



TRANSPORTATION

The transportation-land use connection is an important concept in both land use and transportation planning. While the most significant role that transportation plays in land development is in providing access, transportation facilities serve as a significant element of the built environment, creating both connections and barriers. For instance, while a high-volume, four-lane highway may connect key areas of a community for vehicular travel, safety concerns may cause it to be a deterrent for pedestrians who need to cross the highway to get to resources on the other side. Traffic congestion on a thoroughfare can also be a barrier, causing motorists to seek alternative routes through residential areas. An understanding of these relationships is critical to solving and even preventing transportation related problems such as congestion, higher energy consumption, reduced air quality, threats to public health and safety, and decreased access to services and employment.

Ideally, transportation networks should be planned to anticipate and accommodate future needs. However, funding for costly transportation infrastructure is limited, particularly at the local level, with resources directed to alleviate immediate problems such as congestion, road maintenance, and safety issues caused by increased traffic volume. It is important that both transportation and land use plans evolve over time, adjusting to new challenges and opportunities in concert with one another.



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The automobile has been the dominant mode of travel in the United States since the Second World War, making accommodation of the automobile a significant factor in land use planning and development. Residential areas evolved from walkable neighborhoods to subdivisions focused on optimum vehicular access. In recent years, public concern about issues such as traffic congestion, energy conservation, and air quality have resulted in a broadening of transportation planning to focus on the full range of transportation options.

While roads comprise the majority of most transportation systems, they are not the only viable component. Effective transportation systems are built upon a broad, multi-modal network of options that include rail, air, shipping, public transit, and pedestrian and bicycle systems. In general, a transportation system can be defined as any means used to move people and/or products. The Transportation Element provides an analysis of transportation systems serving the City including existing roads, planned or proposed major road improvements and new road construction, existing and proposed transit projects, and proposed and existing pedestrian and bicycle facilities and projects.

A. ROAD NETWORK

According to the *2017-2022 South Carolina Statewide Transportation Improvement Program (STIP)*, projected demand for travel in the State will continue to grow due to economic growth, as well as increases in the number of resident drivers and driving activity. While travel volume is generally greatest on the Interstates, Federal and State highways and many local roads have also experienced the traffic congestion and road wear associated with increased motor vehicle travel. An examination of the local road network will enable the City to work with Kershaw County and regional partners to plan for transportation needs for the coming decade, particularly as they relate to future land use.

1. LOCAL ROAD FUNDING

a. CITY OF CAMDEN

The Camden City Council allocates 10.2 mills of property tax revenues to the City's Paving Fund each year. The Fund is used for transportation projects, including road maintenance, paving, sidewalks, and crosswalks. The FY 2016-2017 allocation for these purposes totaled \$368,700.

b. C-FUNDS

The State of South Carolina launched the "C Program" in 1946 for the purpose of paving dirt farm-to-market roads in the State system. Program funds, known as C-Funds, are derived from a 2.66 cent per gallon user tax on gasoline sales that is deposited in the County Transportation Fund and allocated to the counties. As part of the program, each county has a *County Transportation Committee (CTC)* with members appointed by the county legislative delegation. The Committee is responsible for the formation of a county transportation plan and empowered with the authority to select and approve funded projects utilizing C-Funds. The CTC may choose to administer its own program or request that the South Carolina Department of Transportation (SCDOT) administer the program. Kershaw is one of 19 counties in the State that administers its own



program. The seven-member Kershaw County Transportation Committee is appointed by the local delegation. The CTC reviews all C-Fund projects, including those submitted by the County's municipalities, including Camden.

C-Funds may be used for construction, improvements, or maintenance on the State highway system; local paving or improvements to county roads; street and traffic signs; and other road and bridge projects. Resurfacing, sidewalk construction, and drainage improvements may also be accomplished with C-Funds. By law, counties must spend at least 25 percent of C-Fund allocations on construction, improvements, and maintenance related to the state highway system, with the remaining 75 percent available for local transportation system projects. The FY 2016-2017 C-Fund apportionment for Kershaw County totaled \$1,473,600 (SCDOT, May 2017).

c. KERSHAW COUNTY

Kershaw County assesses an annual road maintenance fee of \$35 per vehicle, paid at the time vehicle taxes are due. Fee revenues are used for road maintenance, paving and repaving projects. The Ordinance requires that a percentage of the collected fees be allocated to municipalities that have road maintenance programs. As the only municipality in Kershaw County with a road maintenance program, Camden receives a percentage of fees collected for vehicles within the City. In FY 2015-16, Kershaw County received \$1.8 million in road maintenance fees, with \$147,810 allocated to the City of Camden.

2. ROAD NAMING AND ADDRESSING

Addresses within the City of Camden are assigned by the Kershaw County E-911 Addressing Office per the requirements of the County's *E-911 Ordinance*. Road naming or renaming requests from developers or interested parties in the City of Camden must be submitted to the Planning Commission for approval. Proposed road names must not duplicate or be similar to existing street names in the City.

In Kershaw County and its municipalities, addresses must be assigned and approved by the Addressing Office before final plat approval can be granted for new developments. Address assignments are coordinated with the County's 911 database to maintain the best possible dispatching of emergency services to the community.

3. ROAD NETWORK

Of the nearly 1,678 miles of roads within Kershaw County, more than 100 miles are within the City of Camden. The City owns and maintains 35.3 miles of road length, of which 5.5 miles are unpaved. The State of South Carolina maintains 59.4 miles of road in Camden, of which ten miles are Federal highways. Kershaw County owns and maintains approximately 3.2 miles of road within the City. The remainder of the roads are privately owned and maintained. Road ownership in the City is illustrated in Map 8-1.

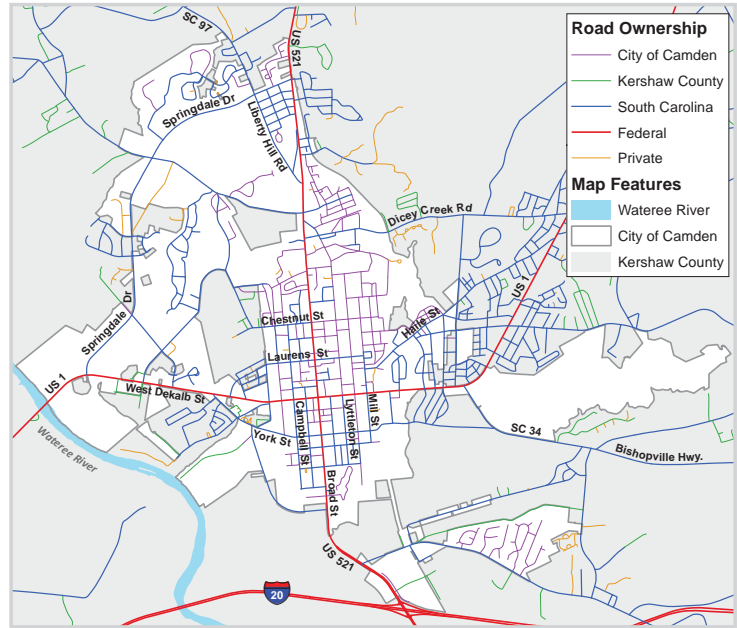
The City of Camden does not approve the construction of unpaved roads in new developments and does not have a specific policy in place regarding road paving. The City of Camden's paving fund is primarily funded by the annual road maintenance fee. Funds are generally directed to transportation projects, including road maintenance, paving, sidewalks, and crosswalks.



Camden residents enjoy ease of access to the Interstate highway system. Interstate 20 runs along the southernmost boundary of the City and is accessed through the S.C. Highway 521 (Sumter Highway) exchange. Access from Camden to I-77, I-26 and I-95 is less than 22, 34 and 43 miles away, respectively.

Two Federal highways bisect the City. U.S. Highway 521 (Broad Street) provides access to areas north of Camden and to Interstate 20 to the south. U.S. Highway 1 (DeKalb Street) provides east/west access to neighboring towns and counties. The City is also served by two State highways – S.C. Highway 97 (Liberty Hill Road) to the north at U.S. Highway 521 and S.C. Highway 34 (Bishopville Highway) to the south off U.S. Highway 1.

MAP 8-1. ROAD OWNERSHIP IN THE CITY OF CAMDEN



SOURCE: KERSHAW COUNTY INFORMATION SERVICES DEPARTMENT, MAY 2017

B. FUNCTIONAL ROAD CLASSIFICATION

Streets and roads serve two primary functions – to provide mobility and facilitate access to land. Optimally, the transportation network balances these two functions. On higher capacity roads such as interstates, mobility is the primary function, while the primary function of local roads is to provide residential access. Between these two extremes, the level of mobility and access to land vary depending on the function of the network.

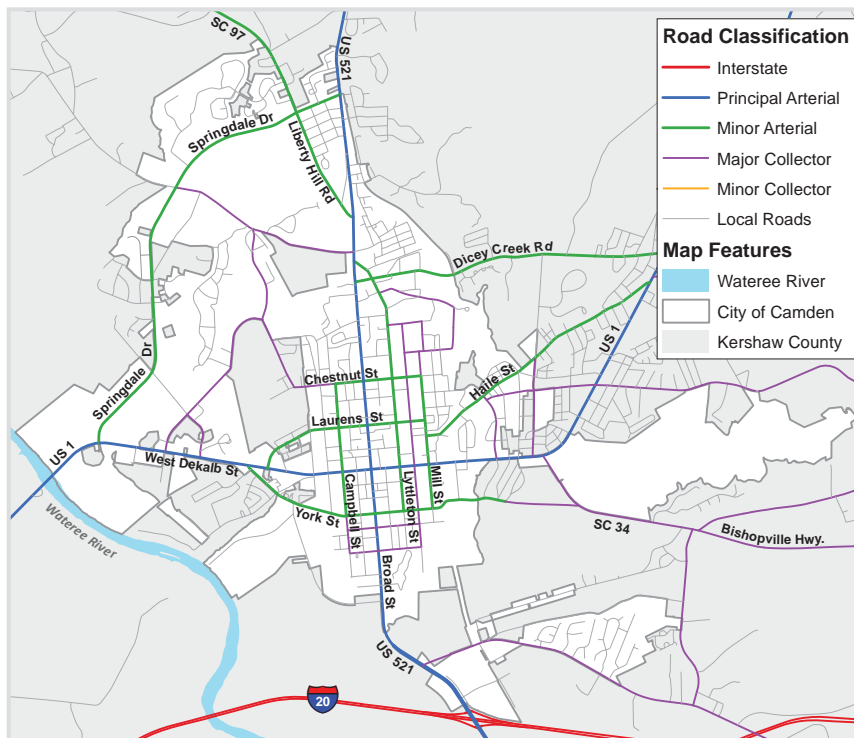
The Federal Highway Administration (FHWA) defines functional classification as the process by which streets and highways are grouped according to the character of service they are intended to provide. Because most travel involves movement through a network of roads, it is necessary to determine how travel can be channelized within the road network in a logical and efficient manner. Functional classification defines the nature of the channelization process by identifying the role of any particular road in serving the flow of trips through a highway network. Transportation planners and engineers classify roads based on FHWA and State criteria that consider the type of road and traffic volume. Land use changes, road widening or narrowing, and development can change the classification of a road or road segment over time. Streets and highways are grouped into one of four categories as freeways, arterials, collectors, and local roads (Table 8-1). Functional classification for City of Camden roads is shown in Map 8-2.



TABLE 8-1. FUNCTIONAL ROAD CLASSIFICATIONS

CLASSIFICATION	FUNCTIONAL PURPOSE
Freeways (Interstates)	<ul style="list-style-type: none"> Multi-lane divided roadways with full control of vehicular access Operate under the purest form of uninterrupted flow, with no fixed elements such as traffic signals to interrupt the traffic flow
Arterials	<ul style="list-style-type: none"> Provide the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control.
Principal Arterials	<ul style="list-style-type: none"> Connected network of continuous routes that serve corridor movements with trip length and travel density characteristics indicating substantial statewide or interstate travel Serve high percentage of area population, providing integrated network without stub connections, except where dictated by unusual geographic or traffic flow conditions, such as existing road that has been divided by a manmade lake or interstate highway
Minor Arterials	<ul style="list-style-type: none"> Form a network linking cities and larger towns as part of an integrated network providing interstate and intercounty service Include all arterials not classified as principal and constitute routes designed for relatively high overall travel speeds, with minimum interference to through movement Classification places more emphasis on land access and offers a lower level of traffic mobility in more urban areas
Collectors	<ul style="list-style-type: none"> Provide less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials Generally serve travel between counties rather than being of statewide importance Constitute routes on which, regardless of traffic volume, predominant travel distances are shorter than on arterial routes with more moderate speeds on average Provide rural service to larger towns not directly served by higher systems and to other traffic generators of county importance such as schools, parks, and major industries – linking these places with nearby towns or cities, or with routes of higher classification Principal collectors serve the more important travel corridors within a county Urban collector street system provides both land access and traffic circulation within residential neighborhoods, commercial, and industrial areas May penetrate neighborhoods, distributing trips from arterial roads and collecting traffic from local streets
Local Roads	<ul style="list-style-type: none"> Primarily provide access to adjacent land and road systems of higher classification for travel over relatively short distances as compared to collectors Comprises all facilities not assigned a higher classification and offers lowest mobility level

SOURCE: FEDERAL HIGHWAY ADMINISTRATION, 2017



MAP 8-2. FUNCTIONAL ROAD CLASSIFICATIONS IN CAMDEN

SOURCE: SCDOT, MAY 2017



C. TRAFFIC COUNTS

The most recent SCDOT traffic counts for the most traveled road segments in the City of Camden are listed in Table 8-2. The counts represent estimated 24-hour, two-way annual average daily traffic (AADT) and reflect seasonal and daily adjustments. Segments of U.S. Highway 1 are the most traveled routes in the City, with AADT counts that range from 14,300 to 28,500. Traffic counts on segments of U.S. Highway 521 were also comparatively high, ranging from 10,300 to 14,400 on the busiest segments within the City. Segments of York Street, Springdale Drive, S.C. Highway 34, Black River Road, Lyttleton Street, Mill Street, and Haile Street also posted high AADTs in 2016. Also of note is the section of I-20 closest to the City at the U.S. Highway 521 exit, which had an AADT of 30,900 in 2016. Map 8-3 illustrates the location of the City's busiest roads.

As reflected in Table 8-2, traffic increased substantially on several segments of U.S. Highway 1 stretching from Wylie Street to Longtown Road. Over the ten-year period of 2006 to 2016, traffic growth ranged from an increase of 2,300 AADT on the section from Longtown Road to Springdale Road to an increase of 500 AADT on the section from U.S. Highway 521 to Mill Street. Significant increases of 600 and 400 AADT were also experienced at stations along Springdale Drive, while an increase of 400 AADT was recorded on Black River Road over the same period (Table 8-2).

TABLE 8-2. CAMDEN ROAD SEGMENTS WITH HIGHEST 2016 AVERAGE DAILY TRAFFIC COUNT (AADT)

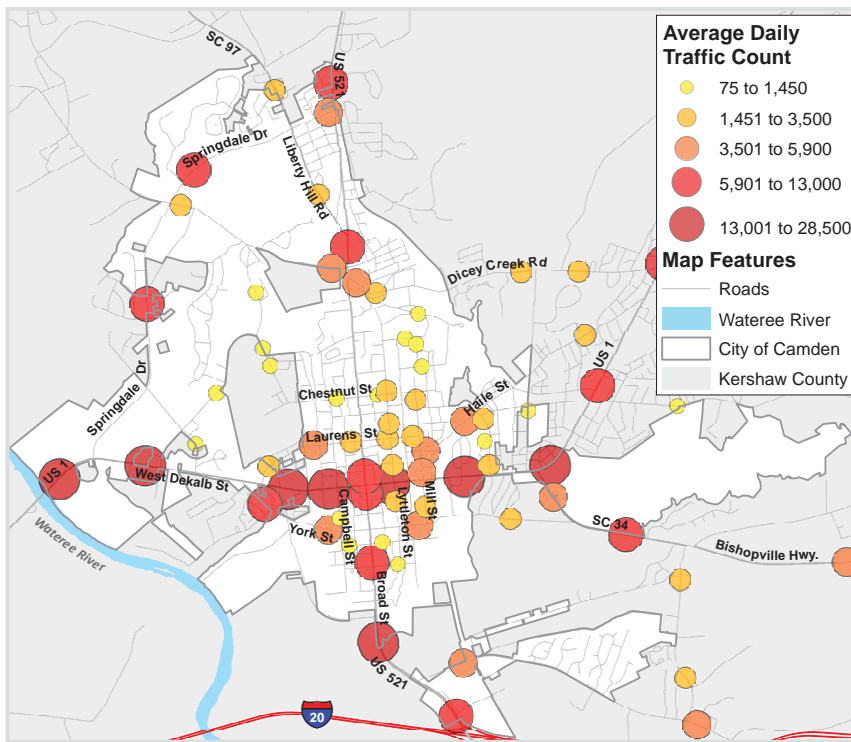
ROUTE NUMBER	STATION NUMBER	ROUTE LOCATION	2006 AADT	2011 AADT	2016 AADT
U.S. Highway 1	113	Longtown Road to Springdale Drive	26,200	28,000	28,500
	115	Springdale Drive to York Street	22,100	23,500	23,100
	121	U.S. Highway 521 to Mill Street	17,700	18,600	18,200
	117	York Street to Wylie Street	16,300	19,300	17,500
	123	Mill Street to S.C. Highway 34	17,500	17,200	16,600
	119	Wylie Street to U.S. Highway 521	16,800	20,400	15,500
	120	S.C. Highway 34 to McRae Road	---	14,600	14,300
U.S. Highway 521	141	Black River Road to Bull Street	14,400	14,700	14,400
	139	I-20 to Black River Road	13,800	13,300	13,000
	143	Bull Street to York Street	10,700	10,100	10,300
	149	Dacey Ford Road to S.C. Highway 97	10,800	10,500	9,900
	151	S.C. Highway 97 to Clay Road	8,000	8,100	8,200
	147	U.S. Highway 1 to Dacey Ford Road	8,900	7,900	7,700
	145	York Street to U.S. Highway 1	8,000	7,400	7,400
York Street	329	Old River Road to U.S. Highway 1	7,700	7,100	7,600
	325	Mill Street to U.S. Highway 521	7,200	6,000	5,400
	327	U.S. Highway 521 to Old River Road	4,800	4,400	4,100
Springdale Drive	359	Knights Hill Road to S.C. Highway 97	6,500	6,500	7,100
	361	S.C. Highway 97 to Cool Springs Drive	4,600	4,500	5,000



TABLE 8-2. CAMDEN ROAD SEGMENTS WITH HIGHEST 2016 AVERAGE DAILY TRAFFIC COUNT (AADT)

ROUTE NUMBER	STATION NUMBER	ROUTE LOCATION	2006 AADT	2011 AADT	2016 AADT
S.C. Highway 34	174	York Street East to Bishopville Highway	7,500	7,200	7,000
	172	U.S. Highway 1 to York Street East	5,400	5,500	5,400
Black River Road	285	U.S. Highway 521 to Precipice Road	5,500	5,600	5,900
Lyttleton Street	349	L- 80 to U.S. Highway 521	5,400	5,900	5,500
Mill Street	363	L- 79 to U.S. Highway 1	5,100	5,000	4,700
Haile Street	292	Hasty Road to Fairlawn Drive	5,100	4,800	4,600
	290	Fairlawn Drive to Mill Street	4,900	5,500	4,500

SOURCE: SCDOT, AVERAGE DAILY TRAFFIC COUNTS FOR KERSHAW COUNTY, 2016



MAP 8-3. AVERAGE DAILY TRAFFIC COUNTS, 2016

SOURCE: SCDOT, AVERAGE DAILY TRAFFIC COUNTS FOR KERSHAW COUNTY, 2016

D. ROADWAY SAFETY

Traffic collisions are responsible for billions of dollars in economic losses in South Carolina each year in the form of property damage, medical costs, and lost productivity. Data compiled by the Office of Highway Safety of the S.C. Department of Public Safety (SCDPS) indicates a traffic crash occurs in the State every 4.4 minutes, with an injury due to a traffic crash occurring every 15.4 minutes. Every 11.6 hours one or more persons die in South Carolina due to injuries sustained in a traffic crash (2014 S.C. Traffic Collision Fact Book, SCDPS).



There are 62,400 registered vehicles and 50,984 licensed drivers in Kershaw County (S.C. Department of Motor Vehicles, December 2015). Among South Carolina’s 46 counties, Kershaw County ranked 28th highest in number of traffic collisions and in collisions resulting in injury, and 16th highest in fatalities caused by traffic accidents in 2014 (2014 S.C. Traffic Collision Fact Book, SCDPS). While less than one percent of crashes resulted in fatalities, injuries were reported in nearly half (48.2%) of all collisions in the County.

Collisions on secondary routes accounted for nearly one-third (31.4%) of all reported collisions statewide (Table 8-3). This trend is mirrored in Kershaw County, where 34.5% of all crashes occurred on secondary routes. Twelve persons were killed as a result of traffic collisions in the County in 2014 – six on I-20, four on secondary roads, one on a U.S. primary road and one on a S.C. primary road.

TABLE 8-3. COLLISIONS BY ROUTE TYPE, KERSHAW COUNTY AND SOUTH CAROLINA, 2014

ROAD TYPE	COLLISION TYPE						PERSONS	
	FATAL		INJURY		TOTAL COLLISIONS		KILLED	INJURED
	#	%	#	#	%	#		
KERSHAW COUNTY								
Interstate	4	40.0%	47	11.7%	185	14.6%	6	74
U.S. Primary	1	10.0%	150	37.4%	495	39.2%	1	231
S.C. Primary	1	10.0%	29	7.2%	87	6.9%	1	47
Secondary	4	40.0%	151	37.7%	436	34.5%	4	222
County	0	0.0%	24	6.0%	61	4.8%	0	35
Totals	10	100.0%	401	100.0%	1,264	100.0%	12	609
SOUTH CAROLINA								
Interstate	96	12.7%	2,627	7.7%	12,374	10.4%	117	4,125
U.S. Primary	182	24.1%	9,490	27.9%	32,186	27.0%	199	15,224
S.C. Primary	168	22.2%	7,960	23.4%	26,448	22.2%	174	12,587
Secondary	271	35.8%	11,471	33.7%	37,382	31.4%	292	17,608
County	39	5.2%	2,514	7.4%	10,783	9.0%	41	3,485
Totals	756	100.0%	34,062	100.0%	119,173	100.0%	823	53,029

SOURCE: S.C. DEPARTMENT OF PUBLIC SAFETY, SOUTH CAROLINA TRAFFIC COLLISION FACT BOOK, 2014

Safety is a serious concern for cyclists on roadways. South Carolina ranks among the top five nationwide for states with the highest cyclist fatality rate at 21% (Alliance for Biking and Walking, 2016 Benchmarking Report). There were 43 traffic fatalities in South Carolina related to cyclists from 2010 to 2013, comprising 2% of all traffic fatalities statewide. While prevention of accidents while cycling depends largely on individual safety practices, local governments can incorporate a number of measures that will help to keep cyclists safe. The development of bicycle paths and trails that are separate from roadways, as well as the provision of protected bicycle lanes on roadways, help to protect cyclists from unsafe interactions with motor vehicles.

Initiatives such as road diets, which balance street space among all modes of travel including vehicles, pedestrians, cyclists and public transit, can improve mobility and access and reduce crashes and injuries (U.S. Department of Transportation, Safer People, Safer Streets, September 2014). Road diets typically convert existing road four-lane road segments to three-lane segments (two through lanes and a turn lane), allowing the remaining space to be allocated to other uses such as bike lanes and sidewalks. The City of Camden embarked on a road diet plan in 2011 that upon completion will reduce travel lanes on a section



of Broad Street between York and DeKalb streets from four 11-foot lanes to two 12-foot lanes with parking on both sides of the street. Sidewalk widths will be expanded and medians provided in some locations, while streetscape and landscape design will be incorporated to encourage pedestrian and street-level retail activity. Funding for the road diet project has not been secured to date.

An associated project, the Camden Truck Route, will provide improvements to sections of Ehrenclou Drive, York Street, and Springdale Drive that are intended to reduce delays, improve safety, and encourage trucks to use the improved route instead of traveling through downtown Camden via Broad Street. Improvements include adding a 15-foot, center two-way turn lane, increased lane widths, sidewalks, bike lanes, and curb and gutter. Completion of the Truck Route is necessary before work on the City's road diet project can begin. As of June 2018, construction is underway on all three sections of the truck route, with completion anticipated in September 2018 for segment 2 and in December 2018 for segments 1 and 3.

E. COMMUTING PATTERNS

A much higher percentage of Camden residents both live and work in their place (city/town) of residence than those of the County, State and nation. Nearly 42% of Camden residents aged 16 and older are employed in the City of Camden and more than two-thirds of City residents are employed in Kershaw County. Only 8.2% of Kershaw County workers, 16.2% of State workers, and 31.4% of workers nationally both live and work in the same city or town. While nearly 36% of City residents work in another county, less than one half of one percent travel outside the state for employment. By comparison, only 53.3% of County workers, 71% of workers statewide and 72.4% of workers nationwide are employed in their county of residence (Table 8-4).

Mean travel time to work is shorter for City of Camden residents at 24.6 minutes than for Kershaw County workers at 28.2 minutes. The commute of City residents is also shorter than that of workers nationally at 25.7 minutes, but slightly longer than the mean travel time to work for South Carolinians at 23.8 minutes. However, 12.6% of City residents travel an hour or more to work each day. The segment of City workers with longer commutes is larger than the percentage both countywide and nationwide at 8.3% and more than double the statewide percentage of 5.5%. Conversely, well over one-third of City residents (38.8%) have a commute of 14 minutes or less to their place of employment.

Personal vehicles are the primary travel mode for most Camden residents. Less than 1% of City workers travel to work on public transportation or bike to work, while only 1.7% walk to work. Among workers living in the City of Camden, 79.2% drive solo to work and 11% participate in carpools. Nearly 6% of City residents in the workforce work at home, which is high compared to county, state and national percentages of 2.9%, 3.6% and 4.4%, respectively. Limited local access to public transportation continues to contribute to the low overall transit usage by Camden workers as well as workers countywide. However, ridership from stops in the City of Camden has increased since the 2004 inception of the SmartRide service to the Columbia area.

County-level data on worker commuting patterns shows the county of origin and destination of local commuters (Table 8-5). Nearly 13,100 Kershaw County residents also work in the County. For the approximately 12,591 Kershaw County residents who travel outside the County for work, more than two-thirds commute to Richland County employers, followed by workers commuting to Lexington, Lancaster, and Sumter Counties.



TABLE 8-4. JOURNEY TO WORK, 2014

WORKERS 16 AND OLDER	CITY OF CAMDEN	KERSHAW COUNTY	SOUTH CAROLINA	UNITED STATES
PLACE OF WORK				
Worked in Place of Residence*	41.5%	8.2%	16.2%	31.4%
Worked in County of Residence	64.0%	53.3%	71.1%	72.4%
Worked Outside County of Residence	35.5%	45.5%	23.7%	23.8%
Worked Outside State of Residence	0.5%	1.2%	5.2%	3.8%
MEANS OF TRANSPORT TO WORK				
Car, Truck or Van – Drove Alone	79.2%	84.0%	82.7%	76.4%
Car, Truck or Van – Carpooled	11.0%	10.2%	9.3%	9.6%
Public Transportation	0.4%	0.2%	0.6%	5.1%
Walked	1.7%	1.1%	2.1%	2.8%
Bicycle	0.0%	0.5%	0.3%	0.6%
Other Means - Taxi, Motorcycle, etc.	1.9%	1.0%	1.3%	1.2%
Worked at Home	5.7%	2.9%	3.6%	4.4%
TRAVEL TIME TO WORK				
14 minutes or less	38.8%	22.8%	28.0%	27.4%
15 - 29 minutes	24.8%	31.8%	40.2%	36.5%
30 to 59 minutes	23.7%	37.1%	26.6%	27.9%
60 or more minutes	12.6%	8.3%	5.5%	8.3%
Mean Travel Time to Work (minutes)	24.6	28.2	23.8	25.7

* For those living in a place (city or town)
 SOURCE: U.S. CENSUS BUREAU, 2010-2014 AMERICAN COMMUNITY SURVEY

TABLE 8-5. TOP 10 COUNTIES OF WORKERS COMMUTING INTO/FROM KERSHAW COUNTY

COMMUTERS INTO COUNTY		COMMUTERS OUT OF COUNTY	
COUNTY OF RESIDENCE	COMMUTERS	COUNTY OF EMPLOYMENT	COMMUTERS
Kershaw County	13,099	Kershaw County	13,099
Richland County	1,484	Richland County	8,594
Lee County	867	Lexington County	971
Sumter County	724	Lancaster County	884
Lancaster County	558	Sumter County	703
Darlington County	443	Chesterfield County	234
Lexington County	291	Darlington County	212
Florence County	257	Lee County	182
Fairfield County	245	Fairfield County	125
Chesterfield County	173	Florence County	122
Total	18,443		25,690

SOURCE: U.S. CENSUS BUREAU, 2009-2013 AMERICAN COMMUNITY SURVEY



More than 5,340 workers from surrounding counties travel to employers in Kershaw County. Richland County residents lead the influx of in-commuters, followed by workers from Lee, Sumter, Lancaster, and Darlington Counties.

Estimates provided by the U.S. Census Bureau reveal that the population of the City of Camden increases by 60%, or 4,160 persons, during the daytime due to an influx of workers from neighboring communities. These trends are in sharp contrast to Kershaw County, where the population decreases by nearly 10% due to workers commuting to neighboring areas. Similarly, county populations statewide collectively decrease by 0.8% during the daytime (Table 8-6).

TABLE 8-6. DAYTIME POPULATION, 2014

EMPLOYMENT-RESIDENCE RATIO FACTOR	CITY OF CAMDEN	KERSHAW COUNTY	SOUTH CAROLINA
Total resident population	6,931	62,342	4,727,273
Total workers working in area	7,087	19,372	1,986,242
Total workers living in area	2,927	25,474	2,022,019
Estimated daytime population	11,091	56,240	4,691,496
Daytime population change due to commuting	4,160	-6,102	-35,777
% Daytime population change due to commuting	60.0%	-9.8%	-0.8%
Workers who lived and worked in same area	4,103	13,575	1,438,243
% Workers who lived and worked in same area	140.2%	53.3%	71.1%
Employment Residence (E-R) Ratio	2.4	0.8	1.0

SOURCE: U.S. CENSUS BUREAU, 2010-2014 AMERICAN COMMUNITY SURVEY

The employment-residence (E-R) ratio is a measure of the total number of workers working in an area relative to the total number of workers living in a place. An E-R ratio of greater than 1.00 occurs when there are more persons (workers) working in an area than living there. The employment-residence ratio for Kershaw County is 0.8, indicating that the County is considered to be a net exporter of labor to other counties (Table 8-6). Conversely, the City of Camden’s overall E-R ratio of 2.4 indicates that the City is an importer of labor from other areas, with 142% more employed persons working in the City than living in the City.

F. TRANSPORTATION PLANNING

Planning for sound infrastructure is also a primary goal of the *South Carolina Priority Investment Act of 2007*. The Priority Investment Act amends *Section 6-29-1130* of the *South Carolina Code of Laws* and requires that local government comprehensive plans include a Transportation Element. The Act requires that the Transportation Element be developed in coordination with the Land Use Element to ensure transportation efficiency for existing and planned development. The Act also requires comprehensive plans to include a Priority Investment Element, which must include an analysis of likely Federal, State and local funds available for public infrastructure and facilities, including transportation systems. The Priority Investment Element must also recommend projects for expenditure of these funds over the next ten years, with recommendations coordinated with adjacent and relevant jurisdictions and agencies.



1. STATEWIDE TRANSPORTATION PLANNING

The *Department of Transportation Reform Bill (Act 114)* was signed into State law in June 2007. Act 114 is intended to encourage sound infrastructure investment decisions made within the context of the statewide planning process. Specifically, Act 114 requires SCDOT to establish a priority list of projects to be undertaken through the *Statewide Transportation Improvement Program (STIP)* and in consultation with metropolitan planning organizations using the following criteria:

1. Financial viability including a life cycle analysis of estimated maintenance and repair costs over the expected life of the project;
2. Public safety;
3. Potential for economic development;
4. Traffic volume and congestion;
5. Truck traffic;
6. Pavement quality index;
7. Environmental impact;
8. Alternative transportation solutions; and
9. Consistency with local land use plans.

In recent years, the State of South Carolina and SCDOT have demonstrated their commitment to meeting the on-going challenge of providing better and safer accommodations for people who choose walking or biking instead of using motor vehicles for recreation or to reach their destinations. In February 2003, the SCDOT Commission approved a resolution affirming that bicycling and walking accommodations should be a routine part of the Department's planning, design, construction and operating activities, and will be included in the everyday operations of its transportation system.

2. REGIONAL TRANSPORTATION PLANNING

The *Santee Lynches Regional Council of Governments (SLRCOG)* is responsible for transportation planning in the rural portion of the Santee-Lynches Region that includes Clarendon and Lee Counties and the non-urbanized portions of both Kershaw and Sumter Counties. However, proximity to the expanding Columbia metropolitan region increasingly impacts the western area of Kershaw County. 2010 Census data revealed that the urbanized area around the City of Columbia now extends to U.S. Highway 1, including Camden. While the City of Camden opted to remain with the SLRCOG for transportation planning, the Elgin area was added to the Central Midlands Council of Governments (CMCOG) region for transportation planning at that time. Amid the continued pressures of metro growth in the Capital region, the City of Camden will likely revisit the benefits of a move to the CMCOG region for transportation planning after the 2020 Census.

Transportation planning efforts for the SLRCOG and CMCOG were carried out during Fiscal Years 2013 and 2014 under the guidance of the Federal *Moving Ahead for Progress for the 21st Century*, or MAP-21. In 2016, the *Fixing America's Surface Transportation Act (FAST)* was signed into law, providing a five-year funding program through 2022. The FAST Act replaces MAP-21 for future federal-aid transportation planning and projects.



MAP-21 included provisions to make Federal surface transportation planning more streamlined, performance-based, and multimodal, and to address challenges facing the U.S. transportation system, including improving safety, maintaining infrastructure condition, reducing traffic congestion, improving system efficiency and freight movement, protecting the environment, and reducing delays in project delivery. The FAST Act builds on the changes initiated under MAP-21 by improving mobility on America's highways, creating jobs and supporting economic growth, and accelerating project delivery and promoting innovation.

Under the FAST Act, States are required to establish performance targets that reflect each of the performance measures established by the U.S. Department of Transportation. FAST provides performance measures under eight national goal areas including safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, reduced project delivery delays, and public transit infrastructure condition.

The primary responsibilities of all designated transportation planning agencies are to: 1) develop a *Long Range Transportation Plan* (LRTP), which is, at a minimum, a 25-year transportation vision for the metropolitan area; 2) develop a *Transportation Improvement Program* (TIP), which is the agreed-upon list of specific projects for which federal funds are anticipated; and 3) develop a *Planning Work Program* (PWP), which identifies in a single document the annual transportation planning activities that are to be undertaken in support of the goals, objectives, and actions established in the Long-Range Transportation Plan.

a. LONG RANGE TRANSPORTATION PLAN

The Santee-Lynches Regional Council of Governments (SLRCOG) is responsible for the development of a multi-modal *Long Range Transportation Plan* (LRTP) for the non-urbanized portions of the region, including the City of Camden. Updated every five years, the LRTP serves as a guide for the investment of local, state and federal resources, as well as a component of the South Carolina Statewide Transportation Improvement Program (STIP). The 2040 LRTP was adopted in June 2014 and most recently revised in May 2017. A new LRTP with a 2045 horizon year will be adopted by June 2019.

Development of transportation projects in the region is undertaken through a process that involves multiple agencies, as well as key stakeholders and the general public. Public outreach includes a variety of small and large group meetings and the use of outreach media including surveys. The Regional Transportation Advisory Committee (RTAC) provides locally-based input and recommendations to the SLRCOG Board of Directors. The RTAC includes representatives from City and County planning, engineering and economic development; interagency/advocacy groups; Santee Wateree Regional Transit Agency (SWRTA); Columbia Area Transportation Study (COATS); Sumter Area Transportation Study (SUATS); and Shaw Air Force Base. Recommended projects developed through the RTAC review process are rated and ranked in accordance with Act 114 before forwarding to the SLRCOG Transportation Committee for consideration and recommendation to the full COG Board. The SLRCOG Board is the regional policymaking body for the four-county region, and includes representatives from the member counties and major municipalities. The Transportation Committee is comprised of eleven members appointed from the full 29-member SLRCOG Board.



The 2040 LRTP identified a number of transportation improvement projects for which cost estimates and potential funding sources have been determined, including 15 projects in the City of Camden (Table 8-7). All transportation infrastructure projects identified and prioritized in the LRTP, including the projects in Camden, are considered “fiscally constrained” with funding based on anticipated Guideshare program funds as well as any local funds that are designated for transportation improvements. The LRTP also lists ranked projects for which funding is yet to be identified. These projects could be considered if additional funding becomes available. Included in the current listing for the Camden area are four system improvement projects, two road widening projects, and six active transportation projects (trails, greenways, sidewalks, etc.), as well as transit projects that would add fixed-route service in the Camden area and a SWRTA satellite office in the County.

TABLE 8-7. SLRCOG LRTP 2040 CAMDEN AREA TRANSPORTATION IMPROVEMENT PROJECTS

L RTP RANK	SEGMENT/DESCRIPTION (LRTP Project #)	LENGTH (MILES)	PURPOSE AND NEED
INTERSECTION IMPROVEMENTS			
4	U.S. Hwy. 1 at Springdale Dr. (1004)	---	Alleviate traffic congestion
5	U.S. Hwy. 1 at Market St. and Little St. (1005)	---	Access reconfiguration, add two-way turn lane, revise pavement marking on U.S. Hwy. 1
5	U.S. Hwy. 1 at Fair St. (1006)	---	Add left turn lanes on U.S. Hwy. 1
7	U.S. Hwy. 1 and Mill St. (1007)	---	Safety improvements
8	U.S. Hwy. 521 and Black River Rd. (1008)	---	Safety improvements
14	U.S. Hwy. 521 and Liberty Hill Rd. (1015)	---	Roundabout
SYSTEM IMPROVEMENTS			
1	U.S. Hwy. 1 segments from York St. to Wateree River; Campbell St. to Mill St.; and S.C. Hwy. 34 to Academy Dr. (2027)	5.87	Make corridor uniform with appropriate turn lanes, connect bike lanes along the corridor
2	U.S. Hwy. 1 from S.C. Hwy. 34 to Town of Bethune (2028)	18.80	Improve/add shoulders
SAFETY PROJECTS			
2	Black River Road from U.S. Hwy. 521 to Mt. Olivet Rd. (2003)	2.75	Improve safe access for vehicles/pedestrians along Black River Road and U.S. Hwy. 521 intersection
ACTIVE TRANSPORTATION PROJECTS			
1	Sidewalk installation on Haile St. from Roberts St. to U.S. Hwy. 1 (4007)	1.6	Sidewalks with shared lane markings/bike lane (2013 Kershaw County Bicycle/Pedestrian/ Greenway Master Plan)
TRANSIT PROJECTS			
1	Right-size SWRTA fleet and replace vehicles at end of useful life (5001)	---	
CORRIDOR/PROJECT FEASIBILITY STUDY PROJECTS			
1	U.S. Hwy. 1 - Wateree River to Woodward Airport (6002)	7.30	U.S. Hwy. 1 is most heavily traveled corridor in the SL region; several proposed projects along the corridor are identified in the LRTP
2	I-20 Exit 98 and Black River Rd. (6003)	4.20	I-20 Exit 98 taxed by increased development and traffic flow; inconsistent flow of vehicles at I-20 exit ramps; commercial access safety concerns along U.S. Hwy. 521 exit corridor
3	Black River Rd. from U.S. Hwy. 521 to Cleveland School Rd. (6009)	2.00	
6	S.C. Hwy 97 - Camden to Lake Wateree (6007)	8.20	

SOURCE: SLRCOG LRTP, APRIL 2017



b. TRANSPORTATION IMPROVEMENT PROGRAM

The SLRCOG *Transportation Improvement Program* (TIP) is the agreed-upon multi-year list of specific projects funded using federal dollars. Required by federal and state law, the TIP translates recommendations of the Long Range Transportation Plan into a program of prioritized, tangible transportation improvements for the Santee Lynches region. The TIP outlines the planning objectives, priority status, and funding sources for all projects scheduled for construction over a six-year period. The projects identified in the TIP for each COG or Metropolitan Planning Organization

CAMDEN TRUCK ROUTE PROJECT



(MPO) are evaluated and incorporated into the Statewide TIP by the SCDOT Commission. The FY 2017-2022 TIP for the Santee Lynches region was adopted in June 2016. The TIP may be amended throughout the year, making it a fluid document. It is therefore important that the most recently adopted TIP, including amendments, be referenced for the most up-to-date information related to the rural transportation planning program and projects in the Santee Lynches Region.

Table 8-8 lists the TIP projects located in or serving the City of Camden. Project descriptions reflect the SCDOT highway system categories of interstate, non-interstate, non-interstate national highway system (NHS), non-NHS primary (U.S. highways and S.C. designated routes), federal aid (FA), and non-FA secondary highways. *Guideshare* projects are federally funded through allocations to the SLRCOG for system upgrades and approved by the SCDOT Commission. Only roads that contribute significantly to interstate commerce (classified at a minimum as a collector road) are eligible for Guideshare funding. Guideshare project funding is distributed statewide among the ten councils of government based on their rural proportion of the State’s population and among the eleven MPOs based on their urban proportion of the State’s population.



TABLE 8-8. SLRCOG FY 2017-2022 TIP CAMDEN AREA PROJECTS

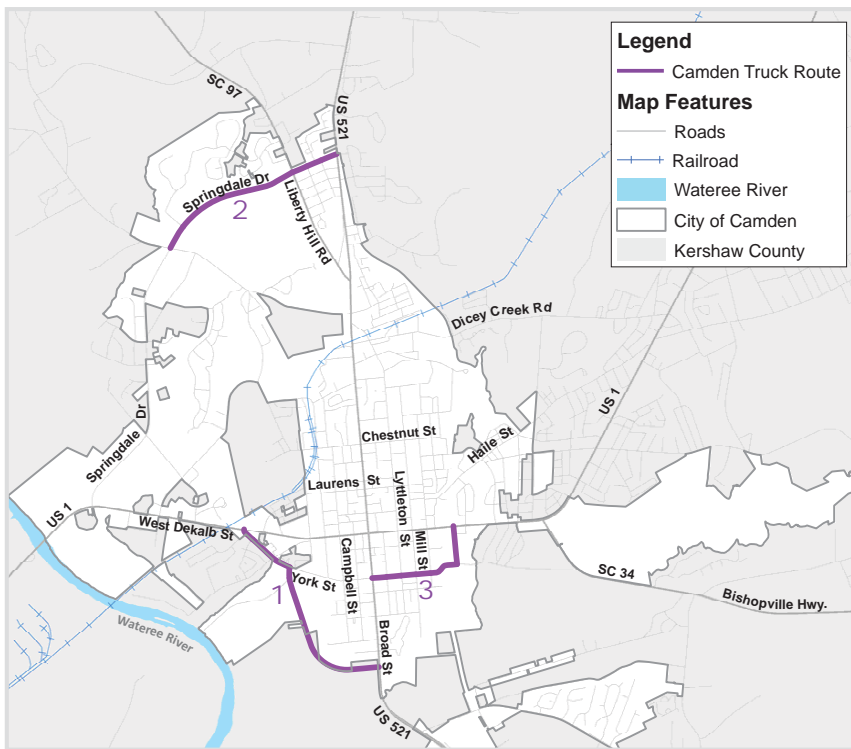
PROJECT DESCRIPTION	BUDGETED FUNDS AND STATUS BY FISCAL YEAR
SYSTEM UPGRADE - GUIDESHARE	
Camden Truck Route, Segment 1	\$447,000 in FY 2017 for planning & engineering
Camden Truck Route, Segment 2	\$656,000 in FY 2017 for right-of-way acquisition
Camden Truck Route, Segment 3	\$7,394,000 in FY 2017 for construction
PAVEMENT RESURFACING AND RECONSTRUCTION	
Federal Aid (FA) Secondary	\$1,334,000 in FY 2017, \$1,354,000 in FY 2018; and \$347,000 in FY 2019 for construction
Non-FA Secondary	\$2,585,000 in FY 2017 and \$2,528,000 in FY 2018 for construction
Non-Interstate National Highway System (NHS) - National Highway Performance Program	\$1,398,000 in FY 2017 and \$303,000 in FY 2019 for construction
Non-Interstate NHS - State Financial Program (SFP)	\$665,000 in FY 2017 and \$321,000 in FY 2018 for construction
Non-NHS Primary - Surface Transportation Block Grant Program	\$1,298,000 in FY 2017 and \$456,000 in 2019 for construction
Non-NHS Primary - SFP	\$1,880,000 in FY 2018 for construction
BRIDGE PROJECTS	
I-20 east bound and west bound over Wateree Swamp Overflow and the Wateree River	\$3,549,000 in FY 2018 for planning & engineering
U.S. Hwy. 1 at S.C.L. Railroad	\$120,000 in FY 2018 for right-of-way acquisition; \$5,880,000 in FY 2019 for construction
U.S. Hwy. 521 over old railroad bed	\$200,000 in FY 2017 for planning & engineering; \$50,000 in FY 2018 for right-of-way acquisition; \$800,000 in FY 2019 for construction
U.S. Hwy. 521 over Big Pine Tree Creek bridge replacement	\$1,578,000 in FY 2017 for planning; \$113,000 in FY 2020 for right-of-way acquisition; \$7,133,000 in FY 2021 for construction
TRANSIT	
Kershaw County COA/FTA Vehicle Replacement - enhanced rural senior mobility	\$59,000 in FY 2017 for transit vehicle acquisition
Kershaw County DSN Mass Transit Project Vehicle Replacement	\$59,000 in FY 2017 for vehicle acquisition
MISCELLANEOUS	
Sweet Gum Connector Trail - Phase 1	\$125,000 in FY 2017 for construction

SOURCE: SLRCOG FY 2017-2022 TRANSPORTATION IMPROVEMENT PROGRAM, MAY 2018

The **Camden Truck Route** project is being constructed to provide improvements that will reduce delays, improve safety, and encourage trucks to use the alternate routes instead of traveling through downtown Camden via Broad Street. The truck routes are designed as urban major arterial roads, and will generally be improved by adding a 15-foot center two-way turn lane, sidewalks, bike lanes, and curb and gutter. The project will increase lane widths to 12 feet and add a paved shoulder for bicyclists and emergency use through the undeveloped/wetland areas where there are no significant turning movements to justify a center turn lane. Turn bays will be added for isolated side streets or driveways where warranted, while intersections and road alignments will be improved to meet SCDOT standards. The total estimated cost for the Camden Truck Route project is \$30 million. Three segments of existing truck routes have been identified for improvements as described below and depicted in Map 8-4.



- Segment 1 is approximately 1.7 miles in length and begins at U.S. 521 (Broad Street), follows Ehrenclou Drive, turns west on Chestnut Ferry Road, and ends at U.S. 1/US 601 (DeKalb Street). Section 1 is under construction, with completion expected in December 2018.
- Segment 2 is approximately 1.6 miles in length and begins at Knights Hill Road, following Boykin Road and ending at U.S. 521/601. Section 2 is also under construction, with completion anticipated in September 2018.
- Segment 3 is approximately 1.0 miles in length and begins at U.S. Highway 521 (Broad Street), follows York Street, turns north on Rippondon Street, and ends at U.S. Highway 601/U.S. Highway 1 (DeKalb Street). Segment 3 is under construction with completion expected in December 2018.



MAP 8-4. CAMDEN TRUCK ROUTE PROJECT

SOURCE: CITY OF CAMDEN PLANNING DEPT., AUGUST 2017

c. RURAL PLANNING WORK PROGRAM

The most recent SLRCOG *Rural Planning Work Program* for FY 2017-2019 (RPWP) was adopted in August 2017 and describes the various tasks to be performed in Fiscal Years 2017-2018 and 2018-2019 by objective to develop, administer, and carry out associated transportation planning functions. Program areas include general administration, plan and program management, study of travel patterns, GIS data collection and analysis, general research, freight and rail planning, public transportation planning, livability initiatives and active transportation alternatives, transportation system performance monitoring, and public participation. The overall budget and resources cover planning support provided by SLRCOG for the entire region rather than specified by county. The total budget for the 2017-2019 RPWP is \$106,250, of which \$85,000 is expected to be provided by the SCDOT and \$21,250 by local match funding.



d. BLACK RIVER ROAD CORRIDOR STUDY

There is significant potential for growth in the Black River Road corridor if properties develop as currently zoned. While growth has not been as high as originally expected over the past decade, the combination of continued build out of neighborhoods along Black River Road, new residential development, expansion of the Steeplechase Industrial Park, expansion of the Central Carolina campus, and the new Applied Technology Education Campus will generate additional traffic that will increase congestion and create additional safety issues unless improvements are made to the roadway infrastructure. There are also existing traffic concerns along U.S. Highway 521 that should be addressed due to the high number of crashes and associated injuries and fatalities. In December 2017 a corridor study commissioned by the City of Camden and Ker-shaw County was completed that provides a holistic approach to growth and traffic issues in the area over the next twenty years. Table 8-9 provides the *Black River Road Corridor Study* recommendations for short term and long term roadway infrastructure improvements.

G. TRANSPORTATION FUNDING OPPORTUNITIES

Securing funding for needed transportation improvements is a top priority for South Carolina communities. Amid tightening budgets at the local level as state and federal funding dwindles, communities must seek alternative funding resources for much needed transportation projects including road maintenance, paving, bridge repair, transit, sidewalks, greenbelts, connecting trails, and mitigating traffic issues. The following sections discuss options available to local governments in South Carolina.

1. SCDOT TRANSPORTATION ALTERNATIVE PROGRAM

The City of Camden is eligible for transportation enhancement funding under the *Transportation Alternative Program* (TAP), formerly known as the Transportation Enhancement Project Program administered by SCDOT. TAP projects are federally-funded, community-based projects that provide opportunities for local governments to pursue non-traditional transportation related activities such as pedestrian and bicycle facilities and pedestrian streetscaping projects that might not otherwise be possible.

The TAP grant program provides funding on a reimbursement basis as part of the Federal-aid Highway Program funded through the FAST initiative. Costs are eligible for reimbursement only after a project has been approved by the State Department of Transportation or a Metropolitan Planning Organization and the FHWA division office. Eligible project areas authorized in FAST for the Transportation Alternatives Program and the SCDOT Commission include pedestrian and bicycle facilities and streetscaping projects. Eligible costs include preliminary and final engineering work such as project development, environmental work, cost estimates, construction plans, utility relocations, construction engineering, construction costs, and right-of-way acquisition. TAP funds generally account for 80% of the total project cost, with local governments required to provide a 20% match.

Available SCDOT program funding is provided in two population-based divisions. Urbanized areas with a population of more than 200,000, also known as a Transportation Management Area (TMA), are eligible to compete for a share of nearly \$3 million designated for urbanized areas of the State. Areas of the State with a population greater than 5,000 other than urban areas, known as Non-Transportation Management



Areas (NTMA), have a designated funding pool of \$1.83 million. The SCDOT has also designated \$2.6 million for NTMAs with a population of less than 5,000. The City of Camden, with a population of 6,931, is currently eligible in the second category. Projects proposed by governmental bodies located in areas outside of Transportation Management Areas, such Camden, are considered under the statewide program, with distribution of funds determined by the SCDOT Commission. Such projects are limited to a maximum of \$400,000.

TABLE 8-9. BLACK RIVER ROAD STUDY RECOMMENDATIONS

RECOMMENDED SHORT TERM IMPROVEMENTS	RECOMMENDED LONG TERM IMPROVEMENTS
Construct a new road connecting Black River Road with Century Boulevard under two-way stop control with left turn lanes	Install a traffic signal when warranted at the intersection of Black River Road and a new road connecting Black River Road with Century Boulevard
Install a traffic signal when warranted at the intersection of Black River Road and U.S. Hwy. 521	Convert Black River Road to a 4-lane divided section between U.S. Hwy. 521 and Steeplechase Industrial Park
Remove weave between I-20 Westbound off-ramp and Century Boulevard by bringing off-ramp right turn to the intersection under stop control	Install a traffic signal when warranted at the intersection of Black River Road and Steeplechase Industrial Boulevard
Install a traffic signal when warranted at the intersection of U.S. Hwy. 521 and I-20 Eastbound ramps	Install signals at both Century Boulevard and Wall Street intersections with U.S. Hwy. 521 when warranted to assist with U-turns
Convert the intersections of Century Boulevard and Wall Street to only allow left turns from U.S. Hwy. 521 and right turns from the side streets	

SOURCE: AECOM, BLACK RIVER ROAD CORRIDOR STUDY, DECEMBER 2017

Five projects in Camden have been awarded funding under the predecessors to the Transportation Alternatives Program since the program inception in 1992. Of the five, three projects involved renovation or preservation of historic sites and would no longer be considered eligible under the newly updated Transportation Alternatives Program. Table 8-10 provides a listing of projects that received funding under the earlier iterations of the program.

TABLE 8-10. CITY OF CAMDEN TRANSPORTATION ALTERNATIVES (ENHANCEMENT) PROJECTS

PROJECT DESCRIPTION	YEAR	FUNDS		
		FEDERAL	LOCAL	TOTAL
U.S. Highway 521 - Streetscape	1996	\$350,000	\$636,500	\$986,500
Camden Southern Gateway - Landscape	2002	\$ 40,051	\$ 10,013	\$ 50,064
Robert Mills Courthouse - Restoration	2004	\$ 45,200	\$ 11,300	\$ 56,500
Rectory Square and Monument Square - Renovations	2005	\$161,683	\$ 40,400	\$202,083
Battle of Camden National Historic Landmark - Preservation and Interpretation	2005	\$200,000	\$ 50,000	\$250,000

SOURCES: CITY OF CAMDEN PLANNING DEPT., AUGUST 2017; SCDOT, LOCAL PUBLIC AGENCIES ADMINISTRATION, APRIL 2009

2. LOCAL OPTION (PENNY) SALES TAX

Section 4-37-30 of the South Carolina Code of Laws empowers counties to levy, by ordinance, a special sales and use tax as a source of revenue for highways, roads, streets, bridges, mass transit systems, greenbelts, and other transportation-related facilities including, but not limited to, drainage relating to highways, roads, streets, bridges, and other transportation-related projects. The tax must not exceed one



percent, which equates to an additional penny on every dollar spent, and the tax must be approved by the public through a referendum. A number of South Carolina counties including Aiken, Berkeley, Charleston, Dorchester, Florence, Horry, Newberry, Orangeburg, Richland, Sumter, and York have implemented a penny sales tax to address capital projects and transportation needs. The key advantage to such a tax is that out-of-county workers and residents and tourists who shop in the receiving county also contribute to the tax revenues through their purchases, helping to offset the costs of roads and other facilities.

Under the legislation, counties that implement a one cent sales tax must share the proceeds with their municipalities using a formula based on population, must specify a period of time to collect a set amount of money for the identified projects (not to exceed 25 years or the length of payment for the specified projects), must appoint a commission to consider proposals for funding capital projects, and must formulate the referendum question for public vote. The commission must include three representatives appointed by the county council and three members appointed by the county's municipalities, using population to determine the formula for municipal appointments. In addition to funding transportation facilities, revenue from the one cent tax may also be used for civic, educational, and cultural facilities; water and sewer projects; flood control and stormwater projects; and dredging, dewatering, and constructing spoil sites.

Kershaw County voters approved a one percent sales tax in 2016 to pay for school improvements in the Kershaw County School District. The tax will be levied for 15 years to pay for the \$125 million bond referendum adopted in tandem with the sales tax. Funds from this tax will not be used for transportation facilities or projects.

3. EXACTIONS

An *exaction* is a form of land use regulation that requires a developer to donate something for the public good in exchange for the right to develop property. Exactions aid in protecting the community from the costs of providing additional infrastructure associated with growth by sharing the cost with the new residents. Exactions provide a way for jurisdictions to pass a portion of the cost of public facilities on to a developer at the time the development begins, rather than later through the collection of tax revenues or service charges from new residents. Exactions are formal cost-sharing agreements between the developer and the local government to fund the additional community infrastructure needed to serve the new development.

There are several types of exactions that may be used by local governments for transportation facilities. A *dedication* requires that a developer donate land and/or facilities for public use. For example, a developer may be required to dedicate land for use as a trail or greenway for the residents of the development and connection to existing or future facilities outside of the development. A *fee-in-lieu* requires the developer to pay a fee instead of providing a public facility on-site. For example, the developer can choose to pay a fee rather than dedicate land for an on-site greenway or trail. This type of exaction provides greater flexibility to local governments to place facilities where they are most needed and appropriate. *Impact fees* are scheduled charges applied to new development to generate revenue for the construction or expansion of capital facilities located off-site of the new development, but that benefit the contributing development.

The *1999 South Carolina Development Impact Fee Act (S.C. Code § 6-1-910, et seq.)* allows counties and municipalities to impose by ordinance a requirement for payment of development impact fees by a land



developer as a condition of development approval. The Act defines a development impact fee as “a payment of money imposed as a condition of development to pay for a proportionate share of the cost of system improvements needed to serve the people utilizing the improvements.” System improvements are capital improvements to public facilities which are designed to provide service to a specified service area. Public facilities include water, wastewater, solid waste and stormwater services, roads, public safety, street lighting, capital equipment, and parks and recreation. Impact fee amounts must be based on actual improvement costs or reasonable estimates of the costs, as supported by sound engineering studies and generally accepted accounting principles. The process for adopting an impact fee ordinance begins with a resolution by council that directs the planning commission to conduct the necessary studies and recommend an impact fee ordinance developed in accordance with the *Impact Fee Act*. The Act requires detailed calculations to determine impact fees, maximum impact fees, and the developer’s proportionate share.

Several court cases have provided guidance in establishing exactions that are reasonable and defensible. First, there must be an “essential nexus,” or reasonable connection, between the infrastructure need and the new development (*Nollan v. California Coastal Commission, 1987*). This extends to the establishment of a reasonable connection between the expenditure of the fee collected and the benefits received by the development. Second, there must be a “rough proportionality” in both the nature and extent of the exaction and the impact of the proposed development (*Dolan v. Tigard, 2005*).

H. PUBLIC TRANSPORTATION

Affordable and reliable transportation is a necessity for all residents. However, the lower incomes and limited mobility common among special needs populations can magnify the importance of affordable and reliable transit options to maintain employment, receive support services, and access health care and other needed support programs.

Public transit is provided in a number of ways in South Carolina communities. *Fixed-route transit service* utilizes passenger vehicles operating on fixed routes and schedules. *Route deviation services* operate as conventional fixed-route bus services that allow buses to deviate from the route alignment to serve

destinations within a prescribed distance of the route. Passengers use the service by calling to request a pickup, or by telling the bus operator if they need to be taken off-route. A *demand response service* is a transit mode that includes passenger cars, vans, or small buses that operate in response to calls from passengers or their agents to the transit operator, who dispatches a vehicle to pick up the passengers and

PARATRANSIT VEHICLE





transport them to their destinations. *Complementary paratransit services* are required by the *Americans for Disabilities Act* for individuals with disabilities who are unable to use fixed-route transportation systems. These services must be origin-to-destination (demand response) or on-call demand response to an accessible fixed route. *Commuter bus systems* primarily connect outlying areas with a central city through bus service that operates with at least five miles of continuous closed-door service. Such services usually operate using motor coaches and feature peak scheduling, multi-trip tickets, and multiple stops in outlying areas with limited stops in the central city.

1. SMARTRIDE

The *SmartRide* Commuter-Focused Transit Program is a partnership between SCDOT, the Santee Wateree Regional Transit Authority (SWRTA), the Kershaw County Council on Aging, and local communities, businesses, and commuters seeking a viable alternative to the traditional single-occupant vehicle commute. The Santee-Wateree RTA Camden/Lugoff SmartRide service was initiated in 2008. Camden/Lugoff SmartRide routes originate in four locations – the United Way/One Stop offices on DeKalb Street, the Camden Post Office at the corner of DeKalb and Broad streets, the Springdale Plaza on Springdale Drive, and the Sunrise Inn on U.S. Highway 601 in Lugoff. The route includes eleven destinations (or stops) at key locations throughout the downtown Columbia area, including the Statehouse, Fontaine Business Center, Palmetto Richland Memorial Hospital, the Central Midlands RTA Transfer Station, and the State offices of the Department of Social Services (SCDSS), Department of Health and Environmental Control (SCDHEC), Department of Transportation (SCDOT), and Department of Natural Resources (SCDNR). Riders leave the Camden area between 6:00 a.m. and 7:00 a.m. and begin the return trip from the Capitol area stops just after 4:00 p.m. and 5:00 p.m. The fare for the Camden/Lugoff SmartRide is \$2 per one-way trip or \$20 for a weekly pass.

2. MIDLANDS RIDESHARE

Camden commuters also have access to *Midlands Rideshare* – a web-based program designed to provide a suite of transportation alternatives for residents of the Midlands region, including: 1) Matching prospective riders for car pools; 2) Potential to expand travel options by vanpool based on the number of interested participants; and 3) Providing an option to bike from SWRTA bus stops to individual destinations (buses are equipped with bicycle racks).

Midlands Rideshare is available for use by Camden and Kershaw County residents who regularly travel to destinations in the Midlands, and also by organizations to match co-workers traveling from similar destinations. Users create an online commuting profile to find carpool matches and smart commute options. The program provides matches along a corridor, between origin and destination, or within a set distance from each end of the trip. The service produces maps, directions, and customizable email correspondence templates that assist users in making travel arrangements.

3. OTHER TRANSPORTATION OPTIONS

In past years, transportation options for Kershaw County residents with specialized needs were also provided by SWRTA, including curb-to-curb demand response transportation to and from medical appointments for individuals with disabilities and special needs. The *Kershaw County Board of Disabilities*



and Special Needs (BDSN) contracted with SWRTA to provide transportation to the Kershaw County Activity Center for qualified persons with disabilities and special needs. Transportation was also provided to Kershaw County Council on Aging Senior Center participants in Camden and Bethune. Unfortunately, SWRTA and the non-profit agencies that contracted with them for transportation services had to discontinue these services because they were no longer cost-effective. Although FY 2010-2011 ridership through SWRTA and contracted agencies exceeded 47,200, it dropped to only 10,727 in FY 2014-2015.

The SCDOT Office of Public Transit offers Federal Transit Administration *Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program* funds to local Disabilities and Special Needs Boards and Councils of Aging to fund the purchase of vehicles and the provision of services to provide transportation for elderly and disabled residents. Kershaw County agencies can apply annually for these funds. Capital assistance is provided on an 85 percent federal share and 15 percent local match, while operating assistance is provided on a 50 percent federal share and 50 percent local match.

The *2017 West Wateree Transportation Study* noted recent efforts to reinstate mobility options for the elderly and persons with disabilities. SWRTA future plans include adding public transit routes in the rural area, installing bus stop signs and shelters, and re-establishing partnerships with agencies to provide affordable transportation services. These plans are dependent on funding availability from the Federal Transit Administration, the SCDOT Office of Public Transit, and local governments.

The *Assisted Rides Program* provides transportation to medical appointments, pharmacies, grocery stores, and other places of importance for senior adults (age 60 or older) and for adults aged 21 or older with a disability. The program operates between the weekday hours of 8:30 a.m. and 5:00 p.m. The free service is coordinated by SLRCOG and provided primarily by volunteers who drive their personal vehicles.

I. BICYCLE AND PEDESTRIAN

Well-designed systems of walkways and trails can provide residents with safe, inexpensive transportation alternatives to access jobs, education, and services. Alternative modes of travel can also help to improve air quality and reduce energy use. According to the 2011-2015 American Community Survey, 32 Camden residents, or only 1.1% of commuters, reported walking to work, and none reported riding a bicycle to work.

Information provided by SCDHEC lists multiple benefits of cycling or walking to destinations. In addition to reduced (or no) transportation cost, health benefits include a reduced risk of cancer, diabetes, stroke, and heart attack, along with weight loss and control (*Benefits of Alternative Transportation, 2010*). The sedentary lifestyle of many Americans is largely attributed to the fact that “walking and cycling have been replaced by automobile travel for all but the shortest distances” (*Journal of the American Medical Association, October 1999*). The U.S. Surgeon General reports that “being physically active is one of the most important steps that people of all ages and abilities can take to improve their health” (*Step it Up! The Surgeon General’s Call to Action to Promote Walking and Walkable Communities, 2015*). Adults can gain significant health benefits by getting at least 150 minutes of moderate intensity physical activity such as walking or biking each week (*Physical Activity Guidelines for Americans, 2008*).



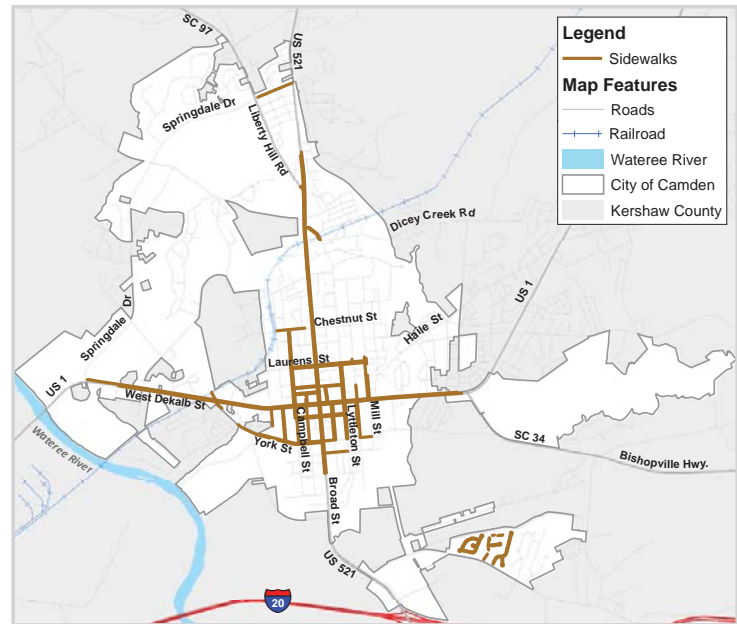
Pedestrian and bicycle routes can also provide access to essential services such as healthcare and stores and farmers markets that sell fresh, healthy food at affordable prices for City residents who do not have access to cars or public transportation.

1. SIDEWALKS

Sidewalks are generally found in more urbanized settings, particularly in downtown or commercial areas. A lack of, or deficient or unmaintained connected greenway, sidewalk and bicycle facilities are a leading barrier to biking or walking among residents. An additional 27 miles of sidewalks are proposed as priority projects in multiple locations throughout the County including the City of Camden under the *Kershaw County Bicycle, Pedestrian, and Greenways Master Plan*.

As in other municipalities established well before the advent of the automobile, the City of Camden’s sidewalk network is primarily located in the downtown area, as illustrated by Map 8-5. Sidewalks flank several major thoroughfares including U.S. Highway 1 (DeKalb Street) from Springdale Drive to Bishopville Highway and U.S. Highway 521 (Broad Street) from Stewart Street to Bull Street. A portion of Springdale Drive from Liberty Hill Road to U.S. Highway 521 (Broad Street) and roads in the Chestnut Hill, Eve’s Garden and Belmont subdivisions in the southeastern area of the City also include sidewalks. Sidewalks are required for any new local, collector or arterial street in Camden. However, local streets may have a sidewalk on only one side if approved by the Planning Commission.

MAP 8-5. SIDEWALK LOCATIONS IN THE CITY OF CAMDEN



SOURCE: CITY OF CAMDEN PLANNING DEPARTMENT, AUGUST 2017

2. COMPLETE STREETS

The S.C. Department of Transportation Commission passed a *Complete Streets Resolution* in 2003. The resolution noted that bicycle and pedestrian projects are eligible for funding through nearly all major federal aid funding programs, and that South Carolina jurisdictions are required to make bicycle and pedestrian improvement an integral part of their transportation programs where State and federal funding is utilized. Further, the resolution stated the strong commitment by SCDOT to improving conditions for walking and cycling, and that planning for walking and cycling should be a routine part of SCDOT’s planning, design, construction, and operating activities.

The City of Camden adopted a *Complete Streets* policy in 2011, based on the principal that roadways should be consistently designed with the needs and safety of users in mind. In addition to motor vehicles, roadways



should also accommodate pedestrians, bicyclists, wheelchairs, and transit vehicles. The Camden Complete Streets resolution acknowledges that public health experts encourage walking and bicycling to mitigate the epidemic of obesity in South Carolina. Creating walkable streets and lowering automobile speeds on roads also improves economic conditions for residents and business owners. The integration of sidewalks, bike facilities, transit amenities, and safe crossings into the initial design of street projects avoids the expense of retrofitting streets in the future.

Specific actions included in the Camden Complete Streets policy include:

1. Revision of established regulations, policies and operating practices, as deemed appropriate and feasible, so that transportation systems are planned, designed, constructed, and operated to make bicycling and pedestrian movements an integral part of the City's transportation planning and programming while promoting safe operations for all users.
2. Plan for, design, construct, and operate all City transportation improvement projects, unless a construction contract has been executed prior to the date of the resolution, to provide appropriate accommodation for pedestrians, bicyclists, transit riders, and persons of all abilities, while promoting safe operation for all users, as deemed appropriate and feasible.
3. Implementation of Complete Streets in a context-sensitive way to ensure that the character of the project area, values of the community, and needs of all users are fully considered.
4. Working with the SCDOT to incorporate a Complete Streets philosophy with projects that are completed within the City of Camden.
5. Completion of an evaluation of the Land Development Regulations relative to Complete Streets and propose revisions as soon as possible.

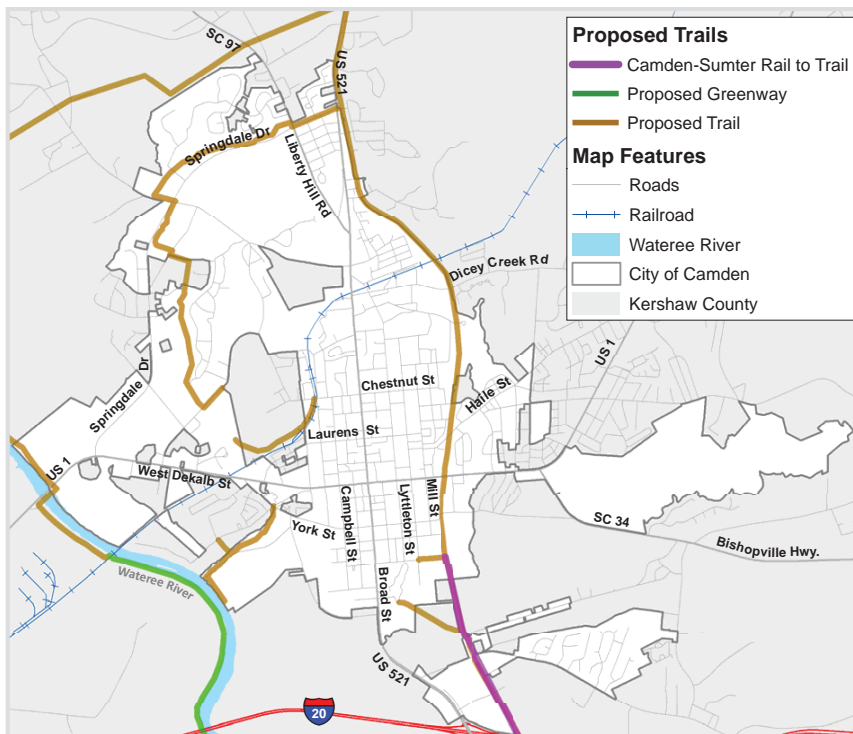
A number of initiatives have been undertaken to date that implement the actions outlined in the policy, including:

- The *Camden Truck Route* project is currently under development and is intended to encourage trucks to use the alternative route, instead of traveling through the downtown via Broad Street, facilitated by improvements that will reduce delays and improve safety.
- *Eat Smart Move More Kershaw County* (ESMMKC) purchased bicycle racks that were installed in 14 locations throughout the City and worked with SCDOT to install 46 *Share the Road* signs along identified bicycle routes throughout the City and the County. The signs include Quick Response (QR) bar codes that link to a mobile website that provides mapped bicycle routes (explorekershawcounty.com).
- ESMMKC received a 2012 grant from the Healthy South Carolina Initiative to develop a *Bicycle, Pedestrian, and Greenways Master Plan* for Kershaw County. A draft of the Plan has been completed and presented to Kershaw County and the City of Camden.
- The Camden City Planner has been included in plan review for transportation projects to ensure that Complete Streets techniques are incorporated where appropriate.
- The City's *Land Development Regulations* were reviewed and amended to include complete streets concepts such as requiring sidewalks for any new local, collector or arterial street and minimizing the use of cul-de-sacs.



3. TRAILS AND GREENWAYS

Trails are important recreational resources that can also provide alternatives to travel by car. While some trails provide access to parks or natural resources such as water bodies or scenic views, others provide linkages between residential areas and destinations such as work, shopping, entertainment, recreation, or other residential areas. The City of Camden currently has 3.2 miles of trails that include the 1.3 mile walking trail at Scott Park, the 0.7 mile walking trail in the Historic Camden Revolutionary War Park, the half-mile trail at Kendall Park, and the new 0.75 mile Sweet Gum Trail that connects Woodward Park to Scott Park.



MAP 8-6. PROPOSED TRAILS IN THE CAMDEN AREA

SOURCE: SLRCOG, MAY 2017

Analyses provided in the *Kershaw County Parks and Recreation Master Plan* indicate that the most critical need is for greenways and trails. The Plan noted that stakeholder interviews also supported the need for additional trails countywide and calls for an additional nine miles of greenways and trails in the Camden area. The Santee Lynches Regional Council of Governments incorporated the trails proposed in the Kershaw County Bicycle, Pedestrian, and Greenways Plan into its *Green Infrastructure Inventory + Plan*. A 36.7 mile Camden to Sumter Rail-to-Trail conversion is proposed for the Norfolk Southern Railroad line that is no longer in use and includes a 9.5 mile segment in the City of Camden. Additional proposed trail locations including proposed trails, connectors, and greenways are provided in Map 8-6.

4. BICYCLE ROUTES AND FACILITIES

Recreational cycling is very popular in Kershaw County. Since 2009, the City has worked with Kershaw County and *Eat Smart Move More Kershaw County* (ESMMKC) to promote a healthy lifestyle for local residents. The mission of the nonprofit group is “to coordinate collaborative and sustainable efforts to



support healthy eating and active living where Kershaw County residents live, learn, work, and play” with a vision “to make Kershaw County a place where every person has an equal opportunity to health and well being.”

In 2011, Kershaw County was one of five communities in South Carolina to receive a *Balancing Intake and Expenditure* (BITE) grant from *Eat Smart Move More South Carolina* to plan and implement community-based physical activity and nutrition efforts. The Kershaw County BITE project identified bike routes throughout the County and identified areas where *Share the Road* signs and bike racks were needed. The Kershaw County Chapter worked with the S.C. Department of Transportation and participating local governments to install 46 Share the Road signs along key bicycle routes throughout the County, including within the City of Camden. The City also worked with the Chapter to install 30 bicycle racks in 14 identified strategic locations throughout the City.

In 2012, ESMMKC received a grant from the *Healthy South Carolina Initiative* (HSCI) to develop a Bicycle, Pedestrian, and Greenways Plan for Kershaw County. The purpose of the HSCI grant program is to support community implementation efforts that work to eliminate health disparities and achieve health equity for all South Carolinians. The *Kershaw County Bicycle, Pedestrian, and Greenways Plan* combines past planning efforts with new research and public input. The Plan envisions a connected network of routes that provide safe and family-friendly access between neighborhoods and community destinations for all ages and abilities. A key goal of the Plan is to reduce pedestrian and cyclist fatality rates. The Plan includes recommended policies and programs that encourage usage of the bikeway, walkway, and trail network and promote safe bicycling, walking, and driving practices. Specific Plan goals include:

- Create a community network of on- and off-street walkways, bikeways, and trails designed for all ages, abilities, and user groups;
- Capitalize on existing scenic natural resources, including the Wateree River, recreation and historical amenities, and the attractiveness of downtown Camden;
- Improve the safety and comfort of bicycling and walking routes to destinations such as schools, parks, and libraries;
- Ensure that bikeways, walkways, and trails are clean, inviting, and family-friendly;
- Establish a connected network of primary bicycling and walking routes and spur trails that link to community destinations;
- Promote bicycling, walking, and trail usage for both recreation and transportation;
- Improve bicycle and pedestrian access between neighborhoods and outlets for healthy food.

Kershaw County and the City of Camden have been involved in several efforts in recent years to encourage bicycling as a transportation alternative and improve conditions in terms of safety and access for cyclists. Although there is currently only one dedicated bicycle lane in the City located along a 1.69 mile section of U.S. Highway 1, recreational cyclists have long been attracted to the area due to the extensive network of largely rural roads, including U.S. Highways 1 and 521.

5. SAFE ROUTES TO SCHOOL

South Carolina is the only state in which the State Department of Education owns, operates and maintains the fleet of school buses that serve all public schools. However, pick-up and drop-off services for



students within a 1.5 mile radius of schools is not required. Students living within this radius must rely on transportation provided by parents or friends or walk or ride their bicycles to school. If sidewalks, trails, or bike lanes are unavailable or inadequate, the trip to and from school can be a challenge, or even dangerous, for students.

Safe Routes to School (SRTS) is a growing national movement that brings together parents, schools, and community leaders to encourage students, including those with disabilities, to walk and bike to school. SRTS activities and resources focus on improving walking and biking conditions around schools while building healthy habits and safety skills. The S.C. Department of Transportation created the *Safe Routes to School Resource Center* in the fall of 2010 to help schools, school districts, and communities throughout South Carolina to build and sustain SRTS programs. SRTS Resource Center partners receive technical assistance and program support at no cost, with individualized plans developed for each partner school based on a safety assessment. The safety assessment is an interactive assessment of the physical environment with regard to school transportation and is a partnership between the S.C. DHEC Office of Healthy Schools and Division of Injury and Violence Prevention, the S.C. Safe Routes to School Resource Center, and the S.C. Department of Transportation. The assessment is conducted on a single day during a 1.5 hour time period to: 1) Assess the current infrastructure for walkers, bikers and car riders; 2) Identify potential recommendations for safety improvements; and 3) Observe school dismissal and discuss the safety of pick-up procedures.

Camden Elementary School and Camden Middle School became partners in the *Safe Routes to School (SR2S)* program in FY 2012-2013. Camden Elementary and Middle School both participate in the annual *SR2S Walk to School Day* that includes discussions on pedestrian safety. Middle School students also walk at school during Related Arts classes. Camden Elementary School completed a safety assessment in the spring of 2013 that includes recommendations for measures such as enforcement of school speed zones and no left turn areas, restriping of crosswalks, updating signage, repaving of sidewalks to meet ADA standards, updating the bicycle rack, recruiting volunteers to serve as “corner captains,” removal of brush and tree limbs along Lyttleton Street, and development of safety programs to raise awareness of child passenger safety, child pedestrian safety, and bicycle safety. A new Camden Elementary School is under construction, with completion anticipated in 2019. Many safety recommendations from the current site were considered in the layout of the new school site.

J. PARKING

Adequate parking is often a challenge in communities, particularly in more urbanized areas. If too little parking is provided, it can contribute to traffic congestion as motorists circle destinations looking for a space. If too much parking is required, the landscape can become dominated by vacant parking lots and unused spaces.

Most of the parking in the City of Camden is directly associated with specific uses such as residences, businesses, government facilities, or industries. However, the City has more than 440 public parking spaces in the downtown area, including two public parking lots – one located at the corner of Rutledge Street and Commerce Alley (58 spaces) and the other in the new Town Green (99 spaces) on Rutledge and Market Streets (Map 8-7). Public parking is also provided along Broad Street (77 spaces), DeKalb Street (46 spaces),



Rutledge Street (114 spaces), Little Street (46 spaces), and Rutledge Street/ Arthur Lane (35 spaces).

The City Zoning Ordinance prescribes minimum parking requirements based on the type of use. For instance, most retail trade establishments must have a minimum of one parking space per 350 square feet of gross floor area, while doctor and dentist offices must have one parking space per 150 square feet of gross floor area.



MAP 8-7. PUBLIC PARKING AREAS

SOURCE: CITY OF CAMDEN PLANNING DEPARTMENT, AUGUST 2017

K. AIRPORTS

General aviation services are provided at *Woodward Field*, located three miles northeast of the City. Originally dedicated in 1929, the Airport includes 396 acres and is owned and operated by Kershaw County (Map 8-8). Woodward Field has two paved runways – a lighted 5,000’ by 100’ runway and a 2,998’ by 100’ crosswind runway. Available services at the Field include charter service, jet and 100 LL fuel, Unicom, aircraft repair, and tie downs. While there are no scheduled airline operations at the Field, it is a very active facility. Located in the terminal building, the Camden Jet Center is a fixed-base operator (FBO) providing fuel services, flight planning, weather services, and a courtesy car. Aircraft Maintenance Services is also located on the property and is a full-service aviation maintenance facility providing inspection and repair work for aircraft ranging from small planes to executive business jets and turboprop aircraft, as well as restoration and repairs for vintage planes. The field is also home to *LifeNet*, a commercial emergency helicopter transport operation that serves Camden residents.

The *Columbia Metropolitan Airport (CAE)* is located 33 miles and 45 minutes southwest of Camden in Lexington County. CAE serves more than one million passengers and 1.3 million tons of cargo annually through four scheduled passenger carriers and numerous freight carriers. CAE offers 30 non-stop flights to



nine major airports daily and is the site of a United Parcel Service (UPS) southeast regional air cargo hub. Air operations are conducted on an 8,600' x 150' runway and an 8,000' x 150' runway. A 108-acre duty-free, quota-free Foreign-Trade Zone (FTZ 127) is also located at the airport. Both domestic and foreign goods can be brought to the FTZ for assembly, manufacture, display, storage or processing without formal Customs entry. Duty payments not required until the merchandise leaves the zone for domestic consumption.

The *Charlotte Douglas International Airport* (CLT), located 85 miles north of Camden, is one of the nation's top ten busiest airports, providing international and domestic flights to more than 44 million passengers each year. CLT opened in 1936 and processes approximately 130,000 tons of cargo a year through 25 carriers, including nine passenger carriers (*U.S. Bureau of Transportation Statistics, 2017*). Air operations are conducted on four runways that are all 150 feet in width with lengths that range from 7,501 feet to 10,000 feet. The Airport announced plans in 2012 to build a new 12,000-foot runway that will enable nonstop departures to Europe and the Pacific Rim as a component of its *Destination CLT Master Plan*. The project is scheduled to begin in 2020.

Access to large cargo and commercial facilities is also available approximately two hours northwest at the *Greenville-Spartanburg International Airport* (GSP). GSP began operation in 1962 and serves more than 1.8 million passengers and handles more than 30,000 tons of cargo annually. Six major airlines offer 49 non-stop average daily departures to 15 major cities and 18 airports across the nation. Air operations are conducted on an 11,001 foot x 150 foot runway. The north end of the airport is home to a 120,000 square foot FedEx facility completed in 2001.

L. RAIL AND SHIPPING

In today's global economy, commercial transportation is critical to a region's potential for business and industrial development. Time sensitive transportation services are increasingly important to gaining a competitive advantage in manufacturing and service-based industries. Transportation options for the mass transport of passengers are also growing in importance, as travelers seek alternatives to travel by individual automobile, whether for short commutes or long trips. Convenient and efficient connectivity to areas nationwide and overseas is attractive to businesses and industries, serving as an incentive for economic development and contributing to the quality of life for area residents.

1. RAILROADS

When completed in 1833, the South Carolina Railroad stretched 136 miles from the Port of Charleston to Augusta, Georgia. The Camden branch was completed in 1848, becoming a key factor in the early expansion of tourism in the area and the development of the area as a popular winter destination for wealthy northerners. A Norfolk Southern Railroad line that ran north to south in the eastern area of the City was abandoned in 1935.

Today, rail service in the Camden area is provided by the *CSX Railroad*. As shown in Map 8-8, the CSX rail line runs east to west through the City and the towns of Bethune and Elgin. This CSX rail line is part of the "Hamlet Subdivision" of the larger Florence service lane that forms a strategic corridor for the southern freight market area. The route provides connections to Columbia and Florence in South Carolina; Raleigh,



North Carolina; the S.C. Inland Port in Greer; and major port facilities in Wilmington, Charleston, and Savannah. Kershaw County is also served by Amtrak passenger service on its Silver Service/ Palmetto line. The historic Camden Depot built in 1937 and located on West DeKalb Street provides limited services to passengers.

Unfortunately, rail lines can pose potential conflicts with motor vehicle traffic at grade crossings. The Federal Railroad Administration’s (FRA) Office of Safety reports that there are 15 at-grade CSX roadway-railroad crossings in the City of Camden, of which 10 cross publicly-owned roads. Five are private rail crossings that are on roadways not open to use by the public or maintained by a public authority. Examples of private crossings include farm or industrial crossings that provide access between tracts of land or facilities lying on both sides of the railroad and residential access crossings from another road to a private residence. For at-grade crossings, vehicles must go directly over the railway.

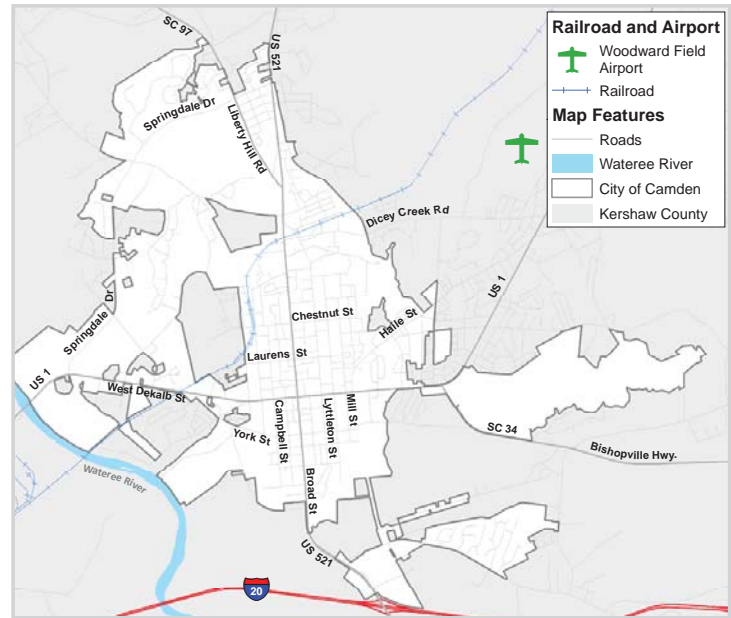
The type of safety crossing warning device used at rail crossings is based on a Federal Railroad Administration formula that includes highway and rail traffic volume. In more urbanized areas with higher traffic volumes, most crossings are public and include some type of safety warning system such as flashers and/or gates. Private crossings in urban areas typically serve manufacturing or large businesses and generally incorporate passive warning systems such as railroad crossbucks or stop signs. In more rural areas where crossings serve lower traffic volumes generated by farms and residential properties, warning equipment is often limited to signs or flashers.

Railroad safety is an important issue in transportation planning. There has been only one railway accident reported in the Camden area in the past decade (*FRA Office of Safety, 2017*). In 2007, a freight train struck and killed a pedestrian who was attempting to cross tracks at the Chestnut Street crossing.

2. TRUCKING

Truck transport “is a cornerstone to the national freight transportation system,” with trucks transporting 70% of all the tonnage in the United States to and from rail, water and air transportation hubs, as well as providing direct service between destinations for the transport of goods and materials (*South Carolina Statewide Freight Plan, 2014*). Lower operating costs and a higher level of service customization can make shipping by truck a cost effective and attractive alternative to shipping by rail or air. Truck movements in South Carolina totaled more than 300 million tons valued at \$506.2 billion in 2011. Primary freight corridors include the State’s five interstates (I-20, I-26, I-77, I-85, and I-95), with major U.S. and State highways also accommodating significant freight flows.

MAP 8-8. RAILROAD LINES AND AIRPORT



SOURCE: KERSHAW COUNTY INFORMATION SERVICES DEPARTMENT, MAY 2017



Camden's strategic location along I-20 and near other major transportation corridors provides an attractive intermodal freight network to a number of industries. Interstates 26 and 77 are close by and accessible within 33 miles and 40 miles, respectively, via I-20. Access to I-95 is 46 miles east of the City. The portion of I-20 at the southern border of the City was used to transport between 10 and 25 million tons of freight in 2011. The portion of U.S. Highway 1 from I-20 north through Camden and Kershaw County was used to transport from one to five million tons of freight, and S.C. Highways 97 and 34 and U.S. Highways 521 and 1/601 in Camden and Kershaw County were used to transport up to one million tons of freight in 2011. U.S. Highways 1 and 521 are important corridors for logging trucks that travel between extensive forested lands in nearby rural areas to processing facilities in lower Richland County and York County.

The extensive freight movement through the City of Camden is the impetus for the *Camden Truck Route Project* currently underway. This project will provide a faster, safer travel route for trucks to bypass the City instead of driving through on Highways 1 or 521.

3. PORTS

The *South Carolina State Ports Authority (SPA)* was established by the South Carolina Legislature in 1942. SPA facilities handled 1.12 million containers and moved one million tons of non-containerized cargo at its seaport terminals in Charleston and Georgetown and the inland port in Greer in 2015. The SPA and the State of South Carolina plan to invest \$2 billion in ports and port-related infrastructure in the coming decade.

Port service for the Camden area is available less than three hours southeast (125 miles) through the Port of Charleston – one of the busiest container ports along the Southeast and Gulf coasts and ranking consistently among the top ten container ports nationwide. The Port of Charleston is the fastest growing major port in the United States. The Charleston Customs district ranks as the nation's 6th largest in cargo value, with \$75.8 billion in imports and exports traded across the docks in 2015. The Port hosts shipping service by more than 30 of the world's top carriers.

The infrastructure plan for Charleston includes construction of the new 280-acre Hugh H. Leatherman, Sr. container terminal, with opening of the 171-acre first phase anticipated for FY 2019. Other improvements include upgrades to the S.C. Inland Port, infrastructure and technology upgrades, a new dual access intermodal railhead, and a port access road to I-26. While the Port currently has the deepest channels in the region, plans are also underway by the U.S. Army Corps of Engineers to deepen the Charleston Harbor channel from 45 feet to 52 feet by 2024, a move that will make the Port even more attractive to freight carriers as the deepest port on the eastern coast. Each additional foot of water equals the ability to place 100 additional loaded containers on board an ocean carrier, enabling the vessel to maximize the ship's carrying capacity. This expansion will accommodate the larger cargo vessels that will utilize the newly expanded Panama Canal after work is completed in 2020.

The South Carolina Inland Port opened in 2013 less than two hours northwest of Kershaw County in Greer, extending the Port of Charleston's reach by providing an inland area connected by rail from which goods could be distributed to the Southeast. Norfolk Southern serves the inland port through its main rail line, and the facility is positioned along the Interstate 85 corridor between Charlotte and Atlanta, where Norfolk Southern operates additional rail yards. Rail service maximizes tonnage moved per gallon of fuel for



importers and exporters, helping them save costs and lower their carbon footprint. The Port services 19 top shipping container lines and handled one million containers from July 2016 through April 2017 – a growth rate of more than 10% over the previous fiscal year. The inland port adds an additional benefit – access to empty containers – for regional shippers, who can send trucks to Greer for the containers they need to move their goods (*S.C. Ports Authority, 2017*).

M. TRANSPORTATION ENERGY

The transportation sector offers the greatest opportunity for significant reduction of energy consumption, accounting for more than 28% of total energy consumption in South Carolina. The State ranks 24th highest nationwide in transportation energy consumed and 23rd nationwide in vehicle miles traveled at 51,726 million miles (*US EIA, State Energy Data System, 2017*). Meanwhile, more than 94% of Kershaw County residents travel to work by car, truck, or van – more than 2% above the State average and 8% higher than the national average.

VEHICLE CHARGING STATION



State, regional and local governments are well-positioned to influence transportation energy consumption. The U.S. Department of Energy estimates that 61% of the energy usage in the transportation sector is expended by passenger modes of travel. Cars and trucks consume more energy per mile than all other modes of ground transportation. Traffic congestion leads to reduced travel speeds, which results in excessive energy consumption. Opportunities for energy conservation can be found in improvements and additions to transportation systems designed with energy conservation in mind and implemented in conjunction with effective land use policies.

Fleet efficiency, street design, multi-modal planning, public transit options, and the provision of transportation alternatives can create energy savings. Local governments and institutions can save significant amounts of energy and money by increasing the fuel efficiency of individual vehicles, operating vehicles more efficiently, adopting alternative fuel models, and improving overall fleet management practices. Alternative fuel vehicles (AFVs) are designed to operate on at least one alternative in place of gasoline and diesel fuel and include any dedicated, flexible-fuel, or dual-fuel vehicle. Use of these vehicles is increasing as alternative fuel types become more readily available and affordable. Fuel options range from ethanol and biodiesel, to propane, hydrogen, natural gas, and electricity.

The problems associated with conventional street and parking design ultimately result in increased energy usage. Unnecessarily wide streets encourage faster speeds, discourage walking or biking, increase impervious surface area, and raise ambient temperatures. Poor connectivity often restricts the viability of other transportation modes, making driving the most attractive travel option. In contrast, optimizing the timing of existing signals and installing advanced control equipment can significantly reduce traffic congestion and fuel use. Street design that encourages and enables alternative modes of travel not only saves energy, but can also enhance the overall character and livability of an area.



The key principle to follow in designing successful multi-modal road systems is balance – ensuring the safety and quality of the street environment for all users. Alternative means of transportation can be made safer and more attractive by redesigning streets and intersections within intensively developed areas in a multimodal approach that gives equal priority to pedestrians, cyclists, buses, and automobiles. To be effective, pedestrian walkways and bike paths should be continuous, linking areas and activities on the site and connecting to locations and paths adjacent to the site.

City residents currently have limited access to public transit. Public transit can provide a viable alternative to car travel if it provides a similar service. Many factors can encourage transit use, including traffic congestion, close proximity to home and work, ease of use, safety, reliability, timely delivery, and affordability. Other travel alternatives include telecommuting, compressed work weeks, and staggered and flexible work hours. These options can reduce traffic congestion and energy consumption by shifting commuters out of the peak travel periods and eliminating commuter trips.



N. GOALS, OBJECTIVES AND STRATEGIES FOR IMPLEMENTATION

GOALS/OBJECTIVE/STRATEGIES	ACCOUNTABLE AGENCY	TIME FRAME
GOAL 8.1. PLAN THE LOCATION AND DEVELOPMENT OF TRANSPORTATION INFRASTRUCTURE TO ACCOMMODATE PRESENT AND FUTURE NEEDS.		
OBJECTIVE 8.1.1. STRENGTHEN COORDINATION WITH MUNICIPALITIES, NEIGHBORING COUNTIES, AND STATE AGENCIES ON TRANSPORTATION ISSUES.		
<i>STRATEGY 8.1.1.1.</i>		
Continue regional coordination through SLRCOG and SWRTA, with the County, with neighboring municipalities and counties, and with other public and private agencies in matters related to transportation and transit planning and prioritization.	City of Camden Kershaw County SLRCOG/SWRTA Kershaw County DSN and COA	On-going
<i>STRATEGY 8.1.1.2.</i>		
Continue to allocate funding into the Paving Fund to maintain and enhance the City road network and supporting infrastructure.	City of Camden	On-going
<i>STRATEGY 8.1.1.3.</i>		
Continue to explore opportunities to provide or support the provision of public and private parking where needed.	City of Camden Employers/Developers	On-going
<i>STRATEGY 8.1.1.4.</i>		
Explore the possibility of applying for and utilizing C-Funds for eligible transportation projects in the City.	City of Camden Kershaw County CTC	2019
<i>STRATEGY 8.1.1.5.</i>		
Support County efforts to enhance the airport.	City of Camden Kershaw County Kershaw County Airport Commission	On-going
<i>STRATEGY 8.1.1.6.</i>		
Work with the School District to maximize opportunities for walking and biking to school when selecting new school sites.	City of Camden Kershaw County Kershaw County School District	On-going
<i>STRATEGY 8.1.1.7.</i>		
Seek organizational partnerships to improve, beautify and maintain key City gateways.	City of Camden Kershaw County SCDOT	On-going
OBJECTIVE 8.1.2. MAINTAIN AN EFFICIENT AND EFFECTIVE TRANSPORTATION SYSTEM.		
<i>STRATEGY 8.1.2.1.</i>		
Monitor increases in traffic and changes in traffic conditions that warrant additional transportation measures such as traffic signal optimization.	City of Camden Kershaw County SCDOT	On-going
<i>STRATEGY 8.1.2.2.</i>		
Expand the community's multi-modal transportation system in response to future demands generated by a growing population and an expanding economy.	City of Camden	On-going
<i>STRATEGY 8.1.2.3.</i>		
Ensure adequate rights-of-way for future road improvements and expansions in new subdivisions through dedication and building setback requirements, along with requirements that vehicular circulation within new subdivisions function efficiently and safely.	City of Camden	On-going



GOALS/OBJECTIVE/STRATEGIES	ACCOUNTABLE AGENCY	TIME FRAME
STRATEGY 8.1.2.4.		
Protect the safety and traffic-carrying capacity of interchange areas and major thoroughfares from adjacent land development by minimizing curb cuts and requiring traffic impact studies for large, high traffic generating projects.	City of Camden	On-going
STRATEGY 8.1.2.5.		
Continue to monitor the condition of roads and rehabilitate as needed.	City of Camden SCDOT	On-going
GOAL 8.2. PROVIDE A SAFE, EFFICIENT, AND ACCESSIBLE MULTI-MODAL TRANSPORTATION SYSTEM.		
OBJECTIVE 8.2.1. PROVIDE A SAFE AND EFFICIENT ROADWAY NETWORK THAT SUPPORTS LAND USE GOALS.		
STRATEGY 8.2.1.1.		
Encourage connected street systems within new developments and between new and existing developments.	City of Camden Private Developers	On-going
STRATEGY 8.2.1.2.		
Continue participation in the SLRCOG Rural Transportation Planning process.	City of Camden SLRCOG	On-going
STRATEGY 8.2.1.3.		
Continue to actively seek funding and partnerships to improve and enhance roadways, gateways, and corridors into and within the City.	City of Camden Kershaw County SLRCOG SCDOT	On-going
STRATEGY 8.2.1.4.		
Maximize the connectivity of local, connector, and arterial components of the City's roadway network.	City of Camden SLRCOG SCDOT	On-going
STRATEGY 8.2.1.5.		
Support ongoing "Safe Routes to School" programs at Camden Elementary School and Camden Middle School.	City of Camden SLRCOG SCDOT Kershaw County School District	On-going
STRATEGY 8.2.1.6.		
Assist CSX and SCDOT in their efforts to prevent rail crossing collisions.	City of Camden Kershaw County SCDOT CSX	On-going
STRATEGY 8.2.1.7.		
Support <i>Eat Smart Move More Kershaw County</i> in the completion, adoption and implementation of the City segments recommended in the <i>Bicycle, Pedestrian, and Greenways Plan</i> .	City of Camden Kershaw County ESMMKC	On-going
STRATEGY 8.2.1.8.		
Continue implementation of <i>Complete Streets</i> policies that enhance accessibility for pedestrians, bicyclists, motorists, and transit users to the greatest extent feasible.	City of Camden Kershaw County Developers	On-going
STRATEGY 8.2.1.9.		
Support implementation of the <i>Black River Road Corridor Study</i> .	City of Camden Kershaw County SCDOT SLRCOG Kershaw County School District	2027



GOALS/OBJECTIVE/STRATEGIES	ACCOUNTABLE AGENCY	TIME FRAME
STRATEGY 8.2.1.10.		
Support implementation of fiscally constrained projects identified in the SLRCOG Long Range Transportation Plan.	City of Camden SLRCOG SCDOT	On-going
STRATEGY 8.2.1.11.		
Continue coordination with SCDOT on the <i>Camden Truck Route</i> project.	City of Camden SCDOT	2020
OBJECTIVE 8.2.2. SUPPORT LOCAL AND REGIONAL TRANSIT OPTIONS TO INCREASE MOBILITY AND ACCESSIBILITY FOR CITY RESIDENTS, WORKERS, AND VISITORS.		
STRATEGY 8.2.2.1.		
Support the provision of public transportation options for special needs populations such as those previously provided by the Kershaw County Council on Aging, Board of Disabilities and Special Needs, and SWRTA.	City of Camden KCCOA KCBDSN SLRCOG/SWRTA Human Services Providers	On-going
STRATEGY 8.2.2.2.		
Participate in a countywide, comprehensive long-range transit study.	Kershaw County Municipalities SLRCOG/CMCOG SCDOT Public/Private Organizations	2027
STRATEGY 8.2.2.3.		
Support the continuation and development of programs that provide options for commuters traveling outside of the County, such as SmartRide and Midlands Ride Share.	City of Camden SLRCOG CMCOG	On-going
STRATEGY 8.2.2.4.		
Explore the feasibility of establishing fixed public transit routes to provide transportation between key residential, commercial and employment destinations in the Camden area.	City of Camden Kershaw County Santee-Wateree RTA Employers	On-going
STRATEGY 8.2.2.5.		
Support economic development and job creation efforts that attract employers to the County to reduce resident need to commute out of the County.	City of Camden Kershaw County KCEDO	On-going
OBJECTIVE 8.2.3. PROVIDE AND MAINTAIN ADEQUATE, SAFE, AND ACCESSIBLE TRAILS, WALKWAYS, AND BICYCLE PATHS IN APPROPRIATE AREAS TO ENCOURAGE THE USE OF ALTERNATIVE TRAVEL BY RESIDENTS AND VISITORS.		
STRATEGY 8.2.3.1.		
Expand the citywide interconnected network of trails, sidewalks, and greenways that promote active access to live, work, and recreation destinations for a wide range of users.	City of Camden Kershaw County SLRCOG SCDOT SCPRT	On-going
STRATEGY 8.2.3.2.		
Continue to support and promote the provision of bicycle parking amenities at public and private buildings and facilities, as appropriate.	City of Camden	On-going
STRATEGY 8.2.3.3.		
Consider pedestrian and bicycle access to outlets for healthy and affordable foods for residents with limited or no access to vehicles or transit when planning new bicycle and pedestrian routes.	City of Camden Kershaw County SLRCOG SCDOT SCPRT	On-going



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