CITY OF MILTON
LOCAL ROAD SAFETY PLAN
FINAL REPORT

MILTON
EST 2006

KCI

Prepared for City of Milton

DRAFT July 2022

CITY OF MILTON
LOCAL ROAD SAFETY PLAN

MILTON
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CITY OF MILTON
LOCAL ROAD SAFETY PLAN

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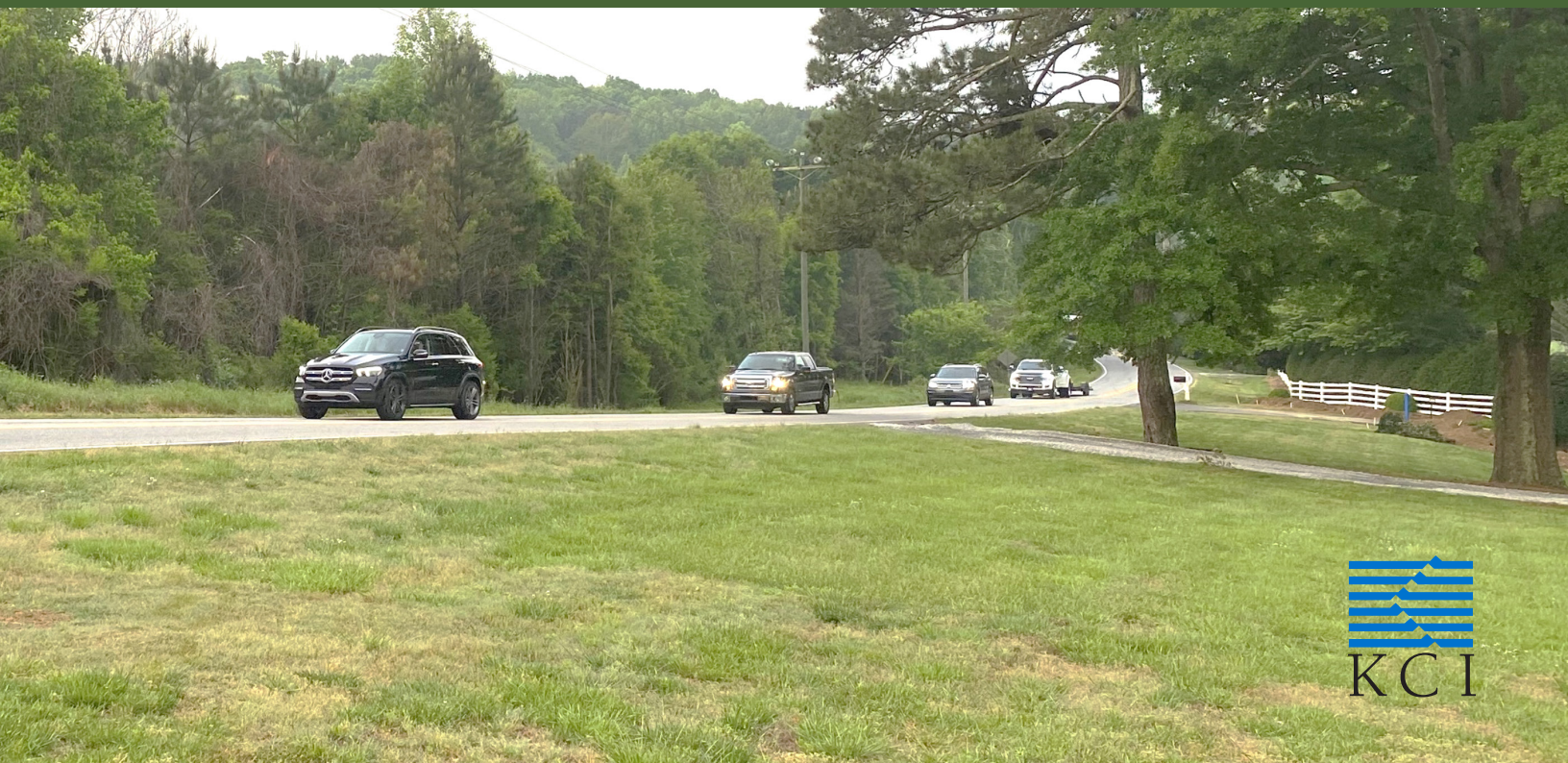
Task 4: Action Plan



KCI

Introduction

The City of Milton has developed its Local Road Safety Plan to guide efforts to make Milton's transportation network safer for drivers, bicyclists, and pedestrians. This effort began in November 2020 and the document was completed in July 2022. The Plan is tailored to the local conditions, while also incorporating national and state guidance in developing a safety plan. The City's LRSP vision statement and mission statement reads as follows:

Local Road Safety Plan Vision Statement:

The City of Milton will have a transportation system that is safe, offers a diversity of travel, and allows our citizens to traverse safely and calmly throughout our city.

Local Road Safety Plan Mission Statement:

The City proactively strives through our Local Road Safety Plan to chart a strategy to make improvements to Milton's transportation network through engineering, education, and enforcement that respects Milton's rural heritage, enhances its quality of life, and makes our roadways as safe as possible.

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What is a Local Road Safety Plan (LRSP)?

A LRSP provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads. The LRSP development process and content are tailored to local issues and needs. The process results in a prioritized list of deficiencies, risks, actions, and improvements that can be used to reduce crashes that result in fatalities and serious injuries on local roads. For additional information, Federal Highway Administration's (FHWA) one-page summary of a LRSP is included in **Appendix A**.

Documentation

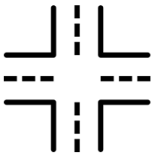
The City of Milton initiated the Local Road Safety Plan and partnered with KCI Technologies, Inc. to assist in developing components of the Plan. This is the third document prepared and focuses on developing the Action Plan (Task 4). The Action Plan includes recommended implementation phases.

The first document reviewed safety trends and identified six emphasis areas tailored to the local conditions. Refer to the document titled "Report for Task 1 & 2: Safety Data Analysis and Identification of Emphasis Areas" for additional information.

The second document focused on the identification of potential strategies and safety countermeasure projects most appropriate to address the six emphasis areas. Refer to the document titled "Report for Task 3: Identification of Strategies" for additional information.

Plan Element – Six Emphasis Areas

The LRSP established the following six emphasis areas for the city of Milton:

 Vehicle Speeds	 Distracted Drivers	 Roadway and Shoulder Conditions
 Pedestrians & Bicyclists & Equestrians	 Intersection Safety	 Wildlife/Deer

Plan Element – Three Primary Implementation Components

Educational Campaigns, Engineering Countermeasures, and Enforcement Strategies are the three primary means to implement safety enhancements in the community. Both strategies and safety countermeasures were identified for the three primary implementation components. **Table 1** below summarizes the six emphasis areas (for which these three components are most applicable for the City of Milton) and the number of potential educational campaigns and engineering countermeasures.

Table 1: Summary of Emphasis Areas & Components

Emphasis Areas	Three Primary Implementation Components		
	Educational Campaigns	Engineering Countermeasures	Enforcement Strategies
Vehicle Speeds	1	4	Yes
Distracted Drivers	1	--	Yes
Roadway and Shoulder Conditions *(To address both vehicles maintaining road and physical infrastructure, including fixed objects - i.e., trees)*	1	13	--
Pedestrians & Bicyclists & Equestrians *(non-motorized modes)*	4	9	Yes
Intersection Safety	1	11	Yes
Wildlife/Deer	1	3	--

Most of the city's paved streets classified as collectors and arterials are candidates for the strategies identified above. Additionally, two focus areas are 1) safety for all users on multimodal gravel roads and 2) safety for Personal Transportation Vehicles (PTVs)/Golf Carts. Refer to the document titled "Report for Task 3: Identification of Strategies" for additional information.

Action Plan - Major Priorities

The Action Plan identifies the following major priorities:

1. Develop and perform educational campaigns on a schedule, with different topics each quarter of the year.
2. Apply for implementation grant funds from the Safe Streets and Roads for All (SS4A) Discretionary Grant Opportunity. Identify a project that addresses roadway safety problems. Communities which have an adopted action plan can apply for the grant.
3. Perform planning and study efforts to identify projects that incorporate applicable engineering safety countermeasures.
4. Implement (construct) the applicable engineering safety countermeasure projects in phases.
5. Utilize the Year 2022 TSPLOST funding to implement vehicular safety improvements, pedestrian and bicycle improvements, and bridge and roadway improvements.
6. Implement safety enhancements in the two focus areas – 1) safety for all users on multimodal gravel roads and 2) safety for PTVs (Personal Transportation Vehicle / Golf Carts).

Action Plan - Overview

The Action Plan recommends a phased implementation to address the six emphasis areas. The Action Plan was developed considering many different strategies, evaluation criteria, and community survey input. The implementation phasing for both educational campaigns and engineering countermeasures is explained in the following sections. It should be noted: the implementation phasing stated in the report is a guide and does not preclude the city leadership from advancing an element or delaying an element.

Action Plan – Educational Campaigns

The overall (big picture) recommended implementation phasing for educational campaigns is indicated in **Table 2**. For educational campaigns, the recommendation is to develop and perform campaigns on a schedule, with different topics each quarter of the year. The potential implementation timeline for completing one initial campaign in each emphasis area could be 18 months. The plan identifies two phases to develop messaging campaigns based on community input obtained during development of the LRSP.

Table 2: Summary of Overall Implementation Phasing				
Emphasis Areas	Educational Campaigns			
	ID #	Campaign	Phase 1	Phase 2
Vehicle Speeds	1	Raise awareness of potential speed related crashes (aggressive driving)	1	
Distracted Drivers	2	Raise awareness of potential distracted driving related crashes	1	
Roadway and Shoulder Conditions	3	Raise awareness of potential roadway departure crashes		2
Pedestrians & Bicyclists & Equestrians	4	Bicycle rules of the road	1	
	5	Bicycle rules of the road relevant to vehicle drivers	1	
	6	Pedestrian rules of the road		2
	7	Etiquette for all modes when approaching equestrians on streets or shared use paths		2
Intersection Safety	8	Roundabout rules of the road and safety success in the city of Milton	1	
Wildlife/Deer	9	Scheduled reminders to residents/drivers		2
PTV Drivers	10	PTV rules of the road		2

Explanation of the recommended components to implement the educational campaigns is included in the *Report for Task 3, Section 1 – Educational Campaigns*. This includes planning the campaigns, identifying potential community partners, and implementing the outreach efforts. It is recommended to perform the campaigns on a rotating schedule, with different topics each quarter of the year, and to evaluate the campaign's progress to track the impact made.

Additionally, it is important to note the City's Public Works, Police, and Communications departments have a history of working collaboratively to inform the community. These departments attend community outreach events and share materials to raise awareness of transportation safety concerns. Continuing these efforts will continue building a safety culture within the community.

FHWA identifies that creating a strong safety culture provides the foundation for two of FHWA's main priorities – reaching zero traffic deaths and advancing the Safe System approach. Safety culture can be defined as *the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands.* Communities with a safety culture have citizens who understand the risks associated with transportation and choose to make safe choices when using the transportation system. Road users in a community with a strong safety culture are likely to use their safety devices (e.g. seat belts, child safety seats, helmets, etc.) voluntarily, obey traffic laws, limit distractions, and refrain from using the roads when impaired.

Action Plan – Engineering Countermeasures

The overall (big picture) recommended implementation phasing for engineering countermeasures is indicated in **Table 3**. For engineering countermeasures, the recommendation is to implement countermeasures that are easier to identify, or low-cost enhancements that can be implemented in a shorter timeframe as part of Phase 1. The potential implementation timeline for completing Phase 1 could be within 15 months of plan acceptance. Engineering countermeasures in Phase 2 may require additional study, community input, consensus on a preferred alternative, engineering plans, acquisition of right of way, utility relocation, construction, and higher capital cost projects. The potential timeline for completing Phase 2 could be 1 year to 4 years. Engineering countermeasures in Phase 3 may require a longer timeframe (i.e. plus 4 years) to implement or identification of additional capital to implement.

Table 3: Summary of Overall Implementation Phasing

Emphasis Areas	Engineering Countermeasures		
	Phase 1	Phase 2	Phase 3
Vehicle Speeds	3	2	0
Roadway and Shoulder Conditions	4	8	1
Pedestrians & Bicyclists & Equestrians	3	6	2
Intersection Safety	4	7	2
Wildlife/Deer	0	1	2
Total:	14	24	7

Note: Table indicates number of projects
Note: Phase 1 timeframe is 15 months; Phase 2 is 1 to 4 years; Phase 3 is 4+ years

In addition to the three implementation phases, 16 projects (of the 40 total projects) are identified as the highest priority projects.

An important distinction of the LRSP is that specific "projects" are not identified. In comparison to a Comprehensive Transportation Plan that would identify locations to install roundabouts and sidewalks, the LRSP identifies proven engineering safety countermeasures. This is a comprehensive menu of strategies, or a "collection of tools in the toolbox." The intent of the LRSP is to incorporate these engineering safety countermeasures into maintenance projects and capital improvement projects. Listed below are ways in which the City can implement the engineering safety countermeasures:

1. Incorporate engineering safety countermeasures into routine maintenance projects (i.e. adding "safety edge" during street repaving project).
2. Implement a standalone project (i.e. upgrading intersection signage).
3. Perform a street corridor engineering study or intersection engineering study. The study will review all safety countermeasures in the LRSP and identify applicable improvements. Then an engineering design and a capital project can be implemented.
4. Install a system-wide improvement (i.e. add raised pavement markers, known as RPMs).

Engineering Countermeasures - Implementation Phasing Evaluation Considerations

The plan development team -- consisting of the City's Public Works, Police, and Communications departments, along with KCI Technologies, Inc. -- identified many evaluation considerations to aid development of the recommended implementation strategy. Evaluation considerations included the following:

- Community survey input
- Stakeholder input
- Systemic (systemwide) or location-based improvement
    - A systemic approach to safety involves implemented improvements across the city's road network based on high-risk roadway features correlated with specific crash types.
- Potential funding options
    - Whether local, state, or federal grant funding is a potential option for the countermeasure.
- Extent to which the countermeasure addresses the crash trends in the city
    - Refer to the crash review findings in the *Report for Task 1 & 2: Safety Data Analysis and Identification of Emphasis Areas*
        1. For the five years of historical crashes, year 2016 through 2020, there were seven fatalities, 752 injury crashes, and 2,167 property damage only crashes.
        2. For the five years of historical crashes, year 2016 through 2020, there were three bicycle crashes and six pedestrian crashes.
    - An additional review of the crash trends for five years was conducted to identify the countermeasures that are expected to have a greater impact on reducing crashes. The findings were:
        1. *Roadway and Shoulder Conditions* emphasis area would address the majority of fatal (K) and suspected serious injury (A) crashes. Three of seven crashes involving a fatality were run off the road crashes. Moreover, 27 of the 35 serious injury crashes were on a street segment (not at an intersection), and 16 of the 35 serious injury crashes involved a single vehicle.
        2. *Roadway and Shoulder Conditions* emphasis area would address 97 of the 241 suspected minor/visible injury (B) crashes which involved a single vehicle.
        3. *Roadway and Shoulder Conditions* emphasis area would address the 92 crashes involving a tree.
        4. *Roadway and Shoulder Conditions* emphasis area would address the 561 roadway departure related crashes, or 19% of total crashes. Additionally, there were 97 "KAB" roadway departure related crashes out of the total 283 "KAB" crashes. This represents 34% of the "KAB" crashes.
        5. *Roadway and Shoulder Conditions* emphasis area would address roadway departure related crashes on eight streets which reported over 20 crashes over the 5-year period. This includes (but is not limited to) Birmingham Highway, Cogburn Road, Freemanville Road, and Hopewell Road.

6. Most crash types were spread throughout the street network.
7. It was also noted the rear end manner of collision crash type accounts for over 42 percent of total crashes. The rear end crashes are predominantly located along streets experiencing traffic congestion (i.e. SR 9, Cogburn Road, Morris Road, and SR 140).
8. *Intersection Safety* emphasis area would address 167 of the 283 "KAB" crashes. This represents 59% of the "KAB" crashes.
9. *Intersection Safety* emphasis area would address 73 of the 241 suspected minor/visible injury (B) crashes with an 'angle' manner of collision.
10. *Intersection Safety* emphasis area would address 694 of the total crashes with an 'angle' manner of collision. This represents 23% of the total crashes.
11. Ten percent of the total crashes in the city were "KAB" crashes. It should be noted that the "KABCO" scale corresponds to the severity of injuries from a vehicle crash, with five codes: fatal (K), suspected serious injury (A), suspected minor/visible injury (B), possible/complaint injury (C), and property damage only crashes (O).

- Relative project cost
    - This was identified as "Lower" if the anticipated cost is less than $500,000. It should be noted that this can vary depending on if the project addresses systemic issues or if the project is applied to one specific location.
- Implementation effort
    - If the effort to implement is expected to be less or significant. The effort for approvals, design, or construction, in addition to obtaining community support, were factored into this consideration.

The evaluation process identified the three implementation phases and categorized 16 projects (of the 40 total projects) as the highest priority projects. **Table 4** presents the recommended implementation phasing of the engineering countermeasures. The table includes the evaluation considerations, implementation timing, and highest priority projects.

Explanation of the recommended engineering safety countermeasures are included in the *Report for Task 3, Section 2 – Engineering Countermeasures.*

Table 4: Implementation Phasing of Engineering Countermeasures													
Emphasis Areas	ID	Engineering Countermeasure	Systemic (S) or Location-based (L)		Potential Funding Options (L=local, S=State, F=Federal Grant)			Addresses Crash Trend (H= Higher relative to others)	Relative Cost (H=Higher, L=Lower)	Implementa-tion Effort (L=Less, H=Harder)	Implementation Timing			Highest Priority Projects
											Phase 1	Phase 2	Phase 3	
Vehicle Speeds	VS-1	Study to review possible changes to posted speed limits		L	L				L	H	1			Yes
	VS-2	Milton specific speed limit zones	S	L	L				L	L	1			
	VS-3	Speed feedback signs		L	L				L	L	1	2		
	VS-4	Raised median islands		L	L				H	H		2		
Roadway and Shoulder Conditions	RSC-1	Remove vegetation within clear zone		L	L				L	L	1			
	RSC-2	Add enhanced pavement markings	S		L		F	H	L	L	1			Yes
	RSC-3	Add raised pavement markers (RPM) on yellow centerline	S		L		F	H	L	L	1			Yes
	RSC-4	Add grooved yellow centerline	S		L		F		L	L		2		Yes
	RSC-5	Replacement of pavement markings/RPMs	S		L		F	H	L	L		2		
	RSC-6	“safety edge” for repaving streets	S	L	L		F	H	H	H		2		Yes
	RSC-7	Add paved shoulders	S	L	L		F	H	H	H		2		Yes
	RSC-8	Curve warning signs		L	L		F	H	L	L	1			Yes
	RSC-9	Curve feedback warning signs		L	L	S	F		L	L		2		
	RSC-10	Enhance guardrail at bridges/culverts	S	L	L	S	F	H	H	H		2		
	RSC-11	Reconstruct horizontal or vertical curves		L	L	S	F	H	H	H			3	
	RSC-12	Install street lighting	S	L	L		*		H	H		2		
	RSC-13	Policy change to mailboxes	S		N/A				L	H		2		
Pedestrians & Bicyclists & Equestrians	PBE-1	Refine installation of shared use path locations	S		L				L	H	1			Yes
	PBE-2	Update two priority networks: Sidewalk and Bicycle (as part of CTP Update)	S		L				L	H	1			Yes
	PBE-3	Install bicycle facilities at critical locations		L	L		F	H	H	H		2		Yes
	PBE-4	Install multimodal street crossing facilities		L	L	S	F	H	L	H		2		Yes
	PBE-5	Install median refuge islands		L	L				L	H		2		Yes
	PBE-6	Expand the multimodal network		L	L		F		H	H		2	3	Yes
	PBE-7	Install warning signage and pavement markings to remind/advise drivers of bicyclists	S	L	L			H	L	L		2		Yes
	PBE-8	Coordinate with Milton Equestrian Committee to enhance equestrian safety	S		L				L	L	1			
	PBE-9	Additional nonmotorized user options		L	L	S			varies	varies		2	3	

Table 4 (continued): Implementation Phasing of Engineering Countermeasures

Emphasis Areas	ID	Engineering Countermeasure	Systemic (S) or Location-based (L)		Potential Funding Options (L=local, S=State, F=Federal Grant)			Addresses Crash Trend (H= Higher relative to others)	Relative Cost (H=Higher, L=Lower)	Implementation Effort (L=Less, H=Harder)	Implementation Timing			Highest Priority Projects
											Phase 1	Phase 2	Phase 3	
Intersection Safety	IS-1	Install advance intersection warning signs	S		L	S	F	H	L	L	1			Yes
	IS-2	Safety study at individual intersections		L	L	S		H	L	L	1			Yes
	IS-3	Install street lighting	S	L	L		*		H	H		2		
	IS-4	Flashing warning beacon at intersection		L	L	S			L	L		2		
	IS-5	Remove vegetation to improve visibility		L	L				L	L	1			
	IS-6	Install roundabouts		L	L	S	F	H	H	H		2	3	
	IS-7	Install left-turn restricted intersections		L	L	S	F	H	L	H		2	3	
	IS-8	Consistent advisory speed signs at roundabouts	S		L				L	L	1			
	IS-9	Install reflective strip to sign poles	S		L				L	L		2		
	IS-10	Enhance pavement markings	S	L	L		F		L	L		2		
	IS-11	Safety analysis in new development Traffic Impact Analysis (TIA)		L	L				L	L		2		
Wildlife/Deer	W-1	Unique seasonal deer warning signage/reminder signage		L	L				L	L		2		
	W-2	Wildlife crossing at bridge/culvert		L	L	S			H	H			3	
	W-3	Identify a 'Smart Technology' solution		L	L		F		H	H			3	

Enforcement Strategies

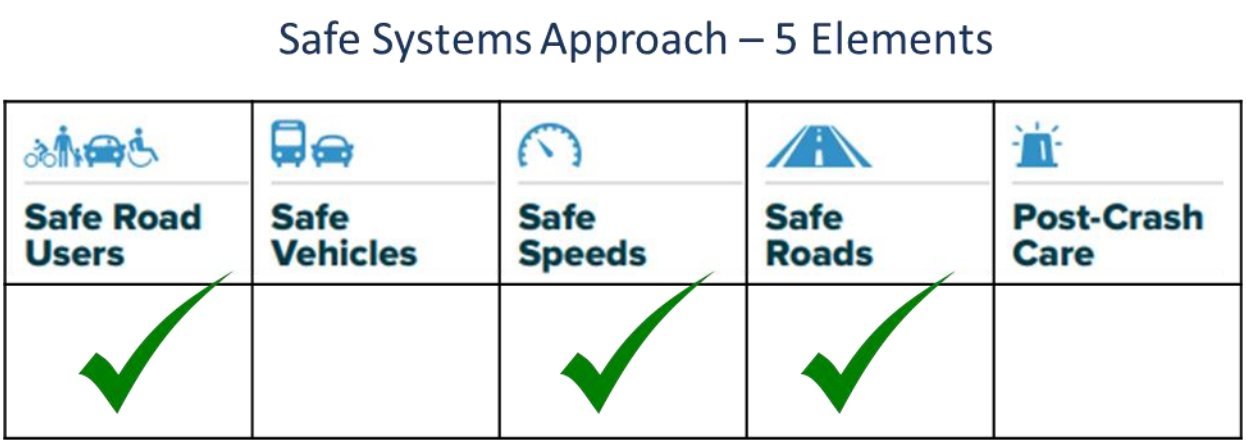
The City of Milton Police Department actively focus on traffic enforcement and safety daily. The Action Plan recognizes the importance of maintaining a continued focus in this area. Raising awareness of City and State laws will increase safety within the community and reduce crashes. Enforcement of City and State laws was identified as a strategy for four emphasis areas: vehicle speeds, distracted drivers, intersection safety, and non-motorized users. Explanation of the enforcement strategies is included in the *Report for Task 3, Section 3 – Enforcement Strategies.*

LRSP Incorporates Best Practices

Three best practices have been incorporated into the City of Milton's LRSP. This includes utilizing the data driven safety analysis method, adopting the Safe System approach, and identifying proven engineering safety countermeasures.

The LRSP utilized FHWA's recommended data driven safety analysis method (illustrated below). The study team analyzed historic crash data and reviewed existing conditions to make informed decisions. The study then identified targeted investments, which are expected to result in fewer fatalities and serious injury crashes.

Additionally, FHWA recommends that reducing deaths requires implementation of a Safe System approach. The key focus of the Safe System approach is to reduce death and serious injuries through design that accommodates human mistakes and injury tolerances with the ultimate goal to achieve zero deaths on the roadway system. The Safe Systems approach anticipates that humans make mistakes, and that it is the responsibility of agencies to design and manage the transportation system so that those mistakes do not result in death or serious injury. This safety conscious thinking is the first step to ensure successful implementation of the Safe System approach. The Action Plan recommends the City of Milton utilize this holistic approach (five elements) when implementing improvements to the roadway system. A two-page flyer developed by FHWA is included in **Appendix A** highlighting the Safe System Approach. The LRSP includes strategies and proven engineering safety countermeasures to address three of the five elements (as shown in the image on the following page). One focus area is addressing safety for all road users. A second focus area is reducing speeds. A third focus area is designing and managing the street infrastructure to reduce crash risk.



For the past 14 years, FHWA has steadily been increasing the promotion of a collection of engineering countermeasures and strategies effective in reducing roadway fatalities and serious injuries on our nation's highways. FHWA's Proven Safety Countermeasures Initiative (PSCi) has identified a list of 28 safety countermeasures to address a variety of crash types and focus areas like speed management and roadway departure, as well as intersection, pedestrian, and bicyclist crashes.

SS4A Grant Fundings Opportunity

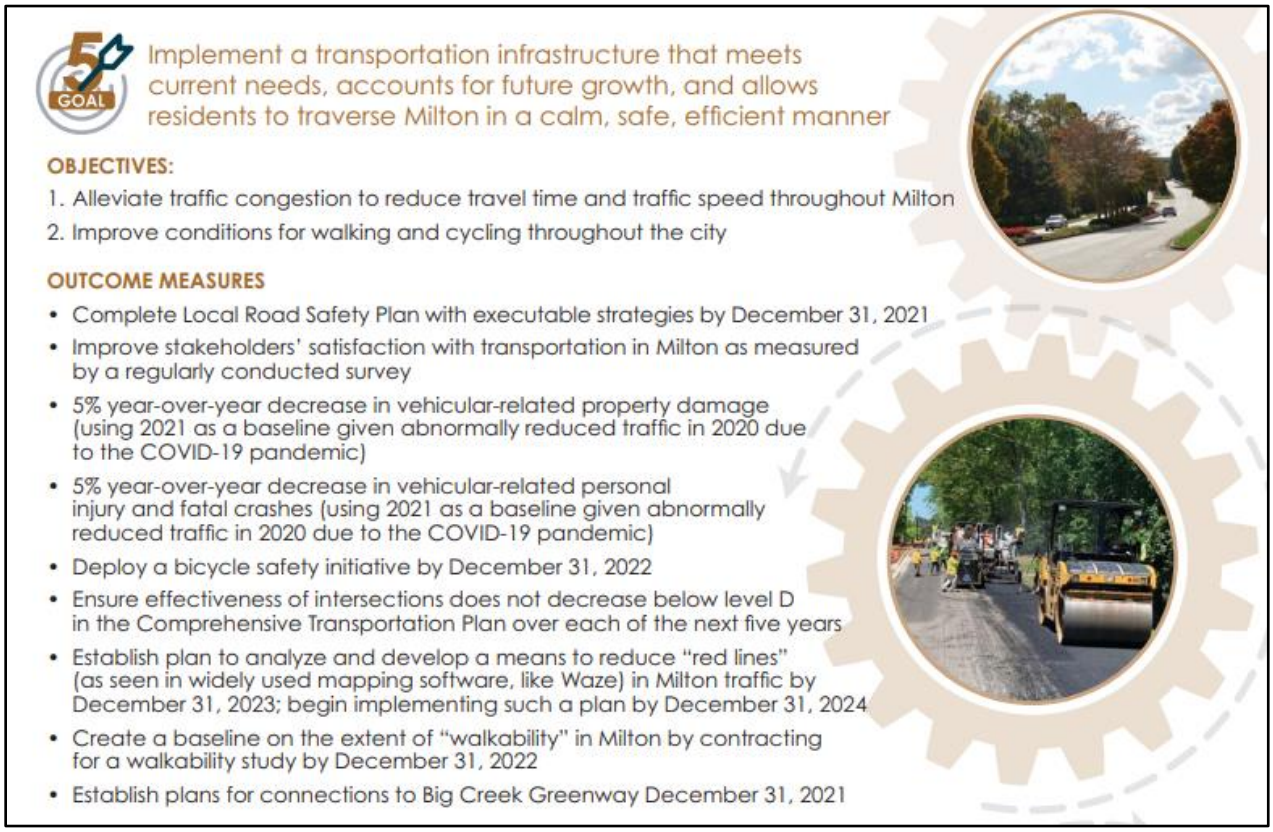
The City can apply for implementation grant funds from the *Safe Streets and Roads for All* (SS4A) Federal Discretionary Grant Opportunity. Communities that have an adopted action plan can apply for the grant. The City of Milton's LRSP was conducted in a manner to support a grant submission. The applicant is eligible to apply for an implementation grant if at least seven of nine objectives are met. The SS4A self-certification eligibility worksheet provides the nine objectives (questions) – See **Appendix A**. This section summarizes the efforts of the City of Milton leadership and LRSP Action Plan to meet these objectives:

- Q1: The City of Milton's Strategic Plan 2021-2025 outlines a community vision, mission, core values, and strategic priorities. Adopted in March 2021, the plan includes Strategic Priority #1: Ensure Milton's Sustainability and Resiliency. Goal #5 is to implement sound transportation infrastructure, with two objectives and measured outcomes (inserted on following page). The City of Milton is committed to improving safety, reducing roadway fatalities and serious injuries, and doing what it can to produce year-over-year decreases in crashes.
- Q2: The City assembled a core plan development team consisting of members of the City's Public Works, Police, and Communications departments to develop the LRSP and the Action Plan. The City partnered with KCI Technologies, Inc., a transportation engineering consultant, to assist in creating the LRSP and the Action Plan.
- Q3: An analysis of existing conditions along with historical crash trends and locations, including all street corridors and intersections, was performed as part of the LRSP. The use of Georgia DOT's Numetric crash database and GIS software allowed for identification of crash trends for all crashes within the City of Milton. Five years of historical crashes, year 2016 through 2020, were identified geospatially within the City limits.
- Q4: The Milton community has been engaged in the development of the LRSP, including in-person events and virtual meetings, stakeholder meetings, and online surveys. Updates to the

plan process have been provided to City Council and the community at periodic intervals. Input and suggestions received throughout the process have been incorporated into the LRSP documentation.

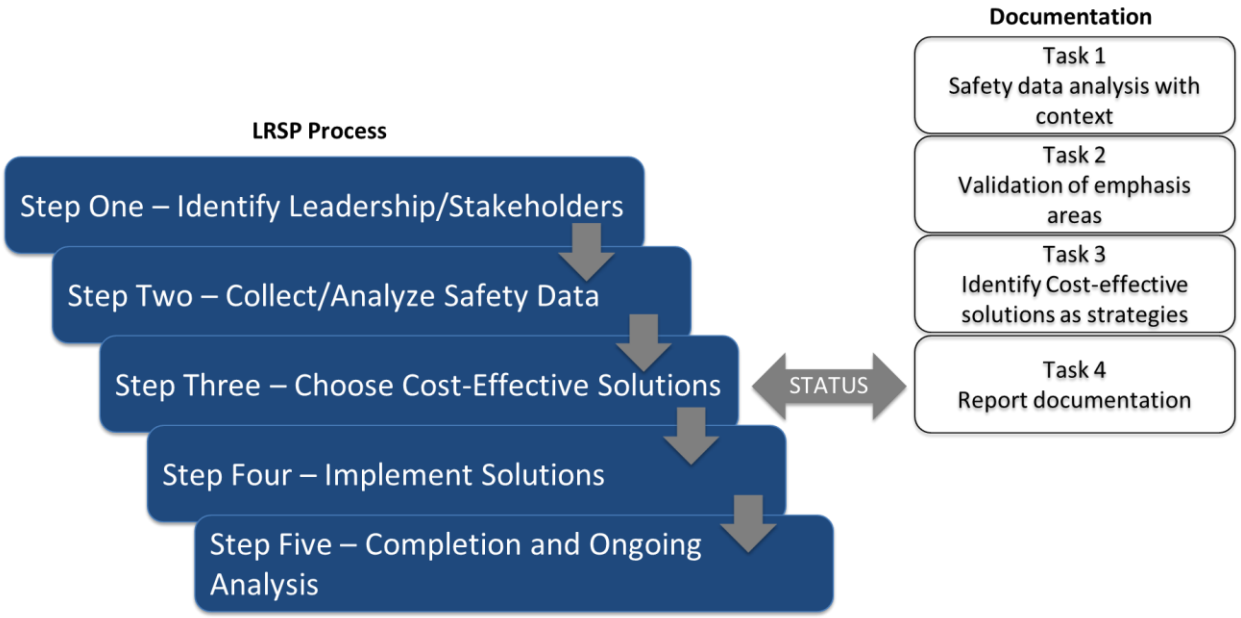
- Q5: The LRSP provides an equitable approach to provide safe transportation options for all road users. Historical crash trends within the City limits were identified by crash severity, all modes (i.e. vehicle, pedestrian, bicyclist), and driver age. The LRSP goal is to reduce crashes for all transportation users.
- Q6: The LRSP provides an assessment of current conditions and prioritizes roadway safety improvements on the roadways within the City limits. The LRSP development process and content were tailored to local issues and needs. The resulting Action Plan positions the City for successful implementation.
- Q7: The LRSP identifies a comprehensive set of projects and strategies. The Action Plan presents a recommended implementation phasing for educational outreach activities and installing engineering countermeasures. The implementation phasing was prepared based on multiple evaluation considerations.
- Q8: Finally, there are recommended actions to monitor and regularly evaluate the progress on implementing the Action Plan.
- Q9: The City's LRSP was completed in July 2022.

City of Milton's Strategic Plan 2021-2025, Strategic Priority #1



Next Steps

Preparing a LRSP is one of the FHWA-identified proven safety countermeasures. The City of Milton has completed the creation of the first LRSP Action Plan. The plan documentation is a result of completing the first three steps of implementing a successful LRSP, as illustrated in the graphic below. The next step is to begin implementing solutions, as outlined in the Action Plan.



Monitor and Evaluate Progress

As projects are implemented, it is important to monitor and regularly evaluate the progress on the Action Plan. Evaluation can be one of the best ways to ensure the LRSP is a living document. The LRSP should be viewed as a living document that can be updated to reflect changing local needs and priorities.

The following actions are recommended to promote transparency to the community:

1. Continue the routine meetings and collaboration of the City's core working group (Public Works, Police, and Communications departments) to implement the LRSP.
2. Maintain a comprehensive website to share crash data and progress on the Action Plan.
3. As projects are implemented, evaluate the project's effectiveness in reducing fatalities and serious injuries. Georgia DOT's Numetric crash database can be utilized to review and analyze before and after crash statistics.
4. Solicit feedback on safety concerns, projects, and strategies from key stakeholders and the community on a routine basis.
5. Seek opportunities with Georgia DOT and adjacent jurisdictions to partner on safety improvement projects.
6. Report regularly (annually at a minimum) progress on the Action Plan to City Council.

APPENDIX A

U.S. Department of Transportation
Federal Highway Administration

Safety Benefits:

Agencies have experienced the following benefits after LRSP implementation:

25%
reduction in county road fatalities in Minnesota.

17%
reduction in fatal and serious injury crashes on county-owned roads in Washington State.

35%
reduction in severe curve crashes in Thurston County, WA.

For more information on this and other FHWA Proven Safety Countermeasures, please visit https://safety.fhwa.dot.gov/provencountermeasures/ and https://safety.fhwa.dot.gov/LRSPDIY/.

FHWA-SA-21-033

Local Road Safety Plans

A local road safety plan (LRSP) provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads. The LRSP development process and content are tailored to local issues and needs. The process results in a prioritized list of issues, risks, actions, and improvements that can be used to reduce fatalities and serious injuries on local roads. FHWA has developed several resources including an LRSP Do-It-Yourself website which further explains the process and includes resources local agencies and their partners need to create and implement an LRSP.[1]

Approximately 75 percent of rural roads are owned by local agencies.[2] While local roads are less traveled than State highways, they have a much higher rate of fatal and serious injury crashes.[2] Developing an LRSP is an effective strategy to improve local road safety for all road users and support the goals of a State's overall Strategic Highway Safety Plan (SHSP).

Although the development process and resulting plan can vary depending on the local agency's needs, available resources, and targeted crash types, aspects common to LRSPs include:

- Stakeholder engagement representing the 4E's: engineering, enforcement, education, and emergency medical services.
- Collaboration among municipal, county, Tribal, State, and/or Federal entities to leverage expertise and resources.
- Identification of target crash types and crash risk with corresponding recommended proven safety countermeasures.
- Timeline and goals for implementation and evaluation.

Local road agencies should consider developing an LRSP to be used as a tool for reducing roadway fatalities, injuries, and crashes.[3] LRSPs can help agencies create a prioritized list of improvements. LRSPs are also a proactive risk management technique to demonstrate an agency's responsiveness. The plan should be viewed as a living document that can be updated to reflect changing local needs and priorities.

Infographic showing the LRSP process. Source: FHWA

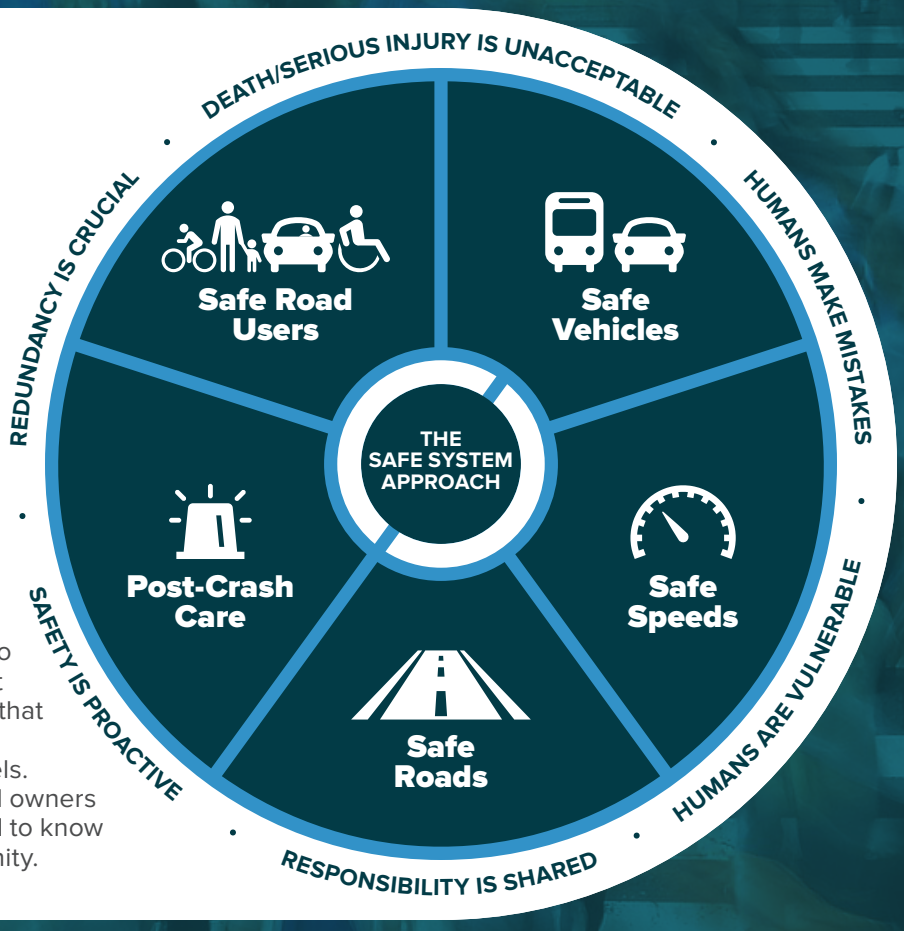
1 https://safety.fhwa.dot.gov/LRSPDIY/
2 Anderson et al. Noteworthy Practices: Addressing Safety on Locally-Owned and Maintained Roads A Domestic Scan, FHWA-SA-09-019, (2010).
3 Developing Safety Plans: A Manual for Local Rural Road Owners, FHWA-SA-12-017, provides guidance on developing an LRSP.

THE SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we will get there.

Imagine a world where nobody has to die from vehicle crashes. The Safe System approach aims to eliminate fatal & serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Here's what you need to know to bring the Safe System approach to your community.



SAFE SYSTEM PRINCIPLES

Death/Serious Injury is Unacceptable

While no crashes are desirable, the Safe System approach prioritizes crashes that result in death and serious injuries, since no one should experience either when using the transportation system.

Humans Make Mistakes

People will inevitably make mistakes that can lead to crashes, but the transportation system can be designed and operated to accommodate human mistakes and injury tolerances and avoid death and serious injuries.

Humans Are Vulnerable

People have limits for tolerating crash forces before death and serious injury occurs; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates human vulnerabilities.

Responsibility is Shared

All stakeholders (transportation system users and managers, vehicle manufacturers, etc.) must ensure that crashes don't lead to fatal or serious injuries.

Safety is Proactive

Proactive tools should be used to identify and mitigate latent risks in the transportation system, rather than waiting for crashes to occur and reacting afterwards.

Redundancy is Crucial

Reducing risks requires that all parts of the transportation system are strengthened, so that if one part fails, the other parts still protect people.

U.S.Department of Transportation
Federal Highway Administration
FHWA-SA-20-015

Safe Roads for a Safer Future
Investment in roadway safety saves lives

SAFE SYSTEM ELEMENTS

Making a commitment to zero deaths means addressing every aspect of crash risks through the five elements of a Safe System, shown below. These layers of protection and shared responsibility promote a holistic approach to safety across the entire transportation system. The key focus of the Safe System approach is to reduce death and serious injuries through design that accommodates human mistakes and injury tolerances.

Safe Road Users

The Safe System approach addresses the safety of all road users, including those who walk, bike, drive, ride transit, and travel by other modes.

Safe Vehicles

Vehicles are designed and regulated to minimize the occurrence and severity of collisions using safety measures that incorporate the latest technology.

Safe Speeds

Humans are unlikely to survive high-speed crashes. Reducing speeds can accommodate human injury tolerances in three ways: reducing impact forces, providing additional time for drivers to stop, and improving visibility.

Safe Roads

Designing to accommodate human mistakes and injury tolerances can greatly reduce the severity of crashes that do occur. Examples include physically separating people traveling at different speeds, providing dedicated times for different users to move through a space, and alerting users to hazards and other road users.

Post-Crash Care

When a person is injured in a collision, they rely on emergency first responders to quickly locate them, stabilize their injury, and transport them to medical facilities. Post-crash care also includes forensic analysis at the crash site, traffic incident management, and other activities.

THE SAFE SYSTEM APPROACH VS. TRADITIONAL ROAD SAFETY PRACTICES

Traditional		Safe System
Prevent crashes	→	Prevent deaths and serious injuries
Improve human behavior	→	Design for human mistakes/limitations
Control speeding	→	Reduce system kinetic energy
Individuals are responsible	→	Share responsibility
React based on crash history	→	Proactively identify and address risks

Whereas traditional road safety strives to modify human behavior and prevent all crashes, the Safe System approach also refocuses transportation system design and operation on anticipating human mistakes and lessening impact forces to reduce crash severity and save lives.

WHERE ARE YOU ON THE SAFE SYSTEM JOURNEY?

Implementing the Safe System approach is our shared responsibility, and we all have a role. It requires shifting how we think about transportation safety and how we prioritize our transportation investments. Consider applying a Safe System lens to upcoming projects and plans in your community: put safety at the forefront and design to accommodate human mistakes and injury tolerances. Visit **safety.fhwa.dot.gov/zerodeaths** to learn more.

Safe Streets and Roads for All

Self-Certification Eligibility Worksheet

This worksheet is not meant to replace the NOFO. Applicants should follow the instructions in the NOFO to correctly apply for a grant. See the SS4A website for more information: https://www.transportation.gov/SS4A

Instructions: This content is from Table 2 in the NOFO. The purpose of the worksheet is to determine whether or not an applicant's existing plan(s) is substantially similar to an Action Plan.

For each question below, answer "yes" or "no." If "yes," cite the specific page in your existing Action Plan or other plan(s) that corroborate your response, or cite and provide other supporting documentation separately.

An applicant is eligible to apply for an Action Plan Grant that funds supplemental action plan activities, or an Implementation Grant, only if the following two conditions are met:

- **Answer "yes" to Questions 3 7 9**
- **Answer "yes" to at least four of the six remaining Questions 1 2 4 5 6 8**

If both conditions are *not met*, an applicant is still eligible to apply for an Action Plan Grant that funds creation of a new action plan.

Lead Applicant: **UEI:**

---

1 Are both of the following true?

- Did a high-ranking official and/or governing body in the jurisdiction publicly commit to an eventual goal of zero roadway fatalities and serious injuries?
- Did the commitment include either setting a target date to reach zero, OR setting one or more targets to achieve significant declines in roadway fatalities and serious injuries by a specific date?

☐ YES ☐ NO

If yes, provide documentation:

---

2 To develop the Action Plan, was a committee, task force, implementation group, or similar body established and charged with the plan's development, implementation, and monitoring?

☐ YES ☐ NO

If yes, provide documentation:

---

3 Does the Action Plan include all of the following?

- Analysis of existing conditions and historical trends to baseline the level of crashes involving fatalities and serious injuries across a jurisdiction, locality, Tribe, or region;
- Analysis of the location where there are crashes, the severity, as well as contributing factors and crash types;
- Analysis of systemic and specific safety needs is also performed, as needed (e.g., high risk road features, specific safety needs of relevant road users; and,
- A geospatial identification (geographic or locational data using maps) of higher risk locations.

☐ YES ☐ NO

If yes, provide documentation:

Safe Streets and Roads for All

Self-Certification Eligibility Worksheet

4 **Did the Action Plan development include all of the following activities?**

- Engagement with the public and relevant stakeholders, including the private sector and community groups;
- Incorporation of information received from the engagement and collaboration into the plan; and
- Coordination that included inter- and intra-governmental cooperation and collaboration, as appropriate.

☐ YES ☐ NO

If yes, provide documentation:

5 **Did the Action Plan development include all of the following?**

- Considerations of equity using inclusive and representative processes;
- The identification of underserved communities through data; and
- Equity analysis, in collaboration with appropriate partners, focused on initial equity impact assessments of the proposed projects and strategies, and population characteristics.

☐ YES ☐ NO

If yes, provide documentation:

6 **Are both of the following true?**

- The plan development included an assessment of current policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize safety; and
- The plan discusses implementation through the adoption of revised or new policies, guidelines, and/or standards.

☐ YES ☐ NO

If yes, provide documentation:

7 **Does the plan identify a comprehensive set of projects and strategies to address the safety problems in the Action Plan, time ranges when projects and strategies will be deployed, and explain project prioritization criteria?**

☐ YES ☐ NO

If yes, provide documentation:

8 **Does the plan include all of the following?**

- A description of how progress will be measured over time that includes, at a minimum, outcome data.
- The plan is posted publicly online.

☐ YES ☐ NO

If yes, provide documentation:

9 **Was the plan finalized and/or last updated between 2017 and 2022?**

☐ YES ☐ NO

If yes, provide documentation:

TAB 2

CITY OF MILTON
LOCAL ROAD SAFETY PLAN

MILTON
EST 2006

Task 1 & 2: Safety Data Analysis & Identification of Emphasis Areas

KCI

Local Road Safety Plan Vision Statement:

The City of Milton will have a transportation system that is safe, offers a diversity of travel, and allows our citizens to traverse safely and calmly throughout our city.

Local Road Safety Plan Mission Statement:

The City proactively strives through our Local Road Safety Plan to chart a strategy to make improvements to Milton's transportation network through engineering, education, and enforcement that respects Milton's rural heritage, enhances its quality of life, and makes our roadways as safe as possible.

***

Project Kickoff

Planning for Milton's LRSP began in late 2020, leading to a well-received online public survey that went out in early 2021. The city subsequently partnered with KCI, with a kickoff meeting held on November 5, 2021, with staff from the City's Public Works, Police, and Communications departments. (The Fire-Rescue Department was not represented at this meeting.) This provided the first discussion of available data inputs, the City's understandings of transportation safety trends, and refining the Community Engagement Plan. Based on the meeting, some of the notable comments were:

- City has conducted three community surveys regarding transportation in the past two years
- Police stated the largest number of safety complaints/requests are related to speeding; city provided the requests from the past two years
- City wants to identify streets which are good candidates for reducing speed limits
- Police can help identify commuter patterns and congestion areas where safety concerns are identified
- In the downtown Milton area, the safety focus is related to non-motorized users
- Solutions should be context sensitive to Milton
- Goal is to complete the LRSP in Spring 2022

The city has a broad game plan for the creation and utilization of the LRSP. The consultant team's focus for the development of the Local Road Safety Plan includes advancing two primary components – Engineering and Education. The team's effort began with a review of data inputs and historical crash data. This report summarizes the first two tasks, which includes:

1. Define the Community Engagement Plan
2. Review Input Documentation
3. Perform Crash Analysis
4. Review of Roadway Conditions
5. Identify Primary Emphasis Areas

***

1. Community Engagement Plan

Since the city has already completed three community surveys regarding transportation in the past two years, no additional surveys or community meetings are needed at the beginning of this effort. The community will be invited to share their input in other ways, including further engagement sessions (in-person or virtual interaction opportunities to listen, learn, and contribute), social media posts, and updates provided in City Council meeting presentations.

Opportunities to obtain key stakeholder input on the plan formation will be provided. The intention is to hold Stakeholder Meetings with representatives from all areas of the city. An initial stakeholder meeting was held to include representatives from the Milton Equestrian Committee, residents from larger subdivisions, trails advisory committee, and members of the bicycling community in December 2021. Following this meeting, the project team will identify where there are gaps in stakeholder representation and create other opportunities for focused engagement. As the plan develops, potential strategies and discussions with key stakeholders could include Georgia Department of Transportation (GDOT) and Fulton County Public Schools.

As part of this plan development, one task includes identifying the preferred strategies for the educational campaigns and public outreach methods. The team will work with the City's Communications Department to identify the strategies which complement the City's outreach strategy. Once the educational campaigns are identified, a separate task will be to develop the campaigns and identify potential community partners. The safety campaigns will bring awareness to the community and empower them to change current driver, pedestrian, and cyclist behaviors. These safety campaigns can include social media messages, eblasts, community outreach events, educational/enforcement details and earned media.

Potential Community Partners/Stakeholders

- Fulton County Schools (Milton High School, Cambridge High School)
- City of Milton Police Department
- City of Milton Fire Department
- Citizens Government Academy
- Georgia Bikes
- The Southern Bicycling Club
- Olde Blind Dog Cycling Club
- Milton Equestrian Committee
- Alive at 25 Driver Safety Program
- Focus on Milton Facebook Group/other community Facebook groups
- HOAs
- Milton Farmers Market
- Newspapers/Publications/Media (Milton Herald, Our Milton Neighbor, North Georgia Living)
- Police Chief's Advisory Board

***

2. Review Input Documentation

A review of the following documents and data from the city was performed to identify trends and areas of concerns.

Data/Documentation Inputs
1-City's 2021 Strategic Plan
2-LRSP Vision and Mission Statements
3-City Planning Documents and Studies
4-Community Engagement Survey (Early 2021)
5-City Police Department Crash Analysis (in presentations)
6-GDOT Crash Database (Numetric)
7-LRSP Update to Council April 2021 (presentation)
8-LRSP Update to Council Nov 2020 (presentation)
9-Police Department list of safety complaints/requests

The City's 2021 Strategic Plan includes the goal: *Implement a transportation infrastructure that meets current needs, accounts for future growth, and allows residents to traverse Milton in a calm, safe, efficient manner.*

***

2.A – Community Engagement Survey

The city conducted the Milton Road Safety Study Survey in February 2021. This online survey received 378 responses to 16 questions. The community perception is that the crash frequency is increasing annually and there is a need to address vehicular, pedestrian, and bicyclist safety.

Survey question #8 asked the community what roadway conditions make them feel unsafe while driving. The top six concerns were:

1. Distracted Drivers (51%)
2. Vehicle Speeds (48%)
3. Bicycles (47%)
4. Roadside ditches/drop-offs (34%)
5. Nighttime visibility (29%)
6. Roadway curves (15%)

Survey question #11 asked the community to rank nine roadways in terms of prioritizing safety improvements. The approximate ranking based on the prioritized percentage is shown below. **Figure 1A** provides a map of the streets identified in Survey Question #11.

Street	Community Survey
Bethany Bend/Way/Rd	1
Birmingham Hwy / SR 372	2
Hopewell Rd/Cogburn Rd	3
Arnold Mill Rd / SR 140	4
Birmingham Road/Hickory Flat Rd	5
Crabapple Rd/Mayfield Rd	6
Freemanville Rd	7
Highway 9	8
Providence/New Providence Rd	9

Survey question #12 generated community identification of specific streets and intersections with safety concerns. Twenty-eight streets were identified. **Figure 2A** provides a map of the streets identified in Survey Question #12. The top three streets with the most comments are identified in **Figure 2B**:

- Freemanville Road (30 comments)
- SR 372/Birmingham Highway (22 comments)
- Hopewell Road (13 comments)

Many questions provided open ended responses. Three themes noted included:

1. The communities' perception of lack of enforcement of traffic laws.
2. Suggestion to move the pedestrians and bicyclists off the streets; however, there are no existing facilities.
3. Concern with speeding on multimodal gravel roads and safety for users.

***

2.B – Safety Complaints/Requests to City Police

The City Police Department provided the list of safety complaints/requests from the past two years. The predominant safety complaint is related to speeding. Below are findings related to speeding:

- 2020 – 49 of 62 complaints mention speeding 79%
- 2021 – 53 of 103 complaints mention speeding 51%
- Total 102 of 165 complaints mention speeding 62%

Of the 102 complaints that mention speeding the following roadways were mentioned 5 or more times. **Figure 1B** provides a map of the streets:

1. Thompson Road (13)
2. Freemanville Road (8)
3. SR 372/Birmingham Highway (7)
4. New Providence Road (7)
5. Bethany Road (5)
6. Deerfield Parkway (5)
7. Hickory Flat Road (5)
8. Hopewell Road (5)

***

3. Perform Crash Analysis

GDOT's Numetric database for the most recent 5-year period (2016-2020) was utilized to identify trends in addition to what the City had already summarized. The Numetric database is a robust data source with screening and mapping capability. The findings are presented in the attached document, **Five Year Crash Data Findings**, which includes tables, charts, and maps. Based on this analysis, some key trends observed are described below:

1. The vast majority of crashes are property damage only.
2. Over 42 percent of total crashes are rear end crashes.
3. A significant number of crashes occur off roadway and are single vehicle crashes. 22 percent of total crashes are 'not with vehicle' crashes. Crashes involving deer average 24 per year. Followed by crashes involving a tree average 18 per year.
4. Over 60% of crashes are intersection related.
5. Most crashes occur during the daytime when traffic volumes are higher

***

4. Review of Roadway Conditions

Roadway conditions were reviewed by driving many of the city streets identified by the community. The responses to question #12 from the Milton Road Safety Study survey provided the basis for reviewing 18 streets. The eighteen streets were selected based on the community comments, posted speed limits, and street types. Preliminary observations on roadway conditions are noted in the separate **Table 4.1: Roadway Conditions Review**. This table includes a total of 28 streets, and includes the number of survey comments, six focus areas, the posted speed limit, and roadway conditions comments. **Figure 2A** provides a map of the streets identified in Survey Question #12.

Based on driving the streets, some key overall observations include:

1. All streets have double-yellow centerline and white edge line pavement markings
2. Only SR 372 and Batesville Road have centerline RPMs (raised pavement markers)
3. There were only a few advance intersection warning signs with street names
4. There were a few horizontal curve warning signs or chevron signs
5. Most existing locations of guardrail at bridge/culverts are in need of upgrades and adding guardrail on approaches
6. Only 1 mid-block pedestrian crossings/crosswalk device (Birmingham Highway at Crabapple Crossings Elementary School). All other crosswalks are located at either roundabouts or traffic signal locations.
7. Majority of streets have rural shoulders, some curb and gutter
8. The pavement (and ride) is smooth for the majority of streets
9. Sidewalks are very limited, typically only short sections along subdivision frontage
10. Only one deer warning sign was observed (City has a policy on installing signs)

***

5. Identify Primary Emphasis Areas

Based on the reviews discussed previously, the team refined the transportation safety concerns for the LRSP into the following six emphasis areas.

Emphasis Areas
Vehicle Speeds
Distracted Drivers
Roadway and Shoulder Conditions *(To address both vehicles maintaining road and physical infrastructure, including fixed objects - i.e., trees)*
Pedestrians & Bicyclists & Equestrians *(non-motorized modes)*
Intersection Safety
Wildlife/Deer

The above emphasis areas will address driving conditions on streets which have been identified by the community, based on the review of historical crash trends, and based on the review of roadway conditions. Most of the city's paved streets classified as collectors and arterials may be candidates for enhancements and strategies to be identified.

Additionally, two suggested focus areas are safety for all users on multimodal gravel roads, and PTVs (Personal Transportation Vehicle / Golf Carts). Residents desire to utilize PTVs on city streets and shared use path facilities is expected to increase. These focus areas can be captured within a couple emphases areas (i.e. roadway and shoulder conditions, non-motorized modes, and intersection safety).

Focus Areas
Multimodal Gravel roads
PTVs (Personal Transportation Vehicle)

***

The team has identified three emphasis areas where educational campaigns may be most beneficial. After reviewing the crash data and surveys, our team noticed certain patterns in driver, pedestrian, and bicyclist behaviors that can benefit from educational safety campaigns. The driver concerns include distracted driving and speeding.

Our team has experience developing and executing traffic safety campaigns for all the mentioned behaviors. In some cases, existing messaging can be tailored to local conditions to maintain consistency. For example, GDOT has two campaigns, See & Be Seen and Drive Alive Arrive Alive, which address the driver speeding, staying off the phone and being alert behaviors, as well as the pedestrian safety component. GDOT has a downloadable tool kit that includes, social media messaging, web banners, posters, flyers, and fact sheets. This is a valuable resource that can be used.

Potential Educational Campaigns to address emphasis area:	GDOT Educational Campaigns
Vehicle speeds	Drive Alive Arrive Alive
Pedestrians & Bicyclists & Equestrians	See and Be Seen
Distracted drivers	Drive Alive Arrive Alive

Some of these messages can be tailored to address the City of Milton's needs. Our team can build on them and create a unique campaign for the city that can bring awareness and educate the community.

***

Next Steps

The findings from the review of input documentation and the identification of emphasis areas will form the basis for the next phase of the plan creation. Once the information in this report is reviewed by key stakeholders and finalized, the next phase includes identifying strategies and safety countermeasure projects most appropriate to address the emphasis areas.

APPENDIX

1. Figures (1A, 1B, 2A, 2B): Map of Streets
2. Table 4.1: Roadway Conditions Review
3. Five Year Crash Data Findings

Figure 1A Streets identified in Survey Question #11

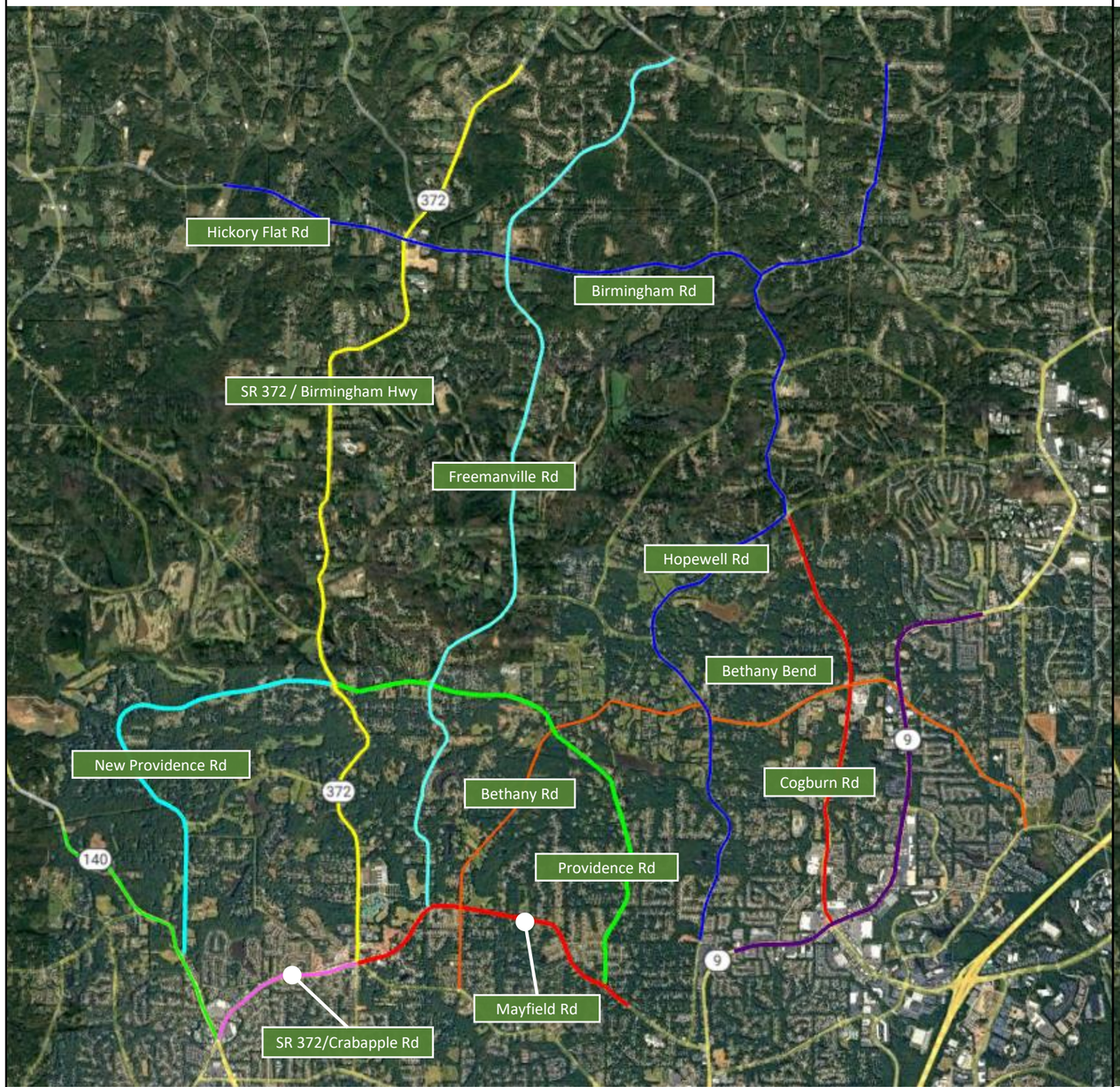
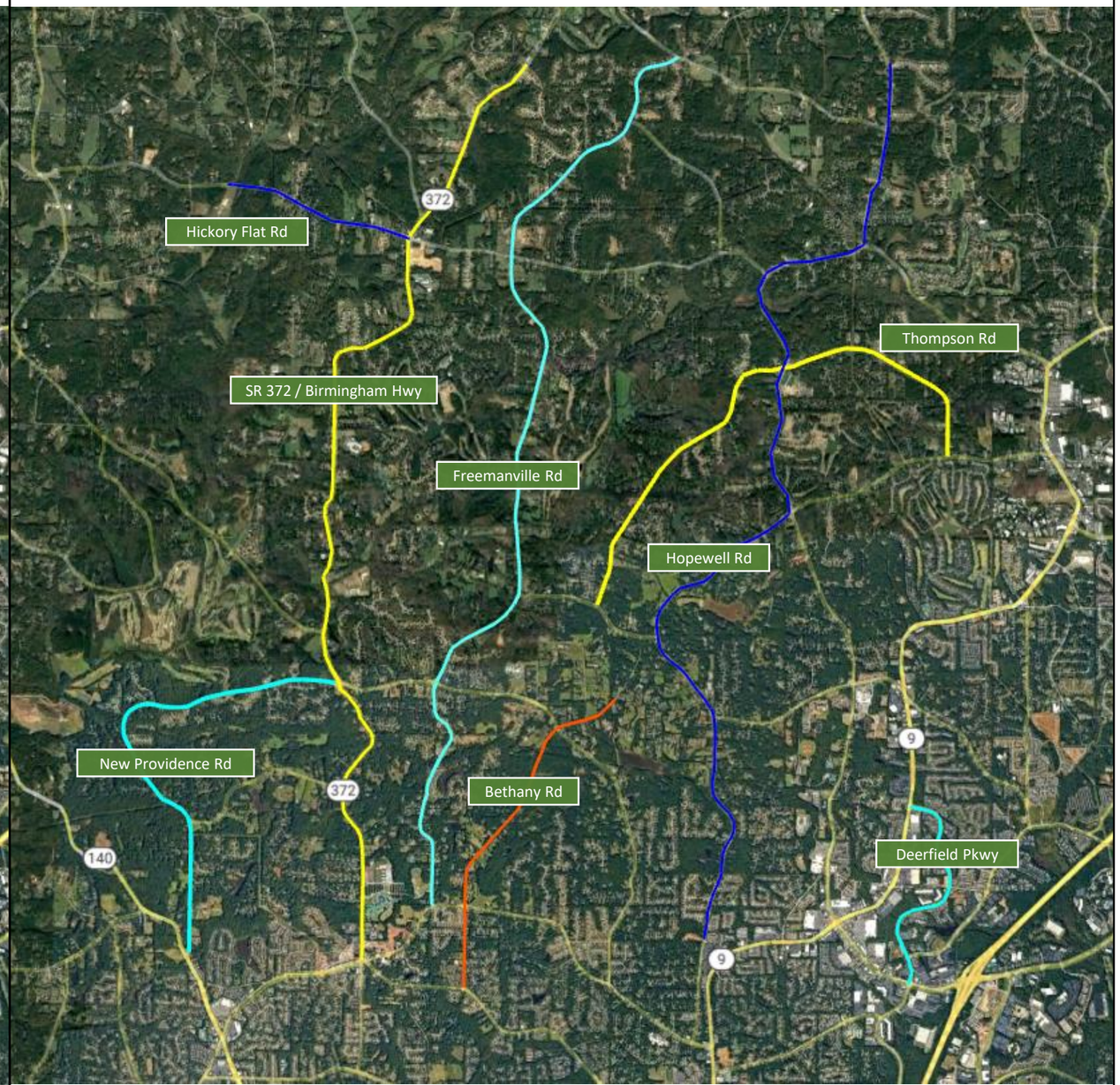


Figure 1B 8 streets with speeding identified 5+ times in list of safety complaints/requests to City Police Department

Not to Scale



City of Milton - Road Safety Plan

Figure 1A & 1B

Figure 2A | **28 Streets identified in Survey Question #12**

Location numbers correspond to Table 4.1

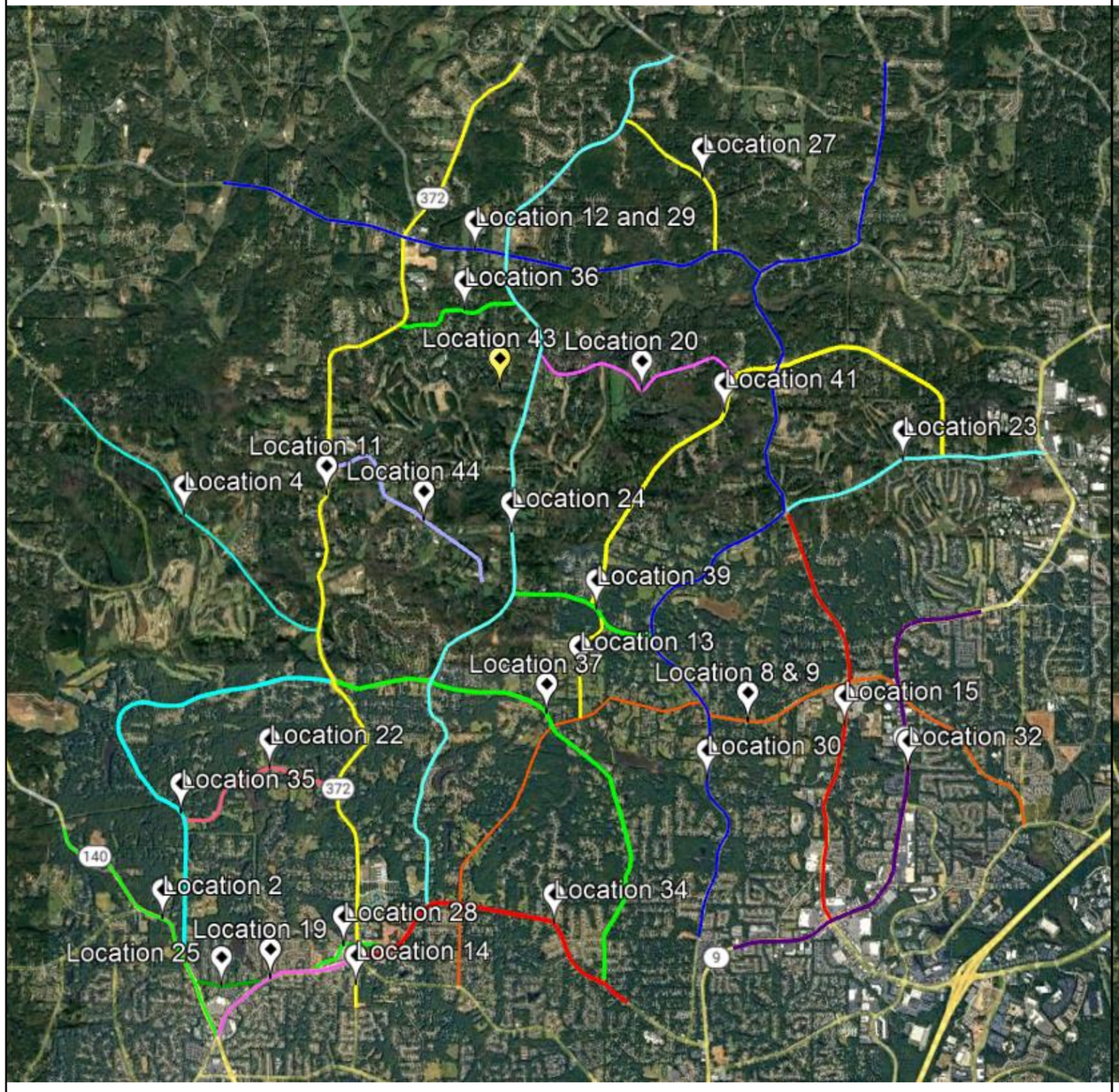


Figure 2B | **Top 3 Streets identified in Survey Question #12**

Not to Scale

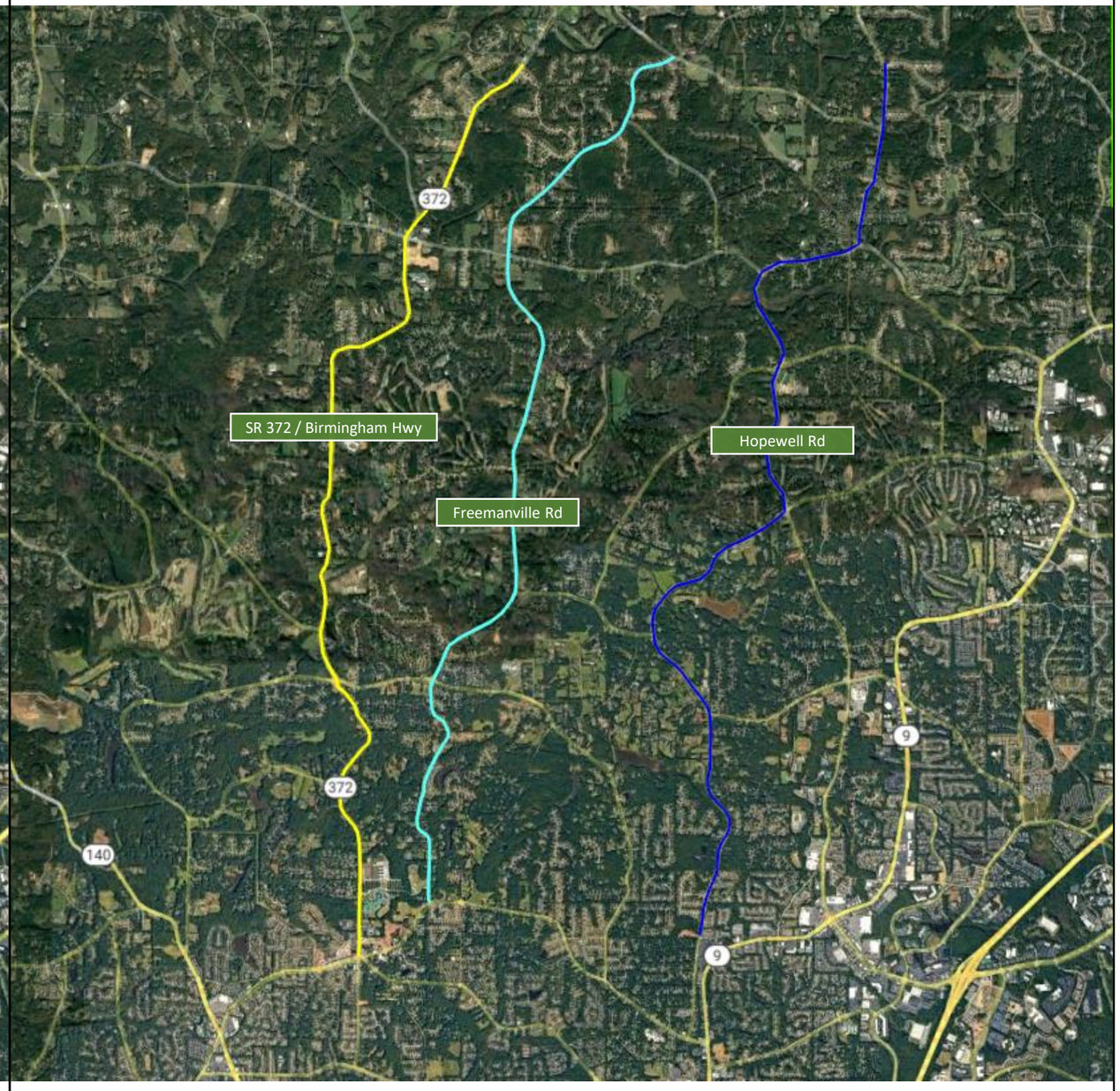
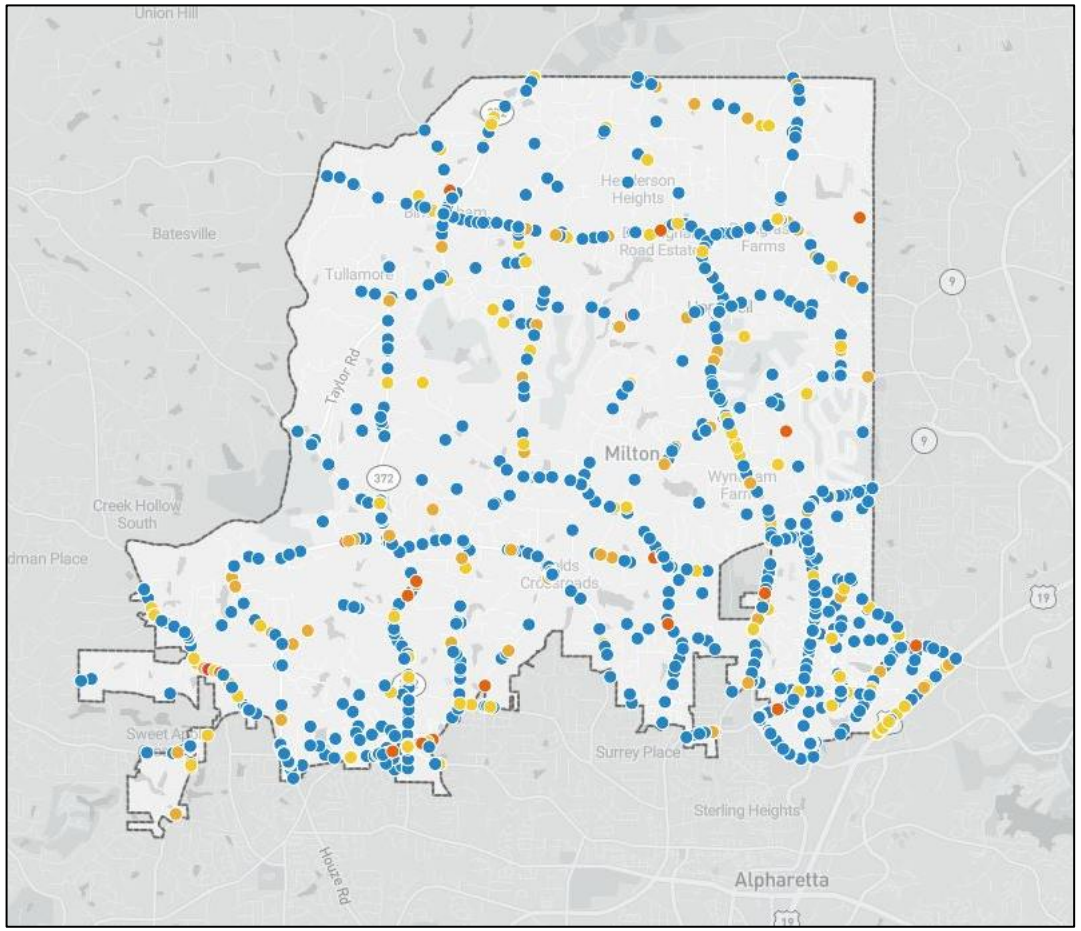


Table 4.1: Roadway Conditions Review																	
Survey Q#12: Streets of Concern	Milton Road Safety Study Survey Findings							Posted Speed Limit	KCI Field Review General Roadway Comments							
	Number of Survey Comments	Vehicle Speeds/ Aggressive Drivers	Nighttime/ Limited Visibility	Distracted Drivers	Road Shoulder	Bicycles	Pedestrians		Rural Shoulders	Paved Shoulder	Curb & Gutter	Sidewalk	Culvert/ Bridge	Steep grades	Sag curve	Additional
2 - Arnold Mill Rd (SR 140)	5							45								
4 - Batesville Rd	2							45	Majority	Some - 1ft			2			No truck sign; only local street with centerline RPMs; large tree in clear zone on SR 372 south of intersection
8 - Bethany Bend/Way/Rd	4							45 from Hopewell to SR 9, 40 from SR 9 to McGinnis Ferry, 40 from Mayfield to Haygood, and 45 from Haygood to Hopewell	Majority	Limited - 1ft			1			some rough pavement; evidence of need for 1ft paved shoulder
11 - Birmingham Hwy (SR 372)	22							45	All	Limited - 1ft	South end 1/2 mile	South end 1/2 mile			1	Recent resurfacing, added grooved edge line and centerline, centerline RPMs; 4 sharp horizontal curves; 1 crest curve; 1 speed feedback sign
12 & 29 - Birmingham Rd/ Hickory Flat Rd	4							40 from SR 372 to Freemanville Rd, 45 from Freemanville Rd to Hopewell Rd	Majority	Limited - 1ft			2	At county line	1	Limited sight distance at Hickory Mill Lane; 1 speed feedback sign; intersection warning signs (Segwick Dr) (Hickory Mill Lane)
13 - Brittle Rd (Gravel)	1							N/A								Walkers
14 - Broadwell Rd	1							35								
15 - Cogburn Rd	8							40 (Except in School Zone)	Majority	Some - 1ft	Some	Some	1		1	Urban shoulder and sidewalks near southern end
19 - Crabapple Rd (SR 372)	7							35	Half		Half	Half				Left turn lanes
20 - Dinsmore Rd	2							35								
22 - Dorris Rd	3							35	Majority	No				Rolling		No truck sign
23 - Francis Rd	3							40								
24 - Freemanville Rd	30							40 from Mayfield to Providence, 45 from Providence to Mountain Rd	Majority	No			1	1	1	sharp horizontal curves; 2 speed feedback sign; some rough pavement
25 - Green Rd	1							40								
27 - Henderson Rd	4							35								
28 - Heritage Walk	2							25 (From Streetview)								
30 - Hopewell Rd	13							45	Majority	Limited - 2ft					1	Some rough pavement; No guardrail at sag curve; sharp horizontal curve
32 - Hwy 9	7							45								
34 - Mayfield Rd	4							35								
35 - New Providence Rd	4							45 (Except in School Zone)	Majority	Some - 2ft	Some		1	Rolling at west end	1	Chevron signs at Gates Mill
36 - Nix Rd (Gravel)	1							N/A								Multiple curves; walkers; many homes
37 - Providence Rd	2							40 from SR 372 to Freemanville Rd, 45 from Freemanville Rd to 1000 fr north of Lantern Ridge Dr	Majority	No	Some	Some	1	At culvert		1 speed feedback sign location (Summit Hill ES)
39 - Redd Rd	5							45	Majority	No	Some	Some	None	Rolling		Shoulder dropoff near Haygood Rd; intx warning at Thompson
41 - Thompson Rd	5							45	Majority	Some - 1ft	Some	Some	2		1	Intx warning at Christians Run
43 - White Columns Dr	1							25								
44 - Wood Rd (Gravel)	2							15					2			concrete speed tables; signs posted 15mph
Summit Rd (Gravel)	0							25								Narrow, joggers
Phillips Circle (Gravel)	0							N/A					1	Southern		East half - Milton trail sign; South half - steep grade and very narrow
Legend:	Top three indicated	Grey shading indicates respondents stated 1 of 6 concerns						Highlighted posted 45 mph speed limit								

Five Year Crash Data Findings



City of Milton

Five Year Period: 2016 – 2020

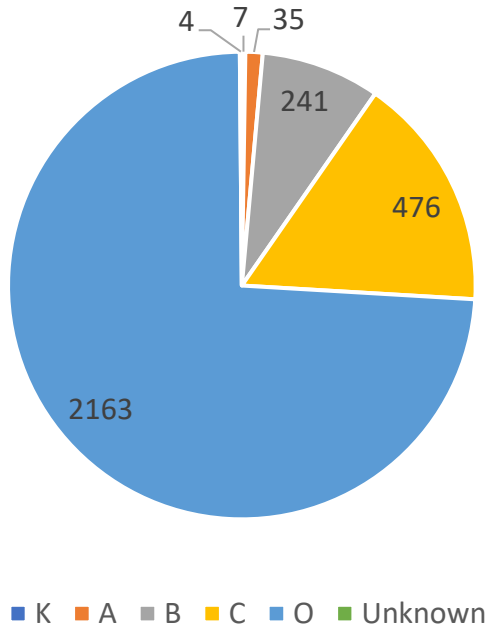
Total Crashes: 2,926

Source: GDOT Numetric database

Crash Breakdown by Year

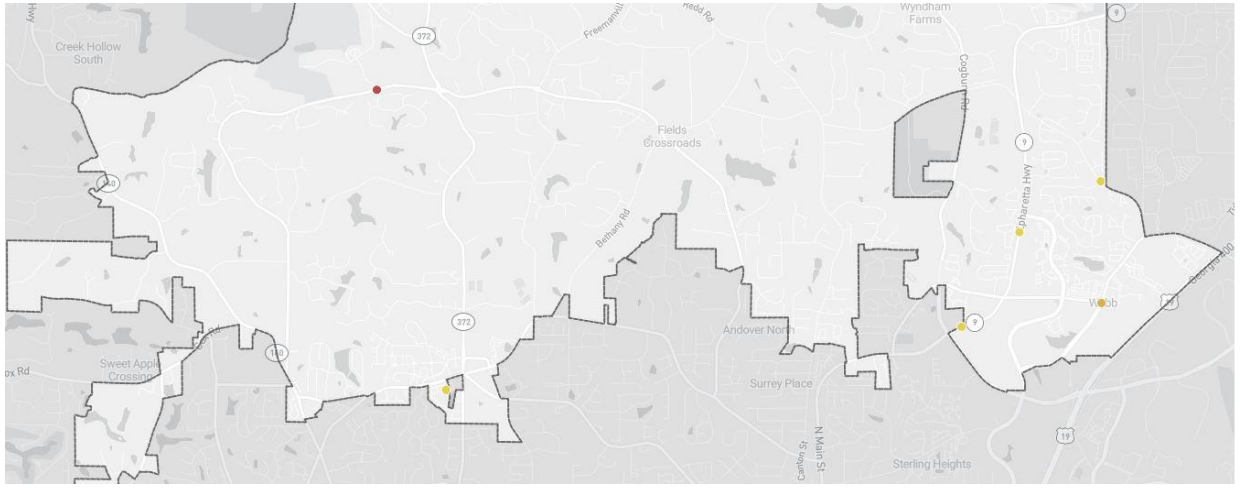
Crashes	2016	2017	2018	2019	2020
Total	626	657	635	631	377
K-Fatal	4	1	1	1	0
A-Suspected Serious	8	2	3	13	9
B-Suspected Minor/Visible	47	48	57	59	30
C-Possible/ Complaint	100	105	103	103	65
O-No Injury	467	501	471	453	271
Unknown	0	0	0	2	2

Number of Crashes by Severity 2016-2020

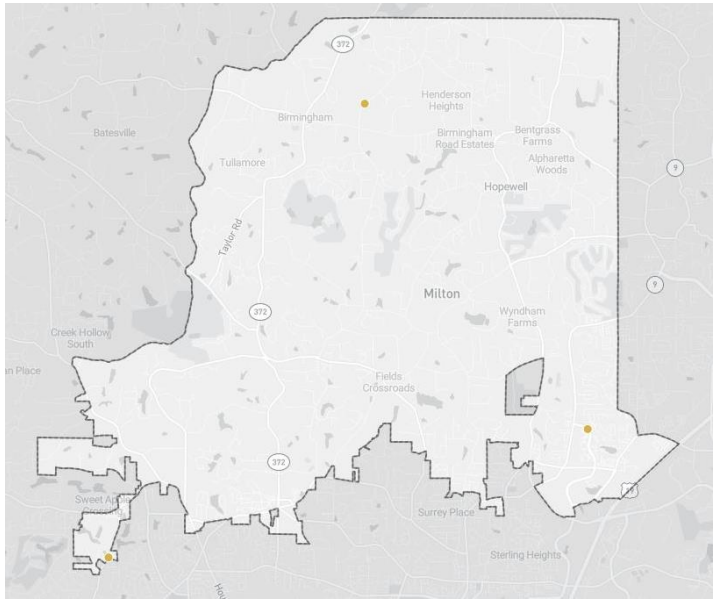


Pedestrian and Bicycle Crashes Breakdown by Year

Total Crashes	2016	2017	2018	2019	2020
Bicycle Related (B-Suspected Minor/Visible)					
3	1	1	1	0	0
Pedestrian Related					
6	2	2	2	0	0
K-Fatal	0	0	1	0	0
B-Suspected Minor/Visible	1	0	0	0	0
C-Possible/ Complaint	1	2	1	0	0



Pedestrian Crashes



Bike Crashes

<u>Bike Crashes</u>

5990304 – Bike on the wrong side of the road and failure to yield
6344676 – Car didn't maintain safe distance when passing bike
6765786 – Car didn't maintain safe distance when passing bike

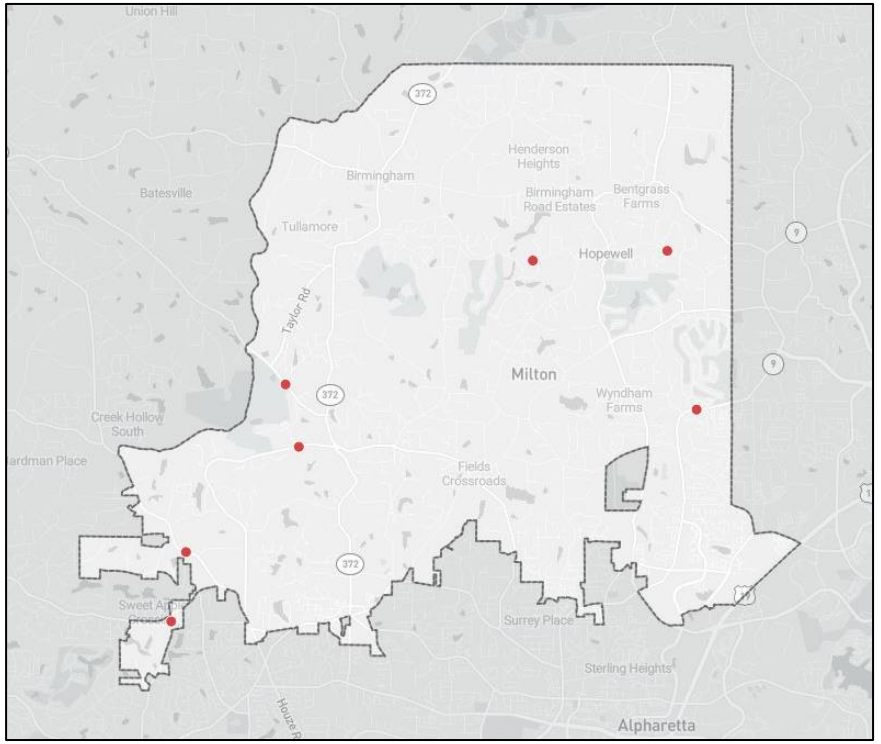
<u>Pedestrian Crashes</u>

5970893 – Car failed to yield
6030529 – Pedestrian hit in crosswalk
6099992 – Pedestrian hit in crosswalk
6476679 – Pedestrian crossed not at crosswalk
6646719 – Pedestrian hit while in roadway looking for dog
6905760 – Fatality. See next slide

Identifying Potential Crash Severity Trends

K – Fatal – 7 – No location trend

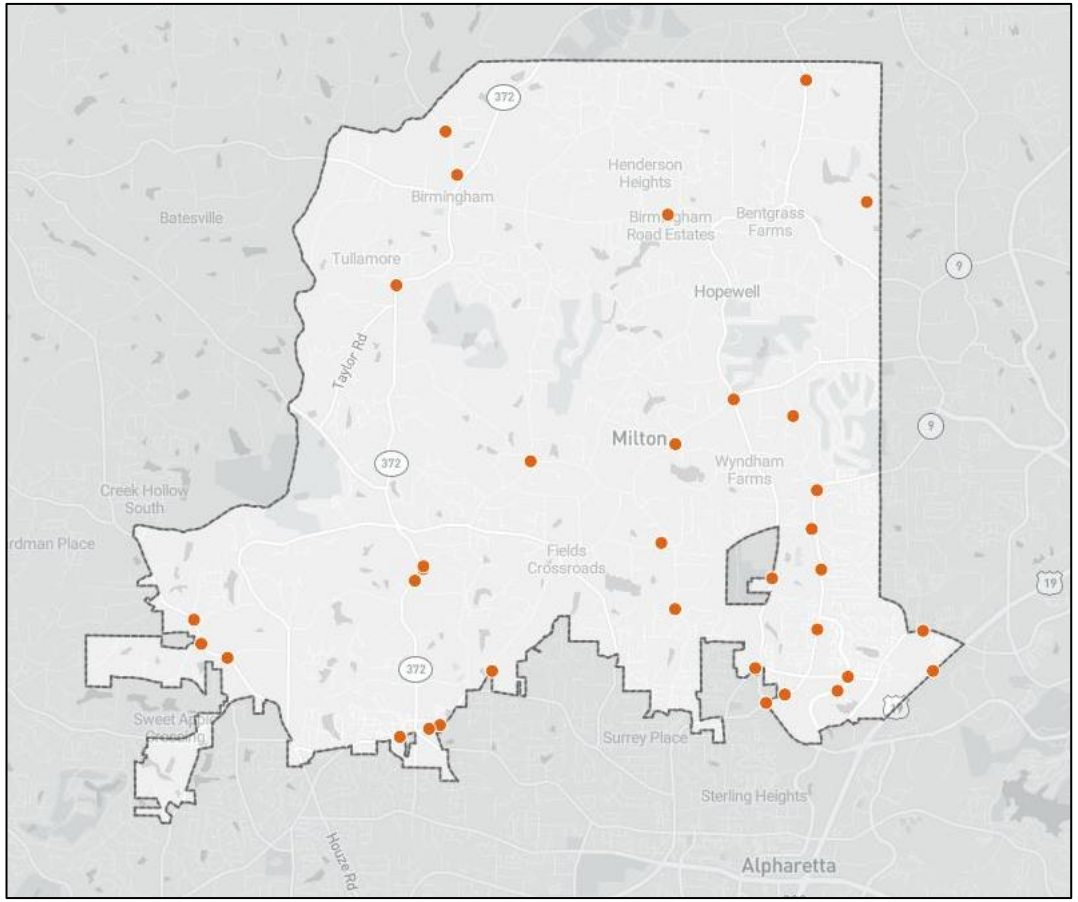
ID	Year	Time	Light	Surface	Age	Description
5684781	2016	10:56 PM	Dark – Not lighted	Dry	53 (1) 56 (2)	Vehicle 1 was traveling southbound and traveled into the northbound lane colliding with vehicle 2 in the northbound lane. Seatbelt was not used by vehicle 1 driver.
5694628	2016	8:47 AM	Daylight	Dry	43	Vehicle left the roadway striking a tree, glanced off, spin and came to rest 85 feet from tree. Vehicle was engulfed in flames. Driver was ejected. Seatbelt use unknown
6008905	2016	7:25 PM	Dark – Not lighted	Dry	21	Vehicle left the roadway and struck a tractor tire filled with dirt and stone. After striking the tire the vehicle flipped. Seatbelt was used.
6074365	2016	12:39 AM	Dark – Lighted	Dry	52 (D) 21 (P)	Vehicle left the roadway striking a mailbox then another mailbox. Passenger was ejected. Neither driver or passenger had used seatbelt.
6413655	2017	8:42 PM	Dark – Lighted	Dry	47 (1) 25(2)	Vehicle 1 (suv) traveling west, vehicle 2 (motorcycle) traveling west behind vehicle 1. Vehicle 2 was struck as it attempted to turn left. Seatbelt was used for vehicle 1 and helmet was used for vehicle 2.
6905760	2018	11:25 PM	Dark – Not Lighted	Dry	49(1) 69(2)	Motor vehicle versus pedestrian crash. Vehicle 1 used seatbelt.
7222847	2019	4:46 PM	Daylight	Dry	35 (1) 34(1) 18(2)	Vehicle 1 traveling north and vehicle 2 traveling south. Vehicle 2 struck the right rear of vehicle 1 as it was turning left. Driver 2 was ejected. Seatbelts used by vehicle 1 and helmet used by vehicle 2.



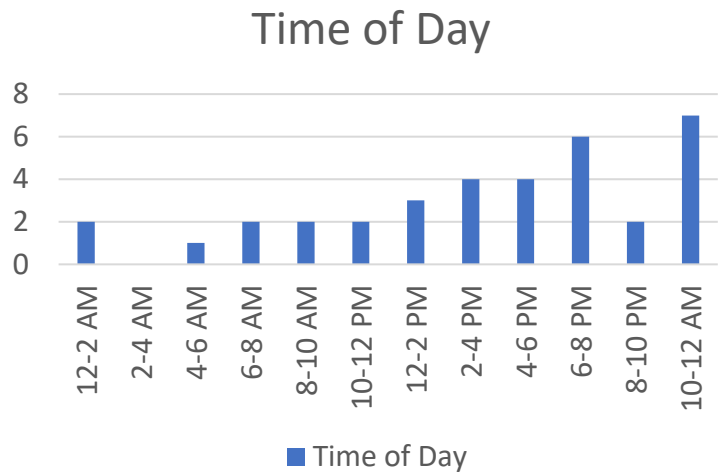
Identifying Potential Crash Severity Trends

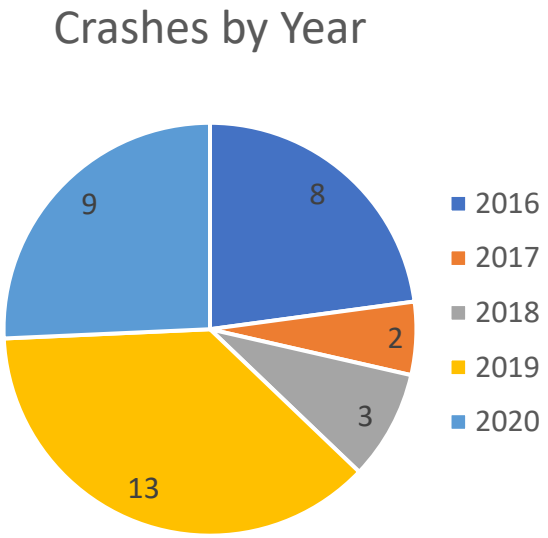
A – Serious Injury – 35 crashes

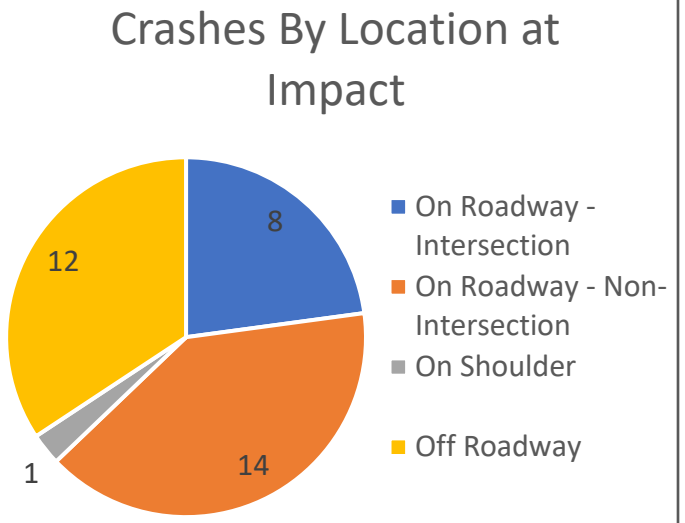
- 4 Crashes
  - Alpharetta Highway
  - Birmingham Highway
  - Hopewell Road
- 3 Crashes
  - Arnold Mill Road
  - Bethany Road
- 2 Crashes
  - Cogburn Road
  - Deerfield
  - Mayfield
  - New Bull Pen Road

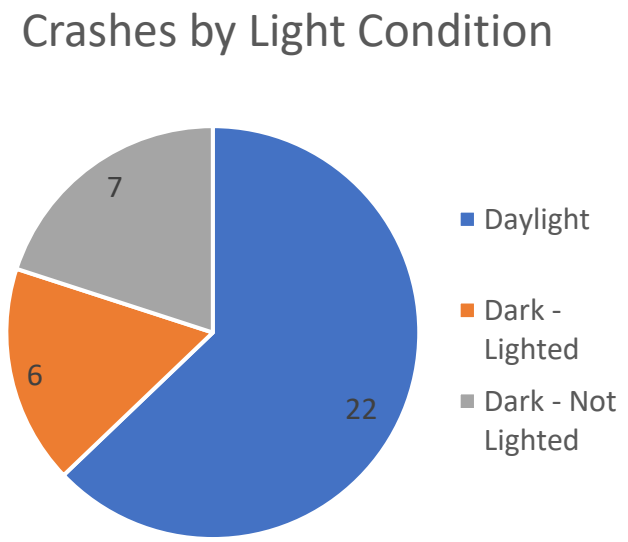


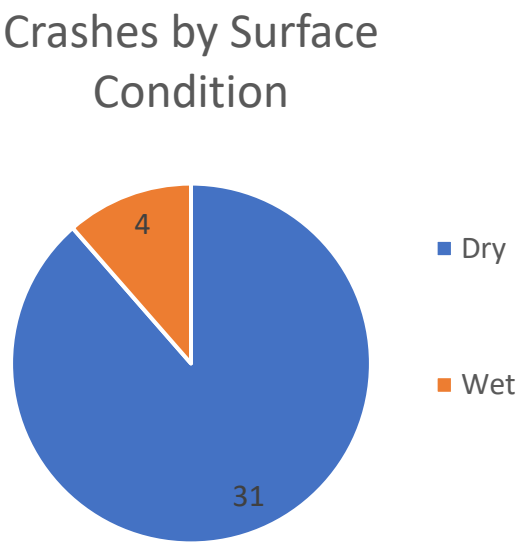
Identifying Potential Crash Severity Trends
A – Serious Injury – 35 crashes

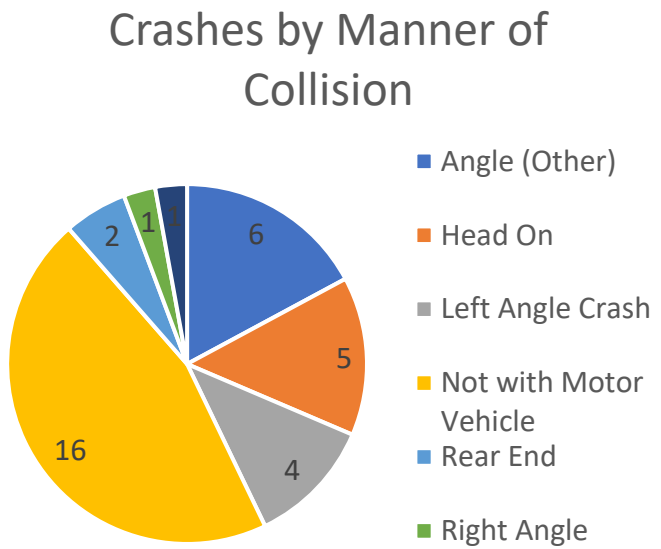












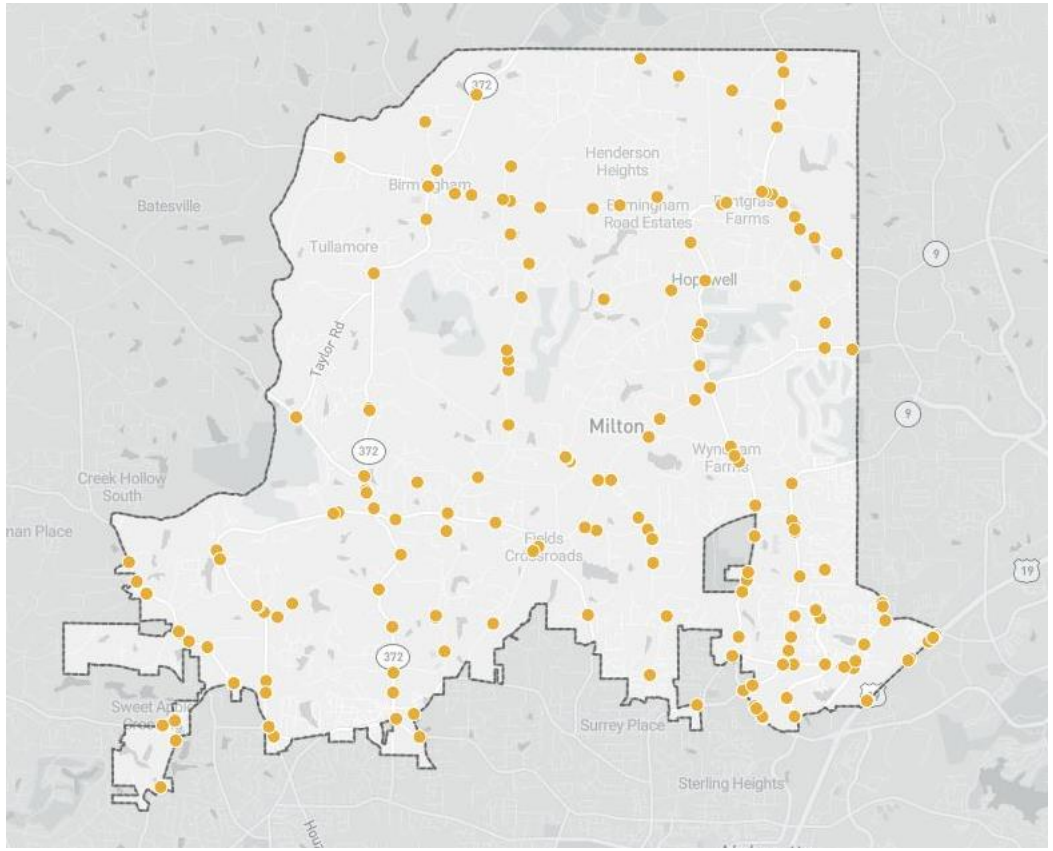
Identifying Potential Crash Severity Trends
B – Minor Injury – 241

Roadways with Greater than or Equal to 10 Minor Injury Crashes

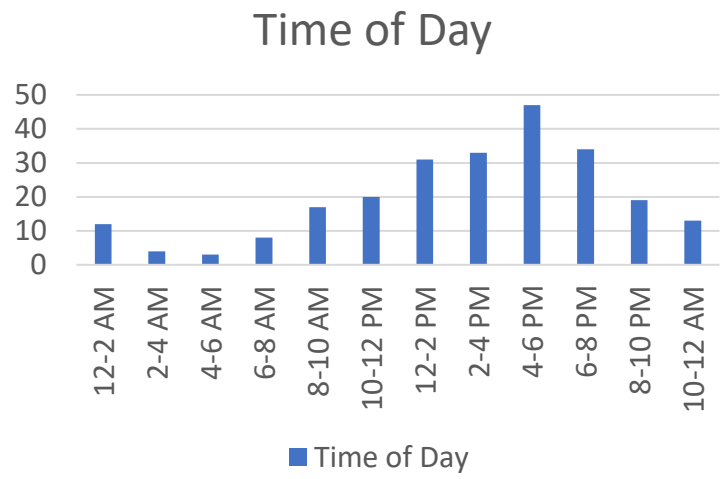
Roadway	Number of Crashes
Hopewell Road	21
Bethany Bend	18
Arnold Mill Road	17
Birmingham Highway	17
Alpharetta Highway	15
Freemanville Road	15
Cogburn Road	13
Birmingham Road	12
Hamby Road	11
GA 400	11
Deerfield Parkway	10

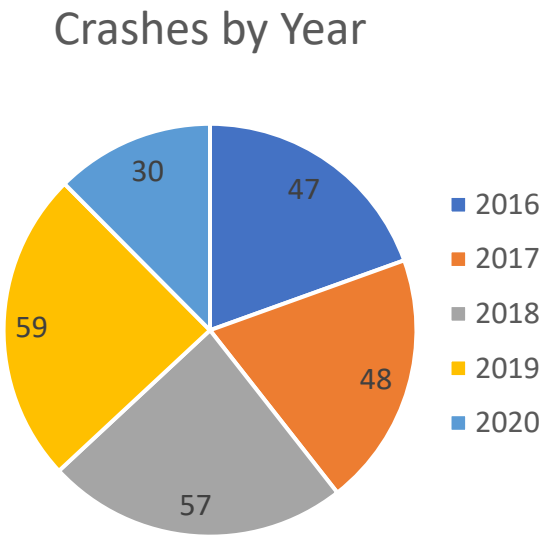
Roadways with Less than 10 Minor Injury Crashes

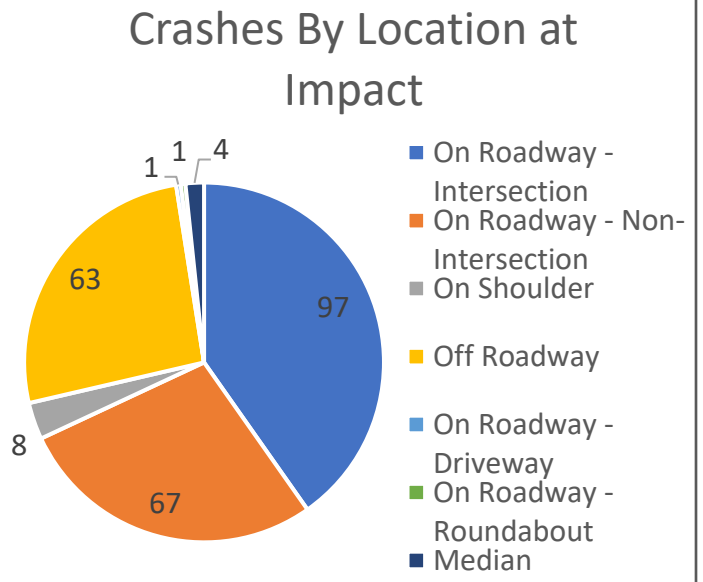
Roadway	Number of Crashes
New Providence Road	8
Bethany Way	6
Bethany Road	5
Redd Road	5
Windward Parkway	5
Batesville Road	4
Cox Road	3
Morris Road	3
Webb Road	3
Providence Road	3
Mountain Road	3
King Road	3

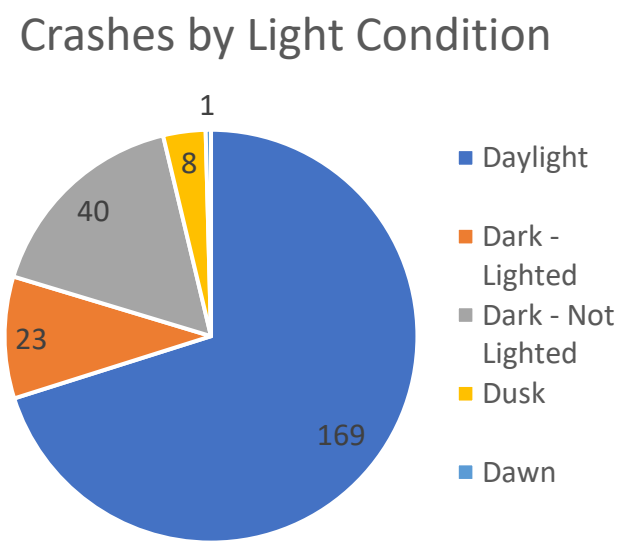


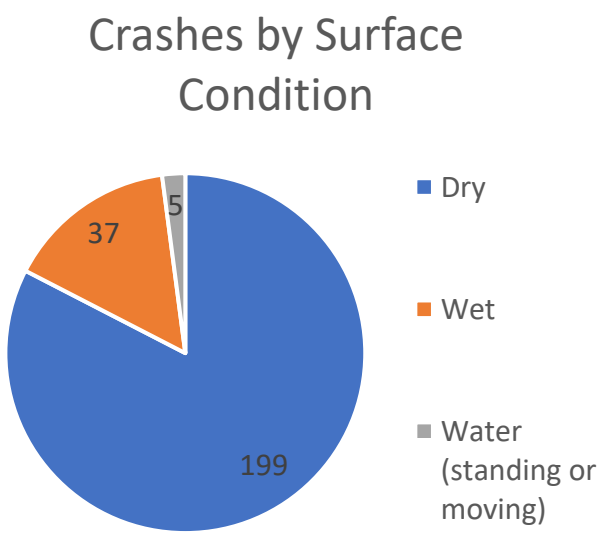
Identifying Potential Crash Severity Trends
B – Minor Injury – 241

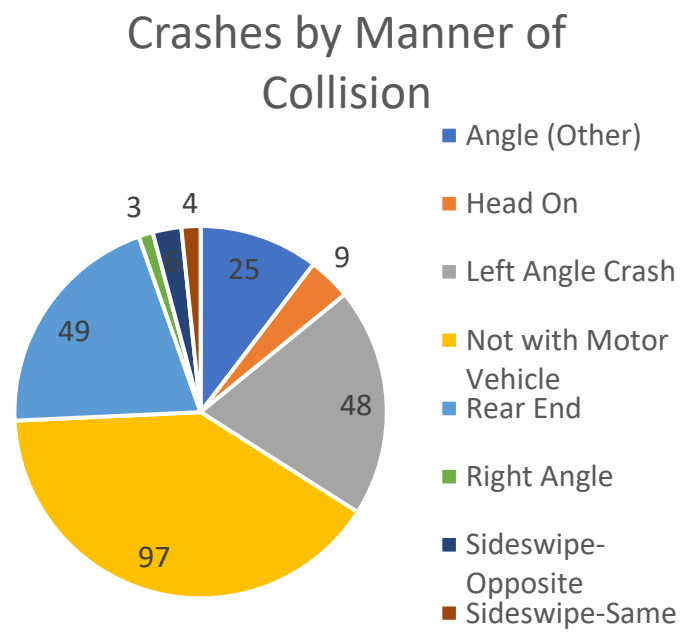




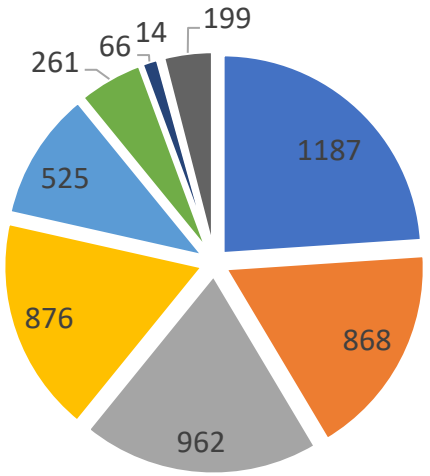








Total Crashes by Driver Age Group *

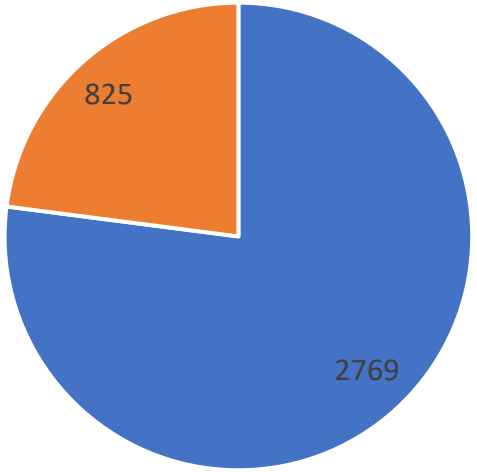


■ 15-24 ■ 25-34 ■ 35-44 ■ 45-54 ■ 55-64
■ 65-74 ■ 75-84 ■ 85-98 ■ >1

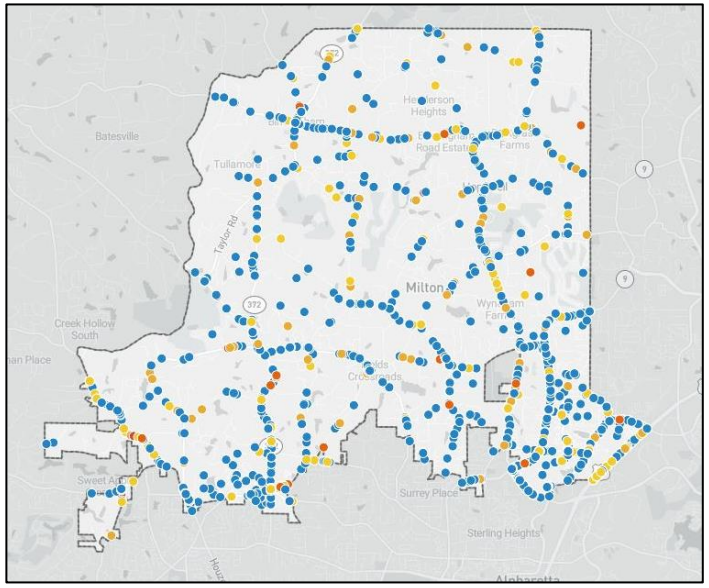
*>1 signifies crash reports that did not identify the age

Note: Total number of drivers is greater than total number of crashes because some accidents involve more than one driver.

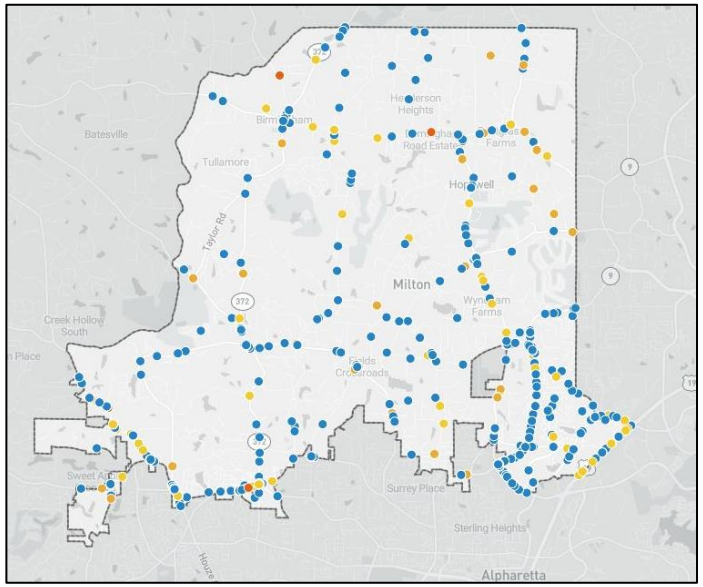
Total Crashes by Driver Age



■ Less than 55 ■ Greater than/Equal to 55

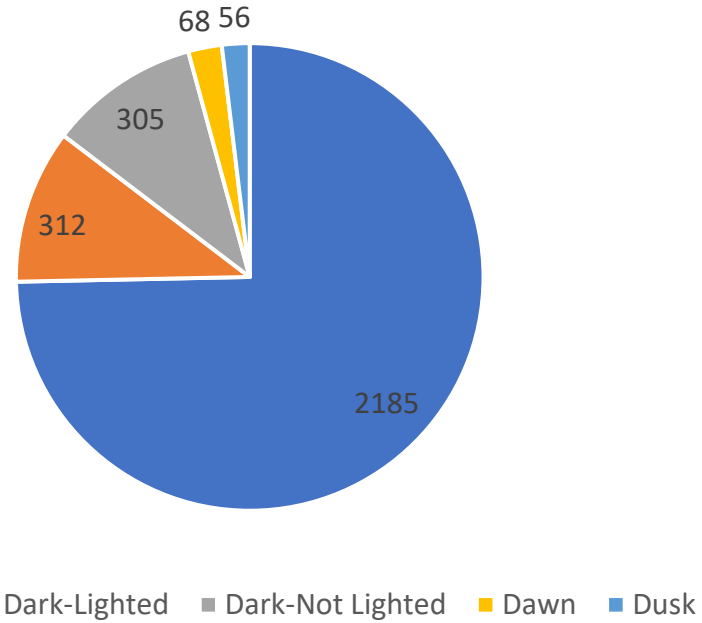


Driver Age Less than 55



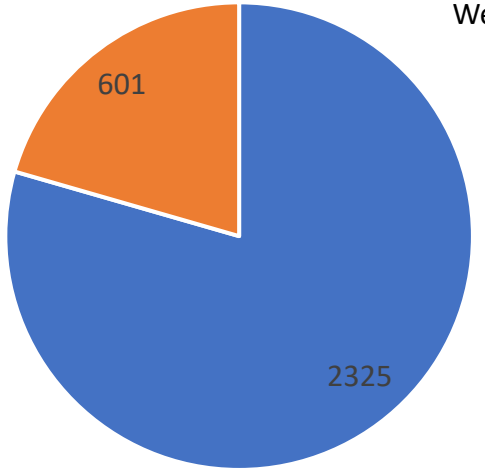
Driver Age Greater than and Equal to 55

Total Crashes by Light Condition

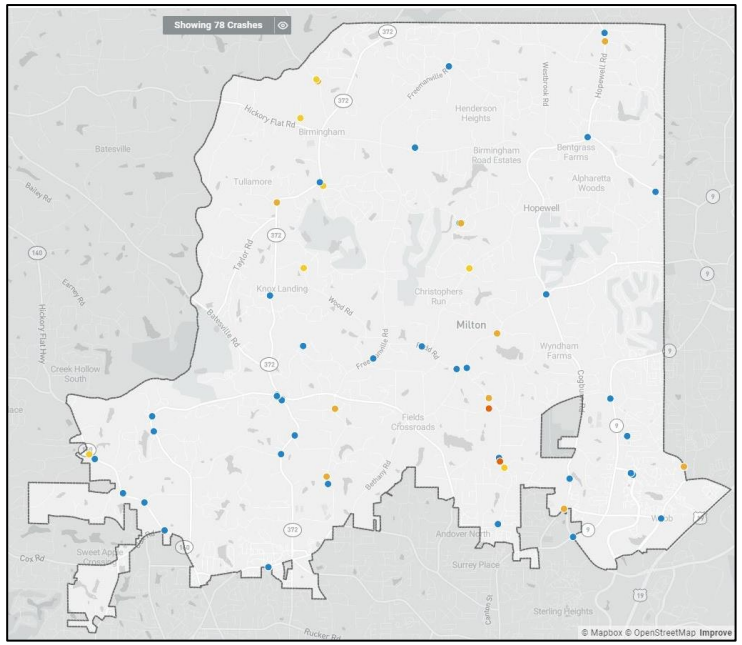


Total Crashes by Surface Condition

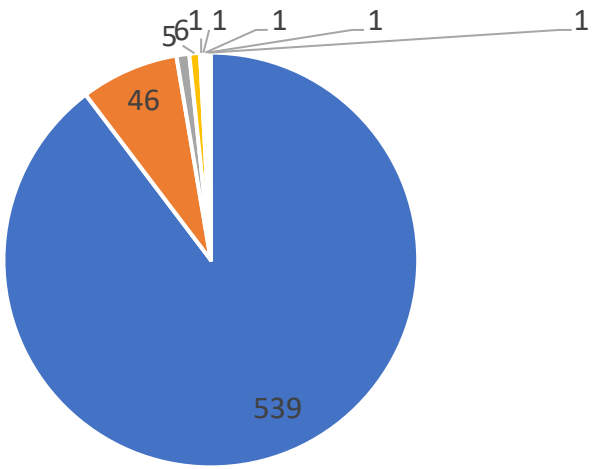
Wet = “Not Dry” for the Numetric filtering



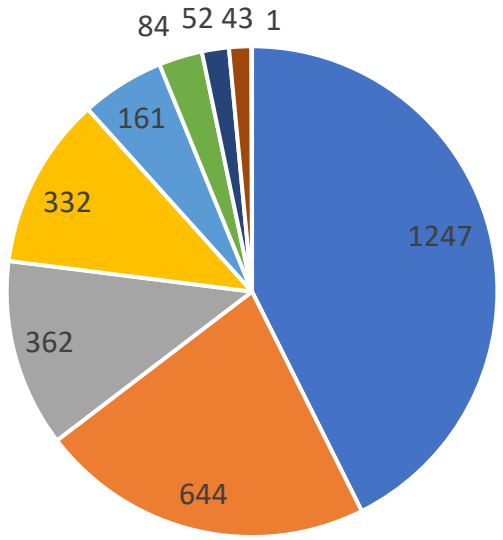
78 Wet Crashes had Vehicle Maneuver including negotiating curve



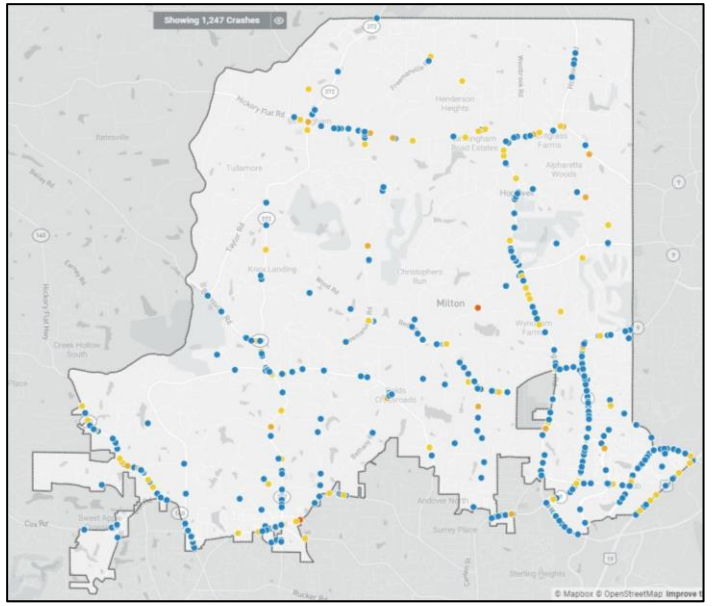
Total Crashes by Wet Surface Condition



Total Crashes by Manner of Collision



- Rear End
- Not with Vehicle
- Left Angle
- Angle Other
- Sideswipe Same
- Sideswipe Opposite
- Right Angle
- Head On
- None

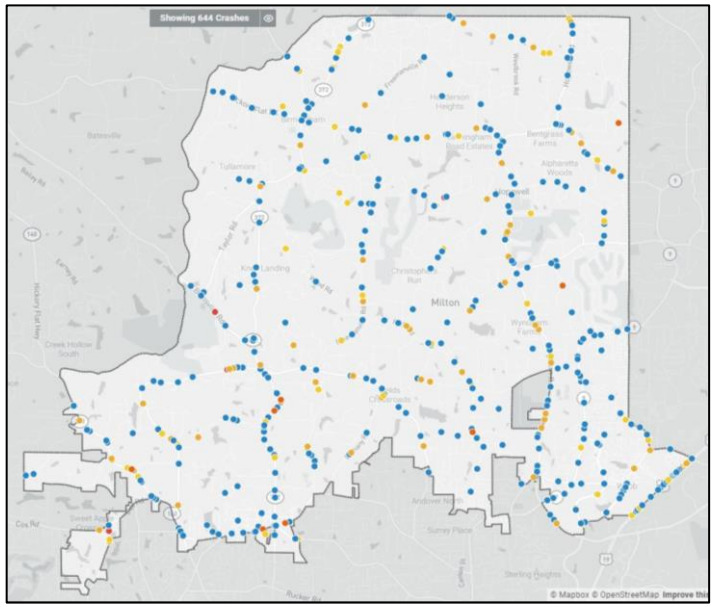


Manner of Collision – Rear End

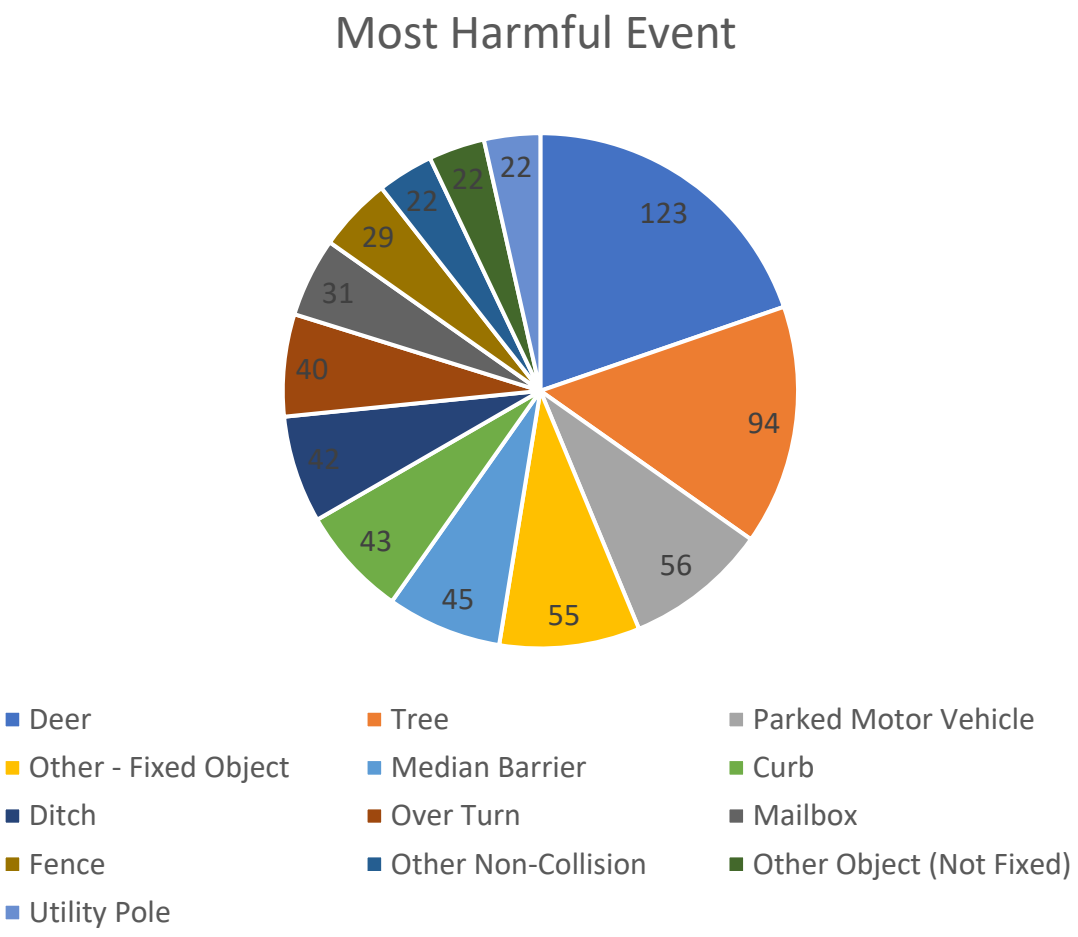
Collision Not with a Vehicle* Most Harmful Event (Top 5)

Event	# of Crashes
Deer	123
Tree	92
Other Fixed Object	54
Median Barrier	49
Curb	43

* In raw data tables 18 crashes had the most harmful event as motor vehicle in motion with the manner of collision as not with a vehicle



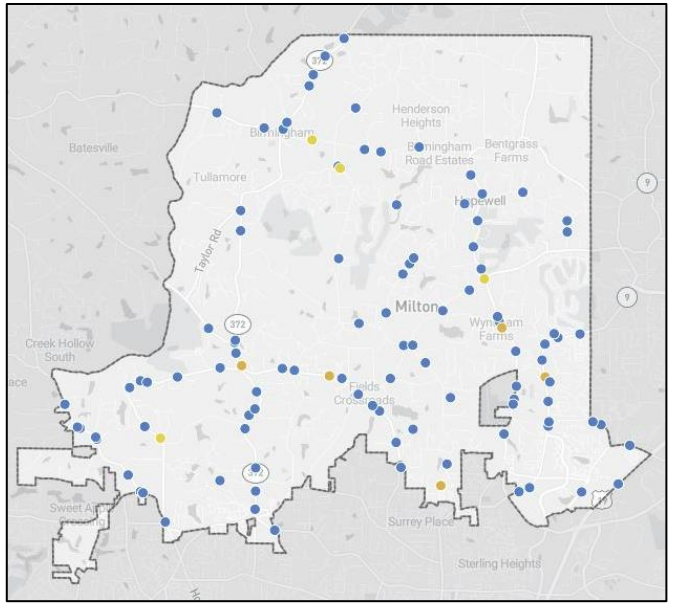
Manner of Collision – Not with Vehicle



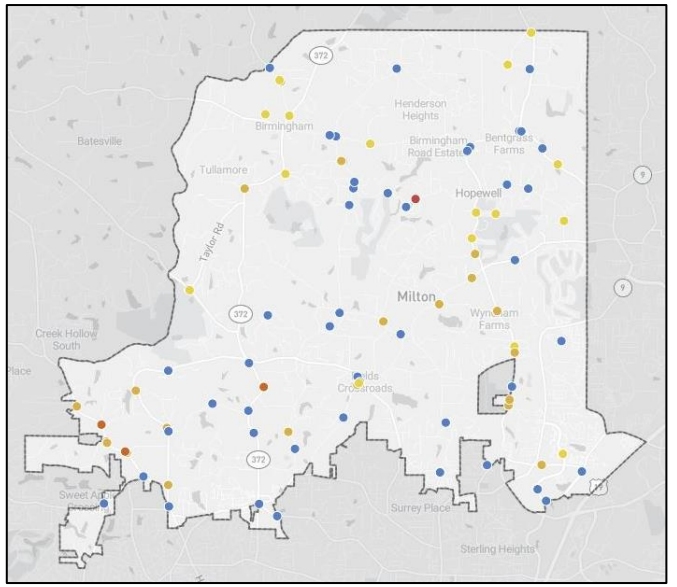
Note: Motor Vehicle in Motion – 2,294 (Did not include on pie chart to better illustrate other trends)

<u>Breakdown of the 'Other' events:</u>

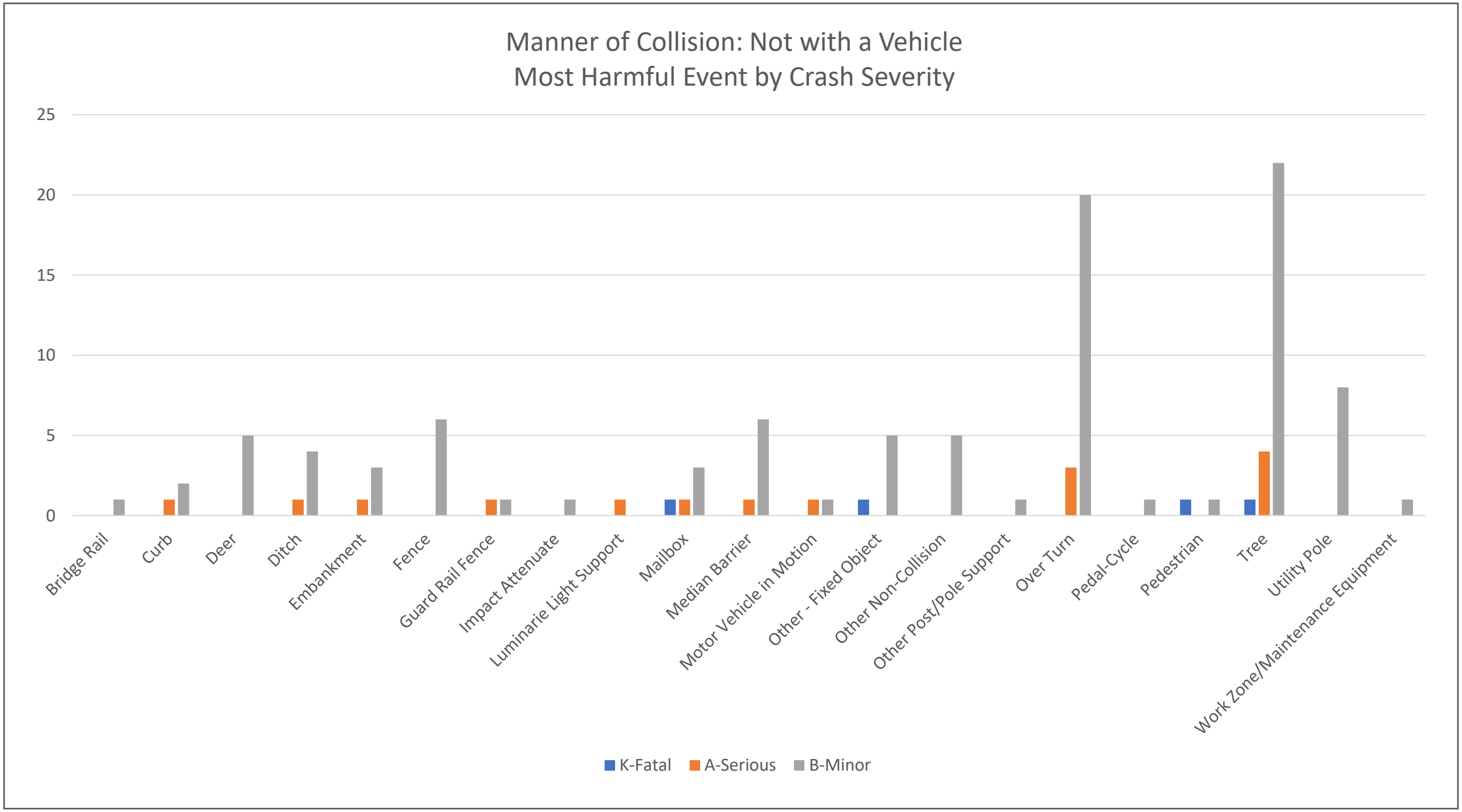
17 – Embankment
13 – Highway Traffic Signpost
11 – Guard Rail Fence
8 – Animal
7 – Culvert
6 – Other Post / Pole Support
6 – Pedestrian
3 – Bridge Rail
3 – Impact Attenuate
3 – Pedal-Cycle
2 – Cargo/Equipment Loss or Shift
2 – Guard Rail End
2 – Work Zone/Maintenance Equipment
1 – Luminaire Light Support

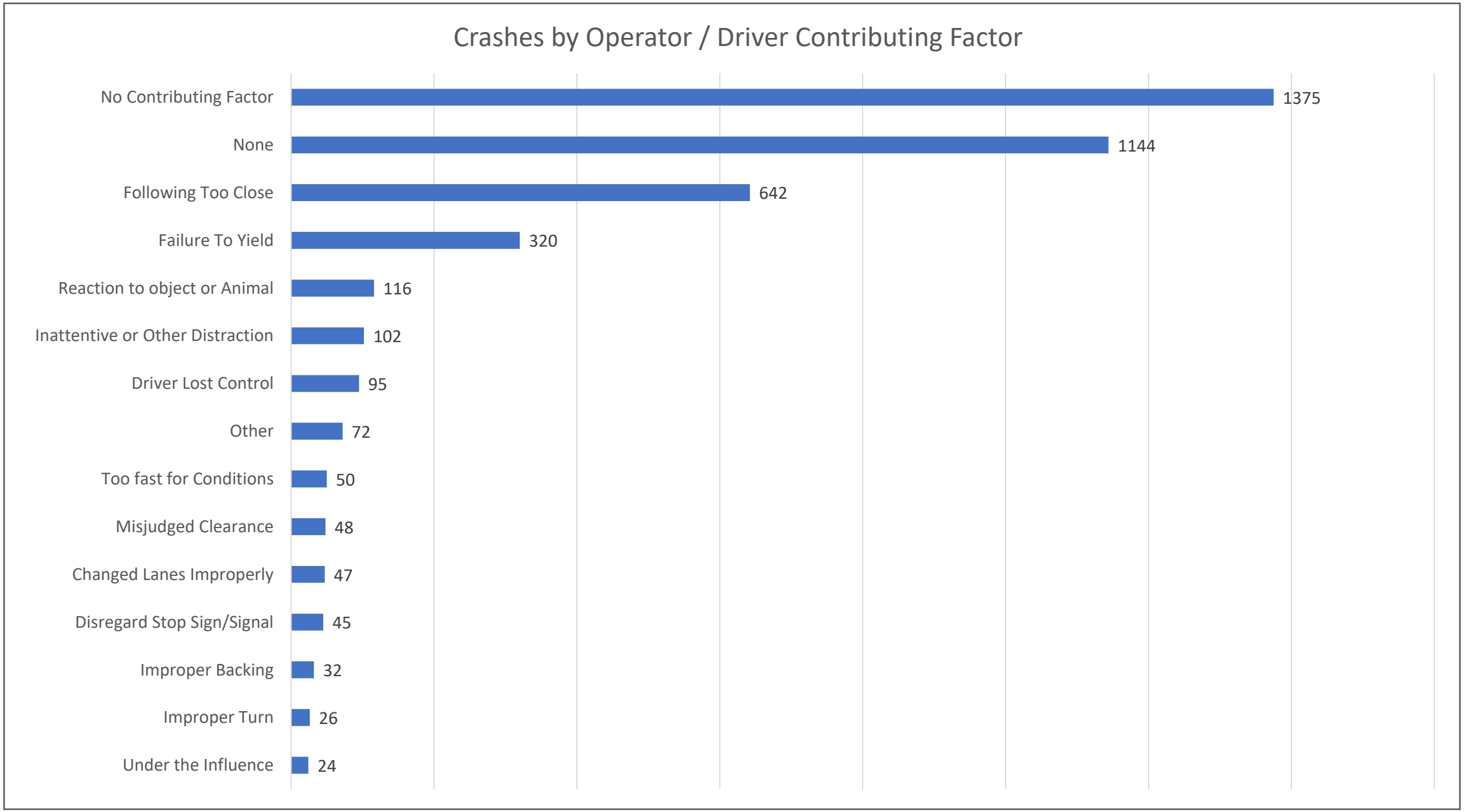


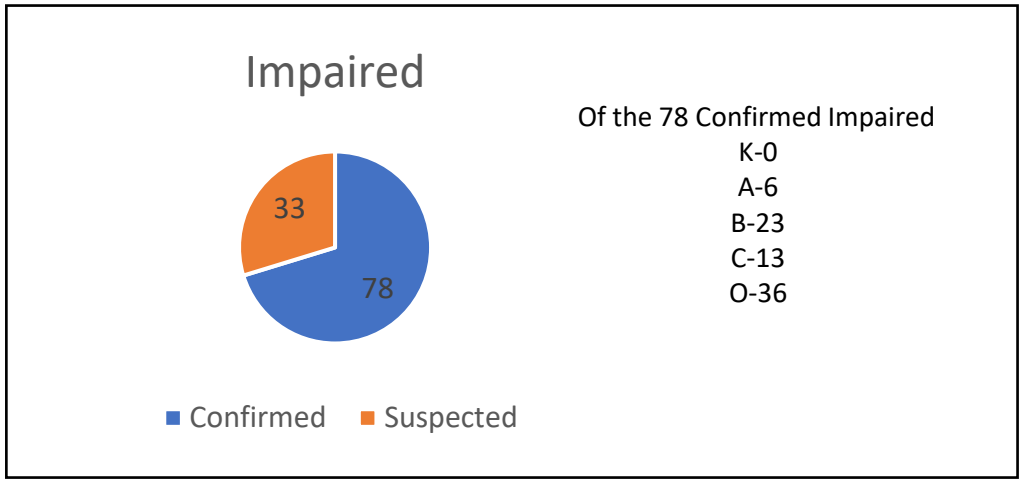
Most Harmful Event - Deer



Most Harmful Event - Tree


Manner of Collision: Not with a Vehicle
Most Harmful Event by Crash Severity
25
20
15
10
5
0
Bridge Rail
Curb
Deer
Ditch
Embankment
Fence
Guard Rail Fence
Impact Attenuate
Luminarie Light Support
Mailbox
Median Barrier
Motor Vehicle in Motion
Other - Fixed Object
Other Non-Collision
Other Post/Pole Support
Over Turn
Pedal-Cycle
Pedestrian
Tree
Utility Pole
Work Zone/Maintenance Equipment
K-Fatal
A-Serious
B-Minor


Crashes by Operator / Driver Contributing Factor
No Contributing Factor
1375
None
1144
Following Too Close
642
Failure To Yield
320
Reaction to object or Animal
116
Inattentive or Other Distraction
102
Driver Lost Control
95
Other
72
Too fast for Conditions
50
Misjudged Clearance
48
Changed Lanes Improperly
47
Disregard Stop Sign/Signal
45
Improper Backing
32
Improper Turn
26
Under the Influence
24



Of the 78 Confirmed Impaired
K-0
A-6
B-23
C-13
O-36

Hit & Run Related
218 Total Crashes

Roadways with Frequent Hit & Run Crashes

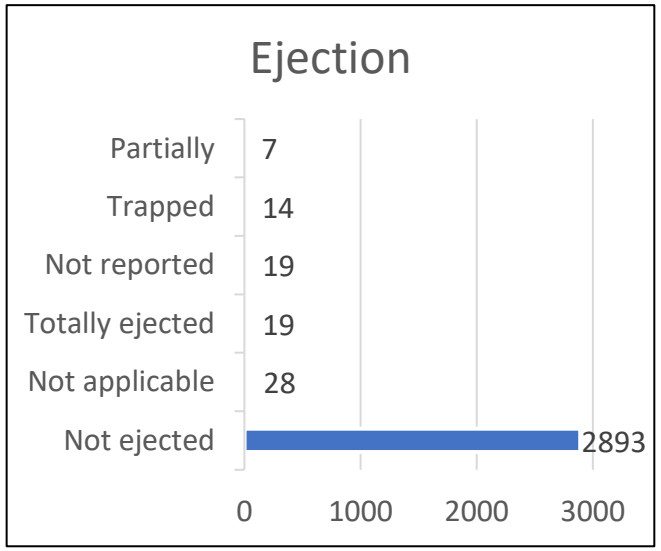
Roadway	Total Crashes
Alpharetta Highway	27
Arnold Mill Road	9
Bethany Bend	17
Birmingham Highway	12
Birmingham Road	7
Cogburn Road	14
Deerfield Parkway	8
Freemanville Road	8
GA 400	7
Hopewell Road	20
Morris Road	12
Windward Parkway	8

Roadway Departure Related

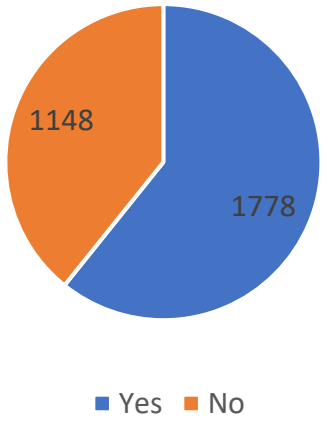
561 Total Crashes 97 KAB Crashes

Roadways with More Than
20 Roadway Departure Crashes

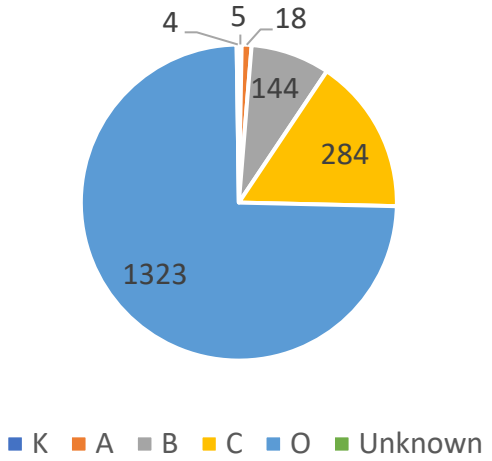
Roadway	Total Crashes	A	B
Arnold Mill Road	29	3	6
Bethany Bend	20		5
Birmingham Highway	48	3	4
Cogburn Road	39		9
Freemanville Road	32		6
GA 400	53		6
Hamby Road	23		5
Hopewell Road	41	1	9



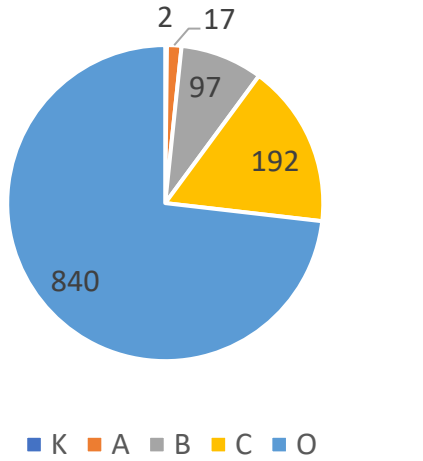
Intersection Related



Intersection Severity



Non-Intersection Severity



Intersections: These were identified by filtering using the intersection related = true. These were determined by crash frequency.

Roadway	Intersecting Roadway	Crashes		
		Total	A	B
Deerfield Parkway	Webb Road	56	1	5
Arnold Mill Road	Cox Road	47		6
Cogburn Road	Bethany Road	38		1
Windward Parkway	Jordan Court	37		1
Arnold Mill Road	Green Road	36		1
Arnold Mill Road	New Providence	32		
Windward Parkway	Westfield Drive	31		3
Broadwell Road/Birmingham Highway	Crabapple Road/Mayfield Road	30		
Hopewell Road	Hamby Road	30		4
Morris Road	Webb Road	29		1
Bethany Road	McGinnis Ferry Road/Morris Road	27		4
Birmingham Highway	New Providence Road	26		1
Hopewell Road	Bethany Road (West Leg)	26		6
Redd Road	Hopewell Road	25		4
Birmingham Road	Freemanville Road	24		3
Providence Road	Bethany Road	24		2
Hopewell road	Bethany Road (East Leg)	23		3
Arnold Mill Road	Ranchette Road	21	1	1
Birmingham highway	Hickory Flat Road	21		2
Hagood Road	Redd Road	21		2

Roadway	Intersecting Roadway	Crashes		
		Total	A	B
Alpharetta Highway	Bethany Road	108		2
Alpharetta Highway	Windward Parkway	83	1	2
Alpharetta Highway	Deerfield Parkway	50		
Alpharetta Highway	Webb Road	31		2

Note: Alpharetta Highway (SR 9) is going to be widened.

These intersections are consistent with the intersections identified in the LRSP community survey.

TAB 3

CITY OF MILTON
LOCAL ROAD SAFETY PLAN

MILTON
EST 2006

Task 3: Identification of Strategies

KCI

Local Road Safety Plan (LRSP) Vision Statement: ***The City of Milton will have a transportation system that is safe, offers a diversity of travel, and allows our citizens to traverse safely and calmly throughout our city.***

LRSP Mission Statement: ***The City proactively strives through our Local Road Safety Plan to chart a strategy to make improvements to Milton's transportation network through engineering, education, and enforcement that respects Milton's rural heritage, enhances its quality of life, and makes our roadways as safe as possible.***

***

Introduction

The City of Milton is conducting the Local Road Safety Plan and has partnered with KCI Technologies, Inc. to assist in the development of the plan. This is the second document prepared and focuses on the identification of potential strategies and safety countermeasure projects most appropriate to address the six emphasis areas previously identified. Refer to the first document, titled "Report for Task 1 & 2: Safety Data Analysis and Identification of Emphasis Areas," for additional information.

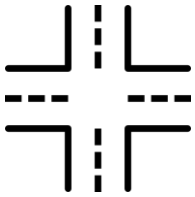
The LRSP established the following six emphasis areas:

Vehicle Speeds

Distracted Drivers

Roadway and Shoulder Conditions
(To address both vehicles maintaining road and physical infrastructure, including fixed objects - i.e., trees)

Pedestrians & Bicyclists & Equestrians
(non-motorized modes)



Intersection Safety

Wildlife/Deer

This report summarizes the third task (Choose Cost-Effective Solutions as Potential Strategies) in the development of the LRSP, which includes:

- Identification of potential strategies and safety countermeasure projects for these three components:
    - Educational Campaigns
    - Engineering Countermeasure
    - Enforcement Strategies

Identification of Potential Strategies and Safety Countermeasure Projects

The KCI team identified both strategies and safety countermeasure projects and then discussed these and additional ideas with the City's Public Works, Police, and Communications departments. The three primary components discussed included Engineering, Education, and Enforcement. Based on these discussions, the table below summarizes the six emphasis areas (for which these three components are most applicable for the City of Milton) and the number of potential educational campaigns and engineering countermeasures.

Emphasis Areas	Educational Campaigns	Engineering Countermeasures	Enforcement
Vehicle Speeds	1	4	Yes
Distracted Drivers	1	--	Yes
Roadway and Shoulder Conditions *(To address both vehicles maintaining road and physical infrastructure, including fixed objects - i.e., trees)*	1	13	--
Pedestrians & Bicyclists & Equestrians *(non-motorized modes)*	4	9	Yes
Intersection Safety	1	11	Yes
Wildlife/Deer	1	3	--

Most of the city's paved streets classified as collectors and arterials are candidates for the strategies identified above. Additionally, two suggested focus areas are 1) safety for all users on multimodal gravel roads, and 2) safety for PTVs (Personal Transportation Vehicles / Golf Carts). Multiple emphasis areas (i.e. roadway and shoulder conditions, non-motorized modes, and intersection safety) have strategies to address these two focus areas.

Identification of the strategies (with explanations) for the emphasis areas and focus areas is included in the following report sections:

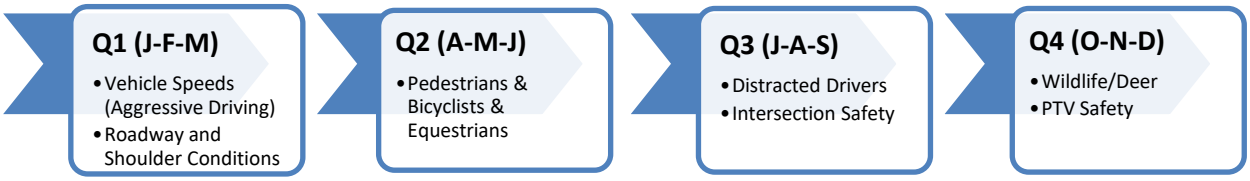
1. Educational Campaigns (campaign topics may be combined or individually)
2. Engineering Countermeasures (40 countermeasures)
3. Enforcement Strategies (4 strategies)
4. Focus Areas

1. Educational Campaigns

For this component of the safety plan, ten potential strategies were identified for educational campaigns and public outreach methods. These strategies are meant to complement the City's Communications Department outreach strategy in terms of tone, content, and efficacy. Once the educational campaigns are identified and prioritized, a separate task will be to plan the campaigns, identify potential community partners, and implement the outreach efforts in pursuit of the goals. The safety campaigns aim to bring awareness to the community on certain safety issues and empower them to change current driver, pedestrian, and cyclist behaviors. There are multiple ways that we will empower the community, including identifying campaign champions, implementing advisory groups, and the incorporating activities at local schools.

Schedule

After meeting with the City to determine the desired order of urgency for the campaigns, an annual timeline or schedule will be developed to give community partners a better understanding of when and what to expect the proposed campaigns. For each campaign, the intent is to share information through various platforms, host outreach events, and conduct enforcement details when relevant and possible. Below is one way that the campaigns could be scheduled, with different topics each quarter.



Tracking/Analytics

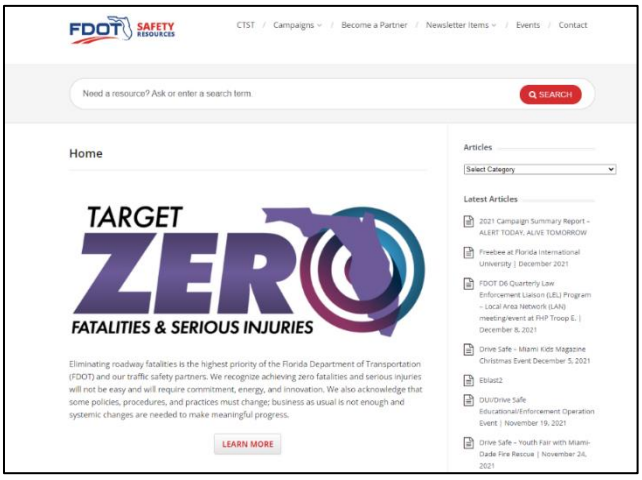
It is important to keep a record of outreach being done by the City and its community partners, in part to explore possible correlations to changed behavior and positive safety outcomes. The plan is to utilize social media analytics and community partner surveys to keep track of the progress of the campaigns. These analytics will be presented in a campaign final report to the City. A sample of this type of report can be found here: http://www.fdotsafetyresources.com/putitdown/summary-reports/2021-campaign-summary-report/

Safety Resources

The plan is to provide a webpage on the current City website to various resources that community partners can utilize throughout the campaigns, and the years to come, to distribute to their audiences.

An example of a site used for similar campaigns is presented here: http://www.fdotsafetyresources.com.

One option would be to link these using this URL: www.cityofmiltonga.us/RoadSafety.



Potential Community Partners

- Fulton County Schools (Milton High School, Cambridge High School, Northwestern Middle School, Hopewell Middle School)
- City of Milton Police Department
- City of Milton Fire Department
- Citizens Government Academy
- Georgia Bikes
- The Southern Bicycling Club
- Olde Blind Dog Cycling Club
- Milton Equestrian Committee
- Milton Trails Advisory Committee
- Alive at 25 Driver Safety Program
- Facebook groups (Focus on Milton, Half Sweet Tea, etc.)
- HOAs
- Milton Farmers Market
- Whitetail Bicycles & Coffee Shop
- Newspapers/Publications/Media (Milton Herald, Our Milton Neighbor, North Georgia Living, Patch)
- Police Chief's Advisory Board

Based on the community survey, additional suggestions were provided. The list is in **Appendix B**.

Potential Strategies

The following strategies can be utilized for multiple campaigns. Based on the community survey, the top six strategies receiving the most support include:

- Advertising (WAZE, newspapers, radio, etc.)
- Social media messages
- Email blasts (city and police email group, HOA, civic groups, school PTO)
- Local media coverage
- City webpage

Additional strategies include:

- Use of full color graphic Variable Message Sign (VMS) or digital message boards for sharing information/reminders
- Ambassador/Champions, such as council members or community leaders, connecting people to campaigns
- Testimonials from residents
- Community safety implementation group/Local advisory groups
- High School student video contest
- School outreach for all ages (walk to school days, theater groups, etc,)
- Community outreach events
- Educational/enforcement details
- Pop-up events at local businesses

Two potential strategies received low support based on a community survey. These included:

- Tip cards/handouts
- Mock crash sites

Potential Campaigns

The ten potential educational campaigns are listed below. Details about the ten campaigns are identified in the following pages. Based on the community survey, the top five campaigns receiving the most support are noted below.

Emphasis Areas	Educational Campaigns		
	ID #	Campaign	Top 5
Vehicle Speeds	1	Raise awareness of potential speed related crashes (Aggressive Driving)	Yes
Distracted Drivers	2	Raise awareness of potential distracted driving related crashes	Yes
Roadway and Shoulder Conditions	3	Raise awareness of potential run off the road crashes	
Pedestrians & Bicyclists & Equestrians	4	Bicycle rules of the road; appropriate travel etiquette through roundabouts, traffic signals, and stop control intersections	Yes
	5	Bicycle rules of the road relevant to vehicle drivers	Yes
	6	Pedestrian rules of the road	
	7	Etiquette for all modes when approaching equestrians on streets or shared use paths	
Intersection Safety	8	Roundabout rules of the road and safety success in the City of Milton	Yes
Wildlife/Deer	9	Scheduled reminders to residents/drivers	
PTV Drivers	10	PTV rules of the road	

Vehicle Speeds

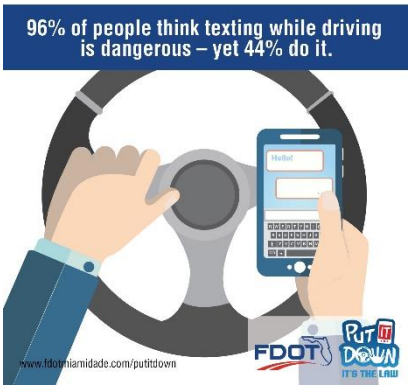
#1 Educational Campaign:	Raise awareness of potential speed related crashes (Aggressive Driving)
Emphasis area:	Vehicle Speeds
Explanation:	Raise awareness of crash potential related to speeding and remind drivers to be cautious; educate drivers about aggressive driving (specifically speeding).
Target audience:	Vehicle Drivers
Electronic Methods:	Social media messages, email blasts (city and police email group, HOA, civic groups, school PTO), local media, City webpage, digital signage
In-person Methods:	Community outreach events, educational/enforcement details
Materials:	City and consultant to prepare materials. Could include data on number and/or severity of crashes.
Additional resources:	i.e. GDOT (Drive Alert Arrive Alive), FDOT D6 Drive Safe or national (NHTSA, NSC, Alive at 25); Seatbelt usage (utilize random sampling for reporting purposes)

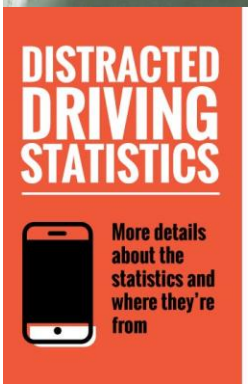
Examples:

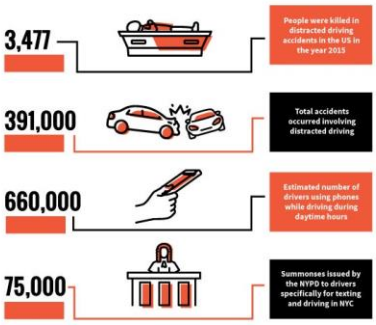
Distracted Drivers

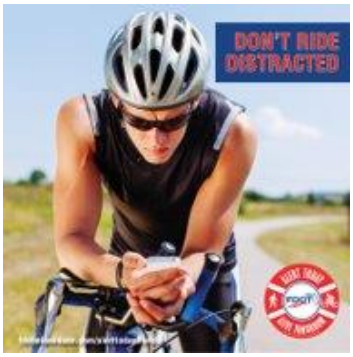
#2 Educational Campaign:	Raise awareness of potential distracted driving related crashes
Emphasis area:	Distracted Drivers
Explanation:	Raise awareness of increased crash potential associated with distracted driving, severity of crashes, and remind drivers to be cautious; remind of state law
Target audience:	Vehicle Drivers
Electronic Methods:	Social media messages, email blasts (city and police email group, HOA, civic groups, school PTO), videos created by Milton high school students, local media, City webpage, digital signage
In-person Methods:	Community outreach events, educational/enforcement details (mock crash site), simulators
Materials:	City and consultant to prepare materials. Could include data on number of crashes, testimonials, stats (football field reference)
Additional resources:	i.e. GDOT (Drive Alert Arrive Alive), FDOT D6 Put it Down or national (NHSTA)

Examples:





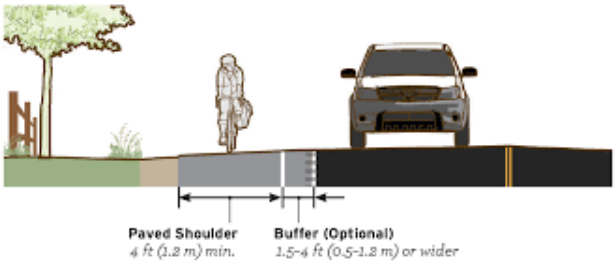




Roadway and Shoulder Conditions

#3 Educational Campaign:	Raise awareness of potential run off the road crashes
Emphasis area:	Roadway and Shoulder Conditions
Explanation:	Raise awareness of crash potential and remind drivers to be cautious, dangers of pulling over, move over
Target audience:	Vehicle Drivers
Electronic Methods:	Social media messages, email blasts (city and police email group, HOA, civic groups, school PTO), local media, City webpage, digital signage
In-person Methods:	Community outreach events, educational/enforcement details
Materials:	City and consultant to prepare materials. Could include data on number and types of crashes.
Additional resources:	i.e. GDOT or national (NHTSA)

Examples:



Pedestrians & Bicyclists & Equestrians

#4 Educational Campaign:	Bicycle rules of the road; appropriate travel etiquette through roundabouts, traffic signals, and stop control intersections
Emphasis area:	Pedestrians & Bicyclists & Equestrians
Explanation:	Provide easy to understand educational material to bicyclists to explain laws and proper use of roundabouts and intersections
Target audience:	Bicyclists
Electronic Methods:	Social media messages, email blasts (city and police email group, HOA, civic groups and school PTO), local media, City webpage, digital signage
In-person Methods:	Community outreach events, educational/enforcement details, partnerships with local bike clubs, pop-up events at local businesses (such as Whitetail Bicycles & Coffee Shop)
Materials:	City and consultant to prepare materials including tip cards
Additional resources:	i.e. GDOT or national (NHTSA)

Examples:

Pedestrians & Bicyclists & Equestrians

#5 Educational Campaign:	Bicycle rules of the road relevant to vehicle drivers
Emphasis area:	Pedestrians & Bicyclists & Equestrians
Explanation:	Provide easy-to-understand educational material to drivers (i.e. reminders of state 3-foot rule, intersection rules) and safety reminders to bicyclists
Target audience:	Vehicle drivers and bicyclists
Electronic Methods:	social media messages, email blasts (city and police email group, HOA, civic groups and school PTO), local media, City webpage, digital signage
In-person Methods:	community outreach events, educational/enforcement details, partnerships with local bicycle clubs/groups, pop-up events at local businesses (such as Whitetail Bicycles & Coffee Shop)
Materials:	City and consultant to prepare materials including tip cards; potentially could distribute bike safety materials such as reflectors/lights/helmets/etc.
Additional resources:	i.e. GDOT or national (NHTSA)

Examples:

Pedestrians & Bicyclists & Equestrians

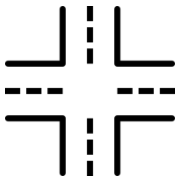
#6 Educational Campaign:	Pedestrian rules of the road
Emphasis area:	Pedestrians & Bicyclists & Equestrians
Explanation:	Provide easy-to-understand educational material and safety reminders to pedestrians and safety reminders to drivers
Target audience:	Vehicle drivers and pedestrians
Electronic Methods:	social media messages, email blasts (city and police email group, HOA, civic groups and school PTO), local media, City webpage, digital signage
In-person Methods:	community outreach events, educational/enforcement details, pop-up events at local businesses (such as Whitetail Bicycles & Coffee Shop), Milton Trails Advisory Committee meetings
Materials:	City and consultant to prepare materials including tip cards; potentially could distribute safety materials
Additional resources:	i.e. GDOT or national (NHTSA)

Pedestrians & Bicyclists & Equestrians

#7 Educational Campaign:	Etiquette for all modes when approaching equestrians on streets or shared use paths
Emphasis area:	Pedestrians & Bicyclists & Equestrians
Explanation:	Provide materials for road-users to educate them about how to share the road
Target audience:	Vehicle drivers, bicyclists, pedestrians, riders
Electronic Methods:	social media messages, email blasts (city and police email group, HOA, civic groups and school PTO) local media, City webpage, digital signage
In-person Methods:	community outreach events, educational/enforcement details (mock-crash site), Milton Equestrian Committee meetings/outreach, Milton Trails Advisory Committee meetings
Materials:	City and consultant to prepare materials including tip cards
Additional resources:	i.e. national (NHTSA)

Examples:

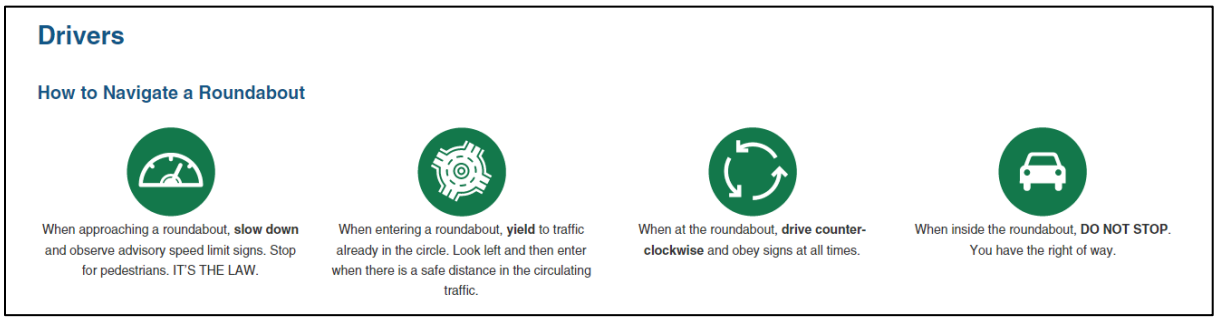
Educational/Enforcement detail with mock-crash site

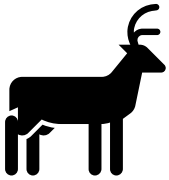


Intersection Safety

#8 Educational Campaign:	Roundabout rules of the road and safety success in the City of Milton
Emphasis area:	Intersection Safety
Explanation:	Educate road-users and share safety benefits (reduction in crashes) due to roundabout installation
Target audience:	Vehicle Drivers, Bicyclists, Pedestrians
Electronic Methods:	Social media messages, email blasts (city and police email group, HOA, civic groups and school PTO), local media, City webpage, digital signage
In-person Methods:	Community outreach events, educational/enforcement details, pop-up events near roundabouts
Materials:	City and consultant to prepare materials. Could include data on number of crashes and short videos
Additional resources:	i.e. GDOT or national (NHTSA)

Examples:

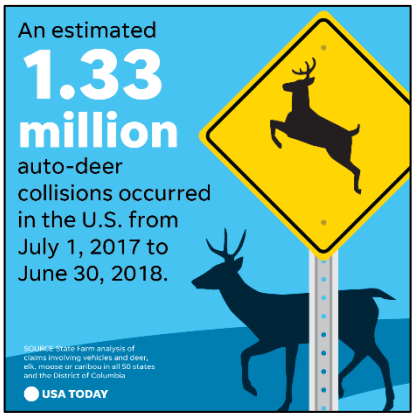


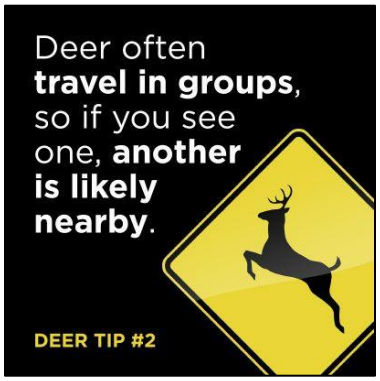


Wildlife/Deer

#9 Educational Campaign:	Scheduled reminders to residents/drivers
Emphasis area:	Wildlife/Deer
Explanation:	Due to the nature of this type of crash/event and timing, raise awareness of crash potential and remind drivers to be cautious (night driving, Rut in November)
Target audience:	Vehicle Drivers
Electronic Methods:	social media messages, email blasts (city and police email group, HOA, civic groups and school PTO), local media, City webpage, digital signage
In-person Methods:	community outreach events, educational/enforcement details
Materials:	City and consultant to prepare materials. Could include data on number of crashes.
Additional resources:	i.e. GDOT or national (NHTSA)

Examples:





Additionally, to address the focus areas for PTVs/Golf Carts, the following campaign is identified.

#10 Educational Campaign:	PTV rules of the road
Focus area:	PTV drivers
Explanation:	Educate the PTV owners/drivers about City and state laws for use of on public streets and shared-use paths
Target audience:	PTV owners/drivers, drivers and pedestrians in vicinity of PTVs (focused on certain areas of Milton
Electronic Methods:	social media messages, email blasts (city and police email group, HOAs, civic groups and school PTO), local media, City webpage, digital signage
In-person Methods:	community outreach events, educational/enforcement details, City Council meetings, Milton Trails Advisory Committee meetings
Materials:	City and consultant to prepare materials.
Additional resources:	i.e. GDOT or national (NHTSA)

Examples:

2. Engineering Countermeasures

Potential safety countermeasure projects that can be installed or designed were identified for all six emphasis areas. These projects could be appropriate for paved streets classified as collectors and arterials within the city. The specific locations and design details would be determined as part of a separate study from this plan. Some recommendations involve studies or policy changes. The projects are identified below, with an ID (i.e. VS-1), followed by an explanation.

Emphasis area:	Vehicle Speeds

1. [VS-1] Perform study to review possible changes (reduction) to posted speed limits on specific streets
    - Applicable to roads identified by the city or community
    - Check for consistency at city/county borders (i.e. Hickory Flat Road at Cherokee County line)
    - Top concern is 45 MPH posted streets
    - Formal Traffic Engineering and Inspection Report recommended to support request to Georgia DOT for speed limit change
    - Consider non-standard conditions (i.e. land uses, farms, types of vehicle/users)
    - Ultimately Georgia DOT approves or disapproves speed limits for the city's radar permit
2. [VS-2] Establishment of Milton specific speed limit zones: horse zone, farm zone, residential zone
    - Speed limit zones appropriate for and adjusted to the local conditions, while preserving the reasonable expectations of all drivers using those roads
    - Conditions not readily apparent to drivers, such as crash history, roadside conditions, and the higher-than-normal presence of bicycle and pedestrian traffic, equestrian traffic
    - Preferably considered in the radar permit but could use advisory speed limit plates to establish the limits of these zones
3. [VS-3] Installation of speed feedback signs on streets at locations of concern
    - This is a continuation of the city's current program
    - Additional locations could be identified and studied to determine if appropriate
4. [VS-4] Install raised median islands (to create horizontal deflection and visual narrowing) at street locations experiencing high speeds or locations where slower speeds are desired
    - The median islands could be similar in design to those at roundabout approaches, and could be located at pedestrian/shared use path crossings, and in advance of horizontal curves

Emphasis area:	Roadway and Shoulder Conditions

1. [RSC-1] Remove trees, tree limbs, and vegetation within the roadway shoulder clear zone
    - City could evaluate one street at a time and prioritize locations
2. [RSC-2] Add enhanced pavement markings
    - Option to install wider lane lines. GDOT will be changing the standard lane line width from 5-inch to 6-inch. Option to install wider edge line (i.e. 8-inch) in curves or target areas.
    - Option to install higher quality pavement markings which are more reflective in wet conditions/night conditions. For example, the 3M Connected Roads All Weather Elements product provides increased brightness and wet reflectivity.
    - Option to do a pilot project on a street and ask public for feedback
    - Benefit is improved nighttime visibility of roadway (reduce run-off-the-road crashes)

- Note: All the major streets have double-yellow centerline and white edge line pavement markings

3. [RSC-3] Add raised pavement markers (RPM) on yellow centerline
    - Currently only SR 372, Cogburn, New Providence, and Batesville Road have centerline RPMs. Portions of Freemanville, Bethany, and Thompson have centerline RPMs.
    - Recommendation: only on centerline (not on white edge line) due to bicycles
    - Being mindful of bicyclists, do not install physical features such as grooved edge lines and rumble strips (However, speed cushions and some speed hump designs may be feasible.)
4. [RSC-4] Add grooved yellow centerline
    - Recently grooved lane lines were installed on SR 372 – both centerline and edge line.
    - Recommendation is only on centerline (not on white edge line) due to bicycles.
    - Can be installed as part of repaving projects
5. [RSC-5] Increased frequency of replacement of pavement markings/RPMs
    - City can monitor street conditions and reinstall separately from repaving
6. [RSC-6] When repaving major streets (which do not have curb), use the "safety edge" design.
    - This removes the drop at the edge of the pavement and aids driver recovery when tires run off the edge of the pavement.
7. [RSC-7] Add 1- to 2-foot paved shoulders along the streets at key locations
    - Option to install at limited distances on horizontal curves or locations with evidence of vehicle tires off the edge of pavement. Typically this is seen at street curves.
    - Option to install for a part of a street segment. These do not have to be the entire length of the street.
    - Due to bicycle stakeholder input, the intent is not to provide a bicycle lane. The intent is to address vehicle tire drop off and provide a limited bicycle shoulder.
8. [RSC-8] Install or upgrade curve warning signs
    - The roadway conditions review identified some horizontal curve warning signs or chevron signs. The opinion is additional or enhanced signage may be appropriate.
    - Initial study could be performed to identify and prioritize locations
9. [RSC-9] Install curve feedback warning signs
    - Option to install a sign or warning beacon which is activated when an approaching vehicle is traveling too fast for the road conditions
    - The intent is to inform the driver to slow down
10. [RSC-10] Upgrade guardrail and extend guardrail lengths at bridges/culverts
    - Most existing locations of guardrail at bridge/culverts need upgrades. Current design standards require adding additional guardrail on the approaches.
    - A study could be performed to identify and prioritize locations
    - Suggest City of Milton identify a standard for aesthetically pleasing guardrail
11. [RSC-11] Reconstruct horizontal or vertical curves to provide adequate sight distance
12. [RSC-12] Install street lighting
    - Installing street lighting may be appropriate at certain areas of the city and at high volume pedestrian locations.
    - Install additional street lighting at roundabouts
    - Initial study could be performed to identify and prioritize locations
    - Identify (or confirm) an improved/simpler process to report street light outages so power company can quickly repair

13. [RSC-13] Policy change to mailboxes on public streets
    - The current city ordinance allows the installation of new breakaway post mailboxes and does not allow the installation of non-breakaway mailboxes. To reduce crashes involving non-breakaway mailboxes, the policy could be revised to address existing locations and replacement when damaged.

Emphasis area:	Pedestrians & Bicyclists & Equestrians

1. [PBE-1] Continue work with Milton Trails Advisory Committee to refine and prioritize installation of shared use path locations and identify citywide areas of safety concern
    - Increase community access and use of Trails by implementing the 2020 Milton Community Trail Prioritization Plan
    - The locations could be critical connections, such as to provide safe equestrian crossing of a high speed/high volume street, or along a short stretch of high-volume street
    - The locations could be within walking or bicycling distance from schools
    - The locations could be providing links between subdivisions and city parks, the Crabapple area, Deerfield/Hwy 9 area, or retail uses
2. [PBE-2] Suggestion to revisit (review any policy changes, physical changes, and verify any modifications) the two priority networks identified in the previous Comprehensive Transportation Plan: Sidewalk Priority and Bicycle Priority Network
    - Based on the Community Engagement Survey, 76% stated they support adding bicycle lanes or bikeable shoulders, while only 12% stated they did not support this.
    - Based on the Community Engagement Survey, 92% stated they support adding sidewalks or multiuse trails, while only 3% stated they did not support this.
    - Based on the stakeholder meeting input, the fast-riding bicycling community prefers to share the travel lane. Building separate on-street bike facilities (bike lanes) is not desired; however, multiuse trails may be more appropriate. Receiving additional input from the bicycle community on the bicycle priority network, including locations and any facility needs at critical locations, would strengthen the city's implementation plan.
    - Recommend identifying the sidewalk priority plan by street segments and the side of the street so that the residents and city council have an approved plan to strengthen the city's implementation plan.
3. [PBE-3] Install bicycle facilities to improve safety at critical locations, such as to provide a safe crossing of a high-speed street/high-volume street, or along a short stretch of a high-volume street
    - Bicycle facilities is the term to describe either a shared-use path, bike lane, separated bike lane, or two-way cycle track
4. [PBE-4] Install multimodal street crossing facilities to improve safety at critical locations. This could include providing a safe crossing of a high speed/high volume street for pedestrians, bicyclists, and/or equestrians.
    - This could include installing warning signage for drivers in advance of the crossing
    - This could include user activated warning devices, such as RRFBs or Pedestrian Hybrid Beacons
    - This could include mid-block pedestrian crossings
    - This could include in-pavement illumination of crosswalks

5. [PBE-5] Install median refuge islands at existing or proposed street crossings
    - The median reduces the length of the crossing, allows the pedestrian to cross in two stages, and helps reduce vehicle speeds
    - This could be installed at critical locations and improve conditions for pedestrians, bicyclists, and/or equestrians.
6. [PBE-6] Install sidewalks, shared use paths, bicycle facilities, trails to expand the multimodal network
7. [PBE-7] Install warning signage and pavement markings to remind/advise drivers of bicyclists: 1) share the road with bicyclists and 2) the Georgia state 3-foot rule (for example the City of Johns Creek uses two signs along streets)
8. [PBE-8] Coordinate with the Milton Equestrian Committee to determine recommendations to enhance equestrian safety
9. [PBE-9] A cumulative list of twenty-five engineering safety countermeasures considered applicable for the City of Milton for nonmotorized users is provided in **Appendix A**. The document includes a description and the effectiveness of each countermeasure.

Requesting resident input and established committees would be very helpful to identify locations and priorities for these strategies.

Emphasis area:	Intersection Safety

1. [IS-1] Install advance intersection warning signs (with street names for directional guidance)
    - Perform citywide review on collector and arterial streets of current signage at major public streets
    - Develop plan which identifies all locations for signage; implement phased installation
    - Option to install flashing warning signs in advance of roundabouts or intersections
    - The benefit includes advising drivers when approaching intersections and directional guidance for unfamiliar drivers
2. [IS-2] Perform separate safety study at individual intersections to identify enhancement options
    - This could be a phased effort, beginning with higher crash locations.
    - Both a historical crash trend review and a field conditions review would be performed to identify potential enhancements. The study may identify maintenance items, low-cost options, or major capital project needs.
    - The study could address safety for all travel modes. The study could be performed at traffic signals, stop-control, and roundabout locations.
3. [IS-3] Install street lighting
    - Installing street lighting may be appropriate at certain areas of the city and at high volume pedestrian locations.
    - Initial study could be performed to identify and prioritize locations
4. [IS-4] Install flashing warning beacon at intersection with limited sight distance
    - The intent is to install on the higher speed street. The warning beacons are activated when a vehicle enters from side street. Typically, these are used on sharp horizontal or vertical curve locations.
5. [IS-5] Remove vegetation to improve intersection visibility
    - The intent is to provide clear line of sight for all users of the intersection
    - This could be performed by either the city or private property owner; or coordinated with the private property owner
    - Ensure regulatory intersection signage is visible (may become more critical as there are more autonomous vehicles)

6. [IS-6] Install roundabouts at intersections (where conditions are favorable) to address correctable historical crashes and provide an enhanced pedestrian crossing
7. [IS-7] Install left-turn restricted intersections, reduced conflict u-turn (RCUT) intersections, or right-in/right-out driveways to address correctable historical crashes or at proposed intersections
8. [IS-8] Install consistent or lower advisory vehicle speed signs at roundabouts
    - Review existing locations for consistency and/or post lower advisory speed
9. [IS-9] To raise awareness at stop-control or yield control points, install red or yellow reflective strip to the sign pole
10. [IS-10] Enhanced pavement markings, wider edge line, appropriate stop bar and crosswalk locations
11. [IS-11] For new developments, consider incorporating a safety analysis into the traditional traffic impact analysis (TIA) report.
    - Traditionally, TIAs focused on the capacity and operational aspects of increased traffic volumes, assuming that improvements to address operational impacts would also provide safety benefits. However, independent safety analysis was not usually done, resulting in safety impacts being overlooked and opportunities for safety enhancements being missed.
    - Incorporating safety into a TIA can help the city achieve targeted benchmarks for a reduction in crashes and fatalities. Utilizing a Data-Driven Safety Analysis (DDSA) process will enable the identification of existing and potential safety issues expected at the development access locations for vehicular, pedestrian, and bicycle modes.

One suggestion is the residents could be asked to help identify locations of concern for these strategies.

Emphasis area:	Wildlife/Deer

1. [W-1] Add a unique deer warning signage/reminder signage in strategic (highly visible) locations
    - Recommend not installing signs at every incident location
    - Signage could be seasonally displayed to improve driver awareness (rather than a static, year-round sign)
    - Option to use a full color graphic Variable Message Sign (VMS) could be effectively used at specific times of the year and locations to message regarding deer activity and crashes, as well as all other educational campaigns. A full color matrix display can display messages, texts, symbols and graphics. Trailer-mounted would allow locating at strategic places.
    - Recommend revising the current City policy regarding installation of deer warning signage
2. [W-2] When a bridge or culvert is replaced across a road, and it is at a predominant deer crossing location, consider enhancing the bridge (widening/height) to accommodate wildlife/deer crossings
    - Feasibility will include the additional cost, potential fencing to direct wildlife to the crossing, and the expected use
3. [W-3] Identify a 'Smart Technology' solution (i.e. partner with Georgia Tech Smart Cities)

For this emphasis area, note that one educational campaign is recommended, which may be more effective than physical engineering solutions.

3. Enforcement Strategies

Enforcement of City and State laws was identified as a strategy for four emphasis areas. The City of Milton Police Department actively focus on traffic enforcement and safety daily. The focus is on public complaints, high crash corridors, and speed enforcement. Currently there are three dedicated officers assigned to traffic Monday through Friday. The City intends to hire additional dedicated officers assigned to traffic.

Details about four strategies and current implementation are identified in the following tables.

#1 Enforcement:	Enforcement detail – issue citations for speeding vehicles
Emphasis area:	Vehicle speeds
Explanation:	Routine speed enforcement on collector and arterial streets
Schedule:	Daily, Year-round
Target audience:	Vehicle Drivers
Future Activity:	Continue; focus on hot spot locations/streets

#2 Enforcement:	Enforcement detail – planned traffic stops to remind and advise drivers; issue citations
Emphasis area:	Distracted Drivers
Explanation:	Raise awareness of increased crash potential associated with distracted driving, the state “hands-free” law, severity of crashes, and remind drivers to be cautious; enforce state law
Schedule:	Daily, Year-round
Target audience:	Vehicle Drivers
Notes:	City stated about 60-70 daily stops for holding cell phone; officers typically take a “stop and educate” approach.

#3 Enforcement:	Enforcement detail – planned traffic stops to remind and advise users; issue citations
Emphasis area:	Intersection Safety
Explanation:	Raise awareness of crash potential and remind users of the state laws
Schedule:	Daily, Year-round
Target audience:	Vehicle Drivers, Pedestrians, Bicyclists

#4 Enforcement:	Enforcement detail – planned stops to remind and advise users
Emphasis area:	Pedestrians & Bicyclists & Equestrians
Explanation:	The idea is to raise awareness of crash potential and remind users of etiquette and laws
Schedule:	Daily, Year-round; could also focus on at certain times of year
Target audience:	Pedestrians, Bicyclists, Equestrians
Notes:	Idea to coordinate with Middle Schools and educate since these students are allowed to walk/bicycle to school by themselves

	Outreach to cyclists regarding “rules of the road”

Additionally, the police department could attend community outreach events and raise awareness and share materials to address many of the above emphasis areas. The City could also consider local ordinance additions that could be used in enforcement.

4. Focus Areas

Two focus areas are 1) safety for all users on multimodal gravel roads, and 2) safety for PTVs (Personal Transportation Vehicle / Golf Carts). Residents’ desire to utilize PTVs on city streets and shared use path facilities is expected to increase. A couple emphases areas (i.e. roadway and shoulder conditions, non-motorized modes, and intersection safety) have strategies and projects to address these two focus areas. Additional strategies are provided here.

Focus area:	Multimodal Gravel Roads

1. Design and install simple signage for users on multimodal gravel roads to communicate etiquette: “who yields to who”
    a. An example of a sign is below

2. Install and open new trail facilities, which will provide preferred alternative for residents who currently walk and ride horses on gravel roads
3. Educate walkers on the “Rules of the road”
4. Better define parking areas or no parking areas due to road width or limited visibility
5. Potentially designate for residential traffic only

Focus area:	Safety for PTVs (Personal Transportation Vehicle / Golf Carts

1. The city is conducting a study of PTV access for the Crabapple area. This effort will provide policy and ideas which can be applied throughout the city.
2. Other cities in Georgia have varying levels of policy, requirements, and infrastructure for PTVs. The recommendation is to enhance and modify city policies as the need arises.

***

Community Input

The identified strategies and safety countermeasure projects in this report will form the basis for the plan creation. The information in this report was presented to the community for input. The city conducted an eight-question community survey from May 12 to May 30th. A total of 329 responses were recorded. The community input has been incorporated into the report. The summary of the survey results is included in **Appendix B**.

Next Steps

The next step is to create the action plan, which will include the recommended implementation phasing. The action plan will provide a comprehensive menu of strategies and projects to implement.

APPENDIX A

Potential Engineering Safety Countermeasures for Nonmotorized Users

The Federal Highway Administration (FHWA) provides a cumulative list of engineering safety countermeasures for agencies to consider when strategizing roadway safety goals. Twenty-five of these countermeasures considered applicable for the City of Milton for nonmotorized users are provided. A description and the effectiveness of each countermeasure in reducing fatalities and serious injuries for nonmotorized users, including pedestrians, bicyclists, and equestrians, is summarized below.

Category	Countermeasures
Roadway Design	1. Multi-Use Path
	2. Lane Narrowing
	3. Lane Reduction (Road Diet)
	4. Raised Median
	5. Roadway Lighting
	6. Roundabouts
Intersection Design	7. Accessibility Improvements
	8. Crosswalk Visibility Enhancement
	9. Signage and Pavement Marking Enhancements
	10. Raised Crosswalk
	11. Improved Right-Turn Slip Lane Design
	12. Curb Radius Reduction
	13. Centerline Hardening
Midblock Design	14. Rectangular Rapid Flashing Beacons (RRFB)
	15. Pedestrian Hybrid Beacons (PHB)
	16. Median Refuge Island
	17. In-Street Crossing Signage
Traffic Calming and Management	18. Gateway Treatments
	19. Horizontal Deflection Treatments
	20. Vertical Deflection Treatments
	21. Diverter Treatments
	22. Mini-roundabouts
Traffic Operations	23. Pedestrian Signals and Push Buttons
	24. Leading Pedestrian Intervals
	25. Turn Movement Prohibitions

Roadway Design

1. **Multi-Use Paths** are predominantly used by nonmotorized modes which are physically separated from motorized vehicular traffic either by a vertical barrier or horizontal separation within an independent right-of-way. Alternatively, side paths, which are multi-use paths that run adjacent to the roadway, are preferred where constrained right-of-way exists. Well-designed multi-use paths and side paths improve mobility of nonmotorized modes by connecting destinations without gaps or abrupt interactions with vehicular traffic, particularly along multilane and higher speed roadways, or complex intersections.

2. **Lane Narrowing** may reduce vehicular speeds along a roadway corridor where shared lane travel is encouraged for nonmotorized modes and can improve safety and comfort for all users. Reduced travel lane widths of 10 feet are achievable in the appropriate context but travel lane widths of 11 feet may be necessary to accommodate larger design vehicles such as trucks or buses.
3. **Lane Reduction or Road Diets** should be considered on roadways where the number of vehicular travel lanes provide excess vehicular capacity. The additional roadway space can be reallocated for other roadway users in the form of on-street bicycle lanes, on-street parking lanes, widened sidewalks, or landscaped buffers, for example. Road diets are a proven, low-cost safety countermeasure that provide a safer alternative from a traditional four-lane, undivided roadway and can reduce the probability and severity of all crash types.
4. **Raised Medians** can facilitate safer roadway crossing opportunities for nonmotorized travel modes and provides a physically separated area from opposing vehicular traffic streams. This feature allows the nonmotorized user to cross one direction of traffic at a time. Landscaping or street lighting installed in the raised median can reduce vehicular travel speeds, minimize or eliminate turning conflicts, and can improve visibility of nonmotorized users. Marked crosswalks in conjunction with raised medians can significantly reduce pedestrian crashes.
5. **Roadway Lighting** can illuminate pedestrian crossing locations to improve visibility during nighttime conditions. Additionally, adequate lighting enhances commercial areas while improving pedestrian comfort and safety.
6. **Roundabouts** can reduce vehicular travel speeds and reduce the number of conflicts and severity of crash types between all roadway users. They are an effective countermeasure for facilitating a safer environment for nonmotorized users and can be used to transition vehicular traffic from high-speed to low-speed facilities, such as freeway interchanges or from an arterial street to a local street. Roundabouts are a proven safety countermeasure that provide a safer alternative from a traditional intersection.

<u>Intersection Design</u>

7. **Accessibility Improvements**, such as curb ramps, provide safe access to public roadway facilities for nonmotorized users with mobility restrictions or visual impairments. Well-designed curb ramps should be provided at all intersections and midblock locations where pedestrian crossings are present and shall comply with the Americans with Disabilities Act (ADA). Design requirements such as slope, grade, and tactile warning devices that assist nonmotorized users can improve safety and accessibility at crossing locations.
8. **Crosswalk Visibility Enhancements**, such as high visibility marked crosswalks, provide safer intersection crossing movements for all nonmotorized users. Generally, longitudinal crosswalk pavement markings (bar, continental, ladder) are preferred over parallel transverse crosswalk pavement markings due to improved visibility of the crossing surface. In conjunction with intersection lighting, high visibility crosswalks can significantly reduce pedestrian crashes.
9. **Signing and Pavement Marking Enhancements** can supplement high visibility marked crosswalks and intersection lighting to improve safety for nonmotorized users at intersection crossings. Florescent yellow-green warning signs used for pedestrian, bicycle, or school areas, may increase the expectation of these users by differentiating it from other roadway warning signs. Word pavement markings and stop or yield line pavement markings may also be appropriate for higher speed, multilane roadways and can reduce pedestrian crashes.

10. **Raised Crosswalks** create a more prominent crossing location for nonmotorized users and can reduce vehicular speeds due to the vertical deflection of the crossing surface. Raised crosswalks used in commercial settings, school zones, or recreational trail crossings enhance the environment for nonmotorized users and can reduce severe pedestrian crashes by improved motorist yielding behavior.
11. **Improved Right-Turn Slip Lane Design** can emphasize nonmotorized safety at intersections by minimizing the approach speed of right turning vehicles and increasing the visibility of crossing movements. Well-designed slip lanes, such as the concept of the Urban Smart Channel, reduce the exposure of the pedestrians in the roadway by improving the angle of entry prior to the turn. Eliminating the free flow traffic movement and reducing vehicular travel speeds can diminish severe pedestrian crashes for right-turn slip lane movements.
12. **Curb Radius Reductions** can reduce the speed of vehicular turning movements and improve the likelihood of a nonmotorized user being struck by right turning vehicles. Smaller corner radii can also improve intersection sight distance, shorten the pedestrian crossing distance, and reduce pedestrian exposure time in the intersection.
13. **Centerline Hardening** treatments are small rubber barriers or bollards adjacent to marked crosswalks that slow right or left turning vehicle movements at pedestrian crossings. This is a low-cost safety countermeasure that significantly reduce turning speeds, prevents drivers from making diagonal turn movements through a crosswalk, and improves safety for nonmotorized users in the intersection.

Midblock Design

14. **Rectangular Rapid Flashing Beacons (RRFB)** consist of light-emitting diode (LED) beacons that flash with high frequency when activated at an uncontrolled pedestrian crossing. These devices are typically accompanied with pedestrian crossing warning signs and pavement markings and are a safety countermeasure proven to increase motorist yielding behavior and enhances the visibility of nonmotorized users at midblock locations.
15. **Pedestrian Hybrid Beacons (PHB)** are a traffic control device that consist of signal heads comprised of two red lenses above a single yellow lens. The lenses remain dark until activated by a nonmotorized user, which then initiates a flashing sequence followed by a steady red indication. The PHB provides the right of way to the nonmotorized user to safely cross the roadway before reverting to the dark condition after a given interval. PHBs are a proven safety countermeasure that reduce the number of pedestrian crashes at non intersection locations, particularly for higher speed, multilane roadways.
16. **Median Refuge Islands**, like raised medians, provide a physically separated area from opposing vehicular traffic streams, assisting nonmotorized users attempting to cross multilane roadways. Installation of a median refuge island allows the nonmotorized user to cross one direction of traffic at a time and allows the user to better assess acceptable gaps in traffic based on their abilities and crossing speed. Median refuge islands, in conjunction with marked crosswalks, are a proven safety countermeasure and can reduce pedestrian crashes.
17. **In-Street Crossing Signs** (MUTCD R1-6 or R1-6a) are installed between travel lanes or in a median to remind motorists to either stop or yield to nonmotorized users within a crosswalk at an unsignalized location. This sign can be used in conjunction with other crossing improvements to enhance pedestrian activity and can reduce pedestrian crashes.

Traffic Calming and Management

18. **Gateway Treatments**, such as chokers, raised intersections, medians, archways, or other identifiable features can emphasize neighborhood or commercial settings and can convey a slow speed environment for drivers. This feature can create a safer environment for nonmotorized users and is an effective traffic calming treatment when combined with other safety countermeasures.
19. **Horizontal Deflection Treatments**, such as chicanes or lateral shifts, can reduce vehicular travel speeds predominantly on local streets or commercial areas. Pavement marking tapers, shifting on-street parking from one side to the other, or landscaped islands can be an effective traffic calming treatment when combined with other safety countermeasures.
20. **Vertical Deflection Treatments**, such as speed humps, speed cushions, or speed tables, can reduce vehicular travel speeds predominantly on local streets, commercial areas, or school zones. Vertical measures tend to provide the most predictable speed reduction impacts and can be used to enhance the environment for nonmotorized users.
21. **Diverter Treatments**, such as forced turn islands, intersection barriers, or partial/full road closures are a traffic management tool predominantly used within a local street network to discourage vehicular cut-through traffic and speeding while providing safe access for pedestrians, bicyclists, or equestrians. Such treatments may reduce traffic volumes in a residential area and can be used to enhance the environment for nonmotorized users.
22. **Mini-roundabouts** include traversable circular islands used to reduce vehicular travel speed predominantly for intersecting local streets. This countermeasure can be considered where an all-way stop, two-way stop, or traffic signal is not warranted and is a proven safety countermeasure to reduce all crash types and provide an enhanced pedestrian crossing.

Traffic Operations

23. **Pedestrian Signals and Push Buttons** at signalized intersections provide a dedicated interval for permitting a pedestrian movement across the roadway. The use of a pushbutton activates an adequate WALK interval at a traffic signal and provides right of way for the crossing movement followed by a DON'T WALK interval. This can be used in conjunction with other crossing improvements to enhance pedestrian activity and can reduce pedestrian crashes at signalized intersections.
24. **Leading Pedestrian Intervals** (LPI) give the pedestrian a 'head start' at a signalized crossing location and allows the pedestrian to establish their presence in the crosswalk before left or right turn vehicle movements. LPIs can increase the visibility of crossing pedestrians and can improve motorist yielding behavior to pedestrians. This can be used in conjunction with other crossing improvements to enhance pedestrian activity and is a proven safety countermeasure to reduce pedestrian crashes at signalized intersections.
25. **Turn Movement Prohibitions**, such as right-turn on red (RTOR) restrictions, can be used where exclusive pedestrian or bicycle phases are used at traffic signals or where a high number of nonmotorized users are present. Time of day, variable message signs, or blank-out signs with clear messaging may contribute to greater compliance by motorists. Prohibiting RTOR is a low-cost safety countermeasure and when paired with LPIs can enhance pedestrian safety at signalized intersections with minimal impact to vehicular delay.

Sources:

http://www.pedbikesafe.org/

https://safety.fhwa.dot.gov/provencountermeasures/

https://nacto.org/wp-content/uploads/2015/04/DE-Traffic-Calming-Manual_2012.pdf

https://www.iihs.org/news/detail/simple-infrastructure-changes-make-left-turns-safer-for-pedestrians

APPENDIX B

+ Forms & Permits
Alcohol Beverage Licenses & Pouring Permits
Contact Us
Pay Online
Staff Directory List

News List

Public can steer Local Road Safety Plan priorities by taking new survey

Post Date: 05/12/2022 8:51 AM

The next, final phase in the creation of Milton's Local Road Safety Plan kicks off Thursday with a new public survey – providing citizens the opportunity, once again, to drive the discussion, and plans, on how to make the city safer for drivers, pedestrians and bicyclists.

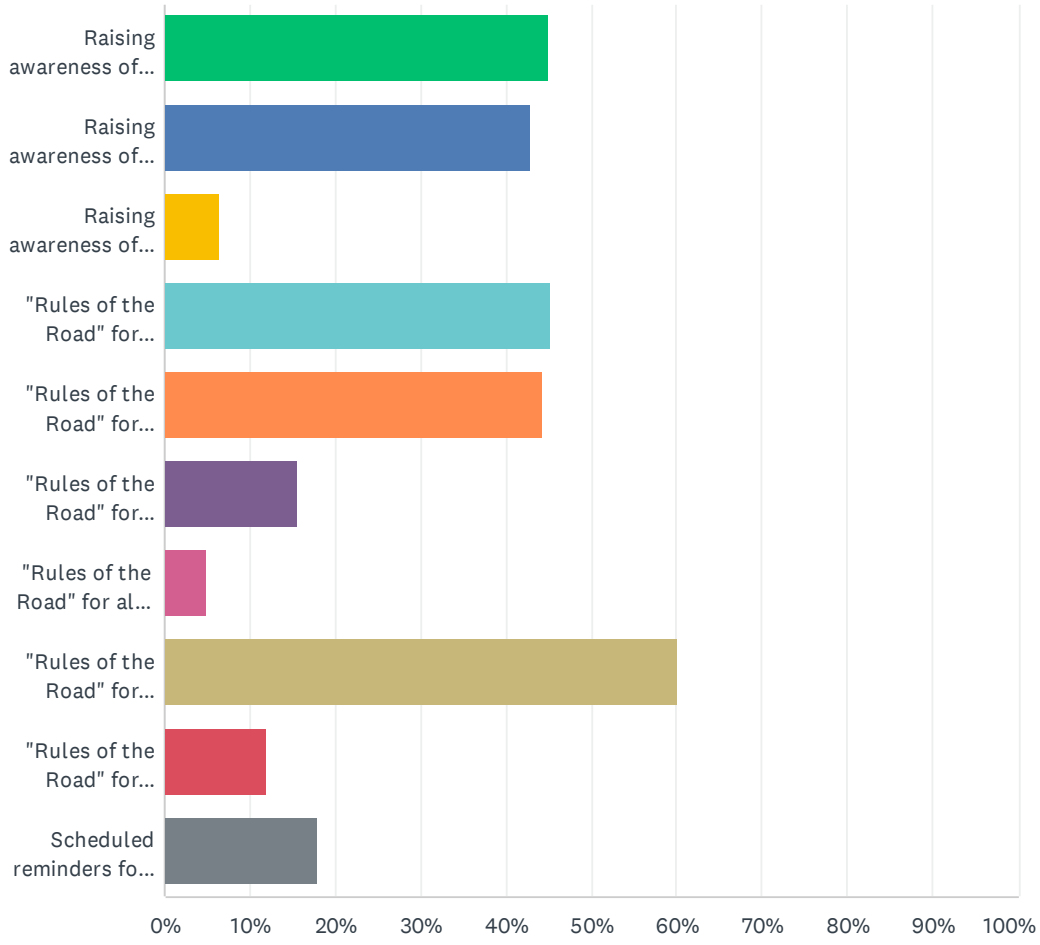
To take the survey, click HERE: https://www.surveymonkey.com/r/MiltonLRSP.

It consists of eight questions and should take less than five minutes to complete. Your participation is very much appreciated before the survey closes at the end of Monday, May 30.

The Local Road Safety Plan, known as the LRSP, is a proactive effort to strategically improve the community's "transportation network through engineering, education, and enforcement that respect Milton's rural heritage, enhance its quality of life, and make our roadways as safe as possible." The City launched this project early last year with an introductory survey; the latest one brings it full circle to help officials focus their efforts going forward.

Q1 Please indicate the Top 3 of the proposed educational campaigns that you think the City should focus on.

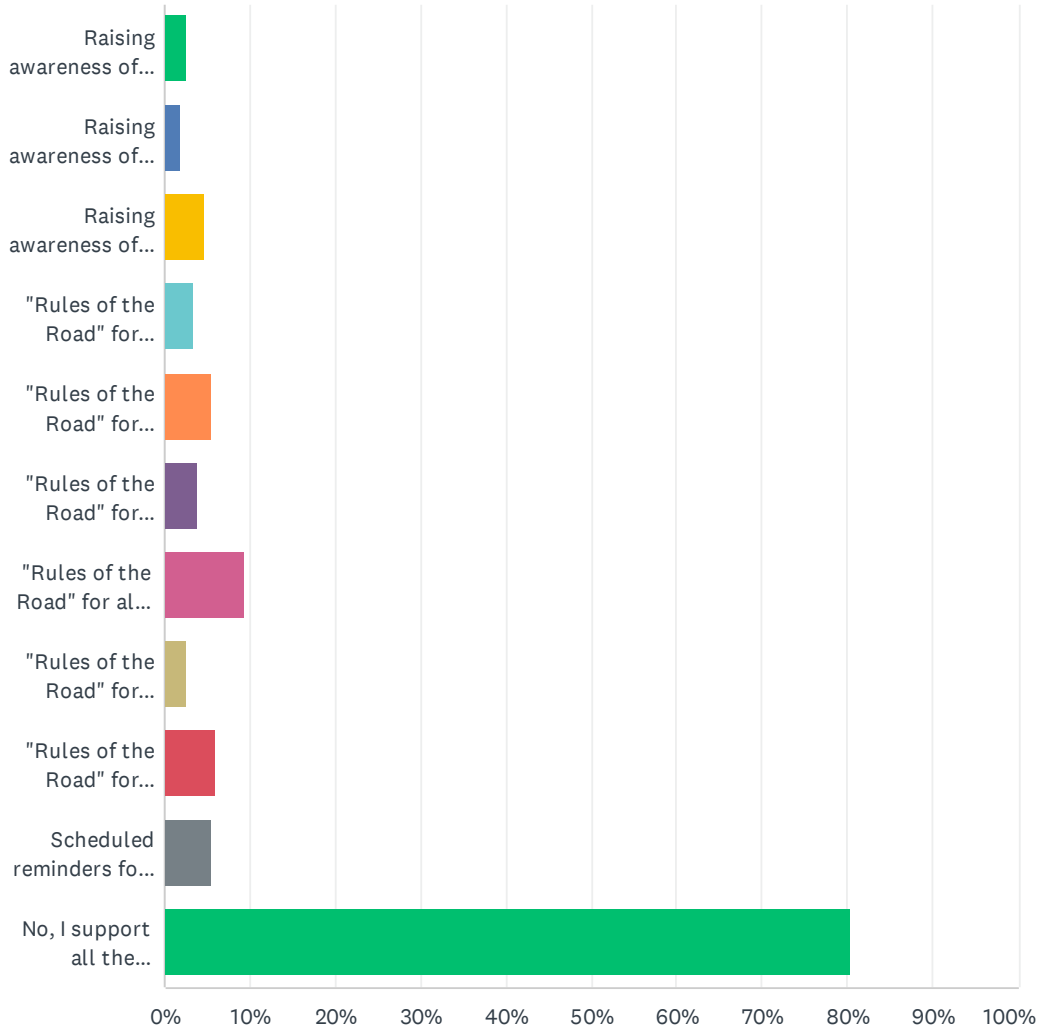
Answered: 329 Skipped: 2



ANSWER CHOICES	RESPONSES	
Raising awareness of potential speed-related crashes and aggressive driving	44.98%	148
Raising awareness of potential distracted driving-related crashes	42.86%	141
Raising awareness of potential run-off-the-road crashes	6.38%	21
"Rules of the Road" for bicycle riders	45.29%	149
"Rules of the Road" for vehicles interacting with bicycles	44.38%	146
"Rules of the Road" for pedestrians	15.50%	51
"Rules of the Road" for all modes interacting with equestrians	4.86%	16
"Rules of the Road" for roundabouts	60.18%	198
"Rules of the Road" for Personal Transportation Vehicles (PTVs)	11.85%	39
Scheduled reminders for residents and drivers to be careful about wildlife and deer	17.93%	59
Total Respondents: 329		

Q2 Are there any educational campaigns that you do not support? Pick all that apply.

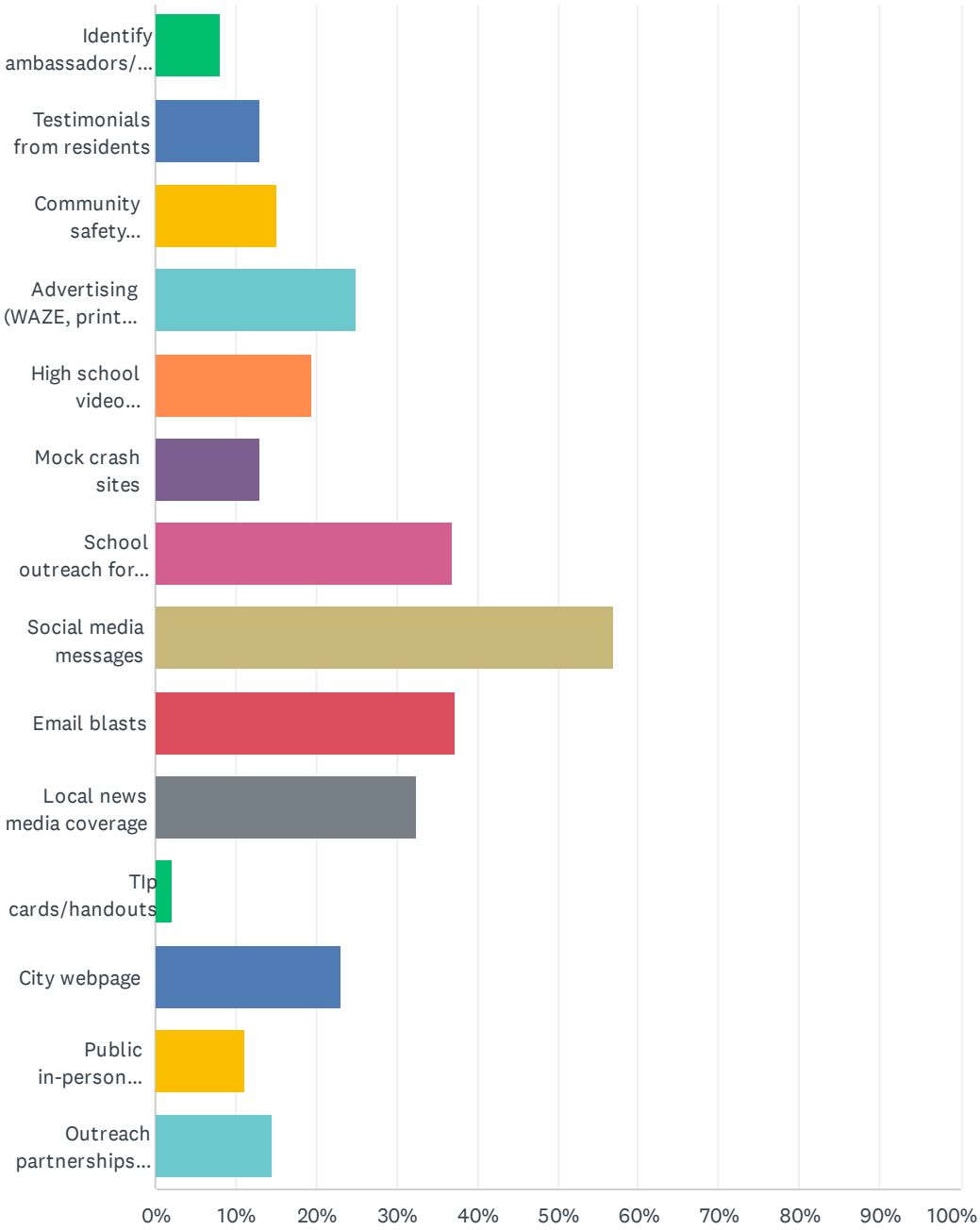
Answered: 320 Skipped: 11



ANSWER CHOICES	RESPONSES	
Raising awareness of potential speed-related crashes and aggressive driving	2.50%	8
Raising awareness of potential distracted driving-related crashes	1.88%	6
Raising awareness of potential run-off-the-road crashes	4.69%	15
"Rules of the Road" for bicycle riders	3.44%	11
"Rules of the Road" for vehicles interacting with bicycles	5.63%	18
"Rules of the Road" for pedestrians	3.75%	12
"Rules of the Road" for all modes interacting with equestrians	9.38%	30
"Rules of the Road" for roundabouts	2.50%	8
"Rules of the Road" for Personal Transportation Vehicles (PTVs)	5.94%	19
Scheduled reminders for residents and drivers to be careful about wildlife and deer	5.63%	18
No, I support all the educational campaigns above.	80.31%	257
Total Respondents: 320		

Q3 What are the three best ways for the City to communicate messages about road safety with the public?

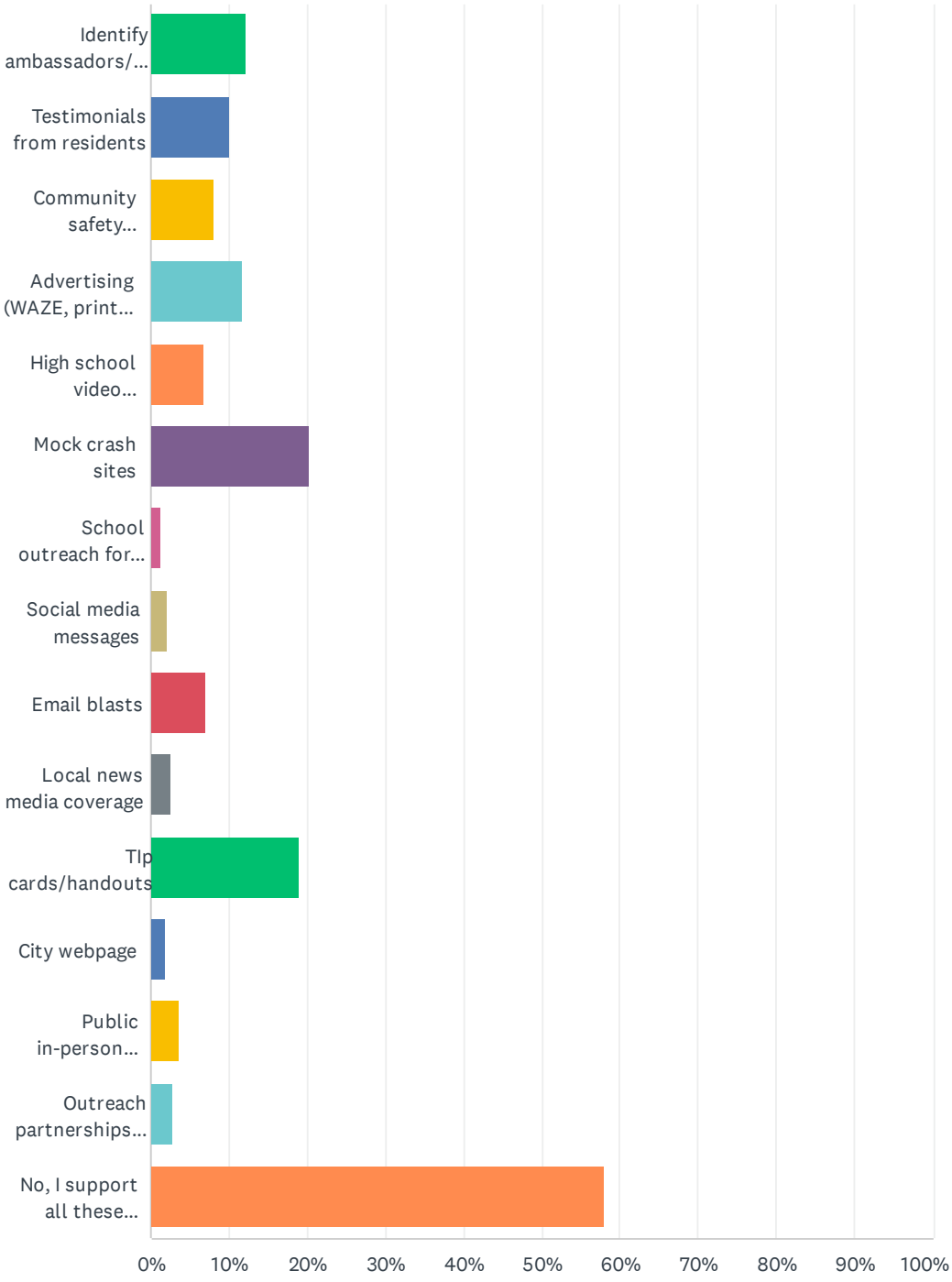
Answered: 325 Skipped: 6



ANSWER CHOICES	RESPONSES	
Identify ambassadors/champions to connect people to educational campaigns	8.00%	26
Testimonials from residents	12.92%	42
Community safety implementation or advisory groups	15.08%	49
Advertising (WAZE, print media, radio, etc.)	24.92%	81
High school video production contest	19.38%	63
Mock crash sites	12.92%	42
School outreach for all ages	36.92%	120
Social media messages	56.92%	185
Email blasts	37.23%	121
Local news media coverage	32.31%	105
TIp cards/handouts	2.15%	7
City webpage	23.08%	75
Public in-person events	11.08%	36
Outreach partnerships with local businesses	14.46%	47
Total Respondents: 325		

Q4 Are there any educational outreach strategies that you do not support? Pick all that apply.

Answered: 322 Skipped: 9



ANSWER CHOICES	RESPONSES	
Identify ambassadors/champions to connect people to educational campaigns	12.11%	39
Testimonials from residents	9.94%	32
Community safety implementation or advisory groups	8.07%	26
Advertising (WAZE, print media, radio, etc.)	11.80%	38
High school video production contest	6.83%	22
Mock crash sites	20.19%	65
School outreach for all ages	1.24%	4
Social media messages	2.17%	7
Email blasts	7.14%	23
Local news media coverage	2.48%	8
TIp cards/handouts	18.94%	61
City webpage	1.86%	6
Public in-person events	3.73%	12
Outreach partnerships with local businesses	2.80%	9
No, I support all these educational campaigns.	58.07%	187
Total Respondents: 322		

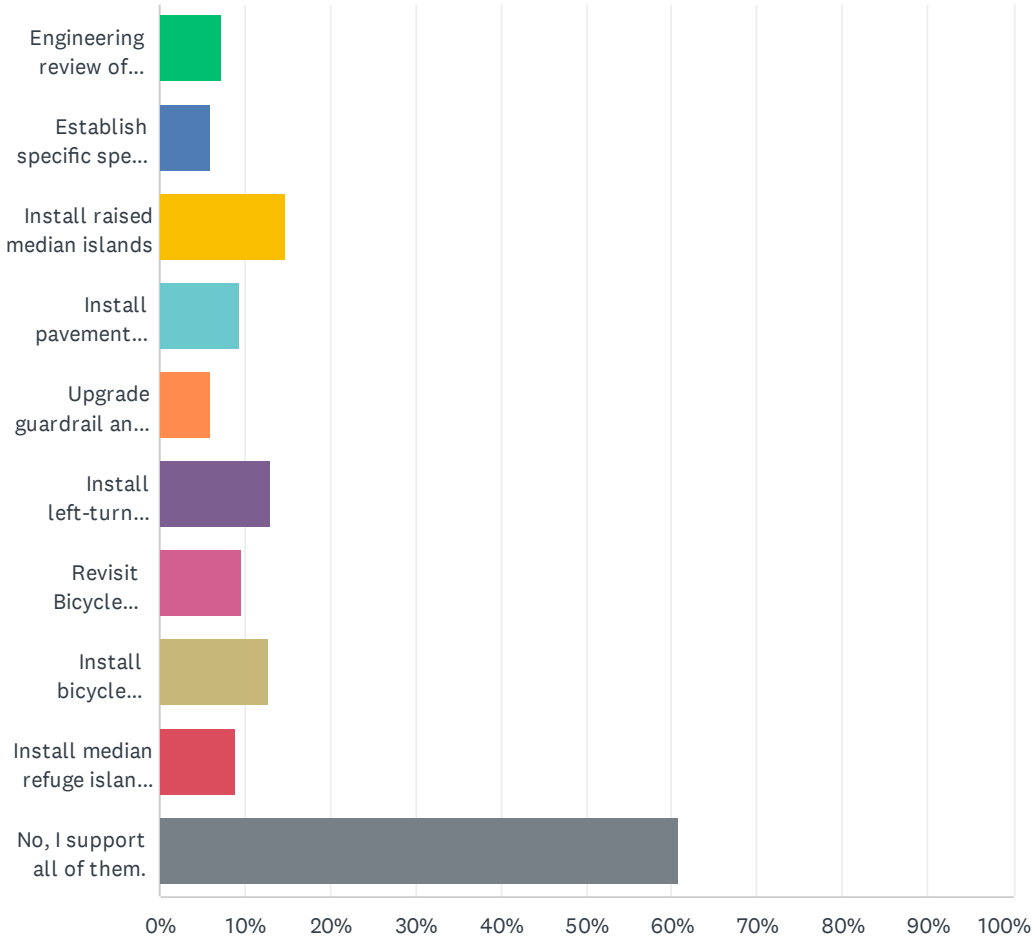
Q5 Which community partner should the City partner with on road safety that's not on this list? Add your suggestion in the box below. (Fulton County Schools, Milton Police, Milton Fire, Citizens Government Academy, Georgia Bikes, Southern Bicycling Club, Olde Blind Dog Cycling Club, Milton Equestrian Committee, Milton Trails Advisory Committee, Alive at 25 Driver Safety Program, Facebook groups such as Focus on Milton and Half Sweet Tea, HOAs, Milton Farmers Market, Whitetail Bicycles and Coffee Shop, local media, Police Chief's Advisory Board)

Answered: 158 Skipped: 173

Which community partner should the City partner with on road safety that's not on this list? Add your suggestion in the box below. (Fulton County Schools, Milton Police, Milton Fire, Citizens Government Academy, Georgia Bikes, Southern Bicycling Club, Olde Blind Dog Cycling Club, Milton Equestrian Committee, Milton Trails Advisory Committee, Alive at 25 Driver Safety Program, Facebook groups such as Focus on Milton and Half Sweet Tea, HOAs, Milton Farmers Market, Whitetail Bicycles and Coffee Shop, local media, Police Chief's Advisory Board)
Open-Ended Response
Big Peach Running Co.
Churches
Crabapple Market
Local business organizations
Milton Court
Milton police Gdot Facebook police chief advisory board
Local churches, local parks and recreation locations and organizations operating within the City of Milton, neighboring municipalities and counties (i.e. Cherokee County, Forsyth, Roswell) as many of the speed related issues are tied to those who live outside of Milton.
Businesses at intersections/roundabouts
Starbucks (kid hangout), Local sports teams (coaches, etc... to speak to kids), Doctor's offices (put up signs, etc.. for awareness)
Alpharetta Farmers Market, Roswell Bikes
Lutzie 43 Foundation
Restaurants
Milton police, Billy Allen's,
Appen Media -- Milton Herald ; Local Restaurants and Cafes ; Milton Greenspaces and Hiking Trails
Fulton county sheriffs
Unsure if there’s a group, but teens and parents. We/they are the main issue and arguably make up the majority of those driving dangerously (speeding, swerving, distracted, aggressive, ext.).
Local construction, large truck businesses who arent supposed to be on secondary routes
Greenway
aggressive drivers)
Publix, Kroger, Petco, One Life
Local Businesses
Local insurance agents like Trevor Nollner State Farm
GA Dept. of Wildlife and Fisheries
NextDoor
Private schools , Boy &girl Scout troops and churches
focus disability groups that include mobility impaired and blind persons
Car dealerships
WSB ch2 and FOX ch5 since bicycle riders are from ATL
Alpharetta, Cherokee Cty, and Forsyth Cty Police; not only Milton residents use Milton roads
High Schools that have displayed actual crash cars in front of school; Milton Funeral Homes
Roswell Bike store and any other groups that seem to always bike in our area in groups
Milton Library, Citizens Police Academy,
restaurants like Milton Tavern, Cue,
Fulton County Library System
Tire Rack Teen Driving Program
Cub Scouts / Girl Scouts
Milton Parks and Rec
Local Trucking and Construction Co.
CGA, CERT
Pediatrician groups
Georgia DNR
Bike Alpharetta
Sierra Club
Private schools

Q6 Of the 9 engineering countermeasures below, are there any that you do not support? See image above for examples. Check all that apply.

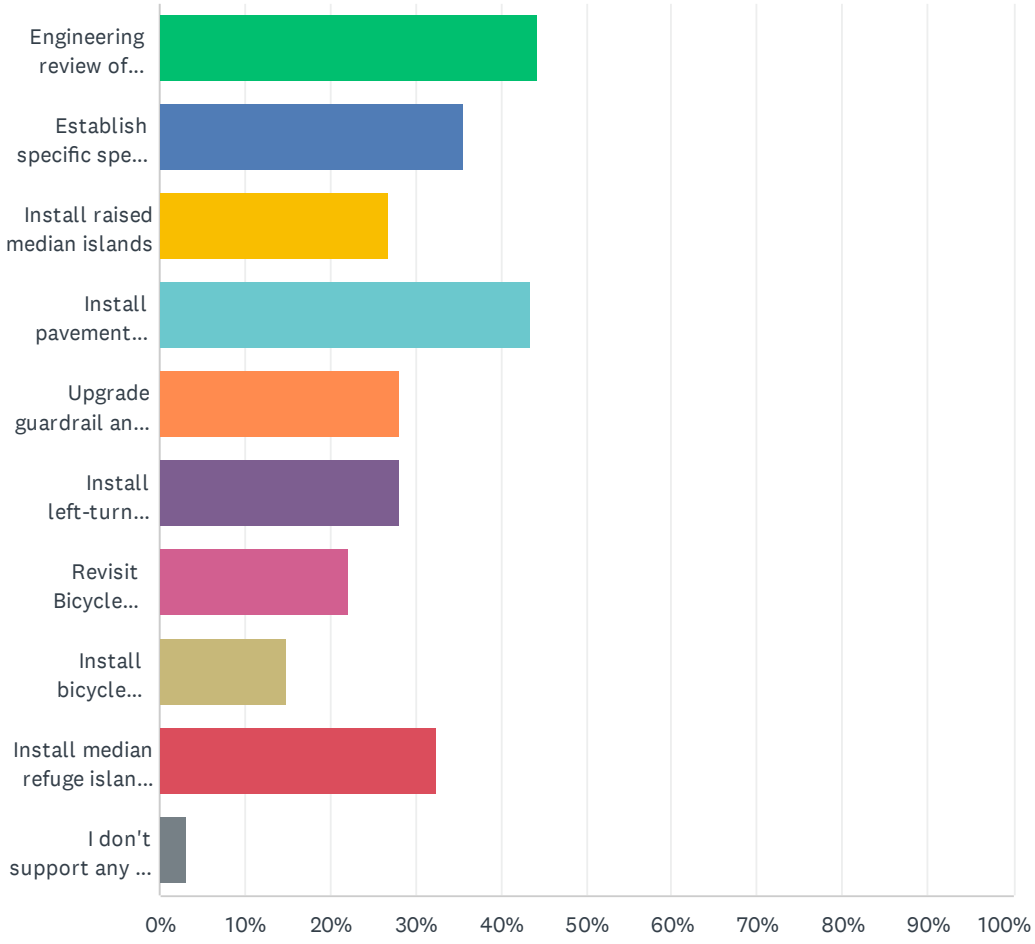
Answered: 321 Skipped: 10



ANSWER CHOICES	RESPONSES	
Engineering review of posted speed limits	7.17%	23
Establish specific speed limit zones	5.92%	19
Install raised median islands	14.64%	47
Install pavement 'safety edge' and paved shoulder treatments	9.35%	30
Upgrade guardrail and extend guardrail lengths at bridges and culverts	5.92%	19
Install left-turn restrictions at intersections	13.08%	42
Revisit Bicycle Priority Networks as identified in the previous Comprehensive Transportation Plan	9.66%	31
Install bicycle facilities at critical locations	12.77%	41
Install median refuge islands for mid-block pedestrian crossings	9.03%	29
No, I support all of them.	60.75%	195
Total Respondents: 321		

Q7 Of the 9 engineering countermeasures below, what are your Top 3?

Answered: 320 Skipped: 11



ANSWER CHOICES	RESPONSES	
Engineering review of posted speed limits	44.38%	142
Establish specific speed limit zones	35.63%	114
Install raised median islands	26.88%	86
Install pavement 'safety edge' and paved shoulder treatments	43.44%	139
Upgrade guardrail and extend guardrail lengths at bridges and culverts	28.13%	90
Install left-turn restrictions at intersections	28.13%	90
Revisit Bicycle Priority Networks as identified in the previous Comprehensive Transportation Plan	22.19%	71
Install bicycle facilities at critical locations	15.00%	48
Install median refuge islands for mid-block pedestrian crossings	32.50%	104
I don't support any of these options.	3.13%	10
Total Respondents: 320		

Q8 Please provide any further feedback not touched on above that you'd like the City to consider as it finalizes its Local Road Safety Plan.

Answered: 157 Skipped: 174

Q #8: Please provide any further feedback not touched on above that you'd like the City to consider as it finalizes its Local Road Safety Plan.
Open-Ended Response
I have a high level of concern for young drivers. I see them driving so fast and so aggressively every single day, just locally around the city (not even going to touch on the highway). I don't know if we need more education or more monitoring or more consequences but it's very scary to see how they drive on roads like Mid Broadwell and Crabapple.I worry for other motorists but also for cyclists and pedestrians. It's unacceptable
other than a 2' law sign, are there other ways to indicate to motorists to expect cyclists on this roadway?
Do something about speeding drivers!
A right turn lane on Bethany Bend going west across Route 9
Rules for bikers, as it is very frustrating to be driving and then come up on a group of 10+ bikers. No one can get around them. They do not respect people that are driving in their cars.
Some speed limits in the area are ridiculously low, maybe so police can bring in revenue. People need to learn how to use a roundabout You don't sit there and wait forever. Roundabout needs to be bigger go up North and see how it is done correctly these are ridiculous and are all ready damaged, trucks,wide loads way to small & tight! Our tax dollars are being wasted by having to repair. Do things correct the first time!!!!!!
Speeds and aggressive driving in milton are out of control. Especially GDOT related roads like Birmingham hwy.
Excessive speeding and aggressive driving are huge problems in Milton, so lowering speed limits and ENFORCING them is critical for everyone's safety.
Sidewalks/Widewalk Multi-Use Paths on all arterial roads.
Review of roundabout and traffic circle markings - drivers often use the outer lane to speed around drivers utilizing the inner lane, and without any apparent regard to pedestrians navigating the walkways. Review of pedestrian navigation safety across busy roadways such as Crabapple Road. It is can be virtually impossible to safely cross Crabapple Road between the traffic circle at the Nest Cafe and the intersection at Crabapple and Broadwell Roads. Wait time can span up to 10 - 15 minutes at a time. Continue efforts to construct sidewalks on all busy public roadways. Review of policies concerning use of golf carts and ATVs on public roadways - I have encountered many reckless golf cart and ATVs drivers on the roadways while walking around downtown Milton.
There should be more enforcement of speed limits and dangerous driving.
Pot holes should be addressed and roads should be paved for safety!
I strongly support reduced speed limits throughout the City of Milton. Speed enforcement also is needed in many of our more rural areas where neighboring drivers speed through Milton. More signage is not necessary throughout Milton; please ensure the City adheres to our own sign ordinance when considering city signage. In many instances, we need fewer road signs, not more. And, street lighting needs to be in adherence with the Night Sky Ordinance. Many of our streets are becoming way to lighted taking away from the ambiance of rural Milton. Any guardrails considered need to be rural by design. And, we do not need signs at the end of sidewalks that go nowhere. Roundabouts in Milton - in many instances - have too much signage. And, any new roundabouts constructed need to be rural by design (small, in keeping with the rural area, few lights and few signs, well landscaped in the center), etc.
Please no mass mailings to go straight to recycling. Hand out materials from a face to face person at events/businesses more effective
Traffic light or circle at intersection of Green and Arnold Mill as well as Green and Crabapple
Bicycles on the curvy roads of Milton can be so dangerous even when drivers are careful. When we have to nearly come to a stop to wait to pass safely, it poses a huge risk of the car getting rear-ended. The bike (since their speed is much lower) basically becomes an obstruction in the road. We wouldn't allow someone roller skating on the road (and as unpopular of a statement this might be), there isn't much difference. Bicyclists put their lives in danger, as well as the lives of drivers and their passengers. When choosing a vehicle (sedan, truck, suv, van), most consumers check safety ratings on crash tests, based on the strength of the vehicle body frame, etc., but with bicycles, you don't get any of that protection. Sure it's a cyclist's personal choice, but that choice affects others. Not to mention, when we share the road, we share the road rules, too, but I rarely see cyclists obeying road rules. They continue through stop signs, they pass a line of cars on the side instead of waiting in line, they don't signal to turn, etc.?It gets confusing. It's interesting to me how we have road rules to keep drivers and passengers safe, like seatbelt laws, minimum speed limit laws, etc., but none apply to bicyclists. If we are to share the roads, shouldn't we share the rules? And if that isn't possible, then why do we allow both when it isn't safe?
Bicycles are becoming more and more prevalent on the roads. Too bad that 25% of those feel as they can ride the way they want to. With increased motor traffic in the area and bicyclists not being concerned with their actions and safety, we're asking for safety problems in the future. License bicycles and have them share in road use taxes.
Bike lanes should be added to any new or updated roadways.
Please review speed limit on Crabapple Road between Crabapple Chase roundabout and Birmingham Highway light. 35 limit is to high for all the new foot traffic from the new establishments and the existed school children's foot traffic. It should be 25 with cross walks like Canton Street with speed bumps. Please consider a cross walk between the two main buildings on either side of Crabapple in between the roundabout and traffic light. It would help people understand this is a pedestrian and walking school children heavy area and as a bonus the shops and restaurants would do better with more foot traffic. We will attract even more potential investment to our area like downtown Alpharetta! Also the Crabapple Chase roundabout needs clearer pedestrian signs for drivers we've seen many near misses from people speeding around the roundabout and not breaking for walkers on the other side or breaking for walkers they can clearly see as the drive up either way up Crabapple Road to the roundabout. Especially with the new restaurant Nest Cafe right there we need the blinking lights and or clear pedestrian crossing signs. The fact that there is nothing clear about potential crossers is a seriously over looked issue. And potentially fatal flaw.
Please find a plan that works for the corner or Green and Crabapple
People run that light all the time @ Bethany bend and highway 9. I've almost been hit specifically @ that light many times. It should be no right on red there. Someone blew through the red light last week & I had my kids. Thankfully I double checked the intersection and the truck driver was immediately pulled over by an officer.
Would be great to have crossings or more signage for PTVs

We need bike lanes!!! Cyclists nor drivers are safe on our roads. Milton, of all places, should be pedestrian and cycle-friendly. It would also be nice to have more sidewalks for walking/jogging. I'm also in favor of speed cameras. There are far too many reckless speeders on the roads. This may not be feasible, but you could do a driving safety event to bring awareness and remind people how devastating reckless driving can be. (Testimonials can be included).- Perhaps everyone who completes the course/seminar can be entered to win something? A car perhaps?
Add appropriate shoulder space for improved safety
I'd like to see more lighting or reflective dots installed on dark roads. I'd also like reminders for drivers to have their lights on at night!
Sidewalk needs to be added along Henderson Road and throughout city.
Need a left turn light traveling south on Arnold Mill and turning onto New Providence. Also need to pave Ebenezer Road. Please work w/ Roswell to get this done bc there are Milton and Roswell neighborhoods on that road and it's awful
The biggest issue that we are experiencing regularly is vehicles speeding, tailgating, and aggressive driving in the mornings while driving our children to school.
Improved shoulders everywhere a MUST for cycling (and pedestrian) safety, particularly along Birmingham Highway. Campaign to alert drivers to laws concerning cyclist right of way, etc. Speed limit can be DROPPED almost everywhere in Milton, as our city has grown in the past ten years. Sidewalk on Birmingham Highway from Publix Center to at least Breamridge, if not Blue Valley, PLEASE!
Stop with the roundabouts! Widen roads to account for current and future traffic and stop spending money on roundabouts that barely tolerate today's traffic flow, much less five years from now.
Crabapple market are and pedestrian crossings.
It's not really clear what you're trying to ask in the above questions. Also, whoever designed the survey should look up the difference between "Above" and "Below" as the examples were above the questions, not below as described in the questions.
It is very important when installing guardrails that they are not just the aluminum ones. To maintain a rural look, using wooden guard rail design. Thank you
Don't use Half Sweet Tea. They are close-minded people.
If Milton is serious about making biking safe, I think it should be modeled after many areas in Europe, where bikes have their own dedicated lane away from the cars …. And not just that little two foot strip along the side of some roads, but a 4ft + wide path that gives the bikers some space away from the cars without fear of being side swiped.
Complete missing sidewalks (where they just end and pedestrians cannot complete a block without walking on the road), add crosswalks everywhere that sidewalks end and start again on the other side.
Traffic signal proposal form.
Stop doing standard sidewalks and always consider bike and people paths instead- also don't just use engineers for adjusting speed limits because you might end up with limits like 35, 40, 45, school limits 35, 25 all within a short drive like on Bethany and cogburn - also don't wait for accidents before correcting obviously dangerous situation like bicycling on hopewell rd., Bethany, etc.
The main concern is the amount of young drivers texting and swerving and not paying attention. The other is the aggression. Yesterday in Milton on webb bridge, I had a woman trailing me so close, so I slowed down and she held her horn down like a crazy person. She was about 17-19 years old. The youngest generation of drivers need serious education. It's awful.
Just like to see more police on heavy speeding roads.
Cyclists on our country roads are too dangerous. Young drivers, no bike lanes, blind curves and constant speeders are just a recipe for disaster.
Speed limit on Hopewell Road by Brookshade development is too fast and there is no place for pedestrians to travel.
Please have traffic engineering re evaluate speed limits - specifically Thompson Rd. - 45 is way too fast given how many curb cuts (driveways and new subdivisions) have been approved. People drive way too fast and get away with it around here.
Milton residents are certainly to blame too but the majority of infractions I witness are from cars outside of Fulton County(commuters using Milton as a shortcut to 400).
Enforce the no cell phone use and figure out how to get drivers to use turn signals. I would guess 50% are on the phone and 80% don't use turn signals. It's really kind of lazy and pathetic.
I think speed limits have previously been reviewed. Why keep doing this? Perhaps review any intersections that have more accidents than others. Guard rails are ugly.
Can you install pedestrian crosswalks on Crabapple Road with lights to stop car traffic. (similar to what Alpharetta uses in their downtown). With high traffic and high vehicle speed, it is dangerous and scary to cross the road.
Crosswalk needed to bridge original Crabapple retail to new retail. It would also help to slow down traffic. Bike racks needed at original retail area (Tres Lunas/Campania/Butcher Shop).
Please work on bike paths that do not share the road with automobiles. Batesville and Providence Roads are perfect examples of where it's extremely dangerous with all the hills and curves.
Limit and enforce trailer and large load vehicles from traveling through residential areas like Thompson Road. Work with neighboring counties to enforce.
More police monitoring of drag racing, super high speed violation areas
Provide adequate nighttime lighting at all roundabouts
I see folks in area with sidewalk running in the road next to the side walk. Also bicyclist think they own the road, they should have a tag n insurance on the bike to ride city , county or state roads. I don't care how much money bike ride bring no reason for them playing on a road.
It is my opinion that the city of Milton, and those surrounding, are growing at an alarming rate. The need for widened roads, designated lanes for bicycles, and roundabout intersections is crucial in the prevention of traffic congestion and related accidents. Any improvements to aid in the easy flow and safety of our residents is where I see the greatest good. Though bicycling will surely continue on the roads of Milton, I find it frustrating as a driver and alarming. The proximity of the biker to the passing cars, particularly when the travel in groups, as well as their limited visibility to a driver on curvy roads, sets up a scenario for potential tragedy. I urge the counsel to consider the safety of the bicyclists and drivers, by with reconsidering where they are permitted to bike or by adding lanes designated for bikers to our rural roads. Thank you so much for your outstanding efforts and progress. We appreciate each of you.
The biggest source of crashes seem to come from people following too close. Perhaps educating more on that topic.
Please make Milton more "walkable". Roads have no shoulders or dedicated space adjacent to roadside for peds/bikes/carts. Birmingham, Henderson, roads within a couple mile radius of Birmingham Publix. Lots of new neighborhoods and unsafe to walk between any of them or to nearby amenities. Please address this.
Sidewalks! Once outside the main areas like crabapple and the Deerfield area, there are very few sidewalks!

Install audible crosswalks at intersections to cross Hwy 9. Complete connecting sidewalks on Bethany Bend between Hwy 9 and Morris Road and across Hwy 9 tp Cogburn.
Please extend and pave road shoulders. Too many deep ruts that cause many accidents.
I live on Hickory Flat between 372 Birmingham Hwy intersection and Cherokee line and there is a small portion of the road that is 35 mph right at Segwick Drive, but 45 at the Cherokee line and just passed Darby going east. This WHOLE section needs to be 35 mph. Also another major problem on Hickory Flat and many secondary roads is the large heavy truck traffic. They haul bobcats, equipment, dumpster containers and are only supposed to travel the designated routes. They routinely break the law and the code is not enforced. It is a major hazard to residents who live on Hickory Flat and those who stop to turn just over the hill at Darby and Rowe Rd. The 35 mph speed limit over the entire section of road would help. I saw the flashing speed limit sign, but it is not in the 35 mph section!
Create rumble strips on pavement edges and large curve/arrow signs on curves on Freemanville Road like the areas between Birmingham Hwy between Crabapple/Mayfield and Providence. Review conflicting speed limit signs on Freemanville Rd. between Landrum and the Providence roundabout. I DO appreciate the flashing speed limit signs installed on Freemanville! It helps remind ME to watch my speed.
Add reflective paint to interior curbs at round abouts.
40 mph Speed limit on Hopewell Road need to be reduced!!!
Please do not rely solely on Facebook - many residents, especially older folks are not on social media and we are not reaching them. People who signed up for e-blasts do not receive a fraction of the posts that go on Facebook. Maybe archive posts on city website? Email blasts?
Focus on traffic calming and lower speed limits, and enforce speed limits. Effective traffic measures for Central Milton likely differ from the higher density business districts; this survey lumps them all together thereby making it less useful. Safety for wildlife, walkers seemed to be overlooked in the actual survey.
Please address the increased volume of speeding/drag racing and very loud cars/trucks in Milton. In the last 3 years it has increased dramatically to the point of ridiculous and dangerous. Thank you
More police enforcement presence for speeders and unauthorized commercial vehicles on city roadways
Address neighborhood speeders. Especially in neighborhoods with a lot of kids and no sidewalks.
Concentrate more on moving vehicle traffic safely thru our city (since it is the vehicle and fuel tax that pays for the vast majority of the road construction and maintenance) and less on catering to bicyclist who contribute very little to the infrastructure expense.
I think the countermeasures depend on the location. Some make sense for certain locations where others make sense for another location. I was hesitant to “vote” for or against any for that reason. I support roundabouts, in certain locations, but they are not in the list. I also support the extension of trails and sidewalks in areas where pedestrians can access commercial and office areas. This can help reduce traffic by people walking. Installation of mid-block cross walks in strategic locations. Also need to install more bike racks (especially in Crabapple) so people have a place to safely park and lock their bike. The more we see these things the more aware they of the various modes of transportation we can use, and the more commonplace it becomes.
I’d like to see the Local Road Safety continue to prioritize walkability, bicycles and PTVs.
Highly against the restrictions of left turn lanes, the restricted left turn onto Broadwell from Mayfield is extremely frustrating and causes major speeding through the neighborhood past Godard School Crabapple putting families in danger.
consider building pathways either under or over roads where wildlife such as deer, turkey or other species have a natural crossing to lessen automobile damage from strikes/accidents and let the wildlife live .
Having gravel roads as part of the milton pedestrian trail system is totally unsafe
Bike lanes are crucial as are runner/ pedestrian enforcement at traffic lights and intersections. Drivers do Not yield at crosswalks more stop behind crosswalks.
I would like to see sidewalks installed in all locations that are possible. I particularly want to see the sidewalk finished on Providence Road from the line of Alpharetta to Providence Park.
Enforcement of speed limits in dense areas especially exiting downhill out of a roundabout
We need more sidewalks for pedestrians to walk safely along Milton roads!
I am not sure if this is covered in the bicycle plan but trails for walking or riding mountain bikes that would connect milton with Alpharetta would be great.
Add reasonable walk lights close to curbcuts for visually impaired persons to have enough time to find the walk light, position themselves safely in a squared off curbcut, not rounded.
Improve reflectors on road and more signs to slow drivers at dark hard turn on Dinsmore at East Valley field rd.
I'm sure these choices were researched but some don't seem that viable... There would be a lot of costs with adding medians, median islands, etc... Unfortunately people speed and don't pay attention. It ranges from kids to mom's and dad's delivery drivers, etc... People will not slow down unless they are physically forced to slow down by some measure. Speed limit signs don't seem to impact people that are going to speed.
I don't want any print material coming to me via my mailbox. It is a waste of trees and resources. Thank you for asking. :)
Add lighting to roundabout areas to provide better visibility.
Additional ingress and egress on properties on Arnold Mill. Traffic from Cherokee county has increased
A turn signal at New Providence and Arnold Mill
I see solar speed checker points all over milton except on HENDERSON ROAD. We, who live on this road fear for a fatal accident to happen since unlike many other places in milton, we do not have a way to walk or walk our dogs but on the road - there are no safety features or sidewalks just constant truck and car traffic at speeds that well exceed the 45 miles an hour. Drivers do not respect this road because its hidden and on the edge of Milton. Why is it that we do not have speed checkers on this road yet we do on freemanville-birminghma road - birmingham highway-crabapple road..etc etc - I would like to see this happen- we are also MILTON
Restrict bicycle traffic to streets with bike lanes and where the speed limit is under 30 mph.
More cyclist education and law enforcement for them.
Consider an overall standard that within “one mile or x distance from a school or major shopping/entertainment plaza,” sidewalks are installed. With additional sidewalks, traffic congestion is reduced, wear and tear to roads is reduced, near schools: more children have an opportunity to walk to school = better health, with establishments serving alcohol = fewer impaired drivers on the road if they can walk, an overall more appealing and friendly community atmosphere.
remove or restrict all non-motorized vehicles from all roads in Milton that have hills and or curves
Make sure that you research before we spend money on state roads

Larger shoulders are nice but would be extremely expensive depending on how many miles is done. A more focused approach with pedestrians Friendly Islands in high pedestrian areas such as crabapple and Deerfield would be more cost conscious
Need another crosswalk by Campania to help people cross over to Crabapple shops/green and restaurants. Visible flashing signs should be included. Crabapple Road is a speedway and many drivers don't care about pedestrians crossing the street.
I like that you are proactively looking out for the safety of Milton residents, thank you!
The 'master plan' that proposes to turn Hopewell/Cogburn/Hamby into a 4 lane arterial road will only pull more traffic transiting the area out of Cherokee/Forsyth....the focus for those roads should be on traffic calming items, turn lanes and improved shoulders. The through traffic moves at higher speeds than local traffic and simply adds to the volume. Highway 9, Birmingham Highway, 400 and 575 offer the best ways to handle traffic that is not local in nature....residents or others traveling too or from locations in Milton.
LEFT TURN aid of some sort coming out onto Bethany Bend headed towards Cambridge H.S. from inside the parking lot of Publix/Tavern/Starbucks/Dry Cleaners/Bank. This area daily is a struggle and a place I avoid almost daily and go out of my way from turning that direction because of its dangers. The alternatives I take can add 10-20 minutes onto my drive (depending on traffic and school let out) - all to avoid that one dangerous lefthand turn.
Speeding & distracted driving are problems everywhere. Somewhat unique to Milton is that while these roads are attractive to bikers they are not in any way safe for bikers and motorists who encounter bikers. The huge packs of bikers at times make it virtually impossible to get around them. They cannot maintain a safe speed limit on the hills. Bikers and their bikes should have to be trained and licensed just like motorists before riding on these roads. I don't know what the history is of accidents involving bikes, but if there have not been serious accidents it is only a matter of time
Better signage at roundabouts. Drivers get confused and cut in front of cars from wrong lane.
Put in wide golf cart size paths along major roads from Crabapple thru Providence ie along Freemanville and Birmingham and Bethany Hopewell road networks connecting to Rte 9 and and if possible to Greenway and also up up Rte 372 to County border area. These can used as alternate safety paths for use by personnel, Electric vehicles bicycles as a path during Rush hours. Do not put a roundabout at Providence and Bethany but a four way light, as it will jam up as a roundabout.
I believe our issues start with commuters not our citizens. I hear racing cars and motorcycles every day around rush hour in the morning and evening. Everyone needs education on speed limits, biking and pedestrian crossing.
Install license plate readers for roads/streets that have consistent speeders.
While we want to remain bicycle friendly, it might be safer if large groups of cyclist could be restricted during times of heaviest traffic. If the group is too large for riders to travel single file, it would be safer.
Lengthen gore in places like SB Crabapple Rd turning left onto Arnold Mill/Houze Rd.
Add more speed limit signs with digital speed checks in known speeding area. I live off Dinsmore and feel there is a need for one as there is a lot of speeding on this road.
Wildlife crossing awareness and signage. I also believe Milton/ Crabapple is littered with too many signs. The circles, streets, and in front of the high school include redundant signage. It looks terrible and try to read them all at once while driving… impossible. It is actually distracting and confusing. More signs than the eyes and brain can process while passing, and for pedestrians, it isn't necessary. Too much yellow, red, and orange destroying the appearance of the walks.
Please please please plan for a full sidewalk from Freemanville & Providence straight down to Milton HS. We would love for kids to be able to walk to and back from Milton HS and NS - specially those that live on Freemanville and are just 1 mile from school - but there are no sidewalks along long portions of that road. These are single lane roads and as traffic increases there will be no where else to go - but sidewalks can actually help decrease traffic on the single lane Freemanville and Mayfield roads. We would gladly walk from Freemanville to Milton's/Crabapple downtown/ Library etc if there were side walks. Even cycling is a LOT safer if there were sidewalks all along this path.
1) I'd like to see speed limit of 35mph increased to 40mph on Deerfield Pkwy. 35 is not realistically appropriate nor necessary for this location and feels like an intentional speed trap while more dangerous rural roads have higher limits. 2) address the increase in LOUD noisy street "racing" and social (youth) driving trends . The Windward Deerfield/Westside/Hwy9 seems to be a popular route/track for these groups of cars, esp at night. Very scary to be near, esp for older citizens
Bike lane on Hwy 9 road especially for high schools kids who would like to ride bike to Cambridge school from near by area
Please try to use more design options to increase safety in addition to education.
Sidewalks!!
The city should carefully Study the overuse of road signage. There are many studies that conclude that too many signs distract drivers attention at times where their attention is needed most. Also discontinue the overuse of flashing caution signage at crosswalks. Pedestrians and drivers alike should understand how to cross safely. The city cannot continue to provide "Totally Safe" crosswalks. They don't exist and in many cases cause pedestrians to ignore basic safety rules.
Please plan for sidewalk project on Rout 9, atleast covering till school. Lot of highscooler wish to bike or walk , but it's a nightmare for parents owing to the high speed traffic on route 9. Please help.
Lots of motor vehicle traffic in the area. Lots of restricted sight areas. Lots of minimal shoulders and other impediments to driving. Unless DEDICATED and NEW ADDITIONAL asphalt installed for bicycles, horses and this I'll advised idea of personal transportion vehicles - then these should be BANNED from the roads. Drivers don't know how to interact with them but MORE importantly- those users don't follow road rules and cause the issues and impediments.
More sidewalks
Better pedestrian crossings with signage and lights similar to what Roswell and Alpharetta have done. Need a pedestrian crossing at Crapabble and Itaska Walk
Extend roads on highway 9
more roundabouts!!!!!!!!!!
Please step up speed and heavy truck enforcement, especially on Freemanville Road. the 45 MPH limit should be 35 MPH and you need to slow all the heavy trucks way down.

My honest opinion is that lack of enforcement is the problem. Everyone knows going 45 in a 35 is wrong. The reason some people do it is because they never face consequences, financially or physically (they've not been in, or know someone in injured in an accident). I'm convinced Milton property taxes could be cut in half, and the revenue replaced with enforced speeding tickets and tailgating tickets (often by people wishing to go faster than the speed limit, but limited by the driver they're tailgating). Don't get me wrong; I'm happy with my Milton property tax rate and feel I get my money's worth. The point is that there's tons of revenue left on the table due to non enforcement of existing driving rules that everybody knows. Education campaigns may help younger drivers, but elders who speed or tailgate know they're in the wrong... They just don't care, because the dozen donuts they're going to pick up are more important than anything else, in their eyes.
Sidewalks, dedicated bike lanes, speed bumps, more roundabouts.
Please monitor “cut through” roads created by round-abouts; ex. Hamby, Thompson, Francis Roads. Large trucks are not to use these but do. Speeds are not slowed by round-abouts so these roads see fast speeds and increased travel.
Pedestrian walkway along route 9 from Bethany Bend towards crooked creek.
I generally oppose more concrete edges, blocks. The problem with speeding is ALL due to Gigh school and young drivers. I see it everyday. Racing down Birmingham Highway from Doris and Acrosse Doris and area there is no police presents. These high schools must be much more proactive about working with the police for education frequently. The parents if these kids too. More has yo be on the line for proper driving at that age….
Please consider the same local road safety plan in all of Milton, not just the money populated areas. We all are citizens.
Highway 9 does it have a proper bike road
Lower speed limit on Freemanville Road from Mayfield to providence. Enforcement, especially from 5 to 7pm. Crosswalk on Crabapple Road to Crabapple Market.
Need roundabouts or redlights for Birmingham Road and Birmingham Hwy also need roundabouts for Birmingham Road and Freemanville Road. Takes 20 minutes to get thru both every morning and afternoon. 4 way stops are not substaining the growth of all the neighborhoods that have been added over the years.
PLEASE, add multi-purpose sidewalks on Highway 9. Students walk and bike to Cambridge High School in the middle of traffic or on grass. Make Milton more bike friendly! It's a beautiful city and we should have more access to alternative transportation methods. Thank you!
Do something about Birmingham highway traffic at Birmingham rd intersection. Impossible traffic mornings and afternoons
Reprogram lights outside schools to observe only school day traffic
Distracted driving and speed are the main causes of safety issues in Milton. We already have laws in place regarding these issues, but if they're not enforced, people have proven they will choose the less safe route. Enforcement could go a long way in safety around here. If Milton becomes known as a place where speeding and being on your phone isn't tolerated, people will stop the behavior. I know that's not fun for our officers having to enforce it. With targeted campaign announcement, perhaps people will curtail most of this behavior and our officers won't have to deal with angry drivers.
The issue of speeding cars combined with the increased bike traffic and limited visibility/passing availability on New Providence Road
Please stop speeders on Freemanville any way you can. I can’t even check my mail and have lost my mailbox twice in two years to speeding
Crabapple Road has to be dealt with ASAP. Speeders cut through our downtown area making it nearly impossible for pedestrians to cross safely. Less priority should be given to cars in our downtown area and more emphasis should be made on making it safe for pedestrians.
Commuter bus connections to Windward MARTA hub.
Drivers commuting from other areas are also an issue with speed and improper passing of bicycles. How do you reach them?
Provide car decals for rewarding safe drivers.
Focus on pedestrian safety needs to include build more sidewalks.
I would like to see more posts on Nextdoor on road safety. It's talked about all the time by upset residents, mostly about crazy teen antics.
Your survey is flawed because you are not presenting a cost benefit ratio on the options. All this survey is doing it getting a bunch of uninformed people to say yes. Regardless of people's responses to these questions there is no actionable information. If you want to get actionable information make a list of specific project with an estimated code. Then tell people to order the projects in the order they would spend the money.
Increase the number of roundabouts to reduce accidents and provide better flow, as well as turn lanes, decel, and accel lanes.
Traffic lights in some major intersections should have a time where all lights are red for pedestrians to cross safely (especially for sight impaired - would also need to add an audible signal for safe crossing)

KCI

CITY OF MILTON
LOCAL ROAD SAFETY PLAN
FINAL REPORT

MILTON
EST 2006