Douglas County Comprehensive Transportation Plan

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FOUNDATIONS REPORT

March 2021



ABOUT the Douglas County Comprehensive Transportation Plan

Douglas County is developing an update to the Douglas County Comprehensive Transportation Plan (CTP), which was last updated in 2009. The CTP update effort is in collaboration with the municipalities of Austell, Douglasville, and Villa Rica and in coordination with state and regional partner agencies, including the Atlanta Regional Commission (ARC), the Atlanta Transit Link Authority (ATL), Georgia Department of Transportation (GDOT), Georgia Regional Transportation Authority (GRTA), and State Road and Toll Authority (SRTA). This study was made possible through financial support provided by the ARC and Douglas County.

This plan will produce a 30-year vision for multi-modal transportation investments through the year 2050 that address Douglas County's mobility needs based upon current and projected conditions. The study will conclude with a prioritized list of transportation improvements, a fiscally constrained shortterm (5-year) action plan as well as mid-term (5-10 year) and long-term (10-30 year) fiscally constrained and unconstrained lists of projects.

Planning Partners



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The purpose of the Douglas County Comprehensive Transportation Plan (CTP) is to identify a strategic transportation vision for the county and prioritize transportation improvements in the near, mid and long-term. The CTP will be a multi-modal plan that will consider all forms of transportation including walking, biking, automobiles, freight, transit and emerging transportation technologies (i.e. autonomous and connected vehicles).

At the end of the planning process, the Douglas County CTP will:

- Establish clear goals and objectives
- Develop a prioritized list of transportation projects
- Identify a five-year short-term implementation plan; and
- Recommend programs and policies to improve mobility, access and safety.

The CTP will incorporate extensive public involvement and stakeholder engagement into the planning process. This will include virtual public meetings and open houses, on-line surveys, and an interactive project website. Engagement activities will collect input on community identified needs and priorities. The CTP will also be guided by a Stakeholder & Technical Committee that represents the public's interests and provides technical input throughout the plan development process.

Figure 1-2 illustrates the Douglas County CTP's planning process and provides an overview of the three major study phases. Each major phase builds upon the efforts of the previous phase. This Foundations Report represents the culmination of the Inventory phase and establishes a baseline for further study in the Assessment phase.





Figure 1-2: Douglas County CTP Study Process

Inventory

The first study phase focuses on data collection and compiling an accurate inventory of current and projected conditions.

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Foundations Report

This report lays the foundation for further study by providing an inventory of existing conditions and trends.

Assessment

The second phase focuses on identifying specific transportation needs to be addressed within the CTP. This involves detailed technical analysis at the county-wide level and special studies of three corridors and one local area in need of additional attention. A detailed assessment of the transit system will also be conducted.

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System-Wide Assessment

This will provide a county-wide review of transportation needs with a focus on traffic congestion, intersections and bicycle and pedestrian conditions.



2020

FALL

WE ARE HERE



Corridor and Local Area Studies

Three special corridor studies and one local area study will feature a detailed reporting of transportation needs in specific focus areas.

Transit Service Assessment

This report will provide a detailed assessment of existing transit services and include recommendations to improve and enhance services.

2021 SPRING

Recommendations

The final phase builds upon the needs identified in the Needs Assessment by translating those into potential transportation projects. This phase includes project development, refinement, prioritization and costing. The phase concludes with the final plan to be adopted by the County.

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Recommendations Report

The CTP concludes with a final plan that features a prioritized list of transportation projects, a 5-year implementation plan, and policy recommendations.





ABOUT THIS REPORT

The Foundations Report provides background information relevant to the development of the CTP. This includes an inventory of existing conditions and projected future conditions. Detailed information on mobility in Douglas County and the current condition of the transportation network is provided. Factors that drive transportation demand such as population and employment growth and land use development are also included.

This report lays the foundation for future phases of the CTP by inventorying the information and data needed to identify transportation needs and potential projects. Specific transportation needs will be documented and analyzed in greater detail in the upcoming Assessment phase of the CTP.

Figure 1-3: Study Area

STUDY AREA

Douglas County is located in north central Georgia and is part of the Atlanta metropolitan region. It shares borders with Fulton, Cobb, Paulding and Carroll Counties as shown in Figure 1-3. The Chattahoochee River serves as the county's southeastern border. Douglas County has a total land area of 201 square miles and an estimated population of 146,343 in 2019, according to the U.S. Census.

Douglas County contains three municipalities – Douglasville, the county seat, and portions of Austell (partially within Cobb County) and Villa Rica (partially within Carroll County). Interstate 20 traverses Douglas County from east to west and provides a major transportation link within the county and to the greater region and beyond.

The Douglas County CTP is focused on transportation conditions and improvements within Douglas County, but is considerate of the conditions and plans of neighboring jurisdictions and the greater region.



2 OTHER INITIATIVES

The Douglas County CTP builds upon the efforts of previous plans and studies. Douglas County has a long planning history that has guided transportation decisions and improvements within the county. This chapter provides a review of planning studies relevant to the CTP. These documents provide key findings and considerations that will help inform the development of a strategic transportation vision for the county.

PREVIOUS PLANS



DOUGLAS COUNTY COMPREHENSIVE TRANSPORTATION PLAN

2009

Douglas County completed its last CTP update over 10 years ago in 2009. The purpose of this plan was to develop a framework to guide multi-modal transportation investments over the next 25 years. The 2009 CTP set clear goals and objectives as the guiding principles of CTP project and policy recommendations. The overarching goals were:

- Enhance safety and mobility for all travelers
- Preserve and protect neighborhood integrity
- Preserve the environment
- Promote economic development
- Encourage public involvement

To achieve these goals, the plan focused on three major subareas: Arbor Place, Downtown/ Government Center, and the SR 6 Industrial area. Recommendations spanned all modes of transportation and included recommendations for freight movement and railroad crossings, land use and transportation interactions, and looking ahead to Intelligent Transportation Systems (ITS) and alternative transportation recommendations.



DOUGLASVILLE COMPREHENSIVE TRANSPORTATION PLAN

2020 (Not yet Adopted)

The Douglasville Comprehensive Transportation Plan is currently underway. The City is currently awaiting a final draft version of the plan from the project consultant. The Douglas County CTP project team will closely monitor the progress of this plan and incorporate any updates in the existing conditions analysis and development of final recommendations.



DOUGLASVILLE PEDESTRIAN & BICYCLE CONNECTIVITY PLAN

2020 (Not yet Adopted)

The Douglasville Pedestrian & Bicycle Connectivity Plan was completed in 2020, but is currently awaiting adoption. The overall project goal is to increase connectivity through these specific objectives

- Fill gaps in the active network
- Connect destinations
- Improve multi-modal safety
- Promote healthy lifestyle

Specifically, the plan is geared towards connectivity solutions for elder and children age pedestrians and cyclists who are interested, but cautious. The plan conducted an in-depth network analysis to identify natural connection opportunities apart from the existing street network. The recommended network included a series of multiuse paths and greenways that makeup a Greater Downtown Loop. The recommended Downtown Loop includes a Northside Greenway and a trail along Old Dorris Road and are suggested to be a mix of cycle tracts and shared-use paths. The individual projects that makeup this loop were ranked through a series of public and steering committee meetings. The draft plan and its recommendations are currently on the City's website for public comment and review before official adoption by the City.



NORTH SIDE TRAIL PLAN

2020 (Not yet Adopted)

The North Side Trail Plan specifically addresses the objective of connectivity in the area north of downtown Douglasville known as the North Side. Connectivity was identified as a major objective in the North Side Redevelopment Plan which was conducted as a result of the SR 92 Livable Centers Initiative (LCI) Study. The goals of this plan are to connect residents to the top ten desired destinations identified by residents through public outreach efforts. To help increase connectivity and assist residents in reaching these desired destinations, the four primary goals of the plan were:

• Focus on pedestrian and bicycle strategies in the North Side area



- Promote non-vehicular mobility
- Improve connectivity to homes, schools, parks, and businesses
- Improve quality of life by focusing on healthy lifestyles

Focusing on these goals led to the development of key concept plans for the area trail network. This included specific recommendations for cross sections along the following streets:

- Chicago Avenue
- Strickland Street
- James D. Simpson Avenue
- Dallas Highway
- Parker Street and Maxwell Street
- Malone Street
- Colquitt Street
- Malone Road
- Georgia Power Easement Segments 1-3

This plan is currently under public review in draft form on the Douglasville City website.

CHATTAHOOCHEE RIVERLANDS

2020

The Chattahoochee Riverlands effort was completed in 2020 by the Atlanta Regional Commission in coordination with the Trust for Public Land, Cobb County, and the City of Atlanta. The Riverlands is a proposed continuous 100-mile public realm network along the Chattahoochee River from north Georgia to Columbus running through the Atlanta area. The purpose of this study was to identify potential greenway connections, direct greenspace development, promote ecological sustainability and conservation, guide investment, and connect the metropolitan Atlanta region.

The Chattahoochee River serves as the southeastern border of Douglas County, making Douglas County a key component of the Chattahoochee Riverlands





corridor. Specific recommended portions of the Riverlands trails within the county are the trail extension from Whittier Mill to Sweetwater Creek State Park and the Proctor Creek Trail Extension which will extend along the river from Sweetwater Creek to Old Campbellton Road, from Old Campbellton to Capps Ferry Bridge just past Foxhall Resort boat ramp and trailhead. From there the recommended trails follow the river into Carroll and Coweta Counties culminating in Columbus.



DALLAS HIGHWAY LCI STUDY

2019

At its core, the Dallas Highway LCI Study sought to reimagine Dallas Highway as a complete street. After the widening and realignment of SR 92, the route will be converted to a city-owned and operated road. The LCI Study provides a vision for the redevelopment of the Dallas Highway corridor that reinforces the goals from the previous Douglasville LCI Study and updates them with guiding values of connectivity, diverse character, placemaking, safety, and land use and multi-modal transportation. The Plan recommendations specifically focused on corridor transportation infrastructure and land use character area updates. The plan specifically focused on reommendations in the historic North Side area with careful consideration on how to preserve the historic character.



LEE ROAD SMALL AREA AND CORRIDOR PLAN

2019

The purpose of the Lee Road Small Area and Corridor plan was to expand the analysis efforts of the Lee Road extension project. The City of Douglasville originally began studying the Lee Road Extension in 2017, but quickly realized there was a need to expand the study area outside of the extension itself. Thus, the Lee Road Small Area and Corridor Plan was born.

The Lee Road extension project was born of a concept in the Highway 92 Corridor LCI Study and required a widened scope to include the corridor and the surrounding area due to the corridor's potential as a regional east-west connector. The extension would



extend Lee Road across SR 92 connecting to Bomar Road. The plan worked to establish character area nodes, typical sections, and coordination activities between transportation and land use planning along the corridor. Specifically, the plan recommended transformative land use and redevelopment policies, walkability, neighborhood redevelopment and preservation, and economic development efforts, which draw on the strengths of the surrounding community.

DOUGLAS COUNTY COMPREHENSIVE LAND USE PLAN UPDATE

2018

In 2018, the County updated its Comprehensive Plan with a community vision, existing assets and challenges assessment, and future land use plan. These were components were updated to reflect the current and future needs of the county, which had changed since the last plan update in 2013. The plan highlighted the significant growth the county has experienced in the past five years and focused on how to balance preserving rural and historical areas with future growth. The plan also updated the county's character areas to reflect anticipated future growth and included recommendations for each area. Recommendations for each character area provided guidance for specific growth tactics to maintain the character of each respective area.

DOUGLASVILLE DOWNTOWN MASTER PLAN & 10-YEAR STRATEGIC PLAN

2018

The largest city in the county, Douglasville completed a downtown master plan in 2018 to outline a clear vision and achievable action items to catalyze development in downtown Douglasville. The planning process was a team effort made up of the City of Douglasville, the City's Downtown Development Authority, the Main Street Douglasville, the Douglas County Development Authority and a team of selected consultants.



The plan aimed to address unique challenges facing the downtown area including GDOT planned roadway reconfigurations and relocations, the former County jail site, and a lack of attractions creating activity day and night in the downtown area. The study area is also made up mostly of the downtown Douglasville historic area so the plan recommendations included the promotion and protection of historic buildings and areas throughout downtown. The plan recommended almost 1,000,000 ft² of new development to the downtown area through the areas of land use and development, arts and culture, and economic development.

THE SOUTHWEST THORNTON ACTIVITY CENTER SWEETWATER MASTER PLAN

2017

The Southwest Thornton Activity Center is defined by Sweetwater Creek State Park to the west, the Cobb County line to the north and east, the Chattahoochee River to the east and south, and I-20 to the north. Viewed as the eastern gateway to the county, the activity center has long been envisioned as an employment center with industrial uses, but today is also made up of smaller residential areas. The Douglas County Economic Development Authority developed a master plan for the area to guide development through an updated future land use plan that balances existing residential uses with the developing industrial/ business base. The plan developed two concept plan options to be realized through the establishment of a technology district toolkit, zoning and land use policy changes, and catalyzing economic development.



DOUGLAS COUNTY TRANSPORTATION SERVICES STUDY

2016

In 2016, the county completed a Transportation Services Study, which contained a wide variety of recommendations to enhance and expand transit services in the county. Since completion the County has implemented a number of recommendations, including new transit services, rebranding existing services (formerly Douglas County Rideshare) under the Connect Douglas brand, and implementing fixedroute shuttle bus service on four pilot routes with flex capabilities.

I-20 @ SR 5/BRIGHT STAR ROAD TRANSPORTATION STUDY

2015

The I-20 @ SR 5 Transportation Study was conducted in 2015 by the City of Douglasville to determine improvements to the I-20 at SR 5 interchange and



to adjacent interchanges along I-20 to improve safety, relieve congestion, and support economic development. As one of two primary access points from I-20 to Arbor Place Mall, with previously identified congestion and safety issues, the interchange needed a special study to determine the best path forward. The study offered short, mid, and long-term project recommendations to help improve safety, relieve congestion, and support economic development in the area surrounding the I-20 at SR 5 interchange.

DOUGLAS COUNTY URBAN REDEVELOPMENT PLAN (THORNTON ROAD AND BANKHEAD HIGHWAY)

2012

In 2012, the County completed an Urban Redevelopment Plan (URP) for the Thornton Road and US 78 (Bankhead Highway) corridors. Under the Urban Redevelopment Act of Georgia, these two corridors had been designated by the County as "slum areas," with the intent of establishing a redevelopment plan to address the slum, blight, and underdevelopment along the corridors.

The URP goals were to promote smart growth development, encourage private enterprise, increase commercial traffic, improve community infrastructure, and work with the development authority on marketing and economic development for the corridors. The outcomes of this plan are currently being used as the underlying land use foundations for this CTP update.

DOUGLASVILLE LCI 10-YEAR UPDATE

2001 (Updated 2011)

Due to anticipated growth in Douglasville, the 2001 LCI plan was updated in 2011 to reflect the current community goal of creating a village center. This village center would offer a range of employment, shopping, recreation, and housing options in and around downtown Douglasville. The LCI study is an extension of the efforts already put forth by the City to



Highway 92 Corridor LCI Study



HIGHWAY 92 CORRIDOR LCI STUDY

2008

The Highway 92 Corridor Study was conducted through the ARC's Livable Centers Initiative (LCI). The study worked with the community to enhance the livability of the SR 92 corridor as a key regional east-west corridor which was facing strong growth pressures at the time. Key goals of the plan were to increase residential and employment diversity, promote alternative modes of travel and conduct outreach in a manner that involves all corridor stakeholders. The plan identified priorities across several key areas including pedestrian improvements, and streetscapes, new street network and intersections, transit connections, open space, trails, and greenways, and future land use changes.



RECOPLE

Self-titled "Atlanta's Last Frontier," Douglas County has grown steadily over the past decade with a noticeable increase in population, households, and overall diversity. This chapter details

where Douglas county stands today, and the demographic trends projected for the next thirty years.

DEMOGRAPHIC SNAPSHOT

Before diving into the details of the county demographics, it is important to get a big picture look at what the county looks like today. Figure 3-1,

shows an overview of Douglas County demographics including population, density, household income, employment, education, and racial and age breakdown of the overall population.





*** Douglas County Economic Development Authority (Based on 2018 ACS)

POPULATION DENSITY

TODAY

Since 2010, Douglas County's population has increased over 12% from 132,595 in 2010 to 149,242 in 2020. The resulting 2020 population density can be seen in Figure 3-2. Unsurprisingly, the most densely populated areas in the county are along I-20 with strong concentrations near the cities of Douglasville, Villa Rica, and Austell. There are also significant pockets of density in the central area of the county south of I-20 and north of SR 154 between SR 5 and SR 92.







2050 PROJECTED

According to ARC population projections, the population growth the county experienced over the



last ten years is expected more than double over the next 30 years with a projected growth of 27.5%. This projected population density is shown in Figure 3-3. The population continues to be more densely focused along I-20 and near the city centers of the County. Densities have increased in most the same areas of existing higher densities, but have also spread to some new areas.

Specifically, population densities have increased in areas outside Villa Rica north of US 78 and along SR 166 in the southwest part of the county. Densities also significantly increase between the eastern border of the county and SR 5. The eastern edge of the county, near the Chattahoochee River and Sweetwater Creek State Park, also sees significant increases surrounding the existing Riverside Drive Business Park.



RACE + ETHNICITY

One of the areas with the most relative change in Douglas County is the breakdown of Race/Ethnicity. Douglas County is already a diverse county with a reported 45% total Black/African American population in 2018. This is an increase from 43.44% in 2015 and 3% larger than the 2018 White/Non Hispanic population. **In total, the minority population today makes up**

Figure 3-4: Douglas County Race + Ethnicity Breakdown

5% **9**% 45% 42% 2018* Black/African American Hispanic White (Non Hispanic) Other 15% **52%** 19% 2050** 14% * U.S. Census Bureau 2018 ACS 5-Year Survey * ARC Series 16 Forecast Dashboard **making it a majority minority population.** This is a trend seen since the increasing minority populations in 2015 and is expected to continue into 2050. The ARC 2050 population projections show a significant increase in minority populations in the county with an expected 86% minority population including the Black/ African American and Hispanic populations. These significant changes from are illustrated in Figure 3-4.

roughly 59% of the total Douglas County population



Patch.com



City of Douglasville

AGE DISTRIBUTION

Today, the Douglas County population is made up of majority "young people" (ages 0-38) which includes Millennial and Gen Z generations. Population projections shown in Figure 3-7 tell an interesting story on how the age distribution of the Douglas County population is expected to change over the next thirty years. The senior population (ages 65+), which is made up of the Baby Boomer and the Silent Generation today, is expected to increase by 10% by 2050 when it will be comprised of aging Gen Xers. The 0-18 age range (the next generation after Gen Z) will decrease by 4%.

Figure 3-7: Douglas County Age Breakdown



Source: U.S. Census Bureau, ARC Activity-Based Model

HOUSING

The growth seen across the population is reflected in the county's housing market with large increases in number of households expected by 2050. Currently, there are just over 55,000 households in the county, but this number is expected to increase to over 70,000 by 2050 shown in Figure 3-1. An increase in the number of households overall could result in an increased need for additional local bus routes to access the projected additional households.

Table 3-1: Douglas County Households			
Year	# of Households		
2018	48,968		
2020	56,444		
2050	72,310		

U.S. Census Bureau, ARC Activity-Based Model

EDUCATIONAL ATTAINMENT

Overall, Douglas County has an educated population as seen in Table 3-2. Approximately 35% of the county have a post-secondary degree either an associates/ professional degree, bachelors degree, or higher. Only 12% of the population did not finish high school and 31% have a high school diploma or equivalent. The remaining 23% of the population have some college experience, but did not achieve a degree. The postsecondary degree portion of the population makes up the largest portion of the population.

Table 3-2: Douglas County 2018 Educational Attainment	
Educational Attainment	% Population
No High School Diploma	12%
High School Graduate	31%
Some College, No Degree	23%
Associates or Professional Degree	9%
Bachelor's Degree (Or Higher)	26%

Source: U.S. Census Bureau



TRANSIT-RELIANT POPULATION

In transportation planning, it is important to pay close attention to the population groups which have been traditionally underrepresented or underserved and rely heavily on public transit to get to work, school, or access medical services. These transit reliant population groups include households with no access to a car (zero-car households), individuals with disabilities, low-income population (households with incomes below the poverty line), and the senior population (ages 65 and older). Figures 3-8 through 3-11 show the individual transit reliant populations and how they're distributed within the county. The overall transit-reliant population density for Douglas County can be seen in Figure 3-12.

LOW-INCOME POPULATION

The highest transit-reliant population in Douglas County is the low-income population with 18,309 households reporting annual household incomes which fall below the poverty level. As shown in Figure 3-8, the highest concentrations of low-income households are surrounding downtown Douglasville and heading south on SR 5, east along I-20 toward SR 92, and in the northeast corner of the county near the City of Austell.

SENIOR POPULATION

The second highest transit-reliant population within the county is the senior population with over 15,500 individuals living in the county over the age of 65. The senior population within the county follow a similar pattern to the low income population with





Figure 3-10: Douglas County Disabled Population





pockets of density near downtown Douglasville, along SR 5 and in the Austell area. However, the most dense area of senior population is between SR 5 and SR 92 south of I-20 just outside the downtown Douglasville area.

DISABLED POPULATION

Within Douglas County there are almost 12,500 households with one or more disabled individuals living there. The disabled population density follows a similar pattern to the senior population within the county boundaries. Large pockets of the disabled population can be found in and surrounding the downtown Douglasville and Austell areas and along and in between SR 5 and SR 92 south of I-20. Similar to the pattern of other transit-reliant populations, this

Figure 3-11: Douglas County Zero Car Households

is likely due to the ease of access to local services that these locations provide within the county.

ZERO-CAR HOUSEHOLDS

The population of households with no vehicle access is the smallest of the transit-reliant population groups. This is unsurprising as Douglas County as a whole is majorly car-dependent today relying on I-20 and major state routes to provide access to job centers outside the county. The areas of the county with the highest population of no car households are found surrounding the most walkable areas in the county including the downtown Douglasville area, the Austell central area, and pockets along SR 92, SR 5, and Sweetwater Road.





Together, the four sub-population groups detailed above, add up to just under 50,000 making the transit-reliant population just over 30% of the total Douglas County population. This was determined using the U.S. Census 2018 ACS population for Douglas County which was 145,331. The highest concentrations of transit-reliant groups are located in central Douglas County along the I-20 corridor, along SR 5 and SR 92 and in between the two, and near the cities of Douglasville and Austell downtown areas. The total spatial density of the Douglas County transitreliant population can be seen in Figure 3-12.



Figure 3-12: Douglas County Overall Transit-Reliant Population





EMPLOYMENT

According to ARC, there are currently 56,092 employed individuals in Douglas County. This is an increase of over 6,000 from the 2015 employed population according to ARC projection data. This same data set shows this number increasing to 70,826 by 2050, an increase of almost 40% from 2015. The employed population (i.e. jobs) are most densely located between I-20 and SR 78 within the City of Douglasville. This follows the pattern of the more dense retail and commercial built environment which is found in Douglasville between SR 78 and I-20. This employment density can be seen in Figures 3-14 and 3-15 on Pg. 25.

In 2020, the top employment sector was the service sector, at 41%, followed by the retail sector. This is likely due to two factors: many Douglas County residents commute to jobs outside of Douglas County and the presence of large commercial and retail destinations within the County, including Arbor Place Mall. The breakdown of the 2020 top employment sectors of Douglas County can be seen in Table 3-3.

Douglas County's Economic Development Authority completed a job report showing the top 10 companies in the county by number of employees. With the exception of the school system and the local government which would have employees traveling all throughout the county, the top employers are clustered in two main areas within Douglas County:

Table 3-4: Douglas County Top 10 Employers by # of Employees (In Descending Order)

- 1. Douglas County School System
- 2. SilverLine Windows & Doors (PlyGem)
- 3. WellStar Hospital Douglas
- 4. McMaster Carr
- 5. Google
- 6. Medline Industries
- 7. Gordon Food Service
- 8. Douglas County Government (including Sheriff's Office)
- 9. American Red Cross
- 10. ResMed

Douglas County Economic Development Authority

the downtown Douglasville area and the Riverside Parkway Business Park area.

In 2050, the concentration of jobs is expected to follow a similar pattern around state routes and the interstate with a few additional pockets of employment sprawling out from Douglasville near I-20 following SR 5 south toward Duncan Memorial Highway.

Just as in 2020, the top employment sectors in 2050 are expected to be service and retail. This supports the theory that Douglas County residents will continue to commute elsewhere in the metro area for work. The expected change in top employment sectors in Douglas County by 2050 is shown in Table 3-3.

Table 3-3: Change in Douglas County Top Employment Sectors 2020 - 2050				
2020 Employment Sectors	% Employed	2050 Employment Sectors	% Employed	
Service	41%	Service	43%	
Retail	27%	Retail	26%	
Construction	7%	Construction	10%	
Manufacturing	7%	Finance, Insurance, Real Estate	6%	
Finance, Insurance, Real Estate	6%	Transportation, Communications, Utilities	4%	



ARC Activity Based Model



Figure 3-15: Douglas County 2050 Employment Density





A LAND USE + DEVELOPMENT

Land use and transportation are closely interrelated. Growth and development of land drives new transportation demand, but the construction of transportation infrastructure can also drive growth into new areas. Planning for both concurrently can ensure that the impacts of one are considered in the other. The following section is a high-level overview of land use considerations in Douglas County as it relates to comprehensive transportation planning.

EXISTING LAND USE

The existing land use map, Figure 4-1, was created using the land use categories established by ARC. Residential land uses account for nearly one third of the total acreage in Douglas County. Similarly, agriculture and undeveloped greenspace land uses account for nearly another third of the total acreage in the County. Additionally, there are two major clusters of industrial land uses: one near the Paulding County border and another centered on Thornton Road and Riverside Parkway, near the Chattahoochee River.

Existing land uses in Douglas County reflect the county's location at the edge of the Atlanta region: areas closer to Atlanta in the east and north are more intensely developed than those further south and west. Additional pockets of more intense land use exist around I-20, particularly around the City of Douglasville.

COMMUNITY FACILITIES

Community facilities are oftentimes important destinations in a transportation network. Because they typically attract a broad range of patrons, it is important to ensure that the facilities can be easily accessed—ideally by multiple modes of transportation. Concentrations of community facilities, such as those in the City of Douglasville, are places that should be carefully evaluated for increased connection through pedestrian, bicycle, and transit infrastructure.

Community facilities are located throughout Douglas County as seen in Figure 4-2. The types of community facilities range from parks and recreation facilities to schools and post offices. Both public and private schools are included as well as one college. There are three libraries and three museums in the County. Additionally, there is one airport in the City of Villa Rica and one senior center in the City of Douglasville. Moreover, the largest number of and variety of community facilities are located within or directly adjacent to the City of Douglasville. The number of, and clustering of, community facilities decreases as proximity to the City of Douglasville decreases.











FUTURE LAND USE

Based on character areas defined during the Comprehensive Planning process, the County's future land use map (Figure 4-3) is an expression of the community's generalized vision for growth and development.

Much of the western half of the county is shown as a Rural Place, demonstrating the County's commitment to preserving its rural communities. Multiple character areas throughout the County are identified in many types of centers that promote a combination of commercial, residential, office and/or industrial uses, which demonstrates the County's policy initiatives to increase its number of mixed-use developments. Urban Residential is focused around the eastern half of I-20 within the county, transitioning to large swaths of suburban living.

Future land use in Douglas County largely represents a continuation of the growth processes already in place—additional development is expected along major transportation corridors, and the patchwork of suburban and rural land uses in the central part of the county is expected to continue to transition to suburban residential uses. The south and west is expected to maintain its current rural character despite growth in other parts of the county. One of the most significant changes from the existing land use map is the development of a mixed-use corridor around US-78/Veterans Memorial Highway.



Figure 4-4: Developments of Regional Impact in the Past Ten Years



DEVELOPMENTS OF REGIONAL IMPACT

There have been fourteen DRI applications in Douglas County in the last twelve years (2008 - 2020). These are illustrated in Figure 4-4 and detailed in Table 4-1.

Developments of Regional Impact (DRIs) are projects that meet thresholds for large-scaled change, or bring intense, specialized land uses into an area. These projects must be reviewed not only by the jurisdiction they are proposed in, but also by ARC, GRTA, and other stakeholders. Typically they have significant potential impacts on transportation infrastructure.

The majority of the DRIs are located near the Cobb County and Fulton County borders and are primarily warehouses or distribution centers. This type of largescaled development is particularly important to note in the CTP process, as freight traffic has specific needs and is often in conflict with other types of travel.



Table 4-1: Developments of Regional Impact Completed in the last Ten Years					
Map ID	Project Name	Project Description	Land Use Type	Project Size	Date Submitted
A	The Preserve	A LEED Platinum mixed-use development with residential, commercial civic, recreation, hospitality, and agricultural uses in a low-density rural campus	Mixed- Use	6,025,000 SF of mixed- use development	3/24/2020
В	Riverside West Business Park	Two planned distribution warehouses on Riverside Parkway	Industrial	1,891,574 SF of industrial uses	2/13/2020
С	IDI Douglasville	Two planned warehouses on Riverside Parkway	Industrial	1,063,000 SF of industrial uses	1/31/2020
D	Thornton Business Park	Two planned distribution warehouses	Industrial	760,000 SF of industrial uses	5/28/2020
Е	Rock Quarry 2019	Planned 78-acre stone quarry	Quarry	78 acres	6/27/2019
F	Bright Star Connector	Development of three distribution centers, six flex office spaces, and one office/retail building	Mixed- Use	1,523,700 SF of industrial, 388,225 SF of office, and 5,000 SF of retail uses	11/6/2019
G	Rockefeller- Douglas Hill Road	Two planned warehouse and distribution facilities	Industrial	722,400 SF of industrial uses	8/8/2017
Н	DCT Factory Shoals	Planned warehouse and distribution facility	Industrial	1,104,320 SF of industrial uses	3/15/2017
I	SL Bright Star	Planned warehouse and distribution facility, office and active manufacturing facility	Industrial	591,250 SF of industrial uses	11/29/2016
J	DCT Douglas Hill Distribution Center	Construction of one warehouse and distribution facility	Industrial	1,036,800 SF of industrial uses	6/21/2017
K	Johnny Blankenship Property	Development of a 197-acre stone quarry	Quarry	197 acres	10/31/2016
L	Corporate Ridge Business Park Phase II	Four planned warehouse and distribution facilities	Industrial	1,436,820 SF of industrial uses	2/23/2015
М	DCT River West Distribution Center	Planned warehouse and distribution facility	Industrial	783,750 SF of industrial uses	7/2/2012
Ν	Foxhall Resort and Sporting Club	Large mixed-use development (over 1,000 acres) on Capps Ferry Road near the Chattahoochee River	Mixed- Use	14000 SF of retail, 910 single-family homes, 900 resort units, 600 hotel rooms, worship center, and public safety site	10/9/2018



CORRIDOR OVERLAY DISTRICTS

Douglas County currently has four corridor overlay districts that establish a supplemental set of regulations and standards over the base zoning districts. The four corridor overlay districts are shown in Figure 4-5:

- SR 92 Village Overlay
- US 78 Corridor Overlay
- Post Road Village Overlay
- Corridor Overlay

SR 92 VILLAGE OVERLAY

The SR 92 Village Overlay applies to parcels located within one quarter mile of SR 92 and Fairburn Road from the Fulton County line to 1-20. The overlay applies to all properties in the corridor, except for previously-approved residential platted subdivisions, deed-restricted residential subdivisions and residential neighborhoods established before the adoption of the district.

The purpose of the overlay is to promote quality development, establish uniform design standards and enhance safety. The overlay limits curb cuts on SR 92 and requires inter-parcel access and internal roadways to prevent congestion on the highway. The overlay





promotes self-contained commercial developments that feature the design elements of village centers. Commercial developments larger than one acre are required to be organized into blocks ranging in length from 360-600 feet with each block having primary and secondary driveways.

US 78 CORRIDOR OVERLAY

US 78 Corridor Overlay is applied to parcels within 1,000 feet of US 78 from the Cobb County line to the city limits of Douglasville. The purpose of the overlay is to promote quality development by establishing minimum standards for site development, architectural design, landscaping, lighting, and signage. The overlay promotes the use of internal roadways or vehicular connections to make developments accessible to each other to achieve inter-parcel access and prevent congestion on the highway.

POST ROAD VILLAGE OVERLAY

The boundaries of the Post Road Village Overlay are one quarter mile south of the Post Road at I-20 interchange and north of I-20 to 1,000 feet north of US 78 and from 250 feet east of and 500 feet west of Mann Road. The overlay applies to all properties located in this corridor, except for previously approved residential platted subdivisions, deed restricted residential subdivisions and residential neighborhoods established before the adoption of the overlay. The purpose of the overlay is to ensure quality development with a unified and cohesive look. The overlay encourages village center design elements in commercial developments and requires all new utilities to be located underground. Curb cuts are limited and inter-parcel access and internal roadways are required.

CORRIDOR OVERLAY

The Corridor Overlay applies to parcels located within 1,000 feet of SR 5 from SR 166 to US 78. The purpose of the overlay is to ensure quality architecture, landscaping, and signage, and to increase walkability. Inter-parcel vehicle access is required between all adjoining commercial, office and industrial uses.



ECONOMIC DEVELOPMENT INITIATIVES

Two areas have been identified in Douglas County as opportunity zones for targeted economic development: Thornton Road from I-20 to US 78 and US 78 from the northern county line to Sweetwater Road. An additional zone for targeted economic development is the boundary from the SR 92 Corridor LCI Study (2008). The LCI boundary is SR 92 from I-20 to Lake Monroe Road.

Two other zones for targeted development are the boundaries from the Douglasville Downtown Master Plan and 10-Year Strategic Plan (2017) and the Sweetwater Master Plan (2017). The master plan boundary for Downtown Douglasville contains the majority of the historic downtown as well as parcels adjacent to Selman Drive, Selman Avenue, and Club Drive and along SR 92 from Upshaw Mill Road to Spring Street. For the Sweetwater Master Plan, the 3,700-acre boundary is defined by Sweetwater Creek State Park to the west, Cobb County to the north and east, Chattahoochee River to the east and south, and I-20 to the north.

As areas where officials are clearly encouraging development and redevelopment, it is critical to ensure that the needed transportation infrastructure is in place. In some cases, improving the transportation infrastructure can help attract the development the community desires.

CONNECTIONS TO THE CTP

Land use and transportation are inextricably linked. To effectively plan for transportation investments, the focus is less on the existing land uses and more on future land use and the degree of change it illustrates from







what's currently on the ground. Foremost, the County's vision to maintain its rural character to the south and west must be noted; any transportation improvements in this area should be carefully considered. Increasing roadway capacity could adversely affect the character of the area by unintentionally encouraging additional suburban-style growth. Conversely, new urban residential and suburban living areas are likely strong candidates for roadway, bicycle, pedestrian, and operational improvement projects.

The activity centers and mixed-use corridor along US 78 should receive special attention in the CTP process, as it pertains to multi-modal transportation options. Pedestrian and bicycle infrastructure both within and between these activity centers should also be a consideration. What is not clearly reflected in the future land use map is the volume of industrial development that is occurring at the eastern edge of the County. As seen in Figure 4-6, multiple large scaled warehouses and distribution centers have been built and proposed along Riverside Parkway and Thornton Road. As industrial growth pushes further south, it is coming into conflict with residential areas that have markedly different transportation needs. These points of conflict are important to anticipate, and ideally, prevent.

Source: Douglas County, TCF and VHB

These shifts in land use and their implications for the CTP will be explored in greater detail as part of the System-Wide Needs Assessment Report.



5 TRAVEL TRENDS

It is important to look at the common patterns of travel throughout the county and identify recurring trends in order to determine outstanding capacity and infrastructure needs. In analyzing the travel pattern data for Douglas County, the following trends emerged.

The general commuting trends for Douglas County can be seen in Figure 5-1. Over half of the total commuters traveling in the county live there and are employed elsewhere requiring them to leave the county for work.

Approximately a third of Douglas commuters live outside the county, but work in Douglas County and must commute in. The remaining 12% of commuters live and work in the county.



Figure 5-2 shows where Douglas County residents work. The figure shows both the residents that commute within Douglas County and those who commute to other counties for work. The two areas with the highest concentration of commuters from Douglas County are where SR 6 and SR 92 intersect I-20, and Downtown Atlanta.

Smaller employment centers can be seen in Cobb County at the intersection of I-285 and I-75, at Hartsfield-Jackson International Airport, and the City of Carrollton, in central Carroll County. Overall, Douglas County residents not working in the county are commuting east and northeast toward Atlanta and Marietta, along I-20, I-285, I-75, and SR 5.



Figure 5-2: Where Douglas County Residents Work

Source: U.S. Census Bureau, LEHD Origin-Destination Employment Statistics (2017)



Figure 5-3 shows where people who are employed in Douglas County live. This map represents both the Douglas County residents that commute within Douglas County and the workers that commute from other areas outside the county. The highest concentration of Douglas County workers is within the county near SR 92 and Chapel Hill Road. Cobb County has the next highest concentration followed by other smaller pockets in south Paulding County, and south and northeast Carroll County. **Overall, workers are commuting from the north and west to work in Douglas County, mainly along I-20 and SR 5**.



Figure 5-3: Where Douglas County Workers Live

Source: U.S. Census Bureau, LEHD Origin-Destination Employment Statistics (2017)


Figure 5-4 shows the location of the top ten external trip generators for Douglas County. The map indicates the most popular destinations of trips entering and leaving Douglas County each day.

The exact number of the trips coming from and going to each of the counties indicated can be found in Table 5-1.

The top 10 external trip generators account for 98% of all external trips to or from Douglas County. Cobb County is by far the largest external trip generator, accounting for one third of all external trips, followed by the City of Atlanta and Paulding County.

External trips that start or end within Douglas County, but travel outside the county at some point, make up

Figure 5-4: Top 10 Daily External Trip Generators

approximately 52% of the total daily Douglas County trips. The other 48% of trips, approximately 203,000 trips per day, start, end, and stay within Douglas County.

Table 5-1: Daily Trips between Douglas County and Top 10 External Trip Generators			
Destination	Daily Trips	% of Total External Trips	
Cobb	72,067	33.3%	
Atlanta	32,347	14.9%	
Paulding	31,571	14.6%	
S Fulton	26,571	12.3%	
Carroll	25,709	11.9%	
DeKalb	7,866	3.6%	
Coweta	4,891	2.3%	
Clayton	4,771	2.2%	
N Fulton	3,170	1.5%	
Fayette	2,910	1.3%	

Source: ARC Activity Based Model





Source: ARC Activity Based Model

The county was divided into quadrants using I-20 as the east-west delineation and SR 92, Campbellton Road, and Chapel Hill Road as the north-south delineation. A map of the quadrants is shown in Figure 5-5.

Figure 5-5: Douglas County Quadrants



Source: ARC Activity Based Model

Table 5-2 summarizes the top five trip generators for each Douglas County quadrant. For three of the four quadrants the highest proportion of trips are internal trips that start and end within the same quadrant. The exception is NE Douglas which has the highest proportion of its daily trips between Cobb County. Morning commute patterns between the four Douglas County quadrants and external generators are shown in Table 5-3 and Figure 5-6. The number of trips for the top fifteen origindestination pairs are detailed in Table 5-3, which also includes internal quadrant trips.

Approximately 26.5% of all morning peak period trips are internal trips within the same quadrant. Trips to a different quadrant or county make up the other 73.5% of trips. Consistent with the U.S. Census employment data, the most external morning trips go from Cobb County to Northeast Douglas County.

A significant amount of trips are leaving Douglas County for Cobb County which is also consistent with the U.S. Census employment data. **The City of Atlanta, Paulding County, and South Fulton are locations included both in the top 10 daily external generators as well as the top 15 AM origindestination pairs.**



Table 5-2 :	Table 5-2: Douglas County Quadrants Top 5 Daily Trip Pairs			
Origin	NW Douglas	NE Douglas	SE Douglas	SW Douglas
Rank	Destinations			
1	NW Douglas (16.8%)	Cobb (26.2%)	SE Douglas (21.8%)	SW Douglas (34.8%)
2	SW Douglas (22.2%)	NE Douglas (20.3%)	Cobb (15.5%)	SE Douglas (12%)
3	NE Douglas (14.4%)	SE Douglas (13.5%)	NE Douglas (14.2%)	NW Douglas (10.6%)
4	Carroll (11.9%)	SW Douglas (8.4%)	SW Douglas (13.2%)	Carroll (8.3%)
5	Paulding (11.1%)	Paulding (7.5%)	S Fulton (10%)	NE Douglas (8.1%)





Douglas County Comprehensive Transportation Plan

Table 5-3: Origin-Destination Pairs During AM Peak Period				
Rank	Origin	Destination	AM Peak Period Trips	% of Total AM Trips
1	SW Douglas	SW Douglas	11,156	10.9%
2	SE Douglas	SE Douglas	7,236	7.0%
3	NE Douglas	NE Douglas	5.974	5.8%
4	Cobb	NE Douglas	4,529	4.4%
5	NE Douglas	Cobb	3,925	3.8%
6	SE Douglas	Cobb	3,115	3.0%
7	NW Douglas	NW Douglas	2,912	2.8%
8	SE Douglas	Atlanta	2,884	2.8%
9	Cobb	SE Douglas	2,284	2.2%
10	SE Douglas	SW Douglas	2,184	2.1%
11	Paulding	NE Douglas	2,174	2.1%
12	SE Douglas	NE Douglas	2,170	2.1%
13	NE Douglas	Atlanta	2,122	2.1%
14	SE Douglas	S Fulton	2,003	1.9%
15	SW Douglas	Atlanta	1,882	1.8%
				Source: ARC Activity Based Model

Figure 5-6: AM Peak Period Travel Patterns

AM Peak Travel Patterns North Fulton Peak Period Trips 250 500 1,000 Cobb Gwinnett Paulding Haralson NW Douglas DeKalb SE Douglas SW Douglas Rockdale Clayton Henry Fayette Coweta 2 16 4 12 0 8 Heard Miles



Source: ARC Activity Based Model

O INFRASTRUCTURE + SERVICES

A key component of the CTP is to study the status of existing transportation infrastructure and services in Douglas County. Studying the existing conditions of current mobility within and out-of the county helps identify strengths and opportunities for improvement. This chapter reports on the condition and evaluation of existing transit service, roadway characteristics, levels of service, bridge and pavement conditions, bicycle and pedestrian infrastructure, intelligent transportation systems, and transportation demand management.

ROADWAY CHARACTERISTICS

ROADWAY LANEAGE

There are nearly 650 miles of roadways classified as collector, arterial, ramp, or freeway within Douglas County. These roadways vary from 2-lane roads to 8-lane interstate freeways. The ARC travel demand model was used to summarize the statistics presented in this section. The ARC model is a valuable tool to highlight potential needs that exist today within the county, as well as where deficiencies may exist in the future. Table 6-1 summarizes the centerline miles of roadway by each facility type classification from the ARC travel demand model. Note this table does not include the numerous local roads and neighborhood streets throughout the county that feed to the collector and arterial system. The local roads are generally all 2-lane roadways. Figure 6-2 shows the number of lanes for the roadways within Douglas County.

Table 6-1: Center-line Miles of Roadway by Laneage					
Lanes	Collector	Arterial	Freeway/ Ramp	Total	
2-lane	372	163	8	543	
4-lane	8	42	1	51	
6-lane	-	14	36	50	
8-lane	-	-	2	2	
Total	380	219	47	646	

Source: ARC Travel Demand Model











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FUNCTIONAL CLASSIFICATION

Douglas County has developed a classification system for roadways referred to as functional classification. This system defines the roles that each roadway serves to provide for different travel needs, including short distance local trips, long-distance commuter trips, and freight movement. The functional classification of roadways is used for planning and design purposes that help guide accessibility, lane widths, shoulder widths, and speeds. For example, sidewalks are required in new residential, commercial, and industrial developments located on arterial or collector roadways. The functional classification includes four major types: **Interstate System** – Access-limited roads that provide the highest level of mobility serving primarily longdistance trips and freight movement. Douglas County has I-20, the only interstate facility in the county.

Arterials – Often high-speed facilities that provide mobility across the county serving as connections to interstates as well as the local network of collectors and local roads.

Collectors – Major and minor roads, often 2-lane facilities, that provide connection between local roads and the arterial network. They provide minimal long-distance mobility and mainly serve local traffic.

Local Roads – Provide direct access, usually shortdistance, to neighborhoods, businesses, and local areas within the county. Local roads are by far the most common roadway in the county.



TRAFFIC VOLUMES

Figure 6-5 shows the bandwidth of daily traffic volumes on roadways throughout Douglas County. **The heavier volumes are concentrated on I-20 and the crossing arterials that feed the interstate**, as well as the roads in the denser areas of Douglasville.

These more congested arterials include, but are not limited to:

- SR 92 (Fairburn Road)
- SR 6 (Thornton Road)
- Lee Road
- Chapel Hill Road
- SR 5 (Bill Arp Road)

LEVEL OF SERVICE

Existing LOS

The operational effectiveness of roadways is typically expressed in terms of its level of service (LOS). LOS is a standard means of classifying traffic conditions associated with various traffic volumes levels relative to each roadway's carrying capacity and traffic flow conditions.

LOS A, B, and C are associated with light and stable traffic flow, with no more than intermittently occurring delays. LOS D is characterized by longer delays; however it is still considered to represent acceptable operational conditions. LOS E and F are considered unacceptable operations and represent extreme

congestion and delay. LOS F is the point at which the roadway volume has exceeded the serviceable capacity of that roadway. Figures 6-6 and 6-7 shows the existing LOS in Douglas County for the AM and PM Peak Periods, respectively. Table 6-2a summarizes the stratification of roadway miles within the County at each LOS classification.

Table 6-2a: Miles of Roadway by LOS - 2020			
LOS	Miles	%	
A/B	491	76.0%	
С	82	12.7%	
D	36	5.6%	
Е	23	3.5%	
F	14	2.2%	

Source: ARC Travel Demand Model

Generally, most of the county is experiencing minimal congestion, with slightly over 94% of the roadways at LOS D or better. However, there are some facilities operating at LOS E or F – with just over 2% of the roadways in the County operating over capacity. This is detailed in Table 6-2b where the 2020

Table 6-2b: Freeway, Arterial, and Collector Miles of Roadway by LOS - 2020			
LOS	Freeways	Arterials	Collectors
A/B	3	130	358
С	12	54	16
D	13	18	5
Е	11	12	1
F	9	5	1

LOS is shown specifically for major roads (Freeways, Arterials, and Collectors) in Douglas County.

Most of the congested roadways include I-20 eastbound and I-20 westbound in the AM and PM peak periods. The maps also indicate some congestion on the roadways entering the county from Fulton County at the river crossings, including SR 154 (Fairburn Road) and SR 92.

Projected LOS

The ARC's regional transportation model was used to develop future year traffic projections for 2050 reflecting anticipated traffic conditions based on future population and employment estimates. Traffic projections are helpful in identifying potential future problem areas which may not exhibit high levels of congestion today.

Table 6-3a details the number of roadway miles for each LOS classification in 2050 and Table 6-3b details LOS specifically on major roads (Freeways, Arterials, and Collectors). A comparison to 2020 LOS percentages in Tables 6-2a/b indicates an overall worsening in traffic conditions with increases in LOS F from 2.2% to 4.4%, LOS E from 3.5% to 7%, and the largest change in LOS D from 5.6% to 12.4% of county roads.

Figure 6-8: Douglas County 2050 AM Peak Period LOS

Table 6-3a: Miles of Roadway by LOS - 2050			
LOS	Miles	%	
A/B	457	68.9%	
С	83	12.5%	
D	47	7.1%	
E	47	7.0%	
F	30	4.5%	

Source: ARC Travel Demand Model

Table 6-3b: Freeway, Arterial, and Collector Miles of Roadway by LOS - 2050

LOS	Freeways	Arterials	Collectors
A/B	13	96	348
С	5	62	15
D	4	34	9
Е	20	22	4
F	20	7	2

Source: ARC Travel Demand Model

Figure 6-8 displays projected worsening of LOS on several key roadways in 2050 as compared to the 2020 LOS for the same AM peak period (Figure 6-6).

Traffic conditions are anticipated to deteriorate on SR 166 (Duncan Memorial Highway) from Oak Hill Road to the Fulton County line and near the intersection of US 78 (Veterans Memorial Highway) at South Sweetwater Road. Worsening congestion levels are also anticipated in downtown Douglasville and near the intersection of Kings Highway at Central Church Road. Deteriorating conditions are also projected on segments of Capps Ferry Road and SR 166 (Duncan Memorial Highway) in the McWhorter area. The Capps Ferry Road area has already been identified as a special focus area for detailed study in the CTP. Figure 6-9 illustrates the projected 2050 LOS during the PM peak period. **A comparison to the 2020 LOS for the same peak period (displayed in Figure 6-7) shows many of the same areas worsening in the AM and PM peak periods.** This includes the Capps Ferry Road at SR 166 (Duncan Memorial Highway) area and SR 166 (Duncan Memorial Highway) between Oak Hill Road and the Fulton County line. The intersection of US 78 (Veterans Memorial Highway) at South Sweetwater Road and major roadways in downtown Douglasville also exhibit similar deteriorations in LOS. The most notable worsening in LOS from 2020 to 2050 is seen in the PM peak on I-20 from the Cobb County Line to Bright Star Road and to a lesser extent from Bright Star Road to the Carroll County line.

LOCATION BASED TRAFFIC DATA

Understanding where congestion is present in the roadway system is one way to measure and understand mobility. Travel time index (TTI) is a way of measuring congestion and the ratio of the free flow speed of a segment divided by the peak period speed on that segment. A TTI of 1.0 means the free flow speed and peak period speeds are the same and there is no congestion (Figure 6-10). A TTI greater than 1.0 indicates that some level of congestion is present because peak period speeds are lower than the free flow speed. 2019 INRIX data, provided by ARC, was used to establish a base free flow speed on each roadway link based on speeds collected during offpeak hours while peak period speeds were calculated by averaging speeds from 6:00 AM to 10:00 AM for the AM peak period and 3:00 PM to 7:00 PM for the PM peak period. Figure 6-11 presents the 2019 TTIs calculated for roadways in Douglas County during the AM peak period.

A benefit of using INRIX data, as opposed to ARC model data, to calculate TTI is that it allows for more precise measurements of speed at different points along a roadway segment. This allows users to determine if congestion is occurring at the segment or at the intersection level. Segment level congestion is characterized by long sections of congestion while intersection congestion is characterized by intense congestion along short segments approaching intersections.

INRIX speed data is developed using billions of realtime, anonymous location data points collected from Bluetooth devices like mobile phones and connected vehicles. Figure 6-12 presents the 2019 TTIs calculated for roadways in Douglas County during the PM peak period. The top five congested segments and intersection approaches for each peak period are listed in Table 6-5. For this analysis segments are defined as links of at least 0.5 miles of high levels of congestion.

Riverside Parkway from the Cobb County line to SR 6/Thornton Road/Camp Creek Parkway is the most congested roadway segment during both the AM and PM peak periods. I-20 from the Cobb County line to SR 6/Thornton Road and portions of US 78/SR 8/Veteran's Memorial Highway between Sweetwater Road and SR 6/Thornton Road are also severely congested during both the AM and PM peak periods. **There is noticable overlap when looking at congested intersections where the top four congested intersection approaches appear on both the AM and PM peak period lists.**

Figure 6-12: 2019 PM Peak Period Travel Time Index

Table 6-4: 20	19 Top AM & PM Congested Roadway Segn	nents and Intersections in Douglas Cou	nty
	Roadway/Intersection	From/To or Approach	Average TTI
	Riverside Parkway	From SR 6/Thornton Rd to Cobb C/L	5.45
Top 5 Congested Roadway	US 78/SR 8/Veteran's Memorial Hwy	From Peachtree Street to SR 6/ Thornton Rd	3.67
Segments, AM Peak	I-20 EB	From SR 6/Thornton Rd to Cobb C/L	3.02
Period	SR 6/Thornton Rd	From Riverside Pkwy to Fulton C/L	3.52
	SR 154/Fairburn Rd	From SR 92 to Fulton C/L	2.90
	Anneewakee Rd at Chapel Hill Rd	WB approach	7.33
Top 5	Chapel Hill Rd at Hwy 166	SB approach	6.00
Congested Intersections,	Factory Shoals Rd at SR 6/Thornton Rd	WB approach	5.39
AM Peak Period	US 78/SR 8/Veteran's Memorial Hwy at Bill Arp Rd	WB approach	4.45
	Maxham Rd at SR 6/Thornton Rd	WB approach	4.33
	Riverside Pkwy	From Cobb C/L to SR 6/Thornton Rd	7.09
Top 5 Congested	I-20 WB	From Cobb C/L to SR 6/Thornton Rd	4.59
Roadway	Maxham Rd	From Cobb C/L to SR 6/Thornton Rd	4.24
PM Peak	I-20 WB	From SR 6/Thornton Rd to Lee Rd	3.30
Period	US 78/SR 8/Veteran's Memorial Hwy	From Peachtree Street to SR 6/ Thornton Rd	2.99
	Chapel Hill Rd at Hwy 166	SB approach	11.17
Top 5	Anneewakee Rd at Chapel Hill Rd	WB approach	8.33
Congested Intersections,	US 78/SR 8/Veteran's Memorial Hwy at Bill Arp Rd	WB approach	6.55
Period	Factory Shoals Rd at SR 6/Thornton Rd	WB approach	6.04
	US 78/SR 8/Veteran's Memorial Hwy at SR 6/Thornton Rd	WB approach	5.33

Source: ARC 2019 INRIX Data

SIGNALIZATION AND INTELLIGENT **TRANSPORTATION SYSTEMS**

SIGNALIZATION

Douglas County has 176 signalized traffic control devices, 114 of which are traffic signals. Figure 6-13 shows the location of the control devices in the county. Most traffic signals are located along major corridors in the vicinity of I-20 including SR 5, Chapel Hill Road, SR 92 and SR 6. Table 6-5 shows the quantities of signalized traffic control devices deployed in the county.

GDOT RTOP

GDOT has implemented their Regional Traffic Operations Program (RTOP) on several corridors in Douglas County. RTOP is a multi-jurisdictional program

Figure 6-13: Signalized Traffic Control **Device Locations in Douglas County**

with the aim of improving traffic flow on arterial roads through signal timing. The RTOP corridors in Douglas County include SR 92 (Thornton Road), US 78 (Veterans Memorial Highway), and SR 5 (Bill Arp Road).

Table 6-5: Signalized Traffic Control Device Inventory Device Quantity Traffic Signal 114 Advanced Warning Beacon 6 CCTV 7 Future CCTV 10 **Curve Flasher** 2 Intersection Flashing Beacon 5 Park and Ride Lot 3 Radar Speed Limit Sign 1 Roundabout 27 School Flasher

Source: Douglas County

INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) integrate communication technology into transportation infrastructure to improve safety and mobility. Figure 6-14 shows where these technologies have been installed or are under construction, mainly along US 92, Fairburn Road and Chapel Hill Road. The technologies installed by Douglas County include fiber communication and CCTV Cameras. All of the intersections with ITS infrastructure can be accessed through the Douglas County Traffic Control Center. The ITS infrastructure along SR 92 is also accessible to GDOT through the Navigator system. The Georgia Navigator system is the backbone of the state's ITS infrastructure that collects traffic data and provides real-time travel information.

BRIDGE & PAVEMENT CONDITIONS

BRIDGE CONDITIONS

There are a total of 93 bridges and culverts in Douglas County. They are classified based upon sufficiency ratings and categorized into three groups (good, fair, or poor) in the National Bridge Inventory (NBI). The sufficiency rating breakdown for Douglas County is detailed in Table 6-6 and shown spatially in Figure 6-15.

Bridges with sufficiency ratings of 50 or less are eligible for federal funds for bridge replacement. **There is only one bridge in Douglas County with a rating of less than 50 in Fair condition – Burnt Hickory Road at I-20.** Bridges with a sufficiency rating between 50 and 80 are eligible for federal repair funding. In Douglas County, there are 28 bridges with a sufficiency rating between 50 and 80. Table 6-7 details all bridges with a sufficiency rating below 80. Currently, there are no bridges in the county classified as being in poor condition. Bridges with a sufficiency rating above 80 are typically considered to be in good condition and are not identified for potential bridge improvements.

Table 6-6: Douglas County Bridge Sufficiency Ratings			
Sufficiency	# of Bridges	%	
Sufficiency Rating > 80 (Good Condition)	60	64%	
Sufficiency Rating <=80 (Federal Repair Funding)	28	30%	
Sufficiency Rating <=50 (Federal Replacement Funding)	1	1%	
Rating Not Available	4	4%	

Source: GDOT, National Bridge Inventory (NBI)

Table 6-7: Douglas County Bridges with Sufficiency Ratings below 80

Facility Carried	Feature Crossed	Rating	Condition
Bridge Rd	Sweetwater Creek Tributary	65.5	Good
Bright Star Rd	I-20	74.6	Fair
Burnt Hickory Rd	I-20	43.0	Fair
Capps Ferry Rd	Chattahoochee River (Fulton/ Douglas County Line)	71.7	Fair
Chapel Hill Rd	Anneewakee Creek	96.6	Good
Daniel Mill Rd	Mobley Creek Tributary	69.7	Fair
East Baggett Rd	Mobley Creek	67.5	Fair
I-20 (EBL)	Keaton Creek	79.1	Fair
I-20 (EBL)	Mobley Creek	78.8	Good
I-20 (WBL)	Keaton Creek	79.1	Fair
I-20 (WBL)	Mobley Creek	78.8	Good
1-20	Beaver Run Creek	70.0	Good
1-20	Keaton Creek Tributary	71.2	Fair
Johnston Rd	Mobley Creek Tributary	76.4	Fair
Lee Rd	Beaver Run Creek	90.6	Good
Lee Rd	I-20	96.5	Good
Liberty Rd	I-20	65.9	Fair
Maxham Rd	Sweetwater Creek Tributary	79.0	Fair
Mt. Vernon Rd	I-20	79.4	Fair
North County Line Rd	1-20	59.5	Fair
North Helton Rd	Dog River	74.6	Fair
Post Rd	Dog River	55.5	Fair*
Prestley Mill Rd	1-20	52.6	Fair
Ragan Rd	Mud Creek	62.8	Fair
Shoreline Pkwy	Town Branch Creek	71.6	Good

PAVEMENT CONDITIONS

Douglas County undertook a pavement condition assessment in 2019 for all county-maintained roads. The roads were scored using a Pavement Condition Index (PCI). The PCI considers a variety of factors and uses a scale of 0 to 100. The best possible condition will receive a score of 100 and the worst possible condition will receive a 0. The pavement condition assessment identified 35 roads as priority roads for resurfacing in a 2020 Resurfacing List. The County has funded many of these resurfacing projects through SPLOST revenues. A total of 31 resurfacing projects were identified for SPLOST funding in 2019. Pavement conditions for all county-maintained roads have been totaled by PCI class and this is detailed in Table 6-8. The majority of county roads (57%) are in Fair condition or better. Roads with a condition of Poor or worse comprise 42% of the total and only 5% of county roads are in Failed condition.

Figure 6-16 displays county-maintained roads by PCI

Table 6-8: Douglas County PavementConditions by PCI Class			
PCI Class	Number of Miles	%	
Failed	36.1	5%	
Serious	58.1	8%	
Very Poor	103.9	14%	
Poor	108.2	15%	
Fair	136.8	19%	
Satisfactory	104.1	14%	
Good	171.9	24%	

Source: Douglas County, POND

class. This was calculated based on an average PCI score for each roadway segment and then weighted by length. Pavement condition by PCI class is fairly evenly distributed throughout the county. However, an increase in Poor, Very Poor, Serious, or Failed condition roadways can be found closer to the

municipal jurisdictions within the county (Douglasville, Austell, and Villa Rica) simply due to the increase in overall number of roads as it moves from more rural/ suburban to a more urban setting.

TRANSIT SERVICES

This section provides an overview of existing transit services in Douglas County. This includes a variety of services offered by the County through Connect Douglas and Xpress Commuter Bus provided by SRTA. During the Assessment phase of this study a detailed Transit Service Assessment will be conducted which will include a comprehensive analysis of existing transit services and recommendations to improve and enhance services.

CONNECT DOUGLAS

In 2018, Douglas County rebranded the transit services it provides under the umbrella brand of Connect Douglas (Figure 6-17). The rebranding occurred to better align with Douglas County's goal of offering transit and mobility services for all members of the community. Connect Douglas provides a wide variety of services and mobility options to individuals in Douglas County. Major services include commuter vanpool service, fixed-route bus service, ADA paratransit service, carpool matching services, transportation voucher program, and the provision of commuter facilities. Figure 6-17: Connect Douglas New Brand + Logo

DOUGLAS COUNTY MULTI - MODAL TRANSPORTATION SERVICES

Commuter Vanpool Program

Douglas County has operated a highly successful commuter vanpool program for over 30 years. This was formerly known as Douglas County Rideshare before being rebranded under the Connect Douglas umbrella of services.

Today, the vanpool service operates 32 routes to many regional destinations including downtown Atlanta, Midtown, Buckhead, Decatur, Emory University, Perimeter, Alpharetta and more. The current routes, span of service, destinations, and monthly fares are detailed in Table 6-9.

Table 6-9: Connect Douglas Commuter Vanpool Routes and Pricing								
Monthly Fares	Route # and Name	Span of Service	Pick-Up Location	Drop-Off Location				
Anniston, Alabama								
\$195	152: Bureau of Prisons Talladega	6:45am – 6:30pm	Transportation Center	Bureau of Prisons in Talladega, Alabama				
Alpharetta	a							
\$98	143: Alpharetta Windward Pkwy	5:40am- 5:30pm (6:00 am to 3:00 pm on Fridays)	Transportation Center	UPS @ Morris Road, Windward Plaza, Lexis Nexis, Choicepoint, McKesson, Ryder, AMC 925 Northwinds Pkwy, AT&T at Northpoint, Travelers and Ryder				
Atlanta/Southeast								
\$86	149: United States Penitentiary	6:25am- 4:15pm	Transportation Center, Thornton Road Walmart	United States Penitentiary				

Table 6-9: Connect Douglas Commuter Vanpool Routes and Pricing							
Monthly Fares	Route # and Name	Span of Service	Pick-Up Location	Drop-Off Location			
Atlanta/Southwest							
\$82	160: Delta TOC	5:10am – 3:15pm	Douglas Blvd Park and Ride	Delta TOC on Aviation Blvd			
Atlanta/D	owntown						
\$90	161: The Capitol	5:35am – 4:45pm	Douglas Blvd Park and Ride	Dept. of Agriculture, Board of Pardons & Paroles, Georgia Public Service Commission, Georgia Building Authority, Supreme Court of Atlanta, MLK Dr and Washington St, Richard Russell Federal Building, Georgia State University, Dept. of Public Safety			
\$94	158: GWCC	5:20am – 4:30pm	Post Road Park and Ride	Georgia World Congress Center			
\$86	163: The Capitol	6:05am – 4:30pm	Transportation Center	40 Capitol Square, Agriculture Bldg, Atlanta City Hall, GA Building Authority, Georgia State University			
Atlanta/M	lidtown						
\$86	GDOT, AT&T	6:05am – 4:45pm	Douglas Blvd, Wal- Mart Thornton Road	600 W. Peachtree St (Bank of America Tower), One Georgia Center, MARTA and AT&T @ North Ave, US Small Business Administration, Georgia Power			
\$86	168: Norfolk Southern	5:05am – 3:30pm	Transportation Center	Norfolk Southern			
\$86	140: Norfolk Southern	5:30am – 4:15pm	Transportation Center	Norfolk Southern			
\$86	147: Norfolk Southern	6:00am – 5:10pm	Transportation Center	Norfolk Southern			
\$86	150: Norfolk southern	12:40pm – 11:15pm	Post Road, Transportation Center	Norfolk Southern			
Cobb Cou	inty						
\$82	120: Lockheed	5:05am – 5:15pm	Post Road Park & Ride	Lockheed Martin, defense Contract Management Agency			
\$82	126: Lockheed	4:00am – 5:00pm	Transportation Center, First Presbyterian Church	Lockheed Martin			
\$86	145: Wildwood	6:00am – 4:45pm	Transportation Center	3100 Interstate North – Assurant & Allstate, Arco Design & United Lex, Wildwood Office Park, Circle 75			
\$86	139: Printpack	6:00am – 4:45pm	Transportation Center	Printpack, Inc. Overlook Parkway			
Decatur –	Emory						
\$86	142: CDC/ Emory	5:45am – 5:00pm	Transportation Center, Home Depot	CDC Roybal Campus/Emory University			

Table 6-9: Connect Douglas Commuter Vanpool Routes and Pricing							
Monthly Fares	Route # and Name	Span of Service	Pick-Up Location	Drop-Off Location			
\$86	146: Emory/ CDC	5:30am – 4:30pm	Transportation Center	Emory University main campus, CHOA, CDC, Emory University Hospital			
\$82	154: Emory	6:00am – 5:00pm	Thornton Road Wal- Mart	New Emory Clinic, Emory Clinic at 1525, Emory University Hospital, Emory School of Medicine @ 1701 Uppergate Dr. and Michael Street Parking Deck			
Decatur –	VA						
\$82	169: VA Medical	6:05am – 4:15pm	Thornton Road Wal- Mart	VA Medical Center on Clairmont			
\$82	159: VA Admin.	6:35am – N/A	Thornton Road Wal- Mart	VA Administration and Medical on Clairmont			
I-85 Centu	ury Center						
\$86	151: 11 Corporate Square	6:00am – 4:45pm	Transportation Center	11 Corporate Square			
\$86	156: Century Center	6:00am – 4:45pm	Wal-Mart on Thornton Road	Century Center Office Park & Clairmont Road CDC, Department of Revenue, AT&T, Corporate Square – I-85, North Druid Hills – CDC and Fidelity Bank			
\$86	153: Century Center	5:45am – 4:45pm	Transportation Center	Century Center Office Park @ I-85 and Clairmont Road, VA and CBO Systems Mgt, CDC, GA Department of Revenue, Georgia Dept. of Wild Life, Corporate Square – CDC & Fidelity Bank			
I-85 Cham	nblee Tucker						
\$82	167: CDC	6:00am -4:45pm	Thornton Road Wal- Mart	CDC Buford Hwy, Chamblee			
\$90	162: CDC/ IRS	6:00am – 4:30pm	Lithia Spring Park on Sweetwater Road	CDC and IRS on Buford Hwy, IRS Chamblee- Tucker Rd			
\$86	157: CDC University Park	5:50am – 4:30pm	Transportation Center	CDC @ University Office Park Chamblee- Tucker Rd			
Perimeter	Center						
\$90	165: UPS Glenlake	6:00am – 6:00pm	Transportation Center	10, 35, & 55 Glenlake Pkwy			
\$90	144: Emory St. Joseph	6:00am – 5:15pm	Transportation Center	Emory St. Joseph			
\$90	171: Abernathy Rd	5:40am – 5:15pm	Transportation Center	1000-1200 Abernathy Rd. Cox Enterprises, 1040-1050 Crown Point Pkwy, The Palisades, 1117 Perimeter Center West, 1200 Ashford Pkwy, Art Institute on Peachtree Dunwoody Rd.			

Source: Connect Douglas

Fixed Route Bus Service

In 2016, Douglas County completed a Transportation Services Study which identified transit challenges and opportunities in the county. A major recommendation was the implementation of a fixed-route bus service. In 2019, fixed-route service began operations on four routes with a vehicle fleet comprised of 14-passenger shuttle buses. The routes primarily serve the eastern half of Douglas County and the City of Douglasville. These routes are displayed in Figure 6-18 and include:

- Route 10: West Douglasville Loop Serving downtown Douglasville and Arbor Place Mall
- Route 20: East Douglasville Loop Serving downtown Douglasville, Connect Douglas Transportation Center, Arbor Place Mall, and Douglas Boulevard Park and Ride

- Route 30: SR 6 (Thornton Road) and Riverside Parkway
- Route 40: Cross-county route from Arbor Place Mall and Connect Douglas Transportation Center to Riverside Parkway transfer point in Cobb County. Free transfers are available to CobbLinc Route 30 which serves the H.E. Holmes MARTA station.

The Connect Douglas fixed-route buses also operate as a flex service. Individuals can call in advance to reserve a pick-up and the bus will "flex" from its fixed route and then return to the fixed route after the pickup. Flex pick-up reservations can be made between two and 24 hours in advance. The pick-up must be within one mile of a Connect Douglas fixed route to qualify and the number of flex trips are limited per route to help maintain route efficiency.

The standard one-way fare is \$2.50. A ten-trip pass is available for \$25 and 31-day unlimited pass is \$75. Senior adults, individuals with disabilities and students can purchase a one-way ticket for \$1, a 10-trip ticket for \$10 and a 31-day pass for \$31.

Douglas County also offers riders a tool to help them better plan their fixed-route transit trips. The "Passio Go" mobile app tracks the Connect Douglas fixedroute buses live on mobile devices.

ADA Paratransit Service

Connect Douglas offers complimentary paratransit service within one mile of fixed-route bus routes for individuals with limitations that prevent their use of fixed-route service. The paratransit service meets the requirements of the Americans with Disabilities Act (ADA) and is intended to primarily serve individuals with disabilities. Once an individual becomes certified with the county, eligible riders can contact Connect Douglas to make a reservation for a pick-up and drop-off. The location of an individual desiring a a paratransit trip must be within one mile of a Connect Douglas fixed route.

Carpool Matching Services

Connect Douglas, with assistance from Georgia Commute Options, provides carpool matching services for commuters not well served by Xpress buses, vanpool or fixed-route services. Connect Douglas maintains a list of individuals who have an expressed interest in carpooling and attempts to match commuters who work in the same area with similar work hours. Carpool matching assistance is provided free of charge by Douglas County.

Transportation Voucher Program

Douglas Connect provides mobility assistance for seniors and disabled individuals through its Transportation Voucher Program. This program provides discounted fare vouchers to pay a private provider (such as a taxi) for "quality of life" trips for purposes such as shopping, entertainment and visiting friends and family. Eligible seniors can purchase \$100

COMMUTER FACILITIES

Connect Douglas Transportation Center

The flagship commuter facility in the county is the Connect Douglas Transportation Center, shown in Figure 6-18. The center is located adjacent to I-20 on Dorris Road, near the SR 92 and I-20 interchange. This facility features an administration building, canopied loading platforms and bus bays, and 650 parking spaces for commuters. This center serves as a multimodal transfer point for Connect Douglas fixed-route service, commuter vanpool, and SRTA Xpress bus service.

Park and Ride Facilities

The county features three additional park and ride facilities to those provided at the Connect Douglas Transportation. Two of these are owned and operated by Connect Douglas and these include locations at I-20 at SR 96 (Thornton Road) and I-20 at Post Road. SRTA owns and operates one park and ride location on Douglas Boulevard near I-20, which is known as the West Douglas Commuter Park and Ride. Park and ride locations within the county are displayed in Figure 6-18.

Source: Connect Douglas

SRTA XPRESS COMMUTER BUS SERVICE

The State Road and Toll Authority (SRTA) operates two Xpress commuter bus routes in Douglas County. This includes Xpress Routes 476 and 463, which are displayed in Figure 6-18. Route 463 runs from the West Douglas Park and Ride and Connect Douglas Transportation Center to the Civic Center MARTA station in downtown Atlanta. Route 476 runs from Hiram/Powder Springs in Cobb County to the Civic Center MARTA Station. This route serves Douglas County through multiple stops along Thornton Road.

An alternate service schedule for Xpress routes has been developed to adjust to the unique demands of the COVID-19 crisis. This new schedule became effective June 1, 2020 and is detailed in Table 6-10.

Table 6-10: SRTA Xpress Routes 463 and476 Alternate Service Schedule

Route 463 - W. Douglas/Douglas Transit Center to Downtown/Midtown

Outbo	In-Bound	
W. Douglas Park and Ride	Connect Douglas Transit Center	Civic Center MARTA Station
5:40 a.m.	5:51 a.m.	3:00 p.m.
6:12 a.m.	6:23 a.m.	3:45 p.m.
6:36 a.m.	6:48 a.m.	4:09 p.m.
7:00 a.m.	7:13 a.m.	

Route 476 - Hiram/Powder Springs to Downtown/ Midtown

Outbo	In-Bound	
Hiram	Powder Springs	Civic Center MARTA Station
5:20 a.m.	5:26 a.m.	3:00 p.m.
6:05 a.m.	6:11 a.m.	4:00 p.m.
6:35 a.m.	6:42 a.m.	5:00 p.m.
		Source: SRTA

Egure 6-20: Connect Douglas Transportation Units Data Bases Dat

Source: VHB

TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) is a set of strategies that provide alternatives to driving alone in single-occupancy vehicles. A major goal of TDM is to efficiently use existing transportation infrastructure by providing commuters with options that shift modes or reduce demand during peak commuting periods. TDM strategies can include teleworking, flexible work schedules, carpooling, commuter vanpools, walking, biking, and transit use.

Douglas County has firmly committed to TDM through its Connect Douglas services. These include a robust commuter vanpool program, carpool matching assistance, and a fixed-route bus system providing connection to regional employment centers.

ALTERNATIVE TRANSPORTATION CHOICE ASSESSMENT

The County conducted a TDM assessment as part of their previous CTP in 2008 known as the Alternative Transportation Choice Assessment. This was a TDMfocused evaluation of the county's transportation offerings at the time which provided recommendations for enhanced TDM strategies, including expanding the Rideshare program, partnering with commercial developments with ample parking for commuter facilities, and completing a bus transit feasibility study to evaluate the need for fixed-route bus service. An institutional peer review was also conducted to determine best practices in organizational structure and TDM marketing tactics.

Since 2008, several recommendations from this report have been implemented including the re-branding and restructuring of services under the Connect Douglas umbrella and the advent of a fixed-route bus service.

GEORGIA COMMUTE OPTIONS

Douglas County works in partnership with Georgia Commute Options (GCO) to promote TDM strategies within the county. GCO is a program managed by the ARC that serves as a regional resource to encourage commute alternatives.

GCO works with employers and commuters across the Atlanta region to reduce traffic congestion and improve air quality by reducing the number of miles driven by single occupant vehicles. GCO reduces this number of miles by encouraging carpooling, vanpooling, biking/walking, use of public transit, and engaging employers about teleworking or flex schedules. The Connect Douglas commuter vanpool is an example of an alternative commute option offered within the Atlanta region to help decrease the number of individual trips made.

GCO encourages commuters to use these alternative methods by offering incentives such as cash prizes and gas card rewards for commuters who make the switch. GCO also works with employers to encourage employees to use alternative methods. GCO offers consultations for employers to provide information on offering financial incentives to employees, telework/ flexwork options, and customizable employee commute surveys.

PEDESTRIAN AND BICYCLE FACILITIES

Infrastructure such as sidewalks, bicycle lanes, and multi-use trails are necessary to accommodate nonmotorized forms of transportation like walking and biking and support active, healthy lifestyles. Such facilities are especially important along arterial and collector roads near destinations such as schools, parks, government facilities, bus stops, and businesses. This section documents existing pedestrian and bicycle facilities in Douglas County.

DOUGLAS COUNTY CONTEXT

In general, Douglas County has limited sidewalk coverage along arterial and collector roads. Most sidewalk facilities are concentrated within the City of Douglasville near the town center. Current development codes (discussed in detail below) now require sidewalks for new land developments. Such requirements are beneficial and new sidewalks are being provided. However, significant gaps remain, and new connections are needed.

SIDEWALK CODE & REGULATION REVIEW

Sidewalk regulations can be found in Section 1013 of the Douglas County Unified Development Code (UDC). The Intent of this Section is to provide sidewalks for public use on any developed land, providing safe, walkable routes for pedestrians.

Authority

The Director of the Douglas County Department of Transportation holds interpretation and approval authority over sidewalks and where they should be constructed.

Instances When Required

Sidewalks are constructed within the County Rightof-way along roads of arterial or collector functional classification. They are required with new residential, commercial, and industrial development. Certificates of Occupancy are not issued for commercial and industrial sites, and Final Plat approval is not granted for new residential subdivisions until sidewalks are provided per approved plans.

Sidewalks are required in residential subdivisions if they are located less than a mile from a public school. Residential developments with more than 10 dwelling units beyond a mile from a public school are also required to have sidewalks if the lots are less than 3 acres in size.

Required Dimensions

Section 1013.1 and 1013.2 of the UDC required a minimum width of 5-feet per sidewalk built for a residential, commercial, or industrial development. UDC Section 1013.3 requires all other sidewalks to be at least 4 feet in width.

All sidewalks should be at least 4 feet from the back of curb; any distance less than 4 feet should be appealed to the Director of the Douglas County Department of Transportation. ADA-compliant ramps are also required at pedestrian crossings.

In-lieu Fees

The Douglas County UDC has a section called "Alternative Compliance." This section recognizes that not all newly developed sites would effectively serve pedestrians, even with sidewalks. The County has an established and maintained sidewalk fund. Developers may elect to contribute to the sidewalk fund, pending approval by the Director or Transportation. Considerations would include existing and potential pedestrian traffic and dangerous conditions. The applicant would then pay the County the cost of sidewalk construction to the Sidewalk Fund, later to be used for public property.

PLANNED PEDESTRIAN AND BICYCLE FACILITIES

Douglas County is currently pursuing a number of projects that will provide new walking and biking facilities.

Lee Rd Widening (GDOT PI# 0004428)

Douglas County DOT and GDOT are partnering to widen Lee Rd between SR 92 (Fairburn Rd) to the south and I-20 to the north (Figure 6-21). The result will be a four-lane urban roadway with a 20 ft. raised grassed median. Current design plans include 16 ft. wide shoulders with curb and gutters and five ft. sidewalks. An eight ft. asphalt multi-use trail will be placed within the 16 ft. shoulder along the east side of Lee Rd from East County Line Rd to the end of project. Right-of-Way acquisitions are complete, and construction is currently planned for 2021.

2016 SPLOST

The 2016 SPLOST list includes three sidewalk projects. Sidewalks are proposed to be built in front of three schools.

- Chestnut Log Middle School (Pope Road)
- Lithia Springs Elementary (Florence Drive)
- New Manchester High School (SR 92/154)

A recent study sponsored by ARC, Cobb County, and the Trust for Public Land examined the Chattahoochee River corridor. The study makes recommendations for river access in Douglas County.

Study Plan Review

The intent of the Chattahoochee RiverLands is to link communities, urban and rural, through a connected network of greenways, blueways, and parks. The Georgia Trust for Public Land identifies the following overarching goals:

The Chattahoochee RiverLands Greenway

- A Safe, Connected Corridor
- A Common Ground For All
- An Ecological Refuge For The Region
- A Living Legacy for Future Generations

Along with the GDOT, Douglas County is a key partner in implementing Phase I of the Chattahoochee Hill Country Greenway Trail through land owned by Sweetwater State Park. By already having a hand in this process, Douglas County provides existing and planned trails that can seamless be integrated into the RiverLands network.

The Greenway Study provides a primary recommendation, referred to as a Preferred Alignment, along with two secondary alternatives: a Practical Alternative and Other Alternatives.

The Preferred Alignment offers a framework connecting the Greenway, Blueway and Tributary trails in a seamless way. Implementation of these preferred connections may face certain constraints along the way, so this Study considers the Practical Alternative as a secondary method that could possibly be easier to implement, taking advantage of the existing trail network and meandering around existing infrastructure, easements, and publicly owned land. 'Other Alternatives' have been developed to show desired connections that may be too difficult to implement.

Segments of the network are described below, broken down into four site plans, P-106 to P-109, as they are in the Study document.

Segment 1: Site Plan P-106 (Figure 6-22)

The Chattahoochee RiverLands Greenway will integrate existing trails and pathways in Douglas County to a broader network of trails on either side of the River. The plan identifies a Preferred Alignment from Sweetwater Creek to Old Campbellton beginning at Riverside Parkway, crossing the River into Fulton County to follow an existing easement. Tributary Trails in this segment include a connection to Sweetwater Creek State Park via Rock House Road.

Segment 2: Site Plan P-107 (Figure 6-23)

While the trail continues in Fulton County, the Greenway Study includes a spur along Riverside Parkway and Fairburn Road. Note that a Practical Alternative is to construct a trail on the west side of the River in Douglas County that connects to SR-152, where the Preferred Alternative Route crosses back into Douglas at the Fairburn Rd Bridge. The path would continue past New Manchester High School and Boundary Waters Park with tributary connections to both. The Preferred Alternative then continues across the Campbellton Bridge into Fulton County. Figure 6-22: Chattahoochee Riverlands Site Plan Map P-106

Source: Chattahoochee Riverlands Study Document

Figure 6-23: Chattahoochee Riverlands Site Plan Map P-107

Source: Chattahoochee Riverlands Study Document

Segment 3: Site Plan P-108 (Figure 6-24)

The trails largely avoid existing residential development in Douglas County by continuing on the east side of the Chattahoochee. The Study proposes a crossing to the Duncan Memorial Trail Head with connections to proposed campsites within Douglas County's Jurisdiction.

Segment 4: Site Plan P-109 (Figure 6-25)

This final segment in the County begins at a proposed crossing at Foxhall Bridge. The path would continue east of the Foxhall Resort and back into Fulton County via proposed Capps Ferry Bridge.

Figure 6-24: Chattahoochee Riverlands Site Plan Map P-108

Figure 6-25: Chattahoochee Riverlands Site Plan Map P-109

Source: Chattahoochee Riverlands Study Document

SAFETY

Safe streets and roads are a primary goal of the Douglas County CTP. This includes safety for all modes and users of transportation infrastructure, including pedestrians, bicyclists, automobiles, trucks, and public transportation. The first step in improving safety conditions is to identify problem areas where improvements may be needed. This chapter provides an assessment of existing safety conditions and highlights areas of concern. This includes a county-wide analysis of vehicular crashes, an assessment of high-crash rate roadways and a study of crashes involving bicyclists and pedestrians.

CRASH HISTORY

The most recent five years of historical crash data for Douglas County was collected using GDOT's Electronic Accident Reporting System (GEARS) database. In total, 31,407 crashes were reported in Douglas County over the past five years (2015 - 2019). All crashes broken down by year, manner of collision, and severity are summarized in Table 7-1. Crashes were examined in terms of specific locations and corridors.

Table 7-1: Summary of Douglas County Crashes, 2015-2019									
				Year					
		2015	2016	2017	2018	2019			
	Angle	1,230	1,413	1,622	2,327	2,389			
	Rear End	2,290	2,274	2,450	2,775	2,916			
	Sideswipe-Same Direction	573	553	629	867	870			
Manner of Collision	Sideswipe - Opposite Direction	125	116	118	202	233			
	Not a Collision with Motor Vehicle	866	740	838	867	907			
	Head On	149	124	141	172	213			
	Unclassified	69	56	85	169	39			
Total Crashes		5,302	5,276	5,883	7,379	7,567			
Total Non-Fatal Injury C	Trashes	1,268	1,348	1,393	1,562	1,521			
Total Injuries			1,967	2,092	2,270	2,304			
Total Fatality Crashes			19	18	15	22			
Total Fatalities			22	19	15	23			
Total Bike/Ped-Related Crashes			24	34	30	44			

HIGH CRASH LOCATIONS

Location data from the crash reports were used to map crash locations throughout the county. A heat map of crash rates is shown in Figure 7-1. The heat map shows that the highest concentrations of crashes in Douglas County occur in the vicinity of I-20, particularly at SR 6/Thornton Road, Chapel Hill Road/Campbellton Street, and SR 5/Bill Arp Road. There are also high concentrations of crashes in Douglasville and between Austell and I-20.

Crash rates were calculated for all interstate, principal arterial, and minor arterial roadways in the county to compare with statewide averages. The most recent statewide crash rates available from GDOT were from 2018 therefore county-wide rates for 2018 were used for this analysis. Figure 7-1 shows the relative crash rates for all 73 segments analyzed. Symbology thresholds were adjusted so that approximately 14-15 segments are included in each color gradient.

Figure 7-1: Crash Heat Map (2015 - 2019)

HIGH CRASH CORRIDORS

The top 25 crash segments of the 73 segments analyzed are shown in Figure 7-2 and detailed in Table 7-2 along with their comparison to the statewide average crash rate. Of the 73 segments analyzed the following trends were identified:

- 41 segments had crash rates above the statewide average
- 45 segments had injury crash rates above the statewide average
- 46 segments had rates of injuries higher than the statewide average
- 9 segments had fatal crash rates and rates of fatalities higher than statewide averages

Table 7-2: Summary of Douglas County Crashes, 2015-2019									
					All Crashes				
Roadway	From	То	Length (mi)	2018 AADT	No.	Crash Rate	Statewide Crash Rate		
Douglas Blvd	Bright Star Rd	SR 5/Bill Arp Rd	0.9	7,140	168	7,162.68	581		
Campbellton St	Selman Ave	US 78/Veterans Memorial Hwy	0.5	6,860	53	4,233.40	581		
SR 5/Bill Arp Rd	I-20	Bright Star Conn	0.3	29,300	121	3,771.41	540		
Douglas Blvd	SR 5/Bill Arp Rd	Chapel Hill Rd	1.6	16,700	336	3,445.16	540		
US 78/Veterans Memorial Hwy	SR 6/Thorton Rd	Hotel Street	0.4	18,700	89	3,259.83	581		
US 78/Veterans Memorial Hwy	SR 92/Dallas Hwy	Rose Ave	0.5	12,300	61	2,717.45	117		
SR 5/Bill Arp Rd	Central Church Rd	I-20	1.8	25,000	412	2,508.37	581		
Chapel Hill Rd	I-20	Brookmont Pkwy	1.8	19,700	304	2,348.78	540		
Riverside Pkwy	SR 6/Thornton Rd	Rock House Rd	0.7	5,990	34	2,221.58	540		
SR 92/Fairburn Rd	Hospital Dr	I-20	0.8	31,500	190	2,065.67	581		
SR 92/Dallas Hwy	US 78/Veterans Memorial Hwy	Malone Rd	1.3	14,800	143	2,036.28	201		
SR 6/Thornton Rd	I-20	Interstate West Parkway	0.6	47,700	197	1,885.84	581		
SR 92/Fairburn Rd	US 78/Veterans Memorial Hwy	Hospital Dr	0.8	21,600	111	1,759.89	540		
US 78/Veterans Memorial Hwy	SR 6/Thornton Rd	S Sweetwater Rd	1.2	15,800	121	1,748.45	581		
Post Rd	I-20	US 78/Veterans Memorial Hwy	0.6	8,100	26	1,465.70	581		
SR 166	Capps Ferry Rd	SR 5	0.4	7,090	15	1,449.08	581		
US 78/Veterans Memorial Hwy	SR 92/Fairburn Rd	SR 92/Dallas Hwy	0.4	24,700	51	1,414.23	540		
S Sweetwater Rd	Lee Rd	Blairs Bridge Rd	1.2	3,990	24	1,373.30	540		
Six Flags Rd	SR 6/Thornton Rd	Fulton C/L	0.9	5,350	24	1,365.60	540		
Maxham Rd	Cobb C/L	SR 6/Thornton Rd	0.8	31,300	118	1,291.08	540		
Lee Rd	E County Line Rd	I-20	1	13,000	59	1,243.41	540		
SR 6/Thornton Rd	I-20	Maxham Road	1.4	78,100	461	1,155.13	581		
Campbellton St	I-20	Selman Ave	0.9	8,980	32	1,084.77	201		
US 78/Veterans Memorial Hwy	Rose Ave	SR 5/Bill Arp Rd	1.3	10,700	55	1,083.28	201		
Chapel Hill Rd	Bomar Rd/Central Church Rd	Dorsett Shoals Rd/Anneewakee Rd	0.9	20,300	72	1,079.69	162		

Source: GEARS

BICYCLE + PEDESTRIAN CRASHES

There were 167 reported crashes involving bicycles and pedestrians between 2015 and 2019 in Douglas County. 129 of those crashes caused non-fatal injuries and 22 resulted in fatalities. All bicycle and pedestrian crashes are broken down by year and severity in Table 7-3 while Figure 7-4 shows the overall distribution of crash severity.

In the past five years, 90% of crashes involving a bicyclist or a pedestrian resulted in an injury or fatality. This is significantly higher than the statistics for all crashes of which 23% resulted in an injury for fatality.

Location data from the crash reports were used to map bicycle and pedestrian crash locations throughout the county. A map of these locations is shown in Figure 7-4.

It should be noted that approximately 6% of the crash records downloaded through GEARS contained inaccurate coordinate data and were excluded from GIS analysis. However, bicycle and pedestrian related crashes were manually mapped using address information if they were missing coordinates.

Table 7-3: Bicycle and Pedestrian Crashes 2015-2019

	Year						
	2015	2016	2017	2018	2019		
Bicycle/ Pedestrian Crashes	35	24	34	30	44		
Total Property Damage Only Crashes	2	1	3	4	6		
Total Non-Fatal Injury Crashes	30	20	24	23	32		
Total Number of Injuries	31	23	26	24	33		
Total Fatality Crashes	3	3	7	3	6		
Total Number of Fatalities	3	3	7	3	6		

Source: GEARS

Figure 7-3: Bicycle + Pedestrian Crash Severity Breakdown

The location map shows several hot spot locations for bicycle and pedestrian crashes in Douglas County occur in the vicinity of I-20, particularly at SR 6/ Thornton Road and SR 5/Bill Arp Road. There are also high concentrations of bicycle and pedestrian crashes at the intersections of East Broad and Campbellton Street, Fairburn Road and Newman Street, and Thornton Road and Maxham Street.

After analyzing the details of the crashes at these hotspots, three major trends emerged. First was drivers striking pedestrians when making turning movements. For example, in the cluster at Bill Arp Road, pedestrians who were crossing legally during the correct phase were hit by drivers who did not see them when making a left on a yellow flashing arrow. The second trend observed was pedestrians being hit when crossing not at a crosswalk. In areas with business on both sides of the street, like Thornton Road, Bill Arp Road, and Fairburn Road, the crash reports showed pedestrians were crossing directly between business access points instead of using crosswalks. Finally, several of the bicycle crashes occurred when cyclists ran through red signals. This occurred both when the bicyclist was riding in the travel lane and when cyclists were using crosswalks.

BGOODS **B**OVEMENT

How goods and services are moved have just as much impact on transportation infrastructure and needs as the movement of people. This chapter provides an overview of freight conditions in Douglas County. This includes a review of truck-related previous studies and an analysis of truck volumes and percentages on major roadways.

REVIEW OF PREVIOUS FREIGHT PLANS

ATLANTA REGIONAL FREIGHT MOBILITY PLAN UPDATE

In 2008, ARC completed the Atlanta Regional Freight Mobility Plan which as the first freight plan for the meropolitan region. It was updated again most recently in 2016 and focused on developing a framework to facilitate and enhance goods movement in the region, to improve economic competitiveness, and minimize negative environmental and community impacts. This 2016 update also served to meet the requirements of MAP-21 and FAST Act of 2015, which requires more performance driven decision-making.

This 2016 document articulates the critical role of freight in the Atlanta economy, thanks to its strategic location linking to the Port of Savannah and its role as a major hub in many supply chains. Metro Atlanta is also a major manufacturing hub. In addition, the wholesale, construction, retail and transportation/ warehousing sectors of the regional economy are dependent on freight, three-quarters of which is by truck. In addition to three interstates and two major railroads, the region also has the busiest airport in the United States. CSX and NS (class-1 railroads) maintain intermodal facilities both within and beyond I-285.

The existing conditions section of the 2016 report noted that 1% of cargo tonnage was 17% by air and rail, and the remainder (83%) by truck. A substantial portion of truck movements was drayage, i.e., pickup or delivery to a seaport, inland port, airport, or intermodal terminal as part of a larger freight movement.

A review of ARC's 2016 plan revealed a few freight projects and corridors of interest within (partially or entirely) Douglas County. The project recommendations sought to alleviate truck obstacles on heavily congested metro Atlanta roadways. The Tier 1 projects are recommended for investment as funds become available, to combine with projects in the ARC Transportation Improvement Program and Regional Transportation Plan. Douglas County had the four Tier 1 projects identified in Table 8-1.



Additionally, Tier 2 projects were identified shown in Table 8-2. As funding becomes available, Tier 2 projects would also be considered for analysis and possible implementation. Douglas County had 3 projects recommended in this grouping. All were intersection modifications along SR 8 and SR 92.

Table 8-1: ARC 2016 Freight Plan Tier 1 Projects						
Road	Location	Location Description				
SR 6	SR 61 to I-85; ITS truck sensors at 5 locations	Widen outside Lane in both directions to 13 feet with truck I TS application	Roadway / operations and safety			
SR 6	Oak Ridge Rd /Skyview Drive	Intersection operational improvements	Intersection modification			
SR 6	I-20	Intersection operational improvements	Intersection modification			
US 78	SR 6 (Thornton Road) To SR 92	Operational and Safety Improvements	Roadway / operations and safety			
			Source: ARC			

Table 8-2: ARC 2016 Freight Plan Tier 2 Projects						
Road	Location	Description	Project Type			
SR 8	Conners Rd	Add right turn lane and increase radii	Intersection modification			
SR 8	SR 92	Increase intersection radii	Intersection modification			
SR 92	Broad Street	Move utilities and increase intersection radii	Intersection modification			
US 78	SR 6 (Thornton Road) To SR 92	Operational and Safety Improvements	Roadway / operations and safety			
	-		- Source: ARC			

ATLANTA STRATEGIC TRUCK ROUTE MASTER PLAN (ASTRoMaP) STUDY

This 2010 study was a continuation of the 2008 Regional Freight Mobility Plan. Outcomes of this study led to a quantitative methodology to identify a strategic truck route network and support policy and project improvements across the region (Figure 8-1). Trucks encounter the same obstacle as commuters: navigating heavily congested roads in the Atlanta Region which hinders freight flows and the movement of passenger vehicles. Thus identifying the regional through movement is an important step for freight mobility within the Atlanta region. Cross-town travel using the corridors within the metropolitan region could connect its economic centers and more efficiently link them to the outside world.

Using this method of quantifiable roadway elements to determine truck routing and logical corridors, the following roads within Douglas County were identified:

- I-20 (Interstate)
- SR 8 and SR 166 (E-W)
- SR 92 (N-S)
- SR 6 and SR 166 (Connectors)





Source: Atlanta Strategic Truck Route Master Plan



2040 STATEWIDE TRANSPORTATION PLAN / 2015 STATEWIDE STRATEGIC TRANSPORTATION PLAN

In 2016, GDOT presented an updated report, which combined Federally required Long-Range Transportation Plan (LRTP) with state-required Statewide Strategic Transportation Plan (SSTP) for the State of Georgia. The report updated the 2006 LRTP (2005-2035) to a 2040 horizon year (to comply with Federal Requirements) while making the 'business case' (to comply with state requirements).

The SSTP goals focused on freight and logistics, and personal mobility both inside and outside the Atlanta area, noting that the SSTP goals are focused on economic growth. The report notes that GDOT owns most, but not all, of Federal-aid eligible roads, and presents a 'needs' based assessment of five highway programs: pavement, bridges, roadway capacity, roadway operations, and safety.

Figure 8-2: Georgia Statewide Designated Freight Corridors



The report notes that increasing congestion would have severe impacts on freight trucking, which was itself projected to double in volume. The SSTP also points out that "given the importance of freight and the trucking industry to the Georgia economy, a strategic focus on improving roadway capacity and operations in and around freight hotspots is critical."

Figure 8-2 delineates State Freight Corridors and freight rail yards. In Douglas County, it shows I-20 as a statewide freight corridor and highlights the industrial freight yards in the far eastern and western parts of the county.

FREIGHT CHARACTERISTICS

This section examines existing freight characteristics within Douglas County. The freight characteristics assessed are truck volumes, levels of congestion, crashes, and ITS.

2020 TRUCK VOLUMES

All truck volumes were derived from the ARC Travel Demand Model. Base year 2020 values and network results are shown. Figure 8-3 illustrates the 2020 daily truck volumes in Douglas County.



Table 8-3 details truck percentages based upon functional classification within Douglas County. The model VMT (vehicle miles traveled) for each functional class shows the interstate highways carrying the majority of traffic as **15% of all interstate traffic within Douglas County is medium or heavy trucks.** Next is principal arterials with 7.3% and minor arterials with 5.6%. This shows the truck traffic within Douglas County is properly using the larger functional class roads to travel, while using the other collectors and local roads for the last mile delivery.

LEVELS OF CONGESTION

Levels of existing traffic congestion were derived based on data from the ARC travel demand model, with 2020 as the base year for analysis. According to the Transportation Research Board's Highway Capacity Manual (HCM), level-of-service, or LOS, is a quantitative categorization of roads based on performance measures representing quality of service such as volume and capacity. The HCM classifies six different LOS levels ranged A through F with LOS A as the best operating conditions for travelers while LOS F is the worst.

It should be noted that congestion experienced in

reality can often be quite different than those shown in models. However, the model should provide an indication of problem areas.

Peak period LOS for 2020 in Douglas County is depicted in Figures 6-9 and 6-10, in Chapter 6. I-20 is a major thoroughfare for freight traffic in Douglas County and is also experiences high levels of congestion during both the morning and afternoon peak periods. Additionally, the Lee Road interchange and connection to Sweetwater Road north of I-20 is another corridor with both high truck percentages and significant congestion during both peak periods.



Table 8-3: Truck Percentages by Functional Classification in Douglas County							
Functional	Description			Truck %			
Class	Description		Medium	Heavy	Sum	TTUCK 70	
1	Interstate Highway	1,948,776	100,693	191,486	292,180	15.0%	
2	Other Freeways and Expressways	0	0	0	0	0.0%	
3	Principal Arterials	764,010	36,143	20,401	56,544	7.3%	
4	Minor Arterials	695,720	24,240	14,409	38,648	5.6%	
5	Major Collectors	246,425	7,022	4,491	11,513	4.7%	
6	Minor Collectors	9,127	193	115	308	3.4%	
7	Local roads	371,753	8,800	4,617	13,417	3.6%	
Total		4,035,812	177,092	235,518	412,610	10.2%	

Source: ARC Activity Based Model



LEVELS OF DELAY

Delay is the hours of congestion commuters can expect to occur along the network due to unacceptable levels of service. Table 8-4 illustrates the anticipated delay according to each roadway functional class in Douglas County. Table 8-4 shows total delay (truck and passenger vehicles), but also calls out the delay of medium and heavy trucks using the network.

Trucks can expect 814 hours of delay, with the majority (565 hours) occurring on congested interstate highways in Douglas County. Vehicle delay is a good measure of the network's efficiency. As delay increases, it negatively impacts the economic vitality of an area.

TRUCK CRASHES

Crash data for this analysis was sourced from GEARS for the years 2015-2019. Only the accidents involving one or more trucks were included in this analysis. This means any accident type involving a single unit truck, logging truck, tractor w/twin trailers, tractor/ trailer, truck towing house trailer, or just truck tractor (Bobtail) has been included. Within Douglas County across these five years (2015-2019), there were 31,407 accidents involving 59,395 vehicles. Of these, only six% (1,854) were accidents involving trucks. This total is across all incident types, from property damage only to accidents involving fatalities. In Douglas County, 26 of the total 170 fatalities involved trucks. This equates to 15% of all crash fatalities. This increased potential of a fatal accident, when compared to only 6% of all accident involving trucks, illustrates to the dangerous potential of truck crashes, and highlights the importance of improving safety operations for trucks.

Truck crashes accounted for

of all crash-related fatalities in Douglas County from 2015 to 2019

Table 8-4: Levels of Delay by Functional Classification in Douglas County													
Functional	tional Description Free Flow VHT	Congested VHT Vehicle Dela				ay (hours)							
Classification	sification			Truck		Total		Truck		Total		Truck	
			Medium	Heavy	Sum		Medium	Heavy	Sum		Medium	Heavy	Sum
1	Interstate Highway	27,840	1,438	2,736	4,174	31,785	1,644	3,095	4,739	3,946	206	359	565
2	Other Freeways and Expressways	0	0	0	0	0	0	0	0	0	0	0	0
3	Principal Arterials	19,567	928	523	1,452	21,203	1,014	573	1,587	1,636	85	50	135
4	Minor Arterials	18,004	615	355	970	19,371	665	388	1,053	1,367	50	33	83
5	Major Collectors	7,490	203	129	332	7,832	211	138	349	342	8	9	17
6	Minor Collectors	247	5	3	8	248	5	3	8	2	0	0	0
7	Local Roads	11,532	266	137		11,854	275	142	418	322	9	5	15
Total		84,679	3,457	3,883	7,339	92,294	3,815	4,339	8,153	7,615	358	456	814

Source: ARC Activity Based Model



When mapped, the accident clusters highlight several areas of concern. Figure 8-4 displays truck crash hotspots in Douglas County. Two major truck crash hotspots stand out: I-20 at SR 6 (Thornton Road) and I-20 at SR 92 (Fairburn Rd).

RAILROADS

Norfolk Southern Line

The single class I railroad within Douglas County is the Norfolk Southern (NS) line running east/west through the county. The NS tracks parallel SR 8/US 78 from Austell to Bremen and carry freight and AMTRAK passenger rail between Austell and Birmingham, AL. The track speed for freight trains is 60 mph, while AMTRAK can travel at 79 mph. Currently, there are 24 trains daily on this line.

While rail freight is not a major driver within Douglas County, it is important to note the location of NS Whitaker Intramodal Terminal just north of the Douglas County line along SR 6. Intermodal terminals handle the transfer of trailers or containers between highway and rail. It is distinguished from bulk transfer because the vehicle in which commodities are transported may be used across modes. The Whitaker Intramodal Terminal is one of the most active terminals in the metro region with 300,000+ annual lifts. A portion of freight traffic from this yard likely travels south on SR 6 to access I-20.

Railroad Crossings

Class I Railroads NS and CSX have Grade Crossing Safety Departments and funding charged with eliminating redundant crossings, identifying corridors for signalization projects, and developing engineering





Figure 8-4: Truck Crash Heat Map (2015-2019)

solutions to improve safety at highway/rail grade crossings. Both railroads work closely with state and local governments in public/private partnerships to bring these safety enhancements to fruition. Current federal law requires train engineers to sound the locomotive horn when approaching a public at-grade crossing for no less than 15 seconds or more than 20 seconds. Quiet zones are designated track segments where train engineers are not required to sound the horn except in the case of an emergency. These segments must meet certain FRA criteria to compensate for the lack of a train horn so motorists' safety and the community's safety are not compromised.

A review of the crossings in Douglas County reveals 27 total at-grade crossings and one grade separated crossing, at Conners Road. At-grade crossings are intersections where a highway crosses a railroad at the same elevation, requiring some warning/control device to stop traffic. None of these crossings are in the top 10 list as identified in the 2016 Regional Freight Mobility Plan, but, according to the 2015-2019 GEARS crash data, 18 accidents occurred at railroad crossings. It is unclear if any involved a train, but, there were no fatalities. Figure 8-5 shows the rail crossing locations in Douglas County.

GDOT administers a federally funded Section 130 program to evaluate and fund railroad-highway grade crossing safety improvements for public atgrade railroad crossings. Improvements may include the installation of new or upgraded train activated warning devices (bells, gates, and flashing lights), signage and pavement marking upgrades, elimination of redundant or unnecessary crossings, or other measures to enhance the safety and operation of railroad-highway at-grade crossings in Georgia.





PLANNED + PROGRAMMED PROJECTS

This chapter provides an inventory of planned or recently completed transportation improvements in Douglas County. These improvements are important considerations that inform the development of the CTP. Projects have been identified through two sources: ARC's Regional Transportation Plan (RTP) and the 2016 SPLOST project list provided by Douglas County.

DOUGLAS COUNTY SPLOST PROJECTS

In November of 2016, Douglas County voters approved a one-cent Special Local Option Sales Tax (SPLOST) which began in April 2017. The SPLOST is set to last for six years and has a projected revenue of \$106 million. The SPLOST funds were divided into three categories

- 32% Fire/EMS/Public Safety Radio System
- 51% Transportation
- 17% Parks and Recreation

Within the transportation category, the project types were broken up into four main buckets: intersection/ operational improvements, resurfacing, sidewalk and bridge improvements, and economic development. The intersection/operational improvements, resurfacing, and sidewalk/bridge projects were focused on more traditional transportation improvements while the economic development transportation projects were anticipated to include efforts such as land use studies, traffic studies, and general intersection and roadway improvements to help stimulate economic development.

The Douglas County 2016 SPLOST transportation projects are shown in Figure 9-1 and detailed by project type and status in Table 9-1. The majority of SPLOST transit projects were made-up of resurfacing projects, followed by intersection/operational improvements, then sidewalk and bridge improvements, and economic development.

The Douglas County 2016 SPLOST also provides for approximately \$32.8 million to the City of Douglasville during its six-year life. Of the \$32.8 million, 45% is allocated for Transportation/Public Works projects including intersection improvements, beautification projects, heavy equipment purchases, and approximately \$4.5 million for street resurfacing.





Table 9-1: Douglas County SPLOST Projects						
Project ID	Map ID	Project Type	Project Name	Status		
TO21D0200		Economic Development	Riverside Pkwy Street Lights	Complete		
TO61D1234		Economic Development	Street Lights on I-20 Exit Ramps (Countywide Interstate Intersections)	Expected Completion 3/2021		
TO70D0200	0	Economic Development	Lee Rd Widening Project	Expected Completion 6/2022		
TO31D0034	1	Intersection/ Operations	Stewart Mill Rd/Reynolds Rd	Expected Completion 8/2021		
TO32D1004	2	Intersection/ Operations	Bright Star Rd/John West Rd	Expected Completion 12/2020		
TO33D0004	3	Intersection/ Operations	Sweetwater Church Rd/Dorris Rd	Completed 7/2020		
TO34D0030	4	Intersection/ Operations	Chapel hill Road Intersections & Sidewalks (High Country Dr. to Sterling Pointe Dr.)	Expected Completion 11/2022		



Table 9-1: Douglas County SPLOST Projects					
Project ID	Map ID	Project Type	Project Name	Status	
TO35D0004	5	Intersection/ Operations	SR 5/Douglas Blvd Northbound Right Turn Lane	Expected Completion 12/2021	
TO36D0200	6	Intersection/ Operations	SR 92/Anneewakee Rd		
TO37D0200	7	Intersection/ Operations	Thornton Rd/Riverside Pkwy		
TO38D1000	8	Intersection/ Operations	SR 5/Concourse Pkwy		
TO39D0004	9	Intersection/ Operations	US 78/John West Rd/S. Baggett Rd		
TO63D0200	10	Intersection/ Operations	SR 92 & Riverside Pkwy Traffic Signal	Expected Completion 3/2021	
TO23D0200	11	Intersection/ Operations	Riverside Pkwy/Rock House Rd Traffic Signal	Complete	
TO11D1234		Resurfacing	Resurfacing Program FY 2017-2018	Complete	
TO13D1234		Resurfacing	Resurfacing Program 2019	Completed 12/2019	
TO14D1234		Resurfacing	Resurfacing Program 2020	Completed 8/2020	
TO41D0004	12	Sidewalks & Bridges	Post Rd Bridge at Dog River	Expected Completion 9/2020	
TO42D1000	13	Sidewalks & Bridges	Lithia Springs Elementary School	Expected Completion 12/2020	
TO43D0200	14	Sidewalks & Bridges	Chestnut Log Middle School	Expected Completion 12/2020	
TO44D0200	15	Sidewalks & Bridges	New Manchester High School	Completion 8/2020	
TO47D0004	16	Sidewalks & Bridges	Whitestone Culvert	Completion 7/2020	
TA07D1000	17	Sidewalks & Bridges	Maxham Rd Sidewalks from GDOT Project Limit to County Line	Expected Completion 12/2020	

Source: Douglas County



ARC RTP/TIP PROJECTS

Projects from the ARC's RTP are displayed in Figure 9-2 and are detailed in Table 9-2. This includes projects located in Douglas County and adjacent projects in neighboring counties that may have an influence on transportation conditions within the county. There are eight programmed projects with funding allocated in the FY 2020-2025 Transportation Improvement Program (TIP). This includes a regional greenway trail from Boundary Waters Park to Sweetwater Creek State Park. A variety of roadway projects are programmed, including truck friendly lanes, widenings, and a new alignment. This also includes several bridge replacement projects - one located in Douglas County at Riverside Parkway at Sweetwater Creek and two in neighboring Fulton County. Long-range planned projects in the county include managed lanes on I-20, several roadway widenings, and new alignments.





Table 9-2: Douglas County ARC RTP/TIP Projects						
Project ID	Project Type	Project Name	Extents	Status		
DO-300	Roadway/ Bridge Update	Riverside Parkway Bridge Upgrade	Riverside Parkway at Sweetwater Creek	Programmed, Network Year TBD		
DO-298	Last Mile Connectivity/ Side paths and Trails	CHC Regional Greenway Trail	From Boundary Waters Park to Sweetwater Creek State Park	Programmed, Network Year TBD, ROW 2023, CST 2024		
DO-022	Roadway	Lee Road/South Sweetwater Road Widening	From Vulcan Drive to Skyview Drive and Operational Improvements from Skyview Drive to US 78 (Bankhead Highway) to I-20 West	Programmed, Network Year 2030, ROW 2020, CST 2022		
DO-299	Roadway	SR 6 (Thornton Road) Truck Friendly Lanes	From I-20 West to SR 6 Spur (Garrett Road) in Cobb County	Programmed, Network Year 2030, ROW 2024, UTL & CST LR 2026- 2030		
CA-011	Roadway	Villa Rica Bypass – New Alignment	From proposed SR 61 Bypass to SR 101	Programmed, Network Year 2030, UTL & CST 2022		
DO-220A	Roadway	Lee Road: Segment 2 – Widening	From SR 92 (Fairburn Road) to Monier Avenue	Programmed, Network Year 2030, CST LR 2026- 2030		
FS-286C	Roadway/ Bridge Update	South Fulton Bridge Replacement Program	Cochran Road at Camp Creek	Programmed Network Year TBD, ROW 2020, CST 2021		
FS-286B	Roadway/ Bridge Update	South Fulton Bridge Replacement Program	Cochran Road at Deep Creek	Programmed Network Year TBD, ROW 2020, CST 2021		
DO-004	Roadway	South Douglas Loop – Phase 2 (widening/new alignment)	From intersection of Chapel Hill Road and Central Church Road/ Bomar Road to intersection of Lee Road extension and Bomar Road (see DO-017)	Long Range, Network Year 2030		
DO-003	Roadway	South Douglas Loop – Phase 3 (widening/new alignment)	From intersection of Bright Star Road and I-20 West to intersection of Chapel Hill Road and Central Church Road (following alignment of Bright Star Road and Central Church Road)	Long Range, Network Year 2040		
DO-019	Roadway	SR 166 (Fairburn Road/Campbellton Road) widening	From Old Lower River Road to SR 70 in Fulton County	Long Range, Network Year 2040		
DO-016	Roadway	US 78 (Bankhead Highway) widening	From South Sweetwater Road to SR 6 (Thornton Road)	Long Range, Network Year 2050		



Table 9-2: Douglas County ARC RTP/TIP Projects							
Project ID	Project Type	Project Name	Extents	Status			
FS-011	Roadway	Cascade-Palmetto Highway Widening	From SR 92 (Campbellton- Fairburn Road) to SR 154 (Campbellton Road)	Long Range, Network Year 2050			
CA-007	Roadway	SR 61 Connector – New Alignment	From SR 61 to south of Shoreline Parkway	Long Range, Network Year 2040			
DO-017	Roadway	South Douglas Loop – Phase 1 (Lee Road Extension/New Alignment)	From SR 92 *Fairburn Road) to Bomar Road	Long Range, Network Year 2050			
DO-252B	Roadway	Chapel Hill Road Widening	From Dorsett Shoals Road to SR 166	Long Range, Network Year 2040			
AR-176	Roadway	SR 61 (Villa Rica Parkway) Widening	From Punkintown Road in Carroll County to Dallas-Nebo Road in Paulding County	Long Range, Network Year 2050			
DO-252A	Roadway	Chapel Hill Road Widening	From Central Church Road to Stewarts Mill Road	Long Range, Network Year 2030			
AR-301	Roadway	US 78 Operational and Safety Improvements	From SR 6 (Thornton Road) to Midway Road	Long Range, Network Year TBD			
AR-ML-800	Roadway	I-20 West Express Lanes	From I-285 West to SR 92 (Fairburn Road)	Long Range, Network Year 2040, PE 2026- 2030, ROW 2026-2030 & 2031-2040, CST 2031-2040 & 2041- 2050			

Source: ARC



NEXT STEPS

The Foundations Report provides baseline information needed to guide the development of the CTP. The data in this report will be used to

help identify transportation needs that will require additional study in the next phase of the plan. The upcoming Assessment phase will include a county-wide assessment of multi-modal needs, special studies of three corridors and one subarea, and an in-depth transit assessment.

NEXT STEPS

The following are next steps in the development of the CTP, which will build off of the information provided in this report:

- Present the findings of the Foundations Report to the public and community stakeholders and elicit feedback on transportation needs within the county
- Develop the plan's goals and objectives with guidance from community stakeholders
- Administer an on-line public survey to gather additional input of transportation needs and potential projects
- Compare the results of the technical analysis with input gathered from public and stakeholder outreach efforts

HOW TO STAY INVOLVED

Public input is critical to the transportation planning process and your opinion matters! We want to hear what is important to you as we develop Douglas County's transportation plan.

We invite you to visit the plan's website at **www.DouglasCountyCTP.com** and join in the conversation. Our website will give you the opportunity to:

- / Get involved & sign-up for plan updates
- Keep abreast of upcoming public meetings
- Review plan documents and presentations
- Take an on-line survey to provide feedback on critical transportation needs in the county

Get Involved	x +	
\leftrightarrow \rightarrow \circlearrowright	douglascountyctp.com/get_involved.html	
	Denglas County Competensive Transportation Pan	Home Project Resources Project Schedule Get Involved

Who is involved in the CTP process?

A team of consultants, led by VHB, is working with Douglas County staff to develop the Douglas County CTP. This team of project leaders will work with elected officials, state and regional partners, and officials throughout Douglas County and adjacent communities to facilitate the CTP process and identify priorities.

The Douglas County CTP will balance the technical analysis with a robust public engagement process. Recommendations will be shaped by input from the public through public meetings and workshops, website and social media, online surveys, and other methods. Due to the COVID-19 pandemic and restrictions on large public gatherings, all public engagement activities for the CTP will be virtual. Should those restrictions be lifted, in-person engagement opportunities will be reevaluated.



Figure 10-1: Douglas County CTP Website Interface

