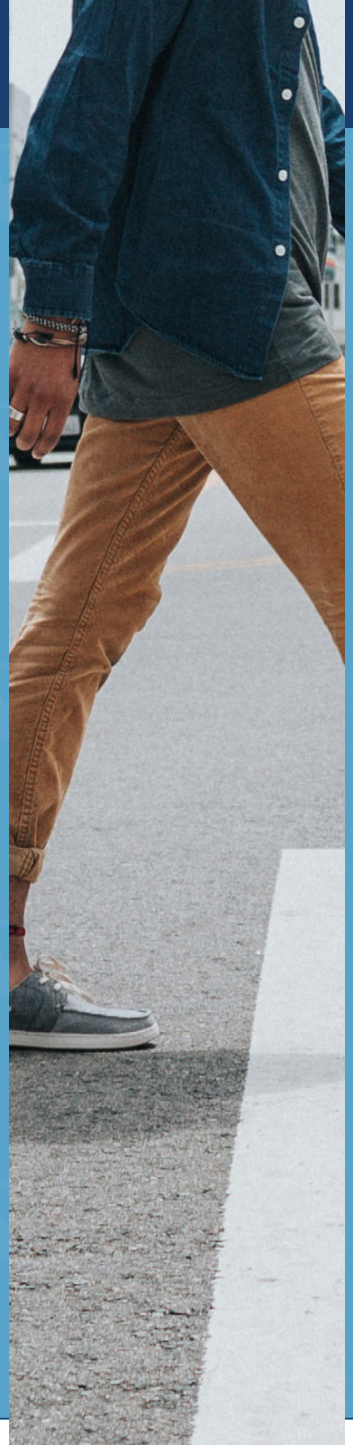
Appendices

Hall County Safety Action Plan



ADOPTED MAY 2025

HALL COUNTY, GEORGIA


HALL COUNTY
GEORGIA

GHMPO

EST 1874
FLOWERY
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GAINESVILLE

CITY OF
OAKWOOD

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Gresham
Smith

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A Safety Analysis

Gresham Smith

Equity Analysis Technical Memorandum

Project Name: HALL COUNTY SAFE STREETS FOR ALL (SS4A) PLAN
Date: AUGUST 16, 2024

Project Introduction:

Hall County – together with the Gainesville-Hall Metropolitan Planning Organization (GHMPO) and the cities of Oakwood, Flowery Branch and Gainesville – has begun the process of developing a Safety Action Plan (SAP). The primary goal of the SAP is to establish a plan to reduce crashes and improve traffic safety within Hall County. The U.S. Department of Transportation (USDOT) has identified prioritizing equity as a key component of a successful SAP. The Federal Highway Administration (FHWA) defines equity as: "the consistent and systemic, fair, just and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment in the past".[1] If the goal of a successful safety action plan is the elimination of roadway traffic fatalities and severe injuries, then it should also inherently eliminate disparities by prioritizing equity.

Analysis Methodology:

The FHWA has explicitly defined equity considerations as being a required part of any successful SS4A Plan. Furthermore, the USDOT has defined equity as a department-wide strategic goal. The USDOT has also released an SS4A Self-Certification Eligibility Worksheet that explicitly details how equity considerations should be included in successful SS4A Plans. As such, the project team has reviewed American Community Survey (ACS) and Justice40 data to identify underserved communities. This process will allow for the project team to eventually complete an initial equity impact assessment for proposed projects and strategies.

Demographic Data:

The most recently available ACS 5-year estimate data for Hall County reveals 204,953 residents as of 2022 – representing a 13.34% (24,122) increase from the 180,831 residents that were present in the 2012 ACS 5-year estimates (see Table 1) – a growth rate common amongst Atlanta's suburban and exurban counties. The growth rate also highlights the likely continued need for transportation investments to keep up with growing demand. The project team also analyzed Hall County's race and ethnicity data, and compared it to statewide and national averages in order to determine what historically underserved or Title VI[2] populations may be present in significantly disproportionate numbers (see Table 2). Key findings from an analysis of the demographic data include:

- Hall County's Hispanic or Latino[3] population (29.3%) *far* surpasses both statewide (10.1%) and national (18.7%) averages
- Hall County's percentage of households speaking primarily Spanish (21.5%) *far* surpasses both statewide (7.7%) and national (12.7%) proportions

[1] Executive Order 13985
[2] Title VI of the Civil Rights Act of 1964 is a federal law that protects people from discrimination based on race, color, or national origin in programs and activities that receive federal financial assistance.
[3] Of any race

- Hall County's percentage of population below the poverty level (13.5%) *modestly* outpaces the national poverty rate (12.5%) and matches the statewide poverty rate (13.5%)
- Hall County's population percentage that reports driving alone to work regularly (87.8%) *far* surpasses both the statewide (74.2%) and national (71.7%) rates

Table I: Population Growth Trends in Hall County

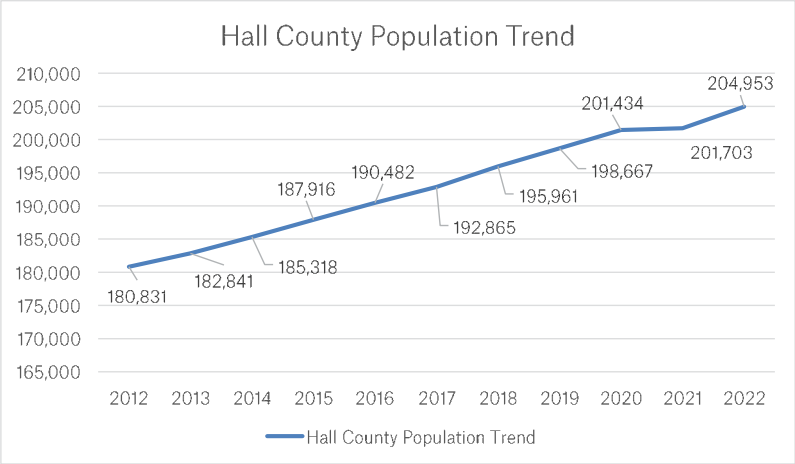


Table 2: Hall County Demographics

Demographic	Hall County	Georgia	United States
Under 18 Years	50,269 (24.5%)	2,512,545 (23.4%)	73,213,705 (22.1%)
65 Years and Over	31,704 (15.5%)	1,540,445 (14.4%)	54,737,648 (16.5%)
Combined Under-18/Over-65	81.973 (40%)	4,052,990 (37.8%)	127,951,353 (38.65%)
Black or African American	14,002 (6.8%)	3,373,948 (31.5%)	41,288,572 (12.5%)
Asian	4,199 (2.0%)	465,487 (4.3%)	19,112,979 (5.8%)
White	147,504 (72.0%)	5,820,019 (54.3%)	218,123,424 (65.9%)
Hispanic or Latino	60,087 (29.3%)	1,078,457 (10.1%)	61,755,866 (18.7%)
Households Speaking Spanish*	14,915 (21.5%)	303,832 (7.7%)	16,017,296 (12.7%)
Drive Alone to Work	85,579 (87.8%)	3,716,507 (74.2%)	112,314,702 (71.7%)
Population below Poverty Level	27,392 (13.5%)	1,415,573 (13.5%)	40,521,584 (12.5%)
Total Population	204,953	10,722,325	331,097,593

*This statistic based on percentage of total households (rather than population)

Justice40:

The findings from the analysis of Hall County's demographic characteristics correlate with several specific Justice40 metrics. The Justice40 initiative is a government-wide initiative that sets a general goal of "40% of benefits of certain federal investments" flowing to communities that historically have been overburdened or underserved. At the census tract level, communities that meet one "burden threshold" (based on income, educational attainment or other demographic characteristics) as well as an additional socioeconomic threshold (related to climate change, energy, health, housing, legacy pollution, transportation, water/wastewater or workforce development) are determined to be "disadvantaged". The project team conducted a detailed analysis of Justice40 metrics utilizing the federal government's Climate and Economic Justice Screening Tool (CEJST) to further detail exactly where in Hall County historically disadvantaged populations may live. A detailed analysis of each census tract (and the Justice40 metrics each may either meet or fall short of) within Hall County can be found in **Appendix I: CEJST Summary**. Utilizing the CEJST data, the following census tracts within Hall County were identified as "disadvantaged" per Justice40 guidance[1]:

- Census Tract 1.01
- Census Tract 7.01
- Census Tract 8.00
- Census Tract 11.01
- Census Tract 12.01
- Census Tract 13.01
- Census Tract 6.00
- Census Tract 7.02
- Census Tract 10.03
- Census Tract 11.02
- Census Tract 12.02

A map of those census tracts qualifying as disadvantaged can be found in **Appendix II: Disadvantaged Census Tract Map**.

Geographic Description of Disadvantaged Areas:

Those areas defined as disadvantaged per the equity analysis, are roughly the east-central and northeast portions of the county. The areas generally correspond to the eastern and southern portions of the City of Gainesville, the City of Lula, and the areas of unincorporated Hall County that surround both. Characteristics of these areas include lower-income households, lower high school graduation rates, greater barriers to transportation, greater instances of homes with no indoor plumbing, higher instances heart disease, and closer proximity to superfund sites requiring EPA monitoring than the rest of Hall County. Those areas of Hall County northwest of I-985 tend to be wealthier, healthier and more mobile (greater access to transportation).

Equity Crash Analysis:

Using the above census tracts as a guide, the project team then analyzed those crashes that occurred within the identified disadvantaged areas. Of the 33,697 crashes that occurred in Hall County from 2018 to 2022 (excluding crashes on I-985), 16,303 (or 48.4%) occurred within census tracts identified as historically disadvantaged (despite those census tracts making up less than 45% of total county area). A breakdown of major crash characteristics in disadvantaged areas (compared to the county as a whole) can be found in Table 3.

[1] Due to the complex, multi-agency datasets utilized as part of the Justice40 program (which have not all been updated to 2020 census data yet), these census tracts are geographically based on the 2010 census, but generally use data from sources that are much more recent.

These results show that some crashes are more (or less) common in disadvantaged areas than others. For example, injury crashes (KAB) are slightly less common in disadvantaged areas, whereas non-injury crashes (CO) are slightly more common in those areas. Furthermore, pedestrian related crashes are slightly more common, while motorcycle related crashes are *far* less common in disadvantaged areas. Finally, hit-and-run accidents seem to be slightly more common in disadvantaged communities.

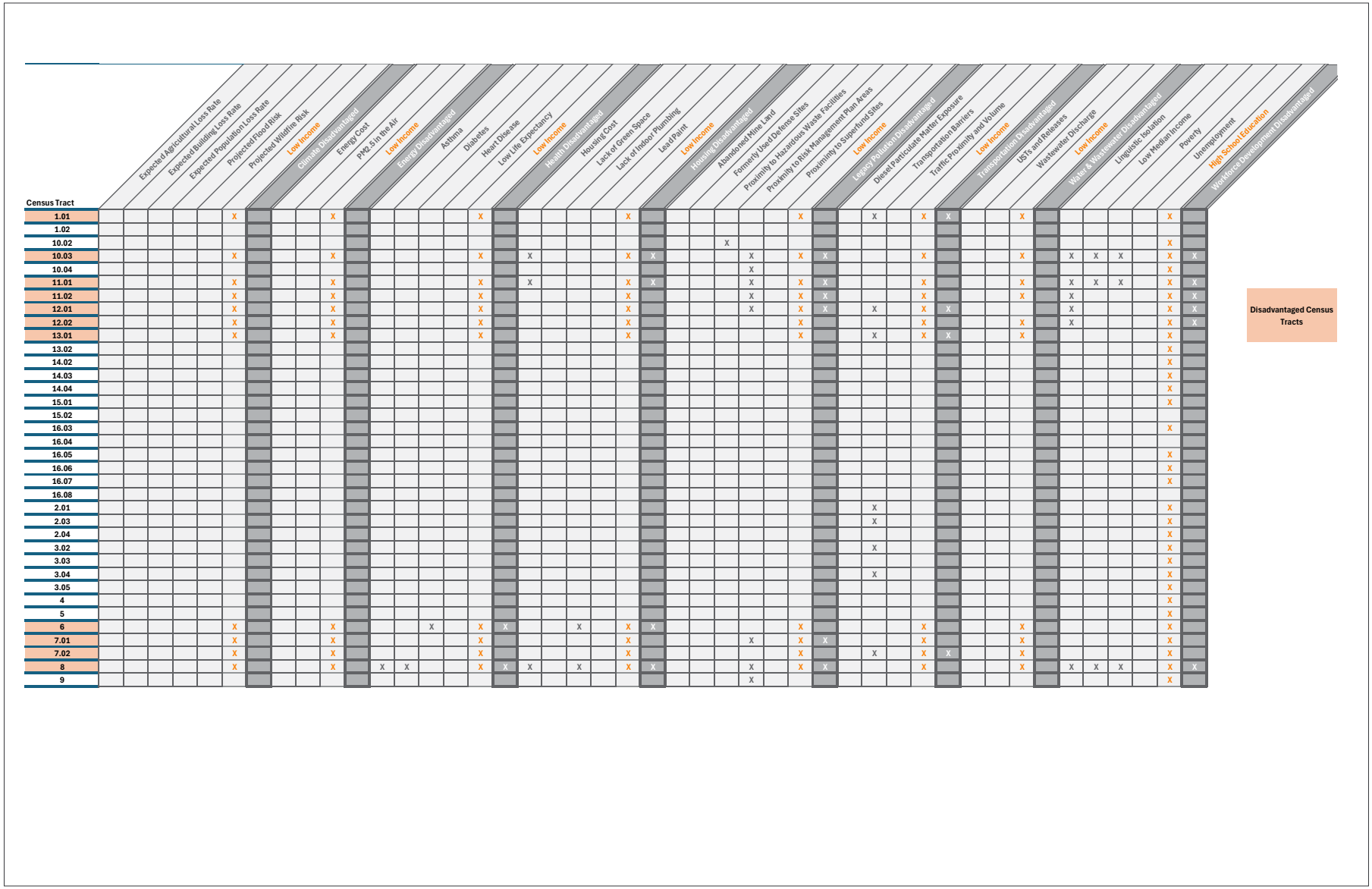
Table 3: Equity Area Crash Characteristics

Crash Type	Disadvantaged Areas	Hall County
Fatal (K) Crashes	43 (0.26%)	123 (0.37%)
Severe Injury (A) Crashes	209 (1.28%)	495 (1.47%)
Minor Injury (B) Crashes	1,179 (7.23%)	2,623 (7.78%)
Complaint of Injury (C) Crashes	2,685 (16.47%)	5,351 (15.88%)
Non-Injury (O) Crashes	12,157 (74.57%)	25,028 (74.27%)
Bicycle Related	11 (0.07%)	39 (0.12%)
Pedestrian Related	107 (0.67%)	167 (0.50%)
Motorcycle Related	1 (0.006%)	180 (0.53%)
Hit-and-Run Related	1,921 (11.78%)	3,534 (10.49%)
Age-Related (<24)	6,818 (41.82%)	14,178 (42.06%)
Age-Related (>55)	5,935 (36.40%)	12,311 (36.52%)
All Crashes	16,303	33,697

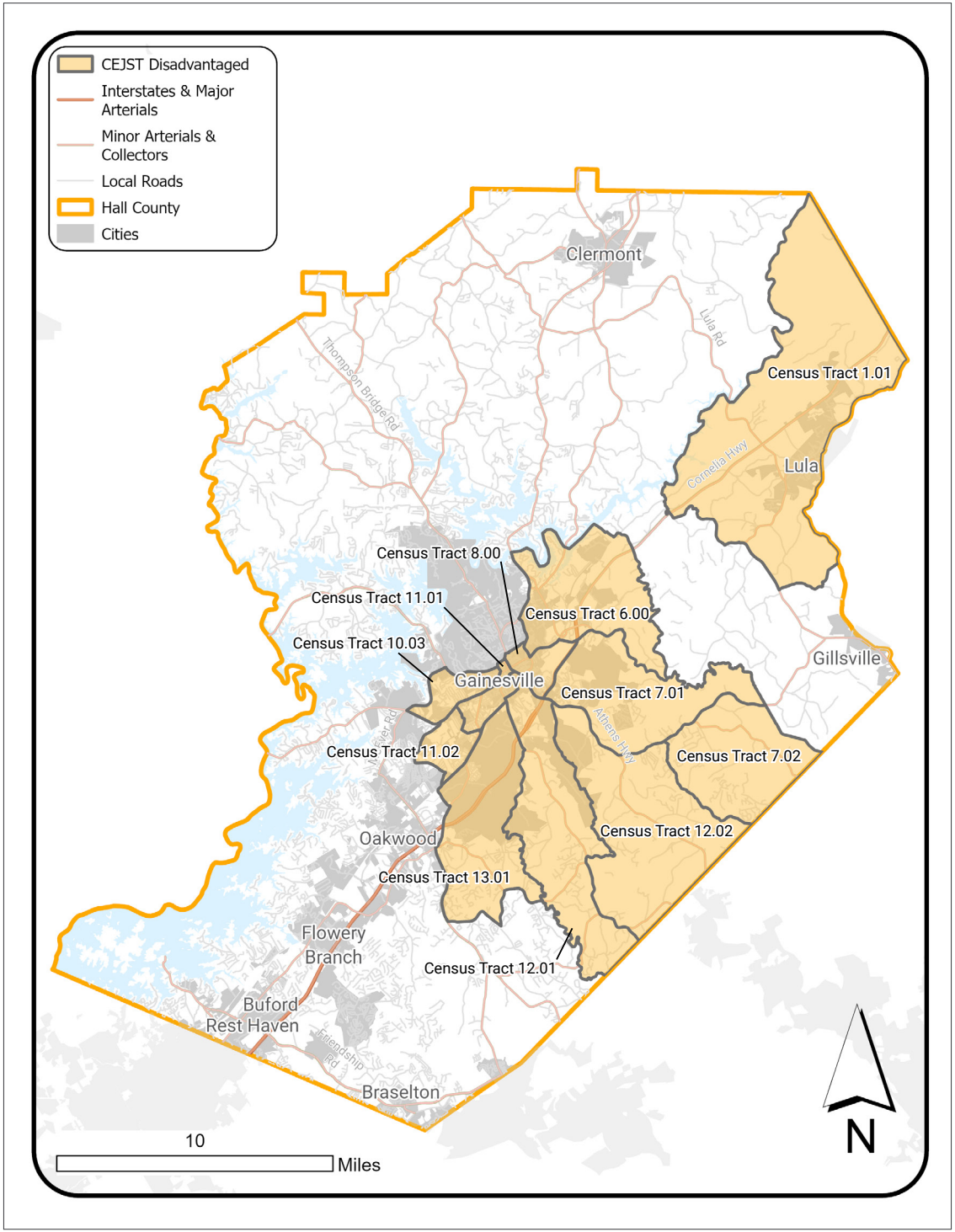
Geographic Description of Disadvantaged Areas:

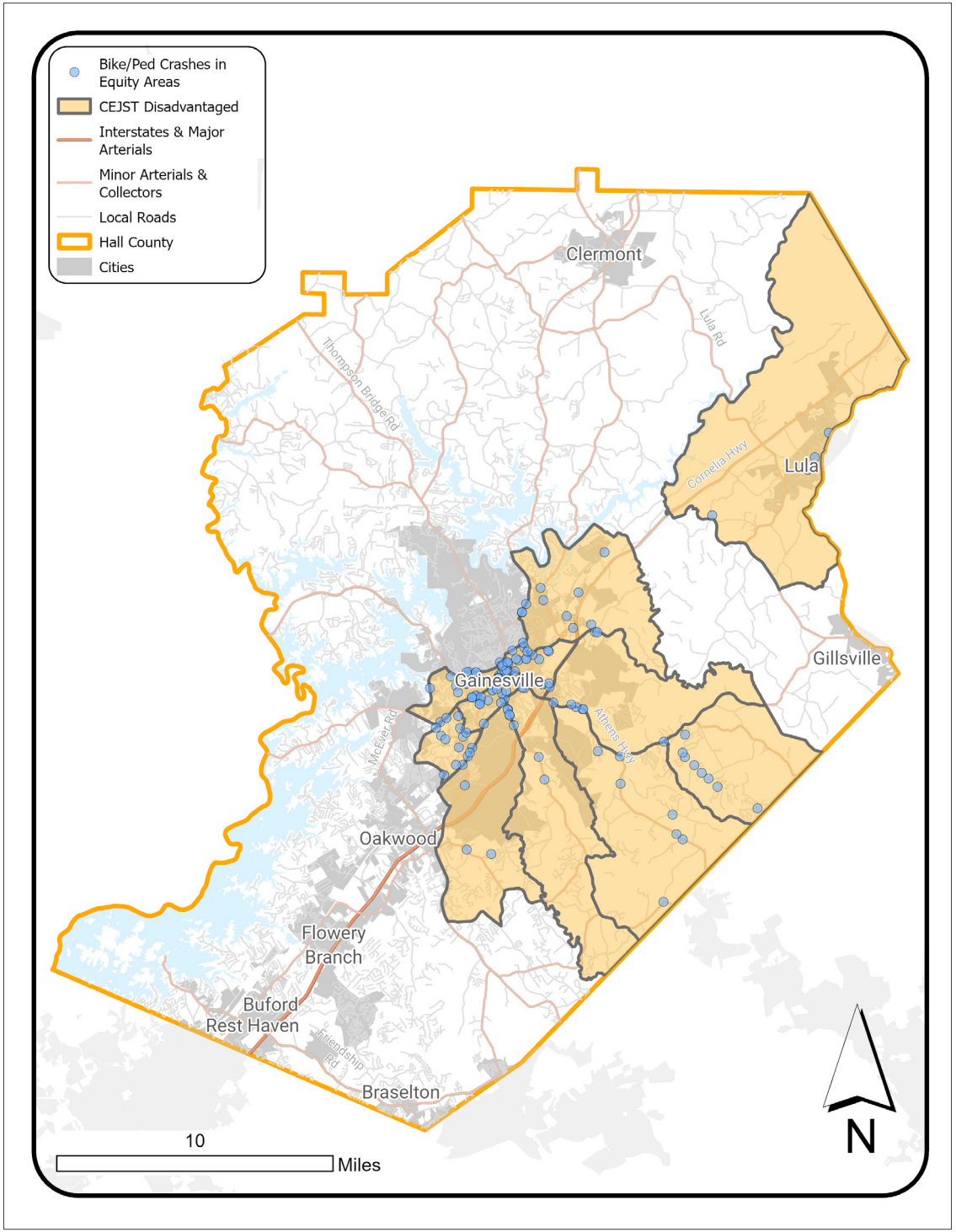
Analyzing both Justice40/CEJST data, as well as ACS and census data, for Hall County shows that there are several historically disadvantaged communities present that may need to be considered during equity discussions moving forward. Particularly, Spanish-speaking, low-income and transportation disadvantaged communities stand out as being especially relevant for the purposes of Hall County's SS4A Plan. Special consideration should be taken to ensure accessibility of the study for these communities, and to ensure that the plan is developed with these communities in mind. Future proposed project or policy improvements should always be made while considering impacts to these communities.

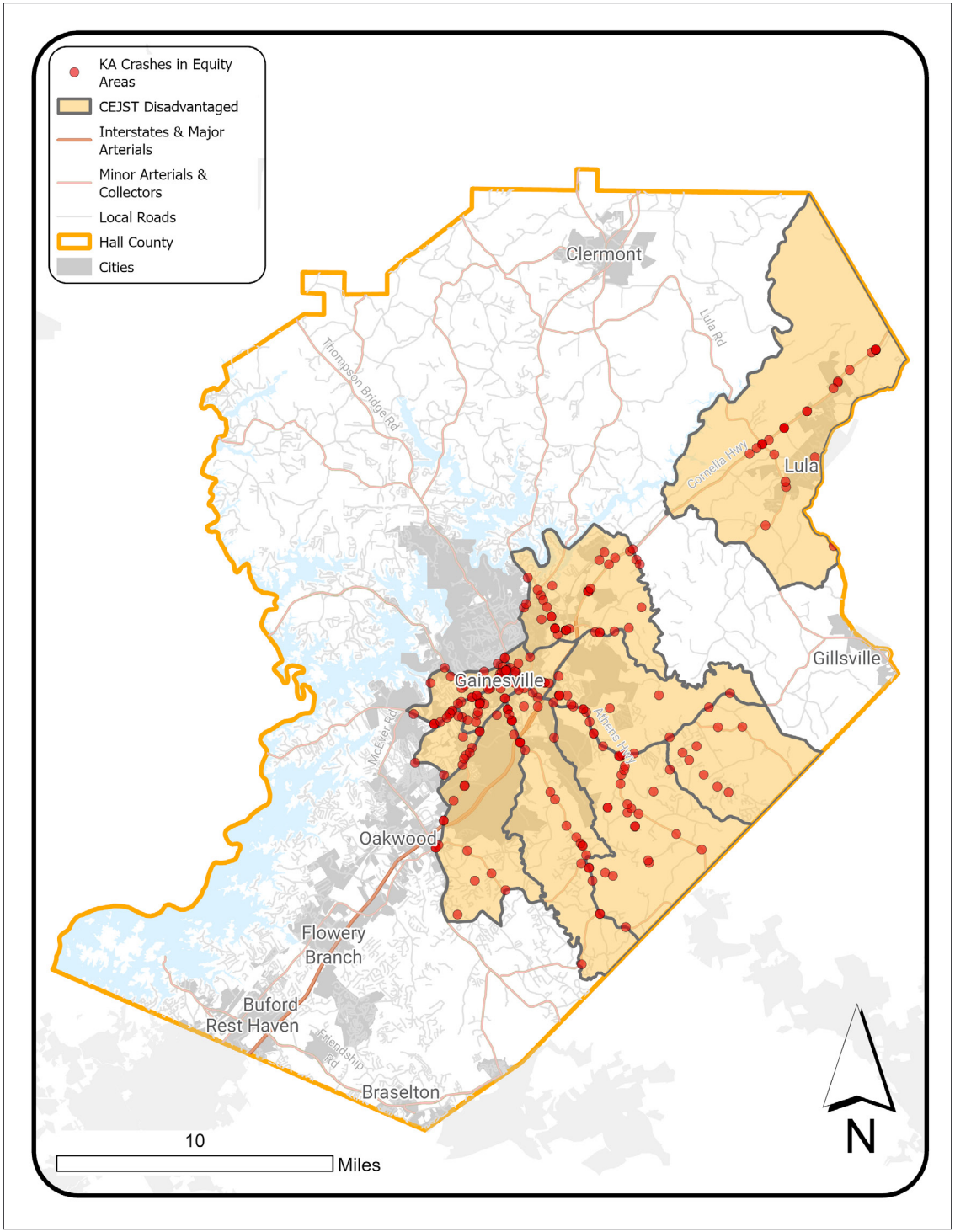
Appendix I: CEJST Summary


Census Tract
Expected Agricultural Loss Rate
Expected Building Loss Rate
Expected Population Loss Rate
Projected Flood Risk
Projected Wildfire Risk
Low Income
Climate Disadvantaged
Energy Cost
PM2.5 in the Air
Low Income
Energy Disadvantaged
Asthma
Diabetes
Heart Disease
Low Life Expectancy
Low Income
Health Disadvantaged
Housing Cost
Lack of Green Space
Lack of Indoor Plumbing
Lead Paint
Low Income
Housing Disadvantaged
Abandoned Mine Land
Formerly Used Defense Sites
Proximity to Hazardous Waste Facilities
Proximity to Risk Management Plan Areas
Proximity to Superfund Sites
Low Income
Legacy Pollution Disadvantaged
Diesel Particulate Matter Exposure
Transportation Barriers
Traffic Proximity and Volume
Low Income
Transportation Disadvantaged
USTs and Releases
Wastewater Discharge
Low Income
Water & Wastewater Disadvantaged
Linguistic Isolation
Low Median Income
Poverty
Unemployment
High School Education
Workforce Development Disadvantaged
Disadvantaged Census Tracts

Appendix II: Disadvantaged Census Tract Map


CEJST Disadvantaged
Interstates & Major Arterials
Minor Arterials & Collectors
Local Roads
Hall County
Cities
Clermont
Lula Rd
Thompson Bridge Rd
Census Tract 1.01
Cornelia Hwy
Lula
Census Tract 8.00
Census Tract 11.01
Census Tract 6.00
Census Tract 10.03
Gainesville
Gillsville
Census Tract 7.01
Athens Hwy
Census Tract 11.02
Census Tract 7.02
Census Tract 12.02
Oakwood
Census Tract 13.01
Flowery Branch
Census Tract 12.01
Buford
Rest Haven
Friendship Rd
Braselton
10
Miles
N


Bike/Ped Crashes in Equity Areas
CEJST Disadvantaged
Interstates & Major Arterials
Minor Arterials & Collectors
Local Roads
Hall County
Cities
Clermont
Lula
Gillsville
Gainesville
Oakwood
Flowery Branch
Buford
Rest Haven
Braselton
Thompson Bridge Rd
Lula Rd
Cornelia Hwy
McEver Rd
Athens Hwy
Friendship Rd
10
Miles
N


KA Crashes in Equity Areas
CEJST Disadvantaged
Interstates & Major Arterials
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Oakwood
Flowery Branch
Buford
Rest Haven
Braselton
Thompson Bridge Rd
Lula Rd
Cornelia Hwy
McEver Rd
Athens Hwy
Friendship Rd
10
Miles
N

Gresham Smith

Hall County Safe Streets for All (SS4A) Action Plan

HIGH INJURY NETWORK METHODOLOGY
October, 2024

Introduction
Official Safety Action Plan (SAP) guidance released by the Federal Highway Administration (FHWA) cites eight specific components of successful plans, including a full safety analysis. As part of that safety analysis, that same guidance calls for a "geospatial identification of higher-risk locations (a high injury network or equivalent)".[1] This memorandum outlines the steps and scores that go into identifying a High Injury Network (HIN) – including a review of the data analysis and plan review completed to date as part of that effort.

Dataset Preparation
For the purposes of this project, the initial crash trends analysis examined all crashes from January 1, 2018 to December 31, 2022 within Hall County, Georgia. The data used for this analysis was accessed via the Georgia Department of Transportation's (GDOT's) Numetric platform (also known as AASHTOWare). Further refining the dataset included removing all crashes occurring on private property, as well as those along the mainline sections of Interstate 985 (I-985). While vehicle crashes do occur along I-985, inclusion of the crashes is likely to skew data – disproportionately representing a facility within the HIN over which Hall County does not have direct jurisdictional authority (crashes on interstate ramps were maintained). The data was also spot-checked to verify that fatal and serious injury crashes did in fact occur at the locations reported in the data, as well as to verify that latitude and longitude were included for all fatal and serious injury crashes. With these modifications, a baseline crash dataset of 33,697 non-interstate crashes was obtained.

Background Data & Plan Review
The most effective HINs are based on an extensive review of crash data, relevant case studies and by insuring alignment with the Georgia Strategic Highway Safety Plan (SHSP). The 2022-2024 Statewide SHSP outlines nine specific emphasis areas considered "to be the top contributing factors of crashes, serious injuries, and fatalities in Georgia".[2] Those nine emphasis areas are shown below:

- Pedestrian Safety
- Older Drivers (55+ years)
- Occupant Protection (Seatbelts, etc.)
- Young Adult Drivers (24 years or younger)
- Intersection Safety & Roadway Departures
- Motorcycle Safety
- Impaired Driving
- Distracted Driving
- Bicycle Safety

In performing the initial crash analyses to inform the project's HIN, consideration was given to these emphasis areas already identified as potentially leading to greater numbers or increased severity of crashes. However, as there is no universally accepted single standard for HIN methodologies, a preliminary analysis of crash attributes and a review of existing case studies were needed to develop a HIN methodology specific to Hall County.

Case Studies
City of Atlanta - The City of Atlanta's most recent HIN focused on locations that experienced a high number of severe crashes in a five-year period. The Atlanta HIN analysis excluded access-controlled roads. In contrast to the previous

[1] https://www.transportation.gov/grants/ss4a/comprehensive-safety-action-plans
[2] https://www.gahighwaysafety.org/wp-content/uploads/2022/01/SHSP-2022-24.pdf

HIN (which spatially summed the number of fatalities and injuries within 25 feet of each roadway segment), the newer HIN was developed using the equivalent property damage only (EPDO) method, also known as crash severity weighted frequency. This method refers to the societal costs of fatal, injury, and property-damage only crashes. The methodology used blended cost and weight for fatal (K) and suspected serious injury (A) crashes, consistent with the Atlanta Regional Commission (ARC) Regional Safety Strategy (RSS). It divided the blended KA crash cost by the PDO crash cost to develop the EPDO weight, using average crash costs from the RSS. This methodology also drew on data from GDOT's road data inventory to aggregate high crash segment and intersection locations. They also used categories to determine intersection areas of influence based on average block length within Census block groups.

Southern California Association of Governments (SCAG) – SCAG included five years of crash data, considering only collisions resulting in fatalities or serious injuries. The methodology included auto-auto, auto-bike, and auto-pedestrian collisions. Crashes were analyzed at the corridor level (one-mile segment lengths), excluding highways. To establish a threshold for the percentage of victims included in the HIN, the SCAG team successively added segments greater than 0.25 miles in length in order from greatest to least number of victims per mile, until they reached 65% of the victims of a given collision mode was met. SCAG did not apply weighting for collision severity, geography, population characteristics, or modes. Data was normalized by calculating victims-per-mile based on the number of seriously injured victims and fatalities involved along a road segment.[3]

Kansas City Vision Zero - Kansas City, MO developed its HIN to include roadway segments and intersections. They included fatal, serious injury, and minor injury crashes, which were joined to the road network, using a 40-foot buffer for segments and a 200-foot buffer for intersections. The three crash severities were aggregated using a weighted intensity for each segment and for each intersection. Fatal crashes were assigned a score of 20 points, serious injuries four points, and minor injuries one point. Those values were chosen to approximate the equal scale of the average crash cost to society. The weighted segments and intersections were overlaid on the roadway network to establish the HIN and identify High Injury Intersections.[4]

The HIN was divided into four levels of priority (top, high, medium, and moderate) and compared by the percentage of fatal and serious injury crashes (referred to as KSI for killed or seriously injured) as well as the proportion of centerline miles represented in each priority network, allowing the team to compare the KSI crash rate among each of the HINs as well as with roads not in the HIN.

Nashville Vision Zero Action Plan[5] – The Nashville Vision Zero Action Plan removed federally-managed freeways and on- and off-ramps as well as crashes associated with these facilities, to avoid skewing the data given the high volume of vehicle miles traveled on these roads. Crashes that were within 50 feet of another road segment (at intersections) were snapped to the facility with the highest functional classification for the purposes of establishing an HIN.

Collision points were weighted for severity, vulnerable users, and equity in a manner that emphasized fatal or severe collisions but did not ignore the risks of minor injury crashes. The weighting scheme was as follows, with the highest possible value of 45:

- Severity Index: Fatality – 15; Serious injury – 5; Minor injury – 0.5
- Vulnerable Users: Collisions involving bicyclists and pedestrians - multiply severity index by 1.5.

[3] https://scag.ca.gov/sites/main/files/file-attachments/scag-hin-methodology-072022.pdf
[4] https://www.kcmo.gov/home/showdocument?id=9018
[5] https://www.nashville.gov/departments/transportation/plans-and-programs/vision-zero/action-plan

- Equity: Collisions within a highly vulnerable area were multiplied by 2 (vulnerable areas were defined using regional methods)

To establish the HIN, crashes within 50 feet of the prepared network were spatially joined to segments so that a segment-based weighted severity index could be determined for each segment. Secondly, all collisions directly on the analysis network were joined to the road centerline network. This enabled the team to "accumulate" KSI collisions with the draft HIN – to determine how many collisions are captured by HIN streets. Then the length in miles of the HIN was calculated (with a minimum segment length of 0.25 miles) and the final HIN was determined by dividing the weighted collisions on a segment by the calculated length in miles. Road segments were sorted in descending order by HIN score and the percentages of total road network, fatal and serious injury crashes, and all injury crashes were calculated. Comparing these, a threshold of 59% of KSI collisions was ultimately selected. Segments with only one (1) collision and shorter than 0.25 miles were removed from the HIN.

While conducting an initial screening of Hall County crash data and reviewing HIN case studies from other areas, the project team kept several important considerations in mind:

- *Does a single HIN for the county make sense, or should separate HINs be developed by mode (passenger car, motorcycle, pedestrian, etc.)?*
- *Should the societal cost of wrecks play a role in our development of a HIN (cost considerations are considered in some other local HIN methodologies, such as the City of Atlanta's)?*
- *Should emphasis be placed on the location of severe crashes or crashes with specific attributes? Or should emphasis be placed on where the most crash victims (e.g. most severe crashes vs. most crashes in general) are located?*

Initial Hall County Crash Data Findings

Keeping these high-level considerations in mind, the project team conducted a high-level analysis of the county's existing crash data. The following summary of findings reflects crashes not on private property or along interstates. The crash data included seventy-three (73) unique attributes used to analyze vehicle crash trends within Hall County. Key findings include:

- 33,697 total non-interstate crashes
- 123 fatal (K) and 496 serious injury (A) crashes
- Less than 1% of non-interstate crashes were fatal (123) and these resulted in 130 fatalities
- Roughly 1.5% of non-interstate crashes resulted in serious injuries (496) to a total of 625 people
- Less than 1% of non-interstate crashes involved cyclists/pedestrians (206), yet these represent almost 9% of KA crashes
- Motorcycle crashes represent 0.53% of non-interstate crashes but 6.31% of KA crashes
- Roughly 7% of crashes within the original dataset occurred on I-985 (these were removed)
- More than 50% of non-interstate crashes appear to occur on roughly 26 roads
- A majority (roughly 23,641) of non-interstate crashes appear to be intersection-related

Based on a review of non-interstate crashes and other HIN methodologies, preliminary overall Hall County crash data, and in an effort to align with the Georgia SHSP, this memorandum has identified ten potential vehicle crash attributes or contributing factors to review while developing the county's HIN and for consideration in developing the crash profiles. In no particular order, those are:

1. Manner of Collision (Head on, Sideswipe, etc.)
2. Lighting (Dark, Dawn, Dusk, Daylight, etc.)
3. Vulnerable Roadway Users (VRUs; Motorcycles, Pedestrians, Bicyclists, etc.)
4. Impaired Driving
5. Aggressive Driving
6. Speed Related
7. Distracted Driving
8. Age Related
9. Roadway Departure Related
10. Hit and Run Related

The following sections briefly summarize findings from a review of the non-interstate crash data in each of the above categories.

Crash Severity (KABCO Score)

The goal of most Safety Action Plans is to achieve a substantial (or complete) reduction in fatal and severe injury crashes (KA crashes) over time. Analyzing the Hall County vehicle crash dataset by KABCO severity score gives us a breakdown of what percentage of crashes result in fatal injuries (K), severe injuries (A), suspected minor injuries (B), possible injuries (C), or no injuries (O). The vehicle crashes in Hall County from 2018 to 2022 broken down by severity can be seen in ***Table 1: Hall County Vehicle Crashes by KABCO Severity (2018-2022)***.

Table 1: Hall County Vehicle Crashes by KABCO Severity (2018-2022)

Year	KABCO Scale						Total Crashes
	Fatal	Injury			PDO	Unknown	
	K	A	B	C	O		
2018	22	74	454	1,024	5,285	0	6,859
2019	17	71	451	1,120	4,907	0	6,566
2020	27	129	532	899	4,266	0	5,853
2021	24	119	556	1,126	5,289	0	7,114
2022	33	102	630	1,182	5,358	0	7,305
Total	123	495	2,623	5,351	25,105	0	33,697
	0.37%	*1.47%*	*7.78%*	*15.88%*	*74.50%*	*0.00%*	100%

Manner of Collision

Manner of collision refers to the way in which two vehicles initially come into contact (angle, head on, rear-end, etc.). By analyzing Hall County vehicle crashes by manner of collision, the project team can get a better idea of those types of collisions that may be more (or less) common within Hall County. A summary of Hall County's crashes broken down by manner of collision can be found in ***Table 2***.

Table 2: Hall County Vehicle Crashes by Manner of Collision (2018-2022)

Year	Manner of Collision							Total Crashes
	Angle	Head On	Rear End	Sideswipe (Same Direction)	Sideswipe (Opposite Direction)	Not a Collision w/ a Vehicle	Not Specified	
2018	1,802	139	2,631	537	168	1,565	17	6,859
2019	1,770	153	2,782	536	153	1,160	12	6,566
2020	1,692	156	2,116	396	164	1,321	8	5,853
2021	2,106	168	2,647	509	163	1,514	7	7,114
2022	2,216	153	2,735	553	186	1,451	11	7,305
Total	9,586	769	12,911	2,531	834	7,011	55	33,697
	28.45%	*2.28%*	*38.31%*	*7.51%*	*2.47%*	*20.81%*	*0.16%*	100%

It is also possible to summarize the Hall County crash data further, by analyzing only fatal (K) and severe injury (A) crashes by manner of collision. This will allow the project team to identify those manners of collision that may qualify as a specific challenge area for Hall County. A summary of Hall County's KA Crashes by manner of collision can be found in *Table 3*.

Table 3: Hall County KA Crashes by Manner of Collision (2018-2022)

Year	Manner of Collision							Total KA Crashes
	Angle	Head On	Rear End	Sideswipe (Same Direction)	Sideswipe (Opposite Direction)	Not a Collision w/ a Vehicle	Not Specified	
2018	26	12	4	1	4	49	0	96
2019	32	11	8	3	1	33	0	88
2020	63	21	16	1	4	51	0	156
2021	44	23	18	1	4	53	0	143
2022	48	17	18	1	1	50	0	135
Total	213	84	64	7	14	236	0	618
	34.47%	*13.59%*	*10.36%*	*1.13%*	*2.27%*	*38.19%*	*0.00%*	100%

A quick examination of the two datasets shows that angle collisions, head-on collisions, and collisions with objects other than motor vehicles all resulted larger shares of KA crashes than the crash dataset overall. Angle crashes are 28.45% of all non-interstate crashes, but 34.47% of KA crashes; head on collisions are 2.28% of all non-interstate crashes, but 13.59% of all KA non-interstate crashes; and finally, collisions with other objects are 20.81% of all non-interstate crashes, but 39.19% of all KA non-interstate crashes. This may mean that vehicle crashes with these three manners of collision may represent a specific challenge area for Hall County, which should be taken into consideration while developing the county's Safety Action Plan and potentially as part of the HIN.

Lighting

Presence of effective street lighting can often be a determining factor in vehicle crash severity. The dataset obtained via Numetric allows the project team to analyze Hall County vehicle crashes by lighting at the time of the crash [dawn, daylight, dusk, dark (lighting), and dark (no lighting)]. Breaking out Hall County crash data by lighting will provide a baseline for the dataset and will potentially allow the project team to determine if some lighting conditions result in

more severe vehicle crashes than others. A summary of Hall County's vehicle crashes from 2018 to 2022 by lighting conditions can be found in *Table 4*.

Table 4: Hall County Vehicle Crashes by Lighting Conditions (2018-2022)

Year	Lighting Conditions						Total Crashes
	Dawn	Daylight	Dusk	Dark-Lit	Dark-Not Lit	Not Specified	
2018	118	5026	99	511	1105	0	6,859
2019	103	4892	95	498	978	0	6,566
2020	100	4314	88	414	927	10	5,853
2021	82	5222	113	512	1175	10	7,114
2022	92	5392	92	563	1153	13	7,305
Total	495	24,846	487	2,498	5,338	33	33,697
	1.47%	*73.73%*	*1.45%*	*7.41%*	*15.84%*	*0.10%*	100%

Analyzing fatal (K) and severe injury (A) vehicle crashes by lighting condition and comparing them to all vehicle crashes by lighting condition, will help the project team identify if there are certain lighting conditions that are more likely to result in crashes with more severe outcomes. A summary of Hall County KA crashes by lighting conditions can be found in *Table 5*.

Table 5: Hall County KA Crashes by Lighting Condition (2018-2022)

Year	Lighting Conditions						Total KA Crashes
	Dawn	Daylight	Dusk	Dark-Lit	Dark-Not Lit	Not Specified	
2018	3	57	0	8	28	0	96
2019	2	58	2	5	21	0	88
2020	1	95	4	11	45	0	156
2021	1	89	3	5	45	0	143
2022	3	79	1	10	42	0	135
Total	10	378	10	39	181	0	618
	1.62%	*61.17%*	*1.62%*	*6.31%*	*29.29%*	*0.00%*	100%

A quick review of the resulting data shows that vehicle crashes in dark, unlit areas are a much larger proportion of KA crashes (29.29%) than they are of vehicle crashes overall (15.84%) – representing another potential challenge area for Hall County.

Vulnerable Roadway Users (VRUs)

Vulnerable roadway users are those people who are travelling on or near roadways without the use of a motor vehicle (such as pedestrians, cyclists, motorcyclists, and people with disabilities or reduced mobility). Because VRUs exist outside of the protection provided by an automobile, they are particularly at-risk for severe outcomes during collisions with motor vehicles. A baseline summary of Hall County crash data by the presence of VRUs can be found in ***Table 6***.

Table 6: Hall County Vehicle Crash Data by Presence of VRUs (2018-2022)

Year	Crashes Involving VRUs					Total Crashes
	Bicycle	Pedestrian	Motorcycle	Scooter	Non-VRU	
2018	8	42	86	0	6773	6,859
2019	11	32	88	0	6491	6,566
2020	10	30	89	0	5781	5,853
2021	5	33	97	0	7036	7,114
2022	5	30	111	0	7230	7,305
Total	39	167	471	0	33,311	33,697
	0.12%	*0.50%*	*1.40%*	*0.00%*	*98.85%*	100%

While a summary of Hall County's KA crashes broken down by the presence of VRUs can be found in **Table 7**.

Table 7: Hall County KA Crash Data by Presence of VRUs (2018-2022)

Year	Crashes Involving VRUs					Total KA Crashes
	Bicycle	Pedestrian	Motorcycle	Scooter	Non-VRU	
2018	2	8	15	0	91	96
2019	2	10	12	0	80	88
2020	2	10	25	2	137	156
2021	1	11	19	0	124	143
2022	1	8	28	3	113	135
Total	8	47	99	5	545	618
	1.29%	*7.61%*	*16.02%*	*0.81%*	*88.19%*	100%

A quick review of both datasets shows that crashes involving cyclists, pedestrians and motorcyclists each represent a much larger proportion of KA crashes than all non-interstate crashes overall. Bicyclists are involved in 0.12% of all non-interstate crashes, but 1.29% of all KA non-interstate crashes; pedestrians are involved on 0.50% of all non-interstate crashes, but 7.61% of all KA crashes; and finally, motorcycles are involved in 1.40% of all non-interstate crashes, but 16.02% of all KA crashes.

Impaired Driving

Impaired driving refers to driving while under the influence of drugs or alcohol (or any other substance or condition that interferes with the normal operation of a motor vehicle). Driving while under the influence has been proven to result in more severe vehicle crash outcomes, which makes it an important attribute to consider when identifying challenge areas. A summary of Hall County's vehicle crash data by driver impairment can be found in **Table 8**.

Table 8: Hall County Vehicle Crashes by Driver Impairment (2018-2022)

Year	Driver Impairment			Total Crashes
	Confirmed/Suspected	Not	Unknown	
2018	6	6,834	19	6,859
2019	10	6,555	1	6,566
2020	12	5,841	0	5,853
2021	14	7,100	0	7,114
2022	20	7,284	1	7,305
Total	62	33,614	21	33,697
	0.18%	*99.75%*	*0.06%*	100%

HALL COUNTY SS4A ACTION PLAN
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To determine if driver impairment can lead to more severe vehicle crash outcomes, a summary of Hall County KA Crash data by driver impairment can be found in ***Table 9***.

Table 9: Hall County KA Crashes by Driver Impairment (2018-2022)

Year	Driver Impairment			Total KA Crashes
	Confirmed/Suspected	Not	Unknown	
2018	2	94	0	96
2019	3	85	0	88
2020	2	154	0	156
2021	6	137	0	143
2022	11	124	0	135
Total	24	594	0	618
	3.88%	***96.12***	***0.00%***	100%

Crashes involving impaired drivers represent a larger proportion of KA crashes than they do of vehicle crashes overall (3.88% vs. 0.18%) – impaired driving may be a challenge area for Hall County to consider when developing the Safety Action Plan.

Aggressive Driving
While not identified as a specific emphasis area for safety action plans as impaired driving or distracted driving related crashes, aggressive driving is nevertheless another vehicle crash attribute that can sometimes lead to more severe vehicle crash outcomes. Comparing the baseline proportion of vehicle crashes that involve aggressive driving, with the proportion of fatal (K) and severe injury (A) crashes that involve aggressive driving can reveal if aggressive driving may lead to more severe vehicle crash outcomes. A breakdown of Hall County's vehicle crashes by whether or not aggressive driving played a factor can be found in **Table 10**; while a summary of Hall County's KA crashes by the presence of aggressive driving can be found in **Table 11**.

Table 10: Hall County Vehicle Crashes by Aggressive Driving (2018-2022)

Year	Aggressive Driving			Total Crashes
	Confirmed/Suspected	Not Present	Unknown	
2018	37	1323	5499	6,859
2019	23	970	5573	6,566
2020	27	1043	4783	5,853
2021	44	1320	5750	7,114
2022	41	1249	6015	7,305
Total	172	5,905	27,620	33,697
	0.51%	***17.52%***	***81.97%***	100%

Table 11: Hall County KA Crashes by Aggressive Driving (2018-2022)

Year	Aggressive Driving			Total KA Crashes
	Confirmed/Suspected	Not Present	Unknown	
2018	23	73	0	96
2019	14	74	0	88
2020	21	135	0	156
2021	30	113	0	143
2022	34	101	0	135
Total	122	496	0	618
	19.74%	*80.26%*	*0.00%*	100%

Fatal and severe injury crashes in Hall County involve aggressive driving 19.74% of the time, while all crashes in Hall County involve aggressive driving only 0.51% of the time. This may show that aggressive driving is more likely to result in fatal and severe injury crashes, making aggressive driving a potential challenge area for Hall County to consider as part of the overall Safety Action Plan.

Speed Related

Higher rates of speed are often an influential factor in whether or not a vehicle crash results in fatal or severe injuries. Determining whether or not speed related crashes are a potential challenge area for Hall County, the project team compared the proportion of all vehicle crashes in the county that were speed related to the proportion of KA crashes that were speed related. Summaries of both categories can be found in *Tables 12* and *13*.

Table 12: Hall County Speed Related Vehicle Crashes (2018-2022)

Year	Speed Related			Total Crashes
	Confirmed/Suspected	Not	Unknown	
2018	327	6468	64	6,859
2019	241	6258	67	6,566
2020	299	5467	87	5,853
2021	332	6695	87	7,114
2022	344	6862	99	7,305
Total	1,543	31,750	404	33,697
	4.58%	*94.22%*	*1.20%*	100%

Table 13: Hall County Speed Related KA Crashes (2018-2022)

Year	Speed Related			Total KA Crashes
	Confirmed/Suspected	Not	Unknown	
2018	19	77	12	96
2019	11	77	8	88
2020	14	142	1	156
2021	19	124	3	143
2022	29	106	2	135
Total	92	526	26	618
	14.29%	*81.68%*	*4.04%*	100%

A larger proportion of KA crashes in Hall County are speed related (14.29%) compared to all vehicle crashes within Hall County (4.58%). Speed related vehicle crashes may represent another challenge area for Hall County to consider.

Distracted Driving

Distracted driving has quickly become a prominent emphasis area in crash analyses and in the development of safety action plans nationwide. An increasingly connected society has resulted in increasingly distracted vehicle operators. Examining the proportion of Hall County's vehicle crashes that involve a distracted driver and comparing it the proportion of KA crashes that involve distracted drivers in Hall County, will allow the project team to determine if distracted driving results in more severe vehicle crash outcomes. Summaries of all vehicle crashes and KA crashes in Hall County by involvement of distracted drivers can be found in ***Tables 14*** and ***15***.

Table 14: Hall County Vehicle Crashes Involving Distracted Drivers (2018-2022)

Year	Distracted Driver Involved			Total Crashes
	Confirmed/Suspected	Not	Unknown	
2018	3164	3695	0	6,859
2019	3189	3377	0	6,566
2020	2591	3262	0	5,853
2021	3180	3934	0	7,114
2022	3103	4202	0	7,305
Total	15,227	18,470	0	33,697
	45.19%	***54.81%***	***0.00%***	100%

Table 15: Hall County KA Crashes Involving Distracted Drivers (2018-2022)

Year	Distracted Driver Involved			Total KA Crashes
	Confirmed/Suspected	Not	Unknown	
2018	33	75	0	96
2019	20	76	0	88
2020	38	119	0	156
2021	34	112	0	143
2022	24	113	0	135
Total	149	469	0	618
	24.11%	***75.89%***	***0.00%***	100%

Distracted drivers were involved in just under a majority of vehicle crashes in Hall County from 2018 to 2022 (45.19%). This may suggest that distracted driving should be a challenge area to consider during the development of the Safety Action Plan. This is despite the fact that distracted drivers are involved in significantly fewer KA vehicle crashes (24.11%), perhaps suggesting that distracted driving may not lead to more severe vehicle crash outcomes but could potentially lead to more vehicle crashes of all severities.

Age Related

Vehicle crashes involving young drivers (ages 15-19), young adult drivers (ages 20-24), older adult drivers (ages 55-64), and oldest adult drivers (ages 65+) are recommended challenge areas to consider according to the current Georgia Strategic Highway Safety Plan. A summary of all crashes and KA Crashes within Hall County by the age-related emphasis areas mentioned above can be found in ***Tables 16*** and ***17***.

Table 16: Hall County Vehicle Crashes by Age-Related Emphasis Area (2018-2022)

Year	Age-Related Emphasis Areas					Total Crashes
	Ages 15-19	Ages 20-24	Ages 55-64	Ages 65+	Other	
2018	1250	1442	1321	1120	1726	6,859
2019	1244	1397	1357	1152	1416	6,566
2020	1049	1259	1184	974	1387	5,853
2021	1373	1479	1369	1131	1762	7,114
2022	1386	1470	1437	1266	1746	7,305
Total	6,302	7,047	6,668	5,643	8,037	33,697
	18.70%	*20.91%*	*19.79%*	*16.75%*	*23.85%*	100%

Table 17: Hall County KA Crashes by Age-Related Emphasis Area (2018-2022)

Year	Age-Related Emphasis Areas					Total KA Crashes
	Ages 15-19	Ages 20-24	Ages 55-64	Ages 65+	Other	
2018	12	20	26	14	36	96
2019	12	23	19	15	27	88
2020	22	35	29	43	28	156
2021	20	37	27	24	38	143
2022	24	20	24	32	37	135
Total	90	135	125	128	166	618
	13.98%	*20.96%*	*19.41%*	*19.88%*	*25.78%*	100%

A review of the age-related emphasis areas set forth in FHWA guidance (15-19, 20-24, 55-64, and 65+) shows that the proportion of non-interstate KA crashes involving a driver aged 65 or older is 19.88%, while only 16.75% of all Hall County vehicle crashes involve a driver aged 65 or older. This may suggest that examining vehicle crashes involving the oldest drivers may be an important challenge area to consider in the development of Hall County's HIN.

Roadway Departure Related

The 2022-2024 Georgia SHSP identifies roadway departure crashes as an emphasis area for particular consideration in the development of local safety action plans. A summary of all Hall County crashes, as well as Hall County KA crashes involving departure from the roadway can be found in ***Tables 18*** and ***19***.

Table 18: Roadway Departure Related Hall County Vehicle Crashes (2018-2022)

Year	Roadway Departure Related			Total Crashes
	Related	Not	Unknown	
2018	1547	5312	0	6,859
2019	1104	5462	0	6,566
2020	1278	4575	0	5,853
2021	1374	5740	0	7,114
2022	1399	5906	0	7,305
Total	6,702	26,995	0	33,697
	19.89%	*80.11%*	*0.00%*	100%

Table 19: Roadway Departure Related Hall County KA Crashes (2018-2022)

Year	Roadway Departure Related			Total KA Crashes
	Related	Not	Unknown	
2018	37	59	0	96
2019	21	67	0	88
2020	39	117	0	156
2021	41	102	0	143
2022	41	94	0	135
Total	179	439	0	618
	28.96%	*71.04%*	*0.00%*	100%

An examination of the data shows that roadway departure related crashes make up a larger proportion of non-interstate KA crashes (28.96%) than of all crashes overall (19.89%). This may mean that vehicle crashes involving roadway departures may lead to more severe vehicle crash outcomes, suggesting that the attribute may be an important challenge area to consider in the overall Safety Action Plan.

Hit and Run Related

Hit-and-run crashes are defined as those crashes where the driver/operator of a vehicle involved in a crash leaves the scene of the crash prior to emergency services arriving. An examination of proportions of all vehicle crashes and KA crashes within Hall County that were defined by reporting officers as hit-and-run provides some insight into whether these crashes result in more severe outcomes or happen more often in general. A summary of all crashes and KA crashes within Hall County that were described as hit and runs can be found in ***Tables 20*** and ***21***.

Table 20: Hall County Hit and Run Vehicle Crashes (2018-2022)

Year	Hit and Run Related			Total Crashes
	Related	Not	Unknown	
2018	698	6161	0	6,859
2019	601	5965	0	6,566
2020	663	5190	0	5,853
2021	764	6350	0	7,114
2022	808	6497	0	7,305
Total	3,534	30,163	0	33,697
	10.49%	*89.51%*	*0.00%*	100%

Table 21: Hall County Hit and Run KA Crashes (2018-2022)

Year	Hit and Run Related			Total KA Crashes
	Related	Not	Unknown	
2018	3	93	0	96
2019	2	86	0	88
2020	10	146	0	156
2021	6	137	0	143
2022	5	130	0	135
Total	26	592	0	618
	4.21%	*95.79%*	*0.00%*	100%

A review of the non-interstate crash data broken down by KA crashes (as well as all crashes) shows that hit-and-run crashes are significantly less likely to result in fatal or severe injuries. However, hit and run crashes represent more than 10% of all vehicle crashes total within Hall County. Due to their significant proportion of all vehicle crashes, they represent an important challenge area to consider when developing the safety action plan.

A breakdown of total non-interstate crashes and KA non-interstate crashes by each of the above potential challenge areas can be found in **Table 22**. Those cells where the emphasis area represents a higher percentage of KA crashes, than of overall crashes are highlighted red.

Table 22: Hall County Overall and KA Crashes by Emphasis Area

Emphasis Areas	Total Crashes per Emphasis Area	Emphasis Area Crashes as Percent of Total Crashes	Total KA Crashes per Emphasis Area	Emphasis Area KA Crashes as Percent of all KA Crashes
Angle Crashes[1]	9,586	28.45%	213	34.47%
Head On Crashes	769	2.28%	84	13.59%
Dark (Not-Lighted) Crashes	5,338	15.84%	181	29.29%
Pedestrian Crashes	167	0.50%	47	7.61%
Bicycle Crashes	39	0.12%	8	1.29%
Motorcycle Crashes	471	1.40%	99	16.02%
Impaired Driver Crashes	62	0.18%	24	3.88%
Aggressive Driving Crashes	2037	6.05%	122	19.74%
Speed Related Crashes	1,543	4.58%	92	14.89%
Distracted Driver Crashes	15,227	45.19%	149	24.11%
Crashes with Drivers 65 and Older	5,643	16.75%	128	20.71%
Roadway Departure Crashes	6,702	19.89%	179	28.96%

[1]*Includes all angle crashes (left, right, and other)*

Collision Weighting & Multipliers

Having reviewed preliminary crash data and methodologies used by other communities, the project team determined that some vehicle crashes should be weighted more heavily than others to account for severity, number of victims, and equity. Using relevant case studies and learned experience, weights were determined that struck a balance between emphasizing severe and fatal injury crashes, without diminishing the risks still posed by minor injury crashes.

- Severity Weighting
  - Fatal Injury Crashes: 25
  - Serious Injury Crashes: 10
  - Minor Injury: 1

In order to make sure Hall County's SS4A Action Plan also accounts for those crashes that result in multiple severe injuries or fatalities, so as to identify those areas where intervention may provide the greatest reduction in risk. Those crashes involving two or more severe injuries or fatalities had their scores multiplied by 1.5.

- Multiple Victim Multiplier
    - Crashes with two or more severe injuries or fatalities: 1.5x

Finally, those crashes that occurred within census tracts within the county identified as "disadvantaged" were also multiplied. Census tracts within Hall County are considered "disadvantaged" based on three factors: 1) transportation barriers; 2) linguistic isolation; and 3) percentile of low-income population. Crashes within these census tracts were multiplied by 2.0 for each of the three factors (for a final potential multiplier of 8.0 if a census tract meets all three disadvantaged factors).

- Equity Multiplier
    - Crashes within equity priority communities: 2.0x (once for each of three equity factors)

The final aggregated and weighted severity score is calculated as follows:

- (weighted severity score) x (victim multiplier) x (transportation equity multiplier) x (linguistic equity multiplier) x (income equity multiplier) = (final severity score)

These final crash severity scores are then "mapped" to road segments. As close as possible, major corridors were divided into 500-foot segments[6] to normalize the length of road segments. Then crashes that occur within 30-feet of each 500-foot segment's centerline will be spatially joined to the road segment and aggregated to that portion's total severity score. The final severity score is then calculated for each segment.

For example, a 500-foot segment of roadway in a community that met the criteria for two of the three equity multipliers, that had two vehicle crashes between 2018 and 2022 – one with two fatalities, and another with two minor injuries – the normalized segment severity score would be:

- [25 x 1.5 x 2.0 x 2.0] = 150

<u>High Injury Intersections</u>
To complement the HIN, the project team will identify a set or 'network' of High Injury Intersections (HII). Using the same severity scores assigned to crashes as part of the HIN development, the team will rank intersections by total severity score throughout Hall County. All crash severity scores along 300 feet of all approaches to each intersection that involves at least one collector roadway (or roadway of equal functional classification or higher). Using this data, we will identify the intersections with the highest scores to pinpoint intersections correlated with severe crashes. The team will focus on the 'top' intersections - those that result in the most severe crashes – resulting in the final HII network.

<u>Conclusion & Final High Injury Network Categories</u>
The project team proposes the development of four separate HINs. This would be done by starting with the highest scoring segments for each of the categories and gradually adding until a critical threshold of severe and fatal injury crashes is reached. We propose one HIN for bicyclists/pedestrians; one for motorcycles; one for all motor vehicles; and one for intersections. By identifying HINs by modality, it allows Hall County to tailor recommendations in specific ways to address risks that may only apply to certain vehicle types. In addition, developing a HIN specific to intersections allows the project team to identify recommendations specifically designed for use at certain intersection typologies.

[6] The project team undertook an intense "network smoothing" effort to eliminate short gaps and spurs in roadways that might skew final scoring efforts; this involved removing segments shorter than 500 feet that involved no crashes and the merging of roadway segments less than 500 feet in length with other roadway segments to increase overall length

Gresham Smith

Crash Profile Methodology Memorandum

Project Name: **HALL COUNTY SAFE STREETS FOR ALL (SS4A) PLAN**
Date: SEPTEMBER 26, 2024

Project Introduction:

Hall County – together with the Gainesville-Hall Metropolitan Planning Organization (GHMPO) and the cities of Oakwood, Flowery Branch and Gainesville – has begun the process of developing a Safety Action Plan (SAP). The primary goal of the SAP is to establish a plan to reduce crashes and improve traffic safety within Hall County. As part of that effort, the project team is responsible for the production of a series of "crash profiles" that go into detail about a subset of crashes that are more likely to result in fatal or severe injury crashes within the County. In particular, these crash profiles will focus on crash types that can be addressed by proposed projects or policies in the future. This memorandum provides information on the eight selected crash profiles for this project, and the reasons for their selection.

Crash Profile #1: Non-Intersection Pedestrian/Cyclist Crashes on Arterials without Sidewalks

Of the 206 pedestrian and cyclist related crashes between 2018 and 2022 in Hall County, 55 resulted in severe or fatal injuries (KA crashes). Of those 55 severe and fatal crashes involving pedestrians or cyclists, 37 (67.27%) occurred on major or minor arterials. In addition, most of these crashes (26, 47.27%) occurred away from intersections, crosswalks or sidewalks – meaning pedestrians and cyclists travelling along major corridors are particularly at risk for severe or fatal outcomes should a crash occur. In reviewing the crash reports for those crashes of this type that resulted in a fatal injury, most instances that were non-intersection related occurred as a pedestrian walked along a roadway where no sidewalk was present. Maps of the individual crashes displayed with existing sidewalk data will be included as part of the final crash profile.

Crash Profile #2: Pedestrian Crashes within Incorporated Areas at Intersections

Between January 1, 2018, and December 31, 2022, 618 severe or fatal injury (KA) crashes occurred within Hall County. Of those 618 crashes, 231 (37.38%) occurred within incorporated areas of the county. In addition, of the 167 pedestrian related crashes (of all severities), 94 (56.29%) occurred within incorporated areas (Braselton, Clermont, Flowery Branch, Gainesville, Lula, and Oakwood). These crashes are characterized by occurring within denser population areas with a greater mix of land-uses.

Crash Profile #3: Non-Daylight Roadway Departure Crashes in Unlit Areas

Of the 201 non-daylight crashes in unlit areas that resulted in severe or fatal injuries within Hall County from 2018 to 2022, 85 (42.29%) were roadway departure crashes. These crashes occurred along diverse roadway types (the crash profile will break these down by functional class, and also look at posted speed limit). Helping keep vehicles on roadways in unlit areas represents a significant opportunity to help address an on-going source of KA crashes within the county.

Crash Profile #4: Intersection-Related Motorcycle Crashes on Collectors and Arterials

Of the 471 crashes involving motorcycles within Hall County from 2018 to 2022, 378 (80.25%) occurred on roads that had a functional classification of collector or arterial (meaning only 93 occurred on local roadways, despite local roadways making up a significant majority of roadway miles within the County). Furthermore, of the 471 crashes involving motorcycles, 99 (21.02%) resulted in either severe or fatal injuries (KA crashes). Of

those 99 crashes, 81 (81.81%) occurred on roadways that had a functional classification of collector or arterial. Furthermore, of the 99 motorcycle related crashes that resulted in either severe or fatal injuries on collectors or arterials, 59 (59.60%) of them occurred at intersections.

Crash Profile #5: Rural, Speed-Related Crashes in Unincorporated Hall County

Of the 387 severe and fatal injury crashes that occurred within unincorporated areas of Hall County from 2018 to 2022, 158 (40.83%) involved excessive speed, reckless driving, or a driver losing control of the vehicle – making up the largest portion of such KA crashes. The final version of this crash profile will also be broken down into more detail to reflect urban/rural road typologies (e.g. curb and gutter or no curb and gutter), single-vehicle road departure crashes, and posted speed limits at crash sites. This will help provide additional context for this type of crash and allow for consideration of more specific best practices as possible solutions.

Crash Profile #6: Intersection-Related Head-On and Angle Crashes

Of the 618 severe and fatal injury crashes that occurred within Hall County between 2018 and 2022, 297 (48.06%) were the result of angle or head-on collisions. This includes all vehicle types. Specifically, 219 of the 297 crashes (73.74%) occurred at intersections. Finding a way to make intersections safer will help address a significant source of KA crashes within the county. In addition, as part of the final crash profile, the project team will provide more detailed information on intersection characteristics (signalized vs. unsignalized) and vehicle types. For example, Of the 297 angle or head-on KA crashes within Hall County, 39 involved motorcycles, which does not reflect most of such crashes, but is still important to note.

Crash Profile #7: Dark-Not Lighted Crashes on Arterials

A significant majority of vehicle trips occur during daylight hours, which results in vehicle crashes having a natural skew towards occurring during those times. For example, of the 33,697 crashes examined as part of this effort, 24,846 (73.73%) occurred during daylight conditions. However, of the 618 severe or fatal injury crashes examined, only 61.17% (378) occurred during daylight conditions – a decline from overall crash trends.

The project team found that while "dark-not lighted" crashes make up only 15.84% (5,338) of all crashes (33,697), they make up 29.29% (181) of all KA crashes (618) – representing a significant over-representation of these crashes amongst those that result in severe or fatal injuries. This trend is consistent across all modes. Furthermore, 102 (56.35%) of those 181 crashes occurred on arterials (both minor and major). Developing a crash profile for crashes on arterials in unlit conditions represents an opportunity to better understand a significant driver of KA crashes within Hall County.

Crash Profile #8: Intersection Crashes involving Non-Interstate Roads with Speeds 45mph+

Speed is a fundamental risk factor in traffic and is inextricably linked to crash severity. As speed increases, so does the likelihood of an accident and the severity of injuries sustained. Higher vehicle speeds result in higher collision speeds, which increases the amount of energy exchanged upon impact. Of the 618 severe or fatal injury (KA) crashes that occurred within Hall County during the analysis period, 469 (75.89%) took place on roadways that had speed limits equal to or above 45 miles per hour (mph). In addition, 291 of those 469 (62.05%) were intersection related. Again, as part of the final crash profile, the project team will present information on how additional risk factors (such as traffic volumes and land use intensities) also play a factor in the propensity of such crashes.

Crash Profile Methodology Memorandum
HALL COUNTY SS4A PLAN
September 26, 2024

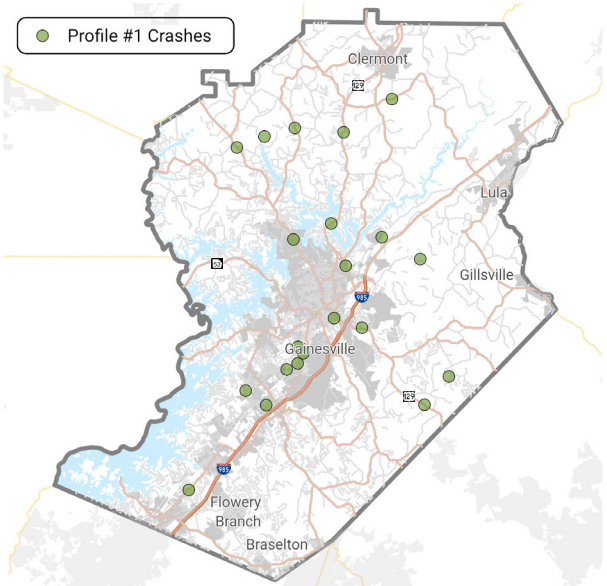
Conclusion:
These eight crash profiles represent a significant portion of all KA crashes within the county. Developing potential policy or project solutions to increase roadway safety for the County should help address concerns related to these profile areas. In so doing, those proposals would help address specific areas of concern that have been shown to result in increased rates of fatal and severe injury crashes.

Gresham Smith

Hall County Safe Streets for All Plan

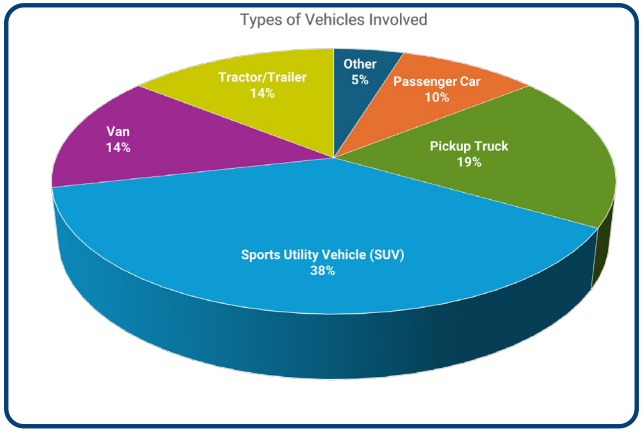
Crash Profile #1: Non-Intersection Pedestrian/Cyclist Crashes on Corridors without Sidewalks

Between 2018 and 2022, there were 21 severe and fatal injury crashes involving pedestrians or cyclists on corridors that did not have sidewalks present.



This includes 7 (33.33%) fatal injury crashes (of which, all were pedestrian), and 14 (66.67%) severe injury crashes (4 cyclist crashes, and 10 pedestrian crashes).

Cleveland Highway (US 129/SR 11) was the scene of three pedestrian crashes between 2018 and 2022 - include two fatal injury crashes. In both fatal instances, the pedestrian was walking along a roadway where sidewalks were not present.



Key Statistics & Takeaways

- 12 (57.14%) crashes occurred in rural, unincorporated parts of Hall County, and 7 (33.33%) in Gainesville
- 17 (80.95%) collisions occurred on collectors or arterials
- 13 (61.91%) collisions involved drivers younger than 25 or older than 55

Safety Countermeasures

Examples of potential safety countermeasures to consider

Rectangular Rapid Flashing Beacons

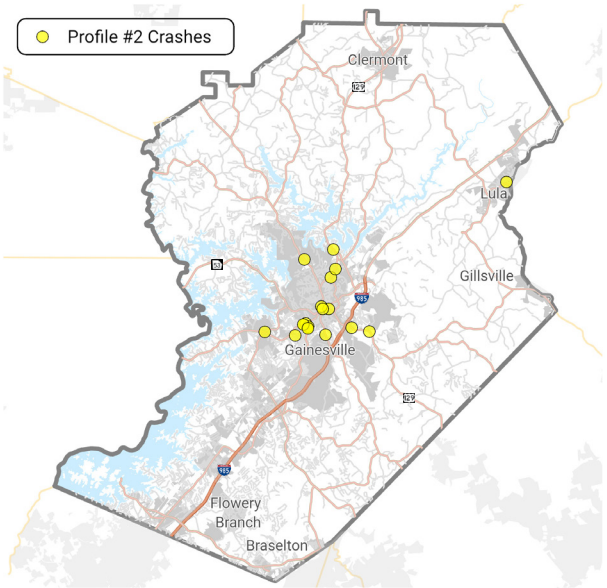
Walkways/ Sidewalks

Medians or Pedestrian Refuge Islands

Hall County Safe Streets for All Plan

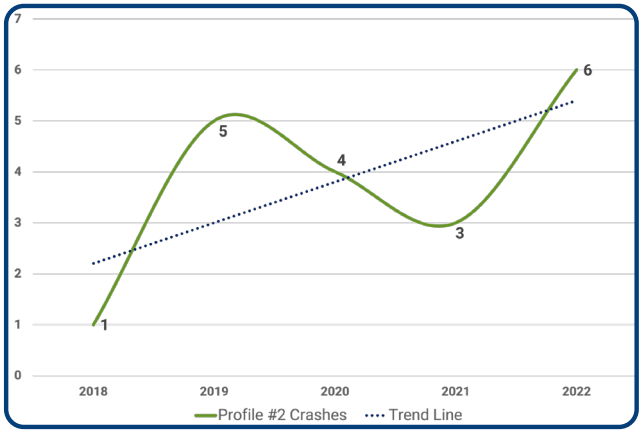
Crash Profile #2: Pedestrian Crashes at Intersections within Incorporated Cities

Between 2018 and 2022, there were 19 severe or fatal injury crashes involving a pedestrian at intersections within an incorporated City of Hall County.



Most crashes within Crash Profile #2 occur within the City of Gainesville; however, other historic "town centers" experience similar concerns (such as the City of Lula).

The intersection of EE Butler Pkwy and College Ave in Gainesville was the site of a fatal pedestrian crash on August 1, 2019. The crash occurred outside of daylight hours (8:49PM), and shortly after it had rained (wet pavement conditions were present).



Key Statistics & Takeaways

- 15 of the crashes (73.68%) occurred outside daylight hours
- 18 of the crashes (94.74%) occurred within Gainesville, and one crash occurred in Lula
- 18 of the crashes (94.74%) occurred in disadvantaged census tracts

Safety Countermeasures

Examples of potential safety countermeasures to consider

Leading Pedestrian Intervals

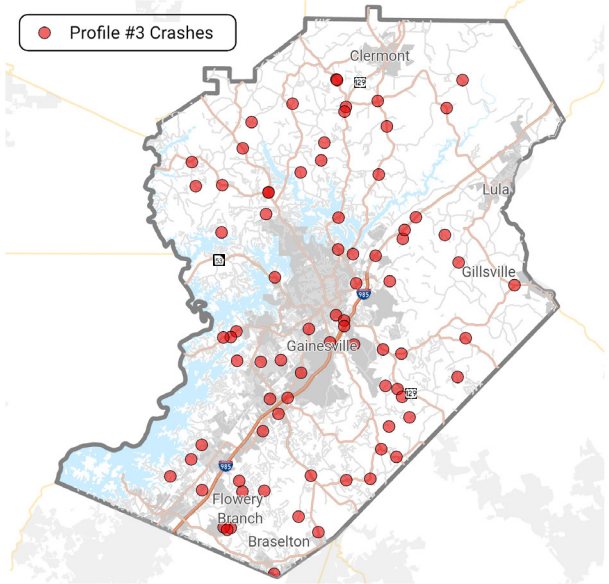
Medians/Pedestrian Refuge Islands

Crosswalk Visibility Enhancements

Hall County Safe Streets for All Plan

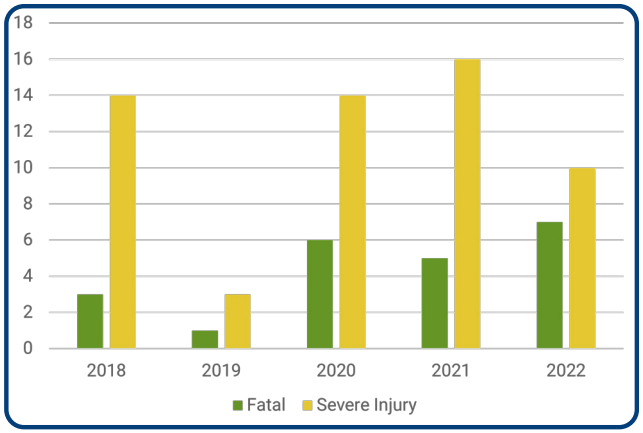
Crash Profile #3: Non-Daylight Roadway Departure Crashes in Unlit Areas

Between 2018 and 2022, there were 79 severe or fatal injury crashes involving vehicles that departed a roadway with no street lighting during nighttime hours.



Seventy-five (94.94%) of these collisions did not involve another vehicle; and 67 (84.81%) took place in unincorporated parts of Hall County.

Browns Bridge Road was the site of three crashes from Profile #3 - two resulting in fatal injuries and one in severe injuries. All three crashes involved the driver losing control of the vehicle at elevated rates of speed. All three crashes occurred at portions of the corridor that did not have street lights.



Key Statistics & Takeaways

- 20 of the crashes (25.32%) occurred at curves in the roadway
- 22 of the crashes (27.85%) resulted in fatal injuries
- Elevated rates of speed were a contributing factor in 22 (27.85%) of the 79 crashes included in this profile

Safety Countermeasures

Examples of potential safety countermeasures to consider

Roadway Corridor Lighting

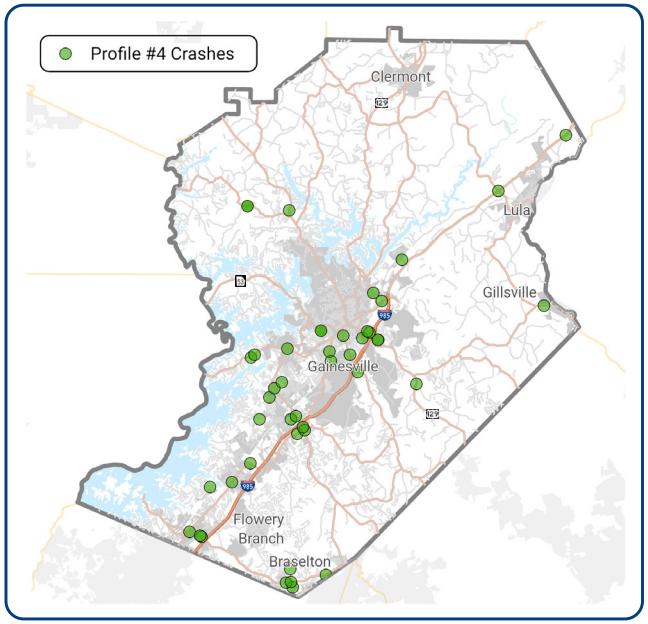
Wider Edge Lines

Enhanced Delineation for Curves

Hall County Safe Streets for All Plan

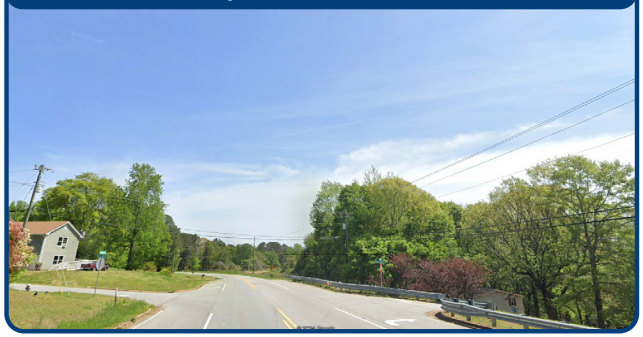
Crash Profile #4: Intersection-Related Motorcycle Crashes on Collectors and Arterials

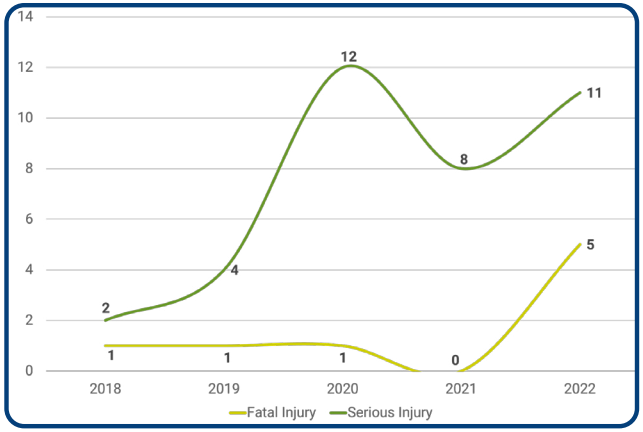
From 2018 to 2022, there were 37 severe injury and eight fatal crashes (45 total) involving motorcycles at intersections along collectors and arterials.



Intersection-related motorcycle crashes with severe/ fatal outcomes represent the quickest growing type of collision that was profiled (rising from 3 to 16).

McEver Road has been the site of two fatal intersection-related, motorcycle crashes; one on August 18, 2019 at its intersection with Oakleaf Drive, and another on September 9, 2022 at its intersection with J White Road. Neither intersection has a traffic signal.





Key Statistics & Takeaways

- Arterials/collectors are classes of roadways (typically carrying more volume than local roads, but less than highways)
- 17 of the crashes (37.78%) occurred in dark conditions
- 20 (44.44%) of the 45 collisions occurred at signalized intersections

Safety Countermeasures

Examples of potential safety countermeasures to consider

Roundabouts

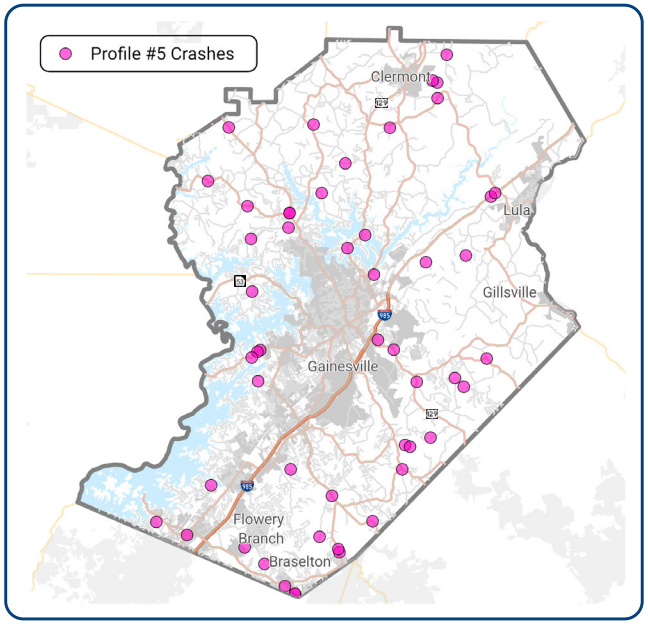
Systemic Improvements

Roadway Lighting

Hall County Safe Streets for All Plan

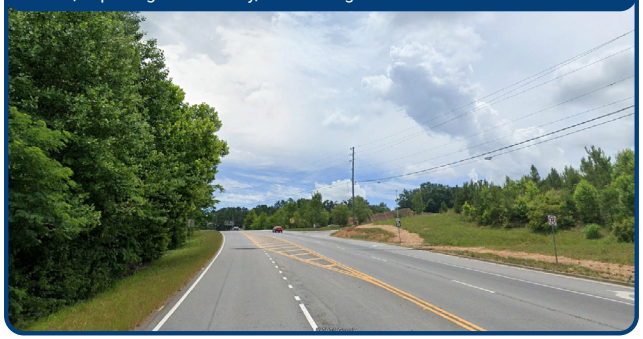
Crash Profile #5: Speed-Related Crashes in Rural Parts of Unincorporated Hall County

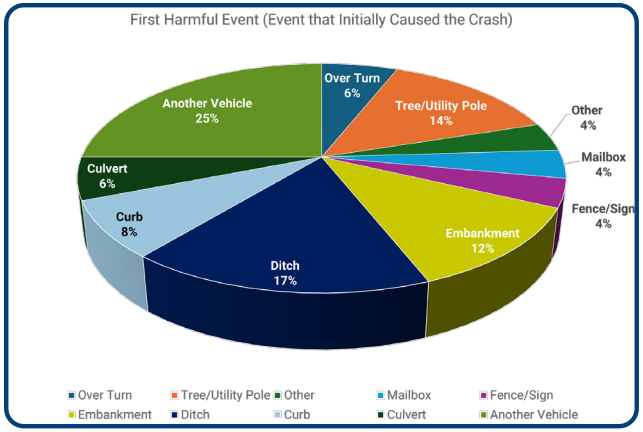
In Hall County, from 2018 to 2022, there were 51 severe and fatal injury crashes along rural roadways outside of incorporated cities.



Most crashes within Crash Profile #5 did not involve a collision with another vehicle (38, or 74.51%). Of those 38 crashes, 37 involved the vehicle departing the road.

Thompson Bridge Road, near the intersection of Fraser Circle, has been the site of two fatal speed-related crashes: one on March 31, 2019 and a second on June 7, 2020. Both collisions involved a single, speeding vehicle losing control, departing the roadway, and striking trees.





Key Statistics & Takeaways

- 39 (76.47%) of the crashes occurred on arterials or collectors
- 29 (56.86%) of the crashes occurred outside daylight hours
- 34 (66.67%) of the crashes involved striking an object in the roadway's clearance zone (tree, pole, etc.)

Safety Countermeasures

Examples of potential safety countermeasures to consider

Appropriate Speed Limits

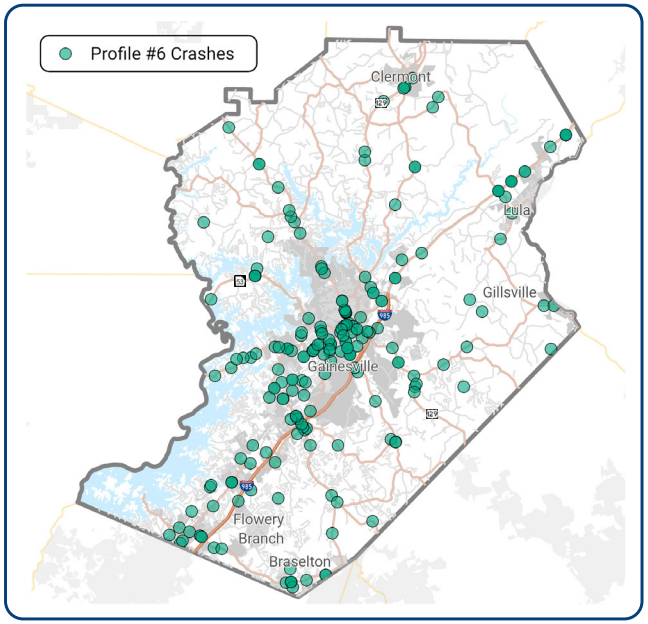
Wider Edge Lines

Roadway Lighting

Hall County Safe Streets for All Plan

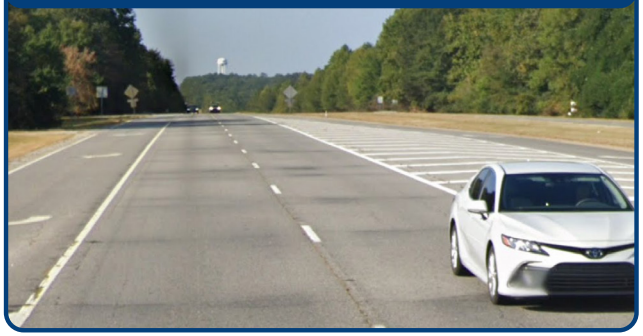
Crash Profile #6: Intersection-Related, Head-On, and Angle Crashes

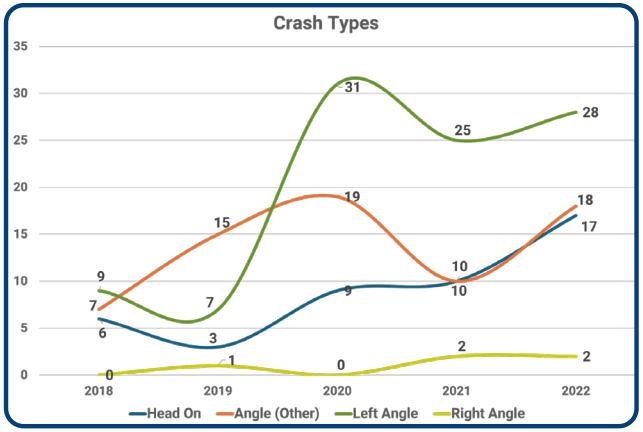
In Hall County, from 2018 to 2022, there were 31 fatal and 187 severe injury (218 total) head-on or angle crashes at intersections.



While many of the collisions within Crash Profile #6 occurred in populated areas, exactly half (109) occurred in rural, unincorporated areas of the county.

Four fatal injury crashes and 12 severe injury crashes within Crash Profile #6 occurred along SR 365/Cornelia Highway north of its intersection with SR 52/ Lula Road. This portion of the SR 365 includes speed limits of 65 miles per hour, as well as numerous stop-controlled cross streets.





Key Statistics & Takeaways

- Of the 218 Profile #6 crashes, 167 (76.61%) involved a driver younger than 25 or older than 55
- 71 (32.57%) of the crashes involved a curve in the roadway
- 69 (31.65%) of the crashes occurred during non-daylight hours

Safety Countermeasures

Examples of potential safety countermeasures to consider

Roundabouts

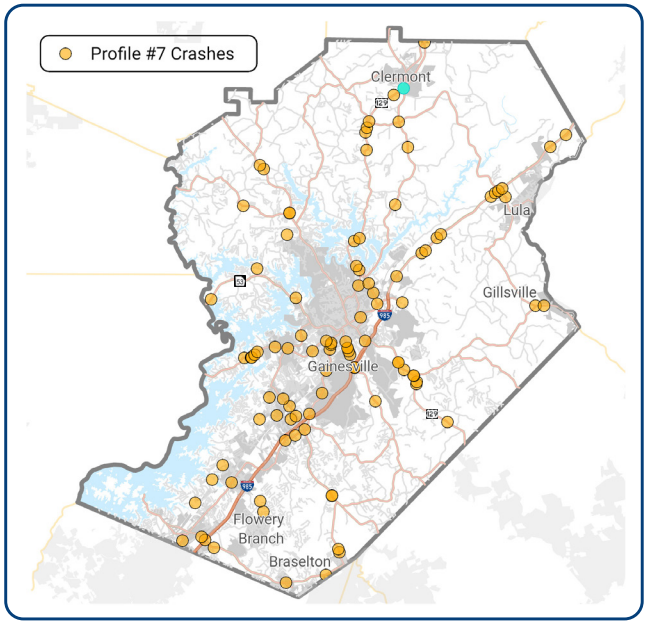
Reduced Left-Turn Conflict Intersection

Dedicated Left/ Right Turn Lanes

Hall County Safe Streets for All Plan

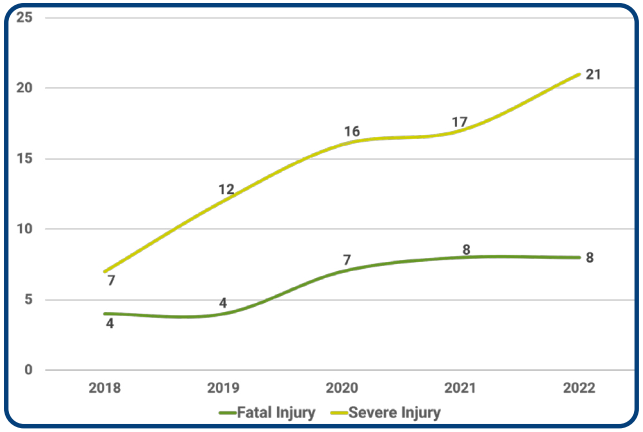
Crash Profile #7: Dark and Not-Lighted Crashes on Arterials

From 2018 to 2022, there were 104 crashes that occurred along unlit portions of arterials outside of daylight hours causing fatal (31) or severe (73) injuries.



While the collisions are fairly dispersed geographically, of the 31 fatal crashes: 20 occurred in unincorporated portions of the county, 8 in Gainesville, and 3 elsewhere.

Eight fatal or severe injury crashes within Crash Profile #7 occurred along Cleveland Highway north of Lake Lanier/Gainesville. This portion of Cleveland Highway includes a rural typical section, with no street lights present. Of the 8 crashes, 5 did not involve another vehicle.



Key Statistics & Takeaways

- Of the 104 Profile #7 crashes, 31 (29.81%) involved a curve in the roadway
- 31 (29.81%) of the crashes involved a roadway departure
- 22 (21.15%) of the crashes involved vehicles passing in "no pass" zones

Safety Countermeasures

Examples of potential safety countermeasures to consider

Roadway Lighting

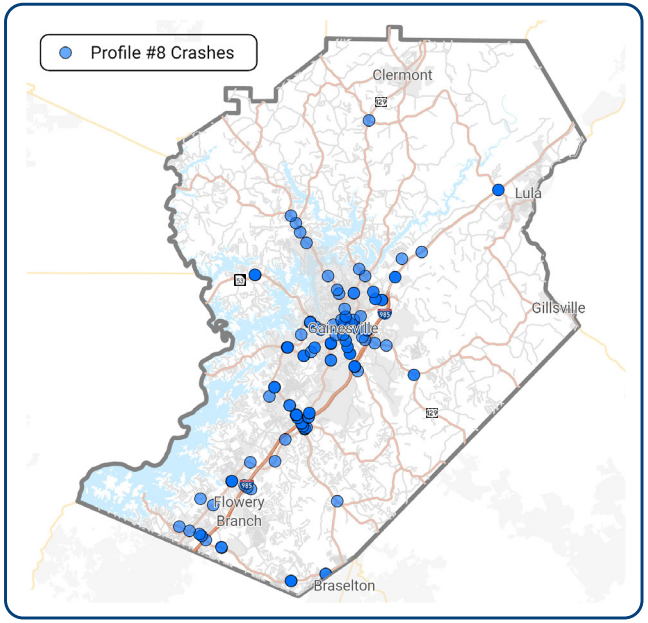
Enhanced Delineation for Horizontal Curves

Longitudinal Rumble Strips & Stripes on Two-Lane Roads

Hall County Safe Streets for All Plan

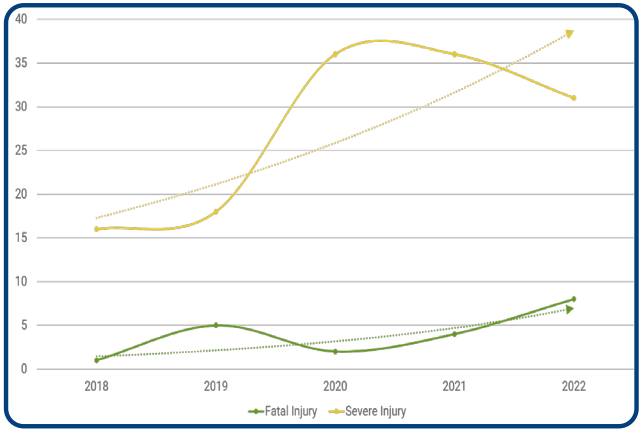
Crash Profile #8: Signalized Intersection-Related Crashes on Non-Interstate Roads with Speeds of 45MPH or Greater

From 2018 to 2022, there were 157 crashes that occurred within 250 feet of a signalized intersection along a corridor with speed limits of 45mph or greater.



This includes 20 fatal injury crashes, and 137 severe injury crashes. Ninety-eight (62.42%) of these crashes occurred during daylight hours.

Seven fatal or severe injury crashes within Crash Profile #8 occurred along Limestone Parkway north of Lake Lanier/Gainesville. This portion of Limestone Parkway is a divided highway with a grassed median present intermittently along the corridor.



Key Statistics & Takeaways

- 59 (37.58%) crashes within Profile #8 occurred in non-daylight conditions
- 93 (59.23%) collisions within Profile #8 were angle crashes
- 58 (36.94%) collisions within Profile #8 occurred in non-clear weather conditions

Safety Countermeasures

Examples of potential safety countermeasures to consider

- Roundabouts
- Backplates with Retroreflective Borders
- Systemic Signage and Marking Improvements
- Reduced Left-Turn Conflict Intersections

B

Public Survey Report

Hall County Safe Streets for All Action Plan

High Level Survey Results

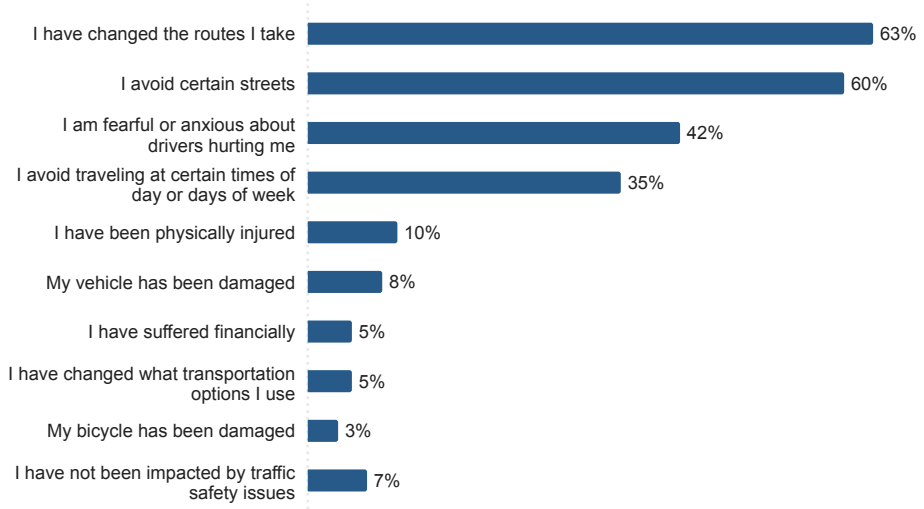
This survey of Hall County residents and employees was conducted during the month of September 2024. 60 respondents submitted surveys.

Key Insights:

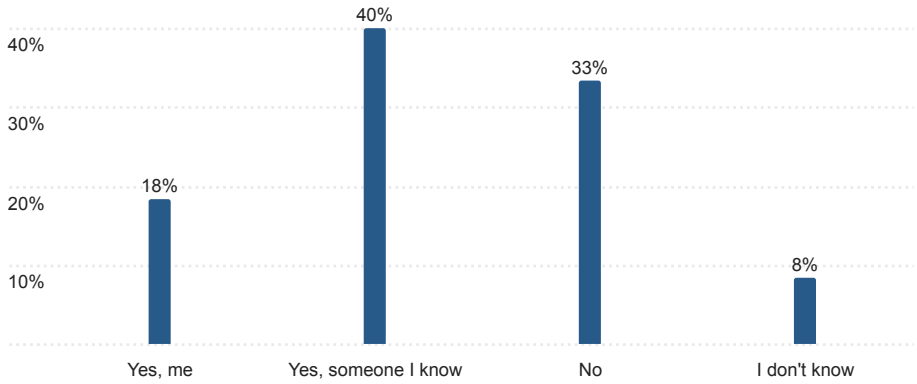
- 58% of respondents have been seriously impacted by traffic crashes in Hall County in the past decade, either personally or through someone they know
- 83% of respondents drive more than once a month, while only one respondent uses public transit more than once a month
- Four respondents regularly bike, and all four said they feel unsafe biking
- The three most common traffic concerns involve other vehicle drivers
- The majority of respondents would be willing to add time to their commute as a trade-off for safer streets in Hall County
- 44% of respondents took the survey in Spanish

How have traffic safety issues in Hall County impacted you?

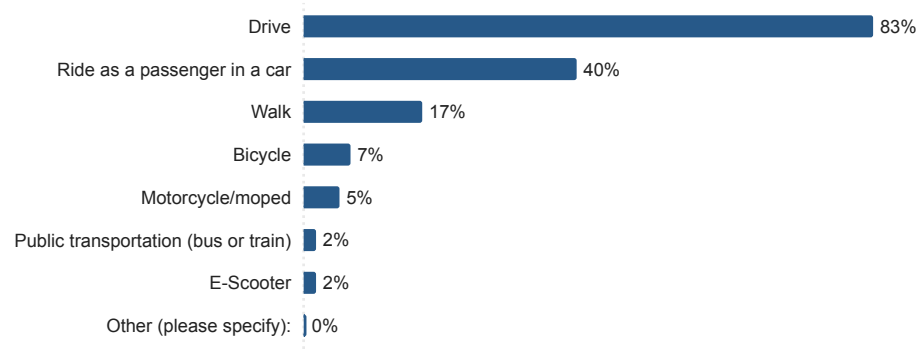
Select all that apply:



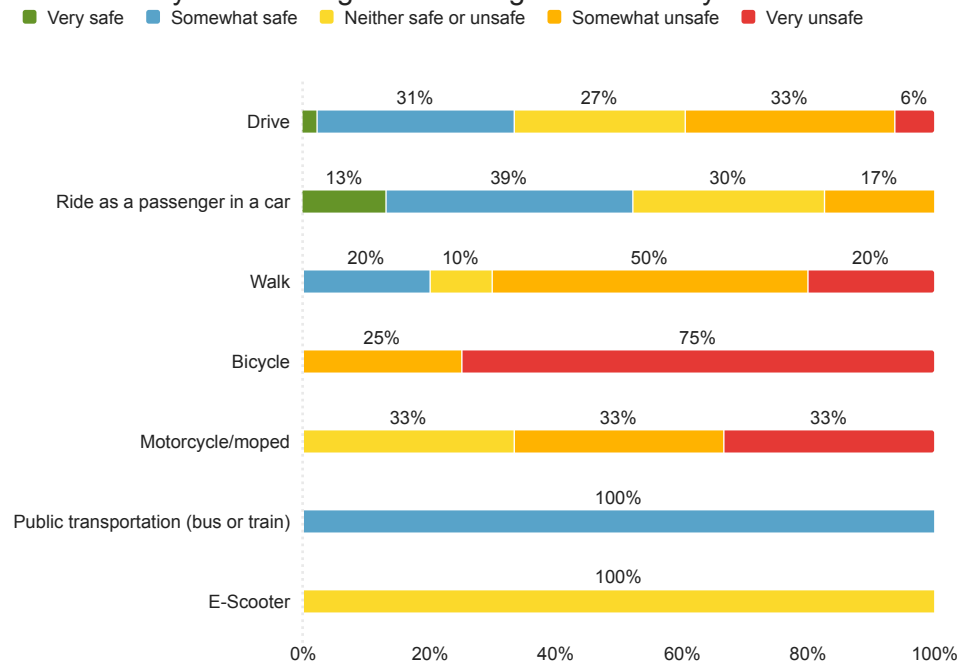
Have you or anyone you know been seriously impacted by traffic crashes in Hall County in the past decade?



Which forms of transportation do you use multiple times per month within Hall County, on average? *Select all that apply:*

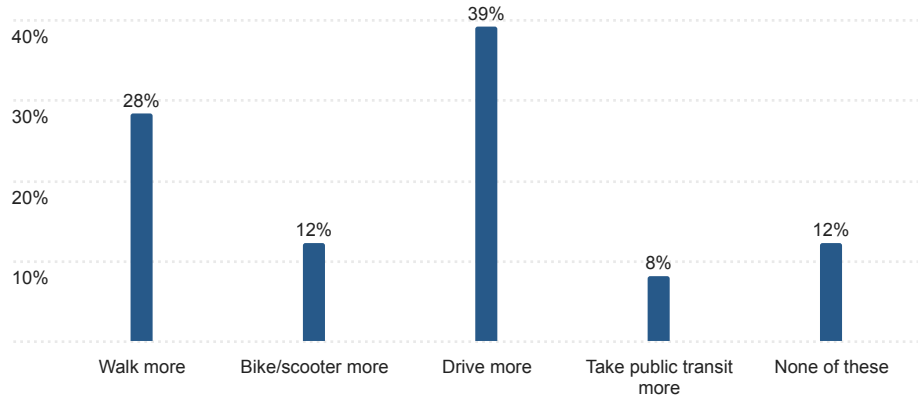


How safe do you feel using the following in Hall County?



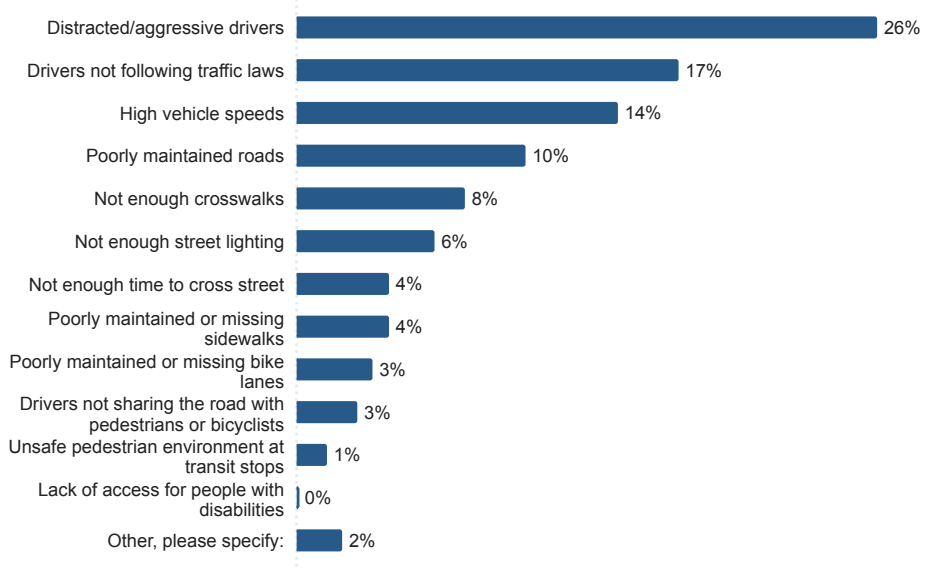
How would you like to get around Hall County in the future?

Select all that apply:



Which of the following are your top traffic safety concerns in Hall County?

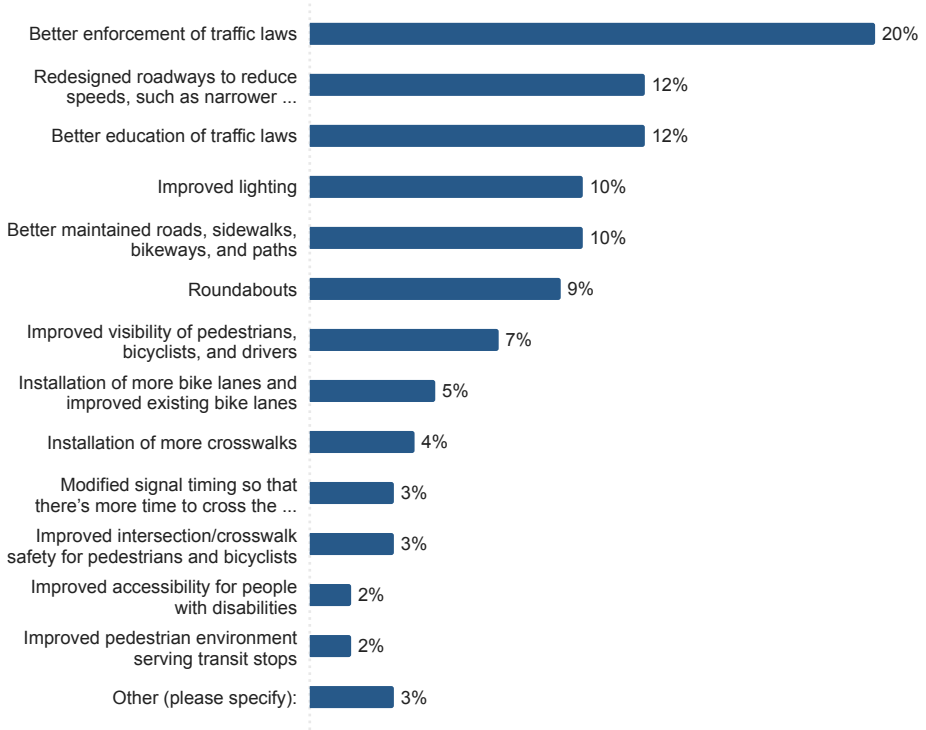
Choose up to three:



Which of the following are your top traffic safety concerns in Hall County? *Other, please specify:*

Nececitamos un cemaforo en Hilton DR porque se tarda mucho en dar la vuelat en browns bridge rd
All the development on SR365
Los conductores no respetan la velocidad máxima, no respetan señales de Stop, no usan direccionales, no respetan espacios entre un carro y otro, demasiado agresivos

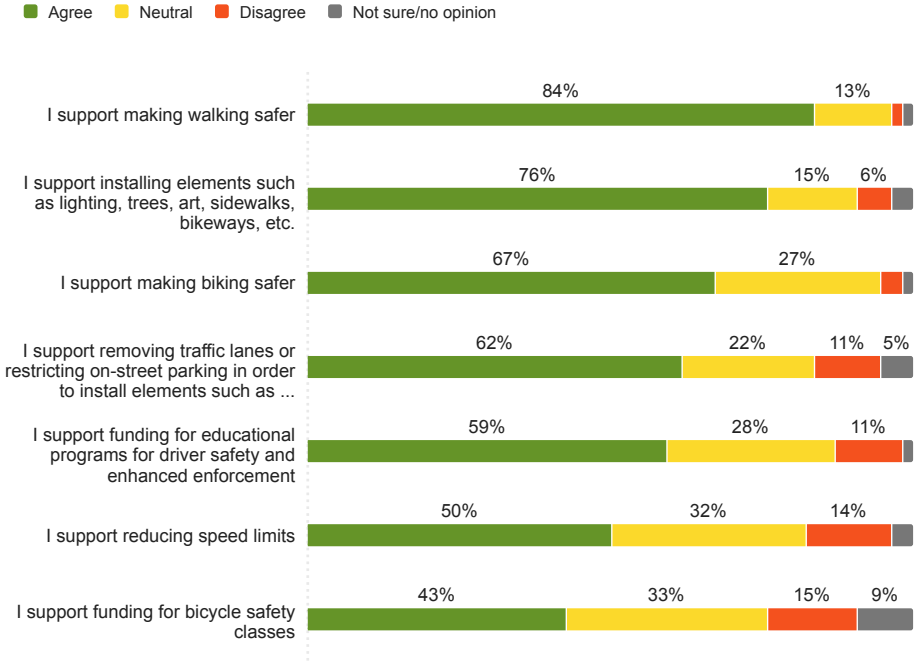
Which of the following changes do you think would have the greatest impact on improving traffic safety in Hall County?
Choose your top three priorities:



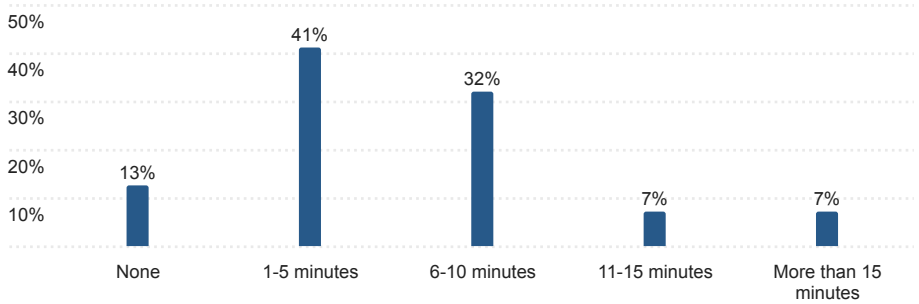
Which of the following changes do you think would have the greatest impact on improving traffic safety in Hall County? *Other (please specify):*

cemaforo en hilton dr
Stop all the development on SR365 until the interstate/SR is improved to handle all the truck traffic.
Increased driver education for all ages, not just students
Update roads before major constr uction

How do you feel about the following safety strategies?



One strategy to reduce crashes, injuries, and traffic deaths is to slow the speed of traffic. How many minutes would you be willing to add to your commute as a trade-off for safe streets in Hall County for all users?



Let us know any creative ideas you have for how the County, residents, and partner organizations might work together to reduce serious injury and fatal crashes in Hall County. *(Optional)*

Less roundabouts

nececitamos calles mas seguras para los que estamos en bicicleta

necesitamos un cemaforo en hilton dr y browns bridge porque la linea a veces toma de 10-15 minutos por el trafico

Huge in-city growth of housing construction before creating adequate roads for such large growth was poor decision by planners. Hoping this new housing doesn't cause a housing crash. We are retired and do not go anywhere during peak traffic hours. Don't visit the square or areas downtown because traffic/parking is a mess. Forget going to midland. We live near the hospital and feel like we are getting squeezed in the middle of Limestone Parkway, Jesse Jewell and Green St. Traffic on Limestone will soon increase again because of new rehab center and Publix shopping center and hospital addition on Enota. Our street, Nottingham Dr., will be a bigger cut-through than before and we have lots of children on Nottingham and Robinhood Trail. More speed bumps here, PLEASE. We hear people drag racing frequently on Limestone ?? We totally support our City and County police and believe they are doing a great job, but this is out of control at the moment. Seen people flying through intersections with a red light, weaving in and out of traffic on Jesse Jewell. John Morrow is also a dangerous place to drive with speeders. Please, please make Gainesville a city where everyone knows you slow down, obey traffic rules or get a big ticket. Queen City Prkwy is another dangerous area. Don't think it is a creative idea, but we need more police monitoring & giving tickets for traffic violations. More cameras. In some cities, more traffic stops lead to more illegal immigrant deportation, more illegal weapons & drugs confiscated. My nephew is a policeman in Granite City, IL and he stops for minor violations & makes arrest for weapons and drugs routinely.

Driver education and enforcement of traffic laws

Give yourself 15 minutes or more to get out of the house. Be calm and drive safely.

All of my answers are related to traffic inside a neighborhood- Cane Crossing

Please pull more people over who ride in the left lane, even with a row of cars behind them. I have seen so many aggressive drivers and road rage incidents because of this. I myself get frustrated often

Arreglar las calles, instalar más iluminación en calles solitarias. Hacer que los conductores respeten los peatones y ciclistas bajando velocidad

Crear mejorías en calles donde cuando manejas ni siquiera se mira si viene en seguida un carro o niños o gente caminando, verificar la velocidad de los carros en calles pequeñas donde niños juegan y andan en bicicleta. Tener en cuenta que la mayoría de las calles no tienen buena iluminación y malos acomodamientos de STOP sings. Nada mejor que salvar vidas y/o prevenir accidentes fatales, en memoria de Carlos Herrera niño de 10 años quien falleció por una accidente mientras andaba en bicicleta con su amigo de 7 años.

no respuesta

Reemplazar algunas señales de Stop por semáforos, comparendos educativos tanto para conductores como para peatones, mayor vigilancia al exceso de velocidad

Creo que un semáforo en la calle de hilton drive/ browns bridge ayudaría mucho porque casi siempre que quiero dar vuelta a la izquierda me tardo de 5-10 minutos en dar vuelta porque los carros van muy rápido.

Speed limits lowered

Dont permit bicycles on Hog Mountain road. Blind curves. Almost been in several head on collisions from people passing bicycles. Very dangerous

Ampliar calles donde circulan trailers y donde hay lugares de trabajo con mucho empleados. Poner armadores en lugares específicos y donde realmente se necesitan. Aveces el bastante tráfico que existe en todo el área de Gainesville, Flowery Branch y Oakwood provoca muchas accidentes, tomando en cuenta que muchos de los cuales manejan no respetan las señales de tráfico o el límite de speed

I think putting police officers in areas of high accidents would be beneficial because people would slow down therefor avoiding car crashes

I propose that two stop signs or Roundabout be installed on Hog Mountain Road where it meets Capitola Farm Road in Flowery Branch.
Because It is very hard to see the incoming traffics on the right side of
Hog Mountain Road when making a left turn from Capitola Farm Road onto Hog Mountain Road.
There is a cross at the intersection there, and it is understood that a fatal
traffic accident probably occurred there.
The 55+ community I live in nearby has about 400 elderly people living in over 200 homes, so the risk of another traffic accident is very high.

Pedestrian crossing islands, minimize left turns, smaller trucks!!!

Road cameras to help catch speedy so they will get Speeding tickets in the mail

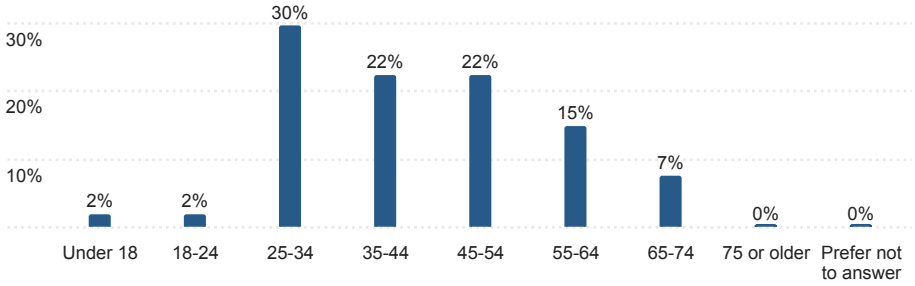
Rotondas son necesarias.
Seguro de automóvil debe costar más y la cobertura mínima de ser mayor.
Inspección de emisiones- debe ser parte del mejoramiento

Study the locations where most automobile/pedestrian/bicycle accidents have occurred and look for common causes - address these as needed.

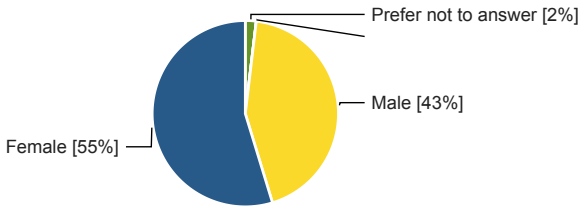
Verificar las personas donde vivo muchos no traen licencia y en área de 25 Millas van a 40 no usan los Stop lo siguen como si nada es muy insegura hablo de la Calle Hazel St y Central Ave

Survey Demographics

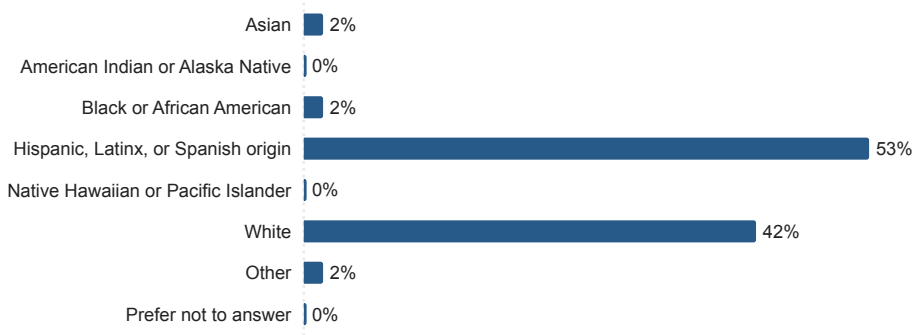
Age



Gender



Race/ethnicity *(Check all that apply)*



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C

Plan and Policy Review

MEMORANDUM

To: Gainesville-Hall MPO

From: Alta Planning + Design

Date: May 10, 2024

Re: Task 2- Data Collection & Analysis

Safety Plans and Policies Review

Introduction

Hall County was awarded a Safe Streets for All Planning & Demonstration Grant in Fiscal Year (FY) 2022 to develop a Safety Action Plan, in partnership with Gainesville-Hall Metropolitan Planning Organization (GHMPO), and the Cities of Oakwood, Flowery Branch, and Gainesville. The MPO and its partners are continuing their efforts to reduce crashes and improve traffic safety in the area through the Safety Action Plan. The MPO produces annual crash profiles for Hall and Jackson County based on crash statistics and trends. In 2022, crashes continue to trend upwards, reflecting a national trend of increased crashes and traffic fatalities. The MPO has already completed multiple local traffic studies and transportation plans, with a focus on safety and operational improvements.

Through review of existing plans, policies, and programmed projects, it is clear that the MPO has a strong foundation for implementing safety projects. The Alta team conducted a review of plans from GHMPO, Hall County, and the City of Gainesville, to get a holistic understanding of road safety in the study area. Through the review, it became clear that differences exist between the different agencies' approach to road safety. Key information is highlighted below.

The list of documents reviewed is as follows:

- 2020, Regional Transportation Plan, Gainesville-Hall MPO
- 2023, Transportation Improvement Program, Gainesville-Hall MPO
- 2024, Unified Planning Work Program, Gainesville-Hall MPO
- 2017 Complete Streets Policy, Gainesville-Hall MPO
- 2014, Bicyclist and Pedestrian Transportation Plan, Gainesville-Hall MPO
- 2017, Sidewalk Inventory Report, Gainesville-Hall MPO
- 2019, Microtransit Feasibility Study, Hall County
- 2045 DRAFT Comprehensive Plan, Gainesville-Hall MPO
- Street Lighting Policy, Hall County
- 2024, NOT RATIFIED. Resolution Expanding the Special Tax District for Streetlights, Hall County
- Residential Speed Control Program, Hall County
- 2023 Traffic Calming Device and Speed Hump Program, City of Gainesville
- 2019 Flowery Branch Speed and Sign Inventory Study, Gainesville-Hall MPO
- 2019 Gainesville Trail Study, Gainesville-Hall MPO
- 2018 Citywide Traffic Improvement Study, City of Oakwood & GHMPO
- 2021 SR 365/Jesse Jewell Parkway Traffic Impact Study, City of Gainesville & GHMPO
- 2022 Braselton Trail Study, City of Braselton & GHMPO
- 2019 Dawsonville Highway-McEver Road Connectivity Study, City of Gainesville & GHMPO
- List of programmed and planned City projects, City of Gainesville

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Summary and Highlights

2020 Regional Transportation Plan, GHMPO

The Gainesville-Hall Metropolitan Planning Organization (GHMPO) consists of the entirety of Hall County and a portion of western Jackson County. Nine municipalities coordinate with the MPO. Atlanta Regional Commission (ARC) and the MPO share responsibility for small parts of Hall County, Forsyth, and Gwinnett Counties. The report incorporates the FHWA's Fixing America's Transportation Act (FAST Act) and Georgia DOT's Statewide Transportation Plan (SSTP), in the development of local goals. The local goals are: Coordination and Outreach to improve project feasibility and outcomes; Multimodal Connectivity to increase travel options by prioritizing transit, pedestrian, and bicycle travel; Safety and Security; System Preservation and Maintenance; Environment to protect natural resources; Mobility and Economic Vitality; Land Use Integration with transportation planning.

The Plan's relevant safety objectives are:

- Reduce incidence of crashes on the system, particularly at high-crash locations;
- Review traffic crash data to systematically identify potential safety problems and develop a list of projects;
- Prioritize and schedule maintenance expenditures to maintain safe travel conditions;
- Provide adequate access for emergency service vehicles;
- Assist Hall Area Transit (HAT) in improving the safety and efficiency of its active vehicle fleet.

Using the Georgia Electronic Accident Reporting System (GEARS), a crash analysis report was developed with data from 2014-2018, and limited data available from 2019. The report cites the 2018 "Hands-Free Law"(Hands-Free Georgia Act), which prohibited the use of a cell phone while operating a motor vehicle, and increased enforcement with schools and safety zones as the reasons for the decrease in crashes. They identified roadway segments and intersections that were the site of the most crashes and Killed or Serious Injury (KSI) crashes. The County's crash profile and High Injury Network (HIN) was overlaid with school zones to highlight school safety.

A total of 87 projects were identified and catergorized into six (6) project types (Bridges, Interchange, Intersection, Roundabout, Roadway Operations and Widening.).Projects listed in the report included basic tags for 'type' of improvement, but no information on status.

GHMPO No.	GDOT No.	FY Programmed	Project Description	Project Type	Jurisdiction	Status
GH-104	0015702	2020-2025	Dawsonville Hwy/SR 53 at McEver Road Operations	Intersection	Hall County	Location and Design Approval in 2021.
GH-106		2020-2030	John Morrow Parkway At Washington Street Operations - Realign Southbound Right Lane	Intersection		

GH-107		2020-2030	Park Hill Drive At Lakeview Drive Operations - Reduce Slope On Lakeview Drive Approach	Intersection		
GH-125	0015917	2020-2025	SR 60/Green Street at SR 11 Business/NE Riverside Dr	Roundabout	Hall County	

GH-126	0015918	2020-2025	SR 60/Green Street at CS 898/Academy St July 2023: The proposed project would replace the existing signalized intersection with a multi-lane roundabout configuration for a project length of 0.3 miles. The roundabout would consist of a skewed central shaped island with an 18-ft to 26- ft single circulatory roadway width and an oval shaped variable width traversable truck apron that will accommodate turning movements. Georgia Dept. of Transportation would be responsible for acquiring property rights for this project. Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation: Terrance Cooper, Area Manager District 1, Area 1 TCooper2@dot.ga	Roundabout	Hall County	Concept Development approved.

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			.gov 2594 Gillsville Highway Gainesville, GA 30507 (770) 531-5880			

GH-127	0016166	2020-2025	SR 124 at SR 60 & CR 17/Sam Freeman Rd From June 2023: The proposed project would replace the existing intersections with a circular doublelane roundabout configuration for a project length of 0.45 miles. The circular roundabout would consist of two 16-foot circulating lanes and a 12-foot - 8inch wide truck apron to accommodate turning movements. Curb and gutter will be installed along the outside of the roundabout and on the inside of the truck apron. The roundabout will also provide 5 feet sidewalks and crosswalks for pedestrians traveling through this intersection. The temporary traffic signal currently at the intersection of SR 124 and SR 60 will be replaced by the proposed roundabout. An off-site detour will not be	Roundabout	Jackson County	Concept Development Approved.

			needed and the estimated time for construction is 18 months. The Georgia Department of Transportation would be responsible for acquiring any property rights required for this project. Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation: Kevin DeWitt, Area Manager District 1, Area 2 kdewitt@dot.ga.gov			
GH-103		2026-2030	Athens Highway at Chestnut Street Operations	Intersection		
GH-105		2026-2030	EE Butler Parkway/Athens Street at MLK Jr. Boulevard Intersection Improvements	Intersection		
GH-128		2026-2030	SR 60/Candler Road at Fullenwider Road	Intersection Improvement		
		2041-2050	Chamblee Road - From McEver Road To Thurmon Tanner Parkway	Corridor Improvement		

		2041-2050	EE Butler Parkway From Jesse Jewell Parkway To Monroe Drive (Corridor Safety Audit)	Potential Corridor Safety Audit		
		2026-2030	Flat Creek Road - From McEver Road To Main Street	Corridor Improvement		
		2031-2040	Flat Creek Road - From McEver Road To Main Stree	Intersection Improvement		
		2020-2025	Hog Mountain/Blackjack Road Intersection Improvement	Intersection Improvement		
		2020-2025	Hog Mountain/Cash Road Intersection Improvement	Intersection Improvement		
		2041-2050	Intersection Safety Audit - HF Reed Industrial Parkway And Aloha Way	Potential Safety Audit		
		2041-2050	Intersection Safety Audit - Thurmon Tanner Road And Cross Streets	Potential Corridor Safety Audit		
		2026-2030	John W. Morrow Jr. Parkway/SR 53 At Pearl Nix Parkway	Intersection Study		
		2031-2040	Main Street - From Academy Street To Flat Creek Road	Corridor Improvement		

		2041-2050	McBrayer Road – From M Stringer Road to Chamblee Road	Corridor Improvement		
		2041-2050	McClure Drive – From Main Street to Dead-End	Corridor Improvement		
		2031-2040	McEver Road and Flat Creek Road Intersection	Intersection Improvement		
		2041-2050	Oakwood Rd – From Nellie Drive to Mundy Mill Drive	Corridor Improvement		
		2041-2050	Old Flowery Branch Road – From McEver Road to SR 53/Mundy Mill Rd	Corridor Improvement		
		2031-2040	Old Oakwood Road from 1200' North of SR 53/Mundy Mill Road to Tumbling Creek Road	Corridor Improvement		
		2031-2040	Old Oakwood Road From Main Street To SR 53/Mundy Mill Road	Corridor Improvement		
		2031-2040	Plainview Road/Allen Street - From Thurmon Tanner Parkway To Railroad Street	Corridor Improvement		
		2020-2050	Renovate/Repair various intersections in the County at $1,000,000 per year average	Intersection Improvement		

		2020-2025	Sloan Mill Road/Schubert Road Roundabout	Intersection Improvement		
	0016065	2020-2025	SR 53 at New Cut Road / Ednaville Road	Roundabout	Jackson County	Construction underway.
		2026-2030	US 23/SR 365/Cornelia Highway From Howard Road To Ramsey-Fraser Lake (Corridor Safety Audit)	Potential Corridor Safety Audit		
		2020-2025	W. White Road - From H.F. Reed Industrial Parkway To Chamblee Road	Corridor improvement		
		2020-2025	White Sulphur Road/Lotheridge Road Intersection Improvement	Intersection Improvement		

2023 Transportation Improvement Program (TIP), GHMPO

This program, published in late 2023, includes a list of projects from FY 2024 to 2027. The projects are taken and consistent with the financially-constrained project list on the 2020 Metropolitan Transportation Plan (MTP). GHMPO is responsible for undertaking the federally-required transportation planning process for the Gainesville Urbanized Area (including all of Hall County). Three committees and three documents are the core products and the foundation of the MPO's work: the Policy Committee, Technical Coordinating Committee, and Citizens Advisory Committee and the Metropolitan Transportation Plan, Transportation Improvement Program, and the Unified Planning Work Program.

Projects are evaluated on their ability **to reduce congestion or enhance safety, address community needs, and their support from the community**. The following projects focused on safety improvements:

GHMPO No.	GDOT No.	FY Programmed	Project Description	Jurisdiction	Status
GH-133	0016074	2024	New interchange with overpass over SR 365 with dual roundabouts on either end for on/off ramp access. The purpose of this project is to address congestion and safety issues at existing intersection with Lanier Technical College and the YMCA.	Hall County	Design and pre-engineering has been authorized and is well underway. Construction is expected to break ground in 2024.
	0018042		Off-system safety improvements @ 4 Locs in Hall County	Hall County	Pre-engineering is authorized. Construction authorized.
	0019223		CR 147/Jackson Trail Road off-system safety improvements	Jackson County.	Pre-engineering is authorized. Pre-construction stage.

2024 Unified Planning Work Program FY 2025 (UPWP), GHMPO

Published in February, 2024, the UPWP is for FY 2025. The UPWP is part of the MPO's transportation planning service, and serves as the annual operating budget for GHMPO, and provides funding for equipment, planning activities, and planning studies throughout a single fiscal year. The UPWP describes the work schedule for the period July 1, 2024 through June 30, 2025, reviews federal Planning Emphasis Areas (PEAs), and FY 2024 accomplishments. There are several safety-relevant PEAs that are reflected in the UPWP's work orders and projects:

1. Equity and Justice: Highlight potential [transportation] impacts on areas with higher minority populations or households with lower income levels through GIS mapping in plans and studies.
2. Complete Streets: Work with local jurisdictions on Highlands to Islands trail expansions and complete the Bike and Pedestrian Plan Update.

Accomplishments from the FY 2024 period are:

1. Continued the TCC Trails and McEver Road Subcommittees
2. Kicked off full updates to the GHMPO Bicycle and Pedestrian Plan and the GHMPO Metropolitan Transportation Plan (MTP): 2025 Update.

3. Adopted a Zero Emission Vehicle Transition Plan for Hall Area Transit
4. Adopted the Flowery Branch Parking and Mobility Study
5. Created crash profiles for Hall and Jackson counties. Assisted Hall County, Gainesville, Oakwood, and Flowery Branch with the creation of a Safety Action Plan through the Safe Streets for All grant program

Some of the planning priorities for FY 2025 are:

Task #3 Data Collection

Lead Agency: GHMPO

The MPO collected 2023 crash data and updated the crash profiles of Hall and Jackson Counties. The MPO, in 2024, established the Safety, Bridge and Pavement, and Transit Asset Management (TAM) performance targets, consistent with the Georgia State targets, as required per the IJA's Performance Based Planning & Programming.

In 2025, the MPO will collect 2024 crash data, and adhere to data collection for Statewide Safety Performance Management Targets.

Task #4 System Planning

Lead Agency: GHMPO

Sub-objective 4.1: Plan for intermodal modes of transportation.

- Expand or improve transit with HAT.
- Continue TCC Trails Subcommittee engagements with local jurisdictions to expand Highlands to Islands trails.

Sub-objective 4.5: Integrate land use planning with transportation planning ***and*** provide information and recommendations to member jurisdictions and other planning and design agencies.

- Complete work on and adopt the Metropolitan Transportation Plan: 2025 Update/Bicycle and Pedestrian Plan Update (to be adopted by May 2025).
- In coordination with the City of Gainesville and Hall County, begin work on the SR 13/Atlanta Highway Corridor Study (to be adopted by June 2025).

Task #6 Safe & Accessible Transportation Options/Complete Streets

Lead Agency: GHMPO

The objective of this task is to "fulfill the vision, principles, and strategies outlined in the GHMPO Complete Streets Policy" and provide safe transportation.

In 2024, the MPO will work with Hall County, Gainesville, Oakwood, and Flowery Branch on the completion of their Safety Action Plan through the Safe Streets for All Grant, and to update its Complete Streets Policy. Worked with the GHMPO TCC Trails Subcommittee to explore programming segments of the Highlands to Islands Trail into the Regional Transportation Plan update.

In 2025: 1) Complete Streets Policy update will be completed; 2) Safety Action Plan's projects will be implemented; 3) Highlands to Islands Trail Network will continue to be expanded.

GHMPO Business Plan & Upcoming Unfunded Studies

The MPO wants to inform its planning partners of current and future unfunded projects and required planning activities. For FY 2025 these are listed in the table below.

Table 1. Anticipated Unfunded Products in FY 2025

Product	Cost Estimate & Funding Source	Date of Completion
SR 60/US 129 Connectivity Study	$150,000	FY 2025
SR 60/Candler Road Improvement Study	$150,000	FY 2025
Henry Street and Piedmont Avenue Streetscaping Study	$50,000	FY 2025
City of Hoschton Transportation Study	$100,000	FY 2025
City of Flowery Branch Downtown Redevelopment Study – Phase II	$100,000	FY 2025
SR 60/SR 124/Sam Freeman Road Corridor Improvement Study	$100,000	FY 2025

2017 Complete Streets Policy, GHMPO

The vision for the MPO's Complete Streets Policy is for every public right-of-way to give residents multi-modal transportation options to safely and conveniently travel to and from their destinations. The MPO seeks to incorporate complete street improvements at every stage of roadway life (planning, funding, designing, constructing, operating, and maintaining).

The MPO intends to provide bicycle and pedestrian facilities on every roadway according to roadway features, land uses, and community desires. This includes providing safe crossings, anticipating demand for bike-ped facilities within the lifespan of the roadway. Complete Streets principles should be applied during resurfacing works.

- In corridors whose primary purpose is to carry inter- and intra-regional traffic, a limited range of modal accommodations may be appropriate. At a minimum, sidewalks should be installed unless local conditions dictate otherwise.
- MPO encourages all jurisdictions to adopt similar policies and integrate them into their comprehensive plans, manuals, rules, etc. As of April 2024, the Cities of Gainesville and Oakwood have.
- Performance measures should be set to track improvements. Ideas are provided including crash numbers.
- GHMPO will:

a. Staff will make the Complete Streets policy a routine part of everyday operations and shall approach all transportation projects as an opportunity to improve the transportation network for all users of all abilities and will work in coordination with all jurisdictions.

b. Maintain a priority list of all transportation improvement projects including those for problem intersections and roadways.

c. Maintain a comprehensive network of bike and pedestrian infrastructure and identify key projects that could help to eliminate any gaps within that network.

d. Train staff on best Complete Streets principles and practices.

e. Seek out appropriate funding sources for successful implementation of Complete Streets policies.

2014 Bicycle and Pedestrian Plan Update, GHMPO

An updated plan will be published in late 2024. This version is an update to the original 2006 plan, and is focused on the development of shared-use trails as off-road facilities for cyclists and pedestrians. The Plan had 4 goals:

1. Promote active lifestyles by providing access to recreational trails in Hall County.
    a. Create destination trails connecting to and through major passive parks.
    b. Develop community programs to support active living.
2. Provide bicycle connections to high demand areas.
    a. Connect trails to colleges and universities.
    b. Connect trails to K-12 schools and parks.
    c. Connect trails in areas of higher residential density with low auto ownership.
3. Support city redevelopment plans through bicycle and pedestrian connections.
    a. Support development of walkable and bikeable corridors as community focal points.
    b. Support city comprehensive plan objectives for redevelopment through increased accessibility.
4. Improve long distance cycling through the county and region.
    a. Provide signed, on-street bicycle routes for distance riders along lower volume roads.
    b. Connect to key destinations in surrounding counties.

At the time of writing, Hall County had 5 miles of walking and biking trails. High-demand areas were identified using these characteristics: high population density, above average poverty level, low auto-ownership level, presence of schools or universities. There are two universities in the study area: Brenau University and University of North Georgia.

Recommendations that are most applicable to an active transportation (non-recreational) context are the parallel routes recommended along I-985 corridor in South Hall County.

2017 Sidewalk Inventory Report, GHMPO

There were 375 miles of sidewalk in GHMPO, mostly concentrated in Gainesville and South Hall County. The purpose of the report was to identify what sidewalk infrastructure currently exists, by adding county-wide information to the Gainesville City sidewalk data. The report aims to identify areas for improvement and increased connectivity.

- Gainesville recommendations: Increase connectivity and pedestrian crossings along Browns Bridge, Atlanta Highway, Highways 53, 60, and 129.
- Oakwood recommendations: Create connections from the outskirts of the city into the central network and to the Elachee Nature Science Center.
- Flowery Branch: connectivity needed from downtown Flowery Branch to Hideaway Bay Marina and Lake Lanier front. Connectivity possible to the Highlands to Islands Trail in Oakwood, which would link Flowery Branch to Downtown Gainesville via multi-use trail.
- Braselton & Jackson County: the downtown areas with sidewalks are siloed, connect them. Connect to the multi-use paths on Friendship Road.

The transit recommendations of this Plan are out of date because Hall Area Transit discontinued fixed-route service after adopting microtransit..

2019 Microtransit Feasibility Study, Hall County

The microtransit vendor Via completed a study for Hall County to understand its transit options in the region. This comes after Gainesville's reclassification as a large urbanized area in the 2020 census, which will reduce its federal transit funding. Via created five transit simulations to explore Hall County's options. Ultimately, it recommended upgrading the dial-a-ride service and 3 Gainesville Connection routes to microtransit to maximize service offering and maintain budget.

Hall Area Transit has since contracted Via to operate a county-wide microtransit system, called WeGO.

DRAFT 2045 Comprehensive Plan Transportation Element, Hall County

This draft of the Comprehensive Plan will be published in late 2024. One of the goals for the Comprehensive Plan is to "expand alternative transportation options by increasing pedestrian infrastructure, developing complete streets, and enhancing public transit". The Multi-Modal Transportation Element does not mention safety issues, but does mention prioritizing safety of all users. There is no mention of the GHMPO High Injury Network. Key action items are:

- Coordinate with GHMPO on completing the Highlands to Islands Trail network.
- Prioritize sidewalk and street lighting needs based on frequency of use. Coordinate with City and Town efforts to build and connect multi-modal infrastructure.
- Enact zoning conditions of approval for nearby developers to build connections to the Highlands to Islands Trail.
- Incentivize mixed-use developers to include trails and trail connections, where appropriate, in their plans.
- Encourage developers to construct trail systems within a half-mile of mixed-use projects.
- Encourage connections to activity centers within the Cities and Towns.
- Examine how County and City/Town parks can be connected through new trails.

- Adopt a complete streets policy.
- Implement an ADA plan that identifies existing ADA barriers on sidewalks and crossings to allow for updates to be made on an ongoing basis.

Street Lighting Policy, Hall County

Hall County has a Street Lighting Policy, which is funded by a special tax district in all of unincorporated Hall County, found in Section 16.90 of the County Code of Ordinances. New subdivisions and single-family residential developments must submit their street lighting layout as part of their proposal. Outside of single-family residential developments, lighting is only permitted with the approval of the County Traffic Engineer, upon final approval of the Board of Commissioners, and compliance with the ordinance's standards.

The street lighting policy does not provide strict guidance on design standards, aside from minimum average illumination. There is room for improved design standards for pedestrian lighting.

Not Ratified 2024 Expansion of Special Tax District for Streetlights

This resolution, introduced in Hall County in 2024, proposed to expand the special tax district to fund new street lighting on Spring Road (between Browns Bridge Road and McEver Road) and along a portion of Skelton Road (between Browns Bridge Road and Shallowford Road). These two roads have recurring roadway speeding and safety concerns, but several residents resisted the Ordinance, citing increased cost burden on residents and lack of faith in the effectiveness of streetlights to improve safety conditions.

- A child was killed in a hit-and-run on Spring Road in 2023.
- Residents counter-proposed speed tables on Spring Rd and Skelton Road, but the County is hesitant to start funding expensive speed tables.
- Residents also expressed concern over street lighting's potential for attracting homeless people and late-night drug deals.

Residential Speed Control Program, Hall County

This Hall County document records the County's procedure and evaluation criteria for installation of speed control measures. Speed tables are the only measure named in the document.There is a high burden on the applicant to submit a petition:

1. A subdivision resident or association submits a request to the Traffic Engineering Division.
2. The County determines whether roadway characteristics are compatible with speed control program.
3. Applicant collects **affirmative signatures from 75%** of residents to petition the County for a traffic study.
4. Traffic study is performed collecting: traffic speed, volume, site review, and a review of accident history.
5. Two readings and public hearings must be completed before the Board of Commissioners.
6. If approved, a contractor will be secured. Installation costs will be divided and added to local property taxes, maintenance fee of $12.00 per property will be added.

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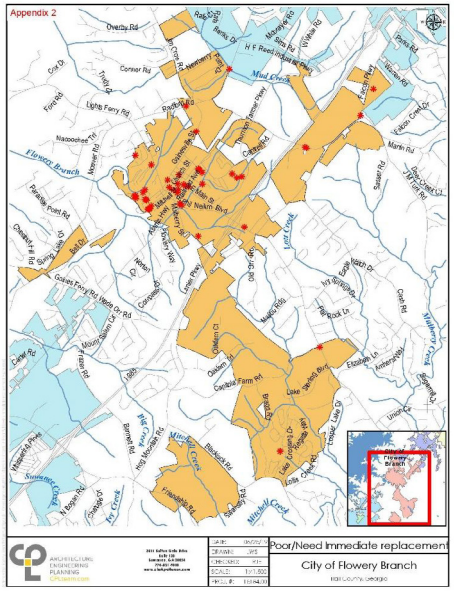
2023 Traffic Calming Device and Speed Hump Program, City of Gainesville

The City of Gainesville documents the City's procedure and evaluation criteria for installation of speed humps or traffic calming devices. Unlike the County, the City performs a traffic study upon request and may require a petition from residents for installation *after* the study has determined whether the area is eligible for traffic calming devices. Speed humps are the only traffic calming devices named in the document.

2019 Flowery Branch Speed and Sign Inventory Study, GHMPO

The MPO conducted a speed study and a study of the 1,604 street signs in Flowery Branch. The full inventory was mapped according to condition (see Map 1 below). The following roads were chosen for traffic studies: Gainesville St (35), Church St (25), Lights Ferry Rd (45), and East Main St (35). Posted speed limit at time of study are in brackets in miles per hour (mph). Significant speeding was found on Gainesville and recommendation was to increase the speed limit to 45 mph to match 85th percentile speeds. On southbound Lights Ferry Rd, 85th percentile speed was 52.3 mph, but no changes were recommended.

Map 1. Flowery Branch Signs in Poor Condition



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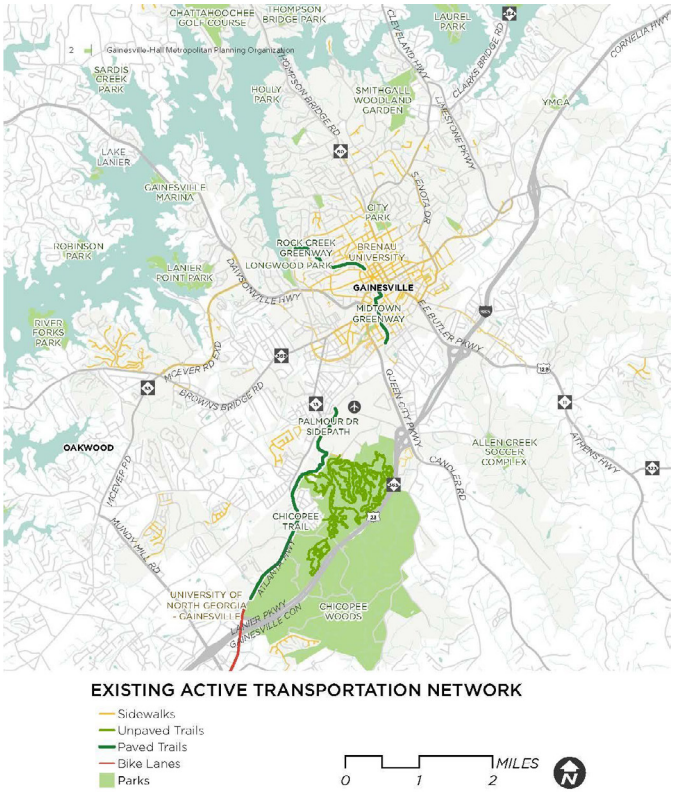
2019 City of Gainesville Trail Study, GHMPO

This Alta-developed study was commissioned by the MPO to satisfy the Fixing America's Surface Transportation (FAST) Act requirement to increase accessibility and mobility. The proposed trail network connects important civic, educational, recreational, and mobility destinations, especially Midtown Greenway to Chicopee Trail, through a paved, off-street trail system. This concept was supported by and reflected the community engagement process. A high demand and low provision of pedestrian facilities was observed on Industrial Blvd. Low vehicle access was noted in central Gainesville, making it a priority area for safe active transportation facilities.

Map 2. City of Gainesville Existing Active Transportation Network



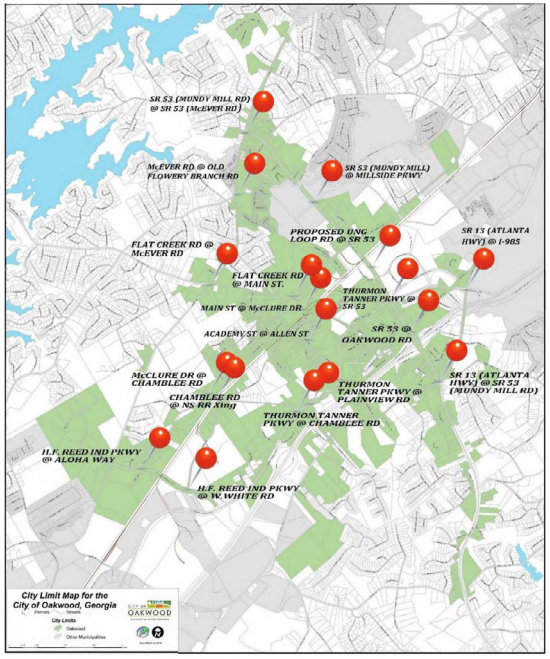
2018 City of Oakwood Traffic Improvement Study, GHMPO and City of Oakwood

Traffic congestion and safety issues were identified at 18 locations (see Map 3 below) on the City's roadway network, chosen with input from the City manager, City staff, stakeholders, and general public. Engineering evaluations and analyses were conducted to identify relevant improvement strategies. The following intersections had exceptionally high crash rates:

1. SR 13 (Atlanta Highway) & Thurmon Tanner Parkway/I-985 Southbound Ramps
2. SR 53 (Mundy Mill Road) & Thurmon Tanner Parkway
3. SR 13 (Atlanta Highway) & SR 53 (Mundy Mill Road)

Construction recommendations for intersection improvements were focused almost exclusively on motor vehicles. The study noted broken sidewalks, from large vehicles turning, at a number of intersections and recommended increased turning radii as well as guardrails. However, there was no mention of safety improvements for Vulnerable Road Users (VRU) such as pedestrians and bicyclists. Very large intersections like Sr 53 and Thurmon Tanner Parkway include right-turn slip lanes, complex geometry, and large crossing distances, but recommendations did not explicitly address pedestrian or cyclist safety.

Map 3. Safety Study Locations in City of Oakwood



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2021 SR 365/Jesse Jewell Parkway Traffic Impact Study, City of Gainesville and GHMPO

This study assessed 28 intersections on and near SR 36is in response to the FAST Act's direction to enhance integration and connectivity of the transportation system, across and between modes. The five intersections with the most crashes were:

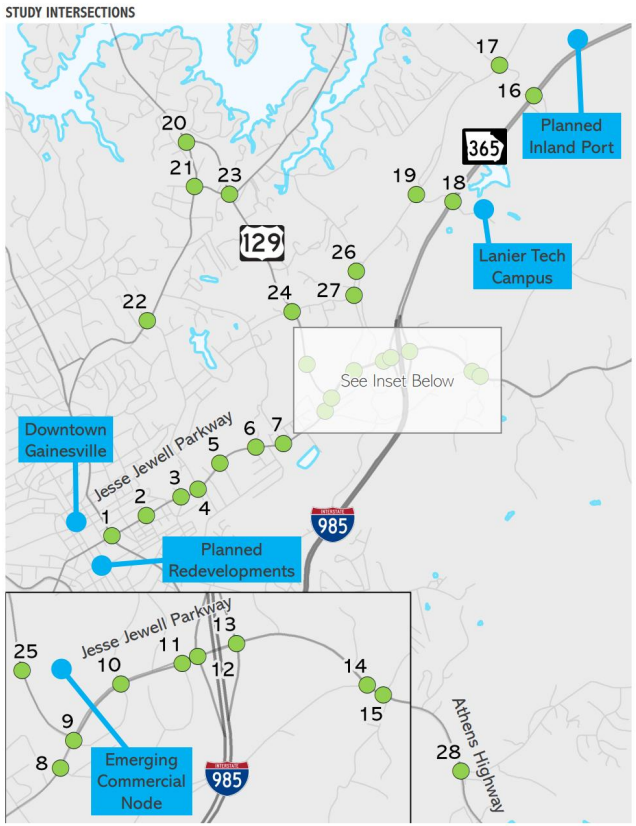
1. *Jesse Jewell Parkway at Limestone Parkway*[1]
2. *Jesse Jewell Parkway at Athens Highway*
3. Jesse Jewell Parkway at Downey Boulevard
4. Limestone Parkway at Cleveland Highway
5. *Cornelia Highway at Howard Road*

The proposed Compound Annual Growth Rate (CAGR) on Jesse Jewell Parkway segments are presented in Map 5 below. General issues in the corridor were identified in backed-up left-turn lanes, illegal U-turns, speeding, and cut-through large vehicle traffic on White Sulphur Rd. All northbound traffic must go through Gainesville, **channeling large commercial vehicles through Downtown Gainesville**. Concerns about freight traffic interactions around schools. Pedestrian and cyclist improvements were requested at Intersections #1, #2, #4, and #5 (see Map 4).

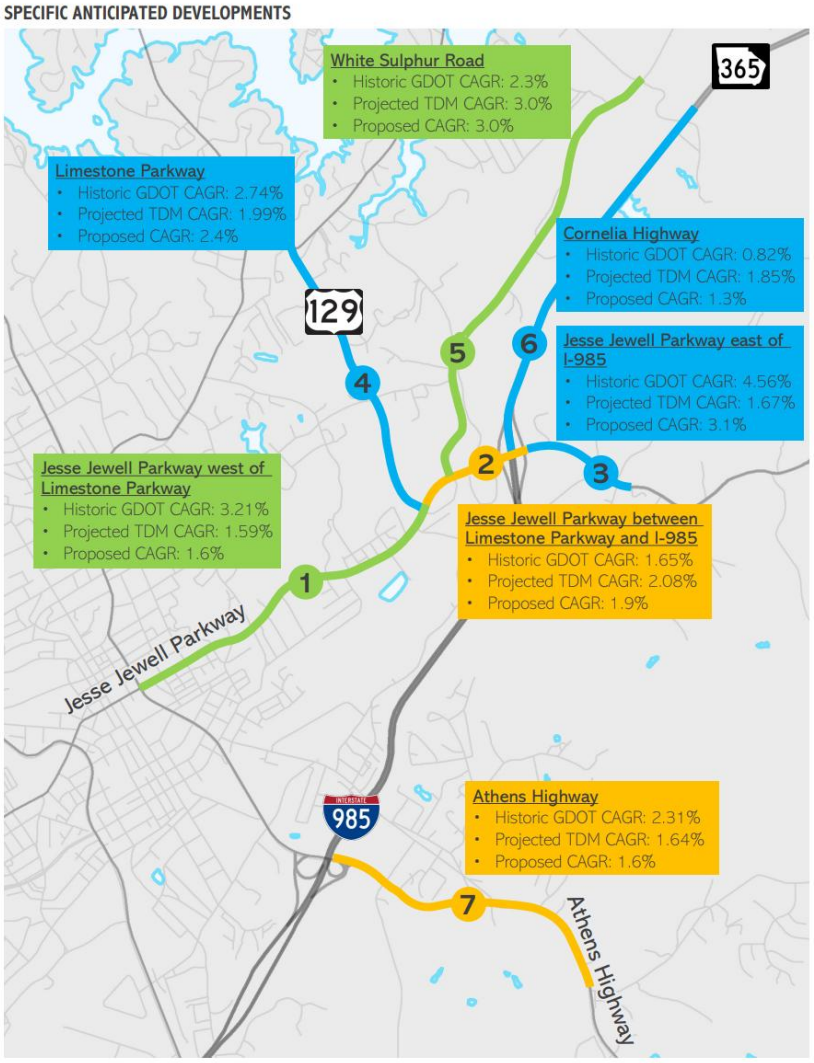
Unfortunately, few cyclist and pedestrian improvements were prescribed in the intersection action plan. Prioritization metrics did not include bicyclist and pedestrian access as a separate metric. Metrics were: safety, existing delay, delay reduction, number of vehicles served, stakeholder input, and community input. This is a missed opportunity to improve VRU safety in roadway improvement projects.

[11] Italicized intersections were also identified as priority intersections through public engagement.

Map 4. City of Gainesville SR 365 Study Intersections



Map 5. City of Gainesville SR 365 Anticipated Growth



2022 Braselton Trail Study, City of Gainesville and GHMPO

The purpose of this study is to conduct a small-scale, focused trail feasibility study to explore all possible connections for a multi-use path between the Life Path and Downtown Braselton. The Study recommends a route to connect Chateau Elan Golf Club, Winery & Resort to downtown Braselton, an identified priority for local tourism. Prioritization metrics were based on feasibility, cost, environmental impact mitigation, safety, and connectivity. Proposed routes can be seen below.

Map 6. Braselton Trail Route Alternatives

2019 Dawsonville Highway-McEver Road Connectivity Study, City of Gainesville and GHMPO

This Study developed and assessed potential traffic improvements along Dawson Highway corridor, including proposed concepts to connect Dawsonville Highway and McEver Road. Ultimately the study found that **none of the proposed alternatives were justified.** Instead, the study recommends permanent implementation of "Don't Block the Box" program, implementation of inter-parcel access along both roadways, and cooperation with major private land owners to provide corridor-level improvements like new signals.

Key Findings and Takeaways

Existing plans and policies influence the day to day safety of roadway users in the Gainesville-Hall MPO area. Reviewing these documents provides important context for understanding the area's current and future needs. Several studies, particularly those addressing specific corridors or infrastructure improvements, highlight the barriers to implementation that currently exist even when safety-focused policies and plans are already in place. Political will, community support, and a willingness to allocate funding for safety improvements must be developed alongside policies and plans.

The key findings from existing plans and policies is organized within four areas of focus: policy, design, programs, and projects. Within each, there are opportunities for improving safety for the benefit of the Gainesville-Hall MPO's current and future residents.

MEMORANDUM

Policy

Current policy guidance demonstrates a strong foundation for safety, including a Complete Streets Policy for street design, a Street Lighting Policy for funding streetlight improvements. The Regional Transportation Plan not only has dedicated safety goals, but aims to increase multi-modal trips, and to coordinate its land use decisions with transportation.

Opportunities:

- Adoption of Complete Streets Policy by Hall County.
- Change speed zone implementation process to streamline process and encourage flexible, adaptive planning processes. Currently, the Hall County Commission must pass an ordinance to change speed limits.
- Street Lighting Policy lacks design guidance according to roadway context and intended user (pedestrian vs. driver).
- Street connectivity and multi-modal-friendly design are not in the County Code of Ordinances.

Design

Hall County's Complete Streets Policy includes a strategy for development of performance measures to track the progress of Complete Street element implementation. These performance measures can be incorporated into the Safety Action Plan.

Opportunities

- Potential before-and-after performance measures from the Complete Streets Policy are: Number of Crashes, Injuries and Fatalities for all Modes, Number of Countdown Signals, Miles of Bike Lanes, Percentage of Sidewalk Network Completed.

Programs

Hall County has transitioned to a system-wide microtranist service since 2021, which could reduce reliance on personal vehicles and decrease peak-time traffic volumes, thereby decreasing crashes. The MPO maintains and updates an annual record of crashes and crash profiles in Hall and Jackson Counties, enabling strong decision-making. Since 2018, Georgia drivers can be convicted for using a mobile device while driving after the State passed a law, Hands-Free Georgia Act (HB 673/AP).

Opportunities

- The Traffic Calming Device programs do not mention devices other than speed humps (City of Gainesville) or speed tables (Hall County). More detail and guidance can be offered.
    - Both agencies, especially Hall County, place a high burden of proof on the applicant. Hall County could consider emulating City of Gainesville's process, to encourage proactive reporting and involvement in the planning process.
- Funding for traffic calming devices is shared and can lead to gaps in programmation. Clarify agency roles for traffic calming improvements.
- Safe Routes to School program could be implemented to organize strategies regarding freight traffic, student safety along high-volume roadways, and pick-up/drop-off safety and efficiency.

Projects

The MPO has already identified key crash intersections and prioritized project lists in areas of interest, like around the Lanier Tech Campus. Some projects are already underway and more safety projects are programmed for the 2020-2025 time period.

Opportunities

- Proposed projects in City of Gainesville, City of Flowery Branch, and City of Oakwood do not include Vulnerable Road Users improvements in their proposed concepts. MPO and Cities should push for VRU improvements in all roadway projects.
- Encourage private property owners to provide inter-parcel connectivity.

D

Prioritization and Cost Estimates Methodology

Gresham Smith

MEMORANDUM

TO:	Eric Scott – Alta
FROM:	Erin Thoresen, Gresham Smith
CC:	Alia Awwad, Jean Crowther – Alta
	Zach Adriaenssens, Eric Lusher, Andrew Smith – Gresham Smith
DATE:	December 12, 2024
SUBJECT:	Hall County SS4A – Revised approach and methodology for Task 5.1 and 5.2

OVERVIEW

The following is a proposed approach and methodology for identifying draft project list, conducting a prioritization exercise, and preparing priority project cutsheets. It has been revised to reflect comments and discussion with Alta and Hall County during the December coordination meeting.

Task 5.1 Project Prioritization Process

- **Step 1:** Prepare draft prioritization framework and gather necessary data to perform prioritization.
  - Base on prior precedent from safety action plans and other safety studies around the region.
  - The proposed framework includes factors such as equity priority areas, overlap with HINs, fatal and serious injury crashes, risk factors, proximity to community facilities, project complexity and coordination needed, community and stakeholder input, road ownership.
  - *See proposed prioritization framework below.*
- **Step 2**: Identify the corridors and intersections where the needs are, based on:
  - Crash data – where there are the most severe crashes, KA crashes, and vulnerable user crashes (not limited to just HINs - focus on where the highest concentrations of severe crashes occurred)
  - Where people are most vulnerable (e.g., the equity priority areas)
  - Community input (from survey)
- **Step 3:** Prepare draft project list for review by Alta and Hall County
  - Reconcile against MTP, TIP, and maybe some of the other prior plans, based on input from the MPO. Potential plans to screen against include:
    - Ongoing MTP vs. 2020 MTP
    - Current TIP

        - Bike/Ped Plan Update
        - Flowery Branch Downtown Parking and Mobility Study
        - Braselton Trail Feasibility Study
        - State Route 365/Jesse Jewel Parkway Traffic Impact Study
        - Gainesville Trail Study
        - Dawsonville Highway - McEver Road Connectivity Study
    - If desired by Hall County, Gresham Smith can incorporate projects from the TSPLOST list (even though it did not pass); where there is overlap with the priority corridors/intersections, we can incorporate/adapt TSPLOST projects into our draft project list.
    - Use the Countermeasure Toolkit prepared by Alta to support project development, applying recommended countermeasures to corridors and intersections with crashes that match identified crash profiles.
    - Alta and Hall County will provide feedback to Gresham Smith on the draft project list before we conduct the prioritization (anticipate 2-3 days for review).
- **Step 4: Conduct Prioritization**
    - Prepare a first draft of the project prioritization for review by Alta and Hall County ahead of the stakeholder committee meeting (anticipate 2-3 days for review).
    - One round of revisions prior to stakeholder committee meeting.
    - One round of revisions based on stakeholder committee feedback before preparing draft priority project cutsheets.
    - Identify top 10 corridor projects and top 10 intersection projects based on results of prioritizations and stakeholder and County feedback.

Task 5.2 Priority Project Cutsheets Process

- **Step 1:** Prepare draft template for 11x17" cutsheets based loosely on crash profiles and draft plan branding/graphics.
    - Cutsheets proposed to include information such as: written project description, high-level graphic, location map, cost estimate, equity information and ties to crash analysis or data (e.g., stats for that location).
- **Step 2:** Select five priority projects from prioritized list in consultation with Alta and Hall County.
- **Step 3:** Prepare draft priority project cut-sheets for review by Alta and Hall County.
    - One round of revisions based on feedback prior to community meeting.

Proposed Prioritization Framework

Individual projects in the Safety Action Plan project universe will be scored based on select criteria that are detailed in this memo. The resulting scores will be tallied for each item, which can be used to determine the priority (high, medium, or low) of each project. This section describes the scoring system for potential safety infrastructure projects in Hall County.

A prioritization matrix will be developed to score each project based on criteria. Each project will be an individual row. Columns will be listed for each evaluation criterion.

Equity Priority Areas – Does the project fall within a historically disadvantaged Census tract as defined by Justice40?

- No – 0 points
- Yes – 5 points

Overlap With High-Injury Networks (HINs) – Does the project fall within any of the Hall County high-injury networks, including motorcycle, bicycle/pedestrian, all vehicle HINs, and/or High-Injury Intersection Network?

- Not within any HIN – 0 points
- 1 HIN – 2 points
- 2 HINs – 4 points
- 3 HINs – 5 points

Fatal and Serious Injury Crashes – Is the project the site of or in close proximity to an intersection or corridor where a fatal or serious injury crash occurred between 2019 and 2023?

- No – 0 points
- Yes, serious injury only – 2 points
- Yes, fatal only – 4 points
- Yes, both fatal and serious injury – 5 points

Crash Profiles – Does the project address any of the crash profiles identified by the consultant team? Points will be awarded to projects based on the number of profiles addressed.

- Does not address any crash profiles – 0 points
- Addresses 1-2 crash profiles – 1 points
- Addresses 3-4 crash profiles – 3 points
- Addresses 5 or more risk factors – 5 points

Proximity to Community Facilities – Is the project in close proximity to community facilities which generate vehicular and/or pedestrian traffic, such as parks, schools, City facilities, courthouses, or commercial and mixed-use land uses?

- Not within 1 mile of a traffic or pedestrian generator – 0 points
- Within 1 mile of a traffic or pedestrian generator – 1 points
- Within ½ mile of a traffic or pedestrian generator – 3 points
- Within ¼ mile of a traffic or pedestrian generator – 5 points

Project Complexity and Coordination Needed – What level of complexity and coordination with other agencies does this project require for implementation? This includes coordination with Cities

in Hall County, adjacent Counties, and GDOT, as well as consideration of needs for right-of-way acquisition, railroad coordination, utility coordination/relocation, and constructability.

- High level of coordination/complexity – 1 points
- Medium level of coordination/complexity – 3 points
- Low level of coordination/complexity – 5 points

Community and Stakeholder Input – Was this project mentioned as a need through a Hall County resident or a member of the stakeholder committee? Also consider whether this project is derived from a previous plan or study

- Not mentioned by the public or stakeholders – 1 point
- Mentioned by the public or stakeholders – 3 points
- Mentioned multiple times by the public or stakeholders OR included in a previous plan or study – 5 points

The projects in the matrix will be ranked from highest to lowest raw score. It was agreed by the project team that no weighting is needed; the total scores will be used to assign each project into tiers representing different priorities for implementation.

Gresham Smith

TECHNICAL MEMORANDUM

TO:	Eric Scott – Alta
FROM:	Zach Adriaenssens, AICP – Gresham Smith
CC:	Alia Awwad, Jean Crowther, Stephanie Garcia – Alta
	Erin Thoresen, AICP; Andrew Smith, AICP, RSP$_1$ – Gresham Smith
DATE:	Revised - February 7, 2025
SUBJECT:	Hall County SS4A – Final Project Recommendations & Cutsheets

INTRODUCTION

The Gresham Smith planning team received final approval on the previously submitted Recommendations Approach Memorandum on December 14, 2024. The memo defined the process that would be used to score and rank the project recommendations put forward as part of the Hall County Safe Streets for All (SS4A) planning document. The following memorandum details and summarizes the five projects that were selected for additional study/cutsheets, as well as documenting the feedback received that helped inform the selection of the final project list.

METHODOLOGY REVIEW

Hall County's SS4A Plan used a scoring system to prioritize and rank a total of fifty-four (54) potential safety projects that were identified as part of the plan development process. Each of the fifty-four (54) projects were evaluated according to these previously established criteria:

- Overlaps with an Equity Emphasis Area
- Overlaps with one of the four High Injury Networks (HINs)
- Proximity to fatal or serious injury crashes
- Addresses concerns within identified crash profiles
- Proximity to key community facilities
- Project complexity/required coordination
- Level of public/stakeholder support

With consultation from the Gainesville-Hall Metropolitan Planning Organization (GHMPO) project manager and wider project team, each criterion was assigned a certain number of points. The points associated with the defined criteria were then summed for each project to generate a raw

score that reflected its overall priority – with higher scores indicating a higher priority for implementation.

Projects were then listed in a prioritization matrix, ranked by their total scores without additional weighting. This aggregated score was only one aspect of the ranking process. The draft list of scored and prioritized projects was also presented to the project's stakeholder committee for feedback, which further helped inform the final prioritization of projects for the plan. Each step of the process included GHMPO consultation and coordination. This process has helped ensure that resources and efforts are directed where they can have the greatest impact on improving safety across Hall County.

PRIORITY PROJECTS

After assessing each of the 54 projects to see which would have the greatest impact on transportation safety within Hall County, five priority projects floated to the top. A map of all five priority projects can be found in **Appendix I: Proposed Project Locations**. Detailed descriptions of each project can be found below, along with a more in-depth look at the vehicle crashes found along each corridor (with particular attention placed on how the proposed priority projects would address existing crash trends).

SFTY-03: Queen City Parkway Corridor Improvements

Queen City Parkway is an approximately 2.37-mile corridor connecting Jesse Jewell Parkway to Old Candler Road, just east of Lee Gilmer Memorial Airport, in Hall County. The corridor's existing typical section consists of two lanes in each direction, with a dual direction turn lane in the northern portions of the corridor, and a grassed median on the southern portions of the corridor. Using the Georgia Department of Transportation's (GDOT's) Traffic Analysis and Data Application (TADA), **Table 1: Queen City Parkway Traffic Volumes** provides a summary of average annual daily traffic (AADT) counts from three locations along the corridor. Traffic volumes continue to trend upward throughout the corridor, with a range in AADT value between 18,800 and 29,000 vehicles in 2023.

Table 1: Queen City Parkway Traffic Volumes

Station ID	Location	AADT		
		2021	2022	2023
139-0312	Pine Street Park	18,300	18,700	18,800
139-0309	Aviation Boulevard	25,200	26,500	26,700
139-0307	Palmour Drive	27,900	28,500	29,000

Queen City Parkway has existing traffic signals at its intersections with: Old Candler Road; the I-985 Northbound on/off ramps; the I-985 Southbound on/off ramps; W Ridge Road; Aviation Boulevard; Industrial Boulevard; Pearl Nix Parkway; and Jesse Jewell Parkway. Existing speed limits in the corridor vary from 35 miles per hour (mph) to 45mph.

Queen City Parkway Corridor Crashes & Potential Countermeasures

Below, **Table 2: Queen City Parkway Corridor Crash Severities** provides a summary of all crashes occurring along the Queen City Parkway corridor from 2018 to 2022. During that time, 1,356 vehicle crashes occurred along the corridor, with eighty-eight (88) of those resulting in minor, serious or fatal injuries. In addition, the number of serious and fatal injury crashes appears to be trending upwards, from two crashes in 2018 to six in 2022.

Table 2: Queen City Parkway Corridor Crash Severities

Year	KABCO Scale						Total Crashes
	Fatal	Injury			PDO	Unknown	
	K	A	B	C	O		
2018	0	2	15	49	222	0	288
2019	0	1	11	46	218	1	277
2020	1	4	6	40	181	0	232
2021	1	4	22	56	194	2	279
2022	0	6	15	40	219	0	280
Total	2	17	69	231	1,034	3	1,356

It is important to take note of circumstances around the two fatal injury crashes along the corridor, so as to help identify any trends in lethality that could be disrupted via effective countermeasures moving forward. Both fatal injury crashes (Collision IDs: 7593041 and 8286736) involved vehicles being struck while completing left-turning movements at signal-controlled intersections (W Ridge Road and I-985 Northbound On/Off Ramp). Safety countermeasures proposed for Queen City Parkway should particularly address left-angle crashes at signalized intersections.

For those 88 crashes that resulted in minor, serious or fatal injuries, **Table 3: Manner of Collision for Fatal, Serious and Minor Injury Crashes (Queen City Parkway)** summarizes the types of crash associated with those collisions. From 2018 to 2022, angle crashes were the manner of collision most likely to result in minor, serious or fatal injury along Queen City Parkway.

Therefore, proposed improvements seeking to address injury crashes in the area would ideally seek to eliminate the potential for such collisions to occur. A number of proven safety countermeasures have been shown to effectively minimize the potential for head-on and angle crashes. Examples of such countermeasures include installing roundabouts; implementing restricted crossing U-turns (RCUTs); implementing median U-turns (MUTs); utilizing flashing

yellow arrow (FYA) turn signals for left turns; and managing corridor access with non-traversable medians.

Table 3: Manner of Collision for Fatal, Serious and Minor Injury Crashes (Queen City Parkway)

Year	Manner of Collision					Total Crashes
	Angle	Head On	Rear End	Sideswipe	Not a Collision with a Motor Vehicle	
2018	9	1	4	1	2	17
2019	5	0	5	0	2	12
2020	7	0	3	0	1	11
2021	14	1	6	1	5	27
2022	11	2	6	0	2	21
Total	46	4	24	2	12	88

Final Project Description:
This project would calm traffic speeds along Queen City Parkway from Jesse Jewell Parkway to Candler Road. This segment of Queen City Parkway lies within an Equity Emphasis Area and was the site of twenty-one (21) serious and fatal injury crashes between 2018 and 2022. Of the 21 fatal and serious injury crashes occurring in the corridor from 2018 to 2022, 71.43% (15) were intersection-related, 47.62% (10) were left-angle crashes, and 38.10% (8) occurred in unlit areas during non-daylight hours. This project would assess the Queen City Parkway corridor for traffic-calming and speed reduction measures, including evaluating the possibility of decreasing the posted corridor speed-limit to 35 mph throughout, installation of roadway lighting, and the potential implementation of median U-turn (MUT) intersections at Industrial Boulevard and West Ridge Road.[1]

PED-03: Main Street Pedestrian Lighting and Safety Improvements in Downtown Lula

Main Street, in downtown Lula, Georgia, is an approximately 2.12-mile corridor from Miller Drive to Lewallen Circle, in the northeastern corner of Hall County. The corridor's existing typical section consists of one lane in each direction, with limited pedestrian facilities throughout. Existing right-of-way along the corridor is hemmed in on the east by an existing active railroad line. There are also a number of businesses that maintain angled on-street parking along the corridor. The corridor does not contain any active traffic signals (though the intersection of Main Stret and

[1] The USLIMITS2 application – an effective and important tool to aid practitioners in determining appropriate corridor speed limit recommendations for all road users – is one method that could be utilized to determine if such a reduction is feasible.

Athens Street is stop-controlled). Posted speed limits are 35 mph within Lula's central business district and 45 mph at the eastern and western termini of the corridor.

A full summary of AADT values from traffic monitoring stations along the corridor using GDOT's TADA application is provided below in **Table 4: Main Street (Lula) Traffic Volumes**. Traffic volumes continue to trend upward throughout the corridor, with a range in AADT value between 2,240 and 4,150 vehicles in 2023. Traffic volumes tend to decline the farther north along the corridor they are measured (with the highest AADT volume measured in the corridor coming from just south of the Main Street/Athens Street intersection).

Table 4: Main Street (Lula) Traffic Volumes

Station ID	Location	AADT		
		2021	2022	2023
139-0771	South of Athens Street	4,060	4,100	4,150
139-7393	North of Athens Street	2,780	3,100	3,140
139-0458	South of 8th Street	1,960	2,210	2,240

Main Street (Lula) Corridor Crashes & Potential Countermeasures

Below, **Table 5: Main Street (Lula) Corridor Crash Severities** provides a summary of all crashes occurring along the Main Street corridor from 2018 to 2022. During that time, 54 vehicle crashes occurred along the corridor, with six (6) of those resulting in minor, serious or fatal injuries.

Table 5: Main Street (Lula) Corridor Crash Severities

Year	KABCO Scale						Total Crashes
	Fatal	Injury			PDO	Unknown	
	K	A	B	C	O		
2018	0	0	0	1	9	0	10
2019	0	0	0	2	7	0	9
2020	1	0	2	1	9	0	13
2021	0	0	1	1	11	0	13
2022	0	2	0	1	6	0	9
Total	1	2	3	6	42	0	54

For the six crashes that resulted in minor, serious or fatal injuries, two (33.3%) involved a cyclist or a pedestrian, and five (83.3%) were intersection-related. And while 29.6% (16) of the 54 total corridor crashes occurred during non-daylight conditions, a larger share of crashes resulting in minor, serious or fatal injury crashes (40%) occurred during non-daylight conditions – suggesting that crashes that occurred in non-daylight conditions were more likely to result in minor, serious or fatal injuries. Finally, the single fatal injury crash along the corridor (Collision ID 7586707) occurred in unlit conditions on the night of January 22, 2020 – when a northbound pedestrian

walking around a car parked on the side of Main Street that does not have sidewalks was struck by a passing northbound driver.

With the data and details regarding the corridor's fatal, serious and minor injury crashes providing such important context, it's clear that any proposed improvements along Main Street should prioritize protecting vulnerable road users, calming intersections, and improving lighting conditions for both vehicles and pedestrians.

A number of proven safety countermeasures have been shown to effectively improve safety conditions for vulnerable road users (cyclists, pedestrians, motorcyclists, etc.). Examples of such countermeasures include: installing walkways/sidewalks; installing crosswalk visibility enhancements; installing protected bicycle lanes; road diets/roadway reconfigurations; corridor lighting; and corridor access management.

Final Project Description:
The proposed project seeks to improve vulnerable road user (VRU) safety and traffic operations along approximately two miles of Main Street from Lewallen Circle to Miller Drive in downtown Lula, Georgia. Specific proposed corridor improvements would include reconstructing existing pedestrian facilities to meet current Americans with Disabilities Act (ADA) standards; constructing ADA-compliant intersection improvements where none currently exist; restriping existing crosswalks; installing audible traffic signals and signs at two major intersections (Main Street/Athens Street and Main Street/8th Street); filling all existing sidewalk gaps; widening sidewalks to follow GDOT standards where not currently present; installing enhanced landscaping and hardscaping; and installing pedestrian- and roadway-level lighting.

SFTY-02: Limestone Parkway Corridor Safety Improvements

Limestone Parkway is an approximately 2.10-mile corridor connecting Jesse Jewell Parkway to Cleveland Highway/State Route (SR) 11, near the northeastern city limits of Gainesville, in Hall County, Georgia. The corridor's existing typical section consists of two lanes in each direction, with dedicated turn lanes at all signalized intersections. Limestone Parkway has existing traffic signals at its intersections with: Cleveland Highway/SR 11; Clarks Bridge Road; Beverly Road; Road A; and Jesse Jewell Parkway. Existing speed limits in the corridor are 45 mph throughout.

A full summary of AADT values from traffic monitoring station's along the corridor using GDOT's TADA application is provided below in **Table 6: Limestone Parkway Traffic Volumes**. Traffic volumes continue to trend upward at the corridor's northern and southern termini, but are largely static in the center of the corridor (near Lakeview Academy). The corridor shows significant volume variation, as AADT values in 2023 range from 9,520 to 20,900 vehicles. Traffic volume measurements in the corridor were noticeably higher south of Clarks Bridge Road.

Table 6: Limestone Parkway Traffic Volumes

Station ID	Location	AADT		
		2021	2022	2023
139-0767	Clarks Bridge Road	9,250	9,460	9,520
139-0765	Windward Lane	17,400	17,200	17,400
139-0763	Huntington Drive	20,300	20,800	20,900

Limestone Parkway Corridor Crashes & Potential Countermeasures

Below, **Table 7: Limestone Parkway Corridor Crash Severities** provides a summary of all crashes occurring along the Limestone Parkway corridor from 2018 to 2022. During that time, 652 vehicle crashes occurred along the corridor, with forty-five (45) of those resulting in minor, serious or fatal injuries.

Table 7: Limestone Parkway Corridor Crash Severities

Year	KABCO Scale						Total Crashes
	Fatal	Injury			PDO	Unknown	
	K	A	B	C	O		
2018	1	2	5	16	134	0	158
2019	2	1	5	20	113	0	141
2020	0	2	7	10	85	0	104
2021	1	0	9	21	89	0	120
2022	1	1	8	17	102	0	129
Total	5	6	34	84	523	0	652

With five fatal injury crashes in five years, very few corridors in Hall County are able to match Limestone Parkway's mortality rate. Below, **Table 8: Limestone Parkway Fatal Injury Crash Summary** provides more insight into each deadly crash, to help better identify methods of preventing such trends in lethality from continuing.

For those 45 crashes that resulted in minor, serious or fatal injuries, **Table 9: Manner of Collision for Fatal, Serious and Minor Injury Crashes (Limestone Parkway)** summarizes the types of crash associated with those collisions. From 2018 to 2022, angle crashes were the manner of collision most likely to result in minor, serious or fatal injury along Limestone Parkway.

Table 8: Limestone Parkway Fatal Injury Crash Summary

Collision ID	Date	Location	Summary
8180494	8.16.21	Clarks Bridge Road	A driver suffered a heart attack that caused him to lose control of his vehicle. They succumbed to their injuries three days later.
7439083	11.14.19	Lighthouse Manor Drive	A vehicle driver struck and killed a pedestrian attempting to cross the street at Lighthouse Manor. It was night, and the area is unlit.
8735892	10.5.22	Beverly Road	A northbound driver on Limestone Parkway turning left onto Beverly Road struck and killed a southbound motorcyclist.
7257719	6.21.19	Road A	A northbound driver entered on-coming traffic and struck a southbound vehicle at the Road A intersection, fatally injuring the southbound driver.
6771896	6.28.18	Jesse Jewell Parkway	Travelling southbound, a driver lost control of their vehicle and struck "a concrete pole sign support", fatally injuring themselves in the process.

Table 9: Manner of Collision for Fatal, Serious and Minor Injury Crashes (Limestone Parkway)

Year	Manner of Collision					Total Crashes
	Angle	Head On	Rear End	Sideswipe	Not a Collision with a Motor Vehicle	
2018	5	1	0	1	1	8
2019	2	1	2	0	3	8
2020	6	1	2	0	0	9
2021	6	0	2	0	2	10
2022	9	1	0	0	0	10
Total	28	4	6	1	6	45

Data strongly suggests that proposed improvements seeking to address injury crashes along the corridor should try to eliminate the potential for angle crashes to occur. A number of proven safety countermeasures have been shown to effectively minimize the potential for angle crashes. Examples of such countermeasures include: installing roundabouts; implementing restricted crossing U-turns (RCUTs); implementing median U-turns (MUTs); utilizing flashing yellow arrow (FYA) turn signals for left turns; and managing corridor access with non-traversable medians.

Final Project Description:
The project proposes to calm traffic speeds along Limestone Parkway from Cleveland Highway to Jesse Jewell Parkway. This corridor lies within an Equity Emphasis Area, and was the site of forty-five (45) minor, serious and fatal injury crashes from 2018 to 2022. Of those 45 crashes, 81.81% (9) involved older (65+) or younger (<19) drivers, 63.63% (7) were intersection-related, and 27.27% (3) involved pedestrians/cyclists. The project would assess the corridor for traffic-calming and speed reduction measures, including evaluating the possibility of reducing corridor speed limits to 35 mph and flashing yellow arrow (FYA) signals; as well as the installation of intersection lighting improvements, signalized and marked crosswalks at signalized intersections where not currently present, crosswalk visibility enhancements and a multi-use path on the western side of the roadway.

PED-02: Phil Niekro Boulevard/Spout Springs Road Corridor & Pedestrian Safety Improvements

The proposed project would seek to improve safety along a roughly 1.07-mile roadway corridor from Atlanta Highway to Hog Mountain Road, in Flowery Branch, Georgia. The corridor is bisected by I-985. The portion of the corridor west of the I-985 southbound on/off ramp intersection is known as Phil Niekro Boulevard, and it has an existing typical section consisting of a single lane in each direction with limited pedestrian facilities. The portion of the corridor east of the I-985 southbound on/off ramp intersection is known as Spout Springs Road, and it has an existing typical section consisting of two lanes in each direction, with dedicated turn lanes at signalized intersections and ADA-compliant pedestrian improvements throughout.

There are existing traffic signals where Phil Niekro Boulevard/Spout Springs Road intersects: Atlanta Highway; Thurmon Tanner Parkway/Crest Village Circle; the I-985 southbound on/off ramps; the I-985 northbound on/off ramps; the Stonebridge Village Shopping Center entrance; and Hog Mountain Road. Posted speed limits are 45 mph along Phil Niekro Boulevard, and 35 mph along Spout Springs Road. The western terminus of the corridor has constrained right-of-way due to a nearby active railroad line; while the eastern terminus of the corridor ties into a previously completed widening of the Spout Springs Road corridor (GDOT PI No. 0009679).

A full summary of AADT values from traffic monitoring stations along the corridor using GDOT's TADA application is provided below in **Table 10: Phil Niekro Boulevard Traffic Volumes**. While there is only one monitoring station along the corridor, traffic volumes have declined notably over the three most recently measured years (2021-2023). This is despite notable residential, commercial and industrial development in the area.

Table 10: Phil Niekro Boulevard Traffic Volumes

Station ID	Location	AADT		
		2021	2022	2023
139-0445	Crest Village Circle	10,600	10,900	9,930

Phil Niekro Boulevard/Spout Springs Road Corridor Crashes & Potential Countermeasures

Below, **Table 11: Phil Niekro Boulevard/Spout Springs Road Corridor Crash Severities** provides a summary of all crashes occurring along the Phil Niekro Boulevard/Spout Springs Road corridor from 2018 to 2022. During that time, 475 vehicle crashes occurred along the corridor, with twenty-eight (28) of those resulting in minor, serious or fatal injuries.

Table 11: Phil Niekro Boulevard/Spout Springs Road Corridor Crash Severities

Year	KABCO Scale						Total Crashes
	Fatal	Injury			PDO	Unknown	
	K	A	B	C	O		
2018	0	1	1	19	71	0	92
2019	1	2	6	14	82	0	105
2020	0	1	5	14	52	0	72
2021	0	1	2	13	77	0	93
2022	0	1	7	12	93	0	113
Total	1	6	21	72	375	0	475

Crashes along Phil Niekro Boulevard represent a range of severities and typologies. It is important to note that the one fatal crash (Collision ID: 7723935) occurred on August 7, 2019 and involved traffic backing up onto the active railroad line near the intersection of Atlanta Highway. A train struck a passenger vehicle that became stuck between the lowered railroad crossing arms, resulting in one fatal injury (the driver of the vehicle). For all 28 crashes that resulted in minor, serious or fatal injuries, a total of 20 (71.43%) were officially "intersection-related" per Numetric's AASHTOWare Safety – Crash Query application[2] (though all 28 occurred within 150 feet of an intersection).

A full breakdown of fatal, serious and minor injury crashes according to their proximity to which intersection can be found in **Table 12: Intersection Crashes with Injuries on Phil Niekro Boulevard**.

[2] Numetric's AASHTOWare Safety – Crash Query application is an online dashboard program that catalogs and maps police reports of vehicle crash incidents from across the state of Georgia; the partially redacted reports can often provide important details on what may have caused fatal, severe and minor injury crashes

Table 12: Intersection Crashes with Injuries on Phil Niekro Boulevard

Year	Phil Niekro Blvd/Spout Spring Rd Intersection with:					Total Crashes
	Atlanta Highway	I-985 NB/SB	Hog Mountain Road	Porter Road	Holland Dam Road	
2018	1	1	0	0	0	2
2019	4	3	1	1	0	9
2020	3	0	2	1	0	6
2021	0	1	1	0	1	3
2022	1	2	3	2	0	8
Total	9	7	7	4	1	28

Proposed improvements seeking to address injury crashes in the area would ideally address crashes at intersections. A number of proven safety countermeasures have been shown to effectively mitigate safety concerns at intersections. Examples of such countermeasures include corridor access management plans; roadway intersection lighting; roadway corridor lighting; reducing speed limits; and roundabouts.

Final Project Description:
This project would calm traffic speeds on Phil Niekro Blvd from Atlanta Highway to Hog Mountain Road. This corridor was the site of twenty-eight (28) minor, serious and fatal injury crashes from 2018 to 2022. Of the 28, 71.43% (20) were intersection-related, 57.14% (16) were angle crashes, and 32.14% (9) occurred at night. This project would assess Phil Niekro Boulevard for traffic-calming measures, including evaluating the possibility of reducing corridor speed limits to 35 mph, while the Spout Springs Road portion of the corridor would be assessed for potential access management improvements. The project would also install corridor and intersection lighting, as well as sidewalks on both sides of the roadway. The project would widen Phil Niekro Boulevard to a four-lane typical section throughout and assess the viability of roundabouts[3] at the existing intersections with the I-985 on/off ramps.

R-03: E.E. Butler Parkway at MLK Jr. Boulevard Roundabout

The existing E.E. Butler Parkway at Martin Luther King (MLK) Jr. intersection is located on the southeast edge of downtown Gainesville, Georgia. The intersection skew and geography are complicated by a third intersecting roadway (Athens Street), and a bridge over an active railroad

[3] Since the existing intersections are either on a state route or on the national highway system (due to the intersections with the I-985 on/off ramps), GDOT policy would require an Intersection Control Evaluation (ICE) analysis. ICE analyses examine multiple alternative intersection configurations to determine the safety and most cost-effective option for all road users.

line under E.E. Butler Parkway to the southeast. The existing typical section of E.E. Butler Parkway consists of two lanes in each direction, with dedicated northbound left and right turn lanes, and a dedicated southbound left turn lane. The existing typical section of MLK Jr. Boulevard is one lane in each direction with dedicated left turn lanes both eastbound and westbound. Athens Street has an existing typical section of one lane in each direction but has dedicated left and right turn lanes at its endpoint with MLK Jr. Boulevard. The existing intersections are signalized.

A full summary of AADT values from traffic monitoring stations around the intersection using GDOT's TADA application is provided below in **Table 13: E.E. Butler Parkway at MLK Jr. Boulevard Traffic Volumes**. Traffic trends around the intersection are notable in that they are shown to be declining along four of the five legs of the proposed roundabout: 1) E.E. Butler Parkway north of the intersection; 2) MLK Jr. Boulevard east of the intersection; 3) MLK Jr. Boulevard west of the intersection; and 4) Athens Street.

Table 13: E.E. Butler Parkway at MLK Jr. Boulevard Traffic Volumes

Station ID	Roadway	Location	AADT		
			2021	2022	2023
139-0125	E.E. Butler Parkway	North of Intersection	29,300	30,000	29,100
139-0123		South of Intersection	33,100	35,900	36,100
139-0101	MLK Jr. Boulevard	East of Intersection	12,800	10,500	10,500
139-0596		West of Intersection	5,090	4,790	4,830
139-0683	Athens Street	Patterson Drive Intersection	9,330	9,430	8,770

E.E. Butler Parkway at MLK Jr. Boulevard Crashes & Potential Countermeasures

Below, **Table 14: E.E. Butler Parkway at MLK Jr Boulevard Crash Severities** provides a summary of all crashes occurring along the Queen City Parkway corridor from 2018 to 2022. During that time, 217 vehicle crashes occurred at this intersection, with eight (8) of those resulting in minor, serious or fatal injuries.

Table 14: E.E. Butler Parkway at MLK Jr. Boulevard Crash Severities

Year	KABCO Scale						Total Crashes
	Fatal	Injury			PDO	Unknown	
	K	A	B	C	O		
2018	0	0	2	7	43	0	52
2019	0	1	3	5	34	0	43
2020	0	1	0	7	34	0	42
2021	0	1	0	5	32	0	38
2022	0	0	0	8	34	0	42
Total	0	3	5	32	177	0	217

Of the eight serious and minor injury crashes occurring in the corridor from 2018 to 2022, seven (87.50%) were curve-related, seven (87.50%) involved "following too closely", and two (25.00%) involved motorcycles. All of the serious injury crashes at the intersection involved turning left onto MLK Jr. Boulevard from westbound E.E. Butler Parkway. The challenging topography of the intersection (westbound E.E. Butler Parkway is traveling downhill into the intersection at an angle) means advanced signal warnings could be beneficial.

With those vehicle crash statistics in mind, any proposed projects seeking to improve transportation safety at the E.E. Butler Parkway/MLK Jr. Boulevard intersection should seek to address curve issues, as well as protections for vulnerable road users. A number of proven safety countermeasures have been shown to effective in these areas. Such countermeasures include roadside design improvements at curves; installation of roundabouts; dedicated left-and right-turn lanes; road diets; improved lighting; and medians and pedestrian refuge islands.

Final Project Description:
This project would calm traffic and address safety concerns at the existing intersections of E.E. Butler Parkway at Martin Luther King (MLK) Jr. Boulevard and Athens Street. The intersection lies within a previously identified Equity Emphasis Area and was the site of 1% of all crashes in Hall County from 2018 to 2022. Of the eight serious and minor injury crashes occurring in the corridor from 2018 to 2022, 87.50% (7) were curve-related, 87.50% (7) involved "following too closely", and 25.00% (2) involved motorcycles. This project would assess the existing intersections for installation of a five-legged roundabout, including the installation of pedestrian improvements where possible, and the installation of roadway lighting improvements. The project would also fill existing gaps in the sidewalk network along E.E. Butler Parkway.

COST ESTIMATION METHODOLOGY

To assist the GHMPO in planning and budgeting for advancement and implementation of SS4A Action Plan recommendations, the Gresham Smith project team prepared planning-level cost estimates for each of the five priority projects detailed in the cutsheets.

Planning-level cost estimates were developed using recent pay items, applicable costs from recently approved cost estimates for other projects, research on project precedence, and engineering judgment. They are based on the estimated cost of project construction – reflecting major project elements such as pavement, graded aggregate base (GAB), medians or islands, curb and gutter, traffic and pedestrian signals, lighting, walls, drainage structures, signing and marking, erosion control, and traffic control, where appropriate, among other factors as needed based on project descriptions.

Estimates for anticipated project phases were calculated based on agreed-upon percentages of the estimated construction cost, as follows:

- Preliminary Engineering (PE): 20%
- Right-of-Way (ROW): 15% (with the exception of Projects R-03 and PED-02, which applied 20%)
- Utilities (UTL): 15% (with the exception of Projects R-03 and PED-02, which applied 20%)
- Construction Inspection (CEI): 10%

An additional 20% was added to the sum of the total cost for all phases for contingency purposes – this amount is the low-end cost estimate for each project:

Low-End Estimate = (CST + PE + ROW + UTL + CEI) x 1.2

High-end cost estimates applied another 20% of contingency on top of the low-end cost estimates:

High-End Estimate = ([CST + PE + ROW + UTL + CEI] x 1.2) x 1.2
Or, in other words, High-End Estimate = Low-End Estimate x 1.2

Finally, the mid-range cost estimate is the average of the low-end and high-end cost estimates:

Mid-Range Estimate = Average of Low-End Est + High-End Est

Cost estimates are shown in current-year (2025) dollars and are subject to change over time, due to factors such as the cost of labor, materials, and inflation. It is anticipated that as each project is advanced into the next phases of implementation – through concept, preliminary engineering, final design – more details about the projects will be revealed, enabling more precise and informed cost estimates. The total cost estimate for each newly recommended project was rounded up to the nearest $1,000.

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Project List

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Total Score Sum of all previous columns	Rank For corridor projects.
SFTY-03	Queen City Parkway Corridor Improvements	This project would calm traffic speeds along Queen City Pkwy from Jesse Jewell Pkwy to Candler Rd. This segment of Queen City Pkwy lies within an Equity Emphasis Area, and was the site of twenty-one (21) serious and fatal injury crashes between 2018 and 2022. This project would assess the Queen City Pkwy corridor for traffic-calming and speed reduction measures, including decreasing the posted corridor speed-limit to 35 miles per hour (mph) throughout, installation of roadway lighting, and the potential implementation of median U-turn (MUT) intersections at Industrial Blvd and West Ridge Rd. The proposed project would also include filling sidewalks gaps where present.	GDOT	GDOT	Gainesville Unincorporated Hall Co.	No	Jesse Jewell Parkway	Candler Road	Short-Term	31	1st
PED-03	Main Street Pedestrian Lighting and Safety Improvements in Downtown Lula	The proposed project seeks to improve vulnerable road user (VRU) safety and traffic operations along approximately two miles of Main St from Lewallen Cir to Miller Dr in downtown Lula. Specific proposed corridor improvements would include reconstructing existing pedestrian facilities to meet current Americans with Disabilities Act (ADA) standards, constructing ADA-compliant intersection improvements where none currently exist, restriping existing crosswalks, installing audible traffic signals and signs at two major intersections (Main St/Athens St and Main St/8th St), filling all existing sidewalk gaps, widening sidewalks to a minimum of 5.5 feet where not currently present, installing enhanced landscaping and hardscaping, and installing pedestrian- and roadway-level lighting.	GDOT	GDOT	Lula	Yes	Miller Dr	Lewallen Circle	Short-Term	30	2nd
SFTY-02	Limestone Parkway Corridor Safety Improvements	The project would calm traffic speeds along Limestone Pkwy from Cleveland Hwy to Jesse Jewell Pkwy. This corridor lies within an Equity Emphasis Area, and was the site of eleven (11) serious and fatal injury crashes from 2018 to 2022. Of the corridor's 11 fatal and serious injury crashes, 81.81% (9) involved older (65+) or younger (<19) drivers, 63.63% (7) were intersection-related, and 27.27% (3) involved pedestrians/cyclists. The project would assess the corridor for traffic-calming and speed reduction measures, including implementation of lower posted speed limits (35 mph) and flashing yellow arrow signals; as well as the installation of intersection lighting improvements, signalized and marked crosswalks at signalized intersections where not currently present, crosswalk visibility enhancements and a multi-use path on the western side of the roadway.	GDOT USDOT	Varies	Gainesville Unincorporated Hall Co.	Yes	Cleveland Hwy	Jesse Jewell Parkway	Short-Term	29	3rd
SFTY-12	SR 365 Vehicle Approaching Notification Systems	Add flashing vehicle approaching signs at unsignalized intersections including White Sulphur Rd at Cagle Rd, Howard Rd at While Sulphur Rd where approaching vehicles cannot be seen from stop bars. Signs are to alleviate sight distance issues and allow for safer turning decisions by drivers. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Gainesville Lula Unincorporated Hall Co.	No	YMCA Dr	Hall Co. Line	Medium-Term	26	4th
SFTY-13	SR 365 Signal Notifications	Design and install flashing signal approaching signs on SR 365 at Ramsey Rd, between Athens St and SR 52, and approaching Cagle Rd. These signs help notify drivers of an upcoming signal that cannot be seen due to grade changes along SR 365. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Gainesville Lula Unincorporated Hall Co.	No	YMCA Dr	Hall Co. Line	Medium-Term	26	5th
SFTY-14	SR 365 Lighting Improvements	Assess whether the AASHTO lighting warrant is met and if so, follow the GDOT Lighting Design Process to install lighting along SR 365. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Gainesville Lula Unincorporated Hall Co.	No	YMCA Dr	Hall Co. Line	Medium-Term	26	6th
PED-08	Main Street Pedestrian Corridor in Downtown Gainesville	Design and construct sidewalks and pedestrian improvements at key intersections along Main St in downtown Gainesville, from Academy Street NW to the Amtrak rail station at Industrial Blvd. This would also provide greater multimodal access to the existing Rock Creek Greenway near the intersection with Academy St and Rock Creek Veterans Park. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville	Gainesville	Gainesville	Yes	Academy Street NW	Industrial Blvd	Medium-Term	24	7th

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Total Score Sum of all previous columns	Rank For corridor projects.
PED-02	Phil Niekro Boulevard/Spout Springs Road Corridor Pedestrian Safety Improvements	This project would calm traffic speeds on Phil Niekro Blvd from Atlanta Hwy to Hog Mountain Rd. This corridor was the site of twenty-eight (28) minor, serious and fatal injury crashes from 2018 to 2022. Of the 28, 71.43% (20) were intersection-related, 57.14% (16) were angle crashes, and 32.14% (9) occurred at night. This project would assess Phil Niekro Blvd for traffic-calming measures, including decreasing corridor speed limits to 35 mph. The project would also install corridor and intersection lighting, as well as sidewalks on both sides of the roadway. The project would widen Phil Niekro Blvd to a four-lane typical section, and potentially install roundabouts at the existing intersections with the I-985 on/off ramps.	Braselton Flowery Branch	Hall County	Braselton Flowery Branch Unincorporated Hall Co.	Yes	Atlanta Highway	Hog Mountain Road	Short-Term	22	8th
SFTY-05	Queen City Parkway Sidewalk Installation	Design and install sidewalks on both sides of Queen City Pkwy, from their existing terminus at Industrial Blvd, to the terminus of Queen City Pkwy at Candler Rd. The existing typical section of Queen City Pkwy is a 4-lane divided roadway with limited pedestrian infrastructure at existing intersections. Installation of sidewalks could improve pedestrian safety and overall system performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Gainesville Unincorporated Hall Co.	Yes	Industrial Blvd	Candler Road	Medium-Term	22	9th
SFTY-11	Old Cornelia Hwy Corridor Safety Improvements	Design and construct improvements in downtown Gainesville along Old Cornelia Hwy from Jesse Jewell Pkwy and continue to Cemetary Rd in downtown Lula. Proposed improvements would be intended to fit within or along the current roadway and right-of-way footprint - with minimal widening to mitigate property and environmental impacts. The project proposes to install sidewalks or side paths where feasible throughout the corridor. Additional improvements could include single-lane roundabouts at relevant intersections (if feasible), right-in/right-outs where appropriate, and roadway departure safety countermeasures (especially where there are curve and visibility issues). All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville Lula	Hall County	Gainesville Lula Unincorporated Hall Co.	Yes	Jesse Jewell Parkway	Cemetary Road	Medium-Term	22	10th
SFTY-15	SR 365 Incident Area/Crash Investigation Site Installations	Design and construct pull-off areas along SR 365 to allow emergency responders and motorists to move incidents away from through-lanes. These can also be used for crash investigations along SR 365 without requiring lane closures. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Gainesville Lula Unincorporated Hall Co.	No	YMCA Dr	Hall Co. Line	Medium-Term	22	11th
SFTY-17	Candler Road Corridor Safety Improvements	Design and construct safety improvements on Candler Rd, beginning at I-985 and continuing to the Hall County Line. Proposed improvements would be intended to fit within or along the current roadway and right-of-way footprint - with minimal widening to mitigate property and environmental impacts. The project proposes to install sidewalks or side paths where feasible throughout the corridor. Additional improvements could include single-lane roundabouts at relevant intersections (if feasible), right-in/right-outs where appropriate, and roadway departure safety countermeasures (especially where there are curve and visibility issues). All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Gainesville Unincorporated Hall Co.	Yes	I-985	Hall Co. Line	Medium-Term	22	12th
SFTY-07	E.E. Butler Parkway Sidewalk Installation	Design and install sidewalks on both sides of E.E. Butler Pkwy, from their existing terminus at High Street SE, to the terminus of E.E. Butler Pkwy at I-985. The existing typical section of E.E. Butler Pkwy is a 4-lane divided roadway with limited pedestrian infrastructure at existing intersections. Installation of sidewalks could improve pedestrian safety and overall system performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT USDOT	Varies	Gainesville	Yes	High Street SE	I-985	Medium-Term	21	13th
CYC-01	Washington Street Cycling Improvements	Design and construct cycling improvements along Washington St in downtown Gainesville - from Prior St NE to John Morrow Pkwy. Proposed improvements could include a cycle track, semi-protected bike lanes, sharrows, or other cycling related improvements. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville	Gainesville	Gainesville	Yes	Prior Street NE	John Morrow Parkway	Long-Term	18	14th

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation	Total Score	Rank
									Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Sum of all previous columns	For corridor projects.
PED-05	Jesse Jewell Parkway Pedestrian Hybrid Beacon at NEGA Hospital Entrance	Design and construct a mid-block crossing on Jesse Jewell Pkwy between Spring Street SE and Wisteria Dr. The mid-block crossing would include the proposed installation of a Pedestrian Hybrid Beacon (PHB). All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT USDOT	Varies	Gainesville	Yes	Spring Street SE	Wisteria Dr	Long-Term	18	15th
SFTY-04	E Ridge Road Sidewalk Installation	Design and install sidewalks on both sides of East Ridge Rd on the southeast side of the City of Gainesville. The existing typical section of East Ridge Rd is a 2-lane roadway with rural curb and gutter. Installation of sidewalks could improve pedestrian safety and overall system performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville	Hall County	Gainesville Unincorporated Hall Co.	Yes	Athens Street	Old Cornelia Hwy	Long-Term	18	16th
PED-09	Browns Bridge Road Mid-Block Pedestrian Crossing Installations	Design and construct a mid-block crossing on Browns Bridge Rd between McEver Rd and Jesse Jewell Pkwy. The mid-block crossing may include the proposed installation of a Pedestrian Hybrid Beacon (PHB). This would not overlap or duplicate efforts with the on-going GDOT project (PI No. 0016118). All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville GDOT	GDOT	Gainesville	Yes	McEver Road	Jesse Jewell Parkway	Long-Term	17	17th
SFTY-01	Nottingham Drive Traffic Calming	Examine reconfiguring Nottingham Dr between Lakeview Dr and Robinhood Trail to include traffic calming measures and other proven safety countermeasures aimed at improving corridor safety and complementing existing speed tables, signage, and striping. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville	Gainesville	Gainesville	Yes	Lakeview Dr	Robinhood Trl	Long-Term	17	18th
SFTY-06	Dawsonville Highway/John Morrow Parkway/SR 53 Corridor Safety Improvements	Assess and improve Dawsonville Hwy/John Morrow Pkwy/SR 53 corridor from its existing terminus at Queen City Pkwy to the Hall County Line. Specific safety countermeasurers to consider include: reduction of speed limits; installation of sidewalks along Dawsonville Hwy/John Morrow Pkwy/SR 53; and others. This proposed project would also seek to implement specific safety countermeasures suggested as part of the Dawsonville Highway-McEver Road Connectivity Study (2019). These include some minor pedestrian improvements along both McEver Rd and Dawsonville Hwy (particularly where the proposed bypass alternative is proposed), as well as implementation of proposed "Don't Block the Box" and signal timing programs for both roadways. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville GDOT	GDOT	Gainesville Unincorporated Hall Co.	Yes	Queen City Parkway	Hall Co. Line	Long-Term	17	19th
PED-01	Hog Mountain Road Side Path	Design and construct a proposed 10-foot side path on the south side of the existing Hog Mountain Rd between Falcon Pkwy and Friendship Rd. The proposed project would tie into the existing Friendship Sidepath at the southern terminus. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Flowery Branch	Hall County	Flowery Branch Unincorporated Hall Co.	Yes	Falcon Parkway	Friendship Road	Long-Term	16	20th
SFTY-10	SR 52/Lula Road Corridor Safety Improvements	Design and construct improvements along Lula Rd from Clarks Bridge Rd to Old Cornelia Hwy. Proposed improvements would be intended to fit within or along the current roadway and right-of-way footprint - with minimal widening to mitigate property and environmental impacts. The project proposes to install sidewalks or side paths where feasible throughout the corridor. Additional improvements could include single-lane roundabouts at relevant intersections (if feasible), right-in/right-outs where appropriate, and roadway departure safety countermeasures (especially where there are curve and visibility issues). All improvements would meet Americans with Disabilities Act (ADA) requirements.	Lula GDOT	GDOT	Lula Unincorporated Hall Co.	No	Clarks Bridge Road	Old Cornelia Hwy	Long-Term	16	21st
PED-04	SR 369/Browns Bridge Road Corridor Side Path Installation	Design and construct a proposed 10-foot side path along the existing Browns Bridge Rd corridor. The existing corridor does not include sidewalks or pedestrian improvements. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville GDOT	GDOT	Gainesville	Yes	Atlanta Road	Hall Co. Line	Long-Term	15	22nd

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Total Score Sum of all previous columns	Rank For corridor projects.
PED-10	Spout Springs Road Sidewalk Installations	In conjunction with Phase II of the Spout Springs Rd Widening, install sidewalks along the corridor from Union Circle to South of Friendship Rd. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Braselton Flowery Branch	Hall County	Braselton Flowery Branch Unincorporated Hall Co.	Yes	Union Circle	Hall Co. Line	Long-Term	15	23rd
PED-11	McEver Road Sidewalk Installations	Design and install sidewalks along McEver Rd from Friendship Rd to G.C. Crow Rd/Gainesville St. Originally planned as part of the McEver Rd Widening (Phase I). All improvements would meet Americans with Disabilities Act (ADA) requirements.	Flowery Branch Buford	Varies	Flowery Branch Buford Unincorporated Hall Co.	Yes	Friendship Road	Gainesville Street	Long-Term	15	24th
SFTY-16	Thompson Bridge Road Corridor Safety Improvemnets	Design and construct improvements on Thompson Bridge Rd from Green Street SE and continuing to the Hall County Line. Proposed improvements would be intended to fit within or along the current roadway and right-of-way footprint - with minimal widening to mitigate property and environmental impacts. The project proposes to install sidewalks or side paths where feasible throughout the corridor. Additional improvements could include single-lane roundabouts at relevant intersections (where feasible), right-in/right-outs where appropriate, and roadway departure safety countermeasures (especially where there are curve and visibility issues). All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville GDOT	GDOT	Gainesville Unincorporated Hall Co.	Yes	Green Streetreet SE	Hall Co. Line	Long-Term	15	25th
PED-06	Lakeview Drive Mid-block Pedestrian Crossing near Morningside Drive/Cleveland Highway	Design and construct a mid-block crossing on Lakeview Dr near the roadway's terminus at Cleveland Highway (SR 11). The mid-block crossing would facilitate pedestrian traffic attempting to reach Lakeview Academy and may include installation of a Pedestrian Hybrid Beacon (PHB). This project could potentially qualify for Safe Routes to School (SRTS) funding for implementation. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville	Gainesville	Gainesville	Yes	N/A	N/A	Long-Term	14	26th
SFTY-08	Mundy Mill Road Sidewalk Installation	Design and install sidewalks on both sides of Mundy Mill Rd, from McEver Rd to Atlanta Hwy. The existing typical section of Mundy Mill Rd is a 4-lane divided roadway with limited pedestrian infrastructure at existing intersections. Installation of sidewalks could improve pedestrian safety and overall system performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Oakwood GDOT	GDOT	Oakwood	Yes	McEver Road	Atlanta Hwy	Long-Term	14	27th
CYC-02	Bradford Street Cycling Improvements	Design and construct cycling improvements along Bradford Street in downtown Gainesville - from Piedmont Rd to Spring Street SE. Proposed improvements could include a cycle track, semi-protected bike lanes, sharrows, or other cycling related improvements. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville	Gainesville	Gainesville	Yes	Piedmont Road	Spring Street SE	Long-Term	9	28th
PED-12	Thompsons Mill Road Pedestrian Improvements	Design and construct various corridor improvements (including sidewalks and mid-block crossings) along Thompsons Mill Rd in southern Hall County (from Spout Springs Rd to Vineyard Row). All improvements would meet Americans with Disabilities Act (ADA) requirements.	Braselton	Varies	Braselton	No	Spout Springs Road	Vineyard Row	Long-Term	6	29th
PED-07	Union Church Road Mid-block Crossing and Pedestrian Improvements near Chestnut Mountain Elementary School	Design and construct a mid-block crossing on Union Church Rd near Chestnut Elementary School. The mid-block crossing would include the proposed installation of a Pedestrian Hybrid Beacon (PHB). Specific safety countermeasurers to consider include: signalization of the driveway (if warranted - currently only stop-controlled at elementary school exit); sidewalks along Union Church Rd; high-visibility crosswalks at the school entrance; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	None	Hall County	incorporated Hall (	Yes	N/A	N/A	Long-Term	5	30th

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation	Total Score	Rank
									Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Sum of all previous columns	For intersection projects.
INT-02	Pedestrian Crossing Improvements in Downtown Gainesville (Multiple Locations)	Design and install pedestrian improvements at various intersections throughout downtown Gainesville. These intersections could include (but may not be limited to): • Bradford St @ High St • E.E. Butler Pkwy @ Hunter St SE • E.E. Butler Pkwy @ College Ave SE • Race St @ Hunter St SE • Bradford St @ Jesse Jewell Pkwy • Maple St @ Jesse Jewell Pkwy • W Academy St SW @ Jesse Jewell Pkwy • Athens St @ W Ridge Rd Specific safety countermeasurers to consider include: signalization of stop-controlled intersections (if warranted); installation of sidewalks on all intersection approaches; installation of high-visibility crosswalks at all intersections; signal timing between intersections; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville/GDOT	Varies	Gainesville	Yes	N/A	N/A	Medium-Term	29	1st
R-03	E.E. Butler Parkway at MLK Jr Boulevard Roundabout	This project would calm traffic and address safety concerns at the existing intersections of E.E. Butler Pkwy at MLK Jr. Blvd and Athens St. The intersection lies within an Equity Emphasis Area, and was the site of 1% of all crashes in Hall County from 2018 to 2022. Of the 8 serious and minor injury crashes occurring in the corridor from 2018 to 2022, 87.50% (7) were curve-related, 87.50% (7) involved "following too closely", and 25.00% (2) involved motorcycles. This project would assess the existing intersections for installation of a five-legged roundabout, including the installation of pedestrian improvements where possible, and the installation of roadway lighting improvements. The project would also fill existing gaps in the sidewalk network along E.E. Butler Pkwy.	Gainesville/GDOT	GDOT	Gainesville	No	N/A	N/A	Short-Term	26	2nd
INT-04	SR 365 at Athens Street in Lula Intersection Improvements	Reconfigure or make geometric improvements at the intersection located in Lula (not Gainesville). The current configuration is an unsignalized intersection with a stop sign on Athens St. The median provides space for vehicles making a left turn and includes an acceleration lane. An Intersection Control Evaluation (ICE) previously indicated that specific safety countermeasures such as full signalization (if warranted - currently only stop-controlled along Athens St.) or installation of dedicated turn lanes would improve the intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Unincorporated Hall Co.	No	N/A	N/A	Medium-Term	25	3rd
INT-05	SR 365 at Belton Bridge Road Traffic Signal Warrant Analysis/Improvements	Design and implement safety improvements at this intersection consistent with the on-going SR 365 Planning Study. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Lula/GDOT	GDOT	Lula Unincorporated Hall Co.	No	N/A	N/A	Medium-Term	25	4th

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation	Total Score	Rank
									Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Sum of all previous columns	For intersection projects.
R-05	E.E. Butler Parkway/MLK Jr. Boulevard/Athens Street Roundabout	Reconfigure or make geometric improvements at the intersection. The current configuration is a modified five way intersection with traffic signals at all approaches. An Intersection Control Evaluation should be completed; a roundabout, if determined to be feasible, could improve intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville/GDOT	GDOT	Gainesville	No	N/A	N/A	Medium-Term	25	5th
R-04	Green Street at SR 60/US 129 Roundabout	Reconfigure or make geometric improvements at the intersection. The current configuration is three fully signalized intersections around an existing traffic triangle. A roundabout, if determined to be feasible, could improve the intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville/GDOT	GDOT	Gainesville	No	N/A	N/A	Medium-Term	23	6th
INT-09	White Sulphur at Railroad/Crescent Drive/Pine Valley Road Intersection Improvements	Reconfigure or make geometric improvements at these intersections. Operational improvements should include those to address safety, sight distance, and sharp turns. Specific safety countermeasurers to consider include: signalization of the intersection (if warranted - currently only stop-controlled on the Crescent Dr. approach); installation of sidewalks along all three roadways; installation of high-visibility crosswalks; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville/Railroad	Hall County	Gainesville	Yes	N/A	N/A	Medium-Term	22	7th
INT-11	E.E. Butler Parkway at Chestnut Street Intersection Improvements	Shift the existing intersection to the north, further away from intersection of Athens Hwy and Ridge Rd. Extend southbound left turn lane on Athens Hwy on approach to Ridge Rd to prevent left turn traffic queues from blocking the through lane. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville/GDOT	GDOT	Gainesville	No	N/A	N/A	Medium-Term	22	8th
INT-01	Hilton Drive at Browns Bridge Road Intersection Improvements	Reconfigure or make geometric improvements at the intersection. The current configuration is an unsignalized intersection with a stop sign on Hilton Dr (with a right turn yield sign). The median along Browns Bridge Rd provides space for vehicles making a left turn. Specific safety countermeasurers to consider include: signalization of the intersection; installation of sidewalks along Browns Bridge Rd and Hilton Dr; and installation of a high-visibility crosswalks. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville/GDOT	GDOT	Gainesville	No	N/A	N/A	Medium-Term	21	9th
INT-03	I-985 at SR 53 Diverging Diamond Interchange	Convert the existing SR 53/I-985 interchange to a Diverging Diamond Interchange. A diverging diamond interchange allows traffic to temporarily cross to the left side of the roadway to ease/expedite left-turning traffic across high-volume roadways. Elimination of the conflict points for the left-turning motion have been shown to increase safety. Any pedestrian improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT/FHWA	GDOT	Oakwood	No	N/A	N/A	Medium-Term	20	10th

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation	Total Score	Rank
									Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Sum of all previous columns	For intersection projects.
R-07	Mountain View Road at Old Oakwood Road Roundabout	Reconfigure or make improvements - including a potential roundabout - at the existing intersection of Mountain View Rd and Old Oakwood Rd. The current configuration is an unsignalized three-way intersection, with a stop sign on the Old Oakwood Rd approach. An Intersection Control Evaluation should be completed; a roundabout, if determined to be feasible, could improve intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Oakwood	Hall County	Unincorporated Hall Co.	No	N/A	N/A	Medium-Term	20	11th
R-08	SR 51/Old Cornelia HIghway at SR 52/Lula Road Roundabout	Reconfigure or make geometric improvements at the intersection. The current configuration is an unsignalized intersection with a stop sign on SR 51. An intersection Control Evaluation indicated improvements such as a roundabout would improve the intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Lula/GDOT	GDOT	Lula Unincorporated Hall Co.	No	N/A	N/A	Medium-Term	20	12th
R-09	Main Street at SR 51/Athens Street in Downtown Lula Roundabout	Reconfigure or make geometric improvements at the intersection. The current configuration is a four-way stop intersection. An Intersection Control Evaluation indicated improvements such as a roundabout would improve the intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Lula/GDOT	GDOT	Lula	No	N/A	N/A	Medium-Term	20	13th
R-01	Nottingham Drive/Beverly Road at Lakeview Drive Roundabout	Reconfigure or make geometric improvements at the intersection. The current configuration is a four-way stop intersection. An existing school zone exists along Lakeview Dr north of the intersection, and medical facility east of the intersection. Consider a roundabout to improve intersection safety and performance; should a roundabout be found to be neither feasible or reasonable, consider other countermeasures such as: signalization of the intersection (if warranted); installation of sidewalks along all approaches; installation of high-visibility crosswalks; or others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Gainesville	Hall County	Gainesville	Yes	N/A	N/A	Long-Term	19	14th
INT-14	SR 13/Atlanta Highway and SR 53/Mundy Mill Road Intersection Improvements	Reconfigure or make geometric improvements at the intersection. The current configuration is a fully signalized intersection on all approaches. Specific safety countermeasurers to consider include: implementation of an exclusive pedestrian crossing phase; replace existing "Walk/Don't Walk" signals with pedestrian countdown signal heads; increased pedestrian crossing times; additional lighting; installation of high-visibility crosswalks; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements. Previous safety countermeasures suggested by the Oakwood Citywide Traffic Improvement Study (2018) at this intersection include: modify signing and striping on southbound departure lanes to convert right-turn only lane to shared through/right-turn lane to maintain a 1,000-foot transition lane for traffic merge; monitor congestion at Chick-fil-A access and coordinate with GDOT for a future potential access closure.	GDOT	GDOT	Oakwood	No	N/A	N/A	Long-Term	18	15th

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation	Total Score	Rank
									Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Sum of all previous columns	For intersection projects.
INT-13	Thompson Bridge Road at Rufus Bryant Road Intersection Improvements	Reconfigure or make geometric improvements at this intersections. Operational improvements should include those to address safety, sight distance, and sharp turns. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Unincorporated Hall Co.	No	N/A	N/A	Long-Term	16	16th
R-06	Mountain View Road at Old Flowery Branch Road/Garden Park View Roundabout	Reconfigure or make improvements - including a potential roundabout - at the existing intersection of Mountain View Rd and Old Flowery Branch Rd and Garden Park View. The current configuration is an unsignalized intersection, with stop signs on the Old Flowery Branch Rd and Garden Park View approaches. An Intersection Control Evaluation should be completed; a roundabout, if determined to be feasible, could improve intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Oakwood	Hall County	Unincorporated Hall Co.	No	N/A	N/A	Long-Term	15	17th
INT-08	SR 365 at Kubota Way Intersection Improvements	Reconfigure or make geometric improvements at the intersection to address safety and congestion. The current configuration is an unsignalized intersection with a stop sign on Kubota Way and Whitehall Rd. An ICE analysis indicated restricting left turns from Kubota Way and Whitehall Rd would improve the intersection safety and performance. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Unincorporated Hall Co.	No	N/A	N/A	Long-Term	14	18th
R-02	Thurmond Tanner Parkway at Phil Niekro Boulevard Roundabout	Evaluate an array of intersection improvements at this location, including but not limited to a roundabout. Other specific safety countermeasurers to consider include: installation of sidewalks along both Thurmond Tanner Pkwy and Phil Niekro Blvd; installation of high-visibility crosswalks; increased pedestrian crossing times; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Flowery Branch/GDOT	GDOT	Flowery Branch	No	N/A	N/A	Long-Term	14	19th
INT-12	Thompson Bridge Road at Kanady Road/Old Dahlonega Highway Intersection Improvements	Reconfigure or make geometric improvements at this intersection. Operational improvements should include those to address safety, sight distance, and sharp turns. Specific safety countermeasurers to consider include: signalization of the intersection (if warranted - currently only stop-controlled along Kanady Rd. approach); installation of sidewalks along both Kanady Rd. and Thompson Bridge Rd.; installation of high-visibility crosswalks; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Unincorporated Hall Co.	No	N/A	N/A	Long-Term	13	20th
INT-06	Friendship Road/SR 347 at Sparta Way Traffic Signal Installation	Reconfigure or make geometric improvements at the intersection. The current configuration is an unsignalized intersection on all approaches. The typical section of Friendship Rd is a 4-lane divided road with a concrete median, while Sparta Way is a 2-lane roadway with limited pedestrian facilities. Specific safety countermeasurers to consider include: signalization of the intersection (if warranted - currently only stop-controlled on Sparta Way); installation of sidewalks along Sparta Way; installation of high-visibility crosswalks; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	Braselton/GDOT	GDOT	Braselton	No	N/A	N/A	Long-Term	12	21st

Project ID	Project Name	Project Description	Potential Partners	Who has jurisdiction?	Intersecting Jurisdictions	Safe Routes to School Eligible?	Begin	End	Timeframe Designation	Total Score	Rank
									Using total scores and stakeholder feedback, the projects were placed into short-term, medium-term and long-term tranches.	Sum of all previous columns	For intersection projects.
INT-10	East Hall Road at Gaines Mill Road Intersection Improvements	Design and realign the existing East Hall Rd and Gaines Mill Rd intersection to improve sight distances for approaching traffic. All improvements would meet Americans with Disabilities Act (ADA) requirements.	N/A	Hall County	Unincorporated Hall Co.	No	N/A	N/A	Long-Term	11	22nd
INT-07	Thompson Bridge Road at Southers Road/Kroger Shopping Center Traffic Signal and Pedestrian Safety Upgrades	Reconfigure or make geometric improvements at the intersection. The current configuration is an unsignalized intersection with a stop sign on the approach from Kroger Shopping Center. Thompson Bridge Rd is an existing 4-lane divided roadway with a concrete median and dedicated turn lanes on each approach. Specific safety countermeasurers to consider include: signalization of the intersection (if warranted - currently only stop-controlled on Southers Rd/Kroger shopping center); installation of sidewalks along both Southers Rd and Thompson Bridge Rd; installation of high-visibility crosswalks; and others. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Unincorporated Hall Co.	No	N/A	N/A	Long-Term	10	23rd
R-10	Belton Bridge Road/Skitts Mountain Road/Holly Springs Road Roundabout	Design and construct a roundabout at the existing five-way intersection of Skitts Mountain Rd, Belton Bridge Rd, and Holly Springs Rd. All improvements would meet Americans with Disabilities Act (ADA) requirements.	GDOT	GDOT	Unincorporated Hall Co.	No	N/A	N/A	Long-Term	10	24th


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