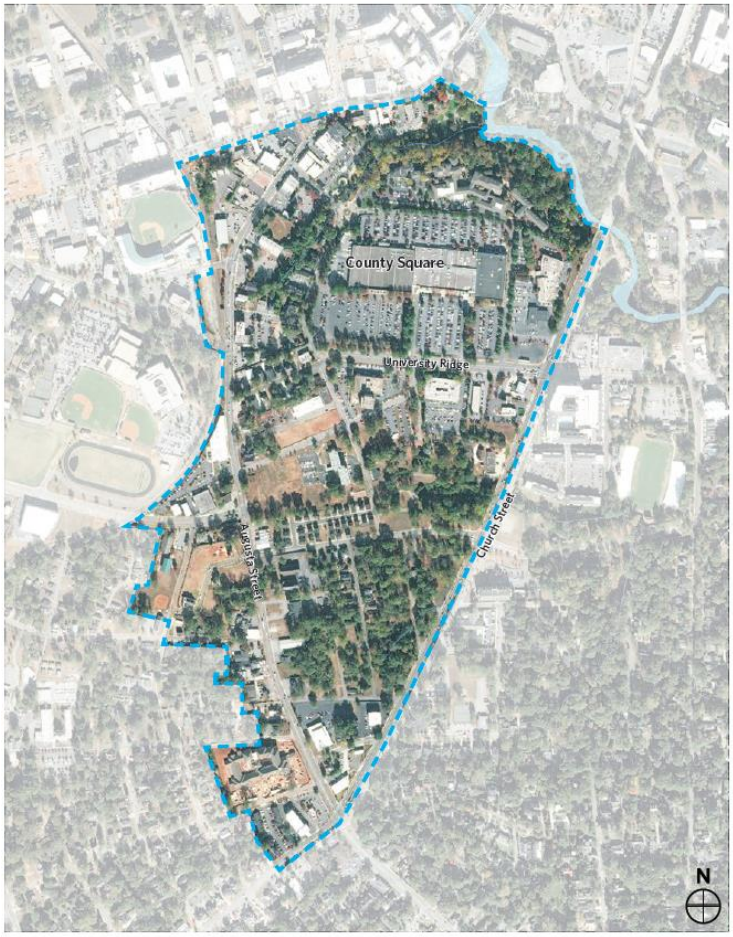
Figure 7: Proposed Connectivity Improvements for East Downtown



Shown in **Figure 7** are two potential signal locations on US 29 where a new connection would provide access to downtown surface streets. The preferred location for a new proposed signal is dependent upon design constraints and should be explored further before a determination can be made. Regardless of location, both proposed signals would function similarly and the intersections would be configured into “T”s with new connections to Cleveland Street or Camperdown Way shown in blue and green, respectively. The yellow line represents a proposed alignment for a north-south connector between Cleveland Street and Broad Street.

Augusta Street and South Downtown

The district identified as South Downtown encompasses several distinct areas, including Augusta Street, the South Carolina Governor's School, and the area currently known as "County Square".



South Downtown Existing Conditions
Source: Downtown Strategic Master Plan

Transportation recommendations made in the DSMP are focused on establishing a character for Augusta Street that preserves the traits currently seen on the corridor near Main Street. The plan suggests considering elements such as on-street parking, slower posted speed limits and expanding pedestrian spaces to promote livability and to support small-scale business storefronts.

The development of the County Square (University Ridge) site presents some transportation challenges for this area that are driven by the proposed site's density and the overall discontinuous transportation network present on the west side of the site, along Augusta Road.

The University Ridge development has undergone a separate Traffic Impact Analysis, which is documented in the 2019 report, *University Ridge Traffic Impact Study* for GTRP Greenville, LLC. On the east side of the development is US 29/Church Street, and two existing signals are located at University Ridge and at Haynie Street/Pearl Street. On the west side, along Augusta Street, there are currently no signalized access points to the area that is to be redeveloped. The signalized intersections on Augusta Street between Dunbar Street and Field Street are relatively closely spaced, at 500'-1000', and all provide signals with roads on the west side of Augusta Street. Ideally, the University Ridge site could be connected through internal roads to one of the existing signals and entering and exiting traffic could be focused at a controlled location. However, the physical layout of Augusta Street, and the existing buildings along it, limit the City's ability to connect to one of these signals without completely taking one or more existing buildings, many of which are thriving businesses that help support the urban character that the DSMP notes. The closely spaced signals also limit the potential to install a new signal at side streets such as Harris Street, Bradshaw Street, or Thruston Street, with respect to SCDOT minimum 1320' signal spacing criteria.

ELEMENTS TO CONSIDER

Several alternatives have been explored for addressing network challenges this area:

- Realignment of a roadway on the east side of Augusta Street to tie in to an existing signalized intersection
- Grade modifications at the intersection of Augusta Street and Vardry Street
- Installation of alternative intersection designs at existing signals

Creating a new alignment to tie the area east of Augusta Street into existing traffic signals at Field Street, Vardry Street, or Dunbar Street would require significant impacts to existing or planned sites. For example, connecting to Vardry Street would likely impact businesses like Brick Street Café and Stella's Music Emporium. Connecting to Dunbar Street would enhance network connectivity; however, much of the property that would be needed to create a new alignment is within a site that currently has plans to be developed into an affordable housing node. New alignments in these locations are therefore unlikely to be viable.

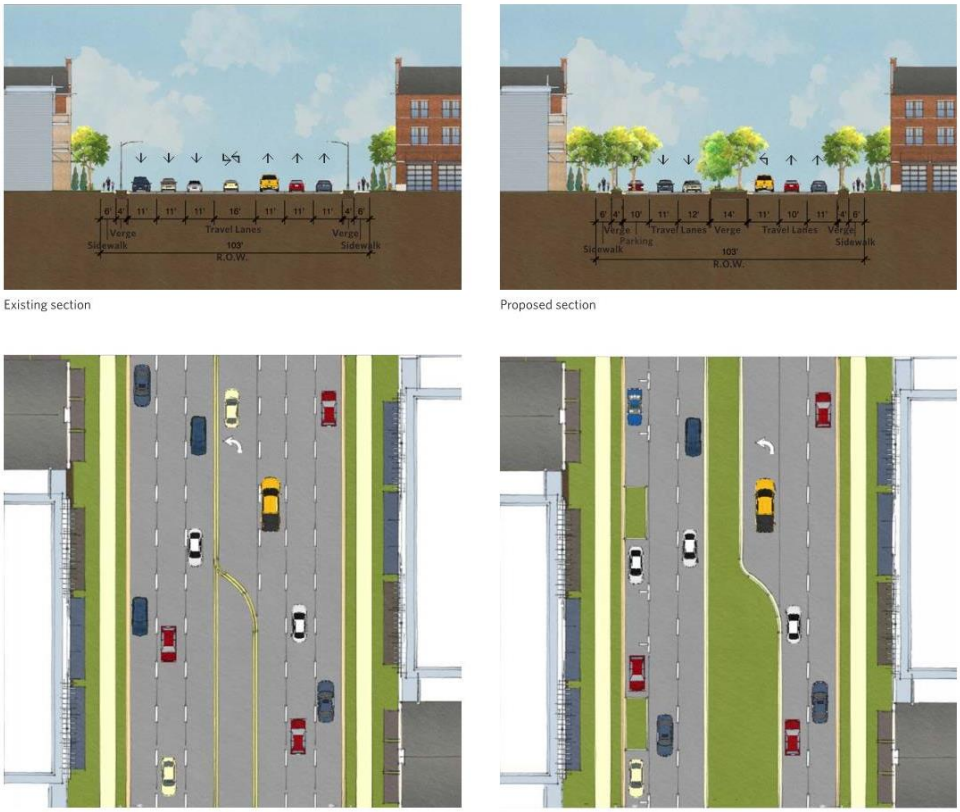
The intersection of Augusta Street and Vardry Street has been mentioned in multiple survey comments as being difficult to navigate due to the steep slope on Vardry Street. The ability to modify this steep grade is constrained by the existing rail line that crosses Vardry Street at the traffic signal. This also limits the effectiveness of adding a fourth leg to this signal, since vehicle headways are much lower than would be normally experienced at a signalized intersection due to the slow speed required to navigate the grade change.

One alternative that is explored in this memo is the use of restricted crossing U-turn (RCUT) intersection principles at a proposed new signal at Harris Street. In addition to adding a new signal, the existing signal at Vardry Street could be removed and converted into a right-in/right-out "T" intersection. The new proposed RCUT traffic signal would allow left turns onto Harris Street, but would only allow right turns from Harris Street. Traffic intending to turn left from Harris can make a U-turn at a signalized location at Field Street. Southbound traffic flow on Augusta Street would also benefit because removing the signal at Vardry eliminates one potential stopping point. Southbound traffic at the proposed new signal would not need to stop at all, except to make a left turn onto Harris Street. A concept rendering and additional description is available in this document as Project ID #12.

Pete Hollis Boulevard/Buncombe Street Corridor

The Pete Hollis Boulevard/Buncombe Street corridor is currently a seven-lane highway (six travel lanes plus a center two-way left turn lane). Approximately 1.60 miles northwest of the study area, at the signalized intersection of SC 253/W. Blue Ridge Drive, Pete Hollis Boulevard (called Cedar Lane Road here) transitions from a five-lane highway to a seven-lane highway. The DSMP envisions a future urban boulevard setting for the Buncombe Street corridor, which includes mixed use development, on-street parking, landscaped medians, and viable pedestrian, transit, and bicycle accommodations. The DSMP proposes a road diet strategy on the corridor to achieve the necessary space for parking and alternative mode amenities.

Proposed Typical Section on Pete Hollis Boulevard



(Source: Downtown Strategic Master Plan)

Road diets can be effective strategies for creating new spaces within existing roadways. It is important to consider the effects on traffic flow at critical intersections when reviewing whether a road diet is a feasible strategy. It should be noted that with any road diet, a tradeoff is being made – most often, decision-makers are accepting a lower standard for motorized, single-occupancy vehicles in exchange for elements that benefit alternative modes of transportation, complete streets, user safety, or economic viability. A preliminary evaluation metric for road diets is daily traffic volume, followed by identification of critical bottlenecks. Bi-directional daily traffic volumes from 2018 are shown in **Figure** 8. These volumes were taken from average daily traffic (ADT) counts conducted for the purposes of this study as well as from existing SCDOT traffic count stations. Origin-destination information found in the Existing Conditions document suggests that in the AM peak, traffic on Pete Hollis Boulevard is primarily traveling to

destinations along the corridor, followed by the area bounded by Buncombe Street, McBee Street, Academy Street and Main Street. In the PM peak, trips traveling out of the city on Pete Hollis tended to originate in the business district between College Street and Academy Street, and at County Square.

Figure 8: 2018 Average Daily Traffic; Pete Hollis Boulevard

The volumes in **Figure** 8 illustrate a convergence of traffic from Rutherford Street (18,500 vehicles per day) and Pete Hollis Boulevard (15,700 vehicles per day) at the signalized intersection of the two roads. For one block, the highest daily traffic volumes on the corridor are experienced; approximately 34,000 vehicles per day. Approximately 12,000 vpd enter/exit the Buncombe Street corridor via Butler Avenue, which denotes the other end of the high-volume segment. Limiting delay and queue formation at the two signalized intersections at Rutherford Street and at Butler Avenue is recommended for a successful road diet on Pete Hollis Boulevard/Buncombe Street. The other segments of the corridor are well within a reasonable daily volume for a four-lane roadway, which is approximately 38,000 vpd.

In addition to this, several bottleneck locations were identified through comments left in the public survey. Several responders noted that the high right turn volume onto Butler Avenue can cause the eastbound shared through/right turn lane to become a de-facto right turn lane, which reduces the eastbound through movement capacity on Buncombe Street by one lane. Creating a dedicated right turn lane that is long enough to adequately store a vehicle queue is recommended. The other bottleneck cause that was identified by survey responders was the congestion found at Academy Street. Refer to the Downtown Bypass section of this memo for two potential alternatives for the intersections of Academy Street at College Street and at Buncombe Street. Both alternatives offer a way to improve through movements while increasing

left-turn capacity from Buncombe Street onto Academy Street, which should help alleviate queuing at the intersection.

Preliminary HCM intersection capacity analysis has been conducted on the intersections within the proposed Pete Hollis Boulevard complete street study area. The intersection LOS and respective delays for existing conditions and a 2019 Build alternative are presented in **Table 5**. Note that this concept represents one potential alternative for achieving a road diet.

Table 5: 2019 Existing Conditions and Build LOS and Delay (sec./veh.); Pete Hollis Blvd

Pete Hollis Boulevard Road Diet	AM Peak		PM Peak	
	No Build	Build	No Build	Build
Pete Hollis Blvd. at W. Stone Ave./Mulberry Street	B (13.8)	B (15.9)	B (15.3)	B (15.5)
Pete Hollis Blvd./Buncombe St. at Rutherford Street	B (17.6)	C (21.4)	B (12.3)	B (13.1)
Buncombe St. at Butler Ave./Atwood Street	B (16.4)	B (16.8)	C (20.4)	C (26.1)
Buncombe St./College St. at Whitner St./Heritage Green Place	B (11.1)*	B (17.3)*	A (6.9)*	B (12.4)*

*Due to limitations in the HCM 6th Edition methodology, Synchro proprietary methodology has been used to report delay and LOS

The results seen in **Table 5** suggest that a road diet is feasible on the Pete Hollis Boulevard corridor under current volumes with minimal changes to the existing edge of pavement. A long-term analysis will be presented in a subsequent memo with additional lane recommendations that are necessary for long-term traffic growth.

ELEMENTS TO CONSIDER

The block of Buncombe Street between Rutherford Street and Butler Avenue will be a critical component to a successful road diet. Preliminary, short-term traffic analysis is documented in this memo, and several recommendations for lane geometries are made in that chapter. Those recommendations include:

- Eliminate the driveway leg of the signalized intersection at Rutherford Street.
- Maintain at least two westbound right turn lanes from Buncombe Street onto Rutherford Street. The sight distance for the existing pedestrian crossing should be evaluated in conjunction with these improvements.
- Convert the east bound shared through/right turn lane approaching the signal at Butler Avenue into a dedicated right turn lane.
- Install landscaped medians along much of the corridor to reduce the number of left turns to and from driveways; provide necessary bulb-out areas at traffic signals to accommodate U-turn traffic.
- Currently, the traffic signals on Pete Hollis Boulevard and Buncombe Street are interconnected, but they are not part of a coordinated timing plan. If a road diet were implemented on the corridor, it is recommended that a concurrent coordination plan be developed as well. This will be important to avoid creating new bottlenecks where congestion may form. Additionally, there will likely be modifications to most of the

existing traffic signal heads, and this offers an excellent opportunity to establish new local parameters such as maximum green time.

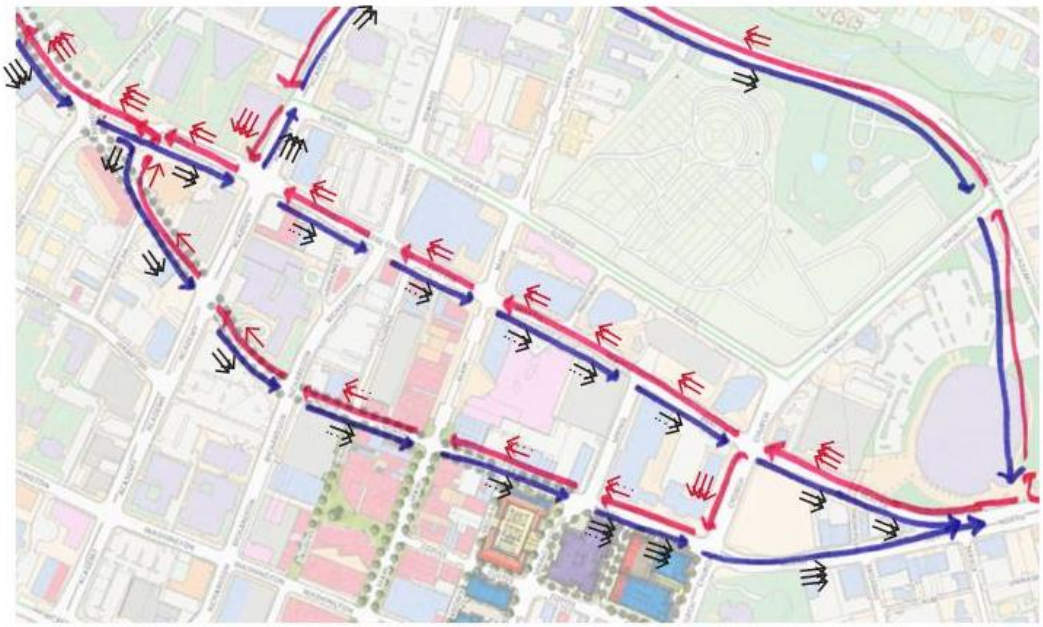
- Other recommendations made in the DSMP that propose multi-lane roundabouts on Pete Hollis Boulevard should be evaluated with respect to traffic throughput. The intersection of Pete Hollis Boulevard and Stone Avenue is one proposed location for a roundabout. Multi-lane roundabouts can provide as much capacity as standard traffic signals, and they can also improve pedestrian spaces by providing highly-visible crosswalks and by slowing down traffic. Pedestrian movements are not controlled through signals, but could be supplemented by rectangular rapid flashing beacons (RRFB). The footprints of multi-lane roundabouts can be large, and it is recommended by the Federal Highway Administration (FHWA) and the Transportation Research Board (TRB) that bicycles be given their own circulating path outside of the motorized vehicle space. This recommendation is specific to multi-lane roundabouts because it separates the modes during navigation of the roundabout and reduces conflict points attributed to lane changes and entry/exit points.

College Street/North Street One-way Pair Conversion

As part of an overall strategy to transition several arterial roads in downtown into urban boulevards, the DSMP recommends a conversion of the existing one-way pair of College Street/Beattie Place and North Street into two-way boulevards. This strategy is one that is often used to reduce vehicle speeds and total vehicle miles traveled on road networks. Converting a one-way street to two-way operations also generally improves access and economic viability of the corridor being converted, since traffic is moving at a slower speed, and the road's character can often change from that of a "pass-through" route to that of a destination.

The image below is taken from the Downtown Strategic Master Plan, and proposes one option for reconfiguring the directionality of the one-way pair downtown.

Proposed Two-Way Traffic Concept on College Street and North Street



(Source: Downtown Strategic Master Plan)

Federal Highway Administration guidance cites the many benefits of converting streets to two-way operations, but also notes that there are definitive drawbacks that should be considered and weighed in any conversion decision. With one-way traffic, pedestrian crosswalks are generally considered to be better, as there are fewer directions of moving traffic that one needs to be aware of. One-way streets can lead to higher speeds, however, which can increase crash rates. One characteristic that was identified in the Existing Conditions memorandum is that the one-way pair of College Street and North Street tends to be a hot spot for angled crashes, most likely attributed to lane change maneuvers. There was not a significant trend for pedestrian crashes identified on the corridor. Intersection capacity can be impacted as well, due to the need to serve more directions of traffic, often requiring new left turn phases, which reduce signal efficiency.

Essentially, converting streets from one-way operation to two-way can help slow traffic down and create a sense of place, at the expense of simplified pedestrian crossings and optimal traffic signal operations.

TRAVEL DEMAND MODEL SCREENING

The Greenville-Pickens Area Transportation Study (GPATS) travel demand model was used to approximate the magnitude of traffic that would likely shift between the one-way pair's roads (College Street and North Street) if bi-directional operations were implemented. This process is considered to be a screening for feasibility with regards to making two-way streets out of the existing one-way pair. The screening process looks at the total magnitude of volume that is likely to change routes under the proposed configuration. It also provides a measure of the volume-to-capacity metric for affected roads, which can help engineers and planners understand where constraints may form. Visualizations of the measure of LOS based on 2040 volume-to-capacity ratios for College Street and North Street are shown in **Figure** 9 (AM peak) and **Figure** 10 (PM peak).

Figure 9: 2040 Travel Demand Model Output: Two-Way Conversion Scenario, AM Peak

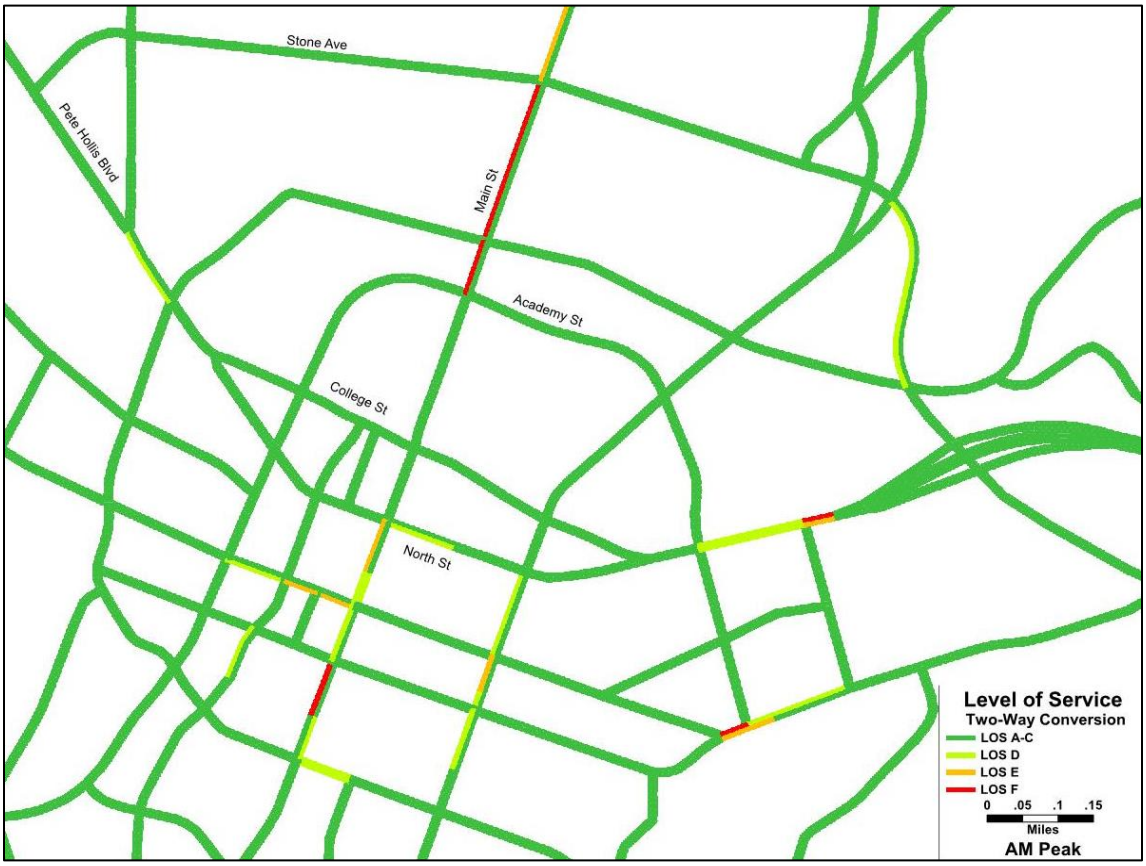


Figure 10: 2040 Travel Demand Model Output: Two-Way Conversion Scenario, PM Peak

The travel demand model results indicate that the peak hour volume on College Street and North Street in a two-way conversion scenario would yield an LOS D or better on much of the two roads. A comparison of the two scenarios does not show a significant impact to the LOS along either corridor. A short section of North Street, eastbound in the PM peak, approaches its capacity in the two-way scenario, which is likely caused by the reduction in lanes at this location. It is also apparent that a two-way conversion would attract some traffic away from Stone Avenue, primarily during the PM peak.

Overall, the preliminary screening process suggests that a conversion to two-way operations on College Street and North Street would be feasible from a volume-to-capacity perspective at a macro level. This concept should be studied further to better define potential bottlenecks, physical constraints, parking deck entrance/exit sight distance, necessary signal modifications needed to service opposing directions of traffic (including left turn phases), left turn storage/median, and pedestrian treatments. Reversing even one lane of traffic introduces new conflict points to every intersection and driveway along the length of the existing one-way corridors. This memo recommends a preliminary feasibility study of the two-way conversion corridor to evaluate each of these locations in regard to turning movements, sight distance requirements, and driveway access and design. This study should involve close coordination with SCDOT to ensure that any design concerns are addressed.

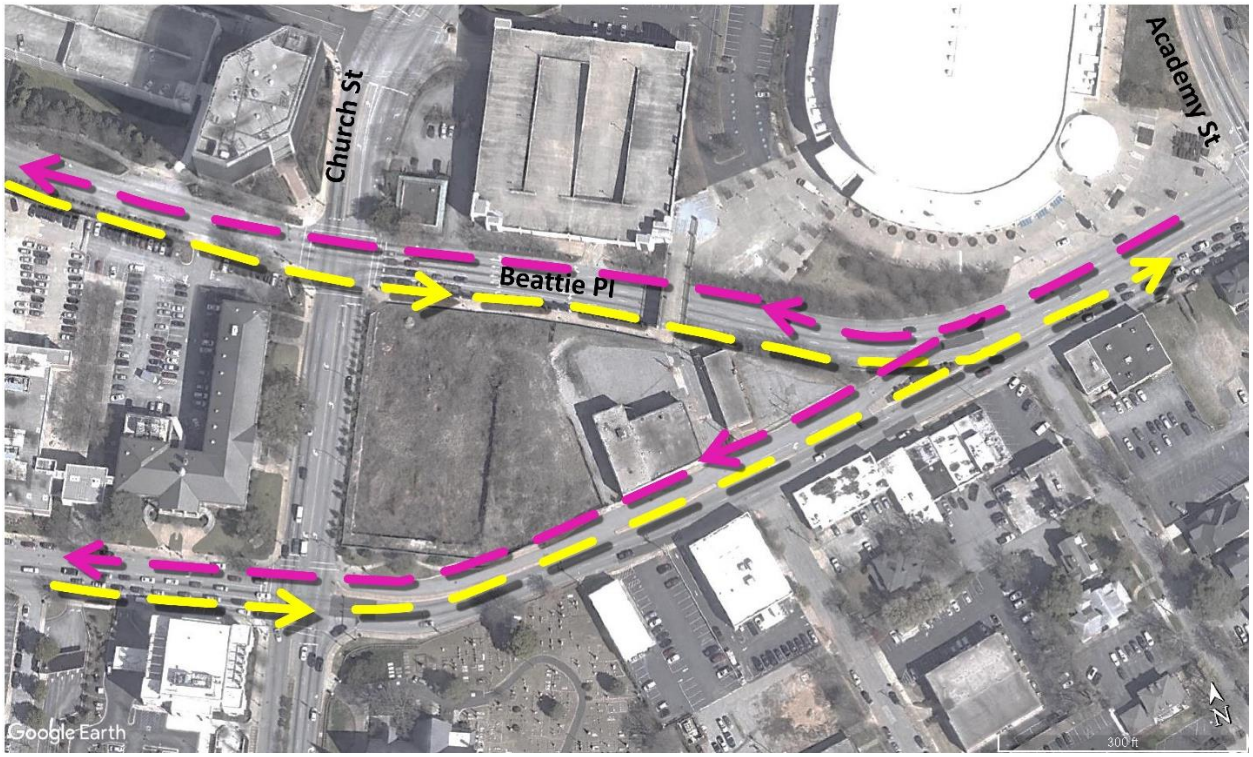
The decision should also be made with respect to the City's goals with signal retiming. As noted in the Traffic Signal Coordination chapter of this memo, a strategic approach to signal timing for the City is to establish a hierarchy of roads based on functional classification to help balance the mix of modes that are found in downtown urban settings. Principal arterials, like College Street and North Street, are intended to prioritize motorized vehicle traffic flow, while collectors and local roads can support slower vehicle speeds, alternative mode facilities (i.e., bike lanes or sharrows). As stated previously, by converting to two-way traffic, there would be impacts to traffic progression caused by the need to serve additional left turn phases.

TWO-WAY STREET CONVERGENCES

One of the primary benefits of system's current configuration is that the roads' alignments make ideal convergence points, geometrically, on east and west ends of the existing one-way pair. On the west side, traffic splits by direction at a traffic signal located at the Heritage Green area. Eastbound traffic stays to the right on Buncombe Street, and westbound traffic arrives from College Street and the one-way traffic flow naturally converges into two-way traffic flow without a conflict, which would require traffic control (i.e., a traffic signal).

Similarly, on the east side of the pair, eastbound traffic uses North Street while westbound traffic uses Beattie Place and both one-way directions converge west of the traffic signal at North Street at Academy Street. This presents some challenges to redirecting traffic flow, especially on the east side of the city, where traffic volumes are highest. To successfully split and merge the two directions of traffic, a crossing of lanes must take place. The reversed lanes must be positioned on the correct side of the road before reaching the signal at Academy Street and must cross to do so. In **Figure 11** below, an illustration of this challenge is presented.

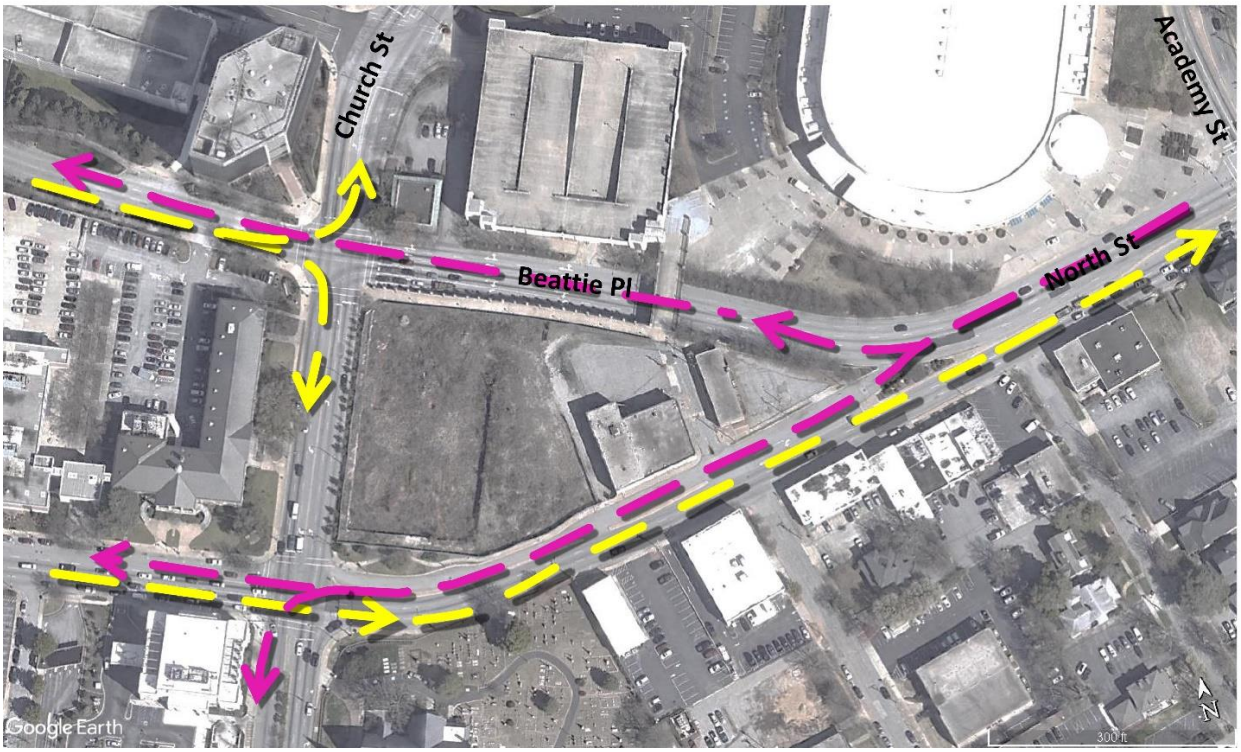
Figure 11: Proposed Two-way Traffic – Alternative 1, East Side of One-way Pair



This alternative would promote a balanced use of both two-way roads. Due to the topography of this area, the proposed new intersection would be positioned relatively close to Academy Street, and would likely not meet the 1,320' spacing requirements set forth by SCDOT for traffic signals. Coordination between the signals would also be needed to ensure that queues did not spill back to upstream signals, making peak congestion worse. The crossing could be facilitated through grade separation as well; however, constructing a flyover bridge section would have significantly higher design and construction costs.

Another alternative, which would only reverse lanes on North Street, was explored. There is currently one westbound lane on North Street which serves several businesses and one side-street in the block between Church Street and Beattie Place. This lane currently ends as a right-turn only lane at Church Street, but could be reconfigured to accommodate left turns and through traffic. In doing so, one eastbound lane on North Street would become a westbound lane. This would essentially reduce the number of eastbound lanes to one on much of North Street leaving downtown; therefore flipping one of the westbound lanes on Beattie Place to create a second eastbound lane would be necessary. In this alternative, this new eastbound lane would terminate at Church Street, where only left or right turns would be permitted. This configuration is illustrated in **Figure** 12.

Figure 12: Proposed Two-way Traffic – Alternative 2, East Side of One-way Pair



As expected, this configuration does achieve some of the goals laid out in the Downtown Strategic Master Plan, but this does come at the expense of mobility from downtown Greenville to I-385.

Intersection LOS and vehicle delay metrics are reported in **Table 6** for each alternative described above. Notably, there would be additional delay introduced at these two intersections attributable to the additional movements that would need to be served at each location. This is to be expected and should be considered before any decisions about conversion from one-way to two-way traffic is made. Alternative 1 also introduces a new traffic signal, which would have to be located somewhere in the section of North Street between US 29/Church Street and Academy Street, where the aforementioned crossing of traffic must take place. An appropriate level of analysis for this study area includes a calibrated microsimulation model of the existing, future no-build, and future build alternatives. This type of analysis is recommended to determine

additional performance metrics for decision-making such as vehicle throughput, travel time, and network delay.

Table 6: 2019 Existing and Build LOS and Delay (sec./veh.); One Way Pair Conversion

One Way Pair Conversion	AM Peak			PM Peak		
	No Build	Build Alt 1	Build Alt 2	No Build	Build Alt 1	Build Alt 2
US 29/Church Street at Beattie Place	D (49.8)	D (47.9)	C (29.5)	C (29.2)	D (38.5)	C (33.5)
US 29/Church Street at North Street	B (18.3)	D (50.7)	E (66.1)	B (19.8)	D (47.9)	D (46.4)
North Street Crossover Signal	-	C (24.1)	-	-	C (27.9)	-

A third concept, which forgoes the creation of new two-way streets, was developed for comparison to Alternative 1 and Alternative 2. This concept is designed to redirect and displace the westbound left turns at Beattie Place to the traffic signal at Church Street and North Street. A displaced left turn intersection can be beneficial for traffic flow because these intersections place left turn lanes on the left side of opposing through lanes, which allows both movements to operate at the same time in a signal cycle. This removes the need for protected left turn phases but limits crossing opportunities for pedestrians. To displace the westbound left turns from the right side of the road to the left side, either a grade-separated flyover ramp or an at-grade traffic signal is necessary.

This option does not preclude the use of one lane on Beattie Place for another purpose such as one eastbound motorized vehicle travel way. Additionally, one lane could be repurposed into one of the following alternative mode/streetscape amenities:

- A wide facility, such as a cycle track or multi-use path serving bike/ped traffic
- Buffered bike lanes in each direction
- A shared transit lane/bike lane

It should be noted that the 2010 Downtown Streetscape Master Plan concluded that the one-way pair should be maintained, and that one excess lane could be converted to another use.

Table 7: 2019 Existing and Build LOS (sec./veh.); Displaced Left Turns, North St at US 29

Displaced Left Turns	AM Peak		PM Peak	
	No Build	Build Alt 3	No Build	Build Alt 3
US 29/Church Street at Beattie Place	D (49.8)	C (21.9)	C (29.2)	B (16.0)
US 29/Church Street at North Street	C (34.8)*	C (26.4)*	C (30.5)*	D (39.5)*
North Street Crossover Signal	-	B (19.2)*	-	C (27.3)*

*Due to limitations in the HCM 6th Edition methodology, Synchro proprietary methodology has been used to report delay and LOS

Preliminary capacity analysis results in **Table 7** suggest that displacing the westbound left turns onto Church Street would have benefits to delay at both signalized intersections during the AM peak. During the PM peak, delays would decrease at the signalized intersection of Church Street and Beattie Place, but would increase at the signalized intersection of Church Street at

North Street. As previously noted, a microsimulation analysis of this alternative, or other design alternatives is recommended to determine benefits to vehicle throughput, travel time, and network delay.

Bicycle, Pedestrian and Transit Needs

Serving alternative modes of transportation through bicycle and pedestrian facilities is a necessary part of developing a more livable community within the Downtown area. These facilities should be integrated with the road and transit systems as part of the transportation planning process, in order to promote mobility for all users of the transportation system. Many commuters choose biking or walking for the health and environmental benefits, and others use these modes simply because they are the best or only option for their own commutes. Survey feedback included consistent mention of the need for improvements to the existing bicycle and pedestrian networks. The 2011 *City of Greenville Bicycle Master Plan* proposed improvements for the bicycle facilities throughout the Downtown area as part of creating a more connected network throughout the city. This plan was evaluated alongside the existing conditions of the city's network in order to carry forth projects from that plan into this document. New recommendations have also been made based on 2019 survey results and observed needs. Any project recommended here should be planned in accordance with the design recommendations and guidelines set forth in the *Bicycle Master Plan*.

It should also be noted that several projects in this document are taken directly from the project list found in the 2011 *Bicycle Master Plan*. In some instances, the preferred facility type was modified due to relative challenges with right-of-way, or construction feasibility (i.e., a project recommendation to add bike lanes along the entire length may have been modified to a 10' multi-use side path to take advantage of existing sidewalks, thereby avoiding impacts to drainage, curb cuts, and utilities that would arise with a widening effort).

Types of Bicycle and Pedestrian Facilities

Roadways need to be designed with an eye toward both the intended use by cyclists and pedestrians and how the facility fits into a system-wide network. Table 8 summarizes the major types of bicycle and pedestrian facilities.

Design considerations should also be given to ancillary bicycle facilities and amenities such as bike racks, bike amenities at transit stops, bike-friendly speed bumps, and bike-friendly drainage inlets. For pedestrians, attention must be given to curb ramps as well as marked crosswalks and enhancements such as raised crosswalks, pedestrian refuge islands, and curb extensions.

It should be noted that SCDOT has established minimum design widths for the facilities listed in **Table 8**, but the City of Greenville generally seeks to adhere to the wider recommendations set forth in the National Association of City Transportation Officials (NACTO) guidelines. Both widths are indicated in the table, and design decisions should be made for each roadway based on available right-of-way and other project-area considerations, such as the presence of on-street parking. The SCDOT minimums apply to urban roadways with design speeds under 50 mph and carrying less than 5% heavy vehicle traffic. All roads in the study area meet these criteria.

Table 8: Bicycle and Pedestrian Facility Types

Sharrows Description • Travel lane with markings to indicate a shared lane for automobiles and bicycles • Best for low-speed, low-volume roadways when right-of-way constraints prevent the addition of a bike lane • Not recommended for roadways with design speed > 35mph Target Users: • Intermediate and Advanced Cyclists	
Conventional Bike Lanes Description • Exclusive-use area adjacent to the outermost travel lane • Most common facility type • Typical width: 4' minimum (SCDOT), 6' preferred Target Users: • Intermediate and Advanced Cyclists	
Buffered or Protected Bike Lanes Description • Exclusive-use area adjacent to travel lanes, separated from motor vehicle traffic by striping or a physical barrier (protected) • Good for high-speed or high-volume roadways • Typical width: 4' minimum, 6' preferred (1.5' buffer minimum) Target Users: • All Cyclists	
Multi-Use Path Description • Separated from traffic and located in open space (greenway) or adjacent to road with more setback and width than sidewalks • Typical width: 10' standard, 8' in constrained areas Target Users: • Basic and Intermediate Cyclists; Pedestrians	
Sidewalk Description • Dedicated space within right-of-way for pedestrians • Should include a landscaped buffer from roadway • Typical width: 5' minimum, 8' preferred Target Users: • Pedestrians	

Transit Connectivity

One of the vital roles of a bicycle and pedestrian network is to provide accessibility to existing transit facilities and create an increased range of mobility for transit riders. Creating complete connections in the vicinity of transit stops increases safety and efficiency for transit users. **Figure 13** and **Figure 14** show maps of the current Greenlink bus stops overlaid with the existing bicycle and pedestrian networks. The maps highlight the stops which currently have limited bicycle or pedestrian connectivity, drawing attention to the existing facilities on the streets within a one-fifth mile radius of those stops. It is worth noting that the *Bicycle Master Plan* includes proposed bicycle facilities near the stops on Rutherford Street, McDaniel Avenue, University Ridge, McBee Avenue, and Augusta Street north of Church Street (a map displaying the proposed facility types can be found in the Existing Conditions memorandum). Completion of these planned facilities would provide much-needed access to the bus stops in their vicinities. The neighborhoods surrounding South Academy Street and Augusta Street could also benefit from expanded bicycle facilities. Sidewalk connectivity to transit is good overall, except for a few residential areas on the outskirts of the downtown area. These neighborhoods will be better served by the transit system when the sidewalks and bikeways connect them into the larger network.

Figure 13: Sidewalk-Transit Connectivity Gaps

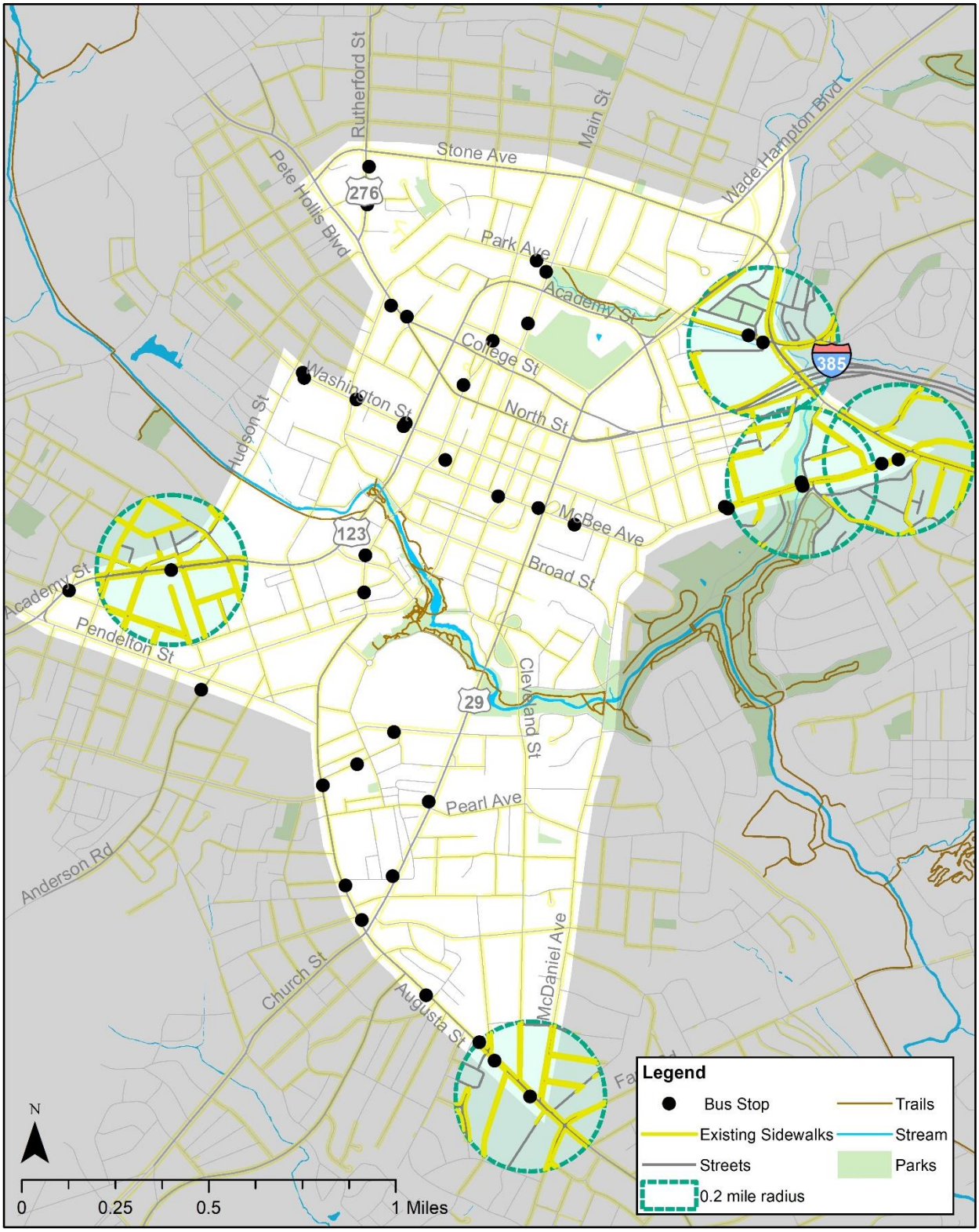
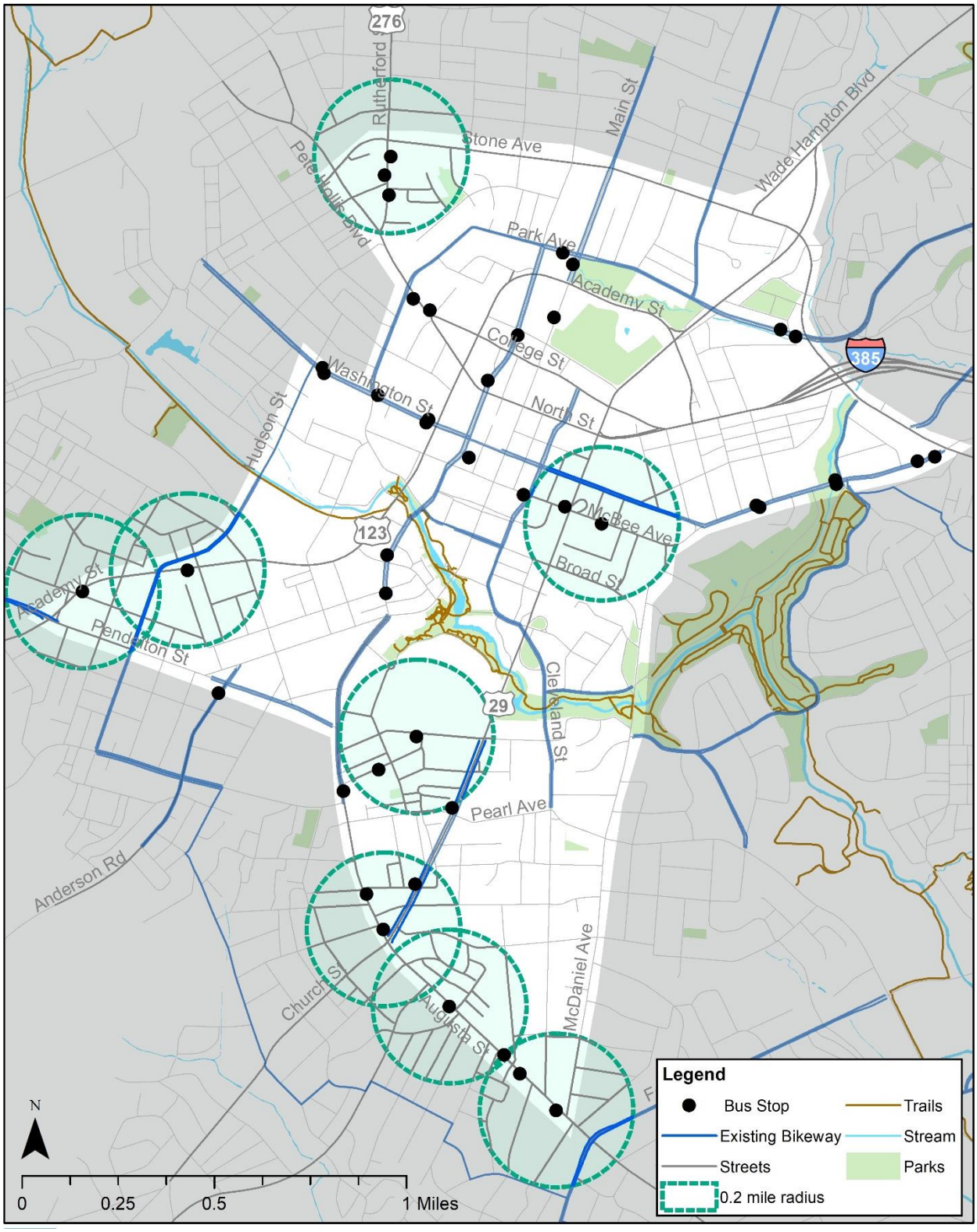


Figure 14: Bicycle-Transit Connectivity Gaps



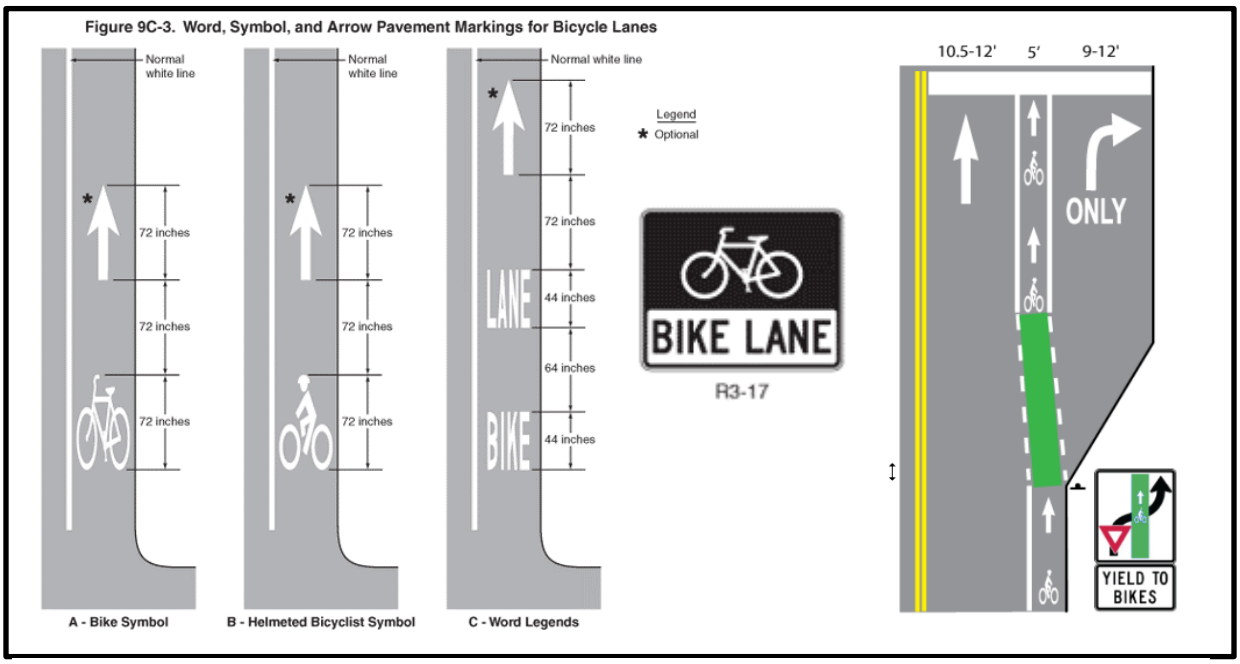
Safety

Another high-priority aspect of complete and viable bicycle and pedestrian networks is safety for all users. A safe, convenient network not only reduces crashes and other incidents, but it also encourages higher usage of the bicycle and pedestrian facilities by all members of the community.

Safety features of bicycle networks include clear signage and marking for the specific type of facility present as well as adequate lane widths and/or buffering to protect cyclists from automobile traffic. Safety features of pedestrian systems include clearly marked crosswalks and pedestrian signals at intersections, clear signage and/or beacons at mid-block or uncontrolled intersection crossings, median refuges on crossings of wide, multi-lane roadways, and adequate buffering of sidewalks or greenways when appropriate. The downtown networks can be evaluated by a visual analysis of these features as well as a review of crash statistics involving cyclists and/or pedestrians in the area.

The City's *Bicycle Master Plan* indicates existing bike lanes located along the length of Richardson Street. These bike lanes include no signage or markings beyond the white line indicating the edge of the vehicle travel lane and need to be updated. Bike lanes should be marked with symbols or text at regular intervals in order to clearly communicate the location of the bike lanes to drivers and cyclists alike. **Figure 15** illustrates the suggested type of signage and markings for the lanes on Richardson Street.

Figure 15: Advised Striping and Signage for On-Street Bike Lanes



(Source: Manual on Uniform Traffic Control Devices (MUTCD); 2011 City of Greenville Bicycle Master Plan - Bicycle Design Guidelines)

A high rate of pedestrian crashes, including one fatality, was identified along the Rutherford Street corridor near the bus stops located on that road. No crossing facilities are currently located in that area, despite the high number of travel lanes and the likelihood of significant

pedestrian volumes due to the transit stops. A midblock crosswalk with a Pedestrian Hybrid Beacon (PHB) may be an effective treatment for this area. A PHB is a traffic control device that helps pedestrians safely cross at midblock crossings or uncontrolled intersections. PHBs are designed for higher speed or higher volume roadways where pedestrian crossing facilities are needed outside of controlled intersections. The beacons are signal heads which remain dark until activated by a pedestrian push button, when a yellow-to-red sequence initiates, directing drivers to stop and allow the pedestrian to cross. Due to Rutherford Street consisting of five lanes of traffic at this location, this crossing should also include a raised median refuge to allow pedestrians to cross the roadway in two stages. A supplemental pushbutton can be located in the median for additional functionality. In order to encourage proper use of the beacon and crosswalk, this crossing should be located as close to the transit stops on either side of Rutherford Street as possible without conflicting with any existing driveway entrances.

Pedestrian Hybrid Beacon (PHB) (left); Rectangular Rapid Flashing Beacon (RRFB) (right)

Another location with a higher concentration of pedestrian crashes is Augusta Street just south of its convergence with South Main Street. This corridor includes multiple midblock crossings which are currently marked with warning signs and pavement striping. The safety at these crossings could be improved by the installation of Rectangular Rapid-Flashing Beacons (RRFBs). RRFBs are pedestrian-actuated flashing indicators which can be added to pedestrian warning signs to enhance the conspicuity of a marked, uncontrolled crosswalk. These beacons are a less intrusive and lower cost alternative to PHBs and are better suited to lower speed roadways. To maintain the continuity of the pedestrian facilities in the area, RRFBs could also be used to increase the safety of similar midblock and uncontrolled intersection pedestrian crossings along South Main Street between Augusta Street and North Markley Street.

The uncontrolled crossing of River Street at Reedy View Drive also recorded a notable concentration of pedestrian crashes. This location could also be improved with an RRFB to increase driver awareness of pedestrians crossing on the Swamp Rabbit Trail.

Safety and continuity of the pedestrian network also includes providing clearly marked and signalized crossings at controlled intersections with heavy pedestrian volumes. The absence of such facilities can prohibit pedestrian accessibility or encourage unsafe crossings. Two corridors in the study area were identified as difficult to cross in some locations. Church Street and Academy Street each have several intersections which are lacking in these pedestrian facilities on some approaches. **Table 9** summarizes the needs at each of these locations.

Table 9: Signalized Intersections Needing Pedestrian Elements

Intersection	Crossing Location	Add Crosswalk Striping	Add Pedestrian Signals
Church St @ North Street	East Side	X	
Church St @ University Ridge	North Side	X	X
Academy St @ McBee Avenue	West Side	X	
Academy St @ McBee Avenue	South Side		X
Academy St @ McBee Avenue	East Side		X
Academy St @ Falls Park Drive	North Side	X	X
Academy St @ Westfield Street	West Side		X
Academy St @ Westfield Street	North Side	X	X
Academy St @ Markley Street	North Side	X	X
Academy St @ Markley Street	East Side		X
Academy St @ Calhoun Street	East Side	X	X
Academy St @ Pendleton Street	East Side	X	X

Short-Term Project Lists

Upon review of various resources, planning documents, and public survey responses, a list of short-term projects has been prepared to address the areas of need that were identified in this process. This list represents projects of varying scope and complexity, ranging from signal retiming efforts to intersection reconfiguration projects. These projects reinforce the strategy of optimizing congestion mitigation and safety by using the existing network, and by minimizing recommendations for new alignments or roadway widening, whenever possible. GPATS Performance Measures are referenced to relate projects to the MPO Horizon 2040 LRTP. **Table 10** references recommended roadway and intersection projects.

Table 10. Short Term Roadway and Intersection Project List

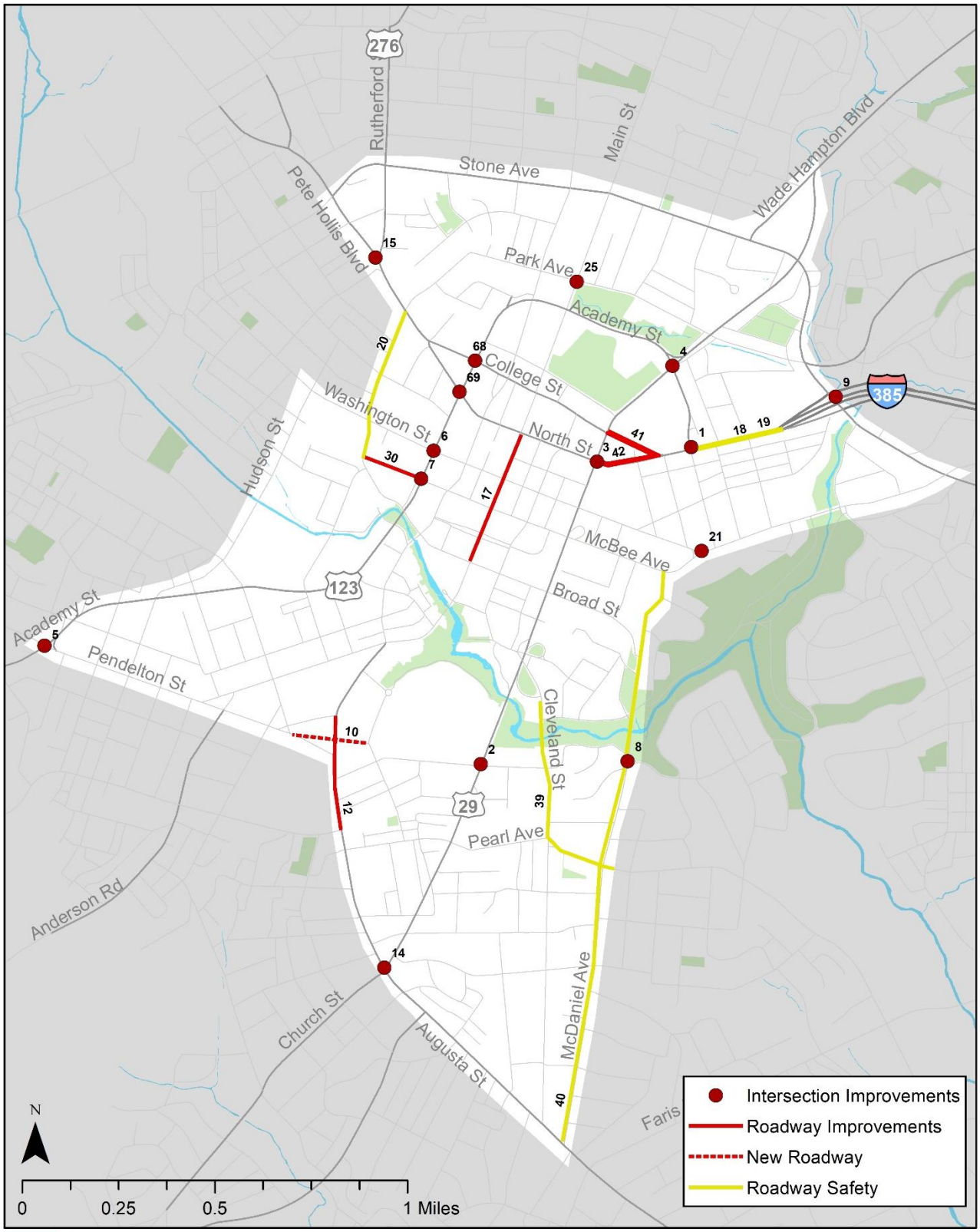
ID	Project Name	Performance Measures	Description	Project Type	Source
1	Academy Street & North Street, refer to Figure 4	System Reliability and Safety	Adjust signal timing, cycle length and coordination; modify SB and NB lane striping to add capacity to left turn movements; channelize WBR turn from E North St to Academy St to create a free-flow lane with pedestrian crosswalks	Intersection - Operations	Downtown Transportation Master Plan (DTMP) Synchro analysis
2	Church Street & University Ridge	System Reliability	Adjust signal timing, cycle length and coordination; lengthen EBL turn bays in preparation for future development and consistent with University Ridge TIA for site (conducted by others)	Intersection - Operations	DTMP Synchro analysis
3	Church Street & E North Street	System Reliability	Adjust signal timing and coordination; stripe the middle NB lane as a shared through-right lane	Intersection - Operations	DTMP Synchro analysis
4	Church Street & Academy Street	System Reliability	Adjust signal timing and coordination; add a second EBL turn lane from Academy St to Church St NB; add a WBR turn lane to Academy St; improve SB ramp conflict point with Church St	Intersection - Operations	DTMP Synchro analysis
5	Academy Street & Pendleton Street	System Reliability	Add left turn phasing for NB/SB movements on Academy St	Intersection - Operations	Survey response
6	Academy Street & W. Washington Street	System Reliability	Adjust signal timing and coordination; add left turn phasing for WB movement on Washington St	Intersection - Operations	Survey response
7	Academy Street & McBee Street	System Reliability	Adjust signal timing and coordination; add left turn phasing for WB movement on McBee St	Intersection - Operations	Survey response
8	McDaniel Avenue & Woodland Way	System Reliability and Safety	Convert to three-legged roundabout at University Ridge and McDaniel Ave	Intersection - Operations	Survey response

ID	Project Name	Performance Measures	Description	Project Type	Source
	and University Ridge				
9	I-385/Stone Avenue/Laurens Road Interchange	System Reliability	Add a second left turn lane from Stone Ave onto the EB I-385 On-Ramp	Intersection - Operations	DTMP Observations
10	Augusta Street from Dunbar Street to Field Street - Alternative 1	System Reliability and Safety	In conjunction with development of University Ridge site, construct grade-separated crossing of Augusta Street and railroad, from Bradshaw St to Vardry St	New Roadway - Bridge	DTMP Observations
12	Augusta Street from Dunbar Street to Field Street - Alternative 2	System Reliability and Safety	In conjunction with development of University Ridge site, remove Vardry Street traffic signal and restrict movements to right-in and right-out only OR remove; install new traffic signal at Harris Street that allows left and right turns in, and right-only out; construct NB U-turn bulb-out at Field Street signal; install a roundabout at Vardry & Field St intersection	Roadway - Operations	DTMP Observations
14	Augusta Street & Mills Ave/Church Street	System Reliability	Construct a westbound right turn lane on Augusta Street onto Church Street, with right turn overlap phase	Intersection - Operations	Survey response
15	Rutherford Street & Buncombe Street	Safety	Reevaluate existing pavement markings, signage, pedestrian crossing sight distance, and geometrics of receiving lanes on Buncombe Street from Rutherford Street for clarity; close existing driveway access at signal and remove the inbound left turn lane from Buncombe Street	Intersection - Safety	2019 Crash analysis
17	Main Street from Court Street to North Street	System Reliability and Safety	Restrict left turns from Main Street at all signals to reduce pedestrian conflicts and to improve throughput at traffic signals which currently do not have dedicated left turn lanes	Roadway - Operations	Model, DTMP Observations
18	North Street from I-385 to Academy Street - Alternative 1	Safety and System Reliability	Eliminate left turns from McGee St and Boyce Ave onto North St; eliminate left turn onto Boyce Ave from North St; complete in conjunction with the dedicated free-flowing right turn lane (see project #1) to encourage use of Academy as a bypass; improve merge	Roadway - Safety	Model, Survey response

ID	Project Name	Performance Measures	Description	Project Type	Source
			striping at on-ramp to I-385 from Stone Ave		
19	North Street from I-385 to Academy Street - Alternative 2	Safety and System Reliability	Eliminate left turns to and from McGee Street and Boyce Avenue completely; restripe North Avenue so that on-ramp lane from Stone Avenue is continuous; complete in conjunction with free-flowing right turn lane onto Academy Street to encourage its use as a bypass (see project #1)	Roadway - Safety	Model, Survey response
20	Butler Avenue from Buncombe Street to Washington Street	System Reliability	Modify lane assignments on the eastbound approach to create a dedicated right turn lane onto Butler to reduce the frequency of through-lane blocking at the signal of Buncombe Street and Butler Avenue; this may require completing a road diet on Buncombe Street/Pete Hollis Boulevard or coordination with adjacent property owners	Roadway - Safety	Model, Survey response
21	Washington Street at McBee Avenue	System Reliability and Safety	Construct a single-lane roundabout at the intersection of Washington Street and McBee Avenue	Intersection - Operations	Survey response
39	Traffic calming medians on Cleveland Street	Safety	Install traffic calming elements to control speed, including raised median planters and speed control devices	Roadway - Safety	Survey response
40	Traffic calming medians on McDaniel Avenue	Safety	Install traffic calming elements to control speed, including raised median planters and speed control devices	Roadway - Safety	Survey response
41	North Street at Church Street Crossover/Displaced Left Turns	System Reliability	Relocate WB left turns from Beattie Place onto Church Street to the south, at the signalized intersection of North Street and Church Street; displace the left turns onto the left side of the road via an at-grade signalized crossover	Roadway - Operations	DTMP Synchro analysis
42	North Street at Church Street Flyover/Displaced Left Turns	System Reliability	Relocate WB left turns from Beattie Place onto Church Street to the south, at the signalized intersection of North Street and Church Street; displace the left turns onto the left side of the road via a grade separated flyover bridge	Roadway - Operations	DTMP Synchro analysis

ID	Project Name	Performance Measures	Description	Project Type	Source
68	Buncombe Street at Academy Street - Eastbound access to Academy Street Alternative 1	System Reliability	Convert the middle through lane on Buncombe Street at Academy Street to a shared thru-left turn lane; remove pedestrian crosswalk from the north leg due to conflicts with pedestrians and vehicles	Intersection - Operations	DTMP Synchro analysis, DTMP Observations
69	College Street at Academy Street - Eastbound access to Academy Street Alternative 2	System Reliability	Reverse one eastbound lane on College Street between Buncombe Street and Academy Street to provide another eastbound left turn option onto Academy for traffic coming from Pete Hollis Boulevard; stripe eastbound lanes on Buncombe Street at Academy as LT, T, R	Intersection - Operations	DTMP Synchro analysis, DTMP Observations

Figure 16: Proposed Roadway and Intersection Projects, Short-Term Strategy



The following list in **Table 11** contains recommendations for short term bicycle and pedestrian improvements, based on findings from the existing conditions and needs assessment.

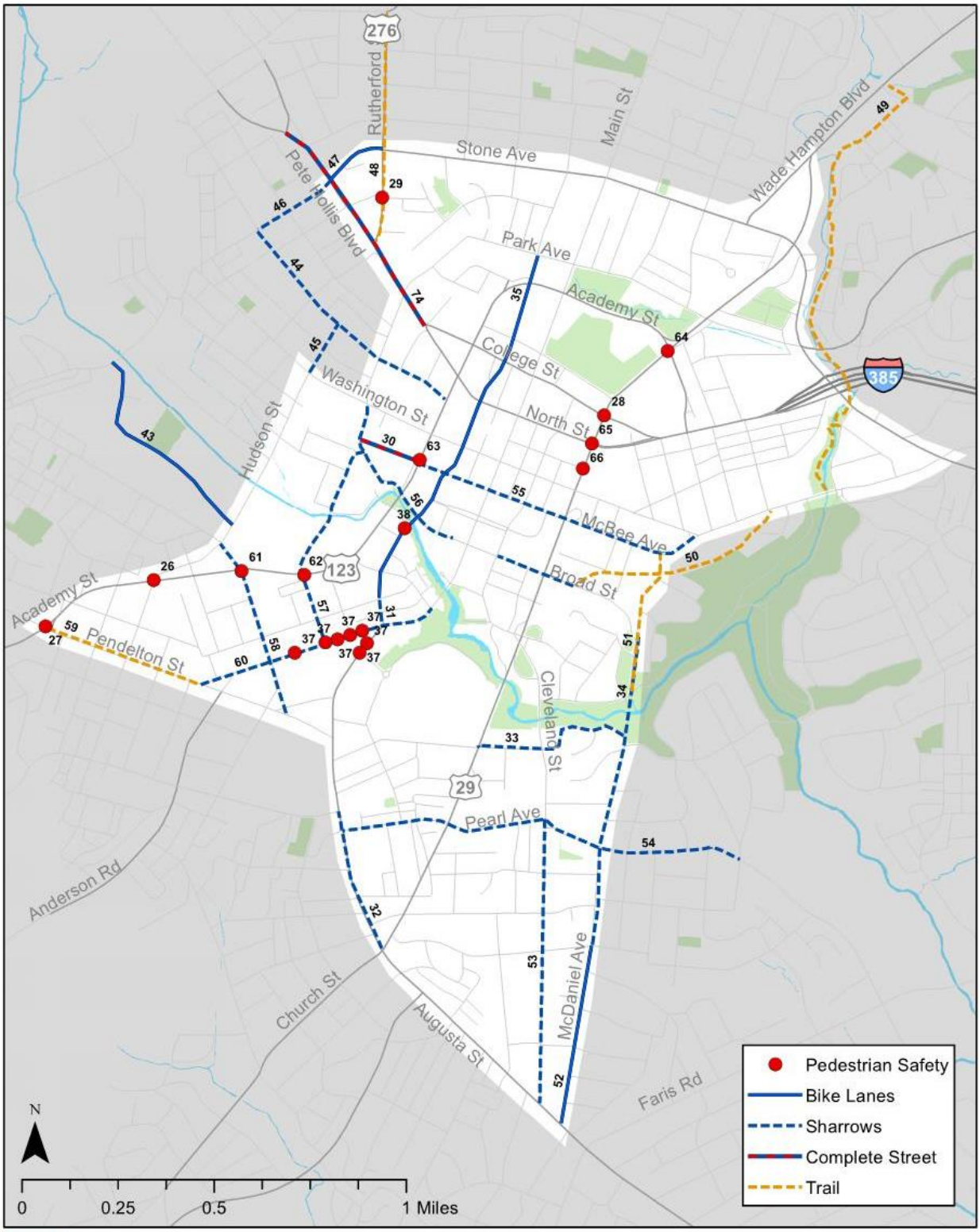
Table 11: Short Term Bike and Pedestrian Project List

ID	Project Name	Performance Measures	Description	Project Type	Source
26	Academy Street & Calhoun Street Pedestrian Crossings	Safety	Add missing crosswalks and pedestrian signals across east leg of intersection	Pedestrian - Safety	DTMP Observations
27	Academy Street & Pendleton Street Pedestrian Crossings	Safety	Add missing crosswalks and pedestrian signals across east leg of intersection	Pedestrian - Safety	DTMP Observations
28	Church Street & Beattie Place	Safety	Provide Leading Pedestrian Interval (LPI) for large ped volumes crossing west leg of intersection during peak AM and PM hours	Pedestrian - Safety	2019 Pedestrian counts
29	Rutherford Street between Stone Avenue and Buncombe Street	Safety	Add designated mid-block crossing with median refuge and PHB signal to serve the Greenlink stops in the immediate vicinity of the Hardee's driveway.	Pedestrian - Safety	2019 Crash analysis
30	McBee Avenue from Broad Street to Academy Street	Safety	Road diet to 3-lanes plus bike lanes per bike plan	Complete Street	2011 Bike Plan
31	River Street from Rhett Street to Main Street - Sharrows	Safety	Complete bike connection with sharrows through this section.	Bicycle - Sharrow	Strava Data, 2011 Bike Plan
32	Augusta Street from Dunbar Street to Church Street - Sharrows	Safety	Continue sharrows with road diet extension from Dunbar to Church Street	Bicycle - Sharrow	Strava Data, 2011 Bike Plan
33	University Ridge from Church Street to McDaniel Street - Sharrows	Safety	Install sharrow markings and signs through this section.	Bicycle - Sharrow	Strava Data, 2011 Bike Plan
34	McDaniel Avenue - Sharrows	Safety	Install sharrow markings and signs through this section.	Bicycle - Sharrow	2011 Bike Plan
35	Richardson Street Bike Lane Markings	Safety	Add bike boxes and/or colored thermoplastic paint through the intersections along with more signage and bike markings.	Bicycle - Safety	2019 Crash analysis
37	RRFBs on Main Street and Augusta Street Mid-block crossings	Safety	install RRFBs at mid-block crossings on Main Street and Augusta Street in South Downtown district	Pedestrian - Safety	2019 Crash analysis
38	RRFB at Reedy View Drive at River St	Safety	Install RRFB at crosswalk on River Street at Reedy View Drive	Pedestrian - Safety	2019 Crash analysis

ID	Project Name	Performance Measures	Description	Project Type	Source
43	Mayberry St Bike Lanes	Safety	Construct bike lanes from Willard St to Hudson St	Bicycle - Bike Lanes	2011 Bike Plan
44	Hampton Ave Sharrows	Safety	Add sharrows from Pete Hollis Blvd to Duncan St	Bicycle - Sharrow	2011 Bike Plan
45	Hudson St Sharrows	Safety	Add sharrows from Washington St to Hampton Ave	Bicycle - Sharrow	2011 Bike Plan
46	Mulberry St Sharrows	Safety	Add sharrows from Hampton Ave to Pete Hollis Blvd	Bicycle - Sharrow	2011 Bike Plan
47	Stone Ave Bike Lanes	Safety	Construct bike lanes from Pete Hollis Blvd to Rutherford St	Bicycle - Bike Lanes	2011 Bike Plan
48	Rutherford St Trail	Safety	Construct bike/ped trail from Pete Hollis to Shaw St	Trails	2011 Bike Plan
49	Richland Creek Trail	Safety	Construct bike/ped trail along Richland Creek from Wade Hampton Blvd to Washington St	Trails	2011 Bike Plan
50	Broad St Trail	Safety	Construct bike/ped trail between Broad St and Washington St	Trails	2011 Bike Plan
51	McDaniel Ave Trail	Safety	Construct bike/ped trail along McDaniel Ave from McBee Ave to Ridgeland Dr	Trails	2011 Bike Plan
52	McDaniel Ave Bike Lanes	Safety	Construct bike lanes from Crescent Ave to Augusta St	Bicycle - Bike Lanes	2011 Bike Plan
53	Jones Ave Sharrows	Safety	Add sharrows from Pearl Ave to Augusta St	Bicycle - Sharrow	2011 Bike Plan
54	Haynie St/Pearl Ave/Cleveland St Sharrows	Safety	Add sharrows from Augusta St to Southland Ave	Bicycle - Sharrow	2011 Bike Plan
55	McBee Ave Sharrows	Safety	Add sharrows from Academy to Washington St	Bicycle - Sharrow	2011 Bike Plan
56	Broad Ave Sharrows	Safety	Add sharrows from Washington St to River St, and from Falls St to David Frances St	Bicycle - Sharrow	2011 Bike Plan
57	Westfield St Sharrows	Safety	Add sharrows along length of Westfield St	Bicycle - Sharrow	2011 Bike Plan
58	Markley St Sharrows	Safety	Add sharrows from Calhoun St to Pendleton St	Bicycle - Sharrow	2011 Bike Plan
59	Pendleton St Trail	Safety and System Reliability	Construct bike/ped trail along Pendleton St from Academy St to S Main St	Trails	2011 Bike Plan
60	South Main St Sharrows	Safety	Add sharrows from Pendleton St to Camperdown Way	Bicycle - Sharrow	2011 Bike Plan

ID	Project Name	Performance Measures	Description	Project Type	Source
61	Academy St & N Markley St Pedestrian Crossing	Safety	Add pedestrian signals and pushbuttons for the existing painted crosswalk on the east leg of the intersection.	Pedestrian - Safety	DTMP Observations
62	Academy St & Westfield St Pedestrian Crossing	Safety	Add pedestrian crossing infrastructure for the existing ramps on the north leg of the intersection.	Pedestrian - Safety	DTMP Observations
63	Academy St & McBee Ave Pedestrian Crossing	Safety	Add crosswalk striping and ramps on west leg; add ramps on north leg; add signals/pushbuttons on east leg; add signals/buttons on south leg; add ramps on southwest corner.	Pedestrian - Safety	DTMP Observations
64	Academy St & Church St Pedestrian Crossing	Safety	Add ramps on southeast corner; striping across channelized right turn	Pedestrian - Safety	DTMP Observations
65	Church St & E North St Pedestrian Crossing	Safety	Add crosswalk striping and ramps on the median island for the existing pedestrian signals across the east leg.	Pedestrian - Safety	DTMP Observations
66	Church St & E Coffee St Pedestrian Crossing	Safety	Add ramps on east side of Church St.	Pedestrian - Safety	DTMP Observations

Figure 17: Proposed Bike and Pedestrian Projects, Short-Term Strategy

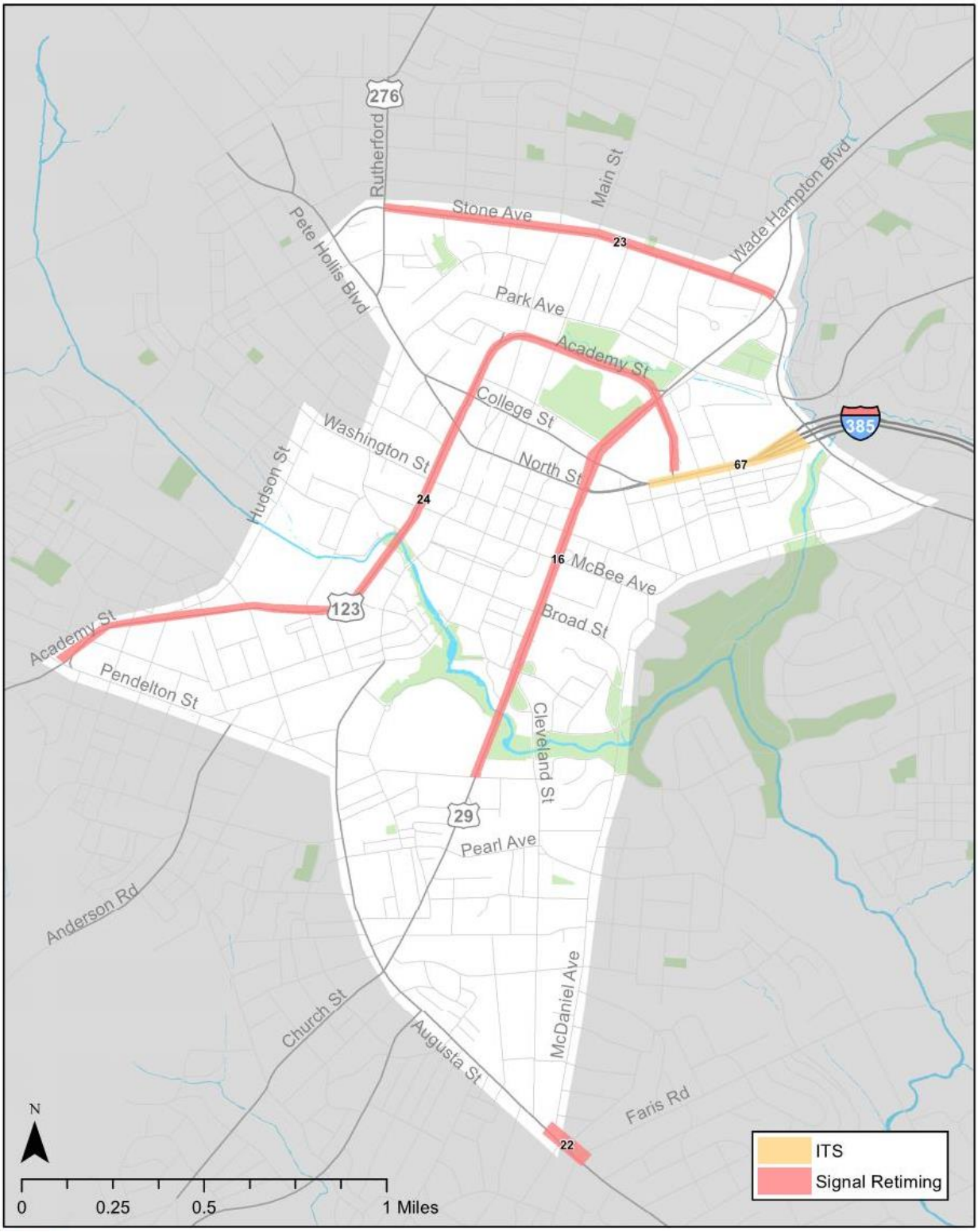


Lastly, **Table 12** contains recommendations for signal timing efforts and Intelligent Transportation System (ITS) projects.

Table 12: Short Term Signal Timing and ITS Project List

ID	Project Name	Issue	Description	Project Type	Source
16	Church Street from University Ridge to Academy St	System Reliability	Retiming effort to coincide with grid retiming strategy	Signal Retiming	DTMP Observations
22	Augusta Street from McDaniel Avenue to W Faris Road	System Reliability	Review signal coordination of Faris Road and McDaniel Ave signals; consider operations with one controller	Signal Retiming	Survey response
23	Stone Avenue	System Reliability	Signal coordination/retiming to prioritize flows on Stone Avenue	Signal Retiming	Model, Survey response
24	Academy Street	System Reliability	Signal coordination from Pendleton St to E. North Street to prioritize flows on Academy Street	Signal Retiming	Survey response
25	Park Avenue & Main Street	System Reliability	Add left turn phasing for left turns from Park Ave. onto Main St.	Signal Retiming	Survey response
67	North Street Dynamic Messaging Signs	System Reliability	Add DMS signs to I-385 and/or North Street inbound to Greenville to provide real-time information on travel speeds on Academy, route options, event information, etc.	Intelligent Transportation System (ITS)	DTMP Observations

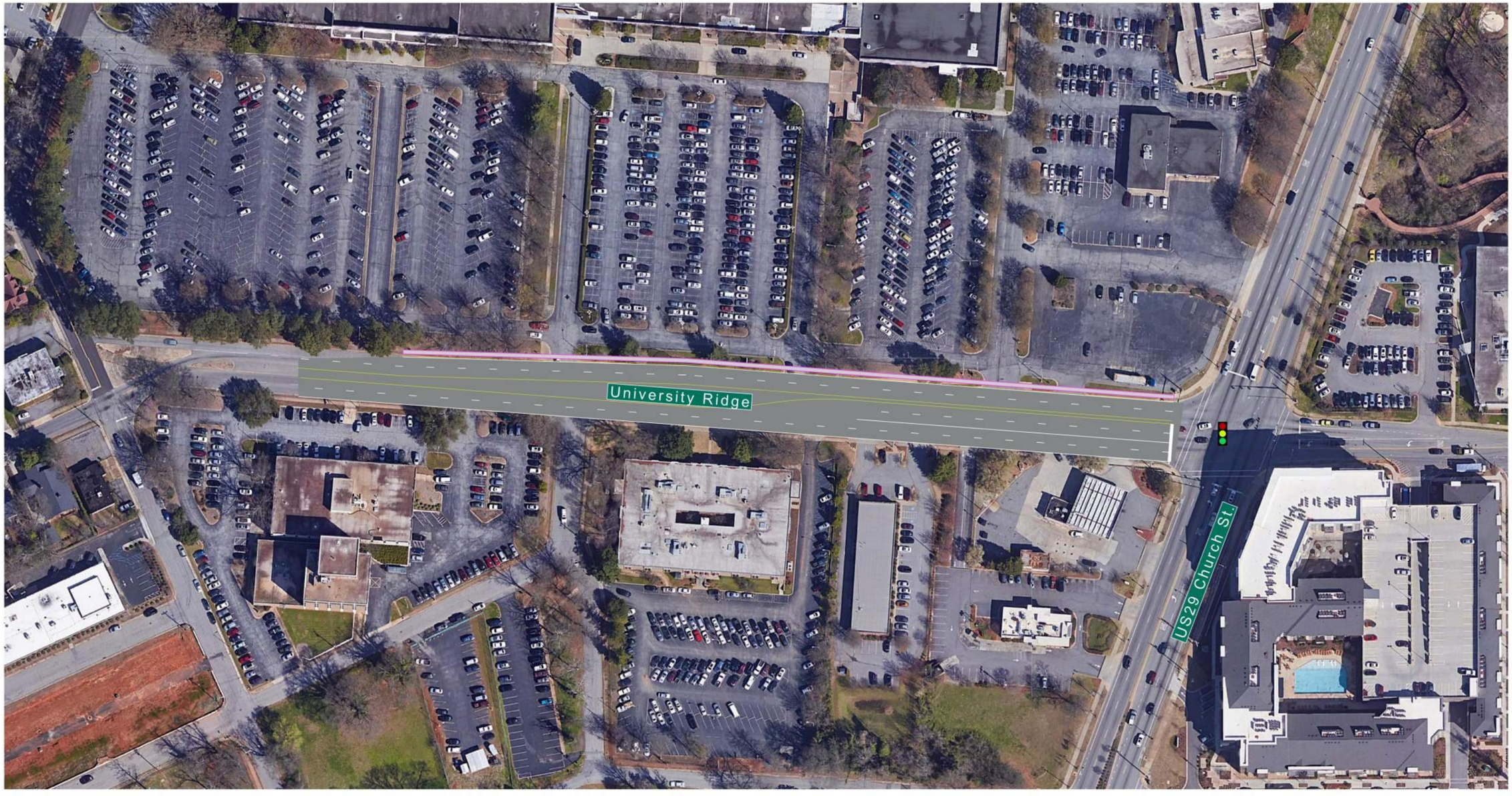
Figure 18: Corridor Signal Timing and ITS Projects, Short-Term Strategy



Conceptual Renderings

Several projects found in the recommended project list have been rendered as concept drawings for illustrative purposes. The renderings represented on the following pages are conceptual in nature and are subject to change. Detailed concept development, design, and alternatives analysis testing are recommended for any project on the recommendations list.

Academy St.
Lavinia Ave.
North St.
Toy St.
Google earth

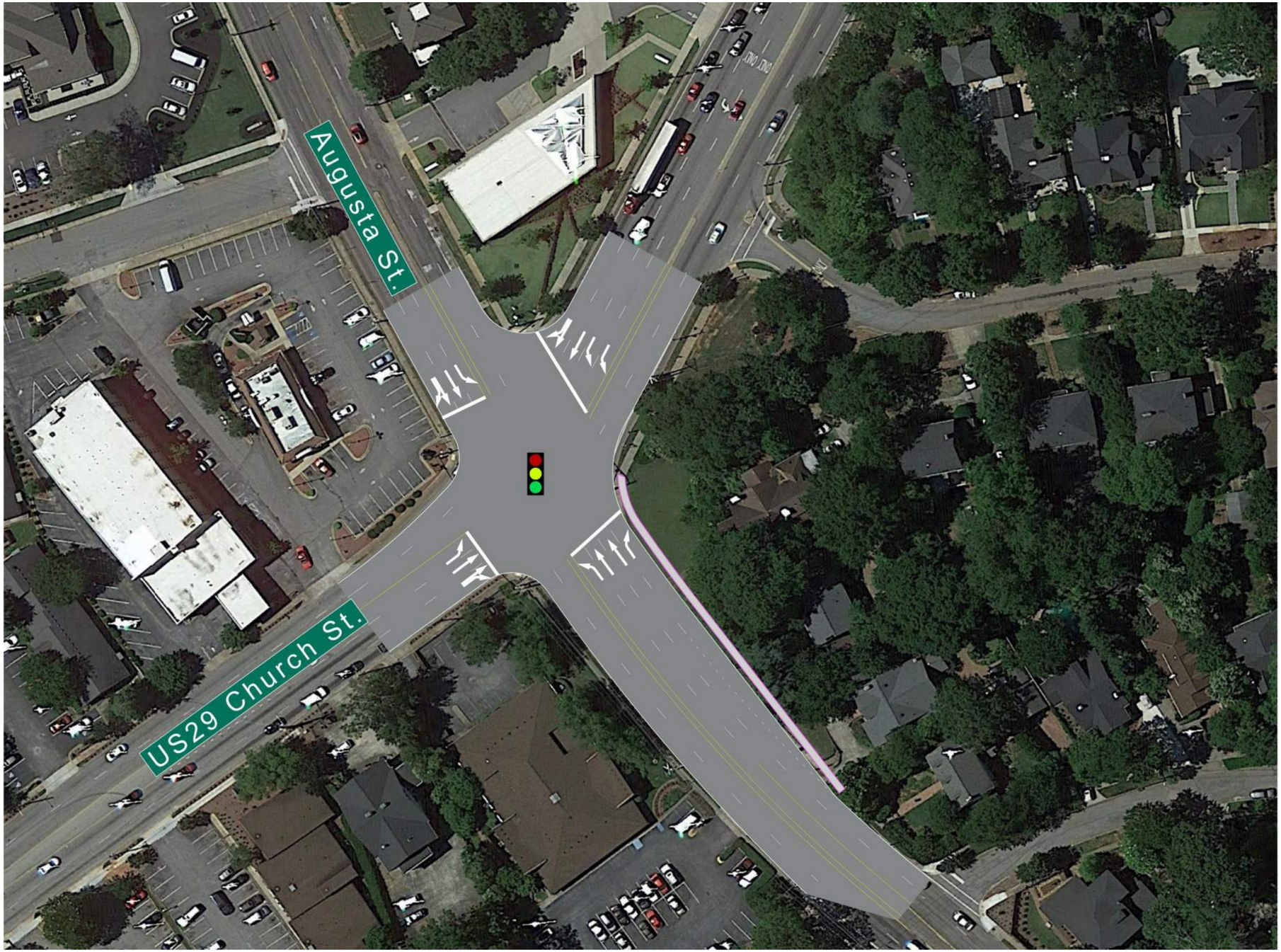

University Ridge
US29 Church St.

Academy St.
US29 Church St.

I-385 Westbound
I-385 Eastbound
Stone Ave.

AUGUSTA ST RCUT ALT 3

PROJECT #12


Augusta St.
US29 Church St.

I-385 WB
Mcgee St.
Lavania Ave.
Academy St.
North St.
Boyce Ave.
Toy St.

Washington St.
Washington St.
Mcbee Ave.

Rutherford St.

MCBEE ST ROAD DIET AND ROUNDABOUT

PROJECT #30 (& #81)

NORTH ST DIPLACED LEFTS-CROSSOVER

PROJECT #41

US29 Church St.
Beattie Pl.
North St.
Google earth

Next Steps

Upon completion of Phase 1 of the Downtown Transportation Master Plan, the City of Greenville will move forward with Phase 2, which includes the following elements:

- Short-term project analysis and refinement
- Long-term project analysis and development
- Project prioritization, with respect to GPATS performance measures
- Planning-level cost estimates
- Short-, mid-, and long-term implementation strategies

The purpose of Phase 2 is to continue developing projects for long-range planning efforts by the City and GPATS. Those projects that the City determines to be a priority that also require additional funding support will be submitted to GPATS for consideration in future updates to its Long Range Transportation Plan (LRTP).

Appendices

Appendix A: 2019 Existing Conditions and Build Synchro Output Files, HCM 6th Edition

Appendix B: AV/CV Recommendations Memorandum

Appendix A: 2019 Existing Conditions Synchro Output Files, HCM 6th Edition

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1633	8	144	1860	426	9	60	87	697	99	21
Future Volume (veh/h)	4	1633	8	144	1860	426	9	60	87	697	99	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	1775	9	152	1958	0	10	65	94	647	214	22
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2497	13	248	2704		178	186	276	772	361	37
Arrive On Green	0.02	0.48	0.46	0.07	0.53	0.00	0.10	0.10	0.10	0.22	0.22	0.22
Sat Flow, veh/h	1781	5243	27	1781	5106	1585	1781	1870	1585	3563	1668	171
Grp Volume(v), veh/h	4	1152	632	152	1958	0	10	65	94	647	0	236
Grp Sat Flow(s),veh/h/ln	1781	1702	1866	1781	1702	1585	1781	1870	1585	1781	0	1839
Q Serve(g_s), s	0.1	32.2	32.2	4.8	35.1	0.0	0.6	3.9	6.2	20.9	0.0	13.8
Cycle Q Clear(g_c), s	0.1	32.2	32.2	4.8	35.1	0.0	0.6	3.9	6.2	20.9	0.0	13.8
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	150	1621	888	248	2704		178	186	276	772	0	398
V/C Ratio(X)	0.03	0.71	0.71	0.61	0.72		0.06	0.35	0.34	0.84	0.00	0.59
Avail Cap(c_a), veh/h	232	1621	888	293	2704		178	187	276	831	0	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.72	0.00	0.72
Uniform Delay (d), s/veh	18.7	24.9	24.9	22.3	21.5	0.0	48.9	50.4	43.5	45.0	0.0	42.2
Incr Delay (d2), s/veh	0.1	2.7	4.8	2.8	1.7	0.0	0.1	1.1	0.7	5.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	13.1	14.9	2.2	13.7	0.0	0.3	1.9	2.5	9.7	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	27.6	29.7	25.1	23.3	0.0	49.0	51.5	44.3	50.3	0.0	43.6
LnGrp LOS	B	C	C	C	C		D	D	D	D	A	D
Approach Vol, veh/h		1788			2110	A		169			883	
Approach Delay, s/veh		28.3			23.4			47.3			48.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	61.1		30.0	6.5	67.5		16.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	10.0	50.0		26.0	6.0	54.0		10.0
Max Q Clear Time (g_c+I1), s	6.8	34.2		22.9	2.1	37.1		8.2
Green Ext Time (p_c), s	0.1	10.6		1.1	0.0	12.5		0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	647	66	34	410	36	43	539	11	160	1193	474
Future Volume (veh/h)	266	647	66	34	410	36	43	539	11	160	1193	474
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	292	711	73	37	451	0	56	700	14	167	1243	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.77	0.77	0.77	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	2	2	2
Cap, veh/h	616	917	94	248	711		164	1371	27	379	1518	
Arrive On Green	0.36	0.56	0.53	0.10	0.20	0.00	0.07	0.78	0.75	0.09	0.43	0.00
Sat Flow, veh/h	3456	3253	334	1781	3554	1585	1753	3507	70	1781	3554	1585
Grp Volume(v), veh/h	292	388	396	37	451	0	56	349	365	167	1243	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1810	1781	1777	1585	1753	1749	1828	1781	1777	1585
Q Serve(g_s), s	7.2	18.6	18.8	0.0	12.8	0.0	0.0	8.0	8.0	6.9	33.9	0.0
Cycle Q Clear(g_c), s	7.2	18.6	18.8	0.0	12.8	0.0	0.0	8.0	8.0	6.9	33.9	0.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	616	501	510	248	711		164	684	715	379	1518	
V/C Ratio(X)	0.47	0.78	0.78	0.15	0.63		0.34	0.51	0.51	0.44	0.82	
Avail Cap(c_a), veh/h	616	501	510	248	711		229	684	715	421	1518	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.97	0.97	0.00	0.91	0.91	0.91	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.4	21.3	21.7	44.6	40.3	0.0	46.3	8.2	8.2	22.8	27.7	0.0
Incr Delay (d2), s/veh	0.2	10.2	10.1	0.1	4.2	0.0	0.4	2.5	2.4	0.3	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	6.5	6.7	0.9	5.9	0.0	1.4	2.6	2.7	2.9	14.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	31.5	31.8	44.7	44.5	0.0	46.8	10.7	10.6	23.1	32.8	0.0
LnGrp LOS	C	C	C	D	D		D	B	B	C	C	
Approach Vol, veh/h		1076			488	A		770			1410	A
Approach Delay, s/veh		31.6			44.5			13.3			31.6	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	47.0	14.6	35.0	9.4	51.0	23.6	26.0
Change Period (Y+Rc), s	4.5	6.0	4.5	6.0	6.0	* 6	4.5	6.0
Max Green Setting (Gmax), s	11.5	41.0	7.5	29.0	7.5	* 45	16.5	20.0
Max Q Clear Time (g_c+I1), s	8.9	10.0	2.0	20.8	2.0	35.9	9.2	14.8
Green Ext Time (p_c), s	0.1	4.7	0.0	2.9	0.0	5.5	0.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	859	10	37	817	64	4	62	26	98	231	236
Future Volume (veh/h)	148	859	10	37	817	64	4	62	26	98	231	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	999	12	39	869	68	4	65	27	105	248	254
Peak Hour Factor	0.86	0.86	0.86	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	661	2390	29	243	1518	119	140	257	107	275	383	324
Arrive On Green	0.21	0.66	0.65	0.04	0.91	0.87	0.20	0.20	0.19	0.20	0.20	0.20
Sat Flow, veh/h	1781	3596	43	1781	3339	261	896	1255	521	1304	1870	1585
Grp Volume(v), veh/h	172	494	517	39	462	475	4	0	92	105	248	254
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1823	896	0	1777	1304	1870	1585
Q Serve(g_s), s	0.0	14.2	14.2	1.4	5.4	5.7	0.5	0.0	4.8	8.1	13.4	16.7
Cycle Q Clear(g_c), s	0.0	14.2	14.2	1.4	5.4	5.7	13.8	0.0	4.8	12.9	13.4	16.7
Prop In Lane	1.00		0.02	1.00		0.14	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	661	1181	1238	243	808	829	140	0	364	275	383	324
V/C Ratio(X)	0.26	0.42	0.42	0.16	0.57	0.57	0.03	0.00	0.25	0.38	0.65	0.78
Avail Cap(c_a), veh/h	661	1181	1238	350	808	829	225	0	533	400	561	476
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	0.86	0.86	0.86	1.00	0.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	14.0	8.6	8.6	19.9	3.0	3.2	46.4	0.0	36.9	42.1	40.1	41.4
Incr Delay (d2), s/veh	0.1	1.0	1.0	0.1	2.5	2.5	0.1	0.0	0.4	0.7	1.5	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.1	5.3	0.6	1.6	1.7	0.1	0.0	2.1	2.7	6.3	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	9.6	9.6	20.0	5.5	5.6	46.5	0.0	37.3	42.8	41.6	45.7
LnGrp LOS	B	A	A	B	A	A	D	A	D	D	D	D
Approach Vol, veh/h		1183			976			96			607	
Approach Delay, s/veh		10.2			6.1			37.7			43.5	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	29.5	54.0		26.5	6.4	77.1		26.5
Change Period (Y+Rc), s	6.0	* 6		6.0	4.0	6.0		6.0
Max Green Setting (Gmax), s	15.0	* 48		31.0	9.0	54.0		31.0
Max Q Clear Time (g_c+I1), s	2.0	7.7		18.7	3.4	16.2		15.8
Green Ext Time (p_c), s	0.2	6.6		1.8	0.0	7.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	4	1039	200	6	1104
Future Volume (veh/h)	15	4	1039	200	6	1104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	5	1154	222	6	1150
Peak Hour Factor	0.81	0.81	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	91	81	3113	1389	411	3113
Arrive On Green	0.05	0.05	1.00	1.00	0.88	0.88
Sat Flow, veh/h	1781	1585	3647	1585	394	3647
Grp Volume(v), veh/h	19	5	1154	222	6	1150
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	394	1777
Q Serve(g_s), s	1.1	0.3	0.0	0.0	0.2	6.5
Cycle Q Clear(g_c), s	1.1	0.3	0.0	0.0	0.2	6.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	91	81	3113	1389	411	3113
V/C Ratio(X)	0.21	0.06	0.37	0.16	0.01	0.37
Avail Cap(c_a), veh/h	389	346	3113	1389	411	3113
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.87	0.87	0.87	0.87
Uniform Delay (d), s/veh	50.0	49.7	0.0	0.0	0.9	1.2
Incr Delay (d2), s/veh	0.4	0.1	0.3	0.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.1	0.1	0.0	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.5	49.8	0.3	0.2	0.9	1.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	24		1376			1156
Approach Delay, s/veh	50.3		0.3			1.5
Approach LOS	D		A			A

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		100.4				100.4	9.6
Change Period (Y+Rc), s		6.0				6.0	6.0
Max Green Setting (Gmax), s		76.0				76.0	22.0
Max Q Clear Time (g_c+I1), s		2.0				8.5	3.1
Green Ext Time (p_c), s		12.2				10.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	1.3
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	296	247	4	97	1220	0	0	1048	52
Future Volume (veh/h)	0	0	0	296	247	4	97	1220	0	0	1048	52
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				399	176	4	109	1371	0	0	1092	54
Peak Hour Factor				0.90	0.90	0.90	0.89	0.89	0.89	0.96	0.96	0.96
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				575	588	13	394	3911	0	0	2466	1100
Arrive On Green				0.16	0.16	0.14	0.07	1.00	0.00	0.00	0.69	0.69
Sat Flow, veh/h				3563	3643	83	1781	5274	0	0	3647	1585
Grp Volume(v), veh/h				399	90	90	109	1371	0	0	1092	54
Grp Sat Flow(s),veh/h/ln				1781	1870	1855	1781	1702	0	0	1777	1585
Q Serve(g_s), s				11.6	4.7	4.7	2.0	0.0	0.0	0.0	14.9	1.2
Cycle Q Clear(g_c), s				11.6	4.7	4.7	2.0	0.0	0.0	0.0	14.9	1.2
Prop In Lane				1.00		0.04	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				575	302	299	394	3911	0	0	2466	1100
V/C Ratio(X)				0.69	0.30	0.30	0.28	0.35	0.00	0.00	0.44	0.05
Avail Cap(c_a), veh/h				1198	629	624	476	3911	0	0	2466	1100
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.98	0.98	0.98	0.75	0.75	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh				43.6	40.6	40.7	5.7	0.0	0.0	0.0	7.4	5.3
Incr Delay (d2), s/veh				1.5	0.5	0.5	0.1	0.2	0.0	0.0	0.5	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.2	2.2	2.2	0.6	0.1	0.0	0.0	4.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.0	41.2	41.2	5.8	0.2	0.0	0.0	8.0	5.4
LnGrp LOS				D	D	D	A	A	A	A	A	A
Approach Vol, veh/h					579			1480			1146	
Approach Delay, s/veh					43.8			0.6			7.9	
Approach LOS					D			A			A	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	88.2	7.9	80.3	21.8
Change Period (Y+Rc), s	6.0	4.0	6.0	6.0
Max Green Setting (Gmax), s	63.0	9.0	50.0	35.0
Max Q Clear Time (g_c+I1), s	2.0	4.0	16.9	13.6
Green Ext Time (p_c), s	13.5	0.1	9.2	2.1

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

1: Academy St. #2 & Buncombe St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	805	110	0	0	0	0	945	412	68	1280	0
Future Volume (veh/h)	363	805	110	0	0	0	0	945	412	68	1280	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	367	813	111				0	1027	448	72	1347	0
Peak Hour Factor	0.99	0.99	0.99				0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	548	990	135				0	1488	649	408	2203	0
Arrive On Green	0.31	0.31	0.29				0.00	0.85	0.82	0.28	1.00	0.00
Sat Flow, veh/h	1781	3222	440				0	3650	1519	1781	3647	0
Grp Volume(v), veh/h	367	472	452				0	1004	471	72	1347	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1791				0	1702	1597	1781	1777	0
Q Serve(g_s), s	19.8	25.7	25.8				0.0	11.5	13.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	19.8	25.7	25.8				0.0	11.5	13.5	0.0	0.0	0.0
Prop In Lane	1.00		0.25				0.00		0.95	1.00		0.00
Lane Grp Cap(c), veh/h	548	575	551				0	1454	682	408	2203	0
V/C Ratio(X)	0.67	0.82	0.82				0.00	0.69	0.69	0.18	0.61	0.00
Avail Cap(c_a), veh/h	696	731	700				0	1454	682	408	2203	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.78	0.78	0.00
Uniform Delay (d), s/veh	33.2	35.3	35.5				0.0	5.4	6.9	19.6	0.0	0.0
Incr Delay (d2), s/veh	1.7	5.9	6.2				0.0	2.7	5.7	0.1	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	12.5	12.0				0.0	2.5	3.4	1.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	41.2	41.7				0.0	8.1	12.5	19.6	1.0	0.0
LnGrp LOS	C	D	D				A	A	B	B	A	A
Approach Vol, veh/h		1291						1475			1419	
Approach Delay, s/veh		39.6						9.5			1.9	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.2	51.0		37.8		72.2
Change Period (Y+Rc), s	6.0	* 6		6.0		6.0
Max Green Setting (Gmax), s	8.0	* 45		41.0		57.0
Max Q Clear Time (g_c+I1), s	2.0	15.5		27.8		2.0
Green Ext Time (p_c), s	0.0	12.2		4.1		13.7

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	0	6	296	247	4	97	1220	0	0	1048	52
Future Volume (veh/h)	186	0	6	296	247	4	97	1220	0	0	1048	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	202	0	7	329	274	4	109	1371	0	0	1092	54
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.89	0.89	0.89	0.96	0.96	0.96
Percent Heavy Veh, %	2	0	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	261	0	0	585	566	8	298	3244	0	0	1905	850
Arrive On Green	0.15	0.00	0.02	0.29	0.11	0.09	0.09	1.00	0.00	0.00	0.54	0.54
Sat Flow, veh/h	1781	202		1781	5185	75	1781	5274	0	0	3647	1585
Grp Volume(v), veh/h	202	50.8		329	180	98	109	1371	0	0	1092	54
Grp Sat Flow(s),veh/h/ln	1781	D		1781	1702	1857	1781	1702	0	0	1777	1585
Q Serve(g_s), s	12.0			17.6	5.5	5.5	3.1	0.0	0.0	0.0	22.6	1.8
Cycle Q Clear(g_c), s	12.0			17.6	5.5	5.5	3.1	0.0	0.0	0.0	22.6	1.8
Prop In Lane	1.00			1.00		0.04	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	261			585	371	203	298	3244	0	0	1905	850
V/C Ratio(X)	0.77			0.56	0.48	0.49	0.37	0.42	0.00	0.00	0.57	0.06
Avail Cap(c_a), veh/h	340			585	557	304	348	3244	0	0	1905	850
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98			0.98	0.98	0.98	0.81	0.81	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh	45.2			33.7	46.1	46.1	13.2	0.0	0.0	0.0	17.1	12.3
Incr Delay (d2), s/veh	5.6			1.2	1.0	1.8	0.2	0.3	0.0	0.0	1.2	0.1
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7			7.7	2.4	2.6	1.1	0.1	0.0	0.0	8.9	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8			34.9	47.0	47.9	13.4	0.3	0.0	0.0	18.3	12.4
LnGrp LOS	D			C	D	D	B	A	A	A	B	B
Approach Vol, veh/h					607			1480			1146	
Approach Delay, s/veh					40.6			1.3			18.0	
Approach LOS					D			A			B	

Timer - Assigned Phs		2	3		5	6	7	8				
Phs Duration (G+Y+Rc), s		73.9	36.1		10.9	63.0	20.1	16.0				
Change Period (Y+Rc), s		6.0	6.0		6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s		57.0	16.0		8.0	43.0	19.0	16.0				
Max Q Clear Time (g_c+I1), s		2.0	19.6		5.1	24.6	14.0	7.5				
Green Ext Time (p_c), s		13.4	0.0		0.0	7.4	0.1	0.6				

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	805	104	0	0	0	0	945	412	68	1280	0
Future Volume (veh/h)	181	805	104	0	0	0	0	945	412	68	1280	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	183	813	105				0	1027	448	72	1347	0
Peak Hour Factor	0.99	0.99	0.99				0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	210	986	495				0	1551	677	349	2120	0
Arrive On Green	0.33	0.33	0.31				0.00	0.89	0.85	0.19	1.00	0.00
Sat Flow, veh/h	635	2981	1585				0	3650	1519	1781	3647	0
Grp Volume(v), veh/h	530	466	105				0	1004	471	72	1347	0
Grp Sat Flow(s),veh/h/ln	1839	1777	1585				0	1702	1597	1781	1777	0
Q Serve(g_s), s	29.8	26.2	5.4				0.0	8.6	10.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	29.8	26.2	5.4				0.0	8.6	10.8	0.0	0.0	0.0
Prop In Lane	0.35		1.00				0.00		0.95	1.00		0.00
Lane Grp Cap(c), veh/h	608	588	495				0	1516	711	349	2120	0
V/C Ratio(X)	0.87	0.79	0.21				0.00	0.66	0.66	0.21	0.64	0.00
Avail Cap(c_a), veh/h	685	662	562				0	1516	711	349	2120	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.74	0.74	0.00
Uniform Delay (d), s/veh	34.6	33.4	27.8				0.0	3.8	5.2	21.0	0.0	0.0
Incr Delay (d2), s/veh	10.9	5.9	0.2				0.0	2.3	4.8	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	12.1	2.1				0.0	1.9	2.7	1.2	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	39.3	28.0				0.0	6.1	10.0	21.1	1.1	0.0
LnGrp LOS	D	D	C				A	A	A	C	A	A
Approach Vol, veh/h		1101						1475			1419	
Approach Delay, s/veh		41.2						7.3			2.1	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.6	53.0		40.4		69.6
Change Period (Y+Rc), s	6.0	* 6		6.0		6.0
Max Green Setting (Gmax), s	8.0	* 47		39.0		59.0
Max Q Clear Time (g_c+I1), s	2.0	12.8		31.8		2.0
Green Ext Time (p_c), s	0.0	12.9		2.6		13.8

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	2009	8	125	1635	547	24	166	243	582	44	16
Future Volume (veh/h)	16	2009	8	125	1635	547	24	166	243	582	44	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	2160	9	140	1837	0	32	224	328	616	185	20
Peak Hour Factor	0.93	0.93	0.93	0.89	0.89	0.89	0.74	0.74	0.74	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	2472	10	204	2607		252	265	336	653	304	33
Arrive On Green	0.03	0.47	0.45	0.07	0.51	0.00	0.14	0.14	0.14	0.18	0.18	0.18
Sat Flow, veh/h	1781	5249	22	1781	5106	1585	1781	1870	1585	3563	1659	179
Grp Volume(v), veh/h	17	1401	768	140	1837	0	32	224	328	616	0	205
Grp Sat Flow(s),veh/h/ln	1781	1702	1866	1781	1702	1585	1781	1870	1585	1781	0	1838
Q Serve(g_s), s	0.6	44.4	44.4	4.5	33.0	0.0	1.9	14.0	17.0	20.5	0.0	12.3
Cycle Q Clear(g_c), s	0.6	44.4	44.4	4.5	33.0	0.0	1.9	14.0	17.0	20.5	0.0	12.3
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	175	1603	879	204	2607		252	265	336	653	0	337
V/C Ratio(X)	0.10	0.87	0.87	0.69	0.70		0.13	0.85	0.97	0.94	0.00	0.61
Avail Cap(c_a), veh/h	238	1603	879	212	2607		252	265	336	653	0	337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.84	0.00	0.84
Uniform Delay (d), s/veh	18.6	28.5	28.5	26.2	22.4	0.0	45.0	50.2	46.9	48.4	0.0	45.0
Incr Delay (d2), s/veh	0.2	6.9	11.8	8.5	1.6	0.0	0.2	21.5	42.1	19.7	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	18.8	21.8	2.3	13.0	0.0	0.8	8.1	13.5	10.8	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	35.4	40.3	34.7	24.1	0.0	45.2	71.7	89.1	68.1	0.0	47.7
LnGrp LOS	B	D	D	C	C		D	E	F	E	A	D
Approach Vol, veh/h		2186			1977	A		584			821	
Approach Delay, s/veh		37.0			24.8			80.0			63.0	
Approach LOS		D			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.5	60.5		26.0	7.7	65.3		21.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	7.0	54.0		20.0	6.0	55.0		15.0
Max Q Clear Time (g_c+I1), s	6.5	46.4		22.5	2.6	35.0		19.0
Green Ext Time (p_c), s	0.0	6.5		0.0	0.0	13.3		0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	359	420	36	21	580	168	74	1181	131	59	616	357
Future Volume (veh/h)	359	420	36	21	580	168	74	1181	131	59	616	357
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	413	483	41	24	652	0	79	1256	139	66	684	0
Peak Hour Factor	0.87	0.87	0.87	0.89	0.89	0.89	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	574	1080	91	186	743		319	1417	156	185	1551	
Arrive On Green	0.33	0.65	0.61	0.05	0.21	0.00	0.06	0.88	0.84	0.04	0.44	0.00
Sat Flow, veh/h	3456	3316	281	1781	3554	1585	1781	3227	356	1781	3554	1585
Grp Volume(v), veh/h	413	258	266	24	652	0	79	690	705	66	684	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1820	1781	1777	1585	1781	1777	1806	1781	1777	1585
Q Serve(g_s), s	11.5	7.9	8.0	1.2	19.5	0.0	0.0	23.2	24.6	2.5	14.8	0.0
Cycle Q Clear(g_c), s	11.5	7.9	8.0	1.2	19.5	0.0	0.0	23.2	24.6	2.5	14.8	0.0
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	574	579	593	186	743		319	780	793	185	1551	
V/C Ratio(X)	0.72	0.45	0.45	0.13	0.88		0.25	0.88	0.89	0.36	0.44	
Avail Cap(c_a), veh/h	574	579	593	227	743		396	780	793	242	1551	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.66	0.66	0.00	0.44	0.44	0.44	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.5	14.3	14.6	38.2	42.1	0.0	29.5	5.2	5.6	24.1	21.6	0.0
Incr Delay (d2), s/veh	3.5	0.5	0.5	0.1	9.7	0.0	0.1	6.8	7.0	0.4	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.6	2.7	0.5	9.3	0.0	1.6	3.8	4.0	1.1	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	14.8	15.1	38.3	51.9	0.0	29.6	12.0	12.6	24.6	22.6	0.0
LnGrp LOS	D	B	B	D	D		C	B	B	C	C	
Approach Vol, veh/h		937			676	A		1474			750	A
Approach Delay, s/veh		25.1			51.4			13.2			22.7	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	52.3	9.5	39.8	8.7	52.0	22.3	27.0
Change Period (Y+Rc), s	4.5	6.0	4.5	6.0	6.0	* 6	6.0	6.0
Max Green Setting (Gmax), s	7.5	46.0	7.5	28.0	7.5	* 46	13.0	21.0
Max Q Clear Time (g_c+I1), s	4.5	26.6	3.2	10.0	2.0	16.8	13.5	21.5
Green Ext Time (p_c), s	0.0	9.6	0.0	2.7	0.0	5.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	271	726	6	24	881	89	4	169	55	59	118	166
Future Volume (veh/h)	271	726	6	24	881	89	4	169	55	59	118	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	319	854	7	26	958	97	5	232	75	69	139	195
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.73	0.73	0.73	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	490	2003	16	406	1659	168	269	345	111	173	476	404
Arrive On Green	0.13	0.55	0.54	0.13	1.00	0.98	0.25	0.25	0.24	0.25	0.25	0.25
Sat Flow, veh/h	1781	3612	30	1781	3258	330	1046	1354	438	1072	1870	1585
Grp Volume(v), veh/h	319	420	441	26	522	533	5	0	307	69	139	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1811	1046	0	1792	1072	1870	1585
Q Serve(g_s), s	11.6	15.2	15.2	0.0	0.0	0.3	0.4	0.0	17.0	6.8	6.6	11.5
Cycle Q Clear(g_c), s	11.6	15.2	15.2	0.0	0.0	0.3	7.0	0.0	17.0	23.8	6.6	11.5
Prop In Lane	1.00		0.02	1.00		0.18	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	490	985	1034	406	905	922	269	0	456	173	476	404
V/C Ratio(X)	0.65	0.43	0.43	0.06	0.58	0.58	0.02	0.00	0.67	0.40	0.29	0.48
Avail Cap(c_a), veh/h	685	985	1034	423	905	922	279	0	472	182	493	418
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.76	0.76	0.76	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	14.3	14.3	18.0	0.0	0.1	35.8	0.0	37.1	47.6	33.0	34.8
Incr Delay (d2), s/veh	0.5	1.3	1.2	0.0	2.0	2.0	0.0	0.0	3.6	1.5	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	6.0	6.3	0.4	0.5	0.6	0.1	0.0	7.9	1.9	3.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	15.5	15.5	18.1	2.0	2.1	35.9	0.0	40.7	49.1	33.3	35.7
LnGrp LOS	B	B	B	B	A	A	D	A	D	D	C	D
Approach Vol, veh/h		1180			1081			312			403	
Approach Delay, s/veh		15.7			2.5			40.6			37.2	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	60.0		32.0	13.0	65.0		32.0
Change Period (Y+Rc), s	4.0	6.0		6.0	6.0	* 6		6.0
Max Green Setting (Gmax), s	26.0	41.0		27.0	8.0	* 59		27.0
Max Q Clear Time (g_c+I1), s	13.6	2.3		25.8	2.0	17.2		19.0
Green Ext Time (p_c), s	0.4	7.9		0.2	0.0	5.8		0.7

Intersection Summary		
HCM 6th Ctrl Delay		16.4
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	10	975	84	20	1066
Future Volume (veh/h)	43	10	975	84	20	1066
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	14	1189	102	21	1134
Peak Hour Factor	0.71	0.71	0.82	0.82	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	134	119	3027	1350	430	3027
Arrive On Green	0.08	0.08	1.00	1.00	0.85	0.85
Sat Flow, veh/h	1781	1585	3647	1585	427	3647
Grp Volume(v), veh/h	61	14	1189	102	21	1134
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	427	1777
Q Serve(g_s), s	3.6	0.9	0.0	0.0	0.8	7.6
Cycle Q Clear(g_c), s	3.6	0.9	0.0	0.0	0.8	7.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	134	119	3027	1350	430	3027
V/C Ratio(X)	0.45	0.12	0.39	0.08	0.05	0.37
Avail Cap(c_a), veh/h	421	375	3027	1350	430	3027
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	0.81	0.81
Uniform Delay (d), s/veh	48.7	47.4	0.0	0.0	1.3	1.8
Incr Delay (d2), s/veh	0.9	0.2	0.3	0.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.4	0.1	0.0	0.0	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.6	47.6	0.3	0.1	1.4	2.1
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	75		1291			1155
Approach Delay, s/veh	49.2		0.3			2.0
Approach LOS	D		A			A

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		97.7				97.7	12.3
Change Period (Y+Rc), s		6.0				6.0	6.0
Max Green Setting (Gmax), s		74.0				74.0	24.0
Max Q Clear Time (g_c+I1), s		2.0				9.6	5.6
Green Ext Time (p_c), s		12.0				11.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	2.6
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	453	826	17	203	1042	0	0	925	179
Future Volume (veh/h)	0	0	0	453	826	17	203	1042	0	0	925	179
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				360	1118	19	239	1226	0	0	1016	197
Peak Hour Factor				0.90	0.90	0.90	0.85	0.85	0.85	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				509	1572	27	497	3276	0	0	1292	576
Arrive On Green				0.09	0.09	0.09	0.45	1.00	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1781	5501	93	1781	5274	0	0	3647	1585
Grp Volume(v), veh/h				360	760	377	239	1226	0	0	1016	197
Grp Sat Flow(s),veh/h/ln				1781	1870	1854	1781	1702	0	0	1777	1585
Q Serve(g_s), s				21.6	21.7	21.7	2.8	0.0	0.0	0.0	28.0	9.9
Cycle Q Clear(g_c), s				21.6	21.7	21.7	2.8	0.0	0.0	0.0	28.0	9.9
Prop In Lane				1.00		0.05	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				509	1069	530	497	3276	0	0	1292	576
V/C Ratio(X)				0.71	0.71	0.71	0.48	0.37	0.00	0.00	0.79	0.34
Avail Cap(c_a), veh/h				696	1462	725	497	3276	0	0	1292	576
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.94	0.94	0.94	0.82	0.82	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh				45.4	45.4	45.4	23.3	0.0	0.0	0.0	31.2	25.4
Incr Delay (d2), s/veh				1.9	1.0	1.9	0.2	0.3	0.0	0.0	4.6	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.6	11.0	11.1	3.5	0.1	0.0	0.0	12.3	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.3	46.4	47.4	23.5	0.3	0.0	0.0	35.8	27.0
LnGrp LOS				D	D	D	C	A	A	A	D	C
Approach Vol, veh/h					1497			1465			1213	
Approach Delay, s/veh					46.8			4.1			34.4	
Approach LOS					D			A			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	74.6	30.6	44.0	35.4
Change Period (Y+Rc), s	6.0	6.0	* 6	6.0
Max Green Setting (Gmax), s	57.0	15.0	* 38	41.0
Max Q Clear Time (g_c+I1), s	2.0	4.8	30.0	23.7
Green Ext Time (p_c), s	11.2	0.3	4.4	5.7

Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

1: Academy St. #2 & Buncombe St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	456	159	0	0	0	0	1126	302	43	1334	0
Future Volume (veh/h)	103	456	159	0	0	0	0	1126	302	43	1334	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	111	490	171				0	1325	355	45	1404	0
Peak Hour Factor	0.93	0.93	0.93				0.85	0.85	0.85	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	411	613	213				0	2565	686	285	2475	0
Arrive On Green	0.23	0.23	0.21				0.00	1.00	1.00	0.04	1.00	0.00
Sat Flow, veh/h	1781	2655	920				0	4178	1072	1781	3647	0
Grp Volume(v), veh/h	111	344	317				0	1125	555	45	1404	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1705				0	1702	1677	1781	1777	0
Q Serve(g_s), s	5.6	19.1	19.4				0.0	0.0	0.0	1.0	0.0	0.0
Cycle Q Clear(g_c), s	5.6	19.1	19.4				0.0	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.54				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	411	432	394				0	2177	1073	285	2475	0
V/C Ratio(X)	0.27	0.80	0.80				0.00	0.52	0.52	0.16	0.57	0.00
Avail Cap(c_a), veh/h	534	561	511				0	2177	1073	378	2475	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.57	0.57	0.00
Uniform Delay (d), s/veh	34.7	39.9	40.5				0.0	0.0	0.0	6.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	6.1	7.0				0.0	0.9	1.8	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.4	8.9				0.0	0.3	0.5	0.3	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	45.9	47.5				0.0	0.9	1.8	6.5	0.5	0.0
LnGrp LOS	D	D	D				A	A	A	A	A	A
Approach Vol, veh/h		772						1680			1449	
Approach Delay, s/veh		45.0						1.2			0.7	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.2	74.4		29.4		80.6
Change Period (Y+Rc), s	4.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	8.0	55.0		31.0		67.0
Max Q Clear Time (g_c+I1), s	3.0	2.0		21.4		2.0
Green Ext Time (p_c), s	0.0	17.8		2.0		15.1

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	0	8	453	826	17	203	1042	0	0	925	179
Future Volume (veh/h)	51	0	8	453	826	17	203	1042	0	0	925	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	55	0	9	503	918	19	239	1226	0	0	1016	197
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.85	0.85	0.85	0.91	0.91	0.91
Percent Heavy Veh, %	2	0	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	168	0	0	638	1170	24	361	3095	0	0	1518	768
Arrive On Green	0.06	0.00	0.02	0.11	0.08	0.07	0.25	1.00	0.00	0.00	0.43	0.43
Sat Flow, veh/h	1781	55		1781	5149	106	1781	5274	0	0	3647	1585
Grp Volume(v), veh/h	55	50.7		503	607	330	239	1226	0	0	1016	197
Grp Sat Flow(s),veh/h/ln	1781	D		1781	1702	1851	1781	1702	0	0	1777	1585
Q Serve(g_s), s	3.3			26.2	19.3	19.3	3.4	0.0	0.0	0.0	25.2	3.8
Cycle Q Clear(g_c), s	3.3			26.2	19.3	19.3	3.4	0.0	0.0	0.0	25.2	3.8
Prop In Lane	1.00			1.00		0.06	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	168			638	774	421	361	3095	0	0	1518	768
V/C Ratio(X)	0.33			0.79	0.78	0.78	0.66	0.40	0.00	0.00	0.67	0.26
Avail Cap(c_a), veh/h	244			638	866	471	361	3095	0	0	1518	768
HCM Platoon Ratio	1.00			0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			0.94	0.94	0.94	0.82	0.82	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh	50.3			43.4	48.2	48.3	33.7	0.0	0.0	0.0	25.3	5.4
Incr Delay (d2), s/veh	0.4			6.2	4.0	7.3	3.0	0.3	0.0	0.0	2.2	0.8
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5			15.5	9.2	10.4	5.2	0.1	0.0	0.0	10.5	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7			49.6	52.3	55.5	36.7	0.3	0.0	0.0	27.5	6.2
LnGrp LOS	D			D	D	E	D	A	A	A	C	A
Approach Vol, veh/h					1440			1465			1213	
Approach Delay, s/veh					52.1			6.2			24.0	
Approach LOS					D			A			C	

Timer - Assigned Phs		2	3		5	6	7	8				
Phs Duration (G+Y+Rc), s		70.7	39.3		19.7	51.0	10.3	29.0				
Change Period (Y+Rc), s		6.0	6.0		6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s		57.0	17.0		6.0	45.0	9.0	26.0				
Max Q Clear Time (g_c+I1), s		2.0	28.2		5.4	27.2	5.3	21.3				
Green Ext Time (p_c), s		11.2	0.0		0.0	7.2	0.0	1.7				

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

1: Academy St. #2 & Buncombe St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	456	151	0	0	0	0	1126	302	43	1334	0
Future Volume (veh/h)	52	456	151	0	0	0	0	1126	302	43	1334	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	56	490	162				0	1325	355	45	1404	0
Peak Hour Factor	0.93	0.93	0.93				0.85	0.85	0.85	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	73	668	295				0	2672	715	292	2570	0
Arrive On Green	0.20	0.20	0.19				0.00	1.00	1.00	0.04	1.00	0.00
Sat Flow, veh/h	356	3274	1585				0	4178	1072	1781	3647	0
Grp Volume(v), veh/h	292	254	162				0	1125	555	45	1404	0
Grp Sat Flow(s),veh/h/ln	1853	1777	1585				0	1702	1677	1781	1777	0
Q Serve(g_s), s	16.4	14.6	10.2				0.0	0.0	0.0	0.9	0.0	0.0
Cycle Q Clear(g_c), s	16.4	14.6	10.2				0.0	0.0	0.0	0.9	0.0	0.0
Prop In Lane	0.19		1.00				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	378	363	295				0	2269	1118	292	2570	0
V/C Ratio(X)	0.77	0.70	0.55				0.00	0.50	0.50	0.15	0.55	0.00
Avail Cap(c_a), veh/h	573	549	461				0	2269	1118	386	2570	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.65	0.65	0.00
Uniform Delay (d), s/veh	41.4	40.7	40.6				0.0	0.0	0.0	5.4	0.0	0.0
Incr Delay (d2), s/veh	3.6	2.5	1.6				0.0	0.8	1.6	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	6.6	4.1				0.0	0.2	0.5	0.3	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	43.1	42.2				0.0	0.8	1.6	5.5	0.5	0.0
LnGrp LOS	D	D	D				A	A	A	A	A	A
Approach Vol, veh/h		708						1680			1449	
Approach Delay, s/veh		43.7						1.0			0.7	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.2	77.3		26.4		83.6
Change Period (Y+Rc), s	4.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	8.0	54.0		32.0		66.0
Max Q Clear Time (g_c+I1), s	2.9	2.0		18.4		2.0
Green Ext Time (p_c), s	0.0	17.7		2.1		15.1

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	529	1279	91	27	319	21	34	127	50	4	99	273
Future Volume (veh/h)	529	1279	91	27	319	21	34	127	50	4	99	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	630	1523	108	33	384	25	37	137	0	4	104	0
Peak Hour Factor	0.84	0.84	0.84	0.83	0.83	0.83	0.93	0.93	0.93	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	874	2140	151	303	1664	108	244	339		217	336	
Arrive On Green	0.22	0.64	0.62	0.07	0.49	0.47	0.18	0.18	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	3367	237	1781	3388	220	1290	1870	1585	1242	1856	1572
Grp Volume(v), veh/h	630	800	831	33	201	208	37	137	0	4	104	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1828	1781	1777	1831	1290	1870	1585	1242	1856	1572
Q Serve(g_s), s	14.8	29.6	30.3	0.8	6.4	6.5	2.5	6.4	0.0	0.3	4.8	0.0
Cycle Q Clear(g_c), s	14.8	29.6	30.3	0.8	6.4	6.5	7.4	6.4	0.0	6.7	4.8	0.0
Prop In Lane	1.00		0.13	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	874	1129	1162	303	873	899	244	339		217	336	
V/C Ratio(X)	0.72	0.71	0.72	0.11	0.23	0.23	0.15	0.40		0.02	0.31	
Avail Cap(c_a), veh/h	1274	1129	1162	368	873	899	401	567		369	563	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.7	12.0	12.2	11.1	14.5	14.6	38.4	35.9	0.0	38.9	35.2	0.0
Incr Delay (d2), s/veh	0.8	3.8	3.8	0.1	0.6	0.6	0.3	0.8	0.0	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	11.3	11.9	0.3	2.6	2.7	0.8	3.0	0.0	0.1	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.6	15.7	16.0	11.2	15.1	15.2	38.7	36.7	0.0	38.9	35.8	0.0
LnGrp LOS	A	B	B	B	B	B	D	D		D	D	
Approach Vol, veh/h		2261			442			174	A		108	A
Approach Delay, s/veh		13.6			14.8			37.1			35.9	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	67.0		21.9	24.7	52.7		21.9
Change Period (Y+Rc), s	6.2	6.9		6.9	6.2	6.9		6.9
Max Green Setting (Gmax), s	7.8	60.1		27.1	40.8	27.1		27.1
Max Q Clear Time (g_c+I1), s	2.8	32.3		8.7	16.8	8.5		9.4
Green Ext Time (p_c), s	0.0	14.4		0.2	1.7	2.2		0.4

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

39: Driveway/Rutherford St. #2 & Pete Hollis Blvd. #1/Buncombe St. #1

08/27/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1171	4	4	301	410	4	4	4	954	4	12
Future Volume (veh/h)	0	1171	4	4	301	410	4	4	4	954	4	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1287	4	4	334	456	16	16	16	1040	0	0
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.25	0.25	0.25	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h	0	1602	5	131	1554	2241	20	20	20	1314	0	
Arrive On Green	0.00	0.44	0.40	0.40	0.44	0.44	0.03	0.03	0.03	0.37	0.00	0.00
Sat Flow, veh/h	0	3727	11	424	3526	2768	579	579	579	3563	0	1585
Grp Volume(v), veh/h	0	629	662	4	334	456	48	0	0	1040	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1868	424	1763	1384	1737	0	0	1781	0	1585
Q Serve(g_s), s	0.0	24.6	24.6	0.7	4.7	3.0	2.2	0.0	0.0	20.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	24.6	24.6	25.3	4.7	3.0	2.2	0.0	0.0	20.9	0.0	0.0
Prop In Lane	0.00		0.01	1.00		1.00	0.33		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	0	783	823	131	1554	2241	60	0	0	1314	0	
V/C Ratio(X)	0.00	0.80	0.80	0.03	0.21	0.20	0.80	0.00	0.00	0.79	0.00	
Avail Cap(c_a), veh/h	0	819	862	139	1626	2297	130	0	0	1532	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	19.4	19.4	33.1	13.9	1.7	38.5	0.0	0.0	22.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	6.2	5.9	0.2	0.1	0.1	24.6	0.0	0.0	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.5	10.9	0.1	1.8	2.6	1.3	0.0	0.0	8.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.6	25.4	33.2	14.0	1.8	63.1	0.0	0.0	25.2	0.0	0.0
LnGrp LOS	A	C	C	C	B	A	E	A	A	C	A	
Approach Vol, veh/h		1291			794			48			1040	A
Approach Delay, s/veh		25.5			7.1			63.1			25.2	
Approach LOS		C			A			E			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	38.4	33.1	38.4	8.8
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	34.0	31.5	34.0	6.0
Max Q Clear Time (g_c+I1), s	26.6	22.9	27.3	4.2
Green Ext Time (p_c), s	5.8	3.7	3.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

33: Butler Ave./Atwood St. & Buncombe St. #1

08/27/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	1269	566	4	357	8	261	66	26	4	91	102
Future Volume (veh/h)	291	1269	566	4	357	8	261	66	26	4	91	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1841	1841	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	313	1365	609	5	406	9	203	212	0	5	108	0
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.87	0.87	0.87	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	2	2	2
Cap, veh/h	661	1901	782	156	1289	29	393	412		218	229	
Arrive On Green	0.16	0.53	0.49	0.37	0.37	0.33	0.22	0.22	0.00	0.12	0.12	0.00
Sat Flow, veh/h	1781	3554	1585	217	3498	77	1781	1870	0	1781	1870	0
Grp Volume(v), veh/h	313	1365	609	5	203	212	203	212	0	5	108	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	217	1749	1827	1781	1870	0	1781	1870	0
Q Serve(g_s), s	6.7	20.4	22.2	1.3	5.8	5.9	7.0	7.0	0.0	0.2	3.8	0.0
Cycle Q Clear(g_c), s	6.7	20.4	22.2	9.9	5.8	5.9	7.0	7.0	0.0	0.2	3.8	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	661	1901	782	156	644	673	393	412		218	229	
V/C Ratio(X)	0.47	0.72	0.78	0.03	0.31	0.32	0.52	0.51		0.02	0.47	
Avail Cap(c_a), veh/h	661	1921	791	157	654	683	618	649		608	639	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.1	12.3	14.6	20.5	15.9	15.9	24.1	24.1	0.0	27.1	28.7	0.0
Incr Delay (d2), s/veh	0.5	1.4	5.1	0.1	0.3	0.3	1.1	1.0	0.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.0	7.8	0.1	2.2	2.3	2.9	3.0	0.0	0.1	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	13.7	19.7	20.6	16.2	16.2	25.2	25.1	0.0	27.2	30.2	0.0
LnGrp LOS	A	B	B	C	B	B	C	C		C	C	
Approach Vol, veh/h		2287			420			415	A		113	A
Approach Delay, s/veh		14.8			16.3			25.1			30.1	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		40.6		11.6	11.7	28.9		18.1
Change Period (Y+Rc), s		6.9		6.1	4.5	6.9		6.1
Max Green Setting (Gmax), s		34.1		20.9	7.2	22.4		20.9
Max Q Clear Time (g_c+I1), s		24.2		5.8	8.7	11.9		9.0
Green Ext Time (p_c), s		8.2		0.4	0.0	2.1		1.1

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations												
Traffic Volume (vph)	15	1256	39	5	4	20	4	4	4	5	7	358
Future Volume (vph)	15	1256	39	5	4	20	4	4	4	5	7	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0	60			0		85		0	0
Storage Lanes			0	1			0		1		1	2
Taper Length (ft)				30			50				50	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt		0.995				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.980			0.950	
Satd. Flow (prot)	1770	3522	0	1770	1863	1583	0	1825	1583	0	1752	2760
Flt Permitted	0.950			0.750				0.938			0.950	
Satd. Flow (perm)	1770	3522	0	1397	1863	1583	0	1747	1583	0	1752	2760
Right Turn on Red			Yes			Yes			Yes	Yes		
Satd. Flow (RTOR)		5				123			123		41	41
Link Speed (mph)		35			30			20			35	
Link Distance (ft)		526			314			497			228	
Travel Time (s)		10.2			7.1			16.9			4.4	
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.85	0.56	0.56	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Adj. Flow (vph)	16	1308	41	6	5	25	5	7	7	5	8	393
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1349	0	6	5	25	0	12	7	0	13	429
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15	15	35
Number of Detectors	1	1		1	1	0	1	1	1	1	1	1
Detector Template	Left									Left		
Leading Detector (ft)	20	106		30	30	0	50	30	30	20	30	106
Trailing Detector (ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Position(ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Size(ft)	20	6		30	30	50	50	30	30	20	30	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	pm+pt	custom
Protected Phases		2			4			4			8	6 8
Permitted Phases	2			4		4	4		4	8	6	
Detector Phase	2	2		4	4	4	4	4	4	8	8	6 8
Switch Phase												
Minimum Initial (s)	20.0	20.0		5.0	5.0	5.0	5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	26.0	26.0		25.0	25.0	25.0	25.0	25.0	25.0	16.0	16.0	

Lane Group	SWR2	Ø6
Lane Configurations		
Traffic Volume (vph)	33	
Future Volume (vph)	33	
Ideal Flow (vphpl)	1900	
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor	1.00	
Frt		
Flt Protected		
Satd. Flow (prot)	0	
Flt Permitted		
Satd. Flow (perm)	0	
Right Turn on Red	Yes	
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.91	
Heavy Vehicles (%)	3%	
Adj. Flow (vph)	36	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	
Enter Blocked Intersection	No	
Lane Alignment	Right	
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor	1.00	
Turning Speed (mph)	9	
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases		6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)		20.0
Minimum Split (s)		26.0

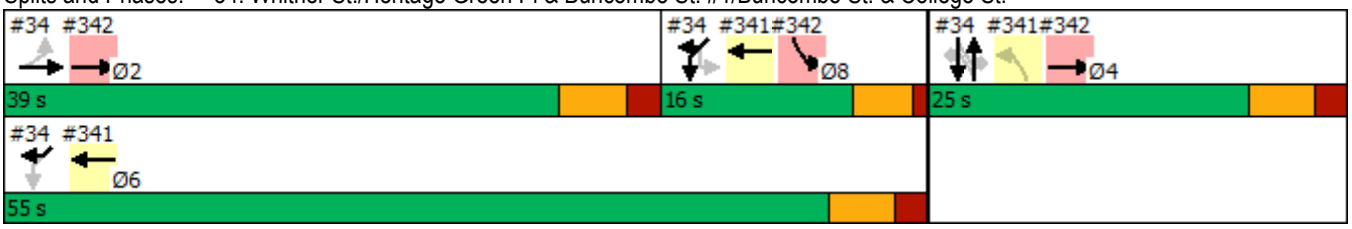
34: Whitner St./Heritage Green Pl & Buncombe St. #1/Buncombe St. & College St.

08/27/2019

Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Total Split (s)	39.0	39.0		25.0	25.0	25.0	25.0	25.0	25.0	16.0	16.0	
Total Split (%)	48.8%	48.8%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%	20.0%	20.0%	
Maximum Green (s)	33.0	33.0		19.0	19.0	19.0	19.0	19.0	19.0	11.5	11.5	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	
Lost Time Adjust (s)	0.0	-3.0		-3.0	-3.0	-3.0		-3.0	-3.0		0.0	
Total Lost Time (s)	6.0	3.0		3.0	3.0	3.0		3.0	3.0		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Max	Max		None	None	None	None	None	None	None	None	
Walk Time (s)				1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	
Flash Dont Walk (s)				18.0	18.0	18.0	18.0	18.0	18.0	9.0	9.0	
Pedestrian Calls (#/hr)				60	60	60	60	60	60	60	60	
Act Effct Green (s)	38.7	41.7		21.5	21.5	21.5		21.5	21.5		56.3	54.8
Actuated g/C Ratio	0.45	0.49		0.25	0.25	0.25		0.25	0.25		0.66	0.64
v/c Ratio	0.02	0.78		0.02	0.01	0.05		0.03	0.01		0.01	0.24
Control Delay	14.1	22.6		21.4	21.2	0.2		21.6	0.0		0.0	1.8
Queue Delay	0.0	0.1		0.0	0.0	0.0		0.0	0.0		0.0	0.2
Total Delay	14.1	22.8		21.4	21.2	0.2		21.6	0.0		0.0	2.0
LOS	B	C		C	C	A		C	A		A	A
Approach Delay		22.7			6.7			13.7			2.0	
Approach LOS		C			A			B			A	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 85.3	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 54.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 34: Whitner St./Heritage Green Pl & Buncombe St. #1/Buncombe St. & College St.



Lane Group	SWR2	Ø6
Total Split (s)		55.0
Total Split (%)		69%
Maximum Green (s)		49.0
Yellow Time (s)		4.0
All-Red Time (s)		2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)		3.5
Recall Mode		Max
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	455	33	34	1238	17	126	141	14	7	93	384
Future Volume (veh/h)	279	455	33	34	1238	17	126	141	14	7	93	384
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	297	484	35	35	1290	18	159	178	0	7	96	0
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	0.79	0.79	0.79	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	1777	128	648	1688	24	351	445		286	445	
Arrive On Green	0.15	0.53	0.50	0.09	0.47	0.44	0.24	0.24	0.00	0.24	0.24	0.00
Sat Flow, veh/h	1781	3361	242	1781	3588	50	1300	1870	1585	1206	1870	1585
Grp Volume(v), veh/h	297	255	264	35	639	669	159	178	0	7	96	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1827	1781	1777	1861	1300	1870	1585	1206	1870	1585
Q Serve(g_s), s	5.4	6.0	6.1	0.7	22.5	22.5	8.5	6.1	0.0	0.4	3.1	0.0
Cycle Q Clear(g_c), s	5.4	6.0	6.1	0.7	22.5	22.5	11.6	6.1	0.0	6.4	3.1	0.0
Prop In Lane	1.00		0.13	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	428	939	966	648	836	876	351	445		286	445	
V/C Ratio(X)	0.69	0.27	0.27	0.05	0.76	0.76	0.45	0.40		0.02	0.22	
Avail Cap(c_a), veh/h	823	1436	1476	745	1036	1086	593	794		511	794	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.5	9.8	9.9	7.5	16.5	16.6	27.8	24.3	0.0	27.0	23.1	0.0
Incr Delay (d2), s/veh	1.5	0.2	0.2	0.0	2.7	2.6	0.9	0.6	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.1	2.2	0.2	8.6	9.0	2.6	2.6	0.0	0.1	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	10.0	10.1	7.6	19.3	19.2	28.7	24.8	0.0	27.0	23.4	0.0
LnGrp LOS	B	A	B	A	B	B	C	C		C	C	
Approach Vol, veh/h		816			1343			337	A		103	A
Approach Delay, s/veh		11.8			18.9			26.7			23.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	43.9		21.9	14.2	39.5		21.9
Change Period (Y+Rc), s	6.2	6.9		6.9	6.2	6.9		6.9
Max Green Setting (Gmax), s	7.8	58.1		29.1	24.8	41.1		29.1
Max Q Clear Time (g_c+I1), s	2.7	8.1		8.4	7.4	24.5		13.6
Green Ext Time (p_c), s	0.0	3.3		0.2	0.6	8.1		1.0

Intersection Summary		
HCM 6th Ctrl Delay		17.9
HCM 6th LOS		B

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	455	4	4	1224	845	4	4	4	646	4	22
Future Volume (veh/h)	0	455	4	4	1224	845	4	4	4	646	4	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	469	4	4	1302	899	7	7	7	721	0	0
Peak Hour Factor	0.97	0.97	0.97	0.94	0.94	0.94	0.56	0.56	0.56	0.90	0.90	0.90
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1899	16	478	1868	2270	11	11	11	1026	0	
Arrive On Green	0.00	0.53	0.49	0.49	0.53	0.53	0.02	0.02	0.02	0.29	0.00	0.00
Sat Flow, veh/h	0	3704	31	921	3554	2790	579	579	579	3563	0	1585
Grp Volume(v), veh/h	0	231	242	4	1302	899	21	0	0	721	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1865	921	1777	1395	1737	0	0	1781	0	1585
Q Serve(g_s), s	0.0	5.3	5.3	0.2	20.5	6.6	0.9	0.0	0.0	13.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.3	5.3	5.5	20.5	6.6	0.9	0.0	0.0	13.5	0.0	0.0
Prop In Lane	0.00		0.02	1.00		1.00	0.33		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	0	934	980	478	1868	2270	33	0	0	1026	0	
V/C Ratio(X)	0.00	0.25	0.25	0.01	0.70	0.40	0.64	0.00	0.00	0.70	0.00	
Avail Cap(c_a), veh/h	0	975	1023	499	1950	2334	140	0	0	1455	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	9.7	9.7	12.9	13.3	1.9	36.4	0.0	0.0	23.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.0	1.3	0.2	22.3	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.9	0.0	7.3	4.5	0.6	0.0	0.0	5.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.9	9.9	12.9	14.5	2.1	58.6	0.0	0.0	24.8	0.0	0.0
LnGrp LOS	A	A	A	B	B	A	E	A	A	C	A	
Approach Vol, veh/h		473			2205			21			721	A
Approach Delay, s/veh		9.9			9.5			58.6			24.8	
Approach LOS		A			A			E			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	42.3	25.0	42.3	7.4
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	38.0	27.5	38.0	6.0
Max Q Clear Time (g_c+I1), s	7.3	15.5	22.5	2.9
Green Ext Time (p_c), s	4.9	3.0	13.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

33: Butler Ave./Atwood St. & Buncombe St. #1

08/27/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	655	416	15	1176	25	613	76	16	5	79	280
Future Volume (veh/h)	76	655	416	15	1176	25	613	76	16	5	79	280
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	720	457	17	1352	29	767	0	0	5	87	0
Peak Hour Factor	0.91	0.91	0.91	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	1969	833	281	1655	35	958	503		165	173	
Arrive On Green	0.08	0.55	0.53	0.47	0.47	0.44	0.27	0.00	0.00	0.09	0.09	0.00
Sat Flow, veh/h	1781	3554	1585	476	3557	76	3563	1870	0	1781	1870	0
Grp Volume(v), veh/h	84	720	457	17	675	706	767	0	0	5	87	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	476	1777	1857	1781	1870	0	1781	1870	0
Q Serve(g_s), s	2.2	11.5	19.6	2.1	33.3	33.4	20.4	0.0	0.0	0.3	4.5	0.0
Cycle Q Clear(g_c), s	2.2	11.5	19.6	4.6	33.3	33.4	20.4	0.0	0.0	0.3	4.5	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	272	1969	833	281	827	864	958	503		165	173	
V/C Ratio(X)	0.31	0.37	0.55	0.06	0.82	0.82	0.80	0.00		0.03	0.50	
Avail Cap(c_a), veh/h	280	2131	905	300	899	940	1065	559		438	460	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.8	12.7	16.1	16.5	23.5	23.5	34.6	0.0	0.0	42.0	43.9	0.0
Incr Delay (d2), s/veh	0.6	0.1	0.7	0.1	5.7	5.5	4.1	0.0	0.0	0.1	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.3	6.8	0.2	14.4	15.0	9.1	0.0	0.0	0.1	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	12.8	16.8	16.6	29.2	29.1	38.7	0.0	0.0	42.1	46.2	0.0
LnGrp LOS	B	B	B	B	C	C	D	A		D	D	
Approach Vol, veh/h		1261			1398			767	A		92	A
Approach Delay, s/veh		14.6			29.0			38.7			46.0	
Approach LOS		B			C			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.4		12.4	9.0	50.3		30.0				
Change Period (Y+Rc), s		6.9		6.1	4.5	6.9		6.1				
Max Green Setting (Gmax), s		57.1		21.9	5.0	47.6		26.9				
Max Q Clear Time (g_c+I1), s		21.6		6.5	4.2	35.4		22.4				
Green Ext Time (p_c), s		10.6		0.3	0.0	8.0		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

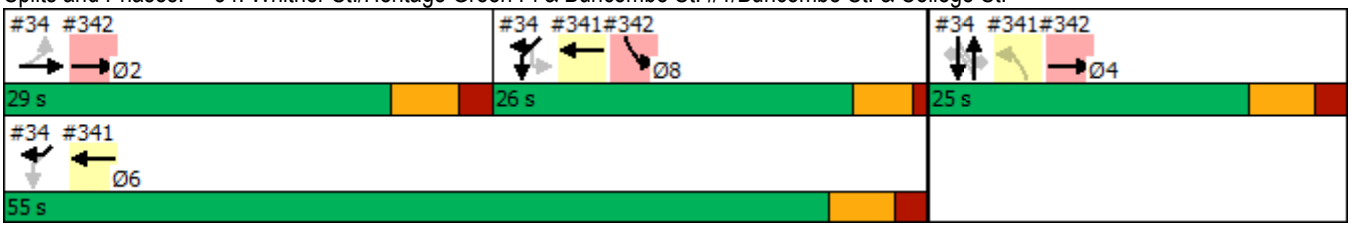
Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations												
Traffic Volume (vph)	16	647	9	5	5	14	42	10	61	6	8	1169
Future Volume (vph)	16	647	9	5	5	14	42	10	61	6	8	1169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0	60			0		85		0	0
Storage Lanes			0	1			0		1		1	2
Taper Length (ft)				30			50				50	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt		0.998				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.964			0.950	
Satd. Flow (prot)	1770	3532	0	1770	1863	1583	0	1796	1583	0	1770	2787
Flt Permitted	0.950			0.715				0.816			0.950	
Satd. Flow (perm)	1770	3532	0	1332	1863	1583	0	1520	1583	0	1770	2787
Right Turn on Red			Yes			Yes			Yes	Yes		
Satd. Flow (RTOR)		2				123			123		41	41
Link Speed (mph)		35			30			20			35	
Link Distance (ft)		526			314			497			228	
Travel Time (s)		10.2			7.1			16.9			4.4	
Peak Hour Factor	0.89	0.89	0.89	0.67	0.67	0.67	0.85	0.63	0.63	0.96	0.96	0.96
Adj. Flow (vph)	18	727	10	7	7	21	49	16	97	6	8	1218
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	737	0	7	7	21	0	65	97	0	14	1253
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15	15	35
Number of Detectors	1	1		1	1	0	1	1	1	1	1	1
Detector Template	Left									Left		
Leading Detector (ft)	20	106		30	30	0	50	30	30	20	30	106
Trailing Detector (ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Position(ft)	0	100		0	0	0	0	0	0	0	0	100
Detector 1 Size(ft)	20	6		30	30	50	50	30	30	20	30	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	pm+pt	custom
Protected Phases		2			4			4			8	6 8
Permitted Phases	2			4		4	4		4	8	6	
Detector Phase	2	2		4	4	4	4	4	4	8	8	6 8
Switch Phase												
Minimum Initial (s)	20.0	20.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	26.0	26.0		25.0	25.0	25.0	25.0	25.0	25.0	16.0	16.0	
Total Split (s)	29.0	29.0		25.0	25.0	25.0	25.0	25.0	25.0	26.0	26.0	

Lane Group	SWR2	Ø6
Lane Configurations		
Traffic Volume (vph)	34	
Future Volume (vph)	34	
Ideal Flow (vphpl)	1900	
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor	1.00	
Frt		
Flt Protected		
Satd. Flow (prot)	0	
Flt Permitted		
Satd. Flow (perm)	0	
Right Turn on Red	Yes	
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.96	
Adj. Flow (vph)	35	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	
Enter Blocked Intersection	No	
Lane Alignment	Right	
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor	1.00	
Turning Speed (mph)	9	
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases		6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)		20.0
Minimum Split (s)		26.0
Total Split (s)		55.0

Lane Group	EBL2	EBT	EBR	NBL	NBT	NBR2	SBL	SBT	SBR	SWL2	SWL	SWR
Total Split (%)	36.3%	36.3%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%	32.5%	32.5%	
Maximum Green (s)	23.0	23.0		19.0	19.0	19.0	19.0	19.0	19.0	21.5	21.5	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	
Lost Time Adjust (s)	0.0	-3.0		-3.0	-3.0	-3.0		-3.0	-3.0		0.0	
Total Lost Time (s)	6.0	3.0		3.0	3.0	3.0		3.0	3.0		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Max	Max		None	None	None	None	None	None	None	None	
Walk Time (s)				1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	
Flash Dont Walk (s)				18.0	18.0	18.0	18.0	18.0	18.0	9.0	9.0	
Pedestrian Calls (#/hr)				60	60	60	60	60	60	60	60	
Act Effct Green (s)	25.8	28.8		19.0	19.0	19.0		19.0	19.0		53.4	51.9
Actuated g/C Ratio	0.32	0.36		0.24	0.24	0.24		0.24	0.24		0.67	0.65
v/c Ratio	0.03	0.58		0.02	0.02	0.04		0.18	0.21		0.01	0.69
Control Delay	20.8	23.6		21.6	21.4	0.2		23.8	4.0		0.0	5.9
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	20.8	23.6		21.6	21.4	0.2		23.8	4.0		0.0	6.0
LOS	C	C		C	C	A		C	A		A	A
Approach Delay		23.5			8.7			12.0			5.9	
Approach LOS		C			A			B			A	

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 79.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 34: Whitner St./Heritage Green Pl & Buncombe St. #1/Buncombe St. & College St.



Lane Group	SWR2	Ø6
Total Split (%)		69%
Maximum Green (s)		49.0
Yellow Time (s)		4.0
All-Red Time (s)		2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)		3.5
Recall Mode		Max
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	500	0	0	0	0	0	395	0
Future Volume (veh/h)	0	0	0	0	500	0	0	0	0	0	395	0
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				0	1870	0				0	1870	0
Adj Flow Rate, veh/h				0	543	0				0	429	0
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0				0	2	0
Cap, veh/h				0	1245	0				0	515	0
Arrive On Green				0.00	0.67	0.00				0.00	0.28	0.00
Sat Flow, veh/h				0	1870	0				0	1870	0
Grp Volume(v), veh/h				0	543	0				0	429	0
Grp Sat Flow(s),veh/h/ln				0	1870	0				0	1870	0
Q Serve(g_s), s				0.0	15.0	0.0				0.0	23.7	0.0
Cycle Q Clear(g_c), s				0.0	15.0	0.0				0.0	23.7	0.0
Prop In Lane				0.00		0.00				0.00		0.00
Lane Grp Cap(c), veh/h				0	1245	0				0	515	0
V/C Ratio(X)				0.00	0.44	0.00				0.00	0.83	0.00
Avail Cap(c_a), veh/h				0	1245	0				0	791	0
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	0.00				0.00	1.00	0.00
Uniform Delay (d), s/veh				0.0	8.7	0.0				0.0	37.5	0.0
Incr Delay (d2), s/veh				0.0	1.1	0.0				0.0	4.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	6.0	0.0				0.0	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	9.8	0.0				0.0	42.1	0.0
LnGrp LOS				A	A	A				A	D	A
Approach Vol, veh/h					543						429	
Approach Delay, s/veh					9.8						42.1	
Approach LOS					A						D	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	77.2	32.8
Change Period (Y+Rc), s	6.0	4.5
Max Green Setting (Gmax), s	55.0	44.5
Max Q Clear Time (g_c+I1), s	17.0	25.7
Green Ext Time (p_c), s	4.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	395	0	397	790	21	102	586	0	0	1109	148
Future Volume (veh/h)	30	395	0	397	790	21	102	586	0	0	1109	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	33	429	0	436	868	23	119	681	0	0	1246	166
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	0	3	3
Cap, veh/h	51	434	0	408	1087	29	162	1763	0	0	1223	162
Arrive On Green	0.03	0.23	0.00	0.12	0.31	0.31	0.11	1.00	0.00	0.00	0.78	0.78
Sat Flow, veh/h	1781	1870	0	3456	3537	94	1767	3618	0	0	3221	415
Grp Volume(v), veh/h	33	429	0	436	436	455	119	681	0	0	699	713
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1728	1777	1853	1767	1763	0	0	1763	1781
Q Serve(g_s), s	2.0	25.2	0.0	13.0	24.8	24.8	2.9	0.0	0.0	0.0	43.0	43.0
Cycle Q Clear(g_c), s	2.0	25.2	0.0	13.0	24.8	24.8	2.9	0.0	0.0	0.0	43.0	43.0
Prop In Lane	1.00		0.00	1.00		0.05	1.00		0.00	0.00		0.23
Lane Grp Cap(c), veh/h	51	434	0	408	546	570	162	1763	0	0	689	696
V/C Ratio(X)	0.64	0.99	0.00	1.07	0.80	0.80	0.74	0.39	0.00	0.00	1.02	1.02
Avail Cap(c_a), veh/h	81	434	0	408	546	570	186	1763	0	0	689	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.94	0.94	0.00	0.00	0.54	0.54
Uniform Delay (d), s/veh	52.8	42.1	0.0	48.5	35.0	35.0	46.8	0.0	0.0	0.0	12.0	12.0
Incr Delay (d2), s/veh	12.6	40.3	0.0	63.7	8.6	8.3	9.1	0.6	0.0	0.0	29.0	31.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	16.3	0.0	9.1	11.7	12.2	3.3	0.1	0.0	0.0	10.0	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	82.4	0.0	112.2	43.5	43.2	55.9	0.6	0.0	0.0	41.0	43.2
LnGrp LOS	E	F	A	F	D	D	E	A	A	A	F	F
Approach Vol, veh/h		462			1327			800			1412	
Approach Delay, s/veh		81.2			66.0			8.8			42.1	
Approach LOS		F			E			A			D	

Timer - Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		61.0	19.0	30.0	12.0	49.0	9.2	39.8
Change Period (Y+Rc), s		6.0	6.0	4.5	6.0	* 6	6.0	6.0
Max Green Setting (Gmax), s		55.0	13.0	25.5	7.5	* 43	5.0	32.0
Max Q Clear Time (g_c+I1), s		2.0	15.0	27.2	4.9	45.0	4.0	26.8
Green Ext Time (p_c), s		2.8	0.0	0.0	0.0	0.0	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	47.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	780	64	200	300	25	150	703	572	23	1665	50
Future Volume (veh/h)	25	780	64	200	300	25	150	703	572	23	1665	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	27	830	68	217	326	27	161	756	615	25	1790	54
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	273	726	59	178	604	50	178	2019	1001	253	1680	749
Arrive On Green	0.22	0.22	0.20	0.10	0.35	0.34	0.08	0.76	0.74	0.95	0.95	0.95
Sat Flow, veh/h	1028	3326	272	1781	1704	141	1767	3526	1572	396	3554	1585
Grp Volume(v), veh/h	27	443	455	217	0	353	161	756	615	25	1790	54
Grp Sat Flow(s),veh/h/ln	1028	1777	1821	1781	0	1845	1767	1763	1572	396	1777	1585
Q Serve(g_s), s	2.4	24.0	24.0	11.0	0.0	16.8	5.8	7.9	19.2	0.4	52.0	0.2
Cycle Q Clear(g_c), s	4.2	24.0	24.0	11.0	0.0	16.8	5.8	7.9	19.2	0.4	52.0	0.2
Prop In Lane	1.00		0.15	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	388	397	178	0	654	178	2019	1001	253	1680	749
V/C Ratio(X)	0.10	1.14	1.14	1.22	0.00	0.54	0.90	0.37	0.61	0.10	1.07	0.07
Avail Cap(c_a), veh/h	273	388	397	178	0	654	178	2019	1001	253	1680	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	0.67	0.67	0.67	1.00	0.00	1.00	0.88	0.88	0.88	0.09	0.09	0.09
Uniform Delay (d), s/veh	36.0	43.0	43.1	49.5	0.0	28.4	28.7	6.5	6.3	1.6	3.0	1.6
Incr Delay (d2), s/veh	0.1	83.8	83.5	138.3	0.0	0.9	38.1	0.5	2.5	0.1	31.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	19.3	19.8	11.7	0.0	7.4	3.8	2.5	4.5	0.0	8.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	126.8	126.6	187.8	0.0	29.3	66.8	7.0	8.8	1.7	34.0	1.6
LnGrp LOS	D	F	F	F	A	C	E	A	A	A	F	A
Approach Vol, veh/h		925			570			1532			1869	
Approach Delay, s/veh		124.1			89.6			14.0			32.6	
Approach LOS		F			F			B			C	

Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		67.0	15.0	28.0	11.0	56.0		43.0				
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		61.0	9.0	22.0	5.0	50.0		37.0				
Max Q Clear Time (g_c+I1), s		21.2	13.0	26.0	7.8	54.0		18.8				
Green Ext Time (p_c), s		6.8	0.0	0.0	0.0	0.0		1.1				

Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	450	0	0	0	0	0	450	0
Future Volume (veh/h)	0	0	0	0	450	0	0	0	0	0	450	0
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				0	1870	0				0	1870	0
Adj Flow Rate, veh/h				0	489	0				0	489	0
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0				0	2	0
Cap, veh/h				0	1164	0				0	553	0
Arrive On Green				0.00	0.62	0.00				0.00	0.30	0.00
Sat Flow, veh/h				0	1870	0				0	1870	0
Grp Volume(v), veh/h				0	489	0				0	489	0
Grp Sat Flow(s),veh/h/ln				0	1870	0				0	1870	0
Q Serve(g_s), s				0.0	14.7	0.0				0.0	27.4	0.0
Cycle Q Clear(g_c), s				0.0	14.7	0.0				0.0	27.4	0.0
Prop In Lane				0.00		0.00				0.00		0.00
Lane Grp Cap(c), veh/h				0	1164	0				0	553	0
V/C Ratio(X)				0.00	0.42	0.00				0.00	0.88	0.00
Avail Cap(c_a), veh/h				0	1164	0				0	859	0
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	0.00				0.00	1.00	0.00
Uniform Delay (d), s/veh				0.0	10.6	0.0				0.0	36.9	0.0
Incr Delay (d2), s/veh				0.0	1.1	0.0				0.0	7.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	6.1	0.0				0.0	13.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	11.7	0.0				0.0	44.0	0.0
LnGrp LOS				A	B	A				A	D	A
Approach Vol, veh/h					489						489	
Approach Delay, s/veh					11.7						44.0	
Approach LOS					B						D	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	73.0	37.0
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	50.5	50.5
Max Q Clear Time (g_c+I1), s	16.7	29.4
Green Ext Time (p_c), s	3.5	3.1

Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	450	50	248	927	36	75	1014	0	0	912	70
Future Volume (veh/h)	100	450	50	248	927	36	75	1014	0	0	912	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	109	489	54	299	1117	43	84	1139	0	0	1013	78
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.89	0.89	0.89	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	0	2	2
Cap, veh/h	179	510	56	314	1235	48	181	1551	0	0	1125	87
Arrive On Green	0.06	0.31	0.33	0.09	0.35	0.35	0.09	0.87	0.00	0.00	0.67	0.67
Sat Flow, veh/h	1781	1655	183	3456	3489	134	1781	3647	0	0	3437	257
Grp Volume(v), veh/h	109	0	543	299	569	591	84	1139	0	0	538	553
Grp Sat Flow(s),veh/h/ln	1781	0	1837	1728	1777	1846	1781	1777	0	0	1777	1824
Q Serve(g_s), s	5.0	0.0	31.9	9.5	33.5	33.5	0.0	12.5	0.0	0.0	27.7	27.7
Cycle Q Clear(g_c), s	5.0	0.0	31.9	9.5	33.5	33.5	0.0	12.5	0.0	0.0	27.7	27.7
Prop In Lane	1.00		0.10	1.00		0.07	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h	179	0	567	314	629	653	181	1551	0	0	598	614
V/C Ratio(X)	0.61	0.00	0.96	0.95	0.90	0.90	0.46	0.73	0.00	0.00	0.90	0.90
Avail Cap(c_a), veh/h	179	0	568	314	630	655	181	1551	0	0	598	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.37	0.37	0.00	0.00	0.84	0.84
Uniform Delay (d), s/veh	31.3	0.0	37.2	49.8	33.8	33.8	46.2	4.7	0.0	0.0	16.5	16.5
Incr Delay (d2), s/veh	5.9	0.0	27.5	38.0	16.8	16.4	0.3	1.2	0.0	0.0	16.7	16.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	18.4	5.7	16.9	17.4	2.1	2.2	0.0	0.0	8.1	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	0.0	64.7	87.8	50.6	50.2	46.5	5.9	0.0	0.0	33.2	32.9
LnGrp LOS	D	A	E	F	D	D	D	A	A	A	C	C
Approach Vol, veh/h		652			1459			1223			1091	
Approach Delay, s/veh		60.1			58.1			8.7			33.0	
Approach LOS		E			E			A			C	

Timer - Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		54.0	16.0	39.9	11.0	43.0	11.0	44.9
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s		48.0	10.0	34.0	5.0	37.0	5.0	39.0
Max Q Clear Time (g_c+I1), s		14.5	11.5	33.9	2.0	29.7	7.0	35.5
Green Ext Time (p_c), s		5.4	0.0	0.0	0.0	2.6	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	933	106	200	250	25	75	1018	652	134	1197	25
Future Volume (veh/h)	51	933	106	200	250	25	75	1018	652	134	1197	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	1014	115	217	272	27	82	1107	709	147	1315	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	965	109	243	791	79	174	1228	706	218	1270	567
Arrive On Green	0.30	0.30	0.28	0.14	0.47	0.45	0.12	0.69	0.65	0.15	0.71	0.71
Sat Flow, veh/h	1080	3217	365	1781	1674	166	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	55	560	569	217	0	299	82	1107	709	147	1315	27
Grp Sat Flow(s),veh/h/ln	1080	1777	1805	1781	0	1840	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.1	33.0	33.0	13.2	0.0	11.3	3.1	28.1	36.0	5.8	39.3	0.6
Cycle Q Clear(g_c), s	4.1	33.0	33.0	13.2	0.0	11.3	3.1	28.1	36.0	5.8	39.3	0.6
Prop In Lane	1.00		0.20	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	533	541	243	0	870	174	1228	706	218	1270	567
V/C Ratio(X)	0.14	1.05	1.05	0.89	0.00	0.34	0.47	0.90	1.00	0.67	1.04	0.05
Avail Cap(c_a), veh/h	390	533	541	243	0	870	179	1228	706	218	1270	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.76	0.76	0.76	1.00	0.00	1.00	0.78	0.78	0.78	0.35	0.35	0.35
Uniform Delay (d), s/veh	28.4	38.5	38.7	46.7	0.0	18.3	25.1	15.5	18.8	24.0	15.7	10.2
Incr Delay (d2), s/veh	0.1	47.9	48.0	31.3	0.0	0.2	1.6	8.8	30.9	2.3	25.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	21.0	21.4	7.9	0.0	4.7	1.3	6.7	22.1	2.3	10.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	86.4	86.7	78.0	0.0	18.6	26.7	24.2	49.7	26.3	40.8	10.2
LnGrp LOS	C	F	F	E	A	B	C	C	F	C	F	B
Approach Vol, veh/h		1184			516			1898			1489	
Approach Delay, s/veh		83.9			43.6			33.9			38.8	
Approach LOS		F			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	42.0	19.0	37.0	10.7	43.3		56.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	6.0	36.0	13.0	31.0	5.0	37.0		50.0
Max Q Clear Time (g_c+I1), s	7.8	38.0	15.2	35.0	5.1	41.3		13.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		1.0

Intersection Summary	
HCM 6th Ctrl Delay	47.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	0	0	397	790	21	102	586	0	0	1109	148
Future Volume (veh/h)	30	0	0	397	790	21	102	586	0	0	1109	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863	1863	1863	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	33	0	0	436	868	23	119	681	0	0	1246	166
Adj No. of Lanes	1	0	1	2	2	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	2	0	2	2	2	2	3	3	3	0	3	3
Cap, veh/h	51	0	0	1188	922	24	206	1886	0	0	1335	177
Arrive On Green	0.03	0.00	0.00	0.35	0.26	0.26	0.11	1.00	0.00	0.00	0.86	0.86
Sat Flow, veh/h	1774	33		3442	3523	93	1757	3597	0	0	3204	413
Grp Volume(v), veh/h	33	65.6		436	436	455	119	681	0	0	699	713
Grp Sat Flow(s),veh/h/ln	1774	E		1721	1770	1846	1757	1752	0	0	1752	1772
Q Serve(g_s), s	2.0			10.4	26.6	26.6	0.0	0.0	0.0	0.0	30.8	32.1
Cycle Q Clear(g_c), s	2.0			10.4	26.6	26.6	0.0	0.0	0.0	0.0	30.8	32.1
Prop In Lane	1.00			1.00		0.05	1.00		0.00	0.00		0.23
Lane Grp Cap(c), veh/h	51			1188	463	483	206	1886	0	0	752	760
V/C Ratio(X)	0.64			0.37	0.94	0.94	0.58	0.36	0.00	0.00	0.93	0.94
Avail Cap(c_a), veh/h	85			1261	467	487	230	1886	0	0	752	760
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00			1.00	1.00	1.00	0.90	0.90	0.00	0.00	0.54	0.54
Uniform Delay (d), s/veh	52.9			27.0	39.8	39.8	43.9	0.0	0.0	0.0	6.6	6.7
Incr Delay (d2), s/veh	12.7			0.2	27.7	26.9	1.2	0.5	0.0	0.0	12.4	13.1
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2			5.0	16.5	17.1	3.3	0.1	0.0	0.0	15.8	16.6
LnGrp Delay(d),s/veh	65.6			27.2	67.4	66.7	45.1	0.5	0.0	0.0	19.0	19.9
LnGrp LOS	E			C	E	E	D	A			B	B
Approach Vol, veh/h					1327			800			1412	
Approach Delay, s/veh					54.0			7.1			19.4	
Approach LOS					D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		65.2	42.5		12.0	53.2	7.7	34.8
Change Period (Y+Rc), s		6.0	4.5		6.0	* 6	4.5	6.0
Max Green Setting (Gmax), s		59.2	40.3		7.5	* 47	5.3	29.0
Max Q Clear Time (g_c+I1), s		2.0	12.4		2.0	34.1	4.0	28.6
Green Ext Time (p_c), s		2.8	1.7		0.1	4.9	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1175	64	200	300	25	150	703	572	23	1665	50
Future Volume (veh/h)	25	1175	64	200	300	25	150	703	572	23	1665	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	27	1250	68	217	326	27	161	756	615	25	1790	54
Adj No. of Lanes	0	3	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	53	1396	75	177	737	61	177	1728	873	226	1440	644
Arrive On Green	0.30	0.30	0.28	0.10	0.43	0.42	0.11	0.82	0.79	0.81	0.81	0.81
Sat Flow, veh/h	62	4690	253	1774	1697	141	1757	3505	1568	394	3539	1583
Grp Volume(v), veh/h	488	414	443	217	0	353	161	756	615	25	1790	54
Grp Sat Flow(s),veh/h/ln	1812	1543	1650	1774	0	1838	1757	1752	1568	394	1770	1583
Q Serve(g_s), s	16.1	28.3	28.4	11.0	0.0	14.8	5.8	6.5	21.8	1.5	44.7	0.8
Cycle Q Clear(g_c), s	28.4	28.3	28.4	11.0	0.0	14.8	5.8	6.5	21.8	1.5	44.7	0.8
Prop In Lane	0.06		0.15	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	574	459	491	177	0	798	177	1728	873	226	1440	644
V/C Ratio(X)	0.85	0.90	0.90	1.22	0.00	0.44	0.91	0.44	0.70	0.11	1.24	0.08
Avail Cap(c_a), veh/h	578	463	495	177	0	827	177	1728	873	226	1440	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	2.00	2.00	2.00
Upstream Filter(I)	0.67	0.67	0.67	1.00	0.00	1.00	0.88	0.88	0.88	0.56	0.56	0.56
Uniform Delay (d), s/veh	36.9	37.1	37.2	49.5	0.0	21.9	24.6	5.5	6.2	6.2	10.3	6.2
Incr Delay (d2), s/veh	8.0	14.9	14.2	140.3	0.0	0.4	39.1	0.7	4.2	0.6	112.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	14.0	14.9	12.3	0.0	7.5	4.7	3.1	9.7	0.2	42.6	0.3
LnGrp Delay(d),s/veh	45.0	52.0	51.4	189.8	0.0	22.2	63.7	6.2	10.4	6.8	123.2	6.3
LnGrp LOS	D	D	D	F		C	E	A	B	A	F	A
Approach Vol, veh/h		1345			570			1532			1869	
Approach Delay, s/veh		49.2			86.0			13.9			118.3	
Approach LOS		D			F			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6		8
Phs Duration (G+Y+Rc), s		58.2	15.0	36.8	9.5	48.7		51.8
Change Period (Y+Rc), s		6.0	6.0	6.0	4.5	6.0		* 6
Max Green Setting (Gmax), s		52.0	9.0	31.0	5.0	42.5		* 48
Max Q Clear Time (g_c+I1), s		23.8	13.0	30.4	7.8	46.7		16.8
Green Ext Time (p_c), s		6.5	0.0	0.4	0.0	0.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	67.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	0	50	248	927	36	75	1014	0	0	912	70
Future Volume (veh/h)	100	0	50	248	927	36	75	1014	0	0	912	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	109	0	54	299	1117	43	84	1139	0	0	1013	78
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.89	0.89	0.89	0.90	0.90	0.90
Percent Heavy Veh, %	2	0	2	2	2	2	2	2	2	0	2	2
Cap, veh/h	113	0	0	1550	1168	45	209	1615	0	0	1155	89
Arrive On Green	0.06	0.00	0.02	0.45	0.33	0.33	0.11	0.91	0.00	0.00	0.69	0.69
Sat Flow, veh/h	1781	109		3456	3489	134	1781	3647	0	0	3437	257
Grp Volume(v), veh/h	109	123.5		299	569	591	84	1139	0	0	538	553
Grp Sat Flow(s),veh/h/ln	1781	F		1728	1777	1846	1781	1777	0	0	1777	1824
Q Serve(g_s), s	6.7			5.7	34.4	34.5	0.0	8.9	0.0	0.0	26.1	26.2
Cycle Q Clear(g_c), s	6.7			5.7	34.4	34.5	0.0	8.9	0.0	0.0	26.1	26.2
Prop In Lane	1.00			1.00		0.07	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h	113			1550	595	618	209	1615	0	0	614	630
V/C Ratio(X)	0.96			0.19	0.96	0.96	0.40	0.71	0.00	0.00	0.88	0.88
Avail Cap(c_a), veh/h	113			1555	598	621	233	1615	0	0	614	630
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00			1.00	1.00	1.00	0.09	0.09	0.00	0.00	0.84	0.84
Uniform Delay (d), s/veh	51.4			18.3	35.8	35.8	43.6	3.1	0.0	0.0	15.2	15.2
Incr Delay (d2), s/veh	72.2			0.1	26.3	25.8	0.0	0.2	0.0	0.0	14.0	13.7
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3			2.3	18.7	19.4	2.0	1.4	0.0	0.0	7.4	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.5			18.4	62.1	61.6	43.7	3.4	0.0	0.0	29.2	28.9
LnGrp LOS	F			B	E	E	D	A	A	A	C	C
Approach Vol, veh/h					1459			1223			1091	
Approach Delay, s/veh					52.9			6.1			29.0	
Approach LOS					D			A			C	

Timer - Assigned Phs		2	3		5	6	7	8				
Phs Duration (G+Y+Rc), s		56.0	53.8		12.0	44.0	11.0	42.8				
Change Period (Y+Rc), s		6.0	4.5		6.0	* 6	6.0	6.0				
Max Green Setting (Gmax), s		50.0	49.5		7.5	* 38	5.0	37.0				
Max Q Clear Time (g_c+I1), s		10.9	7.7		2.0	28.2	8.7	36.5				
Green Ext Time (p_c), s		5.5	1.2		0.0	3.0	0.0	0.4				

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1183	106	200	250	25	75	1018	652	134	1047	25
Future Volume (veh/h)	51	1183	106	200	250	25	75	1018	652	134	1047	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	1286	115	217	272	27	82	1107	709	147	1151	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1362	121	275	836	83	202	1132	692	222	1218	543
Arrive On Green	0.31	0.31	0.29	0.15	0.50	0.48	0.08	0.42	0.40	0.17	0.69	0.69
Sat Flow, veh/h	146	4407	391	1781	1674	166	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	522	455	479	217	0	299	82	1107	709	147	1151	27
Grp Sat Flow(s),veh/h/ln	1764	1549	1632	1781	0	1840	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	25.0	31.6	31.6	12.9	0.0	10.7	3.3	33.7	33.0	5.7	31.8	0.6
Cycle Q Clear(g_c), s	31.9	31.6	31.6	12.9	0.0	10.7	3.3	33.7	33.0	5.7	31.8	0.6
Prop In Lane	0.11		0.24	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	479	504	275	0	919	202	1132	692	222	1218	543
V/C Ratio(X)	0.90	0.95	0.95	0.79	0.00	0.33	0.41	0.98	1.03	0.66	0.94	0.05
Avail Cap(c_a), veh/h	581	479	504	291	0	962	204	1132	692	222	1218	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	0.76	0.76	0.76	1.00	0.00	1.00	0.78	0.78	0.78	0.67	0.67	0.67
Uniform Delay (d), s/veh	37.1	37.2	37.4	44.8	0.0	16.5	26.2	31.3	27.7	23.7	16.4	11.5
Incr Delay (d2), s/veh	13.4	24.2	23.4	13.0	0.0	0.2	1.0	18.9	36.8	3.9	11.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	14.8	15.5	6.6	0.0	4.4	1.4	15.7	24.6	2.3	7.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	61.4	60.8	57.8	0.0	16.7	27.2	50.2	64.4	27.6	27.9	11.6
LnGrp LOS	D	E	E	E	A	B	C	D	F	C	C	B
Approach Vol, veh/h		1456			516			1898			1325	
Approach Delay, s/veh		57.3			34.0			54.5			27.6	
Approach LOS		E			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	39.0	21.0	38.0	9.3	41.7		59.0
Change Period (Y+Rc), s	4.5	6.0	6.0	6.0	4.5	6.0		* 6
Max Green Setting (Gmax), s	7.5	32.0	16.0	32.0	5.0	34.5		* 56
Max Q Clear Time (g_c+I1), s	7.7	35.7	14.9	33.9	5.3	33.8		12.7
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.4		1.0

Intersection Summary	
HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

Notes

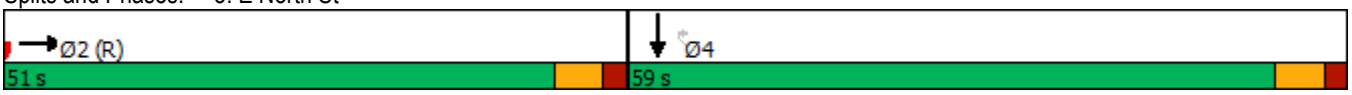
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	SBT	NWR2
Lane Configurations			
Traffic Volume (vph)	1098	597	572
Future Volume (vph)	1098	597	572
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00
Frt			0.865
Flt Protected			
Satd. Flow (prot)	3539	3539	1611
Flt Permitted			
Satd. Flow (perm)	3539	3539	1611
Right Turn on Red			Yes
Satd. Flow (RTOR)			30
Link Speed (mph)	35	30	
Link Distance (ft)	502	139	
Travel Time (s)	9.8	3.2	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	1193	649	622
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1193	649	622
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)	0	0	
Link Offset(ft)	0	0	
Crosswalk Width(ft)	16	16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)			9
Number of Detectors	2	2	1
Detector Template	Thru	Thru	Right
Leading Detector (ft)	100	100	20
Trailing Detector (ft)	0	0	0
Detector 1 Position(ft)	0	0	0
Detector 1 Size(ft)	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel			
Detector 1 Extend (s)	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0
Detector 2 Position(ft)	94	94	
Detector 2 Size(ft)	6	6	
Detector 2 Type	Cl+Ex	Cl+Ex	
Detector 2 Channel			
Detector 2 Extend (s)	0.0	0.0	
Turn Type	NA	NA	Perm
Protected Phases	2	4	
Permitted Phases			4
Detector Phase	2	4	4
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0

Lane Group	EBT	SBT	NWR2
Minimum Split (s)	24.0	24.0	24.0
Total Split (s)	51.0	59.0	59.0
Total Split (%)	46.4%	53.6%	53.6%
Maximum Green (s)	45.0	53.0	53.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	None	None
Walk Time (s)	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0
Act Effct Green (s)	51.6	50.4	50.4
Actuated g/C Ratio	0.47	0.46	0.46
v/c Ratio	0.72	0.40	0.82
Control Delay	6.7	20.0	42.0
Queue Delay	0.2	0.0	0.0
Total Delay	6.9	20.0	42.0
LOS	A	C	D
Approach Delay	6.9	20.0	
Approach LOS	A	C	

Intersection Summary	
Area Type: Other	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 25 (23%), Referenced to phase 2:EBT and 6:, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: E North St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	1090	21	252	616	0	0	1109	148
Future Volume (veh/h)	0	0	0	0	1090	21	252	616	0	0	1109	148
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1870	1900	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				0	1185	23	293	716	0	0	1246	166
Peak Hour Factor				0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.89	0.89
Percent Heavy Veh, %				0	2	0	3	3	0	0	3	3
Cap, veh/h				0	1373	27	479	2423	0	0	1496	198
Arrive On Green				0.00	0.21	0.21	0.31	1.00	0.00	0.00	0.96	0.96
Sat Flow, veh/h				0	6808	127	1767	3618	0	0	3221	415
Grp Volume(v), veh/h				0	873	335	293	716	0	0	699	713
Grp Sat Flow(s),veh/h/ln				0	1609	1848	1767	1763	0	0	1763	1781
Q Serve(g_s), s				0.0	19.2	19.2	0.0	0.0	0.0	0.0	9.2	9.6
Cycle Q Clear(g_c), s				0.0	19.2	19.2	0.0	0.0	0.0	0.0	9.2	9.6
Prop In Lane				0.00		0.07	1.00		0.00	0.00		0.23
Lane Grp Cap(c), veh/h				0	1012	387	479	2423	0	0	843	852
V/C Ratio(X)				0.00	0.86	0.86	0.61	0.30	0.00	0.00	0.83	0.84
Avail Cap(c_a), veh/h				0	1048	401	503	2423	0	0	843	852
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				0.00	1.00	1.00	0.78	0.78	0.00	0.00	0.54	0.54
Uniform Delay (d), s/veh				0.0	41.9	42.0	22.3	0.0	0.0	0.0	1.5	1.5
Incr Delay (d2), s/veh				0.0	7.4	17.1	1.1	0.2	0.0	0.0	5.3	5.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	8.2	10.5	5.6	0.1	0.0	0.0	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	49.3	59.1	23.3	0.2	0.0	0.0	6.7	6.9
LnGrp LOS				A	D	E	C	A	A	A	A	A
Approach Vol, veh/h					1208			1009			1412	
Approach Delay, s/veh					52.0			6.9			6.8	
Approach LOS					D			A			A	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	81.6	23.0	58.6	27.6
Change Period (Y+Rc), s	6.0	6.0	* 6	4.5
Max Green Setting (Gmax), s	75.6	18.5	* 53	23.9
Max Q Clear Time (g_c+I1), s	2.0	2.0	11.6	21.2
Green Ext Time (p_c), s	3.0	0.4	6.5	1.8

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

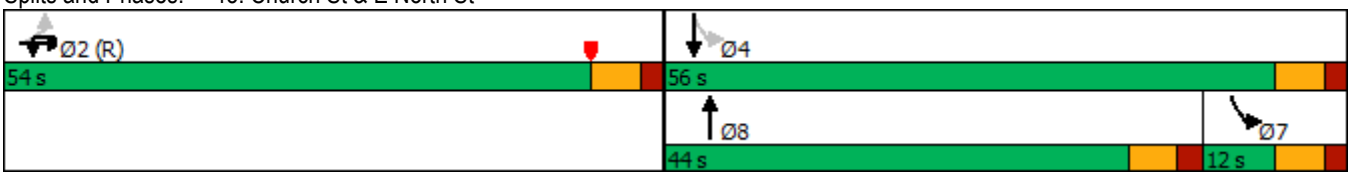
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	NBT	SBL2	SBT	NWL2
Lane Configurations						
Traffic Volume (vph)	27	1075	853	23	1068	597
Future Volume (vph)	27	1075	853	23	1068	597
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440					
Storage Lanes	1					
Taper Length (ft)	50					
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.97
Frt						
Flt Protected	0.950			0.950		0.950
Satd. Flow (prot)	1770	3539	3505	1770	3539	3433
Flt Permitted	0.950			0.195		0.950
Satd. Flow (perm)	1770	3539	3505	363	3539	3433
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)		35	35		35	
Link Distance (ft)		515	142		418	
Travel Time (s)		10.0	2.8		8.1	
Peak Hour Factor	0.94	0.94	0.93	0.93	0.93	0.91
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%
Adj. Flow (vph)	29	1144	917	25	1148	656
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	1144	917	25	1148	656
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Left
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			15		15
Number of Detectors	1	1	1	1	1	1
Detector Template	Left	Right	Left	Left	Right	Left
Leading Detector (ft)	30	30	30	20	30	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	30	30	30	20	30	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA	NA	pm+pt	NA	Prot
Protected Phases		2	8	7	4	2
Permitted Phases	2			4		
Detector Phase	2	2	8	7	4	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	5.0	3.0	10.0	6.0
Minimum Split (s)	28.0	28.0	24.0	12.0	25.0	28.0

Lane Group	EBL	EBT	NBT	SBL2	SBT	NWL2
Total Split (s)	54.0	54.0	44.0	12.0	56.0	54.0
Total Split (%)	49.1%	49.1%	40.0%	10.9%	50.9%	49.1%
Maximum Green (s)	48.0	48.0	38.0	6.0	50.0	48.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead	Lag		
Lead-Lag Optimize?			Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	2.0	3.0	3.0
Recall Mode	C-Max	C-Max	None	None	Max	C-Max
Walk Time (s)	3.0	3.0	7.0		3.0	3.0
Flash Dont Walk (s)	19.0	19.0	11.0		16.0	19.0
Pedestrian Calls (#/hr)	60	60	0		60	60
Act Effct Green (s)	50.0	50.0	47.1	52.0	52.0	50.0
Actuated g/C Ratio	0.45	0.45	0.43	0.47	0.47	0.45
v/c Ratio	0.04	0.71	0.61	0.10	0.69	0.42
Control Delay	17.7	31.1	32.8	11.5	11.1	27.5
Queue Delay	0.0	2.5	3.2	0.0	0.4	0.0
Total Delay	17.7	33.6	36.0	11.5	11.6	27.5
LOS	B	C	D	B	B	C
Approach Delay		33.2	36.0		11.6	
Approach LOS		C	D		B	

Intersection Summary	
Area Type: Other	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 58 (53%), Referenced to phase 2:NWEB and 6:, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 45: Church St & E North St

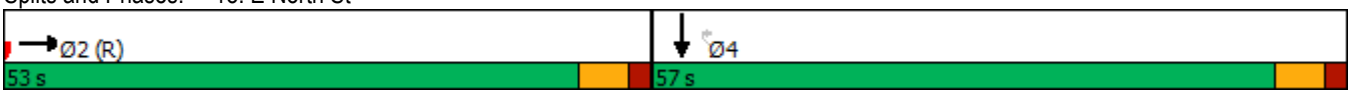


Lane Group	EBT	SBT	NWR2
Lane Configurations			
Traffic Volume (vph)	1317	448	652
Future Volume (vph)	1317	448	652
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00
Frt			0.865
Flt Protected			
Satd. Flow (prot)	3539	3539	1611
Flt Permitted			
Satd. Flow (perm)	3539	3539	1611
Right Turn on Red			Yes
Satd. Flow (RTOR)			30
Link Speed (mph)	35	30	
Link Distance (ft)	538	179	
Travel Time (s)	10.5	4.1	
Peak Hour Factor	0.92	0.83	0.92
Adj. Flow (vph)	1432	540	709
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1432	540	709
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)	0	0	
Link Offset(ft)	0	0	
Crosswalk Width(ft)	16	16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)			9
Number of Detectors	2	2	1
Detector Template	Thru	Thru	Right
Leading Detector (ft)	100	100	20
Trailing Detector (ft)	0	0	0
Detector 1 Position(ft)	0	0	0
Detector 1 Size(ft)	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel			
Detector 1 Extend (s)	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0
Detector 2 Position(ft)	94	94	
Detector 2 Size(ft)	6	6	
Detector 2 Type	Cl+Ex	Cl+Ex	
Detector 2 Channel			
Detector 2 Extend (s)	0.0	0.0	
Turn Type	NA	NA	Perm
Protected Phases	2	4	
Permitted Phases			4
Detector Phase	2	4	4
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0

Lane Group	EBT	SBT	NWR2
Minimum Split (s)	24.0	24.0	24.0
Total Split (s)	53.0	57.0	57.0
Total Split (%)	48.2%	51.8%	51.8%
Maximum Green (s)	47.0	51.0	51.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Min	None	None
Walk Time (s)	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0
Act Effct Green (s)	50.3	51.7	51.7
Actuated g/C Ratio	0.46	0.47	0.47
v/c Ratio	0.89	0.32	0.92
Control Delay	14.3	18.7	31.3
Queue Delay	14.3	0.0	0.0
Total Delay	28.7	18.7	31.3
LOS	C	B	C
Approach Delay	28.7	18.7	
Approach LOS	C	B	

Intersection Summary	
Area Type: Other	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 37 (34%), Referenced to phase 2:EBT and 6:, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 18: E North St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	1177	36	150	1114	0	0	912	70
Future Volume (veh/h)	0	0	0	0	1177	36	150	1114	0	0	912	70
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				0	1418	43	169	1252	0	0	1013	78
Peak Hour Factor				0.83	0.83	0.83	0.89	0.89	0.89	0.90	0.90	0.90
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				0	1830	55	465	2197	0	0	1679	129
Arrive On Green				0.00	0.28	0.26	0.16	1.00	0.00	0.00	1.00	0.97
Sat Flow, veh/h				0	6727	196	1781	3647	0	0	3437	257
Grp Volume(v), veh/h				0	1058	403	169	1252	0	0	538	553
Grp Sat Flow(s),veh/h/ln				0	1609	1835	1781	1777	0	0	1777	1824
Q Serve(g_s), s				0.0	22.1	22.2	4.7	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s				0.0	22.1	22.2	4.7	0.0	0.0	0.0	0.0	0.4
Prop In Lane				0.00		0.11	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h				0	1366	519	465	2197	0	0	892	916
V/C Ratio(X)				0.00	0.77	0.78	0.36	0.57	0.00	0.00	0.60	0.60
Avail Cap(c_a), veh/h				0	1492	567	534	2197	0	0	892	916
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				0.00	1.00	1.00	0.51	0.51	0.00	0.00	0.90	0.90
Uniform Delay (d), s/veh				0.0	36.2	36.3	8.9	0.0	0.0	0.0	0.0	0.1
Incr Delay (d2), s/veh				0.0	2.6	6.7	0.1	0.6	0.0	0.0	2.7	2.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	8.8	10.7	1.5	0.2	0.0	0.0	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	38.8	43.0	9.0	0.6	0.0	0.0	2.7	2.8
LnGrp LOS				A	D	D	A	A	A	A	A	A
Approach Vol, veh/h					1461			1421			1091	
Approach Delay, s/veh					40.0			1.6			2.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	72.0		12.8	59.2		35.1
Change Period (Y+Rc), s	6.0		6.0	6.0		6.0
Max Green Setting (Gmax), s	66.0		11.0	49.0		32.0
Max Q Clear Time (g_c+I1), s	2.0		6.7	2.4		24.2
Green Ext Time (p_c), s	6.4		0.1	4.3		4.9

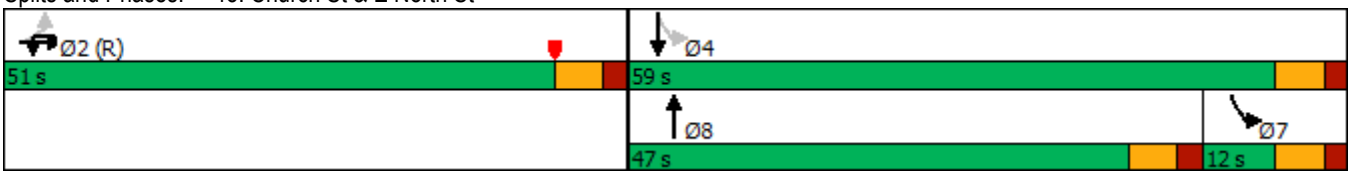
Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Lane Group	EBL	EBT	NBT	SBL2	SBT	NWL2
Lane Configurations						
Traffic Volume (vph)	151	1183	1093	134	749	448
Future Volume (vph)	151	1183	1093	134	749	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440					
Storage Lanes	1					
Taper Length (ft)	50					
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.97
Frt						
Flt Protected	0.950			0.950		0.950
Satd. Flow (prot)	1770	3539	3539	1770	3539	3433
Flt Permitted	0.950			0.087		0.950
Satd. Flow (perm)	1770	3539	3539	162	3539	3433
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)		35	35		35	
Link Distance (ft)		515	146		418	
Travel Time (s)		10.0	2.8		8.1	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.83
Adj. Flow (vph)	164	1286	1188	147	823	540
Shared Lane Traffic (%)						
Lane Group Flow (vph)	164	1286	1188	147	823	540
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Left	Left
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			15		15
Number of Detectors	1	2	2	1	2	1
Detector Template	Left	Thru	Thru	Left	Thru	Left
Leading Detector (ft)	20	100	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94		94	
Detector 2 Size(ft)		6	6		6	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0		0.0	
Turn Type	Perm	NA	NA	pm+pt	NA	Prot
Protected Phases		2	8	7	4	2
Permitted Phases	2			4		

Lane Group	EBL	EBT	NBT	SBL2	SBT	NWL2
Detector Phase	2	2	8	7	4	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	5.0	5.0	5.0	6.0
Minimum Split (s)	28.0	28.0	24.0	11.0	24.0	28.0
Total Split (s)	51.0	51.0	47.0	12.0	59.0	51.0
Total Split (%)	46.4%	46.4%	42.7%	10.9%	53.6%	46.4%
Maximum Green (s)	45.0	45.0	41.0	6.0	53.0	45.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead	Lag		
Lead-Lag Optimize?			Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	None	None	Max	C-Max
Walk Time (s)	3.0	3.0	7.0		7.0	3.0
Flash Dont Walk (s)	19.0	19.0	11.0		11.0	19.0
Pedestrian Calls (#/hr)	60	60	0		0	60
Act Effct Green (s)	47.0	47.0	42.2	55.0	55.0	47.0
Actuated g/C Ratio	0.43	0.43	0.38	0.50	0.50	0.43
v/c Ratio	0.22	0.85	0.88	0.70	0.47	0.37
Control Delay	17.7	31.0	25.7	35.6	2.6	24.8
Queue Delay	0.0	32.5	23.5	0.0	0.4	0.0
Total Delay	17.7	63.5	49.2	35.6	2.9	24.8
LOS	B	E	D	D	A	C
Approach Delay		58.3	49.2		7.9	
Approach LOS		E	D		A	

Intersection Summary	
Area Type: Other	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 67 (61%), Referenced to phase 2:NWEB, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 96.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 45: Church St & E North St



Appendix B: AV/CV Recommendations Memorandum

Mobility and Connected Vehicle Near-Term

Projects

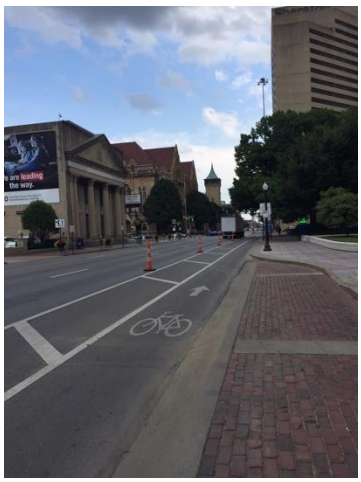
"Slow Lanes" / Shared Lanes Tactical Test

New mobility can provide opportunities to think about our roads in new ways. As added vehicle types and usage grows to include micromobility and integration with transit, cities are testing out "slow lanes" as a way to redefine vehicle interaction and roadway capacity. It is typical to have bus-only lanes in downtown areas, sometimes for limited peak hours. It is also becoming more common for on-street bike lanes to be designated. The "slow lane" concept combines these elements, providing opportunities for all lower-speed mobility options to share space. This allows these lanes to take place on roadways where both might not be accommodated with today's auto-dominated traffic patterns.

This near-term tactical action is an ideal test for this concept, also setting the stage for potential future changes to roadways as further mobility technology emerges. The general idea is to identify a set of streets that carry a variety of traffic modes today and could show results from instituting a several-week shared slow-lane test. In selecting the location, it will be necessary to assess how current operations function, particularly the relationship of transit stops, existing bike lanes and on-street parking with the way delivery/urban freight uses occur. Extra enforcement of "no parking" and "no loading" zones is likely to be needed and on-street parking might have to be prohibited during the testing times.

Using traffic cones or other simple portable markers, the lane can be designated by having a street crew add them along with temporary signage for the designated hours. This might be tried surrounding peak hour conditions in one direction in order to determine full impact. The specific concept of operations would be developed in conjunction with the public service and traffic departments.

Figure 1: Third Street Tactical "Slow Lane" Pilot Project



In addition to internal preparation, other elements would be needed, including temporary signage along the route well in advance to alert the public of the coming test. Meetings with Greenlink, bicycle advocates, and corridor business owners will be needed to coordinate operations, logistics and potential delivery modifications.

As a test, problems and needed modifications can be identified and successful aspects observed. This could lead to long-term implementation of slow lanes to accommodate changes in mobility. (Potential locations: Beattie Place/North Street pair, Elford Street)

Smart Parking

Design and implement a smart parking strategy to maximize efficiency of downtown parking. This will increase the ability of visitors to find parking, reducing the overall demand for workers and residents as well. This will also reduce congestion as drivers circle the roadway system less in pursuit of a parking space. Parking apps have proved successful in directing people to available parking as well as in allowing instant mobile payment. The smart parking plan is likely to include:

- App-based interface to identify available parking and for mobile payment.
- Dynamic technology to indicate availability – parking sensors or predictive analytics through aggregation of phone locational data.
- Integrated wayfinding with dynamically updating capacity information.

A smart parking system that integrates the parking spaces on Main Street could help with circling vehicles, and additional vehicles on Main Street that are cruising and looking for available spaces.

Integrate Parking Strategy with Greenlink Transit/Trolley

With a smart parking strategy in place, the data could be linked to real-time routing information from Greenlink. Ideally, users could have a single payment interface and integrated mapping to provide information, such as the time of trolley arrival at parking locations and overall time to destination. This technology could also be linked to a larger data collection pilot to understand user behaviors and preferences in the system.

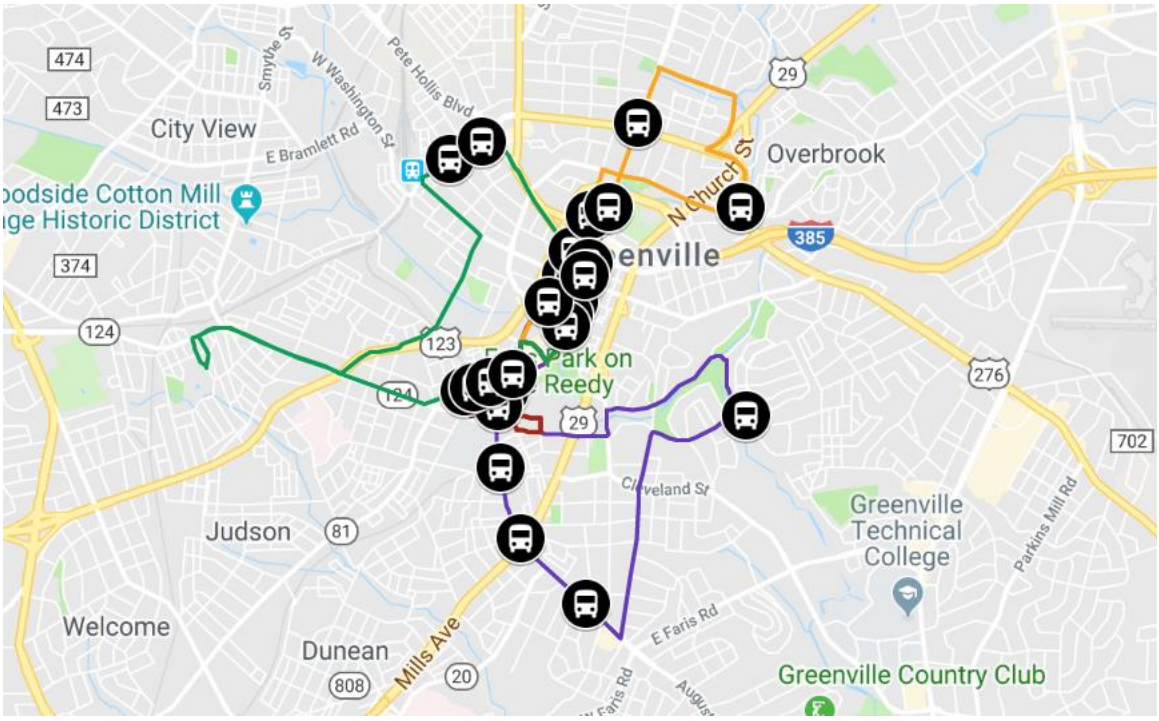
Microtransit Pilot

Greenville is well-suited for such service owing to similar characteristics to Lincoln, NE. Using the Downtown Trolley as a model, a pilot autonomous shuttle project could be deployed on an existing route, a simplified version of an existing route, or for an entirely new service. The limited hours of operation of the Trolley service would allow Greenville to foster public acceptance of the technology while connecting riders with key points of interest Downtown. This strategy would complement the proposed parking recommendations by creating the option for Downtown visitors to park in underutilized periphery parking on nights and weekends, reducing the strain on parking in the urban core and the congestion associated with circulating drivers searching for parking. Alternatively, weekday service could be targeted towards easing parking for Downtown employees and allowing for easy workday trips for nearby meetings, lunch, or errands.

As the parking supply located at County Square undergoes redevelopment and removal, parking demand is going to naturally increase, specifically during events at the baseball stadium

or when other events are taking place in south downtown. An integrated system that includes the downtown trolley or other microtransit routes can help drivers find new parking locations in advance, and routing information and vehicle schedules can be supplied in real time.

Figure 2: Map of Existing Greenville Trolley Service



There are a number of autonomous microshuttle vendors with currently operating pilots including EasyMile, May Mobility, and Local Motors. Manufacturers typically offer a range of service packages from an outright purchase that is fully operated by the local agency to a leased, fully turnkey system operated by the vendor. Infrastructure requirements typically include one or more Global Navigation Satellite System (GNSS) base stations along the route, enhanced traffic signal technology to relay signal phase and timing to the vehicle, and clearly defined signage. An initial commissioning process is required in which high definition mapping of the route is developed and the vehicle is “trained” to operate on it. Given the fixed costs associated with initiating service, a pilot lasting at least a year is recommended. By leasing a vehicle rather than buying one, Greenville could evaluate the feasibility of sustaining and growing autonomous microtransit service while leaving flexibility for future enhanced capabilities as the technology matures in the coming years.

5G CV Connected Test Corridor

Partnering with a cellular service provider, Greenville should identify a key corridor to implement 5G technology. This will allow vehicle to infrastructure (V2X) communication needed for the operation of connected vehicles (CVs). Readiness for CV technology will be a major stepping stone toward readiness for autonomous vehicle deployment in the coming years. (Potential location: Fairforest Way, West Washington Street, Pendleton Street, SC 81/Anderson Road)

Policies

Standards for Alternate Micro-mobility Options

With an active downtown and growing population, Greenville is ripe to participate in the latest micromobility options. Utilizing lessons learned in communities across the country, Greenville may consider adopting policies that allow scooters and e-bikes and set the stage for other coming options that are likely to emerge. The largest cities in South Carolina have still not allowed scooters and e-bikes to operate, so this gives Greenville a chance to take a leadership position in embracing new mobility.

Key aspects for regulation to establish successful implementation of shared scooters and e-bikes would likely include the following:

- Where devices are allowed or restricted (example: streets, sidewalks, public parks and plazas, private property).
- Where parking is allowed and prohibited (example: not blocking sidewalks, only in designated parking areas).
- Device speed restrictions (example: 15 mpg to speed).
- Equitable distribution throughout agreed-upon service area - service area should include socioeconomic diversity.
- Penalties for violation of terms
- Limited timeframe for operating permits with renewal process.

Examples to review include Columbus, Ohio, and Charlotte, North Carolina.

https://www.buildwithyard.com/blog/2018/8/15/bird-cages
https://www.dispatch.com/news/20180828/columbus-sets-rules-for-motorized-scooters
https://charlottenc.gov/Transportation/Programs/Documents/Shared%20Mobility%20Ordinance%20Amendments.pdf
https://charlottenc.gov/Transportation/Programs/Pages/EScooterSharePilotProgram.aspx

Guidelines for Terrestrial Drone / AV delivery

With growing testing of autonomous delivery, devices such as those from Kroger, FedEx and Amazon will soon be sharing the public rights-of-way with traditional vehicles, micromobility users and pedestrians. Now is the time to establish how and where they should operate. This could begin as a set of temporary regulations, intended to be revisited after deployment of autonomous delivery vehicles allows the city to test outcomes.

Key aspects for regulation to establish successful implementation of autonomous delivery devices would likely include the following:

- Where devices are allowed or restricted (example: streets, sidewalks, public parks and plazas) Separate standards might be needed per categories such as size, speed and operation.
- Where parking for delivery is allowed and prohibited (example: sidewalks, private property).
- Consolidation/maximization of delivery zones.
- Strategies for shared areas for loading and other uses as connected and autonomous vehicles allow different approaches to safe intermingling of transportation types.

Mobility and Connected Vehicle Transition Phase (Mid Term)

Projects

Expanded 5G Connectivity
Expand 5G test to encompass all of downtown. As CAVs become more widely adopted, this will set the stage for advancing the infrastructure changes needed to maximize opportunities for new mobility.

Adaptable Streets Strategy
An adaptable streets strategy sets up a plan to transition from conditions today until the time of full autonomy. The basic concept it to establish a framework for the utilization of lanes at different times and in different ways.

Today we are seeing the first influencers of change that indicate how future changes might impact streets. Those include the increase in demand for “slow lanes” as scooters and e-bikes are a first wave of widely adopted mobility choices to complement biking in use for designated on-street facilities. Some cities are intermingling these with transit in downtown areas, dedicating more roadway space for the use of vehicles other than autos.

Secondly is the immediate increase in delivery usage of the curb lane as e-commerce accelerates and the drop-off use of curbs for Transportation Network Companies (TNC). Third is the increased testing of autonomous vehicles in urban locations.

As these and related technologies expand, a strategy to transition lanes could include:

- Benchmarks for conversion of lanes:
  - Initial, perhaps one lane for “slow” vehicles that services transit stops
  - Next, curb lane for transit + slow in low-speed areas, with full or partial “passing lane” for slower speed vehicles
  - At a certain percentage of adoption, lanes become designated for AV use blend, then AV use only. This could include AV transit vehicles or other shared use AVs
- Integrate with curb management practices
  - Systematize locations/functions - delivery/loading, drop-offs, transit
- Install smart traffic signal control on arterial & collector corridors, such as Pete Hollis Boulevard, College Street, or Washington Street

Policies

Parking Requirements Revisions/Strategy
As shared mobility and overall autonomy begin significant adoption, the need for parking will be reduced overall. The need to couple parking with specific locations will also be greatly diminished. A parking policy should be explored to reduce overall zoning requirements. This might include:

- Identifying benchmarks to guide reduced parking requirements for the downtown zoning district.

- Develop a remote parking policy as vehicles with self-parking technology reach certain adoption thresholds. This policy can allow remote parking to be counted against parking requirements.
- Develop a policy to balance prioritization between parking garages and surface lots. Look for opportunities to use surface lots under a defined short-term strategy with time limits until transition of use toward redevelopment.

Site Development Standards

With adoption of self-driving technology, impacts on site design will be significant. The need for large-scale parking on each site and near each front door will be greatly reduced. In its place will be the need for sites and buildings that accommodate front door drop-off and likely changes to overall site access. A review of site development standards can include triggers for change based on adoption levels and observed demand.

Curb Management Policy

As congestion at the curb increases, management will be needed. We already experience TNCs such as Uber and Lyft, dropping users as near to the destination as possible. This will only increase as shared mobility and self-parking vehicles become the norm. Combining that with increased individual deliveries, from trucks or individual autonomous devices, and policies will be needed to determine when and how downtown curbs can be used. The outcome is likely to include flexible zones, controlled differently at different times of day and days of the week, as well as considerations for entertainment destination districts and special events. As an initial pilot, Greenville could identify 2-3 downtown “hotspots” experiencing conflicts and assign methods of use and duration through policy approaches.

Land Use and Zoning Standards Update

Specific uses will function differently in the world of new mobility. We are already seeing a seismic shift in retail as online purchases continue to climb and brick-and-mortar vacancies rise. This will have direct impacts for our zoning regulations as more urban warehousing space will be needed that functions differently than the retail currently in place. This is one example of the ways in which aspects such as autonomy will shift long-established operations and, therefore, the relationship of uses to each other and how they should be steered through zoning. This is likely to be an iterative process, as new and yet-unforeseen trends change our cities faster than we have experienced in decades.

Mobility and Connected Vehicle Full Adoption Phase (Long Term)

Projects

Conversion of Roadway Network to Full CAV

Using the previously developed adaptable streets strategy, conversion of lanes can take place in transition to full autonomy. This will be an iterative process, linked to benchmarks in adoption as well as federal and statewide policy. The key will be to use the established strategy as a guide, adjusting as circumstances evolve along with technology.

Parking Garage Strategy

As parking demands dwindle and change, it will be time to reconsider parking facilities. Some will be needed as potential deployment, repair or charging areas, depending on how those aspects have ben handles within the roadway network. Many garages and parking lots will no longer be needed, as the fleet size will adjust to demand. Some parking will be needed for individually owned vehicles that are sole use, but the location of that parking can be decoupled from the destination to some extent. This will allow a strategy for redevelopment that considers the parking uses as fair game for reuse.

Policies

Guidelines for Alternate Delivery/Freight Options – Aerial Drones

Once autonomous delivery becomes established with ground-based vehicles, it is likely that aerial options will also materialize. These are already being tested by various companies in an effort to develop efficient quiet devices.

Key aspects for regulation to establish successful implementation of aerial delivery devices would likely include the following:

- Where devices are allowed or restricted in the urban street grid. Separate standards might be needed per categories such as size, speed and operation.
- Where devices are allowed by land use or site design
- The quantity of deliveries, time of day.
- Strategies for shared areas for package retrieval.

Thoroughfare Plan Revisions

Thoroughfare plans have been regularly updated under similar parameters for many decades. Traditional methods of determining demand and capacity are identifies, and roadways are placed into an overall hierarchy to establish capital improvement and maintenance plans. Unfortunately, only parts of the approach will continue to be useful and accurate in the coming age of new mobility. As adoption of new technology reaches significant levels, different impacts will be felt. It is recommended that all future Thoroughfare Plan updates include considerations for emerging technology and new mobility impacts.

New Land Use Policies

Land use models will also shift with the adoption of new mobility technologies. Autonomous vehicles will be particularly influential, reducing parking demand and playing a role in the changing function of retail and the distribution of goods. Greenville will have to reconsider how the land use categories described in the plan relate to the real-world functioning of individual sites and larger areas. The way we move through our cities influences our decisions on where to go and how to interact with the environment around us. As this changes, a new look at our land use plan will be necessary.

TACTICAL ACTIONS SUMMARY

		TACTICAL ACTION	Micromobility	Transit	Connected vehicles	Autonomous vehicles	Shared Mobility	Parking	Curb Management	Freight	ITS
	PRESENT (NEAR TERM): PROJECTS										
1.	"Slow lanes" / shared lanes tactical test	- Select key corridors for slow lane test deployment - Implement test deployment - Record results to inform permanent strategy	●	●			●		●		
2.	Smart parking	- Create app-based parking for tracking of parking availability and payment – on-street, city-owned lots/garages, agreements with private owners - Install linked meters that communicate data to the parking app, and can fare adjust remotely, and accept app-based payment - Install meters / fareboxes that relay usage and capacity data to the app - Create wayfinding displaying linked parking data			●			●	●		●
3.	Integrate parking strategy with Greenlink transit/trolley	- Link app to Greenlink real-time route information - Implement a Greenlink data collection pilot		●	●			●			
4.	Microtransit pilot	- Implement a pilot microshuttle project downtown - Integrate into trolley service		●		●	●				●
5..	5G connected vehicle test corridor	- Select key transportation corridors to implement and test CV technology for V2X - Record results to inform permanent strategy			●	●	●			●	●

	PRESENT (NEAR TERM): POLICIES										
6.	Standards for alternate micro-mobility options	- Create and implement policies for scooters, e-bikes, etc.. using the models borrowed from other following cities	●				●				
7.	Guidelines for terrestrial drone / AV delivery	- Prepare for alternative delivery options - Look to other communities for emerging regulations			●				●	●	
	TRANSITION PHASE (MID-TERM): PROJECTS										
1.	Expanded 5G connectivity	- Expand pilot 5G project in keeping with industry trends - Prioritize downtown area			●	●	●			●	●
2.	Adaptable streets strategy	- Establish standards to convert lane usage, whether for peak hours or throughout the day - Implement added adaptable lanes over time	●	●			●	●	●	●	
3.	Smart traffic signal control on arterial corridors	- Establish smart signal goals and prioritization protocols - Align implementation with promotion of new mobility objectives		●	●	●					●
	TRANSITION PHASE (MID-TERM): POLICIES										
4.	Parking requirements revisions/strategy	- Determine remote parking policies and locations for self-parking vehicles - Determine AV adoption triggers to reduce or eliminate parking requirements				●	●	●	●		
5.	Site development standards	- Revise site development standards to reflect reduced parking demand, preference from front-door drop off, etc.					●	●			
6.	Curb management policy	- Map current freight deliveries, and TNC hotspots - Create and implement policies that manage how curb access will be provided as mobility evolves		●			●	●	●	●	
7.	Land use and zoning standards update	- Freight-warehousing - Retail									
	FULL ADOPTION PHASE (LONG-TERM): PROJECTS										
1.	Conversion of roadway network to full CAV	- Complete infrastructure technology needed for full functionality of connected and autonomous vehicles			●	●	●			●	●

2.	Parking garage strategy	- Develop a real estate and redevelopment strategy to capture underutilized parking areas			●	●	●	●			
	FULL ADOPTION PHASE (LONG-TERM): POLICIES										
3.	Guidelines for aerial drone delivery	- Prepare for alternative delivery options - Look to other communities for emerging regulations			●				●	●	
4.	Thoroughfare plan revision	- Update outcomes and capital improvement priorities based on impacts of new mobility technology		●	●	●	●		●	●	
5.	New land use policies	- Update long-term land use for an age of autonomous driving and delivery, based on a trends analysis of behavioral shifts		●		●	●	●		●	

Future Trends Assessment Memo: Downtown Greenville, SC

Downtown Transportation Master Plan

Greenville, SC
October 14, 2019

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Introduction

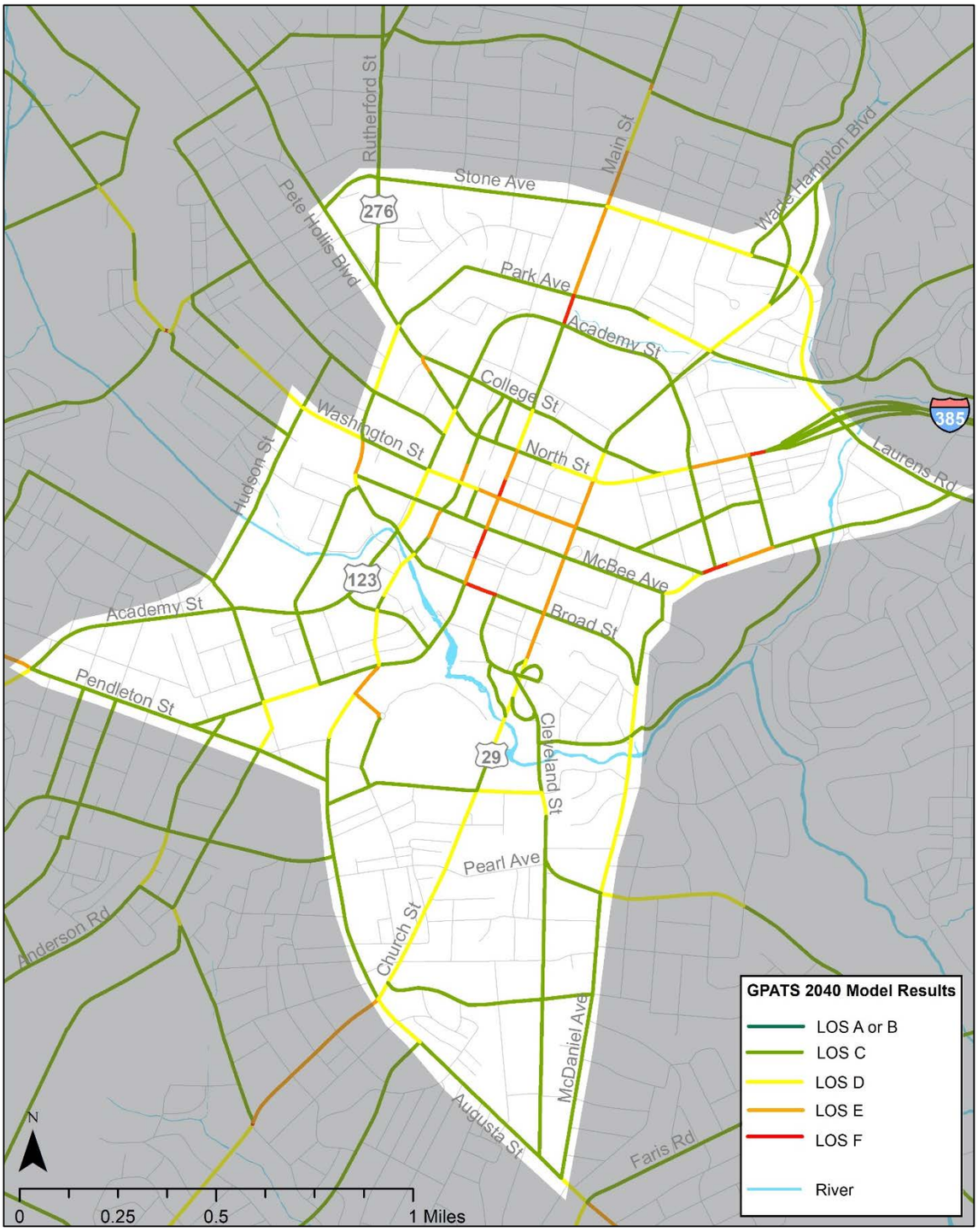
Previous memoranda have addressed short-term transportation project needs in downtown Greenville, SC, and have proposed solutions for these areas which can be implemented in a near-term timeframe. This assessment will consider the traffic projections in downtown Greenville, SC for a future-year scenario in order to identify potential future project area needs for long-term planning, design, and funding efforts. The assessment will include a review of issues of congestion and poor mobility for a model year of 2040. The latest version of the Greenville-Pickens Area Transportation Study (GPATS) Horizon2040 travel demand model was used to attain long-term traffic growth projections. An additional model was also generated by modifying the GPATS model's socio-economic data (i.e., population and employment) to represent an alternative, stronger growth pattern based on additional potential growth opportunities documented in the recently adopted Downtown Strategic Master Plan (DSMP), completed by others in coordination with the City's Planning and Development Division. In addition to the needs identified in this document based on the growth models, further needs based on additional analysis and stakeholder input will be developed in Phase II of this project. Specific solutions to the needs identified in this assessment will be also be developed and prioritized in Phase II.

2040 GPATS Model Run

For the first alternative, the future-year traffic conditions were projected using the GPATS Horizon2040 travel demand model, based on the existing configurations of the roadways. The Horizon 2040 GPATS model accounts for regional socio-economic changes based on anticipated land use patterns derived from municipal planning efforts and other sources. One important factor to note is that this model did not project any additional population growth within downtown Greenville. **Figure 1** shows roadway conditions in terms of PM level of service (LOS). Green segments indicate minor delays (LOS A-C), and red segments indicate severe delays (LOS F). The target desirable LOS is C for urban SCDOT roads. Note that all of the maps in this document show the PM peak hour results, because this was found to represent the worst predicted conditions. The AM peak hour scenario did not identify any additional significant results.

The model indicates very poor (E or F) levels of service around the center of downtown, including Main Street, Church Street, East North Street, Washington Street, and Broad Street. Corridors with LOS D (yellow) are also prevalent around the entire downtown area and include sections of Stone Avenue, North Street (west of Academy Street), West Washington Street, US 29/Church Street and McDaniel Avenue.

Figure 1. GPATS 2040 Model Results



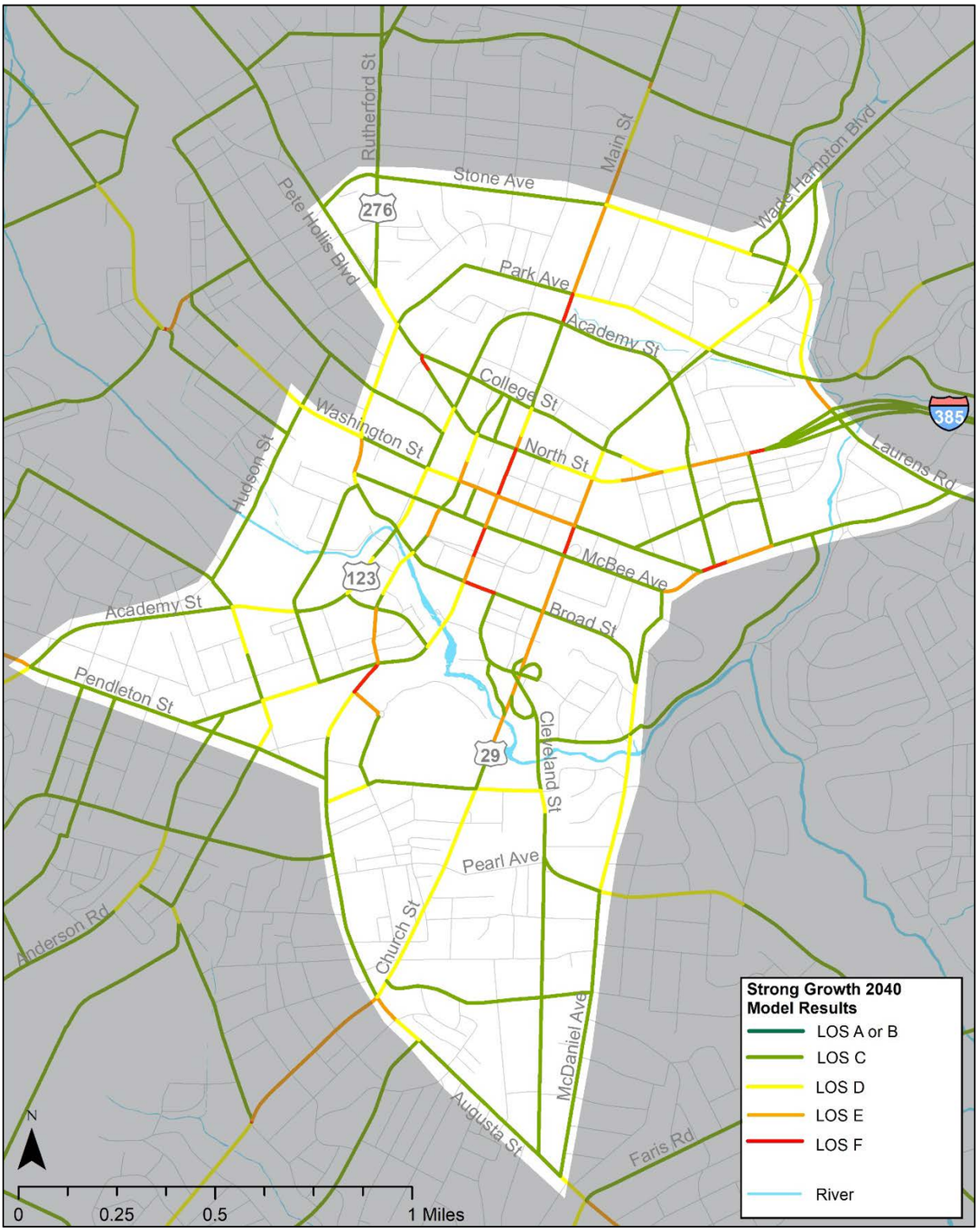
Strong Growth 2040 Model

A second alternative model was also generated which accounted for a stronger growth pattern than the Horizon2040 base model. This scenario was built upon the GPATS base model, and includes modifications based on a market analysis from the current DSMP and upcoming planned downtown developments such as the County Square mixed-use redevelopment site. These modifications focused on the potential for development within the downtown area by making adjustments to socio-economic input parameters (households, total population, and employment). Some assumptions were made during the process to estimate employment and households from market analysis information, which was in the form of gross floor area by residential, commercial or civic lane use. Note that the process did not change the base trip generation rates or origin-destination matrices of the Horizon 2040 model.

Figure 2 shows the LOS results from this model run. The results indicate level of service issues on similar corridors as the GPATS model, but several of these show a poorer LOS than **Figure 1**. This change in LOS is an indication of the sensitivity of a given road to additional vehicular demands, and this is discussed in a subsequent section of this report.

Any corridor indicating an LOS of E or F in **Figure 1 or 2** should be noted as a high-priority project area, since these are projected to be at or near capacity by 2040 and will need improvements to prevent or mitigate congested conditions. A list of all of the areas identified by the various analyses in this document is included in the final section.

Figure 2. Strong Growth 2040 Model Results

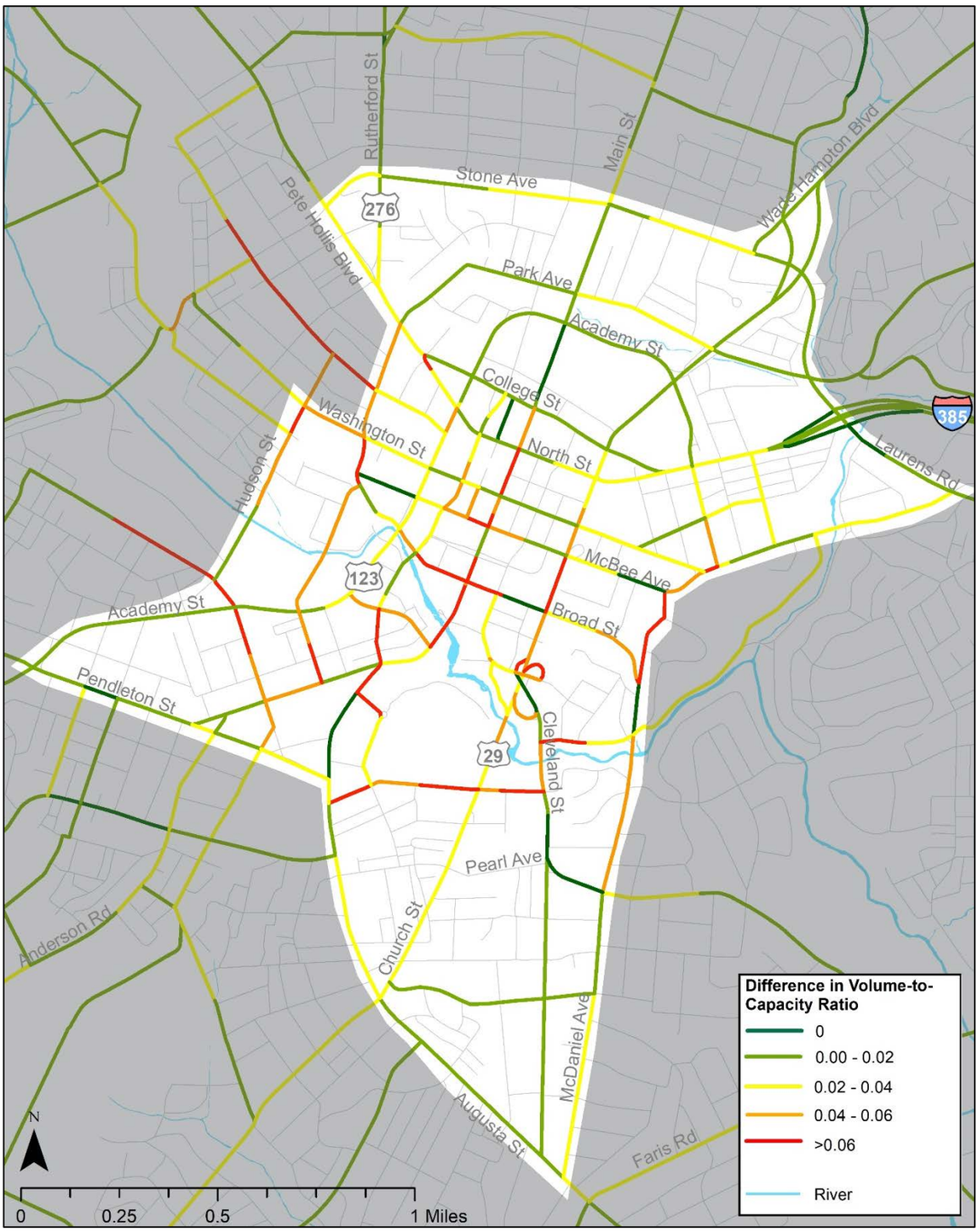


Comparison of Models

The two model alternatives were compared to determine where the greatest differences in output occurred between the GPATS model and the strong growth model. These differences indicate that these areas are the most sensitive to growth in population and/or employment, and it is possible that poor operating conditions can develop on these roads if growth occurs at a rate more aggressive than anticipated in long-range planning efforts.

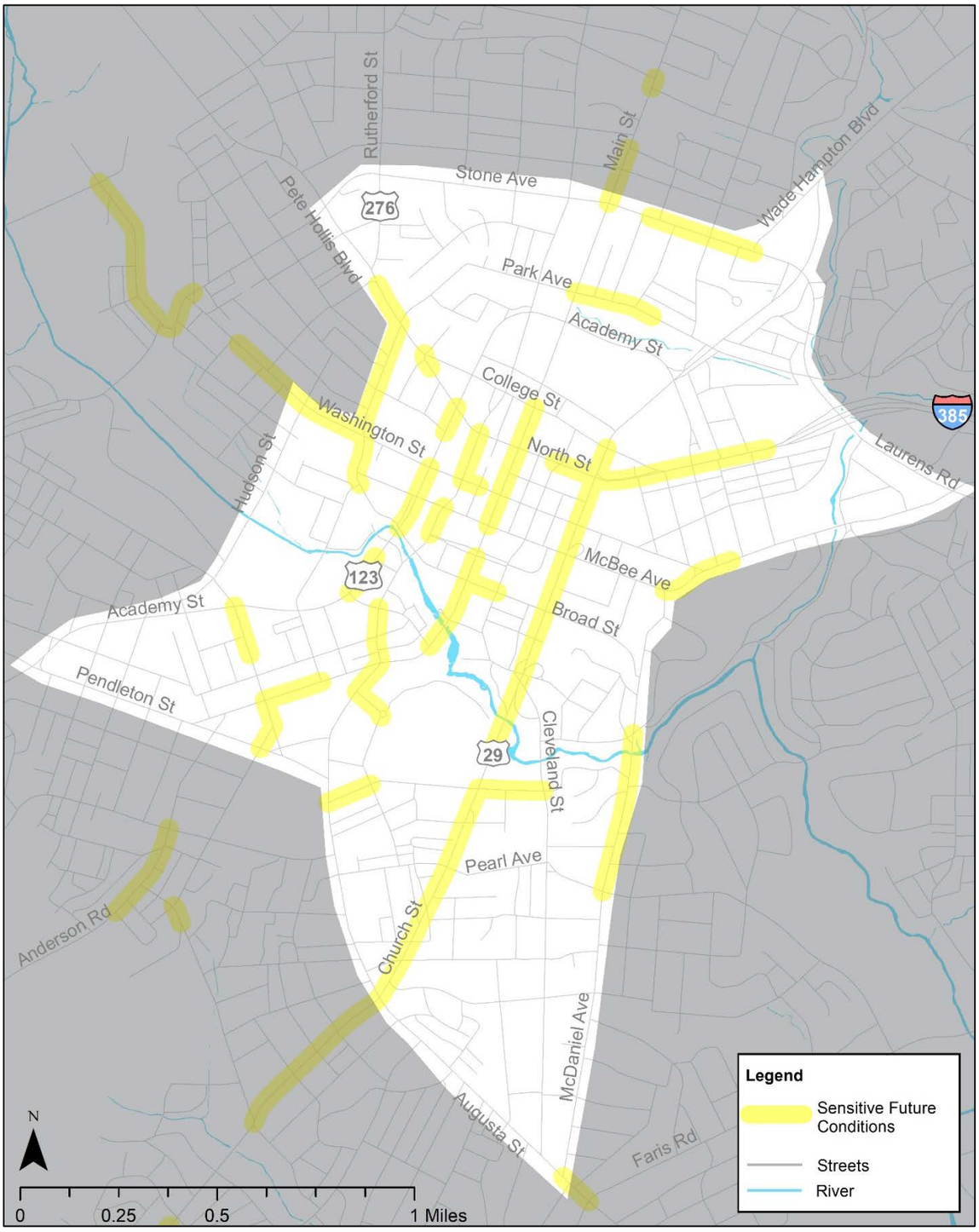
Figure 3 shows the gradient difference between the volume-to-capacity (V/C) ratios in each model. Corridors where the V/C ratio is the most impacted by the stronger growth are shown in red, while dark green indicates corridors that are unchanged.

Figure 3. Change in Volume to Capacity Ratio: GPATS 2040 Model to Strong Growth 2040 Model



While any corridors shown in red should be noted as highly sensitive to changes, the most critical of these areas are those in which the shift in V/C results in a LOS of D or greater. These areas are not only sensitive, but also at the greatest risk of developing poor conditions. **Figure 4** indicates the areas which showed both a considerable (greater than 0.02) shift in V/C and an LOS of D or worse in either model.

Figure 4. Long-Term Congested Corridors Subject to Increases in Vehicular Demand



While some of these sensitive spots represent small localized points of congestion, other areas, such as those along the Main Street, North Street, and Church Street corridors, comprise large portions of roadways through downtown. These areas should be noted as high-need project areas, since they indicate that the entire corridor is likely to be impacted by the effects of future growth.

Long Term Project Needs

Areas Identified by Long Term Trends Assessment

It should be noted that the two models generated projected 2040 traffic conditions based on the existing configuration of the roadways in downtown Greenville with no improvements. However, many roadway and intersection improvement projects have been identified for completion in the short-term future. A list of these projects can be found in the Downtown Transportation Master Plan Short-Term Needs Assessment Memorandum. Some of the corridors which indicate a need for improvement in **Figures 1-4** are addressed in the Short-Term Needs memo, and will likely exhibit better future-year operations than those indicated by the models if the short-term projects are performed. A Build 2040 model run will be completed in Phase II to examine those projects' effects on roadway mobility.

Based on the assessment and considerations in this document, a list of high-need long term project areas is included below:

- Main Street from Ashley Avenue to Academy Street
- Main Street from College Street to Pendleton Street
- Church Street from College Street to Augusta Street
- McDaniel Avenue from McBee Avenue/Washington Street to Pearl Avenue
- McBee Avenue and Washington Street from McDaniel Avenue to Toy Street
- Butler Avenue from Buncombe Street to Westfield Street
- North Street/Buncombe Street from I-385 to Rutherford St
- Richardson Street/River Street from Buncombe Street to South Main Street
- Academy Street from Buncombe Street to Westfield Street
- Washington Street from Mulberry Street to Broad Street
- Washington Street from Church Street to Hudson Street

It may be that not all areas listed above can be addressed through traditional capacity improvement methods. Road widening's and the use of alternative alignments are limited in scale and application due to the downtown character of the study area. Phase II will evaluate where areas can be improved through these methods, and the influence will be quantified through performance measures.

Areas Identified in Previous Assessments

While further analysis is required to determine other project need areas based on public and stakeholder input, multimodal considerations, and other issues, some additional areas for improvement were already identified during the development of the Downtown Transportation Master Plan Short-Term Needs Assessment Memo. Those potential projects which were determined in that stage to be long-term rather than short-term needs are included below, to be analyzed in further detail for consideration as long-term projects.

- *I-385 and Stone Avenue/Laurens Road Interchange*

  This interchange was indicated as a high-need area during existing conditions analysis and public outreach. The intersection of Stone Avenue and Park Avenue is also impacted by congestion in the area due to its proximity to the freeway ramp entrances. Possible projects could include an alternative interchange configuration such as a diverging diamond or dual roundabout design. A second interstate access point with uni-directional on- and off-ramps to the Laurens Road and Washington Street signal could also divert some traffic away from this intersection. The Park Avenue signal could be reconfigured as a quadrant road intersection, using Hilly Street and Becker Street to divert left turns away from the interchange area. Further evaluation of potential alternatives will be conducted in Phase II.

- *Broad Street-Washington Street Connector*

  Currently, there are limited choices for travelers desiring to travel across the entire downtown area, especially in the southern portion of the city. A southern loop could enhance the connectivity of this area and divert some traffic from the more congested roads like College Street and North Street. Broad Street could serve this purpose, but it currently has

poor connectivity on the east side of downtown. Designing a new alignment that connects Broad Street to the McBee Avenue or Washington Street corridor would complete a loop around the center of downtown.

- *Stone Avenue Safety Improvements*

Stone Avenue provides an important connection across the north end of downtown and carries large volumes of traffic. It currently has narrow lanes and includes very few turn lanes for driveways or intersections along its length. This is a safety issue as well as a cause of congestion on this corridor. A project to widen Stone Avenue for the addition of a two-way left turn lane could improve operations. However, the developments along this road may not allow for a large-scale widening, and in this case, isolated widening's to provide left turn lanes at strategic intersections may be considered.

- *Pete Hollis Boulevard/Buncombe Street Corridor Improvements*

Pete Hollis Boulevard is the main entry point into downtown Greenville from the northwest. The Downtown Strategic Master Plan proposes a road diet for the Pete Hollis Boulevard/Buncombe Street corridor as part of transforming this highway to an urban boulevard design including landscaped medians and transit, pedestrian, and bicycle accommodations. Initial analysis of the corridor indicated that the proposed road diet is feasible; however, this area is expected to see large amounts of long-term growth, and a detailed analysis of the future traffic conditions is necessary to ensure that an effective design is achieved.

Bicycle and Pedestrian Improvements

Greenville's downtown is a place where many residents live, work, and play. Continuing to maintain the bicycle and pedestrian environment should be an ongoing, long-term goal. Projects such as the Cultural Corridor space on College Street, which was initially proposed in the 2010 *Downtown Streetscape Master Plan* and new connections between the Swamp Rabbit Trail and Cleveland Park on the east side of downtown are considered to be mid- to long-term endeavors that are worth exploring for future mobility benefits. The Swamp Rabbit Trail connections could be completed along what is known as the McBee Rail-Trail alignment and would connect to a planned Richland Creek greenway system, which was discussed in the 2007 *Trails and Greenways Master Plan*.

More discussions on long-term bicycle and pedestrian improvements, in the form of new linear connections along potentially available right-of-way will be discussed in Phase II.